

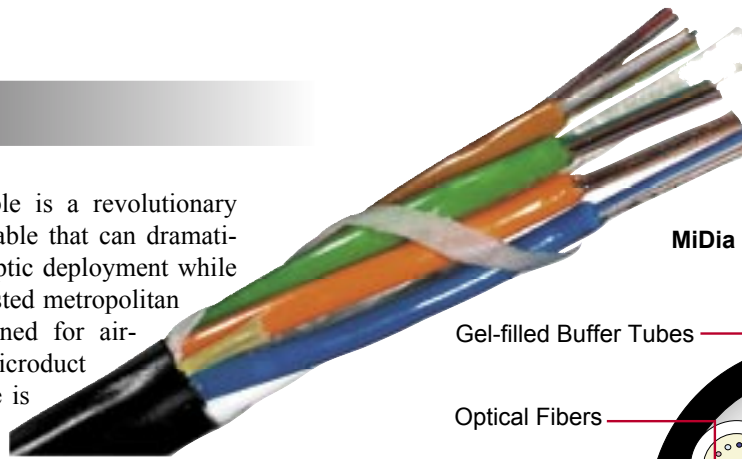
MiDia[®] FX *plus* Cable

Maximizing the Capacity and Cost-effectiveness of Metropolitan Fiber Access

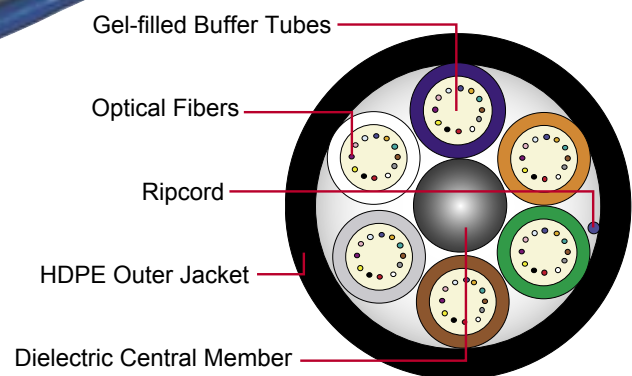
Product Description

The MiDia[®] FX *plus* cable is a revolutionary new reduced diameter cable that can dramatically lower the cost of fiber optic deployment while maximizing capacity in congested metropolitan networks. Specifically designed for air-blown installation using microduct systems, MiDia FX *plus* cable is size-optimized for a maximum of 72 fibers.

To construct this all-dielectric cable, the optical fibers are placed in space-efficient, gel-filled buffer tubes that protect the fibers. The color-coded tubes are then stranded around a dielectric central member using the reverse oscillating lay (ROL) stranding technique for easy, mid-span fiber access. Dry Core water-blocking material is then applied for exceptional water-blocking performance and quicker cable preparation. A ripcord and a durable high-density polyethylene (HDPE) jacket complete the cable construction.



MiDia FX *plus* Cable



Why the MiDia FX *plus* Cable?

The MiDia FX *plus* cable's small outer diameter and high fiber density maximize capacity in heavily congested duct systems where space is at a premium (as in city networks).

MiDia FX *plus* cable's lightweight, flexible design can also save time and money with fast and easy air-blown installation. By using the air-blown method with inexpensive microduct networks, MiDia FX *plus* cable further helps save on build costs by eliminating the need for expensive and disruptive excavation along with procuring costly rights-of-way.

MiDia FX *plus* cable also helps service providers to reduce their initial network build investment by deploying fiber only as needed to meet demand. This capability helps providers in the future to consistently maintain the highest performance fibers in their networks, while avoiding the costs of procuring additional rights-of-way and constructing new ducts.

Features and Benefits

- Optimized for air-blown, microduct installations, including networks in heavily congested metropolitan areas
- Lower deployment costs with fast and easy installation
- Reduced diameter and high fiber density ratio maximize capacity in limited spaces
- Deferred build costs with fiber deployed only as needed
- Dry Core Design – Cable core water blocked for quicker, cleaner cable preparation for jointing
- Meets Telcordia Technologies GR-20 standards for environmental and mechanical performance
- 300 pound/1335 N rated pulling tension
- Features OFS application-specific fibers, including AllWave[®] and TrueWave[®] fibers

Test and Methods*

Cable Test Method	Test Level	Requirement
Tensile Performance Telcordia GR-20 Core {TIA/EIA-455-33 (IEC 60794-1-2-E1)}	Short-term (installation) load- 300 lb (1335 N)	No damage** under 360° twist over 3 m; fiber strain ≤ 60% of fiber proof strain
	Long-term (operating) load- 90 lb (400 N)	90% ≤ 0.05 dB Max. added loss (100% ≤ 0.15 dB Max. added loss); fiber strain ≤ 20% of fiber proof strain
Compressive Strength Telcordia GR-20 Core {TIA/EIA-455-41 (IEC 60794-1-2-E3)}	Short-term (installation) load- 125 lbf/in (220 N/cm)	No damage**
	Long-term (operating) load- 63 lbf/in (110 N/cm)	90% ≤ 0.05 dB Max. added loss (100% ≤ 0.15 dB Max. added loss)
Impact Resistance Telcordia GR-20 Core {TIA/EIA-455-25 (IEC 60794-1-2-E4)}	Two impacts of 4.4 J at three locations	No damage**: 90% ≤ 0.05 dB Max. added loss (100% ≤ 0.15 dB Max. added loss)
Cable Cyclic Flexing Telcordia GR-20 Core {TIA/EIA-455-104 (IEC 60794-1-2-E6)}	25 cycles of ± 180° flexes over bend diameter of 20 x D [‡]	No damage [†] ; 90% ≤ 0.05 dB Max. added loss (100% ≤ 0.15 dB Max. added loss)
Cable Twist Telcordia GR-20 Core {TIA/EIA-455-85 (IEC 60794-1-2-E7)}	10 cycles of ± 180° twists over 6.6 ft (2 m)	No damage [†] ; 90% ≤ 0.05 dB Max. added loss (100% ≤ 0.15 dB Max. added loss)
High and Low Temperature Bend Telcordia GR-20 Core {TIA/EIA-455-37 (IEC 60794-1-2-E11)}	At -22° F (-30° C) and 60° F (140° C) @ bend diameter of 20 x D [‡]	No damage [†] ; 90% ≤ 0.05 dB Max. added loss (100% ≤ 0.15 dB Max. added loss)
Temperature Cycling Telcordia GR-20 Core {TIA/EIA-455-37 (IEC 60794-1-2-F1)}	Temperature extremes: -40°F (-40° C), 158° F (70° C)	Average added loss ≤ 0.05 dB/km. Max. added loss for any fiber ≤ 0.15 dB/km

- Notes: *Qualified as specified by Telcordia GR-20-CORE, which references TIA-EIA test procedures which are similar to IEC 60794 test procedures.
 ** Mechanical damage- when examined visually without magnification, there shall be no evidence of damage (cracking or splitting) to the sheath. The imprint from test equipment will not be considered damage.
 † Mechanical damage- when examined visually under 5X magnification, there shall be no evidence of damage (cracking or splitting) to the sheath. The imprint from test equipment will not be considered damage.
 ‡ D= cable diameter

Ordering Information

Cable Codes	Attenuation
Single-mode AllWave Fiber AT-3BE4XCT-072	0.35/0.25dB/km @ 1310/1550 nm
Single-mode TrueWave Fiber AT- 6264XCT-072	0.25 dB/km @ 1550 nm
62.5 micron Multimode AT-RU94XCT-072	3.5/1.0 dB/km & 200/500 MHz-km @ 850/1300 nm

For additional information please contact your sales representative. You can also visit our website at <http://www.ofsoptics.com> or call 1-888-fiberhelp.

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Technical Specifications

Specifications	
Fiber Count:	2-72
Outside Diameter:	0.3 in (7.5 mm)
Cable Weight:	34 lb/kft (50 kg/km)
Handling	
Minimum Bend Diameter With load	40 x OD (300 mm)
Minimum Bend Diameter No load	20 x OD (150 mm)
Maximum Pulling Load:	300 lbf (1335 N) Tensile Rating
Maximum Operational Load:	90 lbf (400N)
Temperature	
Installation:	5°F to 140° F (-15°C to 60°C)
Operation:	-40°F to 158°F (-40°C to 70°C)
Storage:	-40°F to 158°F (-40°C to 70°C)

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