



Network

Thermal

TNO-4050T

VGA Thermal Bullet Camera



Key Features

- VGA Image Resolution
- 35mm Focal Length
- $\leq 50\text{mK}$ NETD
- Person, Vehicle, Vessel Detection
- 30fps@all resolutions(H.265, H.264, MJPEG)
- H.265, H.264, MJPEG triple codec support
- WiseStream II support
- Tampering, Loitering, Directional / Virtual Fence Line detection, Enter/ Exit, (Dis) Appear, Audio detection, Motion detection, Sound classification, Shock detection, Temperature change detection
- 2-way bi-directional audio & Alarm I/O support
- SD / SDHC / SDXC memory slot (Maximum 256GB)
- Operating temperature $-40^{\circ}\text{F} \sim +140^{\circ}\text{F}$
- PoE, 24V AC, 12V DC / IP66, NEMA4X, IK10

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Specifications

Video		
Imaging Device	Type	Uncooled micro bolometer (640x480)
Resolution		640x480, 640x360, 320x240
Max. Framerate	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	30fps
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)		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	32ea
	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, 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
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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), 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), 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	3175g(7.01lb)

Certifications & Standards

Environment	IEC 60529 IP66, NEMA 250 type 4X
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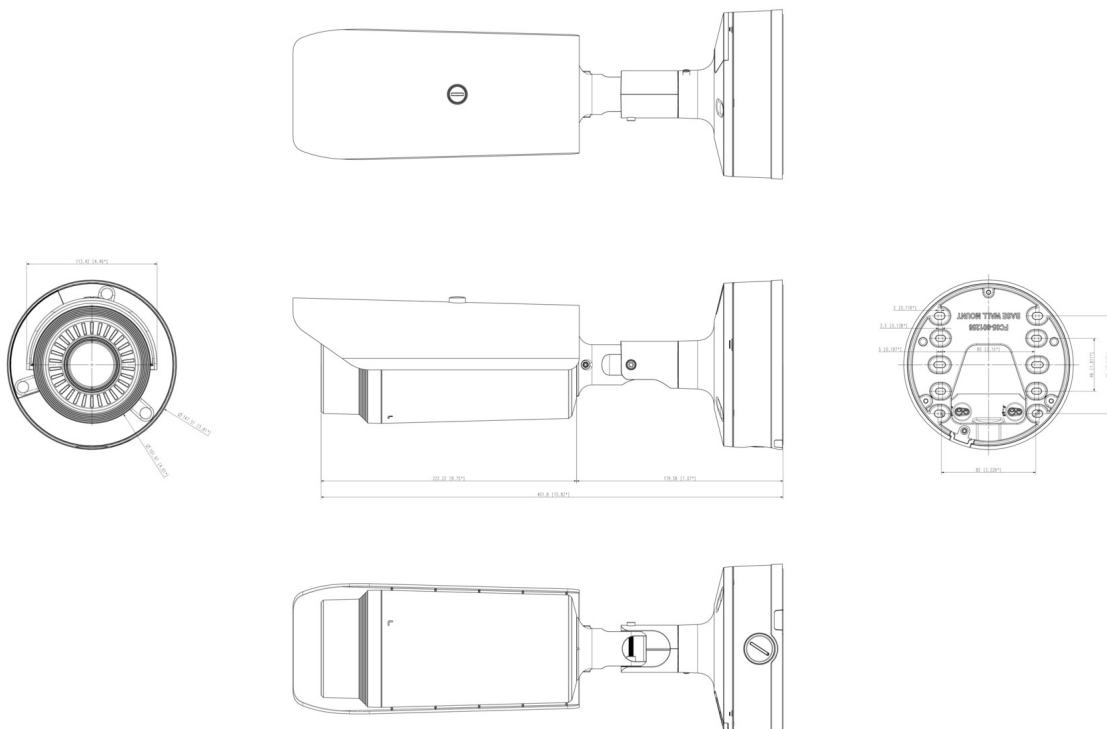
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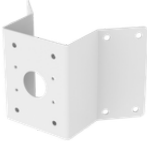
CAD

Unit: mm [inch]



Apperance TNO-4050T
Unit : mm [inch]

Compatible Devices

						
SBP-160HWMW1	SBP-140CMB	SBP-180CMB	SBP-180CMS	SBP-150CMP	SBP-300CMP	SBP-900CMP
						
SBP-C15H	SBP-C15NP	SBP-C35H	SBP-C15P	SBP-150CMI	SBP-300CMI	SBP-300CMW1
						
SBP-900CMW	SBP-300CMTW	SBP-300CMTS	SBP-160WMW1	SBP-250WMW	SBP-400WMW	SBP-200WMW
						
SBP-115PFA	SBP-150PMW	SBD-180PMW	SBP-156KMW	SBP-156LMW1	SBP-150NBW	SBP-061BA