

FREEDM® One Plenum Cables

A LANscape® Pretium™ Solutions Product

Description

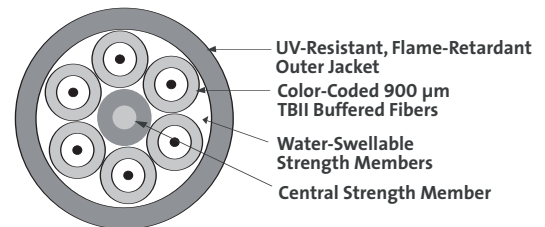
Corning Cable Systems FREEDM® One Plenum Cables are OFNP/FT-6 listed, UV-resistant and fully waterblocked for indoor/outdoor applications. They are suitable for duct and aerial installations with no need for a transition splice when entering the building. Available in fiber counts of six, 12, 18 and 24 fibers, the tight-buffered construction facilitates easier termination for low-fiber-count applications in the local area network (LAN).

Features / Benefits

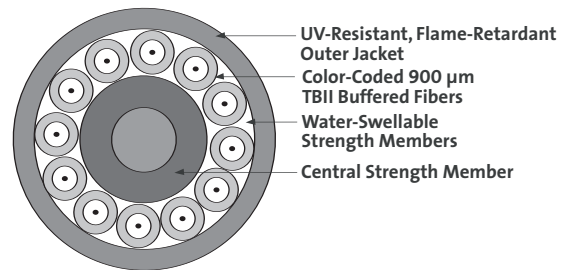
- Eliminates cable transition at the building entrance, reducing installation time and cost in addition to increasing operation margin
- Tight-buffered design eliminates need for fan-out kits
- TIA-598 color-coded 900 µm TBII® Buffered Fibers for easy identification, consistent stripping, and direct termination
- Small diameter and bend radius allow for easy installation in space-constrained areas
- All-dielectric cable construction eliminates grounding and bonding concerns
- UV resistant, flame-retardant outer jacket is rugged and durable
- Innovative waterblocking technology for OSP applications
- OFNP and FT-6 listed for plenum, riser and general purpose use
- Available with 50 µm, 62.5 µm, single-mode fiber and hybrid versions
- ICEA S-104-696 test criteria
- Available with interlocking armor for special applications requiring additional mechanical durability



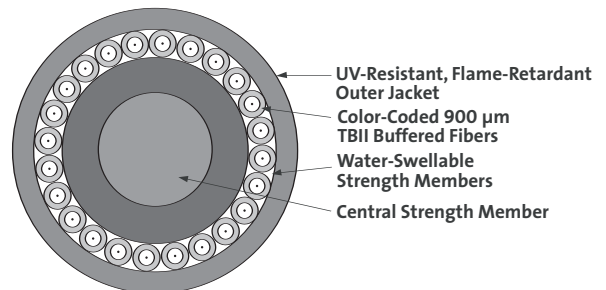
FREEDM One Plenum Cable | Photo LAN380



FREEDM One Plenum Cable, 6-Fiber | Drawing ZA-2630



FREEDM One Plenum Cable, 12-Fiber | Drawing ZA-2630



FREEDM One Plenum Cable, 24-Fiber | Drawing ZA-2630



Product Specifications

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Specifications

Temperatures	Storage: -40° to +70°C (-40° to +158°F) Installation: 0° to +60°C (+32° to +140°F) Operation: -40° to +70°C (-40° to +158°F)
Approvals and Listings	National Electrical Code® (NEC®) OFNP, CSA FT-6
Design and Test Criteria	ICEA S-104-696

Fiber Count	Nominal Weight kg/km (lb/1000 ft)	Nominal Outer Diameter mm (in)	Minimum Bend Radius		Maximum Tensile Loads	
			Loaded cm (in)	Installed cm (in)	Short-Term N (lbf)	Long-Term N (lbf)
6	37 (25)	6.2 (0.24)	9.3 (3.7)	6.2 (2.4)	1335 (300)	400 (90)
12	58 (39)	7.3 (0.29)	11.0 (4.3)	7.3 (2.9)	1335 (300)	400 (90)
18	101 (68)	9.6 (0.38)	18.2 (7.6)	9.6 (3.8)	2670 (600)	801 (180)
24	139 (94)	10.9 (0.43)	21.8 (8.6)	10.9 (4.3)	2670 (600)	801 (180)

Corning Cable Systems recommends storing indoor/outdoor cable in a proper temperature environment prior to installation to allow the cable temperature to meet installation temperature range specifications for best installation results.

Transmission Performance

Fiber Code	C	S	S	K	E
Performance Option Code	31	80	90	30	31
Fiber Type	50/125 μm (850/1300 nm)	50/125 μm (850/1300 nm)	50/125 μm (850/1300 nm)	62.5/125 μm (850/1300 nm)	Single-mode (1310/1550 nm)
Maximum Attenuation (dB/km)	3.5/1.5	3.0/1.5	3.0/1.5	3.5/1.0	0.65/0.50
Minimum LED Bandwidth (MHz•km)	500/500	1500/500	1500/500	200/500	- / -
Minimum Effective Modal Bandwidth (MHz•km)	*510/ -	**2000/ -	***4700/ -	*220/ -	- / -
Serial Gigabit Ethernet Distance (m)	600/600	1000/600	1000/600	300/550	5000/ -
Serial 10 Gigabit Ethernet Distance (m)	82/ -	300/ -	***550/ -	33/ -	10000/40000

* As predicted by RML BW, per TIA/ELA 455-204 and IEC 60793-1-41, for intermediate-performance, laser-based systems (up to 1 Gb/s).

** As predicted by minEMBc, per TIA/ELA 455-220 and IEC 60793-1-49, for high-performance, laser-based systems (up to 10 Gb/s).

*** As predicted by minEMBc, per TIA/ELA 455-220 and IEC 60793-1-49, for high-performance, laser-based systems (up to 10 Gb/s).

**** The 550 m distance is equivalent to a 4700 EMB system with standards-compliant transceiver and fiber characteristics, 3.0 dB/km cable attenuation and 1.0 dB total connector loss.

Ordering Information

□ □ □ □ 8 P - 3 1 1 □ □ - 2 9

1 2 3 4 5 6 7 8 9 10 11 12 13 14

1 - 3 Select fiber count (006, 012, 018 or 024).

4 Select fiber code (see Transmission Performance Table).

5 / 12 Defines cable type.

8/- = FREEDM® One Cable

6 Defines outer jacket.

P = Indoor/outdoor plenum

7 Defines fiber placement.

3 = Standard for FREEDM One Plenum Cable

8 Defines length markings.

1 = Markings in feet (standard) for single-layer design

9 Defines tensile strength (see Specifications).

10 - 11 Select performance option code. (see Transmission Performance Table).

13 - 14 Defines special requirements.

29 = No special requirements

CORNING

LANscape®
Pretium™ Solutions

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