

FOX II DP 4K

FIBER OPTIC EXTENDER FOR
DISPLAYPORT, MULTI-CHANNEL
AUDIO, RS-232, AND IR



- ▶ Extends DisplayPort video, multi-channel audio, RS-232 control, and IR control signals over fiber optic cabling
- ▶ Supports lossless 4K video up to 4096x2160 at 30 Hz with a 4:4:4 color space over one fiber
- ▶ HDCP compliant
- ▶ Type 2 dual-mode DisplayPort for interoperability with HDMI, DVI, or VGA devices
- ▶ Key Minder® continuously verifies HDCP compliance for quick, reliable switching
- ▶ EDID Minder® automatically manages EDID communication between connected devices
- ▶ Buffered DisplayPort input loop through - FOX II T DP 4K
- ▶ Easy setup and commissioning with Extron's PCS - Product Configuration Software
- ▶ 850 nm multimode and 1310 nm singlemode models available



FOX II T DP 4K

FOX II R DP 4K

The Extron FOX II DP 4K is a transmitter and receiver set for long haul transmission of DisplayPort video, multi-channel audio, RS-232 control, and IR control signals over fiber optic cabling. The extender provides a variety of new capabilities, including support for video signals at resolutions up to 4K. The FOX II DP 4K represents the highest level of performance for the extensive FOX Series of fiber optic products from Extron.



Extron Electronics
INTERFACING, SWITCHING AND CONTROL

DESCRIPTION

The Extron **FOX II DP 4K** Fiber Optic Extender provides long haul extension of DisplayPort video, multi-channel audio, RS-232 control, and IR control signals over fiber optic cabling. Engineered with uncompromising quality and proven performance, it uses Extron all-digital technology to deliver lossless DisplayPort video signals at resolutions up to 4096x2160. This HDCP-compliant transmitter and receiver set brings new features to the FOX II Series, including support for 4K video and Type 2 dual-mode DisplayPort outputs. The FOX II DP 4K also includes many integrator-friendly features such as Key Minder®, EDID Minder®, audio embedding, audio gain and attenuation, as well as real-time system monitoring.

The FOX II DP 4K supports resolutions up to 4K to ensure that content is delivered with the highest quality possible over a fiber optic cable. A single transmitter is capable of sending 4K video images up to 4096x2160 at 30 Hz with a 4:4:4 color space over one fiber. It also features vertical sync lock, enabling video images up to 4096x2160 at 60 Hz with a 4:4:4 color space to be transmitted over two fibers using two transmitters and receivers.

KEY FEATURES

- ▶ Extends DisplayPort video, multi-channel audio, RS-232 control, and IR control signals over fiber optic cabling
- ▶ Supports lossless 4K video up to 4096x2160 at 30 Hz with a 4:4:4 color space over one fiber
- ▶ Vertical sync lock enables lossless video transmission up to 4K at 60 Hz with a 4:4:4 color space using two transmitters
- ▶ HDCP compliant
- ▶ User-selectable HDCP authorization
- ▶ Key Minder® continuously verifies HDCP compliance for quick, reliable switching
- ▶ EDID Minder® automatically manages EDID communication between connected devices
- ▶ Supports Type 2 dual-mode DisplayPort for interoperability with HDMI, DVI, or VGA devices
- ▶ Bidirectional RS-232 and IR signals over fiber optic cabling
- ▶ Compatible with Extron FOX Series matrix switchers to create HDCP-compliant signal distribution systems up to 1000x1000 and larger
- ▶ Available in multimode and singlemode models

	Maximum Resolution	Maximum Frame Rate	Color Sampling	Bits Per Pixel
1 Fiber	4096x2160	30	4:4:4	24
2 Fibers*	4096x2160	60	4:4:4	24

* Two transmitters are configured to send left and right video images, each at 2048 x 2160 at 60 Hz.

SPECIFICATIONS

NOTE: These transceivers are class 1 laser products. They meet the safety regulations of IEC-60825.		
OPTICAL FIBER INTERCONNECTION BETWEEN TRANSMITTER AND RECEIVER		
Connectors	2 LC connectors	
Nominal peak wavelength	850 nm for multimode, 1310 nm for singlemode	
Optical loss budget		
Singlemode	13 dB, maximum	
Multimode	7 dB, maximum	
VIDEO		
Maximum data rate	Up to 10.8 Gbps (2.7 Gbps per lane)	
Maximum pixel clock	300 MHz	
Maximum resolution	640x480 up to 4096x2160 @ 30 Hz, including 2K, and 1920x1200, including 480p, 576p, 720p, 1080i @ 25/30 Hz, 1080p @ 50/60/120Hz	
Color bit depth	10 bits for resolutions up to 1080p, 8 bits for resolutions above 1080p	
Standards	DisplayPort 1.1a, HDMI, HDCP 1.1	
VIDEO INPUT AND LOOP THROUGH – TRANSMITTERS		
Number/signal type	1 DisplayPort input 1 DisplayPort loop-through	
VIDEO OUTPUT – RECEIVER		
Number/signal type	1 DisplayPort	
AUDIO OUTPUT – RECEIVER		
Number/signal type	1 digital audio, embedded with DisplayPort output 2 buffered outputs: 1 balanced stereo; 1 unbalanced stereo or 2 unbalanced mono	
AUDIO RETURN OUTPUT – TRANSMITTER		
Number/signal type	1 stereo/mono, balanced or unbalanced	
CONTROL/REMOTE		
Serial control ports on each unit (transmitter and receiver)		
Control	1 female mini USB port B (front panel) 1 RS-232, 3.5 mm captive screw connector, 5-pole (3 pins are used), rear panel	
Pass-through	1 RS-232, 3.5 mm captive screw connector, 5-pole (3 pins are used), rear panel	
IR control port	(1) 3.5 mm captive screw connector, 5 pole (connector is shared with RS-232 pass thru) TTL level (0 to 5V) modulated infrared control from 30kHz to 40 kHz	
GENERAL		
Power supply	Internal Input: 100-240 VAC, 50-60 Hz	
Regulatory compliance		
Safety	CE, c-UL, 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 T DP 4K MM	DP Transmitter - Multimode	60-1462-11
FOX II T DP 4K SM	DP Transmitter - Singlemode	60-1462-12
FOX II R DP 4K MM	DP Receiver - Multimode	60-1462-21
FOX II R DP 4K SM	DP Receiver - Singlemode	60-1462-22

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

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