Hanwha Vision

Network   Thermal

TNO-L4030TR
VGA H.265 Thermal Camera

Key Features

- Max. 640 x 480 resolution support
- 13mm fixed focal
- H.265, H.264, MJPEG codec
- Max. 8fps@all resolutions (H.265, H.264, MJPEG)
- Motion detection, Handover, Tampering, Loitering, Temperature detection
- Directional detection, Audio detection
- Micro SD/SDHC/SDXC 1slot 256GB
- Hallway View, WiseStreamII support
- PoE(IEEE802.3af, Class3), 24VAC, 12VDC
- IP66, IK10, NEMA4X

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Specifications

Video

Imaging Device	Type	Uncooled micro bolometer (640x480)
Resolution		640x480, 640x360, 320x240
Max. Framerate	H.265/H.264	8fps
	MJPEG	8fps
Spectral Range		8~14μm
NETD		≤50mK
Pixel Size		17μm
Video Out		CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B

Lens

Focal Length (mm)		13
Max Aperture Ratio (F number)	Wide	1.0
Angular Field of View	Horizontal	48.6°
	Vertical	36.4°
	Diagonal	61.6°
iFoV		1.308mRad
Min. Object Distance		5m(16.40ft)
Focus Control		Fixed

Operational

Digital Image Stabilization		Support(built-in gyro sensor)
Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones
Privacy Masking	Quantity	24ea
	Shape	Polygonal zones
	Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic
Video Rotation		Flip, Mirror, Hallway view(90°/270°)
Alarm Interface	In/Out	Input 1ea, Output 2ea
Alarm Triggers		Analytics, Network disconnect, Alarm input, MQTT subscription

Operational

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, MQTT: publication
Audio In	Selectable(mic in/line in)
Audio Out	Line out
Color Pallettes	Whitehot, Blackhot, Rainbow, Rainbow2, Sepia, Red, Iron, Custom

Analytics

Analytics Events	Normal	Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Lotering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Temperature detection

Radiometry

Temperature Detect Range		-20°C~130°C
Temperature Accuracy		±5°C(≤100°C), ±20%(>100°C)
Temperature Detection ROI Zones	Quantity	6ea
	Shape / Option	Quadrangle
Hybrid Pallettes		Support
Spot Temperature Reading		Support
ROI Condition Monitoring		Above, Below, Increase, Decrease

Network

Ethernet		RJ-45(10/100BASE-T)
Video Compression		H.265/H.264: Main/Baseline/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		Manual, WiseStream II
Bitrate Control		H.265/H.264: CBR or VBR, MJPEG: VBR
Streaming	Unicast	Up to 20 users
	Multicast	Support
	Multiple Streaming	Up to 10 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), MQTT
Application Programming Interface	ONVIF	S, G, T
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform

Security

OS / Firmware Protect	Encrypted firmware
User authentication	Digest authentication
Network authentication	IEEE 802.1X(EAP-TLS, EAP-LEAP)
Secure Communication	HTTPS, WSS(WebSocket Secure), SRTP

Security

Access Control	IP-based access control
Data Protect	Encryption credentials
Audit	Access / System / Event Log management
Device ID	Device certificate(Hanwha Vision Root CA)

General

Memory	RAM	1GB
	Flash	256MB
Edge Storage	Micro SD/SDHC/SDXC	Max. 256GB x 1slot

Environmental & Electrical

Operating Condition	Temperature	-40°C~+60°C(-40°F~+140°F)
	Humidity	0~90% RH(non-condensing)
Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~90% RH(non-condensing)
Input Voltage		PoE(IEEE802.3af, Class3), 24VAC, 12VDC
Power Consumption	PoE	Max. 10W, typical 8.6W
	12VDC	Max. 9W, typical 7.5W
	24VAC	Max. 10.5W, typical 8.9W

Mechanical

Color	White
Material	Aluminum
RAL Code	RAL9003
Product Dimensions	ø101.97x401.8mm(4.01x15.82")
Product Weight	3124g(6.89lb)

Certifications & Standards

Environment	IEC 60529 IP66, IEC 62262 IK10, NEMA 250 type 4X

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CAD

Unit: mm [inch]