

CEN-NVS200

Network Video Streamer

- > Delivers live streaming video to touch screens, mobile devices, and Web browsers
- > Accepts the analog video signal from a camera or other video source
- > Compatible with most Crestron® touch screens^[2]
- > Supports Android™, iPhone®, iPad®, and iPod touch® devices running the Crestron App
- > Compatible with Crestron XPanel
- > Supports real-time H.264, MPEG-4, and Motion-JPEG compression
- > Supports resolutions up to 720x480 @ 30fps or 720x576 @ 25fps
- > Supports multiple simultaneous streams with different settings
- > Includes intelligent tamper detection and triple-window motion detection
- > Includes digital I/O for external sensor and alarm
- > Provides event notification to Crestron control systems and third-party applications
- > Enables RS-485 control of Pelco® D and other popular PTZ cameras
- > Supports text captions and time stamp overlay
- > Supports privacy masks
- > Supports audio monitoring^[1]
- > Enables live recording of video, audio, and snapshots
- > Onboard SD memory card slot
- > PoE network powered for streamlined connectivity
- > Easy configuration, viewing, and operation via Web browser or Crestron Toolbox™
- > Includes bracket for surface or rack rail mounting

The CEN-NVS200 is the perfect accessory for every Crestron® connected home, school, or business, providing a powerful solution for delivering video over Ethernet from a camera or other analog video source. Audio is also supported to enable monitoring of an audio signal interleaved with the video signal^[1]. Supporting multiple streams with different formats and quality settings, the CEN-NVS200 is ideal for streaming video and audio simultaneously to a variety of Crestron touch screens, computers, and mobile devices.

Multi-Platform Compatibility

The CEN-NVS200 works with most [Crestron touch screens](#)^[2], allowing for monitoring of a door entry camera, nursery camera, or any other composite video source from remote locations throughout the home or workplace. You can also use it to add live video monitoring as part of an [XPanel](#) control solution running on a computer, or to any iPhone®, iPad®, or Android™ device running the [Crestron App](#).

High-Quality Streaming

Video streaming capabilities include high-performance H.264, MPEG-4, and MJPEG compression formats, affording compatibility with Crestron devices and software as well as any popular Web browser. A versatile range of settings allows for optimizing each individual stream for its intended application and the capabilities of the network. Video



compression settings include frame rate, resolution, and image quality, plus adjustable brightness, contrast, saturation, and sharpness. The CEN-NVS200 supports very high-quality video streaming up to 30 fps @ 720x480 (NTSC) or 25 fps @ 720x576 (PAL) resolutions.^[2]

Audio Monitoring

The CEN-NVS200 enables monitoring of live audio along with the video signal by connecting an external microphone or line-level source.^[1]

Security Features

Intelligent security features include motion and tamper detection, text overlay, and privacy masking. Up to three motion detection windows can be defined to sense movement in specific areas of the video image. The tamper detection function can detect if the camera has been disabled or disconnected, or if someone has blocked, repositioned, defocused, or spray painted the camera lens. Additionally, an external sensor can be connected to the CEN-NVS200 via its digital input port. Automated control signals can be triggered in response to any motion, tamper, or external sensor event, enabling logging and notification over the network via Crestron touch screens, mobile devices, and third-party applications.

Text overlay capability enables clear identification of the camera image, supporting the display of custom captions, time stamp, and frame rate. Privacy masking allows up to 5 areas of the camera image to be obscured.

Live Recording

Built-in recording lets you capture live video, audio, and snapshots right on board, eliminating the need for external recording devices and minimizing network bandwidth consumption. Recording can be started manually via a Web browser, or automatically in response to motion detection or some other trigger. The MP4 video and JPEG or BMP image files can be saved over the network to a computer or server, or locally to an onboard memory card (not included). Local storage affords maximum reliability, allowing recording to continue even if network communications are interrupted.

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CEN-NVS200 – Front and Rear Views

PTZ Camera Control

An RS-485 control port is included on the CEN-NVS200, providing for remote control of a pan/tilt/zoom camera. Select serial drivers are built-in to support Pelco® D and other popular models.

Power over Ethernet

The CEN-NVS200 gets its power right through the LAN wiring using PoE technology. PoE (Power over Ethernet) eliminates the need for a local power supply or any dedicated power wiring. A PoE Injector ([PWE-4803RU](#)⁽³⁾) simply connects in line with the LAN cable, allowing for installation at any convenient location. For applications with multiple video streamers or other PoE-powered devices, a Crestron PoE switch ([CEN-SW-POE-5](#) or [CEN-SWPOE-16](#)⁽⁴⁾) may be used, allowing numerous devices to be powered from a single location.

SPECIFICATIONS

Video

Input Signal Types: NTSC or PAL composite

Compression: H.264 (MPEG-4 part 10 AVC), MPEG-4 (H.263/MPEG-4 part 2), MJPEG

Streaming: Up to 4 simultaneous streams (fourth stream limited to QCIF resolution); H.264 or MPEG-4 over UDP, TCP, HTTP, or HTTPS; MPEG-4 multicast; MJPEG over HTTP or HTTPS

Resolutions: QCIF 176x120 & 176x144;
CIF 352x240 & 352x288;
4CIF 704x480 & 704x576;
D1 720x480 & 720x576

Frame Rates: Up to 30/25 fps @ 720x480 (NTSC) or 720x576 (PAL)

Users: Live viewing for up to 10 clients

Video Features: Triple-window motion detection; tamper detection; time stamp, text caption, and frame rate overlay; privacy masks; brightness, contrast, saturation, and sharpness adjustment; local video and snapshot recording

Audio

Input Signal Type: Analog line-level or electret microphone

Output Signal Type: Analog line-level

Compression: AAC, G.711

Bit Rates: AAC: 16 to 128 kbps;

G.711: 64 kbps μ -Law or A-Law mode selectable

Ethernet

Standards: 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, IEEE 802.3af and 802.3at Type 1 compliant

Protocols: IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP, 802.1x, CIP

Security: Multi-level user access, password protection, IP address filtering, HTTPS encrypted data transmission, 802.1x port-based authentication for network protection

Memory

RAM: 128 MB

Flash: 128 MB

Memory Card: Supports SD and SDHC memory cards up to 16 GB (not included)

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Connectors

MEMORY: (1) SD memory card slot

VIDEO: (1) BNC female (BNC-to-RCA adapter included);

Composite video input;

Maximum Input Level: 1 Vp-p nominal;

Input Impedance: 75 Ohms nominal

AUDIO OUT: (1) 3.5 mm 3-conductor TRS mini-phone jack;

Unbalanced stereo line-level audio output;

Output Level: 0.707 Vrms nominal;

Output Impedance: 16 Ohms minimum

AUDIO IN: (1) 3.5 mm 3-conductor TRS mini-phone jack, mic/line input supporting an electret condenser microphone (ECM) or unbalanced stereo source ("tip" and "ring" are internally summed to mono);

Maximum Input Level: 1 Vrms maximum;

Input Impedance: 80k Ohms nominal;

Mic Bias: Provides bias voltage on "ring" for ECM

LAN PoE: (1) 8-pin RJ45 female;

10Base-T/100Base-TX Ethernet port;

Power over Ethernet compliant

P O I G X X + -: (1) 8-position 2.54 mm screwless terminal block;

Camera control and digital I/O ports;

RS-485 ("+" and "-" terminals): Camera control port; includes built-in drivers for DynaDome/SmartDome, Pelco D, Pelco P, LILIN, & Samsung SCC-643 cameras;

Digital Input ("I" terminal): Rated for 50 mA @ 12 Volts DC, 2 kV isolated, logic threshold 3 Volts DC;

Digital Output ("O" terminal): 400 mA sink from maximum 40 Volts DC, 2 kV isolated;

12V ("P" terminal): Sources 400 mA @ 12 Volts DC power for peripheral devices;

All ports referenced to ground ("G" terminal);

Note: Do not connect anything to the "X" terminals

Controls & Indicators

HW RESET: (1) Recessed pushbutton, reboots the video streamer

NET: (1) Green LED, indicates Ethernet link and other status

PWR: (1) Red LED, indicates power supplied from PoE

Power Requirements

Power over Ethernet: IEEE 802.3at Type 1 (802.3af compatible) Class 0 (12.95 W) PoE Powered Device

Environmental

Temperature: 32° to 131° F (0° to 55° C)

Humidity: 20% to 80% RH (non-condensing)

Enclosure

Aluminum construction; freestanding, surface, or rack-rail mount (detachable mounting bracket included)

Dimensions

Height: 1.38 in (35 mm)

Width: 2.96 in (75 mm), 3.95 in (101 mm) with mounting bracket

Depth: 5.40 in (137 mm)

Weight

8.5 oz (240 g);

11.0 oz (310 g) with bracket

MODELS & ACCESSORIES

Available Models

CEN-NVS200_EXCLUDES_PWE: Network Video Streamer

CEN-NVS200-PWE: Network Video Streamer w/PoE Injector

Included Accessories

PWE-4803RU: PoE Injector (Qty. 1 included with CEN-NVS200-PWE only)

Available Accessories

PWE-4803RU: PoE Injector

CEN-SW-POE-5: 5-Port PoE Switch

CEN-SWPOE-16: 16-Port Managed PoE Switch

Notes:

1. Audio monitoring requires connection of an ECM (electret) microphone or line-level source to the CEN-NVS200. When used with a Rava® compatible touch screen, in addition to receiving interleaved audio from the CEN-NVS200, a "talk-back" signal can also be transmitted from the touch screen to the CEN-NVS200. However, performance may vary and may not be suitable for 2-way intercom applications. Talk-back requires connection of an amplified speaker to the CEN-NVS200. The speaker and microphone are not included.
2. Actual video and audio streaming capabilities of each touch screen model may vary. Consult the spec sheet for each model to verify capabilities.
3. **PW-4803RU** included as part of CEN-NVS200-PWE package, or available separately.
4. Item(s) sold separately.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

The specific patents that cover Crestron products are listed online at: patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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