



Technical Specifications

MOBOTIX MOVE 5MP Indoor Micro Dome Camera

The MOBOTIX MOVE 5MP Indoor Micro Dome Camera is equipped with a small yet robust 3-axis gimbal design. The fixed lens can be adjusted to the desired angle, allowing to capture the ideal field of view even when installing the camera at an unfavorable position. The **WDR engine** utilizes state-of-the-art image processing technology, providing up to 5-mega-pixel, high-quality WDR video with IR illumination. Its WDR capability captures more image details under challenging light conditions, such as receptions, hallways, and staircases.

- Progressive Scan CMOS Sensor supports up to 2688x1944 (5MP) resolution
- True WDR 120 dB
- Multi Codec support (H.265/H.264/MJPEG)
- Low-Latency Streaming/Quad Streams support
- True Day/Night function (ICR)
- IR LEDs (working distance up to 15 m/49 ft)
- Audio support (integrated microphone and speaker)
- 3D Motion Compensated Noise Reduction (MCTF)
- Smart Event functions:
 - Motion Detection
 - Network Failure Detection/Tampering Alarm
 - Periodical Event/Manual Trigger
- Text Overlay and Privacy Masks
- Micro SD/SDHC/SDXC Card support (SD up to 1 TB)
- ONVIF Profile S/G/T support
- EN50155 (Transportation) and EN45545 (fire) approvals



BeyondHumanVision

MOBOTIX MOVE

www.mobotix.org.cn

北京新盛阳光科技有限公司

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Product Information

Product Name	5MP Indoor Micro Dome
Order Code	Camera Mx-MD1A-5-IR-SL

Hardware Design

Processor	Innofusion C5 (Dual-core ARM® Cortex®-A7, 1.2 GHz)
Memory	RAM: 512 MB FLASH: 256 MB
Image Sensor	5MP, 1/2.7" Progressive CMOS OS05A20 (OmniVision)
Effective (Used) Pixels	2688x1944 (5MP)

Lens

Minimum Illumination	Color: 0.17 lux B/W: 0.04 lux
Lens Characteristics	Focal length: 2.8 mm Aperture: F2.0 Horizontal field of view: 108.3° Vertical field of view: 76.5°

Camera

Day/Night	Automatically switchable IR-cut filter
Shutter Speed	1 to 1/10000 s (WDR)
Frame Rate (maximum)	H.265: 5MP@30fps + 720p@30fps H.264: 5MP@30fps + 720p@30fps MJPEG: 1080p@30fps
Auto Gain	Min. gain: 3 dB, max. gain: 48 dB, step size: 3
WDR	True WDR 120 dB
Zoom	Digital: 10x
Image Settings	Color, Brightness, Sharpness, Contrast, White Balance, Exposure Control, 2DNR,

	3DNR, NR by Motion Masking, Text Overlay
Image Rotation	90°, 180°, 270°

Video Codec

Compression/Encoding	H.265/H.264/MJPEG
Streaming	Up to 4 individually configurable streams in H.264/H.265/MJPEG; configurable resolution, frame rate, bandwidth LBR/VBR/CBR in H.265/H.264.

Audio Codec

Compression/Encoding	G.711/G.726/LPCM
Streaming	2-Way, bidirectional
Audio Input	Integrated microphone/Line In
Audio Output	Integrated speaker/Line Out

NOTE! To avoid audio quality degradation, **do not** connect the built-in microphone and external audio-input device (via Line In) at the same time. The same applies to the audio output connections.

Cyber Security Features

Password Protection	Yes (including “forced” password change during initial setup)
IP address filtering	Yes (to restrict unauthorized access based on IP addresses)
IEEE 802.1X network access control	Yes (for advanced network security and authentication)
Digest authentication	Yes (for secure user authentication)
Secure Boot	Yes (support of fixed IP setting and automatic DHCP IP configuration according to individual MAC address)
AES encryption for password protection	Yes (to ensure strong encryption for password storage)
HTTPS/SSL (using TLS)	Yes (TLS 1.2 default, TLS 1.0/1.1 optional selectable)
User and Group Management	Yes (for fine-grained access control)

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VPN	Yes (to establish secure network connections)
Digitally signed firmware	Yes (to prevent firmware file tampering)
RSA encryption	Yes (to support stronger ciphers; supported: RSA (2048 bits), AES-128, AES-256, SHA-256, SHA-384)

Network

Interface	10/100 Mbps Ethernet
Supported Protocols	ARP, PPPoE, IPv4/v6, ICMP, IGMP, QoS, TCP, UDP, DHCP, UPnP, SNMP, SMTP, RTP, RTSP, HTTP, HTTPS, FTP, NTP, DDNS, SMBv2
ONVIF Conformance	Supports profiles S/G/T
Supported Browsers	All current browsers are supported.

System Integration

Base Video Analytics	■ Audio Detection ■ Motion Detection ■ Tampering
Event Triggers	■ Analytics ■ Network failure detection ■ Periodical event ■ Manual trigger
Event Actions	■ Video recording to edge storage ■ File upload: FTP, network share and email ■ Notification: HTTP, FTP, email

General

Housing Material	Plastic
Housing Color	RAL 9003
Power Requirements	PoE IEEE802.3af, class 0, max 3.27 W

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PoE Modes Supported	Mode A or Mode B
Connectors	■ RJ45 ■ Audio In terminal block ■ Audio Out terminal block
IR Illumination	850 nm; up to 15 m/49 ft distance depending on reflection of scenery
Video Storage	Micro SD/SDHC/SDXC card support up to 1 TB, Support for recording to NAS, MOBOTIX HUB, MOBOTIX MOVE NVR
Environmental Protection Class	Indoor IK8
Operating Temperature	-30 to 55 °C/-22 to 131 °F
Relative Humidity	90 % non-condensing
Storage Conditions	-20 to 70 °C/-4 to 158 °F
Approvals	CE, FCC, BIS
MTBF	95,000 hours
Warranty	3 years
Dimensions	ø 105 x 65 mm
Weight	248 g
NOTE! Observe the MOBOTIX MOVE Installation Hints document to ensure optimum performance of the camera features.	

DORI Specifications

In the video surveillance context, “DORI” stands for Detection, Observation, Recognition and Identification and was originally based on IEC EN62676-4: 2015. The current DORI standard IEC EN62676-4: 2024 defines the levels listed below.

DORI Levels According to IEC EN62676-4: 2024

These levels define the minimum pixels that a face of a person must have to provide proper identification, for example.

1. **Overview:** To display moving objects at far distances, a minimum of 20 pixels per meter (PPM) is required. This allows for basic perimeter detection and border control applications.
2. **Outline:** For outlining moving objects and their direction, at least 40 PPM is necessary. This is useful for tracking object movements.
3. **Discern:** To discern targets or crowds at a distance, more than 80 PPM is required. This level of detail helps in identifying movements of people, vehicles, or animals.
4. **Perceive:** To perceive targets or crowds, a minimum of 125 PPM is required. Although people cannot be differentiated by gender, their movements can be tracked.
5. **Characterize:** Characterizing people and vehicles requires more than 250 PPM. This level allows for identifying person type, gait, behavior, and vehicle category.
6. **Validate:** For validating known persons or reading vehicle license plates, over 500 PPM is necessary. This is also sufficient for most automatic face recognition software.

7. **Scrutinize:** To scrutinize people, capturing at least 1500 PPM is essential. This ensures high certainty in identifying individuals and recognizing vehicle details like model and year of manufacture. The value for Scrutinize is equivalent to the passport photo size of a person.

DORI Distances

DORI Level	Overview	Outline	Discern	Perceive	Characterize	Validate	Scrutinize
Mx-MD1A-5-IR	47 m/61 m 154.20 ft/200.13 ft	23 m/31 m 75.46 ft/101.71 ft	12 m/15 m 39.37 ft/49.21 ft	7 m/10 m 22.97 ft/32.81 ft	4 m/5 m 13.12 ft/16.40 ft	2 m/2 m 6.56 ft/6.56 ft	1 m/1 m 3.28 ft/3.28 ft

Dimensions

NOTE! Download the drilling template from the section or on the MOBOTIX website: www.mobotix.com > [Support](#) > [Download Center](#) > [Marketing & Documentation](#) > [Drilling Templates](#).

CAUTION! Always print or copy the drilling template at 100% of the original size!

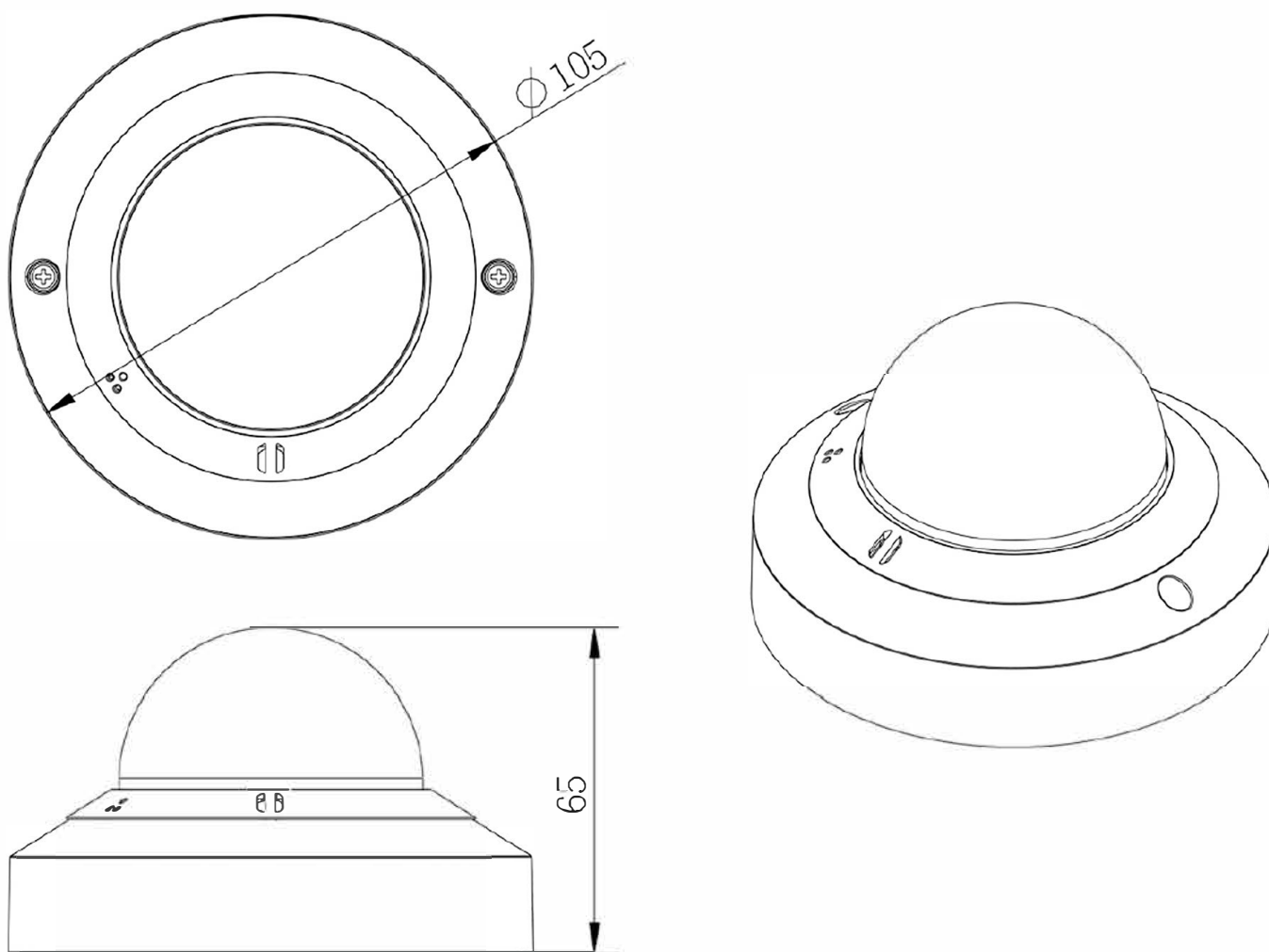


Fig. 1: Mx-MD1A-5-IR: All measurements in mm

Accessories for All Cameras

Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight
 MX-NPA-UPOE1A-60W	UPoE Power Injector 60W. PoE++ 60W Network Power injector • AC Input Voltage: 100 to 240 VAC (50 to 60Hz) • AC Input Current: 1.5A @100-240 VAC • Operating Ambient Temperature: • -10° to 40°C @60W • -10° to 50°C, humidity 10 to 90% @30W • IEEE 802.3bt compliant • Output power of 60W over 4-pairs • Supports 10/100/1000Base-T applications • Plug-and-play installation • Full Protection OVP, OCP• Supports 10/100/1000Base-T applications.	All cameras.	Plastic housing, black	0.45 kg
 Mx-A-ETP1A-2601-SET	Media converter set Ethernet (PoE+) – Twisted-Pair. Complete set consisting of two two-wire transmit/receive units for establishing an Ethernet transmission path via twisted-pair cables. • Transmission of Ethernet and PoE+ power supply via two-wire line according to IEEE1901. • Simple connection of 10/100	All cameras. Requires Mx-A-ETP1A-2601-POW.	Plastic housing, black	0.368 kg

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Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight
	Mbps Ethernet end devices • Max. 95 Mbps transmission bandwidth, range up to 600 m/656 yd for data only, 300 m/328 yd for PoE depending on the quality of the twisted-pair link • 128 bit AES network data encryption • Power supply 2-wire transmitter (Tx) and receiver (Rx) as well as end device via PoE+ network switch or external power supply 56VDC / 1.2A (not included!) • Connected end devices are supplied via PoE switch IEEE802.3af(PoE), IEEE802.3at (PoE+), UPoE up to 60W (requires ext. power supply unit). • Status LEDs (data, power supply, data link, PoE) • Integrated Overvoltage protection (IEC 61000-4-5 4kV (1.2 / 50us), 2kA(8 / 20us)) • Power Supply: TX: T-Linx or DC12V~57V, RX: PoE Switch or DC48V~57V • Operational temperature: -20 to 60°C • Dimensions: 80.4(L) x 61.6(W) x 24(H)mm • Weight: RX/TX: 102g • Warranty: 2 years			

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Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight
 Mx-A-ETP1A-2601-POW	Plug-type power supply for Mx-A-ETP1A-2601-SET. Output: 57V DC +/-3% / 1.2 A • Input: 90-260V AC (47-63Hz) • 68,4 Watt • Operating Temperature: 0–40°C/32–122°F	Mx-A-ETP1A-2601-SET	Plastic housing, black	0.49 kg
 Mx-A-KBD1A-PTZ-JOG	MOBOTIX USB Keyboard with PTZ Joystick & Jog-Shuttle. USB control panel for operating MOBOTIX MxMC 2.6 and higher and MOBOTIX HUB incl. Control of software PTZ and motorized PTZ cameras and pan/tilt devices • Integrated 3-axis joystick • Integrated jog shuttle • 38 control keys with backlight pre-defined for MxMC functions or freely definable for MOBOTIX HUB • Integrated alarm buzzer • Suitable for operation as HID device on MOBOTIX VMS with Windows and MAC based operating systems via USB 2.0 • Suitable for right- and left-handed users • Power supply: USB, max. 350 mA • Operating temperature: 0°–45°C/32–113 °F.	All cameras. Requires Windows or macOS computer with USB 2.0 or better.	Plastic housing, black	1.9 kg

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Picture/ Order Code	Description	Compatible Products	Material/ Color	Weight
 MX-SWITCH1	MOBOTIX network switch for DIN (top-hat) rail mounting. 5x RJ45 port with 100 MBit/s (1x uplink, 4x PoE+ with max. 75 W). Supply: 48 V DC, max. 75 W. Simplified cabling for door stations due to available connectivity for anti-theft protection, door opener and MxBus. MxBus, anti-theft protection, door and lock contact can be connected via separate wires of Ethernet cable.	All cameras.	Plastic housing, gray	0.31 kg

Further Reading

[Manuals and Quick Installation documents](#)



[Technical Specifications](#)



[MOBOTIX MOVE Installation Hints](#)



[MOBOTIX Community](#)



MOBOTIX

Beyond Human Vision

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