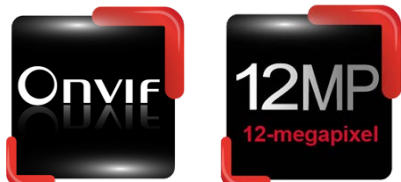


Panoramic series

FR33C2

Day & Night 12MP 360° Panorama Dome IR IP Camera

www.meritlilin.com

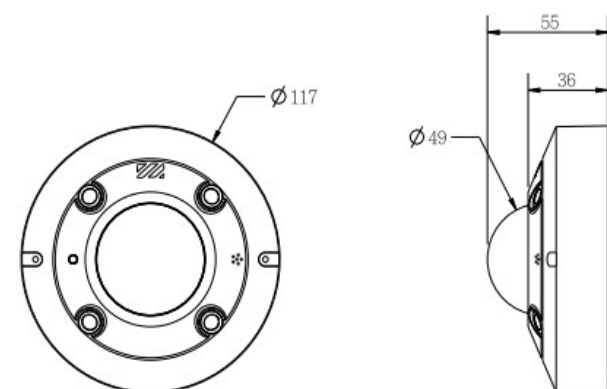


- ▶ Full HD 12.0 megapixel CMOS image sensor
- ▶ True H.264 AVC High Profile video compression
- ▶ H.264 and Motion JPEG multi-profile video streaming
- ▶ 3D noise reduction
- ▶ 2D WDR function
- ▶ Support 4000x3000 resolution original image video streaming output
- ▶ Support 360-degree field of imaging and an ROI video streaming output simultaneously
- ▶ Provide 360-degree view of entire scene without any blind spot
- ▶ 360-degree entire scene from one camera and no mechanical PTZ (Pan, Tilt, Zoom) motor needed
- ▶ Up to 4 independent distortions corrected view angle can be specified (dewarping)
- ▶ Audio / Motion detection alarm function
- ▶ High efficiency IR LED, radiant distance up to 5m
- ▶ Day & Night (IR cut removable)
- ▶ 2-way audio supported
- ▶ Digital I/O: 1 in, 1 out
- ▶ ONVIF Profile S supported

Seeing everything in a scene – More efficiently than with multiple cameras

LILIN FR33C2 is a fixed dome IP security camera featuring a fisheye lens for 360° panoramic wide angle view without any blind spots. The fisheye lens with high resolution provides 360° wide view surveillance, and the panorama function with quad view enables 4 different angle images to display for recording and monitoring at the same time. This latest fisheye fixed dome network camera introduced by LILIN, featuring a detailed 12-Megapixel resolution CMOS sensor with superb image quality. With flexible design of FR33C2 allows it to be applied in various IP surveillance environments. LILIN FR33C2 delivers clear images via multi-streaming H.264 and Motion JPEG video up to 4000 x 3000 pixels, and also offers electronically pan, tilt, and zoom function that allows can give users access different video modes including: 180° panorama view or 360° source image view.

Dimensions: \varnothing 117mm x 55mm



4 cameras in 1

Multiple dewarp display modes on the same screen. It is a perfect solution to cover a large area such as entrances, exits, and lobbies



Video Security App

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



ONVIF-compliant

Open Network Video Interface Forum (ONVIF) is a standard for physical IP based security products. FR33C2 camera is ONVIF Profile S conformant



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



SD Cards in Sync with NAV Software

FR33C2 camera with built-in Micro SD/SDHC/SDXC 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



Wide Dynamic Range

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



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

FR33C2 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



Motion Detection

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



Alarm Detection

Alarm Detection is designed to provide the electronic detection of intruders



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



Impact Resistant

IK10-certified housing designed to protect the camera from destructive behavior



Day & Night 12MP 360° Panorama Dome IR IP Camera

Video performance & Power

Model#	FR33C2
Min. Illumination	Color: 0.1 Lux at F2.8, Mono: 0.01 Lux at F2.8
Power consumption	DC12V, 8.1W / PoE, 7.1W
Power supply	DC12V ±10% / PoE (IEEE 802.3af compliant)

Sensor

Sensor type	1/1.7" CMOS image sensor
Effective pixels	4072 (H) x 3046 (V) = 12,403,312 (pixels)

Certifications

CE	Yes
FCC	Yes
IP rating	IP66
IK rating	IK10

Lens

Focal length	1.65 mm	
Iris	F2.8	
Angle of View	H	190°
	V	190°
	D	190°

Environmental

Operating temperature	-25°C – +50°C (-13°F – 122°F)
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Infrared LED

Peak wavelength	850nm
Infrared LED Angle	90°
IR radiant distance	5M

PC requirement

CPU requirement	Intel Core 2 Duo E6400 2.13GHz or above
OS requirement	Windows 7, Windows 8 or above
RAM requirement	2GB or above, Independent Display Card
Web browser	Internet Explorer 10 or above

Mechanical

Dimensions	Φ117 x 55mm
Weight	400g

Input / output

Audio input / output	Mono, 1.98 Vp-p, 3.5mm phone jack
Alarm input / output	Digital 1 input (TTL, +3 – 5VDC) / 1 Output (MOS Relay contact N.O., Load max. 40VDC/300mA), Terminal Block

Video streaming

Video compression	H.264 Main and High Profile, Motion JPEG
Video streaming	RTP/HTTP, RTP/ TCP, RTP/UDP, Multicast
Video bitrate	128Kbps-12Mbps Frame rate and bit rate controllable on-the-fly VBR / CBR / GOP supported

Video resolution (H x V)

Megapixels	4000x3000(12MP), 3840x2160(4K/8MP), 3840x768, 2048x2048, 1920x1080(1080P), 1280x720(720P), 720x480(D1), 480x480	
Frame rates	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 20 fps @ 4000 x 3000, MJPEG: up to 20 fps @ 720 x 480
	Profile #3	H.264: up to 30 fps @ 3840 x 768, MJPEG: up to 30 fps @ 720 x 480
	Profile #4	H.264: up to 30 fps @ 2048 x 2048, MJPEG: up to 30 fps @ 480 x 480

Video functions

IR cut filter	Auto / Schedule / Day (Color) / Night (Mono)
Scanning system	Progressive scan
White balance	Auto / Tungsten / Indoor / Fluorescents1 / Fluorescents2 / Outdoor1 / Outdoor2
Back light compensation	Off / On
Shutter time	1/30(1/25)s – 1/30000s
Sense Up	Off / 1 Frame / 2 Frames
Sense Up +	Yes
Auto gain control	36 dB Variable Gain
Privacy masking	Off / On (4 zones)
Other functions	Brightness, Contrast, Hue, Saturation, Sharpness, Mirror, Flip

Integration

Mobile phone	iPhone, iPad, and Android support
Video management	Lilin Navigator Enterprise support
Firmware	Firmware upgrade via HTTP Firmware available at web site

Network

OS	Embedded Linux 3.8
Network interface	10Base-T / 100Base-TX / 1000Base-T, RJ-45
Connectivity	ONVIF Profile S & LILIN HTTP API
Users	8 simultaneous users
ePTZ & Digital Zoom	Up to 4 independent distortion corrected view angle, 360-degree field of imaging, and an ROI supported
OSD	Text overly for date, time, and camera name
CPU	Embedded SoC, 1.2GHz Dual ARM Cortex-A9 & 600MHz ARM11, 1GB DDR3, 256MB flash memory
Video display	LILIN Universal ActiveX & LILIN Java Applet
Audio	2-way audio, G.711 / PCM
Protocols	IPv4, IPv6, TCP, UDP, HTTP, SMTP, NTP, DDNS, UPnP, FTP, ARP, DHCP, PPPoE, DNS, RTSP, RTCP, Telnet, ICMP, IGMP, ONVIF Profile S, SNMP

Network security

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

Main functions

3D noise reduction	Off / 1-32 selectable
Alarm event triggers	Alarm / Motion / Audio detection triggering recording into SD card Image upload over FTP and E-mail by alarm / Motion / Audio detection
SD card	Support Micro SD/SDHC/SDXC card for circular recording (card is not included)
Screen mode	Full Panorama / Wide Panorama / Around Panorama / 4 Window / 1 Window
2D WDR	Off / Auto / x2 / x3 / x4