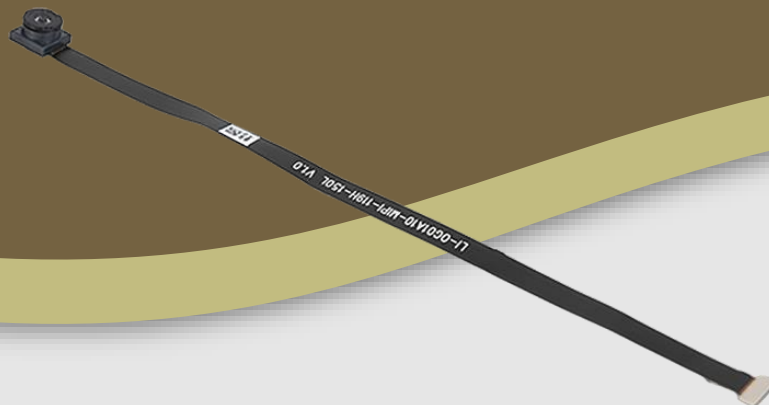




LEOPARD
IMAGING

LI-OG01A10-MIPI-119H-150L



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INTRODUCTION

The LI-OG01A10-MIPI-119H-150L is equipped with OmniVision 1.3MP CMOS digital image color sensor OG01A10 which features OmniPixel 3-GS technology and global shutter. This camera outputs RAW data.

SPECIFICATIONS

Maximum Frame Rate	120 fps @ 1280 x 1024 240 fps @ 640 x 480
Focusing Range	20 cm ~ Infinity
Output Format	8-bit / 10-bit RAW
Sensor	OmniVision 1.3MP CMOS digital image sensor OG01A10
Color / Mono	Color sensor
Optical Format	1/5"
Pixel Size	2.2 x 2.2 μ m
Shutter Type	Global shutter
Resolution	1280 (H) x 1024 (V) (active pixels)
Interface	2-lane MIPI D-PHY
Power Consumption	TBD
Operating Temp	TBD
Storage Temp	TBD
Weight	~ 1 g

APPLICATIONS

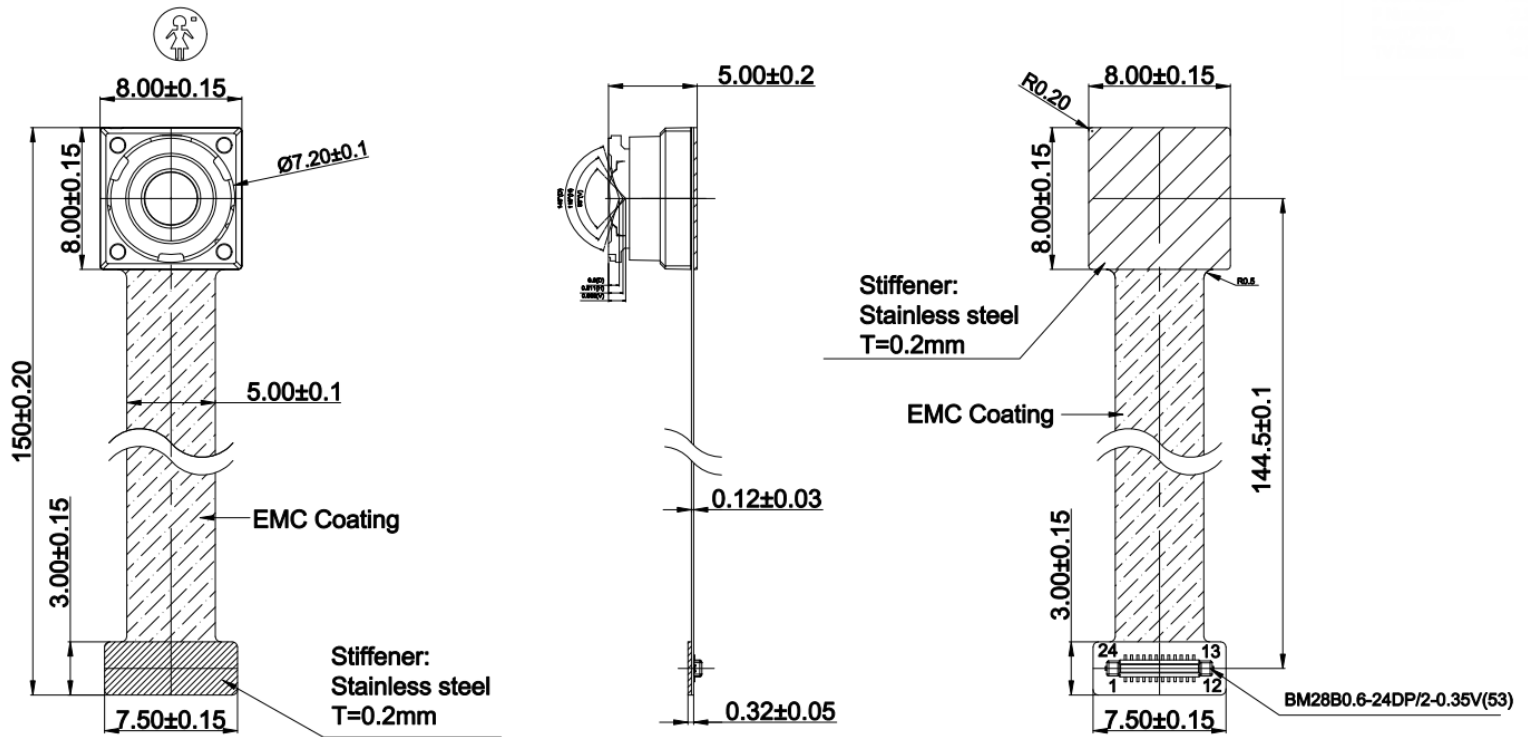
- Biometric Authentication
- Drones
- 3D Imaging
- Industrial Bar Code Scanning
- Machine Vision
- Industrial Automation
- AR / VR
- Gaming

LENS SPECIFICATIONS

Focal Length	1.28 $\pm$ 5 % mm
Aperture, F/#	2.3 $\pm$ 5 %
FOV	146° diagonal
	119° horizontal
	93° vertical
TV Distortion	< -22.9 %
Filter Type	650nm IR cut filter



DIMENSIONS



Unit: mm

MODULE CONNECTOR

■ Connector Part#:

BM28B0.6-24DP/2-0.35V(53)

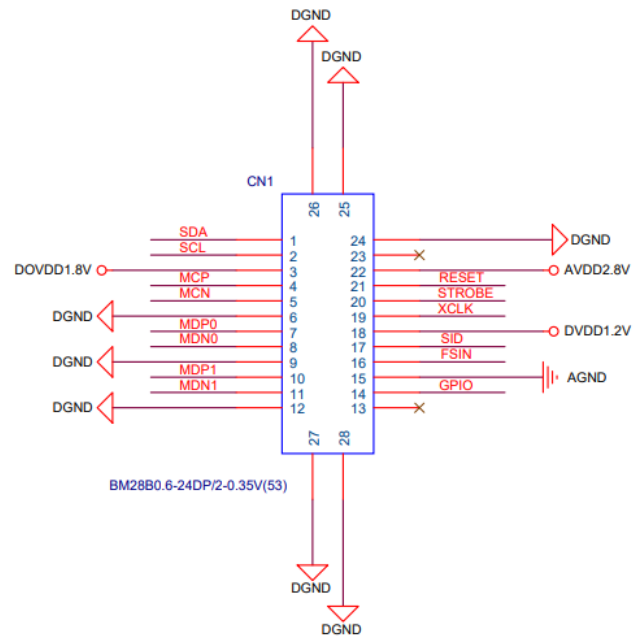
■ Number of Positions: 24

■ Pitch: 0.35 mm

■ Sensor I2C Address:

SID=0, 0XC0 (8-bit); SID=1, 0X6C (8-bit);

■ External Power Supply: 1.2V, 1.8V, 2.8V



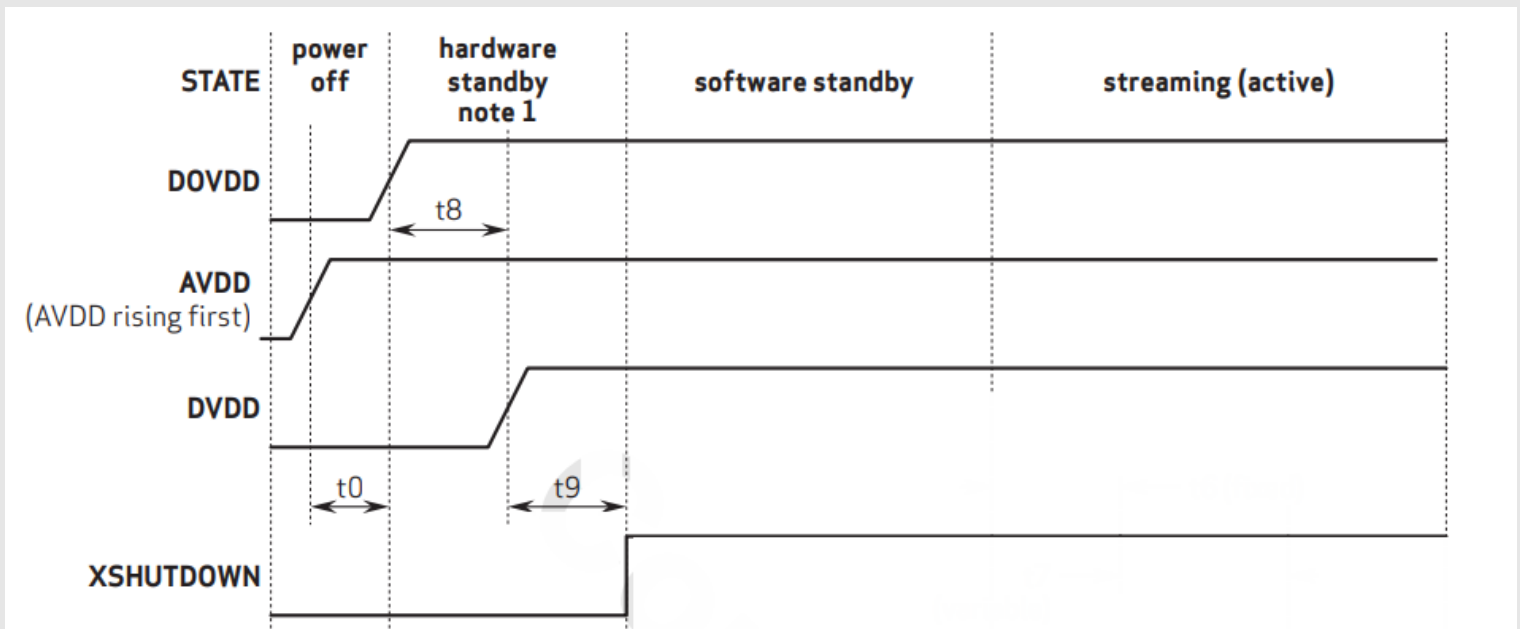
PINOUT DETAILS

Pin No	Signal Name	Pin Type	Description	Voltage Level
1	SDA	I/O	1.8V IO Camera I2C SDA signal (Require pull-up at the host)	1.8 V
2	SCL	INPUT	1.8V IO Camera I2C SCL signal (Require pull-up at the host)	1.8 V
3	DOVDD1.8V	POWER	1.8V I/O Power Supply (Must be provided from the host side)	1.8 V
4	MCP	OUTPUT	MIPI Clock Lane Differential Pair +	MIPI DPHY
5	MCN	OUTPUT	MIPI Clock Lane Differential Pair -	MIPI DPHY
6	DGND	POWER	Ground signal for digital	–
7	MDP0	OUTPUT	MIPI Data Lane 0 Differential Pair +	MIPI DPHY
8	MDN0	OUTPUT	MIPI Data Lane 0 Differential Pair -	MIPI DPHY
9	DGND	POWER	Ground signal for digital	–
10	MDP1	OUTPUT	MIPI Data Lane 1 Differential Pair +	MIPI DPHY
11	MDN1	OUTPUT	MIPI Data Lane 1 Differential Pair -	MIPI DPHY
12	DGND	POWER	Ground signal for digital	–
13	-	–	–	–

Pin No	Signal Name	Pin Type	Description	Voltage Level
14	GPIO	I/O	General Purpose I/O	1.8 V
15	AGND	POWER	Ground signal for analog	–
16	FSIN	I/O	Frame Sync Input / Vertical Sync Output	1.8 V
17	SID	INPUT	SCCB ID Select Input	1.8 V
18	DVDD1.2V	POWER	1.2V Digital Power Supply (Must be provided from the host side)	1.2 V
19	XCLK	INPUT	Sensor clock signal (Must be provided from the host side)	1.8 V
20	STROBE	OUTPUT	Strobe output	1.8 V
21	RESET	INPUT	Shutdown / Reset input (active low)	1.8 V
22	AVDD2.8V	POWER	2.8V Analog Power Supply (Must be provided from the host side)	2.8 V
23	–	–	–	–
24	DGND	POWER	Ground signal for digital	–

External Power supply Power On Sequence

1. AVDD – rises first
2. DOVDD – rises second
3. DVDD – rises third
4. XSHUTDOWN – pulled up after AVDD, DOVDD, and DVDD are stable



Item	Symbol	Min.	Max.	Unit
AVDD rising – DOVDD rising	t0	0	∞	ms
DOVDD to external DVDD rising	t8	0		ms
DVDD rising to XSHUTDOWN rising	t9	0		ms

Power Consumption

Symbol	Min.	Typ.	Max.	Unit
I_{DOVDD}		1	2	mA
I_{DVDD}		61	75	
I_{AVDD}		39	51	

• REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	11 Aug 2026

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