3MP StereoVision People Counting Camera
Dual-sensor H.265 IR Network Camera

**System Overview**

The Dahua 3MP Dual-lens People Counting Camera offers Artificial Intelligence at the edge – using complex real-time people counting algorithms to deliver accurate flow statistics. The camera uses an advanced Vision Processor Unit (VPU) that delivers high-performance machine vision and visual awareness that enables advanced vision applications that are impossible with conventional ISPs.

The dual 3 MP sensors work in combination to deliver a single video stream that captures 3D depth in the image, offering improved accuracy as compared to single-sensor cameras. The dual-sensor technology captures an object’s height, letting the camera better distinguish between people and other objects.

The camera offers two distinct people counting functions, Line Crossing and Regional. The line crossing function counts the number of people crossing a defined line, and offers maximum/minimum height detection to help filter objects that are too tall or too small. The Regional function counts the number of people in ten (10) distinct, user-defined regions.

**Functions**

**Intelligent Video System (IVS)**

IVS is a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for motion detection and a dramatic scene change and generate a warning message to inspect the camera. A camera with IVS quickly and accurately responds to monitoring events in a specific area. The DH-IPC-HDW8341XN-3D offers advanced people counting algorithms that offer built-in calibration and function dual-lens design for depth of information and accurate people counting.

**Smart Scene Adaptive Technology**

Smart Scene Adaptive (SSA) is an intelligent image technology, developed by Dahua that automatically evaluates and compensates for changes in the luminance of a scene. SSA automatically regulates the exposure parameters to improve image quality in a backlit scene, especially in scenes with traffic lights or headlights.

**Intelligent Business Analysis**

The built-in IVS features people counting and heat map functionality, advanced features that add business intelligence to your security system. Intelligent Analysis tracks and stores daily, weekly, monthly, and yearly people flow through a defined scene and produces a configurable report. The system uses this data to produce a Heat Map, a two-dimensional representation of data that provides an immediate visual summary of information. People Counting and Heat Maps can identify the most active areas of a retail space providing valuable data analysis for commercial applications.

**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.

**ArcticPro**

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**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**: Two (2) 1/2.8-in. 3 MP CMOS Sensors
- **Effective Pixels**: 2048 (H) x 1536 (V)
- **RAM/ROM**: 512 MB/4096 MB
- **Scanning System**: Progressive
- **Minimum Illumination**:
  - Color: 0.009 lux at F1.8 (1/3 s, 30 IRE)
  - Color: 0.08 lux at F1.8 (1/30 s, 30 IRE)
  - 0 lux at F1.8 (IR on)
- **S/N Ratio**: More than 50 dB
- **IR Distance**: 10.0 m (32.81 ft)
- **IR On/Off Control**: Auto, Manual
- **IR LEDs**: One (1)

### Lens
- **Lens Type**: Fixed
- **Mount Type**: Board-in
- **Focal Length**: 2.8 mm, each lens
- **Maximum Aperture**: F1.8
- **Angle of View**:
  - Horizontal: 137°
  - Vertical: 114°
- **Focus Control**: Fixed
- **Close Focus Distance**: 0.6 m (1.97 ft)

### DORI Distance¹

<table>
<thead>
<tr>
<th>Lens</th>
<th>Detect</th>
<th>Observe</th>
<th>Recognize</th>
<th>Identify</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.8 mm</td>
<td>45 m (147 ft)</td>
<td>18 m (59 ft)</td>
<td>9 m (29 ft)</td>
<td>4 m (13 ft)</td>
</tr>
</tbody>
</table>

### Detection Width
- **Installation Height**: 2.20 m, 2.50 m, 2.80 m, 3.50 m
- **Detection Width**: 1.10 m, 2.60 m, 3.30 m, 4.30 m

### Pan/Tilt/Rotation
- **Range**: Tilt: –10° to 70°

### Video
- **Compression**: H.265, H.264H, MJPEG (Sub Stream only)
- **Smart Codec²**: Smart H.265+, Smart H.264+
- **Streaming Capability**: Three (3) Streams
- **Resolution**:
  - Main Stream: 3 MP at 25 fps
  - Sub Stream 1: D1 at 25 fps
  - Sub Stream 2: 6 MP at 7 fps (for camera adjustment only)

### Audio
- **Compression**: G.711a, G.711Mu, AAC, G.726

### Network
- **Ethernet**: RJ-45 (100/1000 Base-T)
- **Protocol**: HTTP, HTTPS, TCP, ARP, RTSP, RTP, RTCP, UDP, SMTP, FTP, DHCP, DNS, DDNS, IPv4/IPv6, QoS, UPnP, NTP, Bonjour, IEEE 802.1X, Multicast, ICMP, IGMP, TLS
- **Interoperability**: ONVIF Profile S/G, API
- **Streaming Method**: Unicast, Multicast
- **Max. User Access**: 10 Users/20 Users
- **Edge Storage**: Network Attached Storage (NAS), Local PC for Instant Recording, Micro SD Card, maximum 128 GB
- **Web Viewer**: IE
- **Management Software**: SmartPSS, DSS, DMSS
- **Mobile Operating System**: iOS, Android

### Certifications
- **Safety**: EN 60950-2000, UL 60950-1
- **Electromagnetic Compatibility (EMC)**: FCC Part 15 Subpart B

### Interface
- **Video Output**: One (1) Port, BNC (for camera adjustment only)
- **Audio Input**:
  - Two (2) Channels, RCA
  - One (1) Built-in Microphone
- **Output**: One (1) Channel, RCA
- **Alarm Input**: Two (2) Channels

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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.
2. The Smart Codec feature and the People Counting / IVS features cannot be used simultaneously.
3. The Heat Map and the People Counting cannot be used at the same time, only one analytic feature can be used at a time.

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Ultra Series | DH-IPC-HDW8341XN-3D

**Electrical**

Power Supply | 12 VDC, 1 A or PoE (802.3af, Class 0)
Power Consumption | < 12 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 | 204.0 mm x 78.0 mm x 62.0 mm (8.03 in. x 3.07 in. x 2.44 in.)
Net Weight | 0.80 kg (1.76 lb)
Gross Weight | 1.09 kg (2.40 lb)

**Artificial Intelligence - People Counting²³**

People Counting | • Built-in Calibration Function
Line Crossing | • Maximum/Minimum Height Detection
Regional | • Counts Number of People in a Defined Area

**Intelligence²**

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**

Motion | An object moves through any part of the scene.

**Advanced Features**

Heat Map³ | Generates a visual representation of activity.

**Ordering Information**

<table>
<thead>
<tr>
<th>Type</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>People Counting Camera</td>
<td>DH-IPC-HDW8341XN-3D</td>
<td>3 MP Dual-sensor StereoVision People Counting Camera</td>
</tr>
<tr>
<td>Accessory, optional</td>
<td>DH-PFM321D-US</td>
<td>12 VDC, 1 A Power Adapter</td>
</tr>
</tbody>
</table>

**Hardware Included**

1 x Dual-sensor Camera
1 x Bottom Panel
1 x Quick Mounting Adapter
1 x Waterproof Ethernet Connector
4 x Self-tapping Screws
4 x Wall Anchors
1 x Torx Wrench
1 x Product CD
1 x Quick Start Guide
1 x Regulator Information Manual

**Accessories**

Optional:

[DH-PFM321D-US](#) 12 VDC, 1 A Power Adapter

**Dimensions (mm/inch)**