

VN-Matrix™ 300 Series

SDI, HD-SDI & 3G-SDI OVER IP
ENCODERS & DECODERS

PURE3 CODEC™
OPTIMIZED FOR NETWORKS



- Upgradeable from SDI to 3G-SDI
- Video bit rate from 6 Mbps to 150 Mbps
- 10 bit YCrCb 4:2:2 encoding
- Supports resolutions up to 1080p/60Hz
- Low latency 35ms encode and 35ms decode
- Switchable between encode and decode operation
- Genlockable to external sync
- Light, portable chassis with low power requirements
- Browser interface for remote management
- SNMP: Method and/or network monitoring
- Alarm: relay contact closure on D-type connector
- Low cost decode only models

The VN-Matrix™ 300 Series encoders and decoders enable streaming of SDI, HD-SDI, and 3G-SDI video over any type of IP network. They produce excellent image quality at highly efficient bit rates with low latency. The VN-Matrix 300 System utilizes Extron's PURE3 codec that exceeds many of the performance characteristics of existing compression formats and provides exceptionally robust protection against network errors, making it ideal for quality-critical applications.



Extron® Electronics
INTERFACING, SWITCHING AND CONTROL

DESCRIPTION

The VN-Matrix™ 300 Series encoders and decoders enable streaming of SDI, HD-SDI, and 3G-SDI video over any type of IP network. They produce excellent image quality at highly efficient bit rates with low latency.

Extensive Bit Rate Management

The VN-Matrix 300 Series provides automatic or manual bit rate controls to optimize the encoding quality and manage bandwidth use.

Network Flexibility

With network error concealment, the VN-Matrix 300 Series does not require a dedicated network or error correction to ensure reliable video quality. It supports both Unicast and Multicast transport protocols.

PURE3™ Codec

Extron's PURE3 codec is specifically designed for network transmission and provides an unmatched combination of bit rate efficiency, low latency and high image quality. PURE3 features both spatial and temporal image compression and eliminates the need for forward error correction while still providing robust protection against network errors.

FEATURES

- Upgradeable from SDI to 3G-SDI
- Video bit rate from 6 Mbps to 150 Mbps
- 10 bit YCrCb 4:2:2 encoding
- Supports resolutions up to 1080p/60Hz
- Low latency encoding and decoding - 35ms
- Constant latency of 70ms end to end
- Switchable between encode and decode operation, VNC 300 Series
- Genlockable to external sync
- Light, portable chassis with low power requirements
- Browser interface for remote management
- SNMP: Method and/or network monitoring
- Low cost decode only models, VND 300 Series

APPLICATIONS

- Delivery of Contribution and Primary Distribution Feeds
- Studio to Studio Media Exchange
- Sport and Live Event Streaming
- Real-Time Interactive Broadcasts
- Post Production and Studio Monitoring
- Media Contribution over Service Provider Network
- In-house Signal Distribution and Routing
- Virtual Switching on Networks

SPECIFICATIONS

TRANSPORT & RESOLUTION		
VNC 300 SDI SMPTE 259 M Level C.....	SMPTE 259M: 525i/59.94Hz, 625i/50Hz; 10 bit, 4:2:2 YCrCb	
VNC 300 HD-SDI SMPTE 292 M.....	SMPTE 274M: 1080i 50/59.94/60Hz 10 bit, YCrCb 1080p @23.97/24/25/29.97/30Hz 10 bit, 4:2:2, YCrCb	
RP 211-2000.....	1080p 23.98/24/25/29.97/30 PsF; 10 bit, YCrCb	
SMPTE 296M.....	720p @23.97/24/25/29.97/30/50/ 59.94/60Hz; 10 bit, 4:2:2, YCrCb	
VNC 300 3G SDI SMPTE 424/425M Level A.....	SMPTE 274M: 1080p @50/59.94/60Hz; 10 bit, 4:2:2, YCrCb	
OPTIONS		
Video	Upgrade to HD-SDI Upgrade to 3G-SDI	
Audio.....	Embedded, uncompressed in blocks of 4 Channels up to a maximum of 8 blocks.	
Transport	SFP optical connector SFP copper connector	
CONFORMANCE		
CE.....	EN55022: Class B	
EN55024	Class B	
EN60950	Part 15 Class B	
UL.....	60950	
FCC	Part 15 Class B	
ACCESSORIES		
System Control	VN-Matrix Enterprise Controller & Redundant Controller (ES8200)	
Power Supply.....	ES-PSU12 or ES-PSU12R Multi unit power supplies with redundancy	
Rack Mount	ES7100 RMT1 Rack mount for two units - 1RU ES7100 RMT2 Rack mount for four units - 2RU	
PHYSICAL & POWER		
Size (W/D/H)	215 x 310 x 55mm / 8.5 x 12.2 x 2.1inches;including feet	
Weight.....	1.7 kg (3.7 pounds)	
Power	5 Amp External power supply with locking connector Connection 12V DC 5A maximum; 100-240VAC 50/60 Hz	
Consumption.....	30W typical, 60W maximum	
Temperature	Operating range 41°-95°F (5-35°C) Relative humidity, 85% maximum (non condensing)	
Model	Version Description	Part #
VNC 300 SDI (ES7100-SD)	VN-Matrix Codec SDI.....	60-1122-01
VNC 300 HD-SDI (ES7100-HD)	VN-Matrix Codec HD-SDI.....	60-1123-01
VNC 300 3G-SDI (ES7100-3G)	VN-Matrix Codec 3G SDI.....	60-1124-01
VND 300 SDI A (ES7100D-SD)	VN-Matrix Decoder SDI and Audio	60-1125-01
VND 300 HD-SDI A (ES7100D-HD)	VN-Matrix Decoder HD-SDI and Audio ...	60-1126-01
VND 300 3G-SDI A (ES7100D-3G)	VN-Matrix Decoder 3G SDI and Audio....	60-1127-01

Specifications are subject to change without notice.



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