

# FREEDM<sup>®</sup> One Interlocking Armored Plenum Cables

A LANscape<sup>®</sup>  
Solutions Product

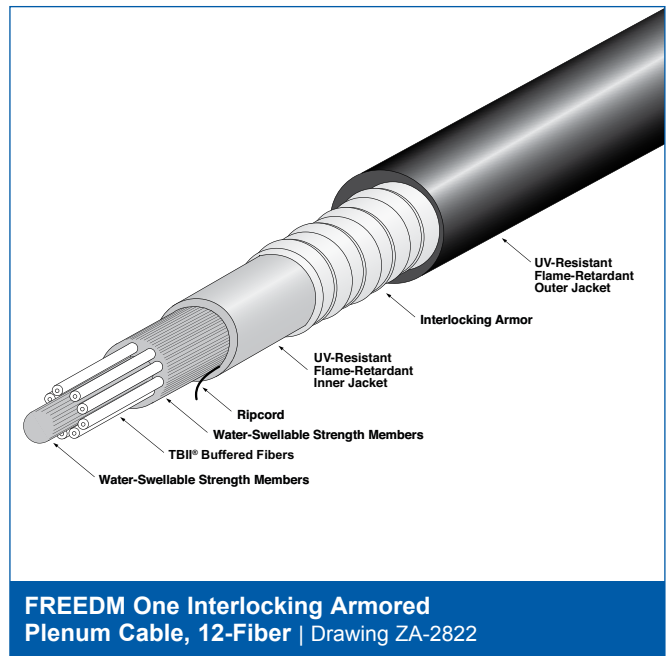
## features and benefits |

<b>Waterblocking technology</b>	OSP applications
<b>Flexible, interlocking armor design</b>	Seven times crush protection compared to unarmored cables
<b>UV-resistant, flame-retardant jacket</b>	Durable and easy to strip

Corning Cable Systems FREEDM<sup>®</sup> One Interlocking Armored Plenum Cables are flame-retardant, indoor/outdoor, plenum cables designed for interbuilding and intrabuilding backbone in plenum, riser or general-purpose applications with no need for a transition splice when entering the building. Encased in a spirally wrapped, aluminum interlocking armor for ruggedness and superior crush resistance, these cables are ideal for industrial and heavy traffic areas and installations requiring extra protection for optical cables.

Available in a compact design with fiber counts of 6-, 12-, 18- and 24-fiber cables. These cables are protected against water penetration by innovative waterblocking technology, making it ideal for OSP applications. Available in 50  $\mu$ m, 62.5  $\mu$ m, single-mode and hybrid versions, the cable design meets the application requirements of NEC<sup>®</sup> (National Electrical Code<sup>®</sup>) Article 770 and is OFCP and FT-6 listed.

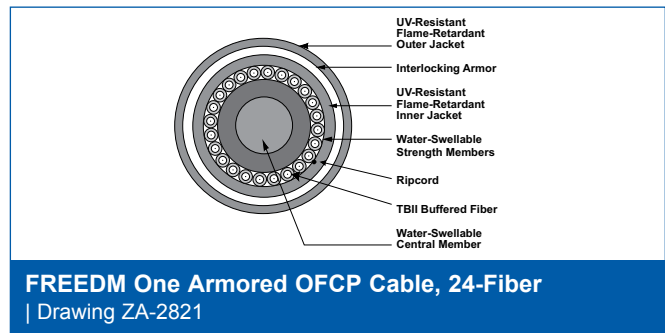
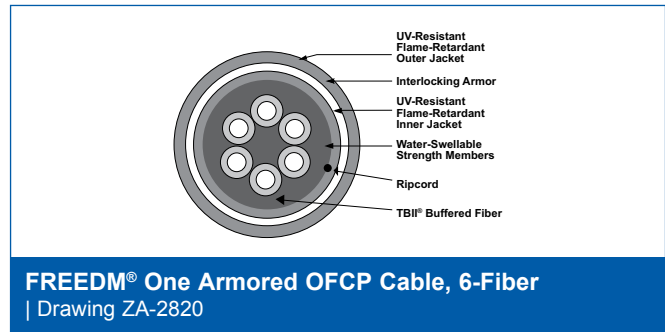
(continued)



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The flexible, interlocking armor design offers over seven times the crush protection compared to unarmored cables (as characterized to ICEA-696) and allows easy one-step installation, thereby reducing the overall installation costs. The UV-resistant, flame-retardant jacket is rugged, durable and easy to strip. This cable is available with Gigabit Ethernet and 10 Gigabit Ethernet performance.



## specifications |

<b>Temperatures</b>	Storage:	-40° to +70°C (-40° to +158°F)
	Installation:	-10° to +60°C (+14° to +140°F)
	Operation:	-40° to +70°C (-40° to +158°F)

**Approvals and Listings** National Electrical Code<sup>®</sup> (NEC<sup>®</sup>) OFCP, CSA FT-6, ICEA S-104-696

**Flame Resistance** NFPA 262 (for plenum, riser and general building applications)

*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)	Installed cm (in)
2	114 (77)	11.5 (.45)	17.3 (6.8)	11.5 (4.5)
4	117 (79)	11.5 (.45)	17.3 (6.8)	11.5 (4.5)
6	119 (80)	11.5 (.45)	17.3 (6.8)	11.5 (4.5)
12	140 (94)	12.5 (.49)	18.8 (7.4)	12.5 (4.9)
18	165 (111)	13.3 (.52)	20.0 (7.9)	13.3 (5.2)
24	188 (126)	14.6 (.57)	21.9 (8.6)	14.6 (5.7)

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## transmission performance |

	LANscape <sup>®</sup> 62.5 Solutions	LANscape Pretium <sup>®</sup> 150 Solutions	LANscape Pretium 300 Solutions	LANscape Pretium 550 Solutions	LANscape Pretium 600 Solutions	Single-Mode	Bend-Improved Single-Mode
Fiber Code	K	T	T	T	T	E	H
Performance Option Code	30	31	80	90	91	31	31
Optical Fiber Type (µm)	62.5 Multimode	50 Multimode	50 Multimode	50 Multimode	50 Multimode	Single-mode*	Bend-Improved Single-mode†
ISO/IEC 11801 Nomenclature	OM1	OM2	OM3‡	OM3‡	OM3‡	OS2	OS2
Wavelength (nm)	850/1300	850/1300	850/1300	850/1300	850/1300	1310/1383/1550	1310/1383/1550
Maximum Attenuation (dB/km)	3.4/1.0	3.0/1.0	3.0/1.0	3.0/1.0	3.0/1.0	0.65/0.65/0.5	0.65/0.65/0.5
Minimum Over Filled Launch (OFL) Bandwidth (MHz•km)	200/500	700/500	1500/500	1500/500	1500/500	- / - / -	- / - / -
Minimum Effective Modal Bandwidth (EMB) (MHz•km)	220/ -	950/ -	2000/ -	4700/ -	5350/ -	- / - / -	- / - / -
Serial 1 Gigabit Ethernet Distance (m)	300/550	750/600	1000/600	1000/600	1000/600	5000 / - / -	5000 / - / -
Serial 10 Gigabit Ethernet Distance (m)	33/ -	150/ -	300/ -	550§/ -	600**/ -	10000/ - /40000	10000/ - /40000

\* ITU 652.D compliant.

† ITU 652.D compliant, ITU 657.A compliant.

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

§ Assumes 1.0 dB maximum total connector/splice loss.

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

### Notes:

- 1) Improved attenuation and bandwidth options available.
- 2) Bend-insensitive single-mode fibers available on request.
- 3) Contact Corning Cable Systems Customer Service Representative for additional information.

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

□	□	□	□	8	P	-	3	1	1	□	□	-	A	3
1	2	3	4	5	6		7	8	9	10	11	12	13	14

## |1-3

Select fiber count.  
Standard offerings:  
002 004 006 012  
018 024

## |5 / 12

Defines cable type.  
8 / - = Standard for  
FREEDM<sup>®</sup> One Cable

## |8

Defines length markings.  
1 = Markings in feet  
(standard) for  
single-layer design

## |10-11

Select performance  
option code (see  
Transmission  
Performance table).

## |4

Select fiber code  
(see Transmission  
Performance table).

## |6

Defines outer jacket.  
P = Indoor/outdoor plenum

## |9

Defines tensile strength  
(see Specifications).

## |13-14

Defines special  
requirements.  
A3 = Aluminum interlocking  
armor with plenum-  
rated jacket

## |7

Defines fiber placement.  
3 = Standard for FREEDM  
One Plenum Cables

Corning Cable Systems LLC • PO Box 489 • Hickory, NC 28603-0489 USA  
800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • [www.corning.com/cablesystems](http://www.corning.com/cablesystems)

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