



LEOPARD
IMAGING

LI-OX05C1S-GM2B-143H



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INTRODUCTION

The LI-OX05C1S-GM2B-143H is equipped with OmniVision 1/2.525" CMOS 5MP global shutter image RGB-IR sensor OX05C1S and ADI GMSL2 serializer MAX96717. This camera outputs RAW image data.

KEY FEATURES

Maximum Frame Rate	60 fps @ 3-exposure HDR
Sensor	OmniVision 1/2.525" CMOS 5MP image sensor OX05C1S
Optical Format	1/2.525"
Shutter Type	Global shutter
Pixel Size	2.2 x 2.2 μm
Color / Mono	RGB-IR
Data Format	10-bit / 12-bit / 14-bit / 16-bit HDR RAW
Resolution	2592 (H) x 1944 (V) (active pixels)
HDR (High Dynamic Range)	Supported
Serializer	ADI MAX96717
Connector	FAKRA Z TYPE
Operating Temp	TBD
Storage Temp	TBD
Power Supply Range	9 ~ 19 VDC
Power Consumption	TBD
Ingress Protection	TBD
Weight	~ 36 g

APPLICATIONS

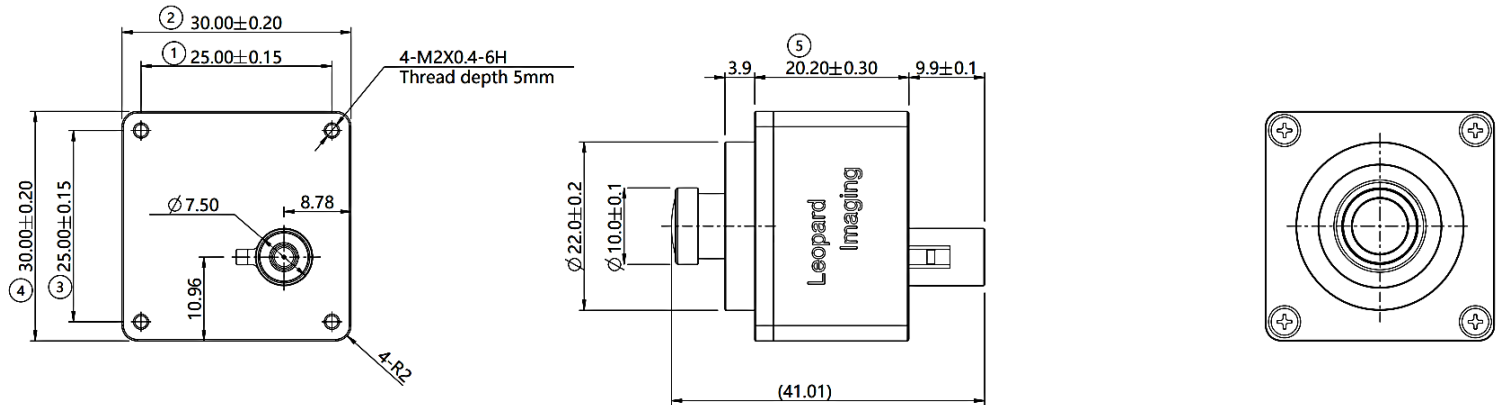
- Autonomous Driving
- Driver Monitoring System
- Occupant Monitoring System
- In-Cabin Monitoring System

LENS SPECIFICATIONS

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



DIMENSIONS

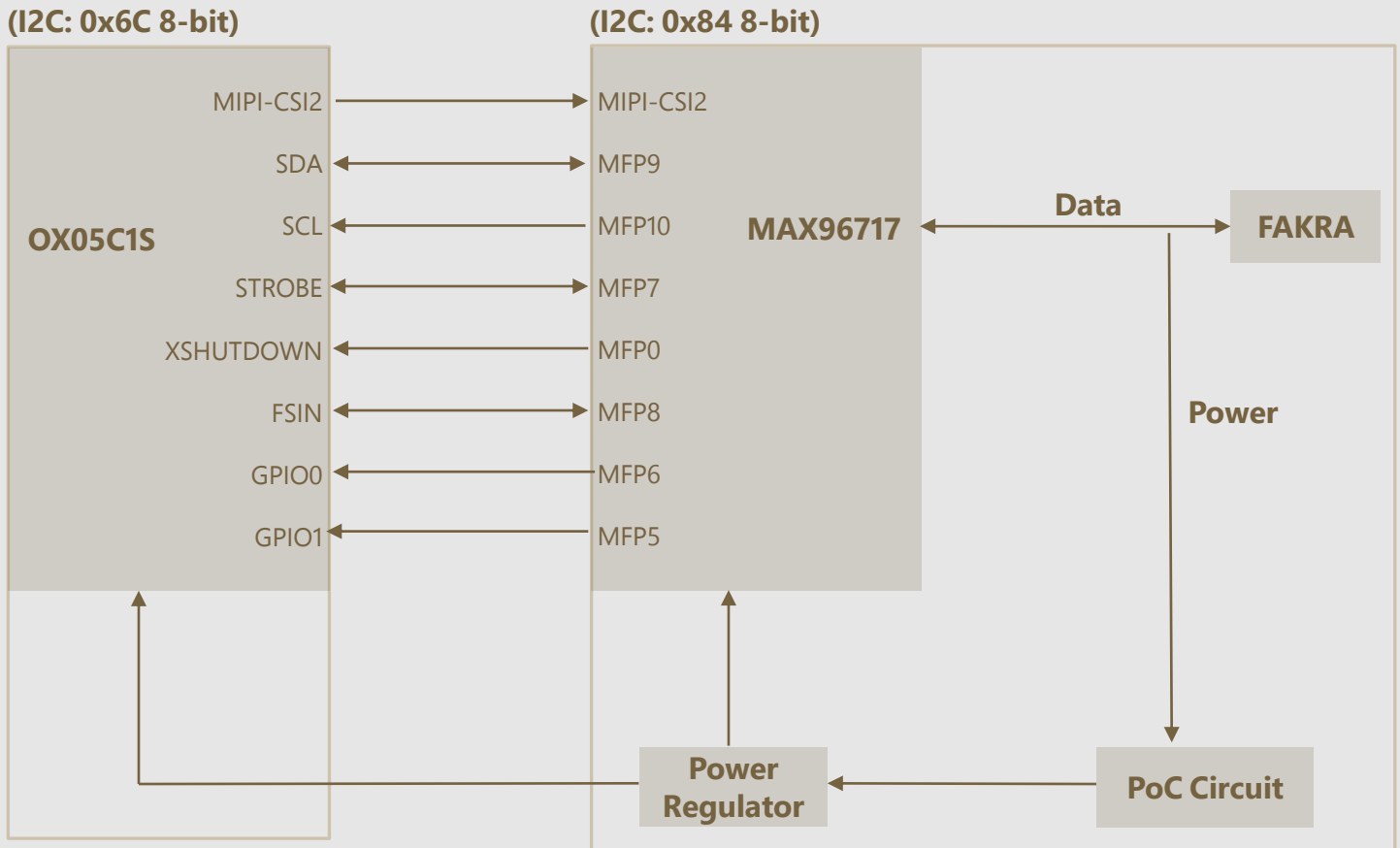


NOTE:

- ⊗ marked are important sizes.
- Tolerances for others unmarked refer to the tolerance table.
- Unit: mm

TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
$0.5 < X \leq 3$	± 0.1	$0.5 < X \leq 3$	± 0.2	$X \leq 10$	$\pm 1^\circ$
$3 < X \leq 6$	± 0.1	$3 < X \leq 6$	± 0.5	$10 < X \leq 50$	$\pm 30'$
$6 < X \leq 30$	± 0.2	$6 < X \leq 30$	± 1	$50 < X \leq 120$	$\pm 20'$
$30 < X \leq 120$	± 0.3	$X > 30$	± 2	$120 < X \leq 400$	$\pm 10'$
$120 < X \leq 400$	± 0.5			$X > 400$	$\pm 5'$
$400 < X \leq 1000$	± 0.8				
$X > 1000$	± 1.2				

SYSTEM BLOCK DIAGRAM

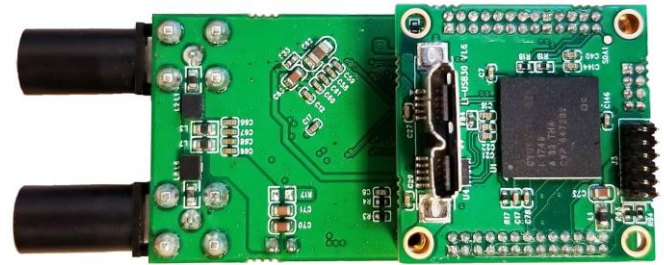


USB3.0 CAMERA KIT

LI-GMSL2-USB



Top View



Bottom View

LI-OX05C1S-GM2B-143H can connect to LI-GMSL2-USB as a USB 3.0 camera.

Part#: **LI-USB30-OX05C1S-GM2B-143H**

SPECIFICATIONS

- USB 3.0 Super Speed support
- RAW data output without compression
- UVC compliant
- Allows customization
- 12 VDC power supply for camera
- Weight: ~ 86 g
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: TBD
- Power consumption: TBD
- Compatible with Windows, Linux OS and other OS which have UVC drivers

BOM

#	Items	QTY
1	LI-OX05C1S-GM2B-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
- Save file as BMP & RAW format

• REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	07 Nov 2025
0.2	Corrected horizontal FOV from 142° to 143°.	24 Jan 2026

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