

## 8-/16-/32-Channel 4K ENVRs

HEN08104/HEN08144/HEN16104/HEN16144  
HEN16184/HEN32104/HEN321124

Introducing Honeywell's Performance 4K Embedded NVRs, our newest affordable, fully featured NVRs offering Ultra HD 4K video resolution. Choose an 8-, 16-, or 32-channel NVR, with multiple hard drive options plus the ability to expand to up to 16 TB of internal storage, for an ideal and flexible solution to fit your surveillance situation.

### 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@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 2 HDDs expandable up to 16 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 8/16 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

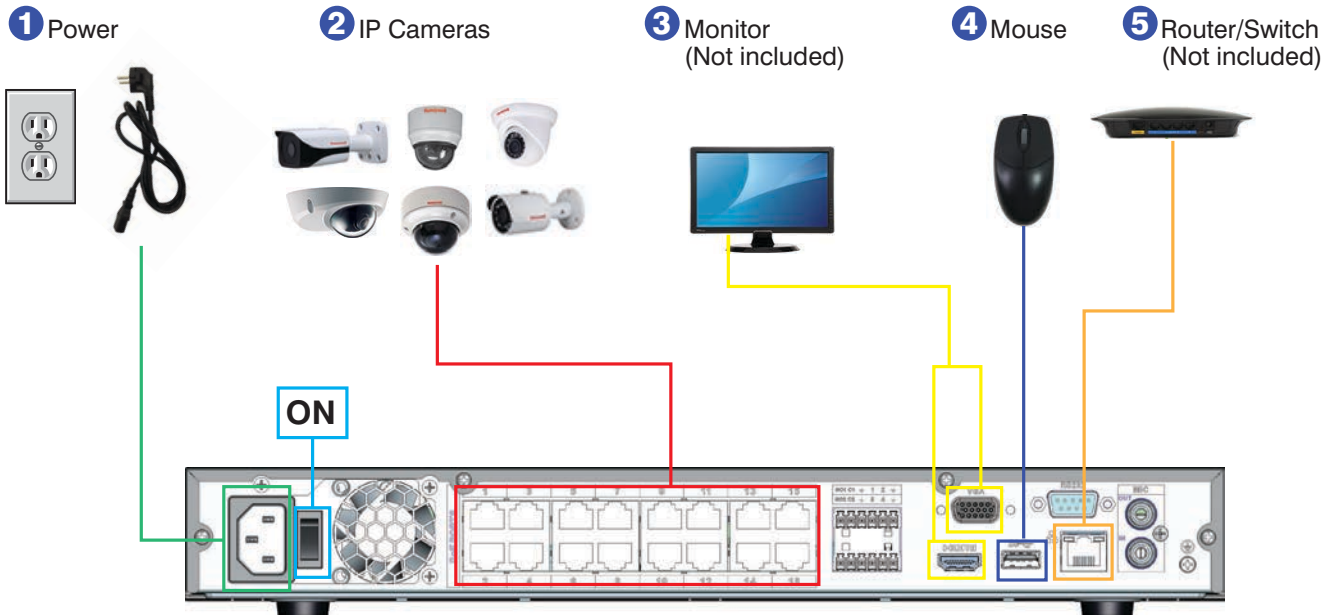
The flexible storage options and high recording and networking performance of the Performance 4K Embedded NVRs make these NVRs perfect for a wide range of security applications.

## FEATURES AND BENEFITS

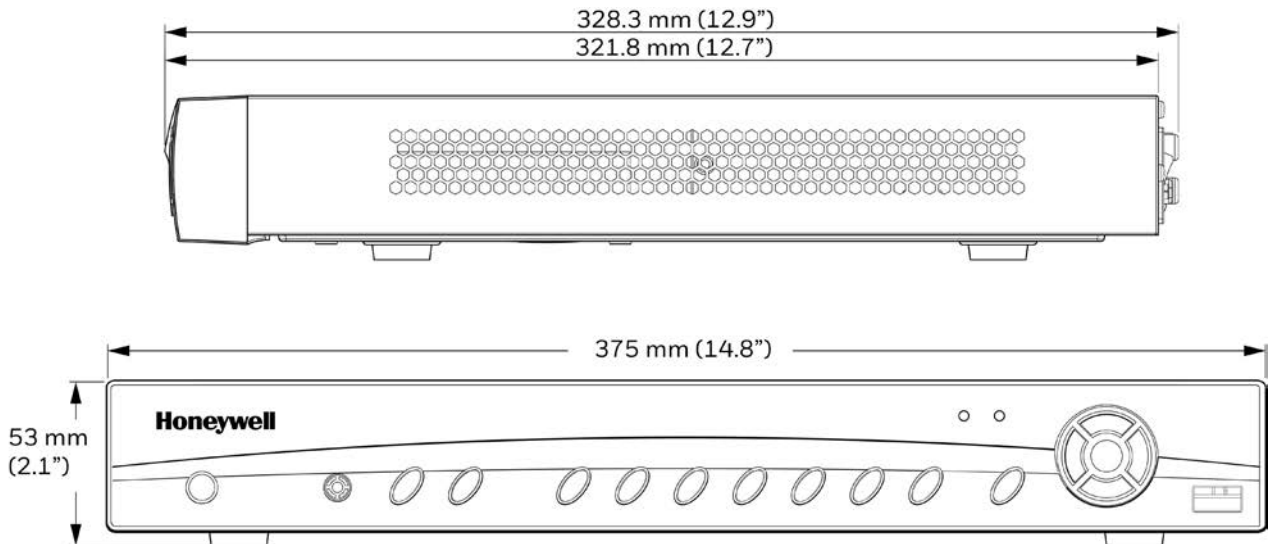
- H.265/H.264/MJPEG/MPEG4 codec decoding
- Supports up to 4 alarm input channels and 2 alarm relay output channels
- Supports recording a video clip of events for distribution
- Configurable to automatically detect and respond to motion in the scene, alarm inputs, and network failure or tampering
- Supports visual or auditory notifications (a flashing light, bell, or siren)
- HDMI/VGA simultaneous video output
- Supports sending notifications through email, FTP, and/or HTTP
- Supports uploading still images at the time of the event through email and/or FTP
- Maximum incoming bandwidth of 320 Mbps
- Supports fisheye video de-warping in local and web user interface
- UL listed

# 8-/16-/32-Channel 4K ENVRs Technical Specifications

## SYSTEM DIAGRAM



## DIMENSIONS



# 8-/16-/32-Channel 4K ENVRs Technical Specifications

SYSTEM	
MAIN PROCESSOR	Quad-core embedded processor
OPERATING SYSTEM	Embedded LINUX
VIDEO	
INPUTS	<b>HEN081*4:</b> 8 Channels IP <b>HEN161*4:</b> 16 Channels IP <b>HEN321*4:</b> 32 Channels IP
AUDIO	
AUDIO INPUT/OUTPUT	1 Channel Input/1 Channel Output, RCA
TWO-WAY COMMUNICATION	Supported
DISPLAY	
INTERFACE	1 HDMI (up to 3840 × 2160); 1 VGA
RESOLUTION	3840 × 2160; 1920 × 1080; 1280 × 1024; 1280 × 720; 1024 × 768
DISPLAY SPLIT	<b>HEN081*4:</b> 1/4/8/9 <b>HEN161*4:</b> 1/4/8/9/16 <b>HEN321*4:</b> 1/4/8/9/16/25/36
OSD	Camera title; Time; Video loss; Camera lock; Motion detection; Recording
FISHEYE VIDEO DE-WARPING	Supported in local and web user interface
RECORDING	
COMPRESSION	H.265/H.264/MJPEG/MPEG4
RESOLUTION	<b>12 MP</b> (4000 × 3000); <b>8 MP</b> (3840 × 2160); <b>6 MP</b> (3072 × 2048); <b>5 MP</b> (2560 × 1920); <b>4 MP</b> (2560 × 1440); <b>3 MP</b> (2048 × 1520); <b>1080p</b> (1920 × 1080); <b>720p</b> (1280 × 720); <b>D1</b> (704 × 576 / 704 × 480); <b>CIF</b> (352 × 288 / 352 × 240)
FRAME RATE	1–15 fps (12 MP and 8 MP); 1–25/30 fps (rest of the resolutions)
RECORD BIT RATE	320 Mbps
BIT RATE <sup>1</sup>	16 kbps ~ 20 Mbps, per channel
RECORDING MODE	Schedule (Regular/Continuous, Motion Detection, Alarm); Manual; Stop
RECORDING INTERVAL	1 to 120 minutes (default 60 min)
PRE-EVENT RECORDING INTERVAL	1 to 30 seconds
POST-EVENT RECORDING INTERVAL	10 to 300 seconds
VIDEO DETECTION AND ALARMS	
TRIGGER EVENTS	Recording; PTZ; Tour; Alarm; Video Push; Email; FTP; Snapshot; Buzzer
VIDEO DETECTION	Motion Detection—MD Zones: 396 (22 × 18); Video Loss; Camera Blank
ALARM INPUT	4 Channels
RELAY OUTPUT	2 Channels
STORAGE	
INTERNAL HDD	2 SATA ports, up to 16 TB

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	<b>HEN081*4:</b> 8 ports (802.3af/at) <b>HEN161*4:</b> 16 ports (802.3af/at) <b>HEN321*4:</b> 16 ports (802.3af/at)
SUPPORTED PROTOCOLS <sup>2</sup>	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
AUXILIARY INTERFACE	
USB PORTS	2 (1 rear USB3.0; 1 front USB2.0)
RS232	1 port (for PC communications and keyboard)
ELECTRICAL	
POWER SUPPLY	Single, 100~240 VAC, 50/60 Hz
POWER CONSUMPTION	<b>HEN081*4:</b> 15.2 W max (no HDD) <b>HEN161*4:</b> 14.5 W max (no HDD) <b>HEN321*4:</b> 14.5 W max (no HDD) <b>PoE:</b> 25.5 W for a single port (130 W total)
ENVIRONMENTAL	
OPERATING TEMPERATURE	-10°C to 55°C (14°F to 131°F)
RELATIVE HUMIDITY	10% to 90%, non-condensing
STORAGE TEMPERATURE	-20°C to 70°C (-4°F to 158°F), 0% to 90% relative humidity
PHYSICAL	
DIMENSIONS	375 mm × 327 mm × 53 mm (14.8" × 12.9" × 2.1")
WEIGHT (WITHOUT HDD)	2.7 kg (6.0 lb.)
REGULATORY	
EMISSIONS	FCC Part 15B, EN55032: 2012 +AC: 2013, EN61000-3-2: 2014, EN61000-3-3: 2013
IMMUNITY	EN50130-4: 2011+A1: 2014, EN55024: 2010+A1: 2015
SAFETY	EU: EN60950-1 North America UL listed to UL/CSA 60950-1
ROHS	EN50581: 2012

\* 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.

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## RECOMMENDED ACCESSORIES

ONVIF support and open API software integration. Refer to [www.onvif.org](http://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.



RECOMMENDED CAMERAS	
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

<b>HEN08104</b>	NVR, 8-Channel, H.265, 4K 12 MP, 2 SATA, 8 PoE, 240 fps, 0 TB
<b>HEN08144</b>	NVR, 8-Channel, H.265, 4K 12 MP, 2 SATA, 8 PoE, 240 fps, 4 TB
<b>HEN16104</b>	NVR, 16-Channel, H.265, 4K 12 MP, 2 SATA, 16 PoE, 480 fps, 0 TB
<b>HEN16144</b>	NVR, 16-Channel, H.265, 4K 12 MP, 2 SATA, 16 PoE, 480 fps, 4 TB
<b>HEN16184</b>	NVR, 16-Channel, H.265, 4K 12 MP, 2 SATA, 16 PoE, 480 fps, 8 TB
<b>HEN32104</b>	NVR, 32-Channel, H.265, 4K 12 MP, 2 SATA, 16 PoE, 960 fps, 0 TB
<b>HEN321124</b>	NVR, 32-Channel, H.265, 4K 12 MP, 2 SATA, 16 PoE, 960 fps, 12 TB