

Enterprise NVR Series SAS RAID Storage

www.honeywellvideo.com

ENTERPRISE RAID VIDEO STORAGE SOLUTION

Honeywell's Enterprise NVR (network video recorder) video management system is an industry-leading enterprise class digital video solution. The Enterprise NVR is built upon best-in-class components that provide the flexibility and scalability suited to a variety of end user applications. Honeywell is a total solution provider offering all the components of a reliable and flexible video system such as cameras, encoders, management software, servers, workstations and video storage.

Enterprise NVR Series SAS RAID storage appliances are an integral component of a successful digital video system. The overall video system is only as good as the performance of each of its components. The Honeywell SAS storage solution leverages the expertise and technology of the IT and storage industry including SAS, RAID, and SAS hard drive technology.

The SAS RAID storage series is offered in a variety of configurations. The Enterprise RAID 12-bay, 16-bay and 24-bay SAS are Serial Attached SCSI (SAS) subsystems suitable for Direct Attached Storage (DAS), Cascaded Storage and Expanded Storage. The Enterprise JBOD 12-bay and 16-bay SAS are Serial Attached SCSI (SAS) subsystems suitable for cost-effective storage expansion.

All Enterprise RAID enclosures include a mid-plane, RAID controller, power and cooling units and enclosure processor all in one chassis design with no cables. Multiple fans and power supplies provide redundancy to ensure continued usage in the unlikely event of component failure. The RAID controller is hardware-based and controls all logical drive functions transparently to the host system. Enterprise RAID appears as a standard SCSI drive or drives to the computer's operating system.

Market Opportunities

The Enterprise NVR Series SAS RAID storage offers a cost-effective balance of video storage capacity and satisfies the stringent data availability requirements for an enterprise class digital video system. This SAS RAID solution applies to a variety of applications and features the raw capacity to store video data from a large number of cameras. The Enterprise NVR Series RAID storage helps ensure that video is available when it is most needed.

Features

- 3Gbps or 6Gbps Multi-lane SAS SFF-8088 host ports, 2 host channels per RAID controller
- 24-bay: 24 hot-swappable drive bays in a robust 4U rackmount chassis with redundant, hot-swappable power and cooling modules
- 16-bay: 16 hot-swappable drive bays in a robust 3U rackmount chassis with redundant, hot-swappable power and cooling modules
- 12-bay: 12 hot-swappable drive bays in a robust 2U rackmount chassis with redundant, hot-swappable power and cooling modules
- Support for reliable and robust Serial Attached SCSI (SAS) drives
- JBOD expansion support through a single 6 GB/s SAS 4X wide port – up to 14 Enterprise 12-bay JBOD systems with 12-bay SAS RAID and up to 14 Enterprise 16-bay JBOD systems with 16-bay or 24-bay SAS RAID
- Simplified remote management with a comprehensive embedded web-based management via Ethernet-Honeywell Array Manager (HWAM). Command line interface/utility via serial port
- Support for RAID 5 and RAID 6 - protection from a catastrophic single or double drive failure
- LUN mapping and masking bring flexibility for multiple applications and OS support on the same storage subsystem
- Open architecture provides the industry's most comprehensive support for SAS hard drives and standards-based management interfaces including SNMP, CIM and WBEM
- Warranty and advance replacements - Refer to <http://www.honeywellvideo.com/support/warranty/index.html>

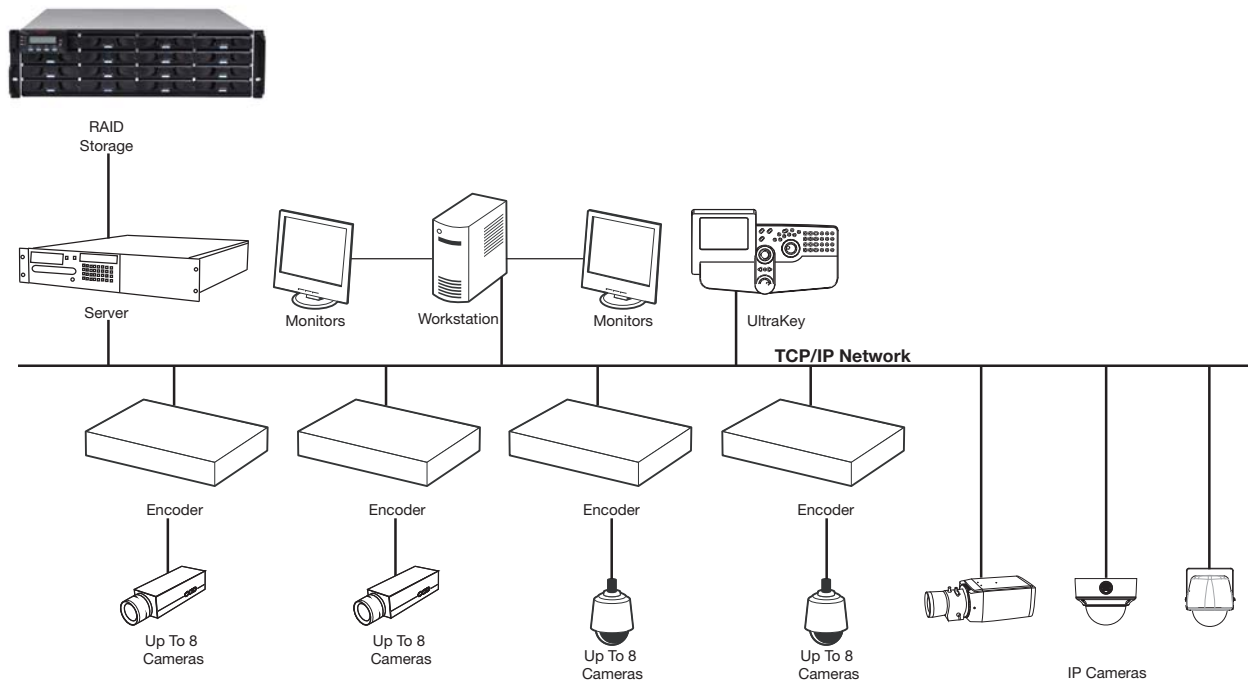


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SYSTEM DIAGRAM

Enterprise NVR SAS RAID storage is an integral piece of an Enterprise NVR Series solution. Please visit www.honeywellvideo.com for documentation on Enterprise NVR Series components such as software, workstations and servers.



Note: It is recommended to isolate the camera/encoder network from the client workstation network using the 2 network ports on the server

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SPECIFICATIONS

Specification	12-Bay Subsystems	16-Bay Subsystems	24-Bay Subsystems
Available Configurations	RAID & JBOD - 2U	RAID & JBOD - 3U	RAID only - 4U
Voltage	100-240 VAC Auto-ranging	100-240 VAC Auto-ranging	100-240 VAC Auto-ranging
Current (maximum, each supply)	10 A @ 100 VAC or 5 A @ 240 VAC	10 A @ 100 VAC or 5 A @ 240 VAC	8 A @ 100 VAC or 4 A @ 240 VAC
Power Consumption	Idle: 230W Busy: 245W	Idle: 345W Busy: 367W	Idle: 409W Busy: 434W
Power Supply	Dual 530 W, 100-240 VAC auto-ranging, 47-63 Hz, dual hot swap and redundant with PFC, N+1 design	Dual 530 W, 100-240 VAC auto-ranging, 47-63 Hz, dual hot swap and redundant with PFC, N+1 design	Triple 405W, 100-240 VAC auto-ranging, 50-60 Hz, triple hot swap and redundant with PFC, N+1 design
Operating Temperature	0° to 40°C operational (-40° to 60°C non-operational)		
Relative Humidity	5 to 95% (non condensing – operating and non-operating)		
Vibration	(Random) Operating: 5 to 500Hz, 0.25Grms, X/Y/Z, 30min Non-operating: 5 to 500Hz, 1.0Grms, X/Y/Z, 30min (Sine) Operating: 5 to 500Hz, 0.2Grms, X/Y/Z Sine, 1hr/sweep Non-operating: 5 to 500Hz, 1.0Grms, X/Y/Z Sine, 1hr/sweep		
Dimensions (H x W x D)	3.5 x 17.5 x 20.2 in (8.8 x 44.6 x 51.4 cm)	5.1 x 17.5 x 20.2 in (13.0 x 44.5 x 51.4 cm)	6.8 x 18.9 x 21.4 in (17.4 x 48.1 x 54.4 cm)
Net Weight	18.1 kg (39.9 lb) without drives, 24.1 kg (53.1 lb) with 12 drives, assuming 0.5 kg (1.1 lb) per drive	21.66 kg (47.75 lb) without drives, 29.66 kg (65.39 lb) with 16 drives, assuming 0.5 kg (1.1 lb) per drive	27.44 kg (60.49 lb) without drives, 39.44 kg (86.95 lb) with 24 drives, assuming 0.5 kg (1.1 lb) per drive
Gross Weight (including carton)	30 kg (66 lb) without drives	37.5 kg (82.7 lb) without drives	45 kg (99.2 lb) without drives
Emissions	FCC subpart 15B, class A		
Safety	UL/CSA 60950-1		



Front View - SAS RAIDs



Front View - SAS JBODs



Rear View - SAS RAIDs



Rear View - SAS JBODs

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ORDERING

Enterprise SAS RAIDs	
HERC12T12S	Storage Array, SAS Interface with Controller, SAS Enterprise Class Hard Drives - 12 each 1 TB HDD - 9.094 TB @ RAID6 or 10.0 TB @ RAID5
HERC24T12S	Storage Array, SAS Interface with Controller, SAS Enterprise Class Hard Drives - 12 each 2 TB HDD - 18.191 TB @ RAID6 or 20.0 TB @ RAID5
HERC36T12S	Storage Array, SAS Interface with Controller, SAS Enterprise Class Hard Drives - 12 each 3 TB HDD - 27.285 TB @ RAID6 or 30.0 TB @ RAID5
HERC48T12S	Storage Array, SAS Interface with Controller, SAS Enterprise Class Hard Drives - 12 each 4 TB HDD - 36.382 TB @ RAID6 or 40.0 TB @ RAID5
HERC16T16S	Storage Array, SAS Interface with Controller, SAS Enterprise Class Hard Drives - 16 each 1 TB HDD - 12.73 TB @ RAID6 or 13.64 TB @ RAID5
HERC32T16S	Storage Array, SAS Interface with Controller, SAS Enterprise Class Hard Drives - 16 each 2 TB HDD - 25.4 TB @ RAID6 or 27.28 TB @ RAID5
HERC48T16S	Storage Array, SAS Interface with Controller, SAS Enterprise Class Hard Drives - 16 each 3 TB HDD - 38.1 TB @ RAID6 or 40.9 TB @ RAID5
HERC64T16S	Storage Array, SAS Interface with Controller, SAS Enterprise Class Hard Drives - 16 each 4 TB HDD - 50.935 TB @ RAID6 or 54.573 TB @ RAID5
HERC24T24S	Storage Array, SAS Interface with Controller, SAS Enterprise Class Hard Drives - 24 each 1 TB HDD - 20.0 TB @ RAID6 or 20.917 TB @ RAID5
HERC48T24S	Storage Array, SAS Interface with Controller, SAS Enterprise Class Hard Drives - 24 each 2 TB HDD - 40.0 TB @ RAID6 or 41.839 TB @ RAID5
HERC72T24S	Storage Array, SAS Interface with Controller, SAS Enterprise Class Hard Drives - 24 each 3 TB HDD - 60.0 TB @ RAID6 or 62.756 TB @ RAID5
HERC96T24S	Storage Array, SAS Interface with Controller, SAS Enterprise Class Hard Drives - 24 each 4 TB HDD - 80.0 TB @ RAID6 or 83.679 TB @ RAID5
Enterprise JBOD Expansion Units	
HERJ12T12S	Storage Array, SAS Interface without Controller, SAS Enterprise Class Hard Drives - 12 each 1 TB HDD - 9.094 TB @ RAID6 or 10.0 TB @ RAID5 - Requires an external array with SAS Controller
HERJ24T12S	Storage Array, SAS Interface without Controller, SAS Enterprise Class Hard Drives - 12 each 2 TB HDD - 18.191 TB @ RAID6 or 20.0 TB @ RAID5 - Requires an external array with SAS Controller
HERJ36T12S	Storage Array, SAS Interface without Controller, SAS Enterprise Class Hard Drives - 12 each 3 TB HDD - 27.285 TB @ RAID6 or 30.0 TB @ RAID5 - Requires an external array with SAS Controller
HERJ48T12S	Storage Array, SAS Interface without Controller, SAS Enterprise Class Hard Drives - 12 each 4 TB HDD - 36.382 TB @ RAID6 or 40.0 TB @ RAID5 - Requires an external array with SAS Controller
HERJ16T16S	Storage Array, SAS Interface without Controller - SAS Enterprise Class Hard Drives - 16 each 1 TB HDD - 12.73 TB @ RAID6 or 13.64 TB @ RAID5 - Requires an external array with SAS Controller
HERJ32T16S	Storage Array, SAS Interface without Controller - SAS Enterprise Class Hard Drives - 16 each 2 TB HDD - 25.40 TB @ RAID6 or 27.28 TB @ RAID5 - Requires an external array with SAS Controller
HERJ48T16S	Storage Array, SAS Interface without Controller - SAS Enterprise Class Hard Drives - 16 each 3 TB HDD - 38.1 TB @ RAID6 or 40.9 TB @ RAID5 - Requires an external array with SAS Controller
HERJ64T16S	Storage Array, SAS Interface without Controller - SAS Enterprise Class Hard Drives - 16 each 4 TB HDD - 50.935 TB @ RAID6 or 54.573 TB @ RAID5 - Requires an external array with SAS Controller
Hard Drives	
HERHD1TS	Storage Array Hard Drive, 1 TB, SAS - Enterprise Class
HERHD2TS	Storage Array Hard Drive, 2 TB, SAS - Enterprise Class
HERHD3TS	Storage Array Hard Drive, 3 TB, SAS - Enterprise Class
HERHD4TS	Storage Array Hard Drive, 4 TB, SAS - Enterprise Class

NOTE: Honeywell reserves the right, without notification, to make changes in product design or specifications.

Automation and Control Solutions

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