



Fiber indoor cable, OptiSPEED® Plenum Distribution, interlocking aluminum armored with plenum jacket, 12 fiber single-unit, Gel-free, Multimode OM1, Feet jacket marking, Orange jacket color

Product Classification

| | |
|-----------------------|---|
| Regional Availability | Asia Australia/New Zealand Latin America Middle East/Africa North America |
| Portfolio | CommScope® |
| Product Type | Fiber indoor cable |
| Product Series | P-DZ |

General Specifications

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|-------------------|-----------------------|
| Armor Type | Interlocking aluminum |
| Cable Type | Distribution |
| Construction Type | Armored |
| Subunit Type | Gel-free |
| Jacket Color | Orange |
| Jacket Marking | Feet |
| Total Fiber Count | 12 |

Dimensions

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|----------------------|--------------------|
| Diameter Over Armor | 10.8 mm 0.425 in |
| Diameter Over Jacket | 12.8 mm 0.504 in |

Representative Image



Mechanical Specifications

| | |
|-----------------------------------|---------------------------------------|
| Minimum Bend Radius, loaded | 192 mm 7.559 in |
| Minimum Bend Radius, unloaded | 128 mm 5.039 in |
| Tensile Load, long term, maximum | 200 N 44.962 lbf |
| Tensile Load, short term, maximum | 667 N 149.948 lbf |
| Compression | 85 N/mm 485.363 lb/in |
| Compression Test Method | FOTP-41 IEC 60794-1 E3 |
| Flex | 25 cycles |
| Flex Test Method | FOTP-104 IEC 60794-1 E6 |
| Impact | 35 N-m 309.776 in lb |
| Impact Test Method | FOTP-25 IEC 60794-1 E4 |
| Strain | See long and short term tensile loads |
| Strain Test Method | FOTP-33 IEC 60794-1 E1 |
| Twist | 10 cycles |
| Twist Test Method | FOTP-85 IEC 60794-1 E7 |
| Vertical Rise, maximum | 136 m 446.194 ft |

Optical Specifications

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|------------|-----------------------------------|
| Fiber Type | OM1, OptiSPEED® OM1, OptiSPEED® |
|------------|-----------------------------------|

Environmental Specifications

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|--------------------------|------------------------------------|
| Installation temperature | 0 °C to +70 °C (+32 °F to +158 °F) |
|--------------------------|------------------------------------|

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|-------------------------------|---------------------------------------|
| Operating Temperature | -20 °C to +70 °C (-4 °F to +158 °F) |
| Storage Temperature | -40 °C to +70 °C (-40 °F to +158 °F) |
| Cable Qualification Standards | ANSI/ICEA S-83-596 Telcordia GR-409 |
| Environmental Space | Plenum |
| Flame Test Listing | NEC OFCP (ETL) and c(ETL) |
| Flame Test Method | NFPA 130 NFPA 262 |

Environmental Test Specifications

| | |
|-------------------------------|-------------------------------------|
| Heat Age | -20 °C to +85 °C (-4 °F to +185 °F) |
| Heat Age Test Method | IEC 60794-1 F9 |
| Low High Bend | -20 °C to +70 °C (-4 °F to +158 °F) |
| Low High Bend Test Method | FOTP-37 IEC 60794-1 E11 |
| Temperature Cycle | -20 °C to +70 °C (-4 °F to +158 °F) |
| Temperature Cycle Test Method | FOTP-3 IEC 60794-1 F1 |

Packaging and Weights

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|--------------|----------------------------|
| Cable weight | 151 kg/km 101.467 lb/kft |
|--------------|----------------------------|

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 |



Included Products

| | |
|----------|----------------------------------|
| CS-6F-TB | – OptiSPEED® OM1 Multimode Fiber |
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* Footnotes

| | |
|-----------------------|---|
| Operating Temperature | Specification applicable to non-terminated bulk fiber cable |
|-----------------------|---|

OptiSPEED®

Product Classification

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|--------------|---------------|
| Portfolio | CommScope® |
| Product Type | Optical fiber |

General Specifications

| | |
|---|------------------------|
| Cladding Diameter | 125 µm |
| Cladding Diameter Tolerance | ±1.0 µm |
| Cladding Non-Circularity, maximum | 1 % |
| Coating Diameter (Colored) | 254 µm |
| Coating Diameter (Uncolored) | 245 µm |
| Coating Diameter Tolerance (Colored) | ±7 µm |
| Coating Diameter Tolerance (Uncolored) | ±10 µm |
| Coating/Cladding Concentricity Error, maximum | 12 µm |
| Core Diameter | 62.5 µm |
| Core Diameter Tolerance | ±2.5 µm |
| Core/Clad Offset, maximum | 1 µm |
| Proof Tensile Stress | 100,000 psi (0.69 GPa) |
| Tight Buffer Diameter | 900 µm |
| Tight Buffer Diameter Tolerance | ±40 µm |

Mechanical Specifications

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|--|---------------------------------------|
| Macrobending, 75 mm Ø mandrel, 100 turns | 0.50 dB @ 1,300 nm 0.50 dB @ 850 nm |
| Coating Strip Force, maximum | 8.9 N 2.001 lbf |
| Coating Strip Force, minimum | 1.3 N 0.292 lbf |
| Dynamic Fatigue Parameter, minimum | 18 |

Optical Specifications

| | |
|--------------------|-------|
| Numerical Aperture | 0.275 |
|--------------------|-------|

CS-6F-TB

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|-------------------------------------|---------------------|
| Numerical Aperture Tolerance | ±0.015 |
| Point Defects, maximum | 0.15 dB |
| Zero Dispersion Slope, maximum | 0.097 ps/[km-nm-nm] |
| Zero Dispersion Wavelength, maximum | 1365 nm |
| Zero Dispersion Wavelength, minimum | 1320 nm |

Optical Specifications, Wavelength Specific

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|--------------------------|---|
| 1 Gbps Ethernet Distance | 300 m @ 850 nm 550 m @ 1,300 nm |
| Attenuation, maximum | 1.00 dB/km @ 1,300 nm 3.00 dB/km @ 850 nm |
| Backscatter Coefficient | -68.0 dB @ 850 nm -75.7 dB @ 1,300 nm |
| Bandwidth, OFL, minimum | 220 MHz-km @ 850 nm 500 MHz-km @ 1,300 nm |
| Index of Refraction | 1.491 @ 1,300 nm 1.496 @ 850 nm |
| Standards Compliance | TIA-492AAAA (OM1) |

Environmental Specifications

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|---------------------------------------|--------------------|
| Heat Aging, maximum | 0.20 dB/km @ 85 °C |
| Temperature Dependence, maximum | 0.1 dB/km |
| Temperature Humidity Cycling, maximum | 0.2 dB/km |
| Water Immersion, maximum | 0.20 dB/km @ 23 °C |

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |

* Footnotes

| | |
|---------------------------------------|---|
| Temperature Dependence, maximum | Temperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F) |
| Temperature Humidity Cycling, maximum | Temperature humidity cycling is conducted at -10 °C to +85 °C (+14 °F to +185 °F) up to 95% relative humidity |