

PROJECT:	ETX CARRIER BOARD
PART NUMBER:	1000023
ASSEMBLY NAME:	MINI ITX
SCHEMATICS:	KL, MS, CM
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7	PC104, ISA
8	POWER SUPPLIES
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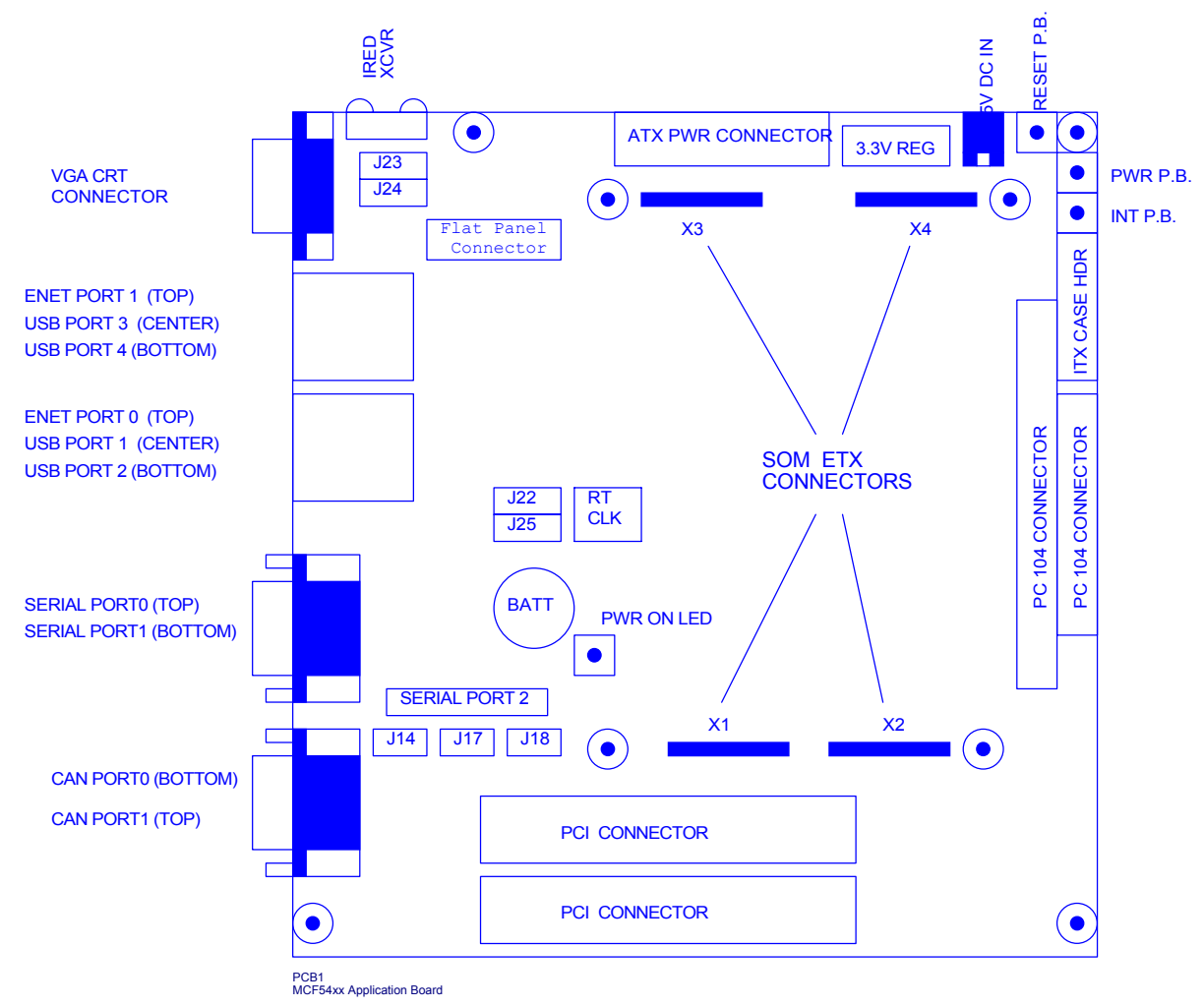
**COLOR LEGEND**

**NOTE:**  
NOTES IN GREEN TEXT ARE GENERAL DESIGN OR SCHEMATIC NOTES

**LAYOUT NOTE:**  
NOTES IN RED TEXT ARE PCB LAYOUT RECOMMENDATIONS OR GUIDELINES

**NET NAMES**  
NET NAMES IN GREEN TEXT ARE NETS THAT ARE NOT DIRECTLY CONNECTED WITH A VISIBLE WIRE ON SINGLE SCHEMATIC PAGE, BUT USE THIS CONVENTION TO MAKE THE SCHEMATIC EASIER TO READ

**NET NOTE**  
NET NOTES IN BLACK TEXT INDICATE A PARTICULAR FUNCTIONALITY OF A SPECIFIC NET, IT IS NOT A NET NAME MERELY TEXT AND HAS NO AFFECT ON THE DRC.



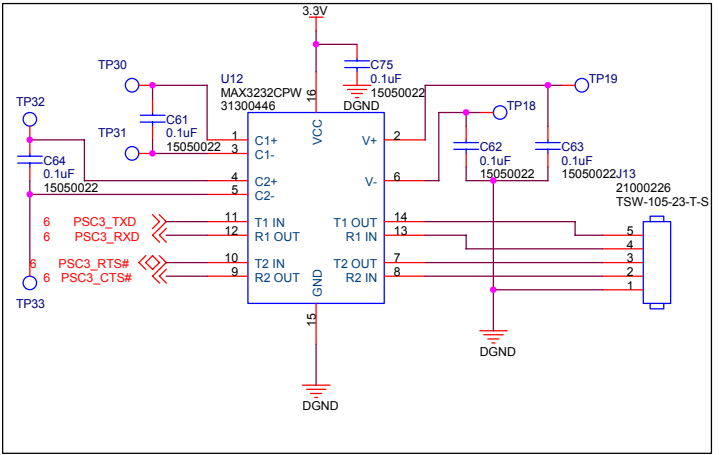
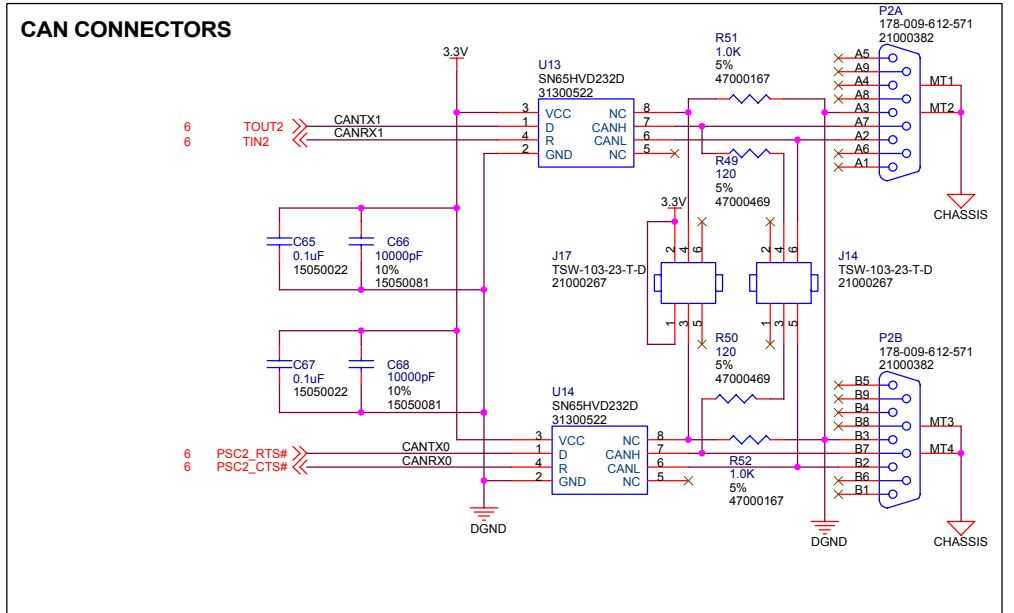
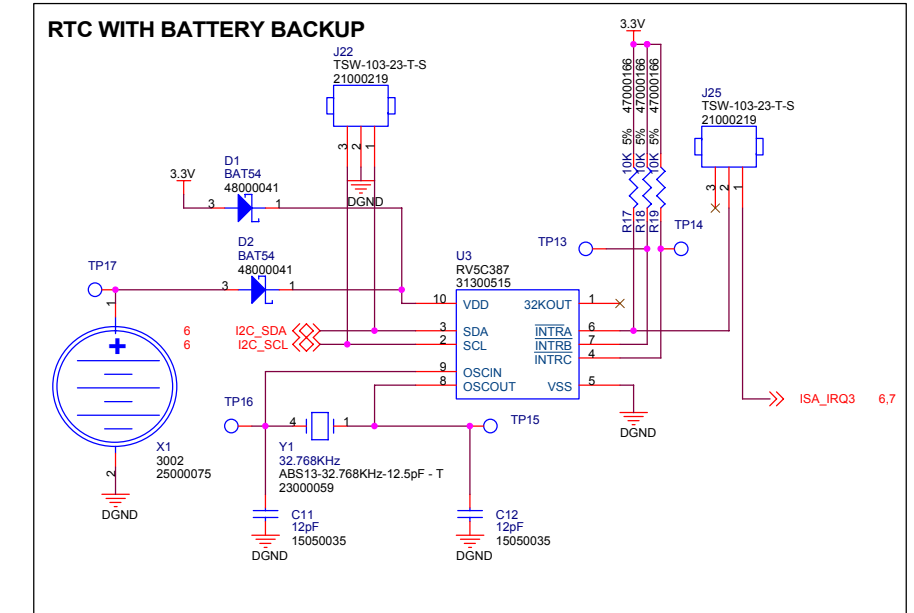
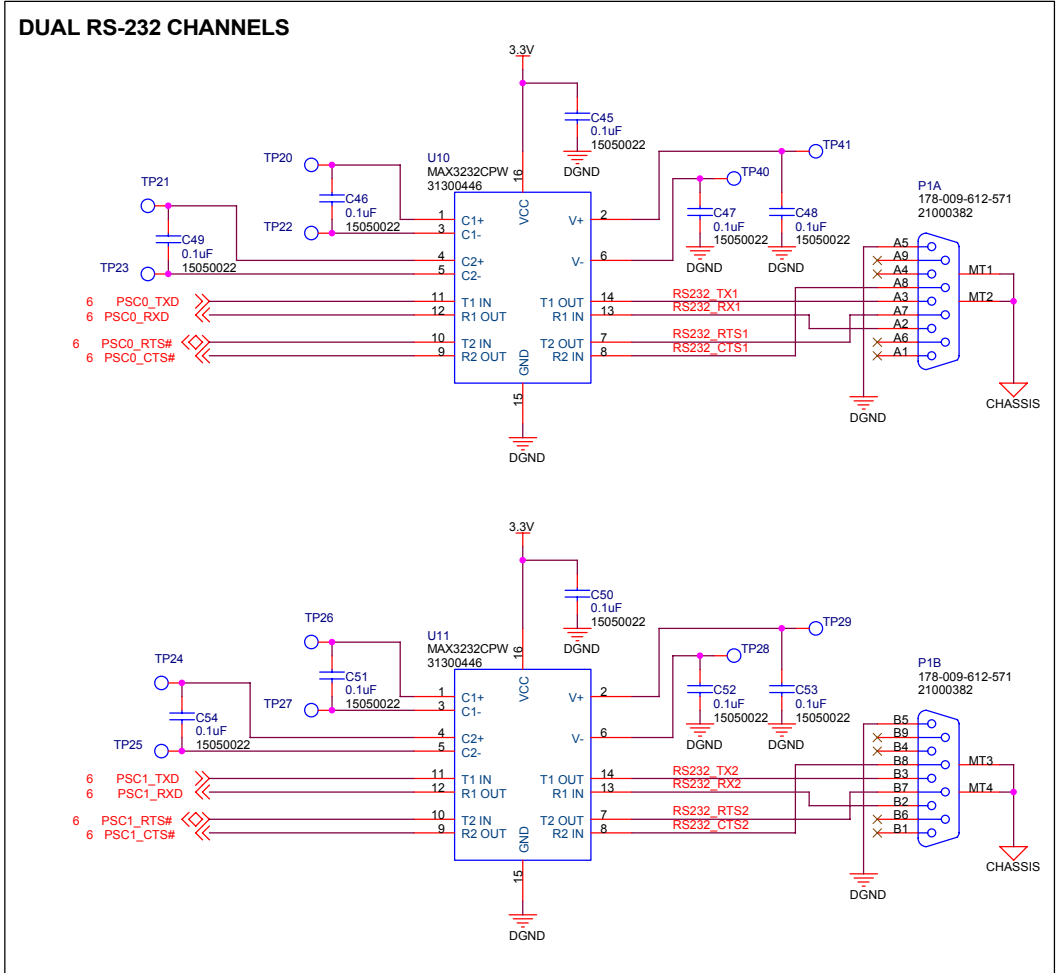
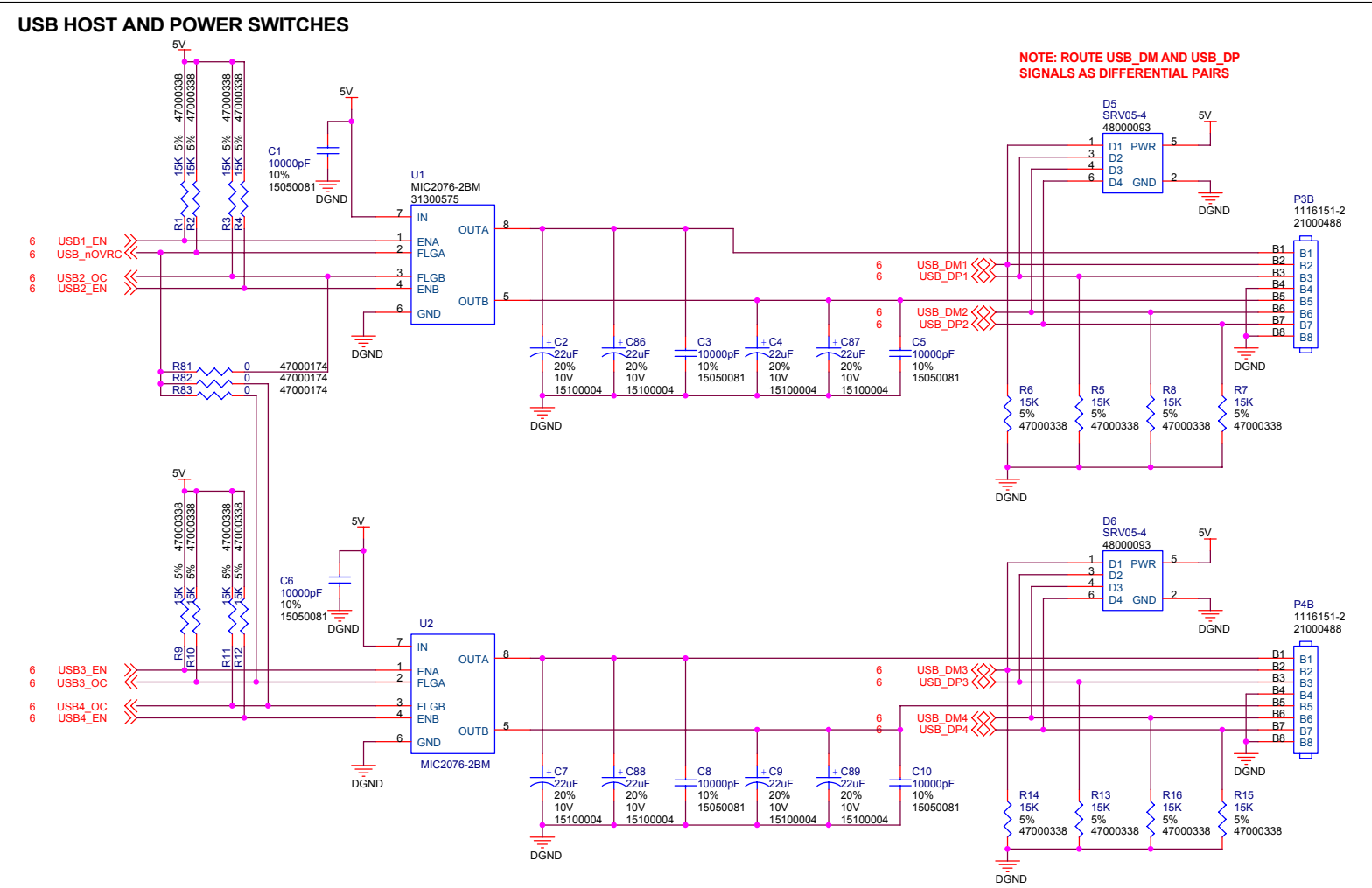
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REV A01 -> B  
1) FIXED X1, X2, X3, AND X4 IN BLOCK DIAGRAM  
Schematic Modify Date = Thursday, June 02, 2005

	<b>LOGIC</b> <b>PRODUCT DEVELOPMENT</b>		411 WASHINGTON AVE. N MINNEAPOLIS, MN 55401 PHONE: (612) 672-9495 FAX: (612) 672-9489
	Title ITX Fire Engine, Block Diagram		
Size C	Number 1000023	Rev C	
Date Friday, February 20, 2004	Project MOT-ITX	Sheet 1 Of 8	

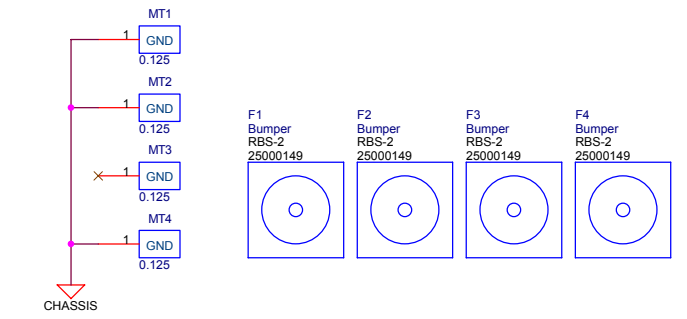
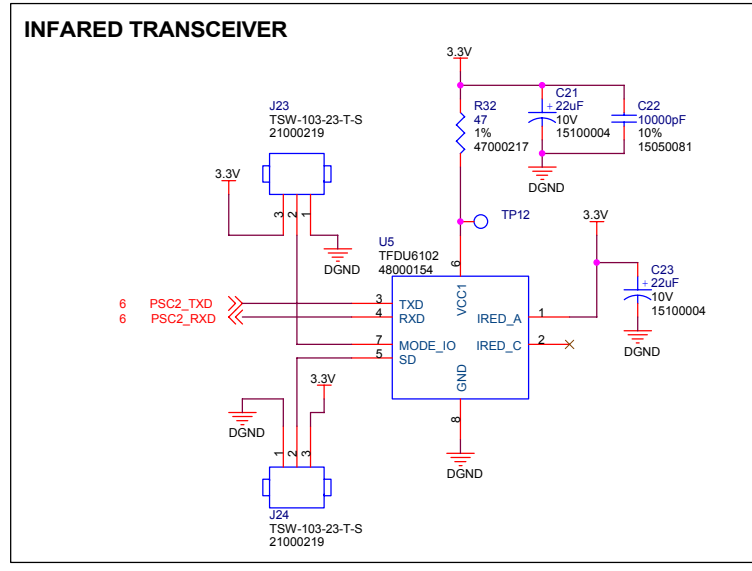
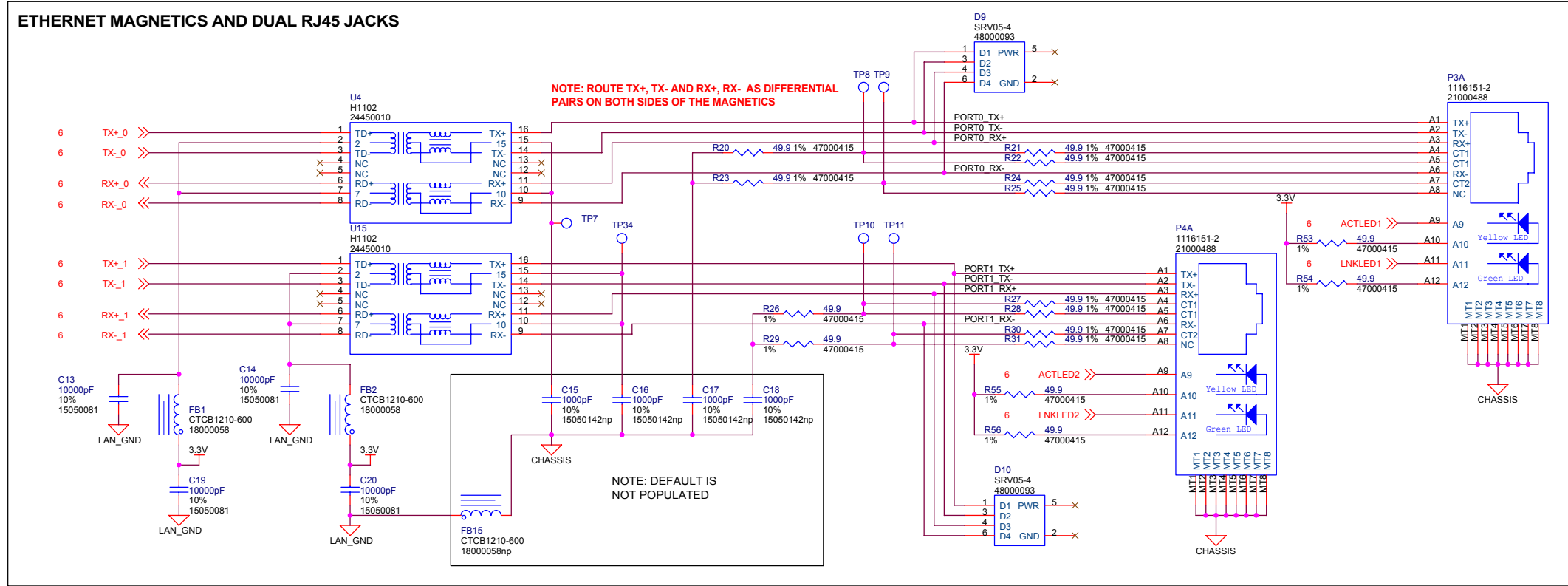
# 02 - USB, RTC, SERIAL, CAN



- REV B -> C  
 1) SWAPPED CANTX0/CANRX0 WITH CANTX1/CANRX1
- REV 201 -> A01  
 1) REMOVED J18  
 2) CHANGED U12 FROM PSC2 TO PSC3  
 3) CHANGED R49 and R50 to 120 ohms
- REV 101 -> 201  
 1) ADDED R81 - R83  
 2) CHANGED R17, R18, R19 TO 47000166  
 3) SWAPPED TIN2 AND TOUT2 SIGNALS ON U13  
 4) CHANGED C2, C4, C7, C9 TO 15100004  
 5) ADDED C86, C87, C88, C89  
 6) CHANGED X1 TO 25000075

Schematic Modify Date = Thursday, June 02, 2005

		411 WASHINGTON AVE. N MINNEAPOLIS, MN 55401 PHONE: (612) 672-9495 FAX: (612) 672-9489
		Title ITX Fire Engine, USB, RTC, SERIAL, CAN Size C Number 1000023 Rev C Date Wednesday, February 18, 2004 Project MOT-ITX Sheet 2 Of 8



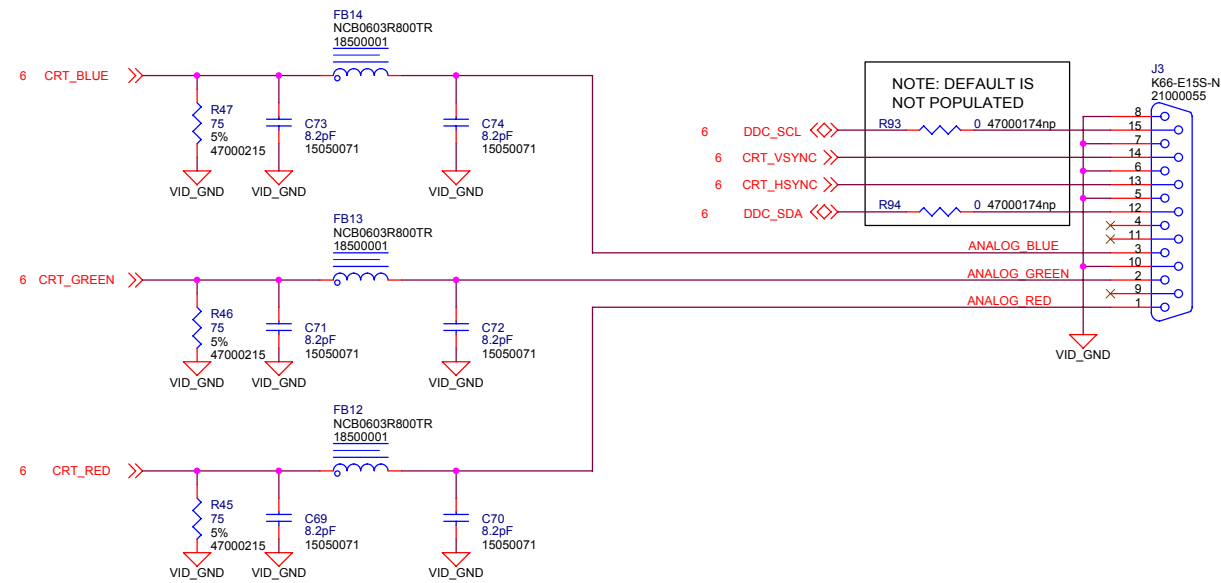
REV 201 -> A01  
 1) CHANGED U5 IRDA FROM PSC3 TO PSC2  
 2) CHANGED F1-F4 TO 25000149  
 3) CHANGED R21-R31 AND R53-R56 FROM 47000174 TO 47000415

REV 101 -> 201  
 1) ROTATED MAGNETICS U34, U15 180 DEGREES  
 2) REMOVED GROUND FROM U5 PIN 2  
 3) CHANGED C21, C23 TO 15150004  
 4) REMOVED C15, C16, C17, C18

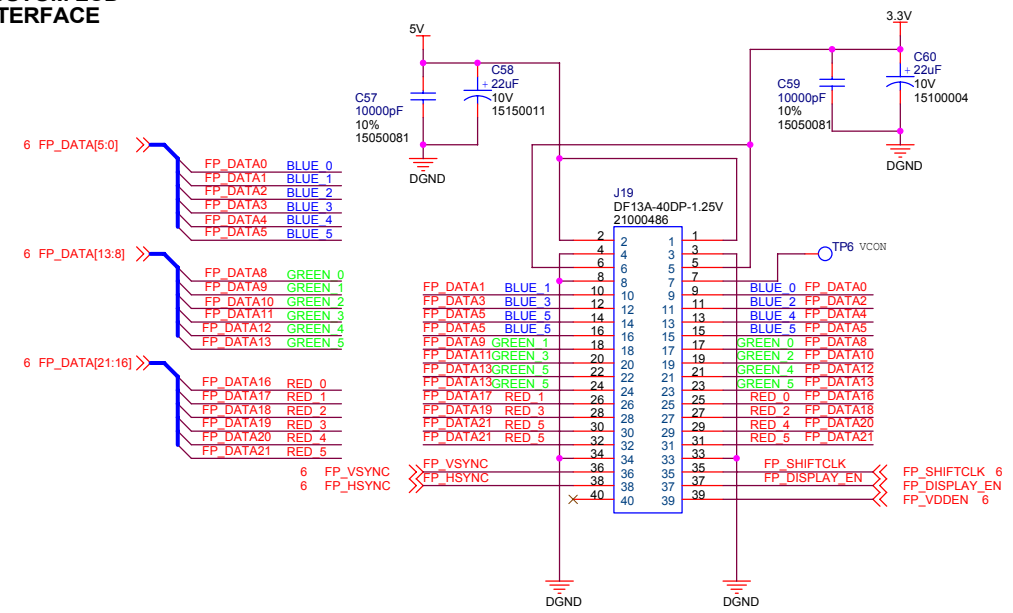
Schematic Modify Date = Thursday, June 02, 2005

<b>LOGIC</b>		411 WASHINGTON AVE. N MINNEAPOLIS, MN 55401 PHONE: (612) 672-9495 FAX: (612) 672-9489
Title ITX Fire Engine, Ethernet, IR		
Size C	Number 1000023	Rev C
Date Wednesday, February 18, 2004	Project MOT-ITX	Sheet 3 Of 8

VGA INTERFACE



CUSTOM LCD INTERFACE



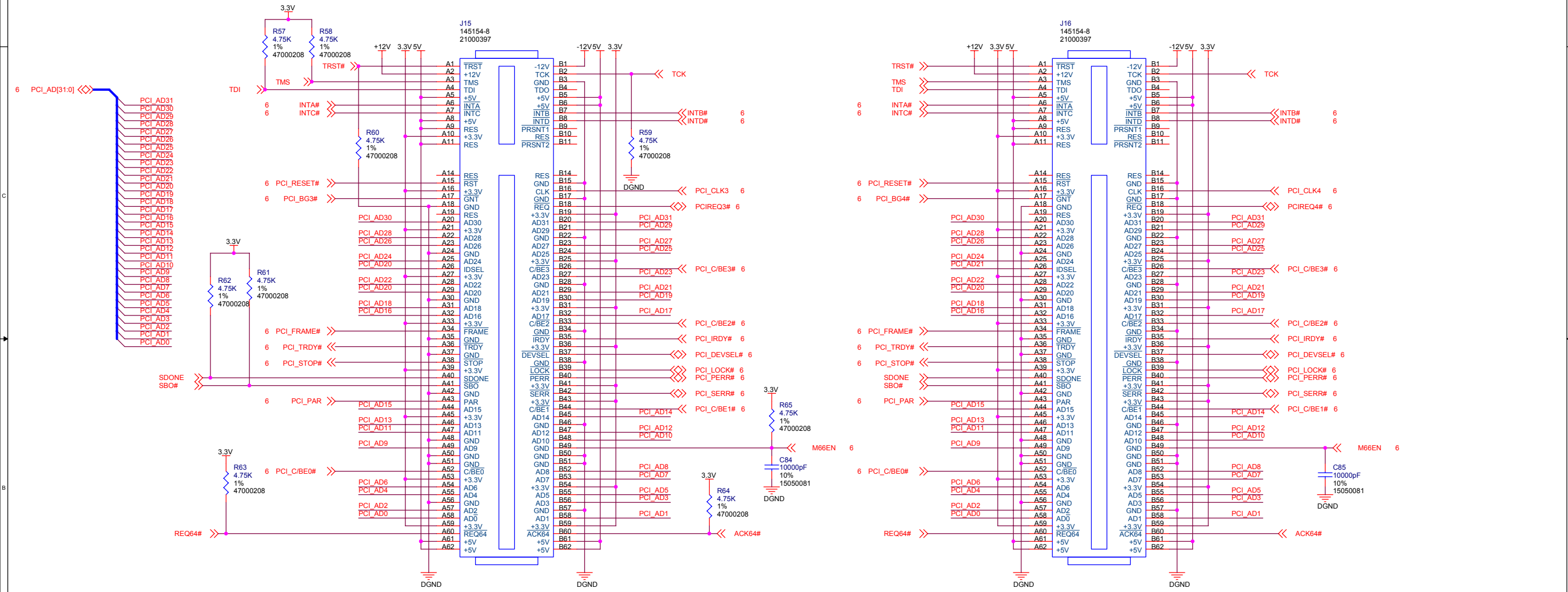
REV 201 -> A01  
 1) REMOVED PANEL LINK TRANSMITTER AND DVI INTERFACE AND REPLACED WITH CRT INTERFACE ONLY

REV 101 -> 201  
 1) CHANGE U8, U9 TO JP1, JP2  
 2) CHANGED C28, C33, C37, C41, C56, C58, C60 TO 15150011

Schematic Modify Date = Thursday, June 02, 2005

		<b>LOGIC</b> PRODUCT DEVELOPMENT		411 WASHINGTON AVE. N MINNEAPOLIS, MN 55401 PHONE: (612) 672-9495 FAX: (612) 672-9489	
		Title ITX Fire Engine, DVI Interface			
Size	C	Number	1000023	Rev	C
Date	Wednesday, February 18, 2004	Project	MOT-ITX	Sheet	4 Of 8

# 05 - PCI SLOTS



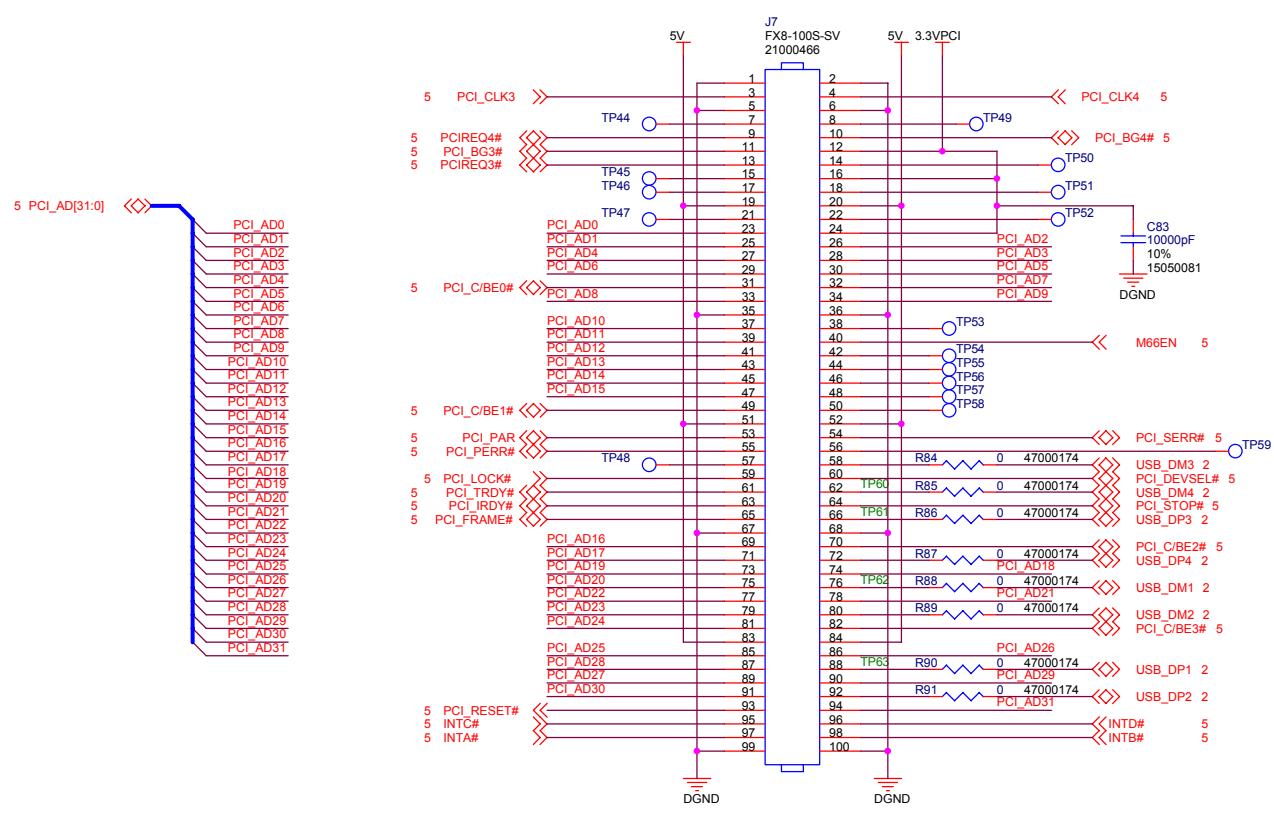
REV 101 -> 201  
 1) CHANGED IDSEL TO AD20 ON J15, AD21 ON J16  
 2) ADDED INTB#, INTC#, INTD# TO BOTH SLOTS

Schematic Modify Date = Thursday, June 02, 2005

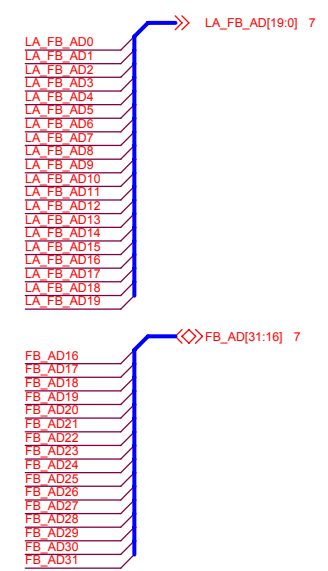
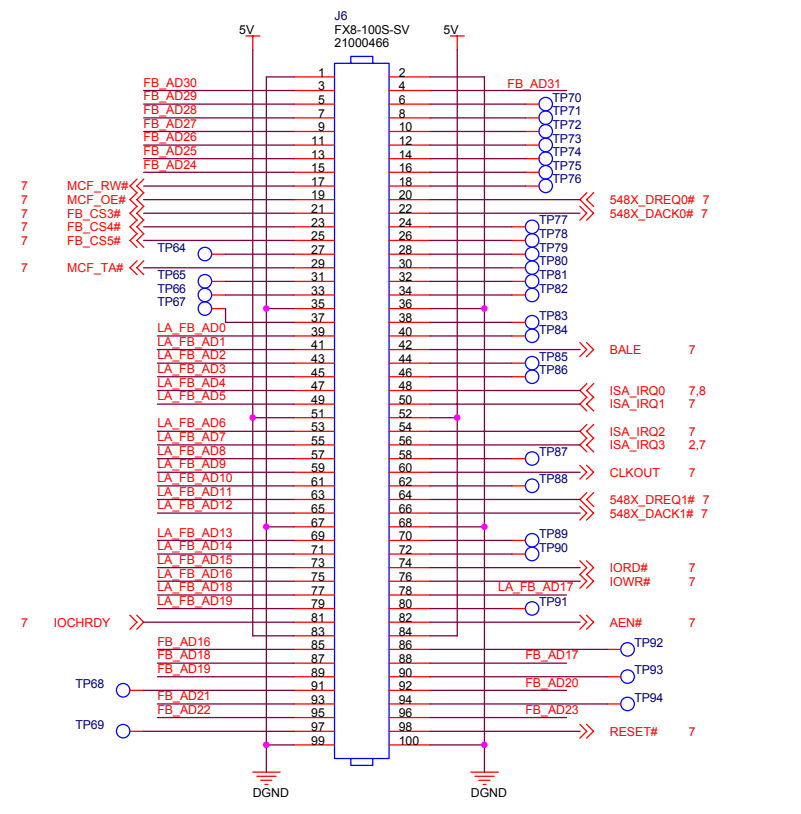
<b>LOGIC</b>		411 WASHINGTON AVE. N MINNEAPOLIS, MN 55401 PHONE: (612) 672-9495 FAX: (612) 672-9489	
Title ITX Fire Engine, PCI Slots 1,2			
Size C	Number 1000023	Project MOT-ITX	Rev C
Date Wednesday, February 18, 2004	1	Sheet 5	Of 8

# 06 - ETX CONNECTORS

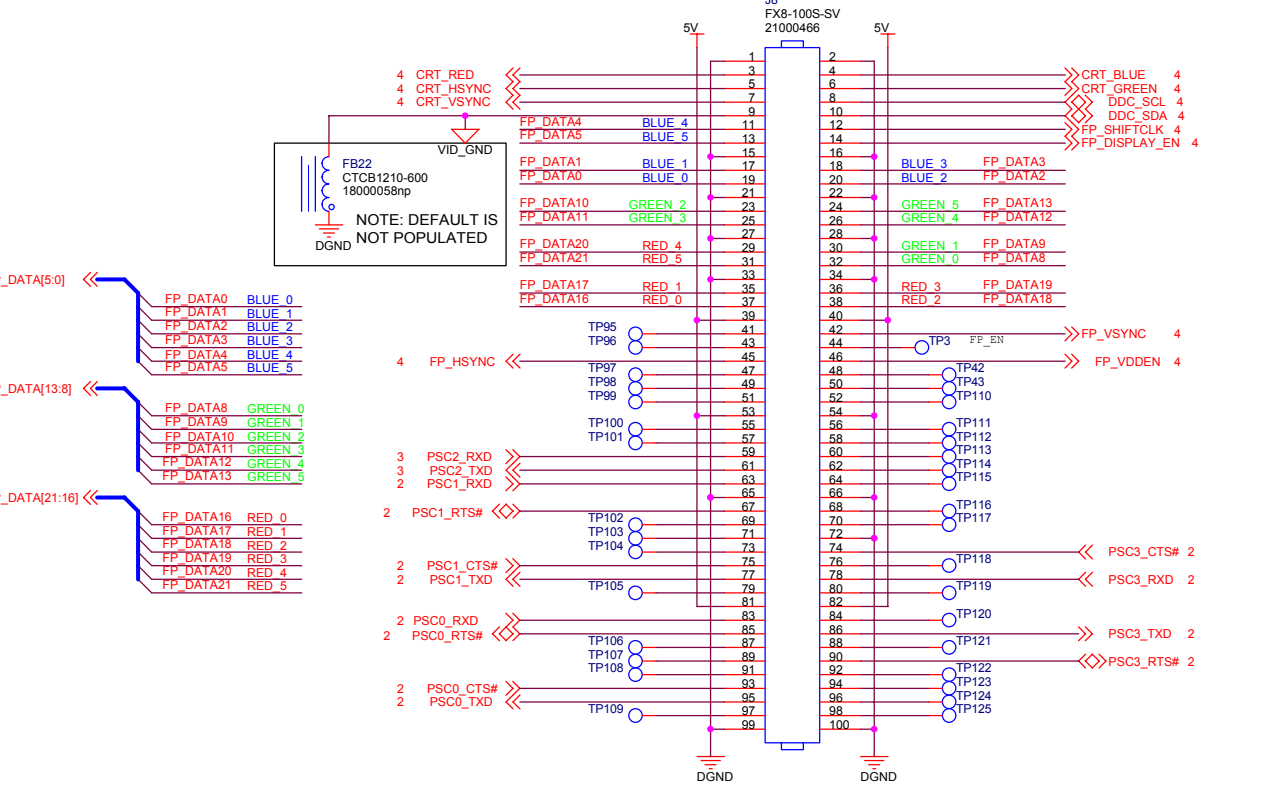
**X1**



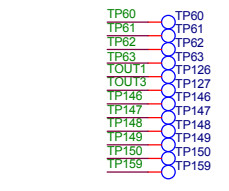
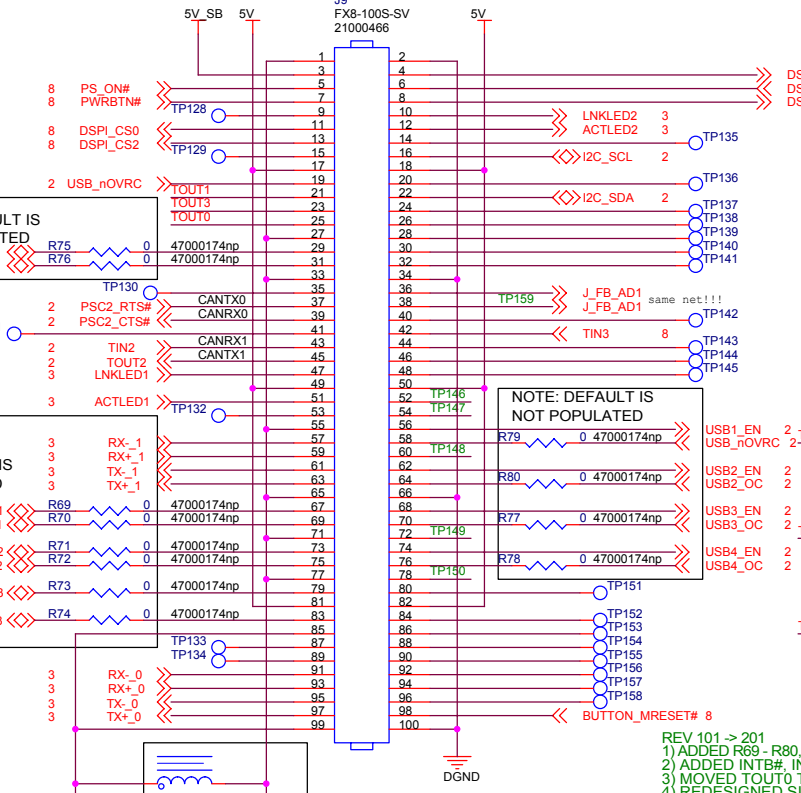
**X2**



**X3**



**X4**



NOTE: DEFAULT IS NOT POPULATED

NOTE: DEFAULT IS NOT POPULATED

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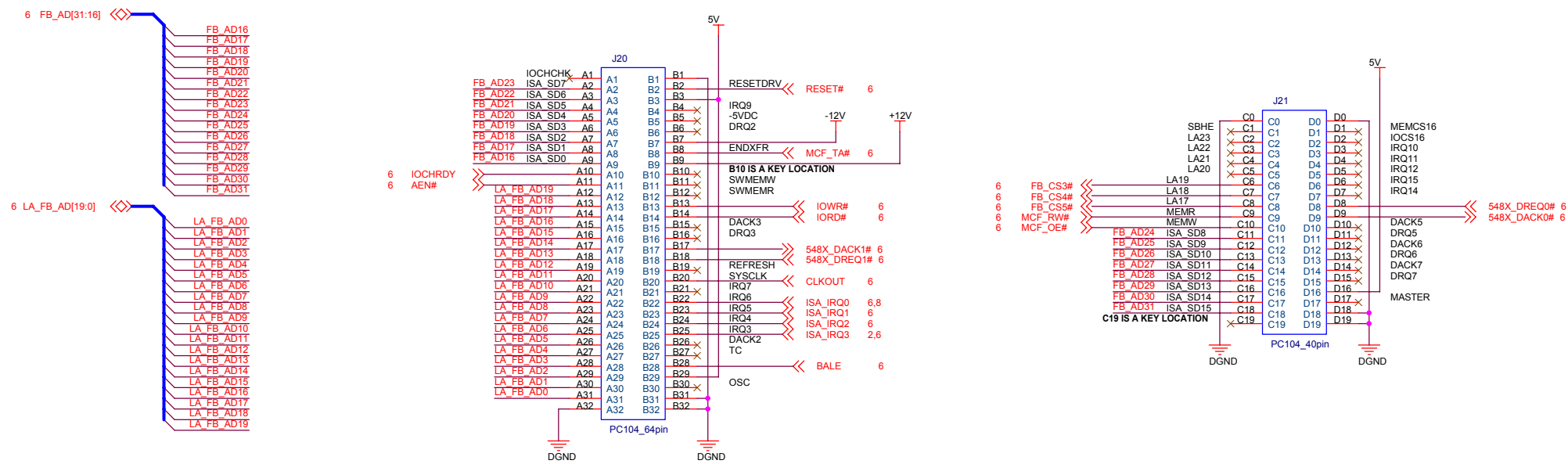
- REV 101 -> 201  
 1) ADDED R69 - R80, R84 - R91  
 2) ADDED INTB#, INTCA#, INTD# TO J6  
 3) MOVED TOUT0 TO J9 PIN 25  
 4) REDESIGNED SIGNAL PINOUT FOR LCD INTERFACE TO MATCH ETX SPEC

- 5) MOVED J26 TO POWER PAGE  
 6) REDESIGNED USB PINOUT TO MEET ETX SPEC  
 7) ADDED PWRBTN#, PS\_ON#, 5V\_SB SIGNALS TO J9  
 SHIFTED DSPI\_CS0 AND DSPI\_CS2 SIGNALS DOWN ON J9

Schematic Modify Date = Thursday, June 02, 2005

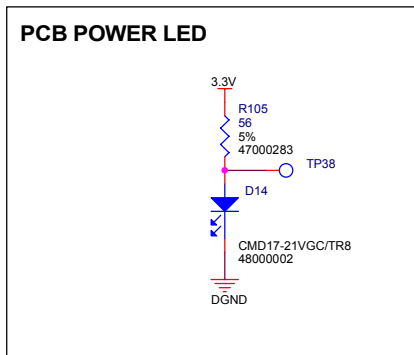
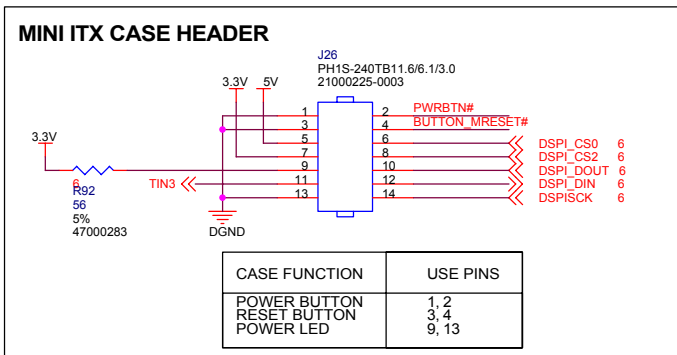
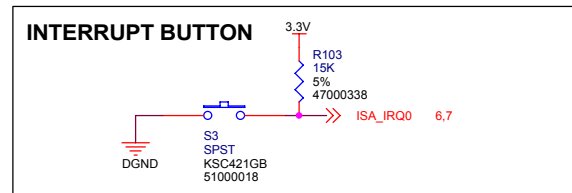
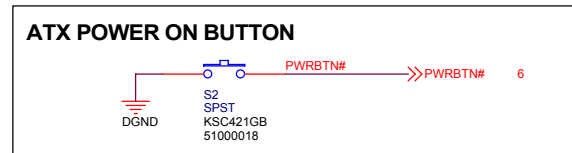
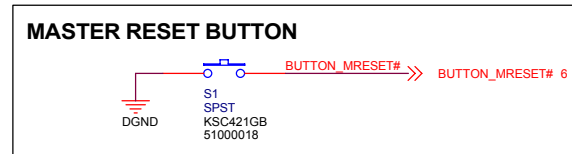
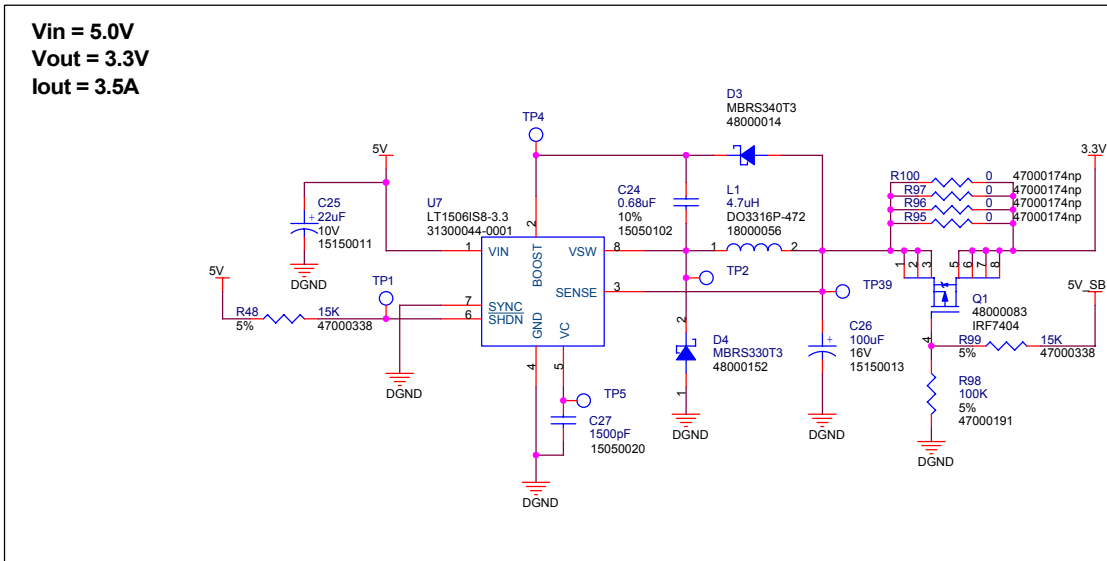
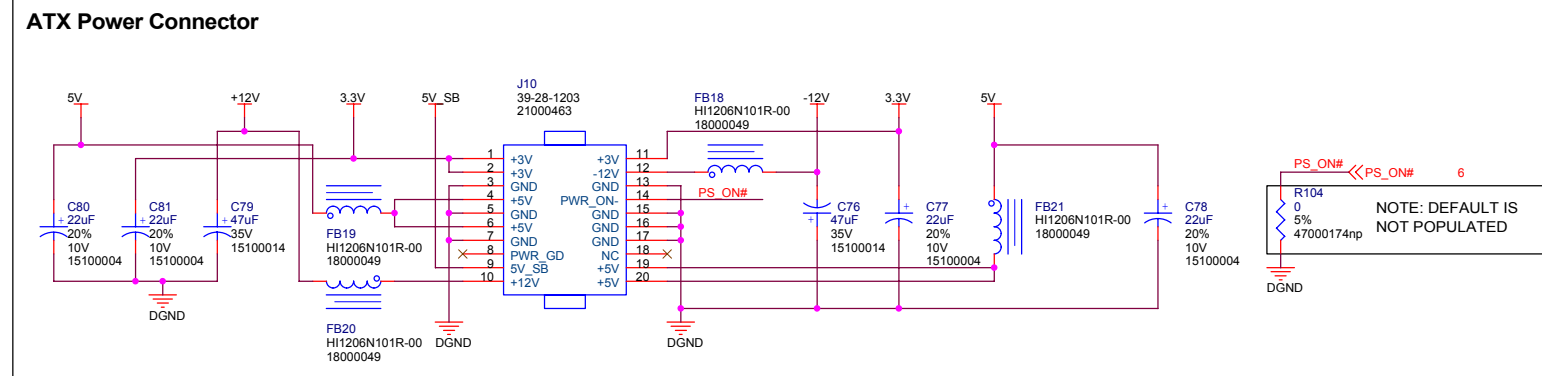
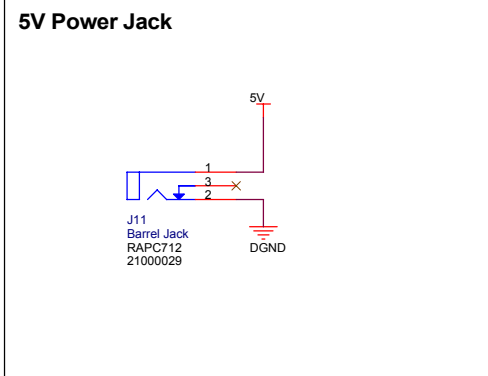
REV B -> C  
 1) SWAPPED CANTX0/CANRX0 WITH CANTX1/CANRX1  
 REV 201 -> A01  
 1) ADDED TEST POINTS TP42-TP159

<b>LOGIC</b>		411 WASHINGTON AVE. N MINNEAPOLIS, MN 55401 PHONE: (612) 672-9495 FAX: (612) 672-9489
Title ITX Fire Engine, ETX Connectors		
Size C	Number 1000023	Rev C
Date Wednesday, February 18, 2004	Project MOT-ITX	Sheet 6 Of 8



Schematic Modify Date = Thursday, June 02, 2005

	<b>LOGIC</b> <b>PRODUCT DEVELOPMENT</b>		411 WASHINGTON AVE. N MINNEAPOLIS, MN 55401 PHONE: (612) 672-9495 FAX: (612) 672-9489
	Title ITX Fire Engine, PC104, 16 bit Custom ISA		
Size C	Number 1000023	Rev C	
Date Friday, March 19, 2004	Project MOT-ITX	Sheet 7 Of 8	



REV B -> C  
1) CHANGED S1-S3 TO 51000018

REV 201 -> A01  
1) CHANGED R48 TO 47000338  
2) ADDED R95 - R100, Q1  
3) CONNECTED J10 PINS 1, 2, 11 TO 3.3V POWER PLANE

REV 101 -> 201  
1) SWAPPED PINS 1 AND 2 ON J11  
2) REPLACED D4 SYMBOL TO CORRECT LAYOUT  
3) ADDED ATX POWER UP BUTTON CIRCUITRY, IRQ BUTTON  
4) ADDED R105 AND D13  
5) CHANGED C25 TO 15150011

Schematic Modify Date = Thursday, June 02, 2005