

NAV E 222

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		10 bit
4096 x 2160 at 30 Hz		
3840 x 2160 at 30 Hz		
4096 x 2160 at 60 Hz	4:2:0	
3840 x 2160 at 60 Hz		

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

Number/signal type.....	1 digital USB-C (DisplayPort Alt Mode, 2 or 4 lanes) (input)* 1 digital HDMI video (input)* 1 digital HDMI video (loop through)
Connectors.....	1 female USB-C (input) 1 female HDMI type A (input) 1 female HDMI type A (loop through)
Resolution range.....	Up to 4K (4096x2160 at 60 Hz) and UHD (3840x2160 at 60 Hz)
Standards.....	DVI v1.0, HDMI v2.0b, DisplayPort 1.2 (USB-C DP Alt Mode), HDCP v1.x and v2.3

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

Specifications • NAV E 222 (Continued)

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 USB-C (DisplayPort Alt Mode) 1 digital stereo, de-embedded from HDMI 1 audio over IP (AES67)
Connectors	1 female USB-C (shared with video input) 1 female HDMI type A (shared with video input)
Supported format	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.

USB

USB features supported	Display-Port Alt-Mode video (2-lane, 4-lane) USB-C power delivery
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USB host input

Number/signal type	1 Display-Port Alt-Mode (input)*
Connector	1 female USB Type-C
USB-C power delivery	Up to 100W power delivery at the following profiles:** (15W) 5 VDC @ up to 3 A, (27W) 9 VDC @ up to 3 A, (36W) 12 VDC @ up to 3 A (45W) 15 VDC @ up to 3 A, (60W) 20 VDC @ up to 3 A, (100W) 20 VDC @ up to 5 A

NOTE: **USB-C power delivery voltages are only available when a UPI 100 is used.

USB-C PWR insert

Number/signal type	1 USB power insert
Connector	(1) 2-pole captive screw, 5 mm
USB-C power insert power	25 VDC, up to 110 watts

Network interconnection (NAV)

Connector type	1 RJ-45 female
Ethernet standards	1GbE (802.3ab), 10/100/1000 Base-T, half/full duplex with autotdetect
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, IPv6, 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

Specifications • NAV E 222 (Continued)

Communications - external devices

Serial

Quantity/type	1 bidirectional RS-232
Connector	(1) 3.5 mm captive screw connector, 5 pole (shared with IR port)
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

IR control

Quantity/type	1 TTL level (0 to 5 V) infrared (carrier and non-carrier) up to 300 kHz
Connector	(1) 3.5 mm captive screw connector, 5-pole (shared with RS-232)
Pin configuration	S = signal and G = Gnd
IR output carrier frequency	30 kHz to 300 kHz

CEC

Quantity/type	1 digital output
Connector	1 female HDMI type A

Digital I/O

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

Input voltage range	0 to 24 VDC, clamped at +30 VDC
Input impedance	>10k ohm
Programmable pullup	1k ohm to +5 VDC
Threshold low to high	2.8 VDC
Threshold high to low	2.0 VDC

Digital outputs	250 mA sink from 24 VDC max
Pin configuration	1, 2 = Digital I/Os 1 and 2; 3 = 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
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NOTE: Each 1G endpoint can be powered either locally by an external power supply or remotely using optional PoE+.
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Power consumption

Device	17 watts
Device and power supply	19 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 +104 °F (0 to +40 °C) / 10% to 85%, noncondensing
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Cooling	Fan, air flows from top to rear
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Thermal dissipation

Device	53.6 BTU/hr
Device and power supply	60.2 BTU/hr
Device with PoE	61.5 BTU/hr

Mounting

Rack mount	Yes, with optional rack shelf
Furniture mount	Yes, with optional under desk mounting kit

Enclosure type	Metal
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Specifications • NAV E 222 (Continued)

Enclosure	1.00" H x 8.75" W x 6.00" D* (half rack wide) (25 mm H x 222 mm W x 152 mm D*) (Depth excludes connectors)
Product weight	1.5 lbs (0.7 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 ±10%.

NOTE: Specifications are subject to change without notice.

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

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