

## Plug-n-Play Pre-terminated Fiber Trunk Cables

### APPLICATION

Leviton's factory-terminated and tested fiber trunk cables connect central patching locations to zones or "pods". Available terminated with both modular (MTP®) and discrete connectors, these trunks are custom built in any length to meet specific applications.

### SPECIFICATION

All pre-terminated components including trunks, modules, harnesses, brackets, patch panels, and enclosures shall be provided and warranted by a single manufacturer. Components with modular (12-fiber) connection shall utilize MTP rather than MPO connectors. All discrete connectors (LC, SC, ST, MT-RJ, MU, etc.) shall use ceramic ferrules and sleeves. Insertion loss for connectors shall be a maximum of 0.5 dB per mated pair for both MTP connectors as well as discrete connectors. Trunks shall be available in plenum, riser, and interlock armor versions. Each will be available in modular-to-modular, modular-to-discrete, and discrete-to-discrete configurations in 4, 12, 24, 36, 72, and 144 fiber counts in sub-units of 12 fibers each. Each will also be available in custom lengths in one foot increments. Total trunk length shall be specified from connector to connector. A pulling eye is optional on the pulling end of all trunks to safeguard fibers during installation. All trunks shall have crossover polarity A to B or MTP Method C. Trunks shall be pre-terminated and pre-tested with test documentation available upon request.

### FEATURES

- Plug-n-play fiber eliminates the need for complicated and craft sensitive field terminations and splices
- "Fiber on demand" manufacturing and logistics allows Leviton to deliver plug-n-play solutions with significantly reduced lead times
- Every fiber component is factory-terminated and pre-tested using automated procedures to ensure product quality
- All discrete connectors (LC, SC, MT-RJ, ESCON, MU, etc.) are heat cured and use ceramic ferrules and sleeves for consistent performance
- Available in 4, 12, 24, 36, 72, 144, or custom fiber counts
- Cable is available in plenum or riser, all dielectric or interlock armor versions, depending on the application



- Fiber types include single-mode, 50/125 µm and 62.5/125 µm multimode, and 50/125 µm laser optimized multimode
- Standard breakout lengths can be "staggered" to ease installation
- Pulling eyes are provided as an option along with robust connector protection on both ends to safeguard fiber connectors during installation
- Trunk cables have a sturdy breakout point, yet are flexible enough to allow for smooth curving of break-out cordage without kinking or creating sharp bends

### DESIGN CONSIDERATIONS

- For use with Leviton MTP modules, panels, and brackets
- Standard breakout length is 36 inches; other lengths available upon request
- Total trunk length is from connector to connector
- Trunks over 125 feet long are shipped on spools, or upon request for shorter lengths
- Standard polarity is A to B or MTP Method C, other polarity also available (see configurator on page 3)
- Pulling eye is typically on first end termination, if selected. First end breakout length must be staggered if selecting pulling eye.
- Sub-units of 12 fibers are staggered 1.5", if selected. First sub-unit (or 1-12 fibers) is shortest length, then second sub-unit (or 13-24 fiber), and so forth.

### STANDARDS COMPLIANCE

UL Riser or Plenum rated cables  
 Meets the following standards:  
 TIA-568-C.3, IEEE 802.3ae rev. 2002,  
 adheres to TIA-942 data center design guidelines

### WARRANTY INFORMATION

For Leviton product warranties, go to [Leviton.com](http://Leviton.com)

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|   |  |  |   |  |   |
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# COMPONENT SPECIFICATIONS

## Plug-n-Play Pre-terminated Fiber Trunk Cables



Plug-n-Play Pre-terminated Fiber Trunk Cables

| Performance Specifications       |                             |        |        |        |                    |                  |                                |                        |                      |
|----------------------------------|-----------------------------|--------|--------|--------|--------------------|------------------|--------------------------------|------------------------|----------------------|
| Cable Performance                |                             |        |        |        |                    |                  |                                |                        |                      |
| Fiber Type                       | Maximum Attenuation (db/km) |        |        |        | Bandwidth (MHz*km) |                  | Transmission Distance (meters) |                        |                      |
|                                  | 850nm                       | 1300nm | 1310nm | 1550nm | 850nm              | 1300nm           | 100Mb                          | 1GbE                   | 10GbE                |
| Single-mode (OS1)                | N/A                         | N/A    | 0.4    | 0.3    | N/A                | N/A              | >5,000 @ 1310nm                |                        | >10,000 @ 1310nm     |
| 62.5/125 µm MM (OM1)             | 3.5                         | 1.0    | N/A    | N/A    | 200                | 500              | 300/2000 @ 850/1300nm          | 300/600 @ 850/1300nm   | 36/300 @ 850/1300nm  |
| 50/125 µm MM (OM2)               | 3.0                         | 1.0    | N/A    | N/A    | 950                | 500              |                                | 750/600 @ 850/1300nm   | 150/300 @ 850/1300nm |
| 50/125 µm LO (10G-300m) MM (OM3) | 3.0                         | 1.0    | N/A    | N/A    | 2,000 <sup>1</sup> | 500 <sup>2</sup> |                                | 1,000/600 @ 850/1300nm | 300/300 @ 850/1300nm |
| 50/125 µm LO (10G-550m) MM (OM4) | 3.0                         | 1.0    | N/A    | N/A    | 4,900 <sup>1</sup> | 500 <sup>2</sup> |                                | 1,210/600 @ 850/1300nm | 600/300 @ 850/1300nm |

<sup>1</sup> The effective modal bandwidth is determined based on an overfill launch (OFL) per TIA-455-204, except on laser optimized fiber types.

<sup>2</sup> 10GbE transmission @ 1,300 nm only applies to 10GBASE-LX4 (CWDM).

| Trunk Cable Physical Specifications |                          |                    |                          |                             |            |                   |                  |
|-------------------------------------|--------------------------|--------------------|--------------------------|-----------------------------|------------|-------------------|------------------|
| Fiber Count                         | Nominal Outside Diameter | Weight             | Max Installation Tension | Minimum Bend Radius in (CM) |            | Temperature Range |                  |
|                                     | In (mm)                  | lbs/100 ft (kg/km) | lbs (N)                  | Installation                | Long Term  | Operating         | Storage          |
| 12                                  | 0.18 (4.5)               | 15 (22)            | 100 (445)                | 2.7 (6.8)                   | 1.8 (4.5)  | 0° C to +70° C    | -40° C to +70° C |
| 24                                  | 0.38 (9.7)               | 54 (80)            | 300 (1335)               | 5.7 (15.5)                  | 3.8 (4.5)  |                   |                  |
| 36                                  | 0.38 (9.7)               | 54 (80)            | 300 (1335)               | 5.7 (15.5)                  | 3.8 (4.5)  |                   |                  |
| 48                                  | 0.38 (9.7)               | 54 (80)            | 300 (1335)               | 5.7 (15.5)                  | 3.8 (4.5)  |                   |                  |
| 72                                  | 0.44 (11.1)              | 84 (125)           | 300 (1335)               | 6.6 (16.8)                  | 4.4 (11.1) |                   |                  |
| 96                                  | 0.52 (13.3)              | 118 (175)          | 300 (1335)               | 7.8 (19.8)                  | 5.2 (13.3) |                   |                  |
| 144                                 | 0.69 (17.4)              | 155 (230)          | 300 (1335)               | 10.4 (26.3)                 | 6.9 (17.4) |                   |                  |

| Color Codes   |                             |
|---|-----------------------------|
| <b>Cable Jackets</b>  |                             |
| Single-mode   | Yellow                      |
| Multimode (62.5/125 µm)                                       | Orange                      |
| Multimode (50/125 µm)   | Orange                      |
| Laser optimized multimode (50/125 µm)                         | Aqua                        |
| <b>Connectors and adapters</b>                                |                             |
| Single-mode   | Blue                        |
| Single-mode, APC (angle polishing)                            | Green                       |
| Multimode (62.5/125 µm)                                       | Beige                       |
| Multimode (50/125 µm)   | Beige                       |
| Laser optimized multimode (50/125 µm)                         | Aqua (connectors are beige) |
| <b>Boots (Polarity defined by the following color scheme)</b> |                             |
| Single-Mode   | Yellow and White            |
| Multimode   | Black and Red               |

| Fiber Insertion Loss Performance (dB) |           |        |        |             |        |                      |
|---------------------------------------|-----------|--------|--------|-------------|--------|----------------------|
| Connector Mated Pairs                 | Multimode |        |        | Single-mode |        |                      |
|                                       | TYP IL    | MAX IL | MIN RL | TYP IL      | MAX IL | MIN RL               |
| LC, MU                                | 0.15      | 0.25   | -25    | 0.15        | 0.25   | -45<br>(-60 for APC) |
| SC, ST                                | 0.20      | 0.25   |        | 0.20        | 0.25   |                      |
| MTP                                   | 0.35      | 0.50   |        | 0.35        | 0.50   |                      |

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# COMPONENT SPECIFICATIONS

## Plug-n-Play Pre-terminated Fiber Trunk Cables



### MODEL NUMBER CONFIGURATOR - FIBER TRUNKS



Configurations are not valid unless confirmed by inside sales (800.722.2082).  
 Typical MTP® fiber trunks are equipped with pinless (female) MTP connectors.  
 Fiber trunk lengths greater than 125' are placed in spool.  
 Distribution style cables stocked up to 24 fiber count.  
 Leviton Plug-n-Play solution follows TIA-568-C.3 method C fiber polarity guidelines for array connectors.

Application Note: When installed in conduit, pulling eye end should be staggered.

|  |
|--|
| A = Riser I/O Dry Loose Tube                   |
| B = Plenum I/O Dry Loose Tube (Standard)       |
| C = Plenum Armor I/O Dry Loose Tube (Standard) |
| G = Riser Distribution (Standard)              |
| H = Plenum Distribution                        |
| J = LSZH I/O Dry Loose Tube                    |
| K = LSZH Distribution                          |

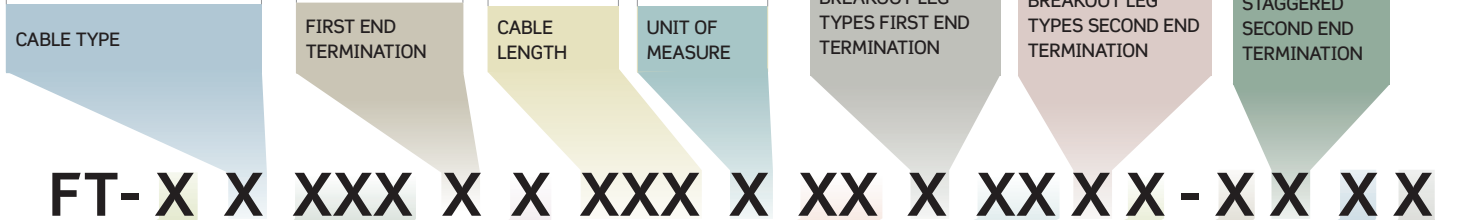
|                       |
|-----------------------|
| A = ST                |
| B = SC                |
| C = LC (duplex clips) |
| D = FC                |
| E = SC/APC            |
| F = LC/APC            |
| G = FC/APC            |
| Q = MTRJ (female)     |
| R = MTRJ (male)       |
| S = MTP (female)      |
| T = MTP (male)        |
| U = MU                |
| V = LC (uniboot)      |
| X = Other             |

|            |
|------------|
| 001-999    |
| F = Feet   |
| M = Meters |

|   |
|---|
| A = 900µm buffered fiber (for SC, ST, LC, MU, FC, MTRJ) |
| B = 2mm jacketed fiber (for LC, MU, MTRJ)               |
| C = 3mm jacketed fiber (for SC, ST, LC, FC, MTRJ, MTP)  |

|   |
|---|
| A = 900µm buffered fiber (for SC, ST, LC, MU, FC, MTRJ) |
| B = 2mm jacketed fiber (for LC, MU, MTRJ)               |
| C = 3mm jacketed fiber (for SC, ST, LC, FC, MTRJ, MTP)  |

|         |
|---------|
| Y = Yes |
| N = No  |



| FIBER TYPE   |
|--|
| A = Single-mode (OS1)                                      |
| B = 50/125 µm std Multimode (OM2)                          |
| C = 62.5/125 µm Multimode (OM1)                            |
| E = 50/125 µm Laser Optimized Multimode (10G, 300 m) (OM3) |
| F = 50/125 µm Laser Optimized Multimode (10G, 550 m) (OM4) |

| FIBER COUNT (STRANDS) |
|-----------------------|
| 004                   |
| 006                   |
| 012                   |
| 024                   |
| 036                   |
| 048                   |
| 072                   |
| 096                   |
| 144                   |
| XXX = Other           |

| SECOND END TERMINATION |
|------------------------|
| A = ST                 |
| B = SC                 |
| C = LC (duplex clips)  |
| D = FC                 |
| E = SC/APC             |
| F = LC/APC             |
| G = FC/APC             |
| Q = MTRJ (female)      |
| R = MTRJ (male)        |
| S = MTP (female)       |
| T = MTP (male)         |
| U = MU                 |
| V = LC (uniboot)       |
| Z = Pigtail            |
| X = Other              |

| BREAKOUT LENGTH (INCHES) FIRST END |
|------------------------------------|
| 12-99 (Typ 36")                    |

| BREAKOUT LENGTH (INCHES) SECOND END |
|-------------------------------------|
| 12-99 (Typ 36")                     |

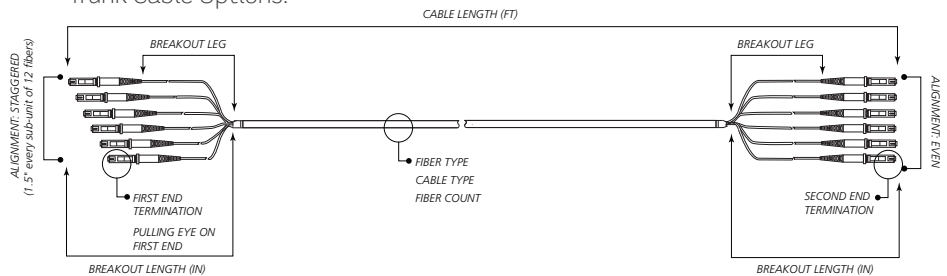
| PULLING EYE |
|-------------|
| Y = Yes     |
| N = No      |

| STAGGERED FIRST END TERMINATION |
|---------------------------------|
| Y = Yes                         |
| N = No                          |

| POLARITY         |
|------------------|
| A = MTP Method A |
| B = MTP Method C |
| C = Method B     |

| LABELING     |
|--------------|
| S = Standard |
| C = Custom   |

Make-to-Order Pre-Terminated Trunk Cable Options:



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