

Technical Specification

System

| | |
|------------------|------------------------------|
| Main Processor | Quad-core Embedded Processor |
| Operating System | Embedded LINUX |

Audio and Video

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

Display

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|--------------------------|---|
| 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

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|-----------------|--|
| 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

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|-------------------|--|
| 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 |
|---------------------|--|

Network

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|-------------------------|---|
| 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

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|--------------|---|
| Internal HDD | Two (2) SATA III Ports, up to 10 TB capacity for each HDD |
|--------------|---|

Auxiliary Interface

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|-------|---|
| 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

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|-------------------|---|
| 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

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|-----------------------|---|
| 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

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|-------------------------------------|--|
| 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:

| | |
|--|---|
| Standard Features | <ul style="list-style-type: none"> • Tampering with the camera. • Camera loses or changes focus drastically. • Error writing to an onboard Micro SD card. • Error sending or receiving data over the network. • Unauthorized access to the camera. |
| Premium Features | |
| 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. |
| Advanced Features (records data from IP cameras with Advanced Features) | |
| 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 |

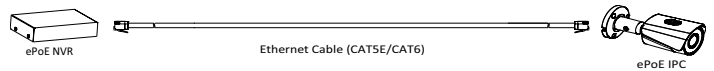
Via RG-59 Coaxial Cable

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

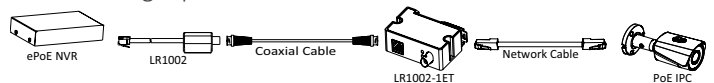
Pure Ethernet



Passive EoC



EoC with Single-port EoC Receiver



Ordering Information

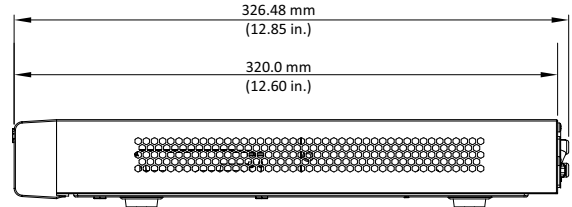
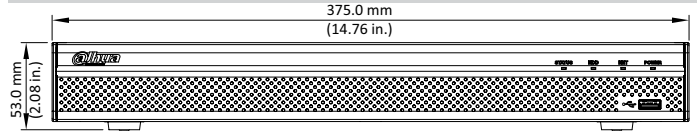
| Type | Part Number | Description |
|-----------------------|-------------|---|
| 32-channel NVR | N52B5P | 32 channel 1U ePoE 4K, H.265 Network Video Recorder |
| | N52B5P2 | 32 channel 1U ePoE 4K, H.265, 2 TB HDD Network Video Recorder |
| | N52B5P3 | 32-channel 1U ePoE 4K, H.265, 3 TB HDD Network 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

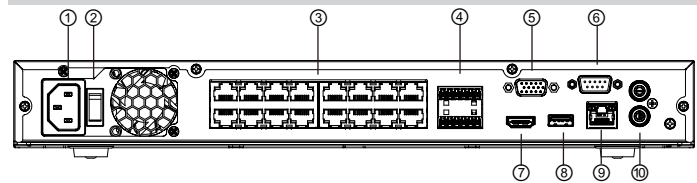


LR1002
EoC Passive
Converter

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.