

NAV SD 511

1G FIBER PRO AV OVER IP SCALING DECODER
WITH HDMI, USB, AND ETHERNET



The **NAV SD 511** is a Pro AV over IP scaling decoder that decodes and scales ultra-low latency, high quality video, audio, USB, and Ethernet over a 1 Gbps Optical Ethernet interface. The NAV® System is the only solution that offers both 1 and 10 Gbps encoders and decoders with full interoperability across both systems. The NAV SD 511 is ideal for educational spaces, board rooms, conference rooms, corporate training rooms, and mission critical applications that require live, high quality, ultra-low latency video. Purpose-built to support demanding professional AV applications, the highly scalable and powerful NAV platform enables secure deployment of AV signals from one to thousands of endpoints.

- ▶ Visually lossless video, audio, USB, and Ethernet decoding over a standard Gigabit Fiber Ethernet interface and IP networks
- ▶ Supports HDMI 2.0 at resolutions up to 4K/60 @ 4:4:4
- ▶ Advanced Extron Vector™ 4K scaling technology ensures critical-quality 4K imagery
- ▶ AES67 audio over IP support enables integration with Extron DSPs or other IP-enabled audio components
- ▶ USB 2.0 extension over the NAV network interface
- ▶ Ethernet expansion over the NAV network interface
- ▶ Seamless interoperability with 1 and 10 Gbps NAV encoders for flexible system design
- ▶ FIPS 140-2 verified for protection of sensitive data
- ▶ SRTP - Secure Real Time Transport Protocol for enhanced security with encrypted streaming

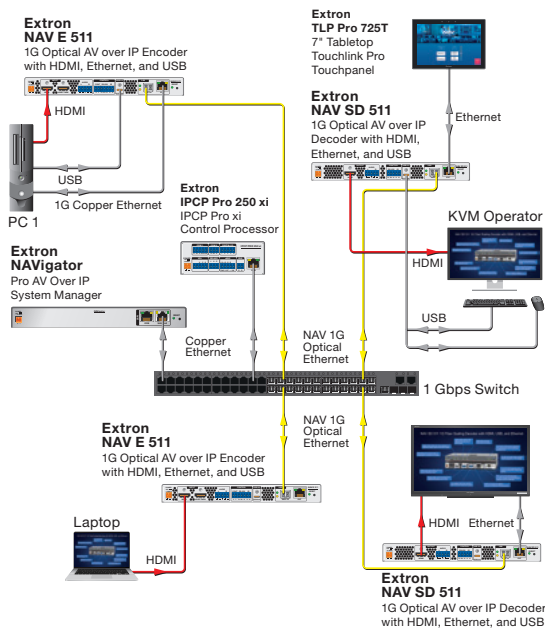
DESCRIPTION

The **NAV SD 511** is a 1 Gbps fiber Pro AV over IP scaling decoder that utilizes Extron's 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 with ultra-low latency. Adjustable bitrates facilitate transmission over 1 Gbps networks and compatibility with NAV 1 and 10 Gbps endpoints. Support for analog and embedded digital HDMI audio and AES67 audio over IP facilitate flexible integration with Extron DSPs or other IP-enabled audio components.

KEY FEATURES

- ▶ Decodes and scales video, audio, USB and Ethernet over standard Gigabit Ethernet Fiber interface and IP networks
- ▶ Supports HDMI 2.0 at resolutions up to 4K/60 @ 4:4:4 chroma sampling
- ▶ PURE3 Codec provides lossless video and ultra-low latency
- ▶ PURE3 ISS - Intelligent Selective Streaming delivers efficient bitrates
- ▶ Compatible with 1 and 10 Gbps NAV encoders
- ▶ WindowWall® videowall mode supports a mix of full screen and image magnification across multiple displays
- ▶ Standard single or multimode fiber with LC connectors for robust, reliable transmission with high noise immunity
- ▶ 802.1X port-based Network Access Control
- ▶ Microsoft® Active Directory® integration for user management

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 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 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: ¹ 4096 x 2160 @ 50-60 Hz is available only for HDMI connectors.	
NOTE: ² Subject 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 STREAM

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

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

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 v2.0, HDCP v1.4/v2.3

AUDIO OUTPUT

Number/signal type	1 analog stereo, unbalanced or balanced 1 digital stereo, de-embedded from HDMI
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NETWORK INTERCONNECTION (NAV)

Ethernet standards	1GbE (802.3z), 1000 Base-LX (SFP) SM, 1000 Base-SX (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

GENERAL

Power supply	External Input: 100-240 VAC, 50-60 Hz
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)
Product warranty	3 years parts and labor
Everlast power supply warranty	7 years parts and labor

Model	Version Description	Part number
NAV SD 511	1G Fiber HDMI, Eth., USB Scaling Decoder-Multimode	60-1958-07
NAV SD 511	1G Fiber HDMI, Eth, USB Scaling Decoder-Singlemode	60-1958-08

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

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