



### FEATURES

- 4-MP 1/2.7" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2688 × 1520) @25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in warm light and IR LED; the max. IR illumination distance is 50 m and warm light distance is 40 m.
- ROI, SMART H.264+/H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage environments.
- Speaker; support two-way talk.
- Intelligent monitoring: Intrusion, tripwire (the two function support the classification and accurate detection of vehicle and human).
- Abnormality detection: Motion detection, privacy masking, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; built-in dual MICs; 1-ch speaker; support two-way talk.
- 12 VDC/PoE power supply.
- IP67 protection.
- Sound and light alarm (red and blue lights).
- Motion plus Ai 4.0.
- One-tap arming/disarming through alarm input.

# MT-IPB640Z4AC-AI

## TECHNICAL SPECIFICATIONS

|                                |   |  |                    |                     |   |
|--------------------------------|---|--|--------------------|---------------------|---|
| Camera                         | <b>Image Sensor</b>   | 1/2.7" CMOS  |                    |                     |   |
|                                | <b>Effective Pixels</b>   | 2688 (H) × 1520 (V)  |                    |                     |   |
|                                | <b>ROM</b>  | 128 MB   |                    |                     |   |
|                                | <b>RAM</b>  | 512 MB   |                    |                     |   |
|                                | <b>Scanning System</b>  | Progressive  |                    |                     |   |
|                                | <b>Electronic Shutter Speed</b>   | Auto/Manual 1/3 s–1/100,000 s  |                    |                     |   |
|                                | <b>Min. Illumination</b>  | 0.003 lux@F1.0 (Color, 30 IRE)<br>0.0003 lux@F1.0 (B/W, 30 IRE)<br>0 lux (illuminator on)  |                    |                     |   |
|                                | <b>S/N Ratio</b>  | > 56 dB  |                    |                     |   |
|                                | <b>Illumination Distance</b>  | 50 m (164.04 ft) (IR)<br>40 m (131.23 ft) (warm light)   |                    |                     |   |
|                                | <b>Illuminator On/Off Control</b>   | Auto; manual   |                    |                     |   |
|                                | <b>Illuminator Number</b>   | 2 (IR LED)<br>2 (warm light)   |                    |                     |   |
| <b>Pan/Tilt/Rotation Range</b> | Pan: 0°–360°<br>Tilt: 0°–90°<br>Rotation: 0°–360°                         |  |                    |                     |   |
| Lens                           | <b>Lens Type</b>  | Motorized vari-focal   |                    |                     |   |
|                                | <b>Mount Type</b>   | φ16  |                    |                     |   |
|                                | <b>Focal Length</b>   | 2.7 mm–13.5 mm   |                    |                     |   |
|                                | <b>Max. Aperture</b>  | F1.0   |                    |                     |   |
|                                | <b>Field of View</b>  | Horizontal: 103°–33°<br>Vertical: 54°–18°<br>Diagonal: 124°–38°  |                    |                     |   |
|                                | <b>Iris Type</b>  | Fixed  |                    |                     |   |
|                                | <b>Close Focus Distance</b>   | 1.5 m (4.92 ft)  |                    |                     |   |
|                                | <b>DORI Distance</b>  |  | Lens               | W                   | T |
|                                |   | Detect   | 65.2 m (213.91 ft) | 186.6 m (612.20 ft) |   |
|                                |   | Observe  | 26.1 m (85.63 ft)  | 74.6 m (244.75 ft)  |   |
| Recognize                      |   | 13.0 m (42.65 ft)  | 37.3 m (122.38 ft) |                     |   |
| Identify                       |   | 6.5 m (21.33 ft)   | 18.7 m (61.35 ft)  |                     |   |
| Professional, intelligent      | <b>IVS (Perimeter Protection)</b>   | Tripwire; intrusion (support the classification and accurate detection of vehicle and human)   |                    |                     |   |
|                                | <b>Smart Motion 4.0</b>   | Less false alarm, longer detection distance  |                    |                     |   |
|                                | <b>Quick Pick</b>   | vehicle targets that users are interested in from Smart Motion events  |                    |                     |   |
|                                | <b>Smart Search</b>   | Work together with Smart NVR to extract and merging to event videos  |                    |                     |   |
|                                | <b>AI SSA</b>   | Adopt deep learning algorithms to adjust the parameters of the image to suit the conditions  |                    |                     |   |
| Video                          | <b>Video Compression</b>  | H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream)   |                    |                     |   |
|                                | <b>Smart Codec</b>  | Smart H.265+; Smart H.264+   |                    |                     |   |
|                                | <b>AI Coding</b>  | AI H.265; AI H.264   |                    |                     |   |
|                                | <b>Video Frame Rate</b>   | Main stream: 1920 × 1080 @1-25/30 fps<br>Sub stream: 704 × 576 @25 fps; 704 × 480 @30 fps  |                    |                     |   |
|                                | <b>Stream Capability</b>  | 2 streams  |                    |                     |   |
|                                | <b>Resolution</b>   | Main stream: 2688 × 1520@ (1–30 fps)<br>Sub stream: 704 × 576@ (1–25 fps)/704 × 480@ (1–30 fps)<br>Third stream: 1920 × 1080@ (1–30 fps)<br>*The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity |                    |                     |   |
|                                | <b>Stream Capability</b>  | 3 streams  |                    |                     |   |
|                                | <b>Resolution</b>   | 4M (2688 × 1520/2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240)  |                    |                     |   |
|                                | <b>Bit Rate Control</b>   | CBR/VBR  |                    |                     |   |
|                                | <b>Video Bit Rate</b>   | H.264: 3 kbps–8192 kbps<br>H.265: 3 kbps–8192 kbps   |                    |                     |   |
|                                | <b>Day/Night</b>  | Auto(ICR)/Color/B/W  |                    |                     |   |
|                                | <b>BLC</b>  | Yes  |                    |                     |   |
|                                | <b>HLC</b>  | Yes  |                    |                     |   |
|                                | <b>WDR</b>  | 120 dB   |                    |                     |   |
|                                | <b>Scene Self-adaptation</b>  | Yes  |                    |                     |   |
|                                | <b>White Balance</b>  | Auto; natural; street lamp; outdoor; manual; regional custom   |                    |                     |   |
|                                | <b>Gain Control</b>   | Auto/Manual  |                    |                     |   |
|                                | <b>Noise Reduction</b>  | 3D DNR   |                    |                     |   |
|                                | <b>Motion Detection</b>   | OFF/ON (4 areas)   |                    |                     |   |
|                                | <b>Region of Interest (RoI)</b>   | Yes (4 areas)  |                    |                     |   |
| <b>Image Stabilization</b>     | Electronic Image Stabilization (EIS)                                      |  |                    |                     |   |
| <b>Smart Illumination</b>      | Yes   |  |                    |                     |   |
| <b>Defog</b>                   | 4 areas   |  |                    |                     |   |
| <b>Image Rotation</b>          | 0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resolution and lower) |  |                    |                     |   |
| <b>Mirror</b>                  | Yes   |  |                    |                     |   |
| <b>Privacy Masking</b>         | 4 areas   |  |                    |                     |   |
| Audio                          | <b>Built-in MIC</b>   | Yes, built-in dual Mic   |                    |                     |   |
|                                | <b>Built-in speaker</b>   | Yes, built-in speaker  |                    |                     |   |
|                                | <b>Audio Compression</b>  | PCM; G.711a; G.711Mu; G.726; G.723   |                    |                     |   |

# MT-IPB640Z4AC-AI

## TECHNICAL SPECIFICATIONS

|                      |   |   |
|----------------------|---|---|
| <b>Alarm Event</b>   | No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; audio detection; voltage detection; defocus detection; external alarm; Smart Motion; security exception |   |
| <b>Network</b>       | <b>Network Port</b>   | RJ-45 (10/100 Base-T)   |
|                      | <b>SDK and API</b>  | Yes   |
|                      | <b>Protocol</b>   | IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP  |
|                      | <b>Cyber Security</b>   | Video encryption; firmware encryption; configuration encryption; Digest; WSSE; account lockout; security logs; IP/MAC filtering; generation and importing of X.509 certification; syslog; HTTPS; 802.1x; trusted boot; trusted execution; trusted upgrade |
|                      | <b>Interoperability</b>   | ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone  |
|                      | <b>User/Host</b>  | 20 (Total bandwidth: 72 M)  |
|                      | <b>Storage</b>  | FTP; SFTP; Micro SD card (support max. 256 G); NAS  |
|                      | <b>Browser</b>  | IE: IE8/9/11- Chrome - Firefox  |
|                      | <b>Management Software</b>  | Smart PSS; DSS; MT Mobile   |
|                      | <b>Mobile Phone</b>   | iOS; Android  |
| <b>Certification</b> | CE-LVD: EN 62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC: 47 CFR FCC Part 15, Subpart B; UL/CUL:UL62368-1 & CAN/CSA C22.2 No. 62368-1-14   |   |
| <b>Port</b>          | <b>Audio Input</b>  | 1 channel (RCA port)  |
|                      | <b>Audio Output</b>   | 1 channel (RCA port)  |
|                      | <b>Alarm Input</b>  | 1 channel in: 5mA 3V-5 VDC  |
|                      | <b>Alarm Output</b>   | 1 channel out: 300mA 12 VDC   |
| <b>Power</b>         | <b>Power Supply</b>   | 12 VDC/PoE (802.3af)  |
|                      | <b>Power Consumption</b>  | Basic: 1.9 W (12 V DC); 2.4 W (PoE)<br>Max. (ICR + H.265 + max. resolution + main stream + IR intensity + WDR + IVS): 4.5 W (12 V DC); 5.4 W (PoE)  |
| <b>Environment</b>   | <b>Operating Conditions</b>   | -30 °C to +60 °C (-22 °F to +140 °F)<br>/Less than 95% RH   |
|                      | <b>Storage Conditions</b>   | -40 °C to +60 °C (-40 °F to +140 °F)  |
|                      | <b>Protection</b>   | IP67  |
| <b>Structure</b>     | <b>Casing</b>   | Metal + plastic   |
|                      | <b>Dimensions</b>   | 288.4 mm × 94.4 mm × 84.7 mm (11.35" × 3.72" × 3.33") (L×W×H)   |
|                      | <b>Net Weight</b>   | 1.05 kg (2.31 lb)   |
|                      | <b>Gross Weight</b>   | 1.35 kg (2.98 lb)   |