Network Dome

TNO-C3010TRA

Radiometric AI Thermal Camera

Key Features

- AI based object classification (person, vehicle)
- High performance detector applied (17µm, NETD 30mK)
- QVGA resolution (384x288) with wide angle (FoV 90°)
- Wide temperature monitoring range -40°~ 550°C (-40°F ~ 1,022°F)
- Smaller and light camera (Φ147 * 233.5mm, 1.7KG) for easy and simple installation
- Maximum 30fps @ all resolutions (H.265/H.264/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.

© Hanwha Vision CO., LTD. All rights reserved.

TNO-C3010TRA

Radiometric AI Thermal Camera

Specifications

Video	
Imaging Device	Uncooled micro bolometer (Spectral range: 8~14㎛)
Resolution	768x576, 384x288(original)
Max. Framerate	H.265/H.264/MJPEG: Max. 30fps
NETD	＜30mK
Pixel Size	17㎛
Video Out	USB: Micro USB Type B, 768x576 for installation

Lens	
Focal Length (Zoom Ratio)	4.4mm fixed focal
Max. Aperture Ratio	F1.0
Angular Field of View	H: 90° / V: 65.3° / D: 118.6° (iFoV: 3.9 mRad)
Min. Object Distance	0.6m
Focus Control	fixed

Pan / Tilt / Rotate	
Pan / Tilt / Rotate Range	0°~350° / 0°~90° / 0°~350°

Operational	
Camera Title	Displayed up to 85 characters
Motion Detection	8ea, 8point polygonal zones
Privacy Masking	6ea, Rectangle zones - color : Grey, Black, White
Video Rotation	Flip, Mirror, Hallway view(90-/270-)
Analytics	Classified object type: Person/Vehicle Support BestShot Analytics events based on AI engine - WiseMD, Object detection, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit) Analytics events - Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)
Business Intelligence	Support (Temperature data)
Serial Interface	RS-485
Alarm I/O	2 configurable I/O ports
Alarm Triggers	Analytics, Network disconnect, Alarm input, Time schedule, MQTT subscription
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 - MQTT: publication

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.

© Hanwha Vision CO., LTD. All rights reserved.

Audio In	Selectable(mic in/line in)
Audio Out	Line out
Color Palettes	Whitehot, Blackhot, Rainbow, Rainbow2, Sepia, Red, Iron, Custom, Hybrid palettes

Radiometry	
Temperature Detect Range	-40°C~550°C(-40°F~1022°F)
Temperature Accuracy	below 150°C: up to ±2°C Above 150°C: up to ±15% * based on measurements in a room temperature environment. Auto Temperature mode
Temperature Detection	10 Polygonal ROI zones, whole FoV area
Additional	Hybrid palettes, Spot temperature reading (ROI condition monitoring: Above/ Below/ Increase/ Decrease)

Network	
Ethernet	Metal shielded RJ-45(10/100/1000BASE-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(5ea area), WiseStream II , WiseStream III (Based on AI engine)
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, UPnP, Bonjour, LLDP, CDP, SRTP (TCP, UDP Unicast), MQTT
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform

Security	
OS / Firmware Protect	Secure boot, Signed firmware, Firmware encryption
User authentication	Digest Authentication, Prevent brute-force attack
Network authentication	802.1X Authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2)
Secure Communication	HTTPS, SRTP, WSS(Websocket secure)
Access Control	Access control based on IP address
Data Protect	Authentication information encryption, ZIP compression encryption
Audit	User Access/System/Event log management
Device ID	Device Certificate(Hanwha Private Root CA)
Secure Storage	TPM(Trusted platform module), SDcard partition encrypt
Security Certificate	TPM with FIPS 140-2 level 2

General	
Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Edge Storage	Micro SD/SDHC/SDXC 1slot Max. 1TB
Memory	2GB RAM, 512MB Flash

Environmental & Electrical	
Operating Temperature / Humidity	-40°C~+60°C(-40°F~+140°F) / 0~95% RH(non-condensing)
Storage Temperature / Humidity	-50°C~+60°C(-58°F~+140°F) / Less than 95% RH

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.

© Hanwha Vision CO., LTD. All rights reserved.

Certification	IP66, IK10, NEMA4X
Input Voltage	PoE(IEEE802.3af, Class3), 12VDC
Power Consumption	PoE: Max 10.8W, typical 9W 12VDC: Max 9.4W, typical 7.7W

Mechanical

Color / Material	White / Aluminum + PC
RAL Code	RAL9003
Product Dimensions / Weight	ø93.8x233.5mm(ø3.69x/9.19"), 1700g(3.75 lb)
Compatible Conduit hole / Gangbox	Conduit hole : SBP-060BA(Sold seperately) Gangbox : single, double, 4" octagon, 4" square
Backbox	Included
Pole Mount	SBD-180PMW, SBP-300PMW2
Corner Mount	SBP-300KMW1
Cabinet	SBP-300NBW
Conduit Adaptor	SBP-060BA

Certifications & Standards

EMC	EN 55032:2015/A11:2020 EN 50130-4:2011/A1:2014 EN 61000-3-2:2014 EN 61000-3-3:2013 FCC - 47 CFR Part 15, Subpart B Class A FCC - IC Regulation ICES 003 Issue 7 RCM - EN IEC 63000:2018 Class A VCCI - EN IEC 63000:2018 Class A KS - KS C 9832:2023 Class A KS - KS C 9835:2019 Class A
Safety	UL/CSA 62368-1
Environment	ROHS - EN IEC 63000:2018 IK10 - KS C IEC 62262: 2005 IP66 - IEC 60529:1989 +A1:1999+A2:2013 NEMA4X - NEMA 250-2014

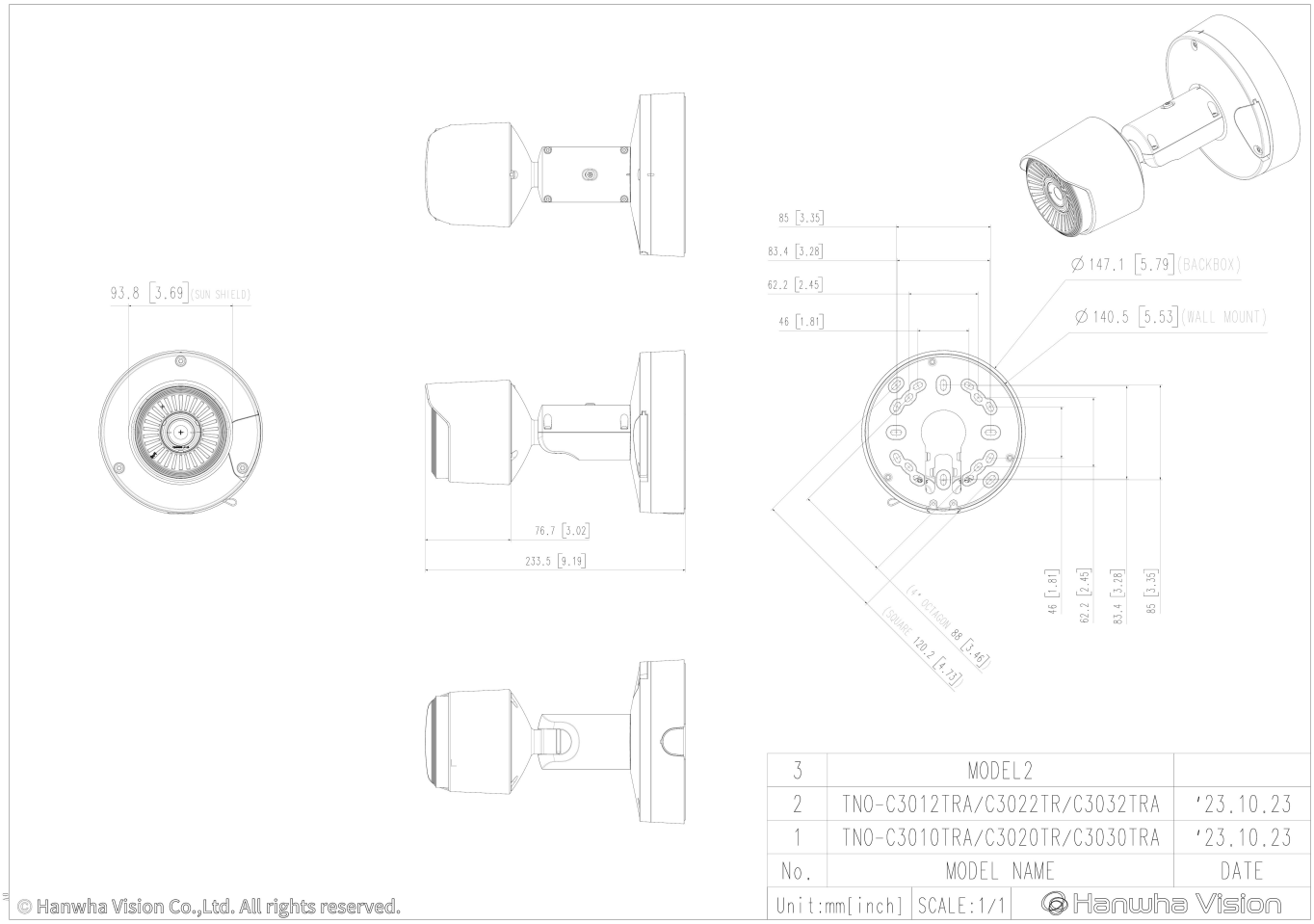
© Hanwha Vision CO., LTD. All rights reserved.

TNO-C3010TRA

Radiometric AI Thermal Camera

CAD

Unit:mm [inch]



© Hanwha Vision Co.,Ltd. All rights reserved.

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.

© Hanwha Vision CO., LTD. All rights reserved.