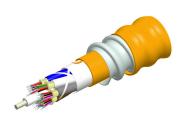# 760127597 | R-024-DZ-CM-FSUOR/8W012/6F012

Fiber Indoor cable, TeraSPEED® Riser Distribution, interlocking aluminum armored with riser jacket, 24 fiber single-unit, Gel-free, Singlemode + 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	R-DZ

General Specifications

Armor Type	Interlocking aluminum
Cable Type	Distribution
Construction Type	Armored
Subunit Type	Gel-free
Jacket Color	Orange
Jacket Marking	Feet
Composite Fiber Count	12 + 12
Total Fiber Count	24

Dimensions

Diameter Over Armor	13.34 mm	0.525 in
Diameter Over Jacket	15.4 mm	0.606 in

Representative Image

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Outer Jacket
Interlocking Aluminum Armor
Internal Riser Distribution Cable

Mechanical Specifications

Minimum Bend Radius, loaded	231 mm　|　9.094 in
Minimum Bend Radius, unloaded	154 mm　|　6.063 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	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	209 m　|　685.696 ft

Optical Specifications

Fiber Type	Composite MM/SM　|　G.652.D and G.657.A1, TeraSPEED®　|　OM1, OptiSPEED®

Environmental Specifications

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Installation temperature	-20 °C to +70 °C (-4 °F to +158 °F)
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	Riser
Flame Test Listing	NEC OFCR (ETL) and c(ETL)
Flame Test Method	UL 1666

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

Cable weight	195 kg/km	131.034 lb/kft

Regulatory Compliance/Certifications

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

Included Products

CS-6F-TB	– OptiSPEED® OM1 Multimode Fiber
CS-8W-TB	– TeraSPEED® Singlemode Fiber

* Footnotes

Operating Temperature   Specification applicable to non-terminated bulk fiber cable

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OptiSPEED®

OptiSPEED® OM1 Multimode Fiber

Product Classification

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

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

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CS-6F-TB

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

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

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

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CS-8W-TB

TeraSPEED®

TeraSPEED® Singlemode Fiber

Product Classification

Portfolio	CommScope®
Product Type	Optical fiber

General Specifications

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 Tensile Stress	100,000 psi (0.69 GPa)
Tight Buffer Diameter	900 µm
Tight Buffer Diameter Tolerance	±40 µm

Dimensions

Fiber Curl, minimum	4 m | 13.123 ft

Mechanical Specifications

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
Coating Strip Force, minimum	1.3 N | 0.292 lbf

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CS-8W-TB

Dynamic Fatigue Parameter, minimum	20

Optical Specifications

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

Attenuation, maximum	0.50 dB/km @ 1,310 nm | 0.50 dB/km @ 1,385 nm | 0.50 dB/km @ 1,490 nm | 0.50 dB/km @ 1,550 nm | 0.50 dB/km @ 1,575 nm | 0.70 dB/km @ 1,270 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	±0.4 µm @ 1310 nm | ±0.5 µm @ 1550 nm | ±0.6 µm @ 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 (OS1a)

Environmental Specifications

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

* Footnotes

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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

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