

## ZCM4252

### 4 Megapixels 52x Optical Zoom Network Ultra Starlight Camera Module

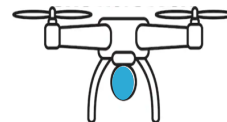


Network zoom camera module is a fully integrated network block camera including Image sensor, long range zoom lens, video encoding, video analysis and network transmission functions. It is designed to be flexible embedded into PTZ cameras, bullet cameras, Pan/Tilt positioning cameras, AGV robot systems, 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

- 1/1.8" Sony 347 progressive scan CMOS sensor
- Up to 4 Megapixels (2560x1440) resolution @ 30fps, or 2 Megapixels @ 60fps
- 52x optical zoom (6.1-317mm), 16x digital zoom
- H.265/H.264/MJPEG video compression algorithm
- Ultra starlight low light performance, 0.0005Lux/F1.5(color),0.0001Lux/F1.5(black/white), 0 Lux with IR
- 255 PTZ presets, 8 patterns, home position
- 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
- Intuitive WEB GUI and free CMS software, flexible OEM service

#### Possible Enclosures

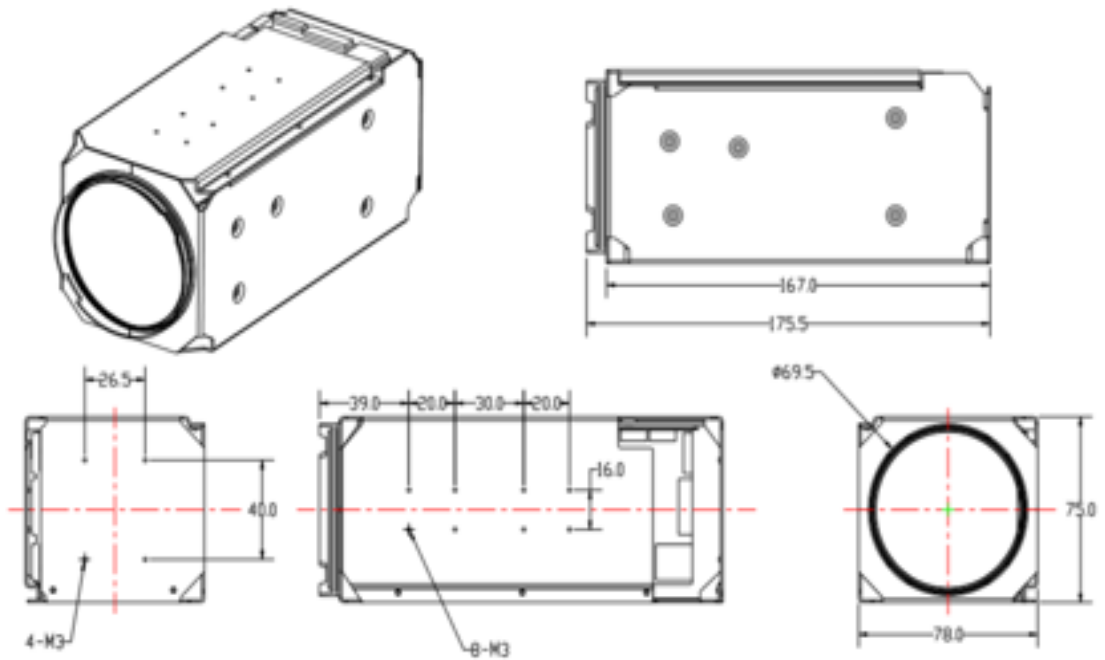


## Specification

<b>Camera</b>	
Image Sensor	1/1.8" progressive scan CMOS (Sony 347)
Minimum Illumination	Color: 0.0005 Lux @(F1.5,AGC ON) B/W:0.0001Lux @(F1.5,AGC ON)
Shutter	1/25s to 1/100,000s; support slow shutter
Auto Iris	PIRIS
Day/Night Switch	IR cut filter
Digital Zoom	16X
<b>Lens</b>	
Focal Length	6.1-317mm, 52X optical zoom
Aperture Range	F1.4-F4.7
Horizontal Field of View	65.5-1.8° (wide-tele)
Minimum Working Distance	100mm-2000mm (wide-tele)
Zoom Speed	Approximately 6s (optical, wide-tele)
<b>Compression Standard</b>	
Video Compression	H.265 / H.264 / MJPEG
H.265	Main Profile
H.264	Base Line 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)
<b>Image (Maximum Resolution: 2560x1440)</b>	
Main Stream	50Hz: 25fps (2560x1440, 1920x1080, 1280x960, 1280x720); 60Hz: 30fps (2560x1440, 1920x1080, 1280x960, 1280x720)
Third Stream	Independent of the Main Stream settings, maximum support 50Hz: 25fps (2688 x1520); 60Hz: 30fps (2688 x1520)
Image Settings	Saturation, brightness, contrast, sharpness adjusted by IE/ Client
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 Defog	Support
Image Stabilization	Support
Day/Night Switch	Automatic, manual, timing, alarm trigger
3D DNR	Support
Picture Overlay Switch	Support BMP 24-bit image overlay, customizable area
Region of Interest	Support three streams, each stream support four areas
<b>Network</b>	
Storage	Support 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
Integration Protocol	ONVIF(PROFILE S, PROFILE G)
<b>Interface</b>	
External Interface	36-pin FPC (Network port, RS485, RS232, CVBS, SDHC, Alarm In/Out, Line In/Out, power)
<b>General</b>	
Working Temperature	-30°C~70°C (-22 °F~ 158 °F) , humidity ≤ 95%(non-condensing)
Power Supply	DC12V±25%
Power Consumption	2.5W MAX (4.5W MAX when ICR switch)
Dimensions	175.5mm x 75mm x 78mm or 6.91" x 2.95" x 3.07"
Weight	925g (2.04lbs)

*Note: Design and specifications are subject to changes without prior notice.*

## Dimension (Unit: mm)



Top View

Side View



Back View



## PIN Definitions

PIN Type	Number	Name	Description
<b>36-pin Socket</b>	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
<b>4-pin USB</b>	1	DC_5V	DC5V output
	2	USB_DP	USB DP
	3	USB_DM	USB DM
	4	GND	GND

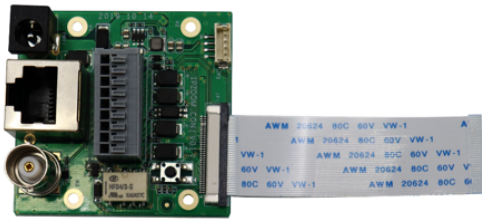
## Communication and Configuration

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  
(36-pin interface board with RJ45, BNC, Power interfaces)



Drone Gimbal



Pan/Tilt Camera Part  
(360-degree Pan/Tilt movement, interface board)



Explosion-proof Enclosure  
(Bullet, Dome, customizable)

## Applications



Surveillance Security



Border Defense



Robot



Drone



Medical Equipment



Safe City