

THIP-TDB2078

Thermal Body Temperature Measurement Camera



- 400 × 300 uncooled VOx thermal sensor technology
- 1/2.8" 2 Megapixel progressive scan Sony CMOS
- Athermalized Lens (thermal), Focus-free
- Supports body temperature measurements
- Measurement Accuracy: $\pm 0.54^{\circ}\text{F}$, with Temperature Reference Box
- Active deterrence with white light & siren
- Micro SD memory, 2/1 alarm in/out, IP67, PoE, E-PoE

System Overview

Introduced as the newest entry in IC Realtime's series of Body Temperature Measuring Thermal Cameras, the THIP-TDB2078 is a fixed bullet camera that features a 256x192 uncooled VOx thermal sensor with a focus-free Athermalized lens paired with a 1080p visible camera.

The camera includes Active deterrence with white light & siren and has a Measurement Accuracy of $\pm 0.54^{\circ}\text{F}$, when used with the THBB-104F Temperature Reference Box. Additionally, the camera supports H.265 compression, SD storage up to 256GB and is IP67 rated. The camera offers a safe and no risk method for a preliminary screening of temperature anomalies.

Functions

Uncooled Vox Technology

IC Realtime thermal cameras use uncooled Vox sensor technology. The compact size and excellent performance make this a cost-effective solution for thermal surveillance.

High Sensitivity

High thermal sensitivity ($< 40\text{ mK}$) allows cameras to capture more image details and temperature difference information.

Body Temperature Measurement

IC Realtime's new thermal cameras are non-contact, multi-objective, rapid, and pose no risk to temperature testers, etc. It can be conveniently deployed in public places with dense personnel, and can be used for efficient and safe solution for preliminary screening of temperature anomalies.

Protection (IP67, wide voltage)

Subjected and certified to rigorous dust and water immersion tests, the IP67 rating makes it suitable for demanding outdoor applications. For environments with rain, sleet, snow and fog, an integrated wiper provides users with clear visibility at all times. Wide voltage: The camera allows $\pm 20\%$ input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with unstable voltage.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

Technical Specification

Thermal Camera

Image Sensor	Uncooled VOx Microbolometer
Effective Pixels	256(H) x 192(V)
Pixel Size	12um
Thermal Sensitivity (NETD)	<50mK@f/1.1
Spectral Range	8 ~ 14um
Image Setting	Brightness/Sharpness/ROI/AGC/FFC/3D DNR
Color Palettes	18 (Whitehot/ Blackhot/ Ironrow/ Icefire/ Fusion/ Rainbow/ Globow/ Iconbow1/ Iconbow2 .etc)

Thermal Lens

Lens Type	Fixed
Focus Control	Athermalized, Focus-free
Focal Length	7.1mm
Angle of View	H: 24°, V: 18

Visible Camera

Image Sensor	1/2.8" 2M CMOS
Effective Pixels	1920(H)x1080(V)
Electronic Shutter Speed	1/1 ~ 1/30,000s
Min. Illumination	Color: 0.005Lux; B/W: 0.0005Lux; 0Lux (IR on)
IR Distance	Distance up to 114 ft (35m)
IR On/Off Control	Auto/Manual
IR LEDs	1

Visible Lens

Focal Length	8mm
Max Aperture	F1.9
Angle of View	H: 40° V: 22°

Temperature Measurement

Measurement Range	86°F ~+113°F (30°C ~+45°C)
Measurement Accuracy	Max ±0.54°F (0.3°C) with Temperature Reference Box Max ±1.8°F (1°C) without Temperature Reference Box
Measurement Mode	Spot/Line/Area
Measurement Rule	Spot: 12 Line: 12 Area: 12 Support 12 rules simultaneously

Video

Compression	H.265/H.264/MJPEG
Resolution	Thermal Main stream: (1280 × 1024/1024 × 768/640 × 480/256 × 192@), 1280 × 960 by default; Sub stream: (640 × 512/256 × 192@), 256 × 192 by default Visible Main stream: (1920 × 1080/1280 × 720/704 × 576@), 1920 × 1080 by default; Sub stream: (704 × 576/352 × 288@), 355 × 288 by default
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 640 ~ 8192Kbps
Day/Night	Auto(ICR)/Color/B/W
BLC Mode	BLC/HLC/WDR
White Balance	Auto, Manual

Frame Rate	Thermal: 50Hz: Main stream (1fps-25fps),25fps by default; sub stream (1fps-25fps),15fps by default; 60Hz: Main stream (1fps-30fps),30fps by default; sub stream (1fps-30fps),15fps by default; Visual: 50Hz: Main stream (1fps-25fps),25fps by default; sub stream (1fps-25fps),15fps by default; 60Hz: Main stream (1fps-30fps),30fps by default; sub stream (1fps-30fps),15fps by default;
Noise Reduction	Ultra DNR
Electronic Image Stabilization (EIS)	N/A
Motion Detection	Off/On (4 zone, Rectangle)
Region of Interest	Off/On (4 zone)
Flip	90°/180°; Mirror Off/ On
Privacy Masking	Off/On (4 area, Rectangle)

Audio

Compression	G.711a/G.711Mu/AAC
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Network

Ethernet	RJ-45 (10/100Base-T)
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x
Interoperability	ONVIF Profile S & G, API
Max. User Access	10 Users/20 Users
Edge Storage	Micro SD (128GB) Memory status display (Normal/Error/Active/Formatting/Lock), NAS (Network Attached Storage), Local PC for instant recording
Management Software	Smart ICRSS, DSS
Web Viewer	IE, Chrome, Firefox, Safari
Smart Phone	Android, IOS

Interface

Audio Input/ Output	1/1 channel
RS485	Support
Alarm Input/ Output	2/1 channel In/Out

Electrical

Power Supply	12V±20% DC, 1.2A, PoE (802.3af), ePoE Support
Power Consumption	Basic: 5.0W Maximum: 12W (power adapter excluded)

Environmental

Operating Conditions	10°C to +30°C
Storage Conditions	-40°C to +70°C
Relative Humidity	≤ 95%
Ingress Protection	IP67

Construction

Casing	Metal
Dimensions	11"x 4.08"x 3.77" (279.9mm × 103.8mm × 95.8mm) (With bracket)
Net Weight	3.09 lb (1.4 kg)

Accessories

Dimensions (mm/in)

