

ActiFi™ FREEDM® DAS Cables for Indoor/Outdoor Riser



Features and Benefits

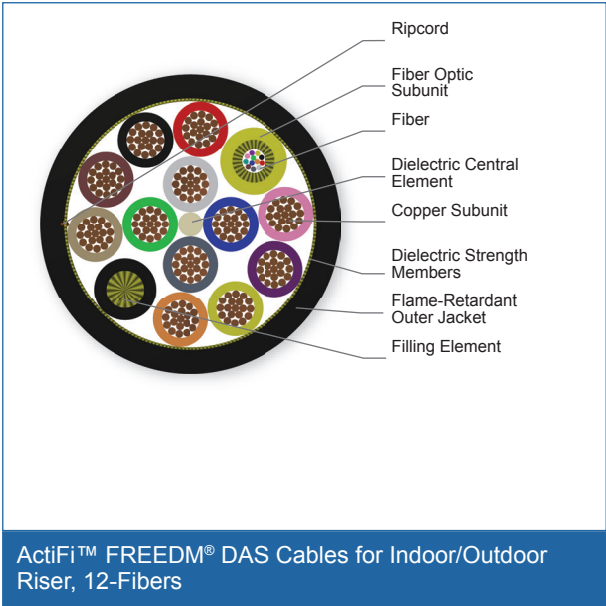
14 or 16 AWG copper conductor
Power transmission with flexibility in design
4-, 6-, 12- or 24-fibers
Readily identifiable
Individual fibers
Easily accessible for splicing
ClearCurve® ZBL or SMF-28e+® ULTRA fibers
Reliable performance in challenging routes
2-in-1 cable design
One cable meets power and signal needs

Standards

Approval and Listings	Fibers compliant with ITU-T G.652.D and G.657.B3
Common Installations	Compliant with ICEA S-83-596 (compliant at tensile loads listed in the specifications table)
Design and Test Criteria	Compliant with UL-13 and NEC 725 Class 2 (CL2P)

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.



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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)

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

Mechanical Characteristics Cable					
Fiber Count	Number of Conductors	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
MIC® 250 Cable with 12AWG					
4 - 6	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)
6 - 4	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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Mechanical Characteristics Cable

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 2002/95/EG
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Transmission Performance

Single-mode		
Fiber Name	ClearCurve® ZBL	SMF-28® Ultra
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

* Typical attenuation values match the attenuation values listed in the optical fiber specifications. See www.corning.com/opticalfiber for Corning optical fiber specifications. Better attenuation performance options are available for some fiber and cable types. Contact Customer Care for additional fiber options.

* * SMF-28® Ultra and ClearCurve® XB fiber deliver 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.

			U		F	-		1		0	1	M	2	0
1			2	3	4		5	6	7		8	9		10

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)
*If you select Z, choose from 6 or 12
conductors in Option 5.*

3 Select cable construction.

D = MIC® 250 with 12 or 14 AWG
T = Micro modules with 16 AWG
*If you select D, choose F or G from Option 7.
If you select T, choose H from Option 7.*

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

Standard Offerings:

12 gauge: Non-armored, Plenum	__ _UD8-_1F01M20
14 gauge: Non-armored, Plenum	__ _UD8-_1G01M20
16 gauge: Non-armored, Plenum	__ _UT8-_1H01M20

Note: Confirm non-standard configurations with Customer Care at 800-743-2571.



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