# KX-CAiF8004UN-TiF-A

## 8MP Smart Dual Light Active Deterrence Fixed-focal Eyeball Network Camera

- 8-MP 1/1.8" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 8 MP (3840 ×2160)@25/30 fps.
- H.265 codec, high compression rate, ultra-low bit rate.
- Built-in multi-core light, the max. IR distance is 30 m and the max. warm light distance is 30 m.
- ROI, SMART H.264+/H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Intelligent monitoring: Intrusion, tripwire (the two function support the classification and accurate detection of vehicle and human).
- Abnormality detection: Motion detection, privacy masking, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection.
- Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 512 G Micro SD card; built-in dual Mic; 1-ch speaker; support two-way talk.
- 12 VDC/PoE power supply.
- IP67 protection.
- Sound and light alarm (red and blue lights).
- SMD 4.0.
- Supports AI SSA and one-tap arming and disarming.
- SMD area can be set in warm light areas that support triggering alarms.

| 8Mp | 1/1.8" Image Sensor | Active Deterrence | Smart Dual Light | AcuPick | IP67 |

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/1.8" CMOS |
| Max. Resolution | 3840 (H) × 2160 (V) |
| ROM | 256 MB |
| RAM | 2 G |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.0008 Lux@F1.0 (Color, 30IRE)<br>0.0004 Lux@F1.0 (B/W, 30IRE)<br>0 lux (Illuminator on) |
| S/N Ratio | >56 dB |
| Illumination Distance | Up to 30 m (98.43 ft) (IR)<br>Up to 30 m (98.43 ft) (Warm light) |
| Illuminator On/Off Control | Auto;Manual |
| Illuminator Number | 2 (Multi-core (IR + warm) light) |
| Angle Adjustment | Pan: 0°–360°<br>Tilt: 0°–78°<br>Rotation: 0°–360° |

### Lens

| | |
|---|---|
| Lens Type | Fixed-focal |
| Lens Mount | M16 |
| Focal Length | 2.8 mm; 3.6 mm |
| Max. Aperture | F1.0 |
| Field of View | 2.8 mm: H: 109°; V: 59°; D: 131°<br>3.6 mm: H: 93; V: 50°; D: 111° |
| Iris Control | Fixed |
| Close Focus Distance | 2.8 mm: 2.1 m (6.89 ft)<br>3.6 mm: 4.4 m (14.44 ft) |

| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| | 2.8 mm | 82.0 m<br>(269.03 ft) | 32.8 m<br>(107.64 ft) | 16.4 m<br>(53.81 ft) | 8.2 m<br>(26.90 ft) |
| | 3.6 mm | 100.0 m<br>(328.08 ft) | 40.0 m<br>(131.23 ft) | 20.0 m<br>(65.62 ft) | 10.0 m<br>(32.81 ft) |

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## Intelligence

| | |
|---|---|
| IVS (Perimeter Protection) | Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human) |
| SMD | SMD 4.0 |
| AcuPick | Uses deep learning algorithms and works with back-end devices to accurately match targets, such as people and motor vehicles, and search through live and recorded videos to quickly locate targets. |
| AI SSA | Adopt deep learning algorithms to adjust the parameters of the image to suit the conditions. |
| Smart Search | Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos |

## Video

| | |
|---|---|
| Video Compression | H.265; H.264; H.264H; H.264B; MJPEG (only supported by the sub stream) |
| Smart Codec | Smart H.265+; Smart H.264+ |
| AI Coding | AI H.265 (Compression rate ≥25%)<br>AI H.264 (Compression rate ≥25%) |
| Video Frame Rate | Main stream: 3840 × 2160@(1 fps–25/30 fps)<br>Sub stream: 1920 × 1080@(1–25/30 fps)<br>Third stream: 1920 × 1080@(1–25/30 fps)<br>*The values above are the max. frame rates of each stream; for multiple streams, the values will be subjected to the total encoding capacity. |
| Stream Capability | 3 streams |
| Resolution | 8M (3840 × 2160);  6M (3200 × 1800); 5M (3072 × 1728); 4M (2688 × 1520/2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240) |
| Bit Rate Control | CBR/VBR/ABR |
| Video Bit Rate | H.264: 3 kbps–16384 kbps;<br>H.265: 3 kbps–16384 kbps |
| Day/Night | Auto(ICR)/Color/B/W |
| BLC | Yes |
| HLC | Yes |
| WDR | 120 dB |
| Scene Self-adaptation (SSA) | Yes |
| White Balance | Auto; natural; street lamp; outdoor; manual; regional custom |
| Gain Control | Auto |
| Noise Reduction | 3D NR |
| Motion Detection | OFF/ON (4 areas, rectangular) |

| | |
|---|---|
| Region of Interest (RoI) | Yes (4 areas) |
| Smart Illumination | Yes |
| Smart Dual Light | Yes |
| Defog | Yes |
| Image Rotation | 0°/90°/180°/270° (Support 90°/270° with 2688 × 1520 resolution and lower) |
| Mirror | Yes |
| Privacy Masking | 8 areas |
| LDC | Yes |

## Audio

| | |
|---|---|
| Built-in MIC | Yes, built-in dual Mic |
| Built-in Speaker | Yes, built-in speaker |
| Audio Compression | PCM; G.711a; G.711Mu; G.726; G.723 |

## Alarm

| | |
|---|---|
| Alarm Event | No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; scene changing; audio detection; intensity change; voltage detection; external alarm; SMD; security exception |

## Network

| | |
|---|---|
| Network Port | RJ-45 (10/100 Base-T) |
| SDK and API | Yes |
| Network Protocol | IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP ; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; PPPoE; SNMP; P2P |
| Interoperability | ONVIF (Profile S; Profile G;Profile T); CGI |
| User/Host | 20 (Total bandwidth: 64 M) |
| Storage | FTP;SFTP; Micro SD card (support max. 512 GB); NAS |
| Browser | IE: IE11<br>Chrome<br>Firefox |
| Mobile Client | iOS;Android |
| Cyber Security | Video encryption;Firmware encryption;Configuration encryption;Digest;WSSE;Account lockout;Security logs;IP/MAC filtering;Generation and importing of X.509 certification;syslog; HTTPS;802.1x;Trusted boot;Trusted execution;Trusted upgrade |

## Port

| | |
|---|---|
| Audio Input | 1 channel (RCA port) |
| Audio Output | 1 channel (RCA port) |
| Alarm Input | 1 channel in: wet contact, 5 mA 3–5 VDC |
| Alarm Output | 1 channel out: wet contact, 300 mA 12 VDC |

## Power

| | |
|---|---|
| Power Supply | 12 VDC; PoE |
| Dual Power Backup | When the power adapter and PoE provide power at the same time, disconnect one of them. The device will continue to work, but will not restart. |
| Power Consumption | Basic: 4.1 W (12 VDC); 6 W (PoE)<br>Max. (H.265+WDR+ warm light+siren and light active deterrence + intelligence on): 8.2 W (12 VDC); 10 W (PoE) |

## Environment

| | |
|---|---|
| Operating Temperature | −40 °C to +60 °C (−40 °F to +140 °F) |
| Operating Humidity | ≤95% |
| Protection | IP67 |

## Structure

| | |
|---|---|
| Casing Material | Metal |
| Product Dimensions | Φ122.0 mm × 116.1 mm (4.80" × Φ4.57") |
| Net Weight | 0.8 kg (1.76 lb) |
| Gross Weight | 1.0 kg (2.20 lb) |

## Dimensions (mm[inch])



⌀122.0 [ ⌀4.80]
3- ⌀4.5 [ ⌀0.18]
⌀84.0 [ ⌀3.31]
116.1 [4.57]