LEOPARD IMAGING

LI-IMX779-MIPI-140H

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INTRODUCTION

The LI-IMX779-MIPI-140H is a MIPI CSI-2 camera equipped with Sony diagonal 6.42 mm (Type 1/2.8) CMOS image Color sensor IMX779 with a square pixel array and 8.45 M effective pixels. It could achieve high sensitivity and low dark current through the adoption of R, G and B primary color mosaic filters. This camera outputs 10-bit / 12-bit RAW data.

SPECIFICATIONS

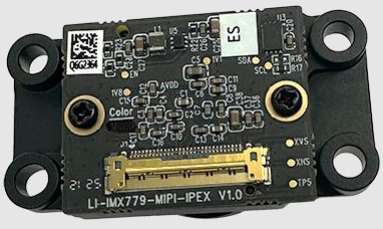
Sensor	Sony Diagonal 6.42 mm STARVIS Sensor IMX779
Optical Format	1/2.8"
Pixel Size	1.45 µm x 1.45 µm
Color / Mono	Color sensor
Shutter Type	Electronic shutter with variable charge-integration time
Active pixels	3856 (H) x 2176 (V)
Output Format	10-bit / 12-bit RAW data
Maximum Frame Rate	10-bit: 90 fps @ All-pixel scan mode 12-bit: 60 fps @ All-pixel scan mode
ISP	Not included
Interface	4-lane MIPI CSI-2
Connector	30-PIN IPEX MIPI Connector
Power Consumption	91 mA @ 3.3 VDC (20 fps @ 3856 x 2192)
Operating Temp	TBD
Storage Temp	TBD
Weight	~ 18 g

APPLICATIONS

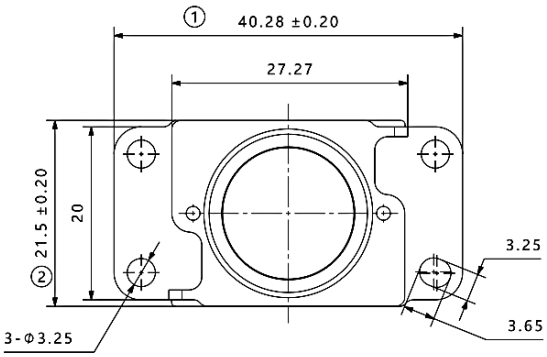
- Security camera

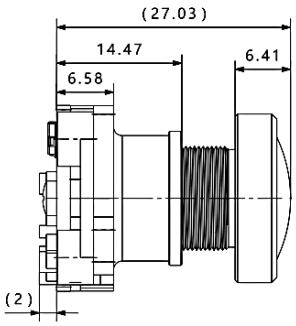
LENS SPECIFICATIONS

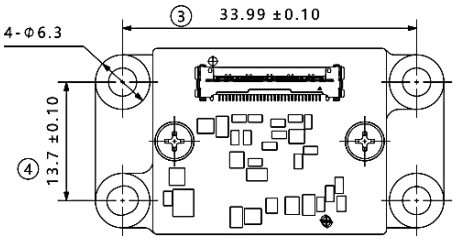
Focal Length	2.3 mm
Aperture, F/#	2.3
Field of View (FOV)	140˚ horizontal
Lens Mount	M12 x P0.5

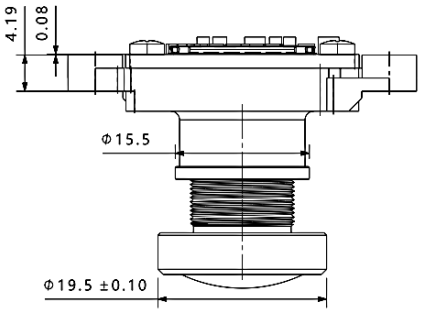


DIMENSIONS









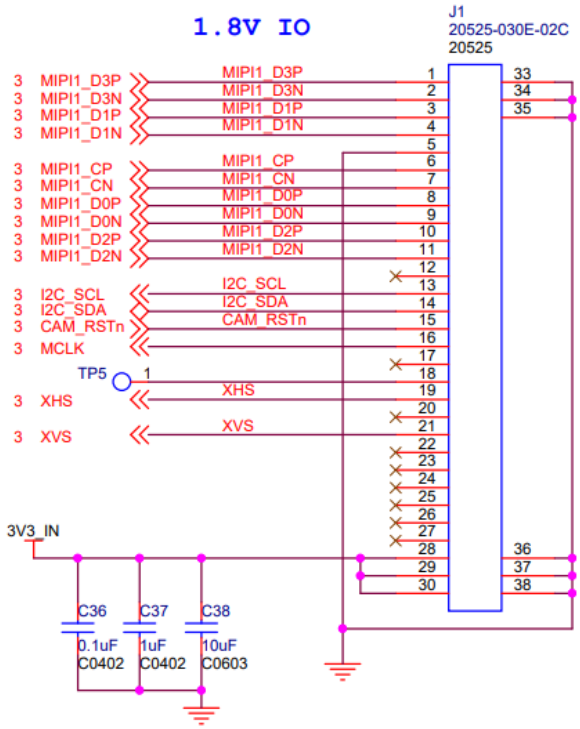
NOTE:

- ⊗ 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 Connector Interface J1

- Connector Part#: 20525-030E-02
- Number of Positions: 30
- Mating I-PEX Cable: FAW-1233-03
- Sensor I2C Address: 0X1A (7-bit)
- External Power Supply: 3.3V



Connector Pinout

Pin No	Signal Name	Pin Type	Description	Voltage Level
1	MIPI1_D3P	OUTPUT	MIPI Clock Data3 Differential Pair +	MIPI DPHY
2	MIPI1_D3N	OUTPUT	MIPI Clock Data3 Differential Pair -	MIPI DPHY
3	MIPI1_D1P	OUTPUT	MIPI Clock Data1 Differential Pair +	MIPI DPHY
4	MIPI1_D1N	OUTPUT	MIPI Clock Data1 Differential Pair -	MIPI DPHY
5	GND	POWER	Ground signal for digital and analog	-
6	MIPI1_CP	OUTPUT	MIPI Clock Lane Differential Pair +	MIPI DPHY
7	MIPI1_CN	OUTPUT	MIPI Clock Lane Differential Pair -	MIPI DPHY
8	MIPI1_D0P	OUTPUT	MIPI Clock Data0 Differential Pair +	MIPI DPHY
9	MIPI1_D0N	OUTPUT	MIPI Clock Data0 Differential Pair -	MIPI DPHY
10	MIPI1_D2P	OUTPUT	MIPI Clock Data2 Differential Pair +	MIPI DPHY
11	MIPI1_D2N	OUTPUT	MIPI Clock Data2 Differential Pair -	MIPI DPHY
12	-	-	-	-
13	I2C_SCL	INPUT	1.8V IO Camera I2C SCL signal (Pulled up to 1.8V with 1.5k)	1.8V

Pin No	Signal Name	Pin Type	Description	Voltage Level
14	I2C_SDA	I/O	1.8V IO Camera I2C SDA signal (Pulled up to 1.8V with 1.5k)	1.8V
15	CAM_RSTn	INPUT	1.8V IO camera reset signal (Pulled up to 1.8V with 2.2k)	1.8V
16	MCLK	INPUT	Reserved CLK for camera	1.8V
17	-	-	-	-
18	TP5	I/O	Reserved test point	-
19	XHS	I/O	Horizontal sync signal	1.8V
20	-	-	-	-
21	XVS	I/O	Vertical sync signal	1.8V
22	-	-	-	-
23	-	-	-	-
24	-	-	-	-
25	-	-	-	-
26	-	-	-	-
27	-	-	-	-
28	3V3_IN	POWER	3.3V power supply	3.3V
29	3V3_IN	POWER	3.3V power supply	3.3V
30	3V3_IN	POWER	3.3V power supply	3.3V

REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	06 Aug 2025

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