

LI-OV5640-MIPI-AF SPECIFICATION

**Rev 2.2
Leopard Imaging Inc.**

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Version History

Version	Description	Release Date
1.0	First Release.	9. Mar. 2014
2.0	Updated Module to V2.0.	13. Oct. 2017
2.1	Updated Module to V2.1.	20. Dec. 2019
2.2	Deleted info quoted from sensor spec.	20. May. 2022

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Key Information

Module Part#		LI-OV5640-MIPI-AF
Module Size		36.25 (L) x 8.50 (W) x 5.50 (H) mm
Sensor Type		OV5640
Array Size	QSXGA	2592 (H) x 1944 (V)
Power Supply	Core	1.5V +/- 5% (with embedded 1.5V regulator)
	Analog	2.6 ~ 3.0V (2.8V typical)
	I/O	1.8V / 2.8V
Lens		1/4"
Focus (F.NO)		2.6
View Angle		65° +/- 3°
Image Area		3673.6 x 2738.4 μm
Object Distance		10 cm ~ Infinity
Sensitivity		TBD
Pixel Size		1.4 x 1.4 μm
IR Cut Filter		650 nm
Sensor Temperature Range	Operating	-30°C to 70°C
	Stable Image	0°C to 50°C
Output Formats		8-bit / 10-bit RGB RAW output
Maximum Image Transfer Rate		QSXGA (2592 x 1944): 15 fps; 1080P: 30 fps; 1280 x 960: 45 fps; 720P: 60 fps; VGA (640 x 480): 90 fps; QVGA (320 x 240): 120 fps
Dynamic Range		TBD
Substrate		FPC
IC Package		71-pin CSP3
Power Requirement	Active	TBD
	Standby	TBD
Fixed Pattern Noise		TBD
Shutter		Rolling shutter / Frame exposure
Dark Current		TBD
Package Dimensions		5985 x 5835 μm

Pin Assignment

No.	Name	Pin Type	Description
1	STROBE	I/O	Strobe output or scan chain test mode input
2	AGND	Ground	Ground for analog circuit
3	SDA	I/O	SCCB data
4	AVDD	Power	Analog power
5	SCL	Input	SCCB input clock
6	RESET	Input	Reset (active low with internal pull-up resistor)
7	NC		
8	PWDN	Input	Power down (active high with internal pull- down resistor)
9	NC		
10	DVDD1.5V	Power	Power for digital core
11	DOVDD1.8V/2.8V	Power	Power for I/O circuit
12	MDP1	I/O	DVP data output port 9/MIPI TX second data lane positive output
13	XCLK	Input	System input clock
14	MDN1	I/O	DVP data output port 8/MIPI TX second data lane negative output
15	DGND	Ground	Digital Ground
16	MCP	I/O	DVP data output port 7/MIPI TX clock lane positive output
17	NC		
18	MCN	I/O	DVP data output port 6/MIPI TX clock lane negative output
19	NC		
20	MDP0	I/O	DVP data output port 5/MIPI TX first data lane positive output
21	NC		
22	MDN0	I/O	DVP data output port 4/MIPI TX first data lane negative output
23	AF-VCC2.8V	Power	Power for analog circuit
24	AF-AGND	Ground	Ground for analog circuit

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Mechanical Diagram

