

# Specifications

## FOX 500 DA6

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

### Optical specifications

Number/type ..... 6 fiber optic outputs

**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 on receiver 1.

Connectors ..... 6 LC connectors

Operating distance

Singlemode ..... 30 km (18.75 miles) with singlemode (SM) cables with an Extron singlemode unit  
Multimode..... 300 m (985') with 62.5  $\mu$ m OM1 multimode (MM) cables with an Extron multimode unit  
1 km (3280') with 50  $\mu$ m OM2 multimode (MM) cables with an Extron multimode unit  
2 km (6561') with 50  $\mu$ m OM3/OM4 laser optimized multimode cable with an Extron multimode unit

**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 500 DA6 MM, 1310 nm for FOX 500 DA6 SM

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

Gain..... Unity

Pixel data bit depth ..... 8 bits per channel, 3 channels (R, G, B)

Maximum resolution ..... 1600x1200 @ 60 Hz, digitized pixel by pixel; higher resolutions up to 2048x1120, undersampled

### Video input and loop through

Number/signal type ..... 1 VGA-UXGA RGBHV, RGBS, RGSB, RsGsBs input  
1 VGA-UXGA RGBHV, RGBS, RGSB, RsGsBs loop-through

Connectors ..... 1 x 5 female BNC or (1) female 15-pin HD for input  
(1) female 15-pin HD for loop-through

Nominal level .....	0.7 Vp-p for RGB
Minimum/maximum levels.....	Analog: 0.3 V to 1.5 Vp-p with no offset
Impedance .....	75 ohms
Horizontal frequency.....	24 kHz to 100 kHz
Vertical frequency.....	40 Hz to 120 Hz
Return loss.....	<-40 dB @ 5 MHz

**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.

**Video output— See optical specifications above.**

**Sync**

Input type .....	Autodetect RGBHV, RGBS, RGSB, RsGsBs
Input level .....	2.5 V to 5.0 Vp-p
Input impedance .....	10k ohms
Polarity.....	Positive or negative (follows input or can be set by user)

**Audio**

Gain	
Range.....	Adjustable, -18 dB to +10 dB
Default	
Captive screw connector....	Unbalanced output: -6 dB; balanced output: 0 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.....	>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**

Number/signal type .....	2 inputs (mixed): 1 balanced stereo; 1 unbalanced stereo or 2 unbalanced mono
Connectors .....	(1) 3.5 mm captive screw connector, 5 pole (1) 3.5 mm mini stereo jack
Impedance .....	18k 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 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu

**Audio output— See FOX 500 Rx receiver specifications.**

**Control/remote**

Serial control ports	
Control.....	1 RS-232, 3.5 mm captive screw connector, 5 pole (3 pins are used) (rear panel) 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); in parallel with 1 RS-232, 2.5 mm mini stereo jack (front panel)
Baud rate and protocol	
Control.....	9600 baud, 8 data bits, 1 stop bit, no parity
Pass-through.....	9600 to 38400 baud

Serial control pin configurations

Captive screw connectors: 1 = Tx, 2 = Rx, 3 = GND  
Mini stereo jack: tip = Tx, ring = Rx, sleeve = GND

Program control ..... Extron control/configuration program for Windows®  
Extron Simple Instruction Set (SIS™)

**General**

Power supply.....	Internal Input: 100-240 VAC, 50-60 Hz
Power consumption .....	14.4 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, vents on top and side panels
Mounting.....	Rack mountable with included brackets
Enclosure type.....	Metal
Enclosure dimensions .....	1.7" H x 17.4" W x 9.5" D (1U high, full rack wide) (4.3 cm H x 44.2 cm W x 24.1 cm D) (Depth excludes connectors.)
Product weight.....	3.9 lbs (1.8 kg)
Shipping weight.....	7 lbs (4 kg)
DIM weight	
USA/Canada .....	7 lbs (4 kg)
International .....	8 lbs (4 kg)
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
Warranty.....	3 years parts and labor

**NOTE:** All nominal levels are at ±10%.

**NOTE:** Specifications are subject to change without notice.

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