

# VKD MH 5050D

5MP Box WizMind Network Camera



Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

## Series Overview

With starlight solution and deep learning algorithm, Dahua WizMind 5 Series network camera has various intelligent functions, including face capture, perimeter protection and people counting, which greatly improve the accuracy of video analysis. The series camera supports dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 and IK10 (Supported by some select models).

## Functions

### Face Detection

Dahua Face Detection technology can detect the face in the image. With deep learning algorithm, the technology supports detecting, tracking, capturing and selecting the best face image, and then outputs face snapshot.

### Face Attributes

With deep learning algorithm, the network camera can recognize face attributes, such as gender, age, expression, glasses, mouth mask, and beard.

### Perimeter Protection

With deep learning algorithm, Dahua Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

- 1/2.7" 5Megapixel progressive scan CMOS
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments
- 20 fps@2592 × 1944, 50/60 fps@1080P (1920 × 1080)
- WDR (120 dB), Day/Night (ICR), 3D DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS (DSS/PSS) & DMSS
- IP Address locking system, after several (customizable) number of wrong access
- 2/1 Alarm in/out, 1/1 audio in/out (Built-in MIC)
- Auto back focus(ABF)
- Micro SD memory (encryption AES128 or AES256)



## People Counting

With deep learning algorithm, Dahua People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs yearly/monthly/daily reports to meet your requirements.

## ePoE

Dahua ePoE technology provides 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.

## Technical Specification

### Camera

|                          |   |
|--------------------------|---|
| Image Sensor             | 1/2.7" 5Megapixel progressive scan CMOS |
| Effective Pixels         | 2592 (H) × 1944 (V)                     |
| RAM/ROM                  | 1 GB/128 MB                             |
| Scanning System          | Progressive                             |
| Electronic Shutter Speed | Auto/Manual, 1/3 s–1/100000 s           |
| Minimum Illumination     | 0.005 Lux@F1.7                          |

### Lens

|            |      |
|------------|------|
| Mount Type | C/CS |
|------------|------|

### Artificial Intelligence

|                      |  |
|----------------------|--|
| Face Detection       | Face detection; track; optimization; snapshot; report high quality picture; face enhancement; face exposure; face attribute extract, 6 attributes and 8 expressions: Gender, age, glasses, expressions (anger, calm, happiness, sadness, disgust, surprise, confusion and fear), mask, beard; face matting setting: face, single inch photo; three snapshot methods: real-time snapshot, optimization snapshot, quality priority; face angle filter; optimization time setting |
| Perimeter Protection | Tripwire; intrusion; fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection; people gathering; parking detection  |
| People Counting      | Support the counting of enter number, leave number, and pass number, and displaying and outputting yearly/monthly/daily reports. Support the counting of number in area, and 4 rules configuration. Count number of people or stay time and link alarm. Support queue management, and 4 rules configuration. Count number of people or stay time and link alarm  |

### General Intelligence

|                      |  |
|----------------------|--|
| Event Trigger        | Motion detection, Video tampering, Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly |
| General Intelligence | Object Abandoned/Missing   |
| Heat Map             | Yes  |

### Video

|                      |  |
|----------------------|--|
| Compression          | H.265, H.264, H.264B, H.264H, MJPEG (only supported by sub stream)   |
| Smart Codec          | Smart H.265+ / Smart H.264+  |
| Streaming Capability | 3 Streams  |
| Resolution           | 2592 × 1944/2688 × 1520/2560 × 1440/2304 × 1296/1080P (1920 × 1080)/1.3M (1280 × 960)/720P (1280 × 720)/D1 (704 × 576/704 × 480)/VGA (640 × 480)/CIF (352 × 288/352 × 240) |
| Frame Rate           | Main Stream: 2592 × 1944 (1 fps–20 fps)<br>2560 × 1440 (1 fps–25/30 fps)<br>1920 × 1080 (1 fps–50/60 fps)  |
|                      | Sub Stream: D1 (1 fps–20/30 fps)<br>D1 (1 fps–50 fps)  |
|                      | Third Stream: 1080P (1 fps–17 fps)   |

|                                      |  |
|--------------------------------------|--|
| Bit Rate Control                     | CBR/VBR  |
| Bit Rate                             | H.264: 32 Kbps–8192 Kbps<br>H.265: 19 Kbps–8192 Kbps |
| Day/Night                            | Auto(ICR)/Color/B/W                                  |
| BLC Mode                             | BLC/HLC/WDR (120 dB)                                 |
| 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) | Yes  |
| Defog                                | Yes  |
| Flip                                 | 0°/90°/180°/270°                                     |
| Mirror                               | Off/On   |
| Privacy Masking                      | Off/On (4 Area, Rectangle)                           |

### Audio

|                   |                                    |
|-------------------|------------------------------------|
| Audio Compression | G.711a, G.711Mu, G.726, AAC, G.723 |
|-------------------|------------------------------------|

### Alarm

|             |  |
|-------------|--|
| Alarm Event | No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; Defocus Detection; scene changing; intrusion; tripwire; abandoned object; missing object; fast moving; parking detection; loitering detection; people gathering; audio detection; people counting; face detection; People counting in area; Stay alarm; People No. exception detection; Queue Management |
|-------------|--|

### Network

|                     |  |
|---------------------|--|
| Network             | RJ-45 (10/100 Base-T)  |
| SDK and API         | Yes  |
| 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 |
| Interoperability    | ONVIF (Profile S/Profile G/Profile T), CGI, Milestone, Genetec, P2P  |
| User/Host           | 20 Users   |
| Storage             | NAS; FTP; SFTP; Dahua Cloud; Micro SD card 256 GB  |
| Browser             | IE (versions newer than IE8), Chrome, Firefox, Safari (versions newer than Safari 12)  |
| Management Software | Smart PSS, DSS, DMSS   |
| Mobile Phone        | iOS, Android   |

### Certifications

|                |  |
|----------------|--|
| Certifications | CE-LVD: EN62368-1<br>CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU<br>FCC: 47 CFR FCC Part 15, Subpart B<br>UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 |
|----------------|--|

**Interface**

|                 |   |
|-----------------|---|
| Audio Interface | 1/1 channel In/Out, Built-in MIC                                |
| RS485           | 1 port  |
| Alarm           | 2 channel In: 5mA 5V DC<br>1 channel Out: 1A 30V DC/0.5A 50V AC |
| Power Out       | 165mA 12V DC  |

**Electrical**

|                   |   |
|-------------------|---|
| Power Supply      | DC 12V (±25%), AC 24V (±25%), PoE (802.3af) |
| Power Consumption | <9.2W                                       |

**Environmental**

|                      |   |
|----------------------|---|
| Operating Conditions | -30° C to +60° C (-22° F to +140° F)/Less than 95% RH |
| Storage Conditions   | -40° C to +60° C (-40° F to +140° F)                  |

**Construction**

|              |  |
|--------------|--|
| Casing       | Metal  |
| Dimensions   | 135.4 mm × 74.4 mm × 65.5 mm (5.33" × 2.93" × 2.58") |
| Net Weight   | 0.53 kg (1.17 lb)                                    |
| Gross Weight | 0.62 kg (1.37 lb)                                    |

**Accessories**

**Optional:**



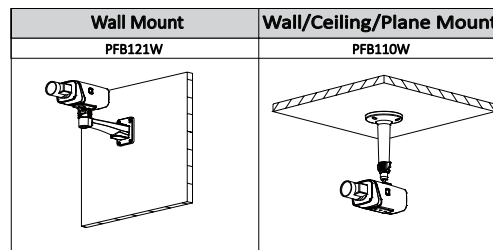
Wall Mount



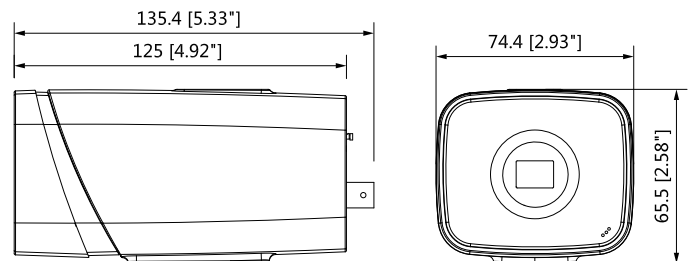
Wall Mount



LR1002  
ePoE Over Coax Converter



**Dimensions (mm[inch])**



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