

Specifications

VNR 100

Hardware

Motherboard.....	1 Supermicro X8SI6-F 1 of 32 bit PCI 1 of PCI-E 2.0 (using x16 slot) 4 of (x4) PCI-E (using x8 slot)
Chipset	Embedded Core™ i3-540 Processor, 4 MB cache, 3.06 GHz
RAM	4 GB DDR3, 1333 MHz, ECC Unreg CL9 with TS
Graphics card	Integrated, 1 VGA connector
USB ports	4 USB interface
Serial port	1 RS-232 male 9-pin D-type connector
RJ-45.....	(2) 1 Gbs network ports on board
Keyboard/mouse ports	(2) PS/2
Media storage	(1) 1 TB SATA, 6 Gbs removable 64 MB cache, 7200 rpm, 600 MB/s I/O data transfer rate
Operating system storage.....	1 (one) 80 Gbyte SSD, 2.5" SATA (rev 2.5) 3 Gbs, removable

Software

Operating system	Red Hat® Linux v5.7
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VNM Enterprise Controller control functions

NOTE:	The VNR100 must be used in conjunction with a VNM Enterprise Controller when full system integration is required.
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System configuration and management	<ul style="list-style-type: none">• Compression and bandwidth control settings• Stream selection (video, audio, data)• Logical grouping of devices• Preset create and control
Recording/playback	<ul style="list-style-type: none">• Record, stop• Play, pause, stop, play speed x1, x2, x4, x8 (forward and reverse), step (forward and reverse)
File management.....	<ul style="list-style-type: none">• Create and delete bookmarks• Create and delete recording sessions• Create and delete project

Recording/playback

Maximum bit rate (streaming)	150 Mbs, aggregate (simultaneous record and playback)
Number of channels.....	1 record and 1 playback supporting image, audio, and data streams
Simultaneous record and playback..	Yes. Up to maximum aggregate bit rate, when used in conjunction with the VNM Enterprise Controller.
Device synchronization	Yes. Multiple VNR 100 units may be configured for synchronized recording and playback when used in conjunction with the VNM Enterprise controller.

Recording frame rate support

Rates.....	VGA-UXGA: 50 Hz - 85 Hz, 60 fps WUXGA: 30 Hz - 65 Hz, 30 fps 640p, 720p: 60 Hz, 60 fps 1080p: 23.97, 29.94, 30, 60 Hz; 23.97, 29.94, 30, 60 fps 1080i: 23.97, 59.94 Hz; 23.97, 59.94 fps
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Storage and bandwidth requirements

Bandwidth	From lowest to highest
Datascreens, maps, photographs, static desktop	Typical bit rate: 1 Mbs; approximate capacity: 2100 hours
Static graphic visualizations, aircraft instrument panels	Typical bit rate: 5 Mbs; approximate capacity: 420 hours
Low motion graphic visualizations	Typical bit rate: 10 Mbs; approximate capacity: 210 hours
Windowed video and static graphic information	Typical bit rate: 25 Mbs; approximate capacity: 85 hours
Presentation of HD video, full motion UXGA simulator content	Typical bit rate: 50 Mbs; approximate capacity: 40 hours
Production quality broadcast video — sports	Typical bit rate: 100 Mbs; approximate capacity: 20 hours

NOTE: Audio bit rates are not included in the above.

Audio bandwidth	
Two channel (stereo).....	Uncompressed (program quality): 2.3 Mbs (typical) Compressed (voice quality): 0.5 Mbs (typical)
Embedded audio (VNM 3xx)	SD digital video: 8 Mbps/group (4 channels) HD and 3G digital video: 16 Mbps/group (4 channels)

General

Power supply.....	Internal 100-240 VAC, 50-60 Hz
Power consumption	280 watts
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 5% to 95%, noncondensing Operating: +50 to +95 °F (10 to +35 °C) / 8% to 90%, noncondensing
Cooling.....	Fan, air flows front to back
Thermal dissipation	TBD
Lockable front cover.....	Yes
Mounting.....	Rack mount
Enclosure type.....	Metal
Enclosure dimensions	1.7" H x 17.2" W x 19.8" D (1U high, full rack wide) (4.3 cm H x 43.7 cm W x 50.6 cm D) (Depth excludes connectors.)
Product weight.....	31.0 lbs (14.1 kg)
Shipping weight.....	33 lb (15 kg)
DIM weight (International).....	44 lb (20 kg)
Warranty.....	3 years parts and labor

NOTE: All nominal levels are at $\pm 10\%$.

NOTE: Specifications are subject to change without notice.

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