

# Thermal & Optical Bi-spectrum Network Bullet Camera

TIC2A32SA-F7-4F6AC-I1



## Features

- Thermal & Optical dual-spectrum image, dual video with single IP address, adaptable to more various scenes
- 1/2.8" target surface, high sensitivity sensor, satisfy the need of starlight monitoring
- Thermal module support reliable fire detection, smoking detection and fire shield area
- Thermal module supports temperature detection and cold&hot spot tracking which highlights the abnormal temperature, and link to alarm
- Thermal & Optical dual-spectrum smart intrusion prevention: cross line, enter area, leave area, intrusion
- Optical module supports smog recognition, which can help with fire alarm reconfirm
- Support picture-in-picture mode, real-time contrast live, more convenient and clear
- Support audio and light alarm, with red and blue warning lights built in
- Ultra 265, H.265, H.264, MJPEG
- Max 2688\*1520@30fps in the optical module and Max 960P@30fps in the thermal module

- DC12V±25% or PoE power supply
- Alarm 2 in and 2 out, Audio 1 in and 1 out, Micro SD, up to 512 GB

## Specifications

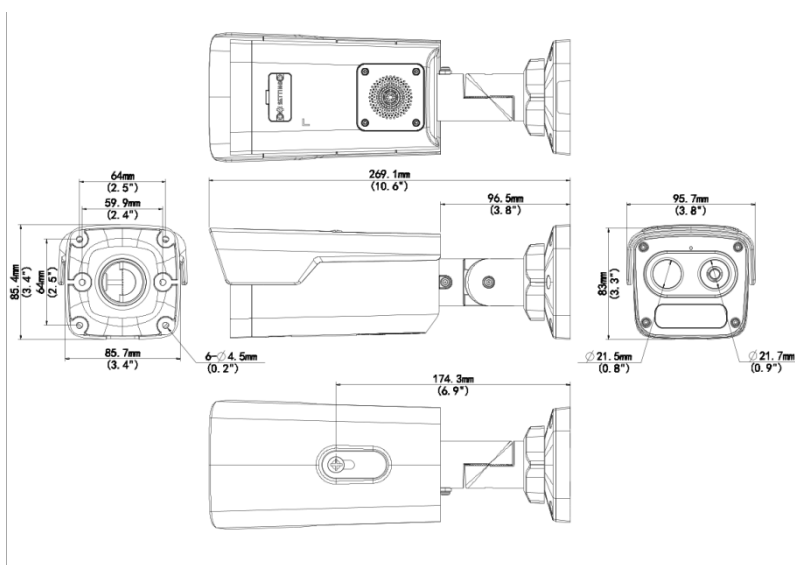
Camera	Description
Sensor—Optical	1/2.8" CMOS
Min. Illumination—Optical	Colour: 0.003 lux (F1.6, AGC ON) B/W: 0.002 lux(F1.6,AGC ON) 0 lux with IR
Day/Night—Optical	IR-cut filter with auto switch (ICR)
Sensor—Thermal	Vanadium Oxide Uncooled Focal Plane Arrays
Original Resolution—Thermal	256*192
NETD	< 50 mk @ F1.0 @ 25 °C
Shutter	Auto/Manual, 1 ~ 1/100000s
WDR	120dB
S/N	>56dB
Lens	Description
Lens Type-Optical	TIC2A32SA-F7-4F6AC-I1:6.0 mm TIC2A32SA-F10-4F8AC-I1:8.0 mm TIC2A32SA-F3-4F4AC-I1:4mm
Iris—Optical	F1.6
Lens Type-Thermal	TIC2A32SA-F7-4F6AC-I1:7.0 mm TIC2A32SA-F10-4F8AC-I1:10.0 mm TIC2A32SA-F3-4F4AC-I1:3.2 mm
DORI	Description
DORI Distance (Detect) — Optical	TIC2A32SA-F7-4F6AC-I1:135.0m(442.9ft) TIC2A32SA-F10-4F8AC-I1:180.0m(590.6ft) TIC2A32SA-F3-4F4AC-I1:90.0m(295.3ft)
DORI Distance (Observe) — Optical	TIC2A32SA-F7-4F6AC-I1:54.0m(177.2ft) TIC2A32SA-F10-4F8AC-I1:72.0m(236.2ft) TIC2A32SA-F3-4F4AC-I1:36.0m(118.1ft)

DORI Distance (Recognize) — Optical	TIC2A32SA-F7-4F6AC-I1:27.0m(88.6ft) TIC2A32SA-F10-4F8AC-I1:36.0m(118.1ft) TIC2A32SA-F3-4F4AC-I1:18.0m(59.1ft)
DORI Distance (Identify) — Optical	TIC2A32SA-F7-4F6AC-I1:13.5m(44.3ft) TIC2A32SA-F10-4F8AC-I1:18.0m(59.1ft) TIC2A32SA-F3-4F4AC-I1:9.0m(29.5ft)
<b>Illuminator</b>	<b>Description</b>
IR Range-Optical	TIC2A32SA-F7-4F6AC-I1/TIC2A32SA-F10-4F8AC-I1:50m TIC2A32SA-F3-4F4AC-I1:40m
Light On/Off Control	Auto/Manual
<b>Video</b>	<b>Description</b>
Video Compression	Ultra 265; H.265; H.264; MJPEG
Video Resolution—Optical	4MP(2688*1520), Max 30fps
Video Resolution—Thermal	960P(1280*960), Max 30fps
Video Bit Rate	128 Kbps ~ 16 Mbps
U-code	Support
ROI	Up to 8 areas
Video Stream	Triple Streams
OSD	Up to 8 OSDs
Privacy Mask	Up to 8 areas (8 blacks/ 8 mosaics)
<b>Image</b>	<b>Description</b>
White Balance	Auto; Outdoor; Fine Tune; Sodium Lamp; Locked; Auto2
Digital Noise Reduction	2D/3D DNR
Flip	Normal; Flip Vertical; Flip Horizontal; 180°; 90°Clockwise; 90°Anti-clockwise
Defog	Digital Defog
Palette—Thermal	white hot; lava; iron oxide red; hot iron; medical; arctic; rainbow 1; rainbow 2; rainbow 3; depict hot; ice hot; black hot; mazarine; fusion; red hot; green hot; color 1; color 2; rain; puce
<b>Intelligent</b>	<b>Description</b>
Smart Intrusion Prevention	Thermal or Optical channel: Support False Alarm Filtering: Line Crossing Detection, Intrusion Detection, Enter Area Detection, Leave Area Detection
Smoke and Fire Detection	Optical channel support detecting smoke directly or helping in double-check the fire alarm
Temperature Measurement Accur	±8°C (±14.4°F) or ±8% (whichever is greater)

acy	
Temperature Range	Selectable between -20°C ~ 150°C (-4°F ~ 302°F) and 100°C ~ 550°C (212°F ~ 1022°F)
Temperature Detection—Thermal	Thermal channel supports rule-based temperature measurements.Supports real-time display of the highest, lowest, and average temperatures in the rule-defined area on the screen
Smoking Detection—Thermal	Thermal channel supports the detection of smoking behavior in the environment
<b>Events</b>	<b>Description</b>
Fire Detection	Thermal channel supports the detection of fire point in the environment
Basic Detection—Optical	Motion Detection; Tampering Alarm; Audio Detection
General Function	Watermark; IP Address Filtering; Access Policy; ARP Protection; RTSP Authentication; User Authentication; HTTP Authentication; Alarm Input; Alarm Output
<b>Audio</b>	<b>Description</b>
Audio Compression	G.711U; G.711A
Audio Bitrate	128 Kbps
Two-way Audio	Support
Suppression	Support
Sampling Rate	16KHZ
<b>Storage</b>	<b>Description</b>
Edge Storage	Micro SD, up to 512 GB
Network Storage	ANR
<b>Network</b>	<b>Description</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
User/Host	Up to 32 users. 3 user levels: administrator, common user and operator
Client	EZStation; EZLive; EZView
Web Browser	Plug-in required live view: IE 10 and above, Chrome 45 and above, Firefox 52 and above, Edge 79 and above
<b>Interface</b>	<b>Description</b>
Audio I/O	1/1
Alarm I/O	2/2
Serial Port	1 channel RS485 interface
Built-in Mic	Support

Built-in Speaker	Support
Network	1 x RJ45 10M/100M Base-TX Ethernet
Video Output	Supported (Thermal module)
<b>General</b>	<b>Description</b>
Power	DC12V( $\pm 25\%$ ), PoE(IEEE802.3af)
Power Consumption	Max 12W
Power Interface	$\varnothing$ 5.5 mm coaxial power plug
Dimensions	269.1 x 95.7 x 83mm(10.6" x 3.75" x 3.25")
Weight	0.95kg(2.1lb)
Working Environment	-40 °C ~ 70 °C (-40 °F ~ 158 °F), Humidity: $\leq 95\%$ RH (non-condensing)
Surge Protection	6KV
<b>Certification</b>	<b>Description</b>
EMC	CE-EMC (EN 55032: 2015+A1:2020,EN 61000-3-3: 2013+A1: 2019,EN IEC 61000-3-2: 2019+A1: 2021,EN 50130-4:2011+A1:2014) FCC (FCC CFR 47 part15 B, ANSI C63.4-2014)
Safety	CE LVD (EN IEC 62368-1:2020+A11:2020) UL (UL 62368-1, 2nd Ed., Issue Date: 2014-12-01)
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)

## Dimensions



## 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.

## DRI Range Table

Lens	Detection Range (Vehicles:4.0 × 1.4 m)	Detection Range (Humans:1.8 × 0.5 m)	Recognition Range (Vehicles: 4.0 × 1.4 m)
3.2mm	316m	126m	79m
7mm	690m	277m	173m
10mm	986m	395m	247m

## Smart Function Table(Thermal)

Lens	SIP Detection Range (Vehicles:4.0 × 1.4 m)	SIP Detection Range (Humans:1.8 × 0.5 m)	Fire Detection Range (target: 0.5m)
3.2mm	60m	30m	13m
7mm	140m	70m	29m
10mm	200m	100m	48m

### Zhejiang Uniview Technologies Co., Ltd.

No. 369, Xietong Road, Xixing Sub-district, Binjiang District, Hangzhou City, 310051, Zhejiang Province, China

Email: [overseasbusiness@uniview.com](mailto:overseasbusiness@uniview.com); [globalsupport@uniview.com](mailto:globalsupport@uniview.com)

<http://www.uniview.com>

©2024 Zhejiang Uniview Technologies Co., Ltd. All rights reserved.

\*Product specifications and availability are subject to change without notice.

\*Despite our best efforts, technical or typographical errors may exist in this document. Uniview cannot be held responsible for any such errors and reserves the right to change the contents of this document without prior notice.