BI-SPECTRAL TURRET CAMERA
(3.5, 7MM)

PRODUCT INFO

PRODUCT NAME
Bi-spectral Turret Camera

PRODUCT NUMBER
IIS-BT2519-3.5 || IIS-BT2519-7

PRODUCT CATEGORY
Fixed Camera

PRODUCT PRICE
Contact us for a quote

KEY FEATURES

- 256 × 192 resolution, 12 μm, VOx UFPA, NETD ≤ 50 mK
- Lens Options: Thermal – 3.5mm/7mm fixed; Visible – 4mm/8mm fixed
- Detection Capabilities: Human/vehicle, smoke & flame, fire point detection
- Temperature range: -40°C ~ 150°C (-40°F ~ 302°F)
- Intelligent Analytics: Intrusion, single/double line crossing, loitering, wrong-way, people counting, enter/leave area detection, smart motion detection
- Support 3 temperature measurement rule types (spot, line, area)
- Image Processing: DVE, 3D DNR, WDR
- Built-in mic, speaker, and strobe light; supports sound-light alarm
- Smart IR distance up to 35m/50m
- Support I/O alarm, RS485, built-in SD card slot
- Power Supply: DC12V/DC24V, PoE

SMARTER PERIMETER PROTECTION WITH THERMAL AND OPTICAL PRECISION.

The SYTIS Bi-spectral Turret Camera delivers powerful thermal detection and high-resolution optical imaging in a compact, flexible form. Through infrared technology, it identifies heat anomalies and movement in complete darkness, while the 8MP optical lens provides sharp visual detail for accurate identification and incident verification—day or night, through rain, smoke and fog.

Designed for critical asset monitoring and perimeter protection, this cost effective camera features onboard machine learning that intelligently detects human and vehicle intrusions, minimizing false alarms and enhancing real-time situational awareness. With full integration into InfraSpec™ software, users can access live and recorded footage from any device—ensuring continuous oversight across operations.

CONTACT US

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TECHNICAL DATA SPECIFICATION

CAMERA

CAMERA	Thermal	Visible
Image Sensor	Uncooled VOx Focal Plane Arrays	1/2.7" CMOS
Resolution	256(H)×192(V), Image can be scaled up to 704×576	2560(H) × 1440(V)
Pixel Pitch	12µm	
Spectral Range	8 to 14µm	
NETD	≤ 50mK	
Min. Illumination		Color: 0.05Lux @(F1.6, AGC ON), B/W: 0.005Lux @(F1.6, AGC ON), 0Lux with IR
Shutter Speed		1/5 to 1/20,000s
Lens Type	Fixed	Fixed
Focal Length	3.5 mm, 7mm, 10mm optional	4 mm, 8 mm optional
Max. Aperture	F1.0	F1.6/F2.0
Focus Control	Fixed focal	Fixed focal
Field of View (FOV)	3.5 mm: H: 48°, V: 36° 7 mm: H: 24°, V: 18°	4 mm: H: 92°, V: 46° 8 mm: H: 40°, V: 20°

IVS

IVS	Thermal	Visible
AI Multi-Target	Human and vehicle detection	Human and vehicle detection
Intelligent Analysis	Intrusion, Single Line Crossing, Double Line Crossing,Loitering, Wrong-Way Detection, Enter Area, LeaveArea, Smart Motion Detection Support alarm triggering by specified target types (human and vehicle)	Intrusion, Single Line Crossing, Double Line Crossing,Loitering, Wrong-Way Detection, Enter Area, Leave Area, Smart Motion Detection Support alarm triggering by specified target types (human and vehicle)
Smoke and Flame Detection	Supported	Supported
Fire Spot Detection	Supported	
People Counting	Supported	Supported

VIDEO AND AUDIO

VIDEO AND AUDIO	Thermal	Visible
Main Stream	D1 (704×576) @25fps	2560×1440, 2304×1296, 1920×1080, 1280×720 @25fps
Sub Stream	D1, CIF, 256×192 @25fps	D1, VGA @25fps
Bit Rate Control	CBR/VBR	CBR/VBR
Bit Rate	Main Stream: 100Kbps to 3Mbps, Sub Stream: 100Kbps to 3Mbps	Main Stream: 100Kbps to 12Mbps Sub Stream: 100Kbps to 6Mbps
Smart Encode	Supported	Supported
Audio Compression	G.711 A-law, G.711 µ-law, RAM PCM	G.711 A-law, G.711 µ-law, RAM PCM

IMAGE

IMAGE	Thermal	Visible
Image Setting	Brightness, Contrast, Sharpness	Brightness, Saturation, Contrast, Sharpness
Mirror	Horizontal / Vertical / Horizontal+Vertical	Horizontal / Vertical / Horizontal+Vertical
Pseudo-color Setting	Up to 17 colors (White-hot/Black-hot/Rainbow/Iron red/HSV/Bone/Cool/Copper/Fire-hot/Pink /Spring/Summer/Autumn/Winter/Jet/Flame /Rose-Bengal)	
FFC Control	Auto / Manual	
Gain Control		Auto / Manual
White Balance		Auto/Tungsten/Fluorescent/Daylight/Shadow
Day/Night		Day Mode/Nightmode/Time
Noise Reduction	2D/3D DNR	2D/3D DNR
Image Enhancement		WDR, HLC, BLC
Wide Dynamic Range		True WDR 120dB
OSD	Up to 8 OSD	Up to 8 OSD
Privacy Masking	Up to 4 areas	Up to 4 areas
Illuminator		IR Range: -4 mm: Up to 35m (114.83 ft.) -8 mm: Up to 50m (164.04 ft.)

THERMAL FUNCTION

THERMAL FUNCTION	
Temperature Range	-20℃ to 150℃ (-4°F to 302°F)
Accuracy	±2℃ / ±2%
Temperature Detection	3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line)
Temperature Display	Display in the lower left corner; follow the cursor display of the highest temperature, lowest temperature or average temperature
Image Fusion	Fusion view of thermal view and overlaid details of the optical channel

EVENT

EVENT	
Alarm Triggers	IVS, Temperature anomaly, Motion detection, Alarm Input, Disk alarm, Network alarm, Abnormal sounddetection
Alarm Events	Alarm out, Audio alarm, Flashing light alarm, Alarm record, SMTP, FTP upload

NETWORK

NETWORK	
Protocols	IPv4/IPv6, HTTP/HTTPS, DNS, DDNS, DHCP, PPPOE, RTSP/RTP/RTC TCP/UDP, NTP, ARP, UPnP, FTP, SMTP, QoS, 802.1x, SNMP, Multicast
Compatible Integration	ONVIF (Profile S/T/G/M), CGI, SDK
User/Host Level	Up to 10 users, 3 levels: Administrator, Operator, Media user
Security	IP address filter, encrypted HTTPS, Illegal login lock, IEEE 802.1x
Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge

INTERFACE

INTERFACE	
Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector
Audio Interface	1ch input, 1ch output
Built-in Speaker	Supported
Built-in Mic	Supported
Alarm Interface	1ch input, 1ch output
RS-485	1
SD Card Slot	Micro SD card, up to 512GB
Reset Button	Supported

GENERAL

GENERAL	
Web Language	English, Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian. Default: English
Power Supply	12 VDC/24 VDC/PoE (802.3af)
Power Consumption	Max 10W
Certifications	CE-EMC (EN 55032:2015+A1:2020, EN 55035:2017+A11:2020, EN 50130-4:2011+A1:2014, EN 61000-6-3:2007+A1:2011+AC:2012, EN IEC 61000-3-2:2019, EN 61000-3-3:2013+A1:2019)) FCC (FCC 47 CFR 15, Subpart B, ANSI C63.4-2014)
Working Temp. and Humidity	-40℃ to 60℃ (-40°F to 140°F) Less than 90% RH
Ingress Protection	IP66
Material	Metal
Dimensions	φ140 × 117.8 mm (5.51 × 4.64 inch)
Net Weight	1.03 Kg (2.27 lb)

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THERMAL DRI RANGE TABLE

Note: The table is only for reference and the performance may vary according to different environment.

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

DORI Distance		
Lens	3.5mm	7mm
Detection Distance (Humans: 1.8 × 0.5 m)	146 m (479.0 ft)	292 m (958.0 ft)
Detection Distance (Vehicles: 1.5 × 4 m)	447 m (1,466.5 ft)	894 m (2933.1 ft)
Recognition Distance (Human: 1.8 × 0.5 m)	36 m (118.1 ft)	73 m (239.5 ft)
Recognition Distance (Vehicles: 1.5 × 4 m)	112 m (367.5 ft)	224 m (734.9 ft)
Identification Distance (Human: 1.8×0.5 m)	18 m (59 ft)	36 m (118.1 ft)
Identification Distance (Vehicles: 1.5 × 4 m)	56 m (183.7 ft)	112 m (367.5 ft)

THERMAL SMART DETECTION RANGE TABLE

Note: The table is for reference only. The distances within it are subject to actual conditions including atmospheric conditions, target size, the installation site and more.

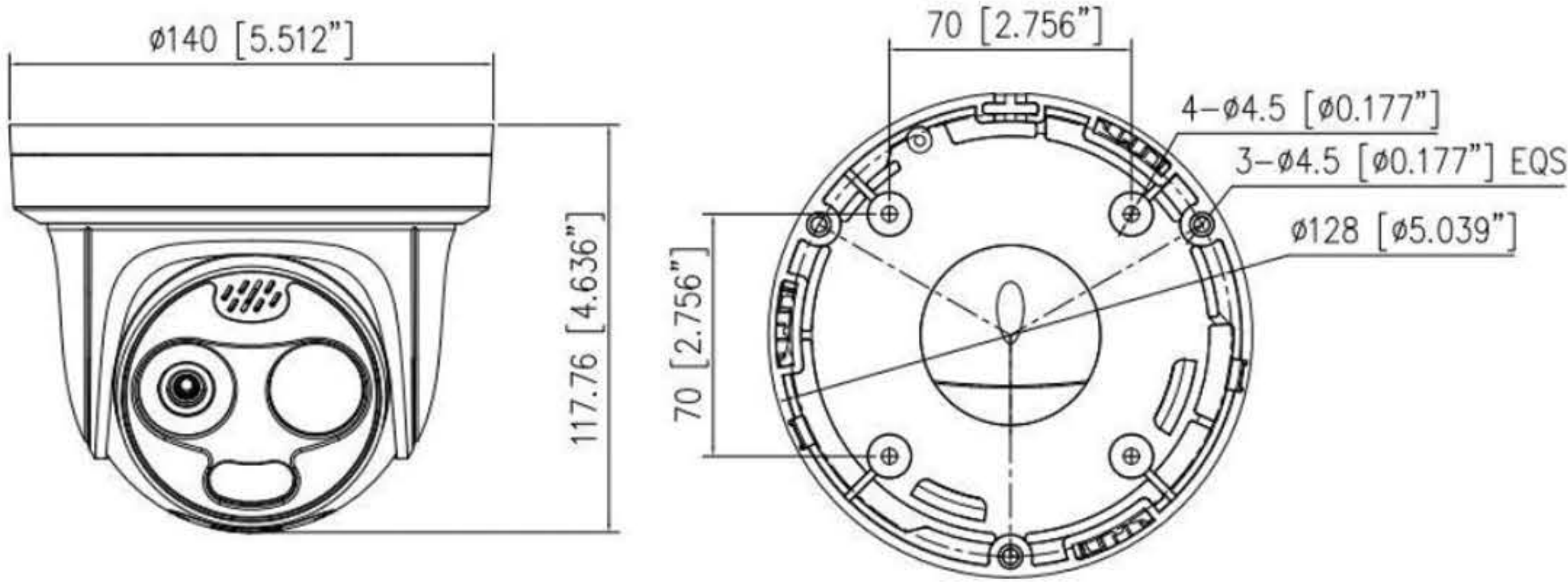| DETECTION RANGE TABLE		
Lens	3.5mm	7mm
VCA Detection Distance (Human: 1.8 × 0.5 m)	30 m (98.4 ft)	60 m (196.9 ft)
VCA Detection Distance (Front/Rear of Vehicle: 1.5×4m)	35 m (114.8 ft)	70 m (229.7 ft)
Temperature Measurement (Object: 1 × 1 m)	58.3 m (191.3 ft)	116.7 m (382.9 ft)
Temperature Measurement (Object: 0.2 × 0.2 m)	11.7 m (38.4 ft)	23.3 m (76.4 ft)
Fire Detection (Object: 0.2 × 0.2 m)	29.2 m (95.8 ft)	58.3 m (191.3 ft)

OPTICAL DORI RANGE TABLE

Note: DORI (Detect, Observe, Recognize, and Identify) is a standard system (EN-62676-4) for defining the ability of a personviewing the video to distinguish persons or objects within a covered area. The numbers in this table do not reflect intelligent function distances. For intelligent function distances, refer to installation and commissioning manual/project design tool.

DORI DISTANCE		
Lens	4mm	8mm
Detect	85.4 m (280.18 ft)	150.4 m (493.44 ft)
Observe	34.2 m (112.20 ft)	60.2 m (197.51 ft
Recognize	17.1 m (56.10 ft)	30.1 m (98.75 ft)
Identify	8.5 m(27.89 ft)	15.0 m (49.21 ft)

Dimensions (mm)

Accessories (optional)

Junction Box	Pendant Cap	Pendant Mount	Wall Mount

Wall Mount	Pole Mount	Corner Mount

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