

FOX II RS 104

FOUR PORT FIBER OPTIC RS-232 INSERTER

- ▶ RS-232 insertion from the Ethernet port to one or more of the fiber optic outputs
- ▶ Output reclocking reshapes and restores the timing of a digital signal
- ▶ Buffered fiber optic outputs ensure full availability of optical loss budget
- ▶ Ethernet monitoring and control
- ▶ Ethernet connectivity for integration with a control system
- ▶ Industry standard LC connectors provide reliable physical connectivity and precise fiber core alignment
- ▶ Real-time status LED indicators for troubleshooting and monitoring
- ▶ Compatible with Extron FOX Series matrix switchers for signal distribution systems up to 1000x1000 and larger
- ▶ Compatible with Extron FOX Series distribution amplifiers
- ▶ Compatible with Extron FOX II Series transmitters and receivers
- ▶ Compatible with Extron FOX Series HDMI, DVI Plus, DVI, VGA, VGA/YUV, and AV transmitters and receivers
- ▶ Available as 850 nm multimode and 1310 nm singlemode models



The Extron FOX II RS 104 is a four port fiber optic RS-232 inserter for long-haul transmission of control signals to remote source and destination equipment over fiber optic cabling. Available in multimode and singlemode models, the FOX II RS 104 is ideal for use in fiber optic applications with a centralized control system, eliminating the need for separate control system wiring to remote devices.



Extron Electronics
INTERFACING, SWITCHING AND CONTROL

DESCRIPTION

The Extron **FOX II RS 104** is a four port fiber optic RS-232 inserter for long-haul transmission of control signals to remote devices over fiber optic cabling. Each port provides a bidirectional fiber optic connection to a FOX or FOX II Series extender for the insertion and extraction of control data, while maintaining a continuous pass-through link for video and audio. Engineered with uncompromising quality and proven performance, it uses Extron all-digital technology to deliver pixel-for-pixel DisplayPort, HDMI, DVI, computer-video, and standard definition video. Output reclocking on the buffered fiber optic outputs ensures signal integrity, sending a fiber optic signal at its original power level.

The FOX II RS 104 is ideal for use in applications with a centralized control system that require the long-haul transmission of video, audio, and control signals over fiber optic cabling. It maintains the performance of optical signal transmission while providing bidirectional control from a control processor, eliminating the need for separate control system wiring to remote devices. Additionally, control data can be sent to more than a single fiber optic output to allow control of multiple devices. An embedded Web page allows for remote configuration, management, and monitoring of control ports, simplifying system set-up and operation. When controlling a source device, each FOX II RS 104 insertion port provides a two-fiber, bidirectional link to the transmitter. The inserter sends control signals to the transmitter over the second fiber. The transmitter provides the RS-232 control signal to the source device, sending the RS-232 response signal from the source, along with video and audio, to the FOX II RS 104 over the fiber optic cable. The inserter extracts the RS-232 response data, provides the data to the control system over the Ethernet port, and sends the AV signal via the fiber optic output.

FEATURES

- ▶ **RS-232 insertion from the Ethernet port to one or more of the fiber optic outputs**
- ▶ **Output reclocking reshapes and restores the timing of a digital signal**
- ▶ **Buffered fiber optic outputs ensure full availability of optical loss budge**
- ▶ **Ethernet monitoring and control**
- ▶ **Ethernet connectivity for integration with a control system**
- ▶ **Real-time status LED indicators for troubleshooting and monitoring**
- ▶ **Compatible with Extron FOX Series matrix switchers for signal distribution systems up to 1000x1000 and larger**
- ▶ **Available in multimode and singlemode models**

SPECIFICATIONS

OPTICAL FIBER INTERCONNECTION BETWEEN TRANSMITTER AND RECEIVER		
Number/type	2 fibers per insertion point	
Operating distance	Singlemode 30 km (18.75 miles) with singlemode (SM) cables Multimode 300 m (985') with 62.5 μm OM1 multimode (MM) cables 1 km (3280') with 50 μm OM2 MM cables 2 km (6561') with 50 μm OM3/OM4 2000MHz bandwidth laser optimized MM cables	
Nominal peak wavelength	850 nm for MM, 1310 nm for SM	
Data rate	4.25 Gbps or 2.125 Gbps, selectable	
Optical loss budget		
Singlemode	13 dB, maximum	
Multimode	7 dB, maximum	
ETHERNET CONTROL INTERFACE		
Connectors	1 female RJ-45 connector	
Data rate	10/100Base-T, half/full duplex with autodetect	
Protocols	ARP, ICMP (ping), IP, TCP, UDP, DHCP, HTTP, SMTP, Telnet	
Default settings	Link speed and duplex level = autodetected IP address = 192.168.254.254 Subnet mask = 255.255.0.0 Gateway = 0.0.0.0 DHCP = off	
Web server	Up to 200 simultaneous sessions 7.25 MB nonvolatile user memory	
Program control	Extron Simple Instruction Set (SIS™) Microsoft® Internet Explorer®, Telnet	
Global Viewer requirements	Microsoft® Internet Explorer ver. 6 or higher	
SERIAL CONTROL INTERFACE		
Quantity/type	4 bidirectional RS-232, RS-422, RS-485 configurable serial	
Connectors	8 SFP LCs	
Baud rate and protocol	300 to 115200 baud Default settings (adjustable): 9600 baud, 8 data bits, 1 stop bit, no parity	
GENERAL		
Cooling	Convection, vents on side panels	
Mounting		
Rack mount	Yes, with optional 1U rack shelf	
Furniture mount	Under-furniture mountable with optional kit	
Vibration	ISTA 1A in carton (International Safe Transit Association)	
Regulatory compliance		
Safety	CE, c-UL, FDA Class 1, UL	
EMI/EMC	CE, C-tick, FCC Class A, ICES, VCCI	
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 II RS 104 MM	RS-232 Inserter - Multimode	60-1458-01
FOX II RS 104 SM	RS-232 Inserter - Singlemode	60-1458-02

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

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