

Performance 4K Embedded NVRs

16-/32-/64-Channel 4K ENVRs

HEN16204/HEN16284/HEN32204/HEN32284 HEN322164/HEN64204

Introducing Honeywell's Performance 4K Embedded NVRs, our newest affordable, fully featured NVRs offering Ultra HD 4K video resolution. Choose a 16-, 32-, or 64-channel NVR, with multiple hard drive options plus the ability to expand to up to 32 TB of internal storage, for an ideal and flexible solution to fit your surveillance situation.



HD

Fully-featured NVRs

- High decoding capability for Ultra 4K HD viewing and recording
- View 4/8/16 channels simultaneously with synchronized real-time playback on your monitor (depending on your model)
- Up to 12 MP (4K) resolution live view, preview and playback
- Up to 16 channels at 1080p H.265/H.264 decoding
- De-warp fisheye camera video in local and web user interface for 360 degree situational awareness

Dynamic, Accessible Monitoring

- Monitor from anywhere using the mobile apps for both Apple® and Android™ devices (smartphones, tablet computers, and laptops)
- Protect the NVR's video and network setup with password-protected access
- Conceal up to 4 areas of a scene from viewing and recording

Convenient, Flexible Storage Options

- Internal storage supports 4 HDDs expandable up to 32 TB (8 TB each)
- Store video clips and snapshots to external storage, such as the client's PC, through the Internet connection
- Store video clips and snapshots to external network storage servers, such as an FTP site
- Store video clips and snapshots to a USB memory device

Easy to Use

- The Quick wizard and PoE support (for up to 16 channels) make setup fast and easy
- Quick physical installation with the help of a simple NVR design and easy-to-understand quick installation guides
- Simple remote configuration and firmware updating through the Honeywell Viewer web client and the Honeywell Config tool

Market Opportunities

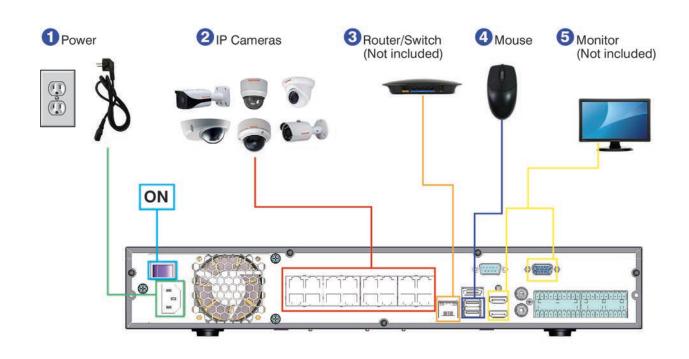
The flexible storage options and high recording and networking performance of the Performance 4K Embedded NVRs make these NVRs perfect for a wide range of security applications.

FEATURES AND BENEFITS

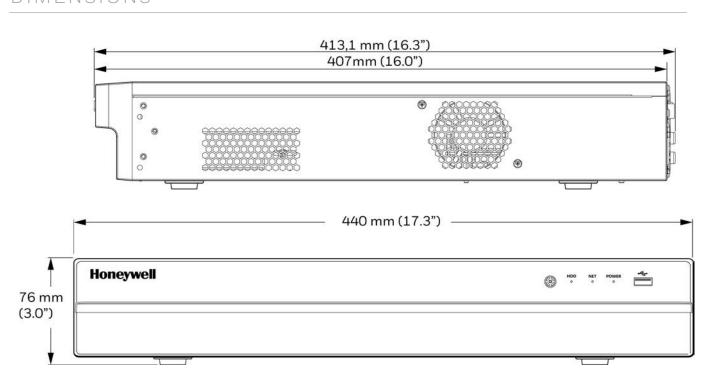
- H.265/H.264/ MJPEG/MPEG4 codec decoding
- 2 HDMI/VGA simultaneous video outputs
- UL listed
- Supports up to 16 alarm input channels and 6 alarm relay output channels
- Supports sending notifications through email, FTP, and/or HTTP
- Supports recording a video clip of events for distribution
- Supports uploading still images at the time of the event through email and/or
- Configurable to automatically detect and respond to motion in the scene, alarm inputs, and network failure or tampering
- Maximum incoming bandwidth of 320 Mbps
- Supports visual or auditory notifications (a flashing light, bell, or siren)
- Supports fisheye video de-warping in local and web user interface

16-/32-/64-Channel 4K ENVRs Technical Specifications

SYSTEM DIAGRAM



DIMENSIONS



16-/32-/64-Channel 4K ENVRs Technical Specifications

SYSTEM	
MAIN PROCESSOR	Quad-core embedded processor
OPERATING SYSTEM	Embedded LINUX
VIDEO INPUTS	HEN162*4: 16 Channels IP HEN322*4: 32 Channels IP HEN642*4: 64 Channels IP
AUDIO	
AUDIO INPUT/OUTPUT	1 Channel Input/1 Channel Output, RCA
TWO-WAY COMMUNICATION DISPLAY	Supported
INTERFACE	2 HDMI (1 HDMI up to 3840 × 2160); 1 VGA
RESOLUTION	3840 × 2160; 1920 × 1080; 1280 × 1024; 1280 × 720; 1024 × 768
DISPLAY SPLIT	HEN162*4: 1/4/8/9/16 HEN322*4: 1/4/8/9/16/25/36 HEN642*4: 1/4/8/9/16/25/36/64
OSD	Camera title; Time; Video loss; Camera lock; Motion detection; Recording
FISHEYE VIDEO DE-WARPING	Supported in local and web user interface
RECORDING	
COMPRESSION	
COMPRESSION	H.265/H.264/MJPEG/MPEG4
RESOLUTION	H.265/H.264/MJPEG/MPEG4 12 MP (4000 × 3000); 8 MP (3840 × 2160); 6 MP (3072 × 2048); 5 MP (2560 × 1920); 4 MP (2560 × 1440); 3 MP (2048 ×1520); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 ×576 / 704 × 480); CIF (352 × 288 / 352 × 240)
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RESOLUTION	12 MP (4000 × 3000); 8 MP (3840 × 2160); 6 MP (3072 × 2048); 5 MP (2560 × 1920); 4 MP (2560 × 1440); 3 MP (2048 × 1520); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576 / 704 × 480); CIF (352 × 288 / 352 × 240) 1–15 fps (12 MP and 8 MP); 1–25/30 fps (rest of the
RESOLUTION FRAME RATE	12 MP (4000 × 3000); 8 MP (3840 × 2160); 6 MP (3072 × 2048); 5 MP (2560 × 1920); 4 MP (2560 × 1440); 3 MP (2048 × 1520); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576 / 704 × 480); CIF (352 × 288 / 352 × 240) 1–15 fps (12 MP and 8 MP); 1–25/30 fps (rest of the resolutions)
RESOLUTION FRAME RATE RECORD BIT RATE	12 MP (4000 × 3000); 8 MP (3840 × 2160); 6 MP (3072 × 2048); 5 MP (2560 × 1920); 4 MP (2560 × 1440); 3 MP (2048 × 1520); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576 / 704 × 480); CIF (352 × 288 / 352 × 240) 1–15 fps (12 MP and 8 MP); 1–25/30 fps (rest of the resolutions) 320 Mbps
RESOLUTION FRAME RATE RECORD BIT RATE BIT RATE ¹	12 MP (4000 × 3000); 8 MP (3840 × 2160); 6 MP (3072 × 2048); 5 MP (2560 × 1920); 4 MP (2560 × 1440); 3 MP (2048 × 1520); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576 / 704 × 480); CIF (352 × 288 / 352 × 240) 1–15 fps (12 MP and 8 MP); 1–25/30 fps (rest of the resolutions) 320 Mbps 16 kbps ~ 20 Mbps, per channel Schedule (Regular/Continuous, Motion Detection, Alarm);
RESOLUTION FRAME RATE RECORD BIT RATE BIT RATE¹ RECORDING MODE	12 MP (4000 × 3000); 8 MP (3840 × 2160); 6 MP (3072 × 2048); 5 MP (2560 × 1920); 4 MP (2560 × 1920); 4 MP (2560 × 1440); 3 MP (2048 × 1520); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576 / 704 × 480); CIF (352 × 288 / 352 × 240) 1–15 fps (12 MP and 8 MP); 1–25/30 fps (rest of the resolutions) 320 Mbps 16 kbps ~ 20 Mbps, per channel Schedule (Regular/Continuous, Motion Detection, Alarm); Manual; Stop 1 to 120 minutes (default 60
RESOLUTION FRAME RATE RECORD BIT RATE BIT RATE¹ RECORDING MODE RECORDING INTERVAL PRE-EVENT RECORDING INTERVAL POST-EVENT RECORDING INTERVAL	12 MP (4000 × 3000); 8 MP (3840 × 2160); 6 MP (3072 × 2048); 5 MP (2560 × 1920); 4 MP (2560 × 1920); 4 MP (2560 × 1940); 3 MP (2048 × 1520); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576 / 704 × 480); CIF (352 × 288 / 352 × 240) 1–15 fps (12 MP and 8 MP); 1–25/30 fps (rest of the resolutions) 320 Mbps 16 kbps ~ 20 Mbps, per channel Schedule (Regular/Continuous, Motion Detection, Alarm); Manual; Stop 1 to 120 minutes (default 60 min) 1 to 30 seconds
RESOLUTION FRAME RATE RECORD BIT RATE BIT RATE¹ RECORDING MODE RECORDING INTERVAL PRE-EVENT RECORDING INTERVAL POST-EVENT RECORDING	12 MP (4000 × 3000); 8 MP (3840 × 2160); 6 MP (3072 × 2048); 5 MP (2560 × 1920); 4 MP (2560 × 1920); 4 MP (2560 × 1940); 3 MP (2048 × 1520); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576 / 704 × 480); CIF (352 × 288 / 352 × 240) 1–15 fps (12 MP and 8 MP); 1–25/30 fps (rest of the resolutions) 320 Mbps 16 kbps ~ 20 Mbps, per channel Schedule (Regular/Continuous, Motion Detection, Alarm); Manual; Stop 1 to 120 minutes (default 60 min) 1 to 30 seconds
RESOLUTION FRAME RATE RECORD BIT RATE BIT RATE¹ RECORDING MODE RECORDING INTERVAL PRE-EVENT RECORDING INTERVAL POST-EVENT RECORDING INTERVAL	12 MP (4000 × 3000); 8 MP (3840 × 2160); 6 MP (3072 × 2048); 5 MP (2560 × 1920); 4 MP (2560 × 1920); 4 MP (2560 × 1940); 3 MP (2048 × 1520); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576 / 704 × 480); CIF (352 × 288 / 352 × 240) 1–15 fps (12 MP and 8 MP); 1–25/30 fps (rest of the resolutions) 320 Mbps 16 kbps ~ 20 Mbps, per channel Schedule (Regular/Continuous, Motion Detection, Alarm); Manual; Stop 1 to 120 minutes (default 60 min) 1 to 30 seconds
RESOLUTION FRAME RATE RECORD BIT RATE BIT RATE¹ RECORDING MODE RECORDING INTERVAL PRE-EVENT RECORDING INTERVAL POST-EVENT RECORDING INTERVAL VIDEO DETECTION AND ALARM	12 MP (4000 × 3000); 8 MP (3840 × 2160); 6 MP (3072 × 2048); 5 MP (2560 × 1920); 4 MP (2560 × 1920); 4 MP (2560 × 1920); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576 / 704 × 480); CIF (352 × 288 / 352 × 240) 1–15 fps (12 MP and 8 MP); 1–25/30 fps (rest of the resolutions) 320 Mbps 16 kbps ~ 20 Mbps, per channel Schedule (Regular/Continuous, Motion Detection, Alarm); Manual; Stop 1 to 120 minutes (default 60 min) 1 to 30 seconds Recording; PTZ; Tour; Alarm; Video Push; Email; FTP;
RESOLUTION FRAME RATE RECORD BIT RATE BIT RATE¹ RECORDING MODE RECORDING INTERVAL PRE-EVENT RECORDING INTERVAL POST-EVENT RECORDING INTERVAL VIDEO DETECTION AND ALARM TRIGGER EVENTS	12 MP (4000 × 3000); 8 MP (3840 × 2160); 6 MP (3072 × 2048); 5 MP (2560 × 1920); 4 MP (2560 × 1920); 4 MP (2560 × 1440); 3 MP (2048 × 1520); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576 / 704 × 480); CIF (352 × 288 / 352 × 240) 1-15 fps (12 MP and 8 MP); 1-25/30 fps (rest of the resolutions) 320 Mbps 16 kbps ~ 20 Mbps, per channel Schedule (Regular/Continuous, Motion Detection, Alarm); Manual; Stop 1 to 120 minutes (default 60 min) 1 to 30 seconds S Recording; PTZ; Tour; Alarm; Video Push; Email; FTP; Snapshot; Buzzer Motion Detection—MD Zones: 396 (22 × 18); Video Loss;
RESOLUTION FRAME RATE RECORD BIT RATE BIT RATE¹ RECORDING MODE RECORDING INTERVAL PRE-EVENT RECORDING INTERVAL POST-EVENT RECORDING INTERVAL VIDEO DETECTION AND ALARM TRIGGER EVENTS	12 MP (4000 × 3000); 8 MP (3840 × 2160); 6 MP (3072 × 2048); 5 MP (2560 × 1920); 4 MP (2560 × 1920); 4 MP (2560 × 1440); 3 MP (2048 × 1520); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576 / 704 × 480); CIF (352 × 288 / 352 × 240) 1–15 fps (12 MP and 8 MP); 1–25/30 fps (rest of the resolutions) 320 Mbps 16 kbps ~ 20 Mbps, per channel Schedule (Regular/Continuous, Motion Detection, Alarm); Manual; Stop 1 to 120 minutes (default 60 min) 1 to 30 seconds S Recording; PTZ; Tour; Alarm; Video Push; Email; FTP; Snapshot; Buzzer Motion Detection—MD Zones: 396 (22 × 18); Video Loss; Camera Blank

PLAYBACK AND BACKUP	
SYNC PLAYBACK	1/4/8/16 (maximum 4-ch @ 8 MP, 8-ch @ 4 MP, or 16-ch @ 1080p simultaneous playback)
SEARCH MODE	Time/Date; Alarm; Motion Detection (MD); Exact Search (accurate to a second); Smart Search
PLAYBACK FUNCTION	Play; Pause; Stop; Rewind; Fast play; Slow play; Next File; Previous File; Next Camera; Previous Camera; Full Screen; Repeat; Shuffle; Backup selection; Digital Zoom
BACKUP MODE COMPATIBILITY	USB Device; Network; Internal SATA burner
NETWORK	
ETHERNET	1 RJ-45 port (10/100/1000 Mbps)
POE	16 ports (IEEE802.3af/at)
SUPPORTED PROTOCOLS ²	HTTP, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Alarm Server, IP Search, P2P
MAXIMUM NUMBER OF USERS	128 users
NETWORK THROUGHPUT	Input 320 Mbps; Output 320 Mbps
SMART PHONE COMPATIBILITY	iPhone; iPad; Android
STORAGE	
INTERNAL HDD	4 SATA ports, up to 32 TB
EXTERNAL HDD	1 eSATA port
AUXILIARY INTERFACE	
	2 (2
USB PORTS	3 (2 rear USB3.0; 1 front USB2.0)
USB PORTS RS232	
USB PORTS RS232 ELECTRICAL	USB2.0) 1 port (for PC communications and keyboard)
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USB PORTS RS232 ELECTRICAL POWER SUPPLY	USB2.0) 1 port (for PC communications and keyboard) Single, 100~240 VAC, 50/60 Hz NVRs: 17.5 W max (without HDD) PoE: 25.5 W for a single port
USB PORTS RS232 ELECTRICAL POWER SUPPLY POWER CONSUMPTION	USB2.0) 1 port (for PC communications and keyboard) Single, 100~240 VAC, 50/60 Hz NVRs: 17.5 W max (without HDD) PoE: 25.5 W for a single port
USB PORTS RS232 ELECTRICAL POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL	USB2.0) 1 port (for PC communications and keyboard) Single, 100~240 VAC, 50/60 Hz NVRs: 17.5 W max (without HDD) PoE: 25.5 W for a single port (150 W total)
USB PORTS RS232 ELECTRICAL POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL OPERATING TEMPERATURE	USB2.0) 1 port (for PC communications and keyboard) Single, 100~240 VAC, 50/60 Hz NVRs: 17.5 W max (without HDD) PoE: 25.5 W for a single port (150 W total) -10°C to 55°C (14°F to 131°F)
USB PORTS RS232 ELECTRICAL POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL OPERATING TEMPERATURE RELATIVE HUMIDITY	USB2.0) 1 port (for PC communications and keyboard) Single, 100~240 VAC, 50/60 Hz NVRs: 17.5 W max (without HDD) PoE: 25.5 W for a single port (150 W total) -10°C to 55°C (14°F to 131°F) 10% to 90%, non-condensing -20°C to 70°C (-4°F to 158°F),
USB PORTS RS232 ELECTRICAL POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL OPERATING TEMPERATURE RELATIVE HUMIDITY STORAGE TEMPERATURE PHYSICAL DIMENSIONS	USB2.0) 1 port (for PC communications and keyboard) Single, 100~240 VAC, 50/60 Hz NVRs: 17.5 W max (without HDD) PoE: 25.5 W for a single port (150 W total) -10°C to 55°C (14°F to 131°F) 10% to 90%, non-condensing -20°C to 70°C (-4°F to 158°F), 0% to 90% relative humidity 440 mm × 413 mm × 75 mm (17.3" × 16.3" × 3.0")
USB PORTS RS232 ELECTRICAL POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL OPERATING TEMPERATURE RELATIVE HUMIDITY STORAGE TEMPERATURE PHYSICAL DIMENSIONS WEIGHT (WITHOUT HDD)	USB2.0) 1 port (for PC communications and keyboard) Single, 100~240 VAC, 50/60 Hz NVRs: 17.5 W max (without HDD) PoE: 25.5 W for a single port (150 W total) -10°C to 55°C (14°F to 131°F) 10% to 90%, non-condensing -20°C to 70°C (-4°F to 158°F), 0% to 90% relative humidity
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USB PORTS RS232 ELECTRICAL POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL OPERATING TEMPERATURE RELATIVE HUMIDITY STORAGE TEMPERATURE PHYSICAL DIMENSIONS WEIGHT (WITHOUT HDD) REGULATORY	USB2.0) 1 port (for PC communications and keyboard) Single, 100~240 VAC, 50/60 Hz NVRs: 17.5 W max (without HDD) PoE: 25.5 W for a single port (150 W total) -10°C to 55°C (14°F to 131°F) 10% to 90%, non-condensing -20°C to 70°C (-4°F to 158°F), 0% to 90% relative humidity 440 mm × 413 mm × 75 mm (17.3" × 16.3" × 3.0") 4.65 kg (10.3 lb) FCC Part 15B, EN55032: 2012 +AC: 2013, EN61000-3-2:
USB PORTS RS232 ELECTRICAL POWER SUPPLY POWER CONSUMPTION ENVIRONMENTAL OPERATING TEMPERATURE RELATIVE HUMIDITY STORAGE TEMPERATURE PHYSICAL DIMENSIONS WEIGHT (WITHOUT HDD) REGULATORY EMISSIONS	USB2.0) 1 port (for PC communications and keyboard) Single, 100~240 VAC, 50/60 Hz NVRs: 17.5 W max (without HDD) PoE: 25.5 W for a single port (150 W total) -10°C to 55°C (14°F to 131°F) 10% to 90%, non-condensing -20°C to 70°C (-4°F to 158°F), 0% to 90% relative humidity 440 mm × 413 mm × 75 mm (17.3" × 16.3" × 3.0") 4.65 kg (10.3 lb) FCC Part 15B, EN55032: 2012 +AC: 2013, EN61000-3-2: 2014, EN61000-3-3: 2013 EN50130-4: 2011+A1: 2014,

- * The * = hard drive capacity in TB.
- 1. Actual bitrate is scene and motion dependent with H.264 stream.
- 2. Some development might be required in specific user cases to support some of these protocols in the field, as naturally protocols will mature over time.

16-/32-/64-Channel 4K ENVRs

RECOMMENDED ACCESSORIES

ONVIF support and open API software integration. Refer to www.onvif.org for the ONVIF specification and the Honeywell Open Technology Alliance website (http://www.security.honeywell.com/hota/) to learn more about our open and integrated solutions.



RUGGED 4K IR MINIDOME IP CAMERAS	H4D8PR1
4K IR BULLET IP CAMERAS	HBD8PR1
4K IR BALL IP CAMERAS	HED8PR1
1080P IR PTZ IP CAMERAS	HDZP252DI
INDOOR 5 MP FISHEYE IP CAMERAS	HFD5PR1
3-INCH INDOOR MINIDOME IP CAMERAS	H3W2GR1; H3W2GR2; H3W4GR1
4-INCH RUGGED MINIDOME IP CAMERAS	H4D3PRV2; H4W2PRV2; H4W4PRV2; H4D3PRV3; H4W4PRV3; H4W2GR1; H4W2GR2; H4W4GR1; H4D8GR1
INDOOR BOX IP CAMERAS	HCW2G; HCL2G; HCW4G; HCD8G
BULLET IP CAMERAS	HBD3PR2; HBW2PR2; HBW4PR2; HBW2PR1; HBW4PR1; HBL2GR1; HBW2GR1; HBW2GR3; HBW4GR1; HBD8GR1; HBD1PR1; HBD3PR1
BALL/MICRO DOME IP CAMERAS	H2W2PRV3; H2W4PRV3; HEW2PRW1; HEW4PRW3; HEW2PR1; HEW4PR3; HEW2PR2; HEW4PR2; HED1PR3; HED3PR3

ORDERING

HEN16204	NVR, 16-Channel, H.265, 4K 12 MP, 4 SATA, 16 PoE, 480 fps, 0 TB
HEN16284	NVR, 16-Channel, H.265, 4K 12 MP, 4 SATA, 16 PoE, 480 fps, 8 TB
HEN32204	NVR, 32-Channel, H.265, 4K 12 MP, 4 SATA, 16 PoE, 960 fps, 0 TB
HEN32284	NVR, 32-Channel, H.265, 4K 12 MP, 4 SATA, 16 PoE, 960 fps, 8 TB
HEN322164	NVR, 32-Channel, H.265, 4K 12 MP, 4 SATA, 16 PoE, 960 fps, 16 TB
HEN64204	NVR, 64-Channel, H.265, 4K 12 MP, 4 SATA, 16 PoE, 1920 fps, 0 TB

For more information

www.honeywell.com/security/uk

Honeywell Security and Fire

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 $Honey well \ reserves \ the \ right, without \ notification, to \\ make \ changes \ in \ product \ design \ or \ specifications.$

