



Network

Multi-sensor

TNM-C4960TD

Bi-spectrum AI Thermal Camera



Key Features

- Bi-spectrum: VGA thermal & 8MP visible sensor
- Dual (thermal & visible) channel by one device, one IP
- Maximum 30fps @ all resolutions (H.265/H.264)
- Lens : 25mm fixed thermal & 10.9~29mm motorized varifocal visible
- Day & Night(ICR), WDR(120dB)
- 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 (visible)
- IP66/IP67, NEMA4X
- PoE+(IEEE802.3at), 12VDC
- Wall & Pole mount all-in-one design

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Specifications

Video	Thermal	Visible
Imaging Device	Uncooled micro bolometer	None
Resolution	1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360	None
Max. Framerate	H.265/H.264: Max. 30fps MJPEG: Max. 3fps	None
NETD	< 60mK	None
Pixel size	12µm	None
Video Out	USB : Micro USB Type B	None
Lens		
Focal Length (Zoom Ratio)	25mm fixed focal	None
Max. Aperture Ratio	F1.0	None
Angular Field of View	H: 17.4, V: 13.1, D: 21.6	None
Min. Object Distance	26m(85.30ft)	None
Focus Control	Fixed	None
Operational		
Camera Title	Displayed up to 85 characters	None
Motion Detection	8ea, polygonal zones	None
Privacy Masking	6ea, rectangle zones - Color: Gray/Black/White	None
Analytics	- Analytics events : Directional detection, Motion detection, Enter/Exit, Virtual line, Temperature Change detection	None
Alarm I/O	4 configurable I/O ports	None
Alarm Triggers	Analytics, Network disconnect, Alarm input	None
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	None
Audio In	Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm	None
Audio Out	Line out, Max.output level: 1Vrms	None
Color Palettes	Whitehot, Blackhot, Rainbow, Rainbow2, Sepia, Red, Iron, Custom	None
Network		
Ethernet	Metal shielded RJ-45(10/100/1000BASE-T)	None
Video Compression	H.265/H.264: Main/High, MJPEG	None
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	None
Smart Codec	WiseStream II	None
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR	None
Streaming	Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles)	None
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)	None

Security	TPM 2.0 (FIPS 140-2 level 2) HTTPS(SSL) login authentication Digest login authentication IP address filtering User access log 802.1X authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2) Device certificate(Hanwha Techwin Root CA, pre-installed) Secure boot, Secure firmware	None
Application Programming Interface	ONVIF Profile S/T SUNAPI(HTTP API) Wisenet open platform (visible channel only)	None

General

Webpage Language	English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek	None
Edge Storage	Micro SD/SDHC/SDXC 2slots 512GB	None
Memory	4GB RAM, 512MB FLASH	None

Environmental & Electrical

Operating Temperature / Humidity	-40°C to +60°C(-58°F to +140°F) * Start up should be done at above -30°C less than 95% RH(non-condensing)	None
Storage Temperature / Humidity	-50°C to +60°C(-58°F to +140°F) / Less than 95% RH(Non-condensing)	None
Certification	IP66/IP67, IK10, NEMA4X, NEMA TS 2(2.2.8, 2.2.9)	None
Input Voltage	PoE+(IEEE802.3at, Class4), 12VDC	None
Power Consumption	PoE+ : Max 23.5W 12VDC : Max 19.5W	None

Mechanical

Color / Material	White / Aluminum	None
RAL Code	RAL9003	None
Product Dimensions / Weight	353.4 * 287.5 * 191.2mm (13.92 * 11.32 * 7.53in) / 4.533kg	None

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CAD

Unit: mm [inch]

