LEOPARD IMAGING

LI-OV64B40-MIPI-68H

Address:
910 Auburn Ct
Fremont, CA 94538
USA

Phone:
+1 (408)263-0988
Fax:
+1 (408)217-1960

Sales:
sales@leopardimaging.com
Support:
support@leopardimaging.com

INTRODUCTION

The LI-OV64B40-MIPI-68H camera module incorporates the OmniVision 1/2" color 64MP CMOS sensor OV64B40, with PureCel®Plus-S technology. The camera captures 8K video, offering excellent low-light performance with minimal noise and smearing for clear, stable images.

SPECIFICATIONS

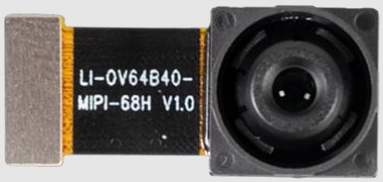
Maximum Frame Rate	15 fps @ 9248 × 6944
Output Format	10-bit RAW
Focusing Distance	4.5 m ~ Infinity
Sensor	OmniVision 1/2" color 64MP CMOS sensor OV64B40
Optical Format	1/2"
Pixel Size	0.702 µm × 0.702 µm
Color / Mono	Color
Dynamic DPC	Supported
Resolution	9248 (H) × 6944 (V)
Interface	4-lane MIPI CSI-2
Operating Temp	TBD
Storage Temp	TBD
Power Consumption	TBD
Weight	~ 1 g

APPLICATIONS

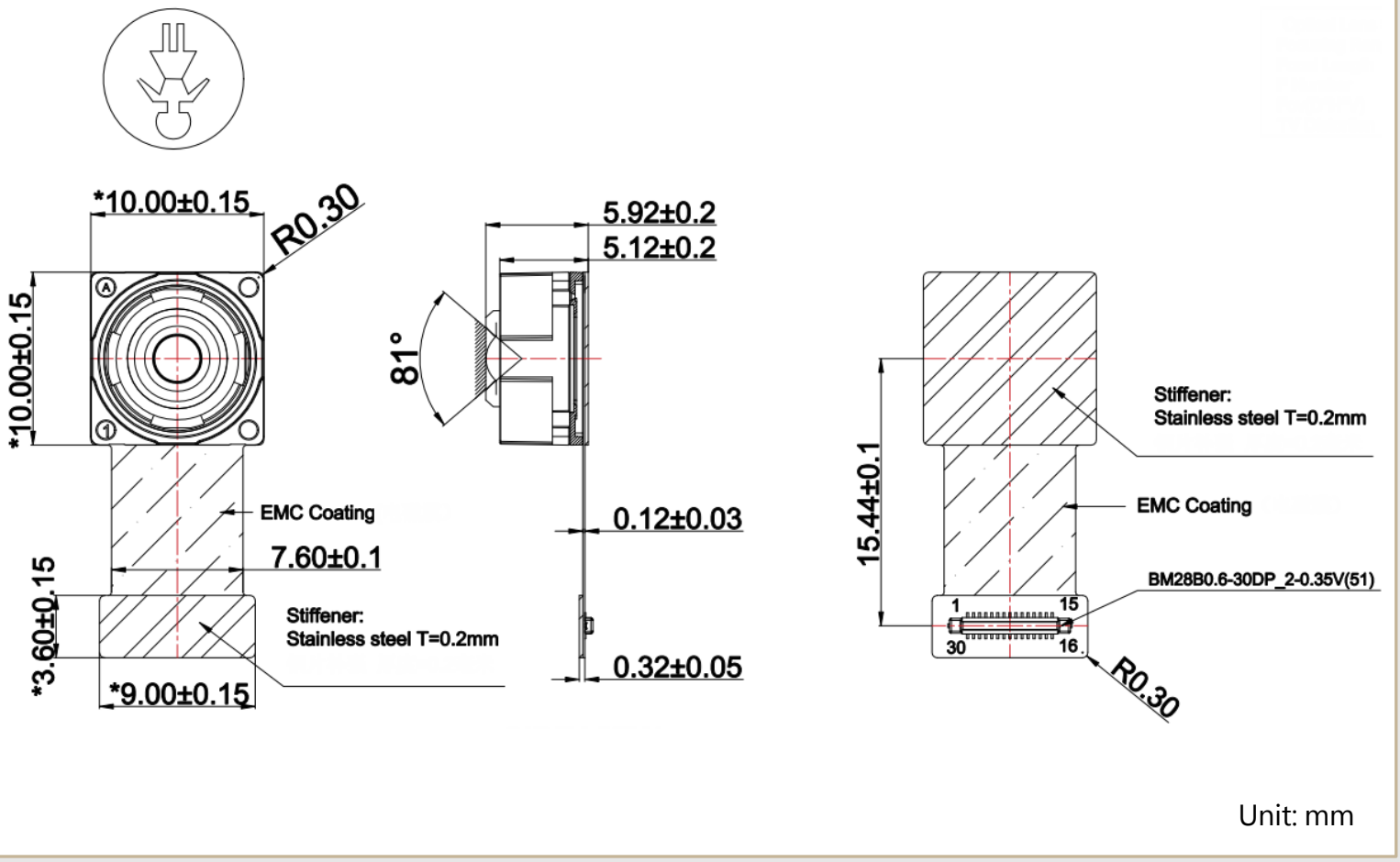
- Smart phones
- Video conferencing
- PC multimedia

LENS SPECIFICATIONS

Focal Length	4.74 mm
Aperture, F/#	1.79 ±5%
Field of View (FOV)	81° diagonal
	68° horizontal
	54° vertical
TV Distortion	< -1%



DIMENSIONS



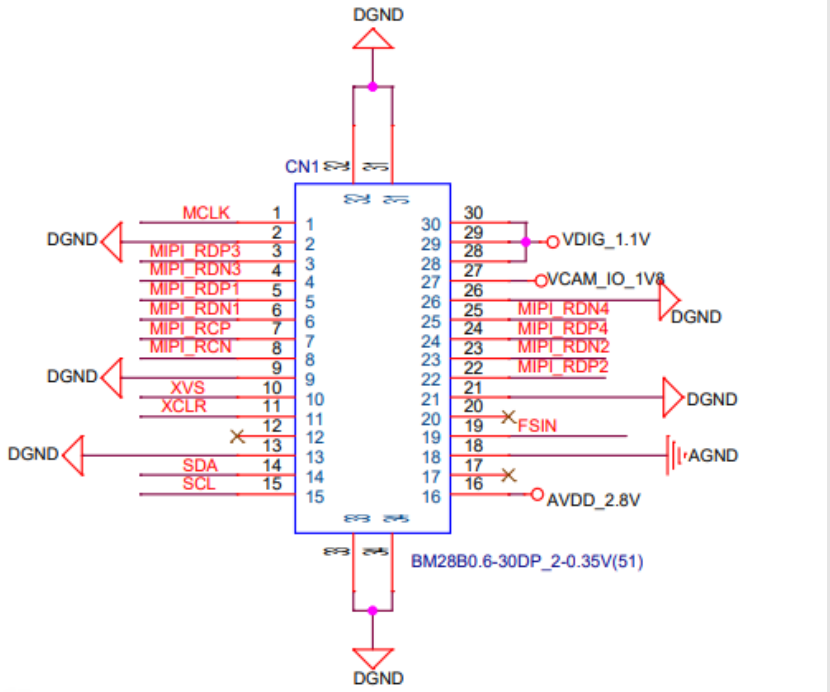
Unit: mm

MODULE CONNECTOR

- Connector Part#: BM28B0.6-30DP_2-0.35V(51)
- Number of Positions: 30
- Pitch: 0.35 mm
- Sensor slave address: 0x6C / 0x6D (W/R)
- External Power Supply: 1.1V, 1.8V, 2.8V

Note:

1. 1.1V, 1.8V, 2.8V can rise in any order.
2. XSHUTDOWN rising must occur after 1.1V, 1.8V, and 2.8V are stable.



Pinout Details

Pin No	Signal Name	Pin Type	Description	Voltage Level
1	MCLK	INPUT	Sensor clock signal (Must be provided from the host side)	1.8 V
2	DGND	GND	GND	GND
3	MIPI_RDP3	OUTPUT	MIPI Data Lane 3 Differential Pair +	MIPI DPHY
4	MIPI_RDN3	OUTPUT	MIPI Data Lane 3 Differential Pair -	MIPI DPHY
5	MIPI_RDP1	OUTPUT	MIPI Data Lane 1 Differential Pair +	MIPI DPHY
6	MIPI_RDN1	OUTPUT	MIPI Data Lane 1 Differential Pair -	MIPI DPHY
7	MIPI_RCP	OUTPUT	MIPI Clock Lane Differential Pair +	MIPI DPHY
8	MIPI_RCP	OUTPUT	MIPI Clock Lane Differential Pair -	MIPI DPHY
9	DGND	GND	GND	GND
10	XVS	OUTPUT	Video output vertical signal	1.8V
11	XCLR	INPUT	Reset and power down (active low with pull-down resistor)	1.8V
12	NC	-	-	-
13	DGND	GND	GND	GND

Pin No	Signal Name	Pin Type	Description	Voltage Level
14	SDA	I/O	1.8V IO Camera I2C SDA signal (Require pull-up at the host)	1.8V
15	SCL	INPUT	1.8V IO Camera I2C SCL signal (Require pull-up at the host)	1.8V
16	AVDD2.8V	INPUT	2.8V Analog Power Supply (Must be provided from the host side)	2.8V
17	NC	-	-	-
18	AGND	GND	GND	GND
19	FSIN	I/O	Frame sync input / vertical sync output	1.8V
20	NC	-	-	-
21	DGND	GND	GND	GND
22	MIPI_RDP2	OUTPUT	MIPI Data Lane 2 Differential Pair +	MIPI DPHY
23	MIPI_RDN2	OUTPUT	MIPI Data Lane 2 Differential Pair -	MIPI DPHY
24	MIPI_RDP4	OUTPUT	MIPI Data Lane 4 Differential Pair +	MIPI DPHY
25	MIPI_RDN4	OUTPUT	MIPI Data Lane 4 Differential Pair -	MIPI DPHY
26	DGND	GND	GND	GND
27	VCAM_IO_IV8	INPUT	1.8V I/O Power Supply (Must be provided from the host side)	1.8V
28	VDIG_1.1V	INPUT	1.1V Digital Power Supply (Must be provided from the host side)	1.1 V
29	VDIG_1.1V	INPUT	1.1V Digital Power Supply (Must be provided from the host side)	1.1 V
30	VDIG_1.1V	INPUT	1.1V Digital Power Supply (Must be provided from the host side)	1.1 V

REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	10 Sep 2026

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