

COMMAND CENTER WITH KVM AND MULTIPLE CLASSIFICATIONS

Equipment Room

Unclassified Public Broadcast Networks

FOX3 T 201
Fiber Optic Transmitter for HDMI

CATV Receiver

HDMI
RS-232

Unclassified Computer Networks

FOX3 T 301
Fiber Optic Transmitter for HDMI

Computer

USB
HDMI

Secure Computer Networks

FOX3 T 311
Fiber Optic Transmitter for HDMI

Computer

USB
HDMI

Command Center

Room Displays

FOX3 SR 201
Fiber Optic Scaling Receiver for HDMI

4K HDMI
RS-232
4K Display

Unclassified Workstations

FOX3 SR 301
Fiber Optic Scaling Receiver for HDMI

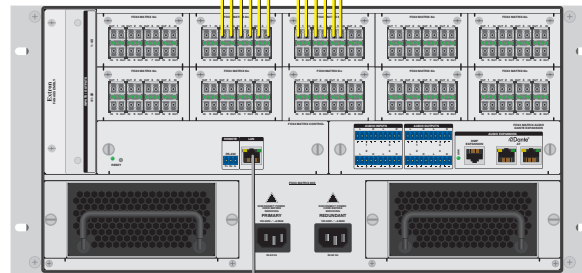
4K HDMI
4K Display
USB Headset
Keyboard
Mouse

Secure Workstations

FOX3 SR 311
Fiber Optic Scaling Receiver for HDMI

4K HDMI
4K Display
Keyboard
Mouse

Fiber



FOX3 Matrix 80x
Modular Fiber Optic Matrix Switcher

Ethernet

IPCP Pro 550
IP Link Pro Control Processor

AV Control Network

TLP Pro 725M
7" Wall Mount Touchlink Pro Touchpanel

Ethernet

Ethernet

SPECIFICATIONS

TRUE 4K SPECIFICATION

Max 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max Bit Depth per Color
4096 x 2160 at 60 Hz ¹ 3840 x 2160 at 60 Hz ¹	4:4:4	8 bit
4096 x 2160 at 30 Hz ¹ 3840 x 2160 at 30 Hz ¹		10 bit
4096 x 2160 at 60 Hz ² 3840 x 2160 at 60 Hz ²	4:2:0	12 bit
4096 x 2160 at 30 Hz ² 3840 x 2160 at 30 Hz ²	4:4:4	

Frame rate ³	24, 25, 30, 50, or 60 fps
Chroma sampling ³	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: ¹ Supports lossless 4K video over one fiber or uncompressed 4K video over two fibers.	
² Supports 12-bit color bit depth for uncompressed 4K video over two fibers. When using a FOX3 SR scaling receiver, the scaler must be in bypass mode to pass 4K video with a 12-bit color bit depth.	
³ Subject to the maximum data rate limit. Use our calculator at www.extron.com/4KdataRate to determine video parameters supported by this data rate.	
NOTE: This product contains Class 1 laser. It meets the safety regulation of IEC 60825-1, FDA 21 CFR 1040.10, and FDA 21 CFR 1040.11.	

OPTICAL SPECIFICATIONS

Number/type	8 singlemode or 8 multimode SFPs per board
Connectors	16 LC connectors per I/O board
Signal type	
FOX3 Matrix 24x	8 to 24 fiber optic signals
FOX3 Matrix 40x	8 to 40 fiber optic signals
FOX3 Matrix 80x	8 to 80 fiber optic signals
FOX3 Matrix 160x	8 to 160 fiber optic signals
FOX3 Matrix 320x	8 to 320 fiber optic signals
Routing	
FOX3 Matrix 24x	8 x 8 up to 24 x 24 unidirectional matrix or 4 x 4 up to 12 x 12 bidirectional matrix
FOX3 Matrix 40x	8 x 8 up to 40 x 40 unidirectional matrix or 4 x 4 up to 20 x 20 bidirectional matrix
FOX3 Matrix 80x	8 x 8 up to 80 x 80 unidirectional matrix or 4 x 4 up to 40 x 40 bidirectional matrix
FOX3 Matrix 160x	8 x 8 up to 160 x 160 unidirectional matrix or 4 x 4 up to 80 x 80 bidirectional matrix
FOX3 Matrix 320x	8 x 8 up to 320 x 320 unidirectional matrix or 4 x 4 up to 160 x 160 bidirectional matrix
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 cables
NOTE: The system works with OM1, OM2, and OM3 fiber at reduced distances.	
NOTE: Operating distance is approximate. These are typical distances. The maximum distance may be greater than these typical numbers 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)
Transmission power	
Singlemode	-5.2 dBm, typical
Multimode	-3.3 dBm, typical
Maximum receiver sensitivity	
Singlemode	-12.6 dBm, typical
Multimode	-13.0 dBm, typical

Optical loss budget	
Singlemode	+7.4 dB, maximum
Multimode	+9.7 dB, maximum
Maximum channel data rate	10 Gbps
AUDIO INPUT/OUTPUT BOARD	
Number/signal type	
FOX3 Matrix 24x	2 analog stereo inputs, balanced/unbalanced 2 analog stereo outputs, balanced/unbalanced
FOX3 Matrix 40x, 80x, 160x, 320x	4 analog stereo inputs, balanced/unbalanced 4 analog stereo outputs, balanced/unbalanced
Connectors	
FOX3 Matrix 24x	(4) 3.5 mm captive screw connector, 5 pole
FOX3 Matrix 40x, 80x, 160x, 320x	(8) 3.5 mm captive screw connector, 5 pole
Source formats	2 channel LPCM
Impedance	10 k ohms unbalanced, 20 k ohms balanced
Nominal level	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level	+21 dBu balanced, +15 dBu unbalanced
Gain range	Adjustable, -18 dB to +24 dB, 1 dB steps
Gain	Unbalanced output: -6 dB; balanced output 0 dB (default)
Frequency response	20 Hz to 20 kHz, ±0.5 dB
THD + Noise	<0.1% @ 20 Hz to 20 kHz at nominal level
CMRR	65 dB @ 20 Hz to 20 kHz
Output impedance	50 ohms unbalanced, 100 ohms balanced (analog only)
Maximum level (Hi-Z)	+21 dBu balanced, +15 dBu unbalanced
Gain error	± 0.5 dB channel to channel
Volume control range	-100 dB to 0 dB (0-100 in 1 dB steps)
Stereo channel separation	>80 dB @ 1 kHz
Bit depth	16, 20, 24

AT PORTS — DANTE AUDIO TRANSPORT

Transmission type	Dante/AES-67, software selectable
Connectors	2 RJ-45 to Dante interface
Inputs	Up to 32 stereo channels
Outputs	Up to 32 stereo channels
Audio format	24 bit uncompressed at 48 kHz sampling rate
Latency	Deterministic, based on user selections: 0.25 ms, 0.5 ms, 1.0 ms (default), 2.0 ms, 5.0 ms

EXP PORT

Transmission type	Proprietary
Connector	1 RJ-45
Inputs	8 stereo channels Rx
Outputs	8 stereo channels Tx
Audio format	Uncompressed, 24-bit, 48 kHz
EXP cable	Shielded CAT6 up to 10 meters

COMMUNICATIONS

USB configuration port	
Number/type	1 front panel mini USB B, female
Standard	Ethernet over USB
Serial control port	1 RS-232, 3.5 mm captive screw connector, 3-pole, female, rear panel
Ethernet control	
Ethernet port	1 RJ-45 connector, female
Ethernet data rate	10/100/1000Base-T, half/full duplex with autodetect
Protocols	ARP, ICMP (Ping), DHCP, DNS, HTTPS, SFTP, SSH, TCP/IP, UDP/IP
Default settings	Link speed and duplex level = autodetected IP address = 192.168.254.254 Subnet mask = 255.255.255.0 Gateway = 0.0.0.0 DHCP = off
Web server	Up to 200 simultaneous sessions 7.0 MB non-volatile memory

SPECIFICATIONS

GENERAL	
Power supply	Internal, 2* (positive-negative), primary and redundant, hot-swappable Input: 100-240 VAC, 50-60 Hz *A redundant power supply is standard. On the FOX3 Matrix 24x, a redundant power supply is optional.
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, right to left (as viewed from front panel)
Mounting	
Rack mount	Yes
Enclosure type	Metal
Enclosure dimensions	
FOX3 Matrix 24x	3.5" H x 17.0" W x 13.0" D (2U high, full rack wide) (8.9 cm H x 43.2 cm W x 33.0 cm D) (Depth excludes connectors and handles. Width excludes rack ears.)
FOX3 Matrix 40x	7.0" H x 17.0" W x 20.0" D (4U high, full rack wide) (17.8 cm H x 43.2 cm W x 50.8 cm D) (Depth excludes connectors and handles. Width excludes rack ears.)
FOX3 Matrix 80x	8.75" H x 17.0" W x 20.0" D (5U high, full rack wide) (22.2 cm H x 43.2 cm W x 50.8 cm D) (Depth excludes connectors and handles. Width excludes rack ears.)
FOX3 Matrix 160x	14.0" H x 17.0" W x 20.0" D (8U high, full rack wide) (35.6 cm H x 43.2 cm W x 50.8 cm D) (Depth excludes connectors and handles. Width excludes rack ears.)
FOX3 Matrix 320x	21.0" H x 17.0" W x 20.0" D (12U high, full rack wide) (53.3 cm H x 43.2 cm W x 50.8 cm D) (Depth excludes connectors and handles. Width excludes rack ears.)
Regulatory compliance	CE, c-UL, C-tick, FCC Class A, ICES, UL, VCCI Complies with the appropriate requirements of RoHS, WEEE.
Product warranty	3 years parts and labor
NOTE: All nominal levels are at ±10%.	

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

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