



Network

Thermal

TNO-L4050T

VGA Thermal Camera



Key Features

- Max. 640x480 resolution support
- Built-in 35mm 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-L4050T

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 |

| Lens | | |
|-------------------------------|------------|---------------|
| Focal Length (mm) | | 35 |
| Max Aperture Ratio (F number) | Wide | 1.0 |
| Angular Field of View | Horizontal | 17.2° |
| | Vertical | 13° |
| | Diagonal | 22° |
| iFoV | | 0.47mRad |
| Min. Object Distance | | 36m(118.11ft) |
| 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 detection |
|------------------|--------|---|

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), PIM-SM |
| 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), 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, NEMA 250 type 4X |
|-------------|----------------------------------|

TNO-L4050T

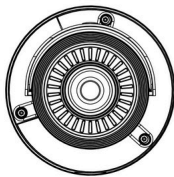
VGA Thermal Camera



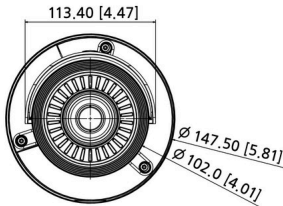
CAD

Unit: mm [inch]

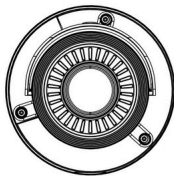
TNO-L4040T/L4040TR/L4050T VGA Thermal Camera



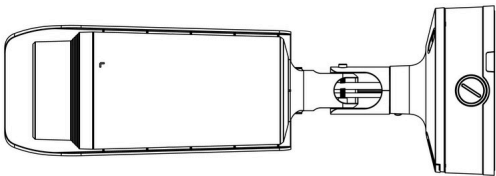
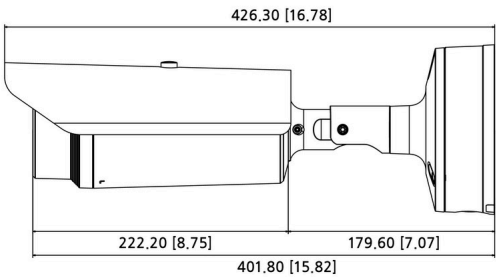
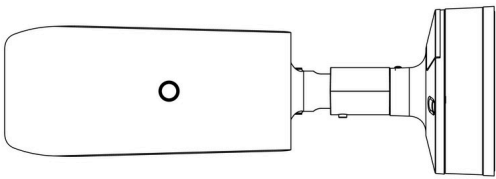
TNO-4030T, 4030TR
TNO-L4030T, L4030TR



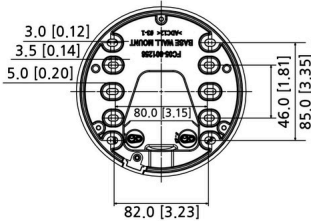
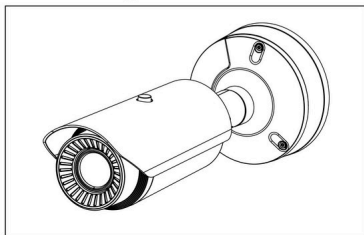
TNO-4040T, 4040TR
TNO-L4040T, L4040TR



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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