

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

Frame rate² 24, 25, 30, 50, or 60 fps
 Chroma sampling² 4:4:4, 4:2:2, or 4:2:0
 Color bit depth² 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 250 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	-2.8 dBm, minimum
Maximum receiver sensitivity	
Singlemode	-12.6 dBm, maximum
Multimode	-11.1 dBm, maximum
Optical loss budget	
Singlemode	7.4 dB, maximum
Multimode	8.3 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

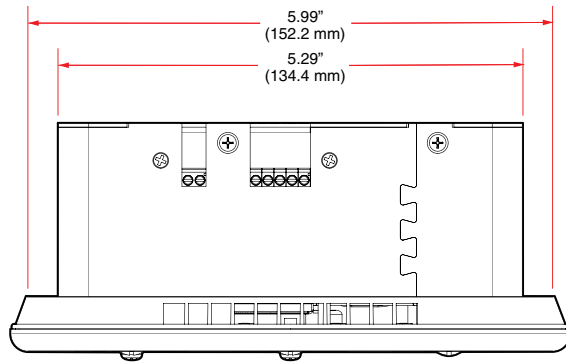
Quantity/type.....	1 front panel USB mini-B
Standard	Ethernet over USB

General

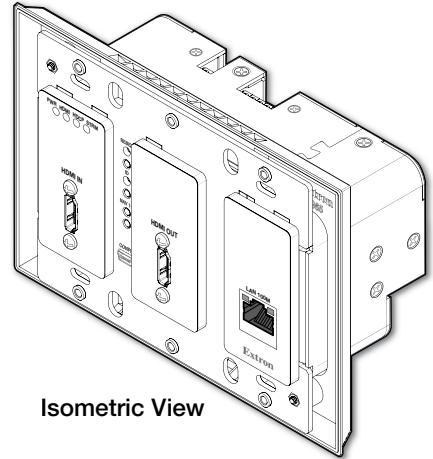
Power supply	External Input: 100-240 VAC, 50-60 Hz Output: 12 VDC, 2.0 A, 24 watts
Power consumption	
Device	21.7 watts
Device and power supply	24.8 watts
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +104 °F (0 to +40 °C) / 10% to 85%, noncondensing
Cooling	Fan, air flows from bottom to top
Thermal dissipation	
Device	73.2 BTU/hr
Device and power supply	83.5 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
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.

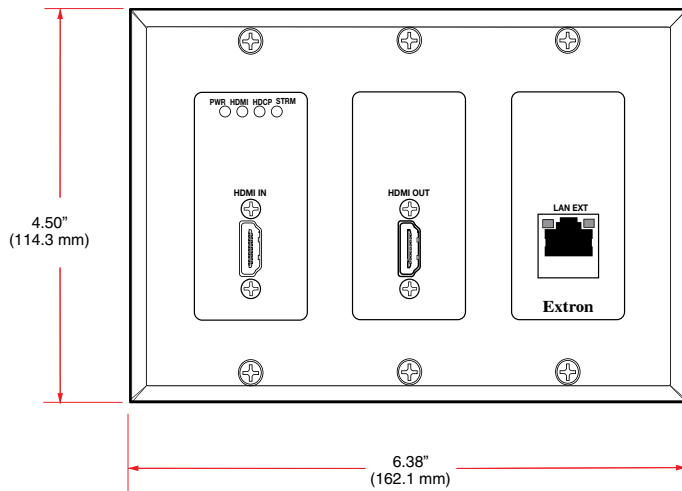
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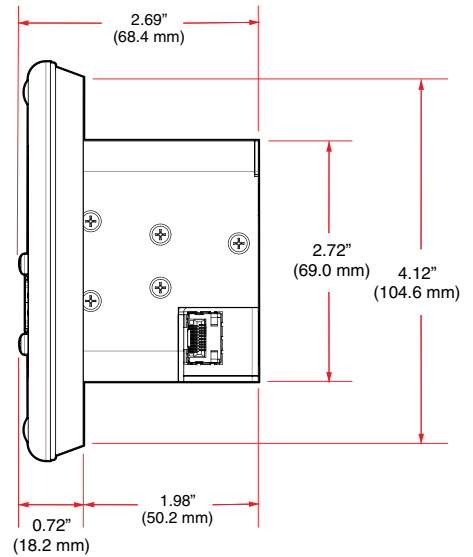
Top View



Isometric View



Front View



Side View

- Product weight 1.45 lbs (0.66 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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