



LEOPARD
IMAGING

LI-IMX678-RV-GigE-124H



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INTRODUCTION

LI-IMX678-RV-GigE-124H is an IP67-rated HDR Power-over-Ethernet (PoE) camera equipped with the Sony® diagonal 8.86 mm STARVIS2 CMOS color sensor IMX678. It also adheres to IEEE 802.3af compliance and includes PTP synchronization support. It comes with the high-performance in-built ISP that helps in achieving excellent HDR performance even in ultra-low light environments. Supporting the ONVIF protocol, our product offers maximum flexibility and interoperability for your security ecosystem.

TECHNICAL FEATURES

- Frame Rate: 15 fps @ 3840 × 2160 (HDR mode)
- Rockchip RV1126 Processor:
 - CPU: Quad core ARM Cortex-A7 and RISC-V MCU
 - 2.0Tops NPU, support INT8/ INT16
 - Memory:
 - 32-bit DDR3 / DDR3L / LPDDR3 / DDR4 / LPDDR4
 - Support eMMC 4.51, SPI Flash, Nand Flash
 - Support 250 ms fast booting
 - Up to 3 sensor simultaneous input
 - 4K H.264 / H.265 encoder and decoder
- Sensor: Sony diagonal 8.86 mm STARVIS2 CMOS color sensor IMX678
- Resolution: 3856 (H) x 2176(V) (active pixels)
- Output Format: Compressed MJPEG, H.265 and H.264 formats
- Interface: GigE
- Connector: M12
- Allow customizable for cable length

Electrical and Mechanical

- Input power supply:
 - a. IEEE802.3af standard PoE Input through M12 Connector
 - b. 12V supply through M8 connector for non-POE applications

Note: POE in default

- Power Consumption: TBD
- Operating temperature: TBD
- Weight: ~ 205 g
- Ingress Protection: IP67

LENS SPECIFICATIONS

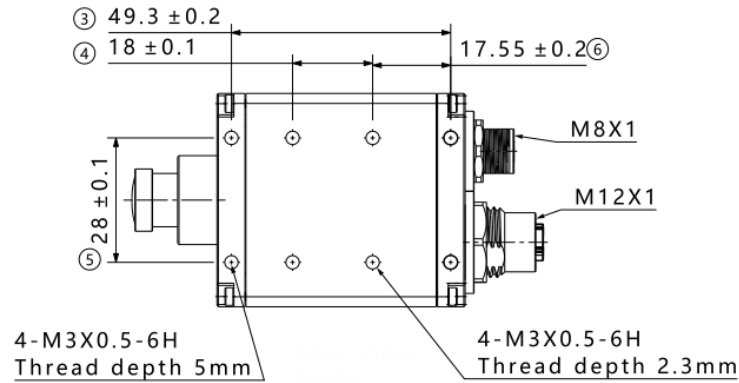
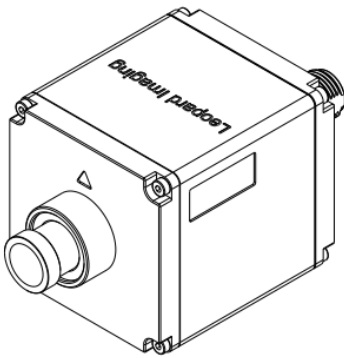
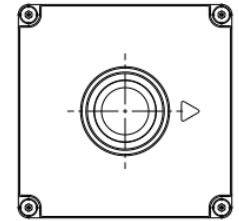
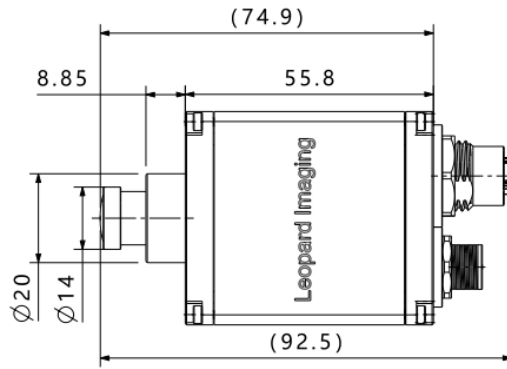
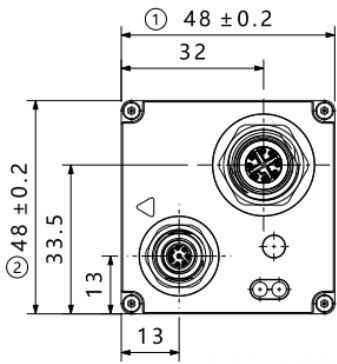
Effective Focal Length	3.8 mm
Aperture, F/#	2.6
Field of View (FOV)	124° horizontal
TV Distortion	-14.8%
Relative Illumination	77.9%
IR Filter	650 nm IR cut filter
Lens Mount	M12 x P0.5

Applications

- IoT
- Drone
- Robots



DIMENSIONS

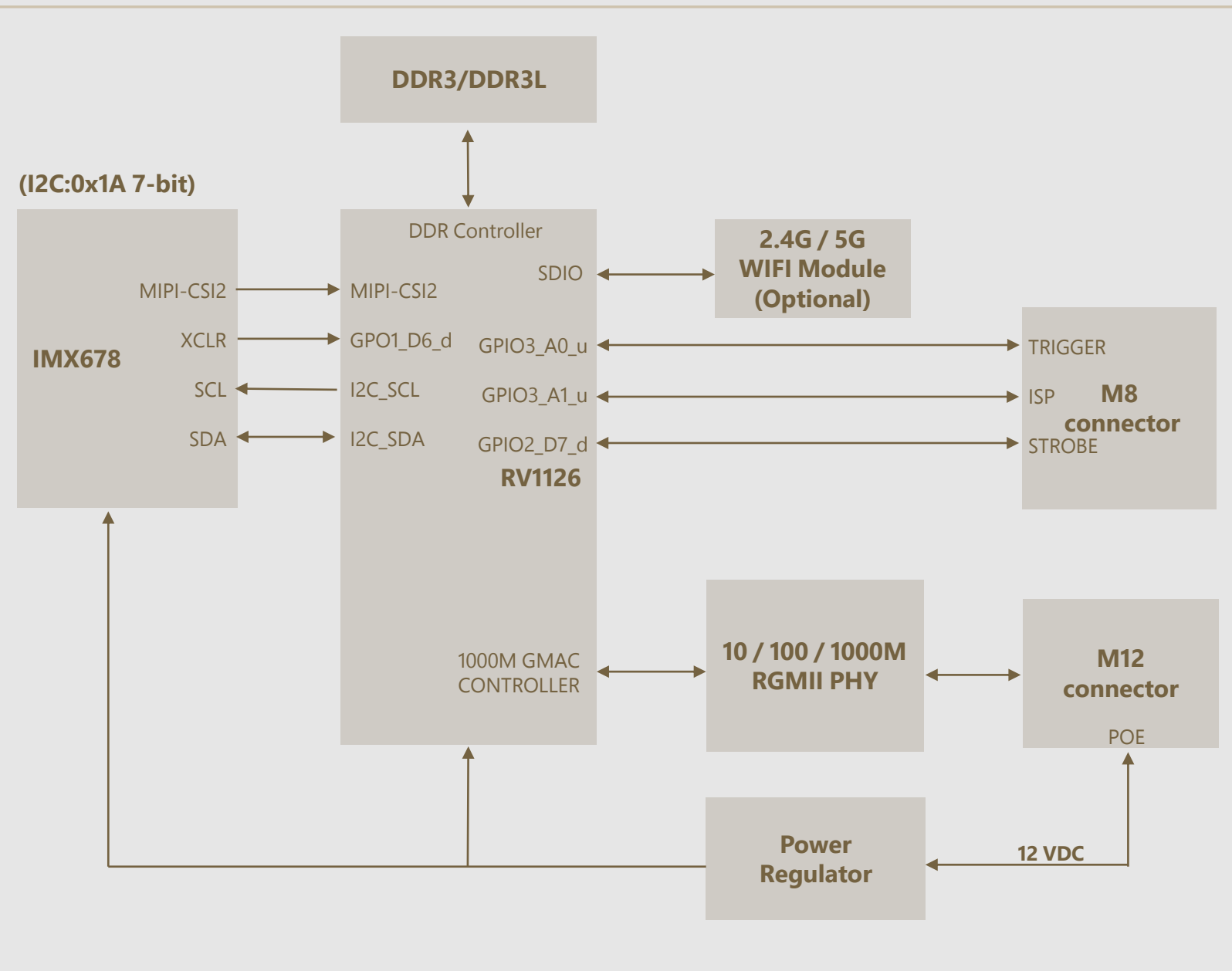


NOTE:

- Other unmarked tolerances refer to the tolerance table.
- ⊗ marked are important sizes.
- All materials are compliant with RoHS requirements.
- Unit: mm

TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
0.5 < X ≤ 3	±0.1	0.5 < X ≤ 3	±0.2	X ≤ 10	±1°
3 < X ≤ 6	±0.1	3 < X ≤ 6	±0.5	10 < X ≤ 50	±30'
6 < X ≤ 30	±0.2	6 < X ≤ 30	±1	50 < X ≤ 120	±20'
30 < X ≤ 120	±0.3	X > 30	±2	120 < X ≤ 400	±10'
120 < X ≤ 400	±0.5			X > 400	±5'
400 < X ≤ 1000	±0.8				
X > 1000	±1.2				

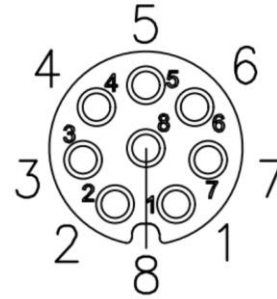
SYSTEM BLOCK DIAGRAM



INTERFACE M8 CONNECTOR

■ Connector Part#: M8-S8A-GWFM12

■ Number of Positions: 8



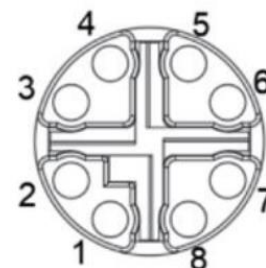
PINOUT DETAILS OF M8

Pin No	Signal Name	Pin Type	Description	Voltage Level
1	EXT-TRIGGER +	INPUT	Opto Coupler Isolated Trigger Input +	3.3V
2	VCC_12P0	POWER	Optional external input 12V power (nonisolated)	12V
3	GPO_ISP +	OUTPUT	Opto Coupler Isolated GPO signal +	3.3V
4	GROUND	POWER	Ground	-
5	CAM_STROBE +	OUTPUT	Opto Coupler Isolated Strobe output +	3.3V
6	CAM_STROBE -	OUTPUT	Opto Coupler Isolated Strobe output -	-
7	EXT-TRIGGER -	INPUT	Opto Coupler Isolated Trigger Input -	-
8	GPO_ISP -	OUTPUT	Opto Coupler Isolated GPO signal -	-

INTERFACE M12 CONNECTOR

■ Connector Part#: M12-S8X-GWFM16

■ Number of Positions: 12



PINOUT DETAILS OF M12

Pin No	Signal Name	Pin Type	Description	Voltage Level
1	MDI0+	OUTPUT	Ethernet MDI Signal 0 pair +	48V
2	MDI0-	OUTPUT	Ethernet MDI Signal 0 pair -	48V
3	MDI1+	OUTPUT	Ethernet MDI Signal 1 pair +	48V
4	MDI1-	OUTPUT	Ethernet MDI Signal 1 pair -	48V
5	MDI3+	OUTPUT	Ethernet MDI Signal 3 pair +	48V
6	MDI3-	OUTPUT	Ethernet MDI Signal 3 pair -	48V
7	MDI2-	OUTPUT	Ethernet MDI Signal 2 pair -	48V
8	MDI2+	OUTPUT	Ethernet MDI Signal 2 pair +	48V

● REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	27 Mar 2025
0.2	1. Updated pictures on the page 1 & 2. 2. Added introductions.	19 Nov 2025
0.3	Updated system block diagram.	23 Jan 2026
0.4	1. Updated introduction and technical features. 2. Corrected PoE power supply.	26 Jun 2026

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