

# IP4M-1098EW-AI

## Amcrest 4MP 5x TiOC Network PTZ Camera

### Technical Specifications

| Model                                                                                                                                                                        | IP4M-1098EW-AI                                               |                |                  |                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|----------------|------------------|-----------------|
| Camera                                                                                                                                                                       |                                                              |                |                  |                 |
| Image Sensor                                                                                                                                                                 | 1/2.8" CMOS                                                  |                |                  |                 |
| Pixel                                                                                                                                                                        | 4 MP                                                         |                |                  |                 |
| Max. Resolution                                                                                                                                                              | 2560 (H) × 1440 (V)                                          |                |                  |                 |
| ROM                                                                                                                                                                          | 128 MB                                                       |                |                  |                 |
| RAM                                                                                                                                                                          | 512 MB                                                       |                |                  |                 |
| Electronic Shutter Speed                                                                                                                                                     | 1/1 s–1/30,000 s                                             |                |                  |                 |
| Scanning System                                                                                                                                                              | Progressive                                                  |                |                  |                 |
| Min. Illumination                                                                                                                                                            | Color: 0.005 lux@F1.6B/W: 0.0005 lux@F1.60 lux (IR light on) |                |                  |                 |
| Illumination Distance                                                                                                                                                        | 50 m (164.04 ft) (IR)30 m (98.43 ft) (Warm light)            |                |                  |                 |
| Illuminator On/Off Control                                                                                                                                                   | Zoom Prio; Manual; Auto; Off                                 |                |                  |                 |
| Illuminator Number                                                                                                                                                           | 2 (IR)2 (Warm light)1 (Red light)1 (Blue light)              |                |                  |                 |
| Lens                                                                                                                                                                         |                                                              |                |                  |                 |
| Focal Length                                                                                                                                                                 | 2.7 mm–13.5 mm                                               |                |                  |                 |
| Max. Aperture                                                                                                                                                                | F1.6–F3.0                                                    |                |                  |                 |
| Field of View                                                                                                                                                                | H: 94.9°–30.1°; V: 51°–17.1°; D: 112.3°–34.6°                |                |                  |                 |
| Optical Zoom                                                                                                                                                                 | 5×                                                           |                |                  |                 |
| Focus Control                                                                                                                                                                | Auto, semi-auto; manual                                      |                |                  |                 |
| Close Focus Distance                                                                                                                                                         | 1.5 m (4.92 ft)                                              |                |                  |                 |
| Iris Control                                                                                                                                                                 | Fixed                                                        |                |                  |                 |
| DORI Distance                                                                                                                                                                | <b>Detect</b>                                                | <b>Observe</b> | <b>Recognize</b> | <b>Identify</b> |
|                                                                                                                                                                              | 885.83ft                                                     | 349.74 ft      | 177.17 ft        | 88.58 ft)       |
| <b>Note:</b> The DORI distance calculated based on sensor specification and lab test result 62676-4 which defines the criteria for Detect, Observe, Recognize, and Identify. |                                                              |                |                  |                 |
| PTZ                                                                                                                                                                          |                                                              |                |                  |                 |
| Pan/Tilt Range                                                                                                                                                               | Pan: 0° to 355°Tilt: –15° to +90°                            |                |                  |                 |
| Manual Control Speed                                                                                                                                                         | Pan: 0.1°/s–36°/s Tilt: 0.1°/s–25.8°/s                       |                |                  |                 |
| Preset Speed                                                                                                                                                                 | Pan: 35.7°/s; Tilt: 27.1°/s                                  |                |                  |                 |
| Preset                                                                                                                                                                       | 300                                                          |                |                  |                 |
| Power-off Memory                                                                                                                                                             | Yes                                                          |                |                  |                 |
| Idle Motion                                                                                                                                                                  | Preset                                                       |                |                  |                 |
| Pan/Tilt Range                                                                                                                                                               | Pan: 0° to 355°Tilt: –15° to +90°                            |                |                  |                 |
| Manual Control Speed                                                                                                                                                         | Pan: 0.1°/s–36°/s Tilt: 0.1°/s–25.8°/s                       |                |                  |                 |
| Preset Speed                                                                                                                                                                 | Pan: 35.7°/s; Tilt: 27.1°/s                                  |                |                  |                 |
| AI                                                                                                                                                                           |                                                              |                |                  |                 |

|                          |                                                                                                                                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IVS                      | IVS (Tripwire, Intrusion, Abandoned Object, Fast Moving, Parking Detection, Crowd Gathering, Missing Object, Loitering Detection.)                                                                  |
| Face Detection           | Supported                                                                                                                                                                                           |
| Smart Motion Detection   | Human/Vehicle Detection                                                                                                                                                                             |
| Auto Tracking Lite       | Auto Tracking Human Detection Only                                                                                                                                                                  |
| <b>Active Deterrents</b> |                                                                                                                                                                                                     |
| Light Warning            | Red and blue light warning Flash duration: 5 s–30s Flash frequency: high, medium, low                                                                                                               |
| Siren                    | Offers 21 types of sound alarms and supports importing custom sound alarms. The sound alarm play times can be set between 1 to 10.                                                                  |
| <b>Video</b>             |                                                                                                                                                                                                     |
| Compression              | H.264                                                                                                                                                                                               |
| Streaming Capability     | 3 Streams                                                                                                                                                                                           |
| Resolution               | 4M (2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1 (704 × 576); VGA (640 × 480); CIF (352 × 288)                                                     |
| Video Frame Rate         | Main stream: 4M/3M/1080p/1.3M/720p @ (1–25/30 fps)Sub stream 1: D1/CIF/VGA@ (1–25/30 fps)Sub stream 2: 720p @ (1–25/30 fps)                                                                         |
| Bit Rate Control         | CBR/VBR                                                                                                                                                                                             |
| Video Bit Rate           | H.264: 96 kbps–14848 kbps                                                                                                                                                                           |
| Day/Night                | Auto (ICR)/Color/B/W                                                                                                                                                                                |
| BLC                      | Yes                                                                                                                                                                                                 |
| WDR                      | 120 dB                                                                                                                                                                                              |
| HLC                      | Yes                                                                                                                                                                                                 |
| White Balance            | Auto, indoor; outdoor; tracking; manual; sodium lamp; natural light; streetlamp                                                                                                                     |
| Gain Control             | Auto, manual                                                                                                                                                                                        |
| Noise Reduction          | 2D NR; 3D NR                                                                                                                                                                                        |
| Motion Detection         | Yes                                                                                                                                                                                                 |
| Image Stabilization      | Electronic (EIS)                                                                                                                                                                                    |
| Defog                    | Electronic                                                                                                                                                                                          |
| Digital Zoom             | 16×                                                                                                                                                                                                 |
| Image Rotation           | 180°                                                                                                                                                                                                |
| S/N Ratio                | ≥55 dB                                                                                                                                                                                              |
| <b>Audio</b>             |                                                                                                                                                                                                     |
| Compression              | G.711a; G.711Mu; G.726; MPEG2-Layer2; G722.1; PCM                                                                                                                                                   |
| <b>Network</b>           |                                                                                                                                                                                                     |
| Port                     | RJ-45 (10/100 Base-T)                                                                                                                                                                               |
| Protocol                 | HTTP; HTTPS; TCP/IP; IPv4; RTSP; UDP; NTP; DHCP; DNS; DDNS; IPv6; SSL; SFTP/FTP; ARP; RTP; IP Filter; RTMP; TCP; SMTP                                                                               |
| Interoperability         | ONVIF (Profile S&G&T)                                                                                                                                                                               |
| Streaming Method         | Unicast / Multicast                                                                                                                                                                                 |
| User/Host                | 20 (total bandwidth: 64 M)                                                                                                                                                                          |
| Edge Storage             | SFTP/FTP, NAS, MicroSD Card (Up to 256GB)                                                                                                                                                           |
| Management Software      | Amcrest Orion Software, Amcrest View Pro, Amcrest View Pro 2, Amcrest Cloud, Amcrest Blue Iris, most mainstream web browsers including Google Chrome, Mozilla Firefox, Microsoft Edge, Safari, etc. |

| Port                   |                                                                                                                                                                                     |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Audio Input            | 1 (LINE IN; bare wire)                                                                                                                                                              |
| Audio Output           | 1 channel (LINE OUT, bare wire; built-in speaker (mutually exclusive))                                                                                                              |
| Alarm Input            | 2-ch, digital input (0–5 VDC)                                                                                                                                                       |
| Alarm Output           | 1-ch                                                                                                                                                                                |
| Audio I/O              | 1/1                                                                                                                                                                                 |
| Alarm Linkage          | Capture; preset; recording; send email; audio                                                                                                                                       |
| Alarm Event            | Motion/Tampering detection; audio detection; network disconnection detection; IP conflict detection; memory card state detection; memory space detection; power exception detection |
| General                |                                                                                                                                                                                     |
| Power Supply           | 12 VDC, 2 A $\pm$ 10%PoE+ (802.3at)                                                                                                                                                 |
| Power Consumption      | Basic: 4.5 W Max.: 15 W (illuminator + PTZ + speaker + heating glass)                                                                                                               |
| Operating Temperature  | –22°F to 140°F                                                                                                                                                                      |
| Operating Humidity     | $\leq$ 95%                                                                                                                                                                          |
| Protection             | IP66, TVS 6000 V lightning proof; surge protection; voltage transient protection                                                                                                    |
| Dimensions (L x W x H) | 6.52" $\times$ 5.51" $\times$ 10.69"                                                                                                                                                |
| Weight                 | 3.31 lbs.                                                                                                                                                                           |