# λ|CORTEX

# CTX-8MP-IPC-BUL3-MG
## 8MP SMD IR MOTORISED FOCAL IP BULLET CAMERA

AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets.

## Series Overview

With advanced deep learning algorithm, this network camera supports intelligent functions, such as perimeter protection and smart motion detection. With starlight technology, this series camera provides a better image effect in the condition of low illuminance.

## Functions

### SMD Plus

With intelligent algorithm, Smart Motion Detection technology can categorise the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realise effective and accurate alarm.

### Smart H.265+ & Smart H.264+

With advanced scene-adaptive rate control algorithm, smart encoding technology realizes the higher encoding efficiency than H.265 and H.264, provides high-quality video, and reduces the cost of storage and transmission.

### Perimeter Protection

With deep learning algorithm, Perimeter Protection technology can recognise human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, fast moving,parking detection, loitering detection and gathering detection) are largely reduced.

- 8MP, 1/2.8" CMOS image sensor, low illuminance, high image definition
- Outputs max. 8MP (3840 × 2160) @20 fps (AI function enabled by default) and supports 8MP (3840 × 2160) @25/30 fps (when AI function disabled)
- H.265 codec, high compression rate, low bit rate
- Built-in IR LED, max. IR distance: 60 m
- ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, WDR, 3D DNR, HLC, BLC, digital watermarking, applicable to various monitoring scenes
- Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human)
- Abnormality detection: Motion detection, video tampering, scene changing, audio detection (Only - ZAS support), no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection
- Alarm: 1 in, 1 out (Only - ZAS supports); audio: 1 in, 1 out (Only - ZAS supports)
- Supports max. 256 G Micro SD card
- 12V DC/PoE power supply
- IP67, IK10(optional) protection
- SMD Plus

| 8Mp | SMD Plus | Smart Codec | Starlight | Perimeter Protection | IP67 |

### Starlight

Starlight technology mainly applies to the environment of low illumination, and it can provide clear colorful video. Even in the environment of min. illumination, the technology can guarantee the good image effect.

### Cyber Security

This network camera is equipped with a series of key security technologies, such as security authentication and authorization, access control, trusted protection, encrypted transmission, and encrypted storage, which improve its security defense and data protection, and prevent malicious programs from invading the device.

### Protection (IP67, wide voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can works normal after soaking in 1 m deep water for 30 minutes.
Wide voltage: The camera allows ±30% input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Onvif

# CTX-8MP-IPC-BUL3-MG

λ|CORTEX

## Technical Specification

### Camera

| | |
|---|---|
| Image Sensor | 1/2.8"8Megapixel progressive CMOS |
| Max. Resolution | 3840 (H) × 2160 (V) |
| ROM | 128 MB |
| RAM | 512 MB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.007 Lux@F1.5 (Color, 30IRE)<br>0.0007 Lux@F1.5 (B/W, 30IRE)<br>0 Lux (Illuminator on) |
| S/N Ratio | > 56 dB |
| Illumination Distance | 60 m (197 ft) |
| Illuminator On/Off Control | Auto/Manual |
| Illuminator Number | 4 (IR LED) |
| Pan/Tilt/Rotation Range | Pan: 0°–360°<br>Tilt: 0°–90°<br>Rotation: 0°–360° |

### Lens

| | |
|---|---|
| Lens Type | Motorized vari-focal |
| Mount Type | φ14 |
| Focal Length | 2.7 mm–13.5 mm |
| Max. Aperture | F1.5 |
| Field of View | Horizontal: 113°–31°<br>Vertical: 58°–17°<br>Diagonal:138°–36° |
| Iris Type | Fixed |
| Close Focus Distance | 0.8 m (2.6 ft) |

| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
|---|---|---|---|---|---|
| | W | 85.3 m (279.9 ft) | 34.1 m (111.9 ft) | 17.0 m (55.8 ft) | 8.5 m (27.9 ft) |
| | T | 280.0 m (918.6 ft) | 112.0 m (367.5 ft) | 56.0 m (183.7 ft) | 28.0 m (91.9 ft) |

### Professional, intelligent

| | |
|---|---|
| IVS (Perimeter Protection) | Tripwire; intrusion (support the classification and accurate detection of vehicle and human) |
| Intelligent 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+ |

| | |
|---|---|
| Video Frame Rate | Main stream:<br>3840 × 2160 @(1–20 fps by default)<br>3840 × 2160 @(1–25/30 fps when AI function disabled)<br>sub stream:<br>704 × 576 @(1–25 fps)/704 × 480 @ (1–30 fps)<br>third stream:<br>1920 × 1080 @(1–25/30 fps) |
| Stream Capability | 3 streams |
| Resolution | 8M (3840 × 2160); 6M (3072 × 2048); 5M (3072 × 1728/2592 × 1944); 4M (2688 × 1520); 3M (2048 × 1536/2304 × 1296); 1080p (1920 × 1080); 1.3M (1280 × 960); 720p (1280 × 720); D1(704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240) |
| Bit Rate Control | CBR/VBR |
| Video Bit Rate | H.264: 3 kbps–8192 kbps<br>H.265: 3 kbps–8192 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/Manual |
| Noise Reduction | 3D DNR |
| Motion Detection | OFF/ON (4 areas, rectangular) |
| Region of Interest (RoI) | Yes (4 areas) |
| Smart Illumination | Yes |
| Image Rotation | 0°/90°/180°/270° (Support 90°/270° with 1080p resolution and lower.) |
| Mirror | Yes |
| Privacy Masking | 4 areas |

### Audio

| | |
|---|---|
| Audio Compression | G.711a; G.711Mu; G726 |

### Alarm

| | |
|---|---|
| Alarm Event | -ZAS：<br>No SD card; SD card full; SD card error; service life warning (only supported by Dahua card); network disconnection; IP conflict; illegal access; motion detection; video tampering; intrusion; tripwire; scene changing; audio detection; voltage detection; defocus detection; external alarm;SMD; safety exception<br>-ZS：<br>No SD card; SD card full; SD card error; service life warning (only supported by Dahua card); network disconnection; IP conflict; illegal access; motion detection; video tampering; intrusion; tripwire; scene changing; voltage detection; defocus detection; SMD; safety exception |

# CTX-8MP-IPC-BUL3-MG

λ | C O R T E X

## Network

| | |
|---|---|
| Network | RJ-45 (10/100 Base-T) |
| SDK and API | Yes |
| Protocol | IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP |
| 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 |
| Interoperability | ONVIF (Profile S/Profile G/Profile T); CGI; Milestone; Genetec |
| User/Host | 20 (Total bandwidth: 72 M) |
| Storage | FTP; SFTP; Micro SD card (support max. 256 G); NAS |
| Browser | IE: IE8; IE9; IE11<br>Chrome<br>Firefox |
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Phone | IOS; Android |

## Certification

| | |
|---|---|
| Certifications | CE-LVD: EN62368-1<br>CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU<br>FCC: 47 CFR FCC Part 15, Subpart B<br>UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07 |

## Port

| | |
|---|---|
| Audio Input | 1 channel (RCA port) (Only- ZAS supports) |
| Audio Output | 1 channel (RCA port) (Only- ZAS supports) |
| Alarm Input | 1 channel in: 5mA 3V–5V DC (Only- ZAS supports) |
| Alarm Output | 1 channel out: 300mA 12V DC (Only- ZAS supports) |

## Power

| | |
|---|---|
| Power Supply | 12V DC/PoE (802.3af) |
| Power Consumption | Basic power consumption: 3.0W (12V DC); 3.5W (PoE)<br>Max. power consumption (WDR + H.265 + IR LED intensity): 9.2W (12V DC); 10.7W (PoE) |

## Environment

| | |
|---|---|
| Operating Conditions | −30°C to +60°C (−22°F to +140°F)/Less than 95% RH |
| Storage Conditions | −40°C to +60°C (−40°F to +140°F) |
| Protection Grade | IP67 |

## Structure

| | |
|---|---|
| Casing | Metal |
| Dimensions | 244.1 mm × 79.0 mm × 75.9 mm (9.6" × 3.1" × 3.0") (L × W × H) |
| Net Weight | 820g (1.8 lb) |
| Gross Weight | 1090g (2.4 lb) |

## Dimensions (mm[inch])



244.1 [9.61]
153.1 [6.03]
79.0 [3.11]
75.9 [2.99]