



Network

Thermal

TNO-3050T

QVGA Thermal Camera



Key Features

- Max. 320 x 240 resolution support
- Horizontal 6.3°, Vertical 4.7° field of view
- H.265, H.264, MJPEG codec
- Max. 30fps@all resolutions (H.265, H.264, MJPEG)
- Motion detection, Handover, Tampering, Loitering
- Directional detection, Audio detection, Shock detection
- Micro SD / SDHC / SDXC memory slot (Max. 256GB)
- Hallway View, WiseStreamII support
- PoE, 24VAC, 12VDC
- IP66, NEMA4X

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Specifications

Video

Imaging Device	Type	Uncooled micro bolometer (320x240)
Resolution		320x240
Max. Framerate	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	30fps
Spectral Range		8~14 μ m
NETD		\leq 60mK
Pixel Size		12 μ m
Video Out		CVBS: 1.0 Vp-p / 75 Ω composite for installation, USB: Micro USB Type B

Lens

Focal Length (mm)		35
Max Aperture Ratio (F number)	Wide	1.0
Angular Field of View	Horizontal	6.3°
	Vertical	4.7°
	Diagonal	7.8°
iFoV		0.34mRad
Min. Object Distance		51m(167.32ft)
Focus Control		Fixed

Operational

Digital Image Stabilization		Support(built-in gyro sensor)
Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones
Privacy Masking	Quantity	32ea
	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

Operational

Alarm Triggers	Analytics, Network disconnect, Alarm input
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
Audio In	Selectable(mic in/line in)
Audio Out	Line out
Color Palettes	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
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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)
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
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. 8.7W, typical 7.5W
	12VDC	Max. 7.8W, typical 6.7W
	24VAC	Max. 9.2W, typical 8.0W

Mechanical

Color	White
Material	Aluminum
RAL Code	RAL9003
Product Dimensions	ø147.51x401.3mm(5.81x15.79")
Product Weight	2742g(6.05lb)

Certifications & Standards

Environment	IEC 60529 IP66, NEMA 250 type 4X
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CAD

Unit: mm [inch]

