



Network

Multi-sensor

# TNS-9060IBC

Dual Sensor BCR Camera



## Key Features

- Dual Global Sensor for Barcode Reading and Video Monitoring
  - MONO 4K 1" + COLOR 4K 1"
- 35mm Fixed (Wide FoV)
- AI barcode location search
  - Track barcodes on high speed conveyor belt moving at 2m/s(6.5ft/s)
- 1D Code is available (Code128 / Code39 / Code93 / Codabar / Interleaved 2 of 5 / UPC / EAN)
- Reinforced durability
  - IP66, IP67, IK10, NEMA TS-2 2.2.9, M12 8pin Ethernet connect
  - Humidity control with AIR vent, EN 60068-2-6(vibration resistance)
  - EN 60068-2-27 (shock resistance), Operating temperature -40°C ~ + 55°C

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## Specifications

### Video

Imaging Device	Global Shutter Mono 1" CMOS Global Shutter Color 1" CMOS
Resolution	Mono: Max 4096x2160 Color: Max 4096x2160
Max. Framerate	Mono: Max 20fps Color: Max 20fps
Pixel Size	3.45μm(H) × 3.45μm(V)

### Lens

Focal Length (Zoom Ratio)	35mm
Max. Aperture Ratio	Mono: F8.0 Color: F8.0
Angular Field of View	Mono: H21.5° / V11.5° / D24.2° Color: H21.5° / V11.5° / D24.2°
Min. Object Distance	0.2m (0.66ft)
Focus Control	Manual
Lens Type	Manual
Mount Type	C Mount

### Operational

Camera Title	Displayed up to 85 characters
Digital Noise Reduction	SSNR V
Gain Control	- Manual - 0~48dB
White Balance	AWC / Manual
Electronic Shutter Speed	- Manual - 1/10,000~1/30s (100us ~ 33.33ms)
Video Rotation	Flip, Mirror
Analytics	Barcode recognition - Barcode type: 1D Code, Code128 / CODE39 / CODE93 / Codabar / ITF(Interleaved 2 of 5) / UPC / EAN
Light Type	White LED 48ea

### Network

Ethernet	M12 8pin connector (10/100/1000BASE-T)
Video Compression	H.265/H.264: Main/High, MJPEG
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR

Streaming	Unicast(6 users) / Multicast  Mono: (1) 4096x2160 @ 15/18/20fps all codec Color: (1) 4096x2160 @ 15/18/20fps all codec (2) 640x360 @ 15/18/20fps all codec
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, SRTP (TCP, UDP Unicast)
Security	OS / Firmware Protect: Secure boot, Verify firmware forgery, Firmware encryption User authentication: Digest Authentication, Privent brut-force attack Network authentication: 802.1X Authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2) Secure Communication: HTTPS, SRTP, WSS(Websocket secure) Access Control: IP address filtering Data Protect: Authentication information encryption, ZIP compression encryption Audit: User Access/System/Event log Device ID: Device Certificate(Hanwha Techwin Root CA, pre-installed) Secure Storage: HTPM(Hanwha Trusted Platform Module) Secure by default
Application Programming Interface	SUNAPI(HTTP API) Wisenet Open Platform

### Security

OS / Firmware Protect	Secure boot, Signed firmware, Firmware encryption
User authentication	Digest Authentication, Privent brute-force attack
Network authentication	802.1X Authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2)
Secure Communication	HTTPS, SRTP, WSS(Websocket secure)
Access Control	IP address filtering
Data Protect	Authentication information encryption, ZIP compression encryption
Audit	User Access/System/Event log
Device ID	Device Certificate(Hanwha Techwin Root CA, pre-installed)
Secure Storage	HTPM (Hanwha Trusted Platform Module)
Security Certificate	Secure by default

### General

Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
Web Viewer	Support
Memory	4GB RAM, 512MB Flash

### Environmental & Electrical

Operating Temperature / Humidity	-40°C~+55°C(-40°F ~ +131°F) / 0~95% RH * Start up should be done at above -30°C NEMA TS-2: 74°C - / 0~95% RH
Storage Temperature / Humidity	-40°C ~ +60°C(-40°F ~ +140°F) / Less than 95% RH
Certification	IP67, IP66, IK10(Exclude Window), NAME 4X
Input Voltage	24VDC
Power Consumption	Max 35.4W, Typical 13.7W * Max: LED On Typical: LED Off

### Mechanical

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

Design and specifications are subject to change without notice. The latest product information / specification can be found at [HanwhaVision.com](http://HanwhaVision.com).

Hanwha Vision is formerly known as Hanwha Techwin.

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**Certifications & Standards**

EMC	FCC 47 CFR 15 Subpart B Class A ICES-3(A)/NMB-3(A) CE/UKCA - EN 55032 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/EN 62471
Environment	EN 60068-2-6 (variation resistance) EN 60068-2-27 (shock resistance) NEMA TS-2 2.2.9 (shock resistance) IEC/EN 60529 IP67, IP66 IEC/EN 62262 IK10

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CAD

Unit:mm [inch]

