

4-Channel Video Doorbell Security System

Three (3) 4 MP Eyeball Network Cameras, One (1) WiFi Video Doorbell, One (1) 4-channel 4K NVR



4 MP Network Cameras

- 4 MP at 30 fps Maximum Resolution, 2.8 mm Fixed Lens
- Maximum IR Length 30 m (98 ft) with Smart IR
- Starlight Technology for Ultra Low-light Applications
- Built-in Microphone

2 MP WiFi Video Doorbell

- 2 MP at 30 fps Maximum Resolution, 1.9 mm Fixed Lens
- 2.4 GHz, IEEE 802.11b/g/n, 100 m (328 ft) Open Field WiFi
- Built-in Microphone and Speaker for Real-time Communication
- PIR Detection

4K Network Video Recorder

- 2 TB Pre-installed Hard Disk Drive
- Embedded Quad-core Processor
- Smart H.265+ and Smart H.264+ Dual Codec
- 80 Mbps Incoming Bandwidth

Intelligent Video System

IVS is a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for Tripwire violations, where a target crosses a user-defined line, and for intrusion violations where a target enters or exits a defined perimeter. The camera quickly and accurately responds by triggering an alarm. Working with IVS-enabled IP cameras, the NVR recognizes and records video that contains IVS data on all IP channels.

Smart IR

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of camera's infrared LEDs to compensate the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera's integrated infrared illumination provides high performance in extreme low-light environments up to 30 m (98 ft).

Flexible Recording

The NVR offers a variety of configurable recording options and schedules that saves disk space and active monitoring time. The NVR monitors incoming video and can be programmed to record if motion is detected or if an alarm is triggered. The NVR can also be programmed to record on a schedule or at different intervals. The recording options and schedules can be set for each individual camera or copied to all cameras.

High Efficiency Video Coding (H.265)

The H.265 (ITU-T VCEG) video compression standard offers double the data compression ratio at the same level of video quality, or substantially improved video quality at the same bit rate, as compared to older video compression technologies. H.265 offers such impressive compression by expanding the pattern comparison and difference-coding, improving motion vector prediction and motion region merging, and incorporating an additional filtering step called sample-adaptive offset filtering.

System Overview

The Dahua Video Doorbell Network Security System provides all the components to quickly install, configure, and employ a complete video surveillance solution. The Video Doorbell offers 2 MP video and two-way communication, the IP cameras offer the clarity of 4 MP video, and the NVR offers built-in motion detection algorithms, alarm triggers, and customized recording modes. The Video Doorbell and the network cameras connect easily to the NVR for total system recording. In addition, the Video Doorbell and the NVR are compatible with the Dahua DMSS mobile application to view live video, configure and acknowledge alarms, and share video with authorized users.

Functions

WiFi Video Doorbell

The DHI-DB11 WiFi Video Doorbell offers Passive IR motion detection and transmits video and audio to a mobile phone for remote visual confirmation and communication with visitors. The DHI-DB11 offers high-resolution video ideal for surveillance at homes and in small retail or dining establishments.

DMSS Compatibility

DMSS is a mobile surveillance application that includes alarm push functions and P2P discovery. The application is available for IOS devices (in the Apple App Store) and for Android devices (in the Google Play Store). DMSS offers an easy to use interface to quickly add Dahua devices, including network cameras, NVRs, HDCVI DVRs, Video Intercom, and alarms.

Starlight Technology

For challenging low-light applications, Dahua's Starlight low light Technology offers best-in-class light sensitivity, capturing details in low light applications. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Technical Specification

N42BJ62 4 MP Network Camera

Camera

| | |
|--------------------------|--|
| Image Sensor | 1/3-in. CMOS |
| Effective Pixels | 2688 (H) x 1520 (V), 4 MP |
| ROM/RAM | 128 MB / 128 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto, Manual: 1/30 s to 1/100000 s |
| Minimum Illumination | Color: 0.008 lux at F1.6 0 Lux with IR on |
| IR Distance | Up to 30.0 m (98.43 ft) |
| IR On/Off Control | Auto, Manual |
| IR LEDs | Two (2) |

Lens

| | |
|----------------------|---|
| Lens Type | Fixed-focal |
| Mount Type | M12 |
| Focal Length | 2.8 mm |
| Max Aperture | F1.6 |
| Angle of View | Horizontal: 102° Vertical: 55° Diagonal: 121° |
| Iris | Fixed Aperture |
| Close Focus Distance | 0.90 m (2.95 ft) |

DORI¹ Distance

| Detect (8 ppf) | Observe (19 ppf) | Recognize (38 ppf) | Identify (76 ppf) |
|--------------------|---------------------|-----------------------|----------------------|
| 56.0 m (183.73 ft) | 22.40 m (73.49 ft) | 11.20 m (36.75 ft) | 5.60 m (18.37 ft) |

Installation Angle

| | |
|-------|--|
| Range | Pan: 0° to 360° Tilt: 0° to 78° Rotation: 0° to 360° |
|-------|--|

Video

| | | |
|----------------------|---|--|
| Compression | Smart H.265+, H.265, Smart H.264+, H.264, H.264B MJPEG (sub stream only) | |
| Streaming Capability | Two (2) Streams | |
| Resolution | 4 MP (2688 x 1520), 2560 x 1440, 2304 x 1296, 1080p (1920 x 1080), 1.3 MP (1280 x 960), 720p (1280 x 720), D1 (704 x 480); VGA (640 x 480); CIF (352 x 240) | |
| Frame Rate | Main Stream | 2688 x 1520 at 20 fps or 2560 x 1440 at 30 fps |
| | Sub Stream | D1 (704 x 480) at 30 fps |
| Bit Rate Control | CBR, VBR | |
| Day/Night | Auto (ICR), Color, B/W | |
| BLC Mode | BLC, HLC, True WDR (120 dB) | |
| White Balance | Auto, Natural, Street Lamp, Outdoor, Manual, Regional Custom | |
| Gain Control | Auto, Gain Priority, Shutter Priority, Manual | |
| Noise Reduction | 3D DNR | |

| | |
|--------------------|--------------------------------|
| Motion Detection | Off, On (4 Zones, rectangular) |
| Region of Interest | Off, On (4 Zones) |
| Smart IR | Auto, Manual |
| Digital Zoom | 16x |
| Flip | 0°, 90°, 180°, 270° |
| Mirror | Off, On |
| Privacy Masking | Off, On (4 Areas, rectangular) |

Network

| | |
|-------------------------|---|
| Ethernet | RJ-45 (10/100 Base-T) |
| Protocol | HTTP, HTTPS, TCP, ARP, RTSP, RTP, UDP, SMTP, FTP, DHCP, DNS, DDNS, PPPOE, IPv4/v6, QoS, UPnP, NTP, Bonjour, 802.1x, Multicast, ICMP, IGMP, SNMP |
| Interoperability | ONVIF (Profile S, G, T), CGI, P2P, Milestone, Genetec |
| Auto Register | Support |
| Streaming Method | Unicast, Multicast |
| Maximum User Access | 20 Users /20 Hosts |
| Edge Storage | Network Attached Storage (NAS), FTP, SFTP, Micro SD Card slot (maximum 256 GB) |
| Web Viewer | IE, Chrome, Firefox |
| Management Software | Smart PSS, DSS, DMSS |
| Mobile Operating System | IOS, Android |

Audio

| | |
|-------------------|-----------------------------|
| Input | Built-in Microphone |
| Audio Compression | G.711A, G.711Mu, G.726, AAC |

Certifications

| | |
|-------------------------------------|--|
| Safety | EN 60950-1 |
| Electromagnetic Compatibility (EMC) | FCC CFR 47 Part 15 Subpart B Electromagnetic Compatibility Directive 2014/30/EU |

Electrical

| | |
|-------------------|---------------------------------------|
| Power Supply | 12 VDC or PoE (IEEE 802.3af, Class 0) |
| Power Consumption | < 6.6 W |

Environmental

| | |
|----------------------|---|
| Operating Conditions | -40° C to +60° C (-40° F to +140° F), Less than 95% RH |
| Storage Conditions | -40° C to +60° C (-40° F to +140° F) |
| Ingress Protection | IP67 |

Construction

| | |
|--------------|--|
| Casing | Metal |
| Dimensions | ø121.90 mm x 99.10 mm (ø4.80 in. x 3.90 in.) |
| Net Weight | 0.48 kg (1.10 lb) |
| Gross Weight | 0.65 kg (1.40 lb) |

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. Error writing to an onboard Micro SD card. Error sending or receiving data over the network. Unauthorized access to the camera. |
| Premium Features | |
| Tripwire | A target crosses a user-defined line. |
| Intrusion | A target enters or exits a defined perimeter. |

1. The DORI distance is a measure of the general proximity for a specific classification to help pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specifications and lab test results according to EN 62676-4, the standard that defines the criteria for the Detect, Observe, Recognize and Identify classifications.

Technical Specification**DHI-DB11 2MP WiFi Video Doorbell**

Camera

| | |
|------------------|---------------------|
| Image Sensor | 1/2.7-in. 2 MP CMOS |
| Effective Pixels | 1920 x 1080, 2 MP |
| Scanning System | Progressive |
| IR Distance | 5.0 m (16.50 ft) |

Lens

| | |
|---------------------------|--------|
| Lens Type | Fixed |
| Focal Length | 1.9 mm |
| Angle of View, Horizontal | 140° |

Video and Audio

| | | |
|-------------------|---|---------------------|
| Video Compression | H.264 | |
| Resolution | 2 MP at 30 fps | |
| PIR | Configurable area and distance: Coverage: up to 120° Distance: up to 5.0 m (16.50 ft) | |
| Audio | Input | Built-in Microphone |
| | Output | Built-in Speaker |
| Audio Compression | G.711 | |

Network

| | |
|-------------------------|--|
| WiFi | 2.4 GHz WiFi (IEEE 802.11b/g/n) |
| Antenna | Internal Dual Antennae, 2 x 2 MIMO |
| Interoperability | CGI |
| Mobile Operating System | iOS, Android |
| Edge Storage | Micro SD Card Slot, maximum 64 GB (unit ships with a 16 GB Micro SD card) |
| Compatibility | <ul style="list-style-type: none"> Any Dahua NVR Dahua X5, X7, X82 Series HDCVI DVRs Dahua DMSS Mobile Application Amazon Alexa® |

Certifications

| | |
|-------------------------------------|---|
| Safety | EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 IEC 60950-1:2005 (2nd Ed.); Am1:2009 + Am2:2013 |
| Electromagnetic Compatibility (EMC) | CFR 47 FCC Part 15 subpart B , 201 8 EN 55032:2015; EN 55024:2010; EN 50130-4:2011/A1:2014; EN 61000-3-2:2014; EN 61000-3-3:2013 |

Electrical

| | |
|---------------------------|--|
| Power Supply ² | 16 VAC to 24 VAC, 0.04 A or 16 VDC to 24 VDC, 0.04 A |
| Power Consumption | < 9 W |

Environmental

| | |
|-----------------------|---|
| Operating Temperature | -20° C to +50° C (-4° F to 122° F), Less than 95% RH |
| Ingress Protection | IP55 |

Construction

| | |
|--------------|--|
| Casing | Plastic |
| Dimensions | 118.94 mm x 47.0 mm x 29.30 mm (4.68 in. x 1.85 in. x 1.15 in.) |
| Net Weight | 0.14 kg (0.31 lb) |
| Gross Weight | 0.47 kg (1.03 lb) |
| Installation | Surface-mount |

2. Do not supply power to the DHI-DB11 via the USB port. Use only the Power Input Ports, as detailed in the Quick Installation Guide, to supply power to the device.

Technical Specification**N41C1P2 4K NVR**

System

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

Audio and Video

| | | |
|-----------------|-------------------|---|
| IP Camera Input | Four (4) Channels | |
| Audio | Input | One (1) Microphone, RCA |
| | Output | One (1) Channel, RCA, from Camera or Microphone |

Recording

| | |
|--------------------------------|---|
| Video Compression | Smart H.265+, H.265, Smart H.264+, H.264 |
| Audio Compression | G.711A, G.711Mu, PCM, G726 |
| Supported IP Camera Resolution | 8 MP, 5 MP, 4 MP, 3 MP, 1080p, 720p, D1, CIF |
| Bit Rate | 16 Kbps to 20 Mbps per Channel |
| Record Mode | Manual, Alarm, Motion Detection, Timed |
| Record Interval | 1 to 120 minutes (default: 60 minutes), Pre-record: 1 s to 30 s, Post-record: 10 s to 300 s |

Display

| | | |
|--------------------------|---|---|
| Interface | One (1) HDMI, One (1) VGA Simultaneous video output | |
| Native Output Resolution | HDMI | 3840 x 2160, 1920 x 1080, 1280 x 1024, 1280 x 720 |
| | VGA | 1920 x 1080, 1280 x 1024, 1280 x 720 |
| Maximum Decoding | Two (2) Channels of 8 MP at 30 fps Four (4) Channels of 4 MP at 30 fps | |
| Multi-screen Display | 1/4 | |
| On-screen Display | Camera Title, Time, Video Loss, Camera Lock, Motion Detection, Recording | |

Network

| | | |
|-------------------------|--|---------|
| Interface | One (1) 10/100 Mbps Port, RJ-45 | |
| PoE | Four (4) Ports (IEEE 802.3af/at), RJ-45 | |
| Network Function | HTTP, HTTPS, TCP/IP, IPv4, RTSP, UDP, NTP, DHCP, DNS, P2P | |
| Bandwidth | Recording | 80 Mbps |
| | Storage | 80 Mbps |
| | Forwarding | 60 Mbps |
| Maximum User Access | 128 Users | |
| Mobile Operating System | IOS, Android | |
| Browser | IE 9 or later, Chrome, Firefox | |
| Interoperability | ONVIF Profile S, CGI, SDK, RTSP | |

Video Detection and Alarm

| | |
|-----------------|---|
| Trigger Events | Video Recording, Snapshot, Log, Preset Point, Tour |
| Video Detection | Motion Detection, Privacy Masking, Video Loss, IPC Alarm |
| Device Alarm | Front-end Offline, Storage Error, Full Storage, IP Address Conflict, MAC Conflict, Login Locked, Network Security Anomaly |

Playback and Backup

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

Storage

| | |
|--------------|---|
| Internal HDD | One (1) SATA Port, up to 6 TB Unit ships with a pre-installed 2 TB HDD |
| HDD Mode | Single |

Auxiliary Interface

| | |
|-----|------------------------------------|
| USB | Two (2) USB 2.0 Ports (rear panel) |
|-----|------------------------------------|

Electrical

| | |
|------------------------|----------------------------------|
| Power Supply | 100 VAC to 240 VAC, 48 V, 1.25 A |
| Power Consumption, NVR | < 7.5 W, without HDD |
| Total PoE Power | 25.5 W single port, 50 W total |

Construction

| | |
|--------------|--|
| Dimensions | 204.60 mm x 204.60 mm x 45.60 mm (8.10 in. x 8.10 in. x 1.80 in.) |
| Net Weight | 0.45 kg (0.99 lb), without HDD |
| Gross Weight | 1.50 kg (3.31 lb), without HDD |

Environmental

| | |
|----------------------|--|
| Operating Conditions | -10° C to +50° C (+14° F to +122° F), 10% to 90% RH |
| Storage Conditions | 0° C to +40° C (32° F to +104° F), 30% to 85% RH |

Certifications

| | |
|-------------------------------------|---|
| Safety | UL 60950-1, EN 60950-1 |
| Electromagnetic Compatibility (EMC) | CFR 47 FCC Part 15 Subpart B, ANSI C63.4-2014 EN 55032, EN 50130-4 |
| Immunity | EN 55024 |

Ordering Information

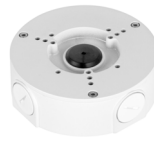
| Type | Part Number | Description |
|------------------------------|---------------|--|
| Network Security System | N444E42A | |
| | • N42BJ62 | 4 MP IR Eyeball Network Cameras (x3) |
| | • DHI-DB11 | 2 MP WiFi camera, 1.9 mm, Two-way Talk, 16 GB SD Card |
| | • DB11-BK-US | Horizontal and Vertical Angled Brackets for DHI-DB11 WiFi Video Doorbell |
| | • N41C1P2 | 4-channel 4K NVR, 2 TB (x1) |
| Camera Accessories, optional | PFA130-E | Junction Box (For use alone) |
| | PFA152-E | Pole Mount (For use with PFB203W wall mount) |
| | PFB203W | Wall Mount (For use alone or with PFA152-E) |
| | DH-PFM321D-US | 12 VDC, 1 A Power Adapter |
| Doorbell Accessory, optional | DS11-USA | Chime Kit |

Package Contents (individual devices ship with the following:)

| Product | Material |
|---------------------|---|
| Network Cameras | Printed Manual Printed Regulatory Guide Plastic Wall Anchors with Screws (x3) Mounting Template Waterproof Ethernet Connector |
| WiFi Video Doorbell | Hardware for Installation Wires for integration for with existing doorbell chime DB11-BK-US Angled Mounting Brackets |
| Storage Device | Quick Network Guide Printed Manual Printed Regulatory Guide Mouse Power Adapter with Power Cord Ethernet Cable, RJ45 Rubber Feet (x4) |

Camera Accessories

Optional:



PFA130-E
Junction Box



PFB203W
Wall Mount



PFA152-E
Pole Mount



DH-PFM321D-US
Power Adapter

Doorbell Accessory

Optional:

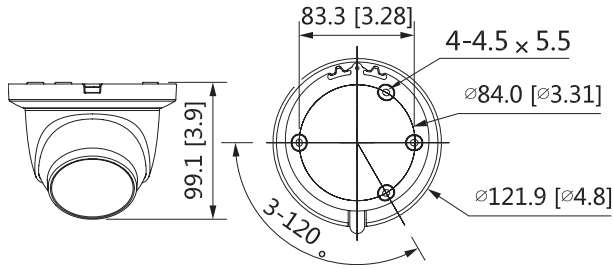


DS11-USA
Chime Kit

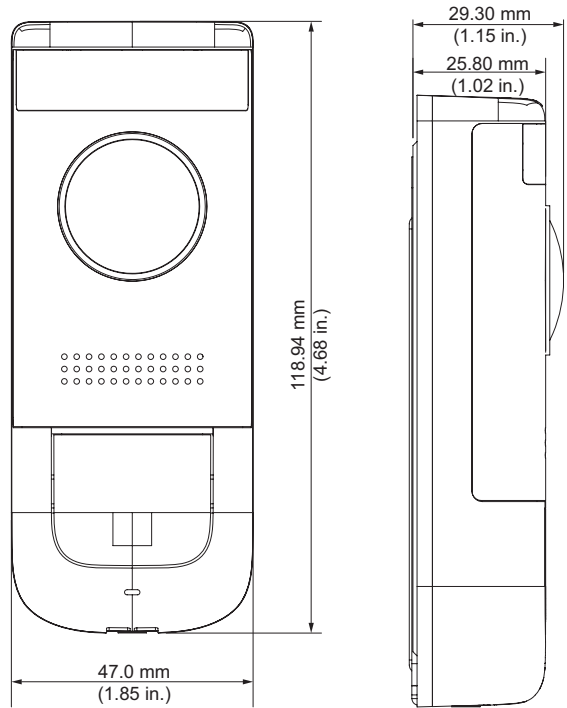
Camera Installation Options

| Junction Mount | Wall Mount | Pole Mount |
|----------------|------------|------------------|
| PFA130-E | PFB203W | PFA152-E+PFA203W |
| | | |

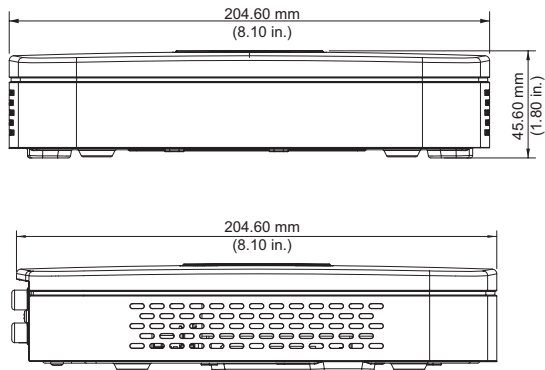
Dimensions (mm/in.) - 4 MP Network Camera



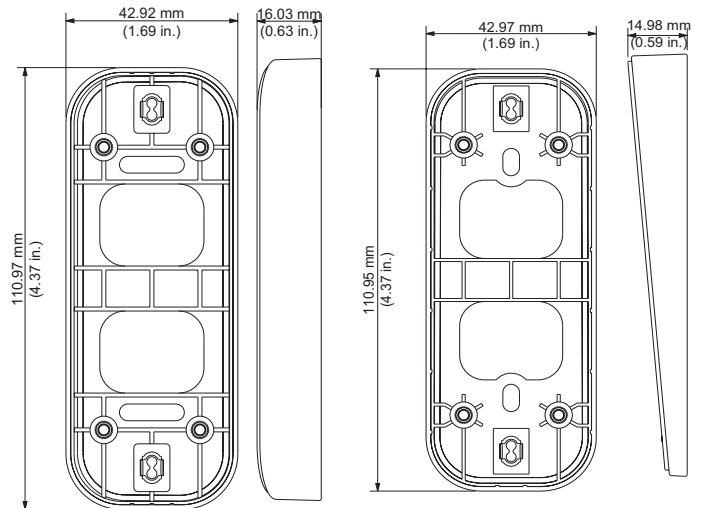
Dimensions (mm/in.) - 2 MP WiFi Video Doorbell



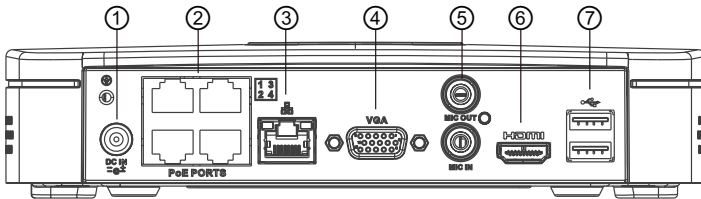
Dimensions (mm/in.) - 4K NVR



Dimensions (mm/in.) - DB11-BK-US, Horizontal/Vertical



Rear Panel - 4K NVR



| | | | |
|---|-----------------------|---|---------------------------|
| 1 | Power Input | 5 | Audio Output MIC Input |
| 2 | PoE Ports, RJ-45 (x4) | 6 | HDMI Output |
| 3 | Network Port, RJ-45 | 7 | USB Ports (x2) |
| 4 | VGA Output | | |