OptiSheath® MF2 or MF4 MultiPort Terminal Solution

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Features and Benefits

Scalable terminal solution
Preconnectorized solution enables rapid connection to future equipment adds

Environmentally hardened, low-profile design
Minimum wind load and weight; easy mounting, minimal structural impact

Field-proven, standards-tested, hardened 2-fiber and 4-fiber optical connectors
Lower installation cost, maximum reliability, outside plant durability

Available with an integrated cable stub or non-stubbed for connection of an input cable assembly
Simplifies installation and leasing costs

Standards

Design and Test Criteria	Designed and third-party tested to requirements of Telcordia GR-771-CORE, Issue 1

The OptiSheath® MF2 or MF4 MultiPort Terminal Solution is ideal for use in fiber-to-the-antenna (FTTA) applications. This innovative solution includes the OptiSheath MF2 or MF4 MultiPort Terminal and remote radio cable assemblies (RRCAs). These cable assemblies, featuring OptiTip® Multifiber Connector technology, create the optical link between the remote radio unit (RRU) and a tower-top consolidation terminal, such as the MF2 or MF4 terminal.

OptiSheath MF2 or MF4 MultiPort Terminals are available with two, three, four, six, eight or 12 OptiTip Multifiber Connector ports, each with two or four fibers (thus making the terminal an MF2 with two fibers per port or an MF4 with four fibers per port). The OptiTip Connector features the MT connector ferrule in an environmentally hardened connector body.

The terminals are available with either an integrated cable stub or without a stub (non-stubbed) for connection of an input cable assembly. The integrated cable stub is available in a range of cable lengths in both flat and round cable designs. The stub can be ordered as a bare end for splicing or preterminated for plug-in connections. Termination options include the OptiTip Multifiber Connector, SC or LC connectors. Non-stubbed OptiSheath MF2 and MF4 MultiPort Terminals are used with an OptiTip Vertical Cable Assembly as an input from the base station. Multifiber connector ports support a variety of network designs, and spare ports provide a fast track for growth. The terminal's versatility simplifies inventory and installation techniques, allowing for quick,

OptiTip Multifiber Connector
| Photo LAN1000

OptiSheath MF2 MultiPort Terminal
| Photo TRCLS151

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easy and reliable deployments.

Where a tower-top consolidation terminal is used, the RRCA creates a short link to each remote radio that can be easily placed and connected. The assemblies are made with lightweight, low-profile cables and offer a range of single-fiber and multifiber connector options. Preconnectorized solutions are especially beneficial in the tower-top environment for their high quality and rapid installation without the use of highly specialized tools.

Specifications

Optical Characteristics				
	Insertion Loss, Typical	Insertion Loss, Maximum	Reflectance	Fiber Type
SC	0.35 dB	0.50 dB		Multimode
SC UPC	0.15 dB	0.50 dB	≤ -59 dB	Single-mode
LC	0.35 dB	0.50 dB		Multimode
LC UPC	0.15 dB	0.50 dB	≤ -58 dB	Single-mode
OptiTip Multifiber Connector	0.30 dB	0.75 dB		Multimode
OptiTip Multifiber Connector	0.30 dB	0.75 dB	≤ -55 dB	Single-mode

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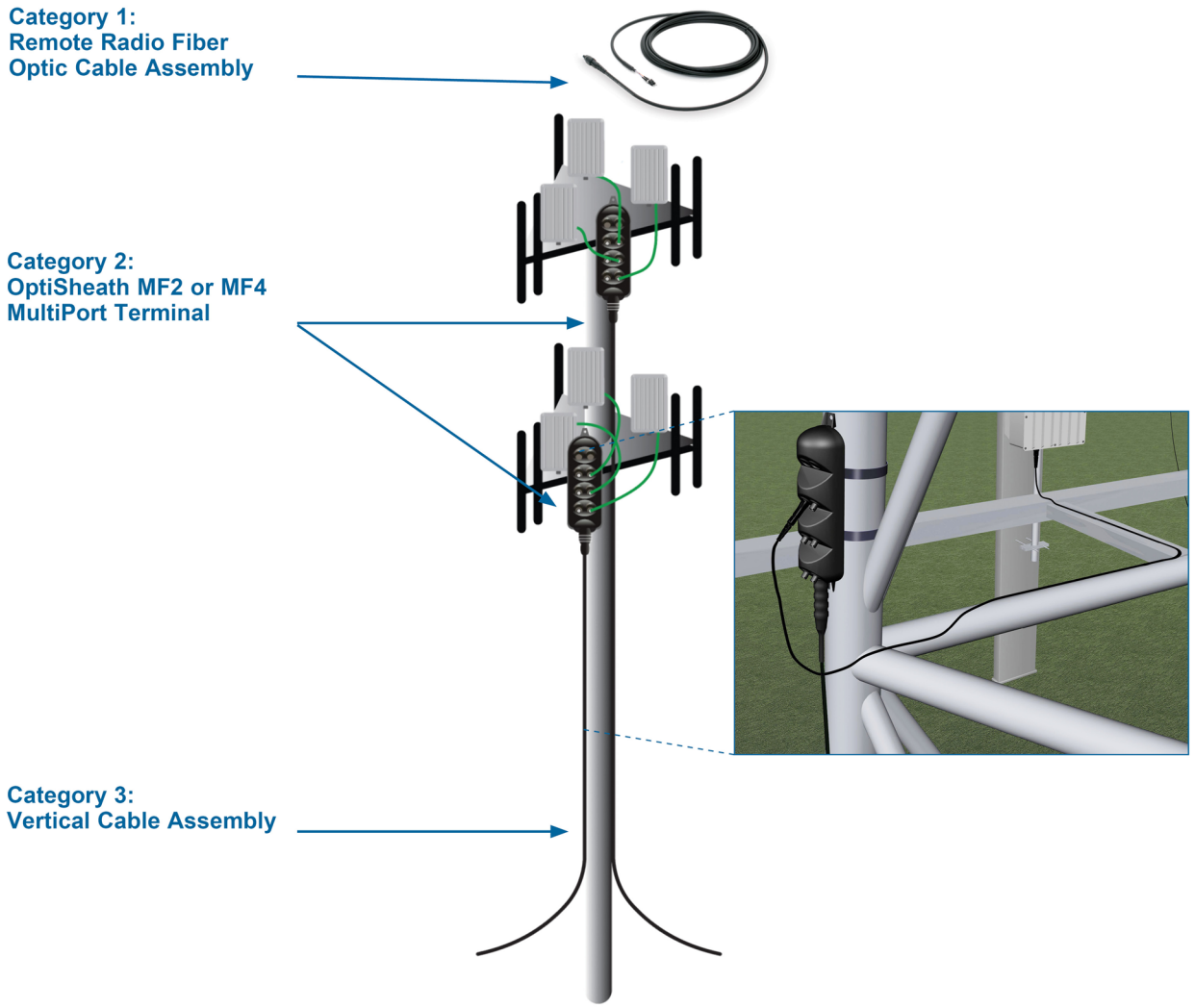
Building a Complete Optical Connectivity Tower Solution



Remote Radio FO Cable Assembly can be combined with the OptiSheath MF2 or MF4 MultiPort Terminal to create a Preconnectorized Solution with easy tower-top management | Drawing MM189A

To construct a complete optical connection from tower base electronics to the remote radio unit at the top of the tower, choose one option from the three categories:

1. **Remote Radio Fiber Optic Cable Assembly**
2. **OptiSheath MF2 or MF4 MultiPort Terminal**
3. **Vertical Cable Assembly to Connect OptiSheath MultiPort Terminal** (Optional: these assemblies connect non-stubbed terminals to the tower base)

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Category 1: Stubbed with Raw-Ended Cable (“Pigtailed”)

Ordering Information

MF ☐☐ - 00 ☐☐ ☐☐ ☐ ☐☐ S ☐☐☐ ☐

1 2 3 4 5 6 7

1 Select number of fibers per connector.
- 02 = 2 fibers
- 04 = 4 fibers

2 Select connector type 2 (terminal side of cable).
- 77 = Single-mode OptiTip pinned connector ports
- 67 = Multimode OptiTip pinned connector ports

3 Select total fiber count.
- 04 = 4 fibers (two ports for MF02, one port for MF04)
- 06 = 6 fibers (three ports for MF02, N/A for MF04)
- 08 = 8 fibers (four ports for MF02, two ports for MF04)
- 12 = 12 fibers (six ports for MF02, three ports for MF04)
- 16 = 16 fibers (eight ports for MF02, four ports for MF04)
- 24 = 24 fibers (12 ports for MF02, six ports for MF04)
- 36 = 36 fibers (N/A for MF02, nine ports for MF04)
- 48 = 48 fibers (N/A for MF02, 12 ports for MF04)

4 Select fiber type.
- E = Single-mode (OS2)
- T = 50 µm multimode (OM3)
- B = 50 µm multimode (OM2)

5 Select cable type.
- B1 = SST toneable (up to 12 fibers only)
- B4 = SST dielectric (up to 12 fibers only)
- ML = MiniXtend loose tube
- SL = Stranded loose tube

6 Select cable length.

See Notes 1 and 2.

7 Select unit of measure.
- M = Meters
- F = Feet

Table A: Alpha Codes for lengths ≥ 1000 ft

A00	=	1000
B00	=	1100
C00	=	1200
D00	=	1300
E00	=	1400
F00	=	1500
G00	=	1600
H00	=	1700
J00	=	1800
K00	=	1900
L00	=	2000

1) Standard cable length is 10 ft or 3 m. Additional lengths may be ordered in increments of 25 ft or 10 m. For lengths ≥ 1000 ft (see Table A). Maximum length is 2000 ft or 610 m.
2) Shipping reel provided on lengths greater than 350 ft or 106 m.

OptiSheath MF2 or MF4 MultiPort Terminal with Bare-End Stub | Drawing ZA-3740

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Category 2: Vertical Cable Assembly

Non-Stubbed Terminal Vertical Cable Assembly
| Photo CCA241

Ordering Information

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1 2 3 4 5 6

1 Select connector type one.
M1 = OptiTip MT Connector (non-pinned), single-mode
M3 = OptiTip MT Connector (non-pinned), multimode

2 Select connector type two.
02 = LC UPC single-mode
58 = SC UPC single-mode
61 = ST Compatible Connector, single-mode
90 = MTP Compatible Connector, single-mode
03 = LC multimode
39 = SC multimode
50 = ST Compatible Connector, multimode
69 = MTP Compatible Connector, multimode

3 Select fiber count.
04 = 4 fibers
06 = 6 fibers
08 = 8 fibers
12 = 12 fibers

4 Select fiber type.
E = Single-mode (OS2)
T = 50 µm multimode (OM3)

5 Select cable type.
B4D1E = SST-Drop Dielectric Cable
BZD1X = FREEDM LSZH Cable

6 Select cable length.
Overall maximum length in ft is 2500
0001-2500
See Notes 1 and 2.

1) Choose overall length in ft (maximum 2500 ft); for example, 050 = 50 ft, 100 = 100 ft, 900 = 900 ft. For lengths from 1000 to 2500 feet refer to length code table on page 6.
2) Length tolerance is > 50 ft (-0 to +52 in).Lengths must be in 10 ft increments only.
3) Single-fiber connectors are terminated on 24-in long, 2.0 mm jacketed furcation legs. The MTP Connector is terminated on a 24-in long, 2.9 round furcation leg.

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Accessories

Part Number	Product Description	Units per Delivery	
CLEANER-PORT-2.5	Single-fiber Port Cleaner for all 2.5 mm ferruled connectors such as FC, SC and ST® Compatible Connectors; effective for PC, UPC and APC polishes	1/1	
CLEANER-PORT-LC	Single-fiber Port Cleaner for LC, keyed LC, and MU connector end faces for both UPC and APC polishes	1/1	
CLEANER-UNIV-CASS	Universal Connector Cleaning Cassette, offers more than 500 cleanings	1/1	
2104478-01	Fiber Optic Cleaning Tool, OptiTip® connector	1/1	

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Related Products

OptiSheath MF2 or MF4 MultiPort Terminal Standard Recommended Procedure (SRP)	206-422
Wireless Consolidation Terminal (WCT)	EVO-1005-EN
Cell Site Drop Cable Assembly	EVO-1018-EN
OptiTip Connector Assemblies for Wireless Applications	EVO-1019-EN
OptiTip Module Rack- and Wall-Mount Solution	EVO-1090-EN
Closet Connector Housing (CCH)	LAN-1129-EN

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