

884016914/10 | CS31CM BLU C6 4/23 U/UTP CPK 305M

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CS31CM Category 6 U/UTP Cable, non-plenum, blue jacket, 4 pair count, 1000 ft (305 m) length Commpak

Product Classification

|                       |                           |
|-----------------------|---------------------------|
| Regional Availability | Asia                      |
| Portfolio             | NETCONNECT®               |
| Product Type          | Twisted pair cable        |
| Ordering Note         | Available in Asia Pacific |

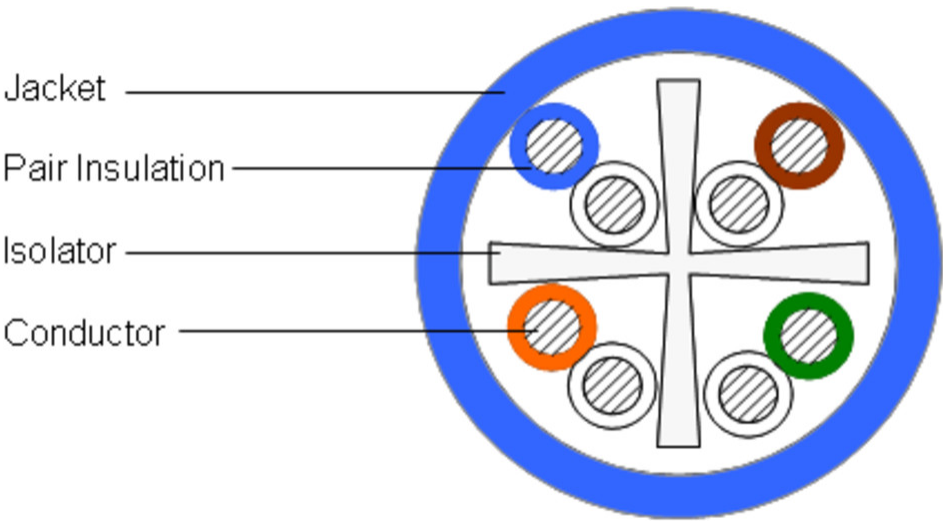
General Specifications

|                         |  |
|-------------------------|--|
| Product Number          | CS31CM   |
| ANSI/TIA Category       | 6  |
| Cable Component Type    | Horizontal   |
| Cable Type              | U/UTP (unshielded)   |
| Conductor Type, singles | Solid  |
| Conductors, quantity    | 8  |
| Jacket Color            | Blue   |
| Note                    | All electrical transmission tests include swept frequency measurements                         |
| Pairs, quantity         | 4  |
| Separator Type          | Isolator   |
| Supported Application   | 1000BASE-T   1000BASE-TX   100BASE-TX   10BASE-T   155Mbps<br>ATM   TP-PMD   Token Ring   VoIP |
| Transmission Standards  | ANSI/TIA-568.2-D   CENELEC EN 50288-6-1   IEC 61156-5   ISO/IEC 11801<br>Class E               |

Dimensions

|                                   |                     |
|-----------------------------------|---------------------|
| Cable Length                      | 304.8 m   1000 ft   |
| Diameter Over Insulated Conductor | 1.029 mm   0.041 in |
| Diameter Over Jacket, nominal     | 5.842 mm   0.23 in  |
| Jacket Thickness                  | 0.559 mm   0.022 in |
| Conductor Gauge, singles          | 23 AWG              |

Cross Section Drawing



Electrical Specifications

|                                       |   |
|---------------------------------------|---|
| Characteristic Impedance              | 100 ohm   |
| dc Resistance Unbalance, maximum      | 5 %   |
| dc Resistance, maximum                | 8 ohms/100 m   2.438 ohms/100 ft  |
| Delay Skew, maximum                   | 45 ns   |
| Dielectric Strength, minimum          | 1500 Vac   2500 Vdc   |
| Mutual Capacitance at Frequency       | 5.6 nF/100 m @ 1 kHz  |
| Nominal Velocity of Propagation (NVP) | 68 %  |
| Operating Frequency, maximum          | 250 MHz   |
| Operating Voltage, maximum            | 80 V  |
| Propagation Delay, maximum            | 536 ns/100m @250MHz   |
| Remote Powering                       | Fully complies with the recommendations set forth by IEEE 802.3bt (Type 4) for the safe delivery of power over LAN cable when installed according to ISO/IEC 14763-2, CENELEC EN 50174-1, CENELEC EN 50174-2 or TIA TSB-184-A |

## Electrical Cable Performance

|               |   |               |   |
|---------------|---|---------------|---|
| <b>CS</b>     | CommScope   |               |   |
| <b>STD</b>    | Refers to the standard value listed under Transmission Standards in the Electrical Specifications above |               |   |
| <b>TYP</b>    | Typical Electrical Performance  |               |   |
| <b>IL</b>     | Insertion Loss (dB/100m)  | <b>NEXT</b>   | Near End Crosstalk (dB/100m)                              |
| <b>ACR</b>    | Attenuation to Crosstalk Ratio (dB/100m)  | <b>PSNEXT</b> | Power Sum Near End Crosstalk (db/100m)                    |
| <b>PSACR</b>  | Power Sum Attenuation to Crosstalk Ratio (dB/100m)  | <b>ACRF</b>   | Attenuation to Crosstalk Ratio - Far End (dB/100m)        |
| <b>PSACRF</b> | Power Sum Attenuation to Crosstalk Ratio - Far End (dB/100m)  | <b>RL</b>     | Return Loss (dB)  |
| <b>TCL</b>    | Transverse Conversion Loss (dB/100m)  | <b>ELTCTL</b> | Equal Level Transverse Conversion Transfer Loss (dB/100m) |

| Freq.<br>MHz | IL   |      | NEXT |      | ACR  |      | PSNEXT |      | PSACR |      | ACRF |      | PSACRF |      | RL   |      | TCL  |      | ELTCTL |      |
|--------------|------|------|------|------|------|------|--------|------|-------|------|------|------|--------|------|------|------|------|------|--------|------|
|              | CS   | STD  | CS   | STD  | CS   | STD  | CS     | STD  | CS    | STD  | CS   | STD  | CS     | STD  | CS   | STD  | CS   | STD  | CS     | STD  |
| 1            | 2    | 2    | 75.3 | 74.3 | 73.3 | 72.3 | 72.3   | 72.3 | 70.3  | 70.3 | 68   | 67.8 | 65     | 64.8 | 20   | 20   | 40   | 40   | 35     | 35   |
| 4            | 3.8  | 3.8  | 66.3 | 65.3 | 62.5 | 61.5 | 63.3   | 63.3 | 59.5  | 59.5 | 56   | 55.8 | 53     | 52.8 | 23   | 23   | 40   | 40   | 23     | 23   |
| 8            | 5.3  | 5.3  | 61.8 | 60.8 | 56.4 | 55.4 | 58.8   | 58.8 | 53.4  | 53.4 | 49.9 | 49.7 | 46.9   | 46.7 | 24.5 | 24.5 | 40   | 40   | 16.9   | 16.9 |
| 10           | 6    | 6    | 60.3 | 59.3 | 54.3 | 53.3 | 57.3   | 57.3 | 51.3  | 51.3 | 48   | 47.8 | 45     | 44.8 | 25   | 25   | 40   | 40   | 15     | 15   |
| 16           | 7.6  | 7.6  | 57.2 | 56.2 | 49.7 | 48.7 | 54.2   | 54.2 | 46.7  | 46.7 | 43.9 | 43.7 | 40.9   | 40.7 | 25   | 25   | 38   | 38   | 10.9   |      |
| 20           | 8.5  | 8.5  | 55.8 | 54.8 | 47.3 | 46.3 | 52.8   | 52.8 | 44.3  | 44.3 | 42   | 41.8 | 39     | 38.8 | 25   | 25   | 37   | 37   | 9      | 9    |
| 25           | 9.5  | 9.5  | 54.3 | 53.3 | 44.8 | 43.8 | 51.3   | 51.3 | 41.8  | 41.8 | 40   | 39.8 | 37     | 36.8 | 24.3 | 24.3 | 36   | 36   | 7      | 7    |
| 31.25        | 10.7 | 10.7 | 52.9 | 51.9 | 41.2 | 41.2 | 49.9   | 49.9 | 39.2  | 39.2 | 38.1 | 37.9 | 35.1   | 34.9 | 23.6 | 23.6 | 35.1 | 35.1 |        |      |
| 62.5         | 15.4 | 15.4 | 48.4 | 47.4 | 33   | 32   | 45.4   | 45.4 | 30    | 30   | 32.1 | 31.9 | 29.1   | 28.9 | 21.5 | 21.5 | 32   | 32   |        |      |
| 100          | 19.8 | 19.8 | 45.3 | 44.3 | 25.5 | 24.5 | 42.3   | 42.3 | 22.5  | 22.5 | 28   | 27.8 | 25     | 24.8 | 20.1 | 20.1 | 30   | 30   |        |      |
| 155          | 25.2 | 25.2 | 42.4 | 41.4 | 17.3 | 16.3 | 39.4   | 39.4 | 14.3  | 14.3 | 24.2 | 24   | 21.2   | 21   | 18.8 | 18.8 | 28.1 | 28.1 |        |      |
| 200          | 29   | 29   | 40.8 | 39.8 | 11.8 | 10.8 | 37.8   | 37.8 | 8.8   | 8.8  | 22   | 21.8 | 19     | 18.8 | 18   | 18   | 27   | 27   |        |      |
| 250          | 32.8 | 32.8 | 39.3 | 38.3 | 6.5  | 5.5  | 36.3   | 36.3 | 3.5   | 3.5  | 20   | 19.8 | 17     | 16.8 | 17.3 | 17.3 | 26   | 26   |        |      |

## Material Specifications

|                     |             |
|---------------------|-------------|
| Conductor Material  | Bare copper |
| Insulation Material | Polyolefin  |
| Jacket Material     | PVC         |
| Separator Material  | Polyolefin  |

## Mechanical Specifications

|                          |                                  |
|--------------------------|----------------------------------|
| Minimum Bend Radius Note | 4 times the outer cable diameter |
| Pulling Tension, maximum | 11.34 kg   25 lb                 |

## Environmental Specifications

|                          |                                     |
|--------------------------|-------------------------------------|
| Installation temperature | 0 °C to +60 °C (+32 °F to +140 °F)  |
| Operating Temperature    | -20 °C to +60 °C (-4 °F to +140 °F) |
| Storage Temperature      | -20 °C to +80 °C (-4 °F to +176 °F) |

|                       |                            |
|-----------------------|----------------------------|
| Environmental Space   | Non-plenum                 |
| Flame Test Method     | CM                         |
| Packaging and Weights |                            |
| Cable weight          | 38.543 kg/km   25.9 lb/kft |
| Packaging Type        | CommPak® box               |

Regulatory Compliance/Certifications

| Agency        | Classification   |
|---------------|--|
| CHINA-ROHS    | Below maximum concentration value  |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system   |
| REACH-SVHC    | Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a> |
| ROHS          | Compliant  |
| UK-ROHS       | Compliant  |

