

Z series | IP bullet

ZR8022

Auto Focus Outdoor Bullet IR IP Camera

www.meritlilin.com



- ▶ Outdoor Bullet IP Camera
- ▶ Powerful Auto Focus feature
- ▶ IP66 rain and dust resistant
- ▶ 60-metre infrared night vision
- ▶ 1080p resolution



Dimensions:

116mm (W) x 112mm (H) x 372mm (D)

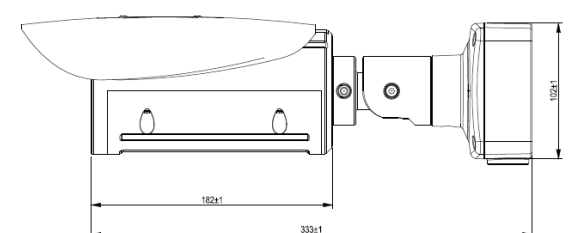
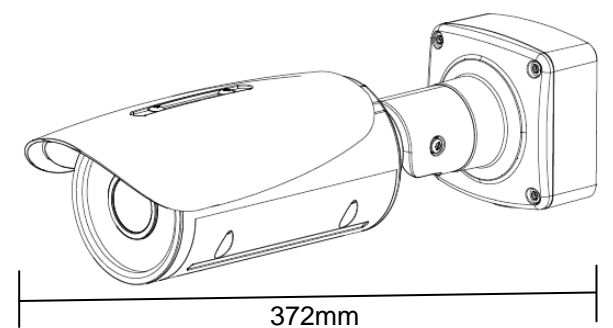
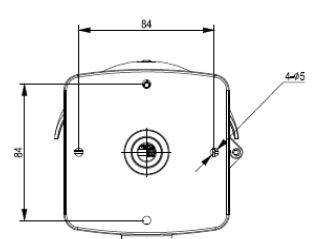
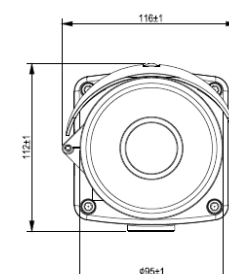


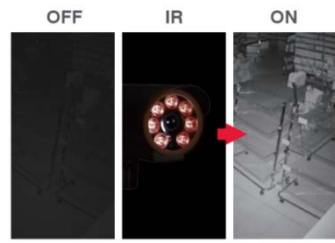
Diagram of mounting holes: (unit in mm)



ZR8022 is 2-megapixel IP camera integrates 10x or 20x optical Auto Focus lens to focus or zoom adjustments by clicking on browsers, waterproof IP66 rated, progressive scan CMOS sensor, Wide Dynamic Range, and easy installation with 802.3at PoE+ or DC12V adapter.

Built-in IR Illumination

ZR8022 IP camera with infrared (IR) illumination where IR LEDs are built-in. Built-in with IR LED, the camera provides night vision up to 60 metres



ONVIF-compliant

Open Network Video Interface Forum (ONVIF) is a standard for physical IP based security products. ZR8022 camera is ONVIF Profile S conformant



SD Cards in Sync with NAV Software

ZR8022 camera with built-in Micro SD/SDHC card slots can provide redundant video viewing and recording. You can synchronize an SD card with LILIN VMS (Video Management Software) – Navigator (NAV)



Wind and Rain Standards

Meet international IP66 standards for dust and moisture resistant allowing you to install cameras in environments subject to wind and rain



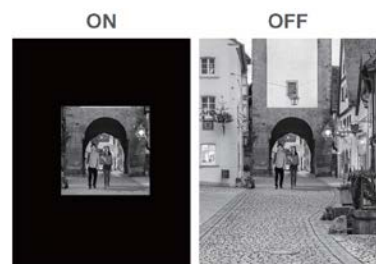
3D Noise Reduction

Remove noise from a signal. Suppressing noise in an image in low light conditions and able to retain quality videos at the same time



Region of Interest (ROI)

A Region of Interest (ROI) is a specified part of an image that is highlighted from a camera. This feature is great for highlighting areas such as doors or areas of access where an overall scene is still required



Alarm Detection

Alarm Detection is designed to provide the electronic detection of intruders



Motion Detection

Detect motion and capture the event. Motion in the selected area will provoke an alert.



Video Security App

Available on Android and iOS – LILINViewer app provides security alarm push notification, real-time live viewing, and remote video playback



Auto Focus feature

Use the camera software to trigger the auto focus function at any time during installation or after. Auto Focus feature to automatically focus the camera from a distant location, which eases the process on installation and helps you effectively position the camera at the right focus angle in a matter of seconds



Sense Up+

Deliver outstanding video outputs in poor light conditions without experiencing motion blur. You can see video clearly even during nighttime without sufficient lighting support



Wide Dynamic Range (WDR)

Wide Dynamic Range (WDR) displays details of both the brightest and darkest areas. WDR can extend image visibility under high contrast lighting scenes and improve image quality



Face Detection

Automatically detects a human face



Privacy Masking

Privacy Masking is a feature used to protect personal privacy by concealing private areas in the camera's field of view. Doorways and house windows for example are not subject to surveillance



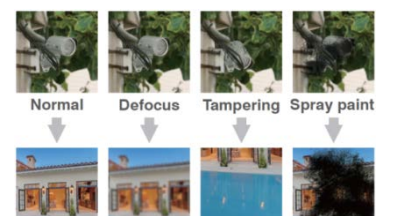
Audio Detection

With Audio Detection technology, an alarm is triggered based on ambient sound conditions as the threshold



Tamper Detection

Automatically detects camera sabotage or failure. Detects any attempts to tamper with the camera – partially or completely blocking its lens or field of view



Auto Focus Outdoor Bullet IR IP Camera

Video performance

| | | |
|-------------------------|---------------------------|------------|
| Model# | ZR8022EX10 | ZR8022EX20 |
| Low Light Mode (Colour) | 0.02 lux at F1.6 | |
| With Infrared | 0.0 lux | |
| 2D WDR | Off / Auto / x2 / x3 / x4 | |

Power

| | | |
|-------------------|---|--|
| Power consumption | 18W (PoE+, 21W)\ | |
| PoE+ | IEEE802.3at | |
| Power supply | DC12V (±10%) Power over Ethernet+ (IEEE 802.3at compliant) | |

Sensor

| | | |
|---------------------|--|--|
| Sensor type | 1/2.8" CMOS image sensor | |
| Total sensor pixels | 1,984 (H) x 1,105 (V) = 2,192,320 pixels | |

Certifications

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|-----------|-----------------|--|
| IP Rating | IP66 waterproof | |
| CE | Yes | |
| FCC | Yes | |

Lens

| | | |
|-------------------------|---|--|
| Model# | ZR8022EX10 | ZR8022EX20 |
| Focal length | 5.0mm ~ 50mm | 4.7mm ~ 94mm |
| Zoom ratio | 10X Optical zoom | 20X Optical zoom |
| Minimum object distance | 0.2m (Wide), 1.0m (Tele) | |
| Maximum aperture | F1.6 ~ F1.8 | F1.6 ~ F3.0 |
| Angle of View | H: 54° ~ 4.9° V: 31° ~ 4° D: 68° ~ 6.7° | 55.5° ~ 3° 43° ~ 2.2° 72° ~ 3.8° |

Night vision (infrared LED)

| | |
|------------------|---|
| Radiant distance | 60m |
| Peak wavelength | 850nm, high efficiency array |
| Beam spread | Automatically adjusted, Depending on the zoom ratio |

Environmental

| | |
|-----------------------|--------------------------------|
| Operating temperature | -40°C to 50°C (-40°F to 122°F) |
|-----------------------|--------------------------------|

PC requirement

| | |
|-----|---|
| CPU | Intel Pentium 4 1.8GHz or above |
| OS | Windows 2000, Windows XP, Windows Vista, Windows 7, Windows 8 / 8.1 |
| RAM | 1GB or above, Independent Display Card |

Mechanical

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|------------------------|--------------------------|
| Dimensions (W x H x D) | 116mm x 112mm x 372mm |
| Weight | 1800g approx. |
| Window | Φ82 heat resistant glass |

Input / output

| | |
|----------------------|---|
| Audio input / output | Mono, 1.4 Vp-p, 50 KΩ, terminal connector |
| Live video output | CVBS1.0Vp-p, 75ohm, RCA connector |
| Alarm input / output | Digital 1 input (TTL, +3 ~ 5VDC) / 1 Output (MOS Relay contact N.O., Load max. 40VDC/300mA) |

Network security

| | |
|---------------|--|
| User accounts | 10 users accounts available |
| Access | Multiple user access levels with password protection |
| Encryption | Base 64 HTTP encryption |

Video streaming

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|---------------------|---|
| Video compression | H.264, Motion JPEG |
| Streaming | RTP/HTTP, RTP/TCP, RTP/UDP, Multicast Multiple configurable streams in H.264 and M-JPEG, configurable frame rate and bandwidth |
| Bitrate | 128Kbps to 8Mbps Frame rate and bitrate controllable on-the-fly VBR / CBR / GOP supported |
| IP filter | Yes |
| RTSP Authentication | On / Off |

Video resolution (H x V)

| | | |
|------------------|-------------|---|
| 1080p HD | 1920 x 1080 | |
| 720p HD | 1280 x 720 | |
| D1 | 720 x 480 | |
| CIF | 352 x 240 | |
| Multiple profile | Profile #1 | H.264: up to 30 FPS @ 1920 x 1080, MJPEG: up to 30 FPS @ 720 x 480 |
| | Profile #2 | H.264: up to 30 FPS @ 1280 x 720, MJPEG: up to 30 FPS @ 352 x 240 |
| | Profile #3 | H.264: up to 30 FPS @ 1920 x 1080, MJPEG: up to 30 FPS @ 1280 x 720 |
| | Profile #4 | H.264: up to 30 FPS @ 720 x 480, MJPEG: up to 15 FPS @ 1920 x 1080 |

Video functions

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|----------------------------|--|
| Day/Night (IR-cut filter) | Colour (Day), Monochrome (Night), Auto, Schedule |
| Scanning system | Progressive scan |
| Auto Focus | Yes |
| Adjustable picture setting | Contrast, Brightness, Saturation |
| White balance | Auto / Tungsten / Indoor / Fluorescents1 / Fluorescents2 / Outdoor1 / Outdoor2 |
| Shutter | 1/30(1/25)s ~ 1/8,000s |
| Back light compensation | On / Off |
| 3D noise reduction | Off / 1 to 32 selectable |
| Privacy masking | Off / On (four independent areas) |
| Sense Up | Off / 1 frame / 2 frames / 3 frames / 7 frames |
| Sense Up+ | Yes |
| Auto gain control | 36 dB variable gain |
| Other functions | Sharpness, Image flip, Image mirror, Hue |
| D/N quality setting | Yes |

Integration

| | |
|--------------------------------------|---|
| Mobile application | Integrated to LILIN mobile app (LILINViewer) iPhone, iPad, Android support |
| Video management | ONVIF Profile S LILIN NAV 1.0 / CMX HD 3.6 Third party VMS through LILIN HTTP API |
| SD card recording | Support Micro SD/SDHC card for circular recording (card is not included) |
| Web browser | Microsoft® Internet Explorer® 6.0 and later |
| Firmware | Firmware upgrade via HTTP |
| Intelligent Video Surveillance (IVS) | Advanced Motion Detection, Tripwire Detection, Object Counting |
| Alarm functions | Face/ tampering/ audio /motion/ alarm detection |
| Alarm event | FTP,SMTP, HTTP post, SD card, SAMBA |
| Alarm weighted mode | Yes |

Network

| | |
|---------------------|--|
| Ethernet | 10Mbps / 100Mbps Base-T, RJ-45 |
| Connectivity | ONVIF Profile S |
| Users | 8 simultaneous users |
| ePTZ & digital zoom | Yes, ROI (Region of Interest) is supported |
| OSD | Text overlay for date, time and camera name |
| CPU, Memory | Embedded SoC ARM11, 528MHz, 256MB DDR2, 256MB flash memory |
| Video display | LILIN Universal ActiveX & LILIN Java Applet |
| OS | Embedded Linux 2.6.32 |
| 2-way audio | G.711 / PCM |
| Protocols | IPv4, IPv6, TCP, UDP, HTTP, SMTP, NTP, DDNS, UPnP, FTP, ARP, DHCP, PPPoE, DNS, Telnet, RTSP, RTCP, ICMP, IGMP, SNMP, SIP, ONVIF profile S, Bonjour |
| Multi IP address | Yes |