

Specifications

FOX II T/R DP 4K

TRUE 4K specification

Max. 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max. Bit Depth per Color
4096 x 2160 at 30 Hz	4:4:4	8 bit
3840 x 2160 at 30 Hz		
4096 x 2160 at 120 Hz		
3840 x 2160 at 120 Hz		
4096 x 2160 at 60 Hz		10 bit
3840 x 2160 at 60 Hz		

Frame rate¹ 24, 25, 30, 50, 60, or 120 fps
 Chroma sampling¹ 4:4:4
 Color bit depth¹ 8 or 10 bits per color
 Signal type HDMI 1.4, DisplayPort 1.1a, HDCP 1.3
 Max. video data rate 9.85 Gbps

NOTE: ¹Subject to the maximum data rate limit. Use our calculator at www.extron.com/8Kdata to determine video parameters supported by this data rate.

NOTE: This product requires two parallel connections to achieve 4K at 50 or 60 fps at 8 bits per color.

NOTE: This product requires four parallel connections to achieve 4K at 50 or 60 fps at 10 bits per color.

NOTE: This product requires four parallel connections to achieve 4K at 120 fps at 8 bits per color.

NOTE: The analog audio signal(s) is (are) digitized in the transmitter, sent through the fiber cable, and converted back to analog audio in the receiver.

NOTE: These transceivers are class 1 laser products. They meet the safety regulations of IEC-60825.

Optical fiber interconnection between transmitter and receiver

Number/type 2 fiber optic
 Connectors 2 LC connectors
 Operating distance
 Singlemode 30 km (18.75 miles) with singlemode (SM) cables
 Multimode 300 m (984') with 62.5 µm OM1 multimode (MM) cables
 1 km (3280') with 50 µm OM2 multimode (MM) cables
 2 km (6561') with 50 µm OM3/OM4 2000/4700 MHz bandwidth laser optimized multimode cables

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NOTE: Operating distance is approximate. These are typical maximum distances that may vary depending on factors such as fiber type, fiber bandwidth, connector splicing, losses, modal or chromatic dispersion, environmental factors, and kinks.

Nominal peak wavelength	850 nm for multimode, 1310 nm for singlemode
Data rate.....	4.25 Gbps
Transmission power	
Singlemode	-5 dBm, typical
Multimode	-5 dBm, typical
Maximum receiver sensitivity	
Singlemode	-18 dBm, typical
Multimode	-12 dBm, typical
Optical loss budget	
Singlemode	13 dB, maximum
Multimode	7 dB, maximum

Video

Maximum data rate	Up to 9.85 Gbps
Maximum pixel clock.....	300 MHz
Resolution range.....	640x480 up to 4096x2160 @ 30 Hz or UHD (3840x2160), including 2K, and 1920x1200, including 480p, 576p, 720p, 1080i @ 25/30 Hz, 1080p @ 50/60/120 Hz
Color bit depth.....	12 bits for resolutions up to 1080p, 10 bits for resolutions above 1080p
EDID	Supports emulation of custom or factory preset Extended Display Identification Data (EDID) tables.
Standards	DisplayPort 1.1a, HDMI 1.4, HDCP 1.3

Video input and loop through — transmitters

Number/signal type.....	1 DisplayPort input 1 DisplayPort loop-through
Connectors.....	1 female DisplayPort input 1 female DisplayPort loop-through

Video output — receiver

Number/signal type.....	1 DisplayPort
Connectors.....	1 female DisplayPort
Video delay	<1 frame

Audio

Gain	
Range	Adjustable, -18 dB to +13 dB
Default	
Captive screw connector ...	Balanced output: 0 dB; unbalanced output: -6 dB
Mini stereo jack.....	Unbalanced output: 0 dB
Frequency response	20 Hz to 20 kHz, ± 0.5 dB
THD + Noise	0.10% @ 1 kHz at nominal level
S/N.....	>90 dB at maximum output (unweighted)
CMRR.....	65 dB @ 20 Hz to 20 kHz
Audio bits per sample	18 bits per channel, 2 channels (L, R)
Sampling rate.....	32 kHz, 44.1 kHz, 48 kHz

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Audio input — transmitter

Number/signal type.....	1 digital audio, de-embedded from DisplayPort or 2 inputs: 1 balanced stereo 1 unbalanced stereo or 2 unbalanced mono
Connectors.....	1 female DisplayPort (shared with video input) (1) 3.5 mm stereo jack (1) 3.5 mm captive screw connector, 5 pole
Impedance.....	≥10k ohms unbalanced, ≥20k ohm balanced
Nominal level.....	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level.....	+21.0 dBu, balanced at 1% THD+N (5-pole); +15.0 dBV, unbalanced (3.5 mm stereo)
Source formats.....	2 CH LPCM

NOTE: 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu

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
Connectors.....	1 female DisplayPort (shared with video output) (1) 3.5 mm stereo jack (1) 3.5 mm captive screw connector, 5 pole
Impedance.....	50 ohms unbalanced, 100 ohms balanced (analog only)
Nominal level.....	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level (Hi-Z).....	+12 dBu balanced, at 1% THD+N (5-pole); +9 dBu, unbalanced (3.5 mm stereo)
Audio delay.....	<1 frame
Source formats.....	2 CH LPCM

Audio return input — receivers

Number/signal type.....	1 stereo/mono, balanced
Connectors.....	(1) 3.5 mm captive screw connector, 5 pole
Impedance.....	≥20k ohm balanced
Nominal level.....	+4 dBu (1.23 Vrms)
Maximum level (Hi-Z).....	+12.0 dBu, balanced at 1% THD+N

Audio return output — transmitter

Number/signal type.....	1 stereo/mono, balanced
Connectors.....	(1) 3.5 mm captive screw connector, 5 pole
Impedance.....	100 ohms balanced (analog only)
Nominal level.....	+4 dBu (1.23 Vrms)
Maximum level (Hi-Z).....	+12.0 dBu, balanced at 1% THD+N

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
Baud rate and protocol	
Control	9600 baud, 8 data bits, 1 stop bit, no parity
Pass-through.....	9600 to 115,200 baud
Serial control pin configuration	Captive screw: 1 = Tx, 2 = Rx, 3 = GND
Program control	Extron control/configuration program for Windows® Extron Simple Instruction Set (SIS™)
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
IR control pin configuration	3 = GND, 4 = IR Tx, 5 = IR Rx

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General

Power supply	Internal Input: 100-240 VAC, 50-60 Hz
Power consumption	
Transmitter	18.4 watts
Receiver	16.5 watts
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Cooling	Fan, front to back
Thermal dissipation	
Transmitter	61.4 BTU/hr
Receiver	55.0 BTU/hr
Mounting	
Rack mount.....	Yes, with optional rack shelf
Furniture mount.....	Yes, with optional under desk mounting kit
Enclosure type	Metal
Enclosure dimensions	
Transmitter	1.65" H x 8.7" W x 8.5" D (half rack wide) (4.2 cm H x 22.1 cm W x 21.6 cm D) (Depth excludes connectors.)
Receiver	1.65" H x 8.7" W x 8.5" D (half rack wide) (4.2 cm H x 22.1 cm W x 21.6 cm D) (Depth excludes connectors.)
Product weight	
Transmitter	2.1 lbs (1.0 kg)
Receiver	2.1 lbs (1.0 kg)
Regulatory compliance.....	CE, c-UL, UL, C-tick, FCC Class A, ICES, VCCI Complies with the appropriate requirements of RoHS, WEEE.
Product warranty	3 years parts and labor
Everlast power supply warranty.....	7 years parts and labor

NOTE: All nominal levels are at $\pm 10\%$.

NOTE: Specifications are subject to change without notice.

NOTE: Shipping weights and dimensions are available at www.extron.com.

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