## UNV

## 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, suitable for starlight monitoring
- Thermal module supports reliable fire detection, smoking 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

Channe	l Optical	Thermal
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## DATASHEET

Camera						
Original	N/A	256 × 192				
Resolution	N/A 250 ^ 152					
Sensor	1/2.8" CMOS	Vanadium oxide uncooled focal plane arrays				
	Colour: 0.003 lux (F1.6, AGC ON)					
Min. Illumination	B/W: 0.002 lux(F1.6,AGC ON) N/A					
	0 lux with IR					
Day/Night	IR-cut filter with auto switch (ICR)	N/A				
Pixel Size	N/A	12 um				
NETD	< 50 mk@F1.0@25 ℃					
Shutter	Auto/Manual, 1 to 1/100000 s					
WDR	120 dB					
S/N	>56 dB					
Lens						
Focal Length	6.0 mm	7 mm				
Iris	F1.6	F1.0				
Field of View (H)	53.8°	25.0°				
Field of View (V)	29.3° 18.8°					
Field of View (D)	66.2°	30.8°				
DORI						
DORI Distance						
(Detect)	135.0m(442.9ft)	N/A				
DORI Distance		N/A				
(Observe)	54.0m(177.2ft)					
DORI Distance						
(Recognize)	27.0m(88.6ft) N/A					
DORI Distance	12 Fm (44 2ft)	N1/A				
(Identify)	13.5m(44.3ft)	N/A				
Illuminator						
Wavelength	750 nm	N/A				
Illumination	Form	N/A				
Distance (IR)	50m	N/A				
Light On/Off	Auto/Manual	N/A				
Control	Auto/Manual	N/A				
Video						
Frame Rate	4MP(2688*1520), Max 30fps	960P(1280*960), Max 30fps				
Video	Ultra 265, H.265, H.264, MJPEG					
Compression	Utta 200, 11.200, 11.204, MJFEO					
Video Bit Rate	128 Kbps to 16 Mbps					
U-code	Support					
ROI	Support					
Video Stream	Triple streams					
OSD	Up to 8 OSDs					

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Privacy Mask	Up to 8 areas (8 blacks/ 8 mosaics)	N/A			
Image					
White Balance	Auto, Outdoor, Fine tune, Sodium lamp, Locked, Auto2	N/A			
Digital Noise Reduction	2D/3D DNR				
Flip	Normal, Flip vertical, 180°, Flip horizontal, 90° Clockwis	e, 90° Anti-clockwise			
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			
Intelligent					
Smart Intrusion Prevention	Cross line detection, intrusion 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)			
Events					
Fire Detection	N/A	Support			
Basic Detection	Motion detection, Tampering alarm, Audio detection	N/A			
General Function	Watermark, IP address filtering, Access policy, ARP prot authentication, Alarm input, Alarm output	tection, RTSP authentication, User authentication, HTTP			
Audio					
Audio Compression	G.711U, G.711A				
Audio Bitrate	128 Kbps				
Two-way Audio	Support				
Suppression	Support				
Sampling Rate	16KHZ				
Storage					
Edge Storage	Micro SD, up to 512 GB				
Network Storage	Network Storage ANR				
Network					
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 us	ser and operator			

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## DATASHEET

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 channel RS485 interface					
Network	1 × RJ45 10 M/100 M Base-TX Ethernet					
Video Output	N/A 1 BNC (for debugging)					
Certification						
	CE-EMC (EN 55032: 2015+A1:2020,EN 61000-3-3: 2013+A1: 2019,EN IEC 61000-3-2: 2019+A1: 2021,EN					
EMC	50130-4:2011+A1:2014)					
	FCC (FCC CFR 47 part15 B, ANSI C63.4-2014)					
C-f-t-	CE LVD (EN IEC 62368-1:2020+A11:2020)					
Safety	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)					
General						
Power	DC12V(±25%), PoE(IEEE802.3af)					
Power						
Consumption	Max 12W					
Power Interface	Ø5.5 mm coaxial power plug					
Dimensions	269.1 x 95.7 x 83mm (10.6" x 3.75" x 3.25")(L x W x H)					
Weight	0.95kg(2.1lb)					
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					
Web Client	1 Language, English					
Language	1 Language: English					
Live View						
Maximum						
Bitstream	35					
Maximum						
Bandwidth	50 Mbps					
OSD Font	Vector					
OSD Color	Support					
OSD Character	OSD Character					
Number	40					

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Other		
Corridor Mode	Support	
Software Version	Q6202	

## Dimensions



### Accessories

TR-UP06-B-IN

Bullet Pole Mounting Bracket



TR-WM06-C-IN Wall Mounting Bracket for 6-inch Bullet Camera



TR-UP06-IN

Universal Pole Mounting Bracket







TR-A01-IN NPT 3/4'' Waterproof Cable Gland



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### **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 Rang e (Vehicles:4.0 × 1.4 m)	Detection Rang e (Humans:1.8 × 0.5 m)	Recognition Ra nge (Vehicles: 4. 0 × 1.4 m)	Recognition Ra nge (Humans: 1 .8 × 0.5 m)	Identification R ange (Vehicles: 1.4 × 4.0 m)	Identification Ran ge (Humans: 1.8 × 0.5 m)
3.2mm	316m	126m	79m	32m	53m	21m
7mm	690m	277m	173m	69m	99m	40m
10mm	986m	395m	247m	99m	141m	56m

## Smart Function Table(Thermal)

Lens	SIP Detection Ran ge (Vehicles:4.0 × 1 .4 m)	SIP Detection Ran ge (Humans:1.8 × 0.5 m)		Smoking detectio n (target: cigarette butt)	Temperature detection (target: 0.1m x 0.1m)
3.2mm	60m	30m	13m	2m	8m

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7mm	140m	70m	29m	5m	20m
10mm	200m	100m	48m	7m	30m

#### Zhejiang Uniview Technologies Co., Ltd.

No. 369, Xietong Road, Xixing Sub-district, Binjiang District, Hangzhou City, 310051, Zhejiang Province, China (Zhejiang) Pilot Free Trade Zone, China

Email: overseasbusiness@uniview.com; globalsupport@uniview.com

http://www.uniview.com

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