



# LI-OV2311-VCSEL-GMSL2-050H



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## INTRODUCTION

The LI-OV2311-VCSEL-GMSL2-050H is equipped with OmniVision 2MP CMOS image sensor OV2311, Maxim serializer MAX96717F and VCSEL. This camera outputs 1600 x 1300 RAW image data.

## SPECIFICATIONS

Sensor	OmniVision CMOS Image Sensor OV2311
Optical Format	1/2.9"
Resolution	1600 (H) x 1300 (V)
Pixel Size	3.0 x 3.0 $\mu\text{m}$
Output Format	10-bit RAW data
Color / Mono	Monochrome
Maximum Frame Rate	60 fps @ 1600 x 1300
Shutter	Global shutter
Serializer	Maxim MAX96717F
Power Supply Range	9 ~ 19 VDC
ISP	Not included
VCSEL	Included
VCSEL Power Connector	0395061002
FAKRA Connector	FAKRA Z TYPE
Power Consumption (1600 x 1300 @ 60 fps)	60 mA @ 12 VDC (Sensor) 80 mA @ 12 VDC (VCSEL)
Operating Temp	-40°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	~ 83 g
Part#	LI-OV2311-VCSEL-GMSL2-050H



## APPLICATIONS

- In Cabin Automotive
  - ◆ Gesture Recognition
  - ◆ Iris Scanning
  - ◆ Head Roll
  - ◆ Eye Tracking
  - ◆ Augmented Reality
  - ◆ Machine Vision

## LENS SPECIFICATIONS

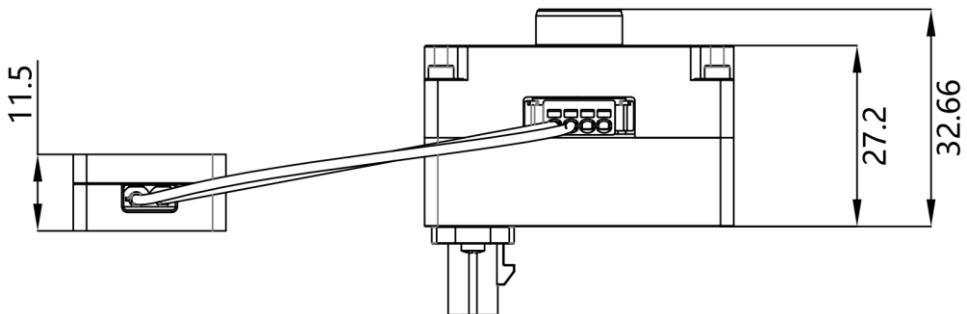
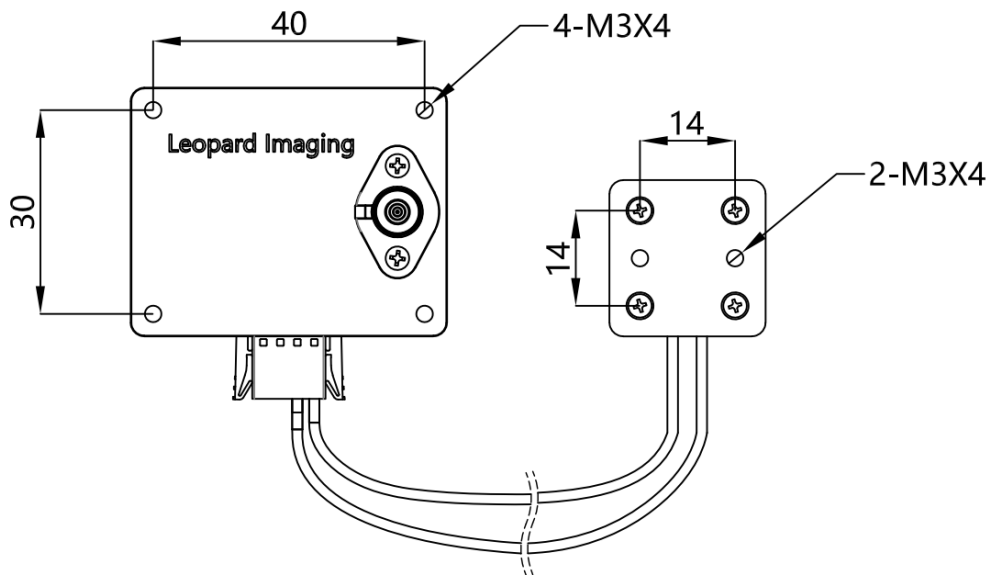
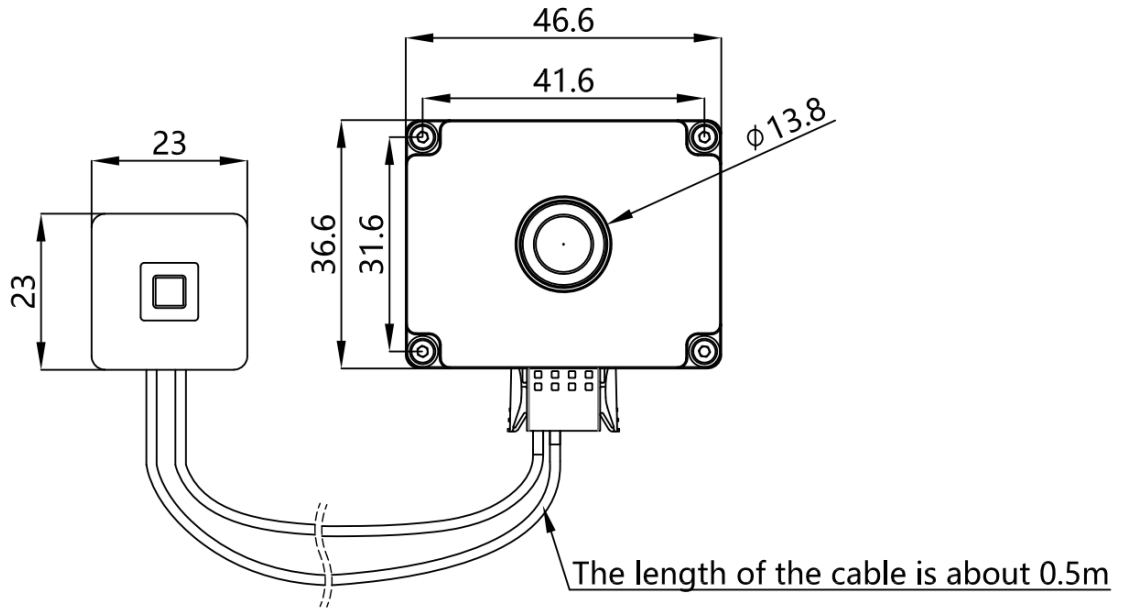
Focal Length	5.89 mm $\pm$ 5%
Aperture, F/#	1.8 $\pm$ 5%
Field of View (FOV)	49.8° horizontal
	39.8° vertical
Optical Distortion	-20.08%
Relative Illumination	> 90%
IR Filter	940 nm IR filter
Lens Mount	M12 x P0.5

## VCSEL SPECIFICATIONS

Wavelength	940 nm
Field of Illumination (FOI)	59° horizontal
	42° vertical
Power Supply	12 VDC
QTY on Camera	1

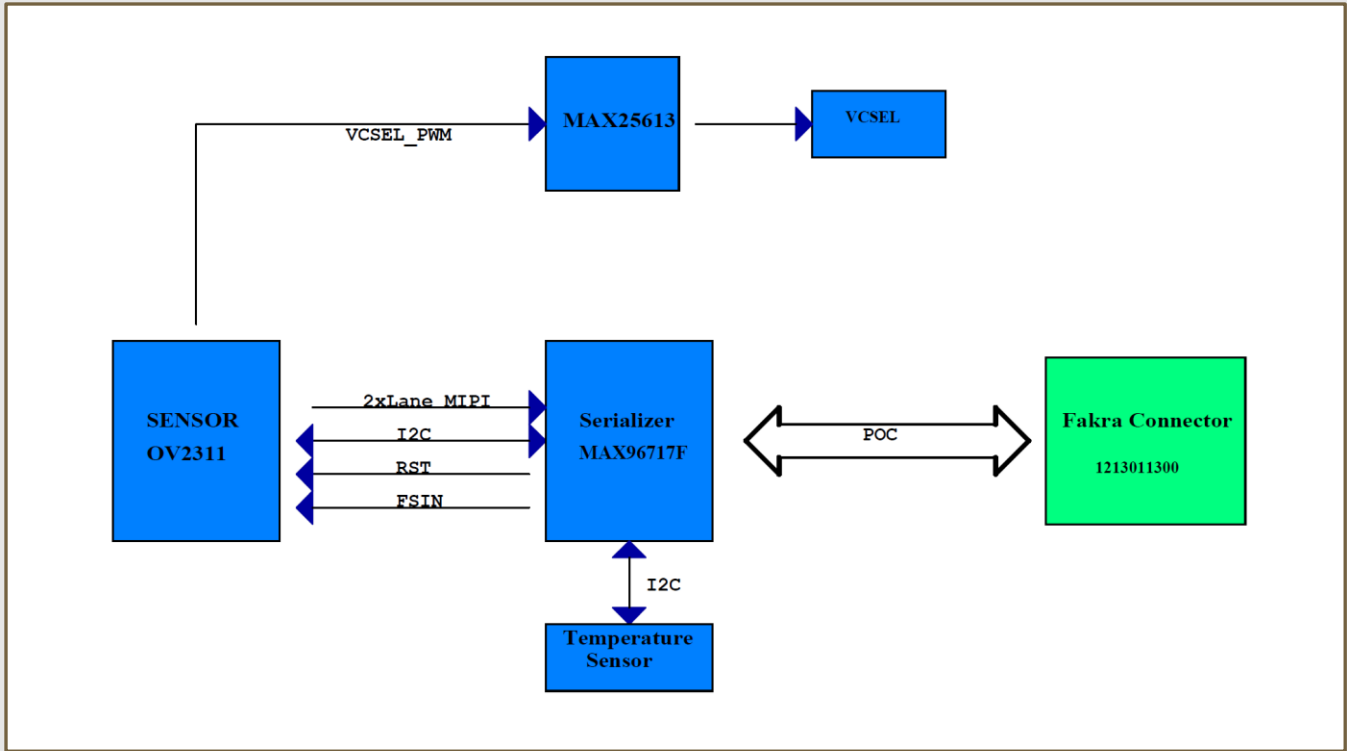


# DIMENSIONS

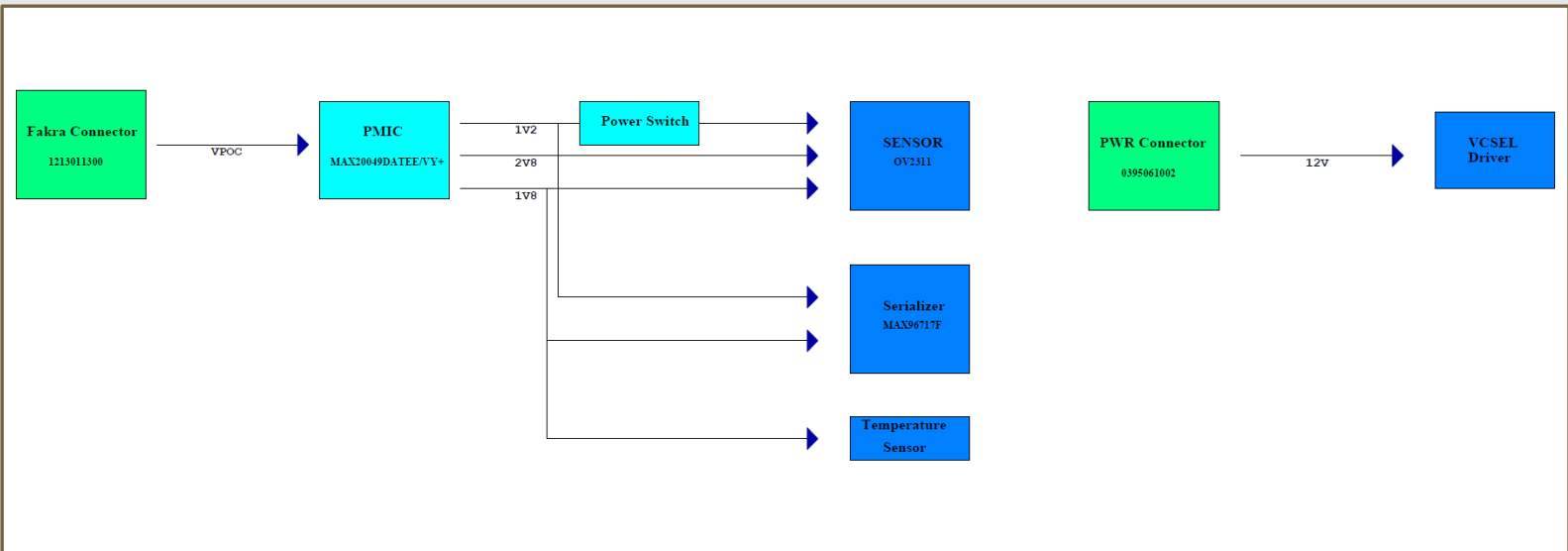


Unit: mm

# SYSTEM BLOCK DIAGRAM

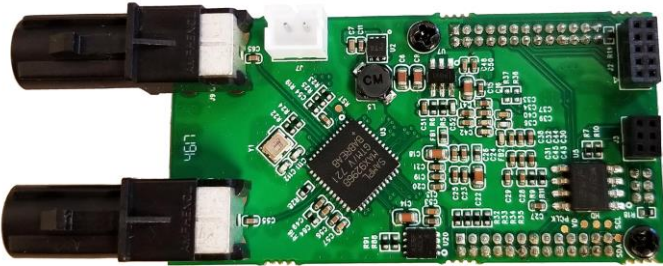


# POWER BLOCK DIAGRAM

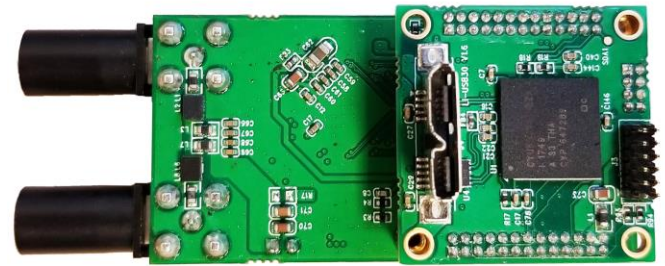


# USB3.0 CAMERA KIT

LI-USB30-DESER-GMSL2



Top View



Bottom View

LI-OV2311-VCSEL-GMSL2-050H can connect to LI-USB30-DESER-GMSL2 as a USB 3.0 camera.

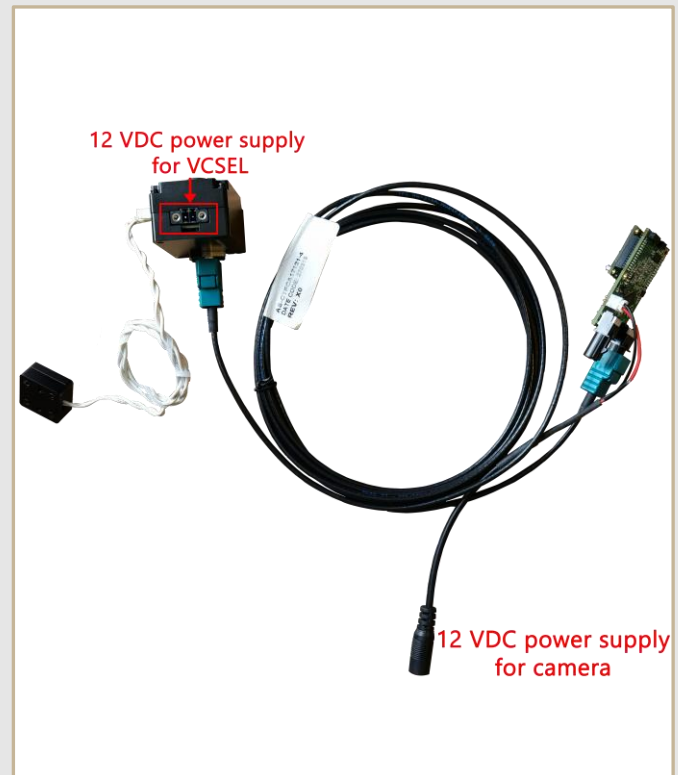
Part#: **LI-USB30-OV2311-VCSEL-GMSL2-050H**

## SPECIFICATIONS

- USB 3.0 Super Speed support
- UVC compliance
- Global shutter
- Provide customization services
- 12 VDC power supply for camera
- 12 VDC power supply for VCSEL
- Weight: ~ 375 g
- Single Coax Cable transmit up to 12 meters PoC (Power over Cable)
- Resolution: 1600 x 1300 @ 30 fps
- Support Windows, Linux OS and other OS which include the UVC drivers

## BOM

#	Items	QTY
1	LI-OV2311-VCSEL-GMSL2-050H	1
2	LI-USB30-DESER-GMSL2	1
3	3-meter Fakra Cable	1
4	12 VDC Power Supply for Camera	1
5	12 VDC Power Supply for VCSEL	1
6	USB3.0 Cable	1



12 VDC power supply for VCSEL

12 VDC power supply for camera

## SDK SUPPORTED

- Camera Tool Source Code in C#
- Capture & Display
- Register Access Function

## ● REVISION HISTORY

Revision	Description	Release Date
1.0	First release.	7 Jun 2021
1.1	Updated serializer from MAX9295A to MAX96717F.	13 Aug 2021

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