FOX USB Extender Plus

FIBER OPTIC EXTENDER FOR USB PERIPHERALS

- **Extends USB peripherals very long distances over fiber optic cabling**
- **Supports USB 2.0 to 1.0 devices and USB 3.0 devices that can operate at USB 2.0 data rates of up to 480 Mbps**
- **Receiver features an integrated four-port hub with 5 Volts, 500 mA available on each port**
- **Peripheral emulation**
- **Real-time status LED indicators for troubleshooting and monitoring**
- **Compatible with FOX Series matrix switchers**
- **Multimode and singlemode models available**

FOX T USB Extender Plus

FOX R USB Extender Plus

The Extron FOX USB Extender Plus is a transmitter and receiver set for long haul signal extension of USB signals over fiber optic cabling. The transmitter features peripheral emulation to support uninterrupted communication between the host and a USB device. For simplified integration, the receiver features a built-in, active four-port hub that supplies 5 Volts, 500 mA per port to power attached devices. These and other features make the FOX USB Extender Plus ideal for extending USB signals very long distances over fiber optic cabling.

DESCRIPTION

The Extron **FOX USB Extender Plus** is a fiber optic transmitter and receiver set for long haul transmission of USB signals over fiber optic cabling. Engineered for reliability and exceptional performance, it uses Extron all-digital technology to deliver a perfect signal. This fiber optic extender is compatible with USB 3.0, 2.0, 1.1, and 1.0 devices with transfer data rates up to 480 Mbps, enabling bulk, control, interrupt, and isochronous transfers as defined by the USB specification. Designed specifically for AV systems, the FOX USB Extender Plus includes many integrator friendly features such as peripheral emulation, an active four-port hub that supplies 5 Volts, 500 mA per port, and real-time system monitoring. Compact, low¬profile enclosures allow for discreet installation.

The FOX USB Extender Plus supports USB peripherals such as interactive whiteboards, keyboards, mice, mass storage devices, webcams, headsets and speakers, along with other USB devices in a wide variety of environments. For secure environments, the FOX USB Extender Plus HID model is designed to ensure that only authorized device types are recognized. It allows connection of a keyboard, mouse, smart card reader, hub, or similar USB device, and prevents connection of unauthorized hardware.

KEY FEATURES

- **Extends USB peripherals very long distances over fiber optic cabling**
- **Supports USB 2.0 to 1.0 devices and USB 3.0 devices that can operate at USB 2.0 data rates of up to 480 Mbps**
- **Receiver features an integrated four-port hub with 5 Volts, 500 mA available on each port**
- **Peripheral emulation**
- **Real-time status LED indicators for troubleshooting and monitoring**
- **Compatible with Extron FOX Matrix Switchers for signal distribution systems up to 1000x1000 and larger**
- **Device class filtering on select models restricts the range of device types to HID and smart card readers - FOX USB Extender Plus HID**
- **Available as an 850 nm multimode model for moderate-range transmissions up to 2 km (1.25 miles) and a 1310 nm singlemode model for distances up to 30 km (18.75 miles)**
- **Industry standard LC connectors provide reliable physical connectivity and precise fiber core alignment**
- **1" (2.5 cm) high, quarter rack width metal enclosures**
- **Highly reliable, energy-efficient external universal power supply included**

SPECIFICATIONS

USB	
USB host support	xHCI (USB 3.0), EHCI (USB 2.0), OHCI/UHCI (USB 1.1)
USB traffic types	Low speed (1.5 Mbps), full speed (12 Mbps), high speed (480 Mbps)
USB HOST — TX UNITS	
Number/signal type	1 USB
INTERCONNECTION BETWEEN TRANSMITTER AND RECEIVER	
NOTE: This product supports the four types of data transfer defined by USB: bulk, control, interrupt, and isochronous transfers.	
Connectors	2 LC
Nominal peak wavelength	850 nm for multimode 1310 nm for singlemode
Optical loss budget	
Singlemode	13 dB, maximum
Multimode	7 dB, maximum
Signal transmission distance	30 km (18.64 miles) with singlemode (SM) cables 300 m (985 feet) with 62.5 µm OM1 multimode (MM) cables 1 km (3280 feet) with 50 µm OM2 multimode (MM) cables 2 km (6541 feet) with 50 µm OM3/OM4 2000 MHz bandwidth laser optimized multimode cables
USB HUB — RX UNITS	
Number/signal type	(1) 4-port USB hub
GENERAL	
Power supply	External Input: 100-240 VAC, 50-60 Hz Output: 12 VDC, 1 A
Cooling	Convection, no vents
Thermal dissipation	
Transmitter	
Device and power supply	Singlemode: 14.8 BTU/hr Multimode: 13.9 BTU/hr
Receiver	
Device and power supply	Singlemode: 19.9 BTU/hr Multimode: 18.8 BTU/hr
Mounting	
Rack mount	Yes, with optional rack shelf or rack mounting brackets
Furniture or wall mount	Yes, with optional mounting kits
Vibration	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety	CE, c-UL, KCC, UL
EMI/EMC	CE, C-tick, FCC Class A, ICES, VCCI Class A
Environmental	Complies with the appropriate requirements of RoHS, WEEE
Warranty	3 years parts and labor

NOTE: All nominal levels are at ±10%.

Model	Version Description	Part number
FOX T USB Extender Plus MM	Multimode - Transmitter	60-1474-11
FOX T USB Extender Plus SM	Singlemode - Transmitter	60-1474-12
FOX R USB Extender Plus MM	Multimode - Receiver	60-1474-21
FOX R USB Extender Plus SM	Singlemode - Receiver	60-1474-22
FOX T USB Extender Plus HID MM	Multimode - HID Transmitter	60-1526-11
FOX T USB Extender Plus HID SM	Singlemode - HID Transmitter	60-1526-12
FOX R USB Extender Plus HID MM	Multimode - HID Receiver	60-1526-21
FOX R USB Extender Plus HID SM	Singlemode - HID Receiver	60-1526-22

For complete specifications, please go to www.extron.com
Specifications are subject to change without notice.

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