

# Z2R8052EX25

## 5MP Day & Night Vari-Focal IR Vandal Resistant Bullet IP Camera



The LILIN Z2 series cameras feature a zoom lens for flexible surveillance coverage and are equipped with a 2-megapixel CMOS sensor. This series combines 3D digital noise reduction (MCTF) and 2D WDR to ensure clear images in various lighting conditions. High-efficiency infrared LEDs provide excellent illumination in low-light environments, with day and night functionality to adapt to different lighting conditions.

The Z2 series also includes digital PTZ and ROI (Region of Interest) capabilities, supporting intelligent video surveillance (IVS) features such as tamper detection, motion detection, and network disconnection detection. Customizable smart events can be tailored to specific needs. It supports ONVIF Profile S, T, and is designed to withstand harsh outdoor environments with waterproof and vandal-resistant construction.

**5MP**



- 5 megapixel CMOS image sensor
- 5MP H.265/HEVC and H.264/AVC high-performance video compression
- Simultaneous streaming of H.265 and H.264 encoded streams
- Auto focus with zoom
- DC-IRIS supported
- Smart H.264/H.265 supported
- 3D noise reduction (MCTF)
- 2D WDR function
- HDR function up to 120dB
- Digital PTZ supported
- IVS supported
- Tampering / Audio / Alarm / Motion / Network lost detection event function
- SMART event
- High efficiency IR LED, radiant distance up to 100m
- Day & Night (IR cut removable)
- 2-way audio supported
- Digital I/O : 1 in, 1 out
- ONVIF Profile S and Profile T supported
- RS-485 supported
- IP67 rain and dust resistant



| Video Performance                  |                                                                                                                                                                                          |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Min. Illumination                  | Color : 0.1 Lux at F1.6(W) ;<br>B/W : 0.02 Lux at F1.6(W) ; 0 Lux with IR LED ON                                                                                                         |
| Lens / Night Vision (Infrared LED) |                                                                                                                                                                                          |
| Focal Length                       | 5.3 – 130 mm                                                                                                                                                                             |
| Iris                               | F1.6(W) – F4.3(T)                                                                                                                                                                        |
| Iris Control                       | DC-IRIS                                                                                                                                                                                  |
| Angle of View                      | 55.0° (W) – 2.3(T) (H) , 41.6° (W) – 1.7(T) (V) ,<br>67.9° (W) – 2.8(T) (D)                                                                                                              |
| Peak Wavelength                    | 850nm                                                                                                                                                                                    |
| Beam Spread                        | 20° , 45°                                                                                                                                                                                |
| Radiant Distance                   | 100M                                                                                                                                                                                     |
| Sensor                             |                                                                                                                                                                                          |
| Pick Up Element                    | 1/2.8" CMOS image sensor                                                                                                                                                                 |
| Effective Pixels                   | 2616 (H) × 1964 (V) = 5,137,824 (Pixels)                                                                                                                                                 |
| Certifications                     |                                                                                                                                                                                          |
| CE / FCC                           | Yes, EMI Class B                                                                                                                                                                         |
| IP Rating                          | IP67                                                                                                                                                                                     |
| Vandal Resistant Rating            | IK10                                                                                                                                                                                     |
| PC Requirements                    |                                                                                                                                                                                          |
| CPU                                | Intel® Core™ i7 or higher grade                                                                                                                                                          |
| OS                                 | Windows 7 or above                                                                                                                                                                       |
| RAM                                | 8GB or above, Dedicated Graphics Card                                                                                                                                                    |
| Web Browser                        | Microsoft® Internet Explorer® 9 or above<br>Microsoft® Edge (IE mode)                                                                                                                    |
| Input / Output                     |                                                                                                                                                                                          |
| Audio Input / Output               | Mono, 1.98 Vp-p , 2.2KΩ , Terminal Block                                                                                                                                                 |
| Audio                              | Two-way Audio, G.711 u-law / PCM / AAC, SIP, External Microphone Required                                                                                                                |
| Alarm Input / Output               | Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load.max. 40VDC,450mW/300mA,450mW), Terminal block                                                                  |
| Video Streaming                    |                                                                                                                                                                                          |
| Video Compression                  | H.265/HEVC main profile, H.264 main and high profile , Motion JPEG                                                                                                                       |
| Video Streaming                    | RTP/HTTP, RTP/TCP, RTP/UDP, Multicast 4 configurable streams in H.265 and H.264 and Motion JPEG, configurable frame rate and bandwidth                                                   |
| Number of Streams                  | 4                                                                                                                                                                                        |
| Video Bitrate                      | 128Kbps – 12Mbps; Frame rate and bit rate controllable on-the-fly; VBR / CBR / GOP supported, Fixed bitrate, Smart H.264/H.265                                                           |
| Network Security                   |                                                                                                                                                                                          |
| Encryption                         | Base64 HTTP encryption, HTTPS encryption, DDNS via HTTPS                                                                                                                                 |
| Authentication                     | Digest HTTP authentication, RTSP authentication, TLS, 802.1x, DDNS via HTTPS                                                                                                             |
| Address Filter                     | IP address filter, MAC address filter                                                                                                                                                    |
| Access                             | Multiple user access levels with password protection                                                                                                                                     |
| User accounts                      | 10 user accounts available                                                                                                                                                               |
| Multi IP Address                   | Yes                                                                                                                                                                                      |
| Video Resolutions (H x V)          |                                                                                                                                                                                          |
| Resolution                         | 5MP(2592 × 1944), 4MP(2304 × 1728), 3.1MP(2048 × 1536), 3MP(2304 × 1296), 2MP(1920 × 1080), 1.3MP(1280 × 960), 1MP(1280 × 720), D1(720 × 480, 720 × 576), VGA(640 × 480), CIF(352 × 240) |
| Maximum Frame Rate                 | Normal mode: up to 25 fps @ 2592 × 1944<br>HDR mode: up to 25 fps @ 2592 × 1944                                                                                                          |
| Video Functions                    |                                                                                                                                                                                          |
| Scanning System                    | Progressive Scan                                                                                                                                                                         |
| Infrared Cut Filter                | Auto / Day (Color) / Night (Mono) / Schedule                                                                                                                                             |
| White Balance                      | ATW-NARROW / ATW-WIDE / AWC(MANUAL)                                                                                                                                                      |
| Back Light Compensation            | Yes                                                                                                                                                                                      |
| Electrical Shutter                 | 1/30(1/25)s – 1/30000s                                                                                                                                                                   |
| Sense Up                           | Off / x2 / x4 / x8 / x16                                                                                                                                                                 |
| Sense Up+                          | Yes                                                                                                                                                                                      |
| Auto Gain Control                  | 60 dB Variable Gain                                                                                                                                                                      |
| S/N Ratio                          | More than 50dB (AGC off)                                                                                                                                                                 |
| 3D Noise Reduction                 | Off / 1 – 32 Selectable                                                                                                                                                                  |
| 2D WDR                             | Off / Auto / x2 / x3 / x4 (by normal mode) Support Onvif                                                                                                                                 |
| High Dynamic Range                 | Up to 120dB (by HDR mode, 2 shutter line interleave)                                                                                                                                     |

| Privacy Masking                 | Off / On (4 zones)                                                                                                                                                                                                                                |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Effects                   | Brightness, Contrast, Hue, Saturation, Sharpness, Mirror, Flip, Rotation, Overexposure Reduction                                                                                                                                                  |
| Auto Focus                      | One Push                                                                                                                                                                                                                                          |
| Smart IR                        | Yes                                                                                                                                                                                                                                               |
| EV (Exposure Value)             | Adjustable                                                                                                                                                                                                                                        |
| Lens distorton correction (LDC) | Yes                                                                                                                                                                                                                                               |
| Integration                     |                                                                                                                                                                                                                                                   |
| Mobile Application              | Integrated to LILIN mobile app (LILIN Pro), iPhone, iPad, Android support                                                                                                                                                                         |
| Video Management                | ONVIF Profile S / ONVIF Profile T / IVS events, LILIN Navigator Enterprise 5.0 support, Third party VMS through LILIN HTTP API                                                                                                                    |
| SD Card Recording               | Support Micro SD/SDHC/SDXC card for circular recording (card is not included)                                                                                                                                                                     |
| SD Card Compatible List         | Micron - 32GB,64GB,128GB,256GB,512GB, 1TB (SDXC, U1, C10)<br>Transcend - 4GB SD,8GB SDHC,32GB SDHC C10,128GB SDXC C10<br>SanDisk - 8GB SDHC, 32GB, 64GB, 128GB SDHC C10<br>Kingston - 64GB SDXC C10                                               |
| Maintenance                     | Firmware update via HTTP and IP Scan;<br>Firmware available at website                                                                                                                                                                            |
| IVS Basic 1.0                   | Motion Detection, Tampering Detection, Advanced Motion Detection, Traffic Light Detection, Tripwire Detection, Object Counting                                                                                                                    |
| IVS Advanced 2.1 (Optional)     | Unattended Object Detection, Missing Object Detection, Crowd Detection, Loitering Detection, Face Detection                                                                                                                                       |
| IVS Advanced 2.2 (Optional)     | Detection Zone for Car and Human                                                                                                                                                                                                                  |
| Event Triggers                  | Motion / Tamper / Audio / Alarm / Network lost detection / SmartEvent                                                                                                                                                                             |
| Event actions                   | FTP / SMTP / HTTP post / SD card / SAMBA / Alarm / SNMP Trap / Push Service notification                                                                                                                                                          |
| Control Interface               | RS-485, Half duplex, Support MLP2, PELCO D/P communication protocol                                                                                                                                                                               |
| Languages                       | English, Traditional Chinese, Simplified Chinese, Spanish, Italian, Turkish, Russian, Korean, French, Arabic, Hungarian, Japanese                                                                                                                 |
| Network                         |                                                                                                                                                                                                                                                   |
| Ethernet                        | 10/100 Mbps Base-T (Tx), RJ-45                                                                                                                                                                                                                    |
| ePTZ & Digital Zoom             | Yes, ROI (Region of Interest)                                                                                                                                                                                                                     |
| OSD                             | Position configurable text overlay for date, time, camera ID, event status and watermark with customizable user demand data                                                                                                                       |
| CPU, Memory                     | Embedded SoC ARM Cortex-A9, 816MHz, 512MB DDR3L, 256MB flash memory                                                                                                                                                                               |
| OS                              | Embedded Linux 3.10                                                                                                                                                                                                                               |
| Network Protocols               | IPv4, IPv6, TCP, UDP, HTTP, HTTPS, SMTP, SIP, MQTT, QoS, SNMP V1/V2/V3, SNMP Trap and heart beat, NTP, DDNS, UPnP, FTP, ARP, DHCP, PPPoE, DNS, RTSP, RTCP, Telnet, ICMP, IGMP, ONVIF Profile S , ONVIF Profile T, SDDP, Bonjour , 802.1x, SSL/TLS |
| Max number of online users      | 10 simultaneous users                                                                                                                                                                                                                             |
| Video Display                   | LILIN Universal ActiveX , LILIN Java Applet                                                                                                                                                                                                       |
| Watermark                       | BMP logo                                                                                                                                                                                                                                          |
| Log                             | Event & operation log & IVS event log                                                                                                                                                                                                             |
| Schedule                        | Support holiday list                                                                                                                                                                                                                              |
| Network Storage                 | NAS (Support SAMBA/CIFS)                                                                                                                                                                                                                          |
| Power and Environment           |                                                                                                                                                                                                                                                   |
| Starting Temperature            | -10° C – +50° C (14° F – 122° F)                                                                                                                                                                                                                  |
| Operating Temperature           | -40° C – +50° C (-40° F – 122° F)                                                                                                                                                                                                                 |
| Storage Temperature             | -25° C – +60° C (-13° F – 140° F)                                                                                                                                                                                                                 |
| Humidity                        | 0% – 90% RH                                                                                                                                                                                                                                       |
| Power Supply                    | DC12V ±10% / PoE+ (IEEE 802.3at compliant)                                                                                                                                                                                                        |
| Power Consumption               | DC12V, 12W / PoE+, 14W                                                                                                                                                                                                                            |
| Mechanical                      |                                                                                                                                                                                                                                                   |
| Dimension                       | 116(W) × 112(H) × 372(D) mm                                                                                                                                                                                                                       |
| Weight                          | 1900g                                                                                                                                                                                                                                             |
| Casing Material                 | Aluminum alloy                                                                                                                                                                                                                                    |
| Window                          | Ø82 heat resistant glass                                                                                                                                                                                                                          |
| Warranty                        |                                                                                                                                                                                                                                                   |
| Warranty                        | 3 Year(s)                                                                                                                                                                                                                                         |