



LI-OG01A1B-MIPI-146D



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INTRODUCTION

The LI-OG01A1B-MIPI-146D is equipped with OMNIVISION 1/5" 1.3MP backside-illuminated (BSI) global shutter image sensor OG01A1B which combines PureCel®Plus-S pixel technology and Nyxel® near-infrared (NIR) technology to enable optimal performance and precision. This camera outputs 8-bit / 10-bit RAW data.

SPECIFICATIONS

Sensor	OMNIVISION b&w CMOS 1.3MP Image Sensor OG01A1B
Optical Format	1/5"
Resolution	1280 (H) x 1024 (V) (active pixels)
Pixel Size	2.2 x 2.2 μ m
Shutter	Global shutter
Output Format	8-bit / 10-bit RAW data
Color / Mono	Monochrome
Maximum Frame Rate	120 fps @ 1280 x 1024 240 fps @ 640 x 480
Interface	2-lane MIPI CSI-2
Power Consumption	Approx. 200 mw
Operating Temp	-20°C ~ +70°C
Storage Temp	-20°C ~ +80°C
Weight	~ 0.9 g
Part#	LI-OG01A1B-MIPI-146D

APPLICATIONS

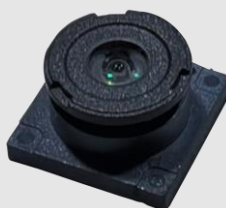
- Biometric Authentication
- Drones
- 3D Imaging
- Industrial Bar Code Scanning
- Machine Vision
- Industrial Automation
- AR / VR
- Gaming

LENS SPECIFICATIONS

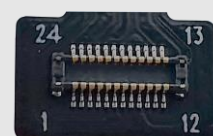
Focusing Range	10 cm ~ Infinity
Focal Length	1.28 mm $\pm$ 5%
Aperture, F/#	2.3 $\pm$ 5%
IR Filter	No
Field of View (FOV)	146° diagonal
	119° horizontal
	93° vertical
TV Distortion	< -22.9%



Back

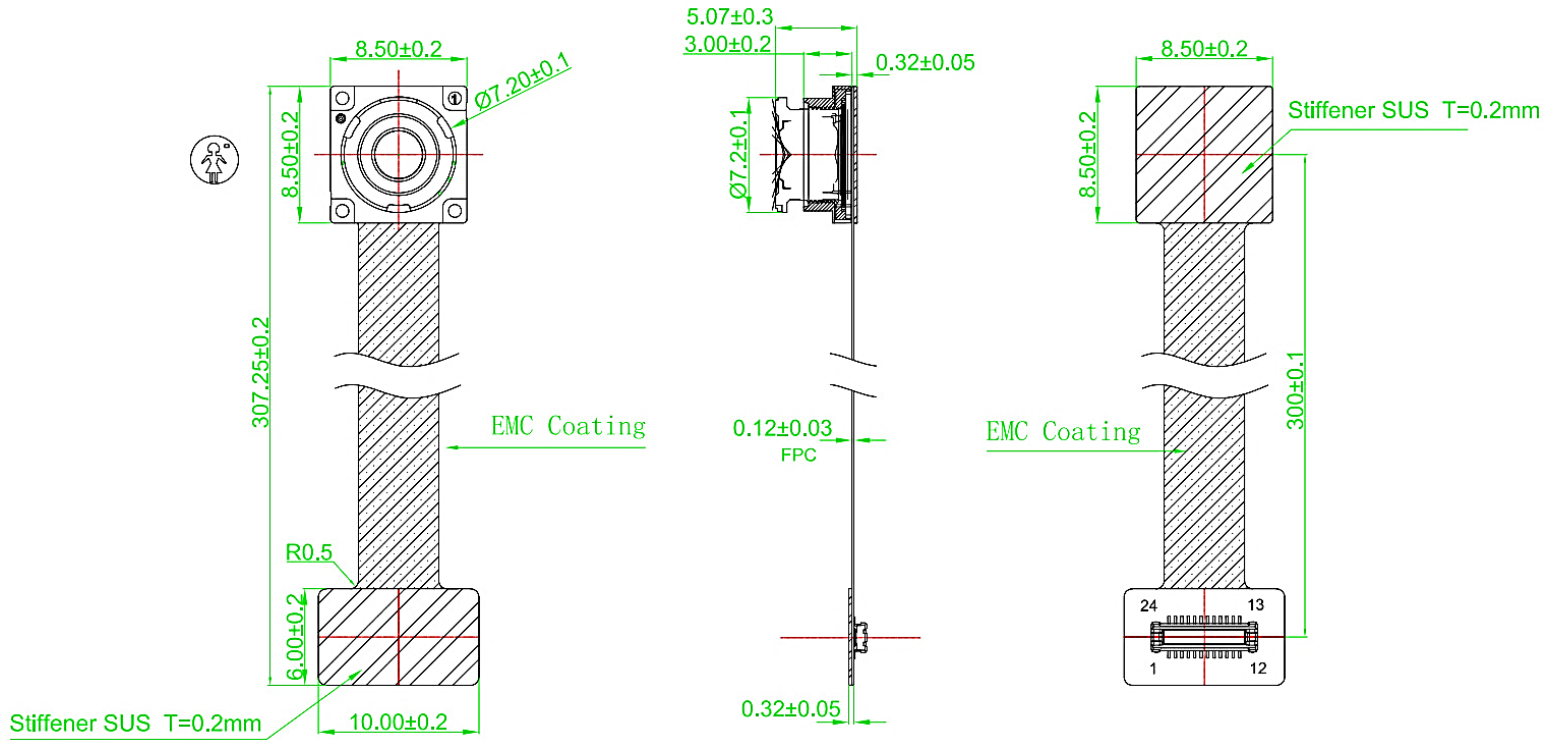


Camera



Connector

DIMENSIONS



NOTE:

- Basic tolerance: ± 0.1 mm
- Label with "*": important dimension
- Image direction register uses default settings

Unit: mm

No.	Item	QTY	Description
1	FPC	1	LI-OG01A1B-MIPI-146D V1.0
2	Sensor	1	OG01A1B
3	Connector	1	AXT624124

PIN ASSIGNMENT

NO.	Name	Type	Description
1	SDA	I/O	SCCB data
2	SCL	Input	SCCB clock
3	DOVDD1.8V	Power	Power for I/O circuit
4	MCP	Output	MIPI TX clock lane positive output (MC0C of CPHY)
5	MCN	Output	MIPI TX clock lane negative output (MC1A of CPHY)
6	DGND	Ground	Ground for I/O circuit
7	MDP0	Output	MIPI TX data lane positive output (MC0A of CPHY)
8	MDN0	Output	MIPI TX data lane negative output (MC0B of CPHY)
9	DGND	Ground	Ground for I/O circuit
10	MDP1	Output	MIPI TX data lane positive output (MC1B of CPHY)
11	MDN1	Output	MIPI TX data lane negative output (MC1C of CPHY)
12	DGND	Ground	Ground for I/O circuit
13	NC		
14	GPIO	I/O	General purpose I/O
15	AGND	Ground	Ground for analog circuit
16	FSIN	I/O	FSIN I/O
17	SID	Input	Chip ID selection
18	DVDD1.2V	Power	Power for digital circuit
19	XCLK	Input	System input clock
20	STROBE	Output	Strobe output
21	RESET	Input	XSHUTDN (active low)
22	AVDD2.8V	Power	Power for analog circuit
23	NC		
24	DGND	Ground	Ground for I/O circuit

● REVISION HISTORY

Revision	Description	Release Date
1.0	First release.	18 Sep 2023

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