



Network

Multi-sensor

TNM-C2712TDR

Early Fire Detection Bi-spectrum Thermal Camera



Key Features

- Bi-spectrum Multi-Channel: QQVGA Thermal & 3MP Visible Sensor
- Max. Framerate: Visible 30fps, Thermal 8fps
- Angular Field of View : Thermal H: 95° / V: 69° / D: 119°
& Visible H: 100° / V: 73° / D: 129°
- Early fire detection (Analytics events based on AI engine)
- Temperature detect range (-10°C~450°C)
,Temperature difference detection
- IP66/IP67, IK09 (except lenses in front)
- PoE: Max 10.8W, typical 6.2W

TNM-C2712TDR

Early Fire Detection Bi-spectrum
Thermal Camera



Specifications

Video		
Imaging Device	Uncooled micro bolometer	1/2.8" CMOS
Resolution	640x480, 320x240 (Original sensor resolution: 160x120)	2048x1536, 1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264: Max. 8fps MJPEG: Max. 5fps	H.265/H.264: Max. 30fps/25fps MJPEG: Max. 5fps
NETD	<50mK	
Pixel Size	12μm	
Min. Illumination	Color: 0.06Lux(F1.6, 1/30sec) BW: 0.06Lux(F1.6, 1/30sec)	
Lens		
Focal Length (Zoom Ratio)	1.2mm fixed focal	3.06mm fixed focal
Max. Aperture Ratio	F1.1	F1.6
Angular Field of View	H: 95° / V: 69° / D: 119°	H: 100° / V: 73° / D: 129°
Min. Object Distance	0.15m(0.49ft)	1.1m(3.6ft)
Focus Control	Fixed	Fixed
Pan / Tilt / Rotate		
Pan / Tilt / Rotate Range	0°~360° / 0°~70° / 0°~360°	
Operational		
Camera Title	Displayed up to 85 characters	
Day & Night	Auto(Electrical)	
Backlight Compensation	BLC, WDR, SSDR	
Wide Dynamic Range	WDR	
Digital Noise Reduction	SSNR V	
Digital Image Stabilization	Support	
Motion Detection	8ea, polygonal zones	
Privacy Masking	6ea, rectangle zones - Color: Gray/Black/White	
Gain Control	Low / Middle / High	
White Balance	ATW / AWC / Manual / Indoor / Outdoor	
LDC	Support	
Electronic Shutter Speed	Minimum / Maximum / Anti flicker(1/5~1/20,000sec)	
Video Rotation	Flip, Mirror	

Analytics	Temperature detection, Temperature difference detection	Analytics events based on AI engine - Early fire detection
	Analytics events - Motion detection	Analytics events - Tampering, Audio detection, Motion detection
Alarm I/O	Input 1ea / Output 1ea	
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, Send message by HTTP/HTTPS/TCP) - Audio clip playback - MQTT: publication - Light alarm	
Audio In	Selectable(mic in/line in)	
Audio Out	Line out	
Light Type	White light	
Color Palettes	Whitehot, Sepia, Red, Custom	
Radiometry		
Temperature Detect Range	-10°C~450°C	
Temperature Accuracy	Greater of ± 10°C or 10%	
Temperature Detection	2 Rectangle ROI zones	
Additional	Spot temperature reading	
Network		
Ethernet	Metal shielded RJ45 (10/100BASE-T)	
Video Compression	H.265/H.264: Main/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(6 users) / Multicast Multiple streaming(Up to 3 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, CDP, SRTP (TCP, UDP Unicast), MQTT	
Application Programming Interface	ONVIF Profile S/T SUNAPI(HTTP API) Hanwha Vision Open Platform	
Security		
OS / Firmware Protect	Secure boot, Signed firmware, Firmware encryption	
User authentication	Digest Authentication, Prevent brute-force attack	
Network authentication	802.1X Authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2)	
Secure Communication	HTTPS, SRTP, WSS(Websocket secure)	
Access Control	Access control based on IP address	
Data Protect	Authentication information encryption, ZIP compression encryption	
Audit	User Access/System/Event log management	
Device ID	Device Certificate(Hanwha Private Root CA3)	
Secure Storage	SD card pration encrypt	

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.

General

Webpage Language	English, French, German, Spanish, Italian, Simplified Chinese, Traditional Chinese, Korean, Russian, Japanese, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Edge Storage	Micro SD/SDHC/SDXC 1slots 512GB
Memory	2GB RAM, 512MB Flash

Environmental & Electrical

Operating Temperature / Humidity	-30°C~+55°C(-22°F~+131°F) / 0~95% RH(non-condensing) * Start up should be done at above -10°C
Storage Temperature / Humidity	-40°C~+60°C(-40°F to +140°F) / Less than 95% RH
Certification	IP66/IP67, IK09 (except lenses in front)
Input Voltage	PoE(IEEE802.3af, Class3)
Power Consumption	PoE: Max 10.8W, typical 6.2W

Mechanical

Color / Material	White / Aluminum
RAL Code	RAL9003
Product Dimensions / Weight	Ø110x97mm(ø4.33x3.82"), 650g(1.43lb)
Hanging Mount (Dome)	SBP-120HMM
Backbox	SBV-140BW
Wall Mount	SBP-125WMW1
Pole Mount	SBD-140PMW, SBD-140PMB
Tilt Mount	SBV-140TMW
Gang Plate	SBD-110GP1

Certifications & Standards

EMC	FCC 47 CFR 15 Subpart B Class A ICES-3(A)/NMB-3(A) CE/UKCA - EN 55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3 VCCI CISPR 32 Class A RCM AS/NZS CISPR 32 Class A
Safety	UL 62368-1, CAN/CSA C22.2 NO. 62368-1 IEC/EN 62471
Environment	IEC/EN 63000 IEC/EN 60529 IP66/IP67, IEC/EN 62262 IK09

DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	43.5m(142.7ft)
Observe (63PPM/ 19PPF)	17.4m(57.0ft)
Recognize (125PPM/ 38PPF)	8.7m(28.5ft)
Identify (250PPM/ 76PPF)	4.3m(14.1ft)