



OptiSPEED® Plenum Distribution Cable, 12 fiber single-unit

Product Classification

Portfolio	CommScope®
Product Type	Fiber indoor cable
Regional Availability	Asia Australia/New Zealand EMEA Latin America North America

Standards And Qualifications

Cable Qualification Standards	ANSI/ICEA S-83-596 Telcordia GR-409
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Representative Image



General Specifications

Cable Type	Distribution
Construction Type	Non-armored
Subunit Type	Gel-free

Construction Materials

Fiber Type Solution	OM1, OptiSPEED®
Total Fiber Count	12

Fiber Type	OM1, OptiSPEED®
Fiber Type, quantity	12
Jacket Color	Orange

Dimensions

Cable Weight	21.0 lb/kft 31.0 kg/km
Diameter Over Jacket	5.77 mm 0.23 in

Physical Specifications

Minimum Bend Radius, loaded	8.6 cm 3.4 in
Minimum Bend Radius, unloaded	5.8 cm 2.3 in
Tensile Load, long term, maximum	45 lbf 200 N
Tensile Load, short term, maximum	150 lbf 667 N
Vertical Rise, maximum	500.0 m 1640.4 ft

Flame Test Specifications

Flame Test Listing	NEC OFNP (ETL) and c(ETL)
Flame Test Method	NFPA 262

Environmental Specifications

Environmental Space	Plenum
Installation Temperature	0 °C to +70 °C (+32 °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)

Mechanical Test Specifications

Compression	10 N/mm 57 lb/in
Compression Test Method	FOTP-41 IEC 60794-1 E3
Flex	100 cycles
Flex Test Method	FOTP-104 IEC 60794-1 E6
Impact	4.34 ft lb 5.88 N-m
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

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

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



Included Products

CS-6F-TB (Product Component—not orderable) — OptiSPEED® OM1 Multimode Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

OptiSPEED®

Product Classification

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Optical Specifications, Wavelength Specific

Standards Compliance	TIA-492AAAA (OM1)
Attenuation, maximum	1.00 dB/km @ 1300 nm 3.00 dB/km @ 850 nm
Index of Refraction	1.491 @ 1300 nm 1.496 @ 850 nm
1 Gbps Ethernet Distance	300 m @ 850 nm 550 m @ 1300 nm
Bandwidth, OFL, minimum	220 MHz-km @ 850 nm 500 MHz-km @ 1300 nm
Backscatter Coefficient	-75.7 dB @ 1300 nm -68.0 dB @ 850 nm

Physical Specifications

Cladding Diameter	125.0 µm
Cladding Diameter Tolerance	±1.0 µm
Cladding Non-Circularity, maximum	1.0 %
Coating Diameter (Colored)	254 µm
Coating Diameter (Uncolored)	245 µm
Coating Diameter Tolerance (Colored)	±7 µm
Coating Diameter Tolerance (Uncolored)	±10 µm
Tight Buffer Diameter	900 µm
Tight Buffer Diameter Tolerance	±40 µm
Coating/Cladding Concentricity Error, maximum	12 µm
Core Diameter	62.5 µm
Core Diameter Tolerance	±2.5 µm
Core/Clad Offset, maximum	1.0 µm

Optical Specifications, General

Numerical Aperture	0.275
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

Mechanical Specifications

Coating Strip Force, maximum	8.9 N 2.0 lbf
Coating Strip Force, minimum	1.3 N 0.3 lbf
Dynamic Fatigue Parameter, minimum	18
Macrobanding, 75 mm mandrel, 100 turns	0.50 dB @ 850 nm 0.50 dB @ 1300 nm
Proof Test	689.48 N/mm ² 100000.00 psi

Environmental Specifications

Heat Aging, maximum	0.20 dB/km @ 85 °C
Temperature Dependence, maximum	0.10 dB/km
Temperature Humidity Cycling, maximum	0.20 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