

# 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
<b>Camera</b>		
Sensor	1/2.8" CMOS	Vanadium oxide uncooled focal plane arrays
Min. Illumination	Colour: 0.003 lux (F1.6, AGC ON) B/W: 0.002lux(F1.6,AGC ON) 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	
<b>Lens</b>		
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°
<b>DORI</b>		
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
<b>Illuminator</b>		
Wavelength	750 nm	N/A
Illumination Distance (IR)	30m	N/A
Light On/Off Control	Auto/Manual	N/A
<b>Video</b>		
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
<b>Image</b>		
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 k $\Omega$ , amplitude 2.5 V [p-p], 1 Output: impedance 600 $\Omega$ , amplitude 2 V [p-p]	
Alarm I/O	2/2	
Serial Port	1 $\times$ RS485	
Network	1 $\times$ RJ45 10 M/100 M Base-TX Ethernet	
Video Output	N/A	1 BNC (for debugging)
General		
Power	DC12V( $\pm$ 25%), PoE(IEEE802.3af)	
Power Consumption	Max 12W	
Power Interface	$\varnothing$ 5.5 mm coaxial power plug	
Dimensions	$\varnothing$ 129 x 114 mm( $\varnothing$ 5.08" x 4.49")( $\varnothing$ x H)	
Weight	0.73kg (1.6lb)	
Working Environment	-40 $^{\circ}$ C to 70 $^{\circ}$ C (-40 $^{\circ}$ F to 158 $^{\circ}$ F), Humidity: $\leq$ 95% RH (non-condensing)	
Storage Environment	-40 $^{\circ}$ C to 70 $^{\circ}$ C (-40 $^{\circ}$ F to 158 $^{\circ}$ F), Humidity: $\leq$ 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.

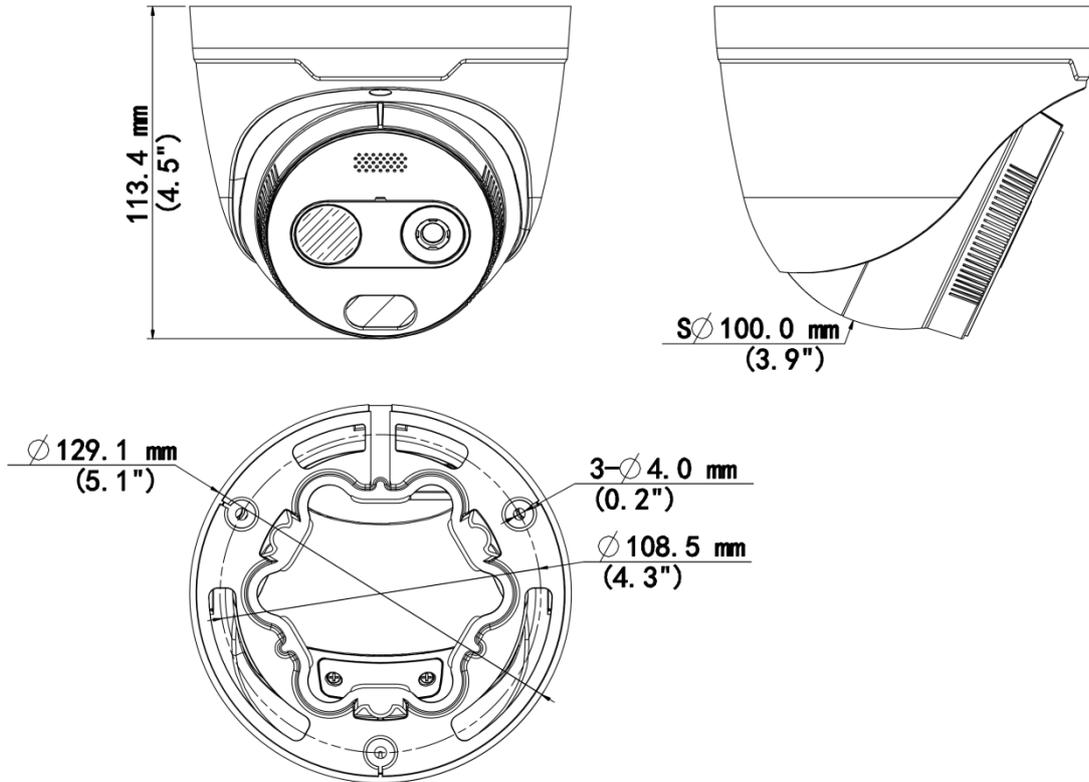
**Recognition Range:** In order to classify the object (animal, human, vehicle, etc.), the object must be covered by 6 or more pixels.

**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 $\times$ 1.4 m)	Detection Range (Humans: 1.8 $\times$ 0.5 m)	Recognition Range (Vehicles: 4.0 $\times$ 1.4 m)	Recognition Range (Humans: 1.8 $\times$ 0.5 m)	Identification Range (Vehicles: 1.4 $\times$ 4.0 m)	Identification Range (Humans: 1.8 $\times$ 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
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## 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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