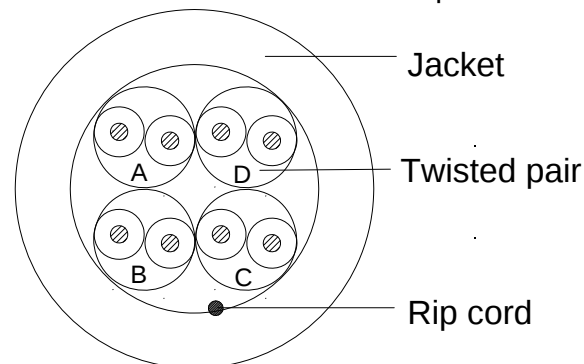




|                                            |                        |                                                                                                                 |  |
|--------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------|--|
| <b>SCP PART#:</b><br><b>CAT5E-BLUE-ETL</b> |                        | <b>DESCRIPTION:</b><br>CAT5E 350 MHz 24 AWG SOLID 4PR UTP, TIA/EIA 568-C.2, CMR ETL, PVC JKT- BLUE- 1000 FT BOX |  |
| Edition B                                  | Est.Date<br>2012/12/06 | Rev. Date<br>2013/06/20                                                                                         |  |
| Approval<br>Richard                        | Checked<br>ANDREW      | Finish<br>JENNIFER                                                                                              |  |



### Standards:

TIA/EIA 568 C.2  
ISO/IEC 11801 ED2 CLASS D  
EN 50173 1:2011  
IEC 61156 5  
EN 50288 3 1  
EMC Performance Rating 6

**FLAME SAFETY:**  
ISO 1872 PE  
ANSI C 8.35

**OTHER:**  
CE, RoHS  
UL c(UL)  
UL 444

### Application: LAN/NETWORK Cable

10BASE T through 1000BASE T Ethernet  
Power over Ethernet (PoE) – IEEE 802.3af  
PoE+ – IEEE 802.3at Type 1 and 2  
ATM and token ring

### Construction Characters:

|                   |                |                     |
|-------------------|----------------|---------------------|
| Conductor         | Material       | Solid Bare Copper   |
|                   | Size           | 24AWG X 4P          |
|                   | Construction   | 1/0.475±0.004mm     |
| Insulation        | Material       | HDPE                |
|                   | Min. Thickness | 0.186mm             |
|                   | AVG. Thickness | 0.203mm             |
|                   | Diameter       | 0.88±0.01mm         |
|                   | Colors         | Blue-White/Blue     |
|                   |                | Orange-White/Orange |
| Green-White/Green |                |                     |
| Brown-White/Brown |                |                     |
| Jacket            | Material       | PVC                 |
|                   | Min. Thickness | 0.60mm              |
|                   | AVG. Thickness | 0.54mm              |
|                   | Diameter       | 5.00±0.10mm         |
|                   | Rip Cord       | Nylon               |
|                   | Colors         | Per request         |

### Electrical & Physical Characters:

|                                           |        |                  |                          |  |                                                                                                                                                                                                                                         |             |
|-------------------------------------------|--------|------------------|--------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Rating                                    |        |                  | 75°C 30V                 |  | <b>Packaging:</b><br>Approx. Weight(kg)                                                                                                                                                                                                 |             |
| Conductor Resistance                      |        |                  | Max 105ohm/km at 20°C    |  |                                                                                                                                                                                                                                         |             |
| Dielectric Strength                       |        |                  | Min AC1.5KV              |  | 5.40                                                                                                                                                                                                                                    | 9.85        |
| Spark Test                                |        |                  | 5.0KV                    |  | Approx. Dimension(mm)                                                                                                                                                                                                                   |             |
| AC Leakage Current Through overall Jacket |        |                  | AC 1500V ≤10mA           |  | 300X260X320                                                                                                                                                                                                                             | 335X260X350 |
| Insulation                                | Unaged | Tensile Strength | 16.5 Mpa                 |  | Package                                                                                                                                                                                                                                 |             |
|                                           |        | Elongation       | 500%                     |  | 500 ft/Box                                                                                                                                                                                                                              | 1000 ft/Box |
|                                           | Aged   | Tensile Strength | 14.2 Mpa(1 00°C 168h)    |  | Packages per Pallet                                                                                                                                                                                                                     |             |
|                                           |        | Elongation       | 250%(100°C 168h)         |  | 48/36                                                                                                                                                                                                                                   | 36          |
| Jacket                                    | Unaged | Tensile Strength | 13.8 Mpa                 |  | <b>Marking:</b><br>STRUCTURED CABLE<br>PRODUCTS --- P/N CAT5E<br>--- CAT5E ENHANCED 350 MHZ<br>4 PR 24 AWG UTP<br>VERIFIED TO ANSI/TIA-568-C.2<br>CMR FT4 75C CE EU<br>RoHS EC ZONE/DEVICE<br>A B C D E 0 1 2 3 4 5 6 7 8 9<br>XXXXFEET |             |
|                                           |        | Elongation       | 150%                     |  |                                                                                                                                                                                                                                         |             |
|                                           | Aged   | Tensile Strength | 11.7 Mpa(100°C 168h)     |  |                                                                                                                                                                                                                                         |             |
|                                           |        | Elongation       | 80%(100°C 168h)          |  |                                                                                                                                                                                                                                         |             |
| Cold Bend Test                            |        |                  | -20°C 4hours No Cracking |  |                                                                                                                                                                                                                                         |             |
| DC Resistance Unbalance                   |        |                  | Max 5%                   |  |                                                                                                                                                                                                                                         |             |
| Pair-to-Ground Capacitance Unbalance      |        |                  | Max 3300pF/km            |  |                                                                                                                                                                                                                                         |             |
| Characteristic Impedance                  |        |                  | 1~350MHZ 100± 15OHM      |  |                                                                                                                                                                                                                                         |             |
| Nominal Velocity of Propagation (%)       |        |                  | 67~69                    |  |                                                                                                                                                                                                                                         |             |
| Propagation Delay                         |        |                  | 350MHZ Max 536ns/100m    |  |                                                                                                                                                                                                                                         |             |
| Delay Skew                                |        |                  | 1~350MHZ Max 45ns/100m   |  |                                                                                                                                                                                                                                         |             |



## Performance-1

| ITEM<br>Frequency | Attenuation<br>Max<br>(dB/100m) |      | NEXT<br>Min<br>(dB) |      | PS NEXT<br>Min<br>(dB) |      | ACR<br>Min<br>(dB) |      |
|-------------------|---------------------------------|------|---------------------|------|------------------------|------|--------------------|------|
|                   | Standard                        | SCP  | Standard            | SCP  | Standard               | SCP  | Standard           | SCP  |
| 1                 | 2.0                             | 2.0  | 65.3                | 76.2 | 62.3                   | 72.3 | 63.3               | 74.2 |
| 4                 | 4.1                             | 4.0  | 56.3                | 65.7 | 53.3                   | 62.5 | 52.2               | 62.0 |
| 8                 | 5.8                             | 5.7  | 51.8                | 61.5 | 48.8                   | 58.5 | 46.0               | 56.3 |
| 10                | 6.5                             | 6.4  | 50.3                | 56.3 | 47.3                   | 55.1 | 43.8               | 50.4 |
| 16                | 8.2                             | 8.0  | 47.2                | 51.9 | 44.2                   | 48.2 | 39.0               | 44.5 |
| 20                | 9.3                             | 9.1  | 45.8                | 58.7 | 42.8                   | 56.5 | 36.5               | 50.5 |
| 25                | 10.4                            | 10.2 | 44.3                | 55.2 | 41.3                   | 51.6 | 33.9               | 46.0 |
| 31.25             | 11.7                            | 11.5 | 42.9                | 54.4 | 39.9                   | 50.4 | 31.2               | 44.1 |
| 62.5              | 17.0                            | 16.4 | 38.4                | 47.1 | 35.4                   | 45.2 | 21.4               | 32.5 |
| 100               | 22.0                            | 21.1 | 35.3                | 47.3 | 32.3                   | 44.3 | 13.3               | 28.7 |
| 155               | 28.1                            | 26.8 | 32.4                | 45.9 | 29.4                   | 40.4 | 4.3                | 23.0 |
| 200               | 32.4                            | 30.0 | 30.8                | 40.7 | 27.8                   | 36.8 | ---                | ---  |
| 300               | 41.0                            | 37.2 | 28.1                | 38.5 | 25.1                   | 40.1 | ---                | ---  |
| 350               | 44.9                            | 40.1 | 27.1                | 36.7 | 24.1                   | 31.6 | ---                | ---  |

## Performance-2

| ITEM<br>Frequency | RL<br>Min<br>(dB) |      | ELFEXT<br>Min<br>(dB) |      | PS ELFEXT<br>Min<br>(dB) |      | PSACR<br>Min<br>(dB) |      |
|-------------------|-------------------|------|-----------------------|------|--------------------------|------|----------------------|------|
|                   | Standard          | SCP  | Standard              | SCP  | Standard                 | SCP  | Standard             | SCP  |
| 1                 | 20.0              | 23.4 | 63.8                  | 75.4 | 60.8                     | 73.3 | 60.3                 | 70.3 |
| 4                 | 23.0              | 29.6 | 51.8                  | 57.3 | 48.8                     | 56.5 | 49.2                 | 58.8 |
| 8                 | 24.5              | 25.0 | 45.7                  | 49.4 | 42.7                     | 48.0 | 43.0                 | 53.3 |
| 10                | 25.0              | 26.5 | 43.8                  | 46.6 | 40.8                     | 45.1 | 40.8                 | 49.2 |
| 16                | 25.0              | 26.2 | 39.7                  | 50.2 | 36.7                     | 47.2 | 36.0                 | 40.8 |
| 20                | 25.0              | 27.0 | 37.8                  | 45.1 | 34.8                     | 41.9 | 33.5                 | 48.3 |
| 25                | 24.3              | 25.9 | 35.8                  | 40.0 | 32.8                     | 38.7 | 30.9                 | 42.4 |
| 31.25             | 23.6              | 24.3 | 33.9                  | 42.5 | 30.9                     | 41.7 | 28.2                 | 40.1 |
| 62.5              | 21.5              | 22.0 | 27.8                  | 39.1 | 24.8                     | 34.7 | 18.4                 | 30.6 |
| 100               | 20.1              | 23.6 | 23.8                  | 30.9 | 20.8                     | 28.2 | 10.3                 | 25.7 |
| 155               | 18.8              | 27.0 | 20.0                  | 31.4 | 17.0                     | 22.6 | 1.3                  | 17.5 |
| 200               | 18.0              | 25.4 | 17.7                  | 26.0 | 14.7                     | 22.9 | ---                  | ---  |
| 300               | 16.8              | 24.2 | 14.2                  | 27.7 | 11.2                     | 17.5 | ---                  | ---  |
| 350               | 16.3              | 26.9 | 12.9                  | 22.3 | 9.9                      | 17.3 | ---                  | ---  |