

L series | IP bullet camera

# LR7224X / LR7228X

## D/N Outdoor 55M IR Range Vari-focal IP Camera

www.meritlilin.com

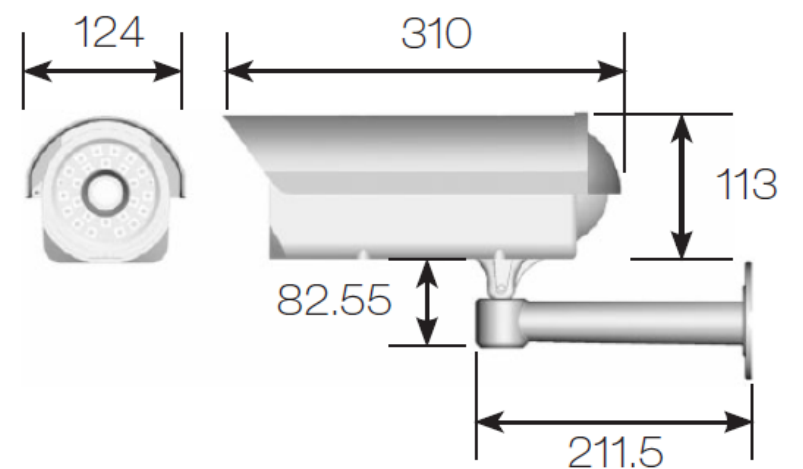


<p>2-way audio</p>	<p>IP66</p>	<p>SD card recording</p>
<p>Day/Night</p>	<p>Infrared</p>	<p>IP based PoE</p>

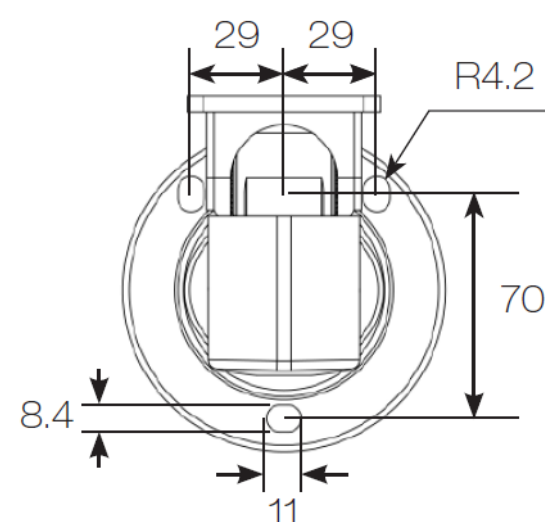
- ▶ Outdoor Bullet Camera
- ▶ IR cut filter for day/night operations
- ▶ IP66 rain and dust resistant
- ▶ 55-metre infrared night vision
- ▶ 1080p resolution

**Dimensions: (unit: mm)**

Body: 124(W) x 113(H) x 310(D); Bracket : 211.5(L)



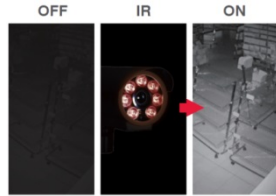
**Diagram of mounting holes:**



The L series cameras are your economical choice for small and medium sized businesses. LR7224X/LR7228X in the L series is featuring built-in Sense up+ technology to deliver stunning video in low-light conditions. Utilizing intelligent image signal processing, 2D WDR function, AGC control, and 3D Noise Reduction, the combination successfully delivers the ultimate low-light image without motion blur. The IP66-rated housing is designed to help the camera body withstand rain and dust and ensures operation under a multitude of harsh weather conditions. Support with PoE, privacy mask, White balance, and minimum illumination 0.1 Lux at F1.4 Low Light Mode.

## Built-in IR Illumination

LR7224X / LR7228X IP camera with infrared (IR) illumination where IR LEDs are built-in. Built-in with IR LED, the camera provides night vision up to 55 metres



## ONVIF-compliant

Open Network Video Interface Forum (ONVIF) is a standard for physical IP based security products. LR7224X / LR7228X camera is ONVIF Profile S conformant



## Video Security App

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



## Day and Night Operations via Removal of the IR-cut filter

LR7224X / LR7228X camera was designed using a mechanical IR cut filter for increased IR sensitivity resulting in improved night time images. The removable IR-cut filter allows day and night operations even in the low lux condition providing outstanding vision



## SD Cards in Sync with NAV Software

LR7224X / LR7228X 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)



## 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



## 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



## Two-way Audio Support

With 2-way audio communication, you can project your voice through the camera's speaker instead of hearing what's going on



## 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



## 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



## Alarm Detection

Alarm Detection is designed to provide the electronic detection of intruders



## 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



## Motion Detection

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



## Audio Detection

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



## D/N Outdoor 55M IR Range Vari-focal IP Camera

### Video performance

Model#	LR7224EX3.6	LR7228EX3.6
Low Light Mode (Colour)	0.1 Lux at F1.4	
With Infrared	0.0 lux	
2D WDR	Off / x2 / x3 / x4	

### Power

Power consumption	17W ( PoE+, 20W )	
PoE+	IEEE 802.3at	
Power supply	AC24V (±10%)	AC100 ~ 240V (±10%)
	Power over Ethernet+ (IEEE 802.3at compliant)	

### Sensor

Sensor type	1/2.7" CMOS image sensor	
Total sensor pixels	1920 (H) x 1080 (V) = 2,073,600 pixels	

### Certifications

Model#	LR7224EX3.6	LR7228EX3.6
CE	EN 55022: 2010 Class A EN 50130-4: 2011 IEC 61000-4-2: 2008 IEC 61000-4-3: 2006+A1: 2007+A2: 2010	EN 55022: 2010 Class A IEC 61000-3-2:2005+A1:200 8+A2:2009 IEC 61000-3-3:2008
FCC	FCC Part 15: Subpart B (10-1-10 Edition) Class A CISPR 22: 2008 Class A	FCC Part 15: Subpart B (10-1-10 Edition) Class A CISPR 22: 2008 Class A
IP Rating / IK Rating	IP66 waterproof / IK 10	

### Lens

Focal length	2.8 mm ~ 12 mm	
Iris	F1.4	
Angle of View	H	91.2° ~ 25.5°
	V	59.4° ~ 22.4°
	D	99° ~ 37.3°

### Night vision (infrared LED)

Distance	55m
Peak wavelength	850nm, high efficiency array
Beam spread	30°

### Environmental

Operating temperature	-40°C to 50°C (-40°F to 122°F)
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### PC requirement

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

### Mechanical

Dimensions (W x H x D)	Body : 124 x 113 x 310mm, Bracket : 211.5mm (L)
Weight	2,200g approx.
Window	Ø78 Heat Resistant Glass

### Input / output

Audio input / output	Mono, 1.4 Vp-p , 50 KΩ , Terminal connector
Alarm input / output	Digital 1 input (TTL, +3 ~ 5VDC) / 1 Output (MOS Relay contact N.O., Load max. 40VDC/300mA)
Live video output	CVBS 1.0Vp-p, 75 ohm, BNC connector

### Video streaming

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 ~ 5Mbps 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
Maximum frame rate	H.264 : up to 15 fps @ 1920 x 1080 , 30fps @ 1280 x 720 , 30fps @ 720 x 480 Motion JPEG : up to 15 fps @ 1920 x 1080 , 30 fps @ 720 x 480 , 30 fps @ 352 x 240

### Video functions

Day/Night (IR-cut filter)	Colour (Day), Monochrome (Night), Auto, Schedule
Scanning system	Progressive scan
Chip size	5.856mm (H) x 3.276mm (V)
Adjustable picture setting	Contrast, Brightness, Saturation
White balance	Auto / Tungsten / Indoor / Fluorescents1 / Fluorescents2 / Outdoor1 / Outdoor2
Shutter	1/30(1/25)s to 1/8000s
Back light compensation	On / Off
3D noise reduction	Off / 1 to 32 selectable
Privacy masking	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 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
Alarm functions	audio / motion / alarm detection triggering recording into SD card Image upload over FTP and E-mail by audio / motion 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
Digital zoom	Yes
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	IP, TCP, UDP, HTTP, SMTP, NTP, DDNS, UPnP, FTP, ARP, DHCP, PPPoE, DNS, RTSP, RTCP, Telnet, ICMP, IGMP, ONVIF Profile S, SNMP, SIP, Bonjour
Multi IP address	Yes

### Network security

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