



LEOPARD
IMAGING

LI-OV2311-IR-GMSL2-050H



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INTRODUCTION

The LI-OV2311-IR-GMSL2-050H is equipped with OmniVision 2MP CMOS image sensor OV2311 which uses OmniPixel3-GS™ technology, Serializer Maxim MAX9295A/B and IR LED. This camera outputs 1600 x 1300 YUYV 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 μm
Output Format	YUV (YUYV) data
Color / Mono	Monochrome
Frame Rate	60 fps @ 1600 x 1300
Shutter	Global shutter
Serializer	Maxim MAX9295A/B
Power Supply Range	9 ~ 19 VDC
ISP	Not included
FPGA	Included for RAW to YUV conversion
IR LED	Included
LED Power Connector	0395061002 (Molex)
FAKRA Connector	FAKRA Z TYPE
Power Consumption	83 mA @ 12 VDC nominal (Sensor) 232 mA @ 12 VDC nominal (IR LED) (1600 x 1300 @ 60 fps)
Operating Temp	-40°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	~ 90 g
Part#	LI-OV2311-IR-GMSL2-050H

APPLICATIONS

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

LENS SPECIFICATIONS

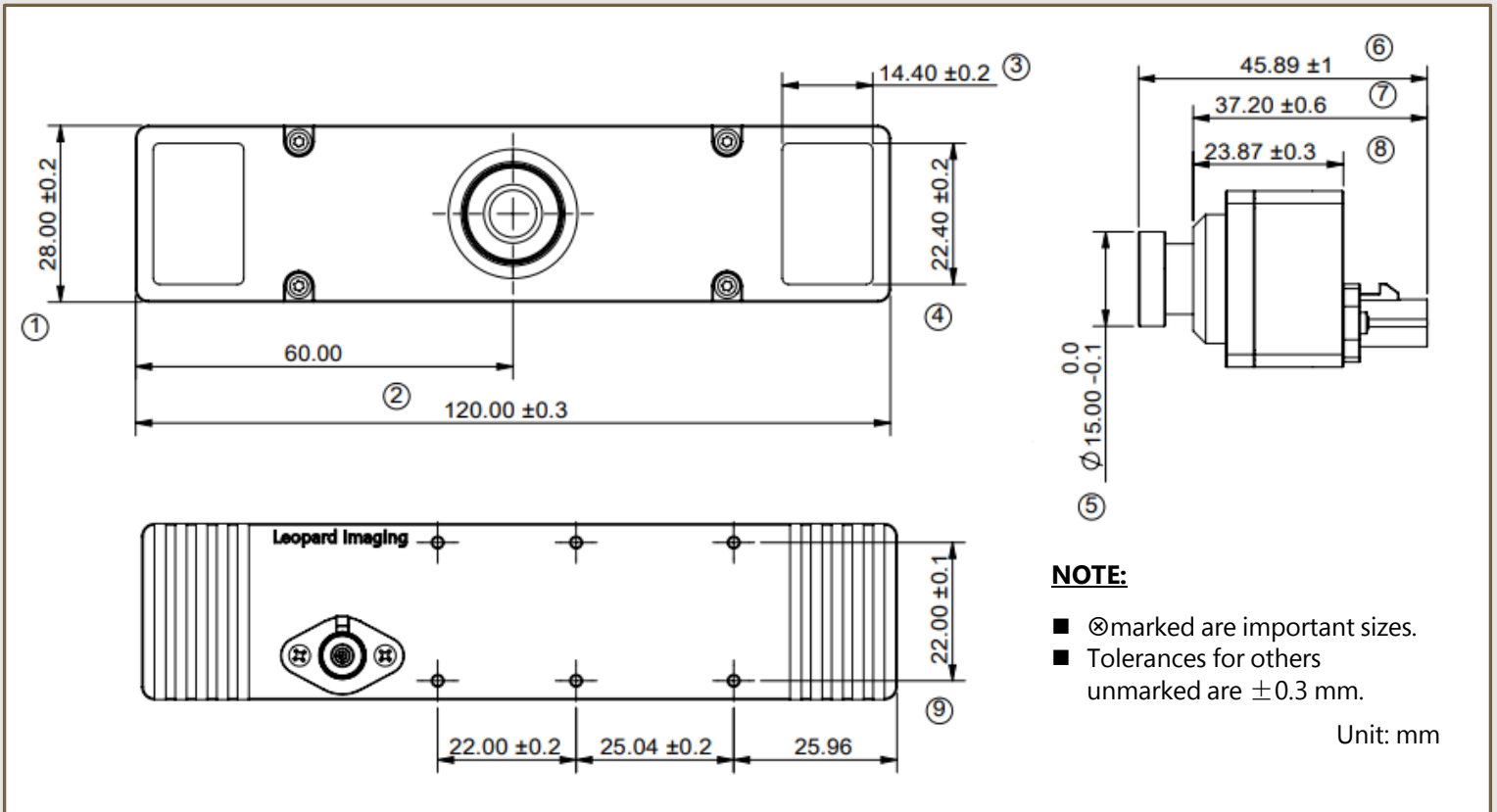
Focal Length	5.63 mm
Aperture, F/#	1.8
Field of View (FOV)	40.6° (V) @ IH 1.978
	65.6° (D) @ IH 3.132
	50.2° (H) @ IH 2.429
Distortion	-13.76%
Relative Illumination	91.0% @ 1.0F
IR Filter	940 nm IR filter
Lens Mount	M12 x P0.5

IR LED SPECIFICATIONS

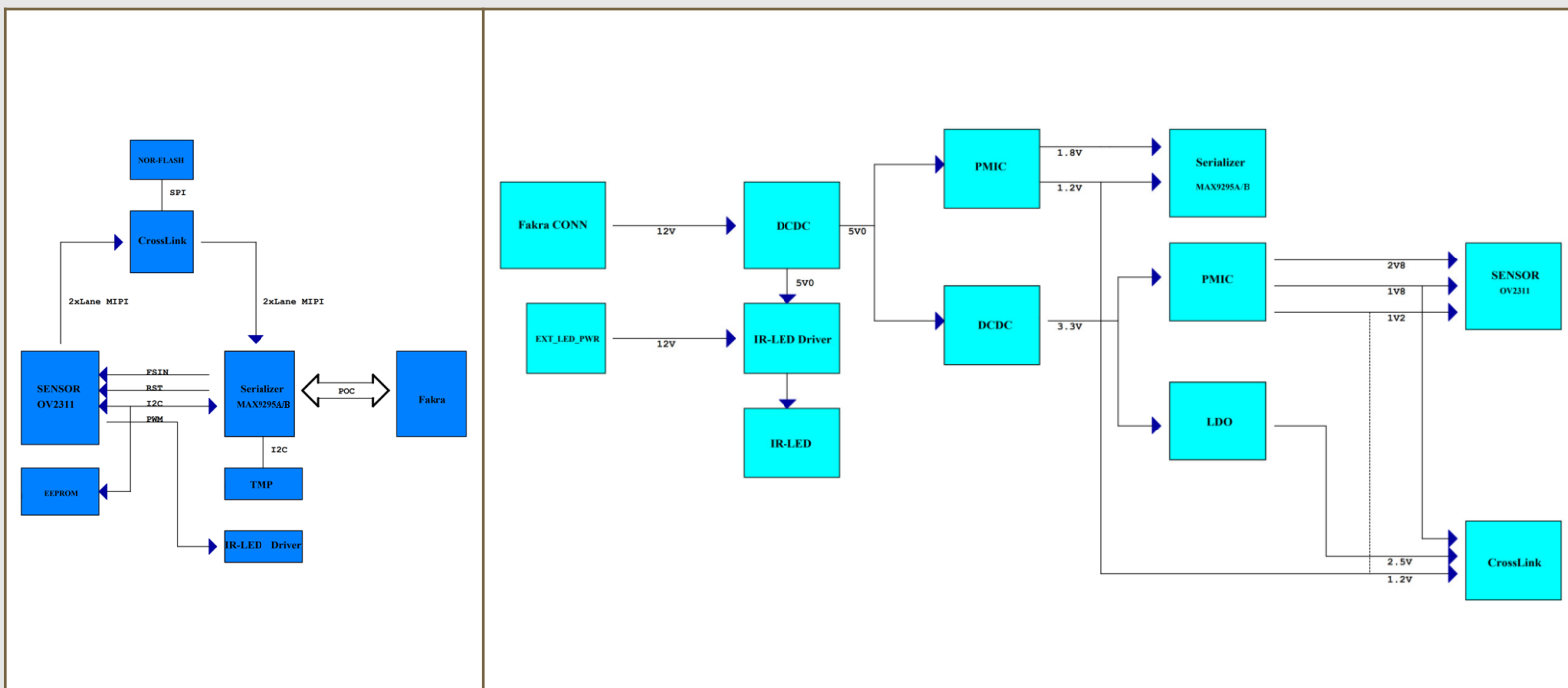
Wavelength	940 nm
Viewing Angle	80°
Power Supply	12 VDC
QTY on Camera	4



DIMENSIONS



SYSTEM AND POWER BLOCK DIAGRAM



USB3.0 CAMERA KIT

LI-GMSL2-USB



Top View



Bottom View

LI-OV2311-IR-GMSL2-050H can connect to LI-GMSL2-USB as a USB 3.0 camera.

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

SPECIFICATIONS

- USB 3.0 Super Speed support
- UVC compliant
- Global shutter
- Allows customization
- 12 VDC power supply for camera
- 12 VDC power supply for IR LED
- Weight: ~ 461 g
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: 1600 x 1300 @ 60 fps
- Compatible with Windows, Linux OS and other OS which have UVC drivers

BOM

#	Items	QTY
1	LI-OV2311-IR-GMSL2-050H	1
2	LI-GMSL2-USB	1
3	3-Meter Fakra Cable	1
4	12 VDC Power Supply for Camera	1
5	12 VDC Power Supply for IR LED	1
6	USB3.0 Cable	1



SDK SUPPORTED

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

● REVISION HISTORY

Revision	Description	Release Date
1.0	First release	06 May 2021
1.1	Updated viewing angle of IR LED.	09 June 2021
1.2	Updated lens info and related 2D dimensions and product images.	02 Nov 2022
1.3	Updated power consumption, frame rate and product images.	21 Mar 2023

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