

## Cat6 Premium

### U/UTP PVC Indoor/Outdoor Rated

(EU/EMEA EuroClass: Dca)

#### Key Features

- 550MHz Class E Bandwidth Performance
- Larger 23+ AWG Bare Copper
- Higher PoE Performance Type 3/4 60W/90W
- UL Riser Rated CMR FT4
- EuroClass: Dca-s3,d2,a3
- Limited Lifetime Warranty\*\*
- UV Protected for Seamless Indoor/Outdoor Installs
- Premium Reellex II Tangle-Free Box
- Strong, Lightweight, Resilient\*
- Environmental Friendly - Recyclable
- Recyclable & Reusable
- Up to 39% Less Waste Volume
- Industry Leading Zone and Outlet Legend

\*\*Details at [www.scp-cat5e.com/warranties](http://www.scp-cat5e.com/warranties)

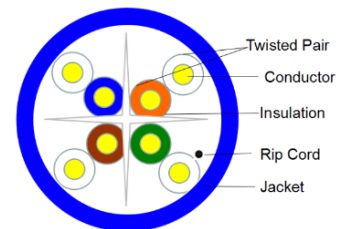
\*Damaged boxes still dispense perfectly

#### Description

Cat6 Premium Enhanced 550MHz 23+awg Solid BC, 4PR, UTP, ANSI/TIA-568.2-D, ISO/IEC 11801 Class E, IEEE 802.3bt Type 3/4 PoE 60W/90W, UL CMR FT4, EN50575 Dca-s3,d2,a3 PVC Jacket

#### Applications

Supports all Category 6 and Class E applications including structured cabling for horizontal and building backbone, Ethernet 10/100/1000/10GBASE-T, indoor use, fixed installations, Power Over Ethernet (PoE), and other high bandwidth applications. HDBaseT Recognized.



#### Construction

|                                   |                                                                                                                                    |                                                                                                                                     |                                        |                                                    |                                                 |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------|-------------------------------------------------|
| <b>Conductor</b>                  | Material<br>Solid/Stranded<br>Size<br>Insulation Material<br>Insulation OD<br>Color Code<br>Twisted Pair<br>Insulated Conductor OD | Bare Copper<br>Solid (0.57)<br>23+ AWG<br>HDPE<br>1.05 +/- 0.05mm<br>Per ANSI/TIA 568.2-D<br>4P/2 Cores to Pair<br>1/0.57+/-0.005mm | <b>Shielding/Screen</b>                | Type<br>Material                                   | Unshielded<br>na                                |
|                                   |                                                                                                                                    |                                                                                                                                     | <b>Drain Wire</b>                      | None                                               |                                                 |
|                                   |                                                                                                                                    |                                                                                                                                     | <b>Jacket/Sheath</b>                   | Material<br>Nominal Jacket Thickness<br>Color Code | PVC - UV Sun Res<br>0.6 +/-0.1mm<br>Per Request |
| <b>Pair Separator/<br/>Spline</b> | Material<br>Spline OD                                                                                                              | HDPE<br>4.2*4.2*0.5mm                                                                                                               | <b>Overall Cable<br/>Diameter (OD)</b> | 6.2 +/-0.30mm                                      |                                                 |
| <b>Rip Cord</b>                   | Yes, Nylon                                                                                                                         |                                                                                                                                     |                                        |                                                    |                                                 |

#### Mechanical Properties

|                                              |                                                               |                                 |
|----------------------------------------------|---------------------------------------------------------------|---------------------------------|
| <b>Bend Radius</b>                           | Min Bend Radius (Installation)<br>Min Bend Radius (Operation) | 49.6mm<br>24.8mm                |
| <b>Maximum<br/>Pulling Tension</b>           | 85N                                                           |                                 |
| <b>Insulation<br/>Tensile Strength</b>       | Unaged / Elongation %                                         | 16.0Mpa / 300%                  |
| <b>Jacket/Screen<br/>Tensile Strength</b>    | Unaged / Elongation %<br>Aged / Elongation %                  | 13.8Mpa / 100%<br>13.8Mpa / 45% |
| <b>Cable Cold Bend<br/>(-20°C for 4 hrs)</b> | No Crack                                                      |                                 |

#### Environmental Parameters

|                                         |                               |
|-----------------------------------------|-------------------------------|
| <b>Temperature Range - Operating</b>    | -20°C to 75°C (-4°F to 167°F) |
| <b>Temperature Range - Installation</b> | 0°C to 40°C (32°F to 104°F)   |
| <b>Temperature Range - Storage</b>      | 0°C to 40°C (32°F to 104°F)   |

#### Environmental Compliance

RoHS Compliant: RoHS II/III, EU/UK RoHS  
REACH, WEEE Directive, WFD:2023, SCIP:2023, POPs (EU) No 2019/1021  
Reellex II – Made with recyclable materials

California Prop 65 Warning – California Residents Only  
WARNING: This Product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information: [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Rev. 0425ZH

## Electrical Characteristics

|                                              |                            |                                                |                           |
|----------------------------------------------|----------------------------|------------------------------------------------|---------------------------|
| <b>Bandwidth per TIA Standard</b>            | 250MHz                     | <b>Capacitance Unbalance pair-to-ground</b>    | 330pt/100M                |
| <b>Maximum Bandwidth as Tested</b>           | 550MHz                     | <b>Characteristic Impedance</b>                | 100 +/- 15                |
| <b>Conductor Resistance (at 20°C)</b>        | 8.0Ω/100M                  | <b>Nominal Velocity of Propagation % (NVP)</b> | 66%                       |
| <b>Dielectric Strength</b>                   | Min AC1.5KV                | <b>Rated Voltage</b>                           | Insulated 300V            |
| <b>Spark Test</b>                            | 2.0KV                      |                                                | Operating Low Voltage 80V |
| <b>AC Leakage Current thru Jacket/Screen</b> | 1.5KV 50Hz 1min / 2.5KV 2s | <b>Delay Skew</b>                              | ≤ 45ns / 100m             |
| <b>Resistance Unbalance</b>                  | 5%                         | <b>PoE Rating</b>                              | 802.3bt Type 3/4 60W/90W  |
| <b>Insulation Resistance</b>                 | ≥500MΩ·km                  | <b>Transverse Conversion Loss (TCL)</b>        | 1~250MHz ≥ 40.0-10x1g (f) |
| <b>Mutual Capacitance</b>                    | ≤56nF/km                   |                                                |                           |

## Standards Reference

**Manufactured in Accordance to:** UL 444, UL 13, ANSI/TIA 568.2-D, ISO/IEC 11801 Class E, EN 50288-5-1, ISO/IEC 61156-5, EN 50173-1, EN 50288-6-1, EN 50575

**EN50575 CPR EuroClass:** Dca-s3,d2,a3

**Reaction to Fire:** BS EN 13501-6; UL Riser Rated

**Power Over Ethernet (PoE):** IEEE 802.3bt Type 3/4 60W/90W

**Power Over HDBaseT (PoH):** Yes

**3rd Party Certification:** UL CMR cUL FT4

**California Prop 65:** PVC-Coated products; PVC-coated wires and cables. Warning: This product can expose you to chemicals including DINP and/or DEHP, which are known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov) and/or our information page: California Proposition 65.

## Cable Jacket Markings

Structured Cable Products --- CAT6-PREM-XX --- Cat6 Premium Indoor/Outdoor - 550MHz U/UTP ANSI/TIA 568.2-D ISO/IEC 11801 Class E EN50575 Dca-s3,d2,a3 E198134 SCP UL c(UL) CMR FT4 75°C 4PR 23\*AWG SOL BC UV Sun Res PVC JKT CE RoHS ZONE/DEVICE A B C D E 0 1 2 3 4 5 6 7 8 9 \*\*\* Feet (or Meters) MM/YYYY

*Above jacket markings are an example for reference purposes. All SCP jacket markings include descending feet or meter markings and our industry leading zone and outlet legend for easy cable identification during installation.*

## Performance Data\*

| Bandwidth MHz | Attenuation Max (dB/100m) |       | NEXT Min (dB) |       | PS NEXT Min (dB) |       | ACR Min (dB) |      | RL Min (dB) |       | ELFEXT Min (dB) |      | PS ELFEXT Min (dB) |      | PSACR Min (dB) |      |
|---------------|---------------------------|-------|---------------|-------|------------------|-------|--------------|------|-------------|-------|-----------------|------|--------------------|------|----------------|------|
|               | Standard                  | SCP   | Standard      | SCP   | Standard         | SCP   | Standard     | SCP  | Standard    | SCP   | Standard        | SCP  | Standard           | SCP  | Standard       | SCP  |
| 1             | 2.03                      | 1.73  | 74.3          | 89    | 72.3             | 86.18 | 72.3         | 78.4 | 20          | 26.36 | 67.8            | 75.6 | 64.8               | 73.3 | 70.3           | 74.7 |
| 4             | 3.78                      | 3.5   | 65.27         | 77.65 | 63.27            | 75.21 | 61.5         | 71.9 | 23.01       | 32.34 | 55.8            | 61.3 | 52.8               | 60.1 | 59.5           | 70.5 |
| 8             | 5.32                      | 5     | 60.75         | 73.82 | 58.75            | 70.97 | 55.5         | 60.9 | 24.52       | 36.28 | 49.7            | 55.7 | 46.7               | 54.8 | 53.5           | 60   |
| 10            | 5.95                      | 5.61  | 59.3          | 77.24 | 57.3             | 74.8  | 53.3         | 61.8 | 25          | 36.23 | 47.8            | 55.2 | 44.8               | 53.2 | 51.3           | 60.1 |
| 16            | 7.55                      | 7.16  | 56.24         | 75.11 | 54.24            | 71.52 | 48.6         | 63.4 | 25          | 36.98 | 43.7            | 49.7 | 40.7               | 48.1 | 46.6           | 59.8 |
| 20            | 8.47                      | 8.04  | 54.78         | 69.67 | 52.78            | 68.13 | 46.3         | 63.7 | 25          | 37.96 | 41.8            | 48.1 | 38.8               | 46.2 | 44.3           | 60.9 |
| 25            | 9.51                      | 9.02  | 53.33         | 67.04 | 51.33            | 64.13 | 43.8         | 53.2 | 24.32       | 33.59 | 39.8            | 45.9 | 36.8               | 45   | 41.8           | 51.7 |
| 100           | 19.8                      | 18.58 | 44.3          | 58.71 | 42.3             | 57.31 | 24.5         | 41.2 | 20.11       | 31.85 | 27.8            | 35   | 24.8               | 33.2 | 22.5           | 39.2 |
| 200           | 28.98                     | 27.01 | 39.78         | 53.59 | 37.78            | 51.66 | 10.8         | 30.1 | 18          | 27.42 | 21.8            | 32.8 | 18.8               | 30.2 | 8.8            | 28.6 |
| 250           | 32.85                     | 30.51 | 38.33         | 54.10 | 36.33            | 51.78 | 5.5          | 26.4 | 17.32       | 25.20 | 19.8            | 30.7 | 16.8               | 27.7 | 3.5            | 24.7 |
| 300           | 36.4                      | 33.3  | 37.1          | 54.2  | 35.1             | 53.4  | 0.7          | 20.9 | 16.8        | 20.8  | 18.3            | 26.5 | 15.3               | 25.4 | ---            | ---  |
| 400           | 43                        | 38.6  | 35.3          | 53.8  | 33.3             | 52.1  | ---          | ---  | 15.9        | 18.9  | 15.8            | 23.4 | 12.8               | 22.1 | ---            | ---  |
| 500           | 48.9                      | 43.9  | 33.8          | 51    | 31.8             | 49.3  | ---          | ---  | 15.2        | 18.6  | 13.8            | 19.5 | 10.8               | 18.7 | ---            | ---  |
| 550           | 51.76                     | 49.11 | 33.19         | 49.5  | 31.2             | 47.8  | ---          | ---  | 14.92       | 18.7  | 12.8            | 17.6 | 9.8                | 17   | ---            | ---  |

\*SCP Cat6 Premium Cables exceed industry transmission requirements at 20°C as per ANSI/TIA 568 and IEC 61156-5 Ed 2.

## Part Numbers

| Item No.              | UPC          | Jacket Color | Package Length | Package Type          | Package Weight | Item Dimensions (mm) |
|-----------------------|--------------|--------------|----------------|-----------------------|----------------|----------------------|
| <b>North America:</b> |              |              |                |                       |                |                      |
| CAT6-PREM-BK          | 810093725823 | Black        | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-BL          | 810093725830 | Blue         | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-GN          | 810093725847 | Green        | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-GY          | 810093725854 | Gray         | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-OR          | 810093725861 | Orange       | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-PUR         | 810093725878 | Purple       | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-RD          | 810093725885 | Red          | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-WT          | 810093725892 | White        | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-YL          | 810093725908 | Yellow       | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| <b>EU (EMEA):</b>     |              |              |                |                       |                |                      |
| CAT6-PREM-BK-D        | 810093725915 | Black        | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-BL-D        | 810093725922 | Blue         | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-GY-D        | 810093725939 | Gray         | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-GN-D        | 810093725946 | Green        | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-RD-D        | 810093725953 | Red          | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-VL-D        | 810093725960 | Violet       | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |
| CAT6-PREM-YL-D        | 810093725977 | Yellow       | 1000ft/305m    | Premium Reelex II Box | 31.46/14.3     | 410*280*390          |