

Specifications

VN-Matrix 300 Series

Video

Signal type.....	SDI, HD-SDI, 3G-SDI digital video
Resolution.....	8 or 10 bits, automatic
Data rates	270 Mbps, 1.485 Gbps, 2.970 Gbps.
Operation standards	SMPTE 259M, SMPTE 292M, SMPTE 296M, SMPTE 424M
Auto data rate lock.....	Yes

Video input and loop through — encoder

Number/signal type.....	1 digital component video with loop through 10 bit, 4:2:2, with auto-detection
Connectors.....	2 female BNC: 1 for input, 1 for loop through
Nominal level.....	0.8 Vp-p
Impedance.....	75 ohms
Data rates	19 Mbps to 2.97 Gbps
Vertical frequency.....	23.97 Hz to 60 Hz, depending on signal format
Resolution range.....	525i, 625i, 720p, 1080i, 1080p, 1080psf

Video processing — decoder

Compression	PURE3™ Codec
Frame rate delay	35 ms (70 ms encoding/decoding end-to-end)
Bit rate.....	6 Mbps to 250 Mbps
Bit and frame rate control.....	Selectable
Frame rate	Up to 60 fps @ 1080p

Video output — decoder

Number/signal type.....	1 digital component video 10 bit, 4:2:2, with auto-detection
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NOTE: Output signal format follows the input format at the encoder.

Connectors.....	1 female BNC
Nominal level.....	0.8 Vp-p
Impedance.....	75 ohms
Vertical frequency.....	23.97 Hz to 60 Hz, depending on signal format
Resolutions.....	525i, 625i, 720p, 1080i, 1080p, 1080psf

Sync — genlock — decoder

External sync (genlock)	0.8 Vp-p (digital component video)
Genlock connector	1 female BNC
Output impedance.....	75 ohms
Vertical frequency.....	23.97 Hz to 60 Hz, depending on signal format

Audio input and output

Number/signal type.....	4 groups of 4 channels, embedded with video signal
Source formats	SMPTE 299M, SMPTE 272M
Connectors.....	1 female BNC (shared with video input)

Audio processing

Compression	None
Standards	SMPTE 299M, SMPTE 272M-A
Sampling rates.....	20 or 24 bit digital audio, 48 kHz (synchronous), 32 - 48 kHz (asynchronous)

Control/remote – local host – codecs, decoders

Serial control port.....	(1) RS-232, male 9-pin D connector
Baud rate and protocol	115200 baud, 8 data bits, 1 stop bit, no parity, no flow control
Serial control pin configurations.....	1 = DCD, 2 = Rx, 3 = Tx, 4 = DTR, 5 = GND, 6 = DSR, 7 = RTS, 8 = CTS, 9 = ring
USB control ports	2 female USB, non-operational
Ethernet control port.....	1 female RJ-45 1 female SPF IP module
Ethernet data rate	10/100/1000Base-T, half/full duplex with autodetect
Ethernet protocol	ICMP (ping), IP, TCP, RTP, RTCP, UDP, DHCP, HTTP, SMTP, Telnet
System control.....	VN-Matrix Enterprise Controller, VN-Matrix Enterprise Redundant Controller VN-Matrix Web server
Program control.....	Extron control/configuration software (VNM Viewer, VNM Virtual Switch) for Windows® Extron Command Line Interface (CLI) Microsoft® Internet Explorer® and other Web browsers, Telnet

Network transport

Ethernet data rate	10/100/1000Base-T, half/full duplex with autodetect
Ethernet protocol	
Streaming.....	RTP, RTCP
Transport.....	TCP, UDP (unicast or multicast)
All supported.....	ICMP (ping), IP, TCP, RTP, RTCP, UDP, DHCP, HTTP, SNMP V3, Telnet
Video input/output	PURE3™ Codec compression
Audio input/output	Pass-through

General

External power supply.....	100 VAC to 240 VAC, 50-60 Hz, external; to 12 VDC, 5 A max.
Power consumption.....	30 watts nominal, 60 watts max.
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +41 to +95 °F (5 to +35 °C) / 10% to 85%, noncondensing
Cooling	Fan, vents front to back
Mounting	
Rack mount.....	Yes
Enclosure type	Metal
Enclosure.....	1.75" H* x 8.5" W x 12.2" D (1U high, half rack wide) (4.4 cm H* x 21.5 cm W x 30.9 cm D)
	*Height with feet is 2.1" (5.3 cm). (Depth includes connectors.)
Product weight	2.8 lbs (1.3 kg) each
Regulatory compliance	
Safety.....	CE, UL
EMI/EMC.....	CE, EN60950-1
Warranty	3 years parts and labor

NOTE: All nominal levels are at ±10%.

NOTE: Specifications are subject to change without notice.

NOTE: Shipping weights and dimensions are available at www.extron.com.