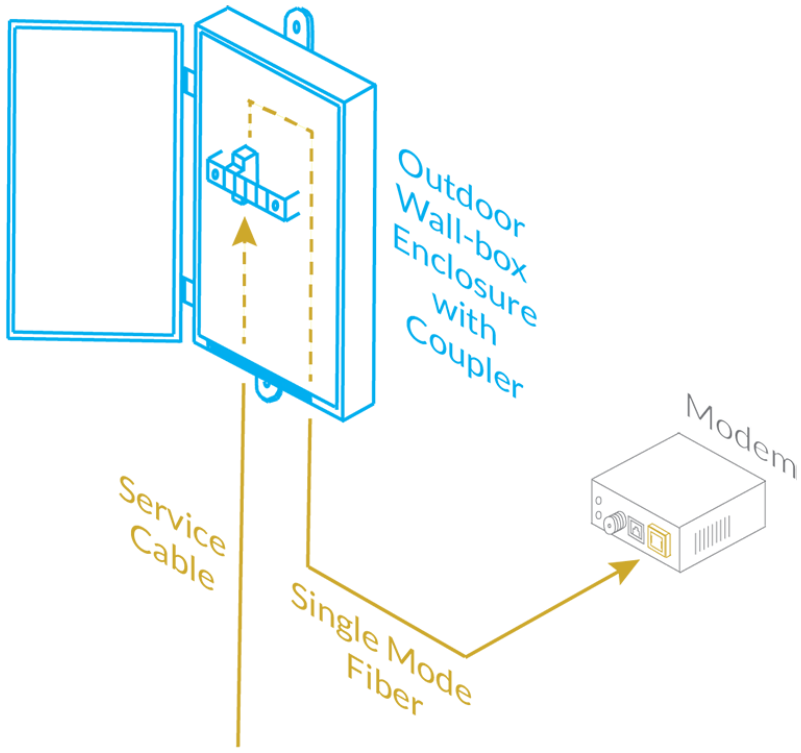
One of the most common applications for fiber optic cabling is demarcation wiring, including connecting the fiber service feed to the building's network distribution point. Integrators are commonly faced with:

1. Existing installations where the service feed must be moved or extended
2. New construction where the service feed isn't yet installed and a demarcation point must be prepared by the integrator

Both applications typically require an outdoor-rated enclosure with integrated coupler and single mode fiber optic cable terminated with a single mode fiber connector.




## Application Design Notes

- Demarcation wiring almost always requires single mode (OS2) fiber optic cable. *Never pull multimode fiber to the demarcation point unless specifically required by the internet service provider. All cable before the modem should be single mode fiber.*
- SC-style connectors are commonly used in demarcation wiring and are available in two formats: APC (angled polish) and UPC (ultra or flat polish). APC connectors are typically green and UPC connectors are typically blue. *Always terminate single mode connectors onto single mode fiber and try to match the connector type to the service provider's connector type. When in doubt, terminate APC (green) connectors.*
- Fiber optic cable is available in a variety of formats. *Outdoor rated (weather-proof) cable is used if conduit is in place. Direct burial (weather-proof and armored) cable is used if the cable will be buried directly in the soil.*

## Commonly Integrated Products

**Indoor/outdoor Wall-Boxes**
Wall-boxes provide a secure connection point to connect fiber optic cables and manage service loops.

**Couplers**
Couplers mount inside wall-boxes and physically connect two cables.

**Pre-Terminated Fiber Cable**
Premade fiber optic cables arrive pre-terminated with connectors and are available in stock and custom configurations.

**Bulk Fiber Cable**
Bulk fiber cable requires termination in the field and is available in stock and custom configurations, including with direct burial armor.

**Fiber Optic Connectors**
Fiber optic connectors terminate on bulk fiber cable.

## Indoor/Outdoor Wall-Boxes

TechLogix indoor/outdoor wall-boxes are simple, cost-effective enclosures designed for terminating, adapting and coupling fiber optic cables. Their durable plastic construction is rated for weather and UV exposure making them ideal for demarcation wiring.

| Part Number | Dimensions | Material | Supported Coupler Ports | Supported Coupler Size | Supported Fiber Strands |
|---|---|---|---|---|---|
| TL-4P-DB-O | 8.25 x 5.5 x 1.6 in. (21 x 14 x 4 cm) | UV-rated white plastic | 4 | 13mm panel mount | 8 |
| TL-6P-DB-O | 8.25 x 5.5 x 1.6 in. (21 x 14 x 4 cm) | UV-rated white plastic | 6 | 13mm panel mount | 6 |
| TL-8P-DB-O | 8.5 x 8.0 x 2.2 in. (22 x 21 x 6 cm) | UV-rated white plastic | 8 | 13mm panel mount | 16 |
| TL-12P-DB-O | 9.0 x 8.25 x 2.8 in. (23 x 22 x 7 cm) | UV-rated white plastic | 12 | 13mm panel mount | 24 |
| TL-16P-DB-O | 12.5 x 10.2 x 3.5 in. (26 x 32 x 9 cm) | UV-rated white plastic | 16 | 13mm panel mount | 32 |

## Wall-Box Coupler & Adapter Inserts

TechLogix fiber optic couplers and adapters connect two terminated fiber optic cables. Demarc wiring typically requires SC single mode couplers.

| Part Number | Type | Fiber Type | Strand Count | Side A | Side B | Dimensions | Format |
|---|---|---|---|---|---|---|---|
| M4D-ADPT-LCLC | Coupler | Multimode | Duplex | Female LC | Female LC | 13mm | Panel Mount |
| M4D-ADPT-SCSC | Coupler | Multimode | Duplex | Female SC | Female SC | 13mm | Panel Mount |
| M1-SC-F-SC-F | Coupler | Multimode | Simplex | Female SC | Female SC | 13mm | Panel Mount |
| S1-SC-F-SC-F | Coupler | Single Mode | Simplex | Female SC | Female SC | 13mm | Panel Mount |
| S1-LC-F-SC-F | Adapter | Single Mode | Simplex | Female LC | Female SC | 13mm | Panel Mount |
| S1-SC-F-LC-M | Adapter | Single Mode | Simplex | Female SC | Male LC | 13mm | Panel Mount |
| S2-LCA-F-LCA-F | Coupler | Single Mode | Duplex | Female LC/APC | Female LC/APC | 13mm | Panel Mount |
| S1-SCA-F-SCA-F | Coupler | Single Mode | Simplex | Female SC/APC | Female SC/APC | 13mm | Panel Mount |
| S1-FCA-F-SCA-F | Adapter | Single Mode | Simplex | Female FC/APC | Female SC/APC | 13mm | Panel Mount |

## Single Mode Patch Cords & Pre-Terminated Cable

TechLogix pre-terminated cables feature a flexible riser-rated jacket and internal aramid yarn for strength.

| Part Number | Construction | Length | Fiber Type | Strand Count | Side A | Side B | Jacket Rating | Color |
|---|---|---|---|---|---|---|---|---|
| S2D-ECO-SCSC-01 | Standard | 1m / 3ft. | Single Mode OS2 | Duplex | SC | SC | Riser | Yellow |
| S2D-ECO-SCSC-02 | Standard | 2m / 6.5ft. | Single Mode OS2 | Duplex | SC | SC | Riser | Yellow |
| S2D-ECO-SCSC-03 | Standard | 3m / 10ft. | Single Mode OS2 | Duplex | SC | SC | Riser | Yellow |
| S2D-ECO-SCSC-05 | Standard | 5m / 16.5ft. | Single Mode OS2 | Duplex | SC | SC | Riser | Yellow |
| S2D-ECO-SCSC-07 | Standard | 7m / 23ft. | Single Mode OS2 | Duplex | SC | SC | Riser | Yellow |
| S2D-ECO-SCSC-10 | Standard | 10m / 33ft. | Single Mode OS2 | Duplex | SC | SC | Riser | Yellow |
| S2D-ARM-SCSC-05 | Micro Armor | 5m / 16.5ft. | Single Mode OS2 | Duplex | SC | SC | Riser | Blue |
| S2D-ARM-SCSC-07 | Micro Armor | 7m / 23ft. | Single Mode OS2 | Duplex | SC | SC | Riser | Blue |
| S2D-ARM-SCSC-10 | Micro Armor | 10m / 33ft. | Single Mode OS2 | Duplex | SC | SC | Riser | Blue |
| S2D-ARM-SCSC-15 | Micro Armor | 15m / 50ft. | Single Mode OS2 | Duplex | SC | SC | Riser | Blue |
| S2D-ARM-SCSC-20 | Micro Armor | 20m / 66ft. | Single Mode OS2 | Duplex | SC | SC | Riser | Blue |
| S2D-ARM-SCSC-30 | Micro Armor | 30m / 100ft. | Single Mode OS2 | Duplex | SC | SC | Riser | Blue |

## ECO Series™ Bulk Cable with Corning SMF-28 Ultra® Single Mode Fiber

TechLogix ECO Series bulk fiber delivers an ultra-bendable, laser-optimized cable that performs even through tight bends and challenging cable routes.

| Part Number | Fiber Type | Strand Count | Jacket Rating | Color | Spool Length | Diameter | Bend Radius |
|---|---|---|---|---|---|---|---|
| S2I-2M-P-BK-1000 | Single Mode OS2 | Duplex (2) | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.4mm | 7.5mm |
| S2I-2M-P-BK-2000 | Single Mode OS2 | Duplex (2) | Indoor/Outdoor Plenum | Black | 600m / 2000ft. | 4.4mm | 7.5mm |
| S2I-6M-P-BK-1000 | Single Mode OS2 | 6 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.8mm | 7.5mm |
| S2I-6M-P-BK-2000 | Single Mode OS2 | 6 | Indoor/Outdoor Plenum | Black | 600m / 2000ft. | 4.8mm | 7.5mm |
| S2I-12M-P-BK-1000 | Single Mode OS2 | 12 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 5.8mm | 7.5mm |
| S2I-12M-P-BK-2000 | Single Mode OS2 | 12 | Indoor/Outdoor Plenum | Black | 600m / 2000ft. | 5.8mm | 7.5mm |

## Single Mode Fiber Optic Connectors

TechLogix mechanical connectors eliminate the need to hand polish, epoxy or crimp in the field. They are reliable to install, terminate in as little as one minute, and allow re-termination up to 12 times before calculable loss. Plus, no proprietary and expensive tools are required for termination.

| Part Number | Connector Type | Fiber Type | Universal Compatibility with Single Mode | Qnty per Pack |
|---|---|---|---|---|
| S2-9125-LC10 | LC/UPC | Single Mode | Yes | 10 |
| S2-9125-LCA10 | LC/APC | Single Mode | Yes | 10 |
| S2-9125-SC10 | SC/UPC | Single Mode | Yes | 10 |
| S2-9125-SCA10 | SC/APC | Single Mode | Yes | 10 |

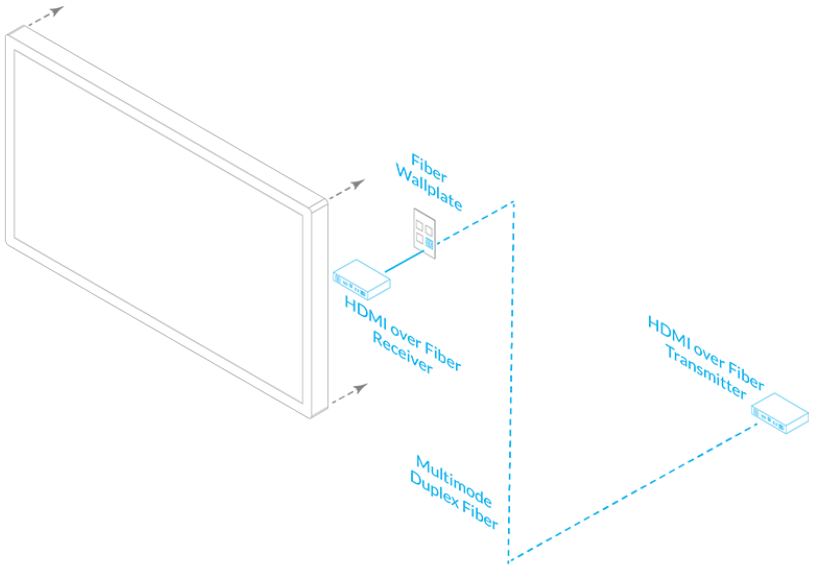
visit **www.tlnetworx.com** for additional products and configurations

Fiber optic cable is increasingly used to extend video signals such as HDMI, DVI and DisplayPort. Fiber supports the bandwidth required for native 4K HDR (up to 18G) and 8K (up to 48G), and it future-proofs for planned standards such as 12K and 16K.

In addition to increased bandwidth support, video over fiber extension also provides a number of other signal transmission benefits, such as:

1. Immunity to RF and electrical (EM) interference
2. Immunity to static electricity, surges and lightning strikes
3. Increased signal transmission distances

Video over fiber extenders typically leverage the same standard fiber optic cable and connectors commonly used in data applications, such as duplex multimode OM3 with LC connectors and single mode OS2 with LC connectors.

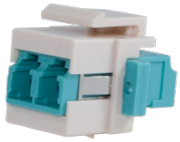



## Application Design Notes

- If possible, verify the video over fiber extender requirements prior to installation of the cable to ensure the proper fiber and connector formats. TechLogix extenders are compatible with both single mode and multimode fiber and use industry-standard LC connectors.
- Ensure there is a source of power on both ends of the cable run. Video over fiber extenders require power, whether through an AC outlet or USB connection, and fiber optic cabling will not transmit power.
- Always pull duplex (two strand) fiber optic cable. While some video over fiber extenders do support simplex (single strand) fiber transmission, this is not industry standard and two strands better future-proof the cable run for future integration.

## Commonly Integrated Products

**Video over Fiber Extenders**
Extenders transmit audio, video and control signals over fiber optic cabling.



**Keystone Wallplates**
Fiber optic keystone wallplate inserts provide a secure and aesthetic connection point between the main cable run and a shorter patch cord.

**Fiber Patch Cords**
Premade fiber optic cables arrive pre-terminated with connectors and are available in stock and custom configurations.

**Bulk Fiber Cable**
Bulk fiber cable requires termination in the field and is available in stock and custom configurations. Both riser and plenum formats are commonly used for video distribution.

**Fiber Optic Connectors**
Fiber optic connectors terminate on bulk fiber cable.

## HDMI & DVI over Fiber Extenders

TechLogix HDMI and DVI over fiber extenders transmit audio, video and control signals over single mode and multimode fiber. All part numbers include a transmitter, receiver, power supplies and accessories.

| Part Number | Compliancy | Multimode Max Distance | Single Mode Max Distance | Max Video Resolution | Strands Required | IR Control | RS232 Control | Ethernet | HDR |
|---|---|---|---|---|---|---|---|---|---|
| TL-FO2-HDC2 | HDMI 2.0 / HDCP 2.2 | 300m / 1000ft. | 300m / 1000ft. | 18G 4K60 4:4:4 | Duplex | Yes | Yes | | Yes |
| TL-FO2-VLC-MM | HDMI 2.0 / HDCP 2.2 | 300m / 1000ft. | NA | 18G 4K60 4:4:4 | Duplex | Yes | Yes | | Yes |
| TL-FO2-VLC-SM | HDMI 2.0 / HDCP 2.2 | NA | 10km / 6.2 miles | 18G 4K60 4:4:4 | Duplex | Yes | Yes | | Yes |
| TL-IPFO-KIT | HDMI 2.0 / HDCP 2.2 | 300m / 1000ft. | 10km / 6.2 miles* | 18G 4K60 4:4:4 | Duplex | Yes | Yes | Yes | Yes |
| TL-FO-HD | HDMI 1.4 / HDCP 1.4 | 300m / 1000ft. | 300m / 1000ft. | 10G 4K30 | Simplex | | | | |
| TL-FO-DVI | DVI 1.0 | 300m / 1000ft. | 300m / 1000ft. | 1920x1200 | Simplex | | | | |

*Requires SFP module swap

## Keystone Wallplates

TechLogix fiber optic keystones provide a secure and finished connection point in wallplates and rack panels. They are available in a variety of formats and are compatible with standard industry keystone trim sizes.

| Part Number | Keystone Size | Color | Connector | Fiber Type |
|---|---|---|---|---|
| M4D-KS-LCLC | 14.5 x 16mm | White / Aqua | Duplex LC | Multimode |
| S2D-KS-LCLC | 14.5 x 16mm | White / Blue | Duplex LC | Single Mode |

## Armored Fiber Optic Patch Cords & Pre-Terminated Cable

TechLogix armored premades feature micro stainless-steel tape and mesh armor delivering unrivaled durability and performance.

| Part Number | Construction | Length | Fiber Type | Strand Count | Side A | Side B | Jacket Rating | Color |
|---|---|---|---|---|---|---|---|---|
| M4D-BLK-LCLC-01 | Micro Armor | 1m / 3ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-02 | Micro Armor | 2m / 6.5ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-03 | Micro Armor | 3m / 10ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-05 | Micro Armor | 5m / 16.5ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-07 | Micro Armor | 7m / 23ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-10 | Micro Armor | 10m / 33ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-15 | Micro Armor | 15m / 50ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-20 | Micro Armor | 20m / 66ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-30 | Micro Armor | 30m / 100ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-40 | Micro Armor | 40m / 130ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-50 | Micro Armor | 50m / 165ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |

## ECO Series™ Bulk Cable with Corning SMF-28 Ultra® & ClearCurve® Fiber

TechLogix ECO Series bulk fiber delivers an ultra-bendable, laser-optimized cable that performs even through tight bends and challenging cable routes.

| Part Number | Fiber Type | Strand Count | Jacket Rating | Color | Spool Length | Diameter | Bend Radius |
|---|---|---|---|---|---|---|---|
| S2I-2M-P-BK-1000 | Single Mode OS2 | Duplex (2) | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.4mm | 7.5mm |
| S2I-6M-P-BK-1000 | Single Mode OS2 | 6 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.8mm | 7.5mm |
| S2I-12M-P-BK-1000 | Single Mode OS2 | 12 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 5.8mm | 7.5mm |
| M3I-2Z-R-AQ-1000 | Multimode OM3 | Duplex (2) | Indoor Riser | Aqua | 300m / 1000ft. | 3mm | 7.5mm |
| M3I-2M-R-BK-1000 | Multimode OM3 | Duplex (2) | Indoor Riser | Black | 300m / 1000ft. | 4.4mm | 7.5mm |
| M3I-2M-P-BK-1000 | Multimode OM3 | Duplex (2) | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.4mm | 7.5mm |
| M3I-6M-R-BK-1000 | Multimode OM3 | 6 | Indoor Riser | Black | 300m / 1000ft. | 4.8mm | 7.5mm |
| M3I-6M-P-BK-1000 | Multimode OM3 | 6 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.8mm | 7.5mm |
| M3I-12M-P-BK-1000 | Multimode OM3 | 12 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 5.8mm | 7.5mm |

## Fiber Optic Connectors

TechLogix mechanical connectors eliminate the need to hand polish, epoxy or crimp in the field. They are reliable to install, terminate in as little as one minute, and allow re-termination up to 12 times before calculable loss. Plus, no proprietary and expensive tools are required for termination.

| Part Number | Connector Type | Fiber Type | Qnty per Pack |
|---|---|---|---|
| M3-50125-LC10 | LC | Multimode | 10 |
| S2-9125-LC10 | LC | Single Mode | 10 |

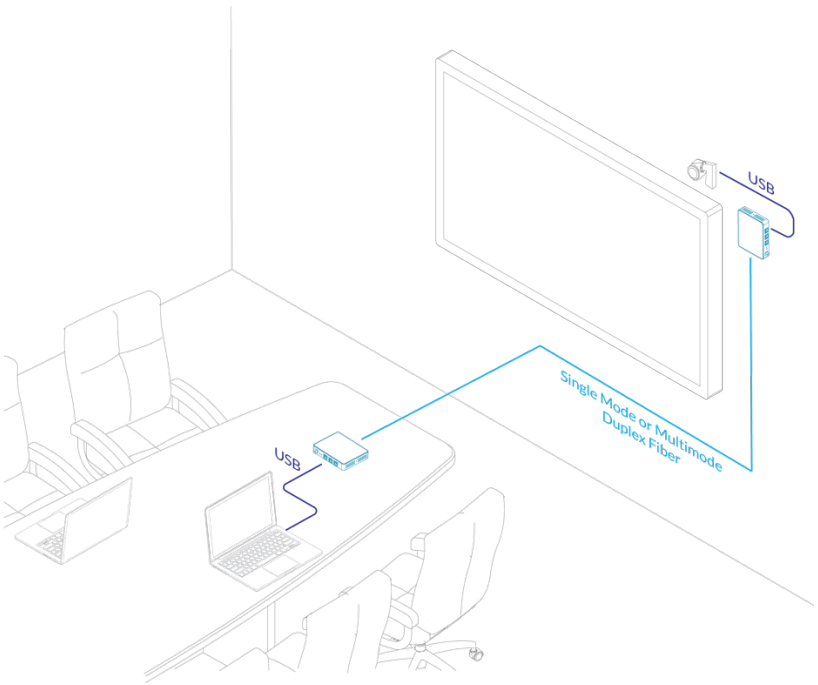
visit **www.tlnetworx.com** for additional products and configurations

Fiber optic cable is increasingly used to extend USB signals, including SuperSpeed (USB 3.0, 3.1), High-Speed (USB 2.0) and Full-Speed (USB 1.1) compliant data and video. The USB specification limits cables to 5 meters (16.5 feet) in length and fiber-based systems provide reliable, zero-latency transmission over several hundred feet.

In addition to increased signal transmission length, USB over fiber extension also provides several other benefits:

1. Immunity to RF and electrical (EM) interference
2. Immunity to static electricity, surges and lightning strikes
3. Signal bandwidth continuity up to and including 10Gbps
4. Integrated network signal extension

USB over fiber extenders typically leverage the same standard fiber optic cable and connectors commonly used in network applications, such as duplex multimode OM3 with LC connectors and single mode OS2 with LC connectors.



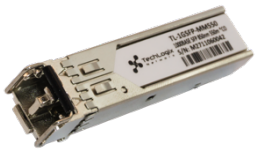

## Application Design Notes

- If possible, verify the USB over fiber extender requirements prior to installation of the cable to ensure the proper fiber and connector formats. *Not all models of extenders are compatible with both single mode and multimode fiber, and often the fiber SFP module must be replaced to flip from one format to the other.* By default, most extenders ship with duplex multimode SFP modules.
- Ensure there is a source of power on both ends of the cable run. USB over fiber extenders require power, whether through an AC outlet or the USB connection, and fiber optic cabling will not transmit power. On the transmit side, host computers are often the source of power.
- Many USB over fiber extenders include built-in USB hubs for the connection of multiple simultaneous devices.
- USB over fiber extenders are often only compatible with a specific format of USB (SuperSpeed, High-Speed and/or Full-Speed). *Always verify the specifications of the devices which will be connected to the USB over fiber extender, as well as the extender's USB version compatibility.*

## Commonly Integrated Products

### USB over Fiber Extenders

Extenders transmit the SuperSpeed, High-Speed and Full-Speed USB signals over fiber optic cabling.



### SFP Transceiver Modules

SFP modules provide the fiber optic connection for USB over fiber extenders. The modules are swappable and are specific to either duplex multimode fiber or duplex single mode fiber.

### Fiber Patch Cords

Premade fiber optic cables arrive pre-terminated with connectors and are available in stock and custom configurations.

### Bulk Fiber Cable

Bulk fiber cable requires termination in the field and is available in stock and custom configurations. Both riser and plenum formats are commonly used for USB distribution.

### Fiber Optic Connectors

Fiber optic connectors terminate on bulk fiber cable.

## USB over Fiber Extenders

TechLogix USB extenders transmit full-speed, high-speed and SuperSpeed signals over single mode and multimode fiber. All part numbers include a transmitter, receiver, power supplies and accessories.

| Part Number | Max Distance | Strands Required | USB 1.1 Full-Speed Compliant | USB 2.0 High-Speed Compliant | USB 3.0 / USB 3.0 SuperSpeed Compliant | Ethernet | Receiver USB Ports |
|---|---|---|---|---|---|---|---|
| TL-FO-USB2-01 | 500m / 1,640ft.* | Duplex | Yes | Yes | | | 4 type A |
| TL-FO-USB3-01 | 100m / 330ft.* | Duplex | | | Yes | | 2 type A |
| TL-FO-USB3-02 | 200m / 650ft. | Duplex | Yes | Yes | Yes | Yes | 4 type A |

*Compatible with single mode fiber with SFP module swap

## SFP Transceiver Modules

TechLogix SFP modules feature industry-standard firmware and are compatible with most major brands of networking hardware, fiber optic extenders and AV over IP systems.

| Part Number | Product Type | Fiber Type | Bandwidth | Transmission Distance | Connectors | Compatible with USB Extenders |
|---|---|---|---|---|---|---|
| TL-1GSFP-MM550 | SFP Fiber Module | Multimode | 1G | 550m / 1,805ft. | Duplex LC | Yes |
| TL-1GSFP-SM20K | SFP Fiber Module | Single Mode | 1G | 20km / 12.4 miles | Duplex LC | Yes* |
| TL-10GSFPP-MM300 | SFP+ Fiber Module | Multimode | 10G | 300m / 1,000ft. | Duplex LC | |
| TL-10GSFPP-SM10K | SFP+ Fiber Module | Single Mode | 10G | 10km / 6.2 miles | Duplex LC | |

*Compatible with models TL-FO-USB2-01 & TL-FO-USB3-01

## Armored Fiber Optic Patch Cords & Pre-Terminated Cable

TechLogix armored premades feature micro stainless-steel tape and mesh armor delivering unrivaled durability and performance.

| Part Number | Construction | Length | Fiber Type | Strand Count | Side A | Side B | Jacket Rating | Color |
|---|---|---|---|---|---|---|---|---|
| M4D-BLK-LCLC-01 | Micro Armor | 1m / 3ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-02 | Micro Armor | 2m / 6.5ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-03 | Micro Armor | 3m / 10ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
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| M4D-BLK-LCLC-10 | Micro Armor | 10m / 33ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-15 | Micro Armor | 15m / 50ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-20 | Micro Armor | 20m / 66ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-30 | Micro Armor | 30m / 100ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
| M4D-BLK-LCLC-40 | Micro Armor | 40m / 130ft. | Multimode OM4 | Duplex | LC | LC | Tactical Riser | Black |
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TechLogix ECO Series bulk fiber delivers an ultra-bendable, laser-optimized cable that performs even through tight bends and challenging cable routes.

| Part Number | Fiber Type | Strand Count | Jacket Rating | Color | Spool Length | Diameter | Bend Radius |
|---|---|---|---|---|---|---|---|
| S2I-2M-P-BK-1000 | Single Mode OS2 | Duplex (2) | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.4mm | 7.5mm |
| S2I-6M-P-BK-1000 | Single Mode OS2 | 6 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.8mm | 7.5mm |
| S2I-12M-P-BK-1000 | Single Mode OS2 | 12 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 5.8mm | 7.5mm |
| M3I-2Z-R-AQ-1000 | Multimode OM3 | Duplex (2) | Indoor Riser | Aqua | 300m / 1000ft. | 3mm | 7.5mm |
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| M3I-6M-P-BK-1000 | Multimode OM3 | 6 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.8mm | 7.5mm |
| M3I-12M-P-BK-1000 | Multimode OM3 | 12 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 5.8mm | 7.5mm |

## Fiber Optic Connectors

TechLogix mechanical connectors eliminate the need to hand polish, epoxy or crimp in the field. They are reliable to install, terminate in as little as one minute, and allow re-termination up to 12 times before calculable loss. Plus, no proprietary and expensive tools are required for termination.

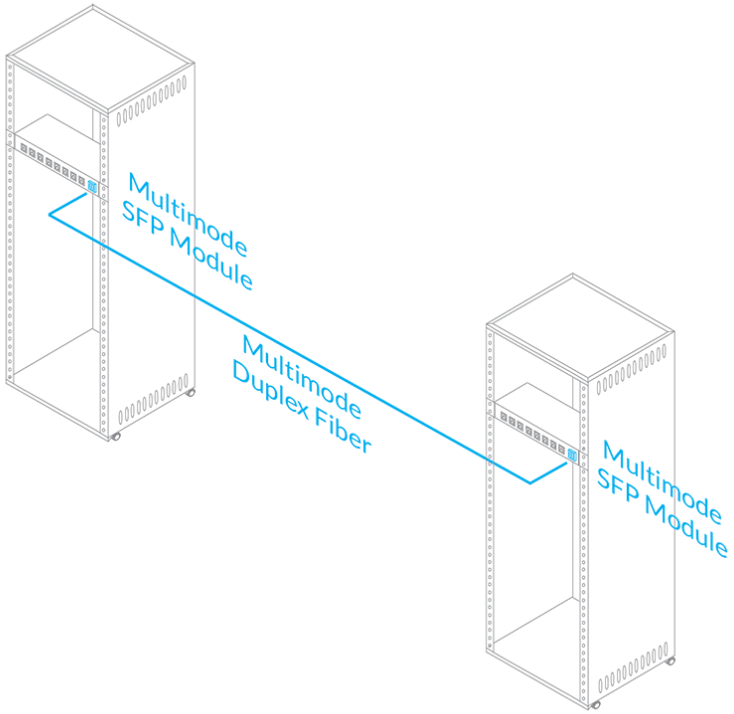
| Part Number | Connector Type | Fiber Type | Qnty per Pack |
|---|---|---|---|
| M3-50125-LC10 | LC | Multimode | 10 |
| S2-9125-LC10 | LC | Single Mode | 10 |

visit **www.tlnetworx.com** for additional products and configurations

Fiber optic cabling is increasingly used to connect network switches and other datacom equipment, especially in long-distance and mission-critical applications. Fiber provides:

1. Reliable signal transmission due to immunity from RF interference, electrical interference, static electricity, power surges and lightning strikes;
2. Signal transmission distances over 100m / 330ft;
3. Extremely Fast data speeds thanks to the simultaneous transmission and receipt of signals; and
4. Increased internet signal bandwidth.

Most modern fiber-enabled network switches require an SFP transceiver module featuring a duplex (two strand) multimode OM3 or duplex single mode OS2 connection with LC connectors. Direct attach cables with pre-terminated SFP connections may also be used.



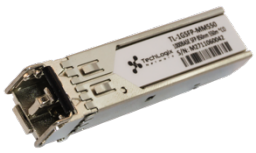

## Application Design Notes

- SFP transceiver modules are specific to the type of fiber being connected (either single mode or multimode). *Choose an SFP module based on the fiber optic cabling that will be connected to the network switches.*
- SFP transceiver modules almost always require two fiber optic cable strands. *Always integrate duplex (two strand) fiber optic cabling or higher strand counts.*
- Most modern SFP transceiver modules feature duplex LC connections. *Terminate your fiber optic cabling with two LC-style connectors or purchase a pre-terminated fiber optic cable with two LC-style connectors.*
- When connecting terminated duplex fiber optic cable between two network switches, ensure the connections are reversed between the SFP transceiver ports (connection A to B and B to A). SFP transceiver modules rely on the transmission of separate send and receive signals.
- Select an SFP module that matches the bandwidth of your network switch. 1G modules are technically classified as SFP transceivers, 10G modules are classified as SFP+ transceivers, and QSFP transceivers support even higher bandwidths.

## Commonly Integrated Products

### Direct Attach Cables

Direct attached cables, or DACs, are short length patch cables with pre-terminated 10G SFP modules on each end. They provide a simple, low-cost solution for connecting network equipment.



### SFP Transceiver Modules

SFP modules provide the fiber optic connection for network switchers with fiber optic (SFP) ports. The modules are swappable and are specific to either duplex multimode fiber or duplex single mode fiber.

### Fiber Patch Cords

Premade fiber optic cables arrive pre-terminated with connectors and are available in stock and custom configurations.

### Bulk Fiber Cable

Bulk fiber cable requires termination in the field and is available in stock and custom configurations. Both riser and plenum formats are commonly used to connect networking equipment.

### Fiber Optic Connectors

Fiber optic connectors terminate on bulk fiber cable.

## Direct Attach Cables

TechLogix pre-terminated direct attach cables feature industry-standard firmware and are compatible with most major brands of networking hardware.

| Part Number | Product Type | Bandwidth | Transmission Distance | Connectors |
|---|---|---|---|---|
| TL-10GDAC-01 | Pre-terminated SFP+ Cable | 10G | 1m / 3ft. | SFP+ |
| TL-10GDAC-03 | Pre-terminated SFP+ Cable | 10G | 3m / 10ft. | SFP+ |
| TL-10GDAC-07 | Pre-terminated SFP+ Cable | 10G | 7m / 23ft. | SFP+ |

## SFP Transceiver Modules

TechLogix SFP modules feature industry-standard firmware and are compatible with most major brands of networking hardware.

| Part Number | Product Type | Fiber Type | Bandwidth | Transmission Distance | Connectors |
|---|---|---|---|---|---|
| TL-1GSFP-MM550 | SFP Fiber Module | Multimode | 1G | 550m / 1,805ft. | Duplex LC |
| TL-1GSFP-SM20K | SFP Fiber Module | Single Mode | 1G | 20km / 12.4 miles | Duplex LC |
| TL-10GSFPP-MM300 | SFP+ Fiber Module | Multimode | 10G | 300m / 1,000ft. | Duplex LC |
| TL-10GSFPP-SM10K | SFP+ Fiber Module | Single Mode | 10G | 10km / 6.2 miles | Duplex LC |

## Fiber Optic Patch Cords & Pre-Terminated Cable

TechLogix pre-terminated cables feature a flexible riser-rated jacket and internal aramid yarn for strength.

| Part Number | Construction | Length | Fiber Type | Strand Count | Side A | Side B | Jacket Rating | Color |
|---|---|---|---|---|---|---|---|---|
| M4D-ECO-LCLC-01 | Standard | 1m / 3ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-02 | Standard | 2m / 6.5ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-03 | Standard | 3m / 10ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-05 | Standard | 5m / 16.5ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-07 | Standard | 7m / 23ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-10 | Standard | 10m / 33ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| S2D-ECO-LCLC-01 | Standard | 1m / 3ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| S2D-ECO-LCLC-02 | Standard | 2m / 6.5ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| S2D-ECO-LCLC-03 | Standard | 3m / 10ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| S2D-ECO-LCLC-05 | Standard | 5m / 16.5ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| S2D-ECO-LCLC-07 | Standard | 7m / 23ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| S2D-ECO-LCLC-10 | Standard | 10m / 33ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| M4D-ARM-LCLC-15 | Micro Armor | 15m / 50ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ARM-LCLC-20 | Micro Armor | 20m / 66ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ARM-LCLC-30 | Micro Armor | 30m / 100ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ARM-LCLC-40 | Micro Armor | 40m / 130ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ARM-LCLC-50 | Micro Armor | 50m / 165ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |

## ECO Series™ Bulk Cable with Corning SMF-28 Ultra® & ClearCurve® Fiber

TechLogix ECO Series bulk fiber delivers an ultra-bendable, laser-optimized cable that performs even through tight bends and challenging cable routes.

| Part Number | Fiber Type | Strand Count | Jacket Rating | Color | Spool Length | Diameter | Bend Radius |
|---|---|---|---|---|---|---|---|
| S2I-2M-P-BK-1000 | Single Mode OS2 | Duplex (2) | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.4mm | 7.5mm |
| S2I-6M-P-BK-1000 | Single Mode OS2 | 6 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.8mm | 7.5mm |
| S2I-12M-P-BK-1000 | Single Mode OS2 | 12 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 5.8mm | 7.5mm |
| M3I-2Z-R-AQ-1000 | Multimode OM3 | Duplex (2) | Indoor Riser | Aqua | 300m / 1000ft. | 3mm | 7.5mm |
| M3I-2M-R-BK-1000 | Multimode OM3 | Duplex (2) | Indoor Riser | Black | 300m / 1000ft. | 4.4mm | 7.5mm |
| M3I-2M-P-BK-1000 | Multimode OM3 | Duplex (2) | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.4mm | 7.5mm |
| M3I-6M-R-BK-1000 | Multimode OM3 | 6 | Indoor Riser | Black | 300m / 1000ft. | 4.8mm | 7.5mm |
| M3I-6M-P-BK-1000 | Multimode OM3 | 6 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.8mm | 7.5mm |
| M3I-12M-P-BK-1000 | Multimode OM3 | 12 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 5.8mm | 7.5mm |

## Fiber Optic Connectors

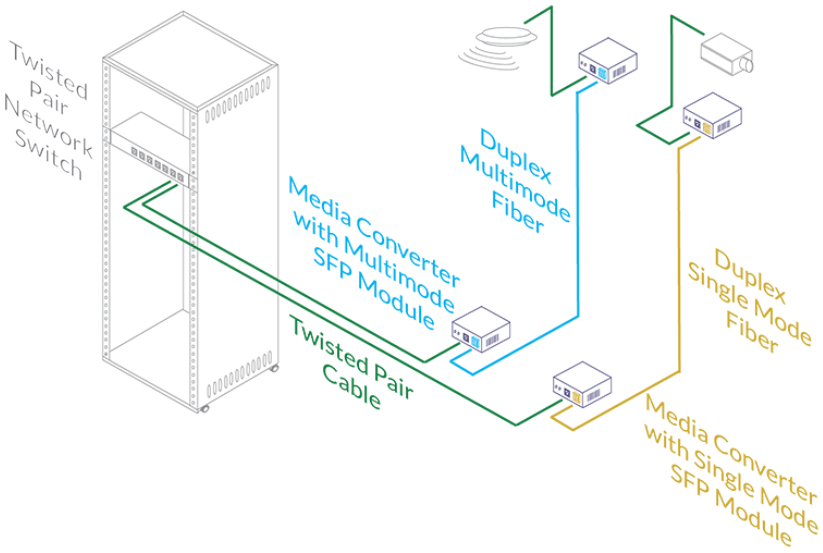
TechLogix mechanical connectors eliminate the need to hand polish, epoxy or crimp in the field. They are reliable to install, terminate in as little as one minute, and allow re-termination up to 12 times before calculable loss. Plus, no proprietary and expensive tools are required for termination.

| Part Number | Connector Type | Fiber Type | Qnty per Pack |
|---|---|---|---|
| M3-50125-LC10 | LC | Multimode | 10 |
| S2-9125-LC10 | LC | Single Mode | 10 |

visit **www.tlnetworx.com** for additional products and configurations

While fiber optic (SFP) ports are becoming increasingly common on networking electronics, the majority of devices still rely on a twisted pair (RJ45) connection. Media converters are often used to bridge the connection divide and expand device functionality.

For example, media converters integrate twisted pair electronics with fiber optic cable to extend transmission distance and create immunity from surges, static, lightning and signal interference. They can be used in pairs, with one media converter on each end of the cable run, or in conjunction with other network-based devices, such as a fiber-enabled network switch.



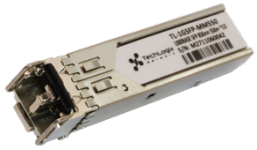

## Application Design Notes

- Media converters typically require an SFP transceiver module to complete the fiber optic connection. These modules are specific to the type of fiber being connected (either single mode or multimode). *Choose an SFP module based on the fiber optic cabling that will be connected to the network switches.*
- SFP transceiver modules almost always require two fiber optic cable strands. *Always integrate duplex (two strand) fiber optic cabling or higher strand counts.*
- Most modern SFP transceiver modules feature duplex LC connections. *Terminate your fiber optic cabling with two LC-style connectors or purchase a pre-terminated fiber optic cable with two LC-style connectors.*
- When connecting terminated duplex fiber optic cable between media converters and/or network equipment, ensure the connections are reversed between the SFP transceiver ports (connection A to B and B to A). SFP transceiver modules rely on the transmission of separate send and receive signals.
- Select an SFP module that matches the bandwidth of your media converter and/or network equipment. 1G modules are technically classified as SFP transceivers, 10G modules are classified as SFP+ transceivers, and QSFP transceivers support even higher bandwidths.
- When integrating two media converters or one media converter with one fiber-enabled network device, it is important to verify both devices feature matching SFP modules to ensure compatibility and proper communication.

## Commonly Integrated Products

### Media Converters

Media converters convert a twisted pair connection to a fiber optic connection, effectively adapting a device with an RJ45 port to a fiber-ready device. TechLogix media converters require an SFP module.



### SFP Transceiver Modules

SFP modules provide the fiber optic connection for network switchers and media converters with fiber optic (SFP) ports. The modules are swappable and are specific to either duplex multimode fiber or duplex single mode fiber.

### Fiber Patch Cords

Premade fiber optic cables arrive pre-terminated with connectors and are available in stock and custom configurations.

### Bulk Fiber Cable

Bulk fiber cable requires termination in the field and is available in stock and custom configurations. Both riser and plenum formats are commonly used to connect networking equipment and media converters.

### Fiber Optic Connectors

Fiber optic connectors terminate on bulk fiber cable.

## Media Converters

TechLogix media converters adapt fiber signals to a variety of different formats and/or cable types. The most common application is converting a fiber connection to a twisted pair connection, effectively adapting twisted pair-based devices to fiber for longer, interference-free transmission distances.

| Part Number | Signal Conversion | Port A | Port B | Data Rate | Compatible SFP Modules (sold separately) |
|---|---|---|---|---|---|
| TL-MC-1S1R | Fiber to RJ45 | 1 SFP (fiber) | 1 RJ45 | 10/100/1000M | TL-1GSFP-MM550 \| multimode fiber<br>TL-1GSFP-SM20K \| single mode fiber |
| TL-MC-1S2R | Fiber to RJ45 | 1 SFP (fiber) | 2 RJ45 | 10/100/1000M | |
| TL-MC-1S1S | Fiber to Fiber | 1 SFP (fiber) | 1 SFP (fiber) | 10/100/1000/1250M | |

## SFP Transceiver Modules

TechLogix SFP modules feature industry-standard firmware and are compatible with most major brands of networking hardware.

| Part Number | Product Type | Fiber Type | Bandwidth | Transmission Distance | Connectors |
|---|---|---|---|---|---|
| TL-1GSFP-MM550 | SFP Fiber Module | Multimode | 1G | 550m / 1,805ft. | Duplex LC |
| TL-1GSFP-SM20K | SFP Fiber Module | Single Mode | 1G | 20km / 12.4 miles | Duplex LC |
| TL-10GSFPP-MM300 | SFP+ Fiber Module | Multimode | 10G | 300m / 1,000ft. | Duplex LC |
| TL-10GSFPP-SM10K | SFP+ Fiber Module | Single Mode | 10G | 10km / 6.2 miles | Duplex LC |

## Fiber Optic Patch Cords & Pre-Terminated Cable

TechLogix pre-terminated cables feature a flexible riser-rated jacket and internal aramid yarn for strength.

| Part Number | Construction | Length | Fiber Type | Strand Count | Side A | Side B | Jacket Rating | Color |
|---|---|---|---|---|---|---|---|---|
| M4D-ECO-LCLC-01 | Standard | 1m / 3ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-02 | Standard | 2m / 6.5ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-03 | Standard | 3m / 10ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-05 | Standard | 5m / 16.5ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-07 | Standard | 7m / 23ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-10 | Standard | 10m / 33ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| S2D-ECO-LCLC-01 | Standard | 1m / 3ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| S2D-ECO-LCLC-02 | Standard | 2m / 6.5ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| S2D-ECO-LCLC-03 | Standard | 3m / 10ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| S2D-ECO-LCLC-05 | Standard | 5m / 16.5ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| S2D-ECO-LCLC-07 | Standard | 7m / 23ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| S2D-ECO-LCLC-10 | Standard | 10m / 33ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| M4D-ARM-LCLC-15 | Micro Armor | 15m / 50ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ARM-LCLC-20 | Micro Armor | 20m / 66ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ARM-LCLC-30 | Micro Armor | 30m / 100ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ARM-LCLC-40 | Micro Armor | 40m / 130ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ARM-LCLC-50 | Micro Armor | 50m / 165ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |

## ECO Series™ Bulk Cable with Corning SMF-28 Ultra® & ClearCurve® Fiber

TechLogix ECO Series bulk fiber delivers an ultra-bendable, laser-optimized cable that performs even through tight bends and challenging cable routes.

| Part Number | Fiber Type | Strand Count | Jacket Rating | Color | Spool Length | Diameter | Bend Radius |
|---|---|---|---|---|---|---|---|
| S2I-2M-P-BK-1000 | Single Mode OS2 | Duplex (2) | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.4mm | 7.5mm |
| S2I-6M-P-BK-1000 | Single Mode OS2 | 6 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.8mm | 7.5mm |
| S2I-12M-P-BK-1000 | Single Mode OS2 | 12 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 5.8mm | 7.5mm |
| M3I-2Z-R-AQ-1000 | Multimode OM3 | Duplex (2) | Indoor Riser | Aqua | 300m / 1000ft. | 3mm | 7.5mm |
| M3I-2M-R-BK-1000 | Multimode OM3 | Duplex (2) | Indoor Riser | Black | 300m / 1000ft. | 4.4mm | 7.5mm |
| M3I-2M-P-BK-1000 | Multimode OM3 | Duplex (2) | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.4mm | 7.5mm |
| M3I-6M-R-BK-1000 | Multimode OM3 | 6 | Indoor Riser | Black | 300m / 1000ft. | 4.8mm | 7.5mm |
| M3I-6M-P-BK-1000 | Multimode OM3 | 6 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.8mm | 7.5mm |
| M3I-12M-P-BK-1000 | Multimode OM3 | 12 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 5.8mm | 7.5mm |

## Fiber Optic Connectors

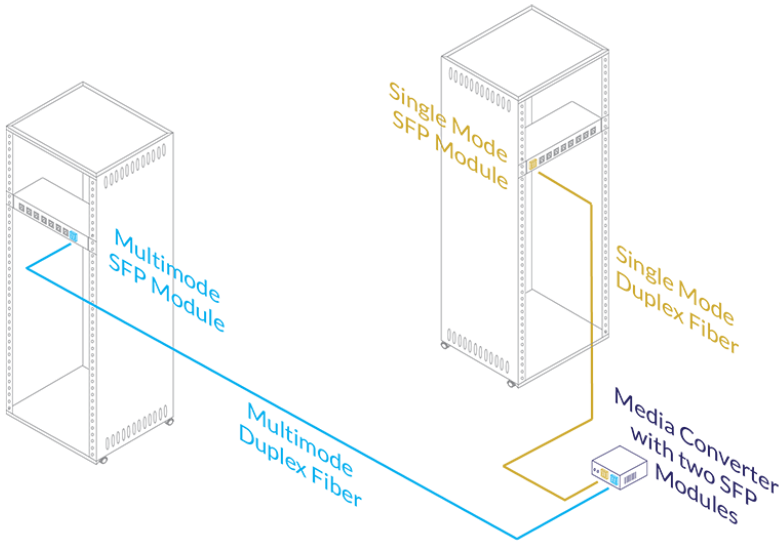
TechLogix mechanical connectors eliminate the need to hand polish, epoxy or crimp in the field. They are reliable to install, terminate in as little as one minute, and allow re-termination up to 12 times before calculable loss. Plus, no proprietary and expensive tools are required for termination.

| Part Number | Connector Type | Fiber Type | Qnty per Pack |
|---|---|---|---|
| M3-50125-LC10 | LC | Multimode | 10 |
| S2-9125-LC10 | LC | Single Mode | 10 |

visit **www.tlnetworx.com** for additional products and configurations

Modern single mode and multimode fiber cabling features different optical core sizes (9µm and 50µm, respectively) and won't natively splice or couple together. It is possible to connect the two different cable types; however, a media converter must be used to adapt the core sizes and optical wavelengths.

In most cases, media converters are used to integrate electrical-based electronics (such as twisted pair) with fiber optic cable; however, specialized models feature dual fiber optic (SFP) ports specifically designed to bridge optical infrastructures.



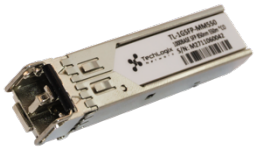

## Application Design Notes

- Media converters typically require SFP transceiver modules to complete the fiber optic connection. These modules are specific to the type of fiber being connected (either single mode or multimode). *Choose an SFP module based on the fiber optic cabling that will be connected to the network switches and ensure it is connected to the proper type of fiber.*
- SFP transceiver modules almost always require two fiber optic cable strands. *Always integrate duplex (two strand) fiber optic cabling or higher strand counts.*
- Most modern SFP transceiver modules feature duplex LC connections. *Terminate your fiber optic cabling with two LC-style connectors or purchase a pre-terminated fiber optic cable with two LC-style connectors.*
- When connecting terminated duplex fiber optic cable between media converters and/or network equipment, ensure the connections are reversed between the SFP transceiver ports (connection A to B and B to A). SFP transceiver modules rely on the transmission of separate send and receive signals.
- Select an SFP module that matches the bandwidth of your media converter. 1G modules are technically classified as SFP transceivers, 10G modules are classified as SFP+ transceivers, and QSFP transceivers support even higher bandwidths.

## Commonly Integrated Products

### Media Converters

Media converters with dual SFP ports adapt two different types of fiber optic cabling, such as single mode and multimode. When used in this application, TechLogix media converters require two different SFP modules specific to the cabling being connected.



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### Fiber Patch Cords

Premade fiber optic cables arrive pre-terminated with connectors and are available in stock and custom configurations.

### Bulk Fiber Cable

Bulk fiber cable requires termination in the field and is available in stock and custom configurations. Both riser and plenum formats are commonly used to connect media converters.

### Fiber Optic Connectors

Fiber optic connectors terminate on bulk fiber cable.

## Media Converters

TechLogix media converters adapt fiber signals to a variety of different formats and/or cable types. The most common application is converting a fiber connection to a twisted pair connection, effectively adapting twisted pair-based devices to fiber for longer, interference-free transmission distances.

| Part Number | Signal Conversion | Port A | Port B | Data Rate | Compatible SFP Modules (sold separately) |
|---|---|---|---|---|---|
| TL-MC-1S1S | Fiber to Fiber | 1 SFP (fiber) | 1 SFP (fiber) | 10/100/1000/1250M | TL-1GSFP-MM550 \| multimode fiber<br>TL-1GSFP-SM20K \| single mode fiber |

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| Part Number | Product Type | Fiber Type | Bandwidth | Transmission Distance | Connectors |
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| TL-1GSFP-MM550 | SFP Fiber Module | Multimode | 1G | 550m / 1,805ft. | Duplex LC |
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| M4D-ECO-LCLC-02 | Standard | 2m / 6.5ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-03 | Standard | 3m / 10ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-05 | Standard | 5m / 16.5ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-07 | Standard | 7m / 23ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ECO-LCLC-10 | Standard | 10m / 33ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| S2D-ECO-LCLC-01 | Standard | 1m / 3ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| S2D-ECO-LCLC-02 | Standard | 2m / 6.5ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| S2D-ECO-LCLC-03 | Standard | 3m / 10ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
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| S2D-ECO-LCLC-07 | Standard | 7m / 23ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
| S2D-ECO-LCLC-10 | Standard | 10m / 33ft. | Single Mode OS2 | Duplex | LC | LC | Riser | Yellow |
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| M4D-ARM-LCLC-30 | Micro Armor | 30m / 100ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
| M4D-ARM-LCLC-40 | Micro Armor | 40m / 130ft. | Multimode OM4 | Duplex | LC | LC | Riser | Aqua |
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| Part Number | Fiber Type | Strand Count | Jacket Rating | Color | Spool Length | Diameter | Bend Radius |
|---|---|---|---|---|---|---|---|
| S2I-2M-P-BK-1000 | Single Mode OS2 | Duplex (2) | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.4mm | 7.5mm |
| S2I-6M-P-BK-1000 | Single Mode OS2 | 6 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 4.8mm | 7.5mm |
| S2I-12M-P-BK-1000 | Single Mode OS2 | 12 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 5.8mm | 7.5mm |
| M3I-2Z-R-AQ-1000 | Multimode OM3 | Duplex (2) | Indoor Riser | Aqua | 300m / 1000ft. | 3mm | 7.5mm |
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| M3I-12M-P-BK-1000 | Multimode OM3 | 12 | Indoor/Outdoor Plenum | Black | 300m / 1000ft. | 5.8mm | 7.5mm |

## Fiber Optic Connectors

TechLogix mechanical connectors eliminate the need to hand polish, epoxy or crimp in the field. They are reliable to install, terminate in as little as one minute, and allow re-termination up to 12 times before calculable loss. Plus, no proprietary and expensive tools are required for termination.

| Part Number | Connector Type | Fiber Type | Qnty per Pack |
|---|---|---|---|
| M3-50125-LC10 | LC | Multimode | 10 |
| S2-9125-LC10 | LC | Single Mode | 10 |

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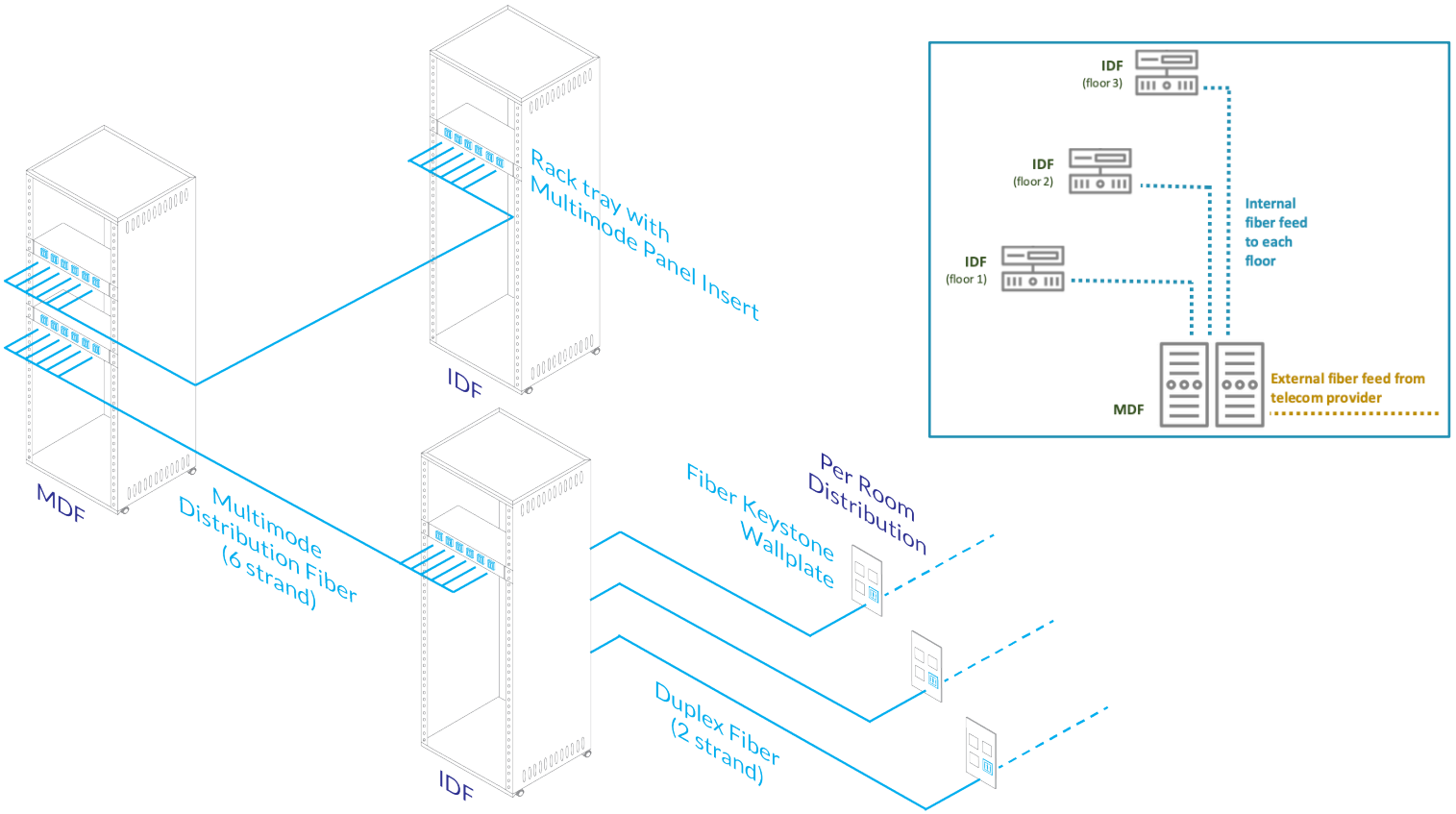
Commercial and multiple dwelling unit (MDU) projects often feature a *main distribution frame* (MDF) that interconnects and manages the telecommunications wiring between itself and remotely located *intermediate distribution frames* (IDFs). The MDF typically connects external public lines coming into the building with the internal private lines that feed back from the IDFs.

In practice, the MDF is typically centrally located near the demarcation point, whereas the IDFs are located on each floor, wing or unit within the building.

Fiber optic cabling and fiber-ready enclosures, including rack trays and wall-boxes, are often used for MDF and IDF wiring because they support long cable distances and very fast network speeds. Fiber-based systems easily exceed the distance limitation of twisted pair-based systems (100m / 330ft.), and they easily support network speeds exceeding 10Gbps. It's also common to see multi-strand fiber optic cabling, such as 6 strand and 12 strand, connecting the MDF to the IDFs to accommodate signal distribution to individual rooms and/or devices.




## Commonly Integrated Products

### Metal Wall-Boxes

Metal wall-boxes provide a secure connection point to connect fiber optic cables and manage service loops. Metal wall-boxes require an insert panel for connecting cables.

### Rack Trays

Rack trays provide a secure connection point to connect fiber optic cables and manage service loops. They fit standard 19" and 23" racks. Rack trays require an insert panel for connecting cables.

### Insert Panels

Insert panels mount inside metal wall-boxes and rack trays. They feature a variety of pre-mounted fiber optic coupler styles and quickly connect two fiber topic cables.

### Plastic Wall-Boxes

Plastic wall-boxes are ideal for both indoor and outdoor applications. They provide a secure connection point to connect fiber optic cables and manage service loops.

### Standard Couplers

Standard couplers mount inside plastic wall-boxes and physically connect two cables.

### Keystone Wallplates

Fiber optic keystone wallplate inserts provide a secure and aesthetic cable termination point and/or connection point between the main cable run and a shorter patch cord.

## ECO Series™ Indoor MDF & IDF Enclosures

TechLogix's ECO Series™ of rack-mount distribution panels and wall-mount enclosures provide a professional solution for fiber optic cable management. The ECO Series™ is customizable based on the quantity of fiber optic strands and connector types:

1. Choose your enclosure style – either rack tray or wall-box
2. Choose your enclosure size – from one panel slot up to 12 panel slots
3. Choose your enclosure panels – options include both single mode and multimode LC, LC/APC, SC, SC/APC and ST

All products are manufactured with durable powder-coated steel and feature quick-connect push pin mounting tabs.

### ECO Series™ Enclosures

| Part Number | Enclosure Style | Dimensions | Supported Panel Strips | Panel Strip Size | Material |
|---|---|---|---|---|---|
| ECO-WB-P1 | Wall-box | 7.0 x 7.0 x 1.5 in. (178 x 178 x 40 cm) | 1 | LGX-118 | Black metal |
| ECO-WB-P2 | Wall-box | 13.0 x 9.25 x 3.5 in. (330 x 235 x 89 cm) | 2 | LGX-118 | Black metal |
| ECO-WB-P4 | Wall-box | 14.0 x 11.8 x 3.5 in. (355 x 300 x 89 cm) | 4 | LGX-118 | Black metal |
| ECO-RDU-1RU-P3 | Rack tray | 1RU (19" / 23") | 3 | LGX-118 | Black metal |
| ECO-RDU-2RU-P6 | Rack tray | 2RU (19" / 23") | 6 | LGX-118 | Black metal |
| ECO-RDU-4RU-P12 | Rack tray | 4RU (19" / 23") | 12 | LGX-118 | Black metal |

### ECO Series™ Panel Strip Inserts

| Part Number | Connector Style | Quantity | Fiber Type | Mounting Style | Material |
|---|---|---|---|---|---|
| ECO-P-M4-LC6D | Duplex LC | 6 | Multimode | Push-pin style | Black metal |
| ECO-P-M4-LC12D | Duplex LC | 12 | Multimode | Push-pin style | Black metal |
| ECO-P-M4-SC6D | Duplex SC | 6 | Multimode | Push-pin style | Black metal |
| ECO-P-M4-SC6S | Simplex SC | 6 | Multimode | Push-pin style | Black metal |
| ECO-P-S2-LC6D | Duplex LC | 6 | Single Mode | Push-pin style | Black metal |
| ECO-P-S2-LC12D | Duplex LC | 12 | Single Mode | Push-pin style | Black metal |
| ECO-P-S2-LCA6D | Duplex LC / APC | 6 | Single Mode | Push-pin style | Black metal |
| ECO-P-S2-SC6D | Duplex SC | 6 | Single Mode | Push-pin style | Black metal |
| ECO-P-S2-SC6S | Simplex SC | 6 | Single Mode | Push-pin style | Black metal |
| ECO-P-S2-SCA6S | Simplex SC / APC | 6 | Single Mode | Push-pin style | Black metal |
| ECO-P-S2-SCA6D | Duplex SC / APC | 6 | Single Mode | Push-pin style | Black metal |
| ECO-P-S2-ST6 | Simplex ST | 6 | Single Mode | Push-pin style | Black metal |
| ECO-P-S2-ST12 | Simplex ST | 12 | Single Mode | Push-pin style | Black metal |
| ECO-P-BLANK | NA | NA | NA | Push-pin style | Black metal |

## Indoor/Outdoor Wall-Boxes

TechLogix indoor/outdoor wall-boxes are simple, cost-effective enclosures designed for terminating, adapting and coupling fiber optic cables. Their durable plastic construction is rated for weather and UV exposure making them ideal for demarcation wiring.

| Part Number | Dimensions | Material | Supported Coupler Ports | Supported Coupler Size | Supported Fiber Strands |
|---|---|---|---|---|---|
| TL-4P-DB-O | 8.25 x 5.5 x 1.6 in. (21 x 14 x 4 cm) | UV-rated white plastic | 4 | 13mm panel mount | 8 |
| TL-6P-DB-O | 8.25 x 5.5 x 1.6 in. (21 x 14 x 4 cm) | UV-rated white plastic | 6 | 13mm panel mount | 6 |
| TL-8P-DB-O | 8.5 x 8.0 x 2.2 in. (22 x 21 x 6 cm) | UV-rated white plastic | 8 | 13mm panel mount | 16 |
| TL-12P-DB-O | 9.0 x 8.25 x 2.8 in. (23 x 22 x 7 cm) | UV-rated white plastic | 12 | 13mm panel mount | 24 |
| TL-16P-DB-O | 12.5 x 10.2 x 3.5 in. (26 x 32 x 9 cm) | UV-rated white plastic | 16 | 13mm panel mount | 32 |

## Indoor/Outdoor Wall-Box Coupler & Adapter Inserts

TechLogix fiber optic couplers and adapters connect two terminated fiber optic cables. Demarc wiring typically requires SC single mode couplers.

| Part Number | Type | Fiber Type | Strand Count | Side A | Side B | Dimensions | Format |
|---|---|---|---|---|---|---|---|
| M4D-ADPT-LCLC | Coupler | Multimode | Duplex | Female LC | Female LC | 13mm | Panel Mount |
| M4D-ADPT-SCSC | Coupler | Multimode | Duplex | Female SC | Female SC | 13mm | Panel Mount |
| M1-SC-F-SC-F | Coupler | Multimode | Simplex | Female SC | Female SC | 13mm | Panel Mount |
| S1-SC-F-SC-F | Coupler | Single Mode | Simplex | Female SC | Female SC | 13mm | Panel Mount |
| S2-LCA-F-LCA-F | Coupler | Single Mode | Duplex | Female LC/APC | Female LC/APC | 13mm | Panel Mount |
| S1-SCA-F-SCA-F | Coupler | Single Mode | Simplex | Female SC/APC | Female SC/APC | 13mm | Panel Mount |

## Keystone Wallplates

TechLogix fiber optic keystones provide a secure and finished connection point in wallplates and rack panels.

| Part Number | Keystone Size | Color | Connector | Fiber Type |
|---|---|---|---|---|
| M4D-KS-LCLC | 14.5 x 16mm | White / Aqua | Duplex LC | Multimode |
| S2D-KS-LCLC | 14.5 x 16mm | White / Blue | Duplex LC | Single Mode |
| M4S-KS-SCSC | 14.5 x 16mm | White / Aqua | Simplex SC | Multimode |
| S2S-KS-SCSC | 14.5 x 16mm | White / Blue | Simplex SC | Single Mode |

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