

# IK-T8A416FC-B

4MP AI-ISP Smart Dual Light Active Deterrence Turret Network Camera



## Key Features

- 1/1.8" progressive scan CMOS, up to 4MP (2688 × 1520) @ 25/30 fps
- Supports face, human and vehicle detection with snapshot capture
- Supports human and vehicle attribute analysis
- Intelligent analytics: Intrusion, smart motion detection, single/double line crossing, loitering, wrong-way detection, area people limit, perimeter detection, illegal parking, running detection, fall detection, fight detection, and people counting
- AI-ISP image enhancement and True WDR (120dB)
- Built-in IR and warm light illumination up to 40 m
- Built-in red and blue strobe lights with audible alarm for active deterrence
- Built-in microphone and speaker for two-way audio
- Built-in microSD card slot supporting up to 1 TB
- Audio and alarm I/O interfaces
- Hardware Root of Trust with FIPS 140-3 Level 3 Certified Secure Element
- IP66-rated protection

## Specifications

| Camera                    |                                                                                                                                                                                                                                                                                                                |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor              | 1/1.8" Progressive Scan CMOS                                                                                                                                                                                                                                                                                   |
| Max. Resolution           | 4 MP (2688 × 1520)                                                                                                                                                                                                                                                                                             |
| Shutter Speed             | 1/5 to 1/20,000s                                                                                                                                                                                                                                                                                               |
| Min. Illumination         | Color: 0.0001 Lux @ (F1.0, AGC ON), 0 Lux with illuminator on                                                                                                                                                                                                                                                  |
| Day & Night               | Auto (ICR)                                                                                                                                                                                                                                                                                                     |
| Angle Adjustment          | Pan: 0° to 337°, Tilt: 0° to 80°, Rotation: 0° to 360°                                                                                                                                                                                                                                                         |
| Lens                      |                                                                                                                                                                                                                                                                                                                |
| Lens Type                 | Fixed focal lens                                                                                                                                                                                                                                                                                               |
| Focal Length              | 2.8 mm                                                                                                                                                                                                                                                                                                         |
| Max. Aperture             | F1.0                                                                                                                                                                                                                                                                                                           |
| Field of View (FOV)       | H: 111.9°, V: 61.2°                                                                                                                                                                                                                                                                                            |
| Iris                      | Fixed Iris                                                                                                                                                                                                                                                                                                     |
| Illuminator               |                                                                                                                                                                                                                                                                                                                |
| Illuminator Type          | IR, Warm light                                                                                                                                                                                                                                                                                                 |
| IR wavelength             | 850 nm                                                                                                                                                                                                                                                                                                         |
| Illumination Distance     | IR distance up to 40 m (131.2 ft)<br>Warm light distance up to 30 m (98.4 ft)                                                                                                                                                                                                                                  |
| Illuminator Control       | IR mode, White mode, Intelligent mode, None                                                                                                                                                                                                                                                                    |
| Intelligent Analytics     |                                                                                                                                                                                                                                                                                                                |
| AI Multi-Target Detection | <ul style="list-style-type: none"> <li>- Supports face, human, and vehicle detection with snapshot capture</li> <li>- Supports human and vehicle attribute analysis</li> <li>- Supports tracking display modes: Full Frame, Four-Corner Frame, and Mosaic</li> </ul>                                           |
| Attribute Analysis        | Human Attributes: Gender, age, glasses, hat, bag, upper clothing color & style, lower clothing color & style, reflective vest<br>Vehicle Attributes: Type, color, brand, orientation                                                                                                                           |
| Intelligent Analysis      | Intrusion, smart motion detection, single line crossing, double line crossing, loitering, wrong-way detection, area people limit, perimeter detection, illegal parking, running detection, fall detection, and fight detection.<br>- Supports alarm triggering based on specified target types (human/vehicle) |
| People Counting           | Supported                                                                                                                                                                                                                                                                                                      |
| Video & Audio             |                                                                                                                                                                                                                                                                                                                |
| Number of Streams         | 3 Streams                                                                                                                                                                                                                                                                                                      |
| Resolution                | Stream 1: 2688 × 1520, 2560 × 1440, 2304 × 1296, 1920 × 1080, 1280 × 720<br>Stream 2: D1, VGA, CIF<br>Stream 3: VGA, CIF, QVGA                                                                                                                                                                                 |

|                          |                                                                                               |
|--------------------------|-----------------------------------------------------------------------------------------------|
| Frame Rate               | Up to 25/30 fps                                                                               |
| Bit Rate Control         | CBR/VBR                                                                                       |
| Bit Rate                 | Stream 1: 200 Kbps to 12 Mbps<br>Stream 2: 100 Kbps to 6 Mbps<br>Stream 3: 100 Kbps to 3 Mbps |
| Smart Encoding           | Supported                                                                                     |
| Region of Interest (ROI) | Up to 8 zones                                                                                 |
| Audio Compression        | G.711 A-law, G.711 $\mu$ -law, RAW_PCM                                                        |
| Audio Bit Rate           | 64 Kbps (G.711), 128 Kbps (RAW_PCM)                                                           |

## Image

|                    |                                                       |
|--------------------|-------------------------------------------------------|
| Image Adjustment   | Brightness, Sharpness, Contrast, Saturation           |
| Scene Mode         | Indoor, Outdoor, Mirror, Corridor Mode                |
| Exposure Mode      | Auto, Manual, Shutter priority                        |
| White Balance      | Auto, Tungsten, Fluorescent, Daylight, Shadow, Manual |
| Day/Night Setting  | Auto, Day mode, Night mode, Timer                     |
| Noise Reduction    | 2D/3D DNR                                             |
| Image Enhancement  | WDR, HLC, BLC, Defog                                  |
| Wide Dynamic Range | True WDR (120 dB)                                     |
| Privacy Masking    | Up to 4 configurable zones                            |

## Event

|                |                                                                                                                                                |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Alarm Triggers | IVS, Motion detection, Alarm input, Network alarm, Disk alarm, Day/Night switch alarm, Abnormal sound detection                                |
| Event Actions  | Alarm output, Alarm record, FTP upload, Email Notification, Snapshot, Audible alarm output, White light alarm output, Red and blue light alarm |

## Network

|                                   |                                                                                                                                                   |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Protocols                         | IPv4/IPv6, HTTP/HTTPS, DNS, DDNS, DHCP, PPPoE, RTSP/ RTP/RTCP, TCP/UDP, NTP, ARP, UPnP, FTP, SMTP, QoS, ICMP, IGMP, SMTP, 802.1x, SNMP, Multicast |
| Application Programming Interface | ONVIF (Profile S/T/G/M), SDK, CGI                                                                                                                 |
| Max Concurrent Streams            | 10 channels                                                                                                                                       |
| User/Host Level                   | 32+ users, 3 user levels: Administrator, Operator, and Media User                                                                                 |
| Web Viewer                        | Chrome, Firefox, Microsoft Edge, IE11 or earlier                                                                                                  |

## Security

|                        |                                                      |
|------------------------|------------------------------------------------------|
| OS / Firmware Protect  | Encrypted firmware, Secure boot, Signed firmware     |
| User Authentication    | Digest authentication, Brute-force attack protection |
| Network Authentication | IEEE 802.1X (EAP-TLS)                                |
| Secure Communication   | HTTPS, WSS (WebSocket Secure), SRTP                  |
| Access Control         | IP-based access control, Auto logout                 |

|                       |                                             |
|-----------------------|---------------------------------------------|
| Data Protect          | Encryption credentials                      |
| Audit                 | Access, system, and event logs              |
| Secure Storage        | AES-256 encrypted SD card storage           |
| Supply Chain Security | SBOM support                                |
| Hardware Security     | FIPS 140-3 Level 3 Certified Secure Element |

## Interface

|                     |                                         |
|---------------------|-----------------------------------------|
| Network Interface   | 1 × RJ45 10/100 Mbps Ethernet port      |
| Built-in Microphone | Supported                               |
| Built-in Speaker    | Supported                               |
| Audio Interface     | 1 input (3.5 mm), 1 output (3.5 mm)     |
| Alarm Interface     | 1 input, 1 output                       |
| SD Card Slot        | Built-in microSD card slot (up to 1 TB) |
| Reset Button        | Supported                               |

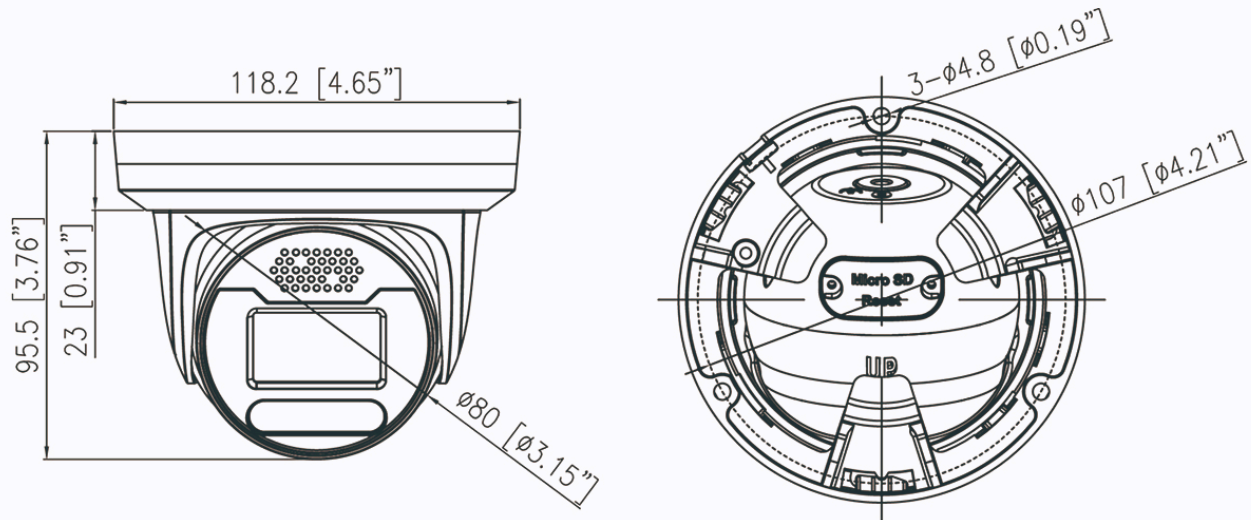
## General

|                       |                                                                                                                                                    |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Language              | English, Chinese, Traditional Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian, Japanese, Korean. Default: English |
| Power Supply          | 12 VDC (-15% to +25%) / PoE (802.3af)                                                                                                              |
| Power Consumption     | Typical: 3.7 W (12VDC); approx. 4.65 W (PoE)<br>Max (with IR/Warm Light + Speaker + Red/Blue Lights on): 10 W (12 VDC); approx. 12.5 W (PoE)       |
| Operating Temperature | -40 °C to 60 °C (-40 °F to 140 °F )                                                                                                                |
| Operating Humidity    | ≤ 95% RH (Non-condensing)                                                                                                                          |
| Ingress Protection    | IP66                                                                                                                                               |
| Certifications        | CE-EMC: EN 55032, EN IEC 61000-6-4, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4<br>FCC: 47 CFR Part 15, Subpart B                         |
| Material              | Aluminum alloy housing; PC components                                                                                                              |
| Dimensions            | φ118.2 × 95.5 mm (φ4.65 × 3.76 inch)                                                                                                               |
| Net Weight            | Approx. 545 g (1.2 lb)                                                                                                                             |

## DORI Distance (EN 62676-4 standard)

|           |                  |
|-----------|------------------|
| Detect    | 58 m (190.3 ft)  |
| Observe   | 23.2 m (76.1ft)  |
| Recognize | 11.6 m (38.1 ft) |
| Identify  | 5.8 m (19.0 ft)  |

## Dimensions (mm)



## Accessories

### Optional:



IK-AJ46M  
Junction Box



IK-AW382A  
Wall Mount Bracket



IK-ACC03  
Pendant Cap



IK-AC02  
Ceiling Mount Bracket



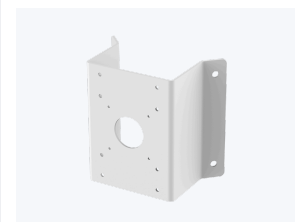
IK-AW01  
Wall Mount Bracket



IK-AW02  
Wall Mount Bracket



IK-AP01  
Pole Mount Bracket



IK-ACR02  
Corner Mount Bracket