



Network

Thermal

TNO-L4040TR

VGA Thermal Camera



Key Features

- VGA Image Resolution
- 19mm Focal Length
- -20°C~130°C (-4°F~266°F) Temperature Detection
- IP66, IK10 Rated
- Max. 640x480 resolution support
- Built-in 19mm fixed focal lens
- H.265, H.264, MJPEG codec
- Max. 8fps@all resolutions (H.265, H.264, MJPEG)
- Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature detection, Sound classification, Shock detection
- Micro SD / SDHC / SDXC memory 1-slot (Max. 256GB)
- Hallway View, WiseStreamII support
- Temperature Detect Range '-20°C~130°C(-4°F~266°F)
- Additional Hybrid palettes, Spot temperature reading
- PoE, 24VAC, 12VDC / IP66, IK10, NEMA4X

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Specifications

映像		
Imaging Device	タイプ	Uncooled micro bolometer (640x480)
解像度		640x480, 640x360, 320x240
Max. Framerate	H.265/H.264	8fps
	MJPEG	8fps
NETD		≤50mK
Pixel Size		17μm
Video Out		CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.
レンズ		
Focal Length (mm)		19
Max Aperture Ratio (F number)	Wide	1.0
視野角度	Horizontal	32°
	Vertical	24.3°
	Diagonal	39.2°
Min. Object Distance		11m(36.09ft)
Focus Control		Fixed
技能		
Digital Image Stabilization		Support(built-in gyro sensor)
モーション検知	Quantity	8ea
	Shape	8point Polygonal zones
Privacy Masking	Quantity	24ea
	Shape	Polygonal zones
	Color / Option	灰色, 緑, Red, 青, 黒, 白, モザイク
ビデオ回転		FLIPモード, ミラー, Hallway view(90°/270°)
Alarm Interface	In/Out	Input 1ea, Output 2ea
Alarm Triggers		分析, ネットワーク切断, アラーム入力, MQTT購読

技能

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,アラーム出力, Handover: PTZ preset, MQTT: publication
オーディオ入力	Selectable(mic in/line in)
オーディオ出力	Line out
Color Pallettes	Whitehot, Blackhot, Rainbow, Rainbow2, Sepia, Red, Iron, Custom

分析

分析イベント	通常	モーション検知, タンパリング, 音声検出, サウンド分類, 衝撃検知, Virtual area(Lotering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction), 温度検知
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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		サポート
Spot Temperature Reading		サポート

ネットワーク

Ethernet		RJ-45(10/100BASE-T)
映像圧縮		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		手動, WiseStream II
ビットレートコントロール		H.265/H.264: CBR or VBR, MJPEG: VBR
Streaming	Unicast	最大 20ユーザー
	マルチキャスト	サポート
	Multiple Streaming	最大 10プロファイル
プロトコル		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, PIM-SM
Application Programming Interface	ONVIF	s, G, T
	その他	SUNAPI(HTTP API), Hanwha Vision Open Platform

セキュリティ

OS / Firmware Protect	Encrypted firmware
ユーザー認証	ダイジェスト認証
Network authentication	IEEE 802.1X(EAP-TLS, EAP-LEAP)

セキュリティ

Secure Communication	HTTPS, SRTP
Access Control	IP-based access control
Audit	Access / System / Event Log management

一般

メモリ	RAM	1GB
	フラッシュ	256MB
Edge Storage	Micro SD/SDHC/SDXC	Max. 256GB x 1slot

Environmental & Electrical

動作条件	温度	-40°C~+60°C(-40°F~+140°F)
	湿度	0~90% RH(non-condensing)
保管条件	温度	-50°C~+60°C(-58°F~+140°F)
	湿度	0~90% RH(non-condensing)
Input Voltage		PoE(IEEE802.3af, Class3), 12VDC, 24VAC
消費電力	PoE	Max. 10W, typical 8.6W
	12VDC	Max. 9W, typical 7.5W
	24VAC	Max. 10.5W, typical 8.9W

Mechanical

カラー	白
材料	アルミニウム
RAL Code	RAL9003
Product Dimensions	ø101.97x401.8mm(4.01x15.82")
Product Weight	3175g(7.01lb)

Certifications & Standards

環境	IEC 60529 IP66, IEC 62262 IK10, NEMA 250 type 4X
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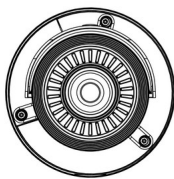
TNO-L4040TR
VGA Thermal Camera



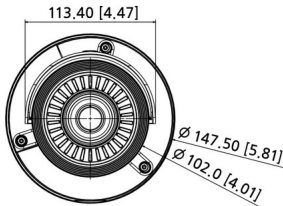
CAD

Unit: mm [inch]

TNO-L4040T/L4040TR/L4050T VGA Thermal Camera



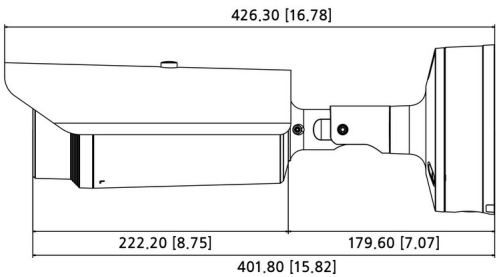
TNO-4030T, 4030TR
TNO-L4030T, L4030TR



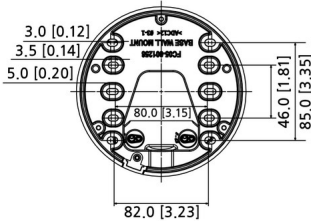
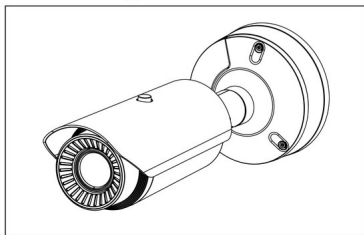
TNO-4040T, 4040TR
TNO-L4040T, L4040TR



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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