



Network

Multi-sensor

## TNS-9040IBC

Dual Sensor BCR Camera



### Key Features

- Dual Global Sensor for Barcode Reading and Video Monitoring
  - MONO 4K 1" + COLOR 4K 1"
- 16mm Fixed (Ultra-Wide FoV)
- AI barcode location search
  - In Logistics and Warehouse, track barcodes on high speed conveyor belt moving at 2m/s(6.5ft/s)
- 1D Code is available (Code128 / 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

### Compatible Devices



SPP-C08020E



SPP-C08050E



SPP-C08100E



SPP-C12020P



SPP-C12050P



SPP-C12100P

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### Specifications

#### Video

|                |   |
|----------------|---|
| Imaging Device | Global Shutter Mono 1" CMOS<br>Global Shutter Color 1" CMOS |
| Resolution     | Mono: Max 4096x2160<br>Color: Max 4096x2160                 |
| Max. Framerate | Mono: Max 20fps<br>Color: Max 20fps                         |
| Pixel size     | 3.45μm(H) × 3.45μm(V)                                       |

#### Lens

|                           |   |
|---------------------------|---|
| Focal Length (Zoom Ratio) | 16mm  |
| Max. Aperture Ratio       | Mono: F8.0<br>Color: F8.0   |
| Angular Field of View     | Mono: H47.5° / V26.9° / D53.2°<br>Color: H47.5° / V26.9° / D53.2° |
| Min. Object Distance      | 0.15m (0.49ft)  |
| 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<br>- 1/10,000~1/30s (100us ~ 33.33ms)   |
| Video Rotation           | Flip, Mirror   |
| Analytics                | Barcode recognition<br>- Barcode type: 1D Code, Code128 / CODE39 / CODE93 / Codabar / ITF(Interleaved 2 of 5) / UPC / EAN<br>2D Code, QR code / DataMatrix / Maxicode / PDF417 |
| Alarm I/O                | Out 1EA  |
| Light Type               | White LED, M12 5pin connector  |

#### 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<br>MJPEG: VBR  |

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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## 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), MQTT   |
| Security                          | OS / Firmware Protect: Secure boot, Verify firmware forgery, Firmware encryption<br>User authentication: Digest Authentication, Privent brut-force attack<br>Network authentication: 802.1X Authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2)<br>Secure Communication: HTTPS, SRTP, WSS(Websocket secure)<br>Access Control: IP address filtering<br>Data Protect: Authentication information encryption, ZIP compression encryption<br>Audit: User Access/System/Event log<br>Device ID: Device Certificate(Hanwha Techwin Root CA, pre-installed)<br>Secure Storage: HTPM(Hanwha Trusted Platform Module)<br>Secure by default |
| Application Programming Interface | SUNAPI(HTTP API)<br>Wisenet Open Platform<br>ONVIF Profile M  |

## 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<br>* Start up should be done at above -30°C<br>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, M12 12pin connector   |
| Power Consumption                | Max 28.6W, Typical 13.7W<br>* Max: LED On<br>Typical: LED Off  |

## Mechanical

|                  |                  |
|------------------|------------------|
| Color / Material | Black / Aluminum |
| RAL Code         | RAL9005          |

|                             |   |
|-----------------------------|---|
| Product Dimensions / Weight | Camera: 218x104.1x127.1mm, 1897g<br>LED: 255.8x73.8x49.8mm, 996g<br>Total: 255.8x181x127.1mm, 3438g(with install bracket) |
|-----------------------------|---|

## Certifications & Standards

|             |  |
|-------------|--|
| EMC         | FCC 47 CFR 15 Subpart B Class A<br>ICES-3(A)/NMB-3(A)<br>CE/UKCA<br>- EN 55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3<br>KS C 9832 Class A, KS C 9835 |
| Safety      | UL 62368-1, CAN/CSA C22.2 NO. 62368-1<br>IEC/EN 62471  |
| Environment | EN 60068-2-6 (variation resistance)<br>EN 60068-2-27 (shock resistance)<br>NEMA TS-2 2.2.9 (shock resistance)<br>IEC/EN 60529 IP67, IP66<br>IEC/EN 62262 IK10  |

TNS-9040IBC

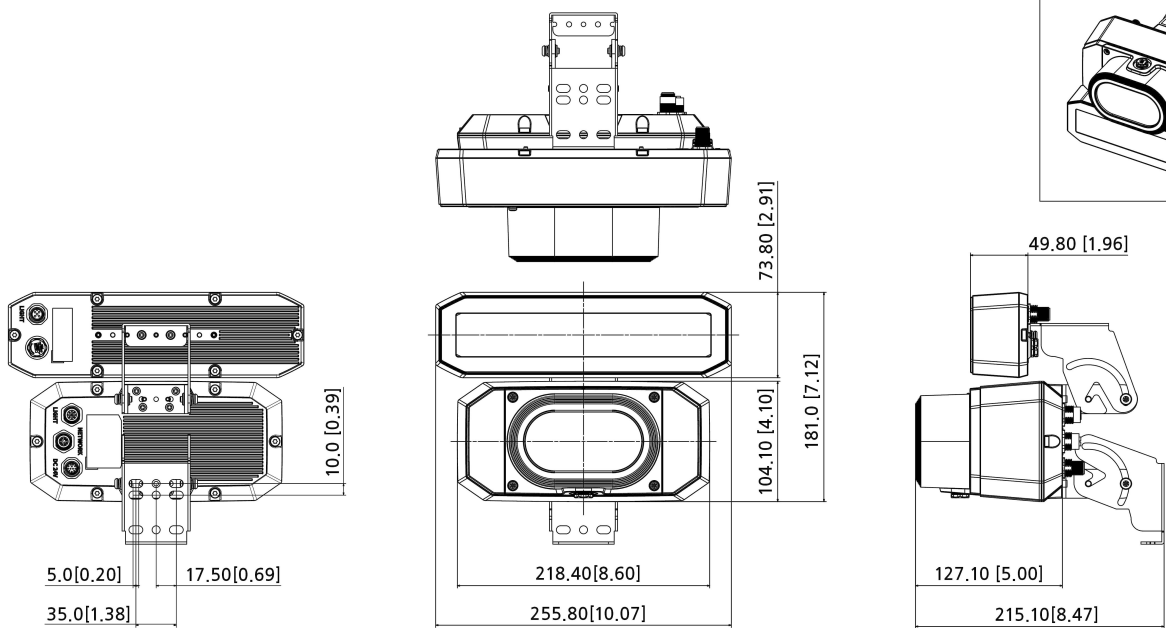
Dual Sensor BCR Camera



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       |