

Specifications

NAV 10E 401 D

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		
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		

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 v1.0, 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* 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.....	150 Mbps to 9.5 Gbps
Latency.....	<1 frame (encode/decode)**

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

Video output stream

Number/signal type.....	1 PURE3 digital video over IP
Connector.....	1 SFP+ connector (SM or MM)

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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
Connectors	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 SFP+ connector (SM or MM)

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

Network interconnection (NAV)

Number/signal type.....	2 fiber optic
Connectors	(1) 10G SFP+ connector, 2 LC connectors
Termination	MDI (SFP+)
Ethernet standards	10 Gb Ethernet (802.3ae), 10GBase-LR (SFP+) SM, and 10GBase-SR (SFP+) MM
Protocols	
Streaming.....	SRTP (AES-128) on video and audio
Transport.....	Multicast UDP
All supported	DHCP, HTTPS, IGMPv2/v3, IPv4, PTPv2, QoS, SSH, TCP, UDP
Security	AES-256, 802.1X, Active Directory authentication
Signal transmission distance	
Singlemode	10 km (6.25 miles) with singlemode (SM) cables with 10GBASE-LR (SFP+)
Multimode	400 m (1312') with 50/125 µm OM4 cables with 10GBase-SR (SFP+)

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 multimode, 1310 nm for singlemode
Transmission power	
Singlemode	-5.2 dBm, minimum
Multimode	-3.3 dBm, minimum
Maximum receiver sensitivity	
Singlemode	-12.6 dBm, maximum
Multimode	-13.0 dBm, maximum
Optical loss budget	
Singlemode	7.4 dB, maximum
Multimode	9.7 dB, maximum

Network extension (EXT)

Connector.....	1 RJ-45 female
Termination	Auto-MDIX, TIA/EIA T568B
Ethernet standards	1GbE, (802,3ab), 10/100/1000 Base-T, half/full duplex with autodetect
Signal transmission distance	330' (100 m) using CAT-5e/6/6a/7 cables

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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

USB configuration port

Quantity/type.....	1 front panel USB mini-B
Standard	Ethernet over USB

General

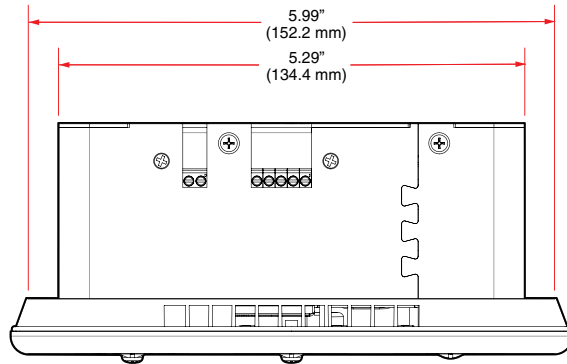
Power supply	External Input: 100-240 VAC, 50-60 Hz Output: 12 VDC, 2.0 A, 24 watts
Power consumption	
Device	TBD watts nominal, TBD watts max.
Device and power supply	TBD watts nominal, TBD watts max.
PoE	TBD watts
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +104 °F (0 to +40 °C) / 10% to 85%, noncondensing
Cooling	Fan, air flows from bottom to top
Thermal dissipation	
Device	TBD BTU/hr
Device and power supply	TBD BTU/hr
Mounting	
Rack mount.....	No
Furniture or wall mount	Yes, in a standard US 3-gang electrical junction box or mud ring.
Enclosure type	Metal

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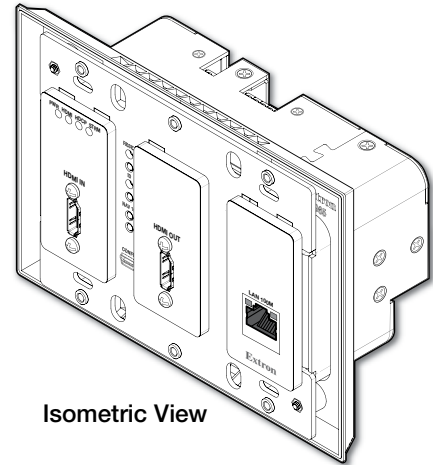
Enclosure

Faceplate	4.5" H x 6.4" W x 0.72" D (11.4 cm H x 16.3 cm W x 1.82 cm D)
Device	2.72" H x 5.29" W x 1.98" D* (6.9 cm H x 13.4 cm W x 5.0 cm D*)

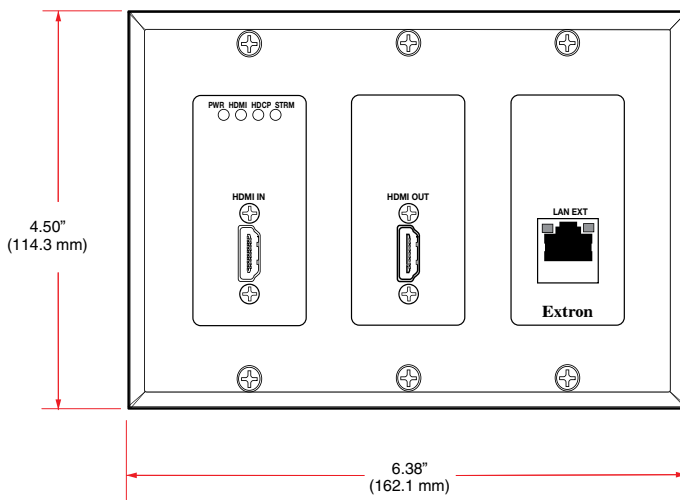
NOTE: Depth excludes connectors. Fits the openings in a 3-gang decorator-style wallplate.



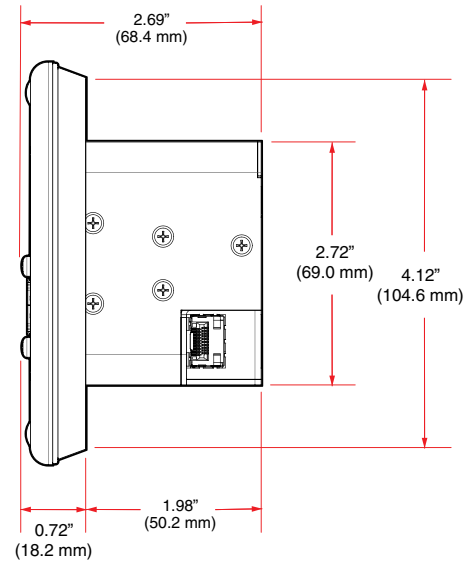
Top View



Isometric View



Front View



Side View

Product weight	TBD lbs (TBD 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.