Z2R8052EX25

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

Z2 SERIES

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 **ONVIF® S T**

- 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) ; 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) , 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 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 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 distorsion 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) Transcend - 4GB SD,8GB SDHC,32GB SDHC C10,128GB SDXC C10 SanDisk - 8GB SDHC, 32GB, 64GB, 128GB SDHC C10 Kingston - 64GB SDXC C10
Maintenance	Firmware update via HTTP and IP Scan; 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)