

**NEXTIVA S1801E-R COMPACT, HIGH RESOLUTION H.264 1-PORT ETHERNET VIDEO
SERVER/RECEIVER**

TECHNICAL SPECIFICATIONS

SECURITY SYSTEM

DIVISION – 28 ELECTRONIC SAFETY AND SECURITY

LEVEL 1 __28 20 00 ELECTRONIC SURVEILLANCE

LEVEL 2 __28 23 00 VIDEO SURVEILLANCE

LEVEL 3 __28 23 29 VIDEO SURVEILLANCE REMOTE DEVICES AND SENSORS

PART 2 – PRODUCTS

2.01 GENERAL

- A. All equipment and materials used shall be standard components that are regularly manufactured and utilized in the manufacturer's system.
- B. All equipment and components shall have been thoroughly tested and proven in actual use.
- C. All equipment and components used shall be RoHS compliant and WEEE certified.

2.02 SYSTEM SPECIFICATIONS

- A. The digital video server (DVS) shall be compatible with the following video management software applications:
 - a. Nextiva Video Management Software
 - b. Nextiva SConfigurator
- B. The DVS shall be compatible with the following hardware-based digital video encoders:
 - a. Nextiva S1800e Multi-Port Series (S1808e, S1808e-A, S1816e, S1816e-A and S1816e-SP).
 - b. Nextiva S1800e Single- and Dual-Port Series (S1801e, S1801e-PoE, S1802e).
 - c. Nextiva S5000 IP Cameras Series (S5003, S5020 and S5503PTZ).

2.03 FUNCTIONAL SPECIFICATIONS

- A. The digital video server (DVS) shall be a single-port (1) video receiver using H.264 (MPEG-4 Part 10/AVC) Main Profile compression technology.
- B. The DVS shall be capable of processing digitally compressed video images at 30 frames per second, under all conditions of motion in the image, into uncompressed analog or digital video ready to be displayed on a video monitor.
- C. The DVS shall be capable of displaying up to 4 video tiles on both PAL and NTSC composite video monitors.
- D. The DVS shall support NTSC/PAL signal format with a programmable resolution from CIF (352 x 240 pixels for NTSC; 352 x 288 pixels for PAL) to D1 format (720 x 480 pixels for NTSC; 720 x 576 pixels for PAL),
- E. The DVS shall be able to decode and render the equivalent of four (4) H.264 video streams with resolution of D1 (720x480 pixels) at 30 frames per second.

- F. The DVS monitors shall be configurable to display video in one of the following layouts:
 - a. Single view
 - b. 2x2 (Quad) view
- G. In a guard tour sequence, the DVS shall allow the dwell time between each incoming stream of this sequence to be user configurable.
- H. The DVS shall offer an intuitive Web Browser Interface to perform configuration and monitoring activities.
 - a. The Web Browser Interface shall be localized to support various languages.
- I. The DVS shall be configurable remotely via the network, either via the Nextiva Video Management software, the SConfigurator software or the Web Browser Interface.
- J. The DVS firmware, including the video codec, shall be upgradeable remotely via the network, either via the Nextiva Video Management software or the SConfigurator software or Web Browser Interface.
- K. The DVS shall not have a Windows operating system (OS) but instead operate from a real-time, Linux embedded OS.
- L. The DVS shall possess an internal watchdog to detect and recover from the unlikely occurrence of system lockup.
- M. The DVS shall meet or exceed the following design and performance specifications:
 - a. The pan-tilt-zoom control latency shall be less than 115 msec, excluding network transmission latency.
 - b. The DVS shall have an MTBF of at least 150,000 hours and shall include Electrostatic Discharge (ESD) protection on all input and output signals.
- N. To improve reliability, the DVS shall be powered by an external power supply.

2.04 INTERFACE SPECIFICATIONS

- A. The video output shall consist of 1 composite NTSC or PAL (1 Vpp into 75 ohms) video signal through female BNC connectors.
- B. One auto-sensing 10/100 Base-T connector (RJ45) shall be part of the DVS.
- C. The DVS shall operate over a local area network (LAN), wide area network (WAN), or the Internet, using the standard Ethernet 10/100 Base-T connection. The unit shall include support for DHCP and APIPA automatic IP configuration protocols.
- D. The DVS shall transmit or receive video using the RTP UDP/IP unicast, RTPUDP/IP multicast or TCP/IP communication protocol.
- E. The DVS shall support the following IP protocols: RTP/IP, UDP/IP, TCP/IP, multicast IP, DNS, NTP, HTTP, HTTPS and DHCP client.
- F. The DVS shall comply with IEEE 802.1x protocol to protect DVS physical ports and avoid any illegal connection through the network cabling. Two types of EAP methods shall be supported to perform authentication:
 - a. EAP-PEAP
 - b. EAP-TLS

- G. The DVS shall support SNMP v1/v2c/v3 (MIB-II) protocol both generic and Verint specific parameters including the following traps:
 - a. Video Signal Loss
 - b. Dry Input State changes
 - c. Camera Tampering Out of Focus State changes
- H. The DVS shall support SNMP configuration either through the Web Browser Interface (single mode) or SConfigurator (single and batch modes).
- I. The DVS shall comply with the VSIP Open Technical Framework for video services over IP, an open standard definition freely published by Verint Systems, Inc.
- J. The DVS shall transmit all command and control messages using the TCP/IP protocol and use cryptographic keys based on the SSL V.3.0 or TLS v 1.0 protocol to prevent eavesdropping, tampering, or message forgery.
- K. The DVS shall support an asynchronous serial port that can be programmed for data rates up to 230 kbps and can be set to RS-232, RS-422 or RS-485 signal levels. The RS-485 mode shall support 2-wire and 4-wire interfaces. This port shall be used as a generic serial port to communicate with other products such as access control and intrusion detection systems.
- L. The RS-232/RS-422/485 port, digital input, and digital output shall use an industrial-type pluggable screw-terminal strip block.
- M. The DVS shall support 2 (input) dry alarm contacts and 1 (output) relay (48 AC/DC at 100 mA).
- N. The DVS shall support bi-directional audio using a set of standard 1/8 inch (3.5mm) stereo jacks (1 audio input and 1 audio output). The audio input shall support signals from microphone to line-level with signal levels of -46 to -3dBV into 30Kohm. The audio output shall be able to drive line-level inputs as well as speakers with impedances as low as 16 ohms (-46 to -3dBV). The audio connectors shall support push-to-talk (PTT) and push-to-listen (PTL) dry-contact inputs.

2.05 PHYSICAL SPECIFICATIONS

- A. The DVS shall be rack mountable to a 1U standard 19 inch rack space.
- B. The DVS shall be enclosed in a compact and durable metal enclosure with size not exceeding 4.2L X 3.5W X 1.7H inches (106L x 90W x 42H mm).
- C. The DVS weight shall be 9.2 oz (260 g) or less.
- D. The DVS shall operate from an external 12V DC power supply via an industrial pluggable screw-terminal block.
- E. The DVS shall consume less than 4 watts.

2.06 ENVIRONMENTAL SPECIFICATIONS

The DVS shall be specified for operation in temperatures from 0°C to 60°C (32°F to 140°F) without forced air cooling and humidity from 0 to 95% non condensing at 60°C (140°F).

2.07 CERTIFICATIONS

- A. The DVS shall meet the following EMI/EMC certifications and regulations:
 - a. USA: FCC part 15 subpart B class A
 - b. Canada: ICES03 class A
 - c. Europe: CE marking (EN550222, EN55024)
- B. The DVS shall meet the following safety certifications and regulations:
 - a. UL, ULC, CE LVD directive (EN60950-1)
- C. The DVS shall meet the ROHS and WEEE regulations.
- D. The power supply used to power the DVS device shall be energy efficiency level V qualified and shall be supplied with the DVS.

2.08 WARRANTY AND SUPPORT

- A. All systems and components shall be provided with the availability of a toll-free (US and Canada) Technical Support number from the manufacturer. This shall allow for technical assistance and break-fix support for the dealer/integrator/installer or the end user at no charge for the stated warranty period.
- B. Each dealer/integrator/installer and end user shall have access to a password-protected partner portal for Web-based technical assistance on a 24-hour basis. This site will enable downloads of software updates, manuals, review of frequently asked questions.
- C. All systems and components shall have a five to seven business day target turnaround for repair service. This target is excluding all customer pending tasks and shipping time and is subject to change due to parts availability and volume. The repair and parts shipping shall be guaranteed by the manufacturer.
- D. Any device that fails within 60 days of shipping is considered a DOA (Dead on Arrival) and will be advance replaced at the manufacturer's cost.
- E. The DVS shall have a 3-year warranty (parts and labor) for Americas.

2.09 VERINT MODEL NUMBERS

- A. S1801e: Single-port Video Encoder featuring H.264 technology with 12V DC universal power supply
- B. S1801e-PoE: Single-port Video Encoder featuring H.264 technology with PoE support
- C. S1802e: Dual-port Video Encoder featuring H.264 technology with 12V DC universal power supply
- D. S1801e-R: Single-port Video decoder featuring H.264 technology with 12V DC universal power supply
- E. S1801e-R-HD: Single-port Video Encoder featuring H.264 technology with HDMI connector and 12V DC universal power supply