

Specifications

FOX 3G HD-SDI

NOTE: The FOX 3G HD-SDI is a transceiver that can function as a transmitter and/or as a receiver. Two units are required for a transmitter-receiver system with one fiber optic cable linking the two units. The FOX 3G HD-SDI is available in singlemode or multimode versions.

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

NOTE: The FOX 3G HD-SDI P SM transceivers offer immunity to "pathological" signals, including test patterns defined by SMPTE Recommended Practice (RP) 178 and SMPTE RP 198 for SD-SDI, HD-SDI, and 3G-SDI.

NOTE: FOX 3G HD-SDI P SM transceivers are immune to pathological signals only when P model units are used in the transmitter, receiver, or Fiber Matrix Switcher boards. If the signal is routed through a matrix switcher without P model I/O boards, a FOX DA8, or a FOX SW8, the system does not provide immunity.

Optical fiber interconnection between transmitter and receiver

Number/type..... 1 fiber optic

NOTE: Only one fiber is required to transmit video and embedded audio and unidirectional data.

Connectors..... 1 LC connector

Operating distance

Singlemode..... 30 km (18.75 miles) with singlemode (SM) cables with an SM unit
Multimode..... 500 m (1640') with 62.5 μ m OM1 multimode (MM) cables with an MM unit
1 km (3280') with 50 μ m OM2 multimode (MM) cables with an MM unit
2 km (6561') with 50 μ m OM3/OM4 2000 MHz bandwidth laser optimized multimode (MM) cables with an MM 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 MM units; 1310 nm for SM units

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

Signal type..... HD-SDI, SDI, and 3G-SDI digital video signals

Gain..... Unity

Resolution..... 8 or 10 bits, automatic

Data rates..... 270 Mbps, 1.485 Gbps, 2.970 Gbps

Operation standards	
All models.....	SMPTE 259M-C, SMPTE 292M, SMPTE 424M, ITU-R BT.601, ITU-R BT.1120
FOX 3G HD-SDI P.....	SMPTE 297-2006, SMPTE RP 178, SMPTE RP 198
Auto data rate lock.....	Yes

Video input – transmitter

Number/signal type.....	1 single link SDI, HD-SDI, or 3G-SDI digital component video
Connectors.....	1 female BNC
Data rates.....	19 Mbps to 2.97 Gbps
Nominal level.....	0.8 Vp-p
Minimum/maximum levels.....	0.5 V to 1 Vp-p with no offset
Impedance.....	75 ohms
Return loss.....	≥15 dB @ 5 MHz to 1.5 GHz
DC offset (max. allowable).....	5 V
Input coupling.....	AC
Input cable equalization.....	Automatic for up to -30 dB of cable loss
3G-SDI.....	60 m (200') using Extron RG6 cable 45 m (150') using Extron RG59 cable
HD-SDI.....	120 m (400') using Extron RG6 cable 90 m (300') using Extron RG59 cable
SDI.....	150 m (500') using Extron RG6 cable 120 m (400') using Extron RG59 cable

Video output – receiver

Number/signal type.....	2 single link SDI, HD-SDI, or 3G-SDI digital component video
Connectors.....	2 female BNC
Re-clocking.....	Automatic for 270 Mbps, 1.485 Gbps, 2.97 Gbps, or bypassed for unrecognized rates
Nominal level.....	0.8 Vp-p
Minimum/maximum levels.....	0.5 V to 1.0 Vp-p
Impedance.....	75 ohms
Return loss.....	>25 dB @ 100 MHz
DC offset.....	±5 mV with input at 0 offset

General

Power supply.....	External Input: 100-240 VAC, 50-60 Hz Output: 12 VDC, 1 A, 12 watts
Power input requirements.....	12 VDC, 0.3 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, no vents
Mounting	
Rack mount.....	Yes, with optional rack shelf kit
Furniture mount.....	Yes with optional through-desk or under-desk mounting kit
Pole mount.....	Yes, with optional pole mounting kit
Enclosure type.....	Metal
Enclosure dimensions.....	1.0" H x 4.3" W x 3.0" D (quarter rack wide) (2.5 cm H x 10.9 cm W x 7.6 cm D) (Depth excludes connectors.)
Product weight.....	0.5 lb (0.3 kg) per each unit
Shipping weight.....	3 lbs (2 kg) per each unit
Vibration.....	ISTA 1A in carton (International Safe Transit Association)

Regulatory compliance

Safety CE, c-UL, UL

EMI/EMC CE, C-tick, FCC Class A, ICES, VCCI

Warranty 3 years parts and labor

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

NOTE: Specifications are subject to change without notice.

8.1-112614-D13