





## TNO-3040T

**QVGA Thermal Camera** 











**Key Features** 

- Max. 320 x 240 resolution support
- Horizontal 11.5°, Vertical 8.7° field of view
- 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	Uncooled micro bolometer
Resolution	320x240
Max. Framerate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 30fps/25fps(60Hz/50Hz)
NETD	<60mK
Pixel size	12µm
Video Out	CVBS: 1.0 Vp-p / $75\Omega$ composite, $720x480(N)$ , $720x576(P)$ for installation USB: Micro USB Type B, $1280x720$ for installation
Lens	
Focal Length (Zoom Ratio)	19mm fixed focal
Max. Aperture Ratio	F1.0
Angular Field of View	H: 11.5°, V: 8.7°, D: 14.4°
Min. Object Distance	15m
Focus Control	Fixed
Operational	
Camera Title	Displayed up to 85 characters
Digital Image Stabilization	Support(built-in gyro sensor)
Motion Detection	8ea, 8point polygonal zones
Privacy Masking	32ea, polygonal zones - Color: Grey/Green/Red/Blue/Black/White - Mosaic
Video Rotation	Flip, Mirror, Hallway view(90-/270-)
Analytics	Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature ditection, Sound classification, Shock detection
Alarm I/O	Input 1ea / Output 2ea
Alarm Triggers	Analytics, Network disconnect, Alarm input
Alarm events	File upload via FTP and e-mail Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers Alarm output Handover
Audio In	Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm
Audio Out	Line out, Max.output level: 1Vrms
Color Palettes	Whitehot, Blackhot, Rainbow, Rainbow2, Sepia, Red, Iron, Custom
Network	
Ethernet	RJ-45(10/100BASE-T)
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com Hanwha Vision is formerly known as Hanwha Techwin.



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(5ea area), WiseStream II
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 users) / Multicast 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, PIM-SM, UPnP, Bonjour, LLDP, SRTP
Security	HTTPS(SSL) login authentication Digest login authentication IP address filtering User access log 802.1X authentication(EAP-TLS, EAP-LEAP) Device certificate(Hanwha Techwin Root CA)
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform
General	
Webpage Language	English, French, Italian, Spanish, German, Japanese, Russian, Swedish, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB
Memory	1024MB RAM, 256MB Flash
Environmental & Electrical	
Environmental & Electrical	
Operating Toppe exeture / Humidity	40°C 1/0°C / 40°F 1440°F) / Loca than 000/ DII
Operating Temperature / Humidity	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH
Storage Temperature / Humidity	-50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH
Storage Temperature / Humidity Certification	-50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH IP66, NEMA4X
Storage Temperature / Humidity Certification Input Voltage	-50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH  IP66, NEMA4X  PoE(IEEE802.3af, Class3), 24VAC, 12VDC
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Storage Temperature / Humidity Certification Input Voltage	-50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH  IP66, NEMA4X  PoE(IEEE802.3af, Class3), 24VAC, 12VDC  PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W
Storage Temperature / Humidity Certification Input Voltage Power Consumption	-50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH  IP66, NEMA4X  PoE(IEEE802.3af, Class3), 24VAC, 12VDC  PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W
Storage Temperature / Humidity Certification Input Voltage Power Consumption  Mechanical	-50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH  IP66, NEMA4X  PoE(IEEE802.3af, Class3), 24VAC, 12VDC  PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8.0W