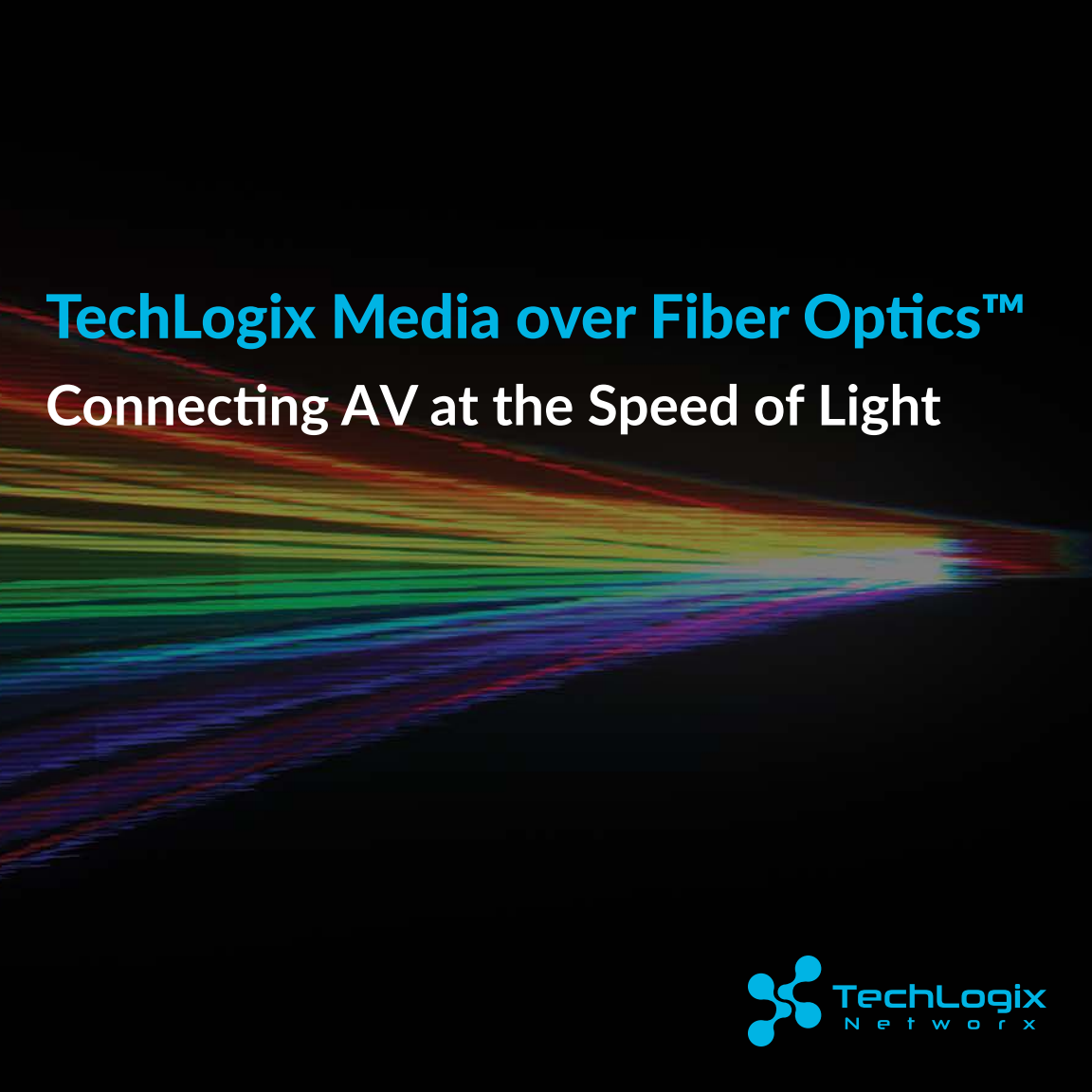
TechLogix Media over Fiber Optics™

Connecting AV at the Speed of Light



TechLogix Networx

Every integrator must embrace fiber.

Fiber handles the signals of today.

4K requires up to 18G bandwidth, exceeding copper cabling's max capacity of 10G. Fiber handles native 4K content.

Fiber handles the signals of tomorrow.

8K requires up to 48G bandwidth, far exceeding the threshold of copper, and the number of bandwidth-hungry connected devices in the home continues to increase. Pulling fiber today ensures you're prepared for the technology of tomorrow.

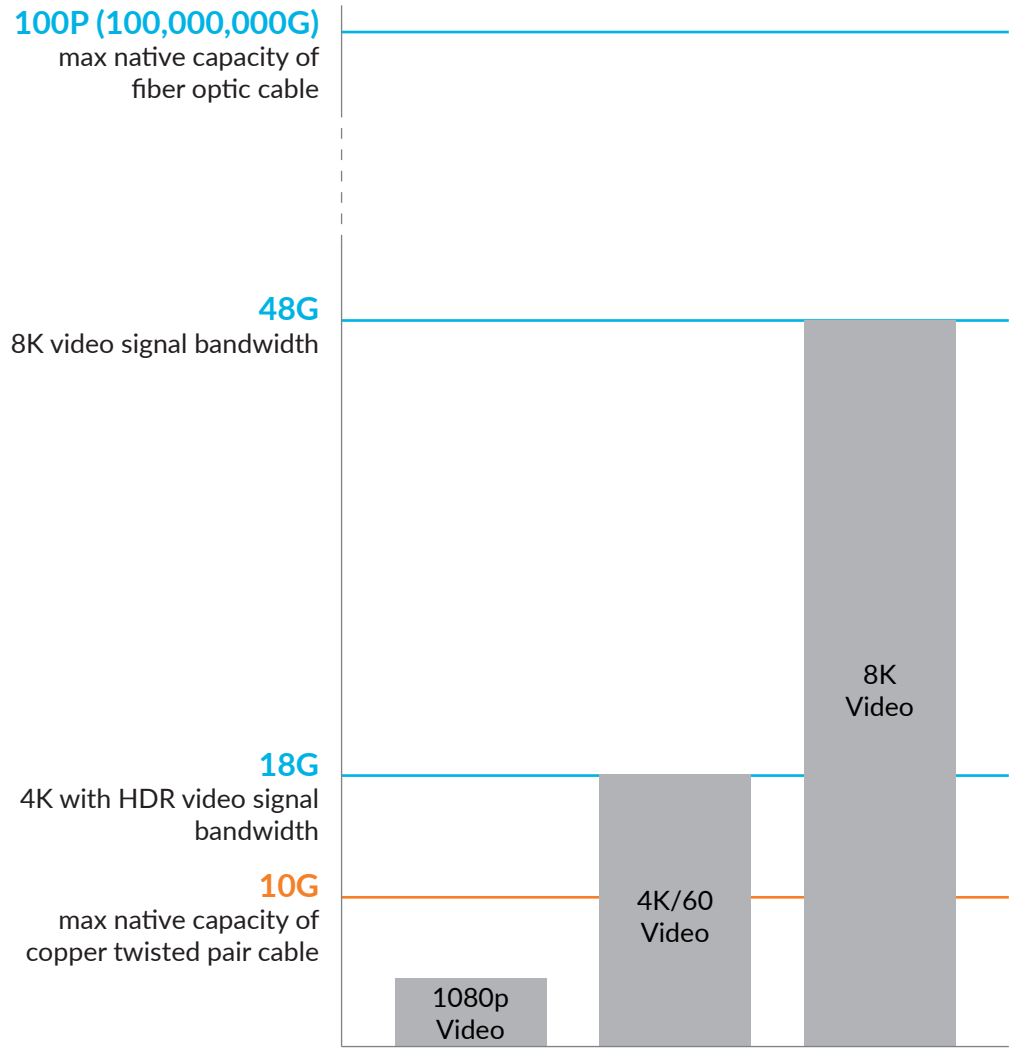
Fiber improves system reliability with a lower cost of ownership.

Fiber is immune to lightning strikes and power surges. Plus, today's technology can easily be handled by audio-visual integrators. No subcontracting required.

Fiber streamlines system implementation.

Fiber simultaneously supports audio, video, control, and networking signals. Wiring with a single cable costs less.

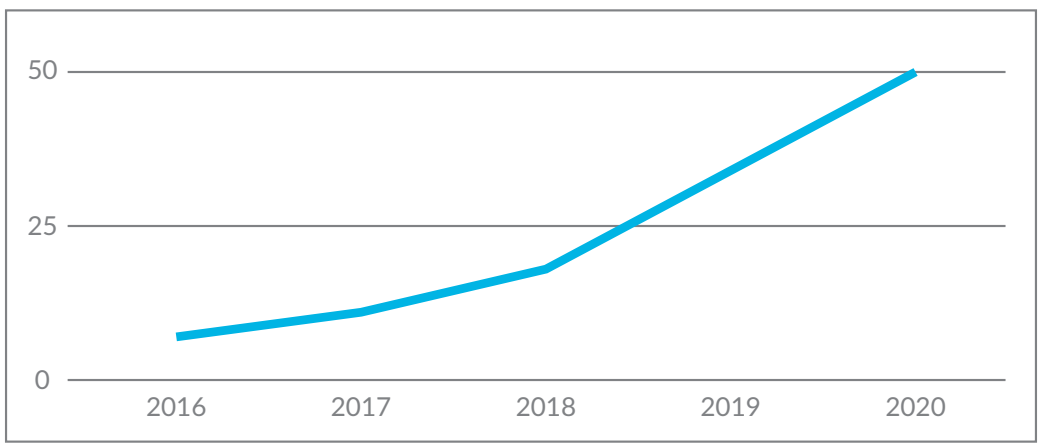
Every installation with a high-definition display deserves fiber.



Fiber is the new standard for networking.

Fiber ensures your network infrastructure will handle bandwidth hungry devices, increased video streaming, and increased network traffic.

The growing number of connected devices per household demands a faster cable infrastructure. The average U.S. home will have over 50 connected devices by 2020. Fiber ensures these devices will all simultaneously remain online.



Connected Devices per Household

Fiber is an easy, profitable sale.

Let's face it, most people understand the benefits of fiber. They understand it delivers faster speeds, better signal integrity, and more reliable performance. Upselling your clients on a fiber infrastructure isn't that difficult.

Plus, a fiber upgrade becomes a no-brainer when you explain it's necessary for maximizing the new 8K broadcast and streaming standards.

Best of all, fiber is a *profitable sale*. Most integrators markup fiber cabling at least 3x and fiber electronics 2x.

3x

average markup for fiber cabling & infrastructure components

2x

average markup for electronics, including extenders & converters

Fiber isn't complicated.

TechLogix will help no matter your comfort level.

TechLogix offers hundreds of fiber optic cable options, from bulk cable to premades to network patch cables.

Premades
Pre-terminated fiber cables already cut to length

Direct Attach Cables
Pre-terminated with SFP connections for patching between network equipment

Custom Cables
Custom-built cables with variable lengths, strand count, connectors, and jacketing

Bulk Fiber
Unterminated multimode and single mode fiber shipped in pull-boxes and spools

We supply fiber in many configurations and ratings, including riser, plenum, low smoke zero halogen, direct burial, outdoor, multistrand, and tactical. **Contact us for a complete list of formats and options.**

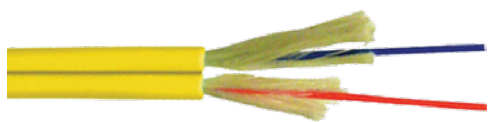
Economy Premade Cables
available in stock & custom lengths
130 lb. pull rating | 30mm min bend radius

Armored Steel Premade Cables
available in stock & custom lengths
130 lb. pull rating | 30mm min bend radius

Direct Attach Cables
designed for patching between network devices | 30mm min bend radius

Custom Premade Cables
designed & manufactured to your specs
custom strand count, connectors & lengths

Bulk Multimode Fiber
designed for cables runs up to 300m (1,000 ft.)
220 lb. pull rating | 3mm min bend radius



Bulk Single Mode Fiber
designed for cables runs up to 100km (62 miles)
220 lb. pull rating | 3mm min bend radius

Our bulk fiber is different.

It's designed for AV professionals.

From the cable to the connectors, our technology makes deploying a fiber infrastructure easy. How? **It's stronger, safer, and faster.**

Stronger
TechLogix bulk fiber features a patented polymer coating that provides 200x better durability and 10,000x better bend longevity than traditional fiber. That means it's ideal for rough handling and harsh environments.

Safer
That same polymer coating won't puncture soft tissues, allowing you to handle TechLogix bulk fiber without special tools or protective clothing.

Faster
Less handling and breakage makes TechLogix fiber much faster to work with. Cables are easily terminated in less than one minute and techs can become fully trained and proficient in under 30 minutes.

Plus, your first fiber project will easily pay for the installation tools.
They're incredibly affordable.

Choosing a fiber type.

Multimode
Typically used for cable runs up to 300m (1,000 ft.). Used in most indoor applications.

Single Mode
Ideal for cable runs up to 100km (62 miles). Used for longer cable runs and building-to-building applications.

Signal Distance by Bandwidth for Fiber Optic Cables				
Network Bandwidth	**1G**	**10G**	**40G**	**100G**
Multimode OM2	550m (1,804 ft.)	82m (269 ft.)	not supported	not supported
Multimode OM3	550m (1,804 ft.)	300m (1,000 ft.)	100m (330 ft.)	100m (330 ft.)
Multimode OM4	550m (1,804 ft.)	400m (1,312 ft.)	150m (492 ft.)	150m (492 ft.)
Multimode OM5	550m (1,804 ft.)	400m (1,312 ft.)	150m (492 ft.)	150m (492 ft.)
Single Mode OS1	100km (62 miles)	40km (25 miles)	40km (25 miles)	40km (25 miles)
Single Mode OS2	100km (62 miles)	40km (25 miles)	40km (25 miles)	40km (25 miles)
Video Signal Bandwidth		**1080p / 4K30**	**4K60 4:4:4 HDR**	**8K**

Choosing a connector.

TechLogix fiber optic connectors eliminate the need to hand polish, epoxy, or crimp in the field. In fact, no expensive specialized tooling is required at all.

LC Connectors

Used on most AV & networking equipment
Smaller form factor
Re-terminate up to 12 times
Terminates is under one minute
No crimping or proprietary tooling required

SC Connectors

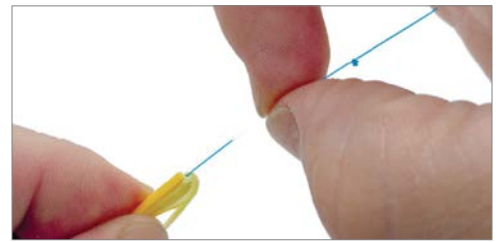
Larger form factor
Re-terminate up to 12 times
Terminates is under one minute
No crimping or proprietary tooling required

Additional connector types are available.
Contact us for a complete list of formats and options.

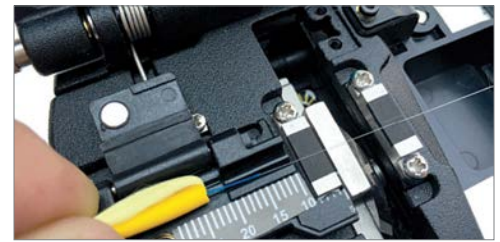
Step-by-step termination instructions:

Step 1: slide the connector boot onto the fiber

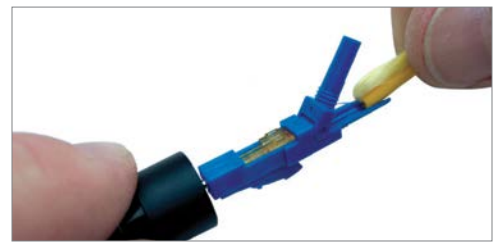
Step 2: strip back 50mm (2 inches) of the outer jacket



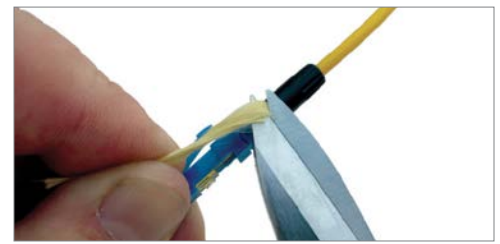
Step 3: separate the Kevlar™ yarn from the fiber and use your finger nail to remove the soft peel



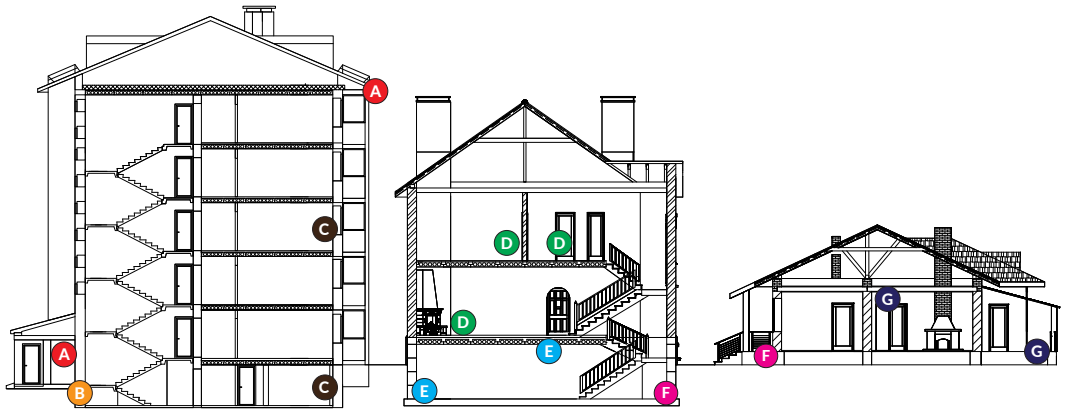
Step 4: cleave the fiber to length (28mm for SC connectors / 24mm for LC connectors)



Step 5: insert the fiber into the connector and slide the locking tab closed



Step 6: screw the connector boot onto the connector, slide on the dust cap, and trim the Kevlar™



Fiber is deployed in many applications.

At a minimum, each intended AV run requires duplex (two strand) fiber and each intended networking run requires a *separate* duplex fiber.

A

Application: security & access control
Typical equipment: cameras and media converters
Recommended cable for runs under 1,000 ft.: two strand (duplex) multimode OM3
Recommended cable for runs over 1,000 ft.: two strand (duplex) single mode OS2
Recommended connectors: LC or SC (equipment dependent)

B

Application: service demarc to main distribution point
Typical equipment: incoming demarc to modem or distribution panel
Recommended cable: two strand (duplex) single mode OS2
Recommended connectors: coupler

C

Application: equipment rack to equipment rack
Typical equipment: network switch to network switch
Recommended cable for runs under 1,000 ft.: two strand (duplex) multimode OM3
Recommended cable for runs over 1,000 ft.: two strand (duplex) single mode OS2
Recommended connectors: LC or SC (equipment dependent)

D

Application: general residential prewire
Typical equipment: future-proofing for AV and networking
Recommended cable: four strand (duplex) multimode OM3
Recommended connectors: LC or SC (equipment dependent)

E

Application: home theater video distribution
Typical equipment: source to display/projector
Recommended cable: two strand (duplex) multimode OM3 or OM4
Recommended connectors: LC or SC (equipment dependent)

F

Application: building to building network distribution
Typical equipment: network switch to network switch
Recommended cable for runs under 1,000 ft.: two strand (duplex) multimode OM3
Recommended cable for runs over 1,000 ft.: two strand (duplex) single mode OS2
Recommended connectors: LC

G

Application: network switches to access points
Typical equipment: network switch to wireless access point
Recommended cable: two strand (duplex) multimode OM3
Recommended connectors: LC

HDMI over Fiber

TechLogix is a full-line supplier of HDMI over fiber solutions, including both compressed and uncompressed solutions.

TL-FO-HD

10G Uncompressed Solutions

1080p & 4K30 video
Transmission distances up to 300m (1,000 ft.)

TL-FO2-HDC

18G Compressed Solutions

4K60 4:4:4 HDR
Automatic compression on signals over 10G
Transmission distances up to 10km (6.2 miles)

TL-FO2-HDC2

18G Uncompressed Solutions

4K60 4:4:4 HDR
Fully uncompressed, native signal transmission
Transmission distances up to 300m (1,000 ft.)

Optical Out
MM and SM compatible

HDMI In
Up to 4K60 4:4:4

ARC Out
Up to 5.1

IR In

IR Out

RS232
9600 to 115200 baud

12V DC In

Optical In
MM and SM compatible

HDMI Out
Up to 4K60 4:4:4

ARC In
Up to 5.1

IR In

IR Out

RS232
9600 to 115200 baud

12V DC In

Other Media over Fiber Solutions

In addition to HDMI, TechLogix offers a variety of other solutions for distributing media over fiber optic cabling.

TL-FO-DVI

DVI

1080p & 1920x1200 video
Transmission distances up to 300m (1,000 ft.)

TL-FO-USB3-02

USB

SuperSpeed, High-Speed, Full-Speed & Low-Speed
USB 3.1, 2.0 & 1.1 extension
Built-in signal distribution hubs
Transmission up to 500m (1,640 ft.)

Fiber Connectivity Equipment

TechLogix offers an extensive variety of fiber infrastructure accessories.

Keystones & Breakout Solutions

Solutions for wall plates & rack panels

Adapters & Couplers

Solutions for connecting & adapting cables

SFP Modules & Network Solutions

Solutions for connecting & adapting network equipment

TechLogix is a full-line provider. Contact us for a complete list of solutions.

Fiber-based AV over IP

Introducing the TechLogix TLXpress™ System.

Audio, video & control over the network.

TLXpress merges audio-visual signal distribution into a single, network-based platform.

Infinitely scalable.

Unlike traditional matrix switchers, TLXpress isn't limited to predefined input/output configurations.

Built for today.

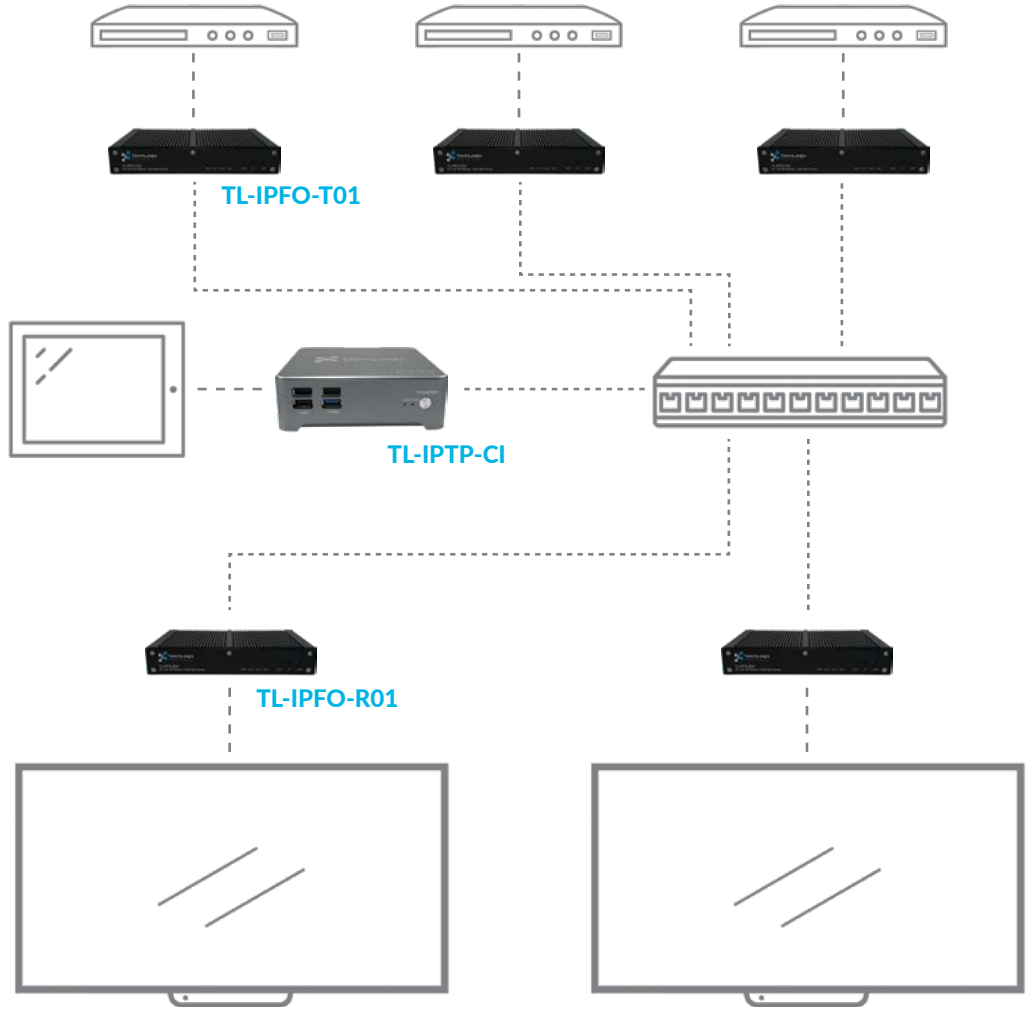
TLXpress supports HDCP 2.2 and HDMI 2.0, including HDR and Dolby Vision, with zero frame rate latency. Signals are delivered seamlessly, no matter the distance or resolution.

Designed for tomorrow.

Twisted pair-based systems are limited in both distance and bandwidth – *don't settle!* TLXpress implements a fiber optic ecosystem, ensuring system integrity for years to come.

Unrivaled system uptime.

Forget VLAN switching, proprietary network equipment, custom programming, and captive control systems. TLXpress is compatible with a standard 10G network and *any* third-party control system.



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