

Specifications

ISS 612

TRUE 4K specification

HDMI

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

SDI

Max. 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max. Bit Depth per Color
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, or 4:2:0
Color bit depth ¹	8 or 10 bits per color
Signal type	HDMI v1.4 and v2.0, DisplayPort v1.2, HDCP v1.4 and v2.3, 6G-SDI, 12G-SDI
Max. video data rate ¹	
HDMI	18 Gbps (6 Gbps per color)
DisplayPort	21.6 Gbps (5.4 Gbps per lane)
SDI	11.88 Gbps per SDI connection

NOTE: ¹Subject to the maximum data rate limit. Use our calculator at www.extron.com/8Kdata rate to determine video parameters supported by this data rate.

Video input

Number/signal type	6 HDMI/DVI (HDCP compliant) 2 DisplayPort (HDCP compliant) 4 12G/6G/3G/HD/SD-SDI
Connectors	6 female HDMI Type A 2 female DisplayPort 4 female BNC
Horizontal frequency	15 kHz to 270 Khz for resolutions up to 18 Gbps
Vertical frequency	24 Hz to 240 Hz for resolutions up to 18 Gbps
Resolution range	640x480 to 4096x2160, 480i, 576i, 480p, 576p, 720p, 1080i, 1080p, 2K, 4K 3840x2160 (up to 60 Hz) to 4096x2160 (up to 60 Hz)

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Standards	DVI 1.0, HDMI 1.4 and 2.0, HDCP 1.4 and 2.3, DisplayPort 1.2, SMPTE 259M-C, 292M, 372M, 424M, ST 2081, ST 2082
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Video processing

Digital sampling.....	8, 10 bits per color maximum; 600 MHz pixel clock
Colors	1 billion (10-bit processing)

Video output

Number/signal type.....	2 HDMI/DVI (HDCP compliant) 2 12G/6G/3G/HD-SDI
Connectors	2 female HDMI Type A 2 female BNC
Power for active cables	2.2 W total for all HDMI ports, 1.1 W per HDMI port max
Scaled resolution	640x480 ⁸ , 800x600 ⁸ , 1024x768 ⁸ , 1280x768 ⁸ , 1280x800 ⁸ , 1280x1024 ⁸ , 1360x768 ⁸ , 1366x768 ⁸ , 1440x900 ⁸ , 1400x1050 ⁸ , 1600x900 ⁸ , 1600x1200 ⁸ , 1920x1200 ⁸ , 2048x1200 ⁸ , 2048x1536 ⁸ , 2560x1080 ⁸ , 2560x1440 ⁸ , 2560x1600 ⁸ , 3840x2160 ^{1,2,3,4,5,6,7,8} , 4096x2160 ^{1,2,3,4,5,6,7,8} 480p ^{7,8} , 576p ⁶ , 720p ^{3,4,5,6,7,8} , 1080i ^{6,7,8} , 1080p ^{1,2,3,4,5,6,7,8} , 2K ^{1,2,3,4,5,6,7,8} Custom 1 through 10 ¹ = 23.98 Hz, ² = 24 Hz, ³ = 25 Hz, ⁴ = 29.97 Hz, ⁵ = 30 Hz, ⁶ = 50 Hz, ⁷ = 59.94 Hz, ⁸ = 60 Hz
Standards	DVI 1.0, HDMI 1.4 and 2.0, HDCP 1.4 and 2.3, SMPTE 259M-C, 292M, 424M Level A, 425, ST 2081, ST 2082

External sync (genlock)

Number/signal type.....	1 Genlock input 1 Genlock Loop Out
Connectors	2 female BNC
External sync (genlock)	Auto-sensing: Tri-level (High Definition: 720p through 1080p), Bi-level (Standard Definition: 480i and 576i)

NOTE: If the horizontal timing does not match the output rate, only the vertical timing is locked.

Impedance.....	75 ohms
Return loss	>30 dB @ 5 MHz (genlock input) ≥21 dB @ 5 MHz (genlock loop out)

Audio

Frequency response	20 Hz to 20 kHz, ±0.05 dB
THD + Noise	<0.1% @ 1 kHz, 20 kHz bandwidth at nominal level
S/N.....	>90 dB at maximum output (unweighted)
Crosstalk	≤-80 dB @ 1 kHz fully loaded
Stereo channel separation.....	>80 dB @ 1 kHz
Supported formats	
Analog de-embedding.....	LPCM-2Ch
HDMI pass-through.....	LPCM up to 7.1/24-bit/192 kHz, Dolby Atmos, Dolby TrueHD, and Dolby legacy formats, DTS:X, DTS-HD Master Audio, DTS 96/24, and DTS legacy formats
SDI audio	SDI embedded audio, up to 8 channels (HDMI source audio must be LPCM)

Audio input

Number/signal type.....	6 HDMI embedded audio 2 DisplayPort embedded audio 4 SDI embedded audio
Connectors.....	6 female HDMI 2 female DisplayPort 4 female BNC, SDI

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Audio output

Number/signal type.....	Stereo/mono, balanced/unbalanced 2 analog (1 program, 1 preview) 2 HDMI embedded 2 SDI embedded
Connectors.....	(2) 3.5 mm captive screw connector, 5 pole 2 HDMI female Type A 2 BNC female, SDI
Impedance.....	50 ohms unbalanced, 100 ohms balanced
Gain error.....	±0.5 dB channel to channel
Maximum level (Hi-Z).....	>+21 dBu balanced, >+15 dBu unbalanced

Communications – switcher

Serial control port.....	1 bidirectional RS-232, 3.5 mm, 3 pole captive screw connector (rear panel)
Baud rate and protocol.....	9600, 8 data bits, 1 stop bit, no parity (default)
Pin configuration.....	1 = Tx, 2 = Rx, 3 = GND
Ethernet control port.....	1 RJ-45 female connector (rear panel)
Data rate	10/100Base-T, half/full duplex with autodetect
Protocols.....	ARP, ICMP (ping), IP, TCP, DHCP, HTTP, HTTPS, Telnet, SSH, SFTP, IEEE 802.1X
Default settings.....	Link speed and duplex level = autodetected IP address = 192.168.254.254 Subnet mask = 255.255.0.0 Gateway = 0.0.0.0 DHCP = off
USB control port.....	1 female USB Mini-B (front panel)
Program control.....	Extron control/configuration program for Windows® Extron Simple Instruction Set (SIS™) Extron Internal web page

General

Power supply.....	Internal Input: 100-240 VAC, 50-60 Hz
Power consumption.....	69.8 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	2 fans, air flows right to left, as viewed from front panel
Thermal dissipation.....	236.28 BTU/hr
Rack mount	Yes, with pre-installed brackets
Enclosure type	Metal
Enclosure dimensions	3.5" H x 17.5" W x 12.75" D (2U high, full rack wide) (8.9 cm H x 44.4 cm W x 32.4 cm D) (Depth excludes connectors and knobs. Width excludes rack ears.)
Product weight	8.75 lbs (3.97 kg)
Regulatory compliance.....	CE, c-UL, C-Tick, FCC Class A, ICES, UL, VCCI
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.

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