

Specifications — FOX 2G AV Series

NOTE The FOX 2G AV consists of a transmitter (FOX 2G Tx AV) and a receiver (FOX 2G Rx AV) with one or two fiber optic cables linking the two units.

NOTE The analog video input signal is digitized pixel for pixel in the transmitter, sent digitally through the fiber cable, and converted back to analog video in the receiver.

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, FDA 21 CFR 1040.10, and FDA 21 CFR 1040.11.

Optical fiber interconnection between transmitter and receiver

Number/type 1 or 2 fiber optic

NOTE Only one fiber is required to transmit video, audio, and unidirectional data. A second fiber is required to transmit return data for bidirectional control/communication.

Connectors 2 LC connectors

Operating distance

Singlemode..... 30 km (18.75 miles) with singlemode (SM) cables with a FOX 2G AV SM

Multimode..... 500 m (1640') with 62.5 μ m multimode (MM) cables with a FOX 2G AV MM

1 km (3280') with 50 μ m multimode cables with a FOX 2G AV MM

2 km (6561') with 50 μ m, 2000 MHz bandwidth laser optimized multimode cables with a FOX 2G AV MM

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 FOX 2G AV MM, 1310 nm for FOX 2G AV SM

Data rate 2.125 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

Gain Unity

Standards

Input..... NTSC 3.58, NTSC 4.43, PAL, SECAM, autodetected

Output..... NTSC 3.58, PAL (follows vertical rate)

Decoder type..... Adaptive 2D, digital comb filter

Video input — transmitters

Number/signal type..... 1 component (Y, R-Y, B-Y), S-video, composite video

Connectors 1 x 3 female BNC or 1 female 4-pin mini DIN for S-video

Nominal level 1.0 V_{p-p} for Y of component video and S-video, and for composite video

0.7 V_{p-p} for R-Y, B-Y of component video

0.3 V_{p-p} for C of S-video

Minimum/maximum levels..... Analog: 0.3 V to 1.5 V_{p-p} with no offset

Specifications — FOX 2G AV Series, cont'd

Impedance.....	75 ohms
Return loss.....	-30 dB for Y/VID, B-Y/C, R-Y @ 5 MHz
Input coupling.....	AC

Video output — receivers

Number/signal type.....	1 component (Y, R-Y, B-Y) video, S-video, composite video
Connectors	1 x 3 female BNC <i>or</i> 1 female 4-pin mini DIN for S-video
Nominal level	1.0 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for R-Y, B-Y of component video 0.3 Vp-p for C of S-video
Minimum/maximum levels.....	0.3 V to 1.5 Vp-p
Impedance.....	75 ohms @ 5 MHz
Return loss.....	<-40 dB @ 5 MHz
DC offset.....	+350 mV, maximum, with input at 0 offset
Video delay	1-2 frames

Audio

Gain	
Range	Adjustable, -18 dB to +10 dB
Default	Unbalanced output: -6 dB; balanced output: 0 dB
Frequency response	20 Hz to 20 kHz, ± 0.5 dB
THD + Noise.....	0.15% @ 1 kHz at nominal level
S/N.....	>80 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.....	48 kHz

Audio input — transmitter

Number/signal type.....	1 stereo, balanced/unbalanced <i>or</i> 2 mono, balanced/unbalanced
Connectors	(1) 3.5 mm captive screw connector, 5 pole
Impedance.....	>10k ohms unbalanced, >20k ohms balanced, DC coupled
Nominal level	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level.....	>+17 dBV, (unbalanced) at 1% THD+N

NOTE $0 \text{ dBu} = 0.775 \text{ Vrms}$, $0 \text{ dBV} = 1 \text{ Vrms}$, $0 \text{ dBV} \approx 2 \text{ dBu}$

Audio output — receiver

Number/signal type.....	1 stereo, balanced/unbalanced <i>or</i> 2 mono, balanced/unbalanced
Connectors	(1) 3.5 mm captive screw connector, 5 pole
Impedance.....	50 ohms unbalanced, 100 ohms balanced
Nominal level	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level (Hi-Z)	>+19 dBu, unbalanced at 1% THD+N
Maximum level (600 ohm).....	>+15 dBm, unbalanced at 1% THD+N
Audio delay	1.5 frames

Control/remote

Serial control ports on each unit (transmitter and receiver)	
Control.....	1 RS-232, 3.5 mm captive screw connector, 5 pole (3 pins are used) (rear panel); in parallel with front panel jack 1 RS-232, 2.5 mm mini stereo jack (front 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 115200 baud
Serial control pin configurations	
Pass-through.....	Captive screw connector: 1 = Tx, 2 = Rx, 3 = GND
Control.....	Captive screw connector: 3 = GND, 4 = Tx, 5 = Rx Mini stereo jack: tip = Tx, ring = Rx, sleeve = GND
Program control.....	Extron's control/configuration program for Windows® Extron's Simple Instruction Set (SIS™)

General

External power supply.....	100 VAC to 240 VAC, 50-60 Hz, external; to 12 VDC, 1 A, regulated
Power input requirements.....	12 VDC, 0.6 A
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, vents on left side and top
Mounting	
Rack mount.....	Yes, with optional rack shelf kit
Furniture mount.....	Yes, with optional under-desk mounting kit
Enclosure type.....	Metal
Enclosure dimensions.....	1.7" H x 4.3" W x 6.0" D (1U high, quarter rack wide) (4.3 cm H x 10.9 cm W x 15.2 cm D) (Depth excludes connectors.)
Product weight.....	0.8 lbs (0.4 kg) per unit, 1.6 lbs (0.7 kg) per pair
Shipping weight.....	3 lbs (2 kg) per unit, 6 lbs (3 kg) per pair
Vibration.....	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety.....	CE, CUL, FDA Class 1, UL
EMI/EMC.....	CE, C-tick, FCC Class A, ICES, VCCI
MTBF.....	30,000 hours
Warranty.....	3 years parts and labor

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

NOTE Specifications are subject to change without notice.

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