



LI-OV2312-VCSEL-OMS-GMSL2-177H



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INTRODUCTION

The LI-OV2312-VCSEL-OMS-GMSL2-177H is equipped with OmniVision 1/2.9" RGB-IR CMOS 2MP (1600 x 1300) image sensor OV2312 with OmniPixel®3-GS technology, Maxim GMSL2 serializer MAX96717F and VCSELs. This camera outputs 10-bit RGB-IR RAW data.

SPECIFICATIONS

Sensor	OmniVision RGB-IR CMOS 2MP Image Sensor OV2312
Optical Format	1/2.9"
Resolution	1600 (H) x 1300 (V) (active pixels)
Pixel Size	3.0 x 3.0 μ m
Output Format	10-bit RGB-IR RAW
Color / Mono	RGB-IR
Maximum Frame Rate	60 fps @ 1600 x 1300
Shutter	Global shutter
Serializer	Maxim MAX96717F
Power Supply Range	10 ~ 19 VDC
ISP	Not included
VCSEL	Included
FAKRA Connector	FAKRA Z TYPE
IP Rating	IP52
Power Consumption	372 mA @ 12 VDC (1600 x 1300 @ 30 fps)
Operating Temp	-40°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	~ 183 g
Part#	LI-OV2312-VCSEL-OMS-GMSL2-177H

APPLICATIONS

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

LENS SPECIFICATIONS

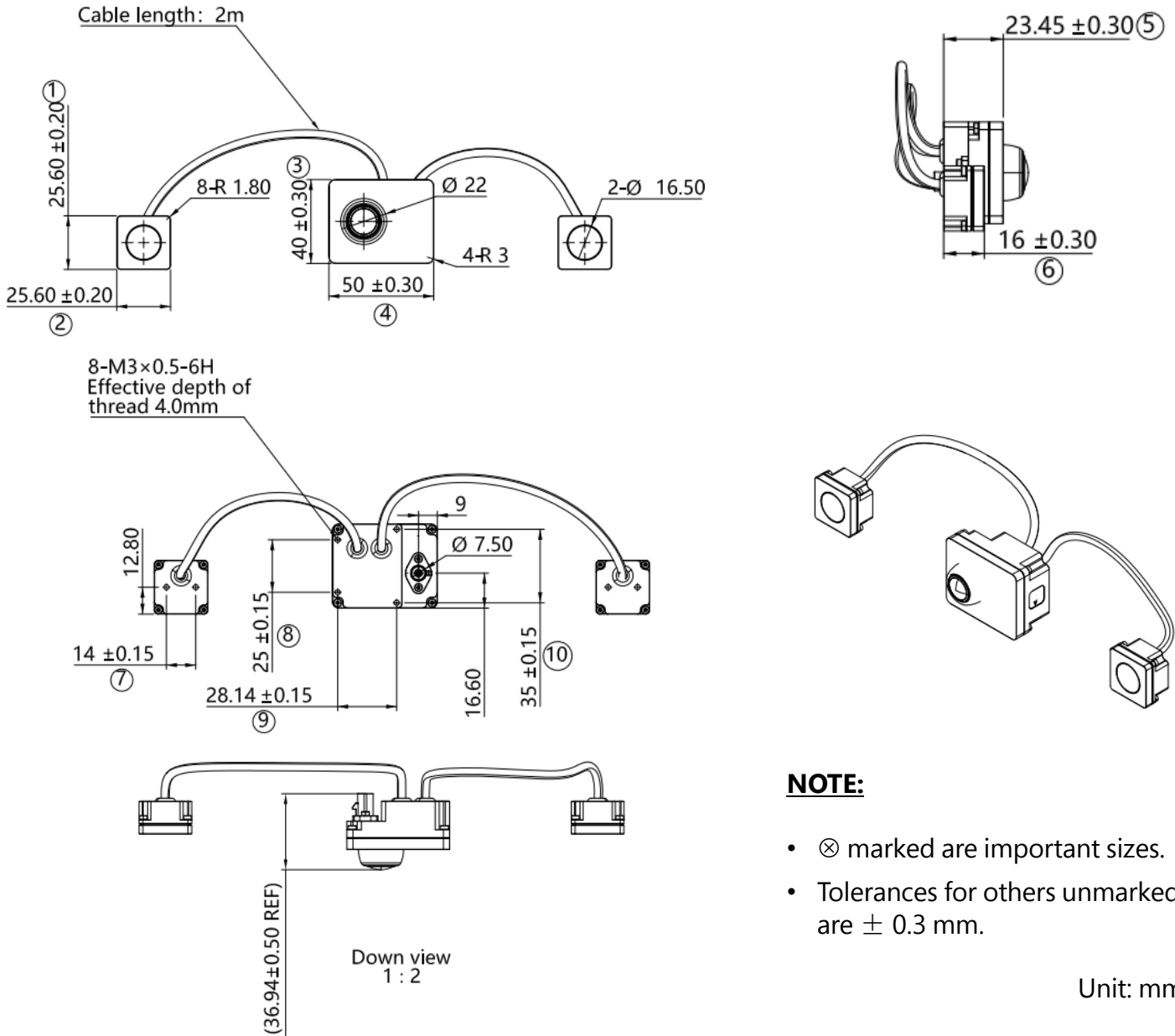
Focal Length	1.42 mm \pm 5%
Aperture, F/#	2.0 \pm 5%
Field of View (FOV)	177° \pm 3° horizontal
	143.8° \pm 2° vertical
	\geq 190° (\varnothing 5.11 mm) diagonal
Optical Distortion	-95.6% \pm 5% @ H FOV
Relative Illumination	(55 \pm 7)% @ H FOV
IR Filter	Visible + 940 nm
Lens Mount	M12 x P0.5

VCSEL SPECIFICATIONS

Wavelength	940 nm
Field of Illumination (FOI)	125.5° horizontal
	111.5° vertical
QTY on Camera	2

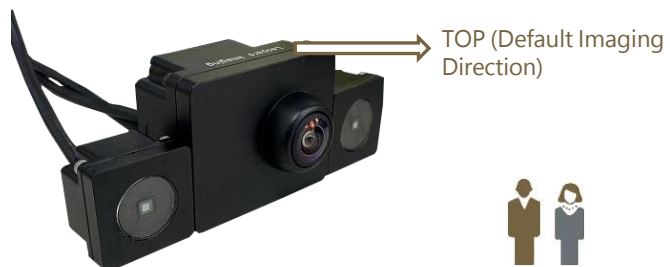


DIMENSIONS

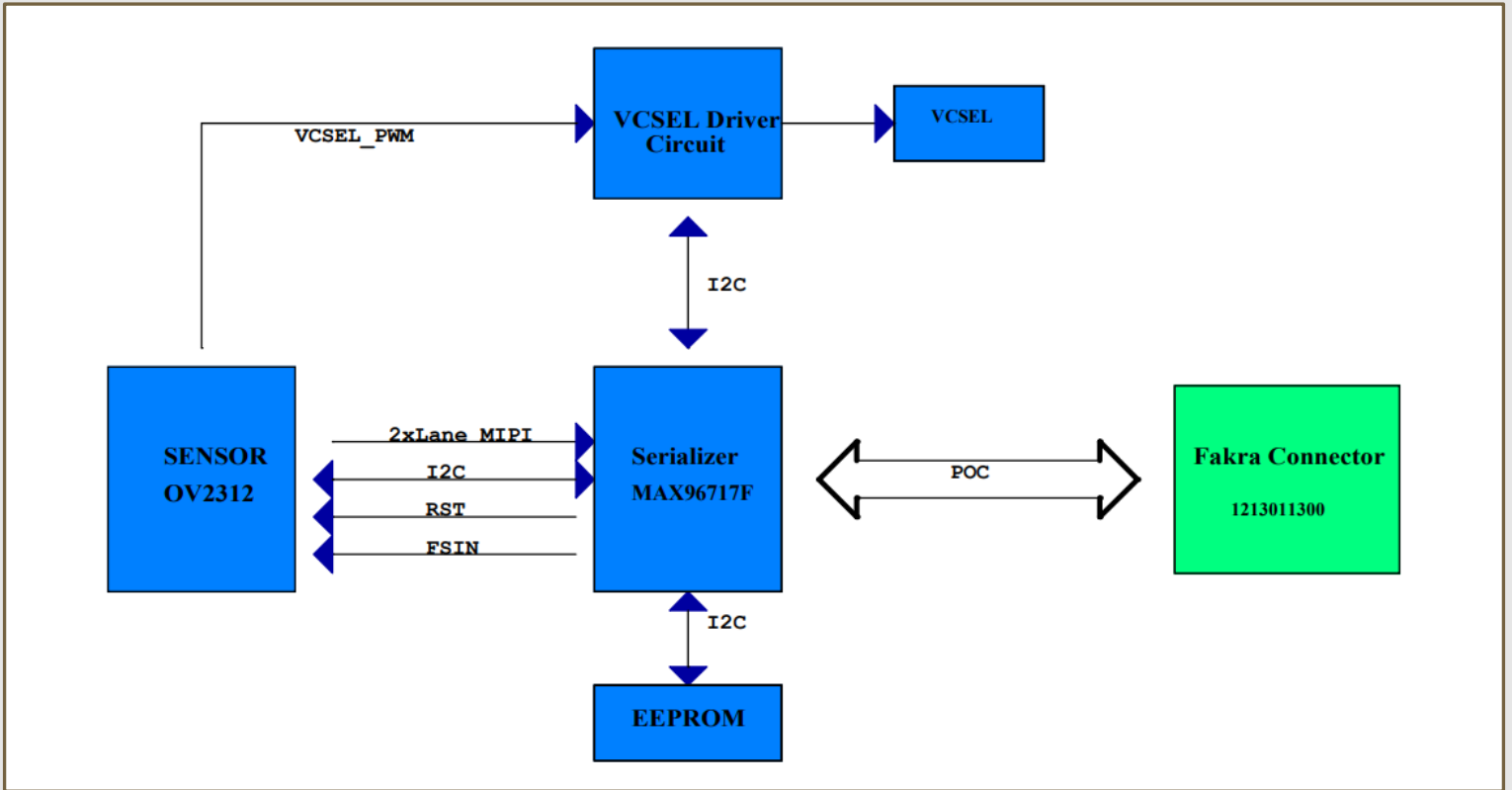


DEFAULT IMAGING DIRECTION

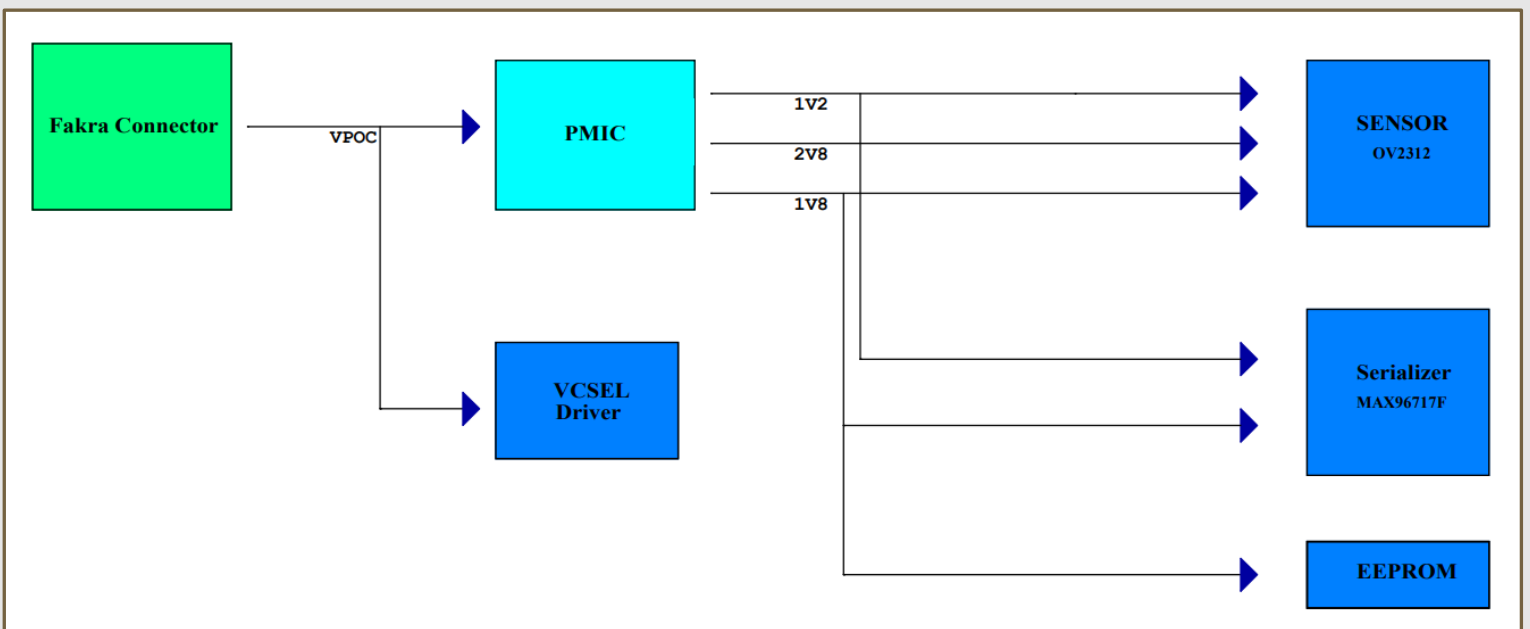
- The logo "Leopard Imaging" is on the TOP.



SYSTEM BLOCK DIAGRAM



POWER BLOCK DIAGRAM



USB3.0 CAMERA KIT

LI-GMSL2-USB



Top View



Bottom View

LI-OV2312-VCSEL-OMS-GMSL2-177H can connect to LI-GMSL2-USB as a USB 3.0 camera.

Part#: **LI-USB30-OV2312-VCSEL-OMS-GMSL2-177H**

SPECIFICATIONS

- USB 3.0 Super Speed support
- UVC compliant
- Global shutter
- Allows customization
- 12 VDC power supply for camera
- Weight: ~ 475 g
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: 1600 x 1300 @ 30 fps
- Compatible with Windows, Linux OS and other OS which have UVC drivers



BOM

#	Items	QTY
1	LI-OV2312-VCSEL-OMS-GMSL2-177H	1
2	LI-GMSL2-USB	1
3	3-Meter Fakra Cable	1
4	12 VDC Power Supply for Camera	1
5	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.	18 Jan 2023
1.1	Updated power consumption.	01 Mar 2023

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