



Network Multi-sensor

# TNM-C3622TDR

**Bi-Spectrum AI Thermal Camera** 



### **Key Features**

• Bi-spectrum monitoring with 2MP visible & QVGA thermal

Al based Object classification with visible channel only (person)

- Remote Temperature Monitoring within -20  $\sim$  130°C range

• 6 of quadrangle ROI areas for temperature monitoring

Compact and Light-weight for Indoor purpose



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 Al based Object detection (person/face, visible channel only)



	Insult 1cs / Outsuit 2cs	
Alarm I/O	Input 1ea / Output 2ea	
Alarm Triggers Alarm Events	Analytics, Network disconnect, Alarm input, MQTT subscription 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	±5-C(≤100-C), ±20%(>100-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 Audio Compression	H.265/H.264: Main/Baseline/High, MJPEG 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

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com. Hanwha Vision is formerly known as Hanwha Techwin.

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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	

IEC/EN 63000

Environment





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### CAD

Unit:mm [inch]

