VKD MS253HA

2MP Starlight IR AI WizSense Network PTZ Camera

- 1/2.8" 2Megapixel STARVIS™ CMOS
- Starlight technology
- IR distance up to 30 m
- Deep-learning-based perimeter protection
- SMD Plus
- PoE
- IP66

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

System Overview

Designed with H.265 coding technology, Dahua Starlight series camera has efficient video coding capability, which can save bandwidth and storage space. The product adopts the latest starlight technology to display better color images under low-light conditions.

Functions

Perimeter Protection
Automatically filters out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets. Improves alarm accuracy.

Starlight Technology
For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005 Lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Environment
Dahua cameras operate in extreme temperature environments, rated for use in temperatures from-30 °C to +60 °C (-22 °F to +140 °F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP66 Ingress Protection rating makes it suitable for demanding outdoor applications.

SMD Plus
With Deep-Learning Algorithm, Dahua SMD Plus filters the motion detection alarm triggered by non-concerned target and recognizes human and vehicle effectively, sending alarms when human and vehicle intrude.

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.

WizSense

Technical Specification

Camera

Image Sensor	1/2.8" CMOS
Pixel	2MP
Max. Resolution	1920 (H) × 1080 (V)
ROM	256 MB
RAM	512 MB
Electronic Shutter Speed	1/3 s–1/100000 s
Scanning System	Progressive
Min. Illumination	Color: 0.002 Lux@F1.8 B/W: 0.0002 Lux@F1.8 0 Lux (illuminator on)
Illumination Distance	30 m (98.43 ft)
Illuminator On/Off Control	Manual/SmartIR/Off
Illuminator Number	4 IR lights; 1 white light

Lens

Focal Length	2.7 mm–13.5 mm			
Max. Aperture	F1.8–F3.3			
Field of View	H: 101.6°–33.5°; V: 52°–18.7°; D: 124.7°–38.5°			
Optical Zoom	5x			
Focus Control	Auto/Semi-Auto/Manual			
Close Focus Distance	1.2 m (3.94 ft)			
Iris Control	Fixed			
DORI Distance	Detect	Observe	Recognize	Identify
	131 m (429.79 ft)	52.3 m (171.59 ft)	26 m (85.30 ft)	12.8 m (41.99 ft)

PTZ

Pan/Tilt Range	Pan: 0°–355° Tilt: -15°–+90°
Manual Control Speed	Pan: 0.1°/s–80°/s Tilt: 0.1°/s–56°/s
Preset Speed	Pan: 81°/s; Tilt: 43°/s
Preset	300
Power-off Memory	Support
Idle Motion	Preset

Artificial Intelligence

Perimeter Protection	Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering false alarms caused by animals, rustling leaves, bright lights, etc.

Video

Compression	H.265; H.264B; H.264M; H.264H; MJPEG; MJPEG (Sub Stream); H.265+; H.264+
Streaming Capability	3 streams
Resolution	1080P (1920 × 1080); 1.3M (1280 × 960); 720P (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240)
Frame Rate	Main stream: 1080P (1–25/30 fps); 1.3M (1–25/30 fps); 720P (1–25/30 fps) Sub stream 1: D1/CIF (1–25/30 fps) Sub stream 2: 1080P (1–25/30 fps); 1.3M (1–25/30 fps); 720P (1–25/30 fps)
Bit Rate Control	Variable/Constant
Bit Rate	H.264: 3 Kbps–20480 Kbps H.265: 3 Kbps–20480 Kbps
Day/Night	Auto (ICR)
BLC	Support
WDR	DWDR
HLC	Support
White Balance	Auto/Indoor/Outdoor/Tracking/Manual/Sodium lamp/Natural light/Street lamp
Gain Control	Auto/Manual
Noise Reduction	2D/3D
Motion Detection	Support
Region of Interest (RoI)	Support
Defog	Electronic
Flip	180°
S/N Ratio	≥ 55 dB

Audio

Compression	G.711a; G.711Mu; G.726; AAC; MPEG2-Layer2; G722.1; G729; G723

Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4; IPv6; HTTP; HTTPS; 802.1x; QoS; FTP; SMTP; UPnP; SNMP; DNS; DDNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; SNMP v1/v2c/v3 (MIB-2); RTCP; RTMP
Interoperability	ONVIF Profile S&G&T; CGI
Streaming Method	Unicast/Multicast
User/Host	20 (total bandwidth: 64 M)
Storage	FTP; Micro SD card (256 G); NAS
Browser	IE7 and later versions Chrome 42 and earlier versions Firefox 52 and earlier versions Safari
Management Software	DMSS
Mobile Phone	iOS, Android

Certification

Certifications	CE: EN55032/EN55024/EN50130-4/EN 55035/EN 61000-3-2/EN 61000-3-3/EN 62368-1 FCC: Part15 subpartB, ANSI C63.4- 2014

Port

Audio Input	1 (Built-in Mic)
Audio Output	1 (Built-in Speaker)
Two-way Audio	Support

Alarm Linkage	Capture; preset; SD card record; send email
Alarm Event	Motion/tampering detection; audio detection; network disconnection detection; IP conflict detection; encoder state detection; memory card state detection; memory space detection

Power

Power Supply	12V DC/2A ± 10% (supports PoE)
Power Consumption	Basic: 5W Max: 12W (illuminator on)
Power Adapter	Included

Environment

Operating Temperature	-30°C to +60°C (-22°F to 140°F)
Operating Humidity	≤ 95%
Protection	IP66; TVS 2000V lightning proof; surge protection; voltage transient protection

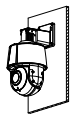
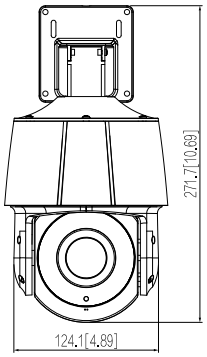
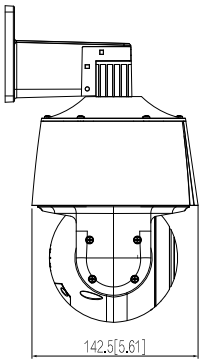
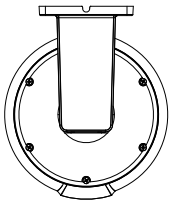
Structure

Dimensions	271.7 mm × 142.5 mm × 124.1 mm (10.70" × 5.61" × 4.89")
Net Weight	1.1 kg (2.43 lb)
Gross Weight	1.51 kg (3.33 lb)

Accessories

Included:

DC12V/2A
Power Adapter

Wall Mount	Ceiling Mount	Pole Mount(Vertical)
/	/	/
		

Dimensions (mm)