FREEDM® Fan-Out Cables

Features and Benefits

900 µm TBII® Buffered Fibers
Easy, consistent stripping

2.0 mm subunits
Easy field terminations

Flame-retardant jacket
Rugged and durable

Temperature- and water-resistant
Superior protection

All-dielectric cable construction
Requires no grounding or bonding

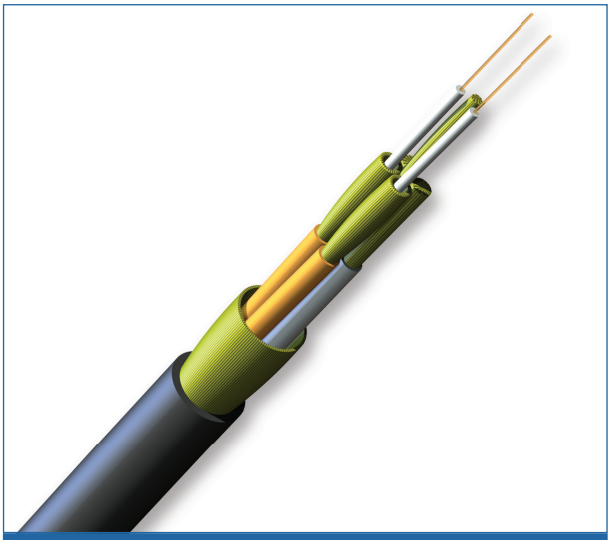
Standards

Approval and Listings	National Electrical Code® (NEC®) OFNR, CSA FT-4
Design and Test Criteria	ICEA S-104-696
Flame Resistance	UL-1666 (for riser and general building applications)

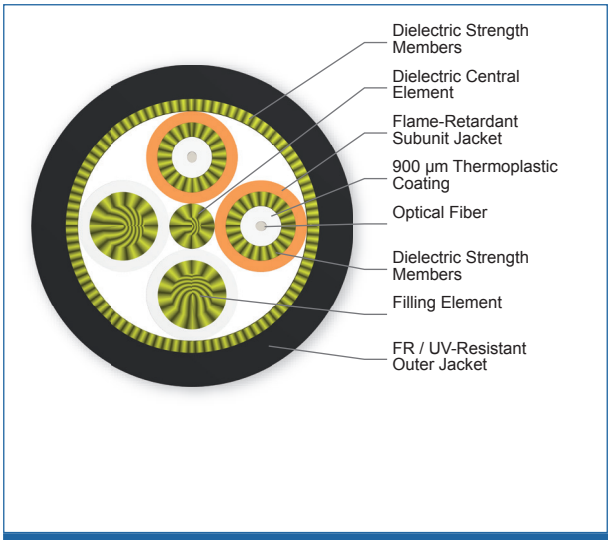
Corning FREEDM® Fan-Out Cables are designed for routing inside and outside buildings into riser spaces, to security, surveillance or monitoring cameras, and within telecommunications rooms and workstations. With no need for transition splices when entering a building, this cable provides low-fiber-count connections within building backbone riser and horizontal spaces. The indoor/outdoor temperature and water-resistant performance provides superior protection for applications, like traffic control, with optical feeds in rugged environments.

Ideal for providing direct optical connections from indoor and outdoor surveillance cameras to security control locations, these cables can also provide a secure link for surveillance or data. The flame-retardant, 900 µm TBII Buffered Fibers are available in single-mode and multimode and enable easy, consistent stripping while the 2.0 mm subunits enable easy field terminations.

The fibers are surrounded by water-resistant, dielectric strength members and protected by a flexible, flame-retardant outer jacket. These cables meet the application requirements of the National Electrical Code (NEC Article 770) and are OFNR and FT-4 listed and comply with the ICEA S-104-696 tests. The all-dielectric cable construction requires no grounding or bonding, and the small diameter and bend radius allow easy installation in space-constrained areas. FREEDM Fan-Out Cables are also available with approval for TEMPEST applications.



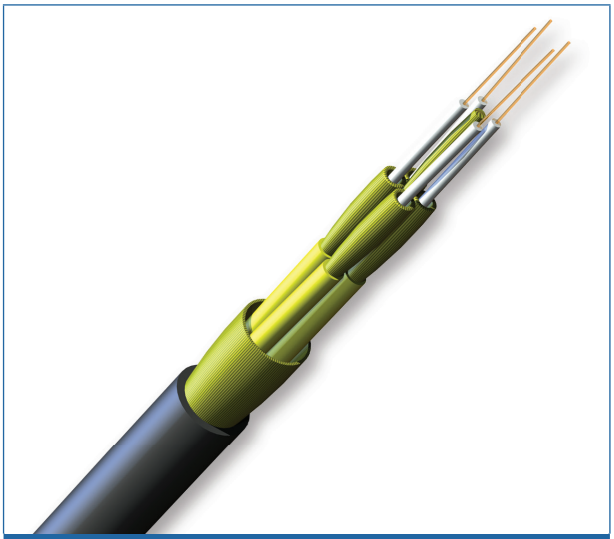
FREEDM Fan-Out Cables, 2 Fibers



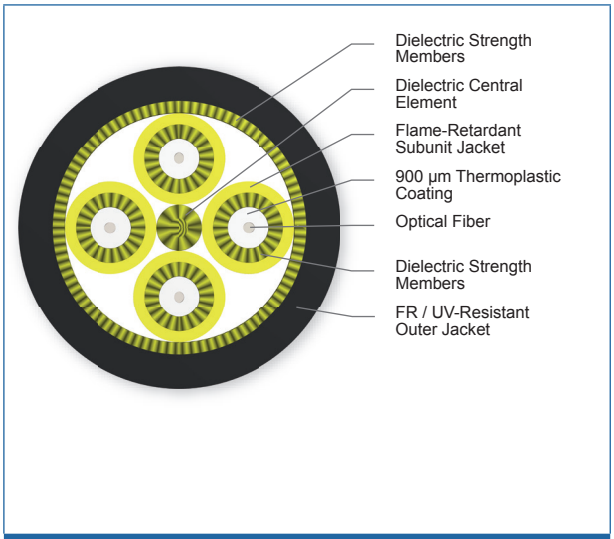
FREEDM Fan-Out Cables, 2 Fibers

FREEDM® Fan-Out Cables

CORNING



FREEDM Fan-Out Cables, 4 Fibers



FREEDM Fan-Out Cables, 4 Fibers

Specifications

Temperature Range	
Storage	-40 °C to 70 °C (-40 °F to 158 °F)
Installation	-10 °C to 70 °C (14 °F to 158 °F)
Operation	-40 °C to 70 °C (-40 °F to 158 °F)

** Note: Corning recommends storing cable in a proper temperature environment prior to installation to allow the cable temperature to meet installation temperature range specifications for best installation results.*

Mechanical Characteristics Cable	
Max. Tensile Strengths, Short-Term	660 N (150 lbf)
Max. Tensile Strengths, Long-Term	330 N (75 lbf)

Fiber Count	Product Type	Nominal Outer Diameter	Weight	Min. Bend Radius Installation	Min. Bend Radius Operation
1 - 4	Dielectric	7.0 mm (0.28 in)	32 kg/km (21 lb/1000 ft)	105 mm (4.1 in)	70 mm (2.8 in)

CORNING

FREEDM® Fan-Out Cables

CORNING

Chemical Characteristics	
RoHS	Free of hazardous substances according to RoHS 2002/95/EG

Transmission Performance

Fiber Type Fiber Core Diameter (µm)	Multimode 62.5	Multimode 50	Multimode 50	Multimode 50	Multimode 50	Single-mode 8.2
Fiber Category	OM1	OM2	OM3	OM4	OM4 Extended Distance	OS2
Fiber Code	K	T	T	T	T	E
Performance Option Code	30	31	80	90	91	31
Wavelengths (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
Min. Overfilled 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 (m)	300 / 550	750 / 600	1000 / 600	1100 / 600	1100 / 600	5000 / - / -
Serial 10 Gigabit Ethernet (m)	33 / -	150 / -	300 / -	550 / -	600 / -	10000 / - / 40000
Induced Attenuation @ 7.5 mm Radius (dB)			< 0.2 up to 80			

** 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 Plug and Play™/Pretium EDGE® Systems Solutions.*
** ITU-T G.652 D compliant.*

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

CORNING

FREEDM® Fan-Out Cables

CORNING

Ordering Information | *Contact Customer Care at 1-800-743-2675 for other options.*

1	2	3	4	5	6	7	8	9	10
□ □ □	□	6	F	- 3	1	3	□ □	-	2 9

1 Select fiber count.
Standard offerings:
001-004

2 Select fiber code.
K = 62.5 µm multimode (OM1)
T = 50 µm multimode (OM2/OM3/OM4/OM4+)
E = Single-mode (OS2) SMF-28e+® fiber

3 Defines cable type.
6 = Standard for fan-out cables

4 Defines outer jacket.
F = FREEDM® Riser Indoor/Outdoor Cable jacket

5 Defines fiber placement.
3 = Two subunits

6 Select length markings.
1 = Markings in ft (standard)

7 Defines subunit diameter.
3 = 2.0 mm subunits

8 Select performance option code.
30 = 62.5 µm multimode (OM1)
31 = 50 µm multimode (OM2)
80 = 50 µm multimode (OM3)
90 = 50 µm multimode (OM4)
91 = 50 µm multimode (OM4+)
31 = Single-mode OS2
(Max. attenuation .65 / .65 / 0.5 dB/km)

9 Defines cable type.
- = Standard for fan-out cables

10 Defines special requirements.
29 = No special requirements

Note: This cable is available in 12 different jacket colors: blue, orange, green, brown, slate, white, red, black, yellow, violet, rose and aqua. Black is the standard jacket color using the part number configurator above. Contact Customer Care at 1-800-743-2675 to order other color options.

RoHS COMPLIANT

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

CORNING