5 MP Vari-focal Network Bullet Camera
WDR IR Bullet Network Camera

System Overview
The Dahua 5 MP Pro Series cameras offer high-resolution video and cutting-edge technology in a compact and accessible package. The cameras feature Smart H.265+ video compression, reducing bandwidth and storage requirements without sacrificing video quality. The camera’s elegant blend of aesthetics combined with a range of easy mounting solutions provides an excellent choice for a variety of small to mid-size applications at an affordable price.

Functions
Starlight Technology
For challenging low-light applications, Dahua’s Basic Starlight Technology offers best-in-class light sensitivity, capturing details in low light down to 0.008 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Smart H.265+
Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

Wide Dynamic Range (WDR)
The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Intelligent Video System
IVS is a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for Tripwire violations and intrusion detection. A camera with IVS quickly and accurately responds to monitoring events in a specific area and offers tamper detection by recognizing a dramatic scene change and generating a warning message to inspect the camera.

Smart IR Technology
With IR illumination, detailed images can be captured in low light or total darkness. The camera’s Smart IR technology adjusts the intensity of the camera’s infrared LEDs to compensate for 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).

Interoperability
The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

ArcticPro
The Dahua ArcticPro Series of extreme-environment cameras combine temperature-tolerant components with a waterproof enclosure to ensure flawless operation in temperatures as low as –40°F (–40°C) without the need for an internal heater. The lack of a heater reduces the camera’s power consumption and saves operating costs. For applications that demand high-resolution video with advanced features in extremely cold environments, the Dahua ArcticPro Series offers a camera to satisfy the most demanding requirements.

Environmental
Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications.
## Technical Specification

### Camera
- **Image Sensor**: 1/2.7-in. 5 MP Progressive-scan CMOS
- **Effective Pixels**: 2592(H) x 1944(V)
- **RAM/ROM**: 512 MB / 32 MB
- **Scanning System**: Progressive
- **Electronic Shutter Speed**: Auto, Manual; 1/3 s to 1/100000 s
- **Minimum Illumination**:
  - Color: 0.008 lux at F1.6 (1/3 s, 30 IRE)
  - Color: 0.08 lux at F1.6 (1/30 s, 30 IRE)
  - 0 lux at F1.6 with IR on
- **S/N Ratio**: More than 50 dB
- **IR Distance**: Distance up to 60.0 m (196.85 ft)
- **IR On/Off Control**: Auto, Manual
- **IR LEDs**: Four (4)
- **Lens**
  - **Type**: Motorized
  - **Focal Length**: 2.7 mm to 13.5 mm
  - **Maximum Aperture**: F1.6
  - **Angle of View**
    - Horizontal: 27° to 95°
    - Vertical: 20° to 70°
  - **Focus Control**: Motorized
  - **Close Focus Distance**: 0.3 m (11.81 in.)
  - **DORI² Distance**
    - **Wide**:
      - Detect: 64 m (210 ft)
      - Observe: 26 m (85 ft)
      - Recognize: 13 m (43 ft)
      - Identify: 6 m (20 ft)
    - **Telephoto**: 222 m (728 ft)
      - 89 m (292 ft)
      - 44 m (144 ft)
      - 22 m (72 ft)
- **Pan/Tilt/Rotation**
  - **Range**
    - Pan: 0° to 360°
    - Tilt: 0° to 90°
    - Rotation: 0° to 360°
- **Video**
  - **Compression**: Smart H.265+, H.265, Smart H.264+, H.264
  - **Streaming Capability**: Two (2) Streams
  - **Resolution**:
    - Main Stream: 5 MP at 15 fps or 3 MP at 30 fps
    - Sub Stream 1:
      - Main Stream set to 5 MP at 15 fps:
        - D1 at 15 fps or CIF at 30 fps
      - Main Stream set to any other resolution:
        - D1/CIF at 30 fps
  - **Frame Rate**: Main Stream: 5 MP at 15 fps or 3 MP at 30 fps
- **Bit Rate Control**: CBR/VBR
- **Bit Rate**:
  - H.264: 32 K to 10240 Kbps
  - H.265: 12 K to 8448 Kbps
- **Day/Night**: Auto (ICR), Color, B/W
- **BLC Mode**: BLC, HLC, WDR (120 dB)

### Network
- **Ethernet**: RJ-45 (10/100 Base-T)
- **Protocol**: HTTP, HTTPS, TCP, ARP, RTSP, RTP, UDP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, IPv4/IPv6, QoS, UPnP, NTP, Bonjour, 802.1x, Multicast, ICMP, IGMP, SNMP
- **Interoperability**: ONVIF, PSIA, CGI
- **Streaming Method**: Unicast, Multicast
- **Max. User Access**: 10 Users / 20 Users
- **Edge Storage**: NAS Local PC for instant recording Micro SD Card, 128 GB maximum
- **Web Viewer**: IE, Chrome, Firefox, Safari
- **Management Software**: Smart PSS, DSS
- **Mobile Operating System**: iOS, Android

### Certifications
- **Safety**: UL60950-1
- **Electromagnetic Compatibility (EMC)**: FCC CFR 47 Part 15 Subpart B
- **Electrical**
  - **Power Supply**: 12 VDC ± 10%, 1.05 A maximum; or PoE (802.3af Class 0)
  - **Power Consumption**: < 12.6 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),
Less than 95% RH

Ingress Protection
IP67

Construction

Casing
Metal

Dimensions
244.10 mm x 79.0 x 75.90 mm
(9.61 in. x 3.11 in. x 2.99 in.)

Net Weight
0.82 kg (1.80 lb)

Gross Weight
1.08 kg (2.38 lb)

Intelligence¹

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

Standard Features
- 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.

Ordering Information

<table>
<thead>
<tr>
<th>Type</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
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<td>5 MP Camera</td>
<td>N52BF3Z</td>
<td>5 MP IR Vari-focal Bullet Network Camera, WDR, 2.7 mm to 13.5 mm</td>
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<tr>
<td>Accessories, optional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PFA135</td>
<td></td>
<td>Junction Box</td>
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Accessories

Optional:

- PFA135
  Junction Box
- PFA151
  Corner Mount
- PFA152-E
  Pole Mount
- DH-PFM320D-US
  12 VDC, 2 A Power Adapter

1. IVS Premium Features require Firmware Version 20171110 or higher.
2. 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.