



Network

Multi-sensor

TNM-C4950TD

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 : 13.5mm 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
- IP66/IP67, IK10, NEMA4X, NEMA TS 2(2.2.8, 2.2.9)
- PoE+(IEEE802.3at), 12VDC
- Wall & Pole mount all-in-one design

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Bi-spectrum AI Thermal Camera



Specifications

| Video | Thermal | Visible |
|-----------------------------|---|---|
| Imaging Device | Uncooled micro bolometer | 1/1.8" CMOS |
| Resolution | 640x480 (can be scaled up to 1280x960) 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360 | 3840x2160, 3072x1728, 2592x1944, 2688x1520, 2560x1440, 2048x1536, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360 |
| Max. Framerate | H.265/H.264: Max. 30fps/25fps (AI 2CH ON - 15fps) MJPEG: Max. 3fps | H.265/H.264: Max. 30fps/25fps (AI 2CH ON - 15fps) MJPEG: Max. 1fps |
| NETD | <60mK | |
| Pixel Size | 12μm | |
| Min. Illumination | | Color: 0.06Lux(F1.7, 1/30sec) BW: 0.005Lux(F1.7, 1/30sec) |
| Video Out | USB : Micro USB Type B, 1280x720 for installation | |
| Lens | | |
| Focal Length (Zoom Ratio) | 13.5mm fixed focal | 10.9~29mm(2.6x) motorized varifocal |
| Max. Aperture Ratio | F1.0 | F1.7(Wide)~F1.73(Tele) |
| Angular Field of View | H: 31.9° V: 24.2°, D: 39.5° | H:42.0°(Wide)~15.0°(Tele) / V:22.8°(Wide)~8.4°(Tele) / D:48.7°(Wide)~17.1°(Tele) |
| Min. Object Distance | 7.6m(24.93ft) | Wide: 2.5m(8.20ft) / Tele: 6m(19.68ft) |
| Focus Control | Fixed | Simple focus |
| Operational | | |
| Camera Title | Displayed up to 85 characters | |
| Day & Night | Auto(ICR) | |
| Backlight Compensation | BLC, WDR, SSDR | |
| Wide Dynamic Range | WDR(120dB) | |
| Digital Noise Reduction | SSNR V, WiseNR II | |
| Digital Image Stabilization | Support(built-in gyro sensor) | |
| 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(1/5~1/12,000sec) Auto prefer shutter control(Based on AI engine) | |

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| Analytics | <ul style="list-style-type: none"> - Analytics events based on AI engine : Object detection (Person/Vehicle), Bestshot, IVA (Virtual line/Area, Enter/Exit, Loitering, direction, intrusion), Stopped vehicle, Traffic jam - Analytics events : Motion detection | <ul style="list-style-type: none"> - Analytics events based on AI engine - Object detection(Person, face, Vehicle(car/bus/truck/motorcycle/bicycle), License plate), Bestshot, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit), Stopped vehicle, Traffic jam - Analytics events : Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear) |
| Business Intelligence | Vehicle counting | Vehicle counting |
| Alarm I/O | 4 configurable I/O ports | |
| Alarm Triggers | Analytics, Network disconnect, Alarm input | |
| Alarm Events | <ul style="list-style-type: none"> 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 | |
| Audio In | Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm | |
| Audio Out | Line out, Max.output level: 1Vrms | |
| Color Palettes | Whitehot, Blackhot, Rainbow, Rainbow2, Sepia, Red, Iron, Custom | |

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| Network | | |
| Ethernet | Metal shielded RJ-45(10/100/1000BASE-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), WiseStreamIII |
| 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, SRTP (TCP, UDP Unicast) | |
| 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 | |
| Application Programming Interface | ONVIF Profile S/T SUNAPI(HTTP API) Wisenet open platform (visible channel only) | |

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| General | | |
| Webpage Language | English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek | |
| Edge Storage | Micro SD/SDHC/SDXC 2slots 512GB | |
| Memory | 4GB RAM, 512MB FLASH | |

Environmental & Electrical

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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|----------------------------------|---|
| 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) |
| Storage Temperature / Humidity | -50°C to +60°C(-58°F to +140°F) / Less than 95% RH(Non-condensing) |
| Certification | IP66/IP67, IK10, NEMA4X, NEMA TS 2(2.2.8, 2.2.9) |
| Input Voltage | PoE+(IEEE802.3at, Class4), 12VDC |
| Power Consumption | PoE+ : Max 23.5W, Typ 16.0W 12VDC : Max 19.5W, Typ 14.0W |

Mechanical

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|-----------------------------|--|
| Color / Material | White / Aluminum |
| RAL Code | RAL9003 |
| Product Dimensions / Weight | 353.4 * 287.5 * 191.2mm (13.92 * 11.32 * 7.53in) / 4.533kg |

DORI (EN62676-4 standard)

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|---------------------------|--|
| Detect (25PPM/ 8PPF) | Wide: 200.1m(656.40ft) / Tele: 583.4m(1913.89ft) |
| Observe (63PPM/ 19PPF) | Wide: 80.0m(262.56ft) / Tele: 233.3m(765.56ft) |
| Recognize (125PPM/ 38PPF) | Wide: 40.0m(131.28ft) / Tele: 116.7m(382.78ft) |
| Identify (250PPM/ 76PPF) | Wide: 20.0m(65.64ft) / Tele: 58.3m(191.39ft) |

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Bi-spectrum AI Thermal Camera



CAD

Unit:mm [inch]

