

Network Thermal

TNM-C4952TD

Bi-spectrum VGA Thermal Visible Sensor Camera

Key Features

- VGA Thermal Resolution
- 8MP Visible Resolution
- 8 Frames per second
- IP66, IP67, IK10 Rated
- Dual (thermal & visible) channel by one device, one IP
- Lens : 13.5mm fixed thermal & 10.9~29mm motorized varifocal visible
- Noise reduction : WiseNR II (Based on AI engine, visible only)
- Smart codec : WiseStream III (Based on AI engine, visible), WiseStream II (thermal)
- Video Analytics based on AI
- PoE+(IEEE802.3at), 12VDC
- Wall & Pole mount all-in-one design

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Specifications

Video		Thermal	Visible
Bildgebungsgerät	Größe		1/1.8"
	Typ	Uncooled micro bolometer (640x480)	CMOS
Auflösung		1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360	3840x2160, 3072x1728, 2688x1520, 2592x1944, 2560x1440, 2048x1536, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360
Max. Framerate	H.265/H.264	8fps	30fps/25fps(60Hz/50Hz)
	MJPEG	3fps	1fps
	Andere	Max. 15fps when both channel AI on	Max. 15fps when both channel AI on
Spektralbereich		8~14㎛	
NETD		≤60mK	
Pixelgröße		12㎛	
Min. Beleuchtung (Lux)	Farbe (1/30 Sekunde, 30 IRE)		0.06
	S/W (1/30 Sekunde, 30 IRE)		0.005
Video-Ausgang		USB: Micro USB Type B	

Linse

Brennweite (mm)		13.5	10.9~29
Zoom-Verhältnis	Optisch		2.6x
Max. Öffnungsverhältnis (F-Zahl)	Weit	1.0	1.7
	Tele		1.73
Winkel-Sichtfeld	Horizontal	31.9°	42.0°~15.0°
	Vertikal	24.2°	22.8°~8.4°(Tele)
	Diagonal	39.5°	48.7°~17.1°
iFoV		0.47mRad	
Min. Objektabstand		7.6m(24.93ft)	2.5m(8.20ft)
Fokussteuerung		Fixed	Simple focus

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Schwenken / Neigen / Drehen

Schwenk- / Neigungs- / Drehbereich	Schwenken	-170°~+170°
	Neigen	-40° ~ 50°
Reihenfolge		Preset(255ea)

Operativ

Tag & Nacht			Auto(ICR)
Hintergrundbeleuchtungskompensation			BLC, WDR, SSDR
Großer Dynamikbereich (dB)			120
Digitale Rauschunterdrückung			WiseNR II (Based on AI engine), SSNR V
Digitale Bildstabilisierung			Support(built-in gyro sensor)
Bewegungserkennung	Menge	8ea	
	Form	8point Polygonal zones	
Datenschutzmaskierung	Menge	6ea	
	Form	Rectangular zones	
	Farbe / Option	Gray, Black, White	
Verstärkung			Low, Middle, High
Weißabgleich			ATW, AWC, Manual, Indoor, Outdoor
LDC			Support
Elektronischer Verschluss	Modus		Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)
	Geschwindigkeitsbereich		1/5~1/12,000sec
Alarmschnittstelle	Eingang/Ausgang	4 configurable I/O ports	
Alarmauslöser		Analytics, Network disconnect, Alarm input	
Alarmereignisse beim Auftreten eines Alarmauslösers		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	
Audioeingang		Selectable(mic in/line in)	
Audioausgang		Line out	
Farbpaletten		Whitehot, Blackhot, Rainbow, Rainbow2, Sepia, Red, Iron, Custom	

Analysen

Klassifizierter Objekttyp		Person, Vehicle	Person, Face, Vehicle, License plate
Attribute	Fahrzeug		Type(car, bus, truck, motorcycle, bicycle)
Vorschaubild		BestShot	BestShot

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Analysen

Analyseereignisse	Basierend auf KI-Engine	Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Stopped vehicle, Traffic jam	Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Stopped vehicle, Traffic jam
	Normal	Motion detection, Temperature change detection	Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Lotering, Intrusion, Enter/Exit, Appear/Disappear)
Business Intelligence	Normal	Vehicle counting	Vehicle counting

Netzwerk

Ethernet		Metal shielded RJ-45(10/100/1000BASE-T)	
Videokomprimierung		H.265/H.264: Main/High, MJPEG	
Audiokomprimierung		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	
Intelligenter Codec		WiseStream II	Manual, WiseStream III
Bitratenkontrolle		H.265/H.264: CBR or VBR, MJPEG: VBR	
Streaming	Unicast	Up to 6 users	
	Multicast	Support	
	Mehrfach-Streaming	Up to 3 profiles	
Protokoll		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)	
Anwendungsprogrammierschnittstelle	ONVIF	S, T	
	Andere	SUNAPI(HTTP API), Hanwha Vision Open Platform	
Direkte Cloud-Verbindung		Support	

Sicherheit

Betriebssystem- / Firmware-Schutz	Encrypted firmware, Secure boot, Signed firmware
Benutzerauthentifizierung	Digest authentication
Netzwerkauthentifizierung	IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)
Sichere Kommunikation	HTTPS, WSS(WebSocket Secure)
Zugangskontrolle	IP-based access control
Datenschutz	Encryption credentials, Encrypt compress for live recording file export
Audit	Access / System / Event Log management
Geräte-ID	Device certificate(Hanwha Vision Root CA)
Sichere Speicherung	HTPM(Hanwha Trusted Platform Module), SDcard partition encrypt(AES-256)
Sicherheitszertifikat	TPM 2.0 with FIPS 140-2 level2

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Allgemein

Speicher	RAM	4GB
	Flash	512MB
Edge Storage	Micro SD/SDHC/SDXC	Max. 256GB x 2slot(Total 512GB)

Umwelt & Elektrik

Betriebsbedingung	Temperatur	-40°C~+60°C(-40°F~+140°F)
	Luftfeuchtigkeit	0~95% RH(non-condensing)
	Andere	Start up should be done at above -30°C
Lagerbedingung	Temperatur	-50°C~+60°C(-58°F~+140°F)
	Luftfeuchtigkeit	0~95% RH(non-condensing)
Eingangsspannung		PoE+(IEEE802.3at, Class4), 12VDC
Stromverbrauch	PoE	Max. 23.5W, Typ 16.0W
	12 VDC	Max. 19.5W, Typ 14.0W

Mechanisch

Farbe	White
Material	Aluminum
RAL-Code	RAL9003
Produktabmessungen	353.4(W)x287.5(H)x191.2(D)mm(13.92x11.32x7.53")
Produktgewicht	4.53kg(9.99lb)

Zertifizierungen & Standards

EMV	FCC 47 CFR 15 Subpart B Class A, ICES-3(A)/NMB-3(A), CE/UKCA - EN55032 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, KS C 9832 Class A, KS C 9835
Sicherheit	UL 62368-1, CAN/CSA C22.2 NO. 62368-1
Umwelt	IEC 60529 IP66, IEC 60529 IP67, IEC 62262 IK10, NEMA TS 2-2013 (2.2.7, 2.2.8, 2.2.9), NEMA 250 type 4X

DORI (Norm EN62676-4)

Erkennen (25PPM/ 8PPF)	Breit		200.1m(656.40ft)
	Tele		583.4m(1913.89ft)
Beobachten (63PPM/ 19PPF)	Breit		80.0m(262.56ft)
	Tele		233.3m(765.56ft)
Erkennen (125PPM/ 38PPF)	Breit		40.0m(131.28ft)
	Tele		116.7m(382.78ft)
Identifizieren (250PPM/ 76PPF)	Breit		20.0m(65.64ft)
	Tele		58.3m(191.39ft)

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DRI (Johnson's Criteria)

Detection	Person(1.67PPM)	672m(2,204ft)	
	Vehicle(0.65PPM)	1,717m(5,633ft)	
Recognition	Person(6.67PPM)	168m(551ft)	
	Vehicle(2.61PPM)	429m(1,408ft)	
Identification	Person(13.33PPM)	84m(276ft)	
	Vehicle(5.22PPM)	215m(704ft)	

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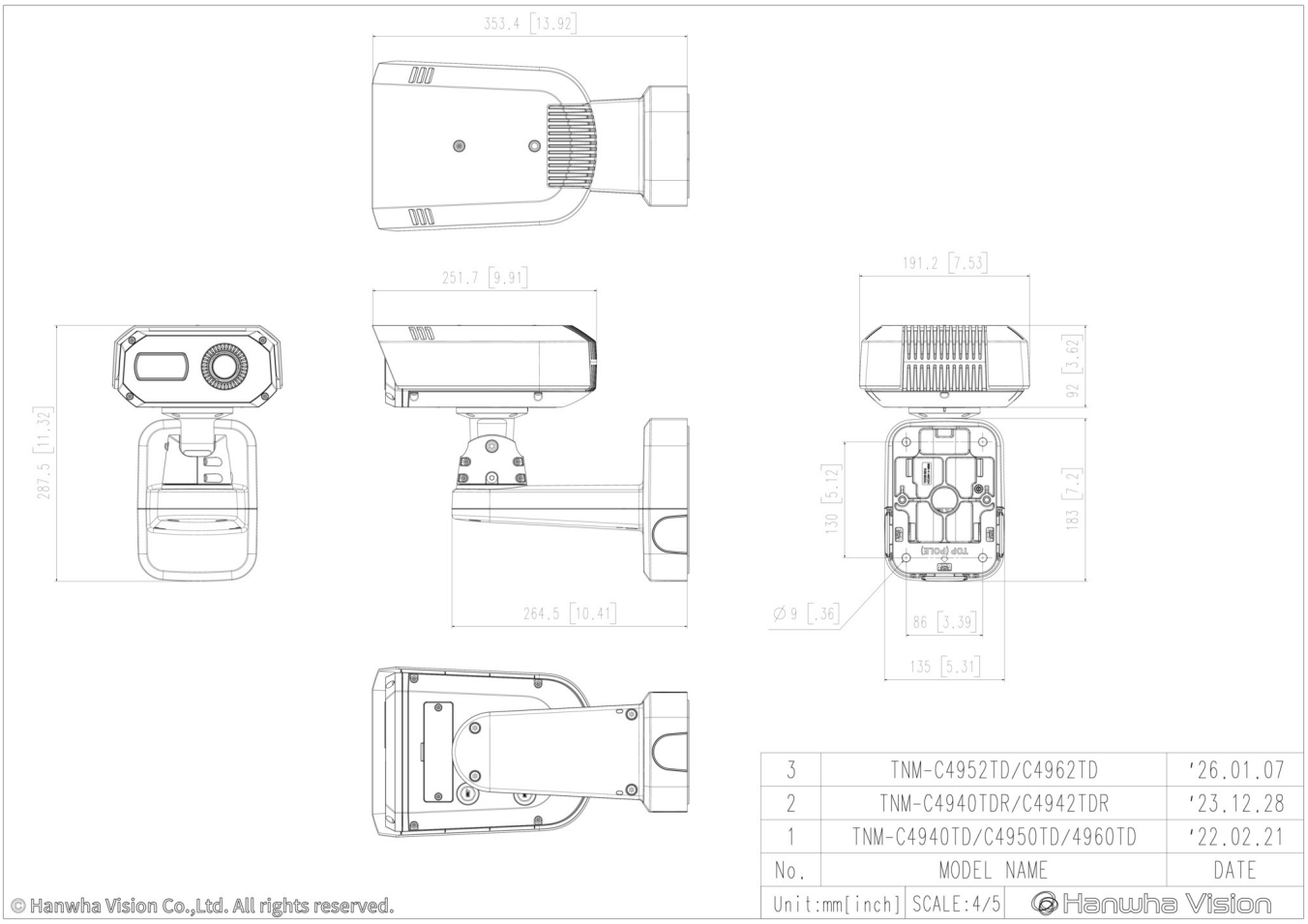
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CAD

Unit: mm [inch]



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