

# WRC142A-4KS3

## Network Video Recorder



### NVR 4CH 1U 4PoE 2HDDs

- Supports Smart H.265+, H.265, Smart H.264+, H.264 and MJPEG decoding formats.
- Max. decoding capability: 8 × 1080p@30 fps or 4 × 4 MP@30 fps.
- Max. 80/80/60 Mbps incoming/recording/outgoing bandwidth.
- Supports IP cameras with a resolution up to 12 MP.
- AI by Recorder supports 4-channel SMD Plus.
- AI by Camera supports face detection and recognition, perimeter protection, SMD Plus, people counting, stereo analysis and heat map.
- Supports EPTZ, and one-click arming and disarming.



### Series Overview

The WRC142A-4KS3 model of the Lite Series NVR is favored for its outstanding performance. It supports 4K resolution for scenes that require highly detailed images, and can serve as the edge, central, or backup storage with an intuitive shortcut menu for remote management and control. This NVR also features Smart Motion Detection (SMD) by recorder, which can distinguish target vehicles and humans from ordinary ones in real-time. When an IPC is connected to the NVR, a variety of AI functions become available such as face detection, perimeter protection, and people counting. This NVR is both cost-effective and easy-to-install, making it ideal for a wide range of applications such as for cities, transportation, education and finance.

### Function

#### Face Detection by Camera

Face detection is to detect if there is any human face appearing in the video. This technology adopts a deep learning algorithm to support face detection, tracking, optimization and capturing, and then output the best face snapshot.

#### Face Recognition by Camera

WATASHI Face Recognition technology extracts the features of captured faces and compares them with that in face database

#### SMD Plus

With intelligent algorithm, WATASHI Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

#### Perimeter Protection by Camera

Automatically filters out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improves alarm accuracy.

#### Stereo Analysis by Camera

This technology allows multiple AI functions to be set for one channel based on time frames, eliminating the need to manually configure the system to switch between functions each time. Scheduled AI greatly increases efficiency and widens the number of scenarios that the device can be used in.

#### Heat Map by Camera

WATASHI heat map technology is used to display the crowd density and people appearance probability. Export and display the crowd status by different colors. Generally, the crowd status is the statistics of people quantity in space and time dimensions



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### Technical Specification

<b>System</b>	
Main Processor	Industrial-grade processor
Operating System	Embedded Linux
Operating Interface	Web, Local GUI
<b>AI</b>	
AI by Recorder	SMD Plus
AI by Camera	Face detection; face recognition; perimeter protection; SMD Plus; people counting; stereo analysis; heat map
<b>Perimeter Protection</b>	
Perimeter Performance of AI by Camera (Number of Channels)	4 channels
<b>Face Detection</b>	
Face Attributes	Gender; age group; glasses; expressions; face mask; beard
Face Detection Performance of AI by Camera (Number of Channels)	4 channels
<b>Face Recognition</b>	
Face Recognition Performance of AI by Camera (Number of Channels)	4 channels
<b>SMD Plus</b>	
SMD Plus by Recorder	4 channels: Secondary filtering for human and motor vehicle, reducing false alarms caused by leaves, rain and lighting condition change
SMD Plus by Camera	4 channels
<b>Audio and Video</b>	
Access Channel	4 channels
Network Bandwidth	80 Mbps incoming, 80 Mbps recording and 60 Mbps outgoing
Resolution	12 MP; 8 MP; 6 MP; 5 MP; 4 MP; 3 MP; 1080p; 960p; 720p; D1; CIF; QCIF
Decoding Capability	AI disabled: 1-channel 12 MP@30 fps; 2-channel 8 MP@30 fps; 3-channel 5 MP@30 fps; 4-channel 4 MP@30 fps AI enabled: 1-channel 12 MP@30 fps; 1-channel 8 MP@30 fps; 2-channel 5 MP@30 fps; 3-channel 4 MP@30 fps
Video Output	1 HDMI, 1 VGA Simultaneous: HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720 Heterogeneous: HDMI: 1920 × 1080, 1280 × 1024, 1280 × 720 VGA: 1920 × 1080, 1280 × 1024, 1280 × 720
Multi-screen Display	Main Screen: 1/4 Sub Screen: 1/4
Third-party Camera Access	ONVIF; Panasonic; Sony; Axis; Arecont; Pelco; Canon; Hanwha

### Compression Standard

Video Compression	Smart H.265+; H.265; Smart H.264+; H.264
Audio Compression	G.711a; G.711u; PCM; G726

### Network

Network Protocol	HTTP; HTTPS; TCP/IP; IPv4; IPv6; UDP; NTP; DHCP; DNS; SMTP; UPnP; IP Filter; FTP; DDNS; SNMP; Alarm Server; P2P; Auto Registration; IP Search (Supports IP camera, DVR, NVS, etc.)
Mobile Phone Access	iOS; Android
Interoperability	ONVIF 2.12(Profile T; Profile S; Profile G); CGI; SDK
Browser	Chrome; IE; Safari; Edge; Firefox

### Recording Playback

Multi-channel Playback	Up to 4 channels
Record Mode	General, motion detection; intelligent; alarm
Backup Method	USB device and network
Playback Mode	Instant playback, general playback, event playback, tag playback, smart playback

### Storage

Disk Group	Yes
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### Alarm

General Alarm	Motion detection; privacy masking; video loss; scene changing; PIR alarm; IPC external alarm
Anomaly Alarm	Camera disconnection; storage error; disk full; IP conflict; MAC conflict; login locked; and cybersecurity exception
Intelligent Alarm	Face detection; face recognition; perimeter protection; SMD Plus; people counting; stereo analysis; heat map
Alarm Linkage	Record; snapshot; IPC external alarm output; audio; buzzer; log; preset; email

### Port

Audio Input	1-channel RCA
Audio Output	1-channel RCA
Alarm Input	4 channels
Alarm Output	2 channels (1-channel 12 V 1 A output)
Disk Interface	2 SATA ports. Each disk can contain up to 20 TB. This limit varies depending on the environment temperature
USB	2 (1 front USB 2.0 port, 1 rear USB 2.0 port)
HDMI	1
VGA	1
Network Port	1 (10/100 Mbps Ethernet port, RJ-45)
PoE Port	4 ports, 10/100 Mbps, IEEE 802.3 af/at

### General

Power Supply	53 VDC, 1.81 A
Power Consumption	Total output of NVR is <10 W(without HDD) Total output power of PoE is 48W,the maximum output power of a single port is 25.5W
Net Weight	1.56 kg (3.44 lb)

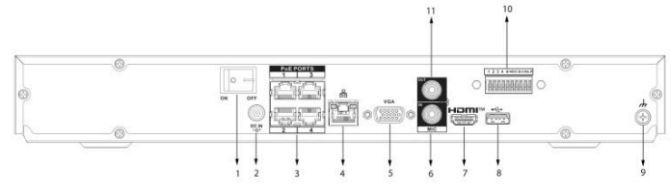


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Gross Weight	2.95 kg (6.50 lb)
Product Dimensions	375.0 mm × 282.9 mm × 53.0 mm (14.76" × 11.14" × 2.09") (W × D × H)
Packaging Dimensions	433.0 mm × 141.0 mm × 366.0 mm (17.05" × 5.55" × 14.41") (W × D × H)
Operating Temperature	-10 °C to +55 °C (14 °F to +131 °F)
Storage Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Operating Humidity	10%–93% (RH), non-condensing
Installation	Rack or desktop
Certifications	CE-EMC: EN 55032:2015+A1:2020; EN IEC 61000-3-2:2019+A1:2021; EN 61000-3-3:2013+A1:2019+A2:2021; EN 55035:2017+A11:2020; EN 50130-4:2011+A1:2014 CE-LVD: EN 62368-1:2014

### Panels



- 1 Power Switch
- 2 Power Input
- 3 PoE Ports
- 4 Network Port
- 5 VGA Port
- 6 AUDIO IN, RCA Connector
- 7 HDMI Port
- 8 USB Port
- 9 Ground
- 10 Alarm In/Out
- 11 AUDIO OUT, RCA Connector

### Dimensions (mm[inch])

