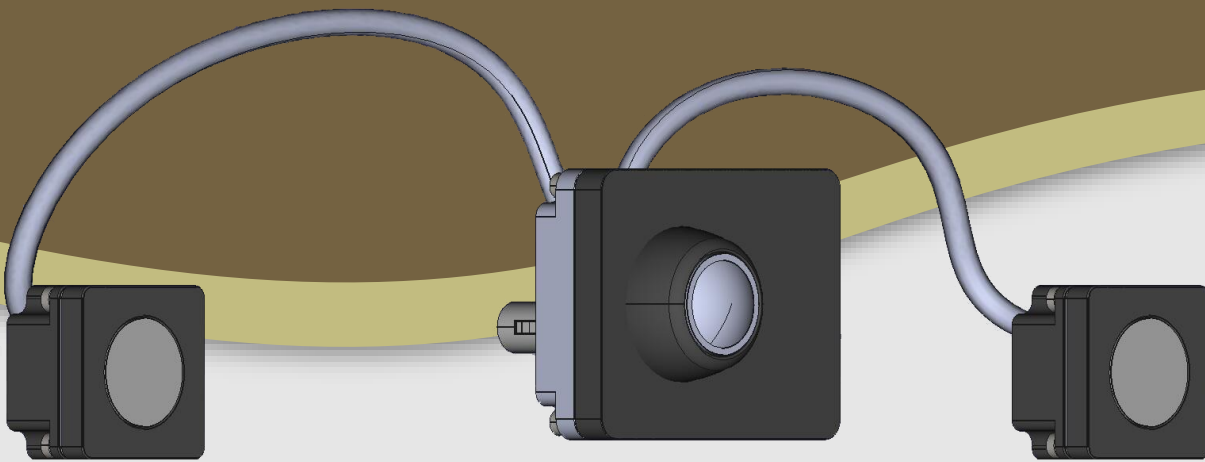




# LI-OX05B1S-VCSEL-OMS-9295-200H



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## INTRODUCTION

The LI-OX05B1S-VCSEL-OMS-9295-200H is equipped with OmniVision 1/2.5" RGB-IR CMOS 5MP global shutter image sensor OX05B1S, Maxim GMSL2 serializer MAX9295A/B and 2 VCSELS. This camera outputs RAW RGB-IR data.

## SPECIFICATIONS

Sensor	OmniVision 1/2.5" RGB-IR CMOS 5MP Image Sensor OX05B1S
Optical Format	1/2.5"
Resolution	2592 (H) x 1944 (V) (active pixels)
Pixel Size	2.2 x 2.2 $\mu\text{m}$
Output Format	RAW RGB-IR
Color / Mono	RGB-IR
Maximum Frame Rate	60 fps @ 1944p
Shutter	Global shutter
Serializer	Maxim MAX9295A/B
Power Supply Range	9 ~ 19 VDC
ISP	Not included
VCSEL	Included
FAKRA Connector	FAKRA Z TYPE
Power Consumption	Approx. 409 mA @ 12 VDC (2592 x 1944 @ 30 fps)
Operating Temp	TBD
Storage Temp	TBD
Weight	TBD
Part#	LI-OX05B1S-VCSEL-OMS-9295-200H

## APPLICATIONS

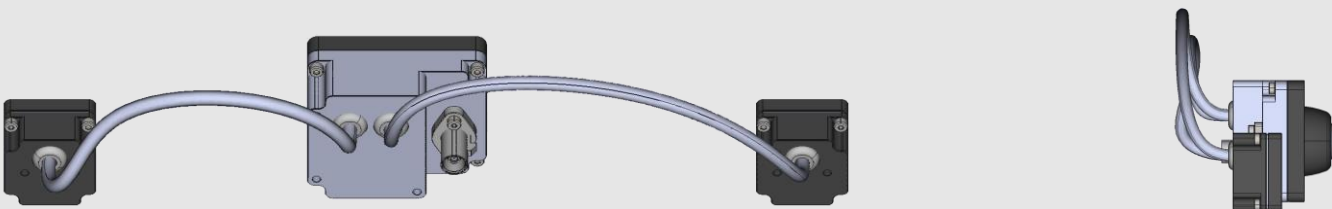
- Autonomous Driving
- Driver Monitoring System
- Occupant Monitoring System
- In-Cabin Monitoring System

## LENS SPECIFICATIONS

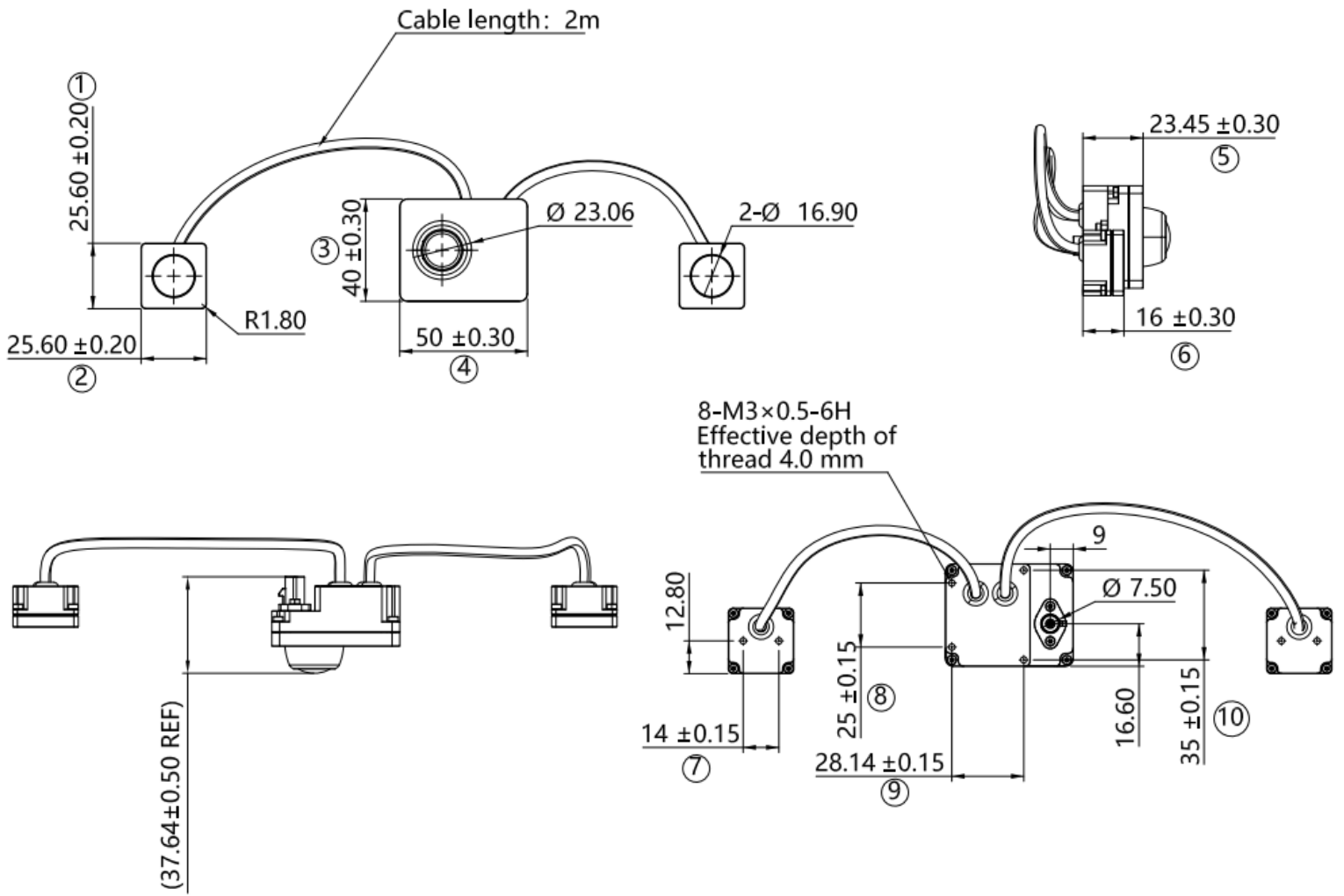
Focal Length	1.44 mm
Aperture, F/#	2.0 $\pm$ 5%
Field of View (FOV)	200° horizontal
IR Filter	Visible + 940 nm band pass filter
Relative Illumination	40.0% @ IH 2.4
Distortion ( $\gamma=f\Theta$ )	+10% @ IH 2.77
Lens Mount	M12 x P0.5

## VCSEL SPECIFICATIONS

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



# DIMENSIONS

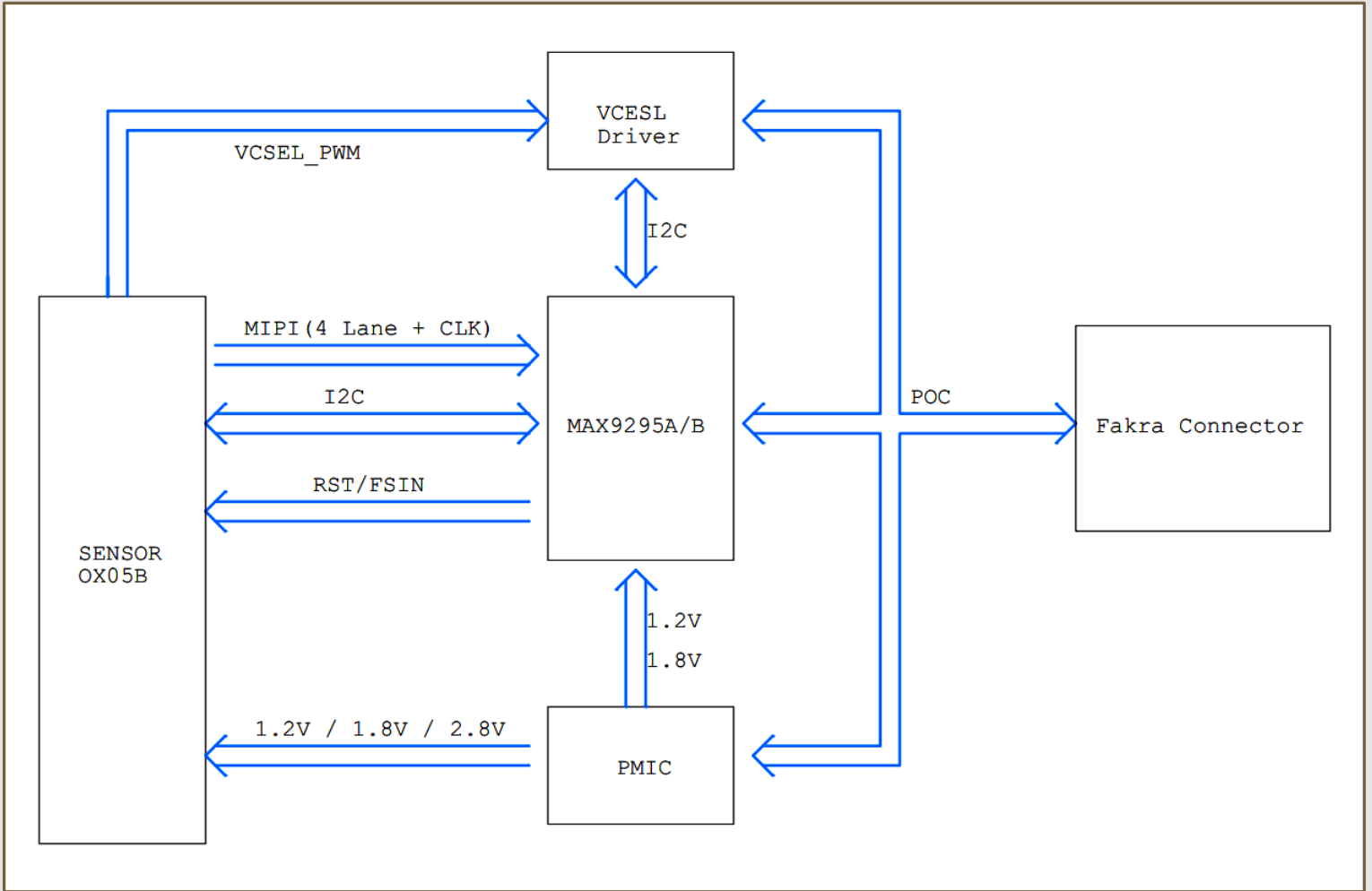


**NOTE:**

- ⊗ marked are important sizes.
- Other unmarked tolerances are  $\pm 0.3$  mm.

Unit: mm

# BLOCK DIAGRAM

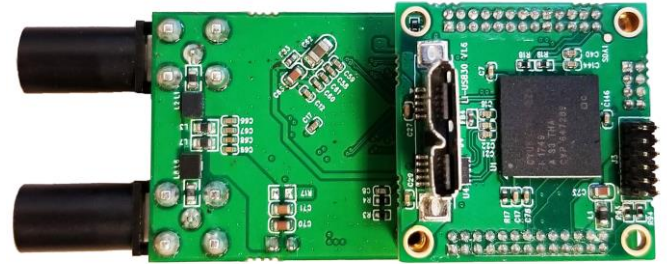


# USB3.0 CAMERA KIT

LI-GMSL2-USB



Top View



Bottom View

LI-OX05B1S-VCSEL-OMS-9295-200H can connect to LI-GMSL2-USB as a USB 3.0 camera.

Part#: **LI-USB30-OX05B1S-VCSEL-OMS-9295-200H**

## SPECIFICATIONS

- USB 3.0 Super Speed support
- UVC compliant
- Global shutter
- Allows customization
- 12 VDC power supply for camera
- Weight: TBD
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: 2592 x 1944 @ 30 fps
- Compatible with Windows, Linux OS and other OS which have UVC drivers



## BOM

#	Items	QTY
1	LI-OX05B1S-VCSEL-OMS-9295-200H	1
2	LI-GMSL2-USB	1
3	3-Meter Fakra Cable	1
4	12 VDC Power Supply	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
0.1	Initial draft.	14 Sep 2022
0.2	Replaced GMSL2 in Part# with 9295.	21 Sep 2022

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