



Network

Thermal

## TNO-L4040T

VGA Thermal Camera



### Key Features

- 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
- PoE, 24VAC, 12VDC / IP66, IK10, NEMA4X

## TNO-L4040T

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 $\mu$ m
NETD		$\leq$ 50mK
Pixel Size		17 $\mu$ m
Video Out		CVBS: 1.0Vp-p / 75 $\Omega$ composite for installation, USB: Micro USB Type B

#### 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, 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

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

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

## Mechanical

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

## Certifications & Standards

<b>Environment</b>	IEC 60529 IP66, IEC 62262 IK10, NEMA 250 type 4X
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# TNO-L4040T

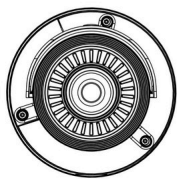
VGA Thermal Camera



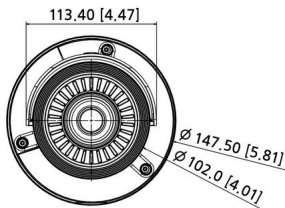
CAD

Unit: mm [inch]

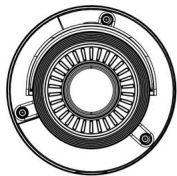
## TNO-L4040T/L4040TR/L4050T VGA Thermal Camera



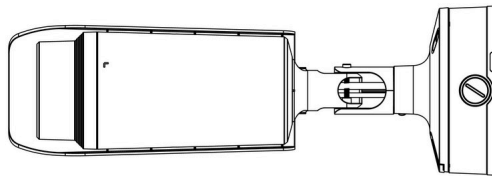
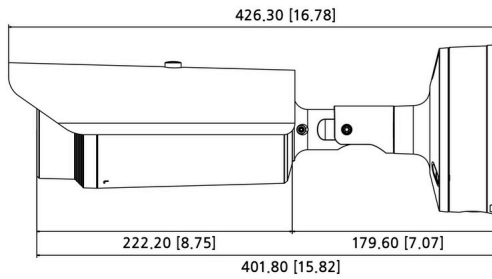
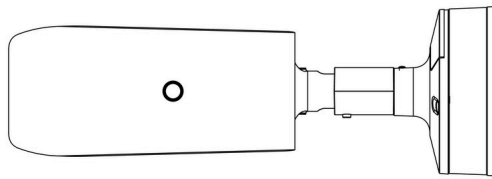
TNO-4030T, 4030TR  
TNO-L4030T, L4030TR



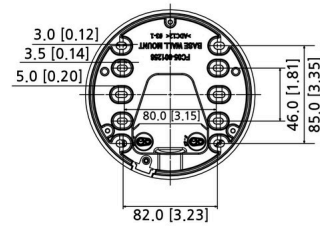
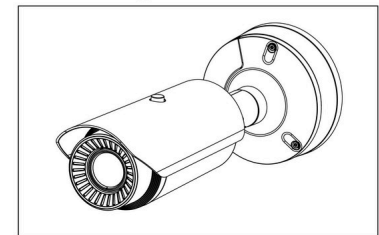
TNO-4040T, 4040TR  
TNO-L4040T, L4040TR



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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