ZCM4104S

4 Megapixels 4x Optical Zoom Network Starlight Mini Camera Module

Network zoom camera module is a fully integrated network block camera including Image sensor, long range zoom lens, video encoding, video analysis and network transmission functions. It is designed to be flexible embedded into PTZ cameras, bullet cameras, Pan/Tilt positioning cameras, AGV robot systems, UAV drones, etc. Linovision network zoom camera modules provide standard 36-pin cable and complete SDK/ISAPI protocols. It comes with intuitive WEB GUI and CMS software, and OEM is welcomed.

Outstanding Features

- 1/2.8" CMOS sensor
- Up to 4 Megapixels (2560x1440) resolution @ 30fps
- 4x optical zoom (2.8-12mm), 16x digital zoom
- H.265/H.264/MJPEG video compression algorithm
- Starlight low light performance, 0.001Lux/F1.6(color),0.0005Lux/F1.6(black/white), 0 Lux with IR
- 255 PTZ presets, 8 patterns
- Support Optical Defog
- Provide audio I/O and alarm I/O
- 3D DNR, BLC, HLC, EIS, 120dB WDR
- Support local SD card storage, up to 256GB
- Optional Bluetooth, Wi-Fi, 4G LTE extension modules
- Compact dimension, fits into most of regular PTZs / explosion proof PTZs / bullet enclosures
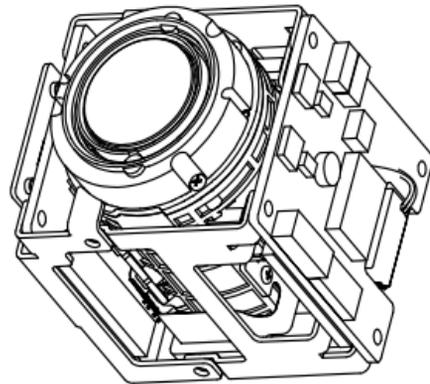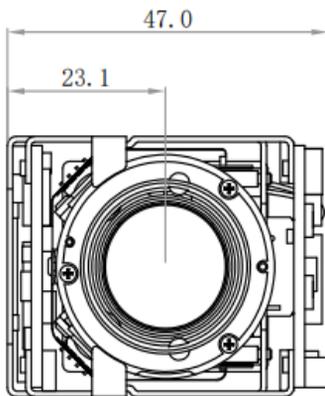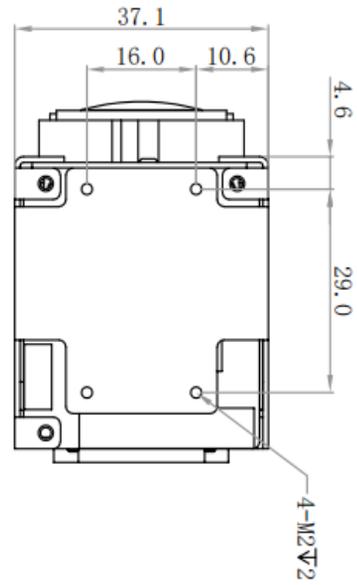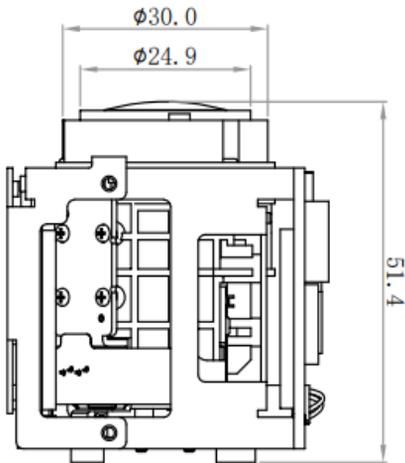- Intuitive WEB GUI and free CMS software, flexible OEM service

Possible Enclosures

Specification

Camera	Image Sensor	1/2.8" Progressive Scan CMOS
	Minimum Illumination	Color:0.001 Lux @(F1.6,AGC ON);B/W:0.0005Lux @(F1.6,AGC ON)
	Shutter	1/25s to 1/100,000s; Supports delayed shutter
	Auto Iris	DC
	Day/Night Switch	IR cut filter
	Digital zoom	16X
Lens	Focal Length	2.8-12mm, 4X Optical Zoom
	Aperture Range	F1.6-F3
	Horizontal field of view	108.6-32° (wide-tele)
	Minimum Working distance	1000mm-1000mm (wide-tele)
	Zoom speed	Approximately 1.5s(optical lens, wide to tele)
Compression Standard	Video Compression	H.265 / H.264 / MJPEG
	H.265 Type	Main Profile
	H.264 Type	BaseLine Profile / Main Profile / High Profile
	Video Bitrate	32 Kbps~16Mbps
	Audio Compression	G.711a/G.711u/G.722.1/G.726/MP2L2/AAC/PCM
	Audio Bitrate	64Kbps(G.711)/16Kbps(G.722.1)/16Kbps(G.726)/32-192Kbps(MP2L2)/16-64Kbps(AAC)
Image	Main Stream	50Hz: 25fps (2560*1440, 1920 × 1080, 1280 × 960, 1280 × 720); 60Hz: 30fps (2560*1440, 1920 × 1080, 1280 × 960, 1280 × 720)
	Third Stream	50Hz: 25fps(704 ×576); 60Hz: 30fps(704 ×576)
	Image settings	Saturation, Brightness, Contrast and Sharpness can be adjusted via the client-side or browser
	BLC	Support
	Exposure mode	AE / Aperture Priority / Shutter Priority / Manual Exposure
	Focus mode	Auto Focus / One Focus / Manual Focus / Semi-Auto Focus
	Area exposure / focus	Support
	Optical fog	Support
	Image stabilization	Support
	Day/Night Switch	Automatic, manual, timing, alarm trigger
	3D noise reduction	Support
	Picture overlay switch	Support BMP 24-bit image overlay, customizable area
	Region of interest	ROI supports three streams and four fixed areas
Network	Storage function	Support USB extend Micro SD / SDHC / SDXC card (256G) disconnected local storage, NAS (NFS, SMB / CIFS support)
	Protocols	TCP/IP,ICMP,HTTP,HTTPS,FTP,DHCP,DNS,RTP,RTSP,RTCP,NTP,SMTP,SNMP,IPv6
	Interface Protocol	ONVIF(PROFILE S,PROFILE G)
Smart Calculation	Intelligent computing power	1T
Interface	External Interface	36pin FFC (Network port、RS485、RS232、SDHC、Alarm In/Out、Line In/Out、power)
General	Working Temperature	-30℃~60℃, humidity≤95%(non-condensing)
	Power supply	DC12V±25%
	Power consumption	2.5W MAX(IR Maximum,4.5W MAX)
	Dimensions	54.6*46.5*34.4
	Weight	60g

Dimension (Unit: mm)

PIN Definitions

PIN Type	Number	Name	Description
36-pin Socket	1	DC_12V	DC12V input
	2	DC_12V	DC12V input
	3	DC_12V	DC12V input
	4	GND	GND
	5	GND	GND
	6	CVBS_OUT	CVBS video signal output
	7	GND	GND
	8	LINEOUT	Audio signal output
	9	GND	GND
	10	LINEIN	Audio signal input
	11	Not used	None
	12	TX+	Self adaptive network port, TX+
	13	TX–	Self adaptive network port, TX–
	14	RX+	Self adaptive network port, RX+
	15	RX–	Self adaptive network port, RX–
	16	GND	GND
	17	LINK#	LINK# indicator signal
	18	ACT#	ACT# indicator signal
	19	ALM_OUT	Alarm output
	20	ALM_IN	Alarm input
	21	GND	GND
	22	SD_EN	SDIO SD card power enable
	23	Not used	None
	24	SD_CD	SDIO SD card detection foot
	25	SD_CLK	SDIO clock signal
	26	SD_CMD	SDIO_CMD
	27	SD_DATA3	SDIO data bit3
	28	SD_DATA2	SDIO data bit2
	29	SD_DATA1	SDIO data bit1
	30	SD_DATA0	SDIO data bit0
	31	GND	GND
	32	RS–485–	RS–485 B cable, Pelco protocol
	33	RS–485+	RS–485 A cable, Pelco protocol
	34	UART2_TXD	UART port, TX signal (3.3V), Visca protocol
	35	UART2_RXD	UART port, RX signal (3.3V), Visca protocol
	36	SYS_RST_N	System reset signal
4-pin USB	1	DC_5V	DC5V output
	2	USB_DP	USB DP
	3	USB_DM	USB DM
	4	GND	GND

Communication and Configuration

Communication between Zoom Camera Module and PTZ System:
RS232/RS485, with PELCO or VISCA protocol.

Configuration:
• WEB GUI
• CMS Software (Windows OS based and MAC OS based)
• SDK/ISAPI

Optional Accessories

Interface Board

Drone Gimbal

Camera PT Part

Explosion-proof Enclosure

Applications

Surveillance Security

Border Defense

Robot

Drone

Medical Equipment

Safe City