

Specifications

NAV E 121

TRUE 4K specification

Max. 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max. Bit Depth per Color
4096 x 2160 at 60 Hz ¹	4:4:4	8 bit
3840 x 2160 at 60 Hz		10 bit
4096 x 2160 at 30 Hz		
3840 x 2160 at 30 Hz		
4096 x 2160 at 60 Hz		
3840 x 2160 at 60 Hz	4:2:0	

Frame rate ²	24, 25, 30, 50, or 60 fps
Chroma sampling ²	4:4:4, 4:2:2, or 4:2:0
Color bit depth ²	8 or 10 bits per color
Signal Type	DVI v 1.0, HDMI v1.4 and v2.0, HDCP v1.4 and v2.3
Max. video data rate	18 Gbps (6 Gbps per color)

NOTE: 14096 x 2160 @ 50-60 Hz is available only for HDMI connectors.

NOTE: ²Subject to the maximum data rate limit. Use our calculator at www.extron.com/8Kdatarate to determine video parameters supported by this data rate.

Video input and loop through

NOTE: *Appropriate DVI-D to HDMI or DisplayPort to HDMI cables or adapters are required for DVI or DisplayPort signal input.

Number/signal type.....	1 digital HDMI video (input)* 1 digital HDMI video (loop through)
Connectors.....	2 female HDMI type A: 1 for input, 1 for loop through
Resolution range.....	Up to 4K (4096x2160 at 60 Hz) and UHD (3840x2160 at 60 Hz)
Standards.....	DVI v1.0, HDMI v1.4 and v2.0, HDCP v1.4/v2.3

Video processing

Digital sampling.....	8 or 10 bits per color; 600 MHz pixel clock maximum
Compression	PURE3®
Bit rate.....	250 Mbps to 900 Mbps
Latency	<1 frame (encode/decode)**

NOTE: **Indicates minimum latency. Network and video processing dependencies apply.

Video output stream

Connector..... 1 RJ-45 connector

Audio

Sampling Rates..... 32, 44.1, 48 kHz

Bit depths 16, 20, 24 bit

Audio input

Number/signal type..... 1 digital stereo, de-embedded from HDMI

Connector..... 1 female HDMI type A (shared with video input)

Supported formats..... LPCM (2 channel)

Audio output stream

Number/signal type..... 1 audio over IP LPCM

1 audio over IP AES67*

Connector..... 1 RJ-45 connector

NOTE: *AES67 specifications are compatible with the Extron DSPs.

Network interconnection (NAV)

Connector type..... 1 RJ-45 female

Ethernet standards 1GbE (802.3ab), 10/100/1000 Base-T, half/full duplex with autodetect

Termination Auto-MDIX, TIA/EIA T568B

Power over Ethernet (PoE) Complies with IEEE 802.3at Type 2 (PoE+), class 4

Protocols

Streaming..... SRTP (AES-128) on video and audio

Transport..... Multicast UDP

All supported DHCP, HTTPS, IGMPv2/v3, IPv4, LLDP, PTPv2, QoS, SSH, TCP, UDP

Security AES-256, 802.1X, Active Directory authentication

Signal transmission distance 330' (100 m) using CAT 5e/6/6a/7 cables

Communications - external devices

Serial

Quantity/type..... 1 bidirectional RS-232

Connector (1) 3.5 mm captive screw connector, 3 pole

Baud rate and protocol..... 300 to 115200 baud (9600 baud = default)

8 (default) or 7 data bits

1 (default) or 2 stop bits

no parity (default), even or odd parity

Pin configuration..... Tx, Rx, and Gnd

USB configuration port

Quantity/type..... 1 front panel USB Type C

Standard Ethernet over USB

General

Power supply	External (not included)
	Input: 100-240 VAC, 50-60 Hz
	Output: 12 VDC, 2.0 A, 24 watts

NOTE: Each 1G endpoint can be powered either locally by an external power supply or remotely using optional PoE+.

Power consumption	
Device	13.2 watts
Device and power supply	14.6 watts
PoE	Complies with IEEE 802.3at Type 2 (PoE+), class 4
Ambient 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 85%, noncondensing
Cooling	Fan, air flows from top to rear
Thermal dissipation	
Device	44.2 BTU/hr
Device and power supply	49.0 BTU/hr
Device with PoE	52.7 BTU/hr
Mounting	
Rack mount.....	Yes, with optional rack shelf
Furniture mount.....	Yes, with optional under desk mounting kit
Enclosure type	Metal
Enclosure.....	1.00" H x 4.3" W x 6.00" D* (1" high, quarter-rack wide)
	(25 mm H x 109 mm W x 152 mm D*)
	(Depth excludes connectors)
Product weight	0.8 lbs (0.38 kg)
Regulatory compliance.....	CE, c-UL, UL,C-tick, FCC Class A, ICES, VCCI,
	Complies with the appropriate requirements of RoHS, WEEE
Product warranty	3 years parts and labor
Everlast power supply warranty.....	7 years parts and labor

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

NOTE: Specifications are subject to change without notice.

NOTE: Shipping weights and dimensions are available at www.extron.com.

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