



CS31Z3 Category 6 U/UTP Cable, low smoke zero halogen, white 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 |

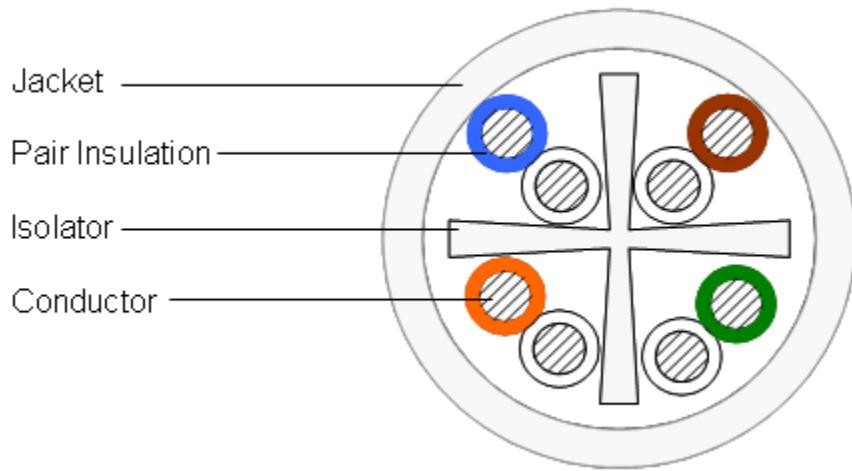
General Specifications

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|--------------------------------|--|
| Product Number | CS31Z3 |
| ANSI/TIA Category | 6 |
| Cable Component Type | Horizontal |
| Cable Type | U/UTP (unshielded) |
| Conductor Type, singles | Solid |
| Conductors, quantity | 8 |
| Jacket Color | White |
| 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 ATM TP-PMD Token Ring VoIP |
| Transmission Standards | ANSI/TIA-568.2-D CENELEC EN 50288-6-1 IEC 61156-5 ISO/IEC 11801 Class E |

Dimensions

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|--|---------------------|
| 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

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

| Freq. 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 | 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 | 42.2 | 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

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|----------------------------|-------------------------------|
| Conductor Material | Bare copper |
| Insulation Material | Polyolefin |
| Jacket Material | Low Smoke Zero Halogen (LSZH) |
| Separator Material | Polyolefin |

Mechanical Specifications

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

Environmental Specifications

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|---------------------------------|-------------------------------------|
| 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) |

| | |
|-----------------------------|-------------------------------|
| Acid Gas Test Method | IEC 60754-2 |
| Environmental Space | Low Smoke Zero Halogen (LSZH) |
| Flame Test Method | IEC 60332-3-22 |
| Smoke Test Method | IEC 61034-2 |

Packaging and Weights

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|-----------------------|--------------------------|
| Cable weight | 38.692 kg/km 26 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 |
| ROHS | Compliant |
| UK-ROHS | Compliant |

