



Network

TNO-C8083E

5MP Compact Explosion-proof AI Camera



Key Features

- 3.2~10.2mm Focal Length
- 5MP Image Resolution
- 4.77Kg Weight
- 30fps Max. Framerate
- AI Object Detection and Classification
- 1/2" cable gland type for easy installation
- IECEx, ATEX, KCs, JPEx
- LAN cable supports LSZH made by fire retardant material

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Specifications

Video		
Imaging Device	Size	1/2.8"
	Type	CMOS
Resolution		2592x1944, 2560x1440, 1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240
Max. Framerate	H.265/H.264	30fps/25fps(60Hz/50Hz)
	MJPEG	30fps(@5MP Max. 5fps)
Min. Illumination (Lux)	Color(1/30sec, 30IRE)	0.07
	BW(1/30sec, 30IRE)	0.007
Lens		
Focal Length (mm)		3.2~10.2
Zoom Ratio	Optical	3.2x
Max Aperture Ratio (F number)	Wide	1.6
	Tele	3.1
Angular Field of View	Horizontal	95°~29°
	Vertical	69°~21°
	Diagonal	126°~36°
Min. Object Distance		1.2m(3.93ft)
Focus Control		Simple focus
Lens Type		DC auto iris(IR corrected)
Operational		
Day & Night		Auto(ICR)
Backlight Compensation		BLC, WDR, SSSDR
Wide Dynamic Range (dB)		120
Digital Noise Reduction		WiseNR II (Based on AI engine), SSNR V
Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones

Operational

Privacy Masking	Quantity	32ea
	Shape	4point Quadrangle zones
	Color / Option	Gray, Green, Red, Blue, Black, White
	Dynamic Privacy Masking: Color / Option	Mosaic
Gain Control		Low, Middle, High
White Balance		ATW, AWC, Manual, Indoor, Outdoor
LDC		Support
Electronic Shutter	Mode	Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)
	Speed Range	1/5~1/25,000sec
Digital PTZ		Support
Video Rotation		Flip, Mirror, Hallway view(90°/270°)
Alarm Triggers		Analytics, Network disconnect, MQTT subscription
Alarm Events When Alarm Trigger Occurred		File upload(image): e-mail/FTP, Notification: e-mail, Handover: PTZ preset, send message by HTTP/HTTPS/TCP, Audio clip playback, MQTT: publication

Analytics

Classified Object Type		Person, Vehicle
Attributes	Person	Upper/Lower clothes color
	Vehicle	Type(car, bus, truck, motorcycle, bicycle), Color
Thumbnail		BestShot
Analytics Events	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Motion detection
	Normal	Defocus detection, Motion detection, Tampering, Virtual area(Appear/Disappear)
Business Intelligence	Based on AI Engine	People counting, Queue management, Heatmap, Vehicle counting

Network

Ethernet		RJ-45(10/100BASE-T)
Video Compression		H.265/H.264: Main/Baseline/High, MJPEG
Smart Codec		Manual, WiseStreamIII
Bitrate Control		H.265/H.264: CBR or VBR, MJPEG: VBR
Streaming	Unicast	Up to 20 users
	Multicast	Support
	Multiple Streaming	Up to 5 profiles
Protocol		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

Network

Application Programming Interface	ONVIF	S, T, M
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform
Direct Cloud Connection		Support

Security

OS / Firmware Protect	Encrypted firmware, Secure boot, Signed firmware	
User authentication	Digest authentication, 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	
Data Protect	Encryption credentials, Encrypt compress for live recording file export	
Audit	Access / System / Event Log management	
Device ID	Device certificate(Hanwha Vision Root CA)	

General

Memory	RAM	2GB
	Flash	1GB

Environmental & Electrical

Operating Condition	Temperature	-30°C~+55°C(-22°F~+131°F)
	Humidity	0~95% RH(non-condensing)
	Others	Start up should be done at above -30°C
Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~95% RH(non-condensing)
Input Voltage		PoE(IEEE802.3af, Class3)
Power Consumption	PoE	Max. 9.5W, typical 5.30W

Mechanical

Color	Silver	
Material	Stainless(STS316L)	
Product Dimensions	ø110.5 x 215mm(ø4.35x8.46")	
Product Weight	4770g(10.51lb)	

Certifications & Standards

EMC	CE/UKCA - EN55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3, VCCI CISPR 32 Class A, KS C 9832 Class A, KS C 9835	
Environment	IEC 60529 IP66, IEC 62262 IK10, ATEX II 2 G Ex db IIC T6 Gb, II 2 D Ex tb IIIC T80°C Db, IECEEx Ex db IIC T6 Gb, Ex tb IIIC T80°C Db, JPEX, KCs, CCC, INMETRO	

DORI (EN62676-4 standard)

Detect (25PPM/ 8PPF)	Wide	42.7m(140.20ft)
	Tele	186.9m(613.28ft)
Observe (63PPM/ 19PPF)	Wide	17.2m(56.08ft)
	Tele	75.4m(245.31ft)
Recognize (125PPM/ 38PPF)	Wide	8.5m(28.04ft)
	Tele	37.4m(122.66ft)
Identify (250PPM/ 76PPF)	Wide	4.3m(14.02ft)
	Tele	18.7m(61.33ft)

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Camera



CAD

Unit: mm [inch]



