



LEOPARD
IMAGING

LI-IMX568-MIPI-FKR-IPX-105H



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INTRODUCTION

The LI-IMX568-MIPI-FKR-IPX-105H is a MIPI CSI-2 stack camera equipped with Sony diagonal 8.8 mm (Type 1/1.8) CMOS solid-state Pregius S image sensor IMX568. This camera outputs RAW image data.

KEY FEATURES

Sensor	Sony Diagonal 8.8 mm CMOS Pregius S Image Sensor IMX568
Optical Format	1/1.8"
Shutter	Global shutter
Resolution	2472 (H) × 2064 (V) (active pixels)
Pixel Size	2.74 × 2.74 μm
Data Format	8-bit / 10-bit / 12-bit RAW
Color / Mono	Color sensor
Maximum Frame Rate	8-bit, 96.2 fps @ all-pixel scan mode 10-bit, 79.1 fps @ all-pixel scan mode 12-bit, 67.2 fps @ all-pixel scan mode
Interface	4-lane MIPI CSI-2
Power Consumption	188 mA @ 3.3 VDC (2472 x 2064 @ 42 fps)
Operating Temp	TBD
Storage Temp	TBD
Weight	~ 28 g
Part#	LI-IMX568-MIPI-FKR-IPX-105H

APPLICATIONS

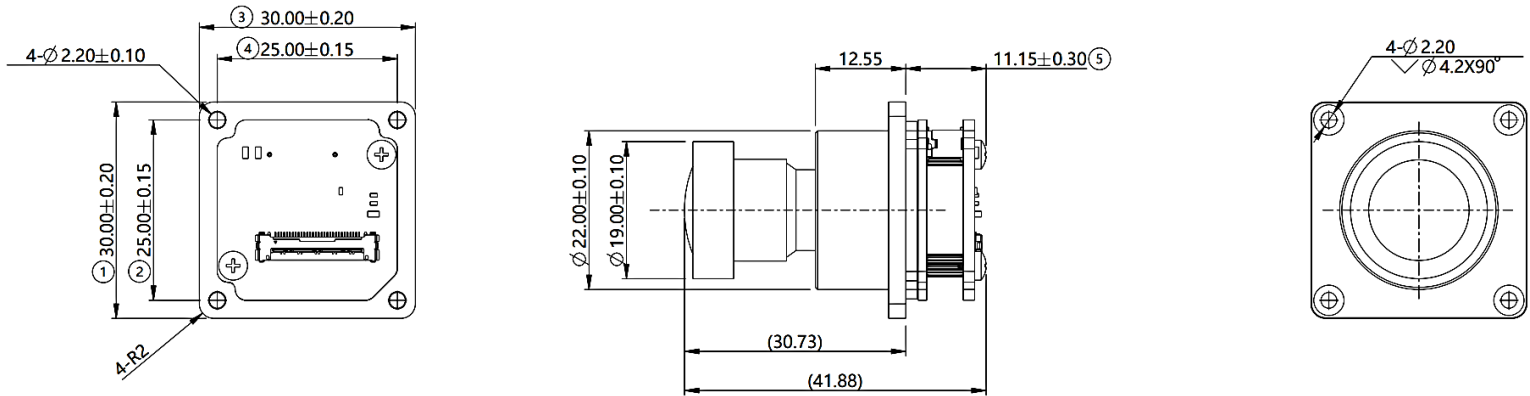
- FA Cameras
- ITS Cameras
- IoT
- Robots

LENS SPECIFICATIONS

Effective Focal Length	3.939 mm
Aperture, F/#	2.20 ± 5 %
Field of View (FOV)	105° horizontal
TV Distortion	-19.21 %
Relative Illumination	41 % @ 1.0F
Lens Mount	M12 x P0.5



DIMENSIONS



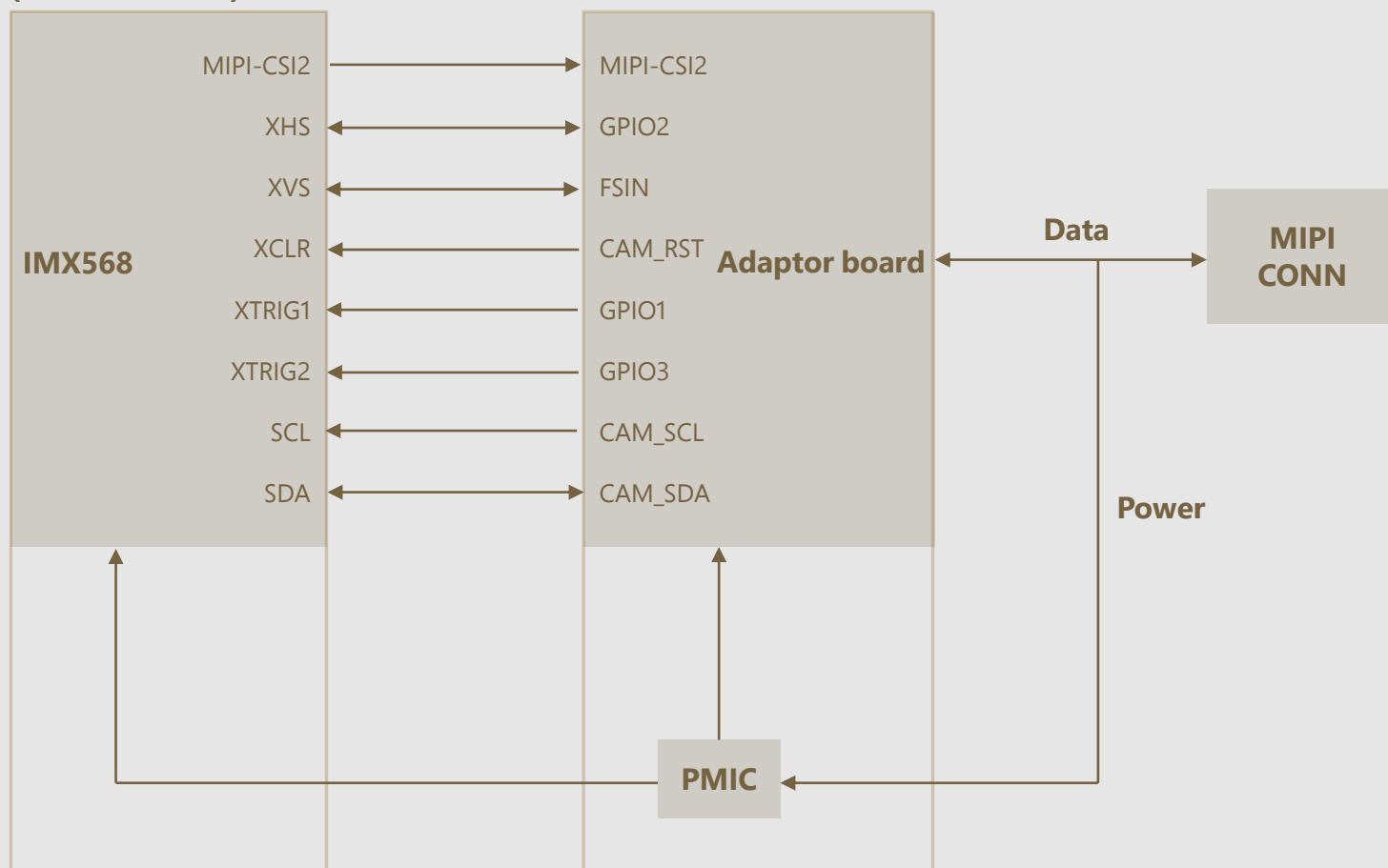
NOTE:

- ⊗ marked are important sizes.
- Tolerances for others unmarked refer to the tolerance table.
- 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				

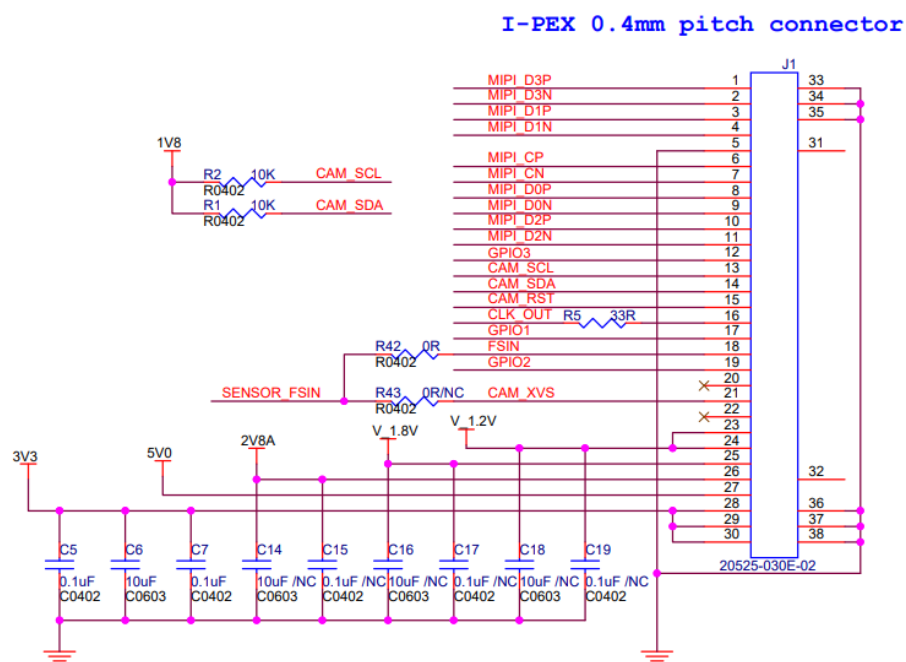
SYSTEM BLOCK DIAGRAM

(I2C: 0x3D 7-bit)



INTERFACE J1

- Connector Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX Cable: FAW-1233-03
- Sensor I2C Address: 0X3D (7-bit)
- External Power Supply: 3.3V



PINOUT DETAILS OF J1

Pin No	Signal Name	Pin Type	Description	Voltage Level
1	MIPI_D3P	OUTPUT	MIPI Clock Data3 Differential Pair +	1.8V
2	MIPI_D3N	OUTPUT	MIPI Clock Data3 Differential Pair -	1.8V
3	MIPI_D1P	OUTPUT	MIPI Clock Data1 Differential Pair +	1.8V
4	MIPI_D1N	OUTPUT	MIPI Clock Data1 Differential Pair -	1.8V
5	GND	POWER	Ground signal for digital and analog	-
6	MIPI_CP	OUTPUT	MIPI Clock Lane Differential Pair +	1.8V
7	MIPI_CN	OUTPUT	MIPI Clock Lane Differential Pair -	1.8V
8	MIPI_D0P	OUTPUT	MIPI Clock Data0 Differential Pair +	1.8V
9	MIPI_D0N	OUTPUT	MIPI Clock Data0 Differential Pair -	1.8V
10	MIPI_D2P	OUTPUT	MIPI Clock Data2 Differential Pair +	1.8V
11	MIPI_D2N	OUTPUT	MIPI Clock Data2 Differential Pair -	1.8V
12	GPIO3	INPUT	Trigger2 input signal	1.8V
13	CAM_SCL	INPUT	1.8V IO Camera I2C SCL signal with 1.3kΩ pull-up.	1.8V

Pin No	Signal Name	Pin Type	Description	Voltage Level
14	CAM_SDA	I/O	1.8V IO Camera I2C SDA signal with 1.3k Ω pull-up.	1.8V
15	CAM_RST	INPUT	1.8V IO Camera reset signal (Active Low)	1.8V
16	CLK_OUT	INPUT	Reserved CLK for camera	1.8V
17	GPIO1	INPUT	Trigger1 input signal	1.8V
18	FSIN	I/O	Vertical sync signal	1.8V
19	GPIO2	I/O	Horizontal sync signal	1.8V
20	-	-	-	-
21	CAM_XVS	I/O	Vertical sync signal (Reserved)	1.8V
22	-	-	-	-
23	V_1.2V	POWER	Not Used	-
24	V_1.2V	POWER	Not Used	-
25	V_1.8V	POWER	Not Used	-
26	2V8A	POWER	Not Used	-
27	5V0	POWER	Not Used	-
28	3V3	POWER	3.3V power supply	3.3V
29	3V3	POWER	3.3V power supply	3.3V
30	3V3	POWER	3.3V power supply	3.3V

● REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	27 Jun 2025

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