Technical Specifications

TL-IPFO-T01

Features at a Glance

- Encoders & decoders with fiber optic connectivity
- Requires 10G Ethernet switch & infrastructure
- HDMI 2.0 & HDCP 2.2 compliant
- HDMI and DisplayPort inputs
- Supports maximum resolutions of 4K@60 4:4:4 HDR
- Implements minimal compression on signals over 10G
- Zero frame latency
- Seamless switching between sources
- Bi-directional IR & RS232 pass-through
- Ethernet pass-through
- Functions as IP matrix or a point-to-point 4K@60 extender
- Built-in video wall capability
- Analog audio embedding
- 1,000 ft. (300m) max distance on fiber-based networks
- Thermal dissipating heatsinks built into chassis

Forget traditional HDMI, fiber optic and twisted pair matrix switchers, TechLogix AV over IP encoders and decoders allow an unlimited number of sources to be connected to an unlimited number of destinations via a fiber optic 10G Ethernet switch.

The TL-IP system features the latest, most advanced encoding and decoding technology, allowing a full HDMI 2.0 signal to be transmitted up to 1,000 ft. over fiber optic cable. This means 4K@60 4:4:4 18G video will flow seamlessly in even the most demanding application.

Bidirectional IR and RS232 pass-through plus a Gigabit Ethernet port provide control and full network access to the display without needing additional cabling from the headend. Analog audio embedding provides and easy option to add audio to sources that do not support audio over the DisplayPort connector or when using a DVI to HDMI adapter.

For a point to point installation, the TL-IPFO-TX01 and TL-IPFO-RX01 only need a duplex OM3 cable with LC connectors between the devices. For a matrix design, the system can be quickly configured and controlled with the TL-IPTP-CI control interface using the TLXpress software.

Specifications

Input/Output Connectors	
HDMI Input	One HDMI Type A Receptacle
DisplayPort Input	One Full-size DisplayPort Receptacle
Fiber Output	One LC Receptacle via SFP+ Module
Analog Audio Input	One TRS 3.5 mm Jack
Ethernet (1G LAN)	One 8P8C (RJ45) Receptacle
RS232	One 4-pin Removable Terminal Block (12V, TX, RX, Ground)
Infrared Input	One TRS 3.5 mm Jack
Infrared Output	One TS 3.5 mm Jack
Power (DC 12v)	One 5.5 mm OD, 2.6 mm ID Threaded Barrel
Supported Video, Audio, and Control	
Compatible Video Signals	All SD, HD, and other resolutions up to - 4K/60 Hz / RGB and 4:4:4 8 bit - 4K/60 Hz / 4:2:2 10 bit (HDR) - 4K/60 Hz / 4:2:0 10 bit (HDR)
Video Compliance	HDMI 2.0, HDMI 1.4, DVI 2.0 (Pixel clock up to 594 MHz)
Digital Content Protection	HDCP 1.2 / HDCP 2.2 Compatible
Embedded Audio	LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DSD
Analog Audio	Unbalanced Analog Audio
ARC (Audio Return Channel)	Not supported
HEC (HDMI Ethernet Channel)	Not supported
CEC (Consumer Electronics Control)	Not supported
Ethernet	Gigabit Ethernet (GbE, 1000BaseT)
Supported Baud Rates	2400, 4800, 9600, 19200, 38400, 57600, 115200
Supported IR Carrier	33 to 55 kHz
Extension Signal Technology	
Extension Chipset	AptoVision BlueRiver™ NT+
Transmission Interface	10 Gigabit XFI, IEEE 802.3 (SFP+)
Transmission Distance	Up to 300 meters with multi-mode OM3 fiber
AV Processing Technology	AptoVision Plethora - Broadcast quality up-scaling and downscaling - Color space and frame-rate conversion - Multi-source video compositing - Ultra-light compression, lossless for most content - Audio embedding and de-embedding - Audio down-mixing and re-sampling - Video-splitting and bezel correction
Synchronization Technology	AptoVision ACR (Automatic Clock Recovery) - Multiple displays genlocked to single source - Zero-frame latency
Multi-Signal Streaming Technology	BlueRiver Channel Coder - Encoding multiple native signals into IP streams - Decoding IP streams into multiple native signals - Bidirectional, 10Gbps
Encryption	AES-128

Chassis and Environmental	
Product Construction	Painted steel base and sides; painted aluminum top
Product Dimensions (H x W x D)	35 mm x 210 mm x 139 mm (1.38 in x 8.27 in x 5.47)
Product Weight	1.48 kg (3.25 lbs)
Product Operational Chassis Temperature	35 to + 44°C (95 to + 111 °F)
Environmental Operating Temperature	0 to + 45°C (32 to + 113 °F)
Environmental Operating Humidity	10% to 90%, non-condensing
Environmental Storage Temperature	-20 to +70°C (-4 to + 158 °F)
Environmental Storage Humidity	10% to 90%, non-condensing
Power and Regulatory	
Power Input	12V DC
Power Supply Input	100-240V AC at 50/60 Hz; 1.5A Max
Power Supply Output	12V DC at 3 A
Maximum Power Consumption	9.72 watts
ESD Protection	Human-body Model: ±8kV Air-gap discharge and ±4kV Contact discharge
Regulatory Compliance	FCC, CE, RoHS
Other	
Warranty	Three years
Front Panel Buttons	P1 and RSVD
Diagnostic LEDs	RSVD, Link TX, Link RX, Video, and Power
Compatible Decoder (RX)	TL-IPFO-R01
Compatible Controller	TL-IPTP-CI
Included Accessories	IR Receiver (1 ea), IR Transmitter (1 ea), Mounting Ears (2 ea), 12V 3A DC Power Supply (1 ea), 4-pin 3.5mm terminal block (1 ea)

Dimensional Drawing