Secure Keyed MTP-LC Fiber Harness Cables

APPLICATION
Secured Keyed MTP-LC fiber harness cables are pre-terminated, factory tested, and can be used with MTP brackets in place of MTP modules and enclosures to provide a zero rack unit (Zero-U) solution. Eight unique keyed colors are available to segregate and secure networks. The patent-pending duplex LC unibody design prevents removal of connector by hand, and can only be removed with respective keyed color extraction tool.* The system is ideal for government and military networks, data centers and colocation equipment rooms, and financial, academic, and healthcare market sectors.

SPECIFICATION
Leviton’s Secured Keyed MTP-LC pre-terminated fiber harnesses shall engage with industry compliant LC duplex and quad adapters. Fiber harness cable is secure in a manner that connector cannot be removed by hand. An extraction tool is used to prevent unauthorized or accidental moves/add/changes. Eight unique keyed color options shall be offered to identify and segregate fiber networks. Fiber harness cable shall consist of 12 fiber strands for all fiber types (OM1, OM2, OM3, OM4, OS1) in riser-rated jacket. Polarity shall be A-A straight through configuration. Insertion loss performance shall be less than 0.5dB maximum for both multimode and single-mode cables. Return loss performance shall be greater than -25dB for multimode and greater than -45dB for single-mode. Fiber harness shall be factory tested with test documentation shipped with product. Fiber harness shall be compliant with TIA-568-C.3 and respective TIA-604-xx and FOCIS-xx.

FEATURES
- Patent-pending unibody design prevents unauthorized and inadvertent MACs
- Duplex LC connectors plug into any industry compliant LC adapter or interface, unlike traditional keyed LC solutions
- Eight unique keyed colors to segregate and secure network: blue, red, green, orange, yellow, black, slate, and white
- All connectors are heat cured and use ceramic ferrules for optimal performance
- Harnesses are part of Leviton’s custom-build make-to-order program
- Extraction tools (sold separately) allow for easy cable assembly removal with push-in/pull-out motion, and are color-coded to match connector key type
- Custom dust caps are included with harnesses, extraction tools, and port protection plugs
- Made in the United States

DESIGN CONSIDERATIONS
- Extraction tool of same color required to disengage assembly from adapter
- In order to remove extraction tool from assembly, dust cap must be inserted back onto connector, promoting good fiber discipline
- Use with Leviton MTP panels and brackets
- Cable jacket (and boot color) designates fiber type:
  - 62.5/125 µm and 50/125 µm multimode is orange color (boot color is beige and black, respectively)
  - 50/125 µm laser optimized multimode is aqua color (boot color is aqua)
  - Single-mode is yellow color (boot color is blue)
- Standard polarity is A to A

STANDARDS COMPLIANCE
TIA-568-C.3; Optical Fiber Cabling Components Standard
TIA-604-xx; Fiber Optic Connector Intermateability Standard
GR-326; Generic Requirements for Single-mode Optical Connector and Jumper Assemblies

WARRANTY INFORMATION
For a copy of Leviton product warranties, visit www.leviton.com.

*Does not prevent deliberate or malicious removal of connector.
### PERFORMANCE SPECIFICATIONS — SECURE KEYED LC TO MTP FIBER HARNESS CABLES

#### Cable Performance

<table>
<thead>
<tr>
<th>Fiber Type</th>
<th>Maximum Attenuation (dB/km)</th>
<th>Bandwidth (MHz-km)</th>
<th>Transmission Distance (meters)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>850nm</td>
<td>1300nm</td>
<td>1310nm</td>
</tr>
<tr>
<td>Single-mode (OS1)</td>
<td>N/A</td>
<td>N/A</td>
<td>0.4</td>
</tr>
<tr>
<td>62.5/125 µm Multimode (OM1)</td>
<td>3.5</td>
<td>1.0</td>
<td>N/A</td>
</tr>
<tr>
<td>50/125 µm Multimode (OM2)</td>
<td>3.0</td>
<td>1.0</td>
<td>N/A</td>
</tr>
<tr>
<td>50/125 µm Laser Optimized (10G-300m Multimode (OM3))</td>
<td>3.0</td>
<td>1.0</td>
<td>N/A</td>
</tr>
<tr>
<td>50/125 µm Laser Optimized (10G-550m Multimode (OM4))</td>
<td>3.0</td>
<td>1.0</td>
<td>N/A</td>
</tr>
</tbody>
</table>

1 The effective modal bandwidth is determined based on an overfill launch (OFL) per TIA-455-204, except on laser optimized fiber types.
2 10GbE transmission @ 1,300nm only applies to 10GBASE-LX4 (CWDM).

#### Fiber Insertion Loss Performance (dB)

<table>
<thead>
<tr>
<th>Connector Mated Pairs</th>
<th>Multimode</th>
<th>Single-mode</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TYP IL</td>
<td>MAX IL</td>
</tr>
<tr>
<td>LC</td>
<td>0.15</td>
<td>0.25</td>
</tr>
<tr>
<td>MTP</td>
<td>0.35</td>
<td>0.50</td>
</tr>
</tbody>
</table>

### SECURE KEYED LC ACCESSORIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraction Tool w/ dust cap</td>
<td>ETRTN-xTL</td>
</tr>
<tr>
<td>Port Protection Plug w/ dust cap</td>
<td>PPRTN-xLG</td>
</tr>
<tr>
<td>Dust Cap (bag of 10)</td>
<td>DUSTK-xLG</td>
</tr>
</tbody>
</table>

x = color: White (W), Yellow (Y), Orange (O), Red (R), Blue (L), Green (V), Slate (G), Black (B)
COMPONENT SPECIFICATIONS
Secure Keyed MTP-LC Fiber Harness Cables

PART NUMBER CONFIGURATOR - SECURE KEYED MTP-LC FIBER HARNESSSES

Example part number: FHX-EH012SK0636 — Fiber Harness, 12-fiber laser optimized multimode cable (10G-300 m), MTP-LC, MTP to keyed duplex LC (green), overall length of 6 feet with breakout length of 36 inches.

For assistance configuring your patch cords or for configurations not shown, please call 1.866.923.7955.

**KEYED COLOR**
- L = Blue
- O = Orange
- V = Green
- G = Slate
- W = White
- R = Red
- E = Black
- Y = Yellow

**CABLE TYPE**
- H = Harness

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

**FIBER COUNT (STRANDS)**
- 012

**1ST END TERMINATION**
- S = MTP (female)
- T = MTP (male)

**2ND END TERMINATION**
- K = Secure Keyed LC Duplex (unibody)

**CABLE LENGTH (FEET)**
- 03
- 05
- 06
- 08
- XX = up to 99 feet

For meters, enter M then the length as one character
Example 2 m = M2

**BREAKOUT LENGTH (INCHES)**
- 00-48