

**Termination**

Insert fiber and activate clamp in one simple motion.

**HUBBELL Advantage**

- Precision Low Loss, High Yield Pre-Polished Connector
- Terminate in Less than 60 Seconds
- CSI Specifications, Drawings and Advanced Termination Tips Available
- RoHS Compliant and Bulk Packed in Recyclable Cartons

**Specifications**



- Insertion loss: 0.5dB (0.35dB typical), 0.75dB max
- Singlemode return loss: 55dB Typ, 40dB minimum
- Multimode return loss: 35dB Typ, 22dB minimum
- Operating temperature range: 0 °C to +70 °C
- Mating durability: 500 cycles <0.1dB change
- Ferrule: zirconia ceramic, UPC polish

**Standards/Listings/Verifications**

- TIA-568-C.3
- TIA-604-FOCIS
- Telcordia GR-326-CORE

**PROclick® LC Pre-Polished Connectors**

Fiber Type	Cable Type	Color	12 Pack	100 Pack
50µM, OM3	900/250 µM	Aqua	<b>FCLC900K50GM12</b>	<b>FCLC900K50GM100</b>
50µM, OM2	900/250 µM	Black	<b>FCLC900K50M12</b>	<b>FCLC900K50M100</b>
62.5µM, OM1	900/250 µM	Beige	<b>FCLC900K62M12</b>	<b>FCLC900K62M100</b>
SM, OS2	900/250 µM	Blue	<b>FCLC900KSM12</b>	<b>FCLC900KSM100</b>

**PROclick® SC Pre-Polished Connectors**

Fiber Type	Cable Type	Color	12 Pack	100 Pack
50µM, OM3	900/250 µM	Aqua	<b>FCSC900K50GM12</b>	<b>FCSC900K50GM100</b>
50µM, OM2	900/250 µM	Black	<b>FCSC900K50M12</b>	<b>FCSC900K50M100</b>
62.5µM, OM1	900/250 µM	Beige	<b>FCSC900K62M12</b>	<b>FCSC900K62M100</b>
UPC SM, OS2	900/250 µM	Blue	<b>FCSC900KSM12</b>	<b>FCSC900KSM100</b>
APC SM, OS2	900/250 µM	Green	<b>FCSC900KASM12</b>	-

**2Click® ST Pre-Polished Connectors**

Fiber Type	Cable Type	Color	12 Pack	100 Pack
50µM, OM3	900/250 µM	Aqua	<b>FCST50GM12</b>	-
50µM, OM2	900/250 µM	Black	<b>FCST50M12</b>	-
62.5µM, OM1	900/250 µM	Beige	<b>FCST62M12</b>	-
SM, OS2	900/250 µM	Blue	<b>FCSTSM12</b>	-

Note: See page G13 for termination tools and accessories. Cleave tool OFCLV3 is suitable for multimode only. Visual Fault locator OFVFLKT1 recommended during termination. Precision cleave tool OFCLV4 or equivalent is required for singlemode terminations.





**Installation Ease**  
Duplexing clips available separately for connector pairing.

HUBBELL  
**Advantage**

- Keyed Specific by Color Code to Identify and Manage Restricted Network Deployments
- Cleave, Crimp, and Connect Termination for Quick Deployment
- Supported by the Mission Critical® Permanent Link Fiber Warranty
- RoHS Compliant

**Specifications**

- Insertion loss: 0.5dB (0.35dB typical), 0.75dB max
- Singlemode return loss: 55dB typical, 40dB min
- Multimode return loss: 35dB typical, 22dB min
- Operating temperature range: 0 °C to +70 °C
- Mating durability: 500 cycles <0.2dB change
- Ferrule: zirconia ceramic, UPC polish

**Standards/Listings/Verifications**

- TIA-568-C.3
- TIA-604-FOCIS
- Telcordia GR-326-CORE

**Hubbell OptiChannel Keyed LC Pre-Polished Connectors**

Fiber type	Boot Color	Catalog No.
50µM, OM3	Aqua	<b>FKLCP50GM12xx</b>
50µM, OM2	Black	<b>FKLCP50M12xx</b>
62.5µM, OM1	Beige	<b>FKLCP62M12xx</b>
SM, OS2	Blue	<b>FKLCP50M12xx</b>
LC duplex clip, black	—	<b>FKLCDCLP12BK</b>

Note: Box of 12 individually bagged connectors with dust caps installed and termination instructions.  
xx = Standard Housing Colors: **RD** (Red), **YL** (Yellow), **GN** (Green), and **BL** (Blue).  
Special Colors: **AQ** (Aqua), **BR** (Brown), **OR** (Orange), **RO** (Rose), **SL** (Slate), and **VI** (Violet).

**Accessories**

Description	Catalog No.
Keyed LC termination kit, complete	<b>OFTKLCPK1</b>
Keyed LC crimp tool, with dies	<b>OFCKMLK1</b>
Fiber strip tool, 250/900/2.0/3.0mm	<b>OFSTRIP2</b>
Cleave tool, keyed LC connectors	<b>OFCLVKLC1</b>
Fiber cleaver, single fiber multimode	<b>OFCLV3</b>
Hubbell precision cleave tool	<b>OFCLV4</b>
LC duplex clip, black	<b>FKLCDCLP12BK</b>
Fiber microscope	<b>OFSCOPE2</b>
Laser visual fault locator	<b>OFVFLKT1</b>



FKLCP50GM12BL



OFSTRIP2



OFCLV3



OFCLV4



**HUBBELL**  
**Advantage**

- Keyed Specific by Color Code for Restricted Outlet and Panel Connections
- Compact 2.0mm Diameter Cable
- Supported by the Mission Critical® Permanent Link Fiber Warranty
- RoHS Compliant

**Specifications**

- Mated pair insertion loss:  
MM: <0.50dB (0.35dB typical)  
SM: <0.35dB (0.15dB typical)
- Return loss: SM >55dB, MM>26dB
- Ferrule material: zirconia ceramic
- Mating durability: 500 cycles
- Operating temperature: 0°C to +70°C

**Standards/Listings/Verifications**

- TIA-568-C.3
- TIA-604-FOCIS
- Telcordia GR-326-CORE

**OptiChannel® Keyed LC 10GbE Multimode OM3 Patch Cords**

Description	Cable Jacket Color	Catalog No.
MM 50, OM3, keyed LC to keyed LC	Aqua	<b>KLCDFP50GMyyxx</b>
MM 50, OM3, keyed LC to standard LC	Aqua	<b>KLCDFPLC50GMyyxx</b>
MM 50, OM3, keyed LC to standard SC	Aqua	<b>KLCDFPSC50GMyyxx</b>

Note: Individually bagged with dust caps installed and factory test data.

yy = Standard Lengths: 01, 02, 03, 05, and 10 meters.

xx = Standard Housing Colors: **RD**(Red), **YL** (Yellow), **GN** (Green), and **BL** (Blue).

Special Colors: **AQ** (Aqua), **BR** (Brown), **OR** (Orange), **RO** (Rose), **SL** (Slate), and **VI** (Violet).



Keyed LC



Standard SC

**OptiChannel® Yellow Keyed LC Patch Cords for High Security Networks**

Description	Cable Jacket Color	Catalog No.
MM 50, OM3, keyed LC to standard LC	Yellow	<b>KLCDFPYLLC50GMyyYL</b>
MM 50, OM3, keyed LC to standard SC	Yellow	<b>KLCDFPYLSC50GMyyYL</b>

Note: Individually bagged with dust caps installed and factory test data.

yy = Standard Lengths: 01, 02, 03, 05, 10, and 15 meters.



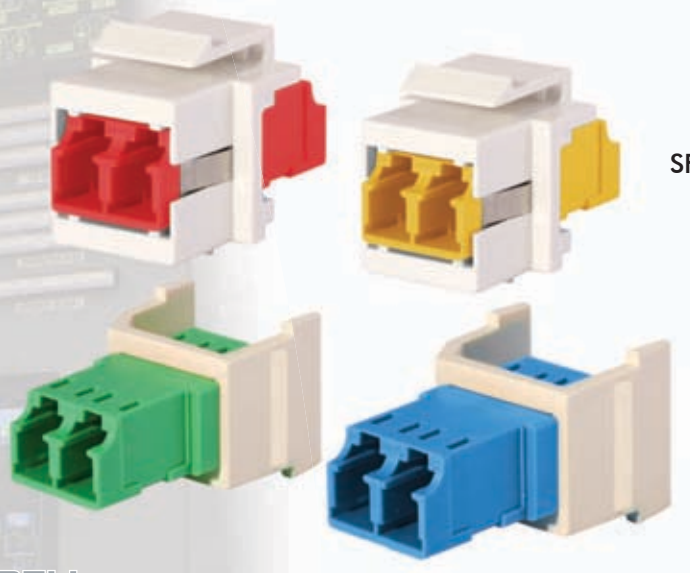
Keyed LC



Standard SC

Contact Hubbell Premise Wiring for other configurations and special lengths custom quoted and made to order. Keyed LC trunk assemblies also custom made to order.





SFF Series

SF Series

**HUBBELL**  
**Advantage**

- Keyed Specific by Color Code for Visual Identification of Restricted Network Outlets
- Flush and Modular Snap-Mount into Hubbell Plates, Housings or Raceway Outlets
- Supported by the Mission Critical® Permanent Link Fiber Warranty
- RoHS Compliant



**Specifications**

- Insertion loss: <0.5dB max, 0.25dB typical
- Singlemode return loss: 55dB typical, 40dB min
- Multimode return loss: 35dB typical, 22dB min
- Operating temperature range: 0 °C to +75 °C
- Mating durability: 500 cycles minimum
- Alignment sleeve material: zirconia ceramic

**Standards/Listings/Verifications**

- TIA-568-C.3
- TIA-604-FOCIS
- Telcordia GR-326-CORE

**Hubbell OptiChannel Keyed LC Snap Fittings and Adapters**

Description	Catalog No.
Flush snap fitting, keyed LC	<b>SFFKLC<sup>xxyy</sup></b>
Snap fitting, keyed LC	<b>SFKLC<sup>xxyy</sup></b>
Adapters, keyed LC to keyed LC	<b>FAKLCDSC6<sup>xx</sup></b>

Note: Individually bagged with dust caps installed.

Accessories shown on page H3.

**xx** = Standard Adapter Color: **RD** (Red), **YL** (Yellow), **GN** (Green), and **BL** (Blue).

Special Color: **AQ** (Aqua), **BR** (Brown), **OR** (Orange), **RO** (Rose), **SL** (Slate), and **VI** (Violet).

**yy** = Housing Color: **AL** (Almond), **BK** (Black), **GY** (Gray), **EI** (Electric Ivory), **OW** (Office White), and **W** (White).



SFFKLCBLW



SFKLCRDOW



FAKLCDSC6GN



HUBBELL  
**Secure-IT**

## KEYED LC ADAPTER PANELS & MTP CASSETTES



12-port shown; 24-port version also available.

HUBBELL  
**Advantage**

- **Keyed Specific by Color Code to Manage Restricted Backbone and Horizontal Infrastructure**
- **Easy, Snap-Mount into a Full Range of Hubbell Fiber Enclosures**
- **Supported by the Mission Critical® Permanent Link Fiber Warranty**
- **RoHS Compliant**

### Specifications

- Mating durability: 500 cycles minimum
- Alignment sleeve material: zirconia ceramic

### Adapter Panels

- Insertion loss: <0.5dB max, 0.25dB typical
- Singlemode return loss: 55dB typical, 40dB min
- Multimode return loss: 35dB typical, 22dB min
- Operating temperature range: 0 °C to +75 °C

### Cassette Panels

- MTP connector: 12-fiber male receptacle on back side
- Total insertion loss: <1.50dB max, 1.0dB typical
- Insertion loss MTP end: 0.75dB max, 0.5dB typical
- Insertion loss LC port: 0.50dB max, 0.25dB typical
- Operating temperature range: 0 °C to +70 °C
- Dimensions: 5.1" H x 1.1" W x 2.75" D
- Housing material: 16ga powder coated steel

### Standards/Listings/Verifications

- TIA-568-C.3
- TIA-604-FOCIS
- Telcordia GR-326-CORE

### Hubbell OptiChannel Keyed LC Adapter Panels

Description	12-Port	24-Port
Adapter panel, keyed LC duplex	<b>FSPKLCDS6xx</b>	<b>FSPKLCDS12xx</b>

Note: Individually bagged with dust caps installed.

xx = Standard Housing Colors: **RD** (Red), **YL** (Yellow), **GN** (Green), and **BL** (Blue).

Special Colors: **AQ** (Aqua), **BR** (Brown), **OR** (Orange), **RO** (Rose), **SL** (Slate), and **VI** (Violet).

### Hubbell OptiChannel Keyed LC to MTP Cassette Panels

Fiber Type	12-Port	24-Port
62.5 μm, OM1	<b>OCKLCD62S12xx</b>	<b>OCKLCD62S24xx</b>
50 μm, OM2	<b>OCKLCD50S12xx</b>	<b>OCKLCD50S24xx</b>
50 μm, OM3	<b>OCKLCD50GS12xx</b>	<b>OCKLCD50GS24xx</b>
SM, OS2	<b>OCKLCDS12xx</b>	<b>OCKLCDS24xx</b>

Note: Individually bagged and boxed with dust caps installed and factory test data.

Accessories shown on page H3. Contact Hubbell Premise Wiring for the full line of keyed LC patch cords and custom MTP cords made to order.

xx = Standard Housing Colors: **RD** (Red), **YL** (Yellow), **GN** (Green), and **BL** (Blue).

Special Colors: **AQ** (Aqua), **BR** (Brown), **OR** (Orange), **RO** (Rose), **SL** (Slate), and **VI** (Violet).



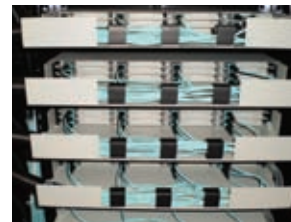
FSPKLCDS6GN



OCKLCD50GS12



FCRHD1UBK loaded with OCLCHD50G3



### Cable Management

Utilizes MTP custom made trunk assemblies.



### High Density

Fits 144 LC ports in a 1U rack space.



### Efficiency

Advanced 3-drawer ultra compact design.

## HUBBELL Advantage

- Modular Plug-n-Play High Density 144 LC Ports in a 1U Rack Space
- Scalable Capacity for Future Expansion Using Compact LC to MTP Cassette Modules
- CSI Specifications, Drawings, and Application Tips Available
- Low Profile to Enhance Cooling Efficiency

### Specifications

- Capacity: (12) OCLCHD Series cassettes
- Material: 16ga cold rolled steel
- Finish: powder coated black or gray

### Standards/Listings/Verifications

- EIA-310-E
- TIA-568-C.3
- Telcordia GR-326-CORE
- TIA-604-FOCIS



## Hubbell OptiChannel High Density 144 Port 1U Enclosures

Rack Units	Color	Height Inches (mm)	Width Inches (mm)	Depth Inches (mm)	Max LC Port Capacity	Catalog No.
1	Black	1.75" (44)	19" (483)	17" (432)	144	<b>FCRHD1UBK</b>
1	Gray	1.75" (44)	19" (483)	17" (432)	144	<b>FCRHD1UGY</b>



FCRHD1UBK

## Hubbell OptiChannel Ultra Compact LC to MTP Cassettes

### Specifications

- MM total insertion loss: <1.5dB max
- SM total insertion loss: <1.1dB max
- SM return loss: >50dB
- Material: 5052 aluminum
- Polarity: TIA-568-C.3, Type "A"

Port Count	Fiber Type	Height Inches (mm)	Width Inches (mm)	Depth Inches (mm)	Catalog No.
12	50µm, OM3	0.5" (13)	3.5" (89)	5.2" (132)	<b>OCLCHD50G3</b>
12	50µm, OM4	0.5" (13)	3.5" (89)	5.2" (132)	<b>OCLCHD50G4</b>
12	SM, OS2	0.5" (13)	3.5" (89)	5.2" (132)	<b>OCLCHDSM</b>



OCLCHD50G3

## Hubbell OptiChannel High Density Uni-Boot LC Patch Cords, OFNR Riser

Connector Type	Fiber Type	Color	Catalog No.
LC to LC	50µm, OM3	Aqua	<b>HDPCLC50G3My</b>
LC to SC	50µm, OM3	Aqua	<b>HDPCLCSC50G3My</b>
LC to LC	50µm, OM4	Aqua	<b>HDPCLC50G4My</b>
LC to SC	50µm, OM4	Aqua	<b>HDPCLCSC50G4My</b>



HDPCLCSC50G3My

**yy** = 1, 2, 3, 4, 5, 6, 8, 10 meters.

Note: See page J4 for 12-fiber MTP to MTP cords.

See page J3 for custom configured MTP trunks.

## MTP to MTP 12-Fiber Round Cords, OFNP Rated Plenum

Fiber Type	Round Cords
50µm, OM3	<b>FPCPMTP50G3Mxf</b>
50µm, OM4	<b>FPCPMTP50G4Mxf</b>
50µm, OM2	<b>FPCPMTP50Mxf</b>
62.5µm, OM1	<b>FPCPMTP62Mxf</b>
SM, OS2	<b>FPCPMTPSxf</b>



Round MTP Cords

**x** = Length in meters or feet (no zeros preceding value)

**f** = Feet (leave blank for meters)





*FCR3U12SP loaded with various FSP Series panels.*



**Cable Management**

Enhanced front bend radius and cable management features.



**Administration**

New clip-on labeling system.



**Flexibility**

Enhanced inner tray for maximum flexibility.

**HUBBELL Advantage**

- Enhanced Cable Management Labeling and Bend Radius Control Features
- One-Piece Removable Cover and Magnetic Door for Ease of Use
- CSI Specifications and Drawings Available
- Wide Range of Panel and Cassette Options for Maximum Utility

**Specifications**

- Material: 16ga cold rolled steel
- Finish: durable black powder coat

**Standards/Listings/Verifications**

- EIA-310-E
- TIA-569-C





## Hubbell OptiChannel Enhanced Rack Mounted Enclosures

Rack Units	Height Inches (mm)	Width Inches (mm)	Depth Inches (mm)	FSP Panel Capacity	Splice Tray Capacity	Max LC Port Capacity	Catalog No.
1	1.75" (44)	17" (432)	17" (432)	3	2	72	<b>FCR1U3SP</b>
2	3.5" (89)	17" (432)	17" (432)	6	6	144	<b>FCR2U6SP</b>
2	3.5" (89)	17" (432)	17" (432)	9	6	216	<b>FCR2U9SP</b>
3	5.25" (133)	17" (432)	17" (432)	12	12	288	<b>FCR3U12SP</b>
4	7.00" (178)	17" (432)	17" (432)	15	16	360	<b>FCR4U15SP</b>

\*Add "L" to the catalog number for locking version.

Note: FCR2U9SP does not accept Plug-n-Play OC Series cassettes.



FCR2U6SP



Front View, Labels

## Hubbell OptiChannel NAFTA Series Rack Mounted Enclosures

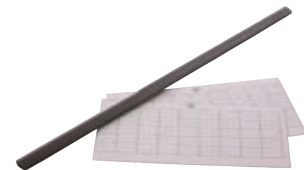
Rack Units	Height Inches (mm)	Width Inches (mm)	Depth Inches (mm)	FSP Panel Capacity	Splice Tray Capacity	Max LC Port Capacity	Catalog No.*
1	1.75" (44)	17" (432)	17" (432)	3	2	72	<b>FCR1U3SPNA</b>
2	3.5" (89)	17" (432)	17" (432)	6	6	144	<b>FCR2U6SPNA</b>
2	3.5" (89)	17" (432)	17" (432)	9	6	216	<b>FCR2U9SPNA</b>
3	5.25" (133)	17" (432)	17" (432)	12	12	288	<b>FCR3U12SPNA</b>
4	7.00" (178)	17" (432)	17" (432)	15	16	360	<b>FCR4U15SPNA</b>

\*All NAFTA versions supplied with lock.

Note: FCR2U9SPNA does not accept Plug-n-Play OC Series cassettes.



FCR3U12SPNA



LBLKTFCR2U12

## Accessories

Description	Catalog No.
Label kit, 1U, with mounting clip (pack of 12)	<b>LBLKTFCR1U12</b>
Label kit, 2U, with mounting clip (pack of 12)	<b>LBLKTFCR2U12</b>
Label kit, 3U/4U, with mounting clip (pack of 12)	<b>LBLKTFCR34U12</b>
Cable management kit, bend radius clip (pack of 4)	<b>FBRMGTCCLPK4</b>
Label mounting clip (pack of 12)	<b>LBLCLPFCR12</b>



FBRMGTCCLPK4



**Performance**

Premium OM3 and OM4 multimode fiber; bend insensitive OS2 singlemode fiber; featuring low loss MTP terminations.



**Custom Made to Order**

Configured to exact customer specifications.



**Quality and Reliability**

Precision factory machine-polished epoxy terminations, 100% tested.



**Labor Savings**

Ideal solution for data centers, requiring no field termination.

**HUBBELL Advantage**

- MISSION CRITICAL® 25-Year Warranty\*
- Plug-n-Play Installation for Rapid Deployment
- 100% Factory Tested, Data Included
- RoHS Compliant

*\*Project must be registered in accordance with the Hubbell MISSION CRITICAL® program.*

**Standards/Listings/Verifications**

- TIA-568-C.0, C.1 and C.3
- Telcordia GR-326-CORE
- Telcordia GR-409
- TIA-604-FOCIS
- ANSI/ICEA S-83-596
- IEEE 802.3

**MTP Connector Specifications**

- Gender: female has no alignment pins; male has pins
- MM insertion loss: <0.50 dB (standard loss)
- MM insertion loss: <0.35 dB (low loss)
- SM insertion loss: <0.55 dB (0.35 dB typical)
- SM return loss: >50 dB
- MM return loss: >26 dB
- Standard polarity: TIA-568-C.3, Type "A"

**Single Fiber Connector Specifications**

- MM insertion loss: <0.50 dB (0.35 dB typical)
- SM insertion loss: <0.35 dB (0.15 dB typical)
- SM UPC return loss: >50 dB
- SM APC return loss: >65 dB
- MM return loss: >26 dB
- Ferrule material: zirconia ceramic
- Mating durability: 500 cycles



**MTP Fiber Cords**

**Available Options**

- Connectors: MTP female
- Fiber types: 62/OM1, 50/OM2, 50/OM3, 50/OM4, SM/OS2
- Fiber strand count: 12, 24, 48, 72, 96 and 144 fibers
- Cable: plenum, riser, or LSZH (armored or non-armored)
- Polarity: TIA-568C.3 Type A, B, or C



**MTP Male and Gender Change Cords**

**Available Options**

- Connectors: MTP female or MTP male
- Fiber types: 50/OM3, 50/OM4, SM/OS2
- Fiber strand count: 12, 24, 48, 72, 96 and 144 fibers
- Cable: plenum, riser, or LSZH (armored or non-armored)
- Polarity: TIA-568C.3 Type A, B, or C



**40 Gb/s and 100 Gb/s MTP Fiber Cords**

**Available Options**

- Connectors: MTP female, 12-fiber or 24-fiber
- Fiber types: 50/OM3, 50/OM4
- 40 Gb/s fiber strand count: 12, 24, 48, 72, 96 and 144 fibers
- 100 Gb/s fiber strand count: 24 and 48 fibers
- Cable: plenum, riser, or LSZH
- Polarity: 40GBASE-SR4 or 100GBASESR10
- Lengths: 1 to 150 meters (3 to 500 ft) channel
- Application limits:
  - OM3 40G/100G limit: 100 m (328 ft)
  - OM4 40G/100G limit: 150 m (492 ft)



**Distribution Trunks and Pigtails**

**Available Options**

- Connectors: LC, MSFP, keyed LC, SC, SC/APC, ST, FC, FC/APC
- Fiber types: 62/OM1, 50/OM2, 50/OM3, 50/OM4, SM/OS2
- Fiber strand count: 6, 12, 24, 48, 72, and 96 fibers
- Cable: plenum, riser, or LSZH (armored or non-armored)
- Fan-out options: 900 micron buffer



**Transition Assemblies**

**Available Options**

- Connectors: MTP female to LC or SC duplex
- Fiber types: 50/OM3, 50/OM4, SM/OS2
- Fiber strand count: 12, 24 and 48 fibers
- Cable: plenum, riser, or LSZH (armored or non-armored)
- Polarity: TIA-568C.3, Type A,B or C



**Mesh Bundle Trunks (2.0mm Duplex Zip Cord)**

**Available Options**

- Connectors: LC, MSFP, keyed LC, SC, SC/APC, ST, FC, FC/APC
- Fiber types: 62/OM1, 50/OM2, 50/OM3, 50/OM4, SM</OS2
- Fiber strand count: 6, 12, 24, 48, 72, and 96 fibers
- Cable: plenum, riser, or LSZH
- Outer sheath: polyester mesh

**Distribution Fan-Out Trunks and Pigtails**

**Available Options**

- Connectors: LC, MSFP, keyed LC, SC, SC/APC, ST, FC, FC/APC
- Fiber types: 62/OM1, 50/OM2, 50/OM3, 50/OM4, SM/OS2
- Fiber strand count: 6, 12, 24, 48, 72 and 96 fibers
- Cable: plenum, riser, or LSZH (armored or non-armored)
- Fan-out: 2.0mm furcation tubing

All BIDnet fiber trunk assemblies are custom made-to-order items. Please call our insides sales team for price and lead time. Refer to product data sheets for nomenclature and detailed design information. Application limits apply to available lengths.