



Network

Thermal

TNO-L4040T

VGA Thermal Camera



Key Features

- VGA Image Resolution
- 19mm Focal Length
- Temperature Detection
- IP66, IK10 Rated
- Max. 640x480 resolution support
- Max. 8fps@all resolutions (H.265, H.264, MJPEG)
- Micro SD / SDHC / SDXC memory 1-slot (Max. 256GB)

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VGA Thermal Camera



Specifications

Video		
Imaging Device	Type	Uncooled micro bolometer (640x480)
Resolution		640x480, 640x360, 320x240
Max. Framerate	H.265/H.264	8fps
	MJPEG	8fps
Spectral Range		8~14 μ m
NETD		$\leq$ 50mK
Pixel Size		17 μ m
Video Out		CVBS: 1.0 Vp-p / 75 Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.
Lens		
Focal Length (mm)		19
Max Aperture Ratio (F number)	Wide	1.0
Angular Field of View	Horizontal	32°
	Vertical	24.3°
	Diagonal	39.2°
iFoV		0.895mRad
Min. Object Distance		11m(36.09ft)
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

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 change 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, IGMPv2, 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

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
Audit	Access / System / Event Log management

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), 12VDC, 24VAC
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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TNO-L4040T

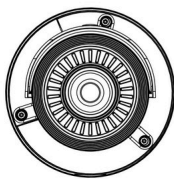
VGA Thermal Camera



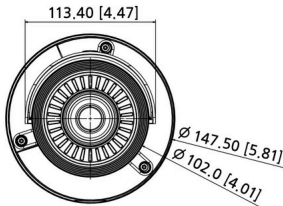
CAD

Unit: mm [inch]

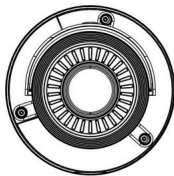
TNO-L4040T/L4040TR/L4050T VGA Thermal Camera



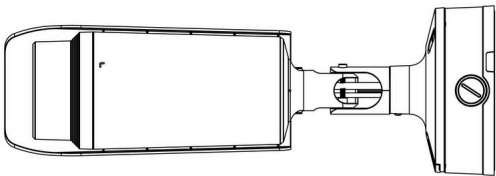
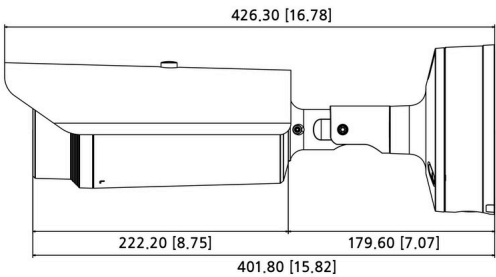
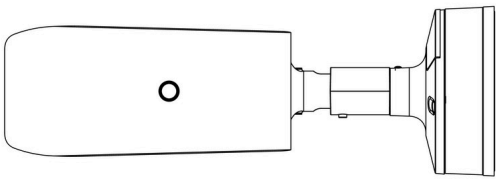
TNO-4030T, 4030TR
TNO-L4030T, L4030TR



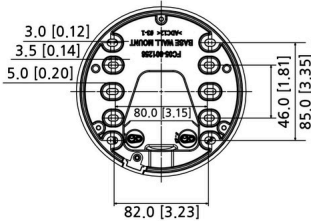
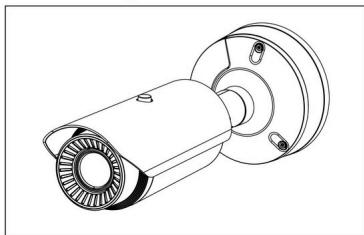
TNO-4040T, 4040TR
TNO-L4040T, L4040TR



TNO-4050T, L4050T



Reference image



Revision	V1.0
Revision Date	24/12/10
Paper Size	A0
Unit	mm [inch]
Scale	1 : 1

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