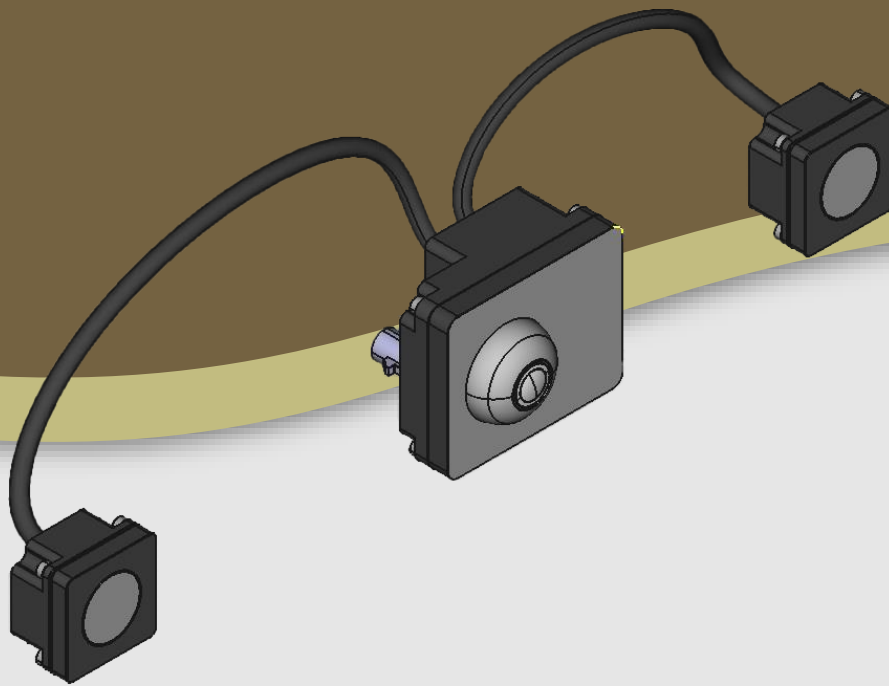




LEOPARD
IMAGING

LI-OX05B1S-VCSEL-OMS-96717-143H



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INTRODUCTION

The LI-OX05B1S-VCSEL-OMS-96717-143H is equipped with OmniVision 1/2.5" RGB-IR CMOS 5MP global shutter image sensor OX05B1S, ADI GMSL2 serializer MAX96717G and 2 VCSELs. This camera outputs RAW RGB-IR data.

SPECIFICATIONS

Maximum Frame Rate	60 fps @ 1944p
Output Format	RAW RGB-IR
Sensor	OmniVision 1/2.5" RGB-IR CMOS 5MP Image Sensor OX05B1S
Optical Format	1/2.53"
Resolution	2592 (H) x 1944 (V) (active pixels)
Pixel Size	2.2 x 2.2 μ m
Color / Mono	RGB-IR
Shutter	Global shutter
Serializer	ADI MAX96717G
Power Supply Range	9 ~ 19 VDC
ISP	Not included
VCSEL	Included
IP Rating	TBD
FAKRA Connector	FAKRA Z TYPE
Power Consumption	Approx. 373 mA @ 12 VDC (2592 x 1944 @ 30 fps)
Operating Temp	-40°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	~ 213 g

APPLICATIONS

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

EYE SAFETY

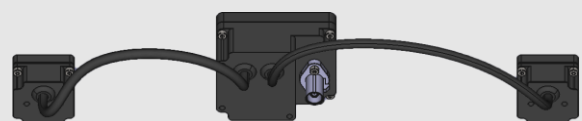
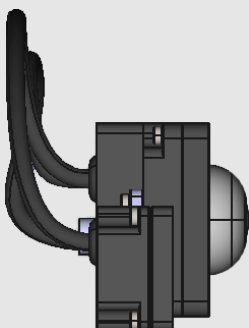
- Comply with IEC 60825 - 1:2014 standard

LENS SPECIFICATIONS

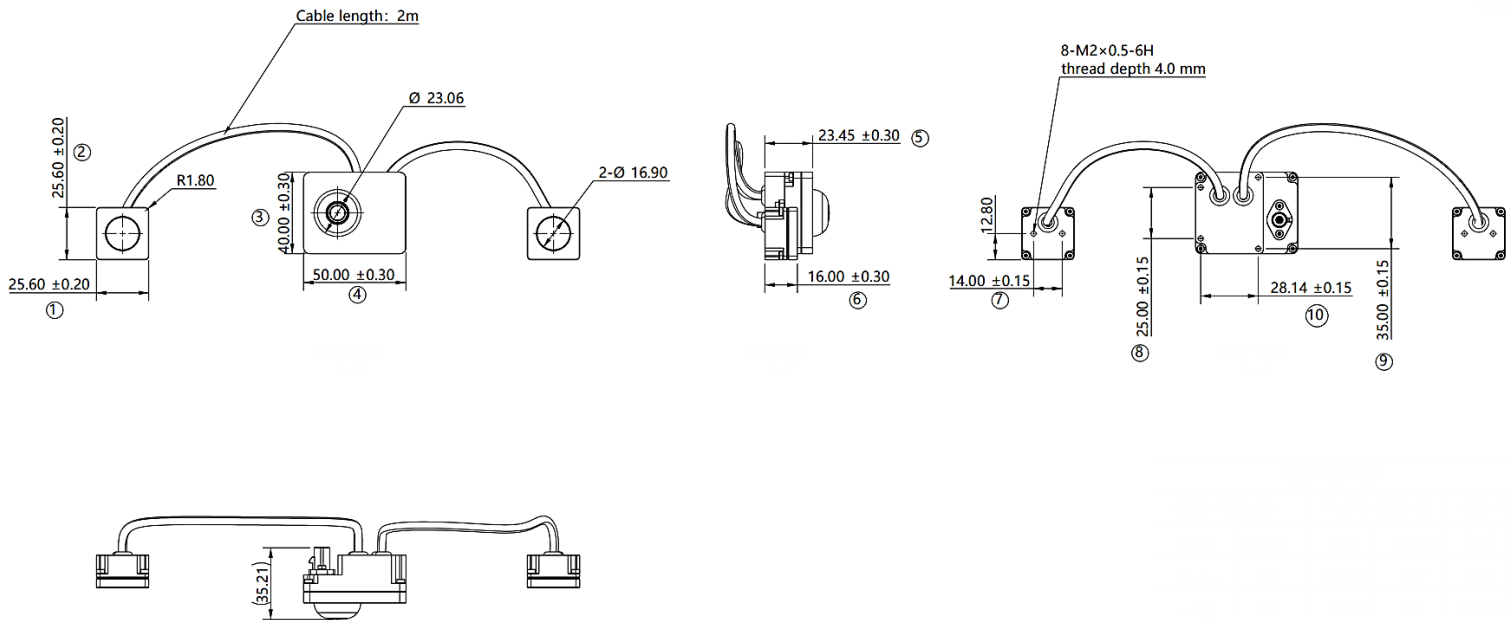
Focal Length	2.42 $\pm$ 5% mm
Aperture, F/#	2.2 $\pm$ 5%
Field of View (FOV)	143° horizontal
IR Filter	Visible + 940 nm dual bandpass filter
Lens Mount	M12 x P0.5

VCSEL SPECIFICATIONS

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



DIMENSIONS



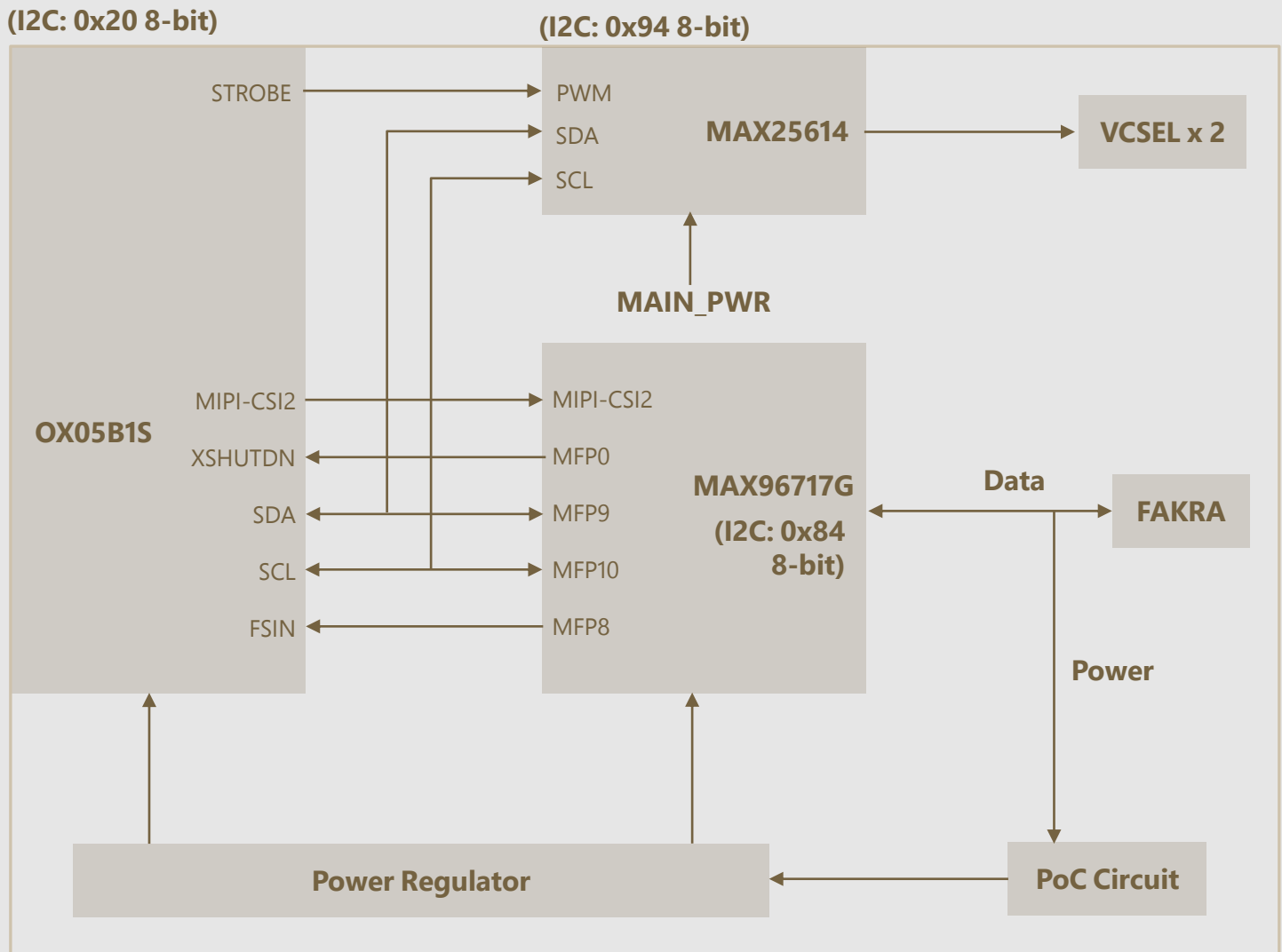
NOTE:

- ⊗ marked are important sizes.
- Tolerances for others unmarked refer to the Tolerance table.
- All materials are compliant with RoHS & REACH requirements.

Unit: mm

TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
0.5 < X ≤ 3	±0.1	0.5 < X ≤ 3	±0.2	X ≤ 10	±1°
3 < X ≤ 6	±0.1	3 < X ≤ 6	±0.5	10 < X ≤ 50	±30'
6 < X ≤ 30	±0.2	6 < X ≤ 30	±1	50 < X ≤ 120	±20'
30 < X ≤ 120	±0.3	X > 30	±2	120 < X ≤ 400	±10'
120 < X ≤ 400	±0.5			X > 400	±5'
400 < X ≤ 1000	±0.8				
X > 1000	±1.2				

PINOUT CONNECTIONS



USB3.0 CAMERA KIT

LI-GMSL2-USB



Top View



Bottom View

LI-OX05B1S-VCSEL-OMS-96717-143H can connect to LI-GMSL2-USB as a USB 3.0 camera.

Part#: **LI-USB30-OX05B1S-VCSEL-OMS-96717-143H**

SPECIFICATIONS

- USB 3.0 Super Speed support
- UVC compliant
- Global shutter
- Allows customization
- 12 VDC power supply for camera
- Weight: ~280 g
- 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-96717-143H	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.	20 Aug 2026

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