



# Bi-Spectrum Series 4 (9mm)

Thermal & Optical Bi-spectrum PTZ Camera

IMC4-Bi-9



## Key Features

- VOx uncooled focal plane detector with 640×512 resolution
- NETD ≤ 40mK
- 9/15/25/35/50 mm fixed focus thermal lens optional, 30x optical zoom module
- Support human/vehicle detection, fire point, smoke and fire detection
- Intelligent analysis: intrusion, single line crossing, double line crossing, loitering, wrong-way, people counting, enter area, leave area
- Support temperature monitoring and abnormality alarm
- Support 3 temperature measurement rule types (spot, line, area)
- Temperature measurement range: -20°C ~ 150°C (-4°F ~ 302°F)
- Power off self-locking, strong wind resistance
- NDAA Compliance, Anti-frozen, IP66

# Specification

| Thermal Module                          |  |              |              |               |             |
|---|--|--------------|--------------|---------------|-------------|
| Image Sensor                            | Uncooled VOx Focal Plane Arrays  |              |              |               |             |
| Resolution                              | Sensor is 640x512. Image can be scaled up to 1280x1024                                   |              |              |               |             |
| Pixel Pitch                             | 12µm   |              |              |               |             |
| NETD                                    | ≤ 40 mK  |              |              |               |             |
| Spectral Range                          | 8 ~ 14 µm  |              |              |               |             |
| Image Setting                           | Brightness, Sharpness, Contrast, Mirror, FFC control, 2D/3D DNR                          |              |              |               |             |
| Pseudo-color Setting                    | White-hot/Black-hot/Rainbow/Ironbow etc. up to 17 modes                                  |              |              |               |             |
| Thermal Lens                            |  |              |              |               |             |
| Focus Mode                              | Fixed Focus, Free Focus  |              |              |               |             |
| Focal Length                            | 9 mm   | 15 mm        | 25 mm        | 35 mm         | 50 mm       |
| Aperture                                | F1.0   | F1.0         | F1.0         | F1.0          | F1.0        |
| Angle of View                           | H: 48°, V:38°  | H:29°, V:23° | H:17°, V:14° | H: 12°, V:10° | H: 8°, V:7° |
| Detection Distance (Fire: 1*1m)         | 375 m  | 625 m        | 1042 m       | 1458 m        | 2083 m      |
| Detection Distance (Humans: 1.8*0.5m)   | 375 m  | 624 m        | 1040 m       | 1456 m        | 2081 m      |
| Detection Distance (Vehicles: 4*1.5m)   | 1150 m   | 1917 m       | 3194 m       | 4472 m        | 6389 m      |
| Recognition Distance (Humans: 1.8*0.5m) | 94 m   | 156 m        | 260 m        | 364 m         | 520 m       |
| Recognition Distance (Vehicles: 4*1.5m) | 288 m  | 479 m        | 799 m        | 1118 m        | 1597 m      |
| Optical Module                          |  |              |              |               |             |
| Image Sensor                            | 1/2.8" Sony CMOS   |              |              |               |             |
| Max. Resolution                         | 2592 (H)x1520 (V), 4MP   |              |              |               |             |
| Shutter Speed                           | 1/5 ~ 1/20,000s  |              |              |               |             |
| Min. Illumination                       | Color: 0.01 Lux @ (F1.2, AGC ON), B/W: 0.001 Lux   |              |              |               |             |
| WDR                                     | True WDR   |              |              |               |             |
| Focal Length                            | 5.3 ~ 159mm, 30x optical zoom  |              |              |               |             |
| Aperture                                | F1.6 ~ F4.3  |              |              |               |             |
| Angle of View                           | H: 55° ~ 2.3°, V: 41.6° ~ 1.7°   |              |              |               |             |
| Digital Zoom                            | 16x  |              |              |               |             |
| Focus Control                           | Auto/Manual/Semi-automatic   |              |              |               |             |
| Mirror                                  | Support  |              |              |               |             |
| Defog                                   | Support  |              |              |               |             |
| Privacy Masking                         | Support  |              |              |               |             |
| PTZ                                     |  |              |              |               |             |
| Pan/Tilt Range                          | Pan: 0° ~ 360° endless, Tilt: +90° ~ -90°  |              |              |               |             |
| Pan/Tilt Speed                          | Pan: 0.01° ~ 60°/s, Tilt: 0.01° ~ 30°/s  |              |              |               |             |
| Wiper                                   | Support  |              |              |               |             |
| Preset Accuracy                         | ± 0.1°   |              |              |               |             |
| Presets                                 | 400  |              |              |               |             |
| Scan                                    | 8 scans, up to 32 presets per scan   |              |              |               |             |
| Patrol                                  | 12 patrols, up to 32 presets per scan  |              |              |               |             |
| Track                                   | 6 tracks   |              |              |               |             |
| 3D Positioning                          | Support  |              |              |               |             |
| Speed Setup                             | Auto/Manual (0-8)  |              |              |               |             |
| Power Off Memory                        | Support  |              |              |               |             |
| Idle Motion                             | It can activate Preset/ Scan/Tour/Pattern if there is no command in the specified period |              |              |               |             |

| Video and Audio       |   |
|-----------------------|---|
| Main Stream           | Thermal: 1280x1024, 1280x720, 640x512 @ 25/30fps<br>Optical: 2592x1520, 2560x1440, 2304x1296, 1920x1080, 1280x720 @25/30fps   |
| Sub Stream            | Thermal: D1, CIF @ 25/30fps<br>Optical: D1, VGA, 640x360, CIF, QCIF, QVGA @25/30fps   |
| Bit Rate Control      | CBR/VBR   |
| Bit Rate              | Thermal: Main stream: 100Kbps~8Mbps<br>Sub stream: 100Kbps~6Mbps<br>Optical: Main stream: 100Kbps~12Mbps,<br>Sub stream: 100Kbps~6Mbps  |
| Region of Interest    | Off/On (8 Zone, Rectangle)  |
| Audio Compression     | G711: 8kbps, RAW_PCM: 16kbps  |
| Smart Function        |   |
| Smart Alarm           | Motion detection, Disk alarm, I/O alarm, IVS alarm, Temperature detection & alarm   |
| Smart Detection       | Support human/vehicle detection, fire point detection, smoke and fire detection   |
| Intelligent Analysis  | Intrusion, Single line crossing, Double line crossing, Loitering, Wrong-way, Enter area, Leave area (these 7 function support accurate detection of people/vehicles), People counting |
| Temperature Detection |   |
| Temperature Detection | 3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line).  |
| Temperature Alarm     | Over temperature alarm, Temperature difference alarm  |
| Accuracy              | ±2°C / ±2%  |
| Response Time         | ≤ 30ms  |
| Temperature Range     | -20°C to 150°C (-4°F to 302°F),<br>-20°C to 550°C (-4°F to 1022°F) Customizable   |
| Network               |   |
| Protocols             | IPv4/IPv6 ,HTTP,RTSP/RTP/RTCP, TCP/UDP, DHCP, DNS, PPPOE, SMTP, 802.1x  |
| Interoperability      | ONVIF, CGI, SDK   |
| Max. User Access      | 10 Users  |
| Web Viewer            | <IE11, Chrome, Firefox, Microsoft Edge  |
| Web Language          | English, Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian   |
| Interface             |   |
| Network Interface     | 1 Ethernet (10/100 Base-T) RJ-45 Connector  |
| Audio Interface       | 2ch Audio In,2ch Audio Out  |
| Alarm Interface       | 9ch Alarm In,4ch Alarm Out  |
| RS485                 | Support   |
| BNC Output            | Support   |
| Reset Button          | Support (Built-in)  |
| SD Card Slot          | Built-in, up to 256GB   |
| General               |   |
| Power Supply          | DC36V   |
| Power Consumption     | Max 80 W  |
| Working Temperature   | -40°C ~ 60°C (-40°F ~ 140°F)  |
| Storage Conditions    | 0 ~ 90% RH  |
| Certifications        | CE /FCC   |
| Ingress Protection    | IP66  |
| Casing                | Metal   |
| Dimensions            | 419x282x316mm (16.5 x 11.1 x 12.44 inch)  |
| Net Weight            | 15Kg (Contains 25 mm lens) (33.1 lb)  |

## Dimensions (mm)

