

Specifications

12G HD-SDI 101

TRUE 4K specification

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

Frame rate ¹	24, 25, 30, 50, or 60 fps
Chroma sampling ¹	4:4:4, 4:2:2, and 4:2:0
Color bit depth ¹	8 or 10 bits per color
Signal type	6G-SDI, 12G-SDI
Max. video data rate	11.88 Gbps per 12G-SDI connection

NOTE: ¹Subject to the maximum data rate limit.

Video

Signal type	SDI, HD-SDI, 3G-SDI, 6G-SDI, and 12G-SDI digital video
Gain	Unity
Resolution	8 or 10 bits, automatic
Operation standards	SMPTE 259M-C, SMPTE 292M, SMPTE 424M, SMPTE 372M, SMPTE ST-2081, SMPTE 2082, ITU-RBT.601, ITU-RBT.1120
Auto data rate lock	Yes
Latency	14 ns
Level mapping	Supports both level A and level B mapping (3G-SDI and 6G-SDI)
Bit depth	
12G-SDI	Supports up to 10 bits
6G-SDI	Supports up to 10 bits
3G-SDI	Supports up to 12 bits
HD-SDI	Supports up to 12 bits
SDI	Supports up to 12 bits

Video input

Number/signal type	1 single link SDI, HD-SDI, 3G/6G/12G-SDI digital component video
Connector	1 female BNC
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 2.97 GHz
DC offset (max. allowable)	5 V
Input coupling	AC

Specifications • 12G HD-SDI 101 (Continued)

Input cable equalization.....	Automatic for up to -30 dB of cable loss
12G-SDI.....	70 meters (230 feet)
6G-SDI.....	90 meters (295 feet)
3G-SDI.....	180 meters (590 feet)
HD-SDI.....	240 meters (787 feet)
SDI.....	300 meters (984 feet)

NOTE: Transmission distance varies depending on the signal resolution and on the type of cable, source, and display used in the system.

Video output

Number/signal type.....	1 single link SDI, HD-SDI, 3G/6G/12G-SDI digital component video
Connector.....	1 female BNC
Re-clocking.....	Automatic for 270 Mbps, 1.485 Gbps, 2.97 Gbps, 5.94 Gbps, and 11.88 Gbps (bypassed for all other 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

Audio

Audio channels.....	Supports up to 16 channels
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General

Power supply.....	External Input: 100-240 VAC, 50-60 Hz Output: 12 VDC, 0.5 A, 6 watts
Power input requirements.....	12 VDC, 0.1 A
Power consumption	
Device.....	1.0 watts @ 12 VDC
Device and power supply.....	1.2 watts @ 12 VDC
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	
Device.....	3.2 BTU/hr
Device and power supply.....	3.8 BTU/hr
Mounting	
Rack mount.....	Yes, with optional rack shelf kit
Enclosure type.....	Metal
Enclosure dimensions.....	1.0" H x 2.2" W x 3.0" D (one-eighth rack wide) (2.5 cm H x 5.6 cm W x 7.6 cm D) (Depth excludes connectors.)
Product weight.....	0.2 lbs (0.1 kg)
Regulatory compliance.....	CE, c-UL, UL, FCC Class A, VCCI, AS/NZS, ICES
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.