

Network Bullet

TNO-A45080R

超高解像度45MP T AIカメラ

Key Features

- 45MP Image Resolution
- 12~51mm Focal Length
- 4.2x Optical Zoom
- AI Analytics Person and Vehicle Detection
- コンパクトで軽量 (13.8" × 4.7", 8.93 lbs)
- デュアルモデルラインナップ (TNO-A45080R: 12~51mm, TNO-A45090R: 50~150mm)
- 1/1.4" センサーによる低照度性能
- IR距離 最大200m
- 柔軟な電源と接続オプション (PoE+, PoE, 12V DC, SFP)
- マルチビュー (1 オリジナル + 最大4 ROI チャンネル)

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Specifications

映像

Imaging Device	サイズ	Diagonal 23.1mm 1.4"
	タイプ	CMOS
Resolution Mode	45MP	8192x5552, 7792x5280, 7392x5008, 6752x4576, 5936x4024, 4512x3056, 4096x2776, 3456x2344, 2880x1952, 2240x1520, 1440x976, 1216x824, 800x544, 640x436
	8K	7680x4320, 7424x4176, 7680x3840, 6400x4800, 6144x3456, 5120x2880, 4096x3072, 3840x2160, 3200x2400, 3328x1872, 2688x1512, 2560x1440, 1920x1080, 1600x1200, 640x480
	Virtual Channel (Supports 1 to 4 Channels)	3840x2160, 3328x1872, 3200x2400, 2688x1512, 2560x1440, 1920x1080,1600x1200
Max. Framerate	H.265/H.264	15fps@45MP(45MP mode) / 25fps@33MP(8K mode)
	MJPEG	25fps/1fps@45MP(45MP mode) / 1fps@33MP(8K mode)
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.08
	BW(1/30sec, 30IRE)	0.008
Video Out		USB: USB Type C. Preview and installation ONLY. Requires WiFi dongle.

レンズ

Focal Length (mm)		12-51
Zoom Ratio	Optical	4.2
Max Aperture Ratio (F number)	Wide	1.6
	Tele	3.8
視野角度	Horizontal	89.6°(Wide)~21.1°(Tele)
	Vertical	61.1°(Wide)~14.2°(Tele)
	Diagonal	107.3°(Wide)~25.4°(Tele)
Min. Object Distance		1.8m(Wide)~2.2m(Tele)
Focus Control		シンプルフォーカス
Lens Type		P iris(IR corrected)

Pan / Tilt / Rotate

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

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技能

Day & Night		Auto(ICR)
Backlight Compensation		BLC, SSDR
Digital Noise Reduction		WiseNR II (Based on AI engine), SSNR V
Digital Image Stabilization		サポート
曇り除去		サポート
モーション検知	Quantity	8ea
	Shape	8point Polygonal zones
Privacy Masking	Quantity	4ea
	Shape	Polygonal zones
	Color / Option	灰色, 緑, Red, 青, 黒, 白, モザイク
ゲイン制御		低, 中, 高, オフ
ホワイトバランス		ATW, AWC, 手動, 室内, 屋外
LDC		サポート
Electronic Shutter	モード	最小, 最大, アンチフリッカー, Prefer shutter control(Based on AI engine)
	Speed Range	1/5~1/12,000sec
デジタルPTZ		サポート
ビデオ回転		FLIPモード, ミラー, Hallway view(90°/270°)
Alarm Interface	In/Out	2 configurable I/O ports
	その他	Support extra alarm I/O via optional I/O box
Alarm Triggers		分析, ネットワーク切断, アラーム入力, タイムスケジュール, MQTT購読, ケーステンパリング, デイ/ナイト, ストレージデバイスの停止
Alarm Events When Alarm Trigger Occurred		File upload(image): e-mail/FTP/SFTP, File upload(video clip): FTP/SFTP, Notification: e-mail, Recording: SD/SDHC/SDXC or NAS recording at event triggers,アラーム出力, Handover: PTZ preset,send message by HTTP/HTTPS/TCP,Audio clip playback, MQTT: publication
オーディオ入力		Selectable(mic in/line in)
オーディオ出力		Line out
Light Type		IR LED
Light Viewable Length	IR	80m(262.5ft)
IR Wavelength		850nm

分析

Classified Object Type		人, 顔, 車両, ナンバープレート
属性	人	Upper/Lower clothes color, 性別, カバン
	車両	Type(car, bus, truck, motorcycle, bicycle), カラー
	顔	年齢, 性別, 顔マスク, メガネ
サムネイル		ベストショット

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分析

分析イベント	Based on AI Engine	対象物検知, 仮想線 (交差·方向) , モーション検知, 仮想領域 (ローターリング、侵入、Enter、Exit、Appear、Disappear)
	通常	焦点ぼけ検知, タンパリング, 音声検出, 衝撃検知
Business Intelligence	Based on AI Engine	人数カウント, キュー管理, ヒートマップ, 車両カウント, 群衆カウント

ネットワーク

Ethernet		Metal shielded RJ-45(10/100/1000BASE-T), SFP
映像圧縮		H.265/H.264: Main/High, MJPEG
Audio Compression		G.711(PCM): 8kHz(64kbps), G.726(ADPCM): 8kHz(16/24/32/40kbps), AAC-LC: 16kHz(48kbps), OPUS: 16kHz(64kbps)
Smart codec		手動, WiseStream(Based on AI engine)
ビットレートコントロール		H.265/H.264: CBR or VBR, MJPEG: VBR
Streaming	Unicast	最大 20ユーザー
	マルチキャスト	サポート
	Multiple Streaming	最大 3プロファイル
プロトコル		IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SFTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT, Syslog
Application Programming Interface	ONVIF	s, G, T, M
	その他	SUNAPI(HTTP API), Hanwha Vision Open Platform

セキュリティ

OS / Firmware Protect	Encrypted firmware, Secure boot, Signed firmware
ユーザー認証	ダイジェスト認証, Prevent brute-force attack
Network authentication	IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)
Secure Communication	HTTPS, WSS(WebSocket Secure), SRTP
Access Control	IP-based access control, MAC-based access control, 自動ログアウト
Data Protect	Encryption credentials, Encrypt compress for live recording file export
Audit	Access / System / Event Log management
デバイスID	Device certificate(Hanwha Vision Root CA)
Secure Storage	TPM(Trusted platform module), SDcard partition encrypt(AES-256), Secure element
Supply Chain Security	SBOM
Security Certificate	Secure element(FIPS 140-3 level3, CC EAL6+), ETSI EN 303 645

一般

メモリ	RAM	8GB
	フラッシュ	16GB eMMC
Edge Storage	Micro SD/SDHC/SDXC	Max. 1TB x 2slot(Total 2TB)

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Environmental & Electrical

動作条件	温度	-40°C~+55°C(-40°F~+131°F)
	湿度	0~100% RH(condensing)
	その他	Humidity control with AIR vent
保管条件	温度	-50°C~+60°C(-58°F~+140°F)
	湿度	0~95% RH(non-condensing)
Input Voltage		PoE+(IEEE802.3at, Class4), PoE++(IEEE802.3bt type3, Class6), 12VDC
消費電力	PoE	PoE++: Max. 39.4W, typical 19.0W PoE+: Max. 23.4W, typical 19.0W
	12VDC	Max. 37.3W, typical 18.4W
WisePower		電源モード, 電力モニタリング

Mechanical

カラー	白, 黒
材料	アルミニウム, プラスチック
RAL Code	RAL9003
Product Dimensions	120x120x350mm(4.72"x4.72"x13.78")
Product Weight	4050g(8.93lb)
Compatible Gang Box	シングル, Double, 4" Octagon, 正方形

Certifications & Standards

EMC	FCC 47 CFR 15 Subpart B Class A,CE/UKCA - EN55032 Class A,EN 50130-4,EN 61000-3-2,EN 61000-3-3,KS C 9832 Class A,KS C 9835,IC Regulation ICES-003 Issue 7 Class A,FCC - IC Regulation ICES 003 Issue 7, RCM - EN IEC 63000:2018 Class A, VCCI - EN IEC 63000:2018 Class A
Safety	UL 62368-1, CAN/CSA C22.2 NO. 62368-1, IEC 62471
環境	IEC/EN 63000, IEC 60529 IP66, IEC 60529 IP67, IEC 62262 IK10, NEMA 250 type 4X, IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78

AI Detection Distance

Person(1.8m/5.9ft)	Wide	Up to 67.8m(222.4ft)
	Tele	Up to 321.1m(1053.5ft)
Vehicle(1.45m/4.8ft)	Wide	Up to 87.7m(287.7ft)
	Tele	Up to 415.8m(1364.2ft)

DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide	165.0m(541.30ft)
	Tele	879.7m(2886.21ft)
Observe (63PPM/ 19PPF)	Wide	66.0m(216.52ft)
	Tele	351.9m(1154.48ft)

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DORI (EN62676-4 standard)

Recognize (125PPM/ 38PPF)	Wide	33.0m(108.26ft)
	Tele	175.9m(577.24ft)
Identify (250PPM/ 76PPF)	Wide	16.5m(54.13ft)
	Tele	88.0m(288.62ft)

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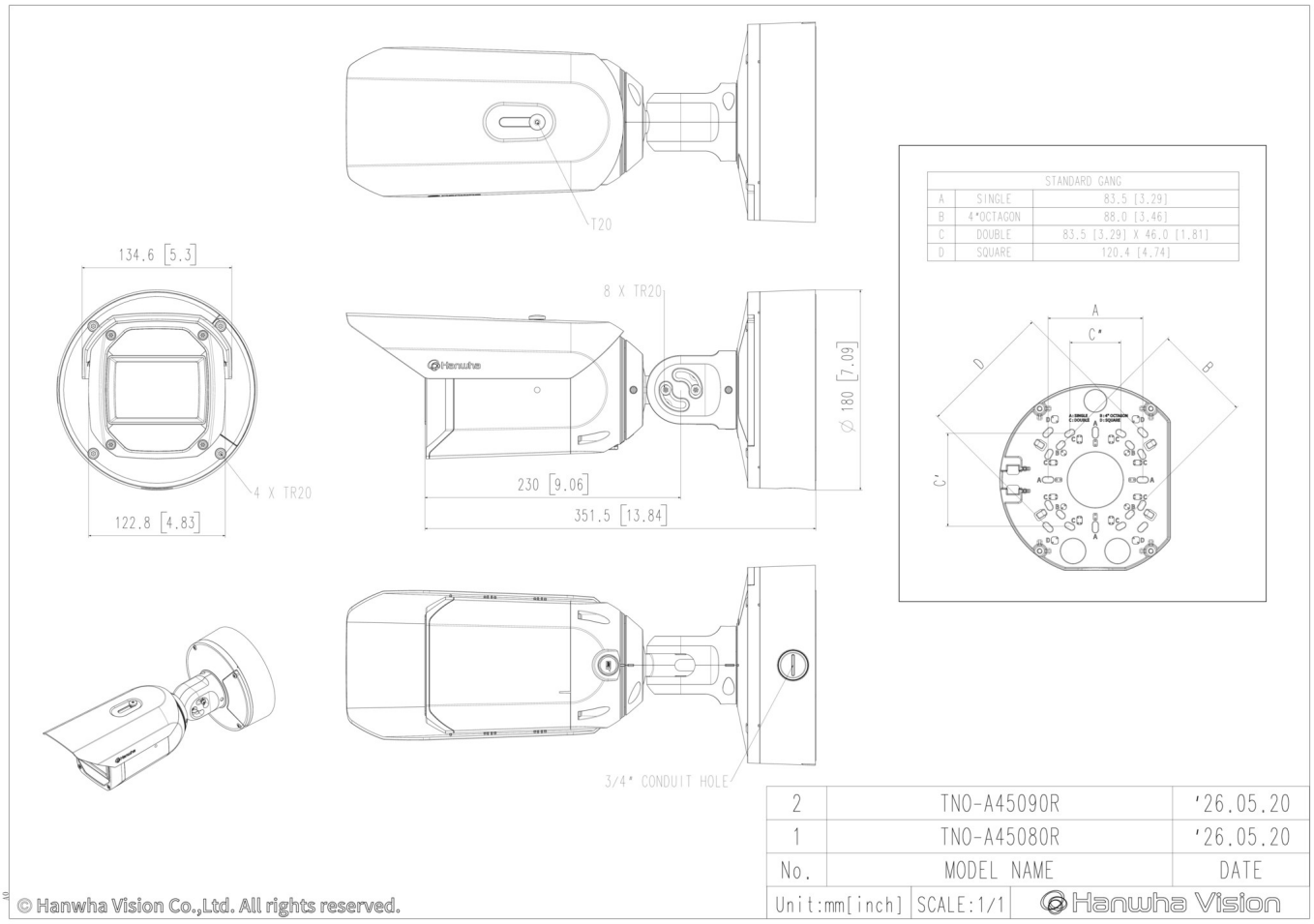
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CAD

Unit: mm [inch]



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Compatible Devices



SBP-300CMTS



SBP-140CMB



SBP-180CMB



SBP-180CMS



SBP-150CMP

SBP-300CMP

SBP-900CMP

SBP-C15H



SBP-C15NP



SBP-C35H



SBP-C15P



SBP-150CMI



SBP-150NBW



SBP-150PMW



SBP-150S



SBP-156KMW



SBP-156LMW1



SBP-115PFA



SBP-050NBW



SBP-060S



SBP-300CMI



SBP-300CMTW



SBP-300CMW1



SBP-900CMW



SBP-250WMW



SBP-400WMW



SBD-180PMW



SBP-350WMW



SBP-200WMW

SPM-4210



SBP-180HMW1

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