

# Cabling Certification - Versiv™

## Test Limits for Version 6.9 Build 2



DSX CableAnalyzer™ Series

CertiFiber® Pro OLTS

OptiFiber® Pro OTR

FI-7000 FiberInspector™ Pro

### Foreword

The values found within these tools are derived from published standards. Users should verify the test limits given here with those published standards. This document is provided as an aid to the interpretation of test results and is not intended to be a substitute for a published standard. On occasion, a draft standard may be made available within the instrument and the appropriate draft number given. [Click here](#) to ensure you have the latest version.

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# DSX CableAnalyzer™ Series

## Test Limits for Version 6.8 Build 6



### Limit rules

Some limits are subject to specific rules on whether the measurement is considered for PASS/FAIL analysis. The limits in this document are colored coded to indicate when a specific rule is applied. For additional information, please review the standard in question.

## Copper Limit Lines - Cat 8

### TIA Cat 8 Perm. Link

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	i			24	136	13	1	3.0	65.0	19.1	62.0	72.4	62.0	59.0	69.4					
3,6 - 3,6							4	3.0	63.8	21.0	60.8	60.4	60.5	57.5	57.4					
4,5 - 4,5							8	3.0	58.9	21.0	55.9	54.3	55.6	52.6	51.3					
7,8 - 7,8							10	3.0	57.3	21.0	54.3	52.4	54.0	51.0	49.4					
							16	3.0	53.9	20.0	50.9	48.3	50.6	47.6	45.3					
i	Informational measurement only, no limit available 10% length rule - will fail when length > 26 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit for frequencies > 200 MHz Category 8 Permanent Link ACRF values that correspond to measured Permanent Link FEXT loss values of > 75 dB are for information only.						20	3.0	52.3	19.5	49.3	46.4	49.0	46.0	43.4					
							25	3.0	50.7	19.0	47.7	44.4	47.3	44.3	41.4					
							31	3.0	49.1	18.5	46.1	42.5	45.7	42.7	39.5					
							63	4.1	44.0	18.0	39.9	36.5	40.6	36.5	33.5					
							100	5.2	40.5	18.0	35.3	32.4	37.1	31.9	29.4					
							200	7.4	35.3	14.4	28.0	26.4	31.9	24.5	23.4					
							250	8.3	33.6	13.2	25.4	24.4	30.2	21.9	21.4					
							350	9.9	31.1	11.5	21.2	21.5	27.6	17.7	18.5					
							450	11.2	29.1	10.2	17.9	19.3	25.7	14.4	16.3					
							500	11.9	27.9	9.6	16.0	18.4	24.8	13.0	15.4					
							600	13.1	25.7	8.7	12.6	16.8	22.6	9.4	13.8					
							700	14.3	23.9	8.0	9.6	15.5	20.6	6.3	12.5					
							800	15.4	22.2	8.0	6.8	14.3	18.9	3.5	11.3					
							900	16.5	20.7	8.0	4.2	13.3	17.3	0.8	10.3					
							1000	17.5	19.3	8.0	1.8	12.4	15.9	-1.6	9.4					
							1600	23	13	8.0	-10.0	8.3	9.3	-13.7	5.3					
							2000	26.2	9.8	8.0	-16.3	6.4	6.0	-20.2	3.4					

### TIA Cat 8 Perm. Link (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	5.6	0.1 or 3.0	0.2 or 7.0	24	136	13	1	3	65	19.1	62.0	72.4	62.0	59.0	69	40	47	i	i	
3,6 - 3,6							4	3.0	63.8	21.0	60.8	60.4	60.5	57.5	57.4	40.0	34.8	i	i	
4,5 - 4,5							8	3.0	58.9	21.0	55.9	54.3	55.6	52.6	51.3	40.0	28.7	i	i	
7,8 - 7,8							10	3.0	57.3	21.0	54.3	52.4	54.0	51.0	49.4	40.0	26.8	i	i	
							16	3.0	53.9	20.0	50.9	48.3	50.6	47.6	45.3	36.5	22.7	i	i	
i	Informational measurement only, no limit available 10% length rule - will fail when length > 26 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit for frequencies > 200 MHz Category 8 Permanent Link ACRF values that correspond to measured Permanent Link FEXT loss values of > 75 dB are for information only.						20	3.0	52.3	19.5	49.3	46.4	49.0	46.0	43.4	34.9	20.8	i	i	
							25	3.0	50.7	19.0	47.7	44.4	47.3	44.3	41.4	33.2	18.8	i	i	
							31	3.0	49.1	18.5	46.1	42.5	45.7	42.7	39.5	31.6	16.9	i	i	
							63	4.1	44.0	18.0	39.9	36.5	40.6	36.5	33.5	26.5	10.9	i	i	
							100	5.2	40.5	18.0	35.3	32.4	37.1	31.9	29.4	23.0	6.8	i	i	
							200	7.4	35.3	14.4	28.0	26.4	31.9	24.5	23.4	17.9	3.0	i	i	
							250	8.3	33.6	13.2	25.4	24.4	30.2	21.9	21.4	16.2	3.0	i	i	
							350	9.9	31.1	11.5	21.2	21.5	27.6	17.7	18.5	13.8	3.0	i	i	
							450	11.2	29.1	10.2	17.9	19.3	25.7	14.4	16.3	11.9	3.0	i	i	
							500	11.9	27.9	9.6	16.0	18.4	24.8	13.0	15.4	11.1	3.0	i	i	
							600	13.1	25.7	8.7	12.6	16.8	22.6	9.4	13.8	9.8	3.0	i	i	
							700	14.3	23.9	8.0	9.6	15.5	20.6	6.3	12.5	8.6	3.0	i	i	
							800	15.4	22.2	8.0	6.8	14.3	18.9	3.5	11.3	7.6	3.0	i	i	
							900	16.5	20.7	8.0	4.2	13.3	17.3	0.8	10.3	6.8	3.0	i	i	
							1000	17.5	19.3	8.0	1.8	12.4	15.9	-1.6	9.4	6.0	3.0	i	i	
							1600	23	13	8.0	-10.0	8.3	9.3	-13.7	5.3	3.0	3.0	i	i	
							2000	26.2	9.8	8.0	-16.3	6.4	6.0	-20.2	3.4	3.0	3.0	i	i	

# TIA Cat 8 Perm. Link (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	5.6	0.1 or 3.0	0.2 or 7.0	24	136	13	1	3.0	65.0	19.1	62.0	72.4	62.0	59.0	69.4					
<div>i</div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available 10% length rule - will fail when length > 26 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit for frequencies > 200 MHz Category 8 Permanent Link ACRF values that correspond to measured Permanent Link FEXT loss values of > 75 dB are for information only.						4	3.0	63.8	21.0	60.8	60.4	60.5	57.5	57.4					
							8	3.0	58.9	21.0	55.9	54.3	55.6	52.6	51.3					
							10	3.0	57.3	21.0	54.3	52.4	54.0	51.0	49.4					
							16	3.0	53.9	20.0	50.9	48.3	50.6	47.6	45.3					
							20	3.0	52.3	19.5	49.3	46.4	49.0	46.0	43.4					
							25	3.0	50.7	19.0	47.7	44.4	47.3	44.3	41.4					
							31	3.0	49.1	18.5	46.1	42.5	45.7	42.7	39.5					
							63	4.1	44.0	18.0	39.9	36.5	40.6	36.5	33.5					
							100	5.2	40.5	18.0	35.3	32.4	37.1	31.9	29.4					
							200	7.4	35.3	14.4	28.0	26.4	31.9	24.5	23.4					
							250	8.3	33.6	13.2	25.4	24.4	30.2	21.9	21.4					
							350	9.9	31.1	11.5	21.2	21.5	27.6	17.7	18.5					
							450	11.2	29.1	10.2	17.9	19.3	25.7	14.4	16.3					
							500	11.9	27.9	9.6	16.0	18.4	24.8	13.0	15.4					
							600	13.1	25.7	8.7	12.6	16.8	22.6	9.4	13.8					
							700	14.3	23.9	8.0	9.6	15.5	20.6	6.3	12.5					
							800	15.4	22.2	8.0	6.8	14.3	18.9	3.5	11.3					
							900	16.5	20.7	8.0	4.2	13.3	17.3	0.8	10.3					
							1000	17.5	19.3	8.0	1.8	12.4	15.9	-1.6	9.4					
							1600	23	13	8.0	-10.0	8.3	9.3	-13.7	5.3					
							2000	26.2	9.8	8.0	-16.3	6.4	6.0	-20.2	3.4					

# TIA Cat 8 Channel

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			30	179	17	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0					
<div>i</div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available 10% length rule - will fail when length > 33 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit for frequencies > 200 MHz Category 8 Permanent Link ACRF values that correspond to measured Permanent Link FEXT loss values of > 70 dB are for information only.						4	3.0	63.8	19.0	60.8	59.9	60.5	57.5	56.9					
							8	3.0	58.9	19.0	55.9	53.9	55.6	52.6	50.9					
							10	3.0	57.3	19.0	54.3	52.0	54.0	51.0	49.0					
							16	3.0	53.9	18.0	50.9	47.9	50.6	47.6	44.9					
							20	3.0	52.3	17.5	49.3	45.9	49.0	46.0	42.9					
							25	3.2	50.7	17.0	47.5	44.0	47.3	44.1	41.0					
							31	3.6	49.1	16.5	45.5	42.1	45.7	42.1	39.1					
							63	5.1	44.0	16.0	38.9	36.0	40.6	35.5	33.0					
							100	6.5	40.5	16.0	34.0	32.0	37.1	30.6	29.0					
							200	9.3	35.3	14.3	26.0	25.9	31.9	22.6	22.9					
							250	10.4	33.6	13.4	23.2	24.0	30.2	19.7	21.0					
							350	12.4	31.1	12.1	18.7	21.1	27.6	15.2	18.1					
							450	14.2	29.1	11.1	14.9	18.9	25.7	11.5	15.9					
							500	15	27.9	10.7	12.9	18.0	24.8	9.9	15					
							600	16.5	25.7	10.0	9.2	16.4	22.7	6.2	13.4					
							700	18	23.9	9.4	5.9	15.1	20.9	2.9	12.1					
							800	19.4	22.2	8.9	2.8	13.9	19.3	-0.1	10.9					
							900	20.7	20.7	8.4	0.0	12.9	17.8	-2.9	9.9					
							1000	22	19.3	8.0	-2.6	12.0	16.5	-5.5	9					
							1600	28.7	13	8.0	-15.7	7.9	10.4	-18.4	4.9					
							2000	32.7	9.8	8.0	-22.9	5.9	7.3	-25.3	2.9					



### TIA Cat 8 Channel (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	6.4	0.2 or 3.0	0.2 or 7.0	30	179	17	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	40.0	46.8	i	i	
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 33 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit for frequencies > 200 MHz Category 8 Permanent Link ACRF values that correspond to measured Permanent Link FEXT loss values of > 70 dB are for information only.						4	3.0	63.8	19.0	60.8	59.9	60.5	57.5	56.9	40.0	34.8	i	i	
4,5 - 4,5							8	3.0	58.9	19.0	55.9	53.9	55.6	52.6	50.9	40.0	28.7	i	i	
7,8 - 7,8							10	3.0	57.3	19.0	54.3	52.0	54.0	51.0	49.0	40.0	26.8	i	i	
i							16	3.0	53.9	18.0	50.9	47.9	50.6	47.6	44.9	36.5	22.7	i	i	
							20	3.0	52.3	17.5	49.3	45.9	49.0	46.0	42.9	34.9	20.8	i	i	
							25	3.2	50.7	17.0	47.5	44.0	47.3	44.1	41.0	33.2	18.8	i	i	
							31	3.6	49.1	16.5	45.5	42.1	45.7	42.1	39.1	31.6	16.9	i	i	
							63	5.1	44.0	16.0	38.9	36.0	40.6	35.5	33.0	26.5	10.9	i	i	
							100	6.5	40.5	16.0	34.0	32.0	37.1	30.6	29.0	23.0	6.8	i	i	
							200	9.3	35.3	14.3	26.0	25.9	31.9	22.6	22.9	17.9	3.0	i	i	
							250	10.4	33.6	13.4	23.2	24.0	30.2	19.7	21.0	16.2	3.0	i	i	
							350	12.4	31.1	12.1	18.7	21.1	27.6	15.2	18.1	13.8	3.0	i	i	
							450	14.2	29.1	11.1	14.9	18.9	25.7	11.5	15.9	11.9	3.0	i	i	
							500	15	27.9	10.7	12.9	18.0	24.8	9.9	15	11.1	3.0	i	i	
							600	16.5	25.7	10.0	9.2	16.4	22.7	6.2	13.4	9.8	3.0	i	i	
							700	18	23.9	9.4	5.9	15.1	20.9	2.9	12.1	8.6	3.0	i	i	
							800	19.4	22.2	8.9	2.8	13.9	19.3	-0.1	10.9	7.6	3.0	i	i	
							900	20.7	20.7	8.4	0.0	12.9	17.8	-2.9	9.9	6.8	3.0	i	i	
							1000	22	19.3	8.0	-2.6	12.0	16.5	-5.5	9	6.0	3.0	i	i	
							1600	28.7	13	8.0	-15.7	7.9	10.4	-18.4	4.9	3.0	3.0	i	i	
							2000	32.7	9.8	8.0	-22.9	5.9	7.3	-25.3	2.9	3.0	3.0	i	i	

### TIA Cat 8 Channel (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	6.4	0.2 or 3.0	0.2 or 7.0	30	179	17	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0					
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 33 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit for frequencies > 200 MHz Category 8 Permanent Link ACRF values that correspond to measured Permanent Link FEXT loss values of > 70 dB are for information only.						4	3.0	63.8	19.0	60.8	59.9	60.5	57.5	56.9					
4,5 - 4,5							8	3.0	58.9	19.0	55.9	53.9	55.6	52.6	50.9					
7,8 - 7,8							10	3.0	57.3	19.0	54.3	52.0	54.0	51.0	49.0					
i							16	3.0	53.9	18.0	50.9	47.9	50.6	47.6	44.9					
							20	3.0	52.3	17.5	49.3	45.9	49.0	46.0	42.9					
							25	3.2	50.7	17.0	47.5	44.0	47.3	44.1	41.0					
							31	3.6	49.1	16.5	45.5	42.1	45.7	42.1	39.1					
							63	5.1	44.0	16.0	38.9	36.0	40.6	35.5	33.0					
							100	6.5	40.5	16.0	34.0	32.0	37.1	30.6	29.0					
							200	9.3	35.3	14.3	26.0	25.9	31.9	22.6	22.9					
							250	10.4	33.6	13.4	23.2	24.0	30.2	19.7	21.0					
							350	12.4	31.1	12.1	18.7	21.1	27.6	15.2	18.1					
							450	14.2	29.1	11.1	14.9	18.9	25.7	11.5	15.9					
							500	15	27.9	10.7	12.9	18.0	24.8	9.9	15					
							600	16.5	25.7	10.0	9.2	16.4	22.7	6.2	13.4					
							700	18	23.9	9.4	5.9	15.1	20.9	2.9	12.1					
							800	19.4	22.2	8.9	2.8	13.9	19.3	-0.1	10.9					
							900	20.7	20.7	8.4	0.0	12.9	17.8	-2.9	9.9					
							1000	22	19.3	8.0	-2.6	12.0	16.5	-5.5	9					
							1600	28.7	13	8.0	-15.7	7.9	10.4	-18.4	4.9					
							2000	32.7	9.8	8.0	-22.9	5.9	7.3	-25.3	2.9					

## Copper Limit Lines - Cat 6A

### TIA Cat 6A Perm. Link

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	0	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2					
							4	3.5	64.1	21.0	60.5	52.1	61.8	58.3	49.1					
							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1					
							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2					
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1					
							20	7.8	53.1	19.5	45.2	38.2	50.7	42.8	35.2					
							25	8.8	51.5	19.0	42.8	36.2	49.1	40.4	33.2					
							31	9.8	50.0	18.5	40.2	34.3	47.5	37.7	31.3					
							63	14.0	45.1	16.0	31.1	28.3	42.7	28.6	25.3					
							100	18.0	41.8	14.0	23.9	24.2	39.3	21.3	21.2					
							200	26.1	36.9	11.0	10.8	18.2	34.3	8.2	15.2					
							250	29.5	35.3	10.0	5.8	16.2	32.7	3.2	13.2					
							350	35.6	31.8	8.6	-3.8	13.3	29.1	-6.5	10.3					
							450	41.1	28.2	8.0	-13.0	11.1	25.3	-15.8	8.1					
							500	43.8	26.7	8.0	-17.1	10.2	23.8	-20.0	7.2					

### TIA Cat 6A Perm. Link (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2	40.0	30.0	i	i	
							4	3.5	64.1	21.0	60.5	52.1	61.8	58.3	49.1	40.0	18.0	i	i	
							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1	36.5	11.9	i	i	
							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2	35.0	10.0	i	i	
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1	31.9	5.9	i	i	
							20	7.8	53.1	19.5	45.2	38.2	50.7	42.8	35.2	30.5	4.0	i	i	
							25	8.8	51.5	19.0	42.8	36.2	49.1	40.4	33.2	29.0	2.0	i	i	
							31	9.8	50.0	18.5	40.2	34.3	47.5	37.7	31.3	27.6	i	i	i	
							63	14.0	45.1	16.0	31.1	28.3	42.7	28.6	25.3	23.1	i	i	i	
							100	18.0	41.8	14.0	23.9	24.2	39.3	21.3	21.2	20.0	i	i	i	
							200	26.1	36.9	11.0	10.8	18.2	34.3	8.2	15.2	15.5	i	i	i	
							250	29.5	35.3	10.0	5.8	16.2	32.7	3.2	13.2	14.0	i	i	i	
							350	35.6	31.8	8.6	-3.8	13.3	29.1	-6.5	10.3	11.8	i	i	i	
							450	41.1	28.2	8.0	-13.0	11.1	25.3	-15.8	8.1	10.2	i	i	i	
							500	43.8	26.7	8.0	-17.1	10.2	23.8	-20.0	7.2	9.5	i	i	i	

### TIA Cat 6A Perm. Link (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2					
<div>i</div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available 10% length rule - will fail when length > 99 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 67 dB, not evaluated against the test limit						4	3.5	64.1	21.0	60.5	52.1	61.8	58.3	49.1					
							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1					
							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2					
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1					
							20	7.8	53.1	19.5	45.2	38.2	50.7	42.8	35.2					
							25	8.8	51.5	19.0	42.8	36.2	49.1	40.4	33.2					
							31	9.8	50.0	18.5	40.2	34.3	47.5	37.7	31.3					
							63	14.0	45.1	16.0	31.1	28.3	42.7	28.6	25.3					
							100	18.0	41.8	14.0	23.9	24.2	39.3	21.3	21.2					
							200	26.1	36.9	11.0	10.8	18.2	34.3	8.2	15.2					
							250	29.5	35.3	10.0	5.8	16.2	32.7	3.2	13.2					
							350	35.6	31.8	8.6	-3.8	13.3	29.1	-6.5	10.3					
							450	41.1	28.2	8.0	-13.0	11.1	25.3	-15.8	8.1					
							500	43.8	26.7	8.0	-17.1	10.2	23.8	-20.0	7.2					

### TIA Cat 6A Channel

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3					
<div>i</div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 67 dB, not evaluated against the test limit						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2					
							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2					
							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3					
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2					
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2					
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3					
							31	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4					
							63	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3					
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3					
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2					
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3					
							350	40.6	30.3	6.6	-10.3	12.4	27.3	-13.3	9.4					
							450	46.5	27.3	6.0	-19.2	10.2	24.4	-22.1	7.2					
							500	49.3	26.1	6.0	-23.2	9.3	23.2	-26.1	6.3					

### TIA Cat 6A Channel (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3	40.0	30.0	i	i	
3,6 - 3,6	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 67 dB, not evaluated against the test limit</div>						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2	40.0	18.0	i	i	
4,5 - 4,5							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2	36.5	11.9	i	i	
7,8 - 7,8							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3	35.0	10.0	i	i	
i							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2	31.9	5.9	i	i	
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2	30.5	4.0	i	i	
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3	29.0	2.0	i	i	
							31	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4	27.6	i	i	i	
							63	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3	23.1	i	i	i	
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3	20.0	i	i	i	
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2	15.5	i	i	i	
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3	14.0	i	i	i	
							350	40.6	30.3	6.6	-10.3	12.4	27.3	-13.3	9.4	11.8	i	i	i	
							450	46.5	27.3	6.0	-19.2	10.2	24.4	-22.1	7.2	10.2	i	i	i	
							500	49.3	26.1	6.0	-23.2	9.3	23.2	-26.1	6.3	9.5	i	i	i	

### TIA Cat 6A Channel (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3					
3,6 - 3,6	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 67 dB, not evaluated against the test limit</div>						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2					
4,5 - 4,5							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2					
7,8 - 7,8							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3					
i							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2					
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2					
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3					
							31	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4					
							63	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3					
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3					
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2					
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3					
							350	40.6	30.3	6.6	-10.3	12.4	27.3	-13.3	9.4					
							450	46.5	27.3	6.0	-19.2	10.2	24.4	-22.1	7.2					
							500	49.3	26.1	6.0	-23.2	9.3	23.2	-26.1	6.3					

### TIA Cat 6A MPTL

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	i			90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2					
3,6 - 3,6	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 99 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 67 dB, not evaluated against the test limit</div>						4	3.5	64.1	21.0	60.5	52.1	61.8	58.3	49.1					
4,5 - 4,5							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1					
7,8 - 7,8							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2					
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1					
i							20	7.8	53.1	19.5	45.2	38.2	50.7	42.8	35.2					
							25	8.8	51.5	19.0	42.8	36.2	49.1	40.4	33.2					
							31	9.8	50.0	18.5	40.2	34.3	47.5	37.7	31.3					
							63	14.0	45.1	16.0	31.1	28.3	42.7	28.6	25.3					
							100	18.0	41.8	14.0	23.9	24.2	39.3	21.3	21.2					
							200	26.1	36.9	11.0	10.8	18.2	34.3	8.2	15.2					
							250	29.5	35.3	10.0	5.8	16.2	32.7	3.2	13.2					
							350	35.6	31.8	8.6	-3.8	13.3	29.1	-6.5	10.3					
							450	41.1	28.2	8.0	-13.0	11.1	25.3	-15.8	8.1					
							500	43.8	26.7	8.0	-17.1	10.2	23.8	-20.0	7.2					

### TIA Cat 6A MPTL (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	i	i	90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2					
3,6 - 3,6	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 99 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 67 dB, not evaluated against the test limit</div>						4	3.5	64.1	21.0	60.5	52.1	61.8	58.3	49.1					
4,5 - 4,5							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1					
7,8 - 7,8							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2					
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1					
i							20	7.8	53.1	19.5	45.2	38.2	50.7	42.8	35.2					
							25	8.8	51.5	19.0	42.8	36.2	49.1	40.4	33.2					
							31	9.8	50.0	18.5	40.2	34.3	47.5	37.7	31.3					
							63	14.0	45.1	16.0	31.1	28.3	42.7	28.6	25.3					
							100	18.0	41.8	14.0	23.9	24.2	39.3	21.3	21.2					
							200	26.1	36.9	11.0	10.8	18.2	34.3	8.2	15.2					
							250	29.5	35.3	10.0	5.8	16.2	32.7	3.2	13.2					
							350	35.6	31.8	8.6	-3.8	13.3	29.1	-6.5	10.3					
							450	41.1	28.2	8.0	-13.0	11.1	25.3	-15.8	8.1					
							500	43.8	26.7	8.0	-17.1	10.2	23.8	-20.0	7.2					

### TIA 1005 Cat 6A Perm. Link

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2					
							4	3.5	64.1	21.0	60.5	52.1	61.8	58.3	49.1					
							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1					
							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2					
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1					
							20	7.8	53.1	19.5	45.2	38.2	50.7	42.8	35.2					
							25	8.8	51.5	19.0	42.8	36.2	49.1	40.4	33.2					
							31	9.8	50.0	18.5	40.2	34.3	47.5	37.7	31.3					
							63	14.0	45.1	16.0	31.1	28.3	42.7	28.6	25.3					
							100	18.0	41.8	14.0	23.9	24.2	39.3	21.3	21.2					
							200	26.1	36.9	11.0	10.8	18.2	34.3	8.2	15.2					
							250	29.5	35.3	10.0	5.8	16.2	32.7	3.2	13.2					
							350	35.6	31.8	8.6	-3.8	13.3	29.1	-6.5	10.3					
							450	41.1	28.2	8.0	-13.0	11.1	25.3	-15.8	8.1					
							500	43.8	26.7	8.0	-17.1	10.2	23.8	-20.0	7.2					

### TIA 1005 Cat 6A Channel

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3					
							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2					
							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2					
							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3					
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2					
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2					
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3					
							31	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4					
							63	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3					
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3					
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2					
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3					
							350	40.6	30.3	6.6	-10.3	12.4	27.3	-13.3	9.4					
							450	46.5	27.3	6.0	-19.2	10.2	24.4	-22.1	7.2					
							500	49.3	26.1	6.0	-23.2	9.3	23.2	-26.1	6.3					



### TIA 1005 Cat 6A Channel E1 (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3	40.0	30.0	i	i	
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2	40.0	18.0	i	i	
4,5 - 4,5							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2	39.5	11.9	i	i	
7,8 - 7,8							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3	38.0	10.0	i	i	
i							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2	34.9	5.9	i	i	
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2	33.5	4.0	i	i	
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3	32.0	2.0	i	i	
							31	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4	30.5	i	i	i	
							63	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3	24.5	i	i	i	
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3	20.4	i	i	i	
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2	14.4	i	i	i	
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3	12.4	i	i	i	
							350	40.6	30.3	6.6	-10.3	12.4	27.3	-13.3	9.4	9.5	i	i	i	
							450	46.5	27.3	6.0	-19.2	10.2	24.4	-22.1	7.2	7.3	i	i	i	
							500	49.3	26.1	6.0	-23.2	9.3	23.2	-26.1	6.3	6.4	i	i	i	

### TIA 1005 Cat 6A Channel E1 (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3					
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 67 dB, not evaluated against the test limit						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2					
4,5 - 4,5							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2					
7,8 - 7,8							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3					
i							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2					
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2					
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3					
							31	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4					
							63	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3					
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3					
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2					
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3					
							350	40.6	30.3	6.6	-10.3	12.4	27.3	-13.3	9.4					
							450	46.5	27.3	6.0	-19.2	10.2	24.4	-22.1	7.2					
							500	49.3	26.1	6.0	-23.2	9.3	23.2	-26.1	6.3					

### TIA 1005 Cat 6A Channel E2 (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3	40.0	40.0	i	i	
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2	40.0	28.0	i	i	
4,5 - 4,5							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2	40.0	21.9	i	i	
7,8 - 7,8							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3	40.0	20.0	i	i	
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2	40.0	15.9	i	i	
i							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2	40.0	14.0	i	i	
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3	40.0	12.0	i	i	
							31	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4	40.0	i	i	i	
							63	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3	34.5	i	i	i	
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3	30.4	i	i	i	
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2	24.4	i	i	i	
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3	22.4	i	i	i	
							350	40.6	30.3	6.6	-10.3	12.4	27.3	-13.3	9.4	19.5	i	i	i	
							450	46.5	27.3	6.0	-19.2	10.2	24.4	-22.1	7.2	17.3	i	i	i	
							500	49.3	26.1	6.0	-23.2	9.3	23.2	-26.1	6.3	16.4	i	i	i	

### TIA 1005 Cat 6A Channel E2 (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3					
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2					
4,5 - 4,5							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2					
7,8 - 7,8							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3					
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2					
i							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2					
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3					
							31	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4					
							63	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3					
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3					
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2					
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3					
							350	40.6	30.3	6.6	-10.3	12.4	27.3	-13.3	9.4					
							450	46.5	27.3	6.0	-19.2	10.2	24.4	-22.1	7.2					
							500	49.3	26.1	6.0	-23.2	9.3	23.2	-26.1	6.3					

### TIA 1005 Cat 6A Channel E3 (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3	40.0	40.0	i	i	
3,6 - 3,6	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div>						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2	40.0	38.0	i	i	
4,5 - 4,5							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2	40.0	31.9	i	i	
7,8 - 7,8							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3	40.0	30.0	i	i	
i							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2	40.0	25.9	i	i	
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2	40.0	24.0	i	i	
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3	40.0	22.0	i	i	
							31	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4	40.0	i	i	i	
							63	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3	40.0	i	i	i	
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3	40.0	i	i	i	
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2	34.4	i	i	i	
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3	32.4	i	i	i	
							350	40.6	30.3	6.6	-10.3	12.4	27.3	-13.3	9.4	29.5	i	i	i	
							450	46.5	27.3	6.0	-19.2	10.2	24.4	-22.1	7.2	27.3	i	i	i	
							500	49.3	26.1	6.0	-23.2	9.3	23.2	-26.1	6.3	26.4	i	i	i	

### TIA 1005 Cat 6A Channel E3 (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3					
3,6 - 3,6	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div>						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2					
4,5 - 4,5							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2					
7,8 - 7,8							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3					
i							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2					
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2					
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3					
							31	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4					
							63	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3					
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3					
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2					
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3					
							350	40.6	30.3	6.6	-10.3	12.4	27.3	-13.3	9.4					
							450	46.5	27.3	6.0	-19.2	10.2	24.4	-22.1	7.2					
							500	49.3	26.1	6.0	-23.2	9.3	23.2	-26.1	6.3					

## Copper Limit Lines - Cat 6

### TIA Cat 6 Perm. Link

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	i			90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2					
4,5 - 4,5	Informational measurement only, no limit available 10% length rule - will fail when length > 99 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 67 dB, not evaluated against the test limit						4	3.5	64.1	21.0	60.6	52.1	61.8	58.3	49.1					
7,8 - 7,8							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1					
							10	5.5	57.8	21.0	52.3	44.2	55.5	49.9	41.2					
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1					
							20	7.9	53.1	19.5	45.2	38.2	50.7	42.8	35.2					
							25	8.9	51.5	19.0	42.7	36.2	49.1	40.2	33.2					
							31	10.0	50.0	18.5	40.0	34.3	47.5	37.6	31.3					
							63	14.4	45.1	16.0	30.8	28.3	42.7	28.3	25.3					
							100	18.6	41.8	14.0	23.3	24.2	39.3	20.7	21.2					
							200	27.4	36.9	11.0	9.6	18.2	34.3	7.0	15.2					
							250	31.1	35.3	10.0	4.2	16.2	32.7	1.6	13.2					
							350	i	i	i	i	i	i	i	i					

### TIA Cat 6 Perm. Link (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2	40	30			
4,5 - 4,5	Informational measurement only, no limit available 10% length rule - will fail when length > 99 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 67 dB, not evaluated against the test limit						4	3.5	64.1	21.0	60.6	52.1	61.8	58.3	49.1	40	18			
7,8 - 7,8							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1	37	12			
							10	5.5	57.8	21.0	52.3	44.2	55.5	49.9	41.2	35	10			
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1	32	6			
							20	7.9	53.1	19.5	45.2	38.2	50.7	42.8	35.2	31	4			
							25	8.9	51.5	19.0	42.7	36.2	49.1	40.2	33.2	29	2			
							31	10.0	50.0	18.5	40.0	34.3	47.5	37.6	31.3	28	i			
							63	14.4	45.1	16.0	30.8	28.3	42.7	28.3	25.3	23	i			
							100	18.6	41.8	14.0	23.3	24.2	39.3	20.7	21.2	20	i			
							200	27.4	36.9	11.0	9.6	18.2	34.3	7.0	15.2	16	i			
							250	31.1	35.3	10.0	4.2	16.2	32.7	1.6	13.2	14	i			
							350	i	i	i	i	i	i	i	i	i	i			

### TIA Cat 6 Perm. Link (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2					
4,5 - 4,5	Informational measurement only, no limit available 10% length rule - will fail when length > 99 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 67 dB, not evaluated against the test limit						4	3.5	64.1	21.0	60.6	52.1	61.8	58.3	49.1					
7,8 - 7,8							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1					
							10	5.5	57.8	21.0	52.3	44.2	55.5	49.9	41.2					
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1					
							20	7.9	53.1	19.5	45.2	38.2	50.7	42.8	35.2					
							25	8.9	51.5	19.0	42.7	36.2	49.1	40.2	33.2					
							31	10.0	50.0	18.5	40.0	34.3	47.5	37.6	31.3					
							63	14.4	45.1	16.0	30.8	28.3	42.7	28.3	25.3					
							100	18.6	41.8	14.0	23.3	24.2	39.3	20.7	21.2					
							200	27.4	36.9	11.0	9.6	18.2	34.3	7.0	15.2					
							250	31.1	35.3	10.0	4.2	16.2	32.7	1.6	13.2					
							350	i	i	i	i	i	i	i	i					

### TIA Cat 6 Channel

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	i			100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3					
4,5 - 4,5	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit						4	4.0	63.0	19.0	59.0	51.2	60.5	56.5	48.2					
7,8 - 7,8							8	5.7	58.2	19.0	52.5	45.2	55.6	49.9	42.2					
							10	6.3	56.6	19.0	50.2	43.3	54.0	47.7	40.3					
							16	8.0	53.2	18.0	45.2	39.2	50.6	42.6	36.2					
							20	9.0	51.6	17.5	42.6	37.2	49.0	39.9	34.2					
							25	10.1	50.0	17.0	39.9	35.3	47.3	37.2	32.3					
							31	11.4	48.4	16.5	37.0	33.4	45.7	34.3	30.4					
							63	16.5	43.4	14.0	26.9	27.3	40.6	24.1	24.3					
							100	21.3	39.9	12.0	18.6	23.3	37.1	15.8	20.3					
							200	31.5	34.8	9.0	3.3	17.2	31.9	0.3	14.2					
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3					
							350	i	i	i	i	i	i	i	i					

### TIA Cat 6 Channel (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3	40	30	i	i	
4,5 - 4,5	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit						4	4.0	63.0	19.0	59.0	51.2	60.5	56.5	48.2	40	18	i	i	
7,8 - 7,8							8	5.7	58.2	19.0	52.5	45.2	55.6	49.9	42.2	37	12	i	i	
							10	6.3	56.6	19.0	50.2	43.3	54.0	47.7	40.3	35	10	i	i	
							16	8.0	53.2	18.0	45.2	39.2	50.6	42.6	36.2	32	6	i	i	
							20	9.0	51.6	17.5	42.6	37.2	49.0	39.9	34.2	31	4	i	i	
							25	10.1	50.0	17.0	39.9	35.3	47.3	37.2	32.3	29	2	i	i	
							31	11.4	48.4	16.5	37.0	33.4	45.7	34.3	30.4	28	i	i	i	
							63	16.5	43.4	14.0	26.9	27.3	40.6	24.1	24.3	23	i	i	i	
							100	21.3	39.9	12.0	18.6	23.3	37.1	15.8	20.3	20	i	i	i	
							200	31.5	34.8	9.0	3.3	17.2	31.9	0.3	14.2	16	i	i	i	
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3	14	i	i	i	
							350	i	i	i	i	i	i	i	i	i	i	i	i	

### TIA Cat 6 Channel (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3					
4,5 - 4,5	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit						4	4.0	63.0	19.0	59.0	51.2	60.5	56.5	48.2					
7,8 - 7,8							8	5.7	58.2	19.0	52.5	45.2	55.6	49.9	42.2					
							10	6.3	56.6	19.0	50.2	43.3	54.0	47.7	40.3					
							16	8.0	53.2	18.0	45.2	39.2	50.6	42.6	36.2					
							20	9.0	51.6	17.5	42.6	37.2	49.0	39.9	34.2					
							25	10.1	50.0	17.0	39.9	35.3	47.3	37.2	32.3					
							31	11.4	48.4	16.5	37.0	33.4	45.7	34.3	30.4					
							63	16.5	43.4	14.0	26.9	27.3	40.6	24.1	24.3					
							100	21.3	39.9	12.0	18.6	23.3	37.1	15.8	20.3					
							200	31.5	34.8	9.0	3.3	17.2	31.9	0.3	14.2					
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3					
							350	i	i	i	i	i	i	i	i					

# TIA Cat 6 MPTL

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	i			90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2					
4,5 - 4,5	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 99 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div>						4	3.5	64.1	21.0	60.6	52.1	61.8	58.3	49.1					
7,8 - 7,8							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1					
							10	5.5	57.8	21.0	52.3	44.2	55.5	49.9	41.2					
i							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1					
							20	7.9	53.1	19.5	45.2	38.2	50.7	42.8	35.2					
							25	8.9	51.5	19.0	42.7	36.2	49.1	40.2	33.2					
							31	10.0	50.0	18.5	40.0	34.3	47.5	37.6	31.3					
							63	14.4	45.1	16.0	30.8	28.3	42.7	28.3	25.3					
							100	18.6	41.8	14.0	23.3	24.2	39.3	20.7	21.2					
							200	27.4	36.9	11.0	9.6	18.2	34.3	7.0	15.2					
							250	31.1	35.3	10.0	4.2	16.2	32.7	1.6	13.2					
							350	i	i	i	i	i	i	i	i					

# TIA Cat 6 MPTL (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	21	i	i	90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2					
4,5 - 4,5	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 99 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div>						4	3.5	64.1	21.0	60.6	52.1	61.8	58.3	49.1					
7,8 - 7,8							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1					
							10	5.5	57.8	21.0	52.3	44.2	55.5	49.9	41.2					
i							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1					
							20	7.9	53.1	19.5	45.2	38.2	50.7	42.8	35.2					
							25	8.9	51.5	19.0	42.7	36.2	49.1	40.2	33.2					
							31	10.0	50.0	18.5	40.0	34.3	47.5	37.6	31.3					
							63	14.4	45.1	16.0	30.8	28.3	42.7	28.3	25.3					
							100	18.6	41.8	14.0	23.3	24.2	39.3	20.7	21.2					
							200	27.4	36.9	11.0	9.6	18.2	34.3	7.0	15.2					
							250	31.1	35.3	10.0	4.2	16.2	32.7	1.6	13.2					
							350	i	i	i	i	i	i	i	i					

# TIA 1005 Cat 6 Perm. Link

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	i			90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2					
4,5 - 4,5	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 99 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div>						4	3.5	64.1	21.0	60.6	52.1	61.8	58.3	49.1					
7,8 - 7,8							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1					
							10	5.5	57.8	21.0	52.3	44.2	55.5	49.9	41.2					
i							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1					
							20	7.9	53.1	19.5	45.2	38.2	50.7	42.8	35.2					
							25	8.9	51.5	19.0	42.7	36.2	49.1	40.2	33.2					
							31	10.0	50.0	18.5	40.0	34.3	47.5	37.6	31.3					
							63	14.4	45.1	16.0	30.8	28.3	42.7	28.3	25.3					
							100	18.6	41.8	14.0	23.3	24.2	39.3	20.7	21.2					
							200	27.4	36.9	11.0	9.6	18.2	34.3	7.0	15.2					
							250	31.1	35.3	10.0	4.2	16.2	32.7	1.6	13.2					
							350	i	i	i	i	i	i	i	i					



### TIA 1005 Cat 6 Channel

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	i			100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3					
4,5 - 4,5	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit	25	0.2 or 7.0	100	555	50	4	4.0	63.0	19.0	59.0	51.2	60.5	56.5	48.2					
7,8 - 7,8							8	5.7	58.2	19.0	52.5	45.2	55.6	49.9	42.2					
							10	6.3	56.6	19.0	50.2	43.3	54.0	47.7	40.3					
							16	8.0	53.2	18.0	45.2	39.2	50.6	42.6	36.2					
							20	9.0	51.6	17.5	42.6	37.2	49.0	39.9	34.2					
							25	10.1	50.0	17.0	39.9	35.3	47.3	37.2	32.3					
							31	11.4	48.4	16.5	37.0	33.4	45.7	34.3	30.4					
							63	16.5	43.4	14.0	26.9	27.3	40.6	24.1	24.3					
							100	21.3	39.9	12.0	18.6	23.3	37.1	15.8	20.3					
							200	31.5	34.8	9.0	3.3	17.2	31.9	0.3	14.2					
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3					
							350	i	i	i	i	i	i	i	i					

### TIA 1005 Cat 6 Channel E1 (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3	40	30	i	i	
4,5 - 4,5	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit	25	0.2 or 7.0	100	555	50	4	4.0	63.0	19.0	59.0	51.2	60.5	56.5	48.2	40	18	i	i	
7,8 - 7,8							8	5.7	58.2	19.0	52.5	45.2	55.6	49.9	42.2	40	12	i	i	
							10	6.3	56.6	19.0	50.2	43.3	54.0	47.7	40.3	38	10	i	i	
							16	8.0	53.2	18.0	45.2	39.2	50.6	42.6	36.2	35	6	i	i	
							20	9.0	51.6	17.5	42.6	37.2	49.0	39.9	34.2	34	4	i	i	
							25	10.1	50.0	17.0	39.9	35.3	47.3	37.2	32.3	32	2	i	i	
							31	11.4	48.4	16.5	37.0	33.4	45.7	34.3	30.4	31	i	i	i	
							63	16.5	43.4	14.0	26.9	27.3	40.6	24.1	24.3	25	i	i	i	
							100	21.3	39.9	12.0	18.6	23.3	37.1	15.8	20.3	20	i	i	i	
							200	31.5	34.8	9.0	3.3	17.2	31.9	0.3	14.2	14	i	i	i	
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3	12	i	i	i	
							350	i	i	i	i	i	i	i	i	i	i	i	i	

### TIA 1005 Cat 6 Channel E1 (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3					
4,5 - 4,5	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit	25	0.2 or 7.0	100	555	50	4	4.0	63.0	19.0	59.0	51.2	60.5	56.5	48.2					
7,8 - 7,8							8	5.7	58.2	19.0	52.5	45.2	55.6	49.9	42.2					
							10	6.3	56.6	19.0	50.2	43.3	54.0	47.7	40.3					
							16	8.0	53.2	18.0	45.2	39.2	50.6	42.6	36.2					
							20	9.0	51.6	17.5	42.6	37.2	49.0	39.9	34.2					
							25	10.1	50.0	17.0	39.9	35.3	47.3	37.2	32.3					
							31	11.4	48.4	16.5	37.0	33.4	45.7	34.3	30.4					
							63	16.5	43.4	14.0	26.9	27.3	40.6	24.1	24.3					
							100	21.3	39.9	12.0	18.6	23.3	37.1	15.8	20.3					
							200	31.5	34.8	9.0	3.3	17.2	31.9	0.3	14.2					
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3					
							350	i	i	i	i	i	i	i	i					



### TIA 1005 Cat 6 Channel E3 (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3					
4,5 - 4,5	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div>						4	4.0	63.0	19.0	59.0	51.2	60.5	56.5	48.2					
7,8 - 7,8							8	5.7	58.2	19.0	52.5	45.2	55.6	49.9	42.2					
							10	6.3	56.6	19.0	50.2	43.3	54.0	47.7	40.3					
i							16	8.0	53.2	18.0	45.2	39.2	50.6	42.6	36.2					
							20	9.0	51.6	17.5	42.6	37.2	49.0	39.9	34.2					
							25	10.1	50.0	17.0	39.9	35.3	47.3	37.2	32.3					
							31	11.4	48.4	16.5	37.0	33.4	45.7	34.3	30.4					
							63	16.5	43.4	14.0	26.9	27.3	40.6	24.1	24.3					
							100	21.3	39.9	12.0	18.6	23.3	37.1	15.8	20.3					
							200	31.5	34.8	9.0	3.3	17.2	31.9	0.3	14.2					
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3					
							350	i	i	i	i	i	i	i	i					

### TIA Cat 5e Perm. Link

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	i			90	498	44	1	3.0	60.0	19.0	57.0	58.6	57.0	54.0	55.6					
4,5 - 4,5	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 99 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 67 dB, not evaluated against the test limit</div>						4	3.9	54.8	19.0	50.9	46.6	51.8	47.9	43.6					
7,8 - 7,8							8	5.5	50.0	19.0	44.5	40.6	47.0	41.5	37.6					
							10	6.2	48.5	19.0	42.3	38.6	45.5	39.3	35.6					
i							16	7.9	45.2	19.0	37.3	34.5	42.2	34.3	31.5					
							20	8.9	43.7	19.0	34.8	32.6	40.7	31.8	29.6					
							25	10.0	42.1	18.0	32.1	30.7	39.1	29.1	27.7					
							31	11.2	40.5	17.1	29.3	28.7	37.5	26.3	25.7					
							63	16.2	35.7	14.1	19.4	22.7	32.7	16.4	19.7					
							100	21.0	32.3	12.0	11.3	18.6	29.3	8.3	15.6					
							200	i	i	i	i	i	i	i	i					
							250	i	i	i	i	i	i	i	i					
							350	i	i	i	i	i	i	i	i					

### TIA Cat 5e Perm. Link (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	3.0	60.0	19.0	57.0	58.6	57.0	54.0	55.6	i	i	i	i	
4,5 - 4,5	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 99 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 67 dB, not evaluated against the test limit</div>						4	3.9	54.8	19.0	50.9	46.6	51.8	47.9	43.6	i	i	i	i	
7,8 - 7,8							8	5.5	50.0	19.0	44.5	40.6	47.0	41.5	37.6	i	i	i	i	
							10	6.2	48.5	19.0	42.3	38.6	45.5	39.3	35.6	i	i	i	i	
i							16	7.9	45.2	19.0	37.3	34.5	42.2	34.3	31.5	i	i	i	i	
							20	8.9	43.7	19.0	34.8	32.6	40.7	31.8	29.6	i	i	i	i	
							25	10.0	42.1	18.0	32.1	30.7	39.1	29.1	27.7	i	i	i	i	
							31	11.2	40.5	17.1	29.3	28.7	37.5	26.3	25.7	i	i	i	i	
							63	16.2	35.7	14.1	19.4	22.7	32.7	16.4	19.7	i	i	i	i	
							100	21.0	32.3	12.0	11.3	18.6	29.3	8.3	15.6	i	i	i	i	
							200	i	i	i	i	i	i	i	i	i	i	i	i	
							250	i	i	i	i	i	i	i	i	i	i	i	i	
							350	i	i	i	i	i	i	i	i	i	i	i	i	

### TIA Cat 5e Perm. Link (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	3.0	60.0	19.0	57.0	58.6	57.0	54.0	55.6					
4,5 - 4,5	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 99 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div>						4	3.9	54.8	19.0	50.9	46.6	51.8	47.9	43.6					
7,8 - 7,8							8	5.5	50.0	19.0	44.5	40.6	47.0	41.5	37.6					
							10	6.2	48.5	19.0	42.3	38.6	45.5	39.3	35.6					
i							16	7.9	45.2	19.0	37.3	34.5	42.2	34.3	31.5					
							20	8.9	43.7	19.0	34.8	32.6	40.7	31.8	29.6					
							25	10.0	42.1	18.0	32.1	30.7	39.1	29.1	27.7					
							31	11.2	40.5	17.1	29.3	28.7	37.5	26.3	25.7					
							63	16.2	35.7	14.1	19.4	22.7	32.7	16.4	19.7					
							100	21.0	32.3	12.0	11.3	18.6	29.3	8.3	15.6					
							200	i	i	i	i	i	i	i	i					
							250	i	i	i	i	i	i	i	i					
							350	i	i	i	i	i	i	i	i					



### TIA Cat 5e Channel (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	60.0	17.0	57.0	57.4	57.0	54.0	54.4					
4,5 - 4,5	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div>						4	4.5	53.5	17.0	49.1	45.4	50.5	46.1	42.4					
7,8 - 7,8							8	6.3	48.6	17.0	42.3	39.3	45.6	39.3	36.3					
							10	7.1	47.0	17.0	39.9	37.4	44.0	36.9	34.4					
i							16	9.1	43.6	17.0	34.5	33.3	40.6	31.5	30.3					
							20	10.2	42.0	17.0	31.8	31.4	39.0	28.8	28.4					
							25	11.4	40.3	16.0	28.9	29.4	37.3	25.9	26.4					
							31	12.9	38.7	15.1	25.9	27.5	35.7	22.9	24.5					
							63	18.6	33.6	12.1	15.0	21.5	30.6	12.0	18.5					
							100	24.0	30.1	10.0	6.1	17.4	27.1	3.1	14.4					
							200	i	i	i	i	i	i	i	i					
							250	i	i	i	i	i	i	i	i					
							350	i	i	i	i	i	i	i	i					

### TIA Cat 5e MPTL

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	i			90	498	44	1	3.0	60.0	19.0	57.0	58.6	57.0	54.0	55.6					
4,5 - 4,5	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 99 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 67 dB, not evaluated against the test limit</div>						4	3.9	54.8	19.0	50.9	46.6	51.8	47.9	43.6					
7,8 - 7,8							8	5.5	50.0	19.0	44.5	40.6	47.0	41.5	37.6					
							10	6.2	48.5	19.0	42.3	38.6	45.5	39.3	35.6					
i							16	7.9	45.2	19.0	37.3	34.5	42.2	34.3	31.5					
							20	8.9	43.7	19.0	34.8	32.6	40.7	31.8	29.6					
							25	10.0	42.1	18.0	32.1	30.7	39.1	29.1	27.7					
							31	11.2	40.5	17.1	29.3	28.7	37.5	26.3	25.7					
							63	16.2	35.7	14.1	19.4	22.7	32.7	16.4	19.7					
							100	21.0	32.3	12.0	11.3	18.6	29.3	8.3	15.6					
							200	i	i	i	i	i	i	i	i					
							250	i	i	i	i	i	i	i	i					
							350	i	i	i	i	i	i	i	i					



### TIA Cat 5e MPTL (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	21	i	i	90	498	44	1	3.0	60.0	19.0	57.0	58.6	57.0	54.0	55.6					
4,5 - 4,5	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 99 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 67 dB, not evaluated against the test limit</div>						4	3.9	54.8	19.0	50.9	46.6	51.8	47.9	43.6					
7,8 - 7,8							8	5.5	50.0	19.0	44.5	40.6	47.0	41.5	37.6					
							10	6.2	48.5	19.0	42.3	38.6	45.5	39.3	35.6					
i							16	7.9	45.2	19.0	37.3	34.5	42.2	34.3	31.5					
							20	8.9	43.7	19.0	34.8	32.6	40.7	31.8	29.6					
							25	10.0	42.1	18.0	32.1	30.7	39.1	29.1	27.7					
							31	11.2	40.5	17.1	29.3	28.7	37.5	26.3	25.7					
							63	16.2	35.7	14.1	19.4	22.7	32.7	16.4	19.7					
							100	21.0	32.3	12.0	11.3	18.6	29.3	8.3	15.6					
							200	i	i	i	i	i	i	i	i					
							250	i	i	i	i	i	i	i	i					
							350	i	i	i	i	i	i	i	i					

### TIA 1005 Cat 5e Perm. Link

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	None	None	None	90	498	44	1	3.0	60.0	19.0	57.0	58.6	57.0	54.0	55.6					
4,5 - 4,5	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 99 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 67 dB, not evaluated against the test limit</div>						4	3.9	54.8	19.0	50.9	46.6	51.8	47.9	43.6					
7,8 - 7,8							8	5.5	50.0	19.0	44.5	40.6	47.0	41.5	37.6					
							10	6.2	48.5	19.0	42.3	38.6	45.5	39.3	35.6					
i							16	7.9	45.2	19.0	37.3	34.5	42.2	34.3	31.5					
							20	8.9	43.7	19.0	34.8	32.6	40.7	31.8	29.6					
							25	10.0	42.1	18.0	32.1	30.7	39.1	29.1	27.7					
							31	11.2	40.5	17.1	29.3	28.7	37.5	26.3	25.7					
							63	16.2	35.7	14.1	19.4	22.7	32.7	16.4	19.7					
							100	21.0	32.3	12.0	11.3	18.6	29.3	8.3	15.6					
							200	i	i	i	i	i	i	i	i					
							250	i	i	i	i	i	i	i	i					
							350	i	i	i	i	i	i	i	i					







### TIA 1005 Cat 5e Channel E3 (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	3.0	60.0	17.0	57.0	57.4	57.0	54.0	54.4					
4,5 - 4,5	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div>						4	4.5	53.5	17.0	49.1	45.4	50.5	46.1	42.4					
7,8 - 7,8							8	6.3	48.6	17.0	42.3	39.3	45.6	39.3	36.3					
							10	7.1	47.0	17.0	39.9	37.4	44.0	36.9	34.4					
i							16	9.1	43.6	17.0	34.5	33.3	40.6	31.5	30.3					
							20	10.2	42.0	17.0	31.8	31.4	39.0	28.8	28.4					
							25	11.4	40.3	16.0	28.9	29.4	37.3	25.9	26.4					
							31	12.9	38.7	15.1	25.9	27.5	35.7	22.9	24.5					
							63	18.6	33.6	12.1	15.0	21.5	30.6	12.0	18.5					
							100	24.0	30.1	10.0	6.1	17.4	27.1	3.1	14.4					
							200	i	i	i	i	i	i	i	i					
							250	i	i	i	i	i	i	i	i					
							350	i	i	i	i	i	i	i	i					

### TIA Cat 5 Ch (TSB-95)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
1,2 - 1,2	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	None	None	None	100	555	50	1	3.0	60.0	15.0	57.0	57.0			54.4					
4,5 - 4,5	<div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div>						4	4.5	50.6	15.0	46.1	45.0			42.4					
7,8 - 7,8							8	6.3	45.6	15.0	39.3	38.9			36.3					
							10	7.1	44.0	15.0	36.9	37.0			34.4					
i							16	9.1	40.6	15.0	31.6	32.9			30.3					
							20	10.2	39.0	15.0	28.8	31.0			28.4					
							25	11.4	37.4	14.0	26.0	29.0			26.4					
							31	12.9	35.7	13.1	22.9	27.1			24.5					
							63	18.6	30.6	10.1	12.0	21.1			18.5					
							100	24.0	27.1	8.0	3.1	17.0			14.4					
							200	i	i	i	i	i			i					
							250	i	i	i	i	i			i					
							350	i	i	i	i	i			i					







### TIA Cat 3 Channel

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair								0									
		$\Omega$	$\Omega$ or %								dB									
1,2 - 1,2	i			100	555	50	1	4.2	39.1		34.9									
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit						4	7.3	29.3		22									
4,5 - 4,5							8	10.2	24.3		14									
7,8 - 7,8							10	11.5	22.7		11.2									
i							16	14.9	19.2		4.3									
							20	i	i	dB	i									
							25	i	i		i									
							31	i	i		i									
							63	i	i		i									
							100	i	i		i									
							200	i	i		i									
							250	i	i		i									
							350	i	i		i									

### TIA TSB155 PL

Wire Map	Resistance			Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		$\Omega$	$\Omega$ or %																
1,2 - 1,2	i			90	498	44	1	3	65	19		64	62		61				
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 99 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 67 dB, not evaluated against the test limit						4	4	64	21		52	62		49				
4,5 - 4,5							8	5	59	21		46	57		43				
7,8 - 7,8							10	6	58	21		44	56		41				
							16	7	55	20		40	52		37				
i							20	8	53	20		38	51		35				
							25	9	52	19		36	49		33				
							31	10	50	19		34	48		31				
							63	14	45	16		28	43		25				
							100	19	42	14		24	39		21				
							200	27	37	11		18	34		15				
							250	31	35	10		16	33		13				
							350	38	31	7		13	29		10				
							450	44	26	6		11	24		8				
							500	47	23	6		10	23		7				

TIA TSB155 Ch

Wire Map	Resistance	None		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	i			100	555	50	1	3	65	19		63	62		60				
3,6 - 3,6	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>						4	4	63	19		51	61		48				
4,5 - 4,5							8	6	58	19		45	56		42				
7,8 - 7,8							10	6	57	19		43	54		40				
							16	8	53	18		39	51		36				
i							20	9	52	18		37	49		34				
							25	10	50	17		35	47		32				
							31	11	48	17		33	46		30				
							63	17	43	14		27	41		24				
							100	21	40	12		23	37		20				
							200	32	35	9		17	32		14				
							250	36	33	8		15	30		12				
							350	44	30	7		12	27		9				
							450	50	24	6		10	22		7				
							500	53	22	6		9	20		6				

## Copper Limit Lines - ISO

### ISO11801 PL Class II

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS		Loss											
1,2 - 1,2	6	None	None	None	147	9	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6							1	3	65.0	19.1	62.0	65.0	62.0	59.0	62.0				
4,5 - 4,5							4	3	65.0	21.0	62.0	65.0	62.0	59.0	62.0				
7,8 - 7,8							8	3	65.0	21.0	62.0	65.0	62.0	59.0	62.0				
							10	3	65.0	21.0	62.0	65.0	62.0	59.0	62.0				
							16	3	65.0	20.0	62.0	65.0	62.0	59.0	62.0				
							20	3	65.0	19.5	62.0	65.0	62.0	59.0	62.0				
							25	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							31.25	3	65.0	18.5	62.0	63.6	62.0	59.0	60.6				
							62.5	4.1	65.0	18.0	60.9	57.6	62.0	57.9	54.6				
							100	5.2	65.0	18.0	59.8	53.5	62.0	56.8	50.5				
							200	7.4	60.9	14.4	53.5	47.5	57.9	50.5	44.5				
							250	8.4	59.1	13.2	50.8	45.6	56.1	47.8	42.6				
							350	10	56.4	11.5	46.5	42.6	53.4	43.5	39.6				
							450	11.4	54.4	10.2	43.1	40.5	51.4	40.1	37.5				
							500	12	53.6	10.0	41.6	39.5	50.6	38.6	36.5				
							600	13.2	52.1	10.0	38.9	38.0	49.1	35.9	35.0				
							700	14.4	50.8	9.5	36.5	36.6	47.8	33.5	33.6				
							800	15.4	49.7	9.0	34.3	35.5	46.7	31.3	32.5				
							900	16.4	48.8	8.5	32.4	34.4	45.8	29.4	31.4				
							1000	17.4	47.9	8.0	30.6	33.5	44.9	27.6	30.5				
							1600	22.4	31.5	8.0	9.1	18.5	28.5	6.1	15.5				
							2000	25.3	27.7	6.2	2.4	14.8	24.7	-0.6	11.8				

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 70 dB, not evaluated against the test limit

## ISO11801 PL Class II (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	6	0.2 or 3.0	0.2 or 7.0	None	147	9	1	3	65.0	19.1	62.0	65.0	62.0	59.0	62.0	30.0	30.0	i	i
3,6 - 3,6							4	3	65.0	21.0	62.0	65.0	62.0	59.0	62.0	30.0	22.6	i	i
4,5 - 4,5							8	3	65.0	21.0	62.0	65.0	62.0	59.0	62.0	30.0	16.5	i	i
7,8 - 7,8							10	3	65.0	21.0	62.0	65.0	62.0	59.0	62.0	30.0	14.6	i	i
							16	3	65.0	20.0	62.0	65.0	62.0	59.0	62.0	29.5	10.5	i	i
i							20	3	65.0	19.5	62.0	65.0	62.0	59.0	62.0	27.9	8.6	i	i
							25	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0	26.2	6.6	i	i
							31.25	3	65.0	18.5	62.0	63.6	62.0	59.0	60.6	24.6	4.7	i	i
							62.5	4.1	65.0	18.0	60.9	57.6	62.0	57.9	54.6	19.5	3.0	i	i
							100	5.2	65.0	18.0	59.8	53.5	62.0	56.8	50.5	16.0	3.0	i	i
							200	7.4	60.9	14.4	53.5	47.5	57.9	50.5	44.5	10.9	3.0	i	i
							250	8.4	59.1	13.2	50.8	45.6	56.1	47.8	42.6	9.2	3.0	i	i
							350	10	56.4	11.5	46.5	42.6	53.4	43.5	39.6	6.8	3.0	i	i
							450	11.4	54.4	10.2	43.1	40.5	51.4	40.1	37.5	4.9	3.0	i	i
							500	12	53.6	10.0	41.6	39.5	50.6	38.6	36.5	4.1	3.0	i	i
							600	13.2	52.1	10.0	38.9	38.0	49.1	35.9	35.0	3.0	3.0	i	i
							700	14.4	50.8	9.5	36.5	36.6	47.8	33.5	33.6	3.0	3.0	i	i
							800	15.4	49.7	9.0	34.3	35.5	46.7	31.3	32.5	3.0	3.0	i	i
							900	16.4	48.8	8.5	32.4	34.4	45.8	29.4	31.4	3.0	3.0	i	i
							1000	17.4	47.9	8.0	30.6	33.5	44.9	27.6	30.5	3.0	3.0	i	i
							1600	22.4	31.5	8.0	9.1	18.5	28.5	6.1	15.5	3.0	3.0	i	i
							2000	25.3	27.7	6.2	2.4	14.8	24.7	-0.6	11.8	3.0	3.0	i	i

## ISO11801 PL Class II (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	6	0.15 or 3.0	0.1 or 7.0	None	147	9	1	3	65.0	19.1	62.0	65.0	62.0	59.0	62.0				
3,6 - 3,6							4	3	65.0	21.0	62.0	65.0	62.0	59.0	62.0				
4,5 - 4,5							8	3	65.0	21.0	62.0	65.0	62.0	59.0	62.0				
7,8 - 7,8							10	3	65.0	21.0	62.0	65.0	62.0	59.0	62.0				
							16	3	65.0	20.0	62.0	65.0	62.0	59.0	62.0				
							20	3	65.0	19.5	62.0	65.0	62.0	59.0	62.0				
							25	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							31.25	3	65.0	18.5	62.0	63.6	62.0	59.0	60.6				
							62.5	4.1	65.0	18.0	60.9	57.6	62.0	57.9	54.6				
							100	5.2	65.0	18.0	59.8	53.5	62.0	56.8	50.5				
							200	7.4	60.9	14.4	53.5	47.5	57.9	50.5	44.5				
							250	8.4	59.1	13.2	50.8	45.6	56.1	47.8	42.6				
							350	10	56.4	11.5	46.5	42.6	53.4	43.5	39.6				
							450	11.4	54.4	10.2	43.1	40.5	51.4	40.1	37.5				
							500	12	53.6	10.0	41.6	39.5	50.6	38.6	36.5				
							600	13.2	52.1	10.0	38.9	38.0	49.1	35.9	35.0				
							700	14.4	50.8	9.5	36.5	36.6	47.8	33.5	33.6				
							800	15.4	49.7	9.0	34.3	35.5	46.7	31.3	32.5				
							900	16.4	48.8	8.5	32.4	34.4	45.8	29.4	31.4				
							1000	17.4	47.9	8.0	30.6	33.5	44.9	27.6	30.5				
							1600	22.4	31.5	8.0	9.1	18.5	28.5	6.1	15.5				
							2000.0	25.3	27.7	6.2	2.4	14.8	24.7	-0.6	11.8				

# ISO11801 Channel Class II

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	6.4	0.2 or 3.0	0.1 or 7.0	None	169	10	1	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							4	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							8	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							10	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							16	3	65.0	18.0	62.0	65.0	62.0	59.0	62.0				
i							20	3	65.0	17.5	62.0	65.0	62.0	59.0	62.0				
							25	3.1	65.0	17.0	61.9	65.0	62.0	58.9	62.0				
							31.25	3.5	65.0	16.5	61.5	63.2	62.0	58.5	60.2				
							62.5	5	65.0	16.0	60.0	57.2	62.0	57.0	54.2				
							100	6.3	65.0	16.0	58.7	53.1	62.0	55.7	50.1				
							200	9	60.9	14.3	51.9	47.1	57.9	48.9	44.1				
							250	10.1	59.1	13.4	49.0	45.2	56.1	46.0	42.2				
							350	12.1	56.4	12.1	44.4	42.2	53.4	41.4	39.2				
							450	13.8	54.4	11.1	40.6	40.0	51.4	37.6	37.0				
							500	14.6	53.6	10.7	39.0	39.1	50.6	36.0	36.1				
							600	16	52.1	10.0	36.0	37.5	49.1	33.0	34.5				
							700	17.4	50.8	9.4	33.4	36.2	47.8	30.4	33.2				
							800	18.7	49.7	8.9	31.0	35.1	46.7	28.0	32.1				
							900	19.9	48.8	8.4	28.9	34.0	45.8	25.9	31.0				
							1000	21.1	47.9	8.0	26.8	33.1	44.9	23.8	30.1				
							1600	27.2	31.5	8.0	4.3	18.4	28.5	1.3	15.4				
							2000.0	30.7	27.7	6.2	-3.1	14.7	24.7	-6.1	11.7				

# ISO11801 Channel Class II (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	6.4	0.2 or 3.0	0.1 or 7.0	None	169	10	1	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0	30.0	30.0	i	i
							4	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0	30.0	22.6	i	i
							8	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0	30.0	16.5	i	i
							10	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0	30.0	14.6	i	i
							16	3	65.0	18.0	62.0	65.0	62.0	59.0	62.0	29.5	10.5	i	i
							20	3	65.0	17.5	62.0	65.0	62.0	59.0	62.0	27.9	8.6	i	i
							25	3.1	65.0	17.0	61.9	65.0	62.0	58.9	62.0	26.2	6.6	i	i
							31.25	3.5	65.0	16.5	61.5	63.2	62.0	58.5	60.2	24.6	4.7	i	i
							62.5	5	65.0	16.0	60.0	57.2	62.0	57.0	54.2	19.5	3.0	i	i
							100	6.3	65.0	16.0	58.7	53.1	62.0	55.7	50.1	16.0	3.0	i	i
							200	9	60.9	14.3	51.9	47.1	57.9	48.9	44.1	10.9	3.0	i	i
							250	10.1	59.1	13.4	49.0	45.2	56.1	46.0	42.2	9.2	3.0	i	i
							350	12.1	56.4	12.1	44.4	42.2	53.4	41.4	39.2	6.8	3.0	i	i
							450	13.8	54.4	11.1	40.6	40.0	51.4	37.6	37.0	4.9	3.0	i	i
							500	14.6	53.6	10.7	39.0	39.1	50.6	36.0	36.1	4.1	3.0	i	i
							600	16	52.1	10.0	36.0	37.5	49.1	33.0	34.5	3.0	3.0	i	i
							700	17.4	50.8	9.4	33.4	36.2	47.8	30.4	33.2	3.0	3.0	i	i
							800	18.7	49.7	8.9	31.0	35.1	46.7	28.0	32.1	3.0	3.0	i	i
							900	19.9	48.8	8.4	28.9	34.0	45.8	25.9	31.0	3.0	3.0	i	i
							1000	21.1	47.9	8.0	26.8	33.1	44.9	23.8	30.1	3.0	3.0	i	i
							1600	27.2	31.5	8.0	4.3	18.4	28.5	1.3	15.4	3.0	3.0	i	i
							2000.0	30.7	27.7	6.2	-3.1	14.7	24.7	-6.1	11.7	3.0	3.0	i	i

## ISO11801 Channel Class II (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %																
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	6.4	0.2 or 3.0	0.1 or 7.0	None	169	10	1	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							4	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							8	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							10	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							16	3	65.0	18.0	62.0	65.0	62.0	59.0	62.0				
i							20	3	65.0	17.5	62.0	65.0	62.0	59.0	62.0				
							25	3.1	65.0	17.0	61.9	65.0	62.0	58.9	62.0				
							31.25	3.5	65.0	16.5	61.5	63.2	62.0	58.5	60.2				
							62.5	5	65.0	16.0	60.0	57.2	62.0	57.0	54.2				
							100	6.3	65.0	16.0	58.7	53.1	62.0	55.7	50.1				
							200	9	60.9	14.3	51.9	47.1	57.9	48.9	44.1				
							250	10.1	59.1	13.4	49.0	45.2	56.1	46.0	42.2				
							350	12.1	56.4	12.1	44.4	42.2	53.4	41.4	39.2				
							450	13.8	54.4	11.1	40.6	40.0	51.4	37.6	37.0				
							500	14.6	53.6	10.7	39.0	39.1	50.6	36.0	36.1				
							600	16	52.1	10.0	36.0	37.5	49.1	33.0	34.5				
							700	17.4	50.8	9.4	33.4	36.2	47.8	30.4	33.2				
							800	18.7	49.7	8.9	31.0	35.1	46.7	28.0	32.1				
							900	19.9	48.8	8.4	28.9	34.0	45.8	25.9	31.0				
							1000	21.1	47.9	8.0	26.8	33.1	44.9	23.8	30.1				
							1600	27.2	31.5	8.0	4.3	18.4	28.5	1.3	15.4				
							2000.0	30.7	27.7	6.2	-3.1	14.7	24.7	-6.1	11.7				

## ISO11801 PL Class I

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %																
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	6	None	None	None	147	14	1	3	65.0	19.1	62.0	65.0	62.0	59.0	62.0				
							4	3	63.8	21.0	60.8	60.4	60.8	57.8	57.4				
							8	3	58.9	21.0	55.9	54.3	55.9	52.9	51.3				
							10	3	57.3	21.0	54.3	52.4	54.3	51.3	49.4				
							16	3	53.9	20.0	50.9	48.3	50.9	47.9	45.3				
i							20	3	52.3	19.5	49.3	46.4	49.3	46.3	43.4				
							25	3	50.7	19.0	47.7	44.4	47.7	44.7	41.4				
							31.25	3	49.1	18.5	46.1	42.5	46.1	43.1	39.5				
							62.5	4.1	44.0	18.0	39.9	36.5	41.0	36.9	33.5				
							100	5.2	40.5	18.0	35.3	32.4	37.5	32.3	29.4				
							200	7.4	35.3	14.4	27.9	26.4	32.3	24.9	23.4				
							250	8.4	33.6	13.2	25.3	24.4	30.6	22.3	21.4				
							350	10	31.1	11.5	21.1	21.5	28.1	18.1	18.5				
							450	11.4	29.2	10.2	17.8	19.3	26.2	14.8	16.3				
							500	12	28.4	10.0	16.4	18.4	25.4	13.4	15.4				
							600	13.3	26.2	10.0	12.9	16.8	23.2	9.9	13.8				
							700	14.5	24.3	9.5	9.8	15.5	21.3	6.8	12.5				
							800	15.6	22.5	9.0	6.9	14.3	19.5	3.9	11.3				
							900	16.7	21.0	8.5	4.3	13.3	18.0	1.3	10.3				
							1000	17.7	19.6	8.0	1.8	12.4	16.6	-1.2	9.4				
							1600	23.3	12.9	8.0	-10.3	8.3	9.9	-13.3	5.3				
							2000.0	26.5	9.6	6.2	-16.9	6.4	6.6	-19.9	3.4				

### ISO11801 PL Class I (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	6	0.2 or 3.0	0.2 or 7.0	None	147	14	1	3	65.0	19.1	62.0	65.0	62.0	59.0	62.0	30.0	30.0	i	i
<div>i</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available						4	3	63.8	21.0	60.8	60.4	60.8	57.8	57.4	30.0	22.6	i	i
	Not evaluated against the test limit						8	3	58.9	21.0	55.9	54.3	55.9	52.9	51.3	30.0	16.5	i	i
	If Insertion Loss < 3 dB, not evaluated against the test limit						10	3	57.3	21.0	54.3	52.4	54.3	51.3	49.4	30.0	14.6	i	i
	If Insertion Loss < 4 dB, not evaluated against the test limit						16	3	53.9	20.0	50.9	48.3	50.9	47.9	45.3	29.5	10.5	i	i
	If FEXT is < 70 dB, not evaluated against the test limit						20	3	52.3	19.5	49.3	46.4	49.3	46.3	43.4	27.9	8.6	i	i
	If PS FEXT is < 70 dB, not evaluated against the test limit						25	3	50.7	19.0	47.7	44.4	47.7	44.7	41.4	26.2	6.6	i	i
	TCL and ELTCTL values presented are based on screened pairs.						31.25	3	49.1	18.5	46.1	42.5	46.1	43.1	39.5	24.6	4.7	i	i
	If using unscreened pairs, the values will be greater by 10 dB.						62.5	4.1	44.0	18.0	39.9	36.5	41.0	36.9	33.5	19.5	3.0	i	i
							100	5.2	40.5	18.0	35.3	32.4	37.5	32.3	29.4	16.0	3.0	i	i
							200	7.4	35.3	14.4	27.9	26.4	32.3	24.9	23.4	10.9	3.0	i	i
							250	8.4	33.6	13.2	25.3	24.4	30.6	22.3	21.4	9.2	3.0	i	i
							350	10	31.1	11.5	21.1	21.5	28.1	18.1	18.5	6.8	3.0	i	i
							450	11.4	29.2	10.2	17.8	19.3	26.2	14.8	16.3	4.9	3.0	i	i
							500	12	28.4	10.0	16.4	18.4	25.4	13.4	15.4	4.1	3.0	i	i
							600	13.3	26.2	10.0	12.9	16.8	23.2	9.9	13.8	3.0	3.0	i	i
							700	14.5	24.3	9.5	9.8	15.5	21.3	6.8	12.5	3.0	3.0	i	i
							800	15.6	22.5	9.0	6.9	14.3	19.5	3.9	11.3	3.0	3.0	i	i
							900	16.7	21.0	8.5	4.3	13.3	18.0	1.3	10.3	3.0	3.0	i	i
							1000	17.7	19.6	8.0	1.8	12.4	16.6	-1.2	9.4	3.0	3.0	i	i
							1600	23.3	12.9	8.0	-10.3	8.3	9.9	-13.3	5.3	3.0	3.0	i	i
							2000.0	26.5	9.6	6.2	-16.9	6.4	6.6	-19.9	3.4	3	3	i	i

### ISO11801 PL Class I (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	6	0.2 or 3.0	0.2 or 7.0	None	147	14	1	3	65.0	19.1	62.0	65.0	62.0	59.0	62.0				
<div>i</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available						4	3	63.8	21.0	60.8	60.4	60.8	57.8	57.4				
	Not evaluated against the test limit						8	3	58.9	21.0	55.9	54.3	55.9	52.9	51.3				
	If Insertion Loss < 3 dB, not evaluated against the test limit						10	3	57.3	21.0	54.3	52.4	54.3	51.3	49.4				
	If Insertion Loss < 4 dB, not evaluated against the test limit						16	3	53.9	20.0	50.9	48.3	50.9	47.9	45.3				
	If FEXT is < 70 dB, not evaluated against the test limit						20	3	52.3	19.5	49.3	46.4	49.3	46.3	43.4				
	If PS FEXT is < 70 dB, not evaluated against the test limit						25	3	50.7	19.0	47.7	44.4	47.7	44.7	41.4				
							31.25	3	49.1	18.5	46.1	42.5	46.1	43.1	39.5				
							62.5	4.1	44.0	18.0	39.9	36.5	41.0	36.9	33.5				
							100	5.2	40.5	18.0	35.3	32.4	37.5	32.3	29.4				
							200	7.4	35.3	14.4	27.9	26.4	32.3	24.9	23.4				
							250	8.4	33.6	13.2	25.3	24.4	30.6	22.3	21.4				
							350	10	31.1	11.5	21.1	21.5	28.1	18.1	18.5				
							450	11.4	29.2	10.2	17.8	19.3	26.2	14.8	16.3				
							500	12	28.4	10.0	16.4	18.4	25.4	13.4	15.4				
							600	13.3	26.2	10.0	12.9	16.8	23.2	9.9	13.8				
							700	14.5	24.3	9.5	9.8	15.5	21.3	6.8	12.5				
							800	15.6	22.5	9.0	6.9	14.3	19.5	3.9	11.3				
							900	16.7	21.0	8.5	4.3	13.3	18.0	1.3	10.3				
							1000	17.7	19.6	8.0	1.8	12.4	16.6	-1.2	9.4				
							1600	23.3	12.9	8.0	-10.3	8.3	9.9	-13.3	5.3				
							2000	26.5	9.6	6.2	-16.9	6.4	6.6	-19.9	3.4				



**ISO11801 Channel Class I**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	6.4	None	None	None	169	16	1	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							4	3	63.8	19.0	60.8	59.9	60.8	57.8	56.9				
							8	3	58.9	19.0	55.9	53.9	55.9	52.9	50.9				
							10	3	57.3	19.0	54.3	52.0	54.3	51.3	49.0				
							16	3	53.9	18.0	50.9	47.9	50.9	47.9	44.9				
							20	3	52.3	17.5	49.3	45.9	49.3	46.3	42.9				
							25	3.2	50.7	17.0	47.5	44.0	47.7	44.5	41.0				
							31.25	3.6	49.1	16.5	45.5	42.1	46.1	42.5	39.1				
							62.5	5.1	44.0	16.0	38.9	36.0	41.0	35.9	33.0				
							100	6.5	40.5	16.0	34.0	32.0	37.5	31.0	29.0				
							200	9.3	35.3	14.3	26.1	25.9	32.3	23.1	22.9				
							250	10.4	33.6	13.4	23.2	24.0	30.6	20.2	21.0				
							350	12.4	31.1	12.1	18.7	21.1	28.1	15.7	18.1				
							450	14.2	29.2	11.1	15.0	18.9	26.2	12.0	15.9				
							500	15	28.4	10.7	13.4	18.0	25.4	10.4	15.0				
							600	16.5	26.2	10.0	9.6	16.4	23.2	6.6	13.4				
							700	18	24.3	9.4	6.3	15.1	21.3	3.3	12.1				
							800	19.4	22.5	8.9	3.2	13.9	19.5	0.2	10.9				
							900	20.7	21.0	8.4	0.3	12.9	18.0	-2.7	9.9				
							1000	22	19.6	8.0	-2.4	12.0	16.6	-5.4	9.0				
							1600	28.7	12.9	8.0	-15.8	7.9	9.9	-18.8	4.9				
							2000.0	32.7	9.6	6.2	-23.1	5.9	6.6	-26.1	2.9				

**ISO11801 Channel Class I (+All)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	6.4	0.2 or 3.0	0.2 or 7.0	None	169	16	1	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0	30.0	30.0	i	i
							4	3	63.8	19.0	60.8	59.9	60.8	57.8	56.9	30.0	22.6	i	i
							8	3	58.9	19.0	55.9	53.9	55.9	52.9	50.9	30.0	16.5	i	i
							10	3	57.3	19.0	54.3	52.0	54.3	51.3	49.0	30.0	14.6	i	i
							16	3	53.9	18.0	50.9	47.9	50.9	47.9	44.9	29.5	10.5	i	i
							20	3	52.3	17.5	49.3	45.9	49.3	46.3	42.9	27.9	8.6	i	i
							25	3.2	50.7	17.0	47.5	44.0	47.7	44.5	41.0	26.2	6.6	i	i
							31.25	3.6	49.1	16.5	45.5	42.1	46.1	42.5	39.1	24.6	4.7	i	i
							62.5	5.1	44.0	16.0	38.9	36.0	41.0	35.9	33.0	19.5	3.0	i	i
							100	6.5	40.5	16.0	34.0	32.0	37.5	31.0	29.0	16.0	3.0	i	i
							200	9.3	35.3	14.3	26.1	25.9	32.3	23.1	22.9	10.9	3.0	i	i
							250	10.4	33.6	13.4	23.2	24.0	30.6	20.2	21.0	9.2	3.0	i	i
							350	12.4	31.1	12.1	18.7	21.1	28.1	15.7	18.1	6.8	3.0	i	i
							450	14.2	29.2	11.1	15.0	18.9	26.2	12.0	15.9	4.9	3.0	i	i
							500	15	28.4	10.7	13.4	18.0	25.4	10.4	15.0	4.1	3.0	i	i
							600	16.5	26.2	10.0	9.6	16.4	23.2	6.6	13.4	3.0	3.0	i	i
							700	18	24.3	9.4	6.3	15.1	21.3	3.3	12.1	3.0	3.0	i	i
							800	19.4	22.5	8.9	3.2	13.9	19.5	0.2	10.9	3.0	3.0	i	i
							900	20.7	21.0	8.4	0.3	12.9	18.0	-2.7	9.9	3.0	3.0	i	i
							1000	22	19.6	8.0	-2.4	12.0	16.6	-5.4	9.0	3.0	3.0	i	i
							1600	28.7	12.9	8.0	-15.8	7.9	9.9	-18.8	4.9	3.0	3.0	i	i
							2000.0	32.7	9.6	6.2	-23.1	5.9	6.6	-26.1	2.9	3	3	i	i

**ISO11801 Channel Class I (+PoE)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	6.4	0.2 or 3.0	0.2 or 7.0	None	169	16	1	3	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							4	3	63.8	19.0	60.8	59.9	60.8	57.8	56.9				
							8	3	58.9	19.0	55.9	53.9	55.9	52.9	50.9				
							10	3	57.3	19.0	54.3	52.0	54.3	51.3	49.0				
							16	3	53.9	18.0	50.9	47.9	50.9	47.9	44.9				
							20	3	52.3	17.5	49.3	45.9	49.3	46.3	42.9				
							25	3.2	50.7	17.0	47.5	44.0	47.7	44.5	41.0				
							31.25	3.6	49.1	16.5	45.5	42.1	46.1	42.5	39.1				
							62.5	5.1	44.0	16.0	38.9	36.0	41.0	35.9	33.0				
							100	6.5	40.5	16.0	34.0	32.0	37.5	31.0	29.0				
							200	9.3	35.3	14.3	26.1	25.9	32.3	23.1	22.9				
							250	10.4	33.6	13.4	23.2	24.0	30.6	20.2	21.0				
							350	12.4	31.1	12.1	18.7	21.1	28.1	15.7	18.1				
							450	14.2	29.2	11.1	15.0	18.9	26.2	12.0	15.9				
							500	15	28.4	10.7	13.4	18.0	25.4	10.4	15.0				
							600	16.5	26.2	10.0	9.6	16.4	23.2	6.6	13.4				
							700	18	24.3	9.4	6.3	15.1	21.3	3.3	12.1				
							800	19.4	22.5	8.9	3.2	13.9	19.5	0.2	10.9				
							900	20.7	21.0	8.4	0.3	12.9	18.0	-2.7	9.9				
							1000	22	19.6	8.0	-2.4	12.0	16.6	-5.4	9.0				
							1600	28.7	12.9	8.0	-15.8	7.9	9.9	-18.8	4.9				
							2000.0	32.7	9.6	6.2	-23.1	5.9	6.6	-26.1	2.9				

**Copper Limit Lines - Class Fa**
**ISO11801 PL2 Class Fa**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	20.6	None	None	90	496	25	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							8	4.8	65.0	21.0	60.2	65.0	62.0	57.2	62.0				
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0				
							16	6.8	65.0	20.0	58.2	65.0	62.0	55.2	62.0				
							20	7.6	65.0	19.5	57.4	64.5	62.0	54.4	61.5				
							25	8.5	65.0	19.0	56.5	62.5	62.0	53.5	59.5				
							31.25	9.5	65.0	18.5	55.5	60.6	62.0	52.5	57.6				
							62.5	13.4	65.0	16.0	51.6	54.6	62.0	48.6	51.6				
							100	17.1	65.0	14.0	47.9	50.5	62.0	44.9	47.5				
							200	24.4	63.5	11.0	39.1	44.5	60.5	36.1	41.5				
							250	27.4	61.7	10.0	34.4	42.5	58.7	31.4	39.5				
							350	32.6	59.0	10.0	26.4	39.6	56.0	23.4	36.6				
							450	37.2	57.0	10.0	19.8	37.4	54.0	16.8	34.4				
							500	39.4	56.2	10.0	16.8	36.5	53.2	13.8	33.5				
							600	43.4	54.7	10.0	11.3	34.9	51.7	8.3	31.9				
							700	47.1	53.0	9.5	6.4	33.6	50.0	3.4	30.6				
							800	50.6	51.5	9.0	1.8	32.4	48.5	-1.2	29.4				
							900	53.9	50.3	8.5	-2.4	31.4	47.3	-5.4	28.4				
							1000	57.0	49.1	8.0	-6.4	30.5	46.1	-9.4	27.5				

Freq.	NEXT	PS NEXT
900	50.3	47.3
1000	46.3	43.3

## ISO11801 PL2 Class Fa (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	20.6	0.2 or 3.0	0.2 or 7.0	90	496	25	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i
3,6 - 3,6							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	18.0	i	i
4,5 - 4,5							8	4.8	65.0	21.0	60.2	65.0	62.0	57.2	62.0	39.5	11.9	i	i
7,8 - 7,8							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0	38.0	10.0	i	i
							16	6.8	65.0	20.0	58.2	65.0	62.0	55.2	62.0	34.9	5.9	i	i
i							20	7.6	65.0	19.5	57.4	64.5	62.0	54.4	61.5	33.5	4.0	i	i
							25	8.5	65.0	19.0	56.5	62.5	62.0	53.5	59.5	32.0	2.0	i	i
							31.25	9.5	65.0	18.5	55.5	60.6	62.0	52.5	57.6	30.4	i	i	i
							62.5	13.4	65.0	16.0	51.6	54.6	62.0	48.6	51.6	24.4	i	i	i
							100	17.1	65.0	14.0	47.9	50.5	62.0	44.9	47.5	20.3	i	i	i
i if shielded							200	24.4	63.5	11.0	39.1	44.5	60.5	36.1	41.5	14.3	i	i	i
							250	27.4	61.7	10.0	34.4	42.5	58.7	31.4	39.5	12.3	i	i	i
							350	32.6	59.0	10.0	26.4	39.6	56.0	23.4	36.6	i	i	i	i
							450	37.2	57.0	10.0	19.8	37.4	54.0	16.8	34.4	i	i	i	i
							500	39.4	56.2	10.0	16.8	36.5	53.2	13.8	33.5	i	i	i	i
							600	43.4	54.7	10.0	11.3	34.9	51.7	8.3	31.9	i	i	i	i
							700	47.1	53.0	9.5	6.4	33.6	50.0	3.4	30.6	i	i	i	i
							800	50.6	51.5	9.0	1.8	32.4	48.5	-1.2	29.4	i	i	i	i
							900	53.9	50.3	8.5	-2.4	31.4	47.3	-5.4	28.4	i	i	i	i
							1000	57.0	49.1	8.0	-6.4	30.5	46.1	-9.4	27.5	i	i	i	i

Informational measurement only, no limit available

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

Informational measurement only if using shielded cable

If PS FEXT is < 70 dB, not evaluated against the test limit

If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	50.3	47.3
1000	46.3	43.3

## ISO11801 PL2 Class Fa (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	20.6	0.2 or 3.0	0.2 or 7.0	90	496	25	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
3,6 - 3,6							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
4,5 - 4,5							8	4.8	65.0	21.0	60.2	65.0	62.0	57.2	62.0				
7,8 - 7,8							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0				
							16	6.8	65.0	20.0	58.2	65.0	62.0	55.2	62.0				
i							20	7.6	65.0	19.5	57.4	64.5	62.0	54.4	61.5				
							25	8.5	65.0	19.0	56.5	62.5	62.0	53.5	59.5				
							31.25	9.5	65.0	18.5	55.5	60.6	62.0	52.5	57.6				
							62.5	13.4	65.0	16.0	51.6	54.6	62.0	48.6	51.6				
							100	17.1	65.0	14.0	47.9	50.5	62.0	44.9	47.5				
i if shielded							200	24.4	63.5	11.0	39.1	44.5	60.5	36.1	41.5				
							250	27.4	61.7	10.0	34.4	42.5	58.7	31.4	39.5				
							350	32.6	59.0	10.0	26.4	39.6	56.0	23.4	36.6				
							450	37.2	57.0	10.0	19.8	37.4	54.0	16.8	34.4				
							500	39.4	56.2	10.0	16.8	36.5	53.2	13.8	33.5				
							600	43.4	54.7	10.0	11.3	34.9	51.7	8.3	31.9				
							700	47.1	53.0	9.5	6.4	33.6	50.0	3.4	30.6				
							800	50.6	51.5	9.0	1.8	32.4	48.5	-1.2	29.4				
							900	53.9	50.3	8.5	-2.4	31.4	47.3	-5.4	28.4				
							1000	57.0	49.1	8.0	-6.4	30.5	46.1	-9.4	27.5				

Informational measurement only, no limit available

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

Informational measurement only if using shielded cable

If PS FEXT is < 70 dB, not evaluated against the test limit

If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	50.3	47.3
1000	46.3	43.3

## ISO11801 PL3 Class Fa

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	None	None	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							8	4.9	65.0	21.0	60.1	65.0	62.0	57.1	62.0				
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0				
							16	6.8	65.0	20.0	58.2	64.7	62.0	55.2	61.7				
							20	7.7	65.0	19.5	57.3	62.8	62.0	54.3	59.8				
							25	8.6	65.0	19.0	56.4	60.8	62.0	53.4	57.8				
							31.25	9.6	65.0	18.5	55.4	58.9	62.0	52.4	55.9				
							62.5	13.6	65.0	16.0	51.4	52.9	62.0	48.4	49.9				
							100	17.3	65.0	14.0	47.7	48.8	62.0	44.7	45.8				
							200	24.7	63.5	11.0	38.9	42.8	60.5	35.9	39.8				
							250	27.7	61.7	10.0	34.0	40.8	58.7	31.0	37.8				
							350	33.0	59.0	10.0	26.0	37.9	56.0	23.0	34.9				
							450	37.7	57.0	10.0	19.3	35.7	54.0	16.3	32.7				
							500	39.8	56.2	10.0	16.3	34.8	53.2	13.3	31.8				
							600	43.9	54.7	10.0	10.8	33.2	51.7	7.8	30.2				
							700	47.6	52.6	9.5	5.9	31.9	49.6	2.9	28.9				
							800	51.1	50.9	9.0	1.3	30.7	47.9	-1.7	27.7				
							900	54.5	49.3	8.5	-3.0	29.7	46.3	-6.0	26.7				
							1000	57.6	47.9	8.0	-7.0	28.8	44.9	-10.0	25.8				

Not evaluated against the test limit
If Insertion Loss < 3 dB, not evaluated against the test limit
If Insertion Loss < 4 dB, not evaluated against the test limit
If FEXT is < 70 dB, not evaluated against the test limit
If PS FEXT is < 70 dB, not evaluated against the test limit

## ISO11801 PL3 Class Fa (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	0.2 or 3.0	0.2 or 7.0	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	18.0	i	i
							8	4.9	65.0	21.0	60.1	65.0	62.0	57.1	62.0	39.5	11.9	i	i
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0	38.0	10.0	i	i
							16	6.8	65.0	20.0	58.2	64.7	62.0	55.2	61.7	34.9	5.9	i	i
							20	7.7	65.0	19.5	57.3	62.8	62.0	54.3	59.8	33.5	4.0	i	i
							25	8.6	65.0	19.0	56.4	60.8	62.0	53.4	57.8	32.0	2.0	i	i
							31.25	9.6	65.0	18.5	55.4	58.9	62.0	52.4	55.9	30.4	i	i	i
							62.5	13.6	65.0	16.0	51.4	52.9	62.0	48.4	49.9	24.4	i	i	i
							100	17.3	65.0	14.0	47.7	48.8	62.0	44.7	45.8	20.3	i	i	i
							200	24.7	63.5	11.0	38.9	42.8	60.5	35.9	39.8	14.3	i	i	i
							250	27.7	61.7	10.0	34.0	40.8	58.7	31.0	37.8	12.3	i	i	i
							350	33.0	59.0	10.0	26.0	37.9	56.0	23.0	34.9	i	i	i	i
							450	37.7	57.0	10.0	19.3	35.7	54.0	16.3	32.7	i	i	i	i
							500	39.8	56.2	10.0	16.3	34.8	53.2	13.3	31.8	i	i	i	i
							600	43.9	54.7	10.0	10.8	33.2	51.7	7.8	30.2	i	i	i	i
							700	47.6	52.6	9.5	5.9	31.9	49.6	2.9	28.9	i	i	i	i
							800	51.1	50.9	9.0	1.3	30.7	47.9	-1.7	27.7	i	i	i	i
							900	54.5	49.3	8.5	-3.0	29.7	46.3	-6.0	26.7	i	i	i	i
							1000	57.6	47.9	8.0	-7.0	28.8	44.9	-10.0	25.8	i	i	i	i

i

Informational measurement only, no limit available
Not evaluated against the test limit
If Insertion Loss < 3 dB, not evaluated against the test limit
If Insertion Loss < 4 dB, not evaluated against the test limit
If FEXT is < 70 dB, not evaluated against the test limit
If PS FEXT is < 70 dB, not evaluated against the test limit

i if shielded

Informational measurement only if using shielded cable
If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	48.8	45.8
1000	45.1	42.1

# ISO11801 PL3 Class Fa (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
1,2 - 1,2	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	21	0.2 or 3.0	0.2 or 7.0	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
4,5 - 4,5							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
7,8 - 7,8							8	4.9	65.0	21.0	60.1	65.0	62.0	57.1	62.0				
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0				
							16	6.8	65.0	20.0	58.2	64.7	62.0	55.2	61.7				
							20	7.7	65.0	19.5	57.3	62.8	62.0	54.3	59.8				
							25	8.6	65.0	19.0	56.4	60.8	62.0	53.4	57.8				
							31.25	9.6	65.0	18.5	55.4	58.9	62.0	52.4	55.9				
							62.5	13.6	65.0	16.0	51.4	52.9	62.0	48.4	49.9				
							100	17.3	65.0	14.0	47.7	48.8	62.0	44.7	45.8				
							200	24.7	63.5	11.0	38.9	42.8	60.5	35.9	39.8				
							250	27.7	61.7	10.0	34.0	40.8	58.7	31.0	37.8				
							350	33.0	59.0	10.0	26.0	37.9	56.0	23.0	34.9				
							450	37.7	57.0	10.0	19.3	35.7	54.0	16.3	32.7				
							500	39.8	56.2	10.0	16.3	34.8	53.2	13.3	31.8				
							600	43.9	54.7	10.0	10.8	33.2	51.7	7.8	30.2				
							700	47.6	52.6	9.5	5.9	31.9	49.6	2.9	28.9				
							800	51.1	50.9	9.0	1.3	30.7	47.9	-1.7	27.7				
							900	54.5	49.3	8.5	-3.0	29.7	46.3	-6.0	26.7				
							1000	57.6	47.9	8.0	-7.0	28.8	44.9	-10.0	25.8				

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 70 dB, not evaluated against the test limit

If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	48.8	45.8
1000	45.1	42.1

# ISO11801 Channel Class Fa

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
1,2 - 1,2	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	25	None	None	100	555	30	1	4.0	65.0	19.0	61.0	65.0	62.0	58.0	62.0				
4,5 - 4,5							4	4.1	65.0	19.0	60.9	65.0	62.0	57.9	62.0				
7,8 - 7,8							8	5.7	65.0	19.0	59.3	65.0	62.0	56.3	62.0				
							10	6.4	65.0	19.0	58.6	65.0	62.0	55.6	62.0				
							16	8.0	65.0	18.0	57.0	63.3	62.0	54.0	60.3				
							20	9.0	65.0	17.5	56.0	61.4	62.0	53.0	58.4				
							25	10.0	65.0	17.0	55.0	59.4	62.0	52.0	56.4				
							31.25	11.2	65.0	16.5	53.8	57.5	62.0	50.8	54.5				
							62.5	15.9	65.0	14.0	49.1	51.5	62.0	46.1	48.5				
							100	20.3	65.0	12.0	44.7	47.4	62.0	41.7	44.4				
							200	28.9	60.9	9.0	32.0	41.4	57.9	29.0	38.4				
							250	32.5	59.1	8.0	26.7	39.4	56.1	23.7	36.4				
							350	38.7	56.4	8.0	17.7	36.5	53.4	14.7	33.5				
							450	44.2	54.4	8.0	10.2	34.3	51.4	7.2	31.3				
							500	46.7	53.6	8.0	6.9	33.4	50.6	3.9	30.4				
							600	51.4	52.1	8.0	0.7	31.8	49.1	-2.3	28.8				
							700	55.8	50.8	7.5	-5.0	30.5	47.8	-8.0	27.5				
							800	59.9	49.7	7.0	-10.2	29.3	46.7	-13.2	26.3				
							900	63.8	48.8	6.5	-15.1	28.3	45.8	-18.1	25.3				
							1000	67.6	47.9	6.0	-19.6	27.4	44.9	-22.6	24.4				

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	48.8	45.8
1000	45.1	42.1

**ISO11801 Channel Class Fa (+All)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25	0.2 or 3.0	0.2 or 7.0	100	555	30	1	4.0	65.0	19.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i
							4	4.1	65.0	19.0	60.9	65.0	62.0	57.9	62.0	40.0	18.0	i	i
							8	5.7	65.0	19.0	59.3	65.0	62.0	56.3	62.0	39.5	11.9	i	i
							10	6.4	65.0	19.0	58.6	65.0	62.0	55.6	62.0	38.0	10.0	i	i
							16	8.0	65.0	18.0	57.0	63.3	62.0	54.0	60.3	34.9	5.9	i	i
							20	9.0	65.0	17.5	56.0	61.4	62.0	53.0	58.4	33.5	4.0	i	i
							25	10.0	65.0	17.0	55.0	59.4	62.0	52.0	56.4	32.0	2.0	i	i
							31.25	11.2	65.0	16.5	53.8	57.5	62.0	50.8	54.5	30.4	i	i	i
							62.5	15.9	65.0	14.0	49.1	51.5	62.0	46.1	48.5	24.4	i	i	i
							100	20.3	65.0	12.0	44.7	47.4	62.0	41.7	44.4	20.3	i	i	i
							200	28.9	60.9	9.0	32.0	41.4	57.9	29.0	38.4	14.3	i	i	i
							250	32.5	59.1	8.0	26.7	39.4	56.1	23.7	36.4	12.3	i	i	i
							350	38.7	56.4	8.0	17.7	36.5	53.4	14.7	33.5	i	i	i	i
							450	44.2	54.4	8.0	10.2	34.3	51.4	7.2	31.3	i	i	i	i
							500	46.7	53.6	8.0	6.9	33.4	50.6	3.9	30.4	i	i	i	i
							600	51.4	52.1	8.0	0.7	31.8	49.1	-2.3	28.8	i	i	i	i
							700	55.8	50.8	7.5	-5.0	30.5	47.8	-8.0	27.5	i	i	i	i
							800	59.9	49.7	7.0	-10.2	29.3	46.7	-13.2	26.3	i	i	i	i
							900	63.8	48.8	6.5	-15.1	28.3	45.8	-18.1	25.3	i	i	i	i
							1000	67.6	47.9	6.0	-19.6	27.4	44.9	-22.6	24.4	i	i	i	i

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

Informational measurement only if using shielded cable

If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	48.8	45.8
1000	45.1	42.1

**ISO11801 Channel Class Fa (+PoE)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25	0.2 or 3.0	0.2 or 7.0	100	555	30	1	4.0	65.0	19.0	61.0	65.0	62.0	58.0	62.0				
							4	4.1	65.0	19.0	60.9	65.0	62.0	57.9	62.0				
							8	5.7	65.0	19.0	59.3	65.0	62.0	56.3	62.0				
							10	6.4	65.0	19.0	58.6	65.0	62.0	55.6	62.0				
							16	8.0	65.0	18.0	57.0	63.3	62.0	54.0	60.3				
							20	9.0	65.0	17.5	56.0	61.4	62.0	53.0	58.4				
							25	10.0	65.0	17.0	55.0	59.4	62.0	52.0	56.4				
							31.25	11.2	65.0	16.5	53.8	57.5	62.0	50.8	54.5				
							62.5	15.9	65.0	14.0	49.1	51.5	62.0	46.1	48.5				
							100	20.3	65.0	12.0	44.7	47.4	62.0	41.7	44.4				
							200	28.9	60.9	9.0	32.0	41.4	57.9	29.0	38.4				
							250	32.5	59.1	8.0	26.7	39.4	56.1	23.7	36.4				
							350	38.7	56.4	8.0	17.7	36.5	53.4	14.7	33.5				
							450	44.2	54.4	8.0	10.2	34.3	51.4	7.2	31.3				
							500	46.7	53.6	8.0	6.9	33.4	50.6	3.9	30.4				
							600	51.4	52.1	8.0	0.7	31.8	49.1	-2.3	28.8				
							700	55.8	50.8	7.5	-5.0	30.5	47.8	-8.0	27.5				
							800	59.9	49.7	7.0	-10.2	29.3	46.7	-13.2	26.3				
							900	63.8	48.8	6.5	-15.1	28.3	45.8	-18.1	25.3				
							1000	67.6	47.9	6.0	-19.6	27.4	44.9	-22.6	24.4				

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	48.8	45.8
1000	45.1	42.1

**ISO11801 PL2 Class Fa (600 MHz)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	20.6	None	None	90	496	25	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							8	4.8	65.0	21.0	60.2	65.0	62.0	57.2	62.0				
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0				
							16	6.8	65.0	20.0	58.2	65.0	62.0	55.2	62.0				
							20	7.6	65.0	19.5	57.4	64.5	62.0	54.4	61.5				
							25	8.5	65.0	19.0	56.5	62.5	62.0	53.5	59.5				
							31.25	9.5	65.0	18.5	55.5	60.6	62.0	52.5	57.6				
							62.5	13.4	65.0	16.0	51.6	54.6	62.0	48.6	51.6				
							100	17.1	65.0	14.0	47.9	50.5	62.0	44.9	47.5				
							200	24.4	63.5	11.0	39.1	44.5	60.5	36.1	41.5				
							250	27.4	61.7	10.0	34.4	42.5	58.7	31.4	39.5				
							350	32.6	59.0	10.0	26.4	39.6	56.0	23.4	36.6				
							450	37.2	57.0	10.0	19.8	37.4	54.0	16.8	34.4				
							500	39.4	56.2	10.0	16.8	36.5	53.2	13.8	33.5				
							600	43.4	54.7	10.0	11.3	34.9	51.7	8.3	31.9				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				

Not evaluated against the test limit
If Insertion Loss < 3 dB, not evaluated against the test limit
If Insertion Loss < 4 dB, not evaluated against the test limit
If FEXT is < 70 dB, not evaluated against the test limit
If PS FEXT is < 70 dB, not evaluated against the test limit

**ISO11801 PL2 Class Fa (600 MHz) (+All)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	20.6	0.2 or 3.0	0.2 or 7.0	90	496	25	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	18.0	i	i
							8	4.8	65.0	21.0	60.2	65.0	62.0	57.2	62.0	39.5	11.9	i	i
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0	38.0	10.0	i	i
							16	6.8	65.0	20.0	58.2	65.0	62.0	55.2	62.0	34.9	5.9	i	i
							20	7.6	65.0	19.5	57.4	64.5	62.0	54.4	61.5	33.5	4.0	i	i
							25	8.5	65.0	19.0	56.5	62.5	62.0	53.5	59.5	32.0	2.0	i	i
							31.25	9.5	65.0	18.5	55.5	60.6	62.0	52.5	57.6	30.4	i	i	i
							62.5	13.4	65.0	16.0	51.6	54.6	62.0	48.6	51.6	24.4	i	i	i
							100	17.1	65.0	14.0	47.9	50.5	62.0	44.9	47.5	20.3	i	i	i
							200	24.4	63.5	11.0	39.1	44.5	60.5	36.1	41.5	14.3	i	i	i
							250	27.4	61.7	10.0	34.4	42.5	58.7	31.4	39.5	12.3	i	i	i
							350	32.6	59.0	10.0	26.4	39.6	56.0	23.4	36.6	i	i	i	i
							450	37.2	57.0	10.0	19.8	37.4	54.0	16.8	34.4	i	i	i	i
							500	39.4	56.2	10.0	16.8	36.5	53.2	13.8	33.5	i	i	i	i
							600	43.4	54.7	10.0	11.3	34.9	51.7	8.3	31.9	i	i	i	i
							700	i	i	i	i	i	i	i	i	i	i	i	i
							800	i	i	i	i	i	i	i	i	i	i	i	i
							900	i	i	i	i	i	i	i	i	i	i	i	i
							1000	i	i	i	i	i	i	i	i	i	i	i	i

Not evaluated against the test limit
If Insertion Loss < 3 dB, not evaluated against the test limit
If Insertion Loss < 4 dB, not evaluated against the test limit
If FEXT is < 70 dB, not evaluated against the test limit
If PS FEXT is < 70 dB, not evaluated against the test limit

i if shielded

Informational measurement only if using shielded cable

**ISO11801 PL2 Class Fa (600 MHz) (+PoE)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	20.6	0.2 or 3.0	0.2 or 7.0	90	496	25	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
3,6 - 3,6							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
4,5 - 4,5							8	4.8	65.0	21.0	60.2	65.0	62.0	57.2	62.0				
7,8 - 7,8							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0				
							16	6.8	65.0	20.0	58.2	65.0	62.0	55.2	62.0				
i							20	7.6	65.0	19.5	57.4	64.5	62.0	54.4	61.5				
							25	8.5	65.0	19.0	56.5	62.5	62.0	53.5	59.5				
							31.25	9.5	65.0	18.5	55.5	60.6	62.0	52.5	57.6				
							62.5	13.4	65.0	16.0	51.6	54.6	62.0	48.6	51.6				
							100	17.1	65.0	14.0	47.9	50.5	62.0	44.9	47.5				
							200	24.4	63.5	11.0	39.1	44.5	60.5	36.1	41.5				
							250	27.4	61.7	10.0	34.4	42.5	58.7	31.4	39.5				
							350	32.6	59.0	10.0	26.4	39.6	56.0	23.4	36.6				
							450	37.2	57.0	10.0	19.8	37.4	54.0	16.8	34.4				
							500	39.4	56.2	10.0	16.8	36.5	53.2	13.8	33.5				
							600	43.4	54.7	10.0	11.3	34.9	51.7	8.3	31.9				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				

**ISO11801 PL3 Class Fa (600 MHz)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	None	None	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
3,6 - 3,6							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
4,5 - 4,5							8	4.9	65.0	21.0	60.1	65.0	62.0	57.1	62.0				
7,8 - 7,8							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0				
							16	6.8	65.0	20.0	58.2	64.7	62.0	55.2	61.7				
i							20	7.7	65.0	19.5	57.3	62.8	62.0	54.3	59.8				
							25	8.6	65.0	19.0	56.4	60.8	62.0	53.4	57.8				
							31.25	9.6	65.0	18.5	55.4	58.9	62.0	52.4	55.9				
							62.5	13.6	65.0	16.0	51.4	52.9	62.0	48.4	49.9				
							100	17.3	65.0	14.0	47.7	48.8	62.0	44.7	45.8				
							200	24.7	63.5	11.0	38.9	42.8	60.5	35.9	39.8				
							250	27.7	61.7	10.0	34.0	40.8	58.7	31.0	37.8				
							350	33.0	59.0	10.0	26.0	37.9	56.0	23.0	34.9				
							450	37.7	57.0	10.0	19.3	35.7	54.0	16.3	32.7				
							500	39.8	56.2	10.0	16.3	34.8	53.2	13.3	31.8				
							600	43.9	54.7	10.0	10.8	33.2	51.7	7.8	30.2				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				



**ISO11801 PL3 Class Fa (600 MHz) (+All)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	0.2 or 3.0	0.2 or 7.0	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	18.0	i	i
							8	4.9	65.0	21.0	60.1	65.0	62.0	57.1	62.0	39.5	11.9	i	i
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0	38.0	10.0	i	i
							16	6.8	65.0	20.0	58.2	64.7	62.0	55.2	61.7	34.9	5.9	i	i
							20	7.7	65.0	19.5	57.3	62.8	62.0	54.3	59.8	33.5	4.0	i	i
							25	8.6	65.0	19.0	56.4	60.8	62.0	53.4	57.8	32.0	2.0	i	i
							31.25	9.6	65.0	18.5	55.4	58.9	62.0	52.4	55.9	30.4	i	i	i
							62.5	13.6	65.0	16.0	51.4	52.9	62.0	48.4	49.9	24.4	i	i	i
							100	17.3	65.0	14.0	47.7	48.8	62.0	44.7	45.8	20.3	i	i	i
							200	24.7	63.5	11.0	38.9	42.8	60.5	35.9	39.8	14.3	i	i	i
							250	27.7	61.7	10.0	34.0	40.8	58.7	31.0	37.8	12.3	i	i	i
							350	33.0	59.0	10.0	26.0	37.9	56.0	23.0	34.9	i	i	i	i
							450	37.7	57.0	10.0	19.3	35.7	54.0	16.3	32.7	i	i	i	i
							500	39.8	56.2	10.0	16.3	34.8	53.2	13.3	31.8	i	i	i	i
							600	43.9	54.7	10.0	10.8	33.2	51.7	7.8	30.2	i	i	i	i
							700	i	i	i	i	i	i	i	i	i	i	i	i
							800	i	i	i	i	i	i	i	i	i	i	i	i
							900	i	i	i	i	i	i	i	i	i	i	i	i
							1000	i	i	i	i	i	i	i	i	i	i	i	i

**ISO11801 PL3 Class Fa (600 MHz) (+PoE)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	0.2 or 3.0	0.2 or 7.0	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							8	4.9	65.0	21.0	60.1	65.0	62.0	57.1	62.0				
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0				
							16	6.8	65.0	20.0	58.2	64.7	62.0	55.2	61.7				
							20	7.7	65.0	19.5	57.3	62.8	62.0	54.3	59.8				
							25	8.6	65.0	19.0	56.4	60.8	62.0	53.4	57.8				
							31.25	9.6	65.0	18.5	55.4	58.9	62.0	52.4	55.9				
							62.5	13.6	65.0	16.0	51.4	52.9	62.0	48.4	49.9				
							100	17.3	65.0	14.0	47.7	48.8	62.0	44.7	45.8				
							200	24.7	63.5	11.0	38.9	42.8	60.5	35.9	39.8				
							250	27.7	61.7	10.0	34.0	40.8	58.7	31.0	37.8				
							350	33.0	59.0	10.0	26.0	37.9	56.0	23.0	34.9				
							450	37.7	57.0	10.0	19.3	35.7	54.0	16.3	32.7				
							500	39.8	56.2	10.0	16.3	34.8	53.2	13.3	31.8				
							600	43.9	54.7	10.0	10.8	33.2	51.7	7.8	30.2				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				



**ISO11801 Channel Class Fa (600 MHz) (+PoE)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	30	1	4.0	65.0	19.0	61.0	65.0	62.0	58.0	62.0				
3,6 - 3,6							4	4.1	65.0	19.0	60.9	65.0	62.0	57.9	62.0				
4,5 - 4,5							8	5.7	65.0	19.0	59.3	65.0	62.0	56.3	62.0				
7,8 - 7,8							10	6.4	65.0	19.0	58.6	65.0	62.0	55.6	62.0				
							16	8.0	65.0	18.0	57.0	63.3	62.0	54.0	60.3				
i							20	9.0	65.0	17.5	56.0	61.4	62.0	53.0	58.4				
							25	10.0	65.0	17.0	55.0	59.4	62.0	52.0	56.4				
							31.25	11.2	65.0	16.5	53.8	57.5	62.0	50.8	54.5				
							62.5	15.9	65.0	14.0	49.1	51.5	62.0	46.1	48.5				
							100	20.3	65.0	12.0	44.7	47.4	62.0	41.7	44.4				
							200	28.9	60.9	9.0	32.0	41.4	57.9	29.0	38.4				
							250	32.5	59.1	8.0	26.7	39.4	56.1	23.7	36.4				
							350	38.7	56.4	8.0	17.7	36.5	53.4	14.7	33.5				
							450	44.2	54.4	8.0	10.2	34.3	51.4	7.2	31.3				
							500	46.7	53.6	8.0	6.9	33.4	50.6	3.9	30.4				
							600	51.4	52.1	8.0	0.7	31.8	49.1	-2.3	28.8				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				

**ISO11801 PL2 Class Fa (+All\_UTP)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	20.6	0.2 or 3.0	0.2 or 7.0	90	496	25	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i
3,6 - 3,6							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	18.0	i	i
4,5 - 4,5							8	4.8	65.0	21.0	60.2	65.0	62.0	57.2	62.0	39.5	11.9	i	i
7,8 - 7,8							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0	38.0	10.0	i	i
							16	6.8	65.0	20.0	58.2	65.0	62.0	55.2	62.0	34.9	5.9	i	i
i							20	7.6	65.0	19.5	57.4	64.5	62.0	54.4	61.5	33.5	4.0	i	i
							25	8.5	65.0	19.0	56.5	62.5	62.0	53.5	59.5	32.0	2.0	i	i
							31.25	9.5	65.0	18.5	55.5	60.6	62.0	52.5	57.6	30.4	i	i	i
							62.5	13.4	65.0	16.0	51.6	54.6	62.0	48.6	51.6	24.4	i	i	i
							100	17.1	65.0	14.0	47.9	50.5	62.0	44.9	47.5	20.3	i	i	i
							200	24.4	63.5	11.0	39.1	44.5	60.5	36.1	41.5	14.3	i	i	i
							250	27.4	61.7	10.0	34.4	42.5	58.7	31.4	39.5	12.3	i	i	i
							350	32.6	59.0	10.0	26.4	39.6	56.0	23.4	36.6	i	i	i	i
							450	37.2	57.0	10.0	19.8	37.4	54.0	16.8	34.4	i	i	i	i
							500	39.4	56.2	10.0	16.8	36.5	53.2	13.8	33.5	i	i	i	i
							600	43.4	54.7	10.0	11.3	34.9	51.7	8.3	31.9	i	i	i	i
							700	47.1	53.0	9.5	6.4	33.6	50.0	3.4	30.6	i	i	i	i
							800	50.6	51.5	9.0	1.8	32.4	48.5	-1.2	29.4	i	i	i	i
							900	53.9	50.3	8.5	-2.4	31.4	47.3	-5.4	28.4	i	i	i	i
							1000	57.0	49.1	8.0	-6.4	30.5	46.1	-9.4	27.5	i	i	i	i

Freq.	NEXT	PS NEXT
900	48.8	45.8
1000	45.1	42.1



**ISO11801 PL3 Class Fa (600 MHz) (+All\_UTP)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.2 or 3.0	0.2 or 7.0	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit						4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i
4,5 - 4,5							8	4.9	65.0	21.0	60.1	65.0	62.0	57.1	62.0	39.5	11.9	i	i
7,8 - 7,8							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0	38.0	10.0	i	i
							16	6.8	65.0	20.0	58.2	64.7	62.0	55.2	61.7	34.9	5.9	i	i
i							20	7.7	65.0	19.5	57.3	62.8	62.0	54.3	59.8	33.5	4.0	i	i
							25	8.6	65.0	19.0	56.4	60.8	62.0	53.4	57.8	32.0	2.0	i	i
							31.25	9.6	65.0	18.5	55.4	58.9	62.0	52.4	55.9	30.4	i	i	i
							62.5	13.6	65.0	16.0	51.4	52.9	62.0	48.4	49.9	24.4	i	i	i
							100	17.3	65.0	14.0	47.7	48.8	62.0	44.7	45.8	20.3	i	i	i
							200	24.7	63.5	11.0	38.9	42.8	60.5	35.9	39.8	14.3	i	i	i
							250	27.7	61.7	10.0	34.0	40.8	58.7	31.0	37.8	12.3	i	i	i
							350	33.0	59.0	10.0	26.0	37.9	56.0	23.0	34.9	i	i	i	i
							450	37.7	57.0	10.0	19.3	35.7	54.0	16.3	32.7	i	i	i	i
							500	39.8	56.2	10.0	16.3	34.8	53.2	13.3	31.8	i	i	i	i
							600	43.9	54.7	10.0	10.8	33.2	51.7	7.8	30.2	i	i	i	i
							700	i	i	i	i	i	i	i	i	i	i	i	i
							800	i	i	i	i	i	i	i	i	i	i	i	i
							900	i	i	i	i	i	i	i	i	i	i	i	i
							1000	i	i	i	i	i	i	i	i	i	i	i	i

**ISO11801 Channel Class Fa (+All\_UTP)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	30	1	4.0	65.0	19.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit						4	4.1	65.0	19.0	60.9	65.0	62.0	57.9	62.0	40.0	18.0	i	i
4,5 - 4,5							8	5.7	65.0	19.0	59.3	65.0	62.0	56.3	62.0	39.5	11.9	i	i
7,8 - 7,8							10	6.4	65.0	19.0	58.6	65.0	62.0	55.6	62.0	38.0	10.0	i	i
							16	8.0	65.0	18.0	57.0	63.3	62.0	54.0	60.3	34.9	5.9	i	i
i							20	9.0	65.0	17.5	56.0	61.4	62.0	53.0	58.4	33.5	4.0	i	i
							25	10.0	65.0	17.0	55.0	59.4	62.0	52.0	56.4	32.0	2.0	i	i
							31.25	11.2	65.0	16.5	53.8	57.5	62.0	50.8	54.5	30.4	i	i	i
							62.5	15.9	65.0	14.0	49.1	51.5	62.0	46.1	48.5	24.4	i	i	i
							100	20.3	65.0	12.0	44.7	47.4	62.0	41.7	44.4	20.3	i	i	i
							200	28.9	60.9	9.0	32.0	41.4	57.9	29.0	38.4	14.3	i	i	i
							250	32.5	59.1	8.0	26.7	39.4	56.1	23.7	36.4	12.3	i	i	i
							350	38.7	56.4	8.0	17.7	36.5	53.4	14.7	33.5	i	i	i	i
							450	44.2	54.4	8.0	10.2	34.3	51.4	7.2	31.3	i	i	i	i
							500	46.7	53.6	8.0	6.9	33.4	50.6	3.9	30.4	i	i	i	i
							600	51.4	52.1	8.0	0.7	31.8	49.1	-2.3	28.8	i	i	i	i
							700	55.8	50.8	7.5	-5.0	30.5	47.8	-8.0	27.5	i	i	i	i
							800	59.9	49.7	7.0	-10.2	29.3	46.7	-13.2	26.3	i	i	i	i
							900	63.8	48.8	6.5	-15.1	28.3	45.8	-18.1	25.3	i	i	i	i
							1000	67.6	47.9	6.0	-19.6	27.4	44.9	-22.6	24.4	i	i	i	i

**ISO11801 Channel Class Fa (600 MHz) (+All\_UTP)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	30	1	4.0	65.0	19.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit						4	4.1	65.0	19.0	60.9	65.0	62.0	57.9	62.0	40.0	18.0	i	i
4,5 - 4,5							8	5.7	65.0	19.0	59.3	65.0	62.0	56.3	62.0	39.5	11.9	i	i
7,8 - 7,8							10	6.4	65.0	19.0	58.6	65.0	62.0	55.6	62.0	38.0	10.0	i	i
							16	8.0	65.0	18.0	57.0	63.3	62.0	54.0	60.3	34.9	5.9	i	i
i							20	9.0	65.0	17.5	56.0	61.4	62.0	53.0	58.4	33.5	4.0	i	i
							25	10.0	65.0	17.0	55.0	59.4	62.0	52.0	56.4	32.0	2.0	i	i
							31.25	11.2	65.0	16.5	53.8	57.5	62.0	50.8	54.5	30.4	i	i	i
							62.5	15.9	65.0	14.0	49.1	51.5	62.0	46.1	48.5	24.4	i	i	i
							100	20.3	65.0	12.0	44.7	47.4	62.0	41.7	44.4	20.3	i	i	i
							200	28.9	60.9	9.0	32.0	41.4	57.9	29.0	38.4	14.3	i	i	i
							250	32.5	59.1	8.0	26.7	39.4	56.1	23.7	36.4	12.3	i	i	i
							350	38.7	56.4	8.0	17.7	36.5	53.4	14.7	33.5	i	i	i	i
							450	44.2	54.4	8.0	10.2	34.3	51.4	7.2	31.3	i	i	i	i
							500	46.7	53.6	8.0	6.9	33.4	50.6	3.9	30.4	i	i	i	i
							600	51.4	52.1	8.0	0.7	31.8	49.1	-2.3	28.8	i	i	i	i
							700	i	i	i	i	i	i	i	i	i	i	i	i
							800	i	i	i	i	i	i	i	i	i	i	i	i
							900	i	i	i	i	i	i	i	i	i	i	i	i
							1000	i	i	i	i	i	i	i	i	i	i	i	i

**Copper Limit Lines - Class F**
**ISO11801 PL Class F**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	None	None	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit						4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
4,5 - 4,5							8	4.9	65.0	21.0	60.1	64.3	62.0	57.1	61.3				
7,8 - 7,8							10	5.5	65.0	21.0	59.5	62.7	62.0	56.5	59.7				
							16	6.9	65.0	20.0	58.1	59.3	62.0	55.1	56.3				
i							20	7.7	65.0	19.5	57.3	57.7	62.0	54.3	54.7				
							25	8.7	65.0	19.0	56.3	56.1	62.0	53.3	53.1				
							31.25	9.7	65.0	18.5	55.3	54.5	62.0	52.3	51.5				
							62.5	13.9	65.0	16.0	51.1	49.5	62.0	48.1	46.5				
							100	17.7	65.0	14.0	47.3	46.0	62.0	44.3	43.0				
							200	25.6	61.9	11.0	36.3	40.9	58.9	33.3	37.9				
							250	28.8	60.4	10.0	31.6	39.2	57.4	28.6	36.2				
							350	34.6	58.2	10.0	23.6	36.7	55.2	20.6	33.7				
							450	39.7	56.6	10.0	16.9	34.8	53.6	13.9	31.8				
							500	42.1	55.9	10.0	13.8	34.0	52.9	10.8	31.0				
							600	46.6	54.7	10.0	8.1	32.6	51.7	5.1	29.6				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				

## ISO11801 PL Class F (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.2 or 3.0	0.2 or 7.0	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i
3,6 - 3,6							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	18.0	i	i
4,5 - 4,5							8	4.9	65.0	21.0	60.1	64.3	62.0	57.1	61.3	39.5	11.9	i	i
7,8 - 7,8							10	5.5	65.0	21.0	59.5	62.7	62.0	56.5	59.7	38.0	10.0	i	i
							16	6.9	65.0	20.0	58.1	59.3	62.0	55.1	56.3	34.9	5.9	i	i
i							20	7.7	65.0	19.5	57.3	57.7	62.0	54.3	54.7	33.5	4.0	i	i
							25	8.7	65.0	19.0	56.3	56.1	62.0	53.3	53.1	32.0	2.0	i	i
							31.25	9.7	65.0	18.5	55.3	54.5	62.0	52.3	51.5	30.4	i	i	i
							62.5	13.9	65.0	16.0	51.1	49.5	62.0	48.1	46.5	24.4	i	i	i
							100	17.7	65.0	14.0	47.3	46.0	62.0	44.3	43.0	20.3	i	i	i
							200	25.6	61.9	11.0	36.3	40.9	58.9	33.3	37.9	14.3	i	i	i
							250	28.8	60.4	10.0	31.6	39.2	57.4	28.6	36.2	12.3	i	i	i
							350	34.6	58.2	10.0	23.6	36.7	55.2	20.6	33.7	i	i	i	i
							450	39.7	56.6	10.0	16.9	34.8	53.6	13.9	31.8	i	i	i	i
							500	42.1	55.9	10.0	13.8	34.0	52.9	10.8	31.0	i	i	i	i
							600	46.6	54.7	10.0	8.1	32.6	51.7	5.1	29.6	i	i	i	i
							700	i	i	i	i	i	i	i	i	i	i	i	i
							800	i	i	i	i	i	i	i	i	i	i	i	i
							900	i	i	i	i	i	i	i	i	i	i	i	i
							1000	i	i	i	i	i	i	i	i	i	i	i	i

## ISO11801 PL Class F (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.2 or 3.0	0.2 or 7.0	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
3,6 - 3,6							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
4,5 - 4,5							8	4.9	65.0	21.0	60.1	64.3	62.0	57.1	61.3				
7,8 - 7,8							10	5.5	65.0	21.0	59.5	62.7	62.0	56.5	59.7				
							16	6.9	65.0	20.0	58.1	59.3	62.0	55.1	56.3				
i							20	7.7	65.0	19.5	57.3	57.7	62.0	54.3	54.7				
							25	8.7	65.0	19.0	56.3	56.1	62.0	53.3	53.1				
							31.25	9.7	65.0	18.5	55.3	54.5	62.0	52.3	51.5				
							62.5	13.9	65.0	16.0	51.1	49.5	62.0	48.1	46.5				
							100	17.7	65.0	14.0	47.3	46.0	62.0	44.3	43.0				
							200	25.6	61.9	11.0	36.3	40.9	58.9	33.3	37.9				
							250	28.8	60.4	10.0	31.6	39.2	57.4	28.6	36.2				
							350	34.6	58.2	10.0	23.6	36.7	55.2	20.6	33.7				
							450	39.7	56.6	10.0	16.9	34.8	53.6	13.9	31.8				
							500	42.1	55.9	10.0	13.8	34.0	52.9	10.8	31.0				
							600	46.6	54.7	10.0	8.1	32.6	51.7	5.1	29.6				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				







**ISO11801 Channel Class F (+All\_UTP)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	30	1	4.0	65.0	19.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit						4	4.1	65.0	19.0	60.9	65.0	62.0	57.9	62.0	40.0	18.0	i	i
4,5 - 4,5							8	5.7	65.0	19.0	59.3	62.4	62.0	56.3	59.4	39.5	11.9	i	i
7,8 - 7,8							10	6.4	65.0	19.0	58.6	60.8	62.0	55.6	57.8	38.0	10.0	i	i
							16	8.1	65.0	18.0	56.9	57.5	62.0	53.9	54.5	34.9	5.9	i	i
i							20	9.1	65.0	17.5	55.9	55.9	62.0	52.9	52.9	33.5	4.0	i	i
							25	10.2	65.0	17.0	54.8	54.4	62.0	51.8	51.4	32.0	2.0	i	i
							31.25	11.4	65.0	16.5	53.6	52.8	62.0	50.6	49.8	30.4	i	i	i
							62.5	16.3	65.0	14.0	48.7	47.8	62.0	45.7	44.8	24.4	i	i	i
							100	20.8	62.9	12.0	42.1	44.4	59.9	39.1	41.4	20.3	i	i	i
							200	30.0	58.3	9.0	28.4	39.4	55.3	25.4	36.4	14.3	i	i	i
							250	33.8	56.9	8.0	23.1	37.8	53.9	20.1	34.8	12.3	i	i	i
							350	40.5	54.7	8.0	14.2	35.3	51.7	11.2	32.3	i	i	i	i
							450	46.5	53.1	8.0	6.5	33.4	50.1	3.5	30.4	i	i	i	i
							500	49.3	52.4	8.0	3.1	32.6	49.4	0.1	29.6	i	i	i	i
							600	54.6	51.2	8.0	-3.4	31.3	48.2	-6.4	28.3	i	i	i	i
							700	i	i	i	i	i	i	i	i	i	i	i	i
							800	i	i	i	i	i	i	i	i	i	i	i	i
							900	i	i	i	i	i	i	i	i	i	i	i	i
							1000	i	i	i	i	i	i	i	i	i	i	i	i

**Copper Limit Lines - Class Ea**
**ISO11801 PL2 Class Ea**

Wire Map	Resistance	Resistance	Resistance	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	20.6	None	None	90	496	43	1	4.0	65.0	21.0	61.0	65.2	62.0	58.0	62.2				
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit If Insertion Loss @ 450 MHz < 12 dB, then:						4	4.0	64.1	21.0	60.1	53.2	61.8	57.8	50.2				
4,5 - 4,5							8	4.9	59.4	21.0	54.5	47.2	57.0	52.1	44.2				
7,8 - 7,8							10	5.5	57.8	21.0	52.4	45.2	55.5	50.0	42.2				
							16	6.9	54.6	20.0	47.7	41.2	52.2	45.3	38.2				
i							20	7.7	53.1	19.5	45.3	39.2	50.7	43.0	36.2				
							25	8.6	51.5	19.0	42.9	37.3	49.1	40.5	34.3				
							31.25	9.7	50.0	18.5	40.3	35.3	47.5	37.9	32.3				
							62.5	13.8	45.1	16.0	31.3	29.3	42.7	28.8	26.3				
							100	17.6	41.8	14.0	24.2	25.2	39.3	21.7	22.2				
							200	25.4	36.9	11.0	11.5	19.2	34.3	8.9	16.2				
							250	28.6	35.3	10.0	6.7	17.3	32.7	4.1	14.3				
							350	34.3	32.6	8.6	-1.7	14.4	29.9	-4.4	11.4				
							450	39.3	30.2	8.0	-9.1	12.2	27.4	-11.9	9.2				
							500	41.6	29.2	8.0	-12.4	11.3	26.4	-15.3	8.3				

## ISO11801 PL2 Class Ea (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL									
		Unbalance	Pair to Pair																									
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB								
1,2 - 1,2	20.6	0.2 or 3.0	0.2 or 7.0	90	496	43	1	4.0	65.0	21.0	61.0	65.2	62.0	58.0	62.2	40.0	30.0	i	i									
3,6 - 3,6	<div>Informational measurement only if using shielded cable</div> <div>Informational measurement only, no limit available</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If Insertion Loss &lt; 4 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div> <div>If PS FEXT is &lt; 70 dB, not evaluated against the test limit</div> <div>If Insertion Loss @ 450 MHz &lt; 12 dB, then:</div> <table><tr><th>Freq.</th><th>NEXT</th><th>PS NEXT</th></tr><tr><td>450</td><td>30.2</td><td>27.4</td></tr><tr><td>500</td><td>27.8</td><td>25.0</td></tr></table>						Freq.	NEXT	PS NEXT	450	30.2	27.4	500	27.8	25.0	4	4.0	64.1	21.0	60.1	53.2	61.8	57.8	50.2	40.0	18.0	i	i
Freq.							NEXT	PS NEXT																				
450							30.2	27.4																				
500							27.8	25.0																				
4,5 - 4,5							8	4.9	59.4	21.0	54.5	47.2	57.0	52.1	44.2	39.5	11.9	i	i									
7,8 - 7,8							10	5.5	57.8	21.0	52.4	45.2	55.5	50.0	42.2	38.0	10.0	i	i									
i if shielded							16	6.9	54.6	20.0	47.7	41.2	52.2	45.3	38.2	34.9	5.9	i	i									
i							20	7.7	53.1	19.5	45.3	39.2	50.7	43.0	36.2	33.5	4.0	i	i									
							25	8.6	51.5	19.0	42.9	37.3	49.1	40.5	34.3	32.0	2.0	i	i									
							31.25	9.7	50.0	18.5	40.3	35.3	47.5	37.9	32.3	30.4	i	i	i									
	62.5	13.8	45.1	16.0	31.3	29.3	42.7	28.8	26.3	24.4	i	i	i															
	100	17.6	41.8	14.0	24.2	25.2	39.3	21.7	22.2	20.3	i	i	i															
	200	25.4	36.9	11.0	11.5	19.2	34.3	8.9	16.2	14.3	i	i	i															
	250	28.6	35.3	10.0	6.7	17.3	32.7	4.1	14.3	12.3	i	i	i															
	350	34.3	32.6	8.6	-1.7	14.4	29.9	-4.4	11.4	i	i	i	i															
	450	39.3	30.2	8.0	-9.1	12.2	27.4	-11.9	9.2	i	i	i	i															
	500	41.6	29.2	8.0	-12.4	11.3	26.4	-15.3	8.3	i	i	i	i															

## ISO11801 PL2 Class Ea (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	20.6	0.2 or 3.0	0.2 or 7.0	90	496	43	1	4.0	65.0	21.0	61.0	65.2	62.0	58.0	62.2				
3,6 - 3,6	<p>Not evaluated against the test limit</p> <p>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</p> <p>If Insertion Loss &lt; 4 dB, not evaluated against the test limit</p> <p>If FEXT is &lt; 70 dB, not evaluated against the test limit</p> <p>If PS FEXT is &lt; 70 dB, not evaluated against the test limit</p>						4	4.0	64.1	21.0	60.1	53.2	61.8	57.8	50.2				
4,5 - 4,5							8	4.9	59.4	21.0	54.5	47.2	57.0	52.1	44.2				
7,8 - 7,8							10	5.5	57.8	21.0	52.4	45.2	55.5	50.0	42.2				
							16	6.9	54.6	20.0	47.7	41.2	52.2	45.3	38.2				
							20	7.7	53.1	19.5	45.3	39.2	50.7	43.0	36.2				
							25	8.6	51.5	19.0	42.9	37.3	49.1	40.5	34.3				
							31.25	9.7	50.0	18.5	40.3	35.3	47.5	37.9	32.3				
							62.5	13.8	45.1	16.0	31.3	29.3	42.7	28.8	26.3				
							100	17.6	41.8	14.0	24.2	25.2	39.3	21.7	22.2				
							200	25.4	36.9	11.0	11.5	19.2	34.3	8.9	16.2				
							250	28.6	35.3	10.0	6.7	17.3	32.7	4.1	14.3				
							350	34.3	32.6	8.6	-1.7	14.4	29.9	-4.4	11.4				
							450	39.3	30.2	8.0	-9.1	12.2	27.4	-11.9	9.2				
							500	41.6	29.2	8.0	-12.4	11.3	26.4	-15.3	8.3				

## ISO11801 PL3 Class Ea

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	None	None	90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2				
3,6 - 3,6							4	4.0	64.1	21.0	60.1	52.1	61.8	57.8	49.1				
4,5 - 4,5							8	4.9	59.4	21.0	54.4	46.1	57.0	52.1	43.1				
7,8 - 7,8							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2				
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1				
i							20	7.8	53.1	19.5	45.3	38.2	50.7	42.9	35.2				
							25	8.7	51.5	19.0	42.8	36.2	49.1	40.4	33.2				
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.8	31.3				
							62.5	14.0	45.1	16.0	31.2	28.3	42.7	28.7	25.3				
							100	17.8	41.8	14.0	24.0	24.2	39.3	21.5	21.2				
							200	25.7	36.9	11.0	11.3	18.2	34.3	8.7	15.2				
							250	28.9	35.3	10.0	6.4	16.2	32.7	3.8	13.2				
							350	34.6	32.2	8.6	-2.5	13.3	29.4	-5.2	10.3				
							450	39.7	29.2	8.0	-10.6	11.1	26.2	-13.5	8.1				
							500	42.1	27.9	8.0	-14.2	10.2	24.8	-17.2	7.2				

## ISO11801 PL3 Class Ea (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2	40.0	30.0	i	i
3,6 - 3,6							4	4.0	64.1	21.0	60.1	52.1	61.8	57.8	49.1	40.0	18.0	i	i
4,5 - 4,5							8	4.9	59.4	21.0	54.4	46.1	57.0	52.1	43.1	39.5	11.9	i	i
7,8 - 7,8							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2	38.0	10.0	i	i
i if shielded							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1	34.9	5.9	i	i
i							20	7.8	53.1	19.5	45.3	38.2	50.7	42.9	35.2	33.5	4.0	i	i
							25	8.7	51.5	19.0	42.8	36.2	49.1	40.4	33.2	32.0	2.0	i	i
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.8	31.3	30.4	i	i	i
							62.5	14.0	45.1	16.0	31.2	28.3	42.7	28.7	25.3	24.4	i	i	i
							100	17.8	41.8	14.0	24.0	24.2	39.3	21.5	21.2	20.3	i	i	i
							200	25.7	36.9	11.0	11.3	18.2	34.3	8.7	15.2	14.3	i	i	i
							250	28.9	35.3	10.0	6.4	16.2	32.7	3.8	13.2	12.3	i	i	i
							350	34.6	32.2	8.6	-2.5	13.3	29.4	-5.2	10.3	i	i	i	i
							450	39.7	29.2	8.0	-10.6	11.1	26.2	-13.5	8.1	i	i	i	i
							500	42.1	27.9	8.0	-14.2	10.2	24.8	-17.2	7.2	i	i	i	i

## ISO11801 PL3 Class Ea (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2				
3,6 - 3,6							4	4.0	64.1	21.0	60.1	52.1	61.8	57.8	49.1				
4,5 - 4,5							8	4.9	59.4	21.0	54.4	46.1	57.0	52.1	43.1				
7,8 - 7,8							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2				
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1				
							20	7.8	53.1	19.5	45.3	38.2	50.7	42.9	35.2				
							25	8.7	51.5	19.0	42.8	36.2	49.1	40.4	33.2				
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.8	31.3				
							62.5	14.0	45.1	16.0	31.2	28.3	42.7	28.7	25.3				
							100	17.8	41.8	14.0	24.0	24.2	39.3	21.5	21.2				
							200	25.7	36.9	11.0	11.3	18.2	34.3	8.7	15.2				
							250	28.9	35.3	10.0	6.4	16.2	32.7	3.8	13.2				
							350	34.6	32.2	8.6	-2.5	13.3	29.4	-5.2	10.3				
							450	39.7	29.2	8.0	-10.6	11.1	26.2	-13.5	8.1				
							500	42.1	27.9	8.0	-14.2	10.2	24.8	-17.2	7.2				

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 70 dB, not evaluated against the test limit

## ISO11801 Channel Class Ea

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	None	None	100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3				
3,6 - 3,6							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
4,5 - 4,5							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2				
7,8 - 7,8							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3				
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2				
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2				
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3				
							31.25	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4				
							62.5	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3				
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3				
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2				
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3				
							350	40.6	30.6	6.6	-10.0	12.4	27.6	-13.0	9.4				
							450	46.5	28.7	6.0	-17.9	10.2	25.7	-20.9	7.2				
							500	49.3	27.9	6.0	-21.4	9.3	24.8	-24.5	6.3				

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

If Insertion Loss @ 450 MHz is < 12 dB, then:

Freq.	NEXT	PS NEXT
450	28.7	25.7
500	26.5	23.4



# ISO11801 Cl. Ea Qualification

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25	None	None	100	555	50	1	4	65.0	19.0	61.0	63.3	62.0	58.0	60.3				
							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2				
							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3				
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2				
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2				
i							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3				
							31.25	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4				
							62.5	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3				
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3				
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2				
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3				
							350	40.6	30.6	6.6	-10.0	12.4	27.6	-13.0	9.4				
							450	46.5	28.7	6.0	-17.9	10.2	25.7	-20.9	7.2				
							500	49.3	27.9	6.0	-21.4	9.3	24.8	-24.5	6.3				

# ISO11801 PL2 Class Ea (+All\_UTP)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	20.6	0.2 or 3.0	0.2 or 7.0	90	496	43	1	4	65.0	21.0	61.0	65.2	62.0	58.0	62.2	40.0	30.0	i	i
							4	4	64.1	21.0	60.1	53.2	61.8	57.8	50.2	40.0	18.0	i	i
							8	4.9	59.4	21.0	54.5	47.2	57.0	52.1	44.2	39.5	11.9	i	i
							10	5.5	57.8	21.0	52.4	45.2	55.5	50.0	42.2	38.0	10.0	i	i
							16	6.9	54.6	20.0	47.7	41.2	52.2	45.3	38.2	34.9	5.9	i	i
i							20	7.7	53.1	19.5	45.3	39.2	50.7	43.0	36.2	33.5	4.0	i	i
							25	8.6	51.5	19.0	42.9	37.3	49.1	40.5	34.3	32.0	2.0	i	i
							31.25	9.7	50.0	18.5	40.3	35.3	47.5	37.9	32.3	30.4	i	i	i
							62.5	13.8	45.1	16.0	31.3	29.3	42.7	28.8	26.3	24.4	i	i	i
							100	17.6	41.8	14.0	24.2	25.2	39.3	21.7	22.2	20.3	i	i	i
							200	25.4	36.9	11.0	11.5	19.2	34.3	8.9	16.2	14.3	i	i	i
							250	28.6	35.3	10.0	6.7	17.3	32.7	4.1	14.3	12.3	i	i	i
							350	34.3	32.6	8.6	-1.7	14.4	29.9	-4.4	11.4	i	i	i	i
							450	39.3	30.2	8.0	-9.1	12.2	27.4	-11.9	9.2	i	i	i	i
							500	41.6	29.2	8.0	-12.4	11.3	26.4	-15.3	8.3	i	i	i	i

## ISO11801 PL3 Class Ea (+All\_UTP)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	4	65.0	21.0	61.0	64.2	62.0	58.0	61.2	40.0	30.0	i	i
							4	4	64.1	21.0	60.1	52.1	61.8	57.8	49.1	40.0	18.0	i	i
							8	4.9	59.4	21.0	54.4	46.1	57.0	52.1	43.1	39.5	11.9	i	i
							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2	38.0	10.0	i	i
							16	7	54.6	20.0	47.6	40.1	52.2	45.2	37.1	34.9	5.9	i	i
							20	7.8	53.1	19.5	45.3	38.2	50.7	42.9	35.2	33.5	4.0	i	i
							25	8.7	51.5	19.0	42.8	36.2	49.1	40.4	33.2	32.0	2.0	i	i
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.8	31.3	30.4	i	i	i
							62.5	14	45.1	16.0	31.2	28.3	42.7	28.7	25.3	24.4	i	i	i
							100	17.8	41.8	14.0	24.0	24.2	39.3	21.5	21.2	20.3	i	i	i
							200	25.7	36.9	11.0	11.3	18.2	34.3	8.7	15.2	14.3	i	i	i
							250	28.9	35.3	10.0	6.4	16.2	32.7	3.8	13.2	12.3	i	i	i
							350	34.6	32.2	8.6	-2.5	13.3	29.4	-5.2	10.3	i	i	i	i
							450	39.7	29.2	8.0	-10.6	11.1	26.2	-13.5	8.1	i	i	i	i
							500	42.1	27.9	8.0	-14.2	10.2	24.8	-17.2	7.2	i	i	i	i

i Informational measurement only, no limit available

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 70 dB, not evaluated against the test limit

## ISO11801 Channel Class Ea (+All\_UTP)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	4	65.0	19.0	61.0	63.3	62.0	58.0	60.3	40.0	30.0	i	i
							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2	40.0	18.0	i	i
							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2	39.5	11.9	i	i
							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3	38.0	10.0	i	i
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2	34.9	5.9	i	i
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2	33.5	4.0	i	i
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3	32.0	2.0	i	i
							31.25	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4	30.4	i	i	i
							62.5	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3	24.4	i	i	i
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3	20.3	i	i	i
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2	14.3	i	i	i
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3	12.3	i	i	i
							350	40.6	30.6	6.6	-10.0	12.4	27.6	-13.0	9.4	i	i	i	i
							450	46.5	28.7	6.0	-17.9	10.2	25.7	-20.9	7.2	i	i	i	i
							500	49.3	27.9	6.0	-21.4	9.3	24.8	-24.5	6.3	i	i	i	i

i Informational measurement only, no limit available

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

If Insertion Loss @ 450 MHz < 12 dB, then:

Freq.	NEXT	PS NEXT
450	30.2	27.4
500	27.8	25.0



## ISO DAC TR Class Ea

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	i	i	90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2	i	i		
3,6 - 3,6	Informational measurement only if using shielded cable Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit						4	4	64.1	21.0	60.1	52.1	61.8	57.8	49.1	i	i		
4,5 - 4,5							8	4.9	59.4	21.0	54.4	46.1	57.0	52.1	43.1	i	i		
7,8 - 7,8							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2	i	i		
i if shielded							16	7	54.6	20.0	47.6	40.1	52.2	45.2	37.1	i	i		
i							20	7.8	53.1	19.5	45.3	38.2	50.7	42.9	35.2	i	i		
							25	8.7	51.5	19.0	42.8	36.2	49.1	40.4	33.2	i	i		
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.8	31.3	i	i		
							62.5	14	45.1	16.0	31.2	28.3	42.7	28.7	25.3	i	i		
							100	17.8	41.8	14.0	24.0	24.2	39.3	21.5	21.2	i	i		
							200	25.7	36.9	11.0	11.3	18.2	34.3	8.7	15.2	i	i		
							250	28.9	35.3	10.0	6.4	16.2	32.7	3.8	13.2	i	i		
							350	34.6	32.2	8.6	-2.5	13.3	29.4	-5.2	10.3	i	i		
							450	39.7	29.2	8.0	-10.6	11.1	29.4	-13.5	8.1	i	i		
							500	42.1	27.9	8.0	-14.2	10.2	26.2	-17.2	7.2	i	i		

## ISO DAC TR Class Ea (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Resistance	Resistance																
	$\Omega$	Unbalance	Pair to Pair	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	i	i	90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2	40.0	30.0	i	i
3,6 - 3,6	Informational measurement only if using shielded cable Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit						4	4	64.1	21.0	60.1	52.1	61.8	57.8	49.1	40.0	18.0	i	i
4,5 - 4,5							8	4.9	59.4	21.0	54.4	46.1	57.0	52.1	43.1	39.5	11.9	i	i
7,8 - 7,8							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2	38.0	10.0	i	i
i if shielded							16	7	54.6	20.0	47.6	40.1	52.2	45.2	37.1	34.9	5.9	i	i
i							20	7.8	53.1	19.5	45.3	38.2	50.7	42.9	35.2	33.5	4.0	i	i
							25	8.7	51.5	19.0	42.8	36.2	49.1	40.4	33.2	32.0	2.0	i	i
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.8	31.3	30.4	i	i	i
							62.5	14	45.1	16.0	31.2	28.3	42.7	28.7	25.3	24.4	i	i	i
							100	17.8	41.8	14.0	24.0	24.2	39.3	21.5	21.2	20.3	i	i	i
							200	25.7	36.9	11.0	11.3	18.2	34.3	8.7	15.2	14.3	i	i	i
							250	28.9	35.3	10.0	6.4	16.2	32.7	3.8	13.2	12.3	i	i	i
							350	34.6	32.2	8.6	-2.5	13.3	29.4	-5.2	10.3	i	i	i	i
							450	39.7	29.2	8.0	-10.6	11.1	29.4	-13.5	8.1	i	i	i	i
							500	42.1	27.9	8.0	-14.2	10.2	26.2	-17.2	7.2	i	i	i	i

## ISO MPTL Class Ea

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	None	None	90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2				
3,6 - 3,6							4	4	64.1	21.0	60.1	52.1	61.8	57.8	49.1				
4,5 - 4,5							8	4.9	59.4	21.0	54.4	46.1	57.0	52.1	43.1				
7,8 - 7,8							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2				
							16	7	54.6	20.0	47.6	40.1	52.2	45.2	37.1				
i							20	7.8	53.1	19.5	45.3	38.2	50.7	42.9	35.2				
							25	8.7	51.5	19.0	42.8	36.2	49.1	40.4	33.2				
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.8	31.3				
							62.5	14	45.1	16.0	31.2	28.3	42.7	28.7	25.3				
							100	17.8	41.8	14.0	24.0	24.2	39.3	21.5	21.2				
							200	25.7	36.9	11.0	11.3	18.2	34.3	8.7	15.2				
							250	28.9	35.3	10.0	6.4	16.2	32.7	3.8	13.2				
							350	34.6	32.2	8.6	-2.5	13.3	29.4	-5.2	10.3				
							450	39.7	29.2	8.0	-10.6	11.1	29.4	-13.5	8.1				
							500	42.1	27.9	8.0	-14.2	10.2	26.2	-17.2	7.2				

## ISO MPTL Class Ea (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB				
1,2 - 1,2	21	i	i	90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2				
3,6 - 3,6							4	4	64.1	21.0	60.1	52.1	61.8	57.8	49.1				
4,5 - 4,5							8	4.9	59.4	21.0	54.4	46.1	57.0	52.1	43.1				
7,8 - 7,8							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2				
							16	7	54.6	20.0	47.6	40.1	52.2	45.2	37.1				
i							20	7.8	53.1	19.5	45.3	38.2	50.7	42.9	35.2				
							25	8.7	51.5	19.0	42.8	36.2	49.1	40.4	33.2				
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.8	31.3				
							62.5	14	45.1	16.0	31.2	28.3	42.7	28.7	25.3				
							100	17.8	41.8	14.0	24.0	24.2	39.3	21.5	21.2				
							200	25.7	36.9	11.0	11.3	18.2	34.3	8.7	15.2				
							250	28.9	35.3	10.0	6.4	16.2	32.7	3.8	13.2				
							350	34.6	32.2	8.6	-2.5	13.3	29.4	-5.2	10.3				
							450	39.7	29.2	8.0	-10.6	11.1	29.4	-13.5	8.1				
							500	42.1	27.9	8.0	-14.2	10.2	26.2	-17.2	7.2				

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**ISO11801 PL Class E (+PoE)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB				
1,2 - 1,2	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2				
3,6 - 3,6							4	4.0	64.1	21.0	60.1	52.1	61.8	57.8	49.1				
4,5 - 4,5							8	5.0	59.4	21.0	54.4	46.1	57.0	52.0	43.1				
7,8 - 7,8							10	5.6	57.8	21.0	52.2	44.2	55.5	49.9	41.2				
							16	7.1	54.6	20.0	47.5	40.1	52.2	45.1	37.1				
							20	7.9	53.1	19.5	45.1	38.2	50.7	42.7	35.2				
i							25	8.9	51.5	19.0	42.6	36.2	49.1	40.2	33.2				
							31.25	10.0	50.0	18.5	40.0	34.3	47.5	37.5	31.3				
							62.5	14.4	45.1	16.0	30.7	28.3	42.7	28.2	25.3				
							100	18.5	41.8	14.0	23.3	24.2	39.3	20.8	21.2				
							200	27.1	36.9	11.0	9.9	18.2	34.3	7.2	15.2				
							250	30.7	35.3	10.0	4.7	16.2	32.7	2.0	13.2				
							350	i	i	i	i	i	i	i	i				

**ISO11801 Channel Class E**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB				
1,2 - 1,2	25	None	None	100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3				
3,6 - 3,6							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
4,5 - 4,5							8	5.9	58.2	19.0	52.3	45.2	55.6	49.7	42.2				
7,8 - 7,8							10	6.6	56.6	19.0	50.0	43.3	54.0	47.4	40.3				
							16	8.3	53.2	18.0	44.9	39.2	50.6	42.3	36.2				
i if shielded							20	9.3	51.6	17.5	42.3	37.2	49.0	39.7	34.2				
i							25	10.5	50.0	17.0	39.6	35.3	47.3	36.9	32.3				
							31.25	11.7	48.4	16.5	36.7	33.4	45.7	34.0	30.4				
							62.5	16.9	43.4	14.0	26.5	27.3	40.6	23.7	24.3				
							100	21.7	39.9	12.0	18.2	23.3	37.1	15.4	20.3				
							200	31.7	34.8	9.0	3.1	17.2	31.9	0.1	14.2				
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3				
							350	i	i	i	i	i	i	i	i				

**ISO11801 Channel Class E (+All)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB		
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3	40.0	30.0	i	i
3,6 - 3,6	Informational measurement only if using shielded cable						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2	40.0	18.0	i	i
4,5 - 4,5							8	5.9	58.2	19.0	52.3	45.2	55.6	49.7	42.2	39.5	11.9	i	i
7,8 - 7,8							10	6.6	56.6	19.0	50.0	43.3	54.0	47.4	40.3	38.0	10.0	i	i
							16	8.3	53.2	18.0	44.9	39.2	50.6	42.3	36.2	34.9	5.9	i	i
i if shielded							20	9.3	51.6	17.5	42.3	37.2	49.0	39.7	34.2	33.5	4.0	i	i
i							25	10.5	50.0	17.0	39.6	35.3	47.3	36.9	32.3	32.0	2.0	i	i
							31.25	11.7	48.4	16.5	36.7	33.4	45.7	34.0	30.4	30.4	i	i	i
							62.5	16.9	43.4	14.0	26.5	27.3	40.6	23.7	24.3	24.4	i	i	i
							100	21.7	39.9	12.0	18.2	23.3	37.1	15.4	20.3	20.3	i	i	i
							200	31.7	34.8	9.0	3.1	17.2	31.9	0.1	14.2	14.3	i	i	i
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3	12.3	i	i	i
							350	i	i	i	i	i	i	i	i	i	i	i	i

**ISO11801 Channel Class E (+PoE)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB				
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3				
3,6 - 3,6	Informational measurement only, no limit available						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
4,5 - 4,5							8	5.9	58.2	19.0	52.3	45.2	55.6	49.7	42.2				
7,8 - 7,8							10	6.6	56.6	19.0	50.0	43.3	54.0	47.4	40.3				
							16	8.3	53.2	18.0	44.9	39.2	50.6	42.3	36.2				
							20	9.3	51.6	17.5	42.3	37.2	49.0	39.7	34.2				
i							25	10.5	50.0	17.0	39.6	35.3	47.3	36.9	32.3				
							31.25	11.7	48.4	16.5	36.7	33.4	45.7	34.0	30.4				
							62.5	16.9	43.4	14.0	26.5	27.3	40.6	23.7	24.3				
							100	21.7	39.9	12.0	18.2	23.3	37.1	15.4	20.3				
							200	31.7	34.8	9.0	3.1	17.2	31.9	0.1	14.2				
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3				
							350	i	i	i	i	i	i	i	i				





# ISO MPTL Class E

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %																
1,2 - 1,2	21	none	none	90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2				
3,6 - 3,6							4	4.0	64.1	21.0	60.1	52.1	61.8	57.8	49.1				
4,5 - 4,5							8	5.0	59.4	21.0	54.4	46.1	57.0	52.0	43.1				
7,8 - 7,8							10	5.6	57.8	21.0	52.2	44.2	55.5	49.9	41.2				
							16	7.1	54.6	20.0	47.5	40.1	52.2	45.1	37.1				
							20	7.9	53.1	19.5	45.1	38.2	50.7	42.7	35.2				
i							25	8.9	51.5	19.0	42.6	36.2	49.1	40.2	33.2				
							31.25	10.0	50.0	18.5	40.0	34.3	47.5	37.5	31.3				
							62.5	14.4	45.1	16.0	30.7	28.3	42.7	28.2	25.3				
							100	18.5	41.8	14.0	23.3	24.2	39.3	20.8	21.2				
							200	27.1	36.9	11.0	9.9	18.2	34.3	7.2	15.2				
							250	30.7	35.3	10.0	4.7	16.2	32.7	2.0	13.2				
							350	i	i	i	i	i	i	i	i				

# ISO MPTL Class E (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %																
1,2 - 1,2	21	i	i	90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2				
3,6 - 3,6							4	4.0	64.1	21.0	60.1	52.1	61.8	57.8	49.1				
4,5 - 4,5							8	5.0	59.4	21.0	54.4	46.1	57.0	52.0	43.1				
7,8 - 7,8							10	5.6	57.8	21.0	52.2	44.2	55.5	49.9	41.2				
							16	7.1	54.6	20.0	47.5	40.1	52.2	45.1	37.1				
							20	7.9	53.1	19.5	45.1	38.2	50.7	42.7	35.2				
i							25	8.9	51.5	19.0	42.6	36.2	49.1	40.2	33.2				
							31.25	10.0	50.0	18.5	40.0	34.3	47.5	37.5	31.3				
							62.5	14.4	45.1	16.0	30.7	28.3	42.7	28.2	25.3				
							100	18.5	41.8	14.0	23.3	24.2	39.3	20.8	21.2				
							200	27.1	36.9	11.0	9.9	18.2	34.3	7.2	15.2				
							250	30.7	35.3	10.0	4.7	16.2	32.7	2.0	13.2				
							350	i	i	i	i	i	i	i	i				



**ISO11801 PL Class D**

[illegible]

**ISO11801 PL Class D (+PoE)**

Wire Map	Resistance			Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	4.0	64.2	19.0	60.2	58.6	61.2	57.2	55.6				
3,6 - 3,6							4	4.0	54.8	19.0	50.8	46.6	51.8	47.8	43.6				
4,5 - 4,5							8	5.4	50.0	19.0	44.6	40.6	47.0	41.6	37.6				
7,8 - 7,8							10	6.1	48.5	19.0	42.4	38.6	45.5	39.4	35.6				
							16	7.7	45.2	19.0	37.5	34.5	42.2	34.5	31.5				
i							20	8.7	43.7	19.0	35.0	32.6	40.7	32.0	29.6				
							25	9.7	42.1	18.0	32.4	30.7	39.1	29.4	27.7				
							31.25	10.9	40.5	17.1	29.6	28.7	37.5	26.6	25.7				
							62.5	15.8	35.7	14.0	19.8	22.7	32.7	16.8	19.7				
							100	20.4	32.3	12.0	11.9	18.6	29.3	8.9	15.6				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

**ISO11801 Channel Class D**

Wire Map	Resistance			Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	None	None	100	555	50	1	4.0	63.3	17.0	59.3	57.4	60.3	56.3	54.4				
3,6 - 3,6							4	4.5	53.5	17.0	49.0	45.4	50.5	46.0	42.4				
4,5 - 4,5							8	6.4	48.6	17.0	42.2	39.3	45.6	39.2	36.3				
7,8 - 7,8							10	7.2	47.0	17.0	39.8	37.4	44.0	36.8	34.4				
							16	9.1	43.6	17.0	34.5	33.3	40.6	31.5	30.3				
i							20	10.2	42.0	17.0	31.8	31.4	39.0	28.8	28.4				
							25	11.5	40.3	16.0	28.9	29.4	37.3	25.9	26.4				
							31.25	12.9	38.7	15.1	25.8	27.5	35.7	22.8	24.5				
							62.5	18.6	33.6	12.0	15.0	21.5	30.6	12.0	18.5				
							100	24.0	30.1	10.0	6.1	17.4	27.1	3.1	14.4				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				





## ISO DAC TR Class D

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	i	i	90	498	44	1	4.0	64.2	19.0	60.2	58.6	61.2	57.2	55.6	i	i	i	i
i Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit							4	4.0	54.8	19.0	50.8	46.6	51.8	47.8	43.6	i	i	i	i
							8	5.4	50.0	19.0	44.6	40.6	47.0	41.6	37.6	i	i	i	i
							10	6.1	48.5	19.0	42.4	38.6	45.5	39.4	35.6	i	i	i	i
							16	7.7	45.2	19.0	37.5	34.5	42.2	34.5	31.5	i	i	i	i
							20	8.7	43.7	19.0	35.0	32.6	40.7	32.0	29.6	i	i	i	i
							25	9.7	42.1	18.0	32.4	30.7	39.1	29.4	27.7	i	i	i	i
							31.25	10.9	40.5	17.1	29.6	28.7	37.5	26.6	25.7	i	i	i	i
							62.5	15.8	35.7	14.0	19.8	22.7	32.7	16.8	19.7	i	i	i	i
							100	20.4	32.3	12.0	11.9	18.6	29.3	8.9	15.6	i	i	i	i
							200	i	i	i	i	i	i	i	i	i	i	i	i
							250	i	i	i	i	i	i	i	i	i	i	i	i
							350	i	i	i	i	i	i	i	i	i	i	i	i

## ISO DAC TR Class D (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	i	i	90	498	44	1	4.0	64.2	19.0	60.2	58.6	61.2	57.2	55.6	40.0	30.0	i	i
i Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit i if shielded							4	4.0	54.8	19.0	50.8	46.6	51.8	47.8	43.6	40.0	18.0	i	i
							8	5.4	50.0	19.0	44.6	40.6	47.0	41.6	37.6	39.5	11.9	i	i
							10	6.1	48.5	19.0	42.4	38.6	45.5	39.4	35.6	38.0	10.0	i	i
							16	7.7	45.2	19.0	37.5	34.5	42.2	34.5	31.5	34.9	5.9	i	i
							20	8.7	43.7	19.0	35.0	32.6	40.7	32.0	29.6	33.5	4.0	i	i
							25	9.7	42.1	18.0	32.4	30.7	39.1	29.4	27.7	32.0	2.0	i	i
							31.25	10.9	40.5	17.1	29.6	28.7	37.5	26.6	25.7	30.4	i	i	i
							62.5	15.8	35.7	14.0	19.8	22.7	32.7	16.8	19.7	24.4	i	i	i
							100	20.4	32.3	12.0	11.9	18.6	29.3	8.9	15.6	20.3	i	i	i
							200	i	i	i	i	i	i	i	i	i	i	i	i
							250	i	i	i	i	i	i	i	i	i	i	i	i
							350	i	i	i	i	i	i	i	i	i	i	i	i

## ISO MPTL Class D

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	None	None	90	498	44	1	4.0	64.2	19.0	60.2	58.6	61.2	57.2	55.6				
i Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit							4	4.0	54.8	19.0	50.8	46.6	51.8	47.8	43.6				
							8	5.4	50.0	19.0	44.6	40.6	47.0	41.6	37.6				
							10	6.1	48.5	19.0	42.4	38.6	45.5	39.4	35.6				
							16	7.7	45.2	19.0	37.5	34.5	42.2	34.5	31.5				
							20	8.7	43.7	19.0	35.0	32.6	40.7	32.0	29.6				
							25	9.7	42.1	18.0	32.4	30.7	39.1	29.4	27.7				
							31.25	10.9	40.5	17.1	29.6	28.7	37.5	26.6	25.7				
							62.5	15.8	35.7	14.0	19.8	22.7	32.7	16.8	19.7				
							100	20.4	32.3	12.0	11.9	18.6	29.3	8.9	15.6				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

# ISO MPTL Class D (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		Ω or %	Ω or %																
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	None	None	90	498	44	1	4.0	64.2	19.0	60.2	58.6	61.2	57.2	55.6				
<div>i</div> <div></div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit						4	4.0	54.8	19.0	50.8	46.6	51.8	47.8	43.6				
							8	5.4	50.0	19.0	44.6	40.6	47.0	41.6	37.6				
							10	6.1	48.5	19.0	42.4	38.6	45.5	39.4	35.6				
							16	7.7	45.2	19.0	37.5	34.5	42.2	34.5	31.5				
							20	8.7	43.7	19.0	35.0	32.6	40.7	32.0	29.6				
							25	9.7	42.1	18.0	32.4	30.7	39.1	29.4	27.7				
							31.25	10.9	40.5	17.1	29.6	28.7	37.5	26.6	25.7				
							62.5	15.8	35.7	14.0	19.8	22.7	32.7	16.8	19.7				
							100	20.4	32.3	12.0	11.9	18.6	29.3	8.9	15.6				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

## Copper Limit Lines - Class C

### ISO11801 PL Class C

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		Ω or %	Ω or %																
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	34	None	None	90	498	44	1	4.0	40.1	15.0	36.1								
<div>i</div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit						4	6.4	30.6	15.0	24.2								
							8	8.8	25.8	15.0	17.0								
							10	9.8	24.3	15.0	14.5								
							16	12.2	21.1	15.0	8.8								
							20	i	i	i	i								
							25	i	i	i	i								
							31.25	i	i	i	i								
							62.5	i	i	i	i								
							100	i	i	i	i								
							200	i	i	i	i								
							250	i	i	i	i								
							350	i	i	i	i								

# ISO11801 Channel Class C

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	40	None	None	100	555	50	1	4.2	39.1	15.0	34.9								
3,6 - 3,6							4	7.6	29.2	15.0	21.6								
4,5 - 4,5							8	10.4	24.3	15.0	13.9								
7,8 - 7,8							10	11.5	22.7	15.0	11.2								
							16	14.4	19.4	15.0	5.0								
i							20	i	i	i	i								
							25	i	i	i	i								
							31.25	i	i	i	i								
							62.5	i	i	i	i								
							100	i	i	i	i								
							200	i	i	i	i								
							250	i	i	i	i								
							350	i	i	i	i								

Informational measurement only, no limit available

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

## ABNT NBR 14565 PL Class F

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21			90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
i Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							8	4.9	65.0	21.0	60.1	64.3	62.0	57.1	61.3				
							10	5.5	65.0	21.0	59.5	62.7	62.0	56.5	59.7				
							16	6.9	65.0	20.0	58.1	59.3	62.0	55.1	56.3				
							20	7.7	65.0	19.5	57.3	57.7	62.0	54.3	54.7				
							25	8.7	65.0	19.0	56.3	56.1	62.0	53.3	53.1				
							31.25	9.7	65.0	18.5	55.3	54.5	62.0	52.3	51.5				
							62.5	13.9	65.0	16.0	51.1	49.5	62.0	48.1	46.5				
							100	17.7	65.0	14.0	47.3	46.0	62.0	44.3	43.0				
							200	25.6	61.9	11.0	36.3	40.9	58.9	33.3	37.9				
							250	28.8	60.4	10.0	31.6	39.2	57.4	28.6	36.2				
							350	34.6	58.2	10.0	23.6	36.7	55.2	20.6	33.7				
							450	39.7	56.6	10.0	16.9	34.8	53.6	13.9	31.8				
							500	42.1	55.9	10.0	13.8	34.0	52.9	10.8	31.0				
							600	46.6	54.7	10.0	8.1	32.6	51.7	5.1	29.6				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				

## ABNT NBR 14565 PL2 Class Ea

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	20.6			90	496	43	1	4.0	65.0	21.0	61.0	65.2	62.0	58.0	62.2				
Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit If Insertion Loss @ 450 MHz < 12 dB, then:							4	4.0	64.1	21.0	60.1	53.2	61.8	57.8	50.2				
							8	4.9	59.4	21.0	54.5	47.2	57.0	52.1	44.2				
							10	5.5	57.8	21.0	52.4	45.2	55.5	50.0	42.2				
							16	6.9	54.6	20.0	47.7	41.2	52.2	45.3	38.2				
							20	7.7	53.1	19.5	45.3	39.2	50.7	43.0	36.2				
							25	8.6	51.5	19.0	42.9	37.3	49.1	40.5	34.3				
							31.25	9.7	50.0	18.5	40.3	35.3	47.5	37.9	32.3				
							62.5	13.8	45.1	16.0	31.3	29.3	42.7	28.8	26.3				
							100	17.6	41.8	14.0	24.2	25.2	39.3	21.7	22.2				
							200	25.4	36.9	11.0	11.5	19.2	34.3	8.9	16.2				
							250	28.6	35.3	10.0	6.7	17.3	32.7	4.1	14.3				
							350	34.3	32.6	8.6	-1.7	14.4	29.9	-4.4	11.4				
							450	39.3	30.2	8.0	-9.1	12.2	27.4	-11.9	9.2				
							500	41.6	29.2	8.0	-12.4	11.3	26.4	-15.3	8.3				



**ABNT NBR 14565 PL3 Class Ea**

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21			90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2				
<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit						4	4.0	64.1	21.0	60.1	52.1	61.8	57.8	49.1				
							8	4.9	59.4	21.0	54.4	46.1	57.0	52.1	43.1				
							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2				
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1				
							20	7.8	53.1	19.5	45.3	38.2	50.7	42.9	35.2				
							25	8.7	51.5	19.0	42.8	36.2	49.1	40.4	33.2				
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.8	31.3				
							62.5	14.0	45.1	16.0	31.2	28.3	42.7	28.7	25.3				
							100	17.8	41.8	14.0	24.0	24.2	39.3	21.5	21.2				
							200	25.7	36.9	11.0	11.3	18.2	34.3	8.7	15.2				
							250	28.9	35.3	10.0	6.4	16.2	32.7	3.8	13.2				
							350	34.6	32.2	8.6	-2.5	13.3	29.4	-5.2	10.3				
							450	39.7	29.2	8.0	-10.6	11.1	26.2	-13.5	8.1				
							500	42.1	27.9	8.0	-14.2	10.2	24.8	-17.2	7.2				

**ABNT NBR 14565 PL Class E**

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21			90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2				
<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit						4	4.0	64.1	21.0	60.1	52.1	61.8	57.8	49.1				
							8	5.0	59.4	21.0	54.4	46.1	57.0	52.0	43.1				
							10	5.6	57.8	21.0	52.2	44.2	55.5	49.9	41.2				
							16	7.1	54.6	20.0	47.5	40.1	52.2	45.1	37.1				
							20	7.9	53.1	19.5	45.1	38.2	50.7	42.7	35.2				
							25	8.9	51.5	19.0	42.6	36.2	49.1	40.2	33.2				
							31.25	10.0	50.0	18.5	40.0	34.3	47.5	37.5	31.3				
							62.5	14.4	45.1	16.0	30.7	28.3	42.7	28.2	25.3				
							100	18.5	41.8	14.0	23.3	24.2	39.3	20.8	21.2				
							200	27.1	36.9	11.0	9.9	18.2	34.3	7.2	15.2				
							250	30.7	35.3	10.0	4.7	16.2	32.7	2.0	13.2				
							350	i	i	i	i	i	i	i	i				

**ABNT NBR 14565 PL Class D**

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21			90	498	44	1	4.0	60.0	19.0	56.0	58.6	57.0	53.0	55.6				
<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 70 dB, not evaluated against the test limit						4	4.0	54.8	19.0	50.8	46.6	51.8	47.8	43.6				
							8	5.4	50.0	19.0	44.6	40.6	47.0	41.6	37.6				
							10	6.1	48.5	19.0	42.4	38.6	45.5	39.4	35.6				
							16	7.7	45.2	19.0	37.5	34.5	42.2	34.5	31.5				
							20	8.7	43.7	19.0	35.0	32.6	40.7	32.0	29.6				
							25	9.7	42.1	18.0	32.4	30.7	39.1	29.4	27.7				
							31.25	10.9	40.5	17.1	29.6	28.7	37.5	26.6	25.7				
							62.5	15.8	35.7	14.0	19.8	22.7	32.7	16.8	19.7				
							100	20.4	32.3	12.0	11.9	18.6	29.3	8.9	15.6				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

### ABNT NBR 14565 PL Class C

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	34			90	498	44	1	4.0	40.1	15.0	36.1								
							4	6.4	30.6	15.0	24.2								
							8	8.8	25.8	15.0	17.0								
							10	9.8	24.3	15.0	14.5								
							16	12.2	21.1	15.0	8.8								
i							20	i	i	i	i								
							25	i	i	i	i								
							31.25	i	i	i	i								
							62.5	i	i	i	i								
							100	i	i	i	i								
							200	i	i	i	i								
							250	i	i	i	i								
							350	i	i	i	i								

### ABNT NBR 14565 Channel Class F

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25			100	555	30	1	4.0	65.0	19.0	61.0	65.0	62.0	58.0	62.0				
							4	4.1	65.0	19.0	60.9	65.0	62.0	57.9	62.0				
							8	5.7	65.0	19.0	59.3	62.4	62.0	56.3	59.4				
							10	6.4	65.0	19.0	58.6	60.8	62.0	55.6	57.8				
							16	8.1	65.0	18.0	56.9	57.5	62.0	53.9	54.5				
i							20	9.1	65.0	17.5	55.9	55.9	62.0	52.9	52.9				
							25	10.2	65.0	17.0	54.8	54.4	62.0	51.8	51.4				
							31.25	11.4	65.0	16.5	53.6	52.8	62.0	50.6	49.8				
							62.5	16.3	65.0	14.0	48.7	47.8	62.0	45.7	44.8				
							100	20.8	62.9	12.0	42.1	44.4	59.9	39.1	41.4				
							200	30.0	58.3	9.0	28.4	39.4	55.3	25.4	36.4				
							250	33.8	56.9	8.0	23.1	37.8	53.9	20.1	34.8				
							350	40.5	54.7	8.0	14.2	35.3	51.7	11.2	32.3				
							450	46.5	53.1	8.0	6.5	33.4	50.1	3.5	30.4				
							500	49.3	52.4	8.0	3.1	32.6	49.4	0.1	29.6				
							600	54.6	51.2	8.0	-3.4	31.3	48.2	-6.4	28.3				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				

## ABNT NBR 14565 Channel Class Ea

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25			100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3				
							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2				
							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3				
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2				
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2				
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3				
							31.25	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4				
							62.5	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3				
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3				
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2				
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3				
							350	40.6	30.6	6.6	-10.0	12.4	27.6	-13.0	9.4				
							450	46.5	28.7	6.0	-17.9	10.2	25.7	-20.9	7.2				
							500	49.3	27.9	6.0	-21.4	9.3	24.8	-24.5	6.3				

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

If Insertion Loss @ 450 MHz is < 12 dB, then:

Freq.	NEXT	PS NEXT
450	28.7	25.7
500	26.5	23.4

## ABNT NBR 14565 Channel Class E

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25			100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3				
							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
							8	5.9	58.2	19.0	52.3	45.2	55.6	49.7	42.2				
							10	6.6	56.6	19.0	50.0	43.3	54.0	47.4	40.3				
							16	8.3	53.2	18.0	44.9	39.2	50.6	42.3	36.2				
							20	9.3	51.6	17.5	42.3	37.2	49.0	39.7	34.2				
							25	10.5	50.0	17.0	39.6	35.3	47.3	36.9	32.3				
							31.25	11.7	48.4	16.5	36.7	33.4	45.7	34.0	30.4				
							62.5	16.9	43.4	14.0	26.5	27.3	40.6	23.7	24.3				
							100	21.7	39.9	12.0	18.2	23.3	37.1	15.4	20.3				
							200	31.7	34.8	9.0	3.1	17.2	31.9	0.1	14.2				
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3				
							350	i	i	i	i	i	i	i	i				

Informational measurement only, no limit available

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

## ABNT NBR 14565 Channel Class D

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25			100	555	50	1	4.0	60.0	17.0	56.0	57.4	57.0	53.0	54.4				
							4	4.5	53.5	17.0	49.0	45.4	50.5	46.0	42.4				
							8	6.4	48.6	17.0	42.2	39.3	45.6	39.2	36.3				
							10	7.2	47.0	17.0	39.8	37.4	44.0	36.8	34.4				
							16	9.1	43.6	17.0	34.5	33.3	40.6	31.5	30.3				
							20	10.2	42.0	17.0	31.8	31.4	39.0	28.8	28.4				
							25	11.5	40.3	16.0	28.9	29.4	37.3	25.9	26.4				
							31.25	12.9	38.7	15.1	25.8	27.5	35.7	22.8	24.5				
							62.5	18.6	33.6	12.0	15.0	21.5	30.6	12.0	18.5				
							100	24.0	30.1	10.0	6.1	17.4	27.1	3.1	14.4				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

Informational measurement only, no limit available

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit



GB/T 50312-2016 Cat 7A PL no CP

Wire Map	Resistance	Resistance Unbalance		Length 0	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		In a Pair	Pair to Pair						dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	20.6	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
		None	None	90	496	25	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0					
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0					
							8	4.8	65.0	21.0	60.2	65.0	62.0	57.2	62.0					
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0					
							16	6.8	65.0	20.0	58.2	65.0	62.0	55.2	62.0					
							20	7.6	65.0	19.5	57.4	64.5	62.0	54.4	61.5					
							25	8.5	65.0	19.0	56.5	62.5	62.0	53.5	59.5					
							31.25	9.5	65.0	18.5	55.5	60.6	62.0	52.5	57.6					
							62.5	13.4	65.0	16.0	51.6	54.6	62.0	48.6	51.6					
							100	17.1	65.0	14.0	47.9	50.5	62.0	44.9	47.5					
							200	24.4	63.5	11.0	39.1	44.5	60.5	36.1	41.5					
							250	27.4	61.7	10.0	34.4	42.5	58.7	31.4	39.5					
							350	32.6	59.0	10.0	26.4	39.6	56.0	23.4	36.6					
							450	37.2	57.0	10.0	19.8	37.4	54.0	16.8	34.4					
							500	39.4	56.2	10.0	16.8	36.5	53.2	13.8	33.5					
							600	43.4	54.7	10.0	11.3	34.9	51.7	8.3	31.9					
							700	47.1	53.0	9.5	6.4	33.6	50.0	3.4	30.6					
							800	50.6	51.5	9.0	1.8	32.4	48.5	-1.2	29.4					
							900	53.9	50.3	8.5	-2.4	31.4	47.3	-5.4	28.4					
							1000	57.0	49.1	8.0	-6.4	30.5	46.1	-9.4	27.5					

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 70 dB, not evaluated against the test limit

If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	50.3	47.3
1000	46.3	43.3

GB/T 50312-2016 Cat 7A PL no CP (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair						dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	20.6	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
		0.15 or 3.0	0.2 or 7.0	90	496	25	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i	i
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	18.0	i	i	i
							8	4.8	65.0	21.0	60.2	65.0	62.0	57.2	62.0	39.5	11.9	i	i	i
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0	38.0	10.0	i	i	i
							16	6.8	65.0	20.0	58.2	65.0	62.0	55.2	62.0	34.9	5.9	i	i	i
							20	7.6	65.0	19.5	57.4	64.5	62.0	54.4	61.5	33.5	4.0	i	i	i
							25	8.5	65.0	19.0	56.5	62.5	62.0	53.5	59.5	32.0	2.0	i	i	i
							31.25	9.5	65.0	18.5	55.5	60.6	62.0	52.5	57.6	30.4	i	i	i	i
							62.5	13.4	65.0	16.0	51.6	54.6	62.0	48.6	51.6	24.4	i	i	i	i
							100	17.1	65.0	14.0	47.9	50.5	62.0	44.9	47.5	20.3	i	i	i	i
							200	24.4	63.5	11.0	39.1	44.5	60.5	36.1	41.5	14.3	i	i	i	i
							250	27.4	61.7	10.0	34.4	42.5	58.7	31.4	39.5	12.3	i	i	i	i
							350	32.6	59.0	10.0	26.4	39.6	56.0	23.4	36.6	i	i	i	i	i
							450	37.2	57.0	10.0	19.8	37.4	54.0	16.8	34.4	i	i	i	i	i
							500	39.4	56.2	10.0	16.8	36.5	53.2	13.8	33.5	i	i	i	i	i
							600	43.4	54.7	10.0	11.3	34.9	51.7	8.3	31.9	i	i	i	i	i
							700	47.1	53.0	9.5	6.4	33.6	50.0	3.4	30.6	i	i	i	i	i
							800	50.6	51.5	9.0	1.8	32.4	48.5	-1.2	29.4	i	i	i	i	i
							900	53.9	50.3	8.5	-2.4	31.4	47.3	-5.4	28.4	i	i	i	i	i
							1000	57.0	49.1	8.0	-6.4	30.5	46.1	-9.4	27.5	i	i	i	i	i

i

Informational measurement only, no limit available

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

i if shielded

Informational measurement only if using shielded cable

If PS FEXT is < 70 dB, not evaluated against the test limit

If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	50.3	47.3
1000	46.3	43.3

GB/T 50312-2016 Cat 7A PL with CP

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	None	None	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0					
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0					
							8	4.9	65.0	21.0	60.1	65.0	62.0	57.1	62.0					
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0					
							16	6.8	65.0	20.0	58.2	64.7	62.0	55.2	61.7					
							20	7.7	65.0	19.5	57.3	62.8	62.0	54.3	59.8					
							25	8.6	65.0	19.0	56.4	60.8	62.0	53.4	57.8					
							31.25	9.6	65.0	18.5	55.4	58.9	62.0	52.4	55.9					
							62.5	13.6	65.0	16.0	51.4	52.9	62.0	48.4	49.9					
							100	17.3	65.0	14.0	47.7	48.8	62.0	44.7	45.8					
							200	24.7	63.5	11.0	38.9	42.8	60.5	35.9	39.8					
							250	27.7	61.7	10.0	34.0	40.8	58.7	31.0	37.8					
							350	33	59.0	10.0	26.0	37.9	56.0	23.0	34.9					
							450	37.7	57.0	10.0	19.3	35.7	54.0	16.3	32.7					
							500	39.8	56.2	10.0	16.3	34.8	53.2	13.3	31.8					
							600	43.9	54.7	10.0	10.8	33.2	51.7	7.8	30.2					
							700	47.6	52.6	9.5	5.9	31.9	49.6	2.9	28.9					
							800	51.1	50.9	9.0	1.3	30.7	47.9	-1.7	27.7					
							900	54.5	49.3	8.5	-3.0	29.7	46.3	-6.0	26.7					
							1000	57.6	47.9	8.0	-7.0	28.8	44.9	-10.0	25.8					

Not evaluated against the test limit  
 If Insertion Loss < 3 dB, not evaluated against the test limit  
 If Insertion Loss < 4 dB, not evaluated against the test limit  
 If FEXT is < 70 dB, not evaluated against the test limit  
 If PS FEXT is < 70 dB, not evaluated against the test limit  
 If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	50.3	47.3
1000	46.3	43.3

GB/T 50312-2016 Cat 7A PL with CP (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	0.15 or 3.0	0.2 or 7.0	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i	i
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	18.0	i	i	i
							8	4.9	65.0	21.0	60.1	65.0	62.0	57.1	62.0	39.5	11.9	i	i	i
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0	38.0	10.0	i	i	i
							16	6.8	65.0	20.0	58.2	64.7	62.0	55.2	61.7	34.9	5.9	i	i	i
							20	7.7	65.0	19.5	57.3	62.8	62.0	54.3	59.8	33.5	4.0	i	i	i
							25	8.6	65.0	19.0	56.4	60.8	62.0	53.4	57.8	32.0	2.0	i	i	i
							31.25	9.6	65.0	18.5	55.4	58.9	62.0	52.4	55.9	30.4	i	i	i	i
							62.5	13.6	65.0	16.0	51.4	52.9	62.0	48.4	49.9	24.4	i	i	i	i
							100	17.3	65.0	14.0	47.7	48.8	62.0	44.7	45.8	20.3	i	i	i	i
							200	24.7	63.5	11.0	38.9	42.8	60.5	35.9	39.8	14.3	i	i	i	i
							250	27.7	61.7	10.0	34.0	40.8	58.7	31.0	37.8	12.3	i	i	i	i
							350	33	59.0	10.0	26.0	37.9	56.0	23.0	34.9	i	i	i	i	i
							450	37.7	57.0	10.0	19.3	35.7	54.0	16.3	32.7	i	i	i	i	i
							500	39.8	56.2	10.0	16.3	34.8	53.2	13.3	31.8	i	i	i	i	i
							600	43.9	54.7	10.0	10.8	33.2	51.7	7.8	30.2	i	i	i	i	i
							700	47.6	52.6	9.5	5.9	31.9	49.6	2.9	28.9	i	i	i	i	i
							800	51.1	50.9	9.0	1.3	30.7	47.9	-1.7	27.7	i	i	i	i	i
							900	54.5	49.3	8.5	-3.0	29.7	46.3	-6.0	26.7	i	i	i	i	i
							1000	57.6	47.9	8.0	-7.0	28.8	44.9	-10.0	25.8	i	i	i	i	i

i Informational measurement only, no limit available  
 Not evaluated against the test limit  
 If Insertion Loss < 3 dB, not evaluated against the test limit  
 If Insertion Loss < 4 dB, not evaluated against the test limit  
 If FEXT is < 70 dB, not evaluated against the test limit  
 If PS FEXT is < 70 dB, not evaluated against the test limit  
 If Insertion Loss @ 900 MHz is < 17 dB, then:  
 i if shielded Informational measurement only if using shielded cable

Freq.	NEXT	PS NEXT
900	50.3	47.3
1000	46.3	43.3

GB/T 50312-2016 Cat 7A Ch

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair						dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25	None	None	100	555	30	1	4.0	65.0	19.0	61.0	65.0	62.0	58.0	62.0					
<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>							4	4.1	65.0	19.0	60.9	65.0	62.0	57.9	62.0					
							8	5.7	65.0	19.0	59.3	65.0	62.0	56.3	62.0					
							10	6.4	65.0	19.0	58.6	65.0	62.0	55.6	62.0					
							16	8	65.0	18.0	57.0	63.3	62.0	54.0	60.3					
							20	9	65.0	17.5	56.0	61.4	62.0	53.0	58.4					
							25	10	65.0	17.0	55.0	59.4	62.0	52.0	56.4					
							31.25	11.2	65.0	16.5	53.8	57.5	62.0	50.8	54.5					
							62.5	15.9	65.0	14.0	49.1	51.5	62.0	46.1	48.5					
							100	20.3	65.0	12.0	44.7	47.4	62.0	41.7	44.4					
							200	28.9	60.9	9.0	32.0	41.4	57.9	29.0	38.4					
							250	32.5	59.1	8.0	26.7	39.4	56.1	23.7	36.4					
							350	38.7	56.4	8.0	17.7	36.5	53.4	14.7	33.5					
							450	44.2	54.4	8.0	10.2	34.3	51.4	7.2	31.3					
							500	46.7	53.6	8.0	6.9	33.4	50.6	3.9	30.4					
							600	51.4	52.1	8.0	0.7	31.8	49.1	-2.3	28.8					
							700	55.8	50.8	7.5	-5.0	30.5	47.8	-8.0	27.5					
							800	59.9	49.7	7.0	-10.2	29.3	46.7	-13.2	26.3					
							900	63.8	48.8	6.5	-15.1	28.3	45.8	-18.1	25.3					
							1000	67.6	47.9	6.0	-19.6	27.4	44.9	-22.6	24.4					

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 70 dB, not evaluated against the test limit

If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	50.3	47.3
1000	46.3	43.3

GB/T 50312-2016 Cat 7A Ch (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair						dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25	0.2 or 3.0	0.2 or 7.0	100	555	30	1	4.0	65.0	19.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i	i
<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>							4	4.1	65.0	19.0	60.9	65.0	62.0	57.9	62.0	40.0	18.0	i	i	i
							8	5.7	65.0	19.0	59.3	65.0	62.0	56.3	62.0	39.5	11.9	i	i	i
							10	6.4	65.0	19.0	58.6	65.0	62.0	55.6	62.0	38.0	10.0	i	i	i
							16	8	65.0	18.0	57.0	63.3	62.0	54.0	60.3	34.9	5.9	i	i	i
							20	9	65.0	17.5	56.0	61.4	62.0	53.0	58.4	33.5	4.0	i	i	i
							25	10	65.0	17.0	55.0	59.4	62.0	52.0	56.4	32.0	2.0	i	i	i
							31.25	11.2	65.0	16.5	53.8	57.5	62.0	50.8	54.5	30.4	i	i	i	i
							62.5	15.9	65.0	14.0	49.1	51.5	62.0	46.1	48.5	24.4	i	i	i	i
							100	20.3	65.0	12.0	44.7	47.4	62.0	41.7	44.4	20.3	i	i	i	i
							200	28.9	60.9	9.0	32.0	41.4	57.9	29.0	38.4	14.3	i	i	i	i
							250	32.5	59.1	8.0	26.7	39.4	56.1	23.7	36.4	12.3	i	i	i	i
							350	38.7	56.4	8.0	17.7	36.5	53.4	14.7	33.5	i	i	i	i	i
							450	44.2	54.4	8.0	10.2	34.3	51.4	7.2	31.3	i	i	i	i	i
							500	46.7	53.6	8.0	6.9	33.4	50.6	3.9	30.4	i	i	i	i	i
							600	51.4	52.1	8.0	0.7	31.8	49.1	-2.3	28.8	i	i	i	i	i
							700	55.8	50.8	7.5	-5.0	30.5	47.8	-8.0	27.5	i	i	i	i	i
							800	59.9	49.7	7.0	-10.2	29.3	46.7	-13.2	26.3	i	i	i	i	i
							900	63.8	48.8	6.5	-15.1	28.3	45.8	-18.1	25.3	i	i	i	i	i
							1000	67.6	47.9	6.0	-19.6	27.4	44.9	-22.6	24.4	i	i	i	i	i

i

Informational measurement only, no limit available

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 70 dB, not evaluated against the test limit

If Insertion Loss @ 900 MHz is < 17 dB, then:

i if shielded

Informational measurement only if using shielded cable

Freq.	NEXT	PS NEXT
900	50.3	47.3
1000	46.3	43.3

**GB/T 50312-2016 Cat 7 PL**

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	CMRL
		In a Pair	Pair to Pair																	
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	None	None	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0					
3,6 - 3,6							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0					
4,5 - 4,5							8	4.9	65.0	21.0	60.1	64.3	62.0	57.1	61.3					
7,8 - 7,8							10	5.5	65.0	21.0	59.5	62.7	62.0	56.5	59.7					
							16	6.9	65.0	20.0	58.1	59.3	62.0	55.1	56.3					
i	Informational measurement only, no limit available						20	7.7	65.0	19.5	57.3	57.7	62.0	54.3	54.7					
	Not evaluated against the test limit						25	8.7	65.0	19.0	56.3	56.1	62.0	53.3	53.1					
	If Insertion Loss < 3 dB, not evaluated against the test limit						31.25	9.7	65.0	18.5	55.3	54.5	62.0	52.3	51.5					
	If Insertion Loss < 4 dB, not evaluated against the test limit						62.5	13.9	65.0	16.0	51.1	49.5	62.0	48.1	46.5					
	If FEXT is < 70 dB, not evaluated against the test limit						100	17.7	65.0	14.0	47.3	46.0	62.0	44.3	43.0					
	If PS FEXT is < 70 dB, not evaluated against the test limit						200	25.6	61.9	11.0	36.3	40.9	58.9	33.3	37.9					
							250	28.8	60.4	10.0	31.6	39.2	57.4	28.6	36.2					
							350	34.6	58.2	10.0	23.6	36.7	55.2	20.6	33.7					
							450	39.7	56.6	10.0	16.9	34.8	53.6	13.9	31.8					
							500	42.1	55.9	10.0	13.8	34.0	52.9	10.8	31.0					
							600	46.6	54.7	10.0	8.1	32.6	51.7	5.1	29.6					
							i	i	i	i	i	i	i	i	i					
							i	i	i	i	i	i	i	i	i					
							i	i	i	i	i	i	i	i	i					
							i	i	i	i	i	i	i	i	i					

**GB/T 50312-2016 Cat 7 PL (+All)**

[illegible]



**GB/T 50312-2016 Cat 7 Ch**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	CMRL
		Unbalance	Pair to Pair																	
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	None	None	100	555	30	1	4.0	65.0	19.0	61.0	65.0	62.0	58.0	62.0					
3,6 - 3,6	Not evaluated against the test limit						4	4.1	65.0	19.0	60.9	65.0	62.0	57.9	62.0					
4,5 - 4,5							8	5.7	65.0	19.0	59.3	62.4	62.0	56.3	59.4					
7,8 - 7,8							10	6.4	65.0	19.0	58.6	60.8	62.0	55.6	57.8					
							16	8.1	65.0	18.0	56.9	57.5	62.0	53.9	54.5					
							20	9.1	65.0	17.5	55.9	55.9	62.0	52.9	52.9					
							25	10.2	65.0	17.0	54.8	54.4	62.0	51.8	51.4					
							31.25	11.4	65.0	16.5	53.6	52.8	62.0	50.6	49.8					
							62.5	16.3	65.0	14.0	48.7	47.8	62.0	45.7	44.8					
							100	20.8	62.9	12.0	42.1	44.4	59.9	39.1	41.4					
							200	30.0	58.3	9.0	28.4	39.4	55.3	25.4	36.4					
							250	33.8	56.9	8.0	23.1	37.8	53.9	20.1	34.8					
							350	40.5	54.7	8.0	14.2	35.3	51.7	11.2	32.3					
							450	46.5	53.1	8.0	6.5	33.4	50.1	3.5	30.4					
							500	49.3	52.4	8.0	3.1	32.6	49.4	0.1	29.6					
							600	54.6	51.2	8.0	-3.4	31.3	48.2	-6.4	28.3					
	700	i	i	i	i	i	i	i	i											
	800	i	i	i	i	i	i	i	i											
	900	i	i	i	i	i	i	i	i											
	1000	i	i	i	i	i	i	i	i											

**GB/T 50312-2016 Cat 7 Ch (+All)**

[illegible]

GB/T 50312-2016 Cat 6A PL no CP

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	CMRL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	20.6	None	None	90	496	43	1	4.0	65.0	21.0	61.0	65.2	62.0	58.0	62.2					
							4	4.0	64.1	21.0	60.1	53.2	61.8	57.8	50.2					
							8	4.9	59.4	21.0	54.5	47.2	57.0	52.1	44.2					
							10	5.5	57.8	21.0	52.4	45.2	55.5	50.0	42.2					
							16	6.9	54.6	20.0	47.7	41.2	52.2	45.3	38.2					
							20	7.7	53.1	19.5	45.3	39.2	50.7	43.0	36.2					
							25	8.6	51.5	19.0	42.9	37.3	49.1	40.5	34.3					
							31.25	9.7	50.0	18.5	40.3	35.3	47.5	37.9	32.3					
							62.5	13.8	45.1	16.0	31.3	29.3	42.7	28.8	26.3					
							100	17.6	41.8	14.0	24.2	25.2	39.3	21.7	22.2					
							200	25.4	36.9	11.0	11.5	19.2	34.3	8.9	16.2					
							250	28.6	35.3	10.0	6.7	17.3	32.7	4.1	14.3					
							350	34.3	32.6	8.6	-1.7	14.4	29.9	-4.4	11.4					
							450	39.3	30.2	8.0	-9.1	12.2	27.4	-11.9	9.2					
							500	41.6	29.2	8.0	-12.4	11.3	26.4	-15.3	8.3					

Not evaluated against the test limit  
 If Insertion Loss < 3 dB, not evaluated against the test limit  
 If Insertion Loss < 4 dB, not evaluated against the test limit  
 If FEXT is < 70 dB, not evaluated against the test limit  
 If PS FEXT is < 70 dB, not evaluated against the test limit  
 If Insertion Loss @ 450 MHz < 12 dB, then:

Freq.	NEXT	PS NEXT
450	30.2	27.4
500	27.8	25.0

GB/T 50312-2016 Cat 6A PL no CP (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	CMRL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	20.6	0.15 or 3.0	0.2 or 7.0	90	496	43	1	4.0	65.0	21.0	61.0	65.2	62.0	58.0	62.2	40.0	30.0	i	i	i
							4	4.0	64.1	21.0	60.1	53.2	61.8	57.8	50.2	40.0	18.0	i	i	i
							8	4.9	59.4	21.0	54.5	47.2	57.0	52.1	44.2	39.5	11.9	i	i	i
							10	5.5	57.8	21.0	52.4	45.2	55.5	50.0	42.2	38.0	10.0	i	i	i
							16	6.9	54.6	20.0	47.7	41.2	52.2	45.3	38.2	34.9	5.9	i	i	i
							20	7.7	53.1	19.5	45.3	39.2	50.7	43.0	36.2	33.5	4.0	i	i	i
							25	8.6	51.5	19.0	42.9	37.3	49.1	40.5	34.3	32.0	2.0	i	i	i
							31.25	9.7	50.0	18.5	40.3	35.3	47.5	37.9	32.3	30.4	i	i	i	i
							62.5	13.8	45.1	16.0	31.3	29.3	42.7	28.8	26.3	24.4	i	i	i	i
							100	17.6	41.8	14.0	24.2	25.2	39.3	21.7	22.2	20.3	i	i	i	i
							200	25.4	36.9	11.0	11.5	19.2	34.3	8.9	16.2	14.3	i	i	i	i
							250	28.6	35.3	10.0	6.7	17.3	32.7	4.1	14.3	12.3	i	i	i	i
							350	34.3	32.6	8.6	-1.7	14.4	29.9	-4.4	11.4	i	i	i	i	i
							450	39.3	30.2	8.0	-9.1	12.2	27.4	-11.9	9.2	i	i	i	i	i
							500	41.6	29.2	8.0	-12.4	11.3	26.4	-15.3	8.3	i	i	i	i	i

Not evaluated against the test limit  
 If Insertion Loss < 3 dB, not evaluated against the test limit  
 If Insertion Loss < 4 dB, not evaluated against the test limit  
 If FEXT is < 70 dB, not evaluated against the test limit  
 If PS FEXT is < 70 dB, not evaluated against the test limit  
 If Insertion Loss @ 450 MHz < 12 dB, then:  
 Informational measurement only, no limit available  
 Informational measurement only if using shielded cable

Freq.	NEXT	PS NEXT
450	30.2	27.4
500	27.8	25.0

GB/T 50312-2016 Cat 6A PL with CP

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	CMRL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21	None	None	90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2					
							4	4.0	64.1	21.0	60.1	52.1	61.8	57.8	49.1					
							8	4.9	59.4	21.0	54.4	46.1	57.0	52.1	43.1					
							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2					
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1					
							20	7.8	53.1	19.5	45.3	38.2	50.7	42.9	35.2					
							25	8.7	51.5	19.0	42.8	36.2	49.1	40.4	33.2					
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.8	31.3					
							62.5	14.0	45.1	16.0	31.2	28.3	42.7	28.7	25.3					
							100	17.8	41.8	14.0	24.0	24.2	39.3	21.5	21.2					
							200	25.7	36.9	11.0	11.3	18.2	34.3	8.7	15.2					
							250	28.9	35.3	10.0	6.4	16.2	32.7	3.8	13.2					
							350	34.6	32.2	8.6	-2.5	13.3	29.4	-5.2	10.3					
							450	39.7	29.2	8.0	-10.6	11.1	26.2	-13.5	8.1					
							500	42.1	27.9	8.0	-14.2	10.2	24.8	-17.2	7.2					

Not evaluated against the test limit  
 If Insertion Loss < 3 dB, not evaluated against the test limit  
 If Insertion Loss < 4 dB, not evaluated against the test limit  
 If FEXT is < 70 dB, not evaluated against the test limit  
 If PS FEXT is < 70 dB, not evaluated against the test limit  
 If Insertion Loss @ 450 MHz < 12 dB, then:



GB/T 50312-2016 Cat 6 PL

[illegible]

GB/T 50312-2016 Cat 6 PL (+All)

[illegible]

GB/T 50312-2016 Cat 6 Ch

[illegible]

[illegible][illegible][illegible]

[illegible][illegible][illegible]

GB/T 50312-2016 Cat 3 Ch

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	CMRL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	40	None	None	100	555	50	1	4.2	39.1	15.0	34.9									
							4	7.6	29.2	15.0	21.6									
							8	10.4	24.3	15.0	13.9									
							10	11.5	22.7	15.0	11.2									
							16	14.4	19.4	15.0	5.0									
							20	i	i	i	i									
							25	i	i	i	i									
							31.25	i	i	i	i									
							62.5	i	i	i	i									
							100	i	i	i	i									
							200	i	i	i	i									
							250	i	i	i	i									
							350	i	i	i	i									

Not evaluated against the test limit  
If Insertion Loss < 3 dB, not evaluated against the test limit  
If Insertion Loss < 4 dB, not evaluated against the test limit  
Informational measurement only, no limit available

YD/T 1019 7A Cable 100m (LA)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	CMRL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	19	None	None	100	545	25	1	i	i	i		i	i		i	50	35			
							4	3.7	78.0	23.0		78.0	75.0		75.0	44.0	23.0			
							8	5.2	78.0	24.5		77.2	75.0		74.2	41.0	16.9			
							10	5.8	78.0	25.0		75.3	75.0		72.3	40.0	15.0			
							16	7.3	78.0	25.0		71.2	75.0		68.2	38.0	10.9			
							20	8.2	78.0	25.0		69.3	75.0		66.3	37.0	9.0			
							25	9.2	78.0	24.3		67.3	75.0		64.3	36.0	7.0			
							31.25	10.3	78.0	23.6		65.4	75.0		62.4	35.1	i			
							62.5	14.6	78.0	21.5		59.4	75.0		56.4	32.0	i			
							100	18.5	75.4	20.1		55.3	72.4		52.3	30.0	i			
							200	26.5	70.9	18.0		49.3	67.9		46.3	27.0	i			
							250	29.7	69.4	17.3		47.3	66.4		44.3	26.0	i			
							350	35.4	67.2	17.3		44.4	64.2		41.4	i	i			
							450	40.4	65.6	17.3		42.2	62.6		39.2	i	i			
							500	42.8	64.9	17.3		41.3	61.9		38.3	i	i			
							600	47.1	63.7	17.3		39.7	60.7		36.7	i	i			
							700	51.1	62.7	16.6		38.4	59.7		35.4	i	i			
							800	54.9	61.9	16.1		37.2	58.9		34.2	i	i			
							900	58.5	61.1	15.5		36.2	58.1		33.2	i	i			
							1000	61.9	60.4	15.1		35.3	57.4		32.3	i	i			

Not evaluated against the test limit  
If Insertion Loss < 3 dB, not evaluated against the test limit  
If FEXT is < 70 dB, not evaluated against the test limit  
If PS FEXT is < 67 dB, not evaluated against the test limit  
Informational measurement only, no limit available  
Informational measurement only if using shielded cable

YD/T 1019 7 Cable 100m (LA)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	CMRL																																		
		Unbalance	Pair to Pair																																																			
																					Ω or %	Ω or %																																
	Ω			Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB																																		
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	19	None	None	100	545	25	1	i	i	i		i	i		i	50	35																																					
	Not evaluated against the test limit						4	3.7	78.0	23.0		78.0	75.0		75.0	44.0	23.0																																					
							8	5.2	78.0	24.5		77.2	75.0		74.2	41.0	16.9																																					
							10	5.9	78.0	25.0		75.3	75.0		72.3	40.0	15.0																																					
							16	7.4	78.0	25.0		71.2	75.0		68.2	38.0	10.9																																					
							20	8.3	78.0	25.0		69.3	75.0		66.3	37.0	9.0																																					
							25	9.3	78.0	24.3		67.3	75.0		64.3	36.0	7.0																																					
							31.25	10.4	78.0	23.6		65.4	75.0		62.4	35.1	i																																					
							62.5	14.9	75.5	21.5		59.4	72.5		56.4	32.0	i																																					
							100	19.0	72.4	20.1		55.3	69.4		52.3	30.0	i																																					
							200	27.5	67.9	18.0		49.3	64.9		46.3	27.0	i																																					
							250	31.0	66.4	17.3		47.3	63.4		44.3	26.0	i																																					
							350	37.2	64.2	17.3		44.4	61.2		41.4	i	i																																					
							450	42.7	62.6	17.3		42.2	59.6		39.2	i	i																																					
							500	45.3	61.9	17.3		41.3	58.9		38.3	i	i																																					
							600	50.1	60.7	17.3		39.7	57.7		36.7	i	i																																					
							700	i	i	i		i	i		i	i	i																																					
	800	i	i	i		i	i		i	i	i																																											
	900	i	i	i		i	i		i	i	i																																											
	1000	i	i	i		i	i		i	i	i																																											
	If Insertion Loss < 3 dB, not evaluated against the test limit																																																					
							If FEXT is < 70 dB, not evaluated against the test limit																																															
													If PS FEXT is < 67 dB, not evaluated against the test limit																																									
																			Informational measurement only, no limit available																																			
i																									Informational measurement only if using shielded cable																													
i if shielded																																																						

YD/T 1019 6A Cable 100m (LA)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	CMRL
		Unbalance	Pair to Pair																	
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	None	None	100	545	45	1	i	i	i		i	i		i	50	35			
3,6 - 3,6	Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit Informational measurement only, no limit available Informational measurement only if using shielded cable						4	3.8	66.3	23.0		56.0	63.3		53.0	44.0	23.0			
4,5 - 4,5							8	5.3	61.8	24.5		49.9	58.8		46.9	41.0	16.9			
7,8 - 7,8							10	5.9	60.3	25.0		48.0	57.3		45.0	40.0	15.0			
							16	7.5	57.2	25.0		43.9	54.2		40.9	38.0	10.9			
							20	8.4	55.8	25.0		42.0	52.8		39.0	37.0	9.0			
							25	9.4	54.3	24.3		40.0	51.3		37.0	36.0	7.0			
							31.25	10.5	52.9	23.6		38.1	49.9		35.1	35.1	i			
							62.5	15.0	48.4	21.5		32.1	45.4		29.1	32.0	i			
i							100	19.1	45.3	20.1		28.0	42.3		25.0	30.0	i			
i if shielded							200	27.6	40.8	18.0		22.0	37.8		19.0	27.0	i			
							250	31.1	39.3	17.3		20.0	36.3		17.0	26.0	i			
							350	37.2	37.1	17.3		17.1	34.1		14.1	i	i			
							450	42.7	35.5	17.3		14.9	32.5		11.9	i	i			
							500	45.3	34.8	17.3		14.0	31.8		11.0	i	i			



**YD/T 1019 6 Cable 100m (LA)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	CMRL
		Unbalance	Pair to Pair																	
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	None	None	100	545	45	1	i	i	i		i	i		i	50	35			
3,6 - 3,6							4	3.8	66.3	23.0		56.0	63.3		53.0	44.0	23.0			
4,5 - 4,5							8	5.3	61.8	24.5		49.9	58.8		46.9	41.0	16.9			
7,8 - 7,8							10	6.0	60.3	25.0		48.0	57.3		45.0	40.0	15.0			
							16	7.6	57.2	25.0		43.9	54.2		40.9	38.0	10.9			
							20	8.5	55.8	25.0		42.0	52.8		39.0	37.0	9.0			
							25	9.5	54.3	24.3		40.0	51.3		37.0	36.0	7.0			
							31.25	10.7	52.9	23.6		38.1	49.9		35.1	35.1	i			
							62.5	15.4	48.4	21.5		32.1	45.4		29.1	32.0	i			
							100	19.8	45.3	20.1		28.0	42.3		25.0	30.0	i			
i							200	29.0	40.8	18.0		22.0	37.8		19.0	27.0	i			
i if shielded							250	32.8	39.3	17.3		20.0	36.3		17.0	26.0	i			
							350	i	i	i		i	i		i	i	i			

**YD/T 1019 5e Cable 100m (LA)**

[illegible]

## EN50173 PL2 Class Fa

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	20.6			90	496	25	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							8	4.8	65.0	21.0	60.2	65.0	62.0	57.2	62.0				
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0				
							16	6.8	65.0	20.0	58.2	65.0	62.0	55.2	62.0				
							20	7.6	65.0	19.5	57.4	64.5	62.0	54.4	61.5				
							25	8.5	65.0	19.0	56.5	62.5	62.0	53.5	59.5				
							31.25	9.5	65.0	18.5	55.5	60.6	62.0	52.5	57.6				
							62.5	13.4	65.0	16.0	51.6	54.6	62.0	48.6	51.6				
							100	17.1	65.0	14.0	47.9	50.5	62.0	44.9	47.5				
							200	24.4	63.5	11.0	39.1	44.5	60.5	36.1	41.5				
							250	27.4	61.7	10.0	34.4	42.5	58.7	31.4	39.5				
							350	32.6	59.0	10.0	26.4	39.6	56.0	23.4	36.6				
							450	37.2	57.0	10.0	19.8	37.4	54.0	16.8	34.4				
							500	39.4	56.2	10.0	16.8	36.5	53.2	13.8	33.5				
							600	43.4	54.7	10.0	11.3	34.9	51.7	8.3	31.9				
							700	47.1	53.0	9.5	6.4	33.6	50.0	3.4	30.6				
							800	50.6	51.5	9.0	1.8	32.4	48.5	-1.2	29.4				
							900	53.9	50.3	8.5	-2.4	31.4	47.3	-5.4	28.4				
							1000	57.0	49.1	8.0	-6.4	30.5	46.1	-9.4	27.5				

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 70 dB, not evaluated against the test limit

If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	50.3	47.3
1000	46.3	43.3

## EN50173 PL3 Class Fa

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21			90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							8	4.9	65.0	21.0	60.1	65.0	62.0	57.1	62.0				
							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0				
							16	6.8	65.0	20.0	58.2	64.7	62.0	55.2	61.7				
							20	7.7	65.0	19.5	57.3	62.8	62.0	54.3	59.8				
							25	8.6	65.0	19.0	56.4	60.8	62.0	53.4	57.8				
							31.25	9.6	65.0	18.5	55.4	58.9	62.0	52.4	55.9				
							62.5	13.6	65.0	16.0	51.4	52.9	62.0	48.4	49.9				
							100	17.3	65.0	14.0	47.7	48.8	62.0	44.7	45.8				
							200	24.7	63.5	11.0	38.9	42.8	60.5	35.9	39.8				
							250	27.7	61.7	10.0	34.0	40.8	58.7	31.0	37.8				
							350	33.0	59.0	10.0	26.0	37.9	56.0	23.0	34.9				
							450	37.7	57.0	10.0	19.3	35.7	54.0	16.3	32.7				
							500	39.8	56.2	10.0	16.3	34.8	53.2	13.3	31.8				
							600	43.9	54.7	10.0	10.8	33.2	51.7	7.8	30.2				
							700	47.6	52.6	9.5	5.9	31.9	49.6	2.9	28.9				
							800	51.1	50.9	9.0	1.3	30.7	47.9	-1.7	27.7				
							900	54.5	49.3	8.5	-3.0	29.7	46.3	-6.0	26.7				
							1000	57.6	47.9	8.0	-7.0	28.8	44.9	-10.0	25.8				

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 70 dB, not evaluated against the test limit

## EN50173 PL Class F

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	21			90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
							8	4.9	65.0	21.0	60.1	64.3	62.0	57.1	61.3				
							10	5.5	65.0	21.0	59.5	62.7	62.0	56.5	59.7				
							16	6.9	65.0	20.0	58.1	59.3	62.0	55.1	56.3				
i	Informational measurement only, no limit available						20	7.7	65.0	19.5	57.3	57.7	62.0	54.3	54.7				
	Not evaluated against the test limit						25	8.7	65.0	19.0	56.3	56.1	62.0	53.3	53.1				
	If Insertion Loss < 3 dB, not evaluated against the test limit						31.25	9.7	65.0	18.5	55.3	54.5	62.0	52.3	51.5				
	If Insertion Loss < 4 dB, not evaluated against the test limit						62.5	13.9	65.0	16.0	51.1	49.5	62.0	48.1	46.5				
	If FEXT is < 70 dB, not evaluated against the test limit						100	17.7	65.0	14.0	47.3	46.0	62.0	44.3	43.0				
	If PS FEXT is < 70 dB, not evaluated against the test limit						200	25.6	61.9	11.0	36.3	40.9	58.9	33.3	37.9				
							250	28.8	60.4	10.0	31.6	39.2	57.4	28.6	36.2				
							350	34.6	58.2	10.0	23.6	36.7	55.2	20.6	33.7				
							450	39.7	56.6	10.0	16.9	34.8	53.6	13.9	31.8				
							500	42.1	55.9	10.0	13.8	34.0	52.9	10.8	31.0				
							600	46.6	54.7	10.0	8.1	32.6	51.7	5.1	29.6				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				

## EN50173 PL2 Class Ea

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	20.6			90	496	43	1	4.0	65.0	21.0	61.0	65.2	62.0	58.0	62.2				
							4	4.0	64.1	21.0	60.1	53.2	61.8	57.8	50.2				
							8	4.9	59.4	21.0	54.5	47.2	57.0	52.1	44.2				
							10	5.5	57.8	21.0	52.4	45.2	55.5	50.0	42.2				
							16	6.9	54.6	20.0	47.7	41.2	52.2	45.3	38.2				
							20	7.7	53.1	19.5	45.3	39.2	50.7	43.0	36.2				
							25	8.6	51.5	19.0	42.9	37.3	49.1	40.5	34.3				
	Not evaluated against the test limit						31.25	9.7	50.0	18.5	40.3	35.3	47.5	37.9	32.3				
	If Insertion Loss < 3 dB, not evaluated against the test limit						62.5	13.8	45.1	16.0	31.3	29.3	42.7	28.8	26.3				
	If Insertion Loss < 4 dB, not evaluated against the test limit						100	17.6	41.8	14.0	24.2	25.2	39.3	21.7	22.2				
	If FEXT is < 70 dB, not evaluated against the test limit						200	25.4	36.9	11.0	11.5	19.2	34.3	8.9	16.2				
	If PS FEXT is < 70 dB, not evaluated against the test limit						250	28.6	35.3	10.0	6.7	17.3	32.7	4.1	14.3				
							350	34.3	32.6	8.6	-1.7	14.4	29.9	-4.4	11.4				
							450	39.3	30.2	8.0	-9.1	12.2	27.4	-11.9	9.2				
							500	41.6	29.2	8.0	-12.4	11.3	26.4	-15.3	8.3				



## EN50173 PL Class C

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	34			90	498	44	1	4.0	40.1	15.0	36.1								
3,6 - 3,6							4	6.4	30.6	15.0	24.2								
4,5 - 4,5							8	8.8	25.8	15.0	17.0								
7,8 - 7,8							10	9.8	24.3	15.0	14.5								
							16	12.2	21.1	15.0	8.8								
i	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit						20	i	i	i	i								
							25	i	i	i	i								
							31.25	i	i	i	i								
							62.5	i	i	i	i								
							100	i	i	i	i								
							200	i	i	i	i								
							250	i	i	i	i								
							350	i	i	i	i								

## EN50173 Channel Class Fa

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25			100	555	30	1	4.0	65.0	19.0	61.0	65.0	62.0	58.0	62.0				
3,6 - 3,6							4	4.1	65.0	19.0	60.9	65.0	62.0	57.9	62.0				
4,5 - 4,5							8	5.7	65.0	19.0	59.3	65.0	62.0	56.3	62.0				
7,8 - 7,8							10	6.4	65.0	19.0	58.6	65.0	62.0	55.6	62.0				
							16	8.0	65.0	18.0	57.0	63.3	62.0	54.0	60.3				
							20	9.0	65.0	17.5	56.0	61.4	62.0	53.0	58.4				
							25	10.0	65.0	17.0	55.0	59.4	62.0	52.0	56.4				
							31.25	11.2	65.0	16.5	53.8	57.5	62.0	50.8	54.5				
							62.5	15.9	65.0	14.0	49.1	51.5	62.0	46.1	48.5				
							100	20.3	65.0	12.0	44.7	47.4	62.0	41.7	44.4				
							200	28.9	60.9	9.0	32.0	41.4	57.9	29.0	38.4				
							250	32.5	59.1	8.0	26.7	39.4	56.1	23.7	36.4				
							350	38.7	56.4	8.0	17.7	36.5	53.4	14.7	33.5				
							450	44.2	54.4	8.0	10.2	34.3	51.4	7.2	31.3				
							500	46.7	53.6	8.0	6.9	33.4	50.6	3.9	30.4				
							600	51.4	52.1	8.0	0.7	31.8	49.1	-2.3	28.8				
							700	55.8	50.8	7.5	-5.0	30.5	47.8	-8.0	27.5				
							800	59.9	49.7	7.0	-10.2	29.3	46.7	-13.2	26.3				
							900	63.8	48.8	6.5	-15.1	28.3	45.8	-18.1	25.3				
							1000	67.6	47.9	6.0	-19.6	27.4	44.9	-22.6	24.4				

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	48.8	45.8
1000	45.1	42.1

## EN50173 Channel Class F

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25			100	555	30	1	4.0	65.0	19.0	61.0	65.0	62.0	58.0	62.0				
							4	4.1	65.0	19.0	60.9	65.0	62.0	57.9	62.0				
							8	5.7	65.0	19.0	59.3	62.4	62.0	56.3	59.4				
							10	6.4	65.0	19.0	58.6	60.8	62.0	55.6	57.8				
							16	8.1	65.0	18.0	56.9	57.5	62.0	53.9	54.5				
i							20	9.1	65.0	17.5	55.9	55.9	62.0	52.9	52.9				
							25	10.2	65.0	17.0	54.8	54.4	62.0	51.8	51.4				
							31.25	11.4	65.0	16.5	53.6	52.8	62.0	50.6	49.8				
							62.5	16.3	65.0	14.0	48.7	47.8	62.0	45.7	44.8				
							100	20.8	62.9	12.0	42.1	44.4	59.9	39.1	41.4				
							200	30.0	58.3	9.0	28.4	39.4	55.3	25.4	36.4				
							250	33.8	56.9	8.0	23.1	37.8	53.9	20.1	34.8				
							350	40.5	54.7	8.0	14.2	35.3	51.7	11.2	32.3				
							450	46.5	53.1	8.0	6.5	33.4	50.1	3.5	30.4				
							500	49.3	52.4	8.0	3.1	32.6	49.4	0.1	29.6				
							600	54.6	51.2	8.0	-3.4	31.3	48.2	-6.4	28.3				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				

## EN50173 Channel Class Ea

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25			100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3				
							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2				
							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3				
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2				
i							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2				
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3				
							31.25	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4				
							62.5	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3				
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3				
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2				
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3				
							350	40.6	30.6	6.6	-10.0	12.4	27.6	-13.0	9.4				
							450	46.5	28.7	6.0	-17.9	10.2	25.7	-20.9	7.2				
							500	49.3	27.9	6.0	-21.4	9.3	24.8	-24.5	6.3				

## EN50173 Channel Class E

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25			100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3				
3,6 - 3,6							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
4,5 - 4,5							8	5.9	58.2	19.0	52.3	45.2	55.6	49.7	42.2				
7,8 - 7,8							10	6.6	56.6	19.0	50.0	43.3	54.0	47.4	40.3				
							16	8.3	53.2	18.0	44.9	39.2	50.6	42.3	36.2				
i							20	9.3	51.6	17.5	42.3	37.2	49.0	39.7	34.2				
							25	10.5	50.0	17.0	39.6	35.3	47.3	36.9	32.3				
							31.25	11.7	48.4	16.5	36.7	33.4	45.7	34.0	30.4				
							62.5	16.9	43.4	14.0	26.5	27.3	40.6	23.7	24.3				
							100	21.7	39.9	12.0	18.2	23.3	37.1	15.4	20.3				
							200	31.7	34.8	9.0	3.1	17.2	31.9	0.1	14.2				
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3				
							350	i	i	i	i	i	i	i	i				

## EN50173 Channel Class D

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25			100	555	50	1	4.0	60.0	17.0	56.0	57.4	57.0	53.0	54.4				
3,6 - 3,6							4	4.5	53.5	17.0	49.0	45.4	50.5	46.0	42.4				
4,5 - 4,5							8	6.4	48.6	17.0	42.2	39.3	45.6	39.2	36.3				
7,8 - 7,8							10	7.2	47.0	17.0	39.8	37.4	44.0	36.8	34.4				
							16	9.1	43.6	17.0	34.5	33.3	40.6	31.5	30.3				
i							20	10.2	42.0	17.0	31.8	31.4	39.0	28.8	28.4				
							25	11.5	40.3	16.0	28.9	29.4	37.3	25.9	26.4				
							31.25	12.9	38.7	15.1	25.8	27.5	35.7	22.8	24.5				
							62.5	18.6	33.6	12.0	15.0	21.5	30.6	12.0	18.5				
							100	24.0	30.1	10.0	6.1	17.4	27.1	3.1	14.4				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

## EN50173 Channel Class C

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	40			100	555	50	1	4.2	39.1	15.0	34.9								
3,6 - 3,6							4	7.6	29.2	15.0	21.6								
4,5 - 4,5							8	10.4	24.3	15.0	13.9								
7,8 - 7,8							10	11.5	22.7	15.0	11.2								
							16	14.4	19.4	15.0	5.0								
i							20	i	i	i	i								
							25	i	i	i	i								
							31.25	i	i	i	i								
							62.5	i	i	i	i								
							100	i	i	i	i								
							200	i	i	i	i								
							250	i	i	i	i								
							350	i	i	i	i								

## EN50173 PL2 Class Fa (600 MHz)

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	20.6			90	496	25	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
3,6 - 3,6							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
4,5 - 4,5							8	4.8	65.0	21.0	60.2	65.0	62.0	57.2	62.0				
7,8 - 7,8							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0				
							16	6.8	65.0	20.0	58.2	65.0	62.0	55.2	62.0				
i							20	7.6	65.0	19.5	57.4	64.5	62.0	54.4	61.5				
							25	8.5	65.0	19.0	56.5	62.5	62.0	53.5	59.5				
							31.25	9.5	65.0	18.5	55.5	60.6	62.0	52.5	57.6				
							62.5	13.4	65.0	16.0	51.6	54.6	62.0	48.6	51.6				
							100	17.1	65.0	14.0	47.9	50.5	62.0	44.9	47.5				
							200	24.4	63.5	11.0	39.1	44.5	60.5	36.1	41.5				
							250	27.4	61.7	10.0	34.4	42.5	58.7	31.4	39.5				
							350	32.6	59.0	10.0	26.4	39.6	56.0	23.4	36.6				
							450	37.2	57.0	10.0	19.8	37.4	54.0	16.8	34.4				
							500	39.4	56.2	10.0	16.8	36.5	53.2	13.8	33.5				
							600	43.4	54.7	10.0	11.3	34.9	51.7	8.3	31.9				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				

## EN50173 PL3 Class Fa (600 MHz)

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21			90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
3,6 - 3,6							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
4,5 - 4,5							8	4.9	65.0	21.0	60.1	65.0	62.0	57.1	62.0				
7,8 - 7,8							10	5.4	65.0	21.0	59.6	65.0	62.0	56.6	62.0				
							16	6.8	65.0	20.0	58.2	64.7	62.0	55.2	61.7				
i							20	7.7	65.0	19.5	57.3	62.8	62.0	54.3	59.8				
							25	8.6	65.0	19.0	56.4	60.8	62.0	53.4	57.8				
							31.25	9.6	65.0	18.5	55.4	58.9	62.0	52.4	55.9				
							62.5	13.6	65.0	16.0	51.4	52.9	62.0	48.4	49.9				
							100	17.3	65.0	14.0	47.7	48.8	62.0	44.7	45.8				
							200	24.7	63.5	11.0	38.9	42.8	60.5	35.9	39.8				
							250	27.7	61.7	10.0	34.0	40.8	58.7	31.0	37.8				
							350	33.0	59.0	10.0	26.0	37.9	56.0	23.0	34.9				
							450	37.7	57.0	10.0	19.3	35.7	54.0	16.3	32.7				
							500	39.8	56.2	10.0	16.3	34.8	53.2	13.3	31.8				
							600	43.9	54.7	10.0	10.8	33.2	51.7	7.8	30.2				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				









## JIS X5150:2021 PL Class F

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	None	None	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
3,6 - 3,6							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
4,5 - 4,5							8	4.9	65.0	21.0	60.1	64.3	62.0	57.1	61.3				
7,8 - 7,8							10	5.5	65.0	21.0	59.5	62.7	62.0	56.5	59.7				
							16	6.9	65.0	20.0	58.1	59.3	62.0	55.1	56.3				
							20	7.7	65.0	19.5	57.3	57.7	62.0	54.3	54.7				
							25	8.7	65.0	19.0	56.3	56.1	62.0	53.3	53.1				
							31.25	9.7	65.0	18.5	55.3	54.5	62.0	52.3	51.5				
							62.5	13.9	65.0	16.0	51.1	49.5	62.0	48.1	46.5				
							100	17.7	65.0	14.0	47.3	46.0	62.0	44.3	43.0				
							200	25.6	61.9	11.0	36.3	40.9	58.9	33.3	37.9				
							250	28.8	60.4	10.0	31.6	39.2	57.4	28.6	36.2				
							350	34.6	58.2	10.0	23.6	36.7	55.2	20.6	33.7				
							450	39.7	56.6	10.0	16.9	34.8	53.6	13.9	31.8				
							500	42.1	55.9	10.0	13.8	34.0	52.9	10.8	31.0				
							600	46.6	54.7	10.0	8.1	32.6	51.7	5.1	29.6				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

If Insertion Loss @ 900 MHz is < 17 dB, then:

Freq.	NEXT	PS NEXT
900	48.8	45.8
1000	45.1	42.1

## JIS X5150:2021 PL Class F (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.2 or 3.0	0.2 or 7.0	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	30.0	i	i
3,6 - 3,6							4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0	40.0	18.0	i	i
4,5 - 4,5							8	4.9	65.0	21.0	60.1	64.3	62.0	57.1	61.3	39.5	11.9	i	i
7,8 - 7,8							10	5.5	65.0	21.0	59.5	62.7	62.0	56.5	59.7	38.0	10.0	i	i
							16	6.9	65.0	20.0	58.1	59.3	62.0	55.1	56.3	34.9	5.9	i	i
							20	7.7	65.0	19.5	57.3	57.7	62.0	54.3	54.7	33.5	4.0	i	i
							25	8.7	65.0	19.0	56.3	56.1	62.0	53.3	53.1	32.0	2.0	i	i
							31.25	9.7	65.0	18.5	55.3	54.5	62.0	52.3	51.5	30.4	i	i	i
							62.5	13.9	65.0	16.0	51.1	49.5	62.0	48.1	46.5	24.4	i	i	i
							100	17.7	65.0	14.0	47.3	46.0	62.0	44.3	43.0	20.3	i	i	i
							200	25.6	61.9	11.0	36.3	40.9	58.9	33.3	37.9	14.3	i	i	i
							250	28.8	60.4	10.0	31.6	39.2	57.4	28.6	36.2	12.3	i	i	i
							350	34.6	58.2	10.0	23.6	36.7	55.2	20.6	33.7	i	i	i	i
							450	39.7	56.6	10.0	16.9	34.8	53.6	13.9	31.8	i	i	i	i
							500	42.1	55.9	10.0	13.8	34.0	52.9	10.8	31.0	i	i	i	i
							600	46.6	54.7	10.0	8.1	32.6	51.7	5.1	29.6	i	i	i	i
							700	i	i	i	i	i	i	i	i	i	i	i	i
							800	i	i	i	i	i	i	i	i	i	i	i	i
							900	i	i	i	i	i	i	i	i	i	i	i	i
							1000	i	i	i	i	i	i	i	i	i	i	i	i

Informational measurement only, no limit available

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 70 dB, not evaluated against the test limit

## JIS X5150:2021 PL Class F (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.2 or 3.0	0.2 or 7.0	90	498	26	1	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
3,6 - 3,6	Informational measurement only, no limit available						4	4.0	65.0	21.0	61.0	65.0	62.0	58.0	62.0				
4,5 - 4,5							8	4.9	65.0	21.0	60.1	64.3	62.0	57.1	61.3				
7,8 - 7,8							10	5.5	65.0	21.0	59.5	62.7	62.0	56.5	59.7				
							16	6.9	65.0	20.0	58.1	59.3	62.0	55.1	56.3				
i							20	7.7	65.0	19.5	57.3	57.7	62.0	54.3	54.7				
							25	8.7	65.0	19.0	56.3	56.1	62.0	53.3	53.1				
							31.25	9.7	65.0	18.5	55.3	54.5	62.0	52.3	51.5				
							62.5	13.9	65.0	16.0	51.1	49.5	62.0	48.1	46.5				
							100	17.7	65.0	14.0	47.3	46.0	62.0	44.3	43.0				
							200	25.6	61.9	11.0	36.3	40.9	58.9	33.3	37.9				
							250	28.8	60.4	10.0	31.6	39.2	57.4	28.6	36.2				
							350	34.6	58.2	10.0	23.6	36.7	55.2	20.6	33.7				
							450	39.7	56.6	10.0	16.9	34.8	53.6	13.9	31.8				
							500	42.1	55.9	10.0	13.8	34.0	52.9	10.8	31.0				
							600	46.6	54.7	10.0	8.1	32.6	51.7	5.1	29.6				
							700	i	i	i	i	i	i	i	i				
							800	i	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				

## JIS X5150:2021 PL2 Class Ea

Wire Map	Resistance	Resistance	Resistance	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	20.6	None	None	90	496	43	1	4.0	65.0	21.0	61.0	65.2	62.0	58.0	62.2				
3,6 - 3,6	Informational measurement only, no limit available						4	4.0	64.1	21.0	60.1	53.2	61.8	57.8	50.2				
4,5 - 4,5							8	4.9	59.4	21.0	54.5	47.2	57.0	52.1	44.2				
7,8 - 7,8							10	5.5	57.8	21.0	52.4	45.2	55.5	50.0	42.2				
							16	6.9	54.6	20.0	47.7	41.2	52.2	45.3	38.2				
i							20	7.7	53.1	19.5	45.3	39.2	50.7	43.0	36.2				
							25	8.6	51.5	19.0	42.9	37.3	49.1	40.5	34.3				
							31.25	9.7	50.0	18.5	40.3	35.3	47.5	37.9	32.3				
							62.5	13.8	45.1	16.0	31.3	29.3	42.7	28.8	26.3				
							100	17.6	41.8	14.0	24.2	25.2	39.3	21.7	22.2				
							200	25.4	36.9	11.0	11.5	19.2	34.3	8.9	16.2				
							250	28.6	35.3	10.0	6.7	17.3	32.7	4.1	14.3				
							350	34.3	32.6	8.6	-1.7	14.4	29.9	-4.4	11.4				
							450	39.3	30.2	8.0	-9.1	12.2	27.4	-11.9	9.2				
							500	41.6	29.2	8.0	-12.4	11.3	26.4	-15.3	8.3				

If Insertion Loss @ 450 MHz < 12 dB, then:						Freq.	NEXT	PS NEXT
						450	30.2	27.4
						500	27.8	25.0

### JIS X5150:2021 PL2 Class Ea (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		$\Omega$ or %	$\Omega$ or %																
1,2 - 1,2	20.6	0.2 or 3.0	0.2 or 7.0	90	496	43	1	4.0	65.0	21.0	61.0	65.2	62.0	58.0	62.2	40.0	30.0	i	i
3,6 - 3,6	Informational measurement only, no limit available						4	4.0	64.1	21.0	60.1	53.2	61.8	57.8	50.2	40.0	18.0	i	i
4,5 - 4,5							8	4.9	59.4	21.0	54.5	47.2	57.0	52.1	44.2	39.5	11.9	i	i
7,8 - 7,8							10	5.5	57.8	21.0	52.4	45.2	55.5	50.0	42.2	38.0	10.0	i	i
							16	6.9	54.6	20.0	47.7	41.2	52.2	45.3	38.2	34.9	5.9	i	i
i							20	7.7	53.1	19.5	45.3	39.2	50.7	43.0	36.2	33.5	4.0	i	i
							25	8.6	51.5	19.0	42.9	37.3	49.1	40.5	34.3	32.0	2.0	i	i
							31.25	9.7	50.0	18.5	40.3	35.3	47.5	37.9	32.3	30.4	i	i	i
							62.5	13.8	45.1	16.0	31.3	29.3	42.7	28.8	26.3	24.4	i	i	i
							100	17.6	41.8	14.0	24.2	25.2	39.3	21.7	22.2	20.3	i	i	i
							200	25.4	36.9	11.0	11.5	19.2	34.3	8.9	16.2	14.3	i	i	i
							250	28.6	35.3	10.0	6.7	17.3	32.7	4.1	14.3	12.3	i	i	i
							350	34.3	32.6	8.6	-1.7	14.4	29.9	-4.4	11.4	i	i	i	i
							450	39.3	30.2	8.0	-9.1	12.2	27.4	-11.9	9.2	i	i	i	i
							500	41.6	29.2	8.0	-12.4	11.3	26.4	-15.3	8.3	i	i	i	i

### JIS X5150:2021 PL2 Class Ea (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		$\Omega$ or %	$\Omega$ or %																
1,2 - 1,2	20.6	0.2 or 3.0	0.2 or 7.0	90	496	43	1	4.0	65.0	21.0	61.0	65.2	62.0	58.0	62.2				
3,6 - 3,6	Not evaluated against the test limit						4	4.0	64.1	21.0	60.1	53.2	61.8	57.8	50.2				
4,5 - 4,5							8	4.9	59.4	21.0	54.5	47.2	57.0	52.1	44.2				
7,8 - 7,8							10	5.5	57.8	21.0	52.4	45.2	55.5	50.0	42.2				
							16	6.9	54.6	20.0	47.7	41.2	52.2	45.3	38.2				
							20	7.7	53.1	19.5	45.3	39.2	50.7	43.0	36.2				
							25	8.6	51.5	19.0	42.9	37.3	49.1	40.5	34.3				
							31.25	9.7	50.0	18.5	40.3	35.3	47.5	37.9	32.3				
							62.5	13.8	45.1	16.0	31.3	29.3	42.7	28.8	26.3				
							100	17.6	41.8	14.0	24.2	25.2	39.3	21.7	22.2				
							200	25.4	36.9	11.0	11.5	19.2	34.3	8.9	16.2				
							250	28.6	35.3	10.0	6.7	17.3	32.7	4.1	14.3				
							350	34.3	32.6	8.6	-1.7	14.4	29.9	-4.4	11.4				
							450	39.3	30.2	8.0	-9.1	12.2	27.4	-11.9	9.2				
							500	41.6	29.2	8.0	-12.4	11.3	26.4	-15.3	8.3				



### JIS X5150:2021 PL3 Class Ea (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		$\Omega$	$\Omega$ or %																
1,2 - 1,2	21	0.2 or 3.0	0.2 or 7.0	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	Informational measurement only, no limit available							4	4.0	64.1	21.0	60.1	52.1	61.8	57.8	49.1			
4,5 - 4,5								8	4.9	59.4	21.0	54.4	46.1	57.0	52.1	43.1			
7,8 - 7,8								10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2			
								16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1			
i								20	7.8	53.1	19.5	45.3	38.2	50.7	42.9	35.2			
								25	8.7	51.5	19.0	42.8	36.2	49.1	40.4	33.2			
								31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.8	31.3			
								62.5	14.0	45.1	16.0	31.2	28.3	42.7	28.7	25.3			
								100	17.8	41.8	14.0	24.0	24.2	39.3	21.5	21.2			
								200	25.7	36.9	11.0	11.3	18.2	34.3	8.7	15.2			
								250	28.9	35.3	10.0	6.4	16.2	32.7	3.8	13.2			
								350	34.6	32.2	8.6	-2.5	13.3	29.4	-5.2	10.3			
								450	39.7	29.2	8.0	-10.6	11.1	26.2	-13.5	8.1			
								500	42.1	27.9	8.0	-14.2	10.2	24.8	-17.2	7.2			

### JIS X5150:2021 PL Class E

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		$\Omega$	$\Omega$ or %																
1,2 - 1,2	21	None	None	90	498	44	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6	Informational measurement only, no limit available							4	4.0	64.1	21.0	60.1	52.1	61.8	57.8	49.1			
4,5 - 4,5								8	5.0	59.4	21.0	54.4	46.1	57.0	52.0	43.1			
7,8 - 7,8								10	5.6	57.8	21.0	52.2	44.2	55.5	49.9	41.2			
								16	7.1	54.6	20.0	47.5	40.1	52.2	45.1	37.1			
i								20	7.9	53.1	19.5	45.1	38.2	50.7	42.7	35.2			
								25	8.9	51.5	19.0	42.6	36.2	49.1	40.2	33.2			
								31.25	10.0	50.0	18.5	40.0	34.3	47.5	37.5	31.3			
								62.5	14.4	45.1	16.0	30.7	28.3	42.7	28.2	25.3			
								100	18.5	41.8	14.0	23.3	24.2	39.3	20.8	21.2			
								200	27.1	36.9	11.0	9.9	18.2	34.3	7.2	15.2			
								250	30.7	35.3	10.0	4.7	16.2	32.7	2.0	13.2			
								350	i	i	i	i	i	i	i				



### JIS X5150:2021 PL Class E (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2	40.0	30.0	i	i
3,6 - 3,6	Informational measurement only, no limit available						4	4.0	64.1	21.0	60.1	52.1	61.8	57.8	49.1	40.0	18.0	i	i
4,5 - 4,5							8	5.0	59.4	21.0	54.4	46.1	57.0	52.0	43.1	39.5	11.9	i	i
7,8 - 7,8							10	5.6	57.8	21.0	52.2	44.2	55.5	49.9	41.2	38.0	10.0	i	i
							16	7.1	54.6	20.0	47.5	40.1	52.2	45.1	37.1	34.9	5.9	i	i
i							20	7.9	53.1	19.5	45.1	38.2	50.7	42.7	35.2	33.5	4.0	i	i
							25	8.9	51.5	19.0	42.6	36.2	49.1	40.2	33.2	32.0	2.0	i	i
							31.25	10.0	50.0	18.5	40.0	34.3	47.5	37.5	31.3	30.4	i	i	i
							62.5	14.4	45.1	16.0	30.7	28.3	42.7	28.2	25.3	24.4	i	i	i
							100	18.5	41.8	14.0	23.3	24.2	39.3	20.8	21.2	20.3	i	i	i
							200	27.1	36.9	11.0	9.9	18.2	34.3	7.2	15.2	14.3	i	i	i
							250	30.7	35.3	10.0	4.7	16.2	32.7	2.0	13.2	12.3	i	i	i
							350	i	i	i	i	i	i	i	i	i	i	i	i

### JIS X5150:2021 PL Class E (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	4.0	65.0	21.0	61.0	64.2	62.0	58.0	61.2				
3,6 - 3,6	Informational measurement only, no limit available						4	4.0	64.1	21.0	60.1	52.1	61.8	57.8	49.1				
4,5 - 4,5							8	5.0	59.4	21.0	54.4	46.1	57.0	52.0	43.1				
7,8 - 7,8							10	5.6	57.8	21.0	52.2	44.2	55.5	49.9	41.2				
							16	7.1	54.6	20.0	47.5	40.1	52.2	45.1	37.1				
							20	7.9	53.1	19.5	45.1	38.2	50.7	42.7	35.2				
i							25	8.9	51.5	19.0	42.6	36.2	49.1	40.2	33.2				
							31.25	10.0	50.0	18.5	40.0	34.3	47.5	37.5	31.3				
							62.5	14.4	45.1	16.0	30.7	28.3	42.7	28.2	25.3				
							100	18.5	41.8	14.0	23.3	24.2	39.3	20.8	21.2				
							200	27.1	36.9	11.0	9.9	18.2	34.3	7.2	15.2				
							250	30.7	35.3	10.0	4.7	16.2	32.7	2.0	13.2				
							350	i	i	i	i	i	i	i	i				



# JIS X5150:2021 PL Class D (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		Ω	Ω or %																
1,2 - 1,2	21	0.2 or 3.0	0.2 or 7.0	90	498	44	1	4.0	64.2	19.0	60.2	58.6	61.2	57.2	55.6				
3,6 - 3,6							4	4.0	54.8	19.0	50.8	46.6	51.8	47.8	43.6				
4,5 - 4,5							8	5.4	50.0	19.0	44.6	40.6	47.0	41.6	37.6				
7,8 - 7,8							10	6.1	48.5	19.0	42.4	38.6	45.5	39.4	35.6				
							16	7.7	45.2	19.0	37.5	34.5	42.2	34.5	31.5				
							20	8.7	43.7	19.0	35.0	32.6	40.7	32.0	29.6				
							25	9.7	42.1	18.0	32.4	30.7	39.1	29.4	27.7				
							31.25	10.9	40.5	17.1	29.6	28.7	37.5	26.6	25.7				
							62.5	15.8	35.7	14.0	19.8	22.7	32.7	16.8	19.7				
							100	20.4	32.3	12.0	11.9	18.6	29.3	8.9	15.6				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

# JIS X5150:2021 PL Class C

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		Ω	Ω or %																
1,2 - 1,2	34	None	None	90	498	44	1	4.0	40.1	15.0	36.1								
3,6 - 3,6							4	6.4	30.6	15.0	24.2								
4,5 - 4,5							8	8.8	25.8	15.0	17.0								
7,8 - 7,8							10	9.8	24.3	15.0	14.5								
							16	12.2	21.1	15.0	8.8								
							20	i	i	i	i								
							25	i	i	i	i								
							31.25	i	i	i	i								
							62.5	i	i	i	i								
							100	i	i	i	i								
							200	i	i	i	i								
							250	i	i	i	i								
							350	i	i	i	i								







## JIS X5150:2021 Channel Class Ea

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		$\Omega$	$\Omega$ or %																
1,2 - 1,2	25	None	None	100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3				
3,6 - 3,6	Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit If Insertion Loss @ 450 MHz is < 12 dB, then:						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
4,5 - 4,5							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2				
7,8 - 7,8							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3				
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2				
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2				
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3				
							31.25	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4				
							62.5	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3				
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3				
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2				
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3				
							350	40.6	30.6	6.6	-10.0	12.4	27.6	-13.0	9.4				
							450	46.5	28.7	6.0	-17.9	10.2	25.7	-20.9	7.2				
							500	49.3	27.9	6.0	-21.4	9.3	24.8	-24.5	6.3				

## JIS X5150:2021 Channel Class Ea (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		$\Omega$	$\Omega$ or %																
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3	40.0	30.0	i	i
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit If Insertion Loss @ 450 MHz < 12 dB, then:						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2	40.0	18.0	i	i
4,5 - 4,5							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2	39.5	11.9	i	i
7,8 - 7,8							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3	38.0	10.0	i	i
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2	34.9	5.9	i	i
i							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2	33.5	4.0	i	i
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3	32.0	2.0	i	i
							31.25	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4	30.4	i	i	i
							62.5	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3	24.4	i	i	i
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3	20.3	i	i	i
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2	14.3	i	i	i
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3	12.3	i	i	i
							350	40.6	30.6	6.6	-10.0	12.4	27.6	-13.0	9.4	i	i	i	i
							450	46.5	28.7	6.0	-17.9	10.2	25.7	-20.9	7.2	i	i	i	i
							500	49.3	27.9	6.0	-21.4	9.3	24.8	-24.5	6.3	i	i	i	i

## JIS X5150:2021 Channel Class Ea (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		$\Omega$	$\Omega$ or %																
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25	0.2 or 3.0	0.2 or 7.0	100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3				
							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2				
							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3				
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2				
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2				
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3				
							31.25	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4				
							62.5	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3				
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3				
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2				
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3				
							350	40.6	30.6	6.6	-10.0	12.4	27.6	-13.0	9.4				
							450	46.5	28.7	6.0	-17.9	10.2	25.7	-20.9	7.2				
							500	49.3	27.9	6.0	-21.4	9.3	24.8	-24.5	6.3				

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

If Insertion Loss @ 450 MHz < 12 dB, then:

Freq.	NEXT	PS NEXT
450	30.2	27.4
500	27.8	25.0

## JIS X5150:2021 Channel Class E

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		$\Omega$	$\Omega$ or %																
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25	None	None	100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3				
							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
							8	5.9	58.2	19.0	52.3	45.2	55.6	49.7	42.2				
							10	6.6	56.6	19.0	50.0	43.3	54.0	47.4	40.3				
							16	8.3	53.2	18.0	44.9	39.2	50.6	42.3	36.2				
							20	9.3	51.6	17.5	42.3	37.2	49.0	39.7	34.2				
							25	10.5	50.0	17.0	39.6	35.3	47.3	36.9	32.3				
							31.25	11.7	48.4	16.5	36.7	33.4	45.7	34.0	30.4				
							62.5	16.9	43.4	14.0	26.5	27.3	40.6	23.7	24.3				
							100	21.7	39.9	12.0	18.2	23.3	37.1	15.4	20.3				
							200	31.7	34.8	9.0	3.1	17.2	31.9	0.1	14.2				
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3				
i							350	i	i	i	i	i	i	i	i				

Informational measurement only, no limit available

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit







### JIS X5150:2021 Channel Class D (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		Ω or %	Ω or %																
1,2 - 1,2	25	0.2 or 3.0	0.2 or 7.0	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6								4	4.5	53.5	17.0	49.0	45.4	50.5	46.0	42.4			
4,5 - 4,5								8	6.4	48.6	17.0	42.2	39.3	45.6	39.2	36.3			
7,8 - 7,8								10	7.2	47.0	17.0	39.8	37.4	44.0	36.8	34.4			
								16	9.1	43.6	17.0	34.5	33.3	40.6	31.5	30.3			
i								20	10.2	42.0	17.0	31.8	31.4	39.0	28.8	28.4			
								25	11.5	40.3	16.0	28.9	29.4	37.3	25.9	26.4			
								31.25	12.9	38.7	15.1	25.8	27.5	35.7	22.8	24.5			
								62.5	18.6	33.6	12.0	15.0	21.5	30.6	12.0	18.5			
								100	24.0	30.1	10.0	6.1	17.4	27.1	3.1	14.4			
								200	i	i	i	i	i	i	i	i			
								250	i	i	i	i	i	i	i	i			
								350	i	i	i	i	i	i	i	i			

### JIS X5150:2021 Channel Class C

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
		Ω or %	Ω or %																
1,2 - 1,2	40	None	None	100	555	50	1	4.2	39.1	15.0	34.9								
3,6 - 3,6								4	7.6	29.2	15.0	21.6							
4,5 - 4,5								8	10.4	24.3	15.0	13.9							
7,8 - 7,8								10	11.5	22.7	15.0	11.2							
								16	14.4	19.4	15.0	5.0							
i								20	i	i	i	i							
								25	i	i	i	i							
								31.25	i	i	i	i							
								62.5	i	i	i	i							
								100	i	i	i	i							
								200	i	i	i	i							
								250	i	i	i	i							
								350	i	i	i	i							

# Copper Limit Lines - Korea

## Korean Emblem Cat 6 Channel

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25			96	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3				
							4	4.0	63.0	19.0	59.0	51.2	60.5	56.5	48.2				
							8	5.7	58.2	19.0	52.5	45.2	55.6	49.9	42.2				
							10	6.3	56.6	19.0	50.2	43.3	54.0	47.7	40.3				
							16	8.0	53.2	18.0	45.2	39.2	50.6	42.6	36.2				
i							20	9.0	51.6	17.5	42.6	37.2	49.0	39.9	34.2				
							25	10.1	50.0	17.0	39.9	35.3	47.3	37.2	32.3				
							31.25	11.4	48.4	16.5	37.0	33.4	45.7	34.3	30.4				
							62.5	16.5	43.4	14.0	26.9	27.3	40.6	24.1	24.3				
							100	21.3	39.9	12.0	18.6	23.3	37.1	15.8	20.3				
							200	31.5	34.8	9.0	3.3	17.2	31.9	0.3	14.2				
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3				
							350	i	i	i	i	i	i	i	i				

## Korean Emblem Cat 5e Channel

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25			96	555	50	1	2.2	60.0	17.0		57.4	57.0		54.4				
							4	4.5	53.5	17.0		45.4	50.5		42.4				
							8	6.3	48.6	17.0		39.3	45.6		36.3				
							10	7.1	47.0	17.0		37.4	44.0		34.4				
							16	9.2	43.6	17.0		33.3	40.6		30.3				
i							20	10.2	42.0	17.0		31.4	39.0		28.4				
							25	11.4	40.3	16.0		29.4	37.3		26.4				
							31.25	12.9	38.7	15.1		27.5	35.7		24.5				
							62.5	18.6	33.6	12.1		21.5	30.6		18.5				
							100	24.0	30.1	10.0		17.4	27.1		14.4				
							200	i	i	i		i	i		i				
							250	i	i	i		i	i		i				
							350	i	i	i		i	i		i				

### Korean Emblem Cat 3 Channel

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %																
1,2 - 1,2	40			96	555	50	1	4.2	39.1										
3,6 - 3,6							4	7.3	29.3										
4,5 - 4,5							8	10.2	24.3										
7,8 - 7,8							10	11.5	22.7										
							16	14.9	19.2										
i	Informational measurement only, no limit available Not evaluated against the test limit						20	i	i										
							25	i	i										
							31.25	i	i										
							62.5	i	i										
							100	i	i										
							200	i	i										
							250	i	i										
							350	i	i										

### Korean Pre-Deploy 500MHz

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %																
1,2 - 1,2	999			999	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3				
3,6 - 3,6							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
4,5 - 4,5							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2				
7,8 - 7,8							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3				
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2				
i	Informational measurement only, no limit available Not evaluated against the test limit						20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2				
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3				
							31.25	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4				
							62.5	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3				
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3				
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2				
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3				
							350	40.6	30.3	6.6	-10.3	12.4	27.3	-13.3	9.4				
							450	46.5	27.3	6.0	-19.2	10.2	24.4	-22.1	7.2				
							500	49.3	26.1	6.0	-23.2	9.3	23.2	-26.1	6.3				





# GOST R 53245-2008 Chan Cat5e

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25			100	555	50	1	3.0	60.0	17.0	57.0	57.4	57.0	54.0	54.4				
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit						4	4.5	53.5	17.0	49.1	45.4	50.5	46.1	42.4				
4,5 - 4,5							8	6.3	48.6	17.0	42.3	39.3	45.6	39.3	36.3				
7,8 - 7,8							10	7.1	47.0	17.0	39.9	37.4	44.0	36.9	34.4				
							16	9.1	43.6	17.0	34.5	33.3	40.6	31.5	30.3				
i							20	10.2	42.0	17.0	31.8	31.4	39.0	28.8	28.4				
							25	11.4	40.3	16.0	28.9	29.4	37.3	25.9	26.4				
							31.25	12.9	38.7	15.1	25.9	27.5	35.7	22.9	24.5				
							62.5	18.6	33.6	12.1	15.0	21.5	30.6	12.0	18.5				
							100	24.0	30.1	10.0	6.1	17.4	27.1	3.1	14.4				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				



# EL-3600-9 Cat 6A Perm. Link

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	None	None	None	90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2				
<div>i</div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available 10% length rule - will fail when length > 99 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 67 dB, not evaluated against the test limit						4	3.5	64.1	21.0	60.5	52.1	61.8	58.3	49.1				
							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1				
							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2				
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1				
							20	7.8	53.1	19.5	45.2	38.2	50.7	42.8	35.2				
							25	8.8	51.5	19.0	42.8	36.2	49.1	40.4	33.2				
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.7	31.3				
							62.5	14.0	45.1	16.0	31.1	28.3	42.7	28.6	25.3				
							100	18.0	41.8	14.0	23.9	24.2	39.3	21.3	21.2				
							200	26.1	36.9	11.0	10.8	18.2	34.3	8.2	15.2				
							250	29.5	35.3	10.0	5.8	16.2	32.7	3.2	13.2				
							350	35.6	31.8	8.6	-3.8	13.3	29.1	-6.5	10.3				
							450	41.1	28.2	8.0	-13.0	11.1	25.3	-15.8	8.1				
							500	43.8	26.7	8.0	-17.1	10.2	23.8	-20.0	7.2				

# EL-3600-9 Cat 6 Perm. Link

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25			90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2				
<div>i</div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available 10% length rule - will fail when length > 99 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 67 dB, not evaluated against the test limit						4	3.5	64.1	21.0	60.6	52.1	61.8	58.3	49.1				
							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1				
							10	5.5	57.8	21.0	52.3	44.2	55.5	49.9	41.2				
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1				
							20	7.9	53.1	19.5	45.2	38.2	50.7	42.8	35.2				
							25	8.9	51.5	19.0	42.7	36.2	49.1	40.2	33.2				
							31.25	10.0	50.0	18.5	40.0	34.3	47.5	37.6	31.3				
							62.5	14.4	45.1	16.0	30.8	28.3	42.7	28.3	25.3				
							100	18.6	41.8	14.0	23.3	24.2	39.3	20.7	21.2				
							200	27.4	36.9	11.0	9.6	18.2	34.3	7.0	15.2				
							250	31.1	35.3	10.0	4.2	16.2	32.7	1.6	13.2				
							350	i	i	i	i	i	i	i	i				

# EL-3600-9 Cat 5e Perm. Link

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25			90	498	44	1	3.0	60.0	19.0	57.0	58.6	57.0	54.0	55.6				
<div>i</div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available 10% length rule - will fail when length > 99 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 67 dB, not evaluated against the test limit						4	3.9	54.8	19.0	50.9	46.6	51.8	47.9	43.6				
							8	5.5	50.0	19.0	44.5	40.6	47.0	41.5	37.6				
							10	6.2	48.5	19.0	42.3	38.6	45.5	39.3	35.6				
							16	7.9	45.2	19.0	37.3	34.5	42.2	34.3	31.5				
							20	8.9	43.7	19.0	34.8	32.6	40.7	31.8	29.6				
							25	10.0	42.1	18.0	32.1	30.7	39.1	29.1	27.7				
							31.25	11.2	40.5	17.1	29.3	28.7	37.5	26.3	25.7				
							62.5	16.2	35.7	14.1	19.4	22.7	32.7	16.4	19.7				
							100	21.0	32.3	12.0	11.3	18.6	29.3	8.3	15.6				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

## EL-3600-9 Cat 6A Channel

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	None	None	None	100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3				
<div>i</div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available 10% length rule - will fail when length > 99 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 67 dB, not evaluated against the test limit						4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2				
							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3				
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2				
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2				
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3				
							31.25	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4				
							62.5	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3				
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3				
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2				
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3				
							350	40.6	30.3	6.6	-10.3	12.4	27.3	-13.3	9.4				
							450	46.5	27.3	6.0	-19.2	10.2	24.4	-22.1	7.2				
							500	49.3	26.1	6.0	-23.2	9.3	23.2	-26.1	6.3				

## EL-3600-9 Cat 6 Channel

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25			100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3				
<div>i</div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit						4	4.0	63.0	19.0	59.0	51.2	60.5	56.5	48.2				
							8	5.7	58.2	19.0	52.5	45.2	55.6	49.9	42.2				
							10	6.3	56.6	19.0	50.2	43.3	54.0	47.7	40.3				
							16	8.0	53.2	18.0	45.2	39.2	50.6	42.6	36.2				
							20	9.0	51.6	17.5	42.6	37.2	49.0	39.9	34.2				
							25	10.1	50.0	17.0	39.9	35.3	47.3	37.2	32.3				
							31.25	11.4	48.4	16.5	37.0	33.4	45.7	34.3	30.4				
							62.5	16.5	43.4	14.0	26.9	27.3	40.6	24.1	24.3				
							100	21.3	39.9	12.0	18.6	23.3	37.1	15.8	20.3				
							200	31.5	34.8	9.0	3.3	17.2	31.9	0.3	14.2				
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3				
							350	i	i	i	i	i	i	i	i				

## EL-3600-9 Cat 5e Channel

Wire Map	Resistance	Resistance Unbalance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		In a Pair	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25			100	555	50	1	3.0	60.0	17.0	57.0	57.4	57.0	54.0	54.4				
<div>i</div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit						4	4.5	53.5	17.0	49.1	45.4	50.5	46.1	42.4				
							8	6.3	48.6	17.0	42.3	39.3	45.6	39.3	36.3				
							10	7.1	47.0	17.0	39.9	37.4	44.0	36.9	34.4				
							16	9.1	43.6	17.0	34.5	33.3	40.6	31.5	30.3				
							20	10.2	42.0	17.0	31.8	31.4	39.0	28.8	28.4				
							25	11.4	40.3	16.0	28.9	29.4	37.3	25.9	26.4				
							31.25	12.9	38.7	15.1	25.9	27.5	35.7	22.9	24.5				
							62.5	18.6	33.6	12.1	15.0	21.5	30.6	12.0	18.5				
							100	24.0	30.1	10.0	6.1	17.4	27.1	3.1	14.4				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				























Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair						Pair_36_45										
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	i			i	i	i	1		65.0 65.0										
3,6 - 3,6	Informational measurement only, no limit available ⓘ						4		65.0 65.0	21.6									
4,5 - 4,5							8		62.5 61.0	22.5									
7,8 - 7,8							10		60.8 59.3	22.8									
							16		57.1 55.6	23.4									
i							20		55.4 53.9	23.7									
							25		53.7 52.2	24									
							31.25		52.0 50.5	23									
							62.5		47.0 45.5	20									
							100		43.7 42.2	18									
							200		39.1 37.6	15									
							250		37.6 36.1	14									
							350		35.0 33.5	11.8									
							450		33.0 31.5	10.2									
							500		32.1 30.6	9.5									

**TIA 568.2-D Patch Cord Cat6A 0.5m**

[illegible]























Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair						Pair_36_45										
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1		65.0 65.0	19.8									
	Informational measurement only, no limit available ⓘ						4		65.0 65.0	21.6									
							8		65.0 65.0	22.5									
							10		64.9 64.1	22.8									
16								60.9 60.1	23.4										
20								59.0 58.2	23.7										
25								57.2 56.3	24										
31.25								55.3 54.5	23										
62.5								49.5 48.7	20										
100								45.7 44.8	18										
200								40.1 39.2	15										
250								38.3 37.5	14										
350								33.9 33.9	11.8										
450								30.4 31.2	10.2										
500								28.8 30.0	9.5										

## TIA 568.2-D C6A 5m Patch (LA)

[illegible]













































### TIA Patch Cord Cat6 >20.0m

### ISO Patch Cord Cat6 0.5m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL			
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB			
	i			i	i	i	1		65.0	i												
1,2 - 1,2	Informational measurement only, no limit available ⓘ			i	i	i	4		65.0	21.6												
3,6 - 3,6							8		65.0	22.5												
4,5 - 4,5							10		65.0	22.8												
7,8 - 7,8							16		62.9	23.4												
							20		61.0	23.7												
							25		59.1	24.0												
							31.25		57.2	23.1												
							62.5		51.2	20.0												
							100		47.2	18.0												
							200		41.3	15.0												
							250		39.4	14.0												
							350		i	i												







### ISO Patch Cord Cat6 15.0m

### ISO Patch Cord Cat6 20.0m

[illegible]





### TIA Patch Cord Cat5e 0.5m

[illegible]

### TIA Patch Cord Cat5e 1.0m

[illegible]

### TIA Patch Cord Cat5e 1.5m

[illegible]







### TIA Patch Cord Cat5e 20.0m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1		65.0	19.8									
<div>i</div> <div>Informational measurement only, no limit available ⓘ</div>							4		60.3	21.6									
							8		54.7	22.5									
							10		53.0	22.8									
							16		49.3	23.4									
							20		47.6	23.7									
							25		45.9	24.0									
							31.25		44.2	23.0									
							62.5		39.2	20.0									
							100		35.9	18.0									
							200		i	i									
							250		i	i									
							350		i	i									

## TIA Patch Cord Cat5e >20.0m

[illegible]

### ISO Patch Cord Cat5e 0.5m

[illegible]



### ISO Patch Cord Cat5e 2.5m

[illegible]

### ISO Patch Cord Cat5e 3.0m

[illegible]

### ISO Patch Cord Cat5e 3.5m

[illegible]



### ISO Patch Cord Cat5e 4.0m

[illegible]

### ISO Patch Cord Cat5e 5.0m

[illegible]

### ISO Patch Cord Cat5e 7.5m

[illegible]

### ISO Patch Cord Cat5e 15.0m

### ISO Patch Cord Cat5e 20.0m

### ISO Patch Cord Cat5e >20.0m

[illegible]











Copper Limit Lines - Application

40GBASE-T

Wire Map	Resistance	Resistance	Resistance	Length	Delay	Delay	Freq.	Insertion	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL					
PAIR_1:		Unbalance	Pair to Pair			Skew		Loss																
PAIR_2:	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB					
PAIR_3:	None	None	None	30	185	17	1	2.0	65.0	19.0		65.0												
PAIR_4:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div>						4	2.0	63.8	19.0			59.9											
8							2.0	58.9	19.0			53.9												
10							2.1	57.3	19.0			52.0												
16							2.6	53.9	18.0			47.9												
20							2.9	52.3	17.5			45.9												
25							3.3	50.7	17.0			44.0												
31.25							3.6	49.1	16.5			42.1												
62.5							5.2	44.0	16.0			36.0												
100							6.6	40.5	16.0			32.0												
200							9.5	35.3	14.3			25.9												
250							10.7	33.6	13.4			24.0												
350							12.7	31.1	12.1			21.1												
450							14.6	29.1	11.1			18.9												
500							15.4	27.9	10.7			18.0												
600							17.0	25.7	10.0			16.4												
700							18.5	23.9	9.4			15.1												
800							19.9	22.2	8.9			13.9												
900							21.3	20.7	8.4			12.9												
1000							22.6	19.3	8.0			12.0												
1600							29.4	12.9	8.0			7.9												
2000							33.5	9.6	6.2			5.9												



## 25GBASE-T

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
PAIR_1:	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
PAIR_2:	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
PAIR_3:	None	None	None	30	185	17	1	2.0	65.0	19.0		65.0							
PAIR_4:	<div> <div></div> <div></div> <div></div> </div> If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit						4	2.0	63.8	19.0		59.9							
							8	2.0	58.9	19.0		53.9							
							10	2.1	57.3	19.0		52.0							
							16	2.6	53.9	18.0		47.9							
							20	2.9	52.3	17.5		45.9							
							25	3.3	50.7	17.0		44.0							
							31.25	3.6	49.1	16.5		42.1							
							62.5	5.2	44.0	16.0		36.0							
							100	6.6	40.5	16.0		32.0							
							200	9.5	35.3	14.3		25.9							
							250	10.7	33.6	13.4		24.0							
							350	12.7	31.1	12.1		21.1							
							450	14.6	29.1	11.1		18.9							
							500	15.4	27.9	10.7		18.0							
							600	17.0	25.7	10.0		16.4							
							700	18.5	23.9	9.4		15.1							
							800	19.9	22.2	8.9		13.9							
							900	21.3	20.7	8.4		12.9							
							1000	22.6	19.3	8.0		12.0							
							1600	29.4	12.9	8.0		7.9							
							2000	33.5	9.6	6.2		5.9							

## 10GBASE-T

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25			100	555	50	1	4.0	65.0	19.0		63.3	62.0		60.3				
3,6 - 3,6	<div> <div></div> <div></div> <div></div> <div></div> <div></div> </div> Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit						4	4.2	63.0	19.0		51.2	60.5		48.2				
4,5 - 4,5							8	5.9	58.2	19.0		45.2	55.6		42.2				
7,8 - 7,8							10	6.6	56.6	19.0		43.3	54.0		40.3				
							16	8.3	53.2	18.0		39.2	50.6		36.2				
							20	9.3	51.6	17.5		37.2	49.0		34.2				
							25	10.5	50.0	17.0		35.3	47.3		32.3				
							31.25	11.7	48.4	16.5		33.4	45.7		30.4				
							62.5	16.9	43.4	14.0		27.3	40.6		24.3				
							100	21.7	39.9	12.0		23.3	37.1		20.3				
							200	31.7	34.8	9.0		17.2	31.9		14.2				
							250	35.9	33.1	8.0		15.3	30.2		12.3				
							350	43.5	29.7	6.6		12.4	26.9		9.4				
							450	50.2	24.3	6.0		10.2	22.3		7.2				
							500	53.4	22.0	6.0		9.3	20.4		6.3				

**5GBASE-T**

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8				100	570	50	1	3.0	60.0	17.0	i	57.4	57.0	i	54.4				
	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit						4	4.5	53.5	17.0	i	45.4	50.5	i	42.4				
							8	6.3	48.6	17.0	i	39.3	45.6	i	36.3				
							10	7.1	47.0	17.0	i	37.4	44.0	i	34.4				
							16	9.1	43.6	17.0	i	33.3	40.6	i	30.3				
							20	10.2	42.0	17.0	i	31.4	39.0	i	28.4				
							25	11.4	40.3	16.0	i	29.4	37.3	i	26.4				
							31.25	12.9	38.7	15.1	i	27.5	35.7	i	24.5				
							62.5	18.6	33.6	12.1	i	21.5	30.6	i	18.5				
							100	24.0	30.1	10.0	i	17.4	27.1	i	14.4				
							200	35.3	21.4	7.0	i	11.4	18.4	i	8.4				
							250	40.1	18.2	6.0	i	9.4	15.2	i	6.4				
							350	i	i	i	i	i	i	i	i				

**2.5GBASE-T**

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8				100	570	50	1	3.0	60.0	17.0	i	57.4	57.0	i	54.4				
	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit						4	4.5	53.5	17.0	i	45.4	50.5	i	42.4				
							8	6.3	48.6	17.0	i	39.3	45.6	i	36.3				
							10	7.1	47.0	17.0	i	37.4	44.0	i	34.4				
							16	9.1	43.6	17.0	i	33.3	40.6	i	30.3				
							20	10.2	42.0	17.0	i	31.4	39.0	i	28.4				
							25	11.4	40.3	16.0	i	29.4	37.3	i	26.4				
							31.25	12.9	38.7	15.1	i	27.5	35.7	i	24.5				
							62.5	18.6	33.6	12.1	i	21.5	30.6	i	18.5				
							100	24.0	30.1	10.0	i	17.4	27.1	i	14.4				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

## 1000BASE-T

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25			100	570	50	1	2.5	60.7	15.0		57.0			54.4				
3,6 - 3,6							4	4.5	50.6	15.0		45.0			42.4				
4,5 - 4,5							8	6.4	45.5	15.0		38.9			36.3				
7,8 - 7,8							10	7.1	43.9	15.0		37.0			34.4				
							16	9.1	40.5	15.0		32.9			30.3				
i	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit						20	10.3	38.8	15.0		31.0			28.4				
							25	11.5	37.2	14.0		29.0			26.4				
							31.25	13.0	35.6	13.1		27.1			24.5				
							62.5	18.7	30.5	10.1		21.1			18.5				
							100	24.0	27.1	8.0		17.0			14.4				
							200	i	i	i		i			i				
							250	i	i	i		i			i				
							350	i	i	i		i			i				

## 100BASE-TX

[illegible]

## 10BASE-T

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6	25			100			1	i	i										
							4	i	i										
							8	11.5	27.5										
							10	11.5	26.0										
							16	i	i										
i							20	i	i										
							25	i	i										
							31.25	i	i										
							62.5	i	i										
							100	i	i										
							200	i	i										
							250	i	i										
							350	i	i										

Informational measurement only, no limit available

10% length rule - will fail when length > 110 m

Not evaluated against the test limit

## 10GBASE-T + 802.3bt

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25	0.2 or 3.0	0.2 or 7.5	100	555	50	1	4.0	65.0	19.0		63.3	62.0		60.3				
							4	4.2	63.0	19.0		51.2	60.5		48.2				
							8	5.9	58.2	19.0		45.2	55.6		42.2				
							10	6.6	56.6	19.0		43.3	54.0		40.3				
							16	8.3	53.2	18.0		39.2	50.6		36.2				
i							20	9.3	51.6	17.5		37.2	49.0		34.2				
							25	10.5	50.0	17.0		35.3	47.3		32.3				
							31.25	11.7	48.4	16.5		33.4	45.7		30.4				
							62.5	16.9	43.4	14.0		27.3	40.6		24.3				
							100	21.7	39.9	12.0		23.3	37.1		20.3				
							200	31.7	34.8	9.0		17.2	31.9		14.2				
							250	35.9	33.1	8.0		15.3	30.2		12.3				
							350	43.5	29.7	6.6		12.4	26.9		9.4				
							450	50.2	24.3	6.0		10.2	22.3		7.2				
							500	53.4	22.0	6.0		9.3	20.4		6.3				

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If Insertion Loss < 4 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit





10BASE-T + 802.3bt

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6	25	0.2 or 3.0	0.2 or 7.5	100			1	i	i										
							4	i	i										
							8	11.5	27.5										
							10	11.5	26.0										
							16	i	i										
							20	i	i										
							25	i	i										
							31.25	i	i										
							62.5	i	i										
							100	i	i										
							200	i	i										
							250	i	i										
							350	i	i										
i	Informational measurement only, no limit available																		
	10% length rule - will fail when length > 110 m																		

1000BASE-T1 Type A 1-pair

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
	$\Omega$	Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
4,5 - 4,5	i			i	i	i	1	0.7		19.0						i	i	i	i	i
							4	1.2		19.0						i	i	i	i	i
							8	1.7		19.0						i	i	i	i	i
							10	1.9		19.0						50.0	i	i	i	50
							16	2.4		18.0						50.0	i	i	i	50
							20	2.7		17.5						50.0	i	i	i	50
							25	3.0		17.0						50.0	i	i	i	50
							31.25	3.4		16.5						50.0	i	i	i	50
							62.5	4.8		16.0						50.0	i	i	i	50
							100	6.1		16.0						49.0	i	i	i	49
							200	8.8		14.0						45.5	i	i	i	45.5
							250	9.9		13.0						44.4	i	i	i	44.4
i	Informational measurement only, no limit available																			
	If Insertion Loss < 3 dB, not evaluated against the test limit																			
							350	11.9		11.6						42.7	i	i	i	42.7
							450	13.6		11.0						41.5	i	i	i	41.5
							500	14.4		11.0						40.9	i	i	i	40.9
							600	15.9		11.0						40.0	i	i	i	40
							700	i		i						i	i	i	i	i
							800	i		i						i	i	i	i	i
							900	i		i						i	i	i	i	i
							1000	i		i						i	i	i	i	i

**1000BASE-T1 Type A multi-pair**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6 4,5 - 4,5	i			i	i	i	1	0.7		19.0		i	74.0		83.7	i	i	i	i	i
							4	1.2		19.0		i	68.0		71.6	i	i	i	i	i
							8	1.7		19.0		i	65.0		65.6	i	i	i	i	i
							10	1.9		19.0		i	64.0		63.7	50.0	i	i	i	i
							16	2.4		18.0		i	62.0		59.6	50.0	i	i	i	i
							20	2.7		17.5		i	61.0		57.7	50.0	i	i	i	i
							25	3.0		17.0		i	60.0		55.7	50.0	i	i	i	i
							31.25	3.4		16.5		i	59.1		53.8	50.0	i	i	i	i
							62.5	4.8		16.0		i	56.0		47.8	50.0	i	i	i	i
							100	6.1		16.0		i	54.0		43.7	49.0	i	i	i	i
							200	8.8		14.0		i	48.0		37.7	45.5	i	i	i	i
							250	9.9		13.0		i	45.8		35.7	44.4	i	i	i	i
							350	11.9		11.6		i	42.1		32.8	42.7	i	i	i	i
							450	13.6		11.0		i	39.0		30.6	41.5	i	i	i	i
							500	14.4		11.0		i	37.5		29.7	40.9	i	i	i	i
							600	15.9		11.0		i	34.8		28.1	40.0	i	i	i	i
							700	i		i		i	i		i	i	i	i	i	i
							800	i		i		i	i		i	i	i	i	i	i
							900	i		i		i	i		i	i	i	i	i	i
							1000	i		i		i	i		i	i	i	i	i	i

**1000BASE-T1 Type B 1-pair**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB		dB	dB	dB	dB	dB	dB	dB
4,5 - 4,5	i			i	i	i	1	0.9		19.0						i	i	i	i	i
							4	1.7		19.0						i	i	i	i	i
							8	2.4		19.0						i	i	i	i	i
							10	2.6		19.0						i	i	i	i	i
							16	3.3		18.0						i	i	i	i	i
							20	3.7		17.5						i	i	i	i	i
							25	4.2		17.0						i	i	i	i	i
							31.25	4.7		16.5						i	i	i	i	i
							62.5	6.7		16.0						i	i	i	i	i
							100	8.5		16.0						i	i	i	i	i
							200	12.3		14.0						i	i	i	i	i
							250	13.8		13.0						i	i	i	i	i
							350	16.6		11.6						i	i	i	i	i
							450	19.0		11.0						i	i	i	i	i
							500	20.1		11.0						i	i	i	i	i
							600	22.3		11.0						i	i	i	i	i
							700	i		i						i	i	i	i	i
							800	i		i						i	i	i	i	i
							900	i		i						i	i	i	i	i
							1000	i		i						i	i	i	i	i



### 1000BASE-T1 Type B multi-pair

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6 4,5 - 4,5	i			i	i	i	1	0.9		19.0		i	65.0		70.0	i	i	i	i	i
							4	1.7		19.0		i	65.0		70.0	i	i	i	i	i
							8	2.4		19.0		i	65.0		70.0	i	i	i	i	i
							10	2.6		19.0		i	65.0		70.0	i	i	i	i	i
							16	3.3		18.0		i	65.0		70.0	i	i	i	i	i
i							20	3.7		17.5		i	65.0		70.0	i	i	i	i	i
							25	4.2		17.0		i	65.0		70.0	i	i	i	i	i
							31.25	4.7		16.5		i	65.0		70.0	i	i	i	i	i
							62.5	6.7		16.0		i	65.0		65.1	i	i	i	i	i
							100	8.5		16.0		i	65.0		61.0	i	i	i	i	i
							200	12.3		14.0		i	65.0		55.0	i	i	i	i	i
							250	13.8		13.0		i	65.0		53.0	i	i	i	i	i
							350	16.6		11.6		i	65.0		50.1	i	i	i	i	i
							450	19.0		11.0		i	65.0		47.9	i	i	i	i	i
							500	20.1		11.0		i	65.0		47.0	i	i	i	i	i
							600	22.3		11.0		i	65.0		45.4	i	i	i	i	i
							700	i	i	i		i	i		i	i	i	i	i	i
							800	i	i	i		i	i		i	i	i	i	i	i
							900	i	i	i		i	i		i	i	i	i	i	i
							1000	i	i	i		i	i		i	i	i	i	i	i

### 100BASE-T1 1-pair

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	TCTL
		Unbalance	Pair to Pair																	
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB		dB	dB	dB	dB	dB	dB	dB
4,5 - 4,5	i			i	i	i	1	1.0		18.0						43.0	i	i	i	i
							4	1.5		18.0						43.0	i	i	i	i
							8	2.2		18.0						43.0	i	i	i	i
							10	2.6		18.0						43.0	i	i	i	i
							16	3.2		18.0						43.0	i	i	i	i
i							20	3.6		18.0						43.0	i	i	i	i
							25	4.1		17.0						43.0	i	i	i	i
							31.25	4.7		16.1						43.0	i	i	i	i
							62.5	7.0		13.1						37.5	i	i	i	i
							100	i		i						33.4	i	i	i	i
							200	i		i						27.3	i	i	i	i
							250	i		i						i	i	i	i	i
							350	i		i						i	i	i	i	i

# IEEE 10BASE-T1L 18AWG d2.2

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	47.66	None	None	1000	8834	None	1	16.4		13.5						50.0	30.0	i	i
<div>i</div> <div>Informational measurement only, no limit available</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div>							4	30.0		13.5						44.0	18	i	i
							8	42.0		13.5						39.5	11.9	i	i
							10	46.9		13.5						38.0	10	i	i
							16	59.3		13.5						34.9	5.9	i	i
							20	66.4		13.5						33.5	4	i	i
							25	i		i						i	i	i	i
							31.25	i		i						i	i	i	i
							62.5	i		i						i	i	i	i
							100	i		i						i	i	i	i
							200	i		i						i	i	i	i
							350	i		i						i	i	i	i

# Cat 5e Mod 1-Conn Perm. Link

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	None	None	None	90	498	44	1	3.0	60.0	19.0	57.0	58.6	57.0	54.0	55.6				
3,6 - 3,6							4	3.9	54.8	19.0	50.9	46.6	51.8	47.9	43.6				
4,5 - 4,5							8	5.5	50.0	19.0	44.5	40.6	47.0	41.5	37.6				
7,8 - 7,8							10	6.2	48.5	19.0	42.3	38.6	45.5	39.3	35.6				
							16	7.9	45.2	19.0	37.3	34.5	42.2	34.3	31.5				
i							20	8.9	43.7	19.0	34.8	32.6	40.7	31.8	29.6				
							25	10.0	42.1	18.0	32.1	30.7	39.1	29.1	27.7				
							31.25	11.2	40.5	17.1	29.3	28.7	37.5	26.3	25.7				
							62.5	16.2	35.7	14.1	19.4	22.7	32.7	16.4	19.7				
							100	21.0	32.3	12.0	11.3	18.6	29.3	8.3	15.6				
							200	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

**Cat 6 Mod 1-Conn Perm. Link**

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	None	None	None	90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2				
	i Informational measurement only, no limit available 10% length rule - will fail when length > 99 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 67 dB, not evaluated against the test limit						4	3.5	64.1	21.0	60.6	52.1	61.8	58.3	49.1				
							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1				
							10	5.5	57.8	21.0	52.3	44.2	55.5	49.9	41.2				
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1				
							20	7.9	53.1	19.5	45.2	38.2	50.7	42.8	35.2				
							25	8.9	51.5	19.0	42.7	36.2	49.1	40.2	33.2				
							31.25	10.0	50.0	18.5	40.0	34.3	47.5	37.6	31.3				
							62.5	14.4	45.1	16.0	30.8	28.3	42.7	28.3	25.3				
							100	18.6	41.8	14.0	23.3	24.2	39.3	20.7	21.2				
							200	27.4	36.9	11.0	9.6	18.2	34.3	7.0	15.2				
							250	31.1	35.3	10.0	4.2	16.2	32.7	1.6	13.2				
							350	i	i	i	i	i	i	i	i				

**Cat 6A Mod 1-Conn Perm. Link**

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	None	None	None	90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2				
	i Informational measurement only, no limit available 10% length rule - will fail when length > 99 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 67 dB, not evaluated against the test limit						4	3.5	64.1	21.0	60.5	52.1	61.8	58.3	49.1				
							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1				
							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2				
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1				
							20	7.8	53.1	19.5	45.2	38.2	50.7	42.8	35.2				
							25	8.8	51.5	19.0	42.8	36.2	49.1	40.4	33.2				
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.7	31.3				
							62.5	14.0	45.1	16.0	31.1	28.3	42.7	28.6	25.3				
							100	18.0	41.8	14.0	23.9	24.2	39.3	21.3	21.2				
							200	26.1	36.9	11.0	10.8	18.2	34.3	8.2	15.2				
							250	29.5	35.3	10.0	5.8	16.2	32.7	3.2	13.2				
							350	35.6	31.8	8.6	-3.8	13.3	29.1	-6.5	10.3				
							450	41.1	28.2	8.0	-13.0	11.1	25.3	-15.8	8.1				
							500	43.8	26.7	8.0	-17.1	10.2	23.8	-20.0	7.2				

### Cat 5e Mod 1-Conn Perm. Link (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.1 or 3.0	0.2 or 7.0	90	498	44	1	3.0	60.0	19.0	57.0	58.6	57.0	54.0	55.6	i	i	i	i
3,6 - 3,6							4	3.9	54.8	19.0	50.9	46.6	51.8	47.9	43.6	i	i	i	i
4,5 - 4,5							8	5.5	50.0	19.0	44.5	40.6	47.0	41.5	37.6	i	i	i	i
7,8 - 7,8							10	6.2	48.5	19.0	42.3	38.6	45.5	39.3	35.6	i	i	i	i
							16	7.9	45.2	19.0	37.3	34.5	42.2	34.3	31.5	i	i	i	i
							20	8.9	43.7	19.0	34.8	32.6	40.7	31.8	29.6	i	i	i	i
i	Informational measurement only, no limit available						25	10.0	42.1	18.0	32.1	30.7	39.1	29.1	27.7	i	i	i	i
							31.25	11.2	40.5	17.1	29.3	28.7	37.5	26.3	25.7	i	i	i	i
							62.5	16.2	35.7	14.1	19.4	22.7	32.7	16.4	19.7	i	i	i	i
							100	21.0	32.3	12.0	11.3	18.6	29.3	8.3	15.6	i	i	i	i
							250	i	i	i	i	i	i	i	i	i	i	i	i
	If FEXT is < 67 dB, not evaluated against the test limit						350	i	i	i	i	i	i	i	i	i	i	i	i

### Cat 5e Mod 1-Conn Perm. Link (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.1 or 3.0	0.2 or 7.0	90	498	44	1	3	60	19.0	57.0	58.6	57.0	54.0	55.6				
3,6 - 3,6							4	3.9	54.8	19.0	50.9	46.6	51.8	47.9	43.6				
4,5 - 4,5							8	5.5	50	19.0	44.5	40.6	47.0	41.5	37.6				
7,8 - 7,8							10	6.2	48.5	19.0	42.3	38.6	45.5	39.3	35.6				
							16	7.9	45.2	19.0	37.3	34.5	42.2	34.3	31.5				
							20	8.9	43.7	19.0	34.8	32.6	40.7	31.8	29.6				
i	Informational measurement only, no limit available						25	10	42.1	18.0	32.1	30.7	39.1	29.1	27.7				
							31.25	11.2	40.5	17.1	29.3	28.7	37.5	26.3	25.7				
							62.5	16.2	35.7	14.1	19.4	22.7	32.7	16.4	19.7				
							100	21	32.3	12.0	11.3	18.6	29.3	8.3	15.6				
							250	i	i	i	i	i	i	i	i				
	If FEXT is < 67 dB, not evaluated against the test limit						350	i	i	i	i	i	i	i	i				



### Cat 6A Mod 1-Conn Perm. Link (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.1 or 3.0	0.2 or 7.0	90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2	40.0	30.0	i	i
3,6 - 3,6							4	3.5	64.1	21.0	60.5	52.1	61.8	58.3	49.1	40.0	18.0	i	i
4,5 - 4,5							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1	36.5	11.9	i	i
7,8 - 7,8							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2	35.0	10.0	i	i
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1	31.9	5.9	i	i
i							20	7.8	53.1	19.5	45.2	38.2	50.7	42.8	35.2	30.5	4.0	i	i
							25	8.8	51.5	19.0	42.8	36.2	49.1	40.4	33.2	29.0	2.0	i	i
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.7	31.3	27.6	i	i	i
							62.5	14.0	45.1	16.0	31.1	28.3	42.7	28.6	25.3	23.1	i	i	i
							100	18.0	41.8	14.0	23.9	24.2	39.3	21.3	21.2	20.0	i	i	i
							200	26.1	36.9	11.0	10.8	18.2	34.3	8.2	15.2	15.5	i	i	i
							250	29.5	35.3	10.0	5.8	16.2	32.7	3.2	13.2	14.0	i	i	i
							350	35.6	31.8	8.6	-3.8	13.3	29.1	-6.5	10.3	i	i	i	i
							450	41.1	28.2	8.0	-13.0	11.1	25.3	-15.8	8.1	i	i	i	i
							500	43.8	26.7	8.0	-17.1	10.2	23.8	-20.0	7.2	i	i	i	i

### Cat 6A Mod 1-Conn Perm. Link (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	21	0.1 or 3.0	0.2 or 7.0	90	498	44	1	3.0	65.0	19.1	62.0	64.2	62.0	59.0	61.2				
3,6 - 3,6							4	3.5	64.1	21.0	60.5	52.1	61.8	58.3	49.1				
4,5 - 4,5							8	5.0	59.4	21.0	54.4	46.1	57.0	52.1	43.1				
7,8 - 7,8							10	5.5	57.8	21.0	52.3	44.2	55.5	50.0	41.2				
							16	7.0	54.6	20.0	47.6	40.1	52.2	45.2	37.1				
i							20	7.8	53.1	19.5	45.2	38.2	50.7	42.8	35.2				
							25	8.8	51.5	19.0	42.8	36.2	49.1	40.4	33.2				
							31.25	9.8	50.0	18.5	40.2	34.3	47.5	37.7	31.3				
							62.5	14.0	45.1	16.0	31.1	28.3	42.7	28.6	25.3				
							100	18.0	41.8	14.0	23.9	24.2	39.3	21.3	21.2				
							200	26.1	36.9	11.0	10.8	18.2	34.3	8.2	15.2				
							250	29.5	35.3	10.0	5.8	16.2	32.7	3.2	13.2				
							350	35.6	31.8	8.6	-3.8	13.3	29.1	-6.5	10.3				
							450	41.1	28.2	8.0	-13.0	11.1	25.3	-15.8	8.1				
							500	43.8	26.7	8.0	-17.1	10.2	23.8	-20.0	7.2				

## Cat6 Selftest

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB		dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	2			2	10	3	1	1.0	65.0	19.0									
3,6 - 3,6							4	1.0	64.0	19.0									
4,5 - 4,5							8	1.0	57.9	19.0									
7,8 - 7,8							10	1.0	56.0	19.0									
							16	1.0	51.9	19.0									
i	Informational measurement only, no limit available 10% length rule - will fail when length > 2.2 m						20	1.0	50.0	19.0									
							25	1.0	48.0	19.0									
							31.25	1.0	46.1	17.8									
							62.5	1.0	40.1	14.2									
							100	1.0	36.0	11.8									
							200	1.0	27.0	8.2									
							250	1.0	24.1	7.0									
							350	i	i	i				i	i				

**TokenRing, 16Mb/s, Active**

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6 4,5 - 4,5	25			100			1				32.1								
							4				23.0								
							8				18.5								
							10				17.1								
							16	16.0			14.0								
							20				12.5								
							25				11.1								
							31.25	i			i								
							62.5	i			i								
							100	i			i								
i	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit						200	i			i								
							250	i			i								
							350	i			i								

**TokenRing, 16Mb/s, Passive**

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
3,6 - 3,6 4,5 - 4,5	25	None	None	100	None	None	1	i			33.6								
							4	i			24.5								
							8	i			20.0								
							10	i			18.6								
							16	19.0			15.5								
							20	i			14.0								
							25	i			12.6								
							31.25	i			i								
							62.5	i			i								
							100	i			i								
	Informational measurement only, no limit available Not evaluated against the test limit						200	i			i								
							250	i			i								
							350	i			i								



**ISO11801 Channel Class D 2pr**

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6	25			100	555	50	1	4	60	17	56	57.4	57	53	54.4				
							4	4.5	53.5	17	49	45.4	50.5	46	42.4				
							8	6.4	48.6	17	42.2	39.3	45.6	39.2	36.3				
							10	7.2	47	17	39.8	37.4	44	36.8	34.4				
i	Informational measurement only, no limit available						16	9.1	43.6	17	34.5	33.3	40.6	31.5	30.3				
							20	10.2	42	17	31.8	31.4	39	28.8	28.4				
							25	11.5	40.3	16	28.9	29.4	37.3	25.9	26.4				
	Not evaluated against the test limit						31.25	12.9	38.7	15.1	25.8	27.5	35.7	22.8	24.5				
	If Insertion Loss < 3 dB, not evaluated against the test limit						62.5	18.6	33.6	12	15	21.5	30.6	12	18.5				
	If Insertion Loss < 4 dB, not evaluated against the test limit						100	24	30.1	10	6.1	17.4	27.1	3.1	14.4				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

**ISO11801-9905 C6A**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	6.4				169	16	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
3,6 - 3,6							4	3.0	63.8	19.0	60.8	59.9	60.8	57.8	56.9				
4,5 - 4,5							8	3.0	58.9	19.0	55.9	53.9	55.9	52.9	50.9				
7,8 - 7,8							10	3.0	57.3	19.0	54.3	52.0	54.3	51.3	49.0				
							16	3.0	53.9	18.0	50.9	47.9	50.9	47.9	44.9				
i							20	3.0	52.3	17.5	49.3	45.9	49.3	46.3	42.9				
							25	3.2	50.7	17.0	47.5	44.0	47.7	44.5	41.0				
							31.25	3.6	49.1	16.5	45.5	42.1	46.1	42.5	39.1				
							62.5	5.1	44.0	16.0	38.9	36.0	41.0	35.9	33.0				
							100	6.5	40.5	16.0	34.0	32.0	37.5	31.0	29.0				
							200	9.3	35.3	14.3	26.1	25.9	32.3	23.1	22.9				
							250	10.4	33.6	13.4	23.2	24.0	30.6	20.2	21.0				
							350	12.4	31.1	12.1	18.7	21.1	28.1	15.7	18.1				
							450	14.2	29.2	11.1	15.0	18.9	26.2	12.0	15.9				
							500	15.0	28.4	10.7	13.4	18.0	25.4	10.4	15.0				
							600	16.5	26.2	10.0	9.6	16.4	23.2	6.6	13.4				
							700	18.0	24.3	9.4	6.3	15.1	21.3	3.3	12.1				
							800	19.4	22.5	8.9	3.2	13.9	19.5	0.2	10.9				
							900	20.7	21.0	8.4	0.3	12.9	18.0	-2.7	9.9				
							1000	22.0	19.6	8.0	-2.4	12.0	16.6	-5.4	9.0				

**ISO11801-9905 C7**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	6.4				169	10	1	3.0	65.0	19.0	62.0	65.0	65.0	62.0	62.0				
3,6 - 3,6							4	3.0	65.0	19.0	62.0	65.0	65.0	62.0	61.6				
4,5 - 4,5							8	3.0	65.0	19.0	62.0	62.4	65.0	62.0	55.6				
7,8 - 7,8							10	3.0	65.0	19.0	62.0	60.8	65.0	62.0	53.7				
							16	3.0	65.0	18.0	62.0	57.5	65.0	62.0	49.6				
i							20	3.0	65.0	17.5	62.0	55.9	65.0	62.0	47.7				
							25	3.1	65.0	17.0	61.9	54.4	65.0	61.9	45.7				
							31.25	3.5	64.8	16.5	61.3	52.8	65.0	61.5	43.8				
							62.5	5.0	59.0	16.0	54.1	47.8	62.9	57.9	37.8				
							100	6.3	55.1	16.0	48.8	44.4	59.9	53.5	33.7				
							200	9.0	49.3	14.3	40.2	39.4	55.3	46.3	27.7				
							250	10.1	47.4	13.4	37.3	37.8	53.9	43.7	25.7				
							350	12.1	44.5	12.1	32.5	35.3	51.7	39.6	22.8				
							450	13.8	42.4	11.1	28.6	33.4	50.1	36.3	20.6				
							500	14.6	41.5	10.7	27.0	32.6	49.4	34.8	19.7				
							600	16.0	40.0	10.0	23.9	31.3	48.2	32.1	18.1				
							700	17.4	24.3	9.4	6.8	15.1	21.3	3.8	12.1				
							800	18.7	22.5	8.9	3.8	13.9	19.5	0.8	10.9				
							900	19.9	21.0	8.4	1.1	12.9	18.0	-1.9	9.9				
							1000	21.1	19.6	8.0	-1.5	12.0	16.6	-4.5	9.0				

**ISO11801-9905 C7A**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	6.4				169	10	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
3,6 - 3,6							4	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
4,5 - 4,5							8	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
7,8 - 7,8							10	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							16	3.0	65.0	18.0	62.0	63.3	62.0	59.0	60.3				
i							20	3.0	65.0	17.5	62.0	61.4	62.0	59.0	58.4				
							25	3.1	65.0	17.0	61.9	59.4	62.0	58.9	56.4				
							31.25	3.5	65.0	16.5	61.5	57.5	62.0	58.5	54.5				
							62.5	5.0	65.0	16.0	60.0	51.5	62.0	57.0	48.5				
							100	6.3	65.0	16.0	58.7	47.4	62.0	55.7	44.4				
							200	9.0	60.9	14.3	51.9	41.4	57.9	48.9	38.4				
							250	10.1	59.1	13.4	49.0	39.4	56.1	46.0	36.4				
							350	12.1	56.4	12.1	44.4	36.5	53.4	41.4	33.5				
							450	13.8	54.4	11.1	40.6	34.3	51.4	37.6	31.3				
							500	14.6	53.6	10.7	39.0	33.4	50.6	36.0	30.4				
							600	16.0	52.1	10.0	36.0	31.8	49.1	33.0	28.8				
							700	17.4	50.8	9.4	33.4	30.5	47.8	30.4	27.5				
							800	18.7	49.7	8.9	31.0	29.3	46.7	28.0	26.3				
							900	19.9	48.8	8.4	28.9	28.3	45.8	25.9	25.3				
							1000	21.1	47.9	8.0	26.8	27.4	44.9	23.8	24.4				

**ISO11801-9905 C6A (+All)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	6.4	0.2 or 3.0	0.1 or 7.0	None	169	16	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	40.0	30.0	i	i
3,6 - 3,6							4	3.0	63.8	19.0	60.8	59.9	60.8	57.8	56.9	40.0	18.0	i	i
4,5 - 4,5							8	3.0	58.9	19.0	55.9	53.9	55.9	52.9	50.9	39.5	11.9	i	i
7,8 - 7,8							10	3.0	57.3	19.0	54.3	52.0	54.3	51.3	49.0	38.0	10.0	i	i
							16	3.0	53.9	18.0	50.9	47.9	50.9	47.9	44.9	34.9	5.9	i	i
i							20	3.0	52.3	17.5	49.3	45.9	49.3	46.3	42.9	33.5	4.0	i	i
							25	3.2	50.7	17.0	47.5	44.0	47.7	44.5	41.0	32.0	2.0	i	i
							31.25	3.6	49.1	16.5	45.5	42.1	46.1	42.5	39.1	30.4	i	i	i
							62.5	5.1	44.0	16.0	38.9	36.0	41.0	35.9	33.0	24.4	i	i	i
							100	6.5	40.5	16.0	34.0	32.0	37.5	31.0	29.0	20.3	i	i	i
							200	9.3	35.3	14.3	26.1	25.9	32.3	23.1	22.9	14.3	i	i	i
							250	10.4	33.6	13.4	23.2	24.0	30.6	20.2	21.0	12.3	i	i	i
							350	12.4	31.1	12.1	18.7	21.1	28.1	15.7	18.1	i	i	i	i
							450	14.2	29.2	11.1	15.0	18.9	26.2	12.0	15.9	i	i	i	i
							500	15.0	28.4	10.7	13.4	18.0	25.4	10.4	15.0	i	i	i	i
							600	16.5	26.2	10.0	9.6	16.4	23.2	6.6	13.4	i	i	i	i
							700	18.0	24.3	9.4	6.3	15.1	21.3	3.3	12.1	i	i	i	i
							800	19.4	22.5	8.9	3.2	13.9	19.5	0.2	10.9	i	i	i	i
							900	20.7	21.0	8.4	0.3	12.9	18.0	-2.7	9.9	i	i	i	i
							1000	22.0	19.6	8.0	-2.4	12.0	16.6	-5.4	9.0	i	i	i	i

ISO11801-9905 C6A (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	6.4	0.2 or 3.0	0.1 or 7.0	None	169	16	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
3,6 - 3,6	Informational measurement only, no limit available						4	3.0	63.8	19.0	60.8	59.9	60.8	57.8	56.9				
4,5 - 4,5							8	3.0	58.9	19.0	55.9	53.9	55.9	52.9	50.9				
7,8 - 7,8							10	3.0	57.3	19.0	54.3	52.0	54.3	51.3	49.0				
							16	3.0	53.9	18.0	50.9	47.9	50.9	47.9	44.9				
i							20	3.0	52.3	17.5	49.3	45.9	49.3	46.3	42.9				
							25	3.2	50.7	17.0	47.5	44.0	47.7	44.5	41.0				
							31.25	3.6	49.1	16.5	45.5	42.1	46.1	42.5	39.1				
							62.5	5.1	44.0	16.0	38.9	36.0	41.0	35.9	33.0				
							100	6.5	40.5	16.0	34.0	32.0	37.5	31.0	29.0				
							200	9.3	35.3	14.3	26.1	25.9	32.3	23.1	22.9				
							250	10.4	33.6	13.4	23.2	24.0	30.6	20.2	21.0				
							350	12.4	31.1	12.1	18.7	21.1	28.1	15.7	18.1				
							450	14.2	29.2	11.1	15.0	18.9	26.2	12.0	15.9				
							500	15.0	28.4	10.7	13.4	18.0	25.4	10.4	15.0				
							600	16.5	26.2	10.0	9.6	16.4	23.2	6.6	13.4				
							700	18.0	24.3	9.4	6.3	15.1	21.3	3.3	12.1				
							800	19.4	22.5	8.9	3.2	13.9	19.5	0.2	10.9				
							900	20.7	21.0	8.4	0.3	12.9	18.0	-2.7	9.9				
							1000	22.0	19.6	8.0	-2.4	12.0	16.6	-5.4	9.0				

ISO11801-9905 C7 (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	6.4	0.2 or 3.0	0.1 or 7.0	None	169	10	1	3.0	65.0	19.0	62.0	65.0	65.0	62.0	62.0	40.0	30.0	i	i
3,6 - 3,6	Informational measurement only, no limit available						4	3.0	65.0	19.0	62.0	65.0	65.0	62.0	61.6	40.0	18.0	i	i
4,5 - 4,5							8	3.0	65.0	19.0	62.0	62.4	65.0	62.0	55.6	39.5	11.9	i	i
7,8 - 7,8							10	3.0	65.0	19.0	62.0	60.8	65.0	62.0	53.7	38.0	10.0	i	i
							16	3.0	65.0	18.0	62.0	57.5	65.0	62.0	49.6	34.9	5.9	i	i
i							20	3.0	65.0	17.5	62.0	55.9	65.0	62.0	47.7	33.5	4.0	i	i
							25	3.1	65.0	17.0	61.9	54.4	65.0	61.9	45.7	32.0	2.0	i	i
							31.25	3.5	64.8	16.5	61.3	52.8	65.0	61.5	43.8	30.4	i	i	i
							62.5	5.0	59.0	16.0	54.1	47.8	62.9	57.9	37.8	24.4	i	i	i
							100	6.3	55.1	16.0	48.8	44.4	59.9	53.5	33.7	20.3	i	i	i
							200	9.0	49.3	14.3	40.2	39.4	55.3	46.3	27.7	14.3	i	i	i
							250	10.1	47.4	13.4	37.3	37.8	53.9	43.7	25.7	12.3	i	i	i
							350	12.1	44.5	12.1	32.5	35.3	51.7	39.6	22.8	i	i	i	i
							450	13.8	42.4	11.1	28.6	33.4	50.1	36.3	20.6	i	i	i	i
							500	14.6	41.5	10.7	27.0	32.6	49.4	34.8	19.7	i	i	i	i
							600	16.0	40.0	10.0	23.9	31.3	48.2	32.1	18.1	i	i	i	i
							700	17.4	24.3	9.4	6.8	15.1	21.3	3.8	12.1	i	i	i	i
							800	18.7	22.5	8.9	3.8	13.9	19.5	0.8	10.9	i	i	i	i
							900	19.9	21.0	8.4	1.1	12.9	18.0	-1.9	9.9	i	i	i	i
							1000	21.1	19.6	8.0	-1.5	12.0	16.6	-4.5	9.0	i	i	i	i

### ISO11801-9905 C7 (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	6.4	0.2 or 3.0	0.1 or 7.0	None	169	10	1	3.0	65.0	19.0	62.0	65.0	65.0	62.0	62.0				
3,6 - 3,6							4	3.0	65.0	19.0	62.0	65.0	65.0	62.0	61.6				
4,5 - 4,5							8	3.0	65.0	19.0	62.0	62.4	65.0	62.0	55.6				
7,8 - 7,8							10	3.0	65.0	19.0	62.0	60.8	65.0	62.0	53.7				
							16	3.0	65.0	18.0	62.0	57.5	65.0	62.0	49.6				
i							20	3.0	65.0	17.5	62.0	55.9	65.0	62.0	47.7				
							25	3.1	65.0	17.0	61.9	54.4	65.0	61.9	45.7				
							31.25	3.5	64.8	16.5	61.3	52.8	65.0	61.5	43.8				
							62.5	5.0	59.0	16.0	54.1	47.8	62.9	57.9	37.8				
							100	6.3	55.1	16.0	48.8	44.4	59.9	53.5	33.7				
							200	9.0	49.3	14.3	40.2	39.4	55.3	46.3	27.7				
							250	10.1	47.4	13.4	37.3	37.8	53.9	43.7	25.7				
							350	12.1	44.5	12.1	32.5	35.3	51.7	39.6	22.8				
							450	13.8	42.4	11.1	28.6	33.4	50.1	36.3	20.6				
							500	14.6	41.5	10.7	27.0	32.6	49.4	34.8	19.7				
							600	16.0	40.0	10.0	23.9	31.3	48.2	32.1	18.1				
							700	17.4	24.3	9.4	6.8	15.1	21.3	3.8	12.1				
							800	18.7	22.5	8.9	3.8	13.9	19.5	0.8	10.9				
							900	19.9	21.0	8.4	1.1	12.9	18.0	-1.9	9.9				
							1000	21.1	19.6	8.0	-1.5	12.0	16.6	-4.5	9.0				

### ISO11801-9905 C7A (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	6.4	0.2 or 3.0	0.1 or 7.0	None	169	10	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	40.0	30.0	i	i
3,6 - 3,6							4	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	40.0	18.0	i	i
4,5 - 4,5							8	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	39.5	11.9	i	i
7,8 - 7,8							10	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	38.0	10.0	i	i
							16	3.0	65.0	18.0	62.0	63.3	62.0	59.0	60.3	34.9	5.9	i	i
i							20	3.0	65.0	17.5	62.0	61.4	62.0	59.0	58.4	33.5	4.0	i	i
							25	3.1	65.0	17.0	61.9	59.4	62.0	58.9	56.4	32.0	2.0	i	i
							31.25	3.5	65.0	16.5	61.5	57.5	62.0	58.5	54.5	30.4	i	i	i
							62.5	5.0	65.0	16.0	60.0	51.5	62.0	57.0	48.5	24.4	i	i	i
							100	6.3	65.0	16.0	58.7	47.4	62.0	55.7	44.4	20.3	i	i	i
							200	9.0	60.9	14.3	51.9	41.4	57.9	48.9	38.4	14.3	i	i	i
							250	10.1	59.1	13.4	49.0	39.4	56.1	46.0	36.4	12.3	i	i	i
							350	12.1	56.4	12.1	44.4	36.5	53.4	41.4	33.5	i	i	i	i
							450	13.8	54.4	11.1	40.6	34.3	51.4	37.6	31.3	i	i	i	i
							500	14.6	53.6	10.7	39.0	33.4	50.6	36.0	30.4	i	i	i	i
							600	16.0	52.1	10.0	36.0	31.8	49.1	33.0	28.8	i	i	i	i
							700	17.4	50.8	9.4	33.4	30.5	47.8	30.4	27.5	i	i	i	i
							800	18.7	49.7	8.9	31.0	29.3	46.7	28.0	26.3	i	i	i	i
							900	19.9	48.8	8.4	28.9	28.3	45.8	25.9	25.3	i	i	i	i
							1000	21.1	47.9	8.0	26.8	27.4	44.9	23.8	24.4	i	i	i	i

**ISO11801-9905 C7A (+PoE)**

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	6.4	0.2 or 3.0	0.1 or 7.0	None	169	10	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
3,6 - 3,6							4	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
4,5 - 4,5							8	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
7,8 - 7,8							10	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
							16	3.0	65.0	18.0	62.0	63.3	62.0	59.0	60.3				
i							20	3.0	65.0	17.5	62.0	61.4	62.0	59.0	58.4				
							25	3.1	65.0	17.0	61.9	59.4	62.0	58.9	56.4				
							31.25	3.5	65.0	16.5	61.5	57.5	62.0	58.5	54.5				
							62.5	5.0	65.0	16.0	60.0	51.5	62.0	57.0	48.5				
							100	6.3	65.0	16.0	58.7	47.4	62.0	55.7	44.4				
							200	9.0	60.9	14.3	51.9	41.4	57.9	48.9	38.4				
							250	10.1	59.1	13.4	49.0	39.4	56.1	46.0	36.4				
							350	12.1	56.4	12.1	44.4	36.5	53.4	41.4	33.5				
							450	13.8	54.4	11.1	40.6	34.3	51.4	37.6	31.3				
							500	14.6	53.6	10.7	39.0	33.4	50.6	36.0	30.4				
							600	16.0	52.1	10.0	36.0	31.8	49.1	33.0	28.8				
							700	17.4	50.8	9.4	33.4	30.5	47.8	30.4	27.5				
							800	18.7	49.7	8.9	31.0	29.3	46.7	28.0	26.3				
							900	19.9	48.8	8.4	28.9	28.3	45.8	25.9	25.3				
							1000	21.1	47.9	8.0	26.8	27.4	44.9	23.8	24.4				

ISO TR11801-9909 8.1

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	10	None	None	None	95	15	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	30.0	30.0	i	i
3,6 - 3,6	Informational measurement only, no limit available						4	3.0	64.9	19.0	61.9	60.4	61.9	58.9	56.9	30.0	22.6	i	i
4,5 - 4,5							8	3.0	60.2	19.0	57.2	54.3	57.2	54.2	50.9	30.0	16.5	i	i
7,8 - 7,8							10	3.1	58.7	19.0	55.5	52.4	55.7	52.5	49.0	30.0	14.6	i	i
							16	4.0	55.4	18.0	51.4	48.3	52.4	48.4	44.9	29.5	10.5	i	i
i							20	4.5	53.9	17.5	49.4	46.4	50.9	46.4	42.9	27.9	8.6	i	i
							25	5.0	52.3	17.0	47.3	44.4	49.3	44.3	41.0	26.2	6.6	i	i
							31.25	5.6	50.8	16.5	45.2	42.5	47.8	42.2	39.1	24.6	4.7	i	i
							62.5	8.0	45.9	16.0	37.9	36.5	42.9	34.9	33.0	19.5	3.0	i	i
							100	10.1	42.6	16.0	32.5	32.4	39.6	29.5	29.0	16.0	3.0	i	i
							200	14.5	37.6	14.3	23.2	26.4	34.6	20.2	22.9	10.9	3.0	i	i
							250	16.2	36.0	13.4	19.8	24.4	33.0	16.8	21.0	9.2	3.0	i	i
							350	19.4	33.6	12.1	14.3	21.5	30.6	11.3	18.1	6.8	3.0	i	i
							450	22.1	31.8	11.1	9.7	19.3	28.8	6.7	15.9	4.9	3.0	i	i
							500	23.0	31.0	10.7	8.0	18.4	28.0	5.0	15.0	4.1	3.0	i	i
							600	25.4	29.1	10.0	3.7	16.8	26.1	0.7	13.4	3.0	3.0	i	i
							700	27.6	27.5	9.4	-0.1	15.5	24.5	-3.1	12.1	3.0	3.0	i	i
							800	29.7	26.0	8.9	-3.7	14.3	23.0	-6.7	10.9	3.0	3.0	i	i
							900	31.6	24.6	8.4	-7.0	13.3	21.6	-10.0	9.9	3.0	3.0	i	i
							1000	33.5	23.4	8.0	-10.1	12.4	20.4	-13.1	9.0	3.0	3.0	i	i
							1600	43.4	17.4	8.0	-26.0	8.3	14.4	-29.0	4.9	3.0	3.0	i	i
							2000	49.2	14.4	8.0	-34.8	6.4	11.4	-37.8	2.9	3.0	3.0	i	i

## ISO TR11801-9909 8.2

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	10	None	None	None	95	15	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	40.0	30.0	i	i
3,6 - 3,6	Informational measurement only, no limit available						4	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	39.8	22.6	i	i
4,5 - 4,5							8	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	34.6	16.5	i	i
7,8 - 7,8							10	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	33.0	14.6	i	i
							16	3.9	65.0	18.0	61.1	65.0	62.0	58.1	62.0	29.5	10.5	i	i
i							20	4.3	65.0	17.5	60.7	65.0	62.0	57.7	62.0	27.9	8.6	i	i
							25	4.8	65.0	17.0	60.2	65.0	62.0	57.2	62.0	26.2	6.6	i	i
							31.25	5.4	65.0	16.5	59.6	63.2	62.0	56.6	60.2	24.6	4.7	i	i
							62.5	7.7	65.0	16.0	57.3	57.2	62.0	54.3	54.2	19.5	3.0	i	i
							100	9.8	65.0	16.0	55.2	53.1	62.0	52.2	50.1	16.0	3.0	i	i
							200	14.0	64.6	14.3	50.5	47.1	61.6	47.5	44.1	10.9	3.0	i	i
							250	15.7	62.8	13.4	47.1	45.2	59.8	44.1	42.2	9.2	3.0	i	i
							350	18.7	60.3	12.1	41.5	42.2	57.3	38.5	39.2	6.8	3.0	i	i
							450	21.4	58.3	11.1	36.9	40.0	55.3	33.9	37.0	4.9	3.0	i	i
							500	22.6	57.5	10.7	34.9	39.1	54.5	31.9	36.1	4.1	3.0	i	i
							600	24.9	56.1	10.0	31.2	37.5	53.1	28.2	34.5	3.0	3.0	i	i
							700	27.0	54.9	9.4	27.9	36.2	51.9	24.9	33.2	3.0	3.0	i	i
							800	29.0	53.8	8.9	24.8	35.1	50.8	21.8	32.1	3.0	3.0	i	i
							900	30.9	52.9	8.4	22.0	34.0	49.9	19.0	31.0	3.0	3.0	i	i
							1000	32.7	52.1	8.0	19.4	33.1	49.1	16.4	30.1	3.0	3.0	i	i
							1600	42.2	37.0	8.0	-5.2	18.4	34.0	-8.2	15.4	3.0	3.0	i	i
							2000	47.8	28.8	8.0	-18.9	10.2	25.8	-21.9	7.2	3.0	3.0	i	i



## ISO TR11801-9909 8.1 (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	10	0.2 or 3.0	0.2 or 7.0	None	95	15	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	30.0	30.0	i	i
3,6 - 3,6	Informational measurement only, no limit available						4	3.0	64.9	19.0	61.9	60.4	61.9	58.9	56.9	30.0	22.6	i	i
4,5 - 4,5							8	3.0	60.2	19.0	57.2	54.3	57.2	54.2	50.9	30.0	16.5	i	i
7,8 - 7,8							10	3.1	58.7	19.0	55.5	52.4	55.7	52.5	49.0	30.0	14.6	i	i
							16	4.0	55.4	18.0	51.4	48.3	52.4	48.4	44.9	29.5	10.5	i	i
i							20	4.5	53.9	17.5	49.4	46.4	50.9	46.4	42.9	27.9	8.6	i	i
							25	5.0	52.3	17.0	47.3	44.4	49.3	44.3	41.0	26.2	6.6	i	i
							31.25	5.6	50.8	16.5	45.2	42.5	47.8	42.2	39.1	24.6	4.7	i	i
							62.5	8.0	45.9	16.0	37.9	36.5	42.9	34.9	33.0	19.5	3.0	i	i
							100	10.1	42.6	16.0	32.5	32.4	39.6	29.5	29.0	16.0	3.0	i	i
							200	14.5	37.6	14.3	23.2	26.4	34.6	20.2	22.9	10.9	3.0	i	i
							250	16.2	36.0	13.4	19.8	24.4	33.0	16.8	21.0	9.2	3.0	i	i
							350	19.4	33.6	12.1	14.3	21.5	30.6	11.3	18.1	6.8	3.0	i	i
							450	22.1	31.8	11.1	9.7	19.3	28.8	6.7	15.9	4.9	3.0	i	i
							500	23.0	31.0	10.7	8.0	18.4	28.0	5.0	15.0	4.1	3.0	i	i
							600	25.4	29.1	10.0	3.7	16.8	26.1	0.7	13.4	3.0	3.0	i	i
							700	27.6	27.5	9.4	-0.1	15.5	24.5	-3.1	12.1	3.0	3.0	i	i
							800	29.7	26.0	8.9	-3.7	14.3	23.0	-6.7	10.9	3.0	3.0	i	i
							900	31.6	24.6	8.4	-7.0	13.3	21.6	-10.0	9.9	3.0	3.0	i	i
							1000	33.5	23.4	8.0	-10.1	12.4	20.4	-13.1	9.0	3.0	3.0	i	i
							1600	43.4	17.4	8.0	-26.0	8.3	14.4	-29.0	4.9	3.0	3.0	i	i
							2000	49.2	14.4	8.0	-34.8	6.4	11.4	-37.8	2.9	3.0	3.0	i	i

ISO TR11801-9909 8.1 (+PoE)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	10	0.2 or 3.0	0.2 or 7.0	None	95	15	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0				
3,6 - 3,6	Informational measurement only, no limit available						4	3.0	64.9	19.0	61.9	60.4	61.9	58.9	56.9				
4,5 - 4,5							8	3.0	60.2	19.0	57.2	54.3	57.2	54.2	50.9				
7,8 - 7,8							10	3.1	58.7	19.0	55.5	52.4	55.7	52.5	49.0				
							16	4.0	55.4	18.0	51.4	48.3	52.4	48.4	44.9				
i							20	4.5	53.9	17.5	49.4	46.4	50.9	46.4	42.9				
							25	5.0	52.3	17.0	47.3	44.4	49.3	44.3	41.0				
							31.25	5.6	50.8	16.5	45.2	42.5	47.8	42.2	39.1				
							62.5	8.0	45.9	16.0	37.9	36.5	42.9	34.9	33.0				
							100	10.1	42.6	16.0	32.5	32.4	39.6	29.5	29.0				
							200	14.5	37.6	14.3	23.2	26.4	34.6	20.2	22.9				
							250	16.2	36.0	13.4	19.8	24.4	33.0	16.8	21.0				
							350	19.4	33.6	12.1	14.3	21.5	30.6	11.3	18.1				
							450	22.1	31.8	11.1	9.7	19.3	28.8	6.7	15.9				
							500	23.0	31.0	10.7	8.0	18.4	28.0	5.0	15.0				
							600	25.4	29.1	10.0	3.7	16.8	26.1	0.7	13.4				
							700	27.6	27.5	9.4	-0.1	15.5	24.5	-3.1	12.1				
							800	29.7	26.0	8.9	-3.7	14.3	23.0	-6.7	10.9				
							900	31.6	24.6	8.4	-7.0	13.3	21.6	-10.0	9.9				
							1000	33.5	23.4	8.0	-10.1	12.4	20.4	-13.1	9.0				
							1600	43.4	17.4	8.0	-26.0	8.3	14.4	-29.0	4.9				
							2000	49.2	14.4	8.0	-34.8	6.4	11.4	-37.8	2.9				

## ISO TR11801-9909 8.2 (+All)

Wire Map	Resistance	Resistance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	10	0.2 or 3.0	0.2 or 7.0	None	95	15	1	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	40.0	30.0	i	i
3,6 - 3,6	Informational measurement only, no limit available						4	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	39.8	22.6	i	i
4,5 - 4,5							8	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	34.6	16.5	i	i
7,8 - 7,8							10	3.0	65.0	19.0	62.0	65.0	62.0	59.0	62.0	33.0	14.6	i	i
							16	3.9	65.0	18.0	61.1	65.0	62.0	58.1	62.0	29.5	10.5	i	i
i							20	4.3	65.0	17.5	60.7	65.0	62.0	57.7	62.0	27.9	8.6	i	i
							25	4.8	65.0	17.0	60.2	65.0	62.0	57.2	62.0	26.2	6.6	i	i
							31.25	5.4	65.0	16.5	59.6	63.2	62.0	56.6	60.2	24.6	4.7	i	i
							62.5	7.7	65.0	16.0	57.3	57.2	62.0	54.3	54.2	19.5	3.0	i	i
							100	9.8	65.0	16.0	55.2	53.1	62.0	52.2	50.1	16.0	3.0	i	i
							200	14.0	64.6	14.3	50.5	47.1	61.6	47.5	44.1	10.9	3.0	i	i
							250	15.7	62.8	13.4	47.1	45.2	59.8	44.1	42.2	9.2	3.0	i	i
							350	18.7	60.3	12.1	41.5	42.2	57.3	38.5	39.2	6.8	3.0	i	i
							450	21.4	58.3	11.1	36.9	40.0	55.3	33.9	37.0	4.9	3.0	i	i
							500	22.6	57.5	10.7	34.9	39.1	54.5	31.9	36.1	4.1	3.0	i	i
							600	24.9	56.1	10.0	31.2	37.5	53.1	28.2	34.5	3.0	3.0	i	i
							700	27.0	54.9	9.4	27.9	36.2	51.9	24.9	33.2	3.0	3.0	i	i
							800	29.0	53.8	8.9	24.8	35.1	50.8	21.8	32.1	3.0	3.0	i	i
							900	30.9	52.9	8.4	22.0	34.0	49.9	19.0	31.0	3.0	3.0	i	i
							1000	32.7	52.1	8.0	19.4	33.1	49.1	16.4	30.1	3.0	3.0	i	i
							1600	42.2	37.0	8.0	-5.2	18.4	34.0	-8.2	15.4	3.0	3.0	i	i
							2000	47.8	28.8	8.0	-18.9	10.2	25.8	-21.9	7.2	3.0	3.0	i	i

## TP-PMD

Wire Map	Resistance	Resistance	Resistance	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %																
1,2 - 1,2	25			100			1	i	51.1		48.6								
7,8 - 7,8	Informational measurement only, no limit available						4	i	42.0		39.5								
							8	i	37.5		35.0								
							10	i	36.1		33.6								
							16	10.0	33.0		30.5								
i							20	i	31.5		29.0								
							25	i	30.1		27.6								
							31.25	i	28.6		26.1								
							62.5	i	24.1		21.6								
							100	i	i		i								
							200	i	i		i								
							250	i	i		i								
							350	i	i		i								



### ZugBus-Zug 2pr

[illegible]



**MVB 2pr**

[illegible]

### Profinet

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6	25			100	555	20	4	4.5	53.5	17.0	49.0	45.4	50.5	46.0	42.4				
	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit						8	6.4	48.6	17.0	42.2	39.3	45.6	39.2	36.3				
							10	7.2	47.0	17.0	39.8	37.4	44.0	36.8	34.4				
							16	9.1	43.6	17.0	34.5	33.3	40.6	31.5	30.3				
							20	10.2	42.0	17.0	31.8	31.4	39.0	28.8	28.4				
i							25	11.5	40.3	16.0	28.9	29.4	37.3	25.9	26.4				
							31.25	12.9	38.7	15.1	25.8	27.5	35.7	22.8	24.5				
							62.5	18.6	33.6	12.0	15.0	21.5	30.6	12.0	18.5				
							100	24.0	30.1	10.0	6.1	17.4	27.1	3.1	14.4				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

### Profinet 2pr E2E

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
Wire Map	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6	25			100	555	20	1	4.0	62.1	17.0	58.1	57.4	57.0	53.0	54.4				
	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit						4	4.5	52.0	17.0	47.5	45.4	50.5	46.0	42.4				
							8	6.4	46.9	17.0	40.5	39.3	45.6	39.2	36.3				
							10	7.2	45.3	17.0	38.1	37.4	44.0	36.8	34.4				
							16	9.1	41.7	17.0	32.6	33.3	40.6	31.5	30.3				
							20	10.2	40.0	17.0	29.8	31.4	39.0	28.8	28.4				
i							25	11.5	38.4	16.0	26.9	29.4	37.3	25.9	26.4				
							31.25	12.9	36.7	15.1	23.8	27.5	35.7	22.8	24.5				
							62.5	18.6	31.3	12.0	12.7	21.5	30.6	12.0	18.5				
							100	24.0	27.7	10.0	3.7	17.4	27.1	3.1	14.4				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				



# T1

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	None	None	305	None	None	1	i	i										
4,5 - 4,5	Informational measurement only, no limit available Not evaluated against the test limit						4	i	i										
							8	i	i										
							10	7.1	47.0										
							16	i	i										
							20	i	i										
							25	i	i										
							31.25	i	i										
							62.5	i	i										
							100	i	i										
							200	i	i										
							250	i	i										
							350	i	i										

## CATV Broadband

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	None	None	90	498	44	1	3.0	i	i	i	i	i	i	i				
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit 10% length rule - will fail when length > 70.4 m						4	4.0	i	i	i	i	i	i	i				
4,5 - 4,5							8	5.7	i	i	i	i	i	i	i				
7,8 - 7,8							10	6.3	i	i	i	i	i	i	i				
							16	8.0	i	i	i	i	i	i	i				
							20	9.0	i	i	i	i	i	i	i				
							25	10.1	i	i	i	i	i	i	i				
							31.25	11.4	i	i	i	i	i	i	i				
							62.5	16.5	i	i	i	i	i	i	i				
							100	21.3	i	i	i	i	i	i	i				
							200	31.5	i	i	i	i	i	i	i				
							250	35.9	i	i	i	i	i	i	i				
							350	44.0	i	i	i	i	i	i	i				
							450	51.5	i	i	i	i	i	i	i				
							500	55.0	i	i	i	i	i	i	i				
							600	55.0	i	i	i	i	i	i	i				
							700	55.0	i	i	i	i	i	i	i				
							800	55.0	i	i	i	i	i	i	i				
							865	55.0	i	i	i	i	i	i	i				
							900	i	i	i	i	i	i	i	i				
							1000	i	i	i	i	i	i	i	i				

### Measure All (600 MHz)

[illegible]

### Measure All (1200 MHz)

[illegible]

### Measure All (2500 MHz)

[illegible]

### Open-Max10m-2m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.2		20.0						46.0	46.0		
							4	0.3		20.0						46.0	46.0		
							8	0.4		20.0						46.0	46.0		
							10	0.5		20.0						46.0	46.0		
							16	0.6		20.0						46.0	46.0		
							20	0.7		20.0						46.0	46.0		
							25	0.8		19.0						46.0	46.0		
							31.25	0.9		18.1						46.0	46.0		
							62.5	1.3		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

### Open-Max10m-3m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.3		20.0						46.0	46.0		
							4	0.5		20.0						46.0	46.0		
							8	0.6		20.0						46.0	46.0		
							10	0.7		20.0						46.0	46.0		
							16	0.9		20.0						46.0	46.0		
							20	1.0		20.0						46.0	46.0		
							25	1.2		19.0						46.0	46.0		
							31.25	1.3		18.1						46.0	46.0		
							62.5	2.0		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

### Open-Max10m-5m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.4		20.0						46.0	46.0		
							4	0.8		20.0						46.0	46.0		
							8	1.1		20.0						46.0	46.0		
							10	1.2		20.0						46.0	46.0		
							16	1.5		20.0						46.0	46.0		
							20	1.7		20.0						46.0	46.0		
							25	2.0		19.0						46.0	46.0		
							31.25	2.2		18.1						46.0	46.0		
							62.5	3.3		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

## Open-Max10m-7m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.6		20.0						46.0	46.0		
							4	1.1		20.0						46.0	46.0		
							8	1.5		20.0						46.0	46.0		
							10	1.7		20.0						46.0	46.0		
							16	2.2		20.0						46.0	46.0		
							20	2.4		20.0						46.0	46.0		
							25	2.8		19.0						46.0	46.0		
							31.25	3.1		18.1						46.0	46.0		
							62.5	4.6		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

## Open-Max10m-10m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.9		20.0						46.0	46.0		
							4	1.5		20.0						46.0	46.0		
							8	2.2		20.0						46.0	46.0		
							10	2.4		20.0						46.0	46.0		
							16	3.1		20.0						46.0	46.0		
							20	3.5		20.0						46.0	46.0		
							25	3.9		19.0						46.0	46.0		
							31.25	4.4		18.1						46.0	46.0		
							62.5	6.6		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

## Open-Max15m-2m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.1		20.0						46.0	46.0		
							4	0.2		20.0						46.0	46.0		
							8	0.3		20.0						46.0	46.0		
							10	0.3		20.0						46.0	46.0		
							16	0.4		20.0						46.0	46.0		
							20	0.5		20.0						46.0	46.0		
							25	0.5		19.0						46.0	46.0		
							31.25	0.6		18.1						46.0	46.0		
							62.5	0.9		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

### Open-Max15m-3m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.2		20.0						46.0	46.0		
							4	0.3		20.0						46.0	46.0		
							8	0.4		20.0						46.0	46.0		
							10	0.5		20.0						46.0	46.0		
							16	0.6		20.0						46.0	46.0		
							20	0.7		20.0						46.0	46.0		
							25	0.8		19.0						46.0	46.0		
							31.25	0.9		18.1						46.0	46.0		
							62.5	1.3		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

### Open-Max15m-5m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.3		20.0						46.0	46.0		
							4	0.5		20.0						46.0	46.0		
							8	0.7		20.0						46.0	46.0		
							10	0.8		20.0						46.0	46.0		
							16	1.0		20.0						46.0	46.0		
							20	1.2		20.0						46.0	46.0		
							25	1.3		19.0						46.0	46.0		
							31.25	1.5		18.1						46.0	46.0		
							62.5	2.2		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

### Open-Max15m-7m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.4		20.0						46.0	46.0		
							4	0.7		20.0						46.0	46.0		
							8	1.0		20.0						46.0	46.0		
							10	1.1		20.0						46.0	46.0		
							16	1.4		20.0						46.0	46.0		
							20	1.6		20.0						46.0	46.0		
							25	1.8		19.0						46.0	46.0		
							31.25	2.1		18.1						46.0	46.0		
							62.5	3.1		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

## Open-Max15m-10m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.6		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	1.0		20.0						46.0	46.0		
							8	1.4		20.0						46.0	46.0		
							10	1.6		20.0						46.0	46.0		
							16	2.0		20.0						46.0	46.0		
							20	2.3		20.0						46.0	46.0		
							25	2.6		19.0						46.0	46.0		
							31.25	3.0		18.1						46.0	46.0		
							62.5	4.4		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

## Open-Max15m-15m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.9		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	1.5		20.0						46.0	46.0		
							8	2.1		20.0						46.0	46.0		
							10	2.4		20.0						46.0	46.0		
							16	3.1		20.0						46.0	46.0		
							20	3.5		20.0						46.0	46.0		
							25	3.9		19.0						46.0	46.0		
							31.25	4.4		18.1						46.0	46.0		
							62.5	6.6		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

## YB-2m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.1		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	0.2		20.0						46.0	46.0		
							8	0.2		20.0						46.0	46.0		
							10	0.3		20.0						46.0	46.0		
							16	0.3		20.0						46.0	46.0		
							20	0.4		20.0						46.0	46.0		
							25	0.4		19.0						46.0	46.0		
							31.25	0.5		18.1						46.0	46.0		
							62.5	0.7		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

YB-3m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.2		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	0.3		20.0						46.0	46.0		
							8	0.3		20.0						46.0	46.0		
							10	0.4		20.0						46.0	46.0		
							16	0.5		20.0						46.0	46.0		
							20	0.6		20.0						46.0	46.0		
							25	0.6		19.0						46.0	46.0		
							31.25	0.7		18.1						46.0	46.0		
							62.5	1.1		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

YB-4m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.2		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	0.3		20.0						46.0	46.0		
							8	0.5		20.0						46.0	46.0		
							10	0.5		20.0						46.0	46.0		
							16	0.7		20.0						46.0	46.0		
							20	0.8		20.0						46.0	46.0		
							25	0.9		19.0						46.0	46.0		
							31.25	1.0		18.1						46.0	46.0		
							62.5	1.5		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

YB-5m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.3		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	0.4		20.0						46.0	46.0		
							8	0.6		20.0						46.0	46.0		
							10	0.6		20.0						46.0	46.0		
							16	0.8		20.0						46.0	46.0		
							20	0.9		20.0						46.0	46.0		
							25	1.1		19.0						46.0	46.0		
							31.25	1.2		18.1						46.0	46.0		
							62.5	1.8		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		



### YB-7m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.4		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	0.6		20.0						46.0	46.0		
							8	0.8		20.0						46.0	46.0		
							10	0.9		20.0						46.0	46.0		
							16	1.2		20.0						46.0	46.0		
							20	1.3		20.0						46.0	46.0		
							25	1.5		19.0						46.0	46.0		
							31.25	1.7		18.1						46.0	46.0		
							62.5	2.6		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

### YB-10m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.6		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	0.9		20.0						46.0	46.0		
							8	1.2		20.0						46.0	46.0		
							10	1.3		20.0						46.0	46.0		
							16	1.7		20.0						46.0	46.0		
							20	1.9		20.0						46.0	46.0		
							25	2.1		19.0						46.0	46.0		
							31.25	2.4		18.1						46.0	46.0		
							62.5	3.7		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

### YBO-2m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.1		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	0.2		20.0						46.0	46.0		
							8	0.2		20.0						46.0	46.0		
							10	0.3		20.0						46.0	46.0		
							16	0.3		20.0						46.0	46.0		
							20	0.4		20.0						46.0	46.0		
							25	0.4		19.0						46.0	46.0		
							31.25	0.5		18.1						46.0	46.0		
							62.5	0.7		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

### YBO-3m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.2		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	0.3		20.0						46.0	46.0		
							8	0.3		20.0						46.0	46.0		
							10	0.4		20.0						46.0	46.0		
							16	0.5		20.0						46.0	46.0		
							20	0.6		20.0						46.0	46.0		
							25	0.6		19.0						46.0	46.0		
							31.25	0.7		18.1						46.0	46.0		
							62.5	1.1		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

### YBO-4m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.2		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	0.3		20.0						46.0	46.0		
							8	0.5		20.0						46.0	46.0		
							10	0.5		20.0						46.0	46.0		
							16	0.7		20.0						46.0	46.0		
							20	0.8		20.0						46.0	46.0		
							25	0.9		19.0						46.0	46.0		
							31.25	1.0		18.1						46.0	46.0		
							62.5	1.5		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

### YBO-5m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.3		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	0.4		20.0						46.0	46.0		
							8	0.6		20.0						46.0	46.0		
							10	0.6		20.0						46.0	46.0		
							16	0.8		20.0						46.0	46.0		
							20	0.9		20.0						46.0	46.0		
							25	1.1		19.0						46.0	46.0		
							31.25	1.2		18.1						46.0	46.0		
							62.5	1.8		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

### YBO-7m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.4		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	0.6		20.0						46.0	46.0		
							8	0.8		20.0						46.0	46.0		
							10	0.9		20.0						46.0	46.0		
							16	1.2		20.0						46.0	46.0		
							20	1.3		20.0						46.0	46.0		
							25	1.5		19.0						46.0	46.0		
							31.25	1.7		18.1						46.0	46.0		
							62.5	2.6		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

### YBO-10m

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	TCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i			i	i	i	1	0.6		20.0						46.0	46.0		
i	Informational measurement only, no limit available						4	0.9		20.0						46.0	46.0		
							8	1.2		20.0						46.0	46.0		
							10	1.3		20.0						46.0	46.0		
							16	1.7		20.0						46.0	46.0		
							20	1.9		20.0						46.0	46.0		
							25	2.1		19.0						46.0	46.0		
							31.25	2.4		18.1						46.0	46.0		
							62.5	3.7		15.1						44.1	44.1		
							100	i		i						40.0	40.0		
							200	i		i						34.0	34.0		
							250	i		i						i	i		
							350	i		i						i	i		

## Copper Limit Lines - End to End

### Class D 2-Conn E1 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %		nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	496	43	1	4.0	64.2	19.0		60.0	61.2		57.0	40.0	30.0
							4	4.0	54.8	19.0		48.0	51.8		45.0	40.0	18.0
							8	5.3	50.0	19.0		42.0	47.0		39.0	39.5	11.9
							10	5.9	48.5	19.0		40.0	45.5		37.0	38.0	10.0
							16	7.6	45.2	19.0		35.9	42.2		32.9	34.9	5.9
							20	8.5	43.7	19.0		34.0	40.7		31.0	33.5	4.0
							25	9.5	42.1	18.0		32.1	39.1		29.1	32.0	2.0
i	Informational measurement only, no limit available						31.25	10.7	40.5	17.1		30.1	37.5		27.1	30.5	i
	Not evaluated against the test limit						62.5	15.5	35.7	14.0		24.1	32.7		21.1	24.5	i
	If Insertion Loss < 3 dB, not evaluated against the test limit						100	20.0	32.3	12.0		20.0	29.3		17.0	20.4	i
	If Insertion Loss < 4 dB, not evaluated against the test limit						200	i	i	i		i	i		i	i	i
i if shielded	Informational measurement only if using shielded cable						250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

### Class D 2-Conn E2 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %		nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	496	43	1	4.0	64.2	19.0		60.0	61.2		57.0	40.0	40.0
							4	4.0	54.8	19.0		48.0	51.8		45.0	40.0	28.0
							8	5.3	50.0	19.0		42.0	47.0		39.0	40.0	21.9
							10	5.9	48.5	19.0		40.0	45.5		37.0	40.0	20.0
							16	7.6	45.2	19.0		35.9	42.2		32.9	40.0	15.9
							20	8.5	43.7	19.0		34.0	40.7		31.0	40.0	14.0
							25	9.5	42.1	18.0		32.1	39.1		29.1	40.0	12.0
i	Informational measurement only, no limit available						31.25	10.7	40.5	17.1		30.1	37.5		27.1	40.0	i
	Not evaluated against the test limit						62.5	15.5	35.7	14.0		24.1	32.7		21.1	34.5	i
	If Insertion Loss < 3 dB, not evaluated against the test limit						100	20.0	32.3	12.0		20.0	29.3		17.0	30.4	i
	If Insertion Loss < 4 dB, not evaluated against the test limit						200	i	i	i		i	i		i	i	i
i if shielded	Informational measurement only if using shielded cable						250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

### Class D 2-Conn E3 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	496	43	1	4.0	64.2	19.0		60.0	61.2		57.0	40.0	40.0
							4	4.0	54.8	19.0		48.0	51.8		45.0	40.0	38.0
							8	5.3	50.0	19.0		42.0	47.0		39.0	40.0	31.9
							10	5.9	48.5	19.0		40.0	45.5		37.0	40.0	30.0
							16	7.6	45.2	19.0		35.9	42.2		32.9	40.0	25.9
							20	8.5	43.7	19.0		34.0	40.7		31.0	40.0	24.0
							25	9.5	42.1	18.0		32.1	39.1		29.1	40.0	22.0
							31.25	10.7	40.5	17.1		30.1	37.5		27.1	40.0	i
							62.5	15.5	35.7	14.0		24.1	32.7		21.1	40.0	i
							100	20.0	32.3	12.0		20.0	29.3		17.0	40.0	i
							200	i	i	i		i	i		i	i	i
							250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

### Class D 3-Conn E1 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	498	44	1	4.0	64.2	19.0		60.0	61.2		55.6	40.0	30.0
							4	4.0	54.8	19.0		48.0	51.8		43.6	40.0	18.0
							8	5.4	50.0	19.0		42.0	47.0		37.6	39.5	11.9
							10	6.1	48.5	19.0		40.0	45.5		35.6	38.0	10.0
							16	7.7	45.2	19.0		35.9	42.2		31.5	34.9	5.9
							20	8.7	43.7	19.0		34.0	40.7		29.6	33.5	4.0
							25	9.7	42.1	18.0		32.1	39.1		27.7	32.0	2.0
							31.25	10.9	40.5	17.1		30.1	37.5		25.7	30.5	i
							62.5	15.8	35.7	14.0		24.1	32.7		19.7	24.5	i
							100	20.4	32.3	12.0		20.0	29.3		15.6	20.4	i
							200	i	i	i		i	i		i	i	i
							250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

### Class D 3-Conn E2 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	498	44	1	4.0	64.2	19.0		60.0	61.2		55.6	40.0	40.0
							4	4.0	54.8	19.0		48.0	51.8		43.6	40.0	28.0
							8	5.4	50.0	19.0		42.0	47.0		37.6	40.0	21.9
							10	6.1	48.5	19.0		40.0	45.5		35.6	40.0	20.0
							16	7.7	45.2	19.0		35.9	42.2		31.5	40.0	15.9
							20	8.7	43.7	19.0		34.0	40.7		29.6	40.0	14.0
							25	9.7	42.1	18.0		32.1	39.1		27.7	40.0	12.0
							31.25	10.9	40.5	17.1		30.1	37.5		25.7	40.0	i
							62.5	15.8	35.7	14.0		24.1	32.7		19.7	34.5	i
							100	20.4	32.3	12.0		20.0	29.3		15.6	30.4	i
							200	i	i	i		i	i		i	i	i
							250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

### Class D 3-Conn E3 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	498	44	1	4.0	64.2	19.0		60.0	61.2		55.6	40.0	40.0
							4	4.0	54.8	19.0		48.0	51.8		43.6	40.0	38.0
							8	5.4	50.0	19.0		42.0	47.0		37.6	40.0	31.9
							10	6.1	48.5	19.0		40.0	45.5		35.6	40.0	30.0
							16	7.7	45.2	19.0		35.9	42.2		31.5	40.0	25.9
							20	8.7	43.7	19.0		34.0	40.7		29.6	40.0	24.0
							25	9.7	42.1	18.0		32.1	39.1		27.7	40.0	22.0
i	Informational measurement only, no limit available						31.25	10.9	40.5	17.1		30.1	37.5		25.7	40.0	i
	Not evaluated against the test limit						62.5	15.8	35.7	14.0		24.1	32.7		19.7	40.0	i
	If Insertion Loss < 3 dB, not evaluated against the test limit						100	20.4	32.3	12.0		20.0	29.3		15.6	40.0	i
	If Insertion Loss < 4 dB, not evaluated against the test limit						200	i	i	i		i	i		i	i	i
i if shielded	Informational measurement only if using shielded cable						250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

### Class D 4-Conn E1 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	555	50	1	4.0	63.3	16.6		57.5	60.3		54.5	40.0	30.0
							4	4.5	53.5	16.6		45.5	50.5		42.5	40.0	18.0
							8	6.4	48.6	16.5		39.5	45.6		36.5	39.5	11.9
							10	7.2	47.0	16.5		37.5	44.0		34.5	38.0	10.0
							16	9.1	43.5	16.5		33.4	40.5		30.4	34.9	5.9
							20	10.2	41.9	16.4		31.5	38.9		28.5	33.5	4.0
							25	11.5	40.3	15.4		29.6	37.3		26.6	32.0	2.0
i	Informational measurement only, no limit available						31.25	12.9	38.6	14.4		27.6	35.6		24.6	30.5	i
	Not evaluated against the test limit						62.5	18.6	33.4	11.1		21.6	30.4		18.6	24.5	i
	If Insertion Loss < 3 dB, not evaluated against the test limit						100	24.0	29.7	8.7		17.5	26.7		14.5	20.4	i
	If Insertion Loss < 4 dB, not evaluated against the test limit						200	i	i	i		i	i		i	i	i
i if shielded	Informational measurement only if using shielded cable						250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

### Class D 4-Conn E2 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	555	50	1	4.0	63.3	16.6		57.5	60.3		54.5	40.0	40.0
							4	4.5	53.5	16.6		45.5	50.5		42.5	40.0	28.0
							8	6.4	48.6	16.5		39.5	45.6		36.5	40.0	21.9
							10	7.2	47.0	16.5		37.5	44.0		34.5	40.0	20.0
							16	9.1	43.5	16.5		33.4	40.5		30.4	40.0	15.9
							20	10.2	41.9	16.4		31.5	38.9		28.5	40.0	14.0
							25	11.5	40.3	15.4		29.6	37.2		26.6	40.0	12.0
i	Informational measurement only, no limit available						31.25	12.9	38.6	14.4		27.6	35.6		24.6	40.0	i
	Not evaluated against the test limit						62.5	18.6	33.4	11.1		21.6	30.3		18.6	34.5	i
	If Insertion Loss < 3 dB, not evaluated against the test limit						100	24.0	29.7	8.7		17.5	26.6		14.5	30.4	i
	If Insertion Loss < 4 dB, not evaluated against the test limit						200	i	i	i		i	i		i	i	i
i if shielded	Informational measurement only if using shielded cable						250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

### Class D 4-Conn E3 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	555	50	1	4.0	63.3	16.6		57.5	60.3		54.5	40.0	40.0
							4	4.5	53.5	16.6		45.5	50.5		42.5	40.0	38.0
							8	6.4	48.6	16.5		39.5	45.6		36.5	40.0	31.9
							10	7.2	47.0	16.5		37.5	44.0		34.5	40.0	30.0
							16	9.1	43.5	16.5		33.4	40.5		30.4	40.0	25.9
							20	10.2	41.9	16.4		31.5	38.9		28.5	40.0	24.0
							25	11.5	40.3	15.4		29.6	37.3		26.6	40.0	22.0
							31.25	12.9	38.6	14.4		27.6	35.6		24.6	40.0	i
							62.5	18.6	33.4	11.1		21.6	30.4		18.6	40.0	i
							100	24.0	29.7	8.7		17.5	26.7		14.5	40.0	i
							200	i	i	i		i	i		i	i	i
							250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

### Class D 5-Conn E1 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	558	51	1	4.0	63.3	16.7		56.6	60.3		53.6	40.0	30.0
							4	4.6	53.5	16.6		44.5	50.5		41.5	40.0	18.0
							8	6.5	48.5	16.6		38.5	45.5		35.5	39.5	11.9
							10	7.3	46.9	16.6		36.6	43.9		33.6	38.0	10.0
							16	9.3	43.5	16.5		32.5	40.5		29.5	34.9	5.9
							20	10.4	41.8	16.5		30.6	38.8		27.6	33.5	4.0
							25	11.7	40.1	15.4		28.6	37.1		25.6	32.0	2.0
							31.25	13.1	38.5	14.4		26.7	35.5		23.7	30.5	i
							62.5	18.9	33.1	11.0		20.7	30.1		17.7	24.5	i
							100	24.4	29.3	8.6		16.6	26.3		13.6	20.4	i
							200	i	i	i		i	i		i	i	i
							250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

### Class D 5-Conn E2 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	558	51	1	4.0	63.3	16.7		53.6	60.3		53.6	40.0	40.0
							4	4.6	53.5	16.6		41.5	50.5		41.5	40.0	28.0
							8	6.5	48.5	16.6		35.5	45.5		35.5	40.0	21.9
							10	7.3	46.9	16.6		33.6	43.9		33.6	40.0	20.0
							16	9.3	43.5	16.5		29.5	40.5		29.5	40.0	15.9
							20	10.4	41.8	16.5		27.6	38.8		27.6	40.0	14.0
							25	11.7	40.1	15.4		25.6	37.1		25.6	40.0	12.0
							31.25	13.1	38.5	14.4		23.7	35.5		23.7	40.0	i
							62.5	18.9	33.1	11.0		17.7	30.1		17.7	34.5	i
							100	24.4	29.3	8.6		13.6	26.3		13.6	30.4	i
							200	i	i	i		i	i		i	i	i
							250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	i	None	None	i	558	51	1	4.0	63.3	16.7		56.6	60.3		53.6	40.0	40.0
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit Informational measurement only if using shielded cable						4	4.6	53.5	16.6		44.5	50.5		41.5	40.0	38.0
4,5 - 4,5							8	6.5	48.5	16.6		38.5	45.5		35.5	40.0	31.9
7,8 - 7,8							10	7.3	46.9	16.6		36.6	43.9		33.6	40.0	30.0
							16	9.3	43.5	16.5		32.5	40.5		29.5	40.0	25.9
i							20	10.4	41.8	16.5		30.6	38.8		27.6	40.0	24.0
							25	11.7	40.1	15.4		28.6	37.1		25.6	40.0	22.0
							31.25	13.1	38.5	14.4		26.7	35.5		23.7	40.0	i
							62.5	18.9	33.1	11.0		20.7	30.1		17.7	40.0	i
i if shielded							100	24.4	29.3	8.6		16.6	26.3		13.6	40.0	i
							200	i	i	i		i	i		i	i	i
	250	i	i	i		i	i		i	i	i						
	350	i	i	i		i	i		i	i	i						

**Class D 6-Conn E1 11801-9902**

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	i	None	None	i	560	53	1	4.0	63.3	16.7		56.3	60.3		53.3	40.0	30.0
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit Informational measurement only if using shielded cable						4	4.7	53.5	16.7		44.2	50.5		41.2	40.0	18.0
4,5 - 4,5							8	6.6	48.5	16.6		38.2	45.5		35.2	39.5	11.9
7,8 - 7,8							10	7.4	46.9	16.6		36.3	43.9		33.3	38.0	10.0
							16	9.4	43.4	16.5		32.2	40.4		29.2	34.9	5.9
i							20	10.6	41.7	16.5		30.3	38.7		27.3	33.5	4.0
							25	11.9	40.0	15.4		28.3	37.0		25.3	32.0	2.0
							31.25	13.3	38.3	14.4		26.4	35.3		23.4	30.5	i
							62.5	19.2	32.8	11.0		20.4	29.8		17.4	24.5	i
i if shielded							100	24.8	28.8	8.4		16.3	25.8		13.3	20.4	i
							200	i	i	i		i	i		i	i	
	250	i	i	i		i	i		i	i							
	350	i	i	i		i	i		i	i							

**Class D 6-Conn E2 11801-9902**

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	560	53	1	4.0	63.3	16.7		56.8	60.3		53.3	40.0	40.0
	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit i if shielded						4	4.7	53.5	16.7		44.7	50.5		41.2	40.0	28.0
							8	6.6	48.5	16.6		38.7	45.5		35.2	40.0	21.9
							10	7.4	46.9	16.6		36.8	43.9		33.3	40.0	20.0
							16	9.4	43.4	16.5		32.7	40.4		29.2	40.0	15.9
i							20	10.6	41.7	16.5		30.8	38.7		27.3	40.0	14.0
							25	11.9	40.0	15.4		28.8	37.0		25.3	40.0	12.0
							31.25	13.3	38.3	14.4		26.9	35.3		23.4	40.0	i
							62.5	19.2	32.8	11.0		20.9	29.8		17.4	34.5	i
i if shielded							100	24.8	28.8	8.4		16.8	25.8		13.3	30.4	i
							200	i	i	i		i	i		i	i	i
							250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i



**Class E 2-Conn E1 11801-9902**

**Class E 2-Conn E2 11801-9902**

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	496	43	1	4.0	65.0	21.0		65.2	71.2		62.2	40.0	40.0
							4	4.0	64.1	21.0		53.2	61.8		50.2	40.0	28.0
							8	4.9	59.4	21.0		47.2	57.0		44.2	40.0	21.9
							10	5.5	57.8	21.0		45.2	55.5		42.2	40.0	20.0
							16	7.0	54.6	20.0		41.2	52.2		38.2	40.0	15.9
i	Informational measurement only, no limit available						20	7.9	53.1	19.5		39.2	50.7		36.2	40.0	14.0
	Not evaluated against the test limit						25	8.8	51.5	19.0		37.3	49.1		34.3	40.0	12.0
	If Insertion Loss < 3 dB, not evaluated against the test limit						31.25	9.9	50.0	18.5		35.3	47.5		32.3	40.0	i
	If Insertion Loss < 4 dB, not evaluated against the test limit						62.5	14.2	45.1	16.0		29.3	42.7		26.3	34.5	i
i if shielded	Informational measurement only if using shielded cable						100	18.3	41.8	14.0		25.2	39.3		22.2	30.4	i
							200	26.8	36.9	11.0		19.2	34.3		16.2	24.4	i
							250	30.3	35.3	10.0		17.3	32.7		14.3	22.4	i
							350	i	i	i		i	i		i	i	i

## Class E 2-Conn E3 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	496	43	1	4.0	65.0	21.0		65.2	71.2		62.2	40.0	40.0
							4	4.0	64.1	21.0		53.2	61.8		50.2	40.0	38.0
							8	4.9	59.4	21.0		47.2	57.0		44.2	40.0	31.9
							10	5.5	57.8	21.0		45.2	55.5		42.2	40.0	30.0
							16	7.0	54.6	20.0		41.2	52.2		38.2	40.0	25.9
							20	7.9	53.1	19.5		39.2	50.7		36.2	40.0	24.0
							25	8.8	51.5	19.0		37.3	49.1		34.3	40.0	22.0
							31.25	9.9	50.0	18.5		35.3	47.5		32.3	40.0	i
							62.5	14.2	45.1	16.0		29.3	42.7		26.3	40.0	i
							100	18.3	41.8	14.0		25.2	39.3		22.2	40.0	i
							200	26.8	36.9	11.0		19.2	34.3		16.2	34.4	i
							250	30.3	35.3	10.0		17.3	32.7		14.3	32.4	i
							350	i	i	i		i	i		i	i	i

## Class E 3-Conn E1 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	498	44	1	4.0	65.0	21.0		64.2	71.2		61.2	40.0	30.0
							4	4.0	64.1	21.0		52.1	61.8		49.1	40.0	18.0
							8	5.0	59.4	21.0		46.1	57.0		43.1	39.5	11.9
							10	5.6	57.8	21.0		44.2	55.5		41.2	38.0	10.0
							16	7.1	54.6	20.0		40.1	52.2		37.1	34.9	5.9
							20	7.9	53.1	19.5		38.2	50.7		35.2	33.5	4.0
							25	8.9	51.5	19.0		36.2	49.1		33.2	32.0	2.0
							31.25	10.0	50.0	18.5		34.3	47.5		31.3	30.5	i
							62.5	14.4	45.1	16.0		28.3	42.7		25.3	24.5	i
							100	18.5	41.8	14.0		24.2	39.3		21.2	20.4	i
							200	27.1	36.9	11.0		18.2	34.3		15.2	14.4	i
							250	30.7	35.3	10.0		16.2	32.7		13.2	12.4	i
							350	i	i	i		i	i		i	i	i

## Class E 3-Conn E2 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	498	44	1	4.0	65.0	21.0		64.2	71.2		61.2	40.0	40.0
							4	4.0	64.1	21.0		52.1	61.8		49.1	40.0	28.0
							8	5.0	59.4	21.0		46.1	57.0		43.1	40.0	21.9
							10	5.6	57.8	21.0		44.2	55.5		41.2	40.0	20.0
							16	7.1	54.6	20.0		40.1	52.2		37.1	40.0	15.9
							20	7.9	53.1	19.5		38.2	50.7		35.2	40.0	14.0
							25	8.9	51.5	19.0		36.2	49.1		33.2	40.0	12.0
							31.25	10.0	50.0	18.5		34.3	47.5		31.3	40.0	i
							62.5	14.4	45.1	16.0		28.3	42.7		25.3	34.5	i
							100	18.5	41.8	14.0		24.2	39.3		21.2	30.4	i
							200	27.1	36.9	11.0		18.2	34.3		15.2	24.4	i
							250	30.7	35.3	10.0		16.2	32.7		13.2	22.4	i
							350	i	i	i		i	i		i	i	i

### Class E 3-Conn E3 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	498	44	1	4.0	65.0	21.0		64.2	71.2		61.2	40.0	40.0
							4	4.0	64.1	21.0		52.1	61.8		49.1	40.0	38.0
							8	5.0	59.4	21.0		46.1	57.0		43.1	40.0	31.9
							10	5.6	57.8	21.0		44.2	55.5		41.2	40.0	30.0
							16	7.1	54.6	20.0		40.1	52.2		37.1	40.0	25.9
							20	7.9	53.1	19.5		38.2	50.7		35.2	40.0	24.0
							25	8.9	51.5	19.0		36.2	49.1		33.2	40.0	22.0
							31.25	10.0	50.0	18.5		34.3	47.5		31.3	40.0	i
							62.5	14.4	45.1	16.0		28.3	42.7		25.3	40.0	i
							100	18.5	41.8	14.0		24.2	39.3		21.2	40.0	i
							200	27.1	36.9	11.0		18.2	34.3		15.2	34.4	i
							250	30.7	35.3	10.0		16.2	32.7		13.2	32.4	i
							350	i	i	i		i	i		i	i	i

### Class E 4-Conn E1 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	555	50	1	4.0	65.0	18.3		63.2	70.3		60.2	40.0	30.0
							4	4.2	63.0	18.3		51.1	60.5		48.1	40.0	18.0
							8	5.9	58.1	18.3		45.1	55.6		42.1	39.5	11.9
							10	6.6	56.5	18.3		43.2	53.9		40.2	38.0	10.0
							16	8.3	53.1	17.2		39.1	50.5		36.1	34.9	5.9
							20	9.3	51.5	16.7		37.1	48.9		34.1	33.5	4.0
							25	10.5	49.9	16.2		35.2	47.2		32.2	32.0	2.0
							31.25	11.7	48.2	15.7		33.3	45.5		30.3	30.5	i
							62.5	16.9	43.0	13.0		27.2	40.2		24.2	24.5	i
							100	21.7	39.4	10.8		23.2	36.5		20.2	20.4	i
							200	31.7	33.6	7.3		17.1	30.7		14.1	14.4	i
							250	35.9	31.7	6.1		15.2	28.7		12.2	12.4	i
							350	i	i	i		i	i		i	i	i

### Class E 4-Conn E2 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	555	50	1	4.0	65.0	18.3		63.2	70.3		60.2	40.0	40.0
							4	4.2	63.0	18.3		51.1	60.5		48.1	40.0	28.0
							8	5.9	58.1	18.3		45.1	55.6		42.1	40.0	21.9
							10	6.6	56.5	18.3		43.2	53.9		40.2	40.0	20.0
							16	8.3	53.1	17.2		39.1	50.5		36.1	40.0	15.9
							20	9.3	51.5	16.7		37.1	48.9		34.1	40.0	14.0
							25	10.5	49.9	16.2		35.2	47.2		32.2	40.0	12.0
							31.25	11.7	48.2	15.7		33.3	45.5		30.3	40.0	i
							62.5	16.9	43.0	13.0		27.2	40.2		24.2	34.5	i
							100	21.7	39.4	10.8		23.2	36.5		20.2	30.4	i
							200	31.7	33.6	7.3		17.1	30.7		14.1	24.4	i
							250	35.9	31.7	6.1		15.2	28.7		12.2	22.4	i
							350	i	i	i		i	i		i	i	i

### Class E 4-Conn E3 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	555	50	1	4.0	65.0	18.3		63.2	70.3		60.2	40.0	40.0
							4	4.2	63.0	18.3		51.1	60.5		48.1	40.0	38.0
							8	5.9	58.1	18.3		45.1	55.6		42.1	40.0	31.9
							10	6.6	56.5	18.3		43.2	53.9		40.2	40.0	30.0
							16	8.3	53.1	17.2		39.1	50.5		36.1	40.0	25.9
							20	9.3	51.5	16.7		37.1	48.9		34.1	40.0	24.0
							25	10.5	49.9	16.2		35.2	47.2		32.2	40.0	22.0
							31.25	11.7	48.2	15.7		33.3	45.5		30.3	40.0	i
							62.5	16.9	43.0	13.0		27.2	40.2		24.2	40.0	i
							100	21.7	39.4	10.8		23.2	36.5		20.2	40.0	i
							200	31.7	33.6	7.3		17.1	30.7		14.1	34.4	i
							250	35.9	31.7	6.1		15.2	28.7		12.2	32.4	i
							350	i	i	i		i	i		i	i	i

### Class E 5-Conn E1 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	558	51	1	4.0	65.0	18.4		62.9	70.3		59.9	40.0	30.0
							4	4.2	63.0	18.4		50.9	60.5		47.9	40.0	18.0
							8	5.9	58.1	18.4		44.8	55.5		41.8	39.5	11.9
							10	6.6	56.5	18.4		42.9	53.9		39.9	38.0	10.0
							16	8.4	53.1	17.3		38.8	50.5		35.8	34.9	5.9
							20	9.4	51.5	16.8		36.9	48.8		33.9	33.5	4.0
							25	10.6	49.8	16.3		34.9	47.1		31.9	32.0	2.0
							31.25	11.8	48.2	15.8		33.0	45.5		30.0	30.5	i
							62.5	17.0	42.9	13.1		27.0	40.1		24.0	24.5	i
							100	21.9	39.1	10.8		22.9	36.3		19.9	20.4	i
							200	32.0	33.1	7.2		16.9	30.2		13.9	14.4	i
							250	36.2	31.0	6.0		14.9	28.1		11.9	12.4	i
							350	i	i	i		i	i		i	i	i

### Class E 5-Conn E2 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	558	51	1	4.0	65.0	18.4		62.9	70.3		59.9	40.0	40.0
							4	4.2	63.0	18.4		50.9	60.5		47.9	40.0	28.0
							8	5.9	58.1	18.4		44.8	55.5		41.8	40.0	21.9
							10	6.6	56.5	18.4		42.9	53.9		39.9	40.0	20.0
							16	8.4	53.1	17.3		38.8	50.5		35.8	40.0	15.9
							20	9.4	51.5	16.8		36.9	48.8		33.9	40.0	14.0
							25	10.6	49.8	16.3		34.9	47.1		31.9	40.0	12.0
							31.25	11.8	48.2	15.8		33.0	45.5		30.0	40.0	i
							62.5	17.0	42.9	13.1		27.0	40.1		24.0	34.5	i
							100	21.9	39.1	10.8		22.9	36.3		19.9	30.4	i
							200	32.0	33.1	7.2		16.9	30.2		13.9	24.4	i
							250	36.2	31.0	6.0		14.9	28.1		11.9	22.4	i
							350	i	i	i		i	i		i	i	i

### Class E 5-Conn E3 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	558	51	1	4.0	65.0	18.4		62.9	70.3		59.9	40.0	40.0
							4	4.2	63.0	18.4		50.9	60.5		47.9	40.0	38.0
							8	5.9	58.1	18.4		44.8	55.5		41.8	40.0	31.9
							10	6.6	56.5	18.4		42.9	53.9		39.9	40.0	30.0
							16	8.4	53.1	17.3		38.8	50.5		35.8	40.0	25.9
							20	9.4	51.5	16.8		36.9	48.8		33.9	40.0	24.0
							25	10.6	49.8	16.3		34.9	47.1		31.9	40.0	22.0
i	Informational measurement only, no limit available						31.25	11.8	48.2	15.8		33.0	45.5		30.0	40.0	i
	Not evaluated against the test limit						62.5	17.0	42.9	13.1		27.0	40.1		24.0	40.0	i
	If Insertion Loss < 3 dB, not evaluated against the test limit						100	21.9	39.1	10.8		22.9	36.3		19.9	40.0	i
	If Insertion Loss < 4 dB, not evaluated against the test limit						200	32.0	33.1	7.2		16.9	30.2		13.9	34.4	i
i if shielded	Informational measurement only if using shielded cable						250	36.2	31.0	6.0		14.9	28.1		11.9	32.4	i
							350	i	i	i		i	i		i	i	i

### Class E 6-Conn E1 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	560	53	1	4.0	65.0	18.5		62.8	70.3		59.8	40.0	30.0
							4	4.3	63.0	18.4		50.8	60.5		47.8	40.0	18.0
							8	6.0	58.1	18.4		44.7	55.5		41.7	39.5	11.9
							10	6.7	56.5	18.4		42.8	53.9		39.8	38.0	10.0
							16	8.5	53.1	17.3		38.7	50.5		35.7	34.9	5.9
							20	9.5	51.4	16.8		36.8	48.8		33.8	33.5	4.0
							25	10.7	49.8	16.3		34.8	47.1		31.8	32.0	2.0
i	Informational measurement only, no limit available						31.25	12.0	48.1	15.8		32.9	45.4		29.9	30.5	i
	Not evaluated against the test limit						62.5	17.2	42.8	13.1		26.9	40.0		23.9	24.5	i
	If Insertion Loss < 3 dB, not evaluated against the test limit						100	22.1	39.0	10.9		22.8	36.1		19.8	20.4	i
	If Insertion Loss < 4 dB, not evaluated against the test limit						200	32.3	32.9	7.3		16.8	29.9		13.8	14.4	i
i if shielded	Informational measurement only if using shielded cable						250	36.6	30.7	6.0		14.8	27.8		11.8	12.4	i
							350	i	i	i		i	i		i	i	i

### Class E 6-Conn E2 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	560	53	1	4.0	65.0	18.5		62.8	70.3		59.8	40.0	40.0
							4	4.3	63.0	18.4		50.8	60.5		47.8	40.0	28.0
							8	6.0	58.1	18.4		44.7	55.5		41.7	40.0	21.9
							10	6.7	56.5	18.4		42.8	53.9		39.8	40.0	20.0
							16	8.5	53.1	17.3		38.7	50.5		35.7	40.0	15.9
							20	9.5	51.4	16.8		36.8	48.8		33.8	40.0	14.0
							25	10.7	49.8	16.3		34.8	47.1		31.8	40.0	12.0
i	Informational measurement only, no limit available						31.25	12.0	48.1	15.8		32.9	45.4		29.9	40.0	i
	Not evaluated against the test limit						62.5	17.2	42.8	13.1		26.9	40.0		23.9	34.5	i
	If Insertion Loss < 3 dB, not evaluated against the test limit						100	22.1	39.0	10.9		22.8	36.1		19.8	30.4	i
	If Insertion Loss < 4 dB, not evaluated against the test limit						200	32.3	32.9	7.3		16.8	29.9		13.8	24.4	i
i if shielded	Informational measurement only if using shielded cable						250	36.6	30.7	6.0		14.8	27.8		11.8	22.4	i
							350	i	i	i		i	i		i	i	i

## Class E 6-Conn E3 11801-9902

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	560	53	1	4.0	65.0	18.5		62.8	70.3		59.8	40.0	40.0
							4	4.3	63.0	18.4		50.8	60.5		47.8	40.0	38.0
							8	6.0	58.1	18.4		44.7	55.5		41.7	40.0	31.9
							10	6.7	56.5	18.4		42.8	53.9		39.8	40.0	30.0
							16	8.5	53.1	17.3		38.7	50.5		35.7	40.0	25.9
							20	9.5	51.4	16.8		36.8	48.8		33.8	40.0	24.0
							25	10.7	49.8	16.3		34.8	47.1		31.8	40.0	22.0
							31.25	12.0	48.1	15.8		32.9	45.4		29.9	40.0	i
							62.5	17.2	42.8	13.1		26.9	40.0		23.9	40.0	i
							100	22.1	39.0	10.9		22.8	36.1		19.8	40.0	i
							200	32.3	32.9	7.3		16.8	29.9		13.8	34.4	i
							250	36.6	30.7	6.0		14.8	27.8		11.8	32.4	i
							350	i	i	i		i	i		i	i	i

## E2E Class D E1 11801-3

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	560	50	1	4.0	63.3	16.7		56.3	60.3		53.3	40.0	30.0
							4	4.7	53.5	16.7		44.2	50.5		41.2	40.0	18.0
							8	6.6	48.5	16.6		38.2	45.5		35.2	39.5	11.9
							10	7.4	46.9	16.6		36.3	43.9		33.3	38.0	10.0
							16	9.4	43.4	16.5		32.2	40.4		29.2	34.9	5.9
							20	10.6	41.7	16.5		30.3	38.7		27.3	33.5	4.0
							25	11.9	40.0	15.4		28.3	37.0		25.3	32.0	2.0
							31.25	13.3	38.3	14.4		26.4	35.3		23.4	30.4	i
							62.5	19.2	32.8	11.0		20.4	29.8		17.4	24.4	i
							100	24.8	28.8	8.4		16.3	25.8		13.3	20.3	i
							200	i	i	i		i	i		i	i	i
							250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

## E2E Class D E2 11801-3

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	560	50	1	4.0	63.3	16.7		56.3	60.3		53.3	40.0	40.0
							4	4.7	53.5	16.7		44.2	50.5		41.2	40.0	28.0
							8	6.6	48.5	16.6		38.2	45.5		35.2	40.0	21.9
							10	7.4	46.9	16.6		36.3	43.9		33.3	40.0	20.0
							16	9.4	43.4	16.5		32.2	40.4		29.2	40.0	15.9
							20	10.6	41.7	16.5		30.3	38.7		27.3	40.0	14.0
							25	11.9	40.0	15.4		28.3	37.0		25.3	40.0	12.0
							31.25	13.3	38.3	14.4		26.4	35.3		23.4	40.0	i
							62.5	19.2	32.8	11.0		20.4	29.8		17.4	34.4	i
							100	24.8	28.8	8.4		16.3	25.8		13.3	30.3	i
							200	i	i	i		i	i		i	i	i
							250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

### E2E Class D E3 11801-3

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	560	50	1	4.0	63.3	16.7		56.3	60.3		53.3	40.0	40.0
							4	4.7	53.5	16.7		44.2	50.5		41.2	40.0	38.0
							8	6.6	48.5	16.6		38.2	45.5		35.2	40.0	31.9
							10	7.4	46.9	16.6		36.3	43.9		33.3	40.0	30.0
							16	9.4	43.4	16.5		32.2	40.4		29.2	40.0	25.9
							20	10.6	41.7	16.5		30.3	38.7		27.3	40.0	24.0
							25	11.9	40.0	15.4		28.3	37.0		25.3	40.0	22.0
							31.25	13.3	38.3	14.4		26.4	35.3		23.4	40.0	i
							62.5	19.2	32.8	11.0		20.4	29.8		17.4	40.0	i
							100	24.8	28.8	8.4		16.3	25.8		13.3	40.0	i
							200	i	i	i		i	i		i	i	i
							250	i	i	i		i	i		i	i	i
							350	i	i	i		i	i		i	i	i

### E2E Class E E1 11801-3

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	560	50	1	4.0	65.0	18.5		62.8	70.3		59.8	40.0	30.0
							4	4.3	63.0	18.4		50.8	60.5		47.8	40.0	18.0
							8	6.0	58.1	18.4		44.7	55.5		41.7	39.5	11.9
							10	6.7	56.5	18.4		42.8	53.9		39.8	38.0	10.0
							16	8.5	53.1	17.3		38.7	50.5		35.7	34.9	5.9
							20	9.5	51.4	16.8		36.8	48.8		33.8	33.5	4.0
							25	10.7	49.8	16.3		34.8	47.1		31.8	32.0	2.0
							31.25	12.0	48.1	15.8		32.9	45.4		29.9	30.4	i
							62.5	17.2	42.8	13.1		26.9	40.0		23.9	24.4	i
							100	22.1	39.0	10.9		22.8	36.1		19.8	20.3	i
							200	32.3	32.9	7.3		16.8	29.9		13.8	14.3	i
							250	36.6	30.7	6.0		14.8	27.8		11.8	12.3	i
							350	i	i	i		i	i		i	i	i

### E2E Class E E2 11801-3

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	560	50	1	4.0	65.0	18.5		62.8	70.3		59.8	40.0	40.0
							4	4.3	63.0	18.4		50.8	60.5		47.8	40.0	28.0
							8	6.0	58.1	18.4		44.7	55.5		41.7	40.0	21.9
							10	6.7	56.5	18.4		42.8	53.9		39.8	40.0	20.0
							16	8.5	53.1	17.3		38.7	50.5		35.7	40.0	15.9
							20	9.5	51.4	16.8		36.8	48.8		33.8	40.0	14.0
							25	10.7	49.8	16.3		34.8	47.1		31.8	40.0	12.0
							31.25	12.0	48.1	15.8		32.9	45.4		29.9	40.0	i
							62.5	17.2	42.8	13.1		26.9	40.0		23.9	34.4	i
							100	22.1	39.0	10.9		22.8	36.1		19.8	30.3	i
							200	32.3	32.9	7.3		16.8	29.9		13.8	24.3	i
							250	36.6	30.7	6.0		14.8	27.8		11.8	22.3	i
							350	i	i	i		i	i		i	i	i

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	560	50	1	4.0	65.0	18.5		62.8	70.3		59.8	40.0	40.0
	Informational measurement only, no limit available Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If Insertion Loss < 4 dB, not evaluated against the test limit Informational measurement only if using shielded cable						4	4.3	63.0	18.4		50.8	60.5		47.8	40.0	38.0
							8	6.0	58.1	18.4		44.7	55.5		41.7	40.0	31.9
							10	6.7	56.5	18.4		42.8	53.9		39.8	40.0	30.0
							16	8.5	53.1	17.3		38.7	50.5		35.7	40.0	25.9
i							20	9.5	51.4	16.8		36.8	48.8		33.8	40.0	24.0
							25	10.7	49.8	16.3		34.8	47.1		31.8	40.0	22.0
							31.25	12.0	48.1	15.8		32.9	45.4		29.9	40.0	i
							62.5	17.2	42.8	13.1		26.9	40.0		23.9	40.0	i
i if shielded							100	22.1	39.0	10.9		22.8	36.1		19.8	40.0	i
							200	32.3	32.9	7.3		16.8	29.9		13.8	34.3	i
							250	36.6	30.7	6.0		14.8	27.8		11.8	32.3	i
							350	i	i	i		i	i		i	i	i

## E2E Class EA E1 11801-3

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	560	50	1	4.0	65.0	19.0		63.3	62.0		60.3	40.0	30.0
<div>i</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	Informational measurement only, no limit available						4	4.2	63.0	19.0		51.2	60.5		48.2	40.0	18.0
							8	5.8	58.2	19.0		45.2	55.6		42.2	39.5	11.9
							10	6.5	56.6	19.0		43.3	54.0		40.3	38.0	10.0
							16	8.2	53.2	18.0		39.2	50.6		36.2	34.9	5.9
							20	9.2	51.6	17.5		37.2	49.0		34.2	33.5	4.0
							25	10.2	50.0	17.0		35.3	47.3		32.3	32.0	2.0
							31.25	11.5	48.4	16.5		33.4	45.7		30.4	30.4	i
							62.5	16.4	43.4	14.0		27.3	40.6		24.3	24.4	i
							100	20.9	39.9	12.0		23.3	37.1		20.3	20.3	i
							200	30.1	34.8	9.0		17.2	31.9		14.2	14.3	i
							250	33.9	33.1	8.0		15.3	30.2		12.3	12.3	i
							350	40.6	30.6	6.6		12.4	27.6		9.4	9.4	i
							450	46.5	28.7	6.0		10.2	25.7		7.2	7.2	i
							500	49.3	27.9	6.0		9.3	24.8		6.3	6.3	i



### E2E Class EA E2 11801-3

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	560	50	1	4.0	65.0	19.0		63.3	62.0		60.3	40.0	40.0
							4	4.2	63.0	19.0		51.2	60.5		48.2	40.0	28.0
							8	5.8	58.2	19.0		45.2	55.6		42.2	40.0	21.9
							10	6.5	56.6	19.0		43.3	54.0		40.3	40.0	20.0
							16	8.2	53.2	18.0		39.2	50.6		36.2	40.0	15.9
							20	9.2	51.6	17.5		37.2	49.0		34.2	40.0	14.0
							25	10.2	50.0	17.0		35.3	47.3		32.3	40.0	12.0
							31.25	11.5	48.4	16.5		33.4	45.7		30.4	40.0	i
							62.5	16.4	43.4	14.0		27.3	40.6		24.3	34.4	i
							100	20.9	39.9	12.0		23.3	37.1		20.3	30.3	i
							200	30.1	34.8	9.0		17.2	31.9		14.2	24.3	i
							250	33.9	33.1	8.0		15.3	30.2		12.3	22.3	i
							350	40.6	30.6	6.6		12.4	27.6		9.4	19.4	i
							450	46.5	28.7	6.0		10.2	25.7		7.2	17.2	i
							500	49.3	27.9	6.0		9.3	24.8		6.3	16.3	i

### E2E Class EA E3 11801-3

Wire Map	Resistance	Resistance Unbalance		Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL
		Unbalance	Pair to Pair														
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	i	None	None	i	560	50	1	4.0	65.0	19.0		63.3	62.0		60.3	40.0	40.0
							4	4.2	63.0	19.0		51.2	60.5		48.2	40.0	38.0
							8	5.8	58.2	19.0		45.2	55.6		42.2	40.0	31.9
							10	6.5	56.6	19.0		43.3	54.0		40.3	40.0	30.0
							16	8.2	53.2	18.0		39.2	50.6		36.2	40.0	25.9
							20	9.2	51.6	17.5		37.2	49.0		34.2	40.0	24.0
							25	10.2	50.0	17.0		35.3	47.3		32.3	40.0	22.0
							31.25	11.5	48.4	16.5		33.4	45.7		30.4	40.0	i
							62.5	16.4	43.4	14.0		27.3	40.6		24.3	40.0	i
							100	20.9	39.9	12.0		23.3	37.1		20.3	40.0	i
							200	30.1	34.8	9.0		17.2	31.9		14.2	34.3	i
							250	33.9	33.1	8.0		15.3	30.2		12.3	32.3	i
							350	40.6	30.6	6.6		12.4	27.6		9.4	29.4	i
							450	46.5	28.7	6.0		10.2	25.7		7.2	27.2	i
							500	49.3	27.9	6.0		9.3	24.8		6.3	26.3	i

## Rollover Cat 6A Channel

Wire Map	Resistance	Resistance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 7,8 3,6 - 3,6 4,5 - 4,5 7,8 - 1,2	i			100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3				
							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2				
							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3				
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2				
i	Informational measurement only, no limit available						20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2				
	10% length rule - will fail when length > 110 m						25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3				
	Not evaluated against the test limit						31.25	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4				
	If Insertion Loss < 3 dB, not evaluated against the test limit						62.5	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3				
	If FEXT is < 70 dB, not evaluated against the test limit						100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3				
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2				
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3				
							350	40.6	30.3	6.6	-10.3	12.4	27.3	-13.3	9.4				
							450	46.5	27.3	6.0	-19.2	10.2	24.4	-22.1	7.2				
							500	49.3	26.1	6.0	-23.2	9.3	23.2	-26.1	6.3				

## Rollover Cat 6 Channel

Wire Map	Resistance	Resistance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 7,8 3,6 - 3,6 4,5 - 4,5 7,8 - 1,2	i			100	555	50	1	3.0	65.0	19.0	62.0	63.3	62.0	59.0	60.3				
							4	4.0	63.0	19.0	59.0	51.2	60.5	56.5	48.2				
							8	5.7	58.2	19.0	52.5	45.2	55.6	49.9	42.2				
							10	6.3	56.6	19.0	50.2	43.3	54.0	47.7	40.3				
							16	8.0	53.2	18.0	45.2	39.2	50.6	42.6	36.2				
i	Informational measurement only, no limit available						20	9.0	51.6	17.5	42.6	37.2	49.0	39.9	34.2				
	10% length rule - will fail when length > 110 m						25	10.1	50.0	17.0	39.9	35.3	47.3	37.2	32.3				
	Not evaluated against the test limit						31.25	11.4	48.4	16.5	37.0	33.4	45.7	34.3	30.4				
	If Insertion Loss < 3 dB, not evaluated against the test limit						62.5	16.5	43.4	14.0	26.9	27.3	40.6	24.1	24.3				
	If FEXT is < 70 dB, not evaluated against the test limit						100	21.3	39.9	12.0	18.6	23.3	37.1	15.8	20.3				
							200	31.5	34.8	9.0	3.3	17.2	31.9	0.3	14.2				
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3				
							350	i	i	i	i	i	i	i	i				

## Rollover Cat 5e Channel

Wire Map	Resistance	Resistance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 7,8 3,6 - 3,6 4,5 - 4,5 7,8 - 1,2	i			100	555	50	1	3.0	60.0	17.0	57.0	57.4	57.0	54.0	54.4				
							4	4.5	53.5	17.0	49.1	45.4	50.5	46.1	42.4				
							8	6.3	48.6	17.0	42.3	39.3	45.6	39.3	36.3				
							10	7.1	47.0	17.0	39.9	37.4	44.0	36.9	34.4				
							16	9.1	43.6	17.0	34.5	33.3	40.6	31.5	30.3				
i	Informational measurement only, no limit available						20	10.2	42.0	17.0	31.8	31.4	39.0	28.8	28.4				
	10% length rule - will fail when length > 110 m						25	11.4	40.3	16.0	28.9	29.4	37.3	25.9	26.4				
	Not evaluated against the test limit						31.25	12.9	38.7	15.1	25.9	27.5	35.7	22.9	24.5				
	If Insertion Loss < 3 dB, not evaluated against the test limit						62.5	18.6	33.6	12.1	15.0	21.5	30.6	12.0	18.5				
	If FEXT is < 70 dB, not evaluated against the test limit						100	24.0	30.1	10.0	6.1	17.4	27.1	3.1	14.4				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

## Rollover Cat 5 Channel

Wire Map	Resistance	Resistance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 7,8	i			100	555	50	1	3.0	60.0	15.0	57.0	57.0				54.4			
3,6 - 3,6							4	4.5	50.6	15.0	46.1	45.0				42.4			
4,5 - 4,5							8	6.3	45.6	15.0	39.3	38.9				36.3			
7,8 - 1,2							10	7.1	44.0	15.0	36.9	37.0				34.4			
							16	9.1	40.6	15.0	31.6	32.9				30.3			
i							20	10.2	39.0	15.0	28.8	31.0				28.4			
							25	11.4	37.4	14.0	26.0	29.0				26.4			
							31.25	12.9	35.7	13.1	22.9	27.1				24.5			
							62.5	18.6	30.6	10.1	12.0	21.1				18.5			
							100	24.0	27.1	8.0	3.1	17.0				14.4			
							200	i	i	i	i	i				i			
							250	i	i	i	i	i				i			
							350	i	i	i	i	i				i			

## Rollover Channel Class Ea

Wire Map	Resistance	Resistance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 7,8	25			100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3				
3,6 - 3,6							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
4,5 - 4,5							8	5.8	58.2	19.0	52.4	45.2	55.6	49.8	42.2				
7,8 - 1,2							10	6.5	56.6	19.0	50.1	43.3	54.0	47.5	40.3				
							16	8.2	53.2	18.0	45.0	39.2	50.6	42.4	36.2				
							20	9.2	51.6	17.5	42.5	37.2	49.0	39.8	34.2				
							25	10.2	50.0	17.0	39.8	35.3	47.3	37.1	32.3				
							31.25	11.5	48.4	16.5	36.9	33.4	45.7	34.2	30.4				
							62.5	16.4	43.4	14.0	27.0	27.3	40.6	24.2	24.3				
							100	20.9	39.9	12.0	19.0	23.3	37.1	16.2	20.3				
							200	30.1	34.8	9.0	4.7	17.2	31.9	1.8	14.2				
							250	33.9	33.1	8.0	-0.8	15.3	30.2	-3.7	12.3				
	<div> <div>Freq.</div> <div>NEXT</div> <div>PS NEXT</div> </div>						350	40.6	30.6	6.6	-10.0	12.4	27.6	-13.0	9.4				
							450	46.5	28.7	6.0	-17.9	10.2	25.7	-20.9	7.2				
							500	49.3	27.9	6.0	-21.4	9.3	24.8	-24.5	6.3				

## Rollover Channel Class E

Wire Map	Resistance	Resistance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 7,8	25			100	555	50	1	4.0	65.0	19.0	61.0	63.3	62.0	58.0	60.3				
3,6 - 3,6							4	4.2	63.0	19.0	58.9	51.2	60.5	56.4	48.2				
4,5 - 4,5							8	5.9	58.2	19.0	52.3	45.2	55.6	49.7	42.2				
7,8 - 1,2							10	6.6	56.6	19.0	50.0	43.3	54.0	47.4	40.3				
							16	8.3	53.2	18.0	44.9	39.2	50.6	42.3	36.2				
i							20	9.3	51.6	17.5	42.3	37.2	49.0	39.7	34.2				
							25	10.5	50.0	17.0	39.6	35.3	47.3	36.9	32.3				
							31.25	11.7	48.4	16.5	36.7	33.4	45.7	34.0	30.4				
							62.5	16.9	43.4	14.0	26.5	27.3	40.6	23.7	24.3				
							100	21.7	39.9	12.0	18.2	23.3	37.1	15.4	20.3				
							200	31.7	34.8	9.0	3.1	17.2	31.9	0.1	14.2				
							250	35.9	33.1	8.0	-2.8	15.3	30.2	-5.8	12.3				
							350	i	i	i	i	i	i	i	i				

# Rollover Channel Class D

Wire Map	Resistance	Resistance		Length	Prop. Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
		Unbalance	Pair to Pair																
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 7,8	25			100	555	50	1	4.0	60.0	17.0	56.0	57.4	57.0	53.0	54.4				
3,6 - 3,6							4	4.5	53.5	17.0	49.0	45.4	50.5	46.0	42.4				
4,5 - 4,5							8	6.4	48.6	17.0	42.2	39.3	45.6	39.2	36.3				
7,8 - 1,2							10	7.2	47.0	17.0	39.8	37.4	44.0	36.8	34.4				
							16	9.1	43.6	17.0	34.5	33.3	40.6	31.5	30.3				
i							20	10.2	42.0	17.0	31.8	31.4	39.0	28.8	28.4				
							25	11.5	40.3	16.0	28.9	29.4	37.3	25.9	26.4				
							31.25	12.9	38.7	15.1	25.8	27.5	35.7	22.8	24.5				
							62.5	18.6	33.6	12.0	15.0	21.5	30.6	12.0	18.5				
							100	24.0	30.1	10.0	6.1	17.4	27.1	3.1	14.4				
							200	i	i	i	i	i	i	i	i				
							250	i	i	i	i	i	i	i	i				
							350	i	i	i	i	i	i	i	i				

## Copper Limit Lines - Other

### TIA C6A Cable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	None	None	100	545.4	45	1	2.1	74.3	20.0		67.8	72.3		64.8				
3,6 - 3,6	<div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div> <div>If PS FEXT is &lt; 67 dB, not evaluated against the test limit</div>						4	3.8	65.3	23.0		55.8	63.3		52.8				
4,5 - 4,5							8	5.3	60.8	24.5		49.7	58.8		46.7				
7,8 - 7,8							10	5.9	59.3	25.0		47.8	57.3		44.8				
							16	7.5	56.2	25.0		43.7	54.2		40.7				
							20	8.4	54.8	25.0		41.8	52.8		38.8				
							25	9.4	53.3	24.3		39.8	51.3		36.8				
							31.25	10.5	51.9	23.6		37.9	49.9		34.9				
							62.5	15.0	47.4	21.5		31.9	45.4		28.9				
							100	19.1	44.3	20.1		27.8	42.3		24.8				
							200	27.6	39.8	18.0		21.8	37.8		18.8				
							250	31.1	38.3	17.3		19.8	36.3		16.8				
							350	37.2	36.1	16.3		16.9	34.1		13.9				
							450	42.7	34.5	15.5		14.7	32.5		11.7				
							500	45.3	33.8	15.2		13.8	31.8		10.8				

### TIA C6A Cable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	i	i	100	545.4	45	1	2.1	74.3	20.0		67.8	72.3		64.8	50	35		
3,6 - 3,6	<div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div> <div>If PS FEXT is &lt; 67 dB, not evaluated against the test limit</div>						4	3.8	65.3	23.0		55.8	63.3		52.8	44	23		
4,5 - 4,5							8	5.3	60.8	24.5		49.7	58.8		46.7	41	16.9		
7,8 - 7,8							10	5.9	59.3	25.0		47.8	57.3		44.8	40	15		
							16	7.5	56.2	25.0		43.7	54.2		40.7	40	10.9		
							20	8.4	54.8	25.0		41.8	52.8		38.8	40	9		
							25	9.4	53.3	24.3		39.8	51.3		36.8	40	7		
							31.25	10.5	51.9	23.6		37.9	49.9		34.9	40	i		
							62.5	15.0	47.4	21.5		31.9	45.4		28.9	40	i		
							100	19.1	44.3	20.1		27.8	42.3		24.8	40	i		
							200	27.6	39.8	18.0		21.8	37.8		18.8	40	i		
							250	31.1	38.3	17.3		19.8	36.3		16.8	40	i		
							350	37.2	36.1	16.3		16.9	34.1		13.9	40	i		
							450	42.7	34.5	15.5		14.7	32.5		11.7	40	i		
							500	45.3	33.8	15.2		13.8	31.8		10.8	40	i		

### TIA C6A Cable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	i	i	100	545.4	45	1	2.1	74.3	20.0		67.8	72.3		64.8				
3,6 - 3,6							4	3.8	65.3	23.0		55.8	63.3		52.8				
4,5 - 4,5							8	5.3	60.8	24.5		49.7	58.8		46.7				
7,8 - 7,8							10	5.9	59.3	25.0		47.8	57.3		44.8				
							16	7.5	56.2	25.0		43.7	54.2		40.7				
							20	8.4	54.8	25.0		41.8	52.8		38.8				
							25	9.4	53.3	24.3		39.8	51.3		36.8				
							31.25	10.5	51.9	23.6		37.9	49.9		34.9				
							62.5	15.0	47.4	21.5		31.9	45.4		28.9				
							100	19.1	44.3	20.1		27.8	42.3		24.8				
							200	27.6	39.8	18.0		21.8	37.8		18.8				
							250	31.1	38.3	17.3		19.8	36.3		16.8				
							350	37.2	36.1	16.3		16.9	34.1		13.9				
							450	42.7	34.5	15.5		14.7	32.5		11.7				
							500	45.3	33.8	15.2		13.8	31.8		10.8				

10% length rule - will fail when length > 110 m

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

### TIA C6A PCable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	22.8	None	None	100	545.4	45	1	2.5	74.3	20.0		67.8	72.3		64.8				
3,6 - 3,6							4	4.6	65.3	23.0		55.8	63.3		52.8				
4,5 - 4,5							8	6.4	60.8	24.5		49.7	58.8		46.7				
7,8 - 7,8							10	7.1	59.3	25.0		47.8	57.3		44.8				
							16	9.0	56.2	25.0		43.7	54.2		40.7				
							20	10.1	54.8	25.0		41.8	52.8		38.8				
							25	11.3	53.3	24.2		39.8	51.3		36.8				
							31.25	12.6	51.9	23.3		37.9	49.9		34.9				
							62.5	18.0	47.4	20.7		31.9	45.4		28.9				
							100	23.0	44.3	19.0		27.8	42.3		24.8				
							200	33.1	39.8	16.4		21.8	37.8		18.8				
							250	37.3	38.3	15.6		19.8	36.3		16.8				
							350	44.7	36.1	14.3		16.9	34.1		13.9				
							450	51.3	34.5	13.4		14.7	32.5		11.7				
							500	54.3	33.8	13.0		13.8	31.8		10.8				

10% length rule - will fail when length > 110 m

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

### TIA C6A PCable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	22.8	i	i	100	545.4	45	1	2.5	74.3	20.0		67.8	72.3		64.8	50	35		
3,6 - 3,6							4	4.6	65.3	23.0		55.8	63.3		52.8	44	23		
4,5 - 4,5							8	6.4	60.8	24.5		49.7	58.8		46.7	41	16.9		
7,8 - 7,8							10	7.1	59.3	25.0		47.8	57.3		44.8	40	15		
							16	9.0	56.2	25.0		43.7	54.2		40.7	40	10.9		
							20	10.1	54.8	25.0		41.8	52.8		38.8	40	9		
							25	11.3	53.3	24.2		39.8	51.3		36.8	40	7		
							31.25	12.6	51.9	23.3		37.9	49.9		34.9	40	i		
							62.5	18.0	47.4	20.7		31.9	45.4		28.9	40	i		
							100	23.0	44.3	19.0		27.8	42.3		24.8	40	i		
							200	33.1	39.8	16.4		21.8	37.8		18.8	40	i		
							250	37.3	38.3	15.6		19.8	36.3		16.8	40	i		
							350	44.7	36.1	14.3		16.9	34.1		13.9	40	i		
							450	51.3	34.5	13.4		14.7	32.5		11.7	40	i		
							500	54.3	33.8	13.0		13.8	31.8		10.8	40	i		

10% length rule - will fail when length > 110 m

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

### TIA C6A PCable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	22.8	i	i	100	545.4	45	1	2.5	74.3	20.0		67.8	72.3		64.8				
3,6 - 3,6							4	4.6	65.3	23.0		55.8	63.3		52.8				
4,5 - 4,5							8	6.4	60.8	24.5		49.7	58.8		46.7				
7,8 - 7,8							10	7.1	59.3	25.0		47.8	57.3		44.8				
							16	9.0	56.2	25.0		43.7	54.2		40.7				
							20	10.1	54.8	25.0		41.8	52.8		38.8				
							25	11.3	53.3	24.2		39.8	51.3		36.8				
							31.25	12.6	51.9	23.3		37.9	49.9		34.9				
							62.5	18.0	47.4	20.7		31.9	45.4		28.9				
							100	23.0	44.3	19.0		27.8	42.3		24.8				
							200	33.1	39.8	16.4		21.8	37.8		18.8				
							250	37.3	38.3	15.6		19.8	36.3		16.8				
							350	44.7	36.1	14.3		16.9	34.1		13.9				
							450	51.3	34.5	13.4		14.7	32.5		11.7				
							500	54.3	33.8	13.0		13.8	31.8		10.8				

10% length rule - will fail when length > 110 m

Not evaluated against the test limit

If Insertion Loss < 3 dB, not evaluated against the test limit

If FEXT is < 70 dB, not evaluated against the test limit

If PS FEXT is < 67 dB, not evaluated against the test limit

### TIA C6 Cable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	None	None	100	555	50	1	2.0	74.3	20.0		67.8	72.3		64.8				
3,6 - 3,6							4	3.8	65.3	23.0		55.8	63.3		52.8				
4,5 - 4,5							8	5.3	60.8	24.5		49.7	58.8		46.7				
7,8 - 7,8							10	6.0	59.3	25.0		47.8	57.3		44.8				
							16	7.6	56.2	25.0		43.7	54.2		40.7				
i							20	8.5	54.8	25.0		41.8	52.8		38.8				
							25	9.5	53.3	24.3		39.8	51.3		36.8				
							31.25	10.7	51.9	23.6		37.9	49.9		34.9				
							62.5	15.4	47.4	21.5		31.9	45.4		28.9				
							100	19.8	44.3	20.1		27.8	42.3		24.8				
							200	29.0	39.8	18.0		21.8	37.8		18.8				
							250	32.8	38.3	17.3		19.8	36.3		16.8				
							350	i	i	i		i	i		i				

### TIA C6 Cable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	i	i	100	555	50	1	2.0	74.3	20.0		67.8	72.3		64.8	50	35		
3,6 - 3,6							4	3.8	65.3	23.0		55.8	63.3		52.8	44	23		
4,5 - 4,5							8	5.3	60.8	24.5		49.7	58.8		46.7	41	16.9		
7,8 - 7,8							10	6.0	59.3	25.0		47.8	57.3		44.8	40	15		
							16	7.6	56.2	25.0		43.7	54.2		40.7	40	10.9		
i							20	8.5	54.8	25.0		41.8	52.8		38.8	40	9		
							25	9.5	53.3	24.3		39.8	51.3		36.8	40	7		
							31.25	10.7	51.9	23.6		37.9	49.9		34.9	40	i		
							62.5	15.4	47.4	21.5		31.9	45.4		28.9	40	i		
							100	19.8	44.3	20.1		27.8	42.3		24.8	40	i		
							200	29.0	39.8	18.0		21.8	37.8		18.8	40	i		
							250	32.8	38.3	17.3		19.8	36.3		16.8	40	i		
							350	i	i	i		i	i		i	i	i		



### TIA C6 Cable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	i	i	100	555	50	1	2.0	74.3	20.0		67.8	72.3		64.8				
3,6 - 3,6							4	3.8	65.3	23.0		55.8	63.3		52.8				
4,5 - 4,5							8	5.3	60.8	24.5		49.7	58.8		46.7				
7,8 - 7,8							10	6.0	59.3	25.0		47.8	57.3		44.8				
							16	7.6	56.2	25.0		43.7	54.2		40.7				
i							20	8.5	54.8	25.0		41.8	52.8		38.8				
							25	9.5	53.3	24.3		39.8	51.3		36.8				
							31.25	10.7	51.9	23.6		37.9	49.9		34.9				
							62.5	15.4	47.4	21.5		31.9	45.4		28.9				
							100	19.8	44.3	20.1		27.8	42.3		24.8				
							200	29.0	39.8	18.0		21.8	37.8		18.8				
							250	32.8	38.3	17.3		19.8	36.3		16.8				
							350	i	i	i		i	i		i				

### TIA C6 PCable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	None	None	100	555	50	1	2.4	74.3	20.0		67.8	72.3		64.8				
3,6 - 3,6							4	4.5	65.3	23.0		55.8	63.3		52.8				
4,5 - 4,5							8	6.4	60.8	24.5		49.7	58.8		46.7				
7,8 - 7,8							10	7.1	59.3	25.0		47.8	57.3		44.8				
							16	9.1	56.2	25.0		43.7	54.2		40.7				
i							20	10.2	54.8	25.0		41.8	52.8		38.8				
							25	11.4	53.3	24.2		39.8	51.3		36.8				
							31.25	12.8	51.9	23.3		37.9	49.9		34.9				
							62.5	18.5	47.4	20.7		31.9	45.4		28.9				
							100	23.8	44.3	19.0		27.8	42.3		24.8				
							200	34.8	39.8	16.4		21.8	37.8		18.8				
							250	39.4	38.3	15.6		19.8	36.3		16.8				
							350	i	i	i		i	i		i				

### TIA C6 PCable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25	i	i	100	555	50	1	2.4	74.3	20.0		67.8	72.3		64.8	50	35		
							4	4.5	65.3	23.0		55.8	63.3		52.8	44	23		
							8	6.4	60.8	24.5		49.7	58.8		46.7	41	16.9		
							10	7.1	59.3	25.0		47.8	57.3		44.8	40	15		
							16	9.1	56.2	25.0		43.7	54.2		40.7	40	10.9		
i							20	10.2	54.8	25.0		41.8	52.8		38.8	40	9		
							25	11.4	53.3	24.2		39.8	51.3		36.8	40	7		
							31.25	12.8	51.9	23.3		37.9	49.9		34.9	40	i		
							62.5	18.5	47.4	20.7		31.9	45.4		28.9	40	i		
							100	23.8	44.3	19.0		27.8	42.3		24.8	40	i		
							200	34.8	39.8	16.4		21.8	37.8		18.8	40	i		
							250	39.4	38.3	15.6		19.8	36.3		16.8	40	i		
							350	i	i	i		i	i		i	i	i		

### TIA C6 PCable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	25	i	i	100	555	50	1	2.4	74.3	20.0		67.8	72.3		64.8				
							4	4.5	65.3	23.0		55.8	63.3		52.8				
							8	6.4	60.8	24.5		49.7	58.8		46.7				
							10	7.1	59.3	25.0		47.8	57.3		44.8				
							16	9.1	56.2	25.0		43.7	54.2		40.7				
i							20	10.2	54.8	25.0		41.8	52.8		38.8				
							25	11.4	53.3	24.2		39.8	51.3		36.8				
							31.25	12.8	51.9	23.3		37.9	49.9		34.9				
							62.5	18.5	47.4	20.7		31.9	45.4		28.9				
							100	23.8	44.3	19.0		27.8	42.3		24.8				
							200	34.8	39.8	16.4		21.8	37.8		18.8				
							250	39.4	38.3	15.6		19.8	36.3		16.8				
							350	i	i	i		i	i		i				

### TIA C5e Cable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	None	None	100	555	50	1	2.0	65.3	20.0		63.8	62.3		60.8				
3,6 - 3,6							4	4.1	56.3	23.0		51.8	53.3		48.8				
4,5 - 4,5							8	5.8	51.8	24.5		45.7	48.8		42.7				
7,8 - 7,8							10	6.5	50.3	25.0		43.8	47.3		40.8				
							16	8.2	47.2	25.0		39.7	44.2		36.7				
i							20	9.3	45.8	25.0		37.8	42.8		34.8				
							25	10.4	44.3	24.3		35.8	41.3		32.8				
							31.25	11.7	42.9	23.6		33.9	39.9		30.9				
							62.5	17.0	38.4	21.5		27.9	35.4		24.9				
							100	22.0	35.3	20.1		23.8	32.3		20.8				
							200	i	i	i		i	i		i				
							250	i	i	i		i	i		i				
							350	i	i	i		i	i		i				

### TIA C5e Cable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	i	i	100	555	50	1	2.0	65.3	20.0		63.8	62.3		60.8				
3,6 - 3,6							4	4.1	56.3	23.0		51.8	53.3		48.8				
4,5 - 4,5							8	5.8	51.8	24.5		45.7	48.8		42.7				
7,8 - 7,8							10	6.5	50.3	25.0		43.8	47.3		40.8				
							16	8.2	47.2	25.0		39.7	44.2		36.7				
i							20	9.3	45.8	25.0		37.8	42.8		34.8				
							25	10.4	44.3	24.3		35.8	41.3		32.8				
							31.25	11.7	42.9	23.6		33.9	39.9		30.9				
							62.5	17.0	38.4	21.5		27.9	35.4		24.9				
							100	22.0	35.3	20.1		23.8	32.3		20.8				
							200	i	i	i		i	i		i				
							250	i	i	i		i	i		i				
							350	i	i	i		i	i		i				

### TIA C5e Cable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL	
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	
1,2 - 1,2	25	i	i	100	555	50	1	2.0	65.3	20.0		63.8	62.3		60.8					
3,6 - 3,6	<div><div></div><div>i</div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div>Informational measurement only, no limit available</div><div>10% length rule - will fail when length &gt; 110 m</div><div>Not evaluated against the test limit</div><div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div><div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div><div>If PS FEXT is &lt; 67 dB, not evaluated against the test limit</div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	4	4.1	56.3	23.0		51.8	53.3		48.8								
4,5 - 4,5				8	5.8	51.8	24.5		45.7	48.8		42.7								
7,8 - 7,8				10	6.5	50.3	25.0		43.8	47.3		40.8								
				16	8.2	47.2	25.0		39.7	44.2		36.7								
				20	9.3	45.8	25.0		37.8	42.8		34.8								
				25	10.4	44.3	24.3		35.8	41.3		32.8								
				31.25	11.7	42.9	23.6		33.9	39.9		30.9								
				62.5	17.0	38.4	21.5		27.9	35.4		24.9								
				100	22.0	35.3	20.1		23.8	32.3		20.8								
				200	i	i	i		i	i		i								
				250	i	i	i		i	i		i								
				350	i	i	i		i	i		i								

### TIA C5e PCable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL		
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB		
1,2 - 1,2	25	None	None	100	555	50	1	2.4	65.3	20.0		63.8	62.3		60.8						
3,6 - 3,6	<div><div></div><div>i</div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div>Informational measurement only, no limit available</div><div>10% length rule - will fail when length &gt; 110 m</div><div>Not evaluated against the test limit</div><div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div><div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div><div>If PS FEXT is &lt; 67 dB, not evaluated against the test limit</div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	4	4.9	56.3	23.0		51.8	53.3		48.8									
4,5 - 4,5				8	6.9	51.8	24.5		45.7	48.8		42.7									
7,8 - 7,8				10	7.8	50.3	25.0		43.8	47.3		40.8									
				16	9.9	47.2	25.0		39.7	44.2		36.7									
				20	11.1	45.8	25.0		37.8	42.8		34.8									
				25	12.5	44.3	24.2		35.8	41.3		32.8									
				31.25	14.1	42.9	23.3		33.9	39.9		30.9									
				62.5	20.4	38.4	20.7		27.9	35.4		24.9									
				100	26.4	35.3	19.0		23.8	32.3		20.8									
				200	i	i	i		i	i		i									
				250	i	i	i		i	i		i									
				350	i	i	i		i	i		i									

TIA C5e PCable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	i	i	100	555	50	1	2.4	65.3	20.0		63.8	62.3		60.8				
3,6 - 3,6							4	4.9	56.3	23.0		51.8	53.3		48.8				
4,5 - 4,5							8	6.9	51.8	24.5		45.7	48.8		42.7				
7,8 - 7,8							10	7.8	50.3	25.0		43.8	47.3		40.8				
							16	9.9	47.2	25.0		39.7	44.2		36.7				
i							20	11.1	45.8	25.0		37.8	42.8		34.8				
							25	12.5	44.3	24.2		35.8	41.3		32.8				
							31.25	14.1	42.9	23.3		33.9	39.9		30.9				
							62.5	20.4	38.4	20.7		27.9	35.4		24.9				
							100	26.4	35.3	19.0		23.8	32.3		20.8				
							200	i	i	i		i	i		i				
							250	i	i	i		i	i		i				
							350	i	i	i		i	i		i				

TIA C5e PCable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	i	i	100	555	50	1	2.4	65.3	20.0		63.8	62.3		60.8				
3,6 - 3,6							4	4.9	56.3	23.0		51.8	53.3		48.8				
4,5 - 4,5							8	6.9	51.8	24.5		45.7	48.8		42.7				
7,8 - 7,8							10	7.8	50.3	25.0		43.8	47.3		40.8				
							16	9.9	47.2	25.0		39.7	44.2		36.7				
i							20	11.1	45.8	25.0		37.8	42.8		34.8				
							25	12.5	44.3	24.2		35.8	41.3		32.8				
							31.25	14.1	42.9	23.3		33.9	39.9		30.9				
							62.5	20.4	38.4	20.7		27.9	35.4		24.9				
							100	26.4	35.3	19.0		23.8	32.3		20.8				
							200	i	i	i		i	i		i				
							250	i	i	i		i	i		i				
							350	i	i	i		i	i		i				

ISO C7A Cable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	i	i	100	545.4	25	1	2.1	80.0	20.0		80.0	77.0		77.0				
3,6 - 3,6	<div> <div>i</div> <div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div> <div>If PS FEXT is &lt; 67 dB, not evaluated against the test limit</div> </div>						4	3.7	80.0	23.0		80.0	77.0		77.0				
4,5 - 4,5							8	5.2	80.0	24.5		77.2	77.0		74.2				
7,8 - 7,8							10	5.8	80.0	25.0		75.3	77.0		72.3				
							16	7.3	80.0	25.0		71.2	77.0		68.2				
							20	8.2	80.0	25.0		69.3	77.0		66.3				
							25	9.2	80.0	24.3		67.3	77.0		64.3				
							31.25	10.3	80.0	23.6		65.4	77.0		62.4				
							62.5	14.6	78.5	21.5		59.4	75.5		56.4				
							100	18.5	75.4	20.1		55.3	72.4		52.3				
							200	26.5	70.9	18.0		49.3	67.9		46.3				
							250	29.7	69.4	17.3		47.3	66.4		44.3				
							350	35.4	67.2	17.3		44.4	64.2		41.4				
							450	40.4	65.6	17.3		42.2	62.6		39.2				
							500	42.8	64.9	17.3		41.3	61.9		38.3				
							600	47.1	63.7	17.3		39.7	60.7		36.7				
							700	51.1	62.7	14.2		38.4	59.7		35.4				
							800	54.9	61.9	13.8		37.2	58.9		34.2				
							900	58.5	61.1	13.4		36.2	58.1		33.2				
							1000	61.9	60.4	13.1		35.3	57.4		32.3				

ISO C7A Cable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	i	i	100	545.4	25	1	2.1	80.0	20.0		80.0	77.0		77.0	40	35		
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit Informational measurement only if using shielded cable						4	3.7	80.0	23.0		80.0	77.0		77.0	34	23		
4,5 - 4,5							8	5.2	80.0	24.5		77.2	77.0		74.2	31	16.9		
7,8 - 7,8							10	5.8	80.0	25.0		75.3	77.0		72.3	30	15		
							16	7.3	80.0	25.0		71.2	77.0		68.2	28	10.9		
i							20	8.2	80.0	25.0		69.3	77.0		66.3	27	9		
							25	9.2	80.0	24.3		67.3	77.0		64.3	26	7		
							31.25	10.3	80.0	23.6		65.4	77.0		62.4	25.1	i		
							62.5	14.6	78.5	21.5		59.4	75.5		56.4	22	i		
							100	18.5	75.4	20.1		55.3	72.4		52.3	20	i		
							200	26.5	70.9	18.0		49.3	67.9		46.3	17	i		
							250	29.7	69.4	17.3		47.3	66.4		44.3	16	i		
							350	35.4	67.2	17.3		44.4	64.2		41.4	14.6	i		
							450	40.4	65.6	17.3		42.2	62.6		39.2	13.5	i		
							500	42.8	64.9	17.3		41.3	61.9		38.3	13	i		
							600	47.1	63.7	17.3		39.7	60.7		36.7	12.2	i		
							700	51.1	62.7	14.2		38.4	59.7		35.4	11.5	i		
							800	54.9	61.9	13.8		37.2	58.9		34.2	11	i		
							900	58.5	61.1	13.4		36.2	58.1		33.2	10.5	i		
							1000	61.9	60.4	13.1		35.3	57.4		32.3	10	i		

ISO C7A Cable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	i	i	100	545.4	25	1	2.1	80.0	20.0		80.0	77.0		77.0				
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit						4	3.7	80.0	23.0		80.0	77.0		77.0				
4,5 - 4,5							8	5.2	80.0	24.5		77.2	77.0		74.2				
7,8 - 7,8							10	5.8	80.0	25.0		75.3	77.0		72.3				
							16	7.3	80.0	25.0		71.2	77.0		68.2				
i							20	8.2	80.0	25.0		69.3	77.0		66.3				
							25	9.2	80.0	24.3		67.3	77.0		64.3				
							31.25	10.3	80.0	23.6		65.4	77.0		62.4				
							62.5	14.6	78.5	21.5		59.4	75.5		56.4				
							100	18.5	75.4	20.1		55.3	72.4		52.3				
							200	26.5	70.9	18.0		49.3	67.9		46.3				
							250	29.7	69.4	17.3		47.3	66.4		44.3				
							350	35.4	67.2	17.3		44.4	64.2		41.4				
							450	40.4	65.6	17.3		42.2	62.6		39.2				
							500	42.8	64.9	17.3		41.3	61.9		38.3				
							600	47.1	63.7	17.3		39.7	60.7		36.7				
							700	51.1	62.7	14.2		38.4	59.7		35.4				
							800	54.9	61.9	13.8		37.2	58.9		34.2				
							900	58.5	61.1	13.4		36.2	58.1		33.2				
							1000	61.9	60.4	13.1		35.3	57.4		32.3				



ISO C7A PCable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	None	None	100	545.4	25	1	3.0	80.0	20.0		80.0	77.0		77.0				
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit						4	5.6	80.0	23.0		80.0	77.0		77.0				
4,5 - 4,5							8	7.8	80.0	24.5		77.2	77.0		74.2				
7,8 - 7,8							10	8.7	80.0	25.0		75.3	77.0		72.3				
							16	11.0	80.0	25.0		71.2	77.0		68.2				
i							20	12.3	80.0	25.0		69.3	77.0		66.3				
							25	13.7	80.0	24.2		67.3	77.0		64.3				
							31.25	15.4	80.0	23.3		65.4	77.0		62.4				
							62.5	21.9	78.5	20.7		59.4	75.5		56.4				
							100	27.8	75.4	19.0		55.3	72.4		52.3				
							200	39.7	70.9	16.4		49.3	67.9		46.3				
							250	44.6	69.4	15.6		47.3	66.4		44.3				
							350	53.2	67.2	15.6		44.4	64.2		41.4				
							450	60.7	65.6	15.6		42.2	62.6		39.2				
							500	64.1	64.9	15.6		41.3	61.9		38.3				
							600	70.6	63.7	15.6		39.7	60.7		36.7				
							700	76.7	62.7	11.7		38.4	59.7		35.4				
							800	82.4	61.9	11.2		37.2	58.9		34.2				
							900	87.8	61.1	10.8		36.2	58.1		33.2				
							1000	92.9	60.4	10.4		35.3	57.4		32.3				

ISO C7A PCable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	i	i	100	545.4	25	1	3.0	80.0	20.0		80.0	77.0		77.0	40	35		
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit Informational measurement only if using shielded cable						4	5.6	80.0	23.0		80.0	77.0		77.0	34	23		
4,5 - 4,5							8	7.8	80.0	24.5		77.2	77.0		74.2	31	16.9		
7,8 - 7,8							10	8.7	80.0	25.0		75.3	77.0		72.3	30	15		
							16	11.0	80.0	25.0		71.2	77.0		68.2	28	10.9		
i							20	12.3	80.0	25.0		69.3	77.0		66.3	27	9		
							25	13.7	80.0	24.2		67.3	77.0		64.3	26	7		
							31.25	15.4	80.0	23.3		65.4	77.0		62.4	25.1	i		
							62.5	21.9	78.5	20.7		59.4	75.5		56.4	22	i		
							100	27.8	75.4	19.0		55.3	72.4		52.3	20	i		
							200	39.7	70.9	16.4		49.3	67.9		46.3	17	i		
							250	44.6	69.4	15.6		47.3	66.4		44.3	16	i		
							350	53.2	67.2	15.6		44.4	64.2		41.4	14.6	i		
							450	60.7	65.6	15.6		42.2	62.6		39.2	13.5	i		
							500	64.1	64.9	15.6		41.3	61.9		38.3	13	i		
							600	70.6	63.7	15.6		39.7	60.7		36.7	12.2	i		
							700	76.7	62.7	11.7		38.4	59.7		35.4	11.5	i		
							800	82.4	61.9	11.2		37.2	58.9		34.2	11	i		
							900	87.8	61.1	10.8		36.2	58.1		33.2	10.5	i		
							1000	92.9	60.4	10.4		35.3	57.4		32.3	10	i		

ISO C7A PCable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	i	i	100	545.4	25	1	3.0	80.0	20.0		80.0	77.0		77.0				
3,6 - 3,6	<div> <div>i</div> <div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div> <div>If PS FEXT is &lt; 67 dB, not evaluated against the test limit</div> </div>						4	5.6	80.0	23.0		80.0	77.0		77.0				
4,5 - 4,5							8	7.8	80.0	24.5		77.2	77.0		74.2				
7,8 - 7,8							10	8.7	80.0	25.0		75.3	77.0		72.3				
							16	11.0	80.0	25.0		71.2	77.0		68.2				
							20	12.3	80.0	25.0		69.3	77.0		66.3				
							25	13.7	80.0	24.2		67.3	77.0		64.3				
							31.25	15.4	80.0	23.3		65.4	77.0		62.4				
							62.5	21.9	78.5	20.7		59.4	75.5		56.4				
							100	27.8	75.4	19.0		55.3	72.4		52.3				
							200	39.7	70.9	16.4		49.3	67.9		46.3				
							250	44.6	69.4	15.6		47.3	66.4		44.3				
							350	53.2	67.2	15.6		44.4	64.2		41.4				
							450	60.7	65.6	15.6		42.2	62.6		39.2				
							500	64.1	64.9	15.6		41.3	61.9		38.3				
							600	70.6	63.7	15.6		39.7	60.7		36.7				
							700	76.7	62.7	11.7		38.4	59.7		35.4				
							800	82.4	61.9	11.2		37.2	58.9		34.2				
							900	87.8	61.1	10.8		36.2	58.1		33.2				
							1000	92.9	60.4	10.4		35.3	57.4		32.3				

ISO C7 Cable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	None	None	100	545.4	25	1	2.0	80.0	20.0		80.0	77.0		77.0				
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit						4	3.7	80.0	23.0		80.0	77.0		77.0				
4,5 - 4,5							8	5.2	80.0	24.5		75.9	77.0		72.9				
7,8 - 7,8							10	5.9	80.0	25.0		74.0	77.0		71.0				
							16	7.4	80.0	25.0		69.9	77.0		66.9				
i							20	8.3	80.0	25.0		68.0	77.0		65.0				
							25	9.3	80.0	24.3		66.0	77.0		63.0				
							31.25	10.4	80.0	23.6		64.1	77.0		61.1				
							62.5	14.9	75.5	21.5		58.1	72.5		55.1				
							100	19.0	72.4	20.1		54.0	69.4		51.0				
							200	27.5	67.9	18.0		48.0	64.9		45.0				
							250	31.0	66.4	17.3		46.0	63.4		43.0				
							350	37.2	64.2	17.3		43.1	61.2		40.1				
							450	42.7	62.6	17.3		40.9	59.6		37.9				
							500	45.3	61.9	17.3		40.0	58.9		37.0				
							600	50.1	60.7	17.3		38.4	57.7		35.4				
							700	i	i	i			i		i				
							800	i	i	i			i		i				
							900	i	i	i			i		i				
							1000	i	i	i			i		i				

ISO C7 Cable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	i	i	100	545.4	25	1	2.0	80.0	20.0		80.0	77.0		77.0	40	35		
3,6 - 3,6							4	3.7	80.0	23.0		80.0	77.0		77.0	34	23		
4,5 - 4,5							8	5.2	80.0	24.5		75.9	77.0		72.9	31	16.9		
7,8 - 7,8							10	5.9	80.0	25.0		74.0	77.0		71.0	30	15		
							16	7.4	80.0	25.0		69.9	77.0		66.9	28	10.9		
i							20	8.3	80.0	25.0		68.0	77.0		65.0	27	9		
							25	9.3	80.0	24.3		66.0	77.0		63.0	26	7		
							31.25	10.4	80.0	23.6		64.1	77.0		61.1	25.1	i		
							62.5	14.9	75.5	21.5		58.1	72.5		55.1	22	i		
							100	19.0	72.4	20.1		54.0	69.4		51.0	20	i		
							200	27.5	67.9	18.0		48.0	64.9		45.0	17	i		
							250	31.0	66.4	17.3		46.0	63.4		43.0	16	i		
							350	37.2	64.2	17.3		43.1	61.2		40.1	14.6	i		
							450	42.7	62.6	17.3		40.9	59.6		37.9	13.5	i		
							500	45.3	61.9	17.3		40.0	58.9		37.0	13	i		
							600	50.1	60.7	17.3		38.4	57.7		35.4	12.2	i		
							700	i	i	i			i		i	i	i		
							800	i	i	i			i		i	i	i		
							900	i	i	i			i		i	i	i		
							1000	i	i	i			i		i	i	i		

ISO C7 Cable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	i	i	100	545.4	25	1	2.0	80.0	20.0		80.0	77.0		77.0				
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit						4	3.7	80.0	23.0		80.0	77.0		77.0				
4,5 - 4,5							8	5.2	80.0	24.5		75.9	77.0		72.9				
7,8 - 7,8							10	5.9	80.0	25.0		74.0	77.0		71.0				
							16	7.4	80.0	25.0		69.9	77.0		66.9				
i							20	8.3	80.0	25.0		68.0	77.0		65.0				
							25	9.3	80.0	24.3		66.0	77.0		63.0				
							31.25	10.4	80.0	23.6		64.1	77.0		61.1				
							62.5	14.9	75.5	21.5		58.1	72.5		55.1				
							100	19.0	72.4	20.1		54.0	69.4		51.0				
							200	27.5	67.9	18.0		48.0	64.9		45.0				
							250	31.0	66.4	17.3		46.0	63.4		43.0				
							350	37.2	64.2	17.3		43.1	61.2		40.1				
							450	42.7	62.6	17.3		40.9	59.6		37.9				
							500	45.3	61.9	17.3		40.0	58.9		37.0				
							600	50.1	60.7	17.3		38.4	57.7		35.4				
							700	i	i	i		i	i		i				
							800	i	i	i		i	i		i				
							900	i	i	i		i	i		i				
							1000	i	i	i		i	i		i				

ISO C7 PCable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	22.8	None	None	100	545.4	25	1	3.0	80.0	20.0		80.0	77.0		77.0				
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit						4	5.6	80.0	23.0		80.0	77.0		77.0				
4,5 - 4,5							8	7.9	80.0	24.5		75.9	77.0		72.9				
7,8 - 7,8							10	8.8	80.0	25.0		74.0	77.0		71.0				
							16	11.1	80.0	25.0		69.9	77.0		66.9				
i							20	12.4	80.0	25.0		68.0	77.0		65.0				
							25	13.9	80.0	24.2		66.0	77.0		63.0				
							31.25	15.6	80.0	23.3		64.1	77.0		61.1				
							62.5	22.3	75.5	20.7		58.1	72.5		55.1				
							100	28.5	72.4	19.0		54.0	69.4		51.0				
							200	41.2	67.9	16.4		48.0	64.9		45.0				
							250	46.5	66.4	15.6		46.0	63.4		43.0				
							350	55.8	64.2	15.6		43.1	61.2		40.1				
							450	64.0	62.6	15.6		40.9	59.6		37.9				
							500	67.9	61.9	15.6		40.0	58.9		37.0				
							600	75.1	60.7	15.6		38.4	57.7		35.4				
							700	i	i	i			i		i				
							800	i	i	i			i		i				
							900	i	i	i			i		i				
							1000	i	i	i			i		i				

ISO C7 PCable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	22.8	i	i	100	545.4	25	1	3.0	80.0	20.0		80.0	77.0		77.0	40	35		
3,6 - 3,6	Informational measurement only, no limit available 10% length rule - will fail when length > 110 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit Informational measurement only if using shielded cable						4	5.6	80.0	23.0		80.0	77.0		77.0	34	23		
4,5 - 4,5							8	7.9	80.0	24.5		75.9	77.0		72.9	31	16.9		
7,8 - 7,8							10	8.8	80.0	25.0		74.0	77.0		71.0	30	15		
							16	11.1	80.0	25.0		69.9	77.0		66.9	28	10.9		
i							20	12.4	80.0	25.0		68.0	77.0		65.0	27	9		
							25	13.9	80.0	24.2		66.0	77.0		63.0	26	7		
							31.25	15.6	80.0	23.3		64.1	77.0		61.1	25.1	i		
							62.5	22.3	75.5	20.7		58.1	72.5		55.1	22	i		
							100	28.5	72.4	19.0		54.0	69.4		51.0	20	i		
							200	41.2	67.9	16.4		48.0	64.9		45.0	17	i		
							250	46.5	66.4	15.6		46.0	63.4		43.0	16	i		
							350	55.8	64.2	15.6		43.1	61.2		40.1	14.6	i		
							450	64.0	62.6	15.6		40.9	59.6		37.9	13.5	i		
							500	67.9	61.9	15.6		40.0	58.9		37.0	13	i		
							600	75.1	60.7	15.6		38.4	57.7		35.4	12.2	i		
							700	i	i	i			i		i	i	i		
							800	i	i	i			i		i	i	i		
							900	i	i	i			i		i	i	i		
							1000	i	i	i			i		i	i	i		



### ISO C7 PCable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	22.8	i	i	100	545.4	25	1	3.0	80.0	20.0		80.0	77.0		77.0				
							4	5.6	80.0	23.0		80.0	77.0		77.0				
							8	7.9	80.0	24.5		75.9	77.0		72.9				
							10	8.8	80.0	25.0		74.0	77.0		71.0				
							16	11.1	80.0	25.0		69.9	77.0		66.9				
							20	12.4	80.0	25.0		68.0	77.0		65.0				
							25	13.9	80.0	24.2		66.0	77.0		63.0				
							31.25	15.6	80.0	23.3		64.1	77.0		61.1				
							62.5	22.3	75.5	20.7		58.1	72.5		55.1				
							100	28.5	72.4	19.0		54.0	69.4		51.0				
							200	41.2	67.9	16.4		48.0	64.9		45.0				
							250	46.5	66.4	15.6		46.0	63.4		43.0				
							350	55.8	64.2	15.6		43.1	61.2		40.1				
							450	64.0	62.6	15.6		40.9	59.6		37.9				
							500	67.9	61.9	15.6		40.0	58.9		37.0				
							600	75.1	60.7	15.6		38.4	57.7		35.4				
							700	i	i	i			i		i				
							800	i	i	i			i		i				
							900	i	i	i			i		i				
							1000	i	i	i			i		i				

### ISO C6A Cable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	19	None	None	100	545.4	45	1	2.1	74.3	20.0		67.8	72.3		64.8				
							4	3.8	65.3	23.0		55.8	63.3		52.8				
							8	5.3	60.8	24.5		49.7	58.8		46.7				
							10	5.9	59.3	25.0		47.8	57.3		44.8				
							16	7.5	56.2	25.0		43.7	54.2		40.7				
							20	8.4	54.8	25.0		41.8	52.8		38.8				
							25	9.4	53.3	24.3		39.8	51.3		36.8				
							31.25	10.5	51.9	23.6		37.9	49.9		34.9				
							62.5	15.0	47.4	21.5		31.9	45.4		28.9				
							100	19.1	44.3	20.1		27.8	42.3		24.8				
							200	27.6	39.8	18.0		21.8	37.8		18.8				
							250	31.1	38.3	17.3		19.8	36.3		16.8				
							350	37.2	36.1	17.3		16.9	34.1		13.9				
							450	42.7	34.5	17.3		14.7	32.5		11.7				
							500	45.3	33.8	17.3		13.8	31.8		10.8				

### ISO C6A Cable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	i	i	100	545.4	45	1	2.1	74.3	20.0		67.8	72.3		64.8	40	35		
3,6 - 3,6							4	3.8	65.3	23.0		55.8	63.3		52.8	34	23		
4,5 - 4,5							8	5.3	60.8	24.5		49.7	58.8		46.7	31	16.9		
7,8 - 7,8							10	5.9	59.3	25.0		47.8	57.3		44.8	30	15		
							16	7.5	56.2	25.0		43.7	54.2		40.7	28	10.9		
i							20	8.4	54.8	25.0		41.8	52.8		38.8	27	9		
							25	9.4	53.3	24.3		39.8	51.3		36.8	26	7		
							31.25	10.5	51.9	23.6		37.9	49.9		34.9	25.1	i		
							62.5	15.0	47.4	21.5		31.9	45.4		28.9	22	i		
							100	19.1	44.3	20.1		27.8	42.3		24.8	20	i		
							200	27.6	39.8	18.0		21.8	37.8		18.8	17	i		
							250	31.1	38.3	17.3		19.8	36.3		16.8	16	i		
							350	37.2	36.1	17.3		16.9	34.1		13.9	14.6	i		
							450	42.7	34.5	17.3		14.7	32.5		11.7	13.5	i		
i if shielded							500	45.3	33.8	17.3		13.8	31.8		10.8	13	i		

### ISO C6A Cable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	19	i	i	100	545.4	45	1	2.1	74.3	20.0		67.8	72.3		64.8				
3,6 - 3,6							4	3.8	65.3	23.0		55.8	63.3		52.8				
4,5 - 4,5							8	5.3	60.8	24.5		49.7	58.8		46.7				
7,8 - 7,8							10	5.9	59.3	25.0		47.8	57.3		44.8				
							16	7.5	56.2	25.0		43.7	54.2		40.7				
i							20	8.4	54.8	25.0		41.8	52.8		38.8				
							25	9.4	53.3	24.3		39.8	51.3		36.8				
							31.25	10.5	51.9	23.6		37.9	49.9		34.9				
							62.5	15.0	47.4	21.5		31.9	45.4		28.9				
							100	19.1	44.3	20.1		27.8	42.3		24.8				
							200	27.6	39.8	18.0		21.8	37.8		18.8				
							250	31.1	38.3	17.3		19.8	36.3		16.8				
							350	37.2	36.1	17.3		16.9	34.1		13.9				
							450	42.7	34.5	17.3		14.7	32.5		11.7				
							500	45.3	33.8	17.3		13.8	31.8		10.8				

ISO C6A PCable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	22.8	None	None	100	545.4	45	1	3.1	74.3	20.0		67.8	72.3		64.8				
3,6 - 3,6							4	5.7	65.3	23.0		55.8	63.3		52.8				
4,5 - 4,5							8	8.0	60.8	24.5		49.7	58.8		46.7				
7,8 - 7,8							10	8.9	59.3	25.0		47.8	57.3		44.8				
							16	11.2	56.2	25.0		43.7	54.2		40.7				
i							20	12.6	54.8	25.0		41.8	52.8		38.8				
							25	14.1	53.3	24.2		39.8	51.3		36.8				
							31.25	15.8	51.9	23.3		37.9	49.9		34.9				
							62.5	22.5	47.4	20.7		31.9	45.4		28.9				
							100	28.7	44.3	19.0		27.8	42.3		24.8				
							200	41.4	39.8	16.4		21.8	37.8		18.8				
							250	46.6	38.3	15.6		19.8	36.3		16.8				
							350	55.9	36.1	15.6		16.9	34.1		13.9				
							450	64.1	34.5	15.6		14.7	32.5		11.7				
							500	67.9	33.8	15.6		13.8	31.8		10.8				

ISO C6A PCable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	22.8	i	i	100	545.4	45	1	3.1	74.3	20.0		67.8	72.3		64.8	40	35		
3,6 - 3,6							4	5.7	65.3	23.0		55.8	63.3		52.8	34	23		
4,5 - 4,5							8	8.0	60.8	24.5		49.7	58.8		46.7	31	16.9		
7,8 - 7,8							10	8.9	59.3	25.0		47.8	57.3		44.8	30	15		
							16	11.2	56.2	25.0		43.7	54.2		40.7	28	10.9		
i							20	12.6	54.8	25.0		41.8	52.8		38.8	27	9		
							25	14.1	53.3	24.2		39.8	51.3		36.8	26	7		
							31.25	15.8	51.9	23.3		37.9	49.9		34.9	25.1	i		
							62.5	22.5	47.4	20.7		31.9	45.4		28.9	22	i		
							100	28.7	44.3	19.0		27.8	42.3		24.8	20	i		
							200	41.4	39.8	16.4		21.8	37.8		18.8	17	i		
							250	46.6	38.3	15.6		19.8	36.3		16.8	16	i		
							350	55.9	36.1	15.6		16.9	34.1		13.9	14.6	i		
							450	64.1	34.5	15.6		14.7	32.5		11.7	13.5	i		
							500	67.9	33.8	15.6		13.8	31.8		10.8	13	i		

ISO C6A PCable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	22.8	i	i	100	545.4	45	1	3.1	74.3	20.0		67.8	72.3		64.8				
3,6 - 3,6	<div> <div>i</div> <div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div> <div>If PS FEXT is &lt; 67 dB, not evaluated against the test limit</div> </div>						4	5.7	65.3	23.0		55.8	63.3		52.8				
4,5 - 4,5							8	8.0	60.8	24.5		49.7	58.8		46.7				
7,8 - 7,8							10	8.9	59.3	25.0		47.8	57.3		44.8				
							16	11.2	56.2	25.0		43.7	54.2		40.7				
							20	12.6	54.8	25.0		41.8	52.8		38.8				
							25	14.1	53.3	24.2		39.8	51.3		36.8				
							31.25	15.8	51.9	23.3		37.9	49.9		34.9				
							62.5	22.5	47.4	20.7		31.9	45.4		28.9				
							100	28.7	44.3	19.0		27.8	42.3		24.8				
							200	41.4	39.8	16.4		21.8	37.8		18.8				
							250	46.6	38.3	15.6		19.8	36.3		16.8				
							350	55.9	36.1	15.6		16.9	34.1		13.9				
							450	64.1	34.5	15.6		14.7	32.5		11.7				
							500	67.9	33.8	15.6		13.8	31.8		10.8				

ISO C6 Cable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	None	None	100	555	50	1	2.1	75.3	20.0		68.0	72.3		65.0				
3,6 - 3,6	<div> <div>i</div> <div>Informational measurement only, no limit available</div> <div>10% length rule - will fail when length &gt; 110 m</div> <div>Not evaluated against the test limit</div> <div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div> <div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div> <div>If PS FEXT is &lt; 67 dB, not evaluated against the test limit</div> </div>						4	3.8	66.3	23.0		56.0	63.3		53.0				
4,5 - 4,5							8	5.4	61.8	24.5		49.9	58.8		46.9				
7,8 - 7,8							10	6.0	60.3	25.0		48.0	57.3		45.0				
							16	7.6	57.2	25.0		43.9	54.2		40.9				
							20	8.5	55.8	25.0		42.0	52.8		39.0				
							25	9.6	54.3	24.3		40.0	51.3		37.0				
							31.25	10.7	52.9	23.6		38.1	49.9		35.1				
							62.5	15.5	48.4	21.5		32.1	45.4		29.1				
							100	19.9	45.3	20.1		28.0	42.3		25.0				
							200	29.1	40.8	18.0		22.0	37.8		19.0				
							250	33.0	39.3	17.3		20.0	36.3		17.0				
							350	i	i	i		i	i		i				

ISO C6 Cable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	i	i	100	555	50	1	2.1	75.3	20.0		68.0	72.3		65.0	40	35		
3,6 - 3,6	<div><div>i</div><div>Informational measurement only, no limit available</div><div>10% length rule - will fail when length &gt; 110 m</div><div>Not evaluated against the test limit</div><div>If Insertion Loss &lt; 3 dB, not evaluated against the test limit</div><div>If FEXT is &lt; 70 dB, not evaluated against the test limit</div><div>If PS FEXT is &lt; 67 dB, not evaluated against the test limit</div><div>i if shielded</div><div>Informational measurement only if using shielded cable</div></div>						4	3.8	66.3	23.0		56.0	63.3		53.0	34	23		
4,5 - 4,5							8	5.4	61.8	24.5		49.9	58.8		46.9	31	16.9		
7,8 - 7,8							10	6.0	60.3	25.0		48.0	57.3		45.0	30	15		
							16	7.6	57.2	25.0		43.9	54.2		40.9	28	10.9		
							20	8.5	55.8	25.0		42.0	52.8		39.0	27	9		
							25	9.6	54.3	24.3		40.0	51.3		37.0	26	7		
							31.25	10.7	52.9	23.6		38.1	49.9		35.1	25.1	i		
							62.5	15.5	48.4	21.5		32.1	45.4		29.1	22	i		
							100	19.9	45.3	20.1		28.0	42.3		25.0	20	i		
							200	29.1	40.8	18.0		22.0	37.8		19.0	17	i		
							250	33.0	39.3	17.3		20.0	36.3		17.0	16	i		
							350	i	i	i		i	i		i	i	i		

ISO C6 Cable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance	Resistance	Length	Delay	Delay	Freq.	Insertion	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL					
	Unbalance	Pair to Pair				Skew		Loss																
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB					
1,2 - 1,2	25	i	i	100	555	50	1	2.1	75.3	20.0		68.0	72.3		65.0									
3,6 - 3,6	Informational measurement only, no limit available						4	3.8	66.3	23.0		56.0	63.3		53.0									
4,5 - 4,5							8	5.4	61.8	24.5		49.9	58.8		46.9									
7,8 - 7,8							10	6.0	60.3	25.0		48.0	57.3		45.0									
							16	7.6	57.2	25.0		43.9	54.2		40.9									
i							20	8.5	55.8	25.0		42.0	52.8		39.0									
							25	9.6	54.3	24.3		40.0	51.3		37.0									
							Not evaluated against the test limit						31.25	10.7	52.9	23.6		38.1	49.9		35.1			
							If Insertion Loss < 3 dB, not evaluated against the test limit						62.5	15.5	48.4	21.5		32.1	45.4		29.1			
							If FEXT is < 70 dB, not evaluated against the test limit						100	19.9	45.3	20.1		28.0	42.3		25.0			
							If PS FEXT is < 67 dB, not evaluated against the test limit						200	29.1	40.8	18.0		22.0	37.8		19.0			
													250	33.0	39.3	17.3		20.0	36.3		17.0			
													350	i	i	i		i	i		i			

ISO C6 PCable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	None	None	100	555	50	1	3.1	74.3	20.0		67.8	72.3		64.8				
3,6 - 3,6							4	5.8	65.3	23.0		55.8	63.3		52.8				
4,5 - 4,5							8	8.1	60.8	24.5		49.7	58.8		46.7				
7,8 - 7,8							10	9.0	59.3	25.0		47.8	57.3		44.8				
							16	11.4	56.2	25.0		43.7	54.2		40.7				
i							20	12.8	54.8	25.0		41.8	52.8		38.8				
							25	14.4	53.3	24.2		39.8	51.3		36.8				
							31.25	16.1	51.9	23.3		37.9	49.9		34.9				
							62.5	23.3	47.4	20.7		31.9	45.4		28.9				
							100	29.9	44.3	19.0		27.8	42.3		24.8				
							200	43.8	39.8	16.4		21.8	37.8		18.8				
							250	49.7	38.3	15.6		19.8	36.3		16.8				
							350	i	i	i		i	i		i				

ISO C6 PCable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	i	i	100	555	50	1	3.1	74.3	20.0		67.8	72.3		64.8	40	35		
3,6 - 3,6							4	5.8	65.3	23.0		55.8	63.3		52.8	34	23		
4,5 - 4,5							8	8.1	60.8	24.5		49.7	58.8		46.7	31	16.9		
7,8 - 7,8							10	9.0	59.3	25.0		47.8	57.3		44.8	30	15		
							16	11.4	56.2	25.0		43.7	54.2		40.7	28	10.9		
i							20	12.8	54.8	25.0		41.8	52.8		38.8	27	9		
							25	14.4	53.3	24.2		39.8	51.3		36.8	26	7		
							31.25	16.1	51.9	23.3		37.9	49.9		34.9	25.1	i		
							62.5	23.3	47.4	20.7		31.9	45.4		28.9	22	i		
							100	29.9	44.3	19.0		27.8	42.3		24.8	20	i		
							200	43.8	39.8	16.4		21.8	37.8		18.8	17	i		
							250	49.7	38.3	15.6		19.8	36.3		16.8	16	i		
i if shielded							350	i	i	i		i	i		i	i	i		

ISO C6 PCable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	i	i	100	555	50	1	3.1	74.3	20.0		67.8	72.3		64.8				
3,6 - 3,6							4	5.8	65.3	23.0		55.8	63.3		52.8				
4,5 - 4,5							8	8.1	60.8	24.5		49.7	58.8		46.7				
7,8 - 7,8							10	9.0	59.3	25.0		47.8	57.3		44.8				
							16	11.4	56.2	25.0		43.7	54.2		40.7				
i							20	12.8	54.8	25.0		41.8	52.8		38.8				
							25	14.4	53.3	24.2		39.8	51.3		36.8				
							31.25	16.1	51.9	23.3		37.9	49.9		34.9				
							62.5	23.3	47.4	20.7		31.9	45.4		28.9				
							100	29.9	44.3	19.0		27.8	42.3		24.8				
							200	43.8	39.8	16.4		21.8	37.8		18.8				
							250	49.7	38.3	15.6		19.8	36.3		16.8				
							350	i	i	i		i	i		i				

ISO C5e Cable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	None	None	100	555	50	1	2.1	65.3	20.0		64.0	62.3		61.0				
3,6 - 3,6							4	4.1	56.3	23.0		52.0	53.3		49.0				
4,5 - 4,5							8	5.8	51.8	24.5		45.9	48.8		42.9				
7,8 - 7,8							10	6.5	50.3	25.0		44.0	47.3		41.0				
							16	8.3	47.2	25.0		39.9	44.2		36.9				
i							20	9.3	45.8	25.0		38.0	42.8		35.0				
							25	10.4	44.3	24.3		36.0	41.3		33.0				
							31.25	11.7	42.9	23.6		34.1	39.9		31.1				
							62.5	17.0	38.4	21.5		28.1	35.4		25.1				
							100	22.0	35.3	20.1		24.0	32.3		21.0				
							200	i	i	i		i	i		i				
							250	i	i	i		i	i		i				
							350	i	i	i		i	i		i				

ISO C5e Cable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	i	i	100	555	50	1	2.1	65.3	20.0		64.0	62.3		61.0	40	35		
3,6 - 3,6							4	4.1	56.3	23.0		52.0	53.3		49.0	34	23		
4,5 - 4,5							8	5.8	51.8	24.5		45.9	48.8		42.9	31	16.9		
7,8 - 7,8							10	6.5	50.3	25.0		44.0	47.3		41.0	30	15		
							16	8.3	47.2	25.0		39.9	44.2		36.9	28	10.9		
i							20	9.3	45.8	25.0		38.0	42.8		35.0	27	9		
							25	10.4	44.3	24.3		36.0	41.3		33.0	26	7		
							31.25	11.7	42.9	23.6		34.1	39.9		31.1	25.1	i		
							62.5	17.0	38.4	21.5		28.1	35.4		25.1	22	i		
							100	22.0	35.3	20.1		24.0	32.3		21.0	20	i		
							200	i	i	i		i	i		i	i	i		
							250	i	i	i		i	i		i	i	i		
i if shielded							350	i	i	i		i	i		i	i	i		

ISO C5e Cable 100m (LA) (+PoE)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	i	i	100	555	50	1	2.1	65.3	20.0		64.0	62.3		61.0				
3,6 - 3,6							4	4.1	56.3	23.0		52.0	53.3		49.0				
4,5 - 4,5							8	5.8	51.8	24.5		45.9	48.8		42.9				
7,8 - 7,8							10	6.5	50.3	25.0		44.0	47.3		41.0				
							16	8.3	47.2	25.0		39.9	44.2		36.9				
i							20	9.3	45.8	25.0		38.0	42.8		35.0				
							25	10.4	44.3	24.3		36.0	41.3		33.0				
							31.25	11.7	42.9	23.6		34.1	39.9		31.1				
							62.5	17.0	38.4	21.5		28.1	35.4		25.1				
							100	22.0	35.3	20.1		24.0	32.3		21.0				
							200	i	i	i		i	i		i				
							250	i	i	i		i	i		i				
							350	i	i	i		i	i		i				



ISO C5e PCable 100m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	None	None	100	555	50	1	3.2	65.3	20.0		63.8	62.3		60.8				
3,6 - 3,6							4	6.0	56.3	23.0		51.8	53.3		48.8				
4,5 - 4,5							8	8.5	51.8	24.5		45.7	48.8		42.7				
7,8 - 7,8							10	9.5	50.3	25.0		43.8	47.3		40.8				
							16	12.1	47.2	25.0		39.7	44.2		36.7				
i							20	13.5	45.8	25.0		37.8	42.8		34.8				
							25	15.2	44.3	24.2		35.8	41.3		32.8				
							31.25	17.1	42.9	23.3		33.9	39.9		30.9				
							62.5	24.8	38.4	20.7		27.9	35.4		24.9				
							100	32.0	35.3	19.0		23.8	32.3		20.8				
							200	i	i	i		i	i		i				
							250	i	i	i		i	i		i				
							350	i	i	i		i	i		i				

ISO C5e PCable 100m (LA) (+All)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	25	i	i	100	555	50	1	3.2	65.3	20.0		63.8	62.3		60.8	40	35		
3,6 - 3,6							4	6.0	56.3	23.0		51.8	53.3		48.8	34	23		
4,5 - 4,5							8	8.5	51.8	24.5		45.7	48.8		42.7	31	16.9		
7,8 - 7,8							10	9.5	50.3	25.0		43.8	47.3		40.8	30	15		
							16	12.1	47.2	25.0		39.7	44.2		36.7	28	10.9		
i							20	13.5	45.8	25.0		37.8	42.8		34.8	27	9		
							25	15.2	44.3	24.2		35.8	41.3		32.8	26	7		
							31.25	17.1	42.9	23.3		33.9	39.9		30.9	25.1	i		
							62.5	24.8	38.4	20.7		27.9	35.4		24.9	22	i		
							100	32.0	35.3	19.0		23.8	32.3		20.8	20	i		
							200	i	i	i		i	i		i	i	i		
							250	i	i	i		i	i		i	i	i		
i if shielded							350	i	i	i		i	i		i	i	i		







TIA Cat 6A Connector (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8				i	i	i	1		75.0	30.0									
							4		75.0	30.0									
							8		75.0	30.0									
							10		74.0	30.0									
							16		69.9	30.0									
							20		68.0	30.0									
							25		66.0	30.0									
							31.25		64.1	30.0									
							62.5		58.1	30.0									
							100		54.0	28.0									
							200		48.0	22.0									
							250		46.0	20.0									
							350		40.2	17.1									
							450		35.8	14.9									
							500		34.0	14.0									

ISO C6A Cable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	None	None	None	100	i	i	1		74.3	20.0			72.3						
							4		65.3	23.0			63.3						
							8		60.8	24.5			58.8						
							10		59.3	25.0			57.3						
							16		56.2	25.0			54.2						
							20		54.8	25.0			52.8						
							25		53.3	24.3			51.3						
							31.25		51.9	23.6			49.9						
							62.5		47.4	21.5			45.4						
							100		44.3	20.1			42.3						
							200		39.8	18.0			37.8						
							250		38.3	17.3			36.3						
							350		36.1	17.3			34.1						
							450		34.5	17.3			32.5						
							500		33.8	17.3			31.8						

ISO C6A PCable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	None	None	None	100	i	i	1		74.3	20.0			72.3						
	Informational measurement only, no limit available Not evaluated against the test limit						4		65.3	23.0			63.3						
							8		60.8	24.5			58.8						
							10		59.3	25.0			57.3						
							16		56.2	25.0			54.2						
							20		54.8	25.0			52.8						
							25		53.3	24.2			51.3						
							31.25		51.9	23.3			49.9						
							62.5		47.4	20.7			45.4						
							100		44.3	19.0			42.3						
							200		39.8	16.4			37.8						
							250		38.3	15.6			36.3						
							350		36.1	15.6			34.1						
							450		34.5	15.6			32.5						
							500		33.8	15.6			31.8						

ISO C7 Cable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	None	None	None	100	i	i	1		80.0	20.0			77.0						
	Informational measurement only, no limit available Not evaluated against the test limit						4		80.0	23.0			77.0						
							8		80.0	24.5			77.0						
							10		80.0	25.0			77.0						
							16		80.0	25.0			77.0						
							20		80.0	25.0			77.0						
							25		80.0	24.3			77.0						
							31.25		80.0	23.6			77.0						
							62.5		75.5	21.5			72.5						
							100		72.4	20.1			69.4						
							200		67.9	18.0			64.9						
							250		66.4	17.3			63.4						
							350		64.2	17.3			61.2						
							450		62.6	17.3			59.6						
							500		61.9	17.3			58.9						
							600		60.7	17.3			57.7						

ISO C7 PCable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	None	None	None	100	i	i	1		80.0	20.0			77.0						
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit						4		80.0	23.0			77.0						
4,5 - 4,5							8		80.0	24.5			77.0						
7,8 - 7,8							10		80.0	25.0			77.0						
							16		80.0	25.0			77.0						
i							20		80.0	25.0			77.0						
							25		80.0	24.2			77.0						
							31.25		80.0	23.3			77.0						
							62.5		75.5	20.7			72.5						
							100		72.4	19.0			69.4						
							200		67.9	16.4			64.9						
							250		66.4	15.6			63.4						
							350		64.2	15.6			61.2						
							450		62.6	15.6			59.6						
							500		61.9	15.6			58.9						
							600		60.7	15.6			57.7						

ISO C7A Cable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	None	None	None	100	i	i	1		80.0	20.0			77.0						
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit						4		80.0	23.0			77.0						
4,5 - 4,5							8		80.0	24.5			77.0						
7,8 - 7,8							10		80.0	25.0			77.0						
							16		80.0	25.0			77.0						
i							20		80.0	25.0			77.0						
							25		80.0	24.3			77.0						
							31.25		80.0	23.6			77.0						
							62.5		78.5	21.5			75.5						
							100		75.4	20.1			72.4						
							200		70.9	18.0			67.9						
							250		69.4	17.3			66.4						
							350		67.2	17.3			64.2						
							450		65.6	17.3			62.6						
							500		64.9	17.3			61.9						
							600		63.7	17.3			60.7						
							700		62.7	14.2			59.7						
							800		61.9	13.8			58.9						
							900		61.1	13.4			58.1						
							1000		60.4	13.1			57.4						

ISO C7A PCable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	None	None	None	100	i	i	1		80.0	20.0			77.0						
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit						4		80.0	23.0			77.0						
4,5 - 4,5							8		80.0	24.5			77.0						
7,8 - 7,8							10		80.0	25.0			77.0						
							16		80.0	25.0			77.0						
i							20		80.0	25.0			77.0						
							25		80.0	24.2			77.0						
							31.25		80.0	23.3			77.0						
							62.5		78.5	20.7			75.5						
							100		75.4	19.0			72.4						
							200		70.9	16.4			67.9						
							250		69.4	15.6			66.4						
							350		67.2	15.6			64.2						
							450		65.6	15.6			62.6						
							500		64.9	15.6			61.9						
							600		63.7	15.6			60.7						
							700		62.7	11.7			59.7						
							800		61.9	11.2			58.9						
							900		61.1	10.8			58.1						
							1000		60.4	10.4			57.4						



ISO C8.1 Cable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	None	None	None	100	i	i	1		75.3	20.0			72.3						
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit						4		66.3	23.0			63.3						
4,5 - 4,5							8		61.8	24.5			58.8						
7,8 - 7,8							10		60.3	25.0			57.3						
							16		57.2	25.0			54.2						
i							20		55.8	25.0			52.8						
							25		54.3	25.0			51.3						
							31.25		52.9	25.0			49.9						
							62.5		48.4	23.6			45.4						
							100		45.3	22.2			42.3						
							200		40.8	20.1			37.8						
							250		39.3	19.4			36.3						
							350		37.1	18.4			34.1						
							450		35.5	17.6			32.5						
							500		34.8	17.3			31.8						
							600		33.6	16.8			30.6						
							700		32.6	16.3			29.6						
							800		31.8	15.9			28.8						
							900		31.0	15.5			28.0						
							1000		30.3	15.2			27.3						
							1600		27.2	13.8			24.2						
							2000		25.8	13.1			22.8						

### ISO C8.2 Cable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	None	None	None	100	i	i	1		78.0	20.0			75.0						
	Informational measurement only, no limit available Not evaluated against the test limit						4		78.0	23.0			75.0						
							8		78.0	24.5			75.0						
							10		78.0	25.0			75.0						
							16		78.0	25.0			75.0						
							20		78.0	25.0			75.0						
							25		78.0	25.0			75.0						
							31.25		78.0	25.0			75.0						
							62.5		78.0	23.6			75.0						
							100		75.4	22.2			72.4						
							200		70.9	20.1			67.9						
							250		69.4	19.4			66.4						
							350		67.2	18.4			64.2						
							450		65.6	17.6			62.6						
							500		64.9	17.3			61.9						
							600		63.7	16.8			60.7						
							700		62.7	16.3			59.7						
							800		61.9	15.9			58.9						
							900		61.1	15.5			58.1						
							1000		60.4	15.2			57.4						
							1600		57.3	13.8			54.3						
							2000		55.9	13.1			52.9						

### TIA C5e Cable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	None	None	None	100	i	i	1		65.3	20.0			62.3						
	Informational measurement only, no limit available Not evaluated against the test limit						4		56.3	23.0			53.3						
							8		51.8	24.5			48.8						
							10		50.3	25.0			47.3						
							16		47.2	25.0			44.2						
							20		45.8	25.0			42.8						
							25		44.3	24.3			41.3						
							31.25		42.9	23.6			39.9						
							62.5		38.4	21.5			35.4						
							100		35.3	20.1			32.3						
							200		i	i			i						
							250		i	i			i						
							350		i	i			i						

### TIA C5e PCable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	None	None	None	100	i	i	1		65.3	20.0			62.3						
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit						4		56.3	23.0			53.3						
4,5 - 4,5							8		51.8	24.5			48.8						
7,8 - 7,8							10		50.3	25.0			47.3						
							16		47.2	25.0			44.2						
i							20		45.8	25.0			42.8						
							25		44.3	24.2			41.3						
							31.25		42.9	23.3			39.9						
							62.5		38.4	20.7			35.4						
							100		35.3	19.0			32.3						
							200		i	i			i						
							250		i	i			i						
							350		i	i			i						

### TIA C6A Cable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	None	None	None	100	i	i	1		74.3	20.0			72.3						
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit						4		65.3	23.0			63.3						
4,5 - 4,5							8		60.8	24.5			58.8						
7,8 - 7,8							10		59.3	25.0			57.3						
							16		56.2	25.0			54.2						
i							20		54.8	25.0			52.8						
							25		53.3	24.3			51.3						
							31.25		51.9	23.6			49.9						
							62.5		47.4	21.5			45.4						
							100		44.3	20.1			42.3						
							200		39.8	18.0			37.8						
							250		38.3	17.3			36.3						
							350		36.1	16.3			34.1						
							450		34.5	15.5			32.5						
							500		33.8	15.2			31.8						

TIA C6A PCable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	None	None	None	100	i	i	1		74.3	20.0			72.3						
	Informational measurement only, no limit available Not evaluated against the test limit						4		65.3	23.0			63.3						
							8		60.8	24.5			58.8						
							10		59.3	25.0			57.3						
							16		56.2	25.0			54.2						
							20		54.8	25.0			52.8						
							25		53.3	24.2			51.3						
							31.25		51.9	23.3			49.9						
							62.5		47.4	20.7			45.4						
							100		44.3	19.0			42.3						
							200		39.8	16.4			37.8						
							250		38.3	15.6			36.3						
							350		36.1	14.3			34.1						
							450		34.5	13.4			32.5						
							500		33.8	13.0			31.8						

TIA C6 Cable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	None	None	None	100	i	i	1		74.3	20.0			72.3						
	Informational measurement only, no limit available Not evaluated against the test limit						4		65.3	23.0			63.3						
							8		60.8	24.5			58.8						
							10		59.3	25.0			57.3						
							16		56.2	25.0			54.2						
							20		54.8	25.0			52.8						
							25		53.3	24.3			51.3						
							31.25		51.9	23.6			49.9						
							62.5		47.4	21.5			45.4						
							100		44.3	20.1			42.3						
							200		39.8	18.0			37.8						
							250		38.3	17.3			36.3						
							350		i	i			i						

### TIA C6 PCable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	None	None	None	100	i	i	1		74.3	20.0			72.3						
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit						4		65.3	23.0			63.3						
4,5 - 4,5							8		60.8	24.5			58.8						
7,8 - 7,8							10		59.3	25.0			57.3						
							16		56.2	25.0			54.2						
i							20		54.8	25.0			52.8						
							25		53.3	24.2			51.3						
							31.25		51.9	23.3			49.9						
							62.5		47.4	20.7			45.4						
							100		44.3	19.0			42.3						
							200		39.8	16.4			37.8						
							250		38.3	15.6			36.3						
							350		i	i			i						

### TIA C8 Cable Single End (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	$\Omega$	$\Omega$ or %	$\Omega$ or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	None	None	None	100	i	i	1		75.3	20.0			72.3						
3,6 - 3,6	Informational measurement only, no limit available Not evaluated against the test limit						4		66.3	23.0			63.3						
4,5 - 4,5							8		61.8	24.5			58.8						
7,8 - 7,8							10		60.3	25.0			57.3						
							16		57.2	25.0			54.2						
i							20		55.8	25.0			52.8						
							25		54.3	25.0			51.3						
							31.25		52.9	25.0			49.9						
							62.5		48.4	23.6			45.4						
							100		45.3	22.2			42.3						
							200		40.8	20.1			37.8						
							250		39.3	19.4			36.3						
							350		37.1	18.4			34.1						
							450		35.5	17.6			32.5						
							500		34.8	17.3			31.8						
							600		33.6	16.8			30.6						
							700		32.6	16.3			29.6						
							800		31.8	15.9			28.8						
							900		31.0	15.5			28.0						
							1000		30.3	15.2			27.3						
							1600		27.2	13.8			24.2						
							2000		25.8	13.1			22.8						

## DE Eval Cat 5e 305m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	58	None	None	305	1663	137	1	6.4	65.3	20.0		64.0	62.3		61.0				
<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	This test may put tester in Long Comm mode giving a longer test time 10% length rule - will fail when length > 335 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit						4	12.4	56.3	23.0		52.0	53.3		49.0				
							8	17.6	51.8	24.5		45.9	48.8		42.9				
							10	19.8	50.3	25.0		44.0	47.3		41.0				
							16	25.2	47.2	25.0		39.9	44.2		36.9				
							20	28.3	45.8	25.0		38.0	42.8		35.0				
							25	31.8	44.3	24.3		36.0	41.3		33.0				
							31.25	35.8	42.9	23.6		34.1	39.9		31.1				
							62.5	51.9	38.4	21.5		28.1	35.4		25.1				
							100	67.0	35.3	20.1		24.0	32.3		21.0				

## DE Eval Cat 6 305m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	58	None	None	305	1663	137	1	6.4	75.3	20.0		68.0	72.3		65.0				
<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	This test may put tester in Long Comm mode giving a longer test time 10% length rule - will fail when length > 335 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit						4	11.7	66.3	23.0		56.0	63.3		53.0				
							8	16.4	61.8	24.5		49.9	58.8		46.9				
							10	18.3	60.3	25.0		48.0	57.3		45.0				
							16	23.2	57.2	25.0		43.9	54.2		40.9				
							20	26.0	55.8	25.0		42.0	52.8		39.0				
							25	29.2	54.3	24.3		40.0	51.3		37.0				
							31.25	32.8	52.9	23.6		38.1	49.9		35.1				
							62.5	47.2	48.4	21.5		32.1	45.4		29.1				
							100	60.7	45.3	20.1		28.0	42.3		25.0				
							200	88.9	40.8	18.0		22.0	37.8		19.0				
							250	100.7	39.3	17.3		20.0	36.3		17.0				

## DE Eval Cat 6A 305m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2 3,6 - 3,6 4,5 - 4,5 7,8 - 7,8	58	None	None	305	1663	137	1	6.3	74.3	20.0		67.8	72.3		64.8				
<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	This test may put tester in Long Comm mode giving a longer test time Informational measurement only, no limit available 10% length rule - will fail when length > 335 m Not evaluated against the test limit If Insertion Loss < 3 dB, not evaluated against the test limit If FEXT is < 70 dB, not evaluated against the test limit If PS FEXT is < 67 dB, not evaluated against the test limit						4	11.6	65.3	23.0		55.8	63.3		52.8				
							8	16.2	60.8	24.5		49.7	58.8		46.7				
							10	18.1	59.3	25.0		47.8	57.3		44.8				
							16	22.8	56.2	25.0		43.7	54.2		40.7				
							20	25.6	54.8	25.0		41.8	52.8		38.8				
							25	28.6	53.3	24.3		39.8	51.3		36.8				
							31.25	32.0	51.9	23.6		37.9	49.9		34.9				
							62.5	45.7	47.4	21.5		31.9	45.4		28.9				
							100	58.4	44.3	20.1		27.8	42.3		24.8				
							200	84.1	39.8	18.0		21.8	37.8		18.8				
							250	94.8	38.3	17.3		19.8	36.3		16.8				
							350	113.6	36.1	17.3		16.9	34.1		13.9				
							450	130.3	34.5	17.3		14.7	32.5		11.7				
							500	138.0	33.8	17.3		13.8	31.8		10.8				

DE Eval Cat 7A 305m (LA)

Wire Map	Resistance	Resistance Unbalance	Resistance Pair to Pair	Length	Delay	Delay Skew	Freq.	Insertion Loss	NEXT	RL	ACR-N	ACR-F	PS NEXT	PS ACR-N	PS ACR-F	TCL	ELTCTL	CDNEXT	CMRL
	Ω	Ω or %	Ω or %	Max.	nS	nS	MHz	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB
1,2 - 1,2	58	None	None	305	1663	137	1	6.3	80	20.0		80.0	77.0		77.0				
3,6 - 3,6	This test may put tester in Long Comm mode giving a longer test time	Informational measurement only, no limit available	10% length rule - will fail when length > 335 m				4	11.4	80.0	23.0		80.0	77.0		77.0				
4,5 - 4,5							8	15.9	80.0	24.5		77.2	77.0		74.2				
7,8 - 7,8							10	17.8	80.0	25.0		75.3	77.0		72.3				
							16	22.4	80.0	25.0		71.2	77.0		68.2				
i							20	25.0	80.0	25.0		69.3	77.0		66.3				
							25	28.0	80.0	24.3		67.3	77.0		64.3				
							31.25	31.3	80.0	23.6		65.4	77.0		62.4				
							62.5	44.5	78.5	21.5		59.4	75.5		56.4				
							100	56.5	75.4	20.1		55.3	72.4		52.3				
							200	80.7	70.9	18.0		49.3	67.9		46.3				
	250	90.7	69.4	17.3		47.3	66.4		44.3										
	350	108.1	67.2	17.3		44.4	64.2		41.4										
	450	123.4	65.6	17.3		42.2	62.6		39.2										
	500	130.4	64.9	17.3		41.3	61.9		38.3										
	600	143.7	63.7	17.3		39.7	60.7		36.7										
	700	156.0	62.7	14.2		38.4	59.7		35.4										
	800	167.5	61.9	13.8		37.2	58.9		34.2										
	900	178.5	61.1	13.4		36.2	58.1		33.2										
	1000	188.9	60.4	13.1		35.3	57.4		32.3										

### TIA 568C.4 CATV RG6

Wire Map	Resistance	Impedance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	Ω	Ω	%	Max.	nS	MHz	dB
N/A	i	67 to 83	± 15	46	i	1	i
Limit starts at 5 MHz and end at 1,002 MHz						5	3.0
						8	3.0
						10	3.0
						16	3.0
						20	3.0
						25	3.0
						31.25	3.0
						62.5	3.0
						100	3.6
						200	5.1
						250	5.7
						350	6.7
						450	7.6
						500	8.0
						600	8.7
						700	9.4
						800	10.1
						900	10.7
						1002	11.2

### TIA 568C.4 CATV RG11 SS1

Wire Map	Resistance	Impedance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	Ω	Ω	%	Max.	nS	MHz	dB
N/A	i	67 to 83	± 15	90	i	1	i
Limit starts at 5 MHz and end at 1,002 MHz						5	3.0
						8	3.0
						10	3.0
						16	3.0
						20	3.0
						25	3.0
						31.25	3.0
						62.5	3.3
						100	4.2
						200	6.0
						250	6.7
						350	8.0
						450	9.2
						500	9.7
						600	10.7
						700	11.7
						800	12.5
						900	13.4
						1002	14.2

### TIA 568C.4 CATV RG11 SS2

Wire Map	Resistance	Impedance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	Ω	Ω	%	Max.	nS	MHz	dB
NA	i	67 to 83	± 15	100	i	1	i
Limit starts at 5 MHz and end at 1,002 MHz						5	3.0
						8	3.0
						10	3.0
						16	3.0
						20	3.0
						25	3.0
						31.25	3.0
						62.5	3.7
						100	4.6
						200	6.6
						250	7.4
						350	8.9
						450	10.1
						500	10.7
						600	11.8
						700	12.8
						800	13.8
						900	14.7
						1002	15.6

### TIA 568C.4 CATV RG6 LS

Wire Map	Resistance	Impedance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	Ω	Ω	%	Max.	nS	MHz	dB
N/A	i	67 to 83	± 15	46	i		$IF(FREQ < 5, NA, MAX(3, (LENGTH/100 * (0.694 * SQRT(FREQ)) - 0.0003 * FREQ + 0.89 / SQRT(FREQ)))) + (2 * 0.02 * SQRT(FREQ)))$
This test limit is length dependent. Limit starts at 5 MHz and end at 1,002 MHz						5	
						8	
						10	
						16	
						20	
						25	
						31.25	
						62.5	
						100	
						200	
						250	
						350	
						450	
						500	
						600	
						700	
						800	
						900	
						1002	



### TIA 568C.4 CATV RG11 SS1 LS

Wire Map	Resistance	Impedance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	$\Omega$	$\Omega$	%	Max.	nS	MHz	dB
NA	i	67 to 83	$\pm 15$	90	i		$IF(FREQ < 5, NA, MAX(3, (LENGTH/100 * (0.4 * SQRT(FREQ) + 0.00168 * FREQ + 0.77 / SQRT(FREQ)))) + (2 * 0.02 * SQRT(FREQ))))$
This test limit is length dependent. Limit starts at 5 MHz and end at 1,002 MHz						5	
						8	
						10	
						16	
						20	
						25	
						31.25	
						62.5	
						100	
						200	
						250	
						350	
						450	
						500	
						600	
						700	
						800	
						900	
						1002	
i	Informational measurement only, no limit available						

### TIA 568C.4 CATV RG11 SS2 LS

Wire Map	Resistance	Impedance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	$\Omega$	$\Omega$	%	Max.	nS	MHz	dB
NA	i	67 to 83	$\pm 15$	100	i		$IF(FREQ < 5, NA, MAX(3, (LENGTH/100 * (0.4 * SQRT(FREQ) + 0.00168 * FREQ + 0.77 / SQRT(FREQ)))) + (2 * 0.02 * SQRT(FREQ))))$
This test limit is length dependent. Limit starts at 5 MHz and end at 1,002 MHz						5	
						8	
						10	
						16	
						20	
						25	
						31.25	
						62.5	
						100	
						200	
						250	
						350	
						450	
						500	
						600	
						700	
						800	
						900	
						1002	
i	Informational measurement only, no limit available						

### DS3 734 Recommend LS

Wire Map	Resistance	Impedance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	$\Omega$	$\Omega$	%	Max.	nS	MHz	dB
N/A	i	67 to 83	$\pm 15$	137.2	None	1	$MAX(3, 1.1 * (LENGTH/137.2 * (1.145 * SQRT(FREQ) + 0.009 * FREQ + 0.2 / SQRT(FREQ))) + (2 * 0.02 * SQRT(FREQ))))$
This test limit is length dependent. Limit starts at 5 MHz and end at 100 MHz						4	
						8	
						10	
						16	
						20	
						25	
						31.25	
						62.5	
						100	
i	Informational measurement only, no limit available						

### DS3 735 Recommend LS

Wire Map	Resistance	Resistance Unbalance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	$\Omega$	$\Omega$ or %	%	Max.	nS	MHz	dB
	i	None	$\pm 15$	68.6	None	1	$MAX(3, 1.1 * (LENGTH/68.6 * (1.145 * SQRT(FREQ) + 0.009 * FREQ + 0.2 / SQRT(FREQ))) + (2 * 0.02 * SQRT(FREQ))))$
This test limit is length dependent. Limits starts at 1 MHz and end at 100 MHz						4	
						8	
						10	
						16	
						20	
						25	
						31.25	
						62.5	
						100	
i	Informational measurement only, no limit available						

### DS3 RG6 Recommend LS

Wire Map	Resistance	Impedance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	Ω	Ω	%	Max.	nS	MHz	dB
N/A	i	67 to 83	± 15	137.2	i	1	$MAX(3, LENGTH/100 * (0.694 * SQRT(FREQ) - 0.0003 * FREQ + 0.89/SQRT(FREQ))) + (2 * 0.02 * SQRT(FREQ)))$
This test limit is length dependent. Limits starts at 1 MHz and end at 100 MHz Measurement runs to 350 MHz						4	
						8	
						10	
						16	
						20	
						25	
						31.25	
						62.5	
						100	
i	Informational measurement only, no limit available						

### CCTV

Wire Map	Resistance	Impedance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	Ω	Ω	%	Max.	nS	MHz	dB
N/A	i	67 to 83	± 15	i	i	1	i
						4	i
						8	i
						10	i
						16	i
						20	i
						25	i
						31.25	i
						62.5	i
						100	i
						200	i
						250	i
						350	i
i	Informational measurement only, no limit available						

### General 50 Ohm COAX

Wire Map	Resistance	Impedance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	Ω	Ω	%	Max.	nS	MHz	dB
N/A	i	42 to 58	± 15	i	i	1	i
						4	i
						8	i
						10	i
						16	i
						20	i
						25	i
						31.25	i
						62.5	i
						100	i
						200	i
						250	i
						350	i
i	Informational measurement only, no limit available						

### General 75 Ohm COAX

Wire Map	Resistance	Impedance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	Ω	Ω	%	Max.	nS	MHz	dB
N/A	i	67 to 83	± 15	i	i	1	i
						4	i
						8	i
						10	i
						16	i
						20	i
						25	i
						31.25	i
						62.5	i
						100	i
						200	i
						250	i
						350	i
i	Informational measurement only, no limit available						

[illegible]

## 10BASE-5

Wire Map	Resistance	Impedance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	$\Omega$	$\Omega$	%	Max.	nS	MHz	dB
N/A	i	42 to 58	$\pm 15$	500	i	1	i
<div> <div>i</div> <div>Informational measurement only, no limit available</div> </div>						4	i
						8	7.5
						10	8.5
						16	i
						20	i
						25	i
						31.25	i
						62.5	i
						100	i
						200	i
						250	i
						350	i

## 10BASE-2

Wire Map	Resistance	Impedance	HDTDR	Length	Prop. Delay	Freq.	Insertion Loss
	$\Omega$	$\Omega$	%	Max.	nS	MHz	dB
N/A	i	42 to 58	$\pm 15$	185	i	1	i
<div>i</div> <div>Informational measurement only, no limit available</div>						4	i
						8	7.5
						10	8.5
						16	i
						20	i
						25	i
						31.25	i
						62.5	i
						100	i
						200	i
						250	i
						350	i

# CertiFiber® Pro

## Test Limits for Version 6.9 Build 2



#### 10/100BASE-SX

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5	dB	dB	dB	4				dB	dB	dB	dB	300

#### 1000BASE-LX

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1, OS2	dB	dB	dB	dB	dB	4.7		dB	dB	dB	dB	5000
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5					2.35							550

#### 1000BASE-SX

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OM1 160	dB	dB	dB	2.38				dB	dB	dB	dB	220
OM1				2.6								275
OM2 400				3.37								400
OM2, OM3, OM4, OM5				3.56								550

#### 100BASE-FX

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OM1, OM1 160	dB	dB	dB	dB	11			dB	dB	dB	dB	2000
OM2, OM2 400, OM3, OM4, OM5					6.3							2000

#### 100GBASE-ER4

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1, OS2	dB	dB	dB	dB	dB	15		dB	dB	dB	dB	30000

#### 100GBASE-LR4

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1, OS2	dB	dB	dB	dB	dB	6.3		dB	dB	dB	dB	10000

#### 100GBASE-SR10

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OM3				1.9								100
OM4, OM5				1.5								150

#### 100GBASE-SR4

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OM3				1.8								70
OM4, OM5				1.9								100

#### 10BASE-FL

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OM1, OM1 160				12.5								2000
OM2, OM2 400, OM3, OM4, OM5				7.8								2000

#### 10GBASE-E

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1, OS2							11					40000

#### 10GBASE-L

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1, OS2						6.2						10000

#### 10GBASE-LRM

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				1.9								220
OS1, OS2						1.9						220

#### 10GBASE-LX4

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						6.3						10000
OM1					2.5							300
OM2 400					2							240
OM2, OM3, OM4, OM5					2							300

#### 10GBASE-SR

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1 160				2.6								26
OM1				2.4								33
OM2 400				2.2								66
OM2				2.3								82
OM3				2.6								300
OM4, OM5				2.9								400

#### 40GBASE-ER4 \* Has a minimum loss requirement of 9.0 dB @ 1310 nm

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						18.5*						30000

#### 40GBASE-FR

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS2							4					2000

#### 40GBASE-LR4

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						6.7						10000

#### 40GBASE-SR4

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM3				1.9								100
OM4, OM5				1.5								150

#### ATM155

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5					10							2000

#### ATM155SWL

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				7.2								1000

#### ATM52

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5					10							3000

#### ATM622 Fiber Optic

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5					6							500

#### ATM622SWL Fiber Optic

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				4								300



#### FDDI Fiber Optic

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5					11							2000

#### Fibre Channel 100-M5-SN-I

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM2, OM3, OM4, OM5				3.85								500

#### Fibre Channel 100-M5E-SN-I

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM2, OM3, OM4, OM5				4.62								860

#### Fibre Channel 100-M6-SN-I

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1				3								300

#### Fibre Channel 100-SM-LC-L

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						7.8						10000

#### Fibre Channel 1200-M5-SN-I

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM2, OM3, OM4, OM5				2.2								82

#### Fibre Channel 1200-M5E-SN-I

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM2, OM3, OM4, OM5				2.6								300

**Fibre Channel 1200-M6-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1				2.4								33

**Fibre Channel 1200-SM-LC-L**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						6						10000

**Fibre Channel 133**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5					6							1500

**Fibre Channel 1600-M5-SN-S**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM2, OM3, OM4, OM5				1.63								35

**Fibre Channel 1600-M5E-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM3, OM4, OM5				1.86								100

**Fibre Channel 1600-M5F-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM4, OM5				1.95								125

**Fibre Channel 1600-SM-LC-L**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						6.4						10000

**Fibre Channel 200-M5-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM2, OM3, OM4, OM5				2.62								300

**Fibre Channel 200-M5E-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM2, OM3, OM4, OM5				3.31								500

**Fibre Channel 200-M6-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1				2.1								150

**Fibre Channel 200-SM-LC-L**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						7.8						10000

**Fibre Channel 266**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM2, OM2 400, OM3, OM4, OM5					5.5							1500
OM1, OM1 160					6							1500

**Fibre Channel 266SWL**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1, OM1 160				12								700
OM2, OM2 400, OM3, OM4, OM5				12								2000

**Fibre Channel 400-M5-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM2, OM3, OM4, OM5				2.06								150

**Fibre Channel 400-M5E-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM3, OM4, OM5				2.88								380

**Fibre Channel 400-M5F-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM4, OM5				2.95								400

**Fibre Channel 400-M6-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1				1.78								70

**Fibre Channel 400-SM-LC-L**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						7.8						10000

**Fibre Channel 400-SM-LC-M**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						4.8						4000

**Fibre Channel 800-M5-SN-S**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM2, OM3, OM4, OM5				1.68								50

**Fibre Channel 800-M5E-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM3, OM4, OM5				2.04								150

**Fibre Channel 800-M5F-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM4, OM5				2.19								190

**Fibre Channel 800-SM-LC-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						2.6						1400

**Fibre Channel 800-SM-LC-L**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						6.4						10000

**GB 50312-2007 Fiber Link**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1	0.75		0.3							1	1	5000
OS2	0.75		0.3							0.4	0.4	5000
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5	0.75		0.3					3.5	1.5			2000

**GB 50312-2007 OF-2000 Ch**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1, OS2						3.5	3.5					2000
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				8.5	4.5							2000

**GB 50312-2007 OF-300 Ch**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1, OS2						1.8	1.8					300
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				2.55	1.95							300

**GB 50312-2007 OF-500 Ch**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1, OS2						2	2					500
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				3.25	2.25							500

**EN50173 Fiber Optic Link**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1	0.75		0.3							1	1	2000
OS2	0.75		0.3							0.4	0.4	10000
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5	0.75		0.3					3.5	1.5			2000

**EN50173 OF-2000 Channel**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1, OS2						3.5	3.5					2000
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				8.5	4.5							2000

**EN50173 OF-300 Channel**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						1.8	1.8					300
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				2.55	1.95							300

**EN50173 OF-500 Channel**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						2	2					500
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				3.25	2.25							500

**ISO/IEC 11801-2002 Fibre Link**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1	0.75		0.3							1	1	5000
OS2	0.75		0.3							0.4	0.4	5000
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5	0.75		0.3					3.5	1.5			2000

**ISO/IEC 11801-2002 OF-2000 CH**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						3.5	3.5					2000
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				8.5	4.5							2000

**ISO/IEC 11801-2002 OF-300 CH**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						1.8	1.8					300
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				2.55	1.95							300

**ISO/IEC 11801-2002 OF-500 CH**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						2	2					500
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				3.25	2.25							500

**ISO/IEC 14763-3:2006**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OS1	0.75	0.5	0.3							1	1	5000
OS2	0.75	0.5	0.3							0.4	0.4	5000
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5	0.75	0.3	0.3					3.5	1.5			2000

**ISO/IEC 14763-3:2014**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OS1	0.75	0.75	0.3							1	1	5000
OS2	0.75	0.75	0.3							0.4	0.4	5000
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5	0.75	0.5	0.3					3.5	1.5			2000

**JIS X5150-2004 Fibre Link**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OS1	0.75		0.3							1	1	5000
OS2	0.75		0.3							0.4	0.4	5000
OM1, OM1_160, OM2, OM2_400, OM3, OM4, OM5	0.75		0.3					3.5	1.5			2000

**JIS X5150:2021 Fibre Link**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OS1	0.75	0.75	0.3							1	1	5000
OS2	0.75	0.75	0.3							0.4	0.4	5000
OM1, OM1_160, OM2, OM2_400, OM3, OM4	0.75	0.5	0.3					3.5				2000
OM5	0.75	0.5	0.3					3				2000
OM1, OM1_160, OM2, OM2_400, OM3, OM4, OM5	0.75	0.5	0.3						1.5			2000

**JIS X5151:2018 Fibre Link**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OS1	0.75	0.75	0.3							1	1	5000
OS2	0.75	0.75	0.3							0.4	0.4	5000
OM1, OM1_160, OM2, OM2_400, OM3, OM4	0.75	0.5	0.3					3.5				2000
OM5	0.75	0.5	0.3					3				2000
OM1, OM1_160, OM2, OM2_400, OM3, OM4, OM5	0.75	0.5	0.3						1.5			2000



**Korean Fiber 11dB (2004)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						11	11					14000
OM1, OM1_160, OM2, OM2_400, OM3, OM4, OM5				11	11							3000

**Korean Fiber 12dB (2004)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						12	12					15500
OM1, OM1_160, OM2, OM2_400, OM3, OM4, OM5				12	12							3500

**Korean Emblem MMF-Outlet**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1, OM1_160, OM2, OM2_400, OM3, OM4, OM5				1.5	1.5							

**Korean Emblem MMF-Premises**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OM1, OM1_160, OM2, OM2_400, OM3, OM4, OM5				11.5	7.5							3500

**Korean Emblem SMF-Outlet**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						1.5	1.5					

**Korean Emblem SMF-Premises**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
	dB	dB	dB					dB	dB	dB	dB	m
OS1, OS2						5.5	5.5					15500

**Korean Pre-Deploy Comm SM**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km dB	1300 nm Loss/km dB	1310 nm Loss/km dB	1550 nm Loss/km dB	Length m
OS1, OS2						7	7					

**Korean Pre-Deploy Comm MM**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km dB	1300 nm Loss/km dB	1310 nm Loss/km dB	1550 nm Loss/km dB	Length m
OM1, OM1_160, OM2, OM2_400, OM3, OM4, OM5				13	9							

**Korean Pre-Deploy Res. SM**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km dB	1300 nm Loss/km dB	1310 nm Loss/km dB	1550 nm Loss/km dB	Length m
OS1, OS2						3.45	3.45					

**General Fiber Optic**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km dB	1300 nm Loss/km dB	1310 nm Loss/km dB	1550 nm Loss/km dB	Length m
OS1, OS2						6.5	6.5					5000
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				8.5	4.5							2000

**GOST R 53245-2008 Backbone**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km dB	1300 nm Loss/km dB	1310 nm Loss/km dB	1550 nm Loss/km dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5	0.75		0.3					3.5	1.5			2000

**GOST R 53245-2008 Fiber Horiz**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km dB	1300 nm Loss/km dB	1310 nm Loss/km dB	1550 nm Loss/km dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				2	2							90

**TIA-568.3-E Singlemode ISP (STD)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
OS1, OS2	0.75	0.75	0.3							1	1	40000

**TIA-568.3-E Multimode (STD)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
OM1, OM1_160, OM2, OM2_400, OM3, OM4, OM5	0.75	0.75	0.3					3	1.5			2000

**TIA-568.3-E Singlemode OSP (STD)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
OS1	0.75	0.75	0.3							0.5	0.5	40000
OS2	0.75	0.75	0.3							0.4	0.4	40000

**TIA-568.3-E Singlemode ISP (REF)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
OS1, OS2	0.75	0.5	0.3							1	1	40000

**TIA-568.3-E Multimode (REF)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
OM1, OM1_160, OM2, OM2_400, OM3, OM4, OM5	0.75	0.5	0.3					3	1.5			2000

**TIA-568.3-E Singlemode OSP (REF)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length
OS1	0.75	0.5	0.3							0.5	0.5	40000
OS2	0.75	0.5	0.3							0.4	0.4	40000

**TIA-568.3-D-1 Multimode (REF)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5	0.75	0.5	0.3					3	1.5			2000

**TIA-568.3-D-1 Multimode (STD)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
		First & Last		Fixed	Fixed	Fixed	Fixed	Loss/km	Loss/km	Loss/km	Loss/km	
				Loss	Loss	Loss	Loss					
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5	0.75	0.75	0.3					3	1.5			2000

**TIA-568.3-D-1 Singlemode ISP (REF)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1, OS2	0.75	0.5	0.3							1	1	40000

**TIA-568.3-D-1 Singlemode ISP (STD)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1, OS2	0.75	0.75	0.3							1	1	40000

**TIA-568.3-D-1 Singlemode OSP (REF)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1	0.75	0.5	0.3							0.5	0.5	40000
OS2	0.75	0.5	0.3							0.4	0.4	40000

**TIA-568.3-D-1 Singlemode OSP (STD)**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Length m
OS1	0.75	0.75	0.3							0.5	0.5	40000
OS2	0.75	0.75	0.3							0.4	0.4	40000

# OptiFiber® Pro

## Test Limits for Version 6.9 Build 2



#### 10/100BASE-SX

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				4.00									300

#### 100BASE-LX

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OS1, OS2						4.70							5000
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5					2.35								550

#### 100BASE-SX

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OM1 160				2.38									220
OM1				2.60									275
OM2 400				3.37									400
OM2, OM3, OM4, OM5				3.56									550

#### 100BASE-FX

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OM1, OM1 160					11.00								2000
OM2, OM2 400, OM3, OM4, OM5					6.30								2000

#### 100GBASE-ER4

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OS1, OS2						15.00							30000

#### 100GBASE-LR4

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OS1, OS2						6.30							10000

#### 100GBASE-SR10

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OM3				1.90									100
OM4, OM5				1.50									150

#### 100GBASE-SR4

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OM3				1.80									70
OM4, OM5				1.90									100

#### 10BASE-FL

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OM1, OM1 160				12.50									2000
OM2, OM2 400, OM3, OM4, OM5				7.80									2000

#### 10GBASE-E

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OS1, OS2							11.00						40000

#### 10GBASE-L

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OS1, OS2						6.20							10000

#### 10GBASE-LRM

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				1.90									220
OS1, OS2						1.90							220

**10GBASE-LX4**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OS1, OS2						6.30							10000
OM1					2.50								300
OM2 400					2.00								240
OM2, OM3, OM4, OM5													

**10GBASE-SR**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1 160				2.60									26
OM1				2.40									33
OM2 400				2.20									66
OM3				2.60									300
OM4, OM5				2.90									400

**40GBASE-ER4 \* Has a minimum loss requirement of 9.0 dB @ 1310 nm**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OS1, OS2						18.50							30000

**40GBASE-FR**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OS2							4.00						2000

**40GBASE-LR4**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OS1, OS2						6.70							10000

**40GBASE-SR4**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM3				1.90									100
OM4, OM5				1.50									150

**ATM155**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5					10.00								2000

**ATM155SWL**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				7.20									1000

**ATM52**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5					10.00								3000

**ATM622 Fiber Optic**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5					6.00								500

**ATM622SWL Fiber Optic**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				4.00									300

**FDDI Fiber Optic**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5					11.00								2000





[illegible]

**Fibre Channel 200-M5E-SN-I**

[illegible]

**Fibre Channel 200-M6-SN-I**

[illegible]

## Fibre Channel 200-SM-LC-L

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OS1, OS2						7.80							10000

## Fibre Channel 266

[illegible]

## Fibre Channel 266SWL

[illegible]

**Fibre Channel 400-M5-SN-I**

[illegible]

**Fibre Channel 400-M5E-SN-I**

[illegible]

**Fibre Channel 400-M5F-SN-I**

[illegible]

**Fibre Channel 400-M6-SN-I**

[illegible]

**Fibre Channel 400-SM-LC-L**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km dB	1300 nm Loss/km dB	1310 nm Loss/km dB	1550 nm Loss/km dB	Reflectance dB	Length m
OS1, OS2						7.80							10000

### Fibre Channel 400-SM-LC-M

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
OS1, OS2						4.80							4000

**Fibre Channel 800-M5-SN-S**

[illegible]

**Fibre Channel 800-M5E-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM3, OM4, OM5				2.04									150

**Fibre Channel 800-M5F-SN-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM4, OM5				2.19									190

**Fibre Channel 800-SM-LC-I**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OS1, OS2						2.60							1400

**Fibre Channel 800-SM-LC-L**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OS1, OS2						6.40							10000

**ISO/IEC 11801-2002 Fibre Link**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5	0.75		0.30										2000
OS1, OS2	0.75		0.30										5000

**ISO/IEC 11801-2002 OF-2000 CH**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				8.50	4.50								2000
OS1, OS2						3.50	3.50						2000

**ISO/IEC 11801-2002 OF-300 CH**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				2.55	1.95								300
OS1, OS2						1.80	1.80						300

**ISO/IEC 11801-2002 OF-500 CH**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5				3.25	2.25								500
OS1, OS2						2.00	2.00						500

**ISO/IEC 11801-2010**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5	0.75	0.30	0.30					3.50	1.50			-20.00	2000
OS1	0.75	0.50	0.30							1.00	1.00	-35.00	5000
OS2	0.75	0.50	0.30							0.40	0.40	-35.00	5000

**ISO/IEC 11801-2010 no RL**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5	0.75	0.30	0.30					3.50	1.50				2000
OS1	0.75	0.50	0.30							1.00	1.00		5000
OS2	0.75	0.50	0.30							0.40	0.40		5000

**ISO/IEC 14763-3**

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM5	0.75	0.30	0.30					3.50	1.50				2000
OS1	0.75	0.50	0.30							1.00	1.00		5000
OS2	0.75	0.50	0.30							0.40	0.40		5000

**ISO/IEC 14763-3 Permanent Link**

Cable Type	Adapter Loss dB	Adapter Loss First & Last dB	Splice Loss dB	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OS1, OS2		0.30						3.50	1.50				2000
OS1		0.50								1.00	1.00		5000
OS2		0.50								0.40	0.40		5000

**ISO/IEC 14763-3:2014**

Cable Type	Adapter Loss dB	Adapter Loss First & Last dB	Splice Loss dB	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OS1, OS2	0.75	0.50	0.30					3.50	1.50				2000
OS1	0.75	0.75	0.30							1.00	1.00		5000
OS2	0.75	0.75	0.30							0.40	0.40		5000

**ISO/IEC 14763-3:2014 Permanent Link**

Cable Type	Adapter Loss dB	Adapter Loss First & Last dB	Splice Loss dB	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OS1, OS2		0.50						3.50	1.50				2000
OS1		0.75								1.00	1.00		5000
OS2		0.75								0.40	0.40		5000

**JIS X5150-2004 Fibre Link**

Cable Type	Adapter Loss dB	Adapter Loss First & Last dB	Splice Loss dB	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OS1, OS2	0.75		0.30										2000
OS1, OS2	0.75		0.30										5000

**JIS X5155:2016 Fibre Link**

Cable Type	Adapter Loss dB	Adapter Loss First & Last dB	Splice Loss dB	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OS1, OS2	0.75	0.50	0.30					3.50	1.50				2000
OS1	0.75	0.75	0.30							1.00	1.00		5000
OS2	0.75	0.75	0.30							0.40	0.40		5000

**JIS X5155:2016 Fibre Link RL = 20 dB**

Cable Type	Adapter Loss dB	Adapter Loss First & Last dB	Splice Loss dB	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OS1, OS2	0.75	0.50	0.30					3.50	1.50			-20.00	2000
OS1	0.75	0.75	0.30							1.00	1.00	-20.00	5000
OS2	0.75	0.75	0.30							0.40	0.40	-20.00	5000

**JIS X5155:2016 Fibre Link RL = 35 dB**

Cable Type	Adapter Loss dB	Adapter Loss First & Last dB	Splice Loss dB	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OS1, OS2	0.75	0.50	0.30					3.50	1.50			-35.00	3500
OS1	0.75	0.75	0.30							1.00	1.00	-35.00	5000
OS2	0.75	0.75	0.30							0.40	0.40	-35.00	5000

**JIS X5155:2016 Fibre Link RL = 55 dB**

Cable Type	Adapter Loss dB	Adapter Loss First & Last dB	Splice Loss dB	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OS1, OS2	0.75	0.50	0.30					3.50	1.50			-55.00	5500
OS1	0.75	0.75	0.30							1.00	1.00	-55.00	5000
OS2	0.75	0.75	0.30							0.40	0.40	-55.00	5000

**JIS X5150:2016 OF-2000 CH**

Cable Type	Adapter Loss dB	Adapter Loss First & Last dB	Splice Loss dB	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OS1, OS2				8.50	4.50								2000
OS1, OS2						3.50	3.50						2000

**JIS X5150:2016 OF-300 CH**

Cable Type	Adapter Loss dB	Adapter Loss First & Last dB	Splice Loss dB	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OS1, OS2				2.55	1.95								300
OS1, OS2						1.80	1.80						300

**JIS X5150:2016 OF-500 CH**

Cable Type	Adapter Loss dB	Adapter Loss First & Last dB	Splice Loss dB	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OS1, OS2				3.25	2.25								500
OS1, OS2						2.00	2.00						500

[illegible]

## General Fiber

[illegible]

### General Fiber RL -35dB

[illegible]

### General Fiber RL -40dB

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance dB	Length m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM4.5, OM5, OM5.5, OM5.6, OM5.8, OM5.9, OM6, OM6.5, OM6.6, OM6.8, OM6.9, OM7, OM7.5, OM7.6, OM7.8, OM7.9, OM8, OM8.5, OM8.6, OM8.8, OM8.9, OM9, OM9.5, OM9.6, OM9.8, OM9.9, OM10, OM10.5, OM10.6, OM10.8, OM10.9, OM11, OM11.5, OM11.6, OM11.8, OM11.9, OM12, OM12.5, OM12.6, OM12.8, OM12.9, OM13, OM13.5, OM13.6, OM13.8, OM13.9, OM14, OM14.5, OM14.6, OM14.8, OM14.9, OM15, OM15.5, OM15.6, OM15.8, OM15.9, OM16, OM16.5, OM16.6, OM16.8, OM16.9, OM17, OM17.5, OM17.6, OM17.8, OM17.9, OM18, OM18.5, OM18.6, OM18.8, OM18.9, OM19, OM19.5, OM19.6, OM19.8, OM19.9, OM20, OM20.5, OM20.6, OM20.8, OM20.9, OM21, OM21.5, OM21.6, OM21.8, OM21.9, OM22, OM22.5, OM22.6, OM22.8, OM22.9, OM23, OM23.5, OM23.6, OM23.8, OM23.9, OM24, OM24.5, OM24.6, OM24.8, OM24.9, OM25, OM25.5, OM25.6, OM25.8, OM25.9, OM26, OM26.5, OM26.6, OM26.8, OM26.9, OM27, OM27.5, OM27.6, OM27.8, OM27.9, OM28, OM28.5, OM28.6, OM28.8, OM28.9, OM29, OM29.5, OM29.6, OM29.8, OM29.9, OM30, OM30.5, OM30.6, OM30.8, 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OM108.6, OM108.8, OM108.9, OM109, OM109.5, OM109.6, OM109.8, OM109.9, OM110, OM110.5, OM110.6, OM110.8, OM110.9, OM111, OM111.5, OM111.6, OM111.8, OM111.9, OM112, OM112.5, OM112.6, OM112.8, OM112.9, OM113, OM113.5, OM113.6, OM113.8, OM113.9, OM114, OM114.5, OM114.6, OM114.8, OM114.9, OM115, OM115.5, OM115.6, OM115.8, OM115.9, OM116, OM116.5, OM116.6, OM116.8, OM116.9, OM117, OM117.5, OM117.6, OM117.8, OM117.9, OM118, OM118.5, OM118.6, OM118.8, OM118.9, OM119, OM119.5, OM119.6, OM119.8, OM119.9, OM120, OM120.5, OM120.6, OM120.8, OM120.9, OM121, OM121.5, OM121.6, OM121.8, OM121.9, OM122, OM122.5, OM122.6, OM122.8, OM122.9, OM123, OM123.5, OM123.6, OM123.8, OM123.9, OM124, OM124.5, OM124.6, OM124.8, OM124.9, OM125, OM125.5, OM125.6, OM125.8, OM125.9, OM126, OM126.5, OM126.6, OM126.8, OM126.9, OM127, OM127.5, OM127.6, OM127.8, OM127.9, OM128, OM128.5, OM128.6, OM128.8, OM128.9, OM129, OM129.5, OM129.6, OM129.8, OM129.9, OM130, OM130.5, OM130.6, OM130.8, OM130.9, OM131, OM131.5, OM131.6, OM131.8, OM131.9, OM132, OM132.5, OM132.6, OM132.8, OM132.9, OM133, OM133.5, OM133.6, OM133.8, OM133.9, OM134, OM134.5, OM134.6, OM134.8, OM134.9, OM135, OM135.5, OM135.6, OM135.8, OM135.9, OM136, OM136.5, OM136.6, OM136.8,													

### General Fiber RL -55dB

[illegible]

**ANSI/TIA-568.3-D**

[illegible]

## ANSI/TIA-568.3-D RL = 20 dB

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB					dB	dB	dB	dB	dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM4.5	0.75		0.30									-20.00	2000.00
OS1, OS2	0.75		0.30									-20.00	40000.00

## ANSI/TIA-568.3-D RL = 35 dB

Cable Type	Adapter Loss	Adapter Loss First & Last	Splice Loss	850 nm Fixed Loss dB	1300 nm Fixed Loss dB	1310 nm Fixed Loss dB	1550 nm Fixed Loss dB	850 nm Loss/km	1300 nm Loss/km	1310 nm Loss/km	1550 nm Loss/km	Reflectance	Length
	dB	dB	dB									dB	m
OM1, OM1 160, OM2, OM2 400, OM3, OM4, OM4.5	0.75		0.30									-35.00	2000.00
OS1, OS2	0.75		0.30									-35.00	40000.00

**ANSI/TIA-568.3-D RL = 55 dB**

[illegible]

# OptiFiber Pro HDR OTDR Module

## Test Limits for Version 6.9 Build 2



FLUKE  
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## Fiber PON OTDR Limit Lines

ITU-T G.671 Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1310, 1490, 1550, 1625					0.50	0.30	-35.00	-40.00	1x2:4.5 1x4:7.9 1x8:11.2 1x16:14.7 1x32:18.1 1x64:21.5 2x2:4.8 2x4:8.3 2x8:11.8 2x16:15.3 2x32:18.8 2x64:22.3

G-PON Class A Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1310, 1490, 1550	20000.00	20.00	5.00	32.00			-35.00		

G-PON Class B Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1310, 1490, 1550	20000.00	25.00	10.00	32.00			-35.00		

G-PON Class C Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1310, 1490, 1550	20000.00	30.00	15.00	32.00			-35.00		

B-PON Class A Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1310, 1490, 1550	20000.00	20.00	5.00	32.00			-35.00		

B-PON Class B Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1310, 1490, 1550	20000.00	25.00	10.00	32.00			-35.00		

B-PON Class C Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1310, 1490, 1550	20000.00	30.00	15.00	32.00			-35.00		

1000BASE-PX10-U Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1310.00	10000.00	20.00	5.00	20.00			-26.00		

1000BASE-PX10-D Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1490.00	10000.00	19.50	5.00	20.00			-26.00		

1000BASE-PX20-U Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1310.00	20000.00	24.00	10.00	20.00			-26.00		

1000BASE-PX20-D Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1490.00	20000.00	23.50	10.00	20.00			-26.00		

1000BASE-PX30-U Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1310.00	20000.00	29.00	15.00	20.00			-26.00		

1000BASE-PX30-D Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1490.00	20000.00	29.00	15.00	20.00			-26.00		

1000BASE-PX40-U Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1310.00	20000.00	33.00	18.00	20.00			-26.00		

1000BASE-PX40-D Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1490.00	20000.00	33.00	18.00	20.00			-26.00		

General PON RL = 55 dB Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1310, 1490, 1550, 1625					0.50	0.30	-55.00		1x2:4.5 1x4:8.0 1x8:11.2 1x16:14.7 1x32:18.1 1x64:21.5 1x128:25.1 1x256:28.6 2x2:4.8 2x4:8.3 2x8:11.8 2x16:15.3

General PON RL = 40 dB Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB
OS1, OS2	1310, 1490, 1550, 1625					0.50	0.30	-40.00		1x2:4.5 1x4:8.0 1x8:11.2 1x16:14.7 1x32:18.1 1x64:21.5 1x128:25.1 1x256:28.6 2x2:4.8 2x4:8.3 2x8:11.8 2x16:15.3

Document PON Cable Type	Wavelengths	Length m	Max Overall Loss dB	Min Overall Loss dB	Optical Return Loss dB	Adapter Loss dB	Splice Loss dB	Reflectance dB	Splitter Reflectance dB	Splitter Loss dB

Document PON contains no limits, all values will be reported as "information" only. The Test Summary will be "N/A", not pass or fail



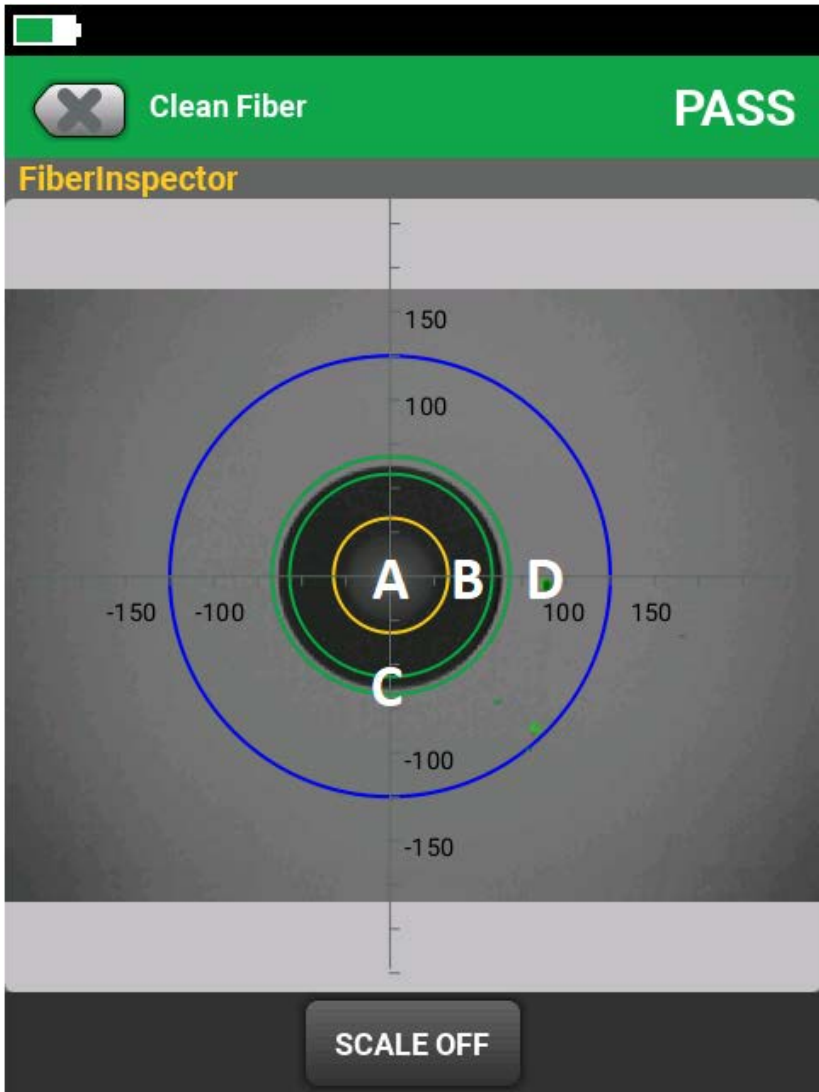


# Fiber Inspection for the FI-1000 & FI-3000 Cameras

## Test Limits for Version 6.9 Build 2

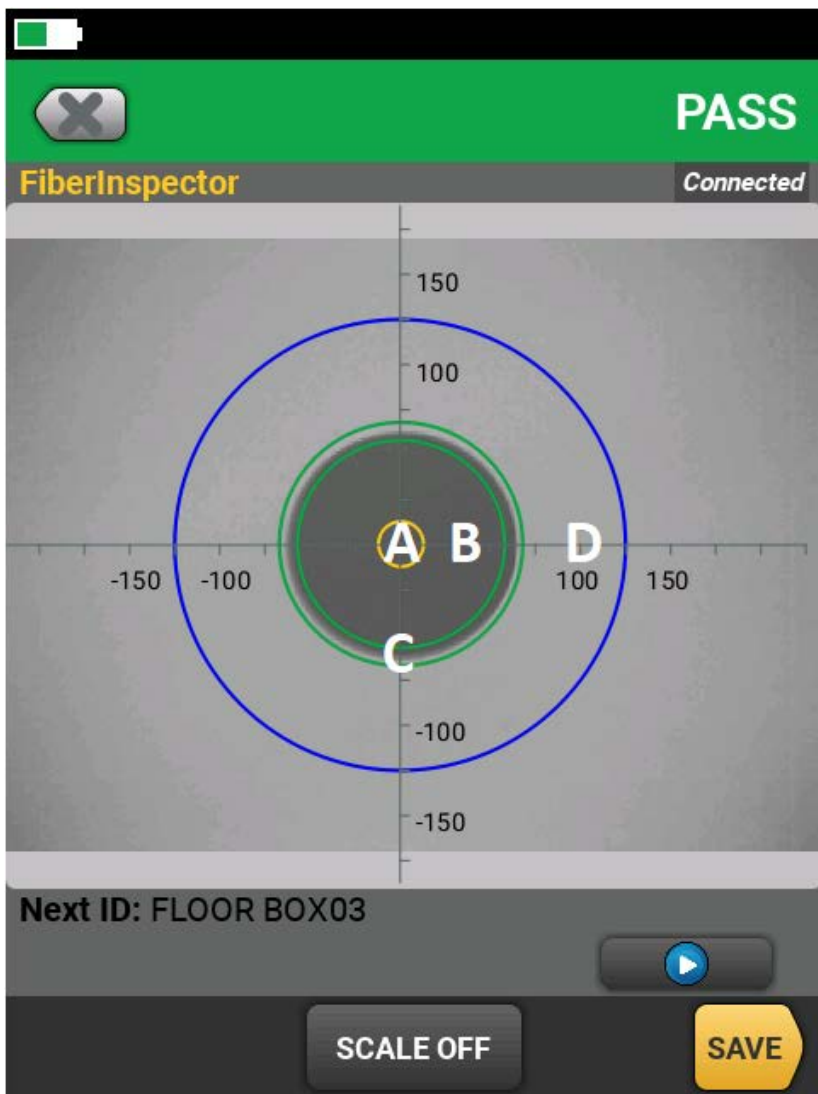






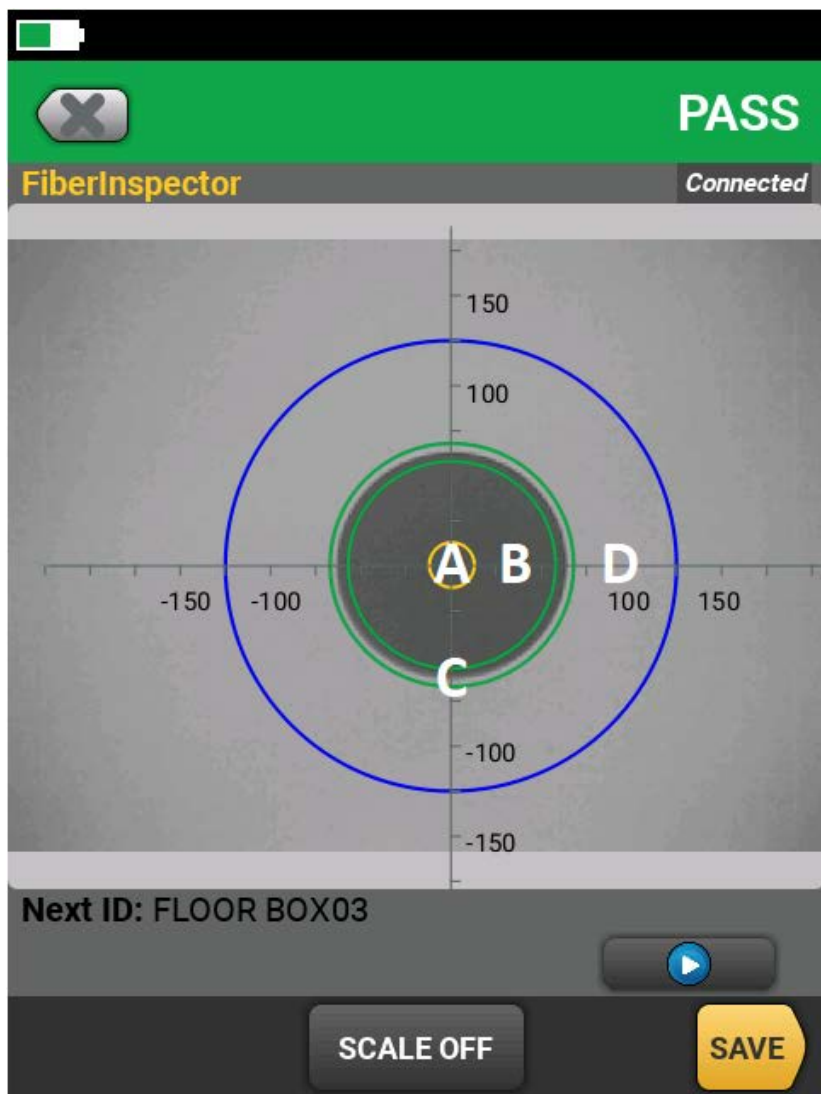
# IEC 61300-3-35 ED.2 MM

Zone Name	Scratches	Defects
A: Core (0-65µm)	No Limit $\leq 3 \mu\text{m}$ None $> 3 \mu\text{m}$	$4 \leq 5 \mu\text{m}$ None $> 5 \mu\text{m}$
B: Cladding (65-115µm)	No Limit $\leq 5 \mu\text{m}$ None $> 5 \mu\text{m}$	No Limit $< 5 \mu\text{m}$ 5 From 5 - 10 µm None $> 10 \mu\text{m}$
C: Adhesive	No Limit	No Limit
D: Contact (135-250 µm)	No Limit	No Limit $< 20 \mu\text{m}$ $5 \leq 30 \mu\text{m}$ None $> 30 \mu\text{m}$



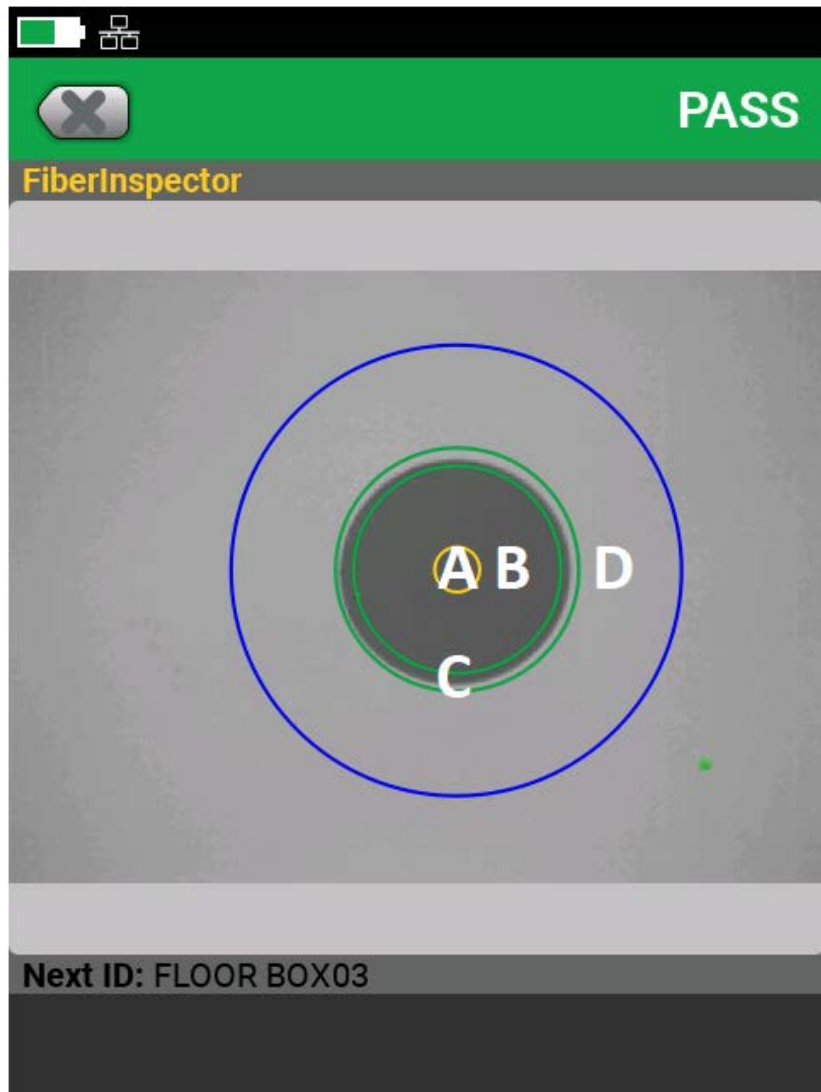
## ***IEC 61300-3-35 ED.2 RL $\geq$ 45 dB***

Zone Name	Scratches	Defects
A: Core (0-25 $\mu$ m)	None	None
B: Cladding (25-115 $\mu$ m)	No Limit $\leq$ 3 $\mu$ m None > 3 $\mu$ m	No Limit < 2 $\mu$ m 5 From 2 - 5 $\mu$ m None > 5 $\mu$ m
C: Adhesive	No Limit	No Limit
D: Contact (135-250 $\mu$ m)	No Limit	No Limit $\leq$ 10 $\mu$ m None > 10 $\mu$ m



## IEC 61300-3-35 ED.2 $RL \geq 26$ dB

Zone Name	Scratches	Defects
A: Core (0-25 $\mu$ m)	$2 \leq 3 \mu\text{m}$ None $> 3 \mu\text{m}$	None
B: Cladding (25-115 $\mu$ m)	No Limit $\leq 3 \mu\text{m}$ $3 > 3 \mu\text{m}$	No Limit $< 5 \mu\text{m}$ 5 From 5 - 10 $\mu\text{m}$ None $> 10 \mu\text{m}$
C: Adhesive	No Limit	No Limit
D: Contact (135-250 $\mu$ m)	No Limit	No Limit $< 20 \mu\text{m}$ 5 From 20 - 30 $\mu\text{m}$ None $> 30 \mu\text{m}$



## ***IEC 61300-3-35 ED.2 SM APC***

Zone Name	Scratches	Defects
A: Core (0-25μm)	$4 \leq 3 \mu\text{m}$ None $> 3 \mu\text{m}$	None
B: Cladding (25-115μm)	No Limit	No Limit $< 2 \mu\text{m}$ 5 from 2 - 5 $\mu\text{m}$ None $> 5 \mu\text{m}$
C: Adhesive	No Limit	No Limit
D: Contact (135-250 $\mu\text{m}$ )	No Limit	No Limit $< 10 \mu\text{m}$ None $> 10 \mu\text{m}$