



LEOPARD
IMAGING

LI-IMX566-MIPI-092H



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INTRODUCTION

The LI-IMX566-MIPI-092H is a high-performance camera module featuring Sony's 8.13 MP IMX566 Pregius S™ CMOS sensor. With a global shutter and MIPI CSI-2 interface, it delivers distortion-free imaging of fast-moving objects, making it ideal for factory automation, intelligent transportation, and embedded vision systems.

SPECIFICATIONS

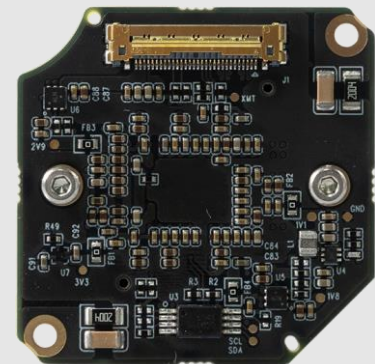
Frame Rate	20 fps @ 2856 (H) x 2848 (V)
Sensor	Sony IMX566 (Pregius S, Global Shutter)
Optical Format	Type 2/3
Resolution	2856 (H) x 2848 (V) (Active Pixel)
Pixel Size	2.74 μm \times 2.74 μm
Shutter	Global shutter
Output Format	8-bit / 10-bit / 12-bit RAW
Color / Mono	Color
EEPROM Memory Size	4 Kbit
Interface	4-lane MIPI CSI-2
Power Consumption	TBD
Operating Temp	TBD
Storage Temp	TBD
Weight	~34 g

APPLICATIONS

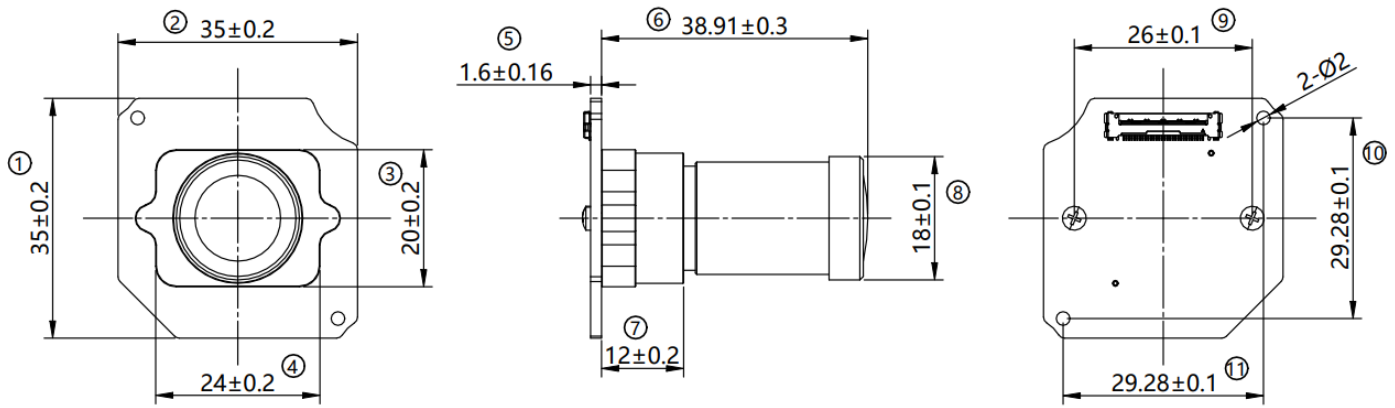
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LENS SPECIFICATIONS

Focal Length	5.17 \pm 5% mm
Aperture, F/#	1.6 \pm 5%
Field of View (FOV)	92° horizontal
IR Filter	650nm IR CUT Filter
Lens Mount	M16 x P0.5



DIMENSIONS



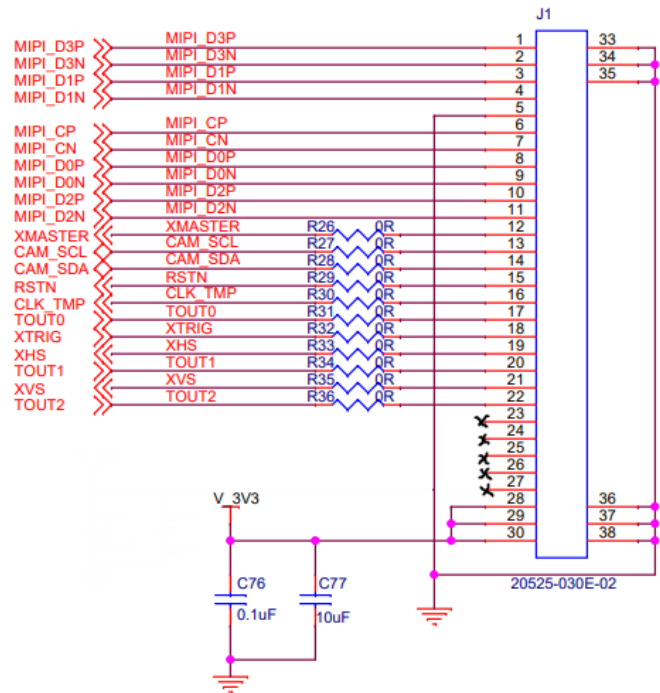
NOTE:

- ⊗ marked are important sizes.
- Tolerances for the unmarked – refer to the Tolerance table.
- 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				

MIPI INTERFACE

- Connector Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable: LI-FAW-1233
- Sensor I2C Address: 0x34 (8-bit)
- EEPROM I2C Address: 0xA8 (8-bit)
- EEPROM Memory Size: 4 Kbit
- External Power Supply: 3.3V



PINOUT DETAILS

Pin No	Signal Name	Pin Type	Description	Voltage Level
1	MIPI1_D3P	OUTPUT	MIPI Data Lane 3 Differential Pair +	MIPI DPHY
2	MIPI1_D3N	OUTPUT	MIPI Data Lane 3 Differential Pair -	MIPI DPHY
3	MIPI1_D1P	OUTPUT	MIPI Data Lane 1 Differential Pair +	MIPI DPHY
4	MIPI1_D1N	OUTPUT	MIPI Data Lane 1 Differential Pair -	MIPI DPHY
5	GND	POWER	Ground signal for digital and analog	-
6	MIPI_CP	OUTPUT	MIPI Clock Lane Differential Pair +	MIPI DPHY
7	MIPI_CN	OUTPUT	MIPI Clock Lane Differential Pair -	MIPI DPHY
8	MIPI_D0P	OUTPUT	MIPI Data0 Differential Pair +	MIPI DPHY
9	MIPI_D0N	OUTPUT	MIPI Data0 Differential Pair -	MIPI DPHY
10	MIPI1_D2P	OUTPUT	MIPI Data Lane 2 Differential Pair +	MIPI DPHY
11	MIPI1_D2N	OUTPUT	MIPI Data Lane 2 Differential Pair -	MIPI DPHY
12	XMASTER	INPUT	XMASTER/SLAVE Select	1.8V
13	CAM_SCL	INPUT	1.8V IO Camera I2C SCL signal (Pulled up to 1.8V with 1kΩ on board)	1.8V

Pin No	Signal Name	Pin Type	Description	Voltage Level
14	CAM_SDA	I/O	1.8V IO Camera I2C SDA signal (Pulled up to 1.8V with 1kΩ on board)	1.8V
15	RSTN	INPUT	1.8V IO camera reset signal (Active Low) (Pulled up to 1.8V with 10kΩ on board)	1.8V
16	CLK_TMP	INPUT	Reserved CLK for camera (Provided from host side)	1.8V
17	TOUT0	OUTPUT	Pulse0 output pin	1.8V
18	XTRIG	INPUT	Trigger Signal	1.8V
19	XHS	I/O	Horizontal sync signal	1.8V
20	TOUT1	OUTPUT	Pulse1 output pin	1.8V
21	XVS	I/O	Vertical sync signal	1.8V
22	TOUT2	OUTPUT	Pulse2 output pin	1.8V
23	-	-	-	-
24	-	-	-	-
25	-	-	-	-
26	-	-	-	-
27	-	-	-	-
28	VCC_3V3	POWER	3.3V power supply (Provided from host side)	3.3V
29	VCC_3V3	POWER	3.3V power supply (Provided from host side)	3.3V
30	VCC_3V3	POWER	3.3V power supply (Provided from host side)	3.3V

- REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	23 Jun 2026

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