



# VKD MH 4885UE

4MP Pro Al IR Vari-focal Bullet Network Camera





#### **System Overview**

Pro Al series contains Face Detection, Perimeter Protection and People Counting functions. Powered by deep-learning Artificial Intelligence algorithms, significantly improved accuracy. Meanwhile, the series features starlight and smart IR technology. This series fully protected from dust and water, certified to IP67 and vandal resistant to IK10 standard.

#### **Functions**

#### **Face Detection**

Face Detection is a software application that automatically captures faces from within a digital image or a video frame from a video source. Dahua cameras use advanced deep learning algorithms and are trained by a large number of face data sources, enabling the camera to locate faces quickly and accurately from the video source and capture facial images.

#### **Face Attributes**

Through the use of deep learning algorithms to analyze facial images, Dahua cameras can extract six facial attributes from each frame, including Age, Gender, Expression (Jolly/Surprise/Normal/Rage/Sad/Disgusted/Confused/Frightened), Glasses, Mouth Mask, Moustache & Beard. Customers can acquire data of interest via face attributes statistics.

#### **Perimeter Protection**

Dahua's Perimeter Protection functions significantly improved accuracy. Perimeter Protection reduces false alarms and decreases pixel count requirements for object detection. Perimeter Protection features custom tripwires based on object type for automation in limited access areas such as pedestrian or vehicle-only zones. This combination of advanced AI analytics and real-time alerts to a desktop or to a mobile client reduces system requirements and resources resulting in greater surveillance system efficiency.

- · 1/1.8" 4Megapixel progressive scan CMOS
- · H.265 & H.264 triple-stream encoding
- · 25/30 fps@2688 × 1520, 50/60 fps@1080P(1920 × 1080)
- · WDR (140 dB), Day/Night (ICR), 3D DNR, AWB, AGC, BLC
- · Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- · 2.7 mm-12.0 mm motorized lens
- · 2/1 Alarm in/out, 1/1 audio in/out
- · Max. IR LEDs Length 50 m
- · Micro SD memory, IP67, IK10













#### **People Counting**

People Counting function uses advanced image processing technology to capture depth information from within images. The camera pairs this information with deep learning algorithms to analyze and detect human bodies and track target objects in real time. The camera provides statistics for separate individuals' entrance and exit with up to 95% counting accuracy.

#### Metadata

Metadata is feature attribute information extracted from a target object which can be used for data retrieval. Dahua face detection camera can extract six facial attributes and output the metadata for analysis.

## ePoE technology

The ePoE technology of Dahua, designed internally, adopts advanced 2D-PAM3 coding modulation from physical layer, and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. Besides, it supports PoE and PoC power supply technology which has greatly simplified construction and wiring. Dahua ePoE technology offer a new way to accomplish long distance transmission between IP camera and network switch. It allows more flexible surveillance system design, improves reliability and saves construction and wiring cost.

#### Protection(IP67, IK10, wide voltage)

The camera allows for ±30% input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67) and impact tests (IK10), the camera is the choice for installation in even the most unforgiving environments.



Technical Specification						Smart Codec	Yes	
Camera						Streaming Capability	3 Streams	
Image Sensor		1/1.8" 4Meg	1/1.8" 4Megapixel progressive scan CMOS				Resolution	2688 × 1520/2560 × 1440/2304 × 1296/1080P
Effective Pixels		2688 (H) × 1520 (V)						(1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720)/D1 (704 × 576/704 × 480)/VGA (640 × 480)/CIF (352 × 288/352 × 240)
RAM/ROM		1 GB/128 MB					Frame Rate	Main Stream: 2688 × 1520 (1 fps–25/30 fps) 2560 × 1440 (1 fps–25/30 fps)
Scanning System		Progressive						1920 × 1080 (1 fps-50/60 fps)
Electronic Shutter Speed		Auto/Manual, 1/3 s–1/100000 s						Sub Stream: D1 (1 fps-25/30 fps) D1 (1 fps-50/60 fps)
Minimum Illumination		0.003 Lux@F1.8						Third Stream: 1080P (1 fps–16 fps)
IR Distance		Distance up to 50 m (164 ft)					Bit Rate Control	CBR/VBR
IR On/Off Contro	ol	Auto/Manual					Bit Rate	H.264: 32 Kbps-8192 Kbps H.265: 19 Kbps-8192 Kbps
IR LEDs		4					Day/Night	Auto(ICR)/Color/B/W
Lens							BLC Mode	BLC/HLC/WDR (140 dB)
Lens Type		Motorized va	Motorized vari-focal				White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Mount Type		Board-in					Gain Control	Auto/Manual
Focal Length		2.7 mm-12.0	2.7 mm-12.0 mm				Noise Reduction	3D DNR
Max. Aperture		F1.8	F1.8				Motion Detection	Off/On (4 Zone, Rectangle)
Angle of View		H: 114°-47°,	H: 114°-47°, V: 62°-26°				Region of Interest	Off/On (4 Zone)
Aperture Type		Auto					Electronic Image Stabilization (EIS)	Yes
Close Focus Dista	ance	1.2 m (3.94 ft)					Smart IR	Yes
	Lens	Detect	Observe	Recognize	Identify		Defog	Yes
DORI Distance	W	58m(190ft)	23m(75ft)	12m(39ft)	6m(20ft)		Flip	0°/90°/180°/270°
	Т	131m(430ft)	52m(171ft)	26m(85ft)	13m(43ft)		Mirror	Off/On
Pan/Tilt/Rotat	tion					Privacy Masking	Off/On (4 Area, Rectangle)	
Pan/Tilt/Rotation Range Pan: 0°–360°; Tilt: 0°		; Tilt: 0°–90°; f	Rotation: 0°–3	60°		Audio	,(····,·	
Artificial Intell	ligence						Compression	G.711a, G.711Mu, AAC, G.726, G.723
Face Detection		Support face	Support face image capture				Network	G. 11a, G. 11ma, F. 10, G. 25, G. 125
Face Attributes		Support 6 kinds of face attributes extraction: Age, Gender, Expression (Jolly, Surprise, Normal, Rage,					Ethernet	RJ-45 (10/100 Base-T)
Perimeter Protection		Sad, Disgusted, Confused, Frightened), Glasses, Mouth Mask, Moustache & Beard  Tripwire, intrusion (Recognition of vehicle and people), fast moving, loitering detection, parking					Protocol	IPv4;IPv6;HTTP;HTTPS;TCP;UDP;ARP;RTP;RTSP;RTCP;RTMP;SMTP;FTP;SFTP;DHCP;DNS;DDNS;QoS;UPnP;NTP;Multicast;ICMP;IGMP;NFS;PPPoE;802.1x;SNMP
		detection and people gathering Support Line crossing/Region/Queueing people					Interoperability	ONVIF (Profile S/Profile G/Profile T), CGI, Milstone, Genetec, P2P
People Counting		counting; Support 4 accesses independent detection, 4 areas independent detection					Streaming Method	Unicast/Multicast
General Intelligence							Max. User Access	20 Users
Event Trigger		Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access, Storage anomaly					Edge Storage	NAS;FTP;SFTP Micro SD card 256 GB
General Intelligence		Object Abandoned/Missing					Web Viewer	IE (versions newer than IE8), Chrome, Firefox, Safari (versions newer than Safari 12)
Heat Map		Yes				Management Software	Smart PSS, DSS, DMSS	
Video							Smart Phone	iOS, Android
Compression		H.265,H.264,H.264B,H.264H, MJPEG (sub stream)					Certifications	

Certifications	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15. Subpart B
	III /CIII · III 60950-1 CAN/CSA C22 2 No 60950-1-07

## Interface

Audio Interface	1/1 channel In/Out
RS485	N/A
Alarm	2 channel In: 5mA 5V DC 1 channel Out: 300mA 12V DC

# Electrical

Power Supply	DC 12V (±30%), PoE (802.3af) (Class 0)
Power Consumption	<10.9W

# Environmental

Operating Conditions	-30° C to +60° C (-22° F to +140° F)/Less than 95% RH
Strorage Conditions	-30° C to +60° C (-22° F to +140° F)
Ingress Protection	IP67
Vandal Resistance	IK10

## Construction

Casing	Metal, plastic
Dimensions	273.2 mm × 95.0 mm × 95.0 mm (10.76" × 3.74" × 3.74")
Net Weight	1.11 kg (2.44 lb)
Gross Weight	1.51 kg (3.33 lb)

# Accessories

# Optional:



PFA152-E Pole Mount



LR1002 ePoE Over Coax Converter

Ceiling Mount	Wall Mount	Pole Mount	
	_	PFA152-E	

# Dimensions (mm[inch])





