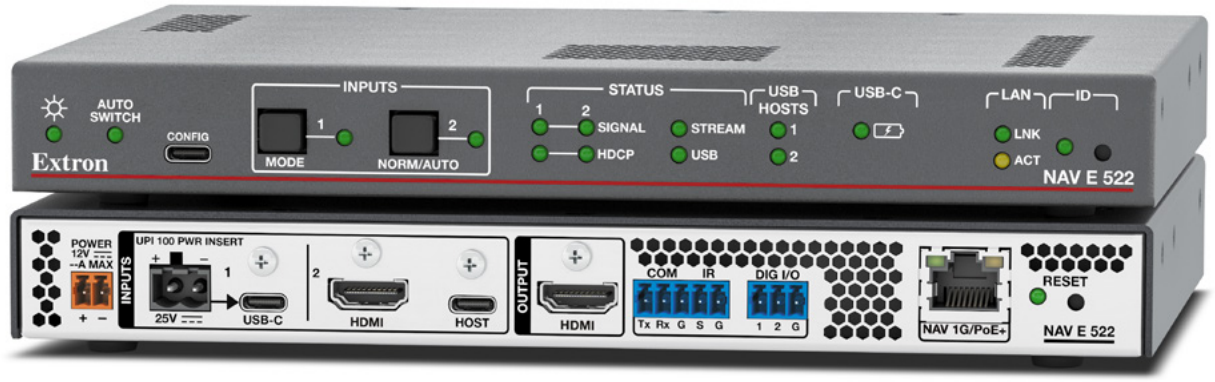
NAV E 522

1G PRO AV OVER IP SWITCHING ENCODER WITH USB-C, HDMI, AND USB DATA



The **NAV E 522** is a two-input Pro AV over IP switching encoder that streams real-time, visually lossless video, audio, and USB data over 1 Gbps Ethernet at efficient bitrates from a USB-C® or HDMI® source. Versatile input switching modes are configurable as auto or manual switching. USB-C host inputs support USB 2.0 and HID connecting one USB host to multiple USB device endpoints. A single USB-C cable carries video, audio, USB data, and up to 100 W power with the optional UPI 100 power inserter conveniently located up to 100 meters from the encoder. Purpose-built to support demanding professional AV applications, the highly scalable and powerful NAV® platform enables secure deployment of AV signals to thousands of endpoints.

- **Single USB-C cable for video, audio, data, and power delivery**
- **Connect one USB host to multiple endpoints with multiple USB devices**
- **Patented PURE3® codec streams visually lossless 4K/60, 4:4:4 video, with audio, USB data, and control over 1 Gbps IP networks with ultra-low latency**
- **Powers and charges a USB-C device with up to 100 watts with the optional UPI 100 power inserter at up to 100m**
- **Convenient automatic and manual input switching modes are configurable from the front panel, Web UI, or SIS control system commands**
- **Enhanced AES67 capability can transmit or receive an AES67 audio stream providing compatibility with Extron and third-party DSP processors**

Extron

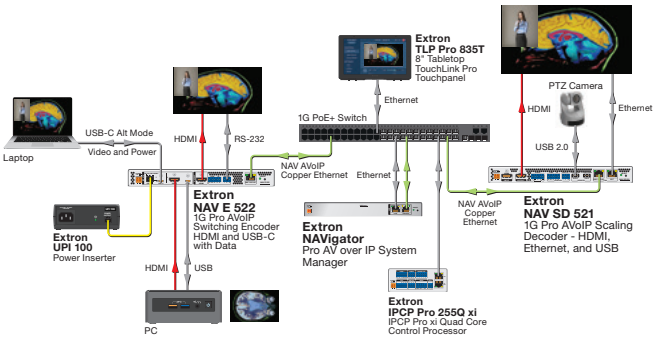
DESCRIPTION

The **NAV E 522** is two input Pro AV over IP USB-C® and HDMI® switching encoder with USB host data that utilizes the Extron-patented PURE3® codec to deliver groundbreaking performance with real time, visually lossless video at resolutions up to 4K/60 Hz with 4:4:4 chroma sampling and ultra-low latency. It can connect as a USB host to multiple NAV SD 521 decoders and their connected USB devices. In addition, HDMI and AES67 audio over IP facilitates flexible integration with Extron DSPs or other IP-enabled audio components.

FEATURES

- **Configurable Power Priority selects PoE+ or line power priority for power management and redundancy**
- **Confidence Preview of the encoder video is available in either the endpoint or NAVigator browser interface, or TLP Pro 35 Series**
- **PURE3 codec delivers improved network resiliency tolerating the bursty network traffic found on converged networks, and is the ONLY codec designed for the Pro AV industry that delivers robust, pristine video on converged or isolated networks**
- **PURE3 Intelligent Selective Streaming leverages periods of low motion video to achieve extremely low bitrates while maintaining lossless video performance, significantly reducing the bandwidth required**

APPLICATION DIAGRAM



SPECIFICATIONS

TRUE 4K SPECIFICATION

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

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	DVI v 1.0, HDMI® v1.4 and v2.0, DisplayPort 1.2 (Alt Mode), HDCP v1.4 and v2.3
Max. video data rate	
HDMI	18 Gbps (6 Gbps per color)
DisplayPort (Alt Mode)	21.6 Gps (5.4 Gbps per lane)

VIDEO INPUT AND LOOP THROUGH	
Connectors	1 female USB-C (input) 1 female HDMI type A (input) 1 female HDMI type A (loop through)
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)**
VIDEO OUTPUT STREAM	
Number/signal type	1 PURE3 digital video over IP
AUDIO OUTPUT STREAM	
Number/signal type	1 audio over IP LPCM 1 audio over IP AES67*
USB	
USB features supported	USB-C power delivery
NETWORK INTERCONNECTION (NAV)	
Ethernet standards	1GbE (802.3ab), 10/100/1000 Base-T, half/full duplex with autodetect
Protocols	
Streaming	SRTP (AES-128) on video and audio
Transport	Multicast UDP
Security	AES-256, 802.1X, Active Directory authentication
GENERAL	
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 warranty	3 years parts and labor

Model	Version Description	Part number
NAV E 522	1G Switching Encoder with USB-C, HDMI and USB Data	60-2069-02
UPI 100	100 watts USB Power Delivery	60-2062-01

For complete specifications, please go to www.extron.com
Specifications are subject to change without notice.

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