

ZNR-224

Deep Learning AI 32-Channel 2-Bay 1U Rackmount Standalone NVR



- 2-bay 1U Rackmount Standalone NVR
- Maximum Number of Video Devices: 32
- Event trigger, response and notification
- Forensic Search

► Specifications

Product Profile

Product Type	Standalone NVR
Maximum Resolution	16MP
Maximum Number of Video Devices	32
Maximum Number of Clients	Local: 1, Remote: 128
Supported Screen Resolution	HDMI: 3840x2160 (30Hz), 1920x1080 (60Hz), 1600x1200 (60Hz), 1280x1024 (60Hz), 1280x720 (60Hz), 1024x768 (60Hz) VGA: 1920x1080 (60Hz), 1600x1200 (60Hz), 1280x1024 (60Hz), 1280x720 (60Hz), 1024x768 (60Hz)

Hardware

System Architecture	Embedded SoC-based (ARM platform)
CPU	ARM-based embedded SoC

License

License required	No
Free License	32

Live View

Display Layout Mode	1, 4, 6, 8, 9, 16, 25, 32
Fisheye Dewarping	Yes (Live View, Playback)

Local Live View performance	[Smart IVA Off] 32ch (up to 30 fps at 1080p) 20ch (up to 30 fps at 3MP) 16ch (up to 30 fps at 4MP) 8ch (up to 30 fps at 4K) 4ch (up to 30 fps at 16MP)
Digital Zoom	Yes
Event Status	Display event status upon alarm or upon connection loss or recovery between server and client
Instant Playback	Instant Playback in live view window

PTZ

PTZ Control	PTZ Control, Speed Control
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Video

Compression	H.265 Adaptive Stream (equivalent to Zip or Smart Stream or H.265+), H.264 Adaptive Stream (equivalent to Zip or Smart Stream or H.264+)
Text Overlay	Yes

Analytics

NVR Built-in Analytics	Smart Intrusion Protection (detect people, vehicles entering/ exiting area or crossing the line), Smart Motion Detection (detect when the people, vehicles or other objects move in the predefined area), Face Recognition, Face Detection, Elevator Occupancy Detection, Illegal Parking Detection, Route Obstruction Detection, People Counting (accumulated and area counting), Crowd Detection, Behavior Analytics, Object Metadata
NVR Analytics Maximum Channels	Smart Intrusion Protection: 16 channels Other analytics: 16 channels
NVR Behavior Analytics	Missing Helmet Detection, Missing Chef Hat Detection, Missing Work Clothes Detection, Smoking Detection, Smoke Detection, Fire Detection, Calling Detection, Missing Mask Detection, Rat Detection, Loitering Detection, Fall Detection, Fight Detection, Absence Detection, Climbing Detection, Sleeping Detection, People Counting, Mobile Phone Usage Detection, Crowd Detection, Crowd Dispersion Detection, Running Detection
NVR Object Metadata	Gender, Age, Glasses, Mask, Vehicle type, Vehicle color, Vehicle brand, Vehicle direction, License plate type, License plate color, License plate number
Deep Learning AI	2.0
Object Recognition Database	Face Picture Capacity: 100,000 Vehicle Picture Capacity: 25,000
Maximum Snapshot Capacity	Captured Face Snapshots: 2,000,000 Captured Vehicle Snapshots: 2,000,000 Captured Object Snapshots via Smart Intrusion Protection: 2,000,000 Object Metadata Snapshots: 2,000,000
Analytics from Camera	Receive analytics based events from the cameras and respond to the events: Face Detection; Smart Motion Detection (People Detection, Vehicle Detection); Smart Intrusion Protection (Intrusion Detection, Line Crossing Detection, Enter Area Detection, Exit Area Detection); People Counting (People Line Counting, People Area Counting, People Flow Counting, Crowd Detection); Object Metadata; Object Recognition; Temperature Detection (Fire Detection, Smoking Detection, Smoke Detection, Temperature Measurement); Traffic Monitoring

Audio

Audio Type	2-way, Line-in, Line-out
Audio Compression	G.711

Network

Network Protocol & Service	IPv4/v6, TCP, UDP, DHCP Client, HTTP, HTTPS, DNS, DDNS, NTP, RTSP, SMTP, FTP, ICMP, ARP, UPnP, SNMP, NFS
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Ethernet Port	2 x Ethernet (10/100/1000 Base-T), RJ-45 connector
Maximum Outgoing Throughput	192 Mbps

Recording

Scheduled Recording	Yes
Event Recording	Yes
Manual Recording	Yes
Maximum Recording Throughput	192 Mbps

Search & Playback

Playback Control	Continuous forward and backward playback with speeds 0.125x/0.25x/0.5x/1x/2x/4x/8x/16x or play, pause, stop
Synchronized Playback	16 channels
Event Search	Search within previously recorded AI events
Smart Search	Set ROI and look for the people and vehicles appearing in the ROI in the past recordings (requires cameras with Smart Motion Detection feature)
Forensic Search	Select target object (people, vehicle) and search for the similar object through all the channels
Metadata Search	Select attribute filters (color, gender, age, etc) and find thumbnails matching the criteria
Text-based Search	Search by name or ID number, partial or full license plate number, attribute (color, gender, age, glasses), behavior (running, falling down) or sub-type (bus, truck, etc) name as freetext
Object Visual Tracking	View thumbnails generated by Forensic Search and playback by time sequence

Event

Event Trigger	[NVR]: Disk full, Disk not found, Disk abnormal, Low disk space, Illegal access, Recording or Snapshot abnormal, Crowd detection with three different concurrent thresholds with priority, Smart Intrusion Protection, Smart Motion Detection, Face Recognition [Video Device]: Video motion detection, Tampering detection, Defocus detection, External device through digital input, Sound detection, Video loss, Smart Intrusion Protection, Smart Motion Detection, Face Recognition, Face Detection, People Detection, Vehicle Detection, People Line Crossing Detection, People Enter Area Detection, People Exit Area Detection, Vehicle Line Crossing Detection, Vehicle Enter Area Detection, Vehicle Exit Area Detection, Temperature Detection, Fire Detection, Smoke Detection, Missing Object Detection, Unattended Object Detection, PTZ Auto Tracking, People Counting, Crowd Detection, Automatic License Plate Recognition, Traffic Monitoring
Event Response	E-mail notification with snapshots, Play alert sound, Pop-up window, Activate external device through digital output

System

Server Operating System	Linux
USB	1-Port USB 2.0, 2-Port USB 3.0

Integration

ONVIF Compliant	Yes, Profile S, Profile G, Profile T
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Storage

Storage Bay	SATA, Max. 2 Disk(s) (without storage disks)
Maximum Recording Capacity	24TB x2
RAID Level	No


Interface

Serial Port	1 x RS-485, 1 x RS-232
Audio Interface	1/1, RCA Jack
Digital Input/Output	16/4
Local Display Interface	HDMI x 2, VGA x 2

General

Power Source	DC 12V
Power Consumption	25W
Dimensions	(W x H x D): 380mm x 53mm x 322.4mm (15.0" x 2.1" x 12.7") Rack Space: 1U
Operating Temperature	-10°C ~ 55°C (14°F ~ 131°F)
Operating Humidity	≤90% RH, non-condensing
Approvals	BSMI
Color	Black
Warranty	2 Year(s). For extended warranty offering, see http://www.acti.com/support/warranty

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PHDD-2H00	 WD Ultrastar 16TB 3.5" Hard Disk Drive, 7200 RPM 512MB Cache
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