THERMAL CAMERA

TD-5422E1-VT1-A
Thermal Network Bullet Camera

RoHS CE FC PoE ONVIF

Thermal:

- Resolution: 256×192

- 12μm，NETD: ≤50mK(@25°C, F#=1.0)

- Temperature range: -20°C~150°C

- Multi-palette: white hot, black hot, iron oxide red, rainbow, etc.

- Sound and light warning, temperature exception alarm, fire detection

- Intelligent analytics: region intrusion/entrance/exiting (human/motor vehicle classification), line crossing detection (human/motor vehicle classification)

- Supports dual image fusion

- Supports temperature overlay on video stream

Optical:

- 5MP (2592 × 1944) @30 fps

- ICR auto switch, true day/night vision

- 20~30m IR night view distance

- 3D DNR, HWDR(120dB), HLC, BLC, Smart IR, distortion image correction, ROI etc.

- Intelligent analytics: region intrusion/entrance/exiting detection (human/motor vehicle/non-motor vehicle classification), line crossing detection (human/motor vehicle/non-motor vehicle classification), target counting by line/area (human/vehicle /non-motor vehicle classification), face detection, face capture, illegal parking detection, loitering detection, abandoned/missing object detection

SPECIFICATIONS

Model Specifications	TD-5422E1-VT1-A	
Thermal Module		
Detector Type	12µm 256×192 Vanadium oxide uncooled focal plane detector	
Response Waveband	8µm-14µm	
NETD	≤50mK(@25℃, F#=1.0)	
IRIS Type	Fixed Iris	
Lens	3.2mm@F1.1	7mm@F1.0
Field of View(H×V)	56°×42.2°	24.8°×18.7°
Min. Focusing Distance	0.5 m	1.1m
Color Palettes	Black hot, White hot, iron oxide red, rainbow, etc.	
DRI Distance Human (0.75m)	Detection: 133m(436ft) Recognition: 33m(108ft) Identification:17m(56ft)	Detection: 292m(958ft) Recognition: 73m(240ft) Identification:36m(118ft)
DRI Distance Vehicle (2.3m)	Detection: 409m (1342ft) Recognition: 102m(335ft) Identification:51m(167ft)	Detection: 894m(2933ft) Recognition: 224m(735ft) Identification:112m(367ft)
Visible Light Module		
Image Sensor	1/ 2.7" CMOS	
Image Size	2592 × 1944	
Electronic Shutter	1/3 s ~ 1 / 100000 s	
Iris Type	Fixed Iris	
Min. Illumination	0.02 lux@F1.6,AGC ON; 0 lux with IR 0.03 lux@F2.0,AGC ON; 0 lux with IR	
Lens	4mm@F1.6	8mm@F2.0
Field of View(H×V)	81°×56.7°	38°×27.5°
Wide Dynamic Range	120dB	
BLC	Yes	
HLC	Yes	
Defog	Yes	
Digital NR	2D/3D DNR	
Image		
Video Compression	H.265/H.264/MJPEG	
H.264 Compression Standard	Baseline Profile / Main Profile / High Profile	
Bit Rate Type	VBR/CBR	
Bit Rate	64Kbps~ 8Mbps	
Resolution	Thermal : 720P (1280 × 720), D1, CIF, 480 × 240	

	Optical: 5MP (2592 × 1944), 4MP (2592 × 1520),
	  2K (2560 × 1440), 3MP (2304 × 1296),1080P (1920 × 1080),
	  720P (1280 × 720), D1, CIF, 480 × 240	

Main Stream	Optical: 60Hz: 5MP/4MP/2K/3MP/1080P/720P (1~30fps); 50Hz: 5MP/4MP/2K/3MP/1080P/720P (1~25fps)	
	Thermal : 256 × 192 (the resolution of output image is 720P/D1/CIF/480×240) (1~25fps)	
Sub Stream	Optical: 720P/D1/CIF (60Hz: 1~30fps; 50Hz: 1~25fps) Thermal: D1/CIF/480×240 (1~25fps)	
Third Stream	Optical: D1/CIF/480×240 (60Hz: 1~30fps; 50Hz: 1~25fps) Thermal: D1/CIF/480×240 (1~25fps)	
Dual Image Fusion	Yes	
Temperature Overlay	Temperature can be overlaid on video stream	
Image Settings	ROI, Saturation, Brightness, Hue, Contrast, Wide Dynamic, Sharpness, NR, etc. adjustable through client software or web browser	

Audio Compression	G711A/U
ROI	8 regions; each ROI to be configured separately
Interfaces	
Network	RJ 45 (10/100 Base-T)
Video Output	No
Audio	1CH 3.5mm audio input; 1CH 3.5mm audio output; 1CH built-in speaker
Storage	Built-in micro SD card slot; up to 256GB
Reset	Yes
RS 485	No
Alarm	1CH alarm input; 1CH alarm output
Functions	
Temperature Range	-20°C~150°C (-4°F~302°F)
Temperature Accuracy	±8°C
Temperature alarm	Over temperature alarm, low temperature alarm
Temperature Measurement	10 rules in total (Point: up to 10; Line: 2, recommended; Area: 2, recommended)
Fire Detection	Dynamic fire detection, up to 10 fire points detectable
Remote Monitoring	Web browser/NVMS2.X/Mobile APP
Online Connection	Support simultaneous monitoring for up to 10 users; Support multi-stream real time transmission
Network Protocol	UDP, IPv4, IPv6, DHCP, NTP, RTSP, RTP, RTCP, PPPoE, DDNS, SMTP, FTP, SNMP,HTTP, 802.1x, UPnP, HTTPS, HTTP POST, NAT, QoS
Interface Protocol	ONVIF
Storage	Network remote storage; micro SD card storage
Smart Alarm	Motion detection, SD card error, SD card full, IP address conflict, Cable connection, video exception, audio exception
Intelligent Analytics	Optical: region intrusion/entrance/exiting detection/line crossing detection (human/motor vehicle/non-motor vehicle classification), target counting by line/ area(human/motor vehicle/non-motor vehicle classification), face detection, illegal parking detection, loitering detection, abandoned/missing object detection Thermal: fire detection, temperature exception alarm, region intrusion/entrance/ exiting detection/line crossing detection (human/motor vehicle classification) AI function can be enabled simultaneously on thermal and optical channels
General Function	Watermark, IP address filtering, video mask, heartbeat, password protection, image distortion correction, ANR, disarming, cloud upgrade
Sound&Light Warning	White light flashing alarm and sound alarm supported
PoE	Yes , IEEE802.3 af, class0
IR Distance	20~ 30m
Protection Grade	IP66
Others	
Power Supply	DC12V / PoE
Power Consumption	< 9W
Operating Environment	Humidity: less than 95 % (non-condensing) -30 °C ~ 60 °C (-22°F~140°F)
Certificate	CE, FCC
Environment Protection	Complies with Directive EU RoHS, WEEE(2012/19/EU) , directive 94/62/EC and REACH(EC1907/2006)
Dimensions (mm)	217.8 × 80.5 × 80.3
Weight (net)	Approx. 0.7KG
Material	Aluminum alloy body
Installation	Ceiling mounting; Wall mounting

*The above-mentioned DRI distance is for reference only and the performance may vary according to
different environment. The optimal human 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 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.

AVAILABLE MODEL

Available Model	TD-5422E1-VT1-A(3/PE)	3.2mm thermal lens
	TD-5422E1-VT1-A(7/PE)	7mm thermal lens

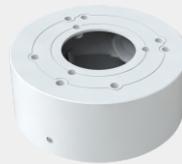## DIMENSIONS

80.5mm

80.3mm

217.8mm
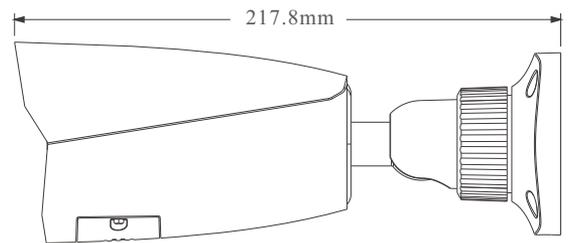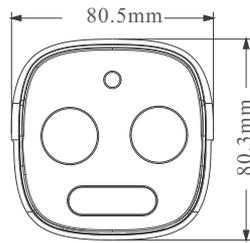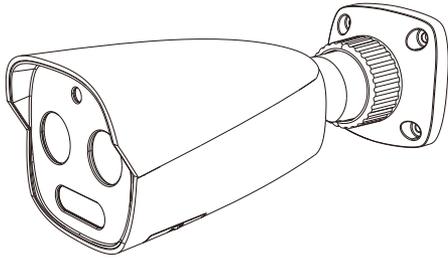
AVAILABLE ACCESSORIES

TD-YXH0301

TD-YXH0103

TD-YXH0104

TD-YXH0304

TD-YXH0301+TD-YZJ0601

TD-YXH0301+TD-YZJ0501

TD-YXH0301+TD-YZJ0810

*All pictures and specifications are for reference only and are subject to change without prior notice.