

LI-OV2312-MIPI-76H SPECIFICATION

**Rev 1.1
Leopard Imaging Inc.**

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LI-OV2312-MIPI-76H SPECIFICATION

Version History

Version	Description	Release Date
1.0	First Release.	10. Jan. 2021
1.1	Deleted info quoted from sensor spec.	20. May. 2022

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Key Information

Module Part#		LI-OV2312-MIPI-76H
Module Size		39.75 (L) x 22 (W) x 16.93 (H) mm
Sensor Type		OV2312 RGB-IR sensor
Array Size		1600 (H) x 1300 (V)
Power Supply	Core	1.2V (nominal)
	Analog	2.8V (nominal)
	I/O	1.8V (nominal)
Lens		1/2.9"
F/No.		2.6
Focal Length		2.65 mm
View Angle		76° (H)
TV Distortion		< -1%
Focusing Distance		150 mm
Sensitivity		114Ke ⁻ / (uW.cm ⁻² .sec) @ 850 nm 54Ke ⁻ / (uW.cm ⁻² .sec) @ 940 nm
Pixel Size		3 x 3µm
IR Cut Filter		No
Temperature Range	Operating	-10°C to +60°C
Output Formats		10-bit RGB-IR RAW
Maximum Image Transfer Rate		1600 x 1300 @ 60 fps
Dynamic Range		68 dB
Lens Chief Ray Angle		15° linear
Input Clock Frequency		6 ~ 27 MHz
Power	Active	190 mW
Requirement	XSHUTDOWN	< 25 uW
Max S/N Ratio		37.4 dB
Shutter		Global shutter
Output Interface		2-lane MIPI interface
Image Area		4857.7 x 3955.9 µm
Package Dimensions		7219 x 6157 µm



Pin Assignment

No.	Name	Pin Type	Description
1	SDA	I/O	SCCB data
2	SCL	Input	SCCB input clock
3	DOVDD1.8V	Power	Power for I/O circuit
4	MCP	Output	MIPI clock positive output
5	MCN	Output	MIPI clock negative output
6	DGND	Ground	
7	MDP0	Output	MIPI data positive output
8	MDN0	Output	MIPI data negative output
9	DGND	Ground	
10	MDP1	Output	MIPI data positive output
11	MDN1	Output	MIPI data negative output
12	DGND	Ground	
13	PWM	I/O	PWM output
14	ATEST	Reference	Analog test
15	AGND	Ground	
16	FSIN	I/O	Frame sync input
17	SID	Input	Chip ID selection
18	DVDD1.2V	Power	Power for digital circuit
19	XCLK	Input	System input clock
20	STROBE	I/O	Strobe output
21	XSHUTDOWN	Input	Reset and power down (active low)
22	AVDD2.8	Power	Analog power
23	ULPM	Output	ULPM open-drain output
24	DGND	Ground	

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Mechanical Diagram

ROHS

LI-OV2312-MIPI-76H

QR-RD-F002 Rev-A
 advert:
 basic tolerance: ±0.1mm
 label have "*" is emphasis dimension

Optical Lens Specification:
 Focusing Distance 150mm
 Focal Length 3mm
 F Number 2.6
 Fov(H) 76°
 TV Distortion <-1%

TOP VIEW

SIDE VIEW

BOTTOM VIEW

Note:# Image direction register use default settings.
 Output format: RAW No Filter FPC 4 Layer
 Sensor : RGB-IR sensor

NO	ITEM	QTY	DESCRIPTION
1	Steel	2	
2	FPC	1	
3	TAKING LENS	1	
4	Sensor	1	OV2312
5	Connector	1	AXT624124

1	SDA
2	SCL
3	D0V0D1.8V
4	MCP
5	MGN
6	DCND
7	MP-P0
8	MDND
9	DCND
10	MP-P1
11	MDN1
12	DCND
13	PWM
14	A1EST
15	ACND
16	FSN
17	SID
18	DV0D1.2V
19	XCLK
20	STROBE
21	XSHUTDOWN
22	AVDD2.8V
23	UP.PW
24	DCND

NO	Change item	Version	Date
	Original	V1.0	2017-09-02
	Change Lens	V1.1	2020-11-05

Leopard Imaging Inc.

Draft: Brown Date: 2020-11-05
 Check: Brown Date: 2020-11-05
 Approval: Date:

Project Name:
LI-OV2312-MIPI-76H

Proportion: 1:1 Unit: mm