

FREEDM® One Plenum Cables

A LANscape®
Solutions Product

features and benefits |

| | |
|---|---|
| Waterblocking technology | OSP applications |
| Small diameter and bend radius | Easy installation in space-constrained areas |
| Color-coded fibers | Easy identification and consistent strippings |
| All-dielectric cable construction | Requires no grounding or bonding |
| UV resistant, flame-retardant jacket | Rugged, durable and easy to strip |

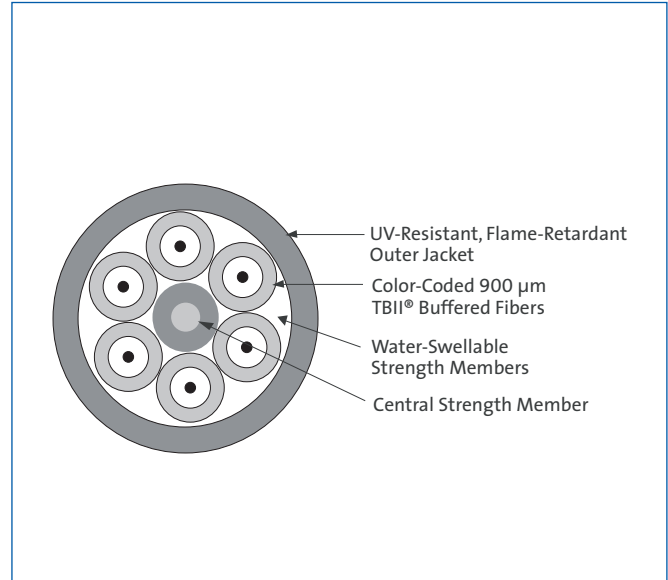
Corning Cable Systems FREEDM® One Plenum Cables are flame-retardant, indoor/outdoor, plenum cables designed for aerial and duct applications with no need for a transition splice when entering the building. Available in fiber counts of six, 12, 18 and 24 fibers, the tight-buffered construction facilitates easier termination for low-fiber-count applications in the local area network (LAN) and eliminates need for fan-out kits. The design features TIA-598 color-coded 900 µm TBII® Buffered Fibers for easy identification, consistent stripping and direct termination.

Available in 50 µm, 62.5 µm, single-mode and hybrid versions, the cable design meets ICEA S-104-696 test criteria and is also OFNP and FT-6 listed for plenum, riser and general purpose use. The small diameter and bend radius of the cable allow for easy installation in space-constrained areas, while the innovative water-blocking technology is ideal for OSP applications.

(continued)



FREEDM One Plenum Cable
| Photo LAN380

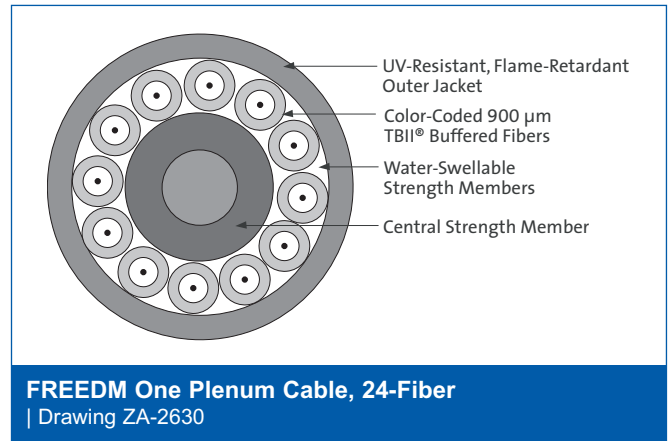
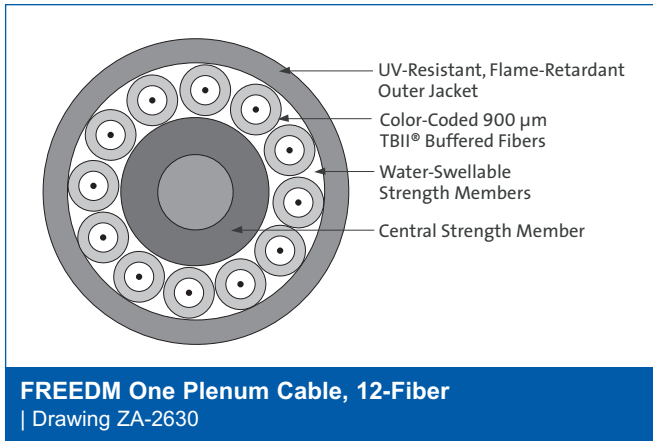


FREEDM One Plenum Cable, 6-Fiber
| Drawing ZA-2630

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The all-dielectric cable construction requires no grounding or bonding and the UV-resistant, flame-retardant jacket is rugged, durable and easy to strip. This cable is also available with interlocking armor for special applications requiring additional mechanical durability.



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

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.

| Fiber Count | Nominal Cable Weight kg/km (lb/1000 ft) | Nominal Outside Diameter mm (in) | Minimum Bend Radius Loaded cm (in) | Radius Installed cm (in) | Maximum Tensile Loads 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) | 14.4 (5.7) | 9.6 (3.8) | 2670 (600) | 800 (180) |
| 24 | 138 (93) | 10.9 (0.43) | 16.4 (6.5) | 10.9 (4.3) | 2670 (600) | 800 (180) |

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transmission performance |

| | LANscape® 62.5 Solutions | LANscape Pretium® 150 Solutions | LANscape Pretium 300 Solutions | LANscape Pretium 550 Solutions | LANscape Pretium 600 Solutions | Single-Mode |
|---|--------------------------------|---------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-----------------|
| Fiber Code | K | T | T | T | T | E |
| Performance Option Code | 30 | 31 | 80 | 90 | 91 | 31 |
| Optical Fiber Type (µm) | 62.5 Multimode | 50 Multimode | 50 Multimode | 50 Multimode | 50 Multimode | Single-mode**** |
| ISO/IEC 11801 Nomenclature | OM1 | OM2 | OM3*** | OM4*** | OM4*** | OS2 |
| Wavelength (nm) | 850/1300 | 850/1300 | 850/1300 | 850/1300 | 850/1300 | 1310/1383/1550 |
| Maximum Attenuation (dB/km) | 3.4/1.0 | 2.8/1.0 | 2.8/1.0 | 2.8/1.0 | 2.8/1.0 | 0.65/0.65/0.50 |
| Minimum Over Filled Launch (OFL) Bandwidth (MHz•km) | 200/500 | 700/500 | 1500/500 | 3500/500 | 3500/500 | - / - / - |
| Minimum Effective Modal Bandwidth (EMB) (MHz•km) | 220/ - | 950/ - | 2000/ - | 4700/ - | 5350/ - | - / - / - |
| Serial 1 Gigabit Ethernet Distance (m) | 300/550 | 750/600 | 1000/600 | 1100/600 | 1100/600 | 5000 / - / - |
| Serial 10 Gigabit Ethernet Distance (m) | 33/ - | 150/ - | 300/ - | 550*/ - | 600**/ - | 10000/ - /40000 |

* Assumes 1.0 dB maximum total connector/splice loss.

** Assumes 0.7 dB maximum total connector/splice loss.

*** Meets 0.75 ns optical skew when used in all Corning Cable Systems Plug & Play™ Systems solutions.

**** ITU 652.D compliant.

Notes:

- 1) Improved attenuation and bandwidth options available.
- 2) Bend-insensitive single-mode fibers available on request.
- 3) Contact a Corning Cable Systems Customer Service Representative for additional information.
- 4) 50 µm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.

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ordering information | Contact Customer Service at 800-743-2671 for other options.

| | | | | | | | | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|---|---|---|---|---|---|--------------------------|--------------------------|----|----|----|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8 | P | - | 3 | 1 | 1 | <input type="checkbox"/> | <input type="checkbox"/> | - | 2 | 9 |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |

|1-3

Select fiber count.
Standard offerings:
006 012 018 024

|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

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