



Network

TNS-9050IBC

Dual Sensor BCR Camera

Key Features

- 4K Image Resolution
- Dual Sensor Color + mono
- 25mm Focal Length
- IP67, IP66, IK10 Rated
- AI-powered location search reliably reads 1D codes on conveyor belts moving up to 2m/s.
- Eliminates manual errors, boosts speed, and provides full traceability to reduce returns.
- Reads 1D code and 2D code for multiple orientations and supports high data storage capacity for complex workflows.

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Specifications

Video		MONO	COLOR
Imaging Device	Size	1"	1"
	Type	CMOS	CMOS
Resolution		4096x2160	4096x2160, 640x360
Max. Framerate	H.265/H.264	20fps/20fps(60Hz/50Hz)	20fps/20fps(60Hz/50Hz)
Pixel Size		3.45μm	

Lens

Focal Length (mm)		25mm	
Max Aperture Ratio (F number)	Wide	F8.0	F8.0
Angular Field of View	Horizontal	H30.4°	30.4°
	Vertical	16.6°	16.6°
	Diagonal	34.2°	34.2°
Min. Object Distance		0.15m (0.49ft)	
Focus Control		Manual	
Lens Type		Manual	
Mount Type		C mount	

Operational

Digital Noise Reduction		SSNR
Gain Control		Manual
White Balance		AWC, Manual
Electronic Shutter	Mode	Global shutter mode
	Speed Range	1/30~1/10,000s (33.3ms~100μs)
Video Rotation		Flip, Mirror
Alarm Interface	In/Out	Output 1ea
LED	Color	White(M12 5pin connector)
	Color Temperature	5700K
	Quantity	32EA

Analytics

Barcode Type	1D Code	Code128, CODE39, CODE93, Codabar, ITF(Interleaved 2 of 5), UPC, EAN
	2D Code	QRcode, DataMatrix, Maxicode, PDF417

Network

Ethernet		M12 8pin connector(10/100/1000BASE-T)
Video Compression		H.265/H.264: Main/High, MJPEG
Bitrate Control		H.265/H.264: CBR or VBR, MJPEG: VBR
Streaming	Unicast	Up to 6 users
	Multicast	Support
Protocol		IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMPv2, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, SRTP(TCP, UDP Unicast), MQTT
Application Programming Interface	ONVIF	M
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform

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)
Secure Storage		HTPM(Hanwha Trusted Platform Module)

General

Memory	RAM	4GB
	Flash	512MB

Environmental & Electrical

Operating Condition	Temperature	-40°C~+55°C(-40°F~+131°F)
	Humidity	0~95% RH(non-condensing)
	Others	+74°C(+165°F)(Max) based on NEMA-TS 2(2.2.7), Start up should be done at above -30°C
Storage Condition	Temperature	-40°C~+60°C(-40°F~+140°F)
	Humidity	0~95% RH(non-condensing)
Input Voltage		24VDC, M12 12pin connector
Power Consumption		24VDC Max 28.6W, Typical 13.7W * Max: LED On Typical: LED Off

Mechanical

Color	Black
Material	Aluminum
RAL Code	RAL9005
Product Dimensions	Camera: 218x104.1x127.1mm LED: 255.8x73.8x49.8mm Total: 255.8x181x127.1mm(with install bracket)
Product Weight	Camera: 1897g LED: 996g Total: 3438g(with install bracket)

Certifications & Standards

EMC	FCC 47 CFR 15 Subpart B Class A, ICES-3(A)/NMB-3(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
Safety	UL 62368-1, CAN/CSA C22.2 NO. 62368-1, IEC 62471
Environment	IEC 60529 IP66, IEC 60529 IP67, IEC 62262 IK10, NEMA TS-2 2.2.9 (shock resistance), IEC 60068-2-6, IEC 60068-2-27

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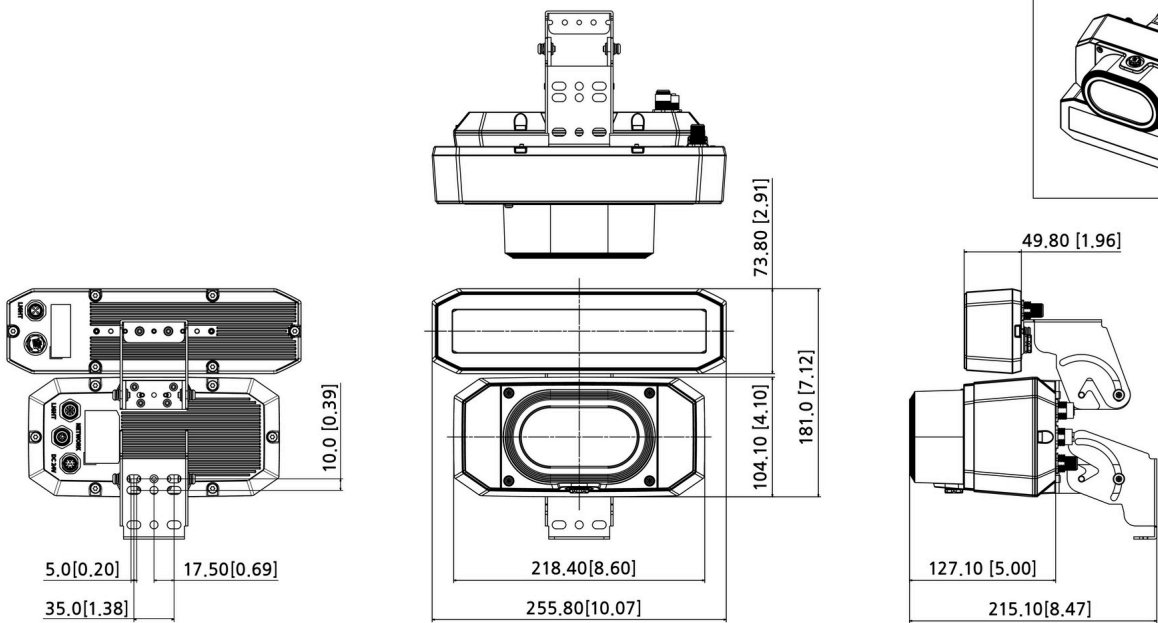
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CAD

Unit: mm [inch]

TNS-9040/9050/9060IBC BCR CAMERA



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Revision	V1.0
Revision Date	24/12/03
Paper Size	A0
Unit	mm [inch]
Scale	1:1