

## Technical Specification

### System

Main Processor	Quad-core Embedded Processor
Operating System	Embedded LINUX

### Audio and Video

IP Camera Input	32 Channels
Audio	Input: One (1) Channel, RCA Output: One (1) Channel, RCA

### Display

Interface	One (1) HDMI Port One (1) VGA Port
Native Output Resolution	HDMI: 3840 × 2160, 1920 × 1080, 1280 × 1024, 1280 × 720, 1024 × 768
	VGA: 1920 × 1080, 1280 × 1024, 1280 × 720, 1024 × 768
Maximum Decoding	Four (4) Channels of 8 MP at 30 fps 16 Channels of 1080p at 30 fps
Multi-screen Display	1/4/8/9/16/25/36
On-screen Display	Camera Title, Time, Camera Lock, Motion Detection, Recording

### Recording

Compression	Smart H.265+, H.265, Smart H.264+, H.264, MJPEG
Supported IP Camera Resolution	12 MP, 8 MP, 6 MP, 5 MP, 4 MP, 3 MP, 1080p, 1.3 MP, 720p, D1, CIF
Maximum Incoming Bandwidth	320 Mbps
Bit Rate	16 Kbps to 20 Mbps per Channel
Record Mode	Manual, Schedule (Regular, Motion Detection), Alarm, IVS, Stop
Record Interval	1 to 120 minutes (default: 60 minutes) Pre-record: 1 to 30 s Post-record: 10 to 300 s

### Video Detection and Alarm

Trigger Events	Recording, PTZ, Tour, Alarm Out, Video Push, Email, Snapshot, Buzzer and Screen Tips
Video Detection	Motion Detection, MD Zones: 396 (22 × 18), Video Loss and Tampering
Alarm Input	Four (4) Channels
Relay Output	Two (2) Channels

### Playback and Backup

Sync Playback	1/4/9/16
Search Mode	Time /Date, Alarm, MD and Exact Search (accurate to 1 second)
Playback Function	Play, Pause, Stop, Rewind, Fast Play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Backup Selection, Digital Zoom
Backup Mode	USB Device and Network

### Third-party Support

Third-party Support	Dahua, Arecont Vision, Airlive, AXIS, Canon, Dynacolor, JVC, LG, Panasonic, Pelco, PSIA, Samsung, Sanyo, Sony, Watchnet and others
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### Network

Interface	One (1) RJ-45 Port (10/100/1000 Mbps)
PoE	16 Ports (IEEE802.3af/at) Ports 1 through 8 support ePoE and EoC
ePoE and EoC	Ports 1 through 8
Network Function	HTTP, HTTPS, TCP/IP, IPv4/IPv6, UPnP, SNMP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Alarm Server, IP Search (Support Dahua IP camera, DVR, and NVS)
Maximum User Access	128 Users
Mobile Operating System	IOS, Android
Interoperability	ONVIF 2.4, SDK, CGI

### Storage

Internal HDD	Two (2) SATA III Ports, up to 10 TB capacity for each HDD
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### Auxiliary Interface

USB	One (1) USB 3.0 Port (rear panel) One (1) USB 2.0 Port (front panel)
RS232	One (1) Port, for PC Communication and Keyboard
RS485	One (1) Port, for PTZ control

### Electrical

Power Supply	Single, 100 VAC to 240 VAC, 50/60 Hz
Power Consumption	NVR: < 15.2 W, without HDD
PoE Budget	130 W Total Rated Power, 80% control for protection Maximum 25.5 W for a single port
Fan	Smart Fan Function, NVR automatically adjusts fan speed based on ambient temperature

### Environmental

Operating Temperature	-10° C to +55° C (+14° F to +131° F), 86 to 106 kpa
Storage Temperature	-20° C to +70° C (-4° F to +158° F), 0 to 90% RH

### Construction

Dimensions	
NVR	375.0 mm x 326.48 mm x 53.0 mm (14.76 in. x 12.85 in. x 2.08 in.)
NVR with PFH101 Rack Mount Tray	482.60 mm x 326.48 mm x 53.0 mm (19.0 in. x 12.85 in. x 2.08 in.)
Net Weight	2.70 kg (6.0 lb), without HDD
Gross Weight	4.0 kg (8.80 lb), without HDD

### Certifications

CE	EN55032, EN55024, EN50130-4, EN60950-1
Safety	UL 60950-1
Electromagnetic Compatibility (EMC)	FCC Part 15 Subpart B ANSI C63.4-2014

Intelligence

IVS triggers an alarm and takes a defined action for the following events:

<b>Standard Features</b>	<ul style="list-style-type: none"> <li>• Tampering with the camera.</li> <li>• Camera loses or changes focus drastically.</li> <li>• Error writing to an onboard Micro SD card.</li> <li>• Error sending or receiving data over the network.</li> <li>• Unauthorized access to the camera.</li> </ul>
<b>Premium Features</b>	
Motion	An object moves through any part of the scene.
Tripwire	A target crosses a user-defined line.
Intrusion	A target enters or exits a defined perimeter.
Scene Change	A person or object moves the camera to change the scene or covers the camera to obscure the scene.
Abandoned/Missing Object	A target leaves an object in designated area, or a target removes an object from the same designated area.
<b>Advanced Features (records data from IP cameras with Advanced Features)</b>	
Facial Detection	Detects and captures a snapshot of a human face in a defined area within a scene.
Face Recognition	Triggers an event if the connected facial recognition camera matches a face to one stored on the camera's database.
People Counting	Measure the number of customers, visitors or passengers in a surveillance scene.
Heat Map	Generates a visual representation of data.

**ePoE/EOC Transmission Distances**

Via CAT5E/CAT6 Ethernet Cable

ePoE supply voltage 48 V  
Maximum DC resistance < 10 Ω/100 m

Cable Length, m (ft)	Bandwidth, Mbps	PoE Load Capacity, W	Hi-PoE Load Capacity, W	Working Mode
100 (328)	100	25.5	53	IEEE/E100
200 (656)	100	25.5	33	E100
300 (984)	100	19	19	E100
400 (1312)	10	17	17	E10
500 (1640)	10	13	13	E10
800 (2625)	10	7	7	E10

Via CAT5E/CAT6 Ethernet Cable

ePoE supply voltage 53 V  
Maximum DC resistance < 10 Ω/100 m

Cable Length, m (ft)	Bandwidth, Mbps	PoE Load Capacity, W	Hi-PoE Load Capacity, W	Working Mode
100 (328)	100	25.5	53	IEEE/E100
200 (656)	100	25.5	47	E100
300 (984)	100	25.5	32	E100
400 (1312)	10	23	26	E10
500 (1640)	10	20	20	E10
800 (2625)	10	13	13	E10

Via RG-59 Coaxial Cable

ePoE supply voltage 48 V  
Maximum DC resistance < 5 Ω/100 m

Cable Length, m (ft)	Bandwidth, Mbps	PoE Load Capacity, W	Hi-PoE Load Capacity, W	Working Mode
100 (328)	100	25.5	50	IEEE/E100
200 (656)	100	25.5	30	E100
300 (984)	100	18	18	E100
400 (1312)	100	15	15	E100
500 (1640)	10	12	12	E10
800 (2625)	10	6	6	E10
1000 (3281)	10	5	5	E10

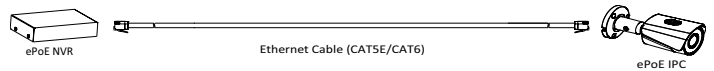
Via RG-59 Coaxial Cable

ePoE supply voltage 53 V  
Maximum DC resistance < 5 Ω/100 m

Cable Length, m (ft)	Bandwidth, Mbps	PoE Load Capacity, W	Hi-PoE Load Capacity, W	Working Mode
100 (328)	100	25.5	52	IEEE/E100
200 (656)	100	25.5	48	E100
300 (984)	100	25.5	30	E100
400 (1312)	100	20	23	E100
500 (1640)	10	16	16	E10
800 (2625)	10	10	10	E10
1000 (3281)	10	8	8	E10

**ePoE and EoC Applications**

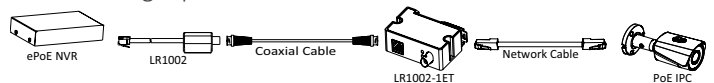
Pure Ethernet



Passive EoC



EoC with Single-port EoC Receiver



**Ordering Information**

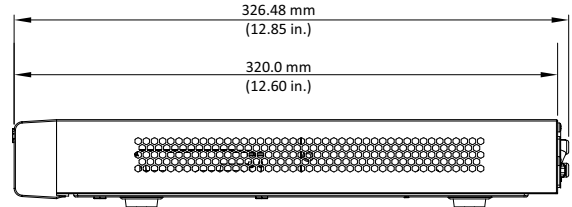
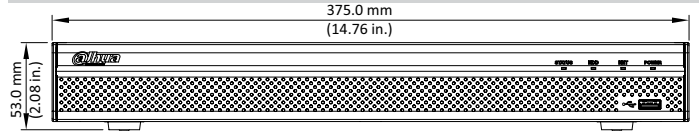
Type	Part Number	Description
32-channel NVR	N52B5P	32 channel 1U ePoE 4K, H.265 Network Video Recorder
	N52B5P2	32 channel 1U ePoE 4K, H.265, 2 TB HDD Network Video Recorder
	N52B5P3	32-channel 1U ePoE 4K, H.265, 3 TB HDD Network Video Recorder
	N52B5P4	32-channel 1U ePoE 4K, H.265, 4 TB HDD Network Video Recorder
	N52B5P6	32-channel 1U ePoE 4K, H.265, 6 TB HDD Network Video Recorder
	N52B5P8	32-channel 1U ePoE 4K, H.265, 8 TB HDD Network Video Recorder
	N52B5P12	32-channel 1U ePoE 4K, H.265, 12 TB HDD Network Video Recorder
	N52B5P16	32-channel 1U ePoE 4K, H.265, 16 TB HDD Network Video Recorder
Accessories, optional	PFH101	Rack Mount Tray 482.60 mm x 281.20 mm x 43.7 mm (19.0 in. x 11.07 in. x 1.72 in.)
ePoE Accessories	LR1002	EoC Passive Converter

**ePoE Accessories**

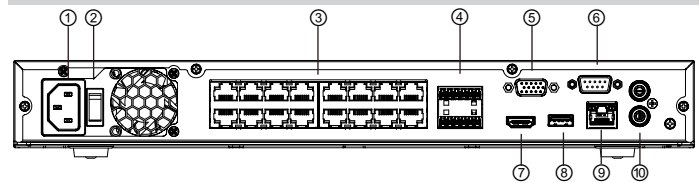


LR1002  
EoC Passive  
Converter

**Dimensions (mm/in.)**



**Rear Panel**



1	Power Input	6	VGA Output
2	Power Switch	7	HDMI Output
3	PoE/PoE+ Ports, x16 RJ-45 ePoE/EoC Ports: 1 through 8	8	USB 3.0 Port
4	Alarm Input, x4 Alarm Output, x2 RS485 Port	9	Network Port (1000 Mbps), RJ-45
5	RS232 Port	10	Audio Input, RCA Audio Output, RCA

1. The NVR requires a firmware upgrade to enable the Automatic License Plate Capture feature. Please contact Dahua Technical Support for more information about this feature and to obtain the firmware for all Dahua N52/N54 Pro Series NVRs.