

# 6 MP Vari-focal Network Camera

## 6 MP IR Varifocal Dome Network Camera



### System Overview

The 6 MP day/night dome network camera features an advanced 1/1.8-in progressive-scan CMOS Sony imager with a motorized zoom lens. The camera uses the H.265 video compression standard to improve encoding efficiency, Digital Wide Dynamic Range for excellent image reproduction. The camera also features built-in business intelligence algorithms. The IP67 environmental protection rating and the IK10 vandal resistance ensure the camera operates in the harshest environments.

### Functions

#### Intelligent Video System (IVS)

IVS is a built-in video analytic algorithm that delivers intelligent functions to monitor a scene for Tripwire violations, intrusion detection, and abandoned or missing objects. A camera with IVS quickly and accurately responds to monitoring events in a specific area. In addition to scene analytics, the camera supports face detection to quickly capture a face and upload the image to a server. The camera also offers tamper detection by recognizing a dramatic scene change and generating a warning message to inspect the camera.

#### 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.

- 1/1.8-in. 6 MP Progressive Scan CMOS Sensor
- Triple-stream Encoding
- Smart H.265+ and H.264 Dual Codecs
- 6 MP at 30 fps (3072 x 2048)
- Digital WDR and True Day/Night (ICR)
- Multiple Network Monitoring: Web viewer, CMS (DSS/PSS) and DMSS
- 4.1 mm to 16.4 mm Motorized Lens
- Maximum IR LED Length 50 m (164 ft)
- IP67 Ingress Protection and IK10 Vandal Resistance
- Intelligent Video System with Intelligent Business Analysis
- Five-year Warranty



#### Smart Scene Adaptive (SSA) 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.

#### 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.

#### 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.

#### Environmental

With a temperature range of -40 °C to +60 °C (-40 °F to +140 °F), the camera is designed for extreme temperature environments. The camera complies with the IK10 Vandal Resistance impact rating making it capable of withstanding the equivalent of 5 kg (11.02 lbs) of force dropped from a height of 40 cm (15.75 in.). 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	1/1.8-in. 6 MP CMOS
Effective Pixels	3072(H) x 2048(V)
RAM/ROM	1024 MB / 128 MB
Scanning System	Progressive
Minimum Illumination	Color: 0.02 Lux at F1.53 B/W: 0 Lux at F1.53 (IR on)
S/N Ratio	More than 50 dB
IR Distance	Distance up to 50.0 m (164.04 ft)
IR On/Off Control	Auto, Manual
IR LEDs	Three (3)

### Lens

Lens Type	Motorized Auto Iris (HALL)
Mount Type	Board-in
Focal Length	4.1 mm to 16.4 mm Motorized
Max. Aperture	F1.53
Angle of View	Horizontal: 35° to 107° Vertical: 25° to 60°
Optical Zoom	4x
Focus Control	Motorized
Close Focus Distance	1.0 m (3.28 ft)

### Pan/Tilt/Rotation

Range	Pan: 0° to 355° Tilt: 0° to 65° Rotation: 0° to 355°
-------	--

### Video

Compression	Smart H.265+, H.265, H.264
Streaming Capability	Three (3) Streams
Resolution	6 MP (3072 x 2048), 5 MP (2560 x 1920), 3 MP (2048 x 1536), 3 MP (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 (342 x 240)
Frame Rate	Main Stream: 6 MP at 30 fps Sub Stream 1: D1 at 30 fps Sub Stream 2: 1080p at 30 fps
Bit Rate Control	CBR, VBR
Bit Rate	H.264: 24 to 16384 Kbps H.265: 14 to 9984 Kbps
Day/Night	Auto (ICR), Color, B/W
BLC Mode	BLC, HLC, DWDR, SSA

White Balance	Auto, Natural, Street Lamp, Outdoor, Manual
Gain Control	Auto, Manual
Noise Reduction	3D DNR
Motion Detection	Off, On (4 Zone, Rectangle)
Region of Interest	Off, On (4 Zone)
Electronic Image Stabilization(EIS)	Support
Smart IR	Support
Defog	Support
Digital Zoom	16x
Flip	0°, 90°, 180°, 270°
Mirror	Off, On
Privacy Masking	Off, On (4 Area, Rectangle)

### Audio

Compression	G.711a, G.711Mu, AAC, G.726
-------------	-----------------------------

### Network

Ethernet	RJ-45 (100/1000 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, PSIA, CGI
Streaming Method	Unicast, Multicast
Max. User Access	10 Users / 20 Users
Edge Storage	NAS Local PC for instant recording Mirco SD Card, maximum 128 GB
Web Viewer	IE, Firefox, Safari
Management Software	Smart PSS, DSS
Mobile Operating System	IOS, Android

### Certifications

Safety	UL60950-1
Electromagnetic Compatibility (EMC)	FCC Part 15 Subpart B

### Interface

Audio Interface	In: One (1) Channel Out: One (1) Channel
Alarm	In: One (1) Channel Out: One (1) Channel

### Electrical

Power Supply	12 VDC, 24 VAC, PoE+ (802.3at, Class 4)
Power Consumption	< 18 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
Vandal Resistance	IK10

Construction

Casing	Metal
Dimensions	ø159.10 mm x 117.90 mm (ø6.26 in. x 4.64 in.)
Net Weight	0.96 kg (2.12 lb)
Gross Weight	1.75 kg (3.56 lb)

Intelligence

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

Standard Features	<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>
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	
Facial Detection	Detects and captures a snapshot of a human face in a defined area within a scene.
People Counting	Measure the number of customers, visitors or passengers in a surveillance scene.
Heat Map	Generates a visual representation of data.

Ordering Information

Type	Part Number	Description
6 MP Camera	N68BL7Z	IR Dome Network Camera, IVS
Accessories, included	PFA138	Junction Box
Accessories, optional	PFA101	Mount Adapter
	PFA152	Pole Mount
	PFB201C	In-ceiling Mount
	PFB300C	Ceiling Mount
	PFB302S	Wall Mount

Accessories

Optional:



PFB302S  
Wall mount



PFA138  
Junction Box



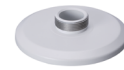
PFB201C  
In-ceiling mount



PFB300C  
Ceiling mount



PFA152  
Pole mount



PFA101  
Mount adapter

In-ceiling Mount	Junction Mount	Pole Mount
PFB201C	PFA138	PFA101 + PFB302S + PFA152
Ceiling Mount	Wall Mount	
PFA101 + PFB300C	PFA101 + PFB302S	

Dimensions (mm/inch)

