

## Intelligent Multi-Fiber Cables for a Managed Physical Layer

Fiber Mountain’s pre-terminated multi-fiber Intelligent Connection Identification (ICID) cables couple with Fiber Mountain’s products to provide a managed physical layer. ICID-enabled cables feature NFC/RFID tags programmed with data relevant to the cable, such as fiber type, manufacturing information, and serial number, as well as a writable field used for tracking connector insertion counts. NFC capability allows ICID-enabled cables to communicate the cable’s manufacturer information to Fiber Mountain Sensus patch panels by placing the cable in front of the Sensus’ management module logo. Sensus cables contain an additional RFID tag, readable by most RFID readers, for inventory management.

Connecting an ICID cable to a Fiber Mountain ICID-enabled product gives the AllPath Director (APD) orchestration software access to the data needed to document where cable endpoints are connected and to track connection history. The AllPath Director will also have the information needed to create a live graphical topology of the physical layer. While cables can be purchased with ICID pre-installed, ICID can also be field-installed on to Fiber Mountain non-ICID cables or other manufacturers cables.

Capable of handling high-speed 10G, 25G, 40G, or 100G applications, Fiber Mountain’s high quality glass-core bend-insensitive cables ensure efficient and consistent data transmission, while robust LC or MPO connectors minimize insertion and return loss. All cables are available in Single Mode or Multimode with either A, B, or C polarity and UL-rated Plenum, Riser, or LSZH jackets.

### Fiber Specifications

Single Mode Fibers	Multimode Fibers
<i>Fiber Attenuation</i>	
0.5 dB/km @ 1310 and 1550nm	3.0 dB/km @ 1310 and 1550nm
<i>Effective Modal Bandwidth (EMB)</i>	
N/A	4700 MHz-km
<i>Over Filled Launch (OFL) Bandwidth</i>	
N/A	3500 MHz-km

### Insertion & Return Loss

SM LC UPC	SM MPO APC
<i>Insertion Loss (1310nm and 1550nm)</i>	
0.1dB typical 0.3dB max	0.1dB typical 0.35dB max
<i>Return Loss (1310nm and 1550nm)</i>	
-50dB min	-55dB min
MM LC UPC	MM MPO UPC
<i>Insertion Loss (850nm)</i>	
0.1dB typical 0.3dB max	0.1dB typical 0.35dB max
<i>Return Loss (850nm)</i>	
-20dB min	-20dB min



### Thorough Safety & Compliance Testing

Each Fiber Mountain cable is serialized before being tested. Multimode cables are tested at a wavelength of 850nm, while Single Mode cables are tested at both 1310nm and 1510nm. Copies of all test reports are included with shipments, documenting Insertion Loss and Return Loss for each end of the cable. All fibers are cleaned and tested to industry and regulatory standards (see table on reverse). Cables are also secured in at least two places to prevent stress during shipping and handling.

## Cable Mechanical Characteristics

LC Cable	12-Fiber MPO Cable	24-Fiber MPO Cable
<i>Temperature</i>		
Operating: 0°C to +70°C Storage: -40°C to +75°C	Operating: 0°C to +70°C Storage: -40°C to +75°C	Operating: 0°C to +70°C Storage: -40°C to +75°C
<i>Nominal Outer Diameter</i>		
2.0 x 4.0 mm (0.08 x 0.16 in)	3.0 mm (0.12 in)	3.8 mm (0.15 in)
<i>Minimum Bend Radius</i>		
Installation: 5.0 cm (2.0 in) Operation: 3.0 cm (1.2 in)	Installation: 4.5 cm (1.8 in) Operation: 3.0 cm (1.2 in)	Installation: 5.7 cm (2.2 in) Operation: 3.8 cm (1.5 in)
<i>Maximum Tensile Strength</i>		
Installation: 100 N (22 lbf) Long-Term: 30 N (7 lbf)	Installation: 220 N (50 lbf) Long-Term: 75 N (17 lbf)	Installation: 330 N (75 lbf) Long-Term: 110 N (25 lbf)
<i>Bend Radius (under no load, in a controlled bend)</i>		
10mm	10mm	10mm
<i>Bend Radius (under long-term tension)</i>		
20mm	20mm	20mm

## Regulatory & Certifications

All Fiber Mountain fiber optic cables meet the following regulatory requirements:

- IEC 61300-3-35
- Telcordia GR-409-CORE
- UL Listed Type OFNR/OFNP CSA FT4, CSA FT6
- RoHS Directive 2002/95/EC
- EIA/TIA 568-133

LSZH cables are OFNR listed and meet the requirements of IEC 61034-1, 61034-2, 60332-1-1, 60332-1-2, 60754-1, and 60754-2.



### About Fiber Mountain:

Glass Core represents a new way of thinking about data center infrastructure. With integrated software and hardware innovations, Glass Core infrastructure enables intelligent Layer 1 SDN switching with high-density optical connectivity for a software-controlled physical layer and unprecedented network speed and agility.

**Services:** Fiber Mountain provides a variety of value added services from hands-on training to 24x7 technical support. Contact Fiber Mountain for a schedule of available services.

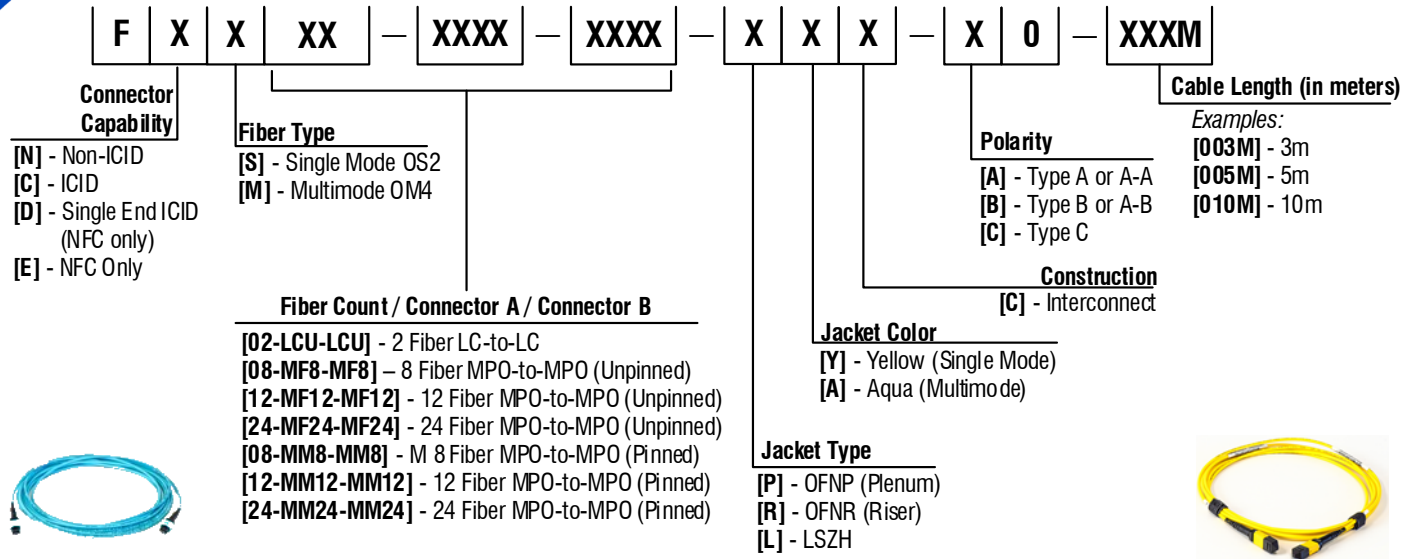
**Warranty:** Return to factory hardware repair or replacement for one year.

# ICID Fiber Optic Cables

Datasheet DS-00123



## ICID Cable Catalog Configurator



### Custom Order Options—Available Upon Request

- OM4+ and OM5
- Simplex and Backbone cables
- APC LC connectors
- Custom connector configurations
- Custom cable lengths

Note: Custom orders including the options above may result in longer lead times. Contact Fiber Mountain for pricing and configurations on ICID clips.

### Fiber Optic Cable Options:

- MPO-to-MPO and LC-to-LC configurations
- Plenum, Riser, or LSZH
- Single-End ICID and Non-ICID also available
- Standard and custom lengths are available
- Single mode OS2 or Multimode OM4 (OM5 also available upon request)

### Cable Order Examples

Single Mode ICID, 2-fiber LC-to-LC, Yellow Plenum Jacket, Polarity Type A, 7 meters

FCS02—LCU—LCU—PYC—A0—007M

Single Mode ICID, 12-fiber MPO-to-MPO Unpinned, Yellow LSZH Jacket, Polarity Type A, 3 meters

FCS12—MF12—MF12—LYC—A0—003M

Multimode Single-End ICID, 12-fiber MPO-to-MPO Pinned, Aqua Plenum Jacket, Polarity Type B, 10 meters

FDM12—MM12—MM12—PAC—B0—010M

Multimode ICID, 24-fiber MPO-to-MPO Unpinned, Aqua Plenum Jacket, Polarity Type A, 5 meters

FCM24—MF24—MF24—PAC—A0—005M

Contact Fiber Mountain, Inc. to order: Email: [Sales@FiberMountain.com](mailto:Sales@FiberMountain.com); Phone: 1-800-480-9424

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