

## Thermal & Optical Bi-spectrum Network Dome Camera

### TIC3612SA-F7-4F6AC-I1



## Features

- Thermal & optical dual-spectrum image, dual video with single IP address, adaptable to various scenes
- 1/2.8" target surface, high sensitivity sensor, suitable for starlight monitoring
- Thermal module supports reliable fire detection, and fire shield area
- Thermal module supports temperature detection and cold&hot spot tracking, which highlights abnormal temperatures and links to alarm
- Thermal & optical dual-spectrum smart intrusion prevention can be enabled simultaneously : cross line, enter area, leave area, intrusion
- Optical module supports smog recognition, which can help with fire alarm reconfirmation
- Supports picture-in-picture mode, real-time contrast live, more convenient and clear
- Supports audio and light alarm, with red and blue warning lights built in
- Ultra 265, H.265, H.264, MJPEG
- Max 2688 × 1520@30 fps in the optical module and max 960P@30 fps in the thermal module
- DC 12 V ± 25% or PoE power supply
- Alarm 2 in and 2 out, audio 1 in and 1 out, micro SD, up to 512 GB

## Specifications

| Channel                    | Optical   | Thermal  |
|----------------------------|---|--|
| Camera                     |   |  |
| Sensor                     | 1/2.8" CMOS   | Vanadium oxide uncooled focal plane arrays   |
| Min. Illumination          | Colour: 0.003 lux (F1.6, AGC ON)<br>B/W: 0.002lux(F1.6,AGC ON)<br>0 lux with IR | N/A  |
| Day/Night                  | IR-cut filter with auto switch (ICR)  | N/A  |
| NETD                       |   | < 50 mk@F1.0@25 °C   |
| Shutter                    | Auto/Manual, 1 to 1/100000 s  |  |
| WDR                        | 120 dB  |  |
| S/N                        | >56 dB  |  |
| Lens                       |   |  |
| Focal Length               | 6.0 mm  | 7.0 mm   |
| Iris                       | F1.6  | F1.0   |
| Field of View (H)          | 49.1°   | 25.2°  |
| Field of View (V)          | 26.9°   | 19.3°  |
| Field of View (D)          | 60.4°   | 31°  |
| DORI                       |   |  |
| DORI Distance (Detect)     | 135.0m(442.9ft)   | N/A  |
| DORI Distance (Observe)    | 54.0m(177.2ft)  | N/A  |
| DORI Distance (Recognize)  | 27.0m(88.6ft)   | N/A  |
| DORI Distance (Identify)   | 13.5m(44.3ft)   | N/A  |
| Illuminator                |   |  |
| Wavelength                 | 750 nm  | N/A  |
| Illumination Distance (IR) | 30m   | N/A  |
| Light On/Off Control       | Auto/Manual   | N/A  |
| Video                      |   |  |
| Frame Rate                 | 4MP(2688*1520), Max 30fps   | 960P(1280*960), Max 30fps  |
| Video Compression          | Ultra 265, H.265, H.264, MJPEG  |  |
| Video Bit Rate             | 128 Kbps to 16 Mbps   |  |
| U-code                     | Support   |  |
| ROI                        | Support   |  |
| Video Stream               | Triple streams  |  |
| OSD                        | Up to 8 OSDs  |  |
| Privacy Mask               | Up to 8 areas (8 blacks/ 8 mosaics)   | N/A  |
| Image                      |   |  |
| Digital Noise Reduction    | 2D/3D DNR   |  |
| Defog                      | Digital defog   | N/A  |
| Palette                    | N/A   | lava, medical, arctic, mazarine, fusion, rain, puce, white hot, iron oxide red, hot iron, rainbow 1, rainbow 2, rainbow 3, depict hot, |

|   |  |   |
|---|--|---|
|   |  | ice hot, black hot, red hot, green hot, color 1, color 2  |
| <b>Intelligent</b>                                    |  |   |
| Smart Intrusion Prevention                            | Cross line detection, intrusion detection, enter area detection, leave area detection (support false alarm filtering and the classification of human, non-motor vehicle and vehicle) | Cross line detection, intrusion detection, enter area detection, leave area detection (support false alarm filtering and the classification of human and vehicle) |
| Smoke Detection                                       | Support  | N/A   |
| Temperature Measurement Accuracy                      |  | ±8 °C (±14.4 °F) or ±8% (whichever is greater)  |
| Temperature Range                                     |  | Selectable between -20 °C to 150 °C (-4 °F to 302 °F) and 100 °C to 550 °C (212 °F to 1022 °F)  |
| Detection distance for vehicles (4 × 1.4 meters)      |  | 140m  |
| Detection distance for personnel (1.8 × 0.5 meters)   |  | 70m   |
| <b>Events</b>   |  |   |
| Fire Detection  | N/A  | Support   |
| Basic Detection                                       | Motion detection, Tampering alarm, Audio detection   | N/A   |
| General Function                                      | Watermark, IP address filtering, Access policy, ARP protection, RTSP authentication, User authentication, HTTP authentication, Alarm input, Alarm output                             |   |
| Detection distance for fire (0.1 × 0.1 meters)        | N/A  | 29m   |
| Detection distance for temperature (0.1 × 0.1 meters) | N/A  | 20m   |
| <b>Audio</b>  |  |   |
| Audio Compression                                     | G.711U, G.711A   |   |
| Audio Bitrate   | 128 Kbps   |   |
| Two-way Audio   | Support  |   |
| Suppression   | Support  |   |
| Sampling Rate   | 16KHZ  |   |
| <b>Storage</b>  |  |   |
| Edge Storage  | MicroSD, up to 512 GB  |   |
| Network Storage                                       | ANR  |   |
| <b>Network</b>  |  |   |
| Protocols   | IGMP, RTP, SMTP, IPv4, IPv6, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTSP, RTCP, RTMP, DNS, DDNS, NTP, FTP, UPnP, HTTP, HTTPS, 802.1x, SNMP, QoS, SSL/TLS, SSH                             |   |
| Compatible Integration                                | ONVIF (Profile S, Profile G, Profile T), API, SDK  |   |
| User/Host   | Up to 32 users. 3 user levels: administrator, common user and operator   |   |
| Client  | EZStation, UNV-Link, UNV-Link Pro  |   |
| Web Browser   | Plug-in required live view: IE 10+, Chrome 45+, Firefox 52+, Edge 79+  |   |

| Interface            |  |
|----------------------|--|
| Built-in Mic         | Support  |
| Built-in Speaker     | Support  |
| Audio I/O            | 1 Input: impedance 1 kΩ, amplitude 2.5 V [p-p], 1 Output: impedance 600 Ω, amplitude 2 V [p-p] |
| Alarm I/O            | 2/2  |
| Serial Port          | 1 × RS485  |
| Network              | 1 × RJ45 10 M/100 M Base-TX Ethernet   |
| Video Output         | N/A  |
|                      | 1 BNC (for debugging)  |
| General              |  |
| Power                | DC12V(±25%), PoE(IEEE802.3af)  |
| Power Consumption    | Max 12W  |
| Power Interface      | Ø5.5 mm coaxial power plug   |
| Dimensions           | Φ129 x 114 mm(Φ5.08" x 4.49") (Φ x H)  |
| Weight               | 0.73kg (1.6lb)   |
| Working Environment  | -40 °C to 70 °C (-40 °F to 158 °F), Humidity: ≤ 95% RH (non-condensing)                        |
| Storage Environment  | -40 °C to 70 °C (-40 °F to 158 °F), Humidity: ≤ 95% RH (non-condensing)                        |
| Surge Protection     | 6 KV   |
| Reset Button         | Support  |
| RTC                  | Support  |
| Certification        |  |
| Environment          | CE-RoHS (2011/65/EU;(EU)2015/863); WEEE (2012/19/EU); Reach (Regulation (EC) No 1907/2006)     |
| Protection           | IP67 (IEC 60529:1989+AMD1:1999+AMD2:2013)  |
| Live View            |  |
| Maximum Bitstream    | 35   |
| Maximum Bandwidth    | 50 Mbps  |
| OSD Font             | Vector   |
| OSD Color            | Support  |
| OSD Character Number | 40   |
| Other                |  |
| Corridor Mode        | Support  |

## DRI Description

The optimal detection, recognition, and identification distances are calculated according to Johnson's Criteria.

**Detection Range:** In order to distinguish an object from the background, the object must be covered by 1.5 or more pixels.

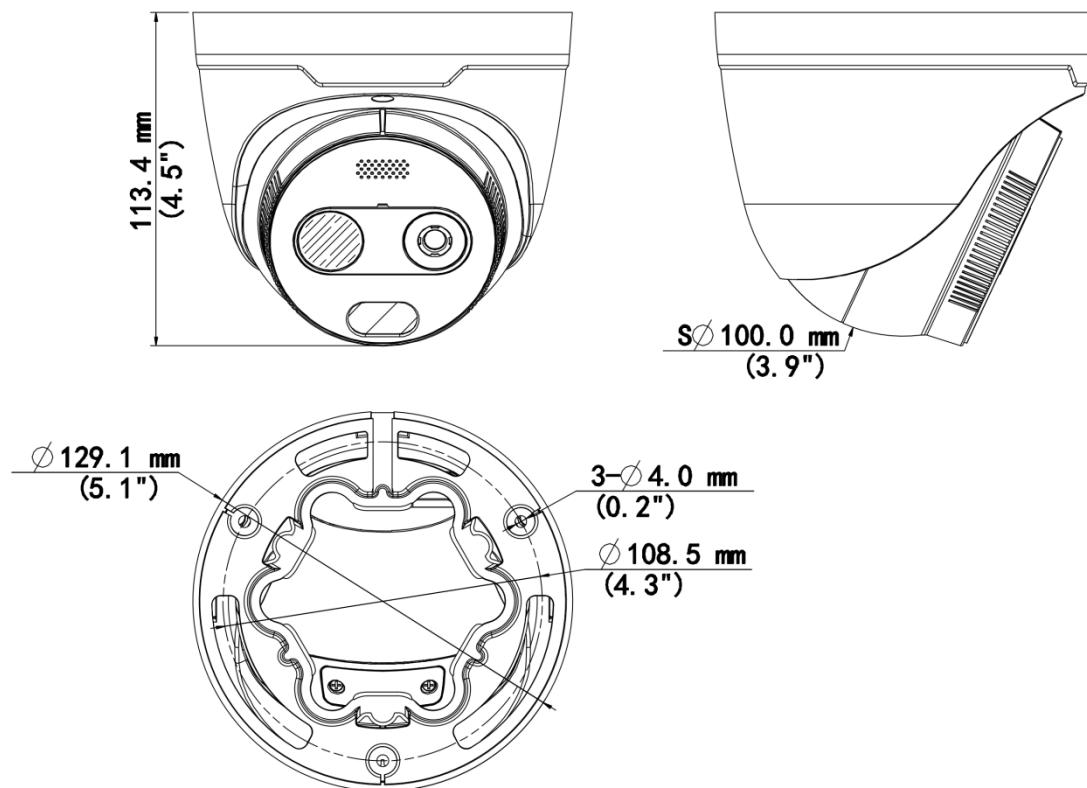
**Recognition Range:** In order to classify the object (animal, human, vehicle, etc.), the object must be covered by 6 or more pixels.

**Identification Range:** In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.

| Lens  | Detection Range (Vehicles: 4.0 × 1.4 m) | Detection Range (Humans: 8 × 0.5 m) | Recognition Range (Vehicles: 4.0 × 1.4 m) | Recognition Range (Humans: 1.8 × 0.5 m) | Identification Range (Vehicles: 1.4 × 4.0 m) | Identification Range (Humans: 1.8 × 0.5 m) |
|-------|---|-------------------------------------|---|---|--|--|
| 2.1mm | 207m                                    | 83m                                 | 52m                                       | 21m                                     | 30m  | 12m  |
| 3mm   | 296m                                    | 119m                                | 74m                                       | 30m                                     | 49m  | 17m  |

|     |      |      |      |     |     |     |
|-----|------|------|------|-----|-----|-----|
| 7mm | 690m | 277m | 173m | 69m | 99m | 40m |
|-----|------|------|------|-----|-----|-----|

## Dimensions



## Accessories

TR-JB03-H-IN

Junction Box for Metal Turret  
Camera(Support wiring from behind)



TR-WM03-B-IN

Wall Mounting Assembling Bracket for 3  
Inch Hemisphere



TR-A01-IN

NPT 3/4" Waterproof Cable Gland



TR-UP06-IN

Universal Pole Mounting Bracket



TR-JB07/WM03-F-IN

Wall Mounting Assembling Bracket with  
Back Hole for 3 Inch Hemisphere



TR-UC08-C

Bullet&Dome Corner Mounting Bracket



# Unlimited New View

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