

ActiFi™ FREEDM® DAS, Indoor/Outdoor Cables, Riser



Features and Benefits

14 or 16 AWG copper conductor

Power transmission with flexibility in design

4-, 6-, 12- or 24-fibers

Readily identifiable

Individual fibers

Easily accessible for splicing

ClearCurve® ZBL or SMF-28® Ultra fibers

Reliable performance in challenging routes

2-in-1 composite cable design

One cable meets power and signal needs

Common Installations

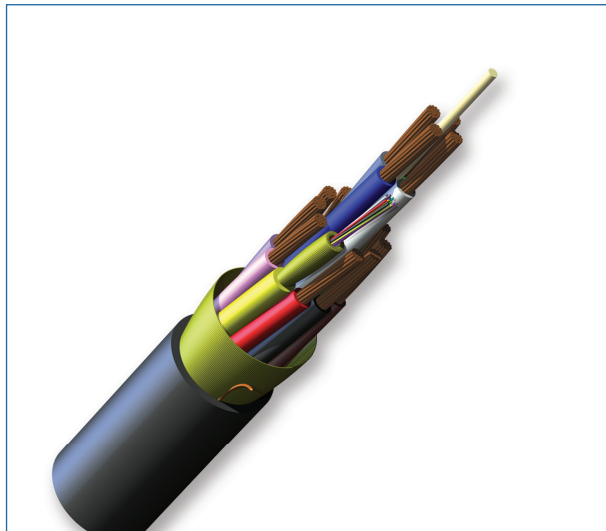
Compliant with ICEA S-83-596 (compliant at tensile loads listed in the specifications table)

Corning ActiFi™ FREEDM® Cables provide the ultimate solution for indoor-outdoor remote powering of distributed antenna systems (DAS). The designs use 6-, 12- or 24-fiber cables with 2, 4, 6 or 12 copper conductors. The gauge of wire (14 or 16 AWG) necessary to power the remote active gear determines distance traveled and strength required.

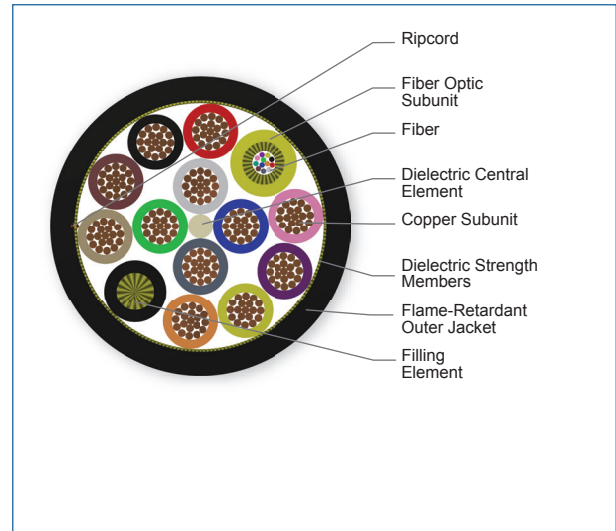
Corning ActiFi™ FREEDM® Cables provide a time and cost-saving solution for installations requiring remotely-powered equipment. By integrating copper and fiber in one cable, ActiFi FREEDM Cables eliminate the need to install separate power and fiber cables. This saves installation time, labor costs and duct or tray space. The compact and versatile design is available in riser or interlocking armored riser for additional protection where conduit may not be feasible.

Standards

Listings	Fibers compliant with ITU-T G.652.D and G.657.B3
Design and Test Criteria	Compliant with UL-13 and NEC 725 Class 2 (CL2P)



ActiFi™ FREEDM® DAS Cables for Indoor/Outdoor Riser, 12-Fibers



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Specifications

Temperature Range	
Storage	-40 °C to 70 °C (-40 °F to 158 °F)
Installation	0 °C to 60 °C (14 °F to 140 °F)
Operation	-20 °C to 70 °C (-4 °F to 158 °F)

Mechanical Characteristics Cable	
Max. Tensile Strength, Short-Term	2700 N (600 lbf)
Max. Tensile Strength, Long-Term	810 N (180 lbf)

Fiber Count	Number of Conductors	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
MIC® 250 Cable with 12AWG					
4 - 12	6	247 kg/km (165 lb/1000 ft)	13.3 mm (0.52 in)	199.5 mm (7.85 in)	133 mm (5.24 in)
4 - 12	4	217 kg/km (145 lb/1000 ft)	10.9 mm (0.43 in)	163.5 mm (6.44 in)	109 mm (4.29 in)
6 - 12	12	542 kg/km (363.1 lb/1000 ft)	17.9 mm (0.70 in)	268.5 mm (10.57 in)	179 mm (7.05 in)
24	12	578 kg/km (387.3 lb/1000 ft)	17.9 mm (0.70 in)	268.5 mm (10.57 in)	179 mm (7.05 in)
MIC® 250 Cable with 14AWG					
6	2	93 kg/km (62 lb/1000 ft)	8.3 mm (0.33 in)	124.5 mm (4.90 in)	83 mm (3.27 in)
6 - 12	4	147 kg/km (98 lb/1000 ft)	9.9 mm (0.39 in)	148.5 mm (5.85 in)	99 mm (3.90 in)
6 - 12	6	224 kg/km (150 lb/1000 ft)	11.2 mm (0.44 in)	168 mm (6.61 in)	112 mm (4.41 in)
6 - 12	12	372 kg/km (249 lb/1000 ft)	14.2 mm (0.56 in)	213 mm (8.39 in)	142 mm (5.59 in)
12	2	94 kg/km (63 lb/1000 ft)	8.3 mm (0.33 in)	124.5 mm (4.90 in)	83 mm (3.27 in)
24	2	110 kg/km (74 lb/1000 ft)	9.1 mm (0.36 in)	136.5 mm (5.37 in)	91 mm (3.58 in)
24	4	164 kg/km (110 lb/1000 ft)	10.7 mm (0.42 in)	160.5 mm (6.32 in)	107 mm (4.21 in)
24	6	265 kg/km (178 lb/1000 ft)	12.5 mm (0.49 in)	187.5 mm (7.38 in)	125 mm (4.92 in)
24	12	380 kg/km (255 lb/1000 ft)	14.2 mm (0.56 in)	213 mm (8.39 in)	142 mm (5.59 in)

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Fiber Count	Number of Conductors	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
Micro Modules with 16AWG					
6	2	57 kg/km (38 lb/1000 ft)	7.0 mm (0.28 in)	105 mm (4.13 in)	70 mm (2.76 in)
6 - 12	4	88 kg/km (59 lb/1000 ft)	7.7 mm (0.30 in)	115.5 mm (4.55 in)	77 mm (3.03 in)
6 - 12	6	132 kg/km (88 lb/1000 ft)	8.7 mm (0.34 in)	130.5 mm (5.14 in)	87 mm (3.43 in)
6 - 24	12	225 kg/km (151 lb/1000 ft)	11.2 mm (0.44 in)	168 mm (6.61 in)	112 mm (4.41 in)
12 - 24	2	58 kg/km (39 lb/1000 ft)	7.0 mm (0.28 in)	105 mm (4.13 in)	70 mm (2.76 in)
24	4	90 kg/km (60 lb/1000 ft)	7.8 mm (0.31 in)	117 mm (4.61 in)	78 mm (3.07 in)
24	6	137 kg/km (92 lb/1000 ft)	9.4 mm (0.37 in)	141 mm (5.55 in)	94 mm (3.70 in)

Chemical Characteristics

RoHS Free of hazardous substances according to RoHS 2011/65/EU

Transmission Performance

Single-mode		
Fiber Name	ClearCurve® ZBL	SMF-28® Ultra fiber
Fiber Category	G.657.B3/G.652.D	G.657.A1
Fiber Code	U	Z
Performance Option Code	01	01
Wavelengths (nm)	1310/1383/1550	1310/1383/1550
Maximum Attenuation (dB/km)	0.4/0.4/0.3	0.4/0.4/0.3
Typical Attenuation* (dB/km)	0.35/0.35/0.20	0.33/0.33/0.19

* For more information on typical attenuation please see the Corning whitepaper at http://csmedia.corning.com/opcomm//Resource_Documents/whitepapers_r1/LAN-1863-AEN.pdf

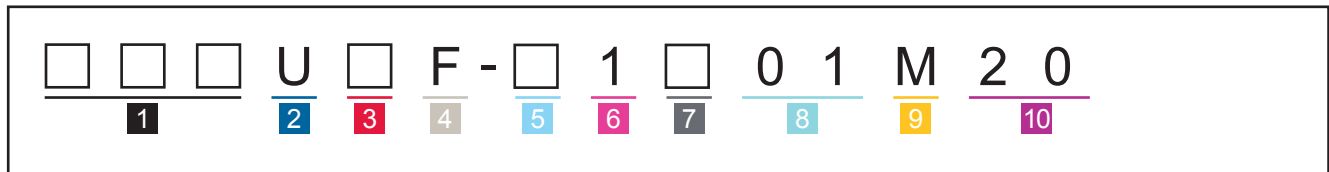
** SMF-28® Ultra fiber delivers up to 10x better macrobend loss performance compared to the G.652.D standard and up to 33 percent better macrobend loss performance than the G.657.A1 standard for 10mm radii bends.

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



1 Select fiber count.
004 = 4 fiber 012 = 12 fiber
006 = 6 fiber 024 = 24 fiber

2 Defines fiber type.
U = ClearCurve® ZBL (OS2)
Z = SMF28® Ultra fiber (OS2)

3 Select cable construction.
D = MIC® 250 with 12 or 14 AWG
T = Micro modules with 16 AWG

4 Defines outer jacket.
F = Indoor/outdoor riser

5 Select number of copper conductors.
2 = 2 conductors
(not offered with 12 AWG)
4 = 4 conductors
6 = 6 conductors
M = 12 conductors

6 Defines unit of measure.
1 = Feet

7 Select cable construction.
F = MIC 250 with 12 AWG
G = MIC 250 with 14 AWG
H = Micro modules with 16 AWG

8 Defines performance option code.
01 = Single-mode, OS2
(Max. attenuation 0.4/0.4/0.3 dB/km)

9 Defines cable construction.
M = Hybrid (composite) cable

10 Defines print code.
20 = Non-armored



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