



Network

Multi-sensor

## TNM-C3622TDR

Bi-Spectrum AI Thermal Camera



### Key Features

- Bi-spectrum monitoring with 2MP visible & QVGA thermal
- AI based Object classification with visible channel only (person)
- Remote Temperature Monitoring within -20 ~ 130°C range
- 6 of quadrangle ROI areas for temperature monitoring
- Compact and Light-weight for Indoor purpose

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Bi-Spectrum AI Thermal Camera



### Specifications

Video	Thermal	Visible
Imaging Device	Uncooled micro bolometer (320x240)	1/2.8" 2MP CMOS
Resolution	1280x960, 640x480, 320x240(Original)	1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264/MJPEG: Max. 8fps	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 30fps/25fps(60Hz/50Hz)
NETD	<50mK	
Pixel size	12μm	
Min. Illumination		Color: 0.05 lux(F1.6, 1/30sec) B/W: 0.005 lux(F1.6, 1/30sec)
Video Out	CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB : Micro USB Type B, 1280x720 for installation	

Lens		
Focal Length (Zoom Ratio)	4.7mm fixed focal	4mm fixed focal
Max. Aperture Ratio	F1.0	F1.6
Angular Field of View	H: 50.0°, V: 36.4°, D: 65.3- (iFoV: 2.553 mRad )	H: 87.6°, V: 46.4°, D: 104.5°
Min. Object Distance	1m(3.28ft)	
Focus Control	Fixed	Fixed

Operational		
Camera Title	Displayed up to 17 characters	
Day & Night		Auto(ICR)
Backlight Compensation		BLC, WDR, SSDR
Wide Dynamic Range		extremeWDR(150dB)
Digital Noise Reduction		SSNR V
Digital Image Stabilization	Support(built-in gyro sensor)	
Motion Detection	8ea, 8point polygonal zones	
Privacy Masking	24ea, polygonal zones - Color: Grey/Green/Red/Blue/Black/White - Mosaic	
Gain Control		Low / Middle / High
White Balance		ATW / AWC / Manual / Indoor / Outdoor
LDC		Support
Electronic Shutter Speed		Minimum / Maximum / Anti flicker(2~1/12,000sec)
Video Rotation	Flip, Mirror	
Analytics	Directional detection, Motion detection, Enter/Exit, Virtual line, Temperature detection	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection AI based Object detection (person/face, visible channel only)

Design and specifications are subject to change without notice. The latest product information / specification can be found at [HanwhaVision.com](https://www.hanwhavision.com).

Hanwha Vision is formerly known as Hanwha Techwin.

Alarm I/O	Input 1ea / Output 2ea
Alarm Triggers	Analytics, Network disconnect, Alarm input, MQTT subscription
Alarm Events	When alarm trigger occurred - File upload(image): e-mail/FTP - Notification: e-mail - Recording: SD/SDHC/SDXC or NAS recording at event triggers - Alarm output - Handover: PTZ preset - MQTT: publication
Audio In	Selectable(mic in/line in)
Audio Out	Line out
Color Palettes	Whitehot, Blackhot, Rainbow, Rainbow2, Sepia, Red, Iron, Custom

Radiometry	
Temperature Detect Range	-20~+130°C (-4-F~+266-F)
Temperature Accuracy	$\pm 5^{\circ}\text{C}(\leq 100^{\circ}\text{C})$ , $\pm 20\%(>100^{\circ}\text{C})$ * This temperature accuracy is based on testing the minimum object distance (MoD) at room temperature as a reference value.
Temperature Detection	6 Quadrangle ROI zones, whole FoV area
Additional	Hybrid palettes, Spot temperature reading

Network	
Ethernet	Metal shielded RJ-45(10/100BASE-T), RJ-45(10/100BASE-T)
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG
Audio Compression	G.711 u-law /G.726 Selectable G.726(ADPCM) 8KHz, G.711 8KHz G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps AAC-LC: 48Kbps at 16KHz
Smart Codec	WiseStream II Manual(5ea area), WiseStream II
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 users) / Multicast Multiple streaming(Up to 6 profiles)
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, SRTP (TCP, UDP Unicast), MQTT
Application Programming Interface	ONVIF Profile S/T/M SUNAPI(HTTP API)

Security	
OS / Firmware Protect	Encrypted Firmware, Secure boot, Signed Firmware
User authentication	Digest Authentication
Network authentication	IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)
Secure Communication	HTTPS, WSS(WebSocket Secure)
Access Control	IP-based access control
Data Protect	Encryption Credentials, Encrypt compress for live recording file
Audit	Access / System / Event Log management
Device ID	Device Certificate(Hanwha Private Root CA)
Secure Storage	HTPM(Hanwha Trusted Platform Module), SDcard partition encrypt
Security Certificate	TPM with FIPS 140-2 level 2

General	
Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek

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Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB
Memory	4608MB RAM, 512MB Flash

Environmental & Electrical	
Operating Temperature / Humidity	-10°C~+55°C(+14°F~+131°F) / Less than 95% RH
Storage Temperature / Humidity	-30°C~+60°C(-22°F~+140°F) / Less than 95% RH
Input Voltage	PoE+(IEEE802.3at, Class4), 12VDC
Power Consumption	PoE+: Max. 17.0W, typical 12.5W 12VDC: Max. 14.5W, typical 11.0W

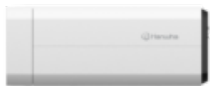
Mechanical	
Color / Material	White / Aluminum
RAL Code	RAL9003
Product Dimensions / Weight	135(W)x75(H)x188.5(D)mm, (5.31x2.95x7.42"), 1.7kg(3.77lb)
Ceiling Mount (Assy)	SBP-142CMW
Wall Mount	SBP-142WMW

Certifications & Standards	
EMC	EN 55032:2015/A11:2020 CLASS A EN 50130-4:2011/A1:2014 CLASS A EN 61000-3-2:2014 CLASS A EN 61000-3-3:2013 CLASS A 47 CFR Part 15, Subpart B ANSI C63.4 2014 CLASS A IC Regulation ICES 003 : 2016 ANSI C63.4 2014 CLASS A VCCI CISPR 32: 2016 CLASS A
Safety	UL/CSA 62368-1 KC 62368-1
Environment	IEC/EN 63000

DORI (EN62676-4 standard)	
Detect (25PPM/ 8PPF)	80.1m(262.8ft)
Observe (63PPM/ 19PPF)	32.0m(105.1ft)
Recognize (125PPM/ 38PPF)	16.0m(52.6ft)
Identify (250PPM/ 76PPF)	8.0m(26.3ft)

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CAD

Unit:mm [inch]

