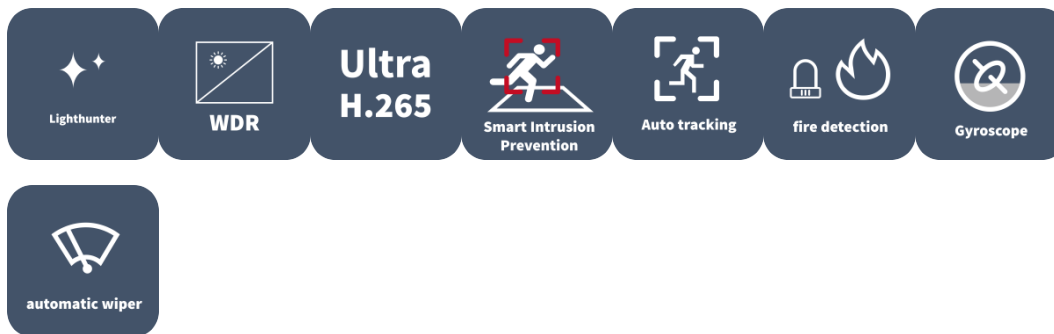# Thermal & Optical Bi-spectrum Network Positioning System Camera

TIC7626EL-GAF75-4X56-VH1

Features

- Thermal & Optical dual-spectrum image, dual video with single IP address, adaptable to more various scenes

- Passive infrared thermal imaging, meet the requirement of concealed monitoring and not affected by bad weather condition such as fog, smoke, rain, snow and night etc.

- Thermal channel supports fire detection, optical channel can link to the fire position and zoom in, more accurate to judge fire situation

- Thermal or visible channel support smart intrusion prevention based on deep learning algorithm: cross line, enter area, leave area, intrusion, support smart tracking

- Optical channel supports 4MP@60fps ,which has the smoother motion image

- Optical channel supports Gyroscope stabilization for stable picture

- Optical channel supports   heat wave reduction which can reduce heat wave phenomenon and improve image quality

- Vari-focal laser:800m(2624.7ft) distance, proportional to optical zoom of camera module

- Rain-sensing auto wiper ,provide clear image in harsh weather

- Support 1/1 audio in/out, 7/2 alarm in/out ,1 Serial port RS485

- Power supply: DC 48V±25%、DC 24V±15%、AC 24V±25%
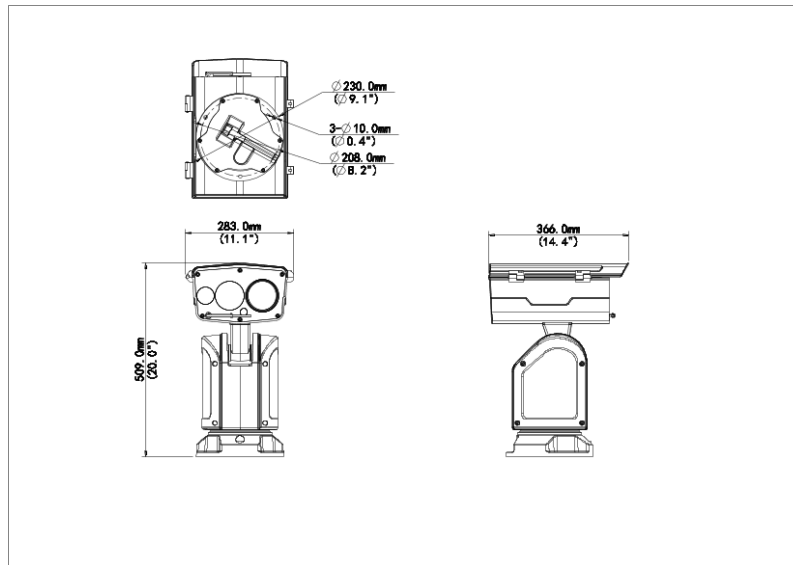
- IP66

Specifications

	Optical	Thermal
Camera	Description	
Sensor	1/1.8" CMOS	Vanadium Oxide Uncooled Focal Plane Arrays
Min. Illumination	Colour : 0.0003lux(F1.2, AGC ON) B/W : 0.0001lux(F1.2, AGC ON) 0 Lux with Laser	N/A
Original Resolution -Thermal	N/A	640*512
Pixel Size	N/A	12 um
NETD	N/A	$\leqslant$ 40 mk @ F1.0 @ 25 ℃
Shutter	Auto/Manual, 1 ~ 1/100000s	N/A
WDR	120dB	N/A
S/N	>52dB	N/A
Lens	Description	
Focal Length	6 ~ 336 mm	75mm
Optical Zoom	56X	N/A
Iris	F1.2 ~ F4.6	F1.0
Field of View (H)	57.9° ~ 1.6°	6.1°
Field of View (V)	34.6° ~ 0.9°	4.8°
Field of View (D)	71.2° ~ 1.9°	7.2°
Focus-Thermal	Auto|Semiautomatic|Manual	
DORI	Description	
DORI Distance (D etect)	155.5m(510.1ft)~4829.4m(15844.5ft)	N/A
DORI Distance (O	62.2m(204.0ft)~1931.8m(6337.8ft)	N/A

bserve)		
DORI Distance (Recognize)	31.1m(102.0ft)~965.9m(3168.9ft)	N/A
DORI Distance (Identify)	15.5m(51.0ft)~482.9m(1584.4ft)	N/A
Illuminator	**Description**	
Illumination Distance (IR)	Up to 800m(2624.7ft)	N/A
Video	**Description**	
Video Compression	Ultra 265|H.265|H.264|MJPEG	
Video Resolution	Main Stream: 4MP (2688×1520): Max.60fps; Sub Stream: 2MP (1920×1080): Max.60fps; Third Stream: D1(720 x 576): Max.60fps;	1080P(1920*1080), Max.30fps
Video Bit Rate	128 Kbps ~ 16 Mbps	
U-code	Support	
ROI	Support	
Video Stream	Triple Streams	
OSD	Up to 8 OSDs	
Privacy Mask	24 areas, up to 8 areas per scene	N/A
Image	**Description**	
White Balance	Auto|Outdoor|Fine Tune|Sodium Lamp|Locked|Auto 2	N/A
Digital Noise Reduction	2D/3D DNR	
Flip	Normal|Flip Vertical|Flip Horizontal|180°	
Defog	Digital Defog|Optical Defog	N/A
Palette-Thermal	N/A	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
Low Illumination Characteristics	ColorHunter with Wise-ISP	
Intelligent	**Description**	
Smart Intrusion Pr	Cross line detection, Intrusion detection (support fal	Cross line detection, Intrusion detection, Enter area

evention	se alarm filtering and the classification of human, non-motor vehicle and vehicle)	detection, Leave area detection (support false alarm filtering and the classification of human and vehicle)
Smoke and Fire Detection	Support	N/A
Auto Tracking	Support tracking targets automatically, capturing detailed information at a distance	
Events	**Description**	
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	
Audio	**Description**	
Audio Compression	G.711U|G.711A	
Audio Bitrate	128 Kbps	
Two-way Audio	Support	
Sampling Rate	16KHZ	
Storage	**Description**	
Edge Storage	Micro SD, up to 512 GB	
Network Storage	ANR|NAS (NFS)	
PTZ	**Description**	
Pan Range	360° (endless)	
Pan Speed	0.02°/s ~ 140°/s	
Tilt Range	-90° ~ 45°	
Tilt Speed	0.02° ~ 50°/s	
Number of Presets	1024	
Preset Image Freeze	Support	
Home Position	Support	
Number of Presets (IPC)	1024	
3D Location	Support	
Number of Patrol	16	

Interface	Description	
Audio I/O	1 Input: impedance 1k Ω; amplitude 2.5V [p-p]|1 Output: impedance 600 Ω; amplitude 2V [p-p]	
Alarm I/O	7/2	
Serial Port	1 channel RS485 interface	
Network	1 x RJ45 10M/100M/1000M Base-TX Ethernet + 1 x 100M/1000M SFP	
Video Output	N/A	1 BNC (For debugging)
General	Description	
Power	DC 48V±25%、DC 24V±15%、AC 24V±25%	
Power Consumption	Max 135W	
Power Interface	Wires with cold-pressed terminal	
Dimensions	526 x 283 x 368 mm (20.7" x 11.1" x 14.5")(L x W x H)	
Weight	17.12kg(37.74lb)	
Working Environment	-40°C ~ 70°C (-40°F ~ 158°F), Humidity: ≤95% RH (non-condensing)	
Storage Environment	-40°C ~ 70°C (-40°F ~ 158°F), Humidity: ≤95% RH (non-condensing)	
Surge Protection	6KV	
Reset Button	Support	
RTC	Support	
Certification	Description	
Protection	IP66	
Live View	Description	
OSD Font	Vector	
OSD Character Number	40	

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

Detection Range (Vehicles:4.0 × 1.4 m)	Detection Range (Humans:1.8 × 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)
8385m	3248m	2096m	812m	1398m	541m

Smart Function Table(Thermal)

SIP Detection Range (Vehicles:4.0 × 1.4 m)	SIP Detection Range (Humans:1.8 × 0.5 m)	Fire Detection Range (target: 2 x 2 m)
1500m	750m	4500m

Notes

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