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: Visiable 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

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com.
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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	12㎛	
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	

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Analytics	Temperature detection, Temperature difference detection Analytics events - Motion detection	Analytics events based on AI engine - Early fire 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 pratition encrypt	

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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-120HMW
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)

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