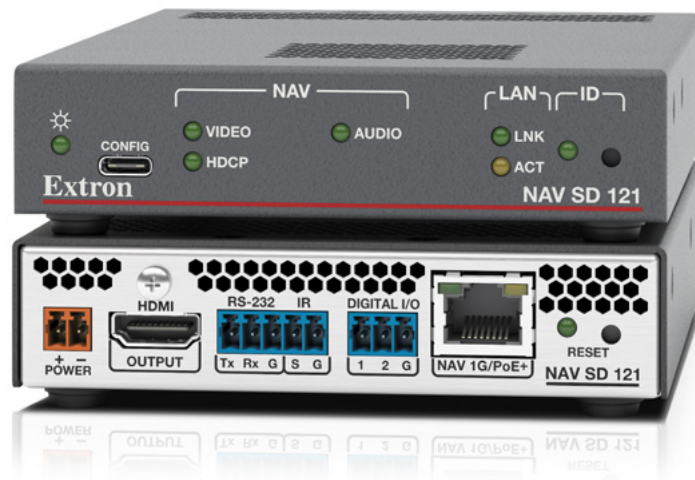


# NAV SD 121

1G PRO AV OVER IP COMPACT SCALING DECODER WITH HDMI



The **NAV SD 121** is a powerful, compact scaling decoder designed for Pro AV over IP applications. It delivers visually lossless 4K/60 video with 4:4:4 chroma sampling over isolated or converged IP networks. The NAV SD 121 can be powered with PoE+ and mounted discretely behind a display or near a projector and offers RS-232, Digital I/O, and IR control ports. The decoder also has flexible audio options with embedded HDMI and AES67 audio over IP in or out for flexible integration with Extron or third-party DSP processors.

- ▶ Compact and economical scaling decoder
- ▶ Advanced Vector™ 4K scaling technology ensures critical 4K image quality
- ▶ PURE3® codec delivers improved network resiliency
- ▶ HDMI output supports resolutions up to 4K/60 @ 4:4:4 and HDCP 2.3
- ▶ Expanded AES67 in or out
- ▶ Configurable Power Priority

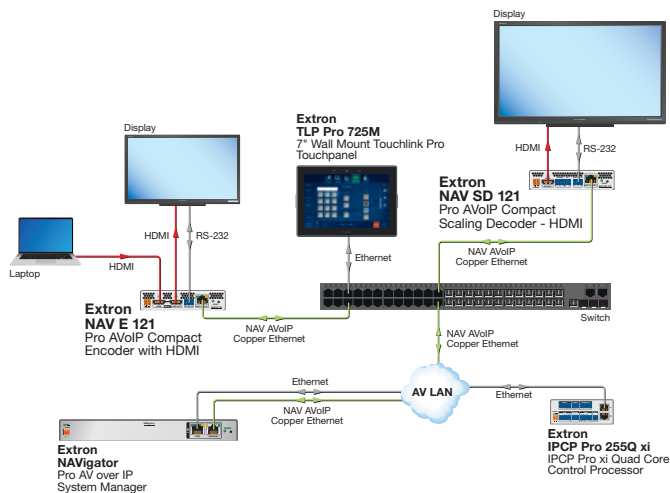
## DESCRIPTION

The **NAV SD 121** is a compact Pro AV over IP scaling decoder that decodes and scales real-time, high-quality video and audio signals over 1 Gbps IP networks at low bitrates. Utilizing Extron's patented PURE3® codec, it delivers groundbreaking performance with high quality video at resolutions up to 4K/60 with 4:4:4 chroma sampling and ultra-low latency. The NAV SD 121 is fully compatible with NAV® 10 Gbps endpoints, increasing scalability for large deployments. It also supports AES67 audio over IP, facilitating flexible integration with DMP Plus DSPs or other IP-enabled audio components. 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.

## KEY FEATURES

- ▶ **Compact and economical scaling decoder receives visually lossless 4K/60 4:4:4 video, audio, and control over 1 Gbps IP networks.**
- ▶ **Advanced Vector™ 4K scaling technology ensures critical 4K image quality, best-in-class upscaling and downscaling, with enhanced color accuracy and picture detail.**
- ▶ **PURE3® codec delivers improved network resiliency tolerating the bursty network traffic found on converged networks. It is the ONLY codec designed for the Pro AV industry that delivers robust, pristine video on converged or isolated networks.**

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

Frame rate <sup>2</sup>	24, 25, 30, 50, or 60 fps
Chroma sampling <sup>2</sup>	4:4:4, 4:2:2, or 4:2:0
Color bit depth <sup>2</sup>	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: <sup>2</sup>Subject to the maximum data rate limit. Use our calculator at [www.extron.com/8Kdatarate](http://www.extron.com/8Kdatarate) to determine video parameters supported by this data rate.

### VIDEO INPUT STREAM

Number/signal type	1 PURE3® digital video over IP
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### VIDEO PROCESSING

Latency	<1 frame (encode/decode)
Scaling	Vector™ 4K

### VIDEO OUTPUT

Number/signal type	1 digital HDMI video
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

### AUDIO OUTPUT

Number/signal type	1 digital stereo, de-embedded from HDMI 1 audio over IP (AES67)
Supported formats	LPCM (2 channel)

### NETWORK INTERCONNECTION (NAV)

Ethernet standards	1GbE (802.3ab), 10/100/1000 Base-T, half/full duplex with autodetect.
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Protocols	SRTP (AES-128) on video and audio
Streaming	Multicast UDP
Transport	DHCP, HTTPS, IGMPv2/v3, IPv4, IPv6, PTPv2, QoS, SSH, TCP, UDP
All supported	

### GENERAL

Power consumption	
Device	15.2 watts
PoE	Complies with IEEE 802.3at type 2 (PoE+), class 4
Enclosure	1.00" H x 4.3" W x 6.00" D (quarter rack wide) (25 mm H x 109 mm W x 152 mm D) (depth excludes connectors)
Product warranty	3 years parts and labor

Model	Version Description	Part number
NAV SD 121	1G Pro AV over IP Compact Scaling Decoder - HDMI	60-2040-02

For complete specifications, please go to [www.extron.com](http://www.extron.com)  
Specifications are subject to change without notice.

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