

P-144-MZ-8W-F24

Fiber indoor cable, TeraSPEED® Plenum MPO Trunk, interlocking aluminum armored with plenum jacket, 144 fiber multi-unit with 24 fiber subunits, Singlemode G.652.D and G.657.A1, Feet jacket marking

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-MZ |

General Specifications

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|-------------------------------------|-----------------------|
| Armor Type | Interlocking aluminum |
| Cable Type | MPO trunk cable |
| Construction Type | Armored |
| Fiber Type, quantity | 144 |
| Fibers per Subunit, quantity | 24 |
| Jacket Marking | Feet |
| Subunit Type | Gel-free |
| Subunit, quantity | 6 |
| Total Fiber Count | 144 |

Dimensions

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|-------------------------------------|---------------------|
| Buffer Tube/Subunit Diameter | 3.6 mm 0.142 in |
| Diameter Over Armor | 18.42 mm 0.725 in |
| Diameter Over Jacket | 20.45 mm 0.805 in |

Representative Image

P-144-MZ-8W-F24



Mechanical Specifications

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|--|---------------------------------------|
| Minimum Bend Radius, loaded | 409 mm 16.102 in |
| Minimum Bend Radius, unloaded | 286 mm 11.26 in |
| Tensile Load, long term, maximum | 400 N 89.924 lbf |
| Tensile Load, short term, maximum | 1335 N 300.12 lbf |
| Compression | 85 N/mm 485.363 lb/in |
| Compression Test Method | FOTP-41 IEC 60794-1 E3 |
| Flex | 300 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 | 115 m 377.297 ft |

Optical Specifications

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|-------------------|--|
| Fiber Type | G.652.D and G.657.A1, TeraSPEED® OS2 OS2 |
|-------------------|--|

Environmental Specifications

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

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| | |
|--------------------------------------|---------------------------------------|
| Operating Temperature | 0 °C to +70 °C (+32 °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 262 |

Environmental Test Specifications

| | |
|--------------------------------------|------------------------------------|
| Heat Age | 0 °C to +85 °C (+32 °F to +185 °F) |
| Heat Age Test Method | IEC 60794-1 F9 |
| Low High Bend | 0 °C to +70 °C (+32 °F to +158 °F) |
| Low High Bend Test Method | FOTP-37 IEC 60794-1 E11 |
| Temperature Cycle | 0 °C to +70 °C (+32 °F to +158 °F) |
| Temperature Cycle Test Method | FOTP-3 IEC 60794-1 F1 |

Packaging and Weights

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|---------------------|----------------------------|
| Cable weight | 356 kg/km 239.221 lb/kft |
|---------------------|----------------------------|

Regulatory Compliance/Certifications

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



Included Products

CS-8W-MP – TeraSPEED® OS2 Singlemode
Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

TeraSPEED®

Product Classification

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

General Specifications

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|--|--|
| Cladding Diameter | 125 µm |
| Cladding Diameter Tolerance | ±0.7 µm |
| Cladding Non-Circularity, maximum | 0.7 % |
| Coating Diameter (Colored) | 249 µm |
| Coating Diameter (Uncolored) | 242 µm |
| Coating Diameter Tolerance (Colored) | ±13 µm |
| Coating Diameter Tolerance (Uncolored) | ±5 µm |
| Coating/Cladding Concentricity Error, maximum | 12 µm |
| Core Diameter | 8.3 µm |
| Core/Clad Offset, maximum | 0.5 µm |
| Proof Test | 689.476 N/mm ² 100000 psi |

Dimensions

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|----------------------------|-----------------|
| Fiber Curl, minimum | 4 m 13.123 ft |
|----------------------------|-----------------|

Mechanical Specifications

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|---|---|
| Macrobending, 20 mm Ø mandrel, 1 turn | 0.75 dB @ 1,550 nm 1.50 dB @ 1,625 nm |
| Macrobending, 30 mm Ø mandrel, 10 turns | 0.25 dB @ 1,550 nm 1.00 dB @ 1,625 nm |
| Macrobending, 60 mm Ø mandrel, 100 turns | 0.05 dB @ 1,550 nm 0.05 dB @ 1,625 nm |
| Coating Strip Force, maximum | 8.9 N 2.001 lbf |

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| | |
|---|-------------------|
| Coating Strip Force, minimum | 1.3 N 0.292 lbf |
| Dynamic Fatigue Parameter, minimum | 20 |

Optical Specifications

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|--|---------------------|
| Cabled Cutoff Wavelength, maximum | 1260 nm |
| Point Defects, maximum | 0.1 dB |
| Zero Dispersion Slope, maximum | 0.092 ps/[km-nm-nm] |
| Zero Dispersion Wavelength, maximum | 1324 nm |
| Zero Dispersion Wavelength, minimum | 1300 nm |

Optical Specifications, Wavelength Specific

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|--|---|
| Attenuation, maximum | 0.40 dB/km @ 1,310 nm 0.40 dB/km @ 1,385 nm 0.40 dB/km @ 1,490 nm 0.40 dB/km @ 1,550 nm 0.50 dB/km @ 1,270 nm 0.50 dB/km @ 1,575 nm |
| Backscatter Coefficient | -79.6 dB @ 1,310 nm -82.1 dB @ 1,550 nm |
| Dispersion, maximum | 18 ps(nm-km) at 1550 nm 3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm |
| Index of Refraction | 1.467 @ 1,310 nm 1.467 @ 1,385 nm 1.468 @ 1,550 nm |
| Mode Field Diameter | 10.4 μm @ 1,550 nm 9.2 μm @ 1,310 nm 9.6 μm @ 1,385 nm |
| Mode Field Diameter Tolerance | $\pm 0.4 \mu\text{m}$ @ 1310 nm $\pm 0.5 \mu\text{m}$ @ 1550 nm $\pm 0.6 \mu\text{m}$ @ 1385 nm |
| Polarization Mode Dispersion Link Design Value, maximum | 0.04 ps/sqrt(km) |
| Standards Compliance | ITU-T G.652.D ITU-T G.657.A1 TIA-492CAAB (OS2) |

Environmental Specifications

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|--|--------------------|
| Heat Aging, maximum | 0.05 dB/km @ 85 °C |
| Temperature Dependence, maximum | 0.05 dB/km |
| Temperature Humidity Cycling, maximum | 0.05 dB/km |
| Water Immersion, maximum | 0.05 dB/km @ 23 °C |

Regulatory Compliance/Certifications

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

CS-8W-MP



* 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