

Specifications

FOX3 T/R 101

TRUE 4K specification

Max. 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max. Bit Depth per Color
4096x2160 at 60 Hz ¹	4:4:4	8 bit
3840x2160 at 60 Hz ¹		
4096x2160 at 30 Hz ¹		10 bit
3840x2160 at 30 Hz ¹		
4096x2160 at 60 Hz ²	4:2:2	12 bit
3840x2160 at 60 Hz ²		
4096x2160 at 30 Hz ²	4:4:4	
3840x2160 at 30 Hz ²		

Frame rate³ 24, 25, 30, 50, or 60 fps
 Chroma sampling³ 4:4:4, 4:2:2
 Color bit depth^{2,3} 8, 10, or 12 bits per color
 Signal type HDMI 2.0, HDCP 2.3
 Max. video data rate 18.0 Gbps

NOTE: ¹Supports lossless 4K video over one fiber.
²When using a FOX3 SR scaling receiver, the scaler must be in bypass mode to pass 4K video with a 12-bit color bit depth.
³Subject to the maximum data rate limit. Use our calculator at www.extron.com/8KdataRate to determine video parameters supported by this data rate.

NOTE: The FOX3 T/R 101 consists of a transmitter (FOX3 T 101) and a receiver (FOX3 R 101) with fiber optic cables linking the two units.

NOTE: These devices are class 1 laser products. They meet the safety regulations of IEC-60825, FDA 21 CFR 1040.10, and FDA 21 CFR 1040.11

Optical fiber interconnection between transmitter and receiver

Number/type 1 SFP
 Connectors 1 LC connector
 Operating distance
 Singlemode 20 km (12.4 miles) with singlemode (SM) cables
 Multimode 500 m (1640 feet) with 50 µm OM4, 4700 MHz bandwidth, laser-optimized multimode (MM) cables

NOTE: The system works with OM1, OM2, and OM3 Fiber at reduced distances.

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NOTE: Operating distance is approximate. This is a typical maximum distance 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 (MM), 1310 nm for singlemode (SM)
Maximum channel data rate.....	10 Gbps
Transmission power	
Singlemode	-5.2 dBm, minimum
Multimode	-3.3 dBm, minimum
Receiver sensitivity	
Singlemode	-12.6 dBm, minimum
Multimode	-13.0 dBm, minimum
Optical loss budget	
Singlemode	+7.4 dBm, maximum
Multimode	+9.7 dBm, maximum

Video

Maximum data rate	18.0 Gbps (6.0 Gbps per color)
Maximum pixel clock.....	594 MHz
Resolution range.....	640x480 ⁸ up to 4096x2160 ^{1,2,3,4,5,6,7,8} , 480p ^{7,8} , 576p ⁶ , 720p ^{3,4,5,6,7,8,9} , 1080i ^{6,7,8} , 1080p ^{1,2,3,4,5,6,7,8,9} , 2K ^{1,2,3,4,5,6,7,8} , 3840x2160 ^{1,2,3,4,5,6,7,8} , 4096x2160 ^{1,2,3,4,5,6,7,8}
	¹ 23.98 Hz, ² 24 Hz, ³ 25 Hz, ⁴ 29.97 Hz, ⁵ 30 Hz, ⁶ 50 Hz, ⁷ 59.94 Hz, ⁸ 60 Hz, ⁹ 120 Hz
Frame rate	24, 25, 30, 50, 60, or 120 fps
Color space	4:4:4, 4:2:2
Color bit depth.....	8, 10, or 12 bits per color
Standards	HDMI 2.0, HDCP 2.3
Horizontal frequency	24 kHz to 135 kHz (for resolutions up to 18 Gbps)
Vertical frequency.....	24 Hz to 120 Hz (for resolutions up to 18 Gbps)
Format.....	RGB and YCbCr digital video

Video input and loop out — transmitter

Number/signal type.....	1 HDMI input 1 HDMI loop out
Connectors.....	1 female HDMI input type A 1 female HDMI loop out type A
Power for active cables.....	TBD VDC, TBD mA

Video output — receiver

Number/signal type.....	1 HDMI
Connectors.....	1 female HDMI type A
Power for active cables.....	TBD VDC, TBD mA

Audio input

Number/signal type.....	1 HDMI, embedded
Connectors.....	1 female HDMI type A

Audio output

Number/signal type.....	1 HDMI, embedded
Connectors.....	1 female HDMI type A

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Communications

Number/signal type.....	1 front panel USB C, female
Standards	USB 2.0, High Speed
USB standards	Ethernet over USB
Program control.....	Extron Product Configuration Software Extron Simple Instruction Set (SIS™)

General

Power supply	External Output: 12 VDC, TBD A, TBD watts
Power consumption	
Transmitter	TBD watts
Receiver	TBD 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	Convection, no vents
Thermal dissipation	
Transmitter	TBD BTU/Hr
Receiver	TBD BTU/Hr
Mounting	
Rack mount.....	Yes, with optional 1U rack shelf
Furniture mount	Yes, with optional under-desk mounting kit
Enclosure type	Metal
Enclosure dimensions	1.0" H x 4.3" W x 6.0" D (quarter rack wide) (2.5 cm H x 10.9 cm W x 15.2 cm D) (Depth excludes connectors.)
Product weight	
Transmitter	TBD lbs (TBD kg)
Receiver	TBD lbs (TBD kg)
Regulatory compliance.....	CE, C-UL, C-tick, FCC Class A, ICES, KCC, RoHS, UL, VCCI, WEEE
Product warranty	3 years parts and labor
Everlast power supply warranty.....	7 years parts and labor

NOTE: All nominal levels are at ±10%.

NOTE: Specifications are subject to change without notice.

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

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