KBVISION

KX-DDAAi4K8916ZEN3

16 Channels 1.5U 4HDD Network Video Recorder

Design and specifications are subject to change without notice Pictures in the document are for reference only, and the actual product shall prevail.



- · Smart H.265+/H.265/Smart H.264+/H.264/MJPEG decoding format.
- · 32-channel 1080p self-adaptive decoding capability.
- · Max. 384 Mbps incoming/recording/outgoing bandwidth.

· AI by recorder: 2-channel face detection and recognition, 4-channel perimeter protection, and 8-channel SMD Plus, Ryder dissipation technology

· AI by camera: Face detection and recognition, perimeter protection, SMD Plus, metadata, ANPR, stereo analysis, heat map, and people counting.

· Security baseline 2.3.



Suctor		
System		
Main Processor	Industrial-grade processor	
Operating System	Embedded Linux	
Operating Interface	Web, Local GUI	
AI		
Al by Recorder	Face detection; face recognition; perimeter protection; SMD Plus	
Al by Camera	Face detection; face recognition; video metadata (human, motor vehicles, and non-motor vehicles); perimeter protection; SMD Plus; stereo analysis; crowd distribution; people counting; ANPR; vehicle density; heat map	
Perimeter Protection		
Perimeter Performance AI by Recorder (Number of Channels)	4 channels, 10 IVS rules for each channel	
Perimeter Performance of AI by Camera (Number of Channels)	16 channels	
Face Detection		
Face Attributes	Gender; age group; glasses; expressions; face mask; beard	
Face Detection Performance of AI by Recorder (Number of Channels)	2 channels (up to 12 face images/s each channel)	
Face Detection Performance of AI by Camera (Number of Channels)	16 channels	
Face Recognition		
Face Database Capacity	Up to 20 face databases with 20,000 images, with a total capacity of 2.5 G. Name, gender, birthday, address, credential type, credential No., countries & regions and state can be added to each face image.	
Face Recognition Performance of AI by Recorder (Number of Channels)	 1. 16-channel FD (by camera) + FR (by recorder), image stream: 16 face images/s 2. 2-channe FD (by recorder) + FR (by recorder), video stream: 12 face images/s 	

Face Recognition Performance of AI by Camera (Number of Channels)	16 channels	
SMD Plus		
SMD Plus by Recorder	8 channels: Secondary filtering for human and motor vehicle , reducing false alarms caused by leaves, rain and lighting condition change	
SMD Plus by Camera	16 channels	
Video Metadata		
Metadata Performance of AI by Camera (Number of Channels)	8 channels	
Human Attributes	Top color, top type, bottom color, bottom type, hat, bag, age, gender and umbrella	
Motor Vehicle Attributes	License plate, plate color, vehicle body, vehicle model, vehicle logo, calling, seatbelt, vehicle interior, vehicle registration location.	
Non-motor Vehicle Attributes	Vehicle model, vehicle color, number of persons, helmet.	
Vehicle License Plate Comparison		
ANPR by Camera (Number of Channels)	8 channels	
License Plate Database Capacity	 Create up to 20,000 plate numbers. Blocklist and allowlist 	
Audio and Video		
Access Channel	16	
Network Bandwidth	Al disabled: 384 Mbps incoming, 384 Mbps recording and 384 Mbps outgoing Al enabled: 200 Mbps incoming, 200 Mbps recording and 200 Mbps outgoing	
Resolution	32 MP; 24 MP; 16 MP; 12 MP; 8 MP; 5 MP; 4 MP; 1080p; 720p; D1; CIF; QCIF	
Decoding Capability	Al disabled: 2-channel 32 MP@20 fps; 2-channel 24 MP@20 fps; 4-channel 16 MP@30 fps; 5-channel 12 MP@30 fps;	

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	8-channel 8 MP@30 fps; 12-channel 5 MP@30 fps; 16-channel 4 MP@30 fps AI enabled: 1-channel 32 MP@20 fps; 1-channel 24 MP@20 fps; 2-channel 16 MP@30 fps; 4-channel 12	
	MP@30 fps; 4-channel 8 MP@30 fps; 8-channel 5 MP@30 fps; 12-channel 4 MP@30 fps	
Video Output	2-channel VGA, 2-channel HDMI video output. Heterogeneous video source output for HDMI1 and HDMI2 Simultaneous video source output for VGA1 and HDMI1 Simultaneous video source output for VGA2 and HDMI2 Supports 4K display	
Multi-screen Display	Main screen: 1/4/8/9/16 Sub screen: 1/4/8/9/16	
Third-party Camera Access	ONVIF; Panasonic; Sony; Axis; Arecont; Pelco; Canon; Samsung	
Compression Standard		
Video Compression	Smart H.265+; H.265; Smart H.264+; H.264; MJPEG	
Audio Compression	G.711a; G.711u; PCM; G726	
Network		
Network Protocol	HTTP; HTTPS; TCP/IP; IPv4/IPv6; RTSP; UDP; SNMP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; PPPoE; FTP; DDNS; Alarm Server; IP Search (Supports KBVISION IP camera, DVR, NVS, etc.); Multicast; P2P; Auto Registration	
Mobile Phone Access	iOS; Android	
Interoperability	ONVIF 21.12(Profile T; Profile S; Profile G); CGI; SDK	
Browser	Chrome IE 9 or later Firefox	
Network Mode	Multi-address mode, load balance, fault tolerance and other network port binding modes	
Recording Playback		
Multi-channel Playback	Up to 16 channels	
Record Mode	General, motion detection; intelligent; alarm; POS	
Backup Method	USB device and network	
Playback Mode	Instant playback, general playback, event playback, tag playback, smart playback (face and motion detection)	
Storage		
Disk Group	YES	
Alarm		
General Alarm	Motion detection; privacy masking; local alarm	

Alarn Linkagestereo analysis; crowd distribution; people counting; ANPR; vehicle density; heat mapAlarn LinkageRecord; snapshot (panoramic); local alarn output; IPC external alarn output; access controller; audio; buzzer; log, preset; emailPortAudio Input1-channel RCAAudio Output2-channel RCAAlarn Input16 channelsAlarn Output6 channels (1-channel 12 V 1 A output)HDD Interface8 SATA ports, up to 16 TB.The maximum HDD capacity varies with environment temperature.eSATA1Rs-2321Rs-4851 (half-duplex serial communication)USB3(1 front USB 2.0 port, 2 rear USB 3.0 ports)HDMI2VGA2Network Port2 (10/100/1000 Mbps Ethernet port, RJ-45)GeneralTotal output of NVR is ≤ 13 W (without HDD)Net Weight6.11 kg (13.47 lb)Product Dimensions\$30.0 mm × 415.1 mm x 70.0 mm (17.32" x 16.34" 2.76") (W x D x H)Packaging Dimensions\$30.0 mm × 500.0 mm × 210.0 mm (20.87" x 2.76") (W x D x H)Operating Temperature-0 °C to +60 °C (-4 °F to +131 °F)Operating Humidity10%-93% (RH)	Anomaly Alarm	Camera offline; storage error; disk full; IP conflict; MAC conflict; login lock; abnormal behavior of fan; cybersecurity exception
Alarm LinkageIPC external alarm output; access controller; audio; buzzer; log, preset; emailPortAudio Input1-channel RCAAudio Output2-channel RCAAlarm Input16 channelsAlarm Output6 channels (1-channel 12 V 1 A output)HDD Interface8 SATA ports, up to 16 TB.The maximum HDD capacity varies with environment temperature.eSATA1RS-2321RS-4851 (half-duplex serial communication)USB3(1 front USB 2.0 port, 2 rear USB 3.0 ports)HDMI2VGA2Network Port2 (10/100/1000 Mbps Ethernet port, RJ-45)General	Intelligent Alarm	recognition; video metadata (human, motor vehicles, and non-motor vehicles); SMD Plus; stereo analysis; crowd distribution; people
Audio Input1-channel RCAAudio Output2-channel RCAAlarm Input16 channelsAlarm Output6 channels (1-channel 12 V 1 A output)HDD Interface 8 SATA ports, up to 16 TB.The maximum HDD capacity varies with environment temperature.eSATA1RS-2321RS-4851 (half-duplex serial communication)USB3(1 front USB 2.0 port, 2 rear USB 3.0 ports)HDMI2VGA2Network Port2 (10/100/1000 Mbps Ethernet port, RJ-45)GeneralTotal output of NVR is ≤ 13 W (without HDD)Net Weight6.11 kg (13.47 lb)Product Dimensions $530.0 mm \times 500.0 mm \times 210.0 mm (17.32" \times 16.34" \times 2.76") (W × D × H)Packaging Dimensions-10 ^{\circ} C t + 55 ^{\circ} C (14 ^{\circ} F t o + 131 ^{\circ} F)Operating Temperature-20 ^{\circ} C t o + 60 ^{\circ} C (-4 ^{\circ} F t o + 140 ^{\circ} F)Operating Humidity10%–93% (RH)InstallationRack or desktop$	Alarm Linkage	IPC external alarm output; access controller;
Audio Output2-channel RCAAlarm Input16 channelsAlarm Output6 channels (1-channel 12 V 1 A output)HDD Interface8 SATA ports, up to 16 TB.The maximum HDD capacity varies with environment temperature.eSATA1RS-2321RS-4851 (half-duplex serial communication)USB3(1 front USB 2.0 port, 2 rear USB 3.0 ports)HDMI2VGA2Network Port2 (10/100/1000 Mbps Ethernet port, RJ-45)GeneralTotal output of NVR is ≤ 13 W (without HDD)Net Weight4.74 kg (10.45 lb)Gross Weight6.11 kg (13.47 lb)Product Dimensions530.0 mm < 50.0 mm < 21.0 mm (17.32" $\times 16.34$ " < 2.76 ") (W $\times D \times H$)Packaging Dimensions530.0 mm < 50.0 mm < 21.0 mm (20.87" \times 19.69" $\times 8.27$ ")(W $\times D \times H$)Operating Temperature -10 °C to $+55$ °C (14 °F to $+131$ °F)Operating Humidity10%–93% (RH)InstallationRack or desktop	Port	
Alarm Input16 channelsAlarm Output6 channels (1-channel 12 V 1 A output)Alarm Output6 channels (1-channel 12 V 1 A output)HDD Interface8 SATA ports, up to 16 TB.The maximum HDD capacity varies with environment temperature.eSATA1RS-2321RS-4851 (half-duplex serial communication)USB3(1 front USB 2.0 port, 2 rear USB 3.0 ports)HDMI2VGA2Network Port2 (10/100/1000 Mbps Ethernet port, RJ-45)General	Audio Input	1-channel RCA
Alarm Output6 channels (1-channel 12 V 1 A output)Alarm Output6 channels (1-channel 12 V 1 A output)HDD Interface8 SATA ports, up to 16 TB.The maximum HDD <bbr></bbr> capacity varies with environment temperature.eSATA1RS-2321RS-4851 (half-duplex serial communication)USB3(1 front USB 2.0 port, 2 rear USB 3.0 ports)HDMI2VGA2Network Port2 (10/100/1000 Mbps Ethernet port, RJ-45)General	Audio Output	2-channel RCA
HDD Interface& SATA ports, up to 16 TB.The maximum HDD capacity varies with environment temperature.eSATA1RS-2321RS-4851 (half-duplex serial communication)USB3(1 front USB 2.0 port, 2 rear USB 3.0 ports)HDMI2VGA2Network Port2 (10/100/ Mbps Ethernet port, RJ-45)General500 POV2 (0.000 Mbps Ethernet port, RJ-45)Power Supply100-240 VAC, 50-60 HzPower ConsumptionTotal output of NVR is ≤ 13 W (without HDD)Net Weight6.11 kg (13.47 lb)Gross Weight6.11 kg (13.47 lb)Product Dimensions\$30.0 mm × 415.1 mm x 70.0 mm (17.32" × 16.34" 2.76") (W × D × H)Poperating Temperature-0 °C to +55 °C (14 °F to +131 °F)Storage Temperature-20 °C to +60 °C (-4 °F to +140 °F)Operating Humidity10%-93% (RH)InstallationRack or desktop	Alarm Input	16 channels
HDD interfacecapacity varies with environment temperature.eSATA1RS-2321RS-4851 (half-duplex serial communication)USB3(1 front USB 2.0 port, 2 rear USB 3.0 ports)HDMI2VGA2Network Port2 (10/100/1000 Mbps Ethernet port, RJ-45)General $-240 VAC, 50-60 Hz$ Power Supply100-240 VAC, 50-60 HzPower ConsumptionTotal output of NVR is ≤ 13 W (without HDD)Net Weight4.74 kg (10.45 lb)Gross Weight6.11 kg (13.47 lb)Product Dimensions $530.0 mm \times 415.1 mm \times 70.0 mm (17.32" \times 16.34" \times 2.76") (W \times D \times H)Packaging Dimensions-10 ^\circ C to +55 ^\circ C (14 ^\circ F to +131 ^\circ F)Operating Temperature-20 ^\circ C to +60 ^\circ C (-4 ^\circ F to +140 ^\circ F)Operating Humidity10%-93% (RH)InstallationRack or desktop$	Alarm Output	6 channels (1-channel 12 V 1 A output)
RS-2321RS-2321RS-4851 (half-duplex serial communication)USB3(1 front USB 2.0 port, 2 rear USB 3.0 ports)HDMI2VGA2Network Port2 (10/100/1000 Mbps Ethernet port, RJ-45)GeneralPower Supply100–240 VAC, 50-60 HzPower ConsumptionTotal output of NVR is < 13 W (without HDD)	HDD Interface	
RN-1000 I RS-485 1 (half-duplex serial communication) USB 3(1 front USB 2.0 port, 2 rear USB 3.0 ports) HDMI 2 VGA 2 Network Port 2 (10/100/1000 Mbps Ethernet port, RJ-45) General 2 Power Supply 100–240 VAC, 50-60 Hz Power Consumption Total output of NVR is ≤ 13 W (without HDD) Net Weight 4.74 kg (10.45 lb) Gross Weight 6.11 kg (13.47 lb) Product Dimensions \$30.0 mm × 415.1 mm x 70.0 mm (17.32" × 16.34" × 2.76") (W × D × H) Packaging Dimensions \$30.0 mm × 500.0 mm × 210.0 mm (20.87" × 19.69" × 8.27")(W × D × H) Operating Temperature $-10 °C to +55 °C (14 °F to +131 °F) Operating Humidity 10%–93% (RH) Installation Rack or desktop $	eSATA	1
USB 3(1 front USB 2.0 port, 2 rear USB 3.0 ports) HDMI 2 VGA 2 Network Port 2 (10/100/1000 Mbps Ethernet port, RJ-45) General	RS-232	1
HDMI2VGA2Network Port2 (10/100/1000 Mbps Ethernet port, RJ-45)General100–240 VAC, 50-60 HzPower Supply100–240 VAC, 50-60 HzPower ConsumptionTotal output of NVR is ≤ 13 W (without HDD)Net Weight4.74 kg (10.45 lb)Gross Weight6.11 kg (13.47 lb)Product Dimensions $440.0 \text{ mm} \times 415.1 \text{ mm} \times 70.0 \text{ mm} (17.32" \times 16.34" \times 2.76") (W \times D \times H)$ Packaging Dimensions $530.0 \text{ mm} \times 500.0 \text{ mm} \times 210.0 \text{ mm} (20.87" \times 19.69" \times 8.27") (W \times D \times H)$ Operating Temperature $-10 ^{\circ} C$ to $+55 ^{\circ} C$ (14 °F to $+131 ^{\circ} F$)Storage Temperature $-20 ^{\circ} C$ to $+60 ^{\circ} C$ ($-4 ^{\circ} F$ to $+140 ^{\circ} F$)Operating Humidity10%–93% (RH)InstallationRack or desktop	RS-485	1 (half-duplex serial communication)
VGA 2 VGA 2 Network Port 2 (10/100/1000 Mbps Ethernet port, RJ-45) General	USB	3(1 front USB 2.0 port, 2 rear USB 3.0 ports)
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Installation Rack or desktop	Storage Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
	Operating Humidity	10%–93% (RH)
Panels	Installation	Rack or desktop

