



**LEOPARD**  
IMAGING

# LI-OG05B20-AF0130-GMSL2-085H



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## INTRODUCTION

The LI-OG05B20-AF0130-GMSL2-085H is a stereo global shutter depth camera. It is equipped with ONSEMI 1.2MP smart iToF global shutter depth sensor AF0130 and OmniVision 1/2.53" CMOS 5MP global shutter image color sensor OG05B20, FPGA, ADI GMSL2 serializer MAX9295D, 4x 940nm VCSEL.

## KEY FEATURES

- AF0130 depth camera maximum frame rate:  
60 fps @ 1.2 MP, 100 fps @ VGA
- OG05B20 camera maximum frame rate:  
60 fps @ full size
- 1.2MP Smart iToF BSI CMOS Global Shutter depth Sensor AF0130
- OmniVision 1/2.53" CMOS 5MP Image Sensor OG05B20
- Included FPGA
- Serializer: ADI GMSL2 MAX9295D
- Depth Range: 0.2 m ~ 6.5 m
- Depth Accuracy: 1.5 %
- FAKRA Connector: FAKRA Z TYPE
- FAKRA Power Supply: 12 VDC
- Power consumption: TBD
- Weight: TBD

## APPLICATIONS

- Robot Navigation
- 3D Reconstruction
- Human-Machine Interaction
- Gesture Recognition
- Facial Recognition

## ENVIRONMENTAL

- Operating temperature: TBD
- Storage temperature: TBD
- Ingress Protection: TBD

## ● ITOF DEPTH SPECIFICATIONS

Maximum Frame Rate	Mode 2.2 (Single Frequency): 60 fps @ 1.2 MP 100 fps @ VGA
Output Format	RAW, Data Reduction (DR), Integrated Depth Processing (DP)
Image Sensor	1.2 MP Smart iToF BSI CMOS Global Shutter depth Sensor AF0130
Optical Format	1/3.2"
Pixel Size	3.5 $\mu\text{m}$
Shutter	BSI Global shutter
Active Pixels	1280 (H) x 960 (V)
F Number	1.2
Focal Length	2.47 mm
Filter Type	940 nm BPF
Focus	Fixed
Field of View (FOV)	85° Horizontal

## ● VCSEL SPECIFICATIONS

Wavelength	940 nm
Field of Illumination (FOI)	103° (Horizontal)
	84° (Vertical)
QTY on Camera	4

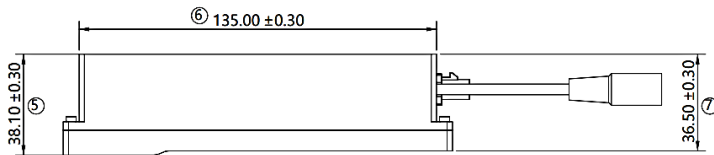
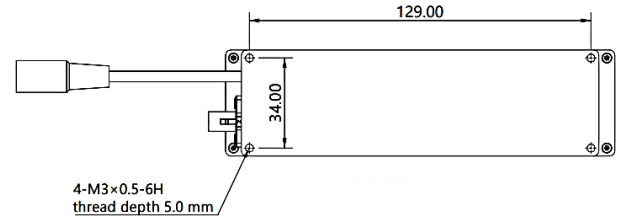
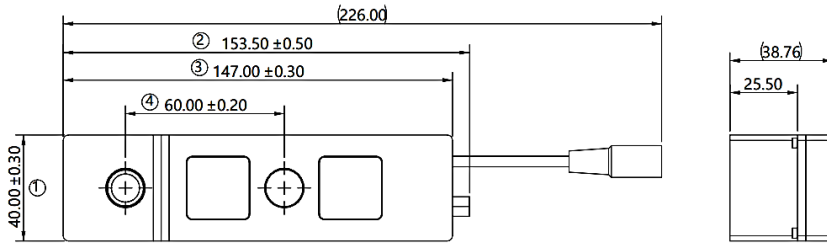
### **NOTE:**

- Avoid hitting VCSEL when camera assembly and operating.
- Keep wide clear upon VCSEL when camera operating.

## ● RGB SPECIFICATIONS

Maximum Frame Rate	60 fps @ full size
Output Format	RAW
Image Sensor	OmniVision 1/2.53" CMOS 5MP Image Sensor OG05B20
Color / Mono	Color
Optical Format	1/2.53"
Pixel Size	2.2 x 2.2 $\mu\text{m}$
Active Pixels	2592 (H) x 1944 (V)
F Number	2.6
Focal Length	3.8 mm
Filter Type	650nm IR cut filter
Focus	Fixed
Field of View (FOV)	90° Horizontal

# DIMENSIONS

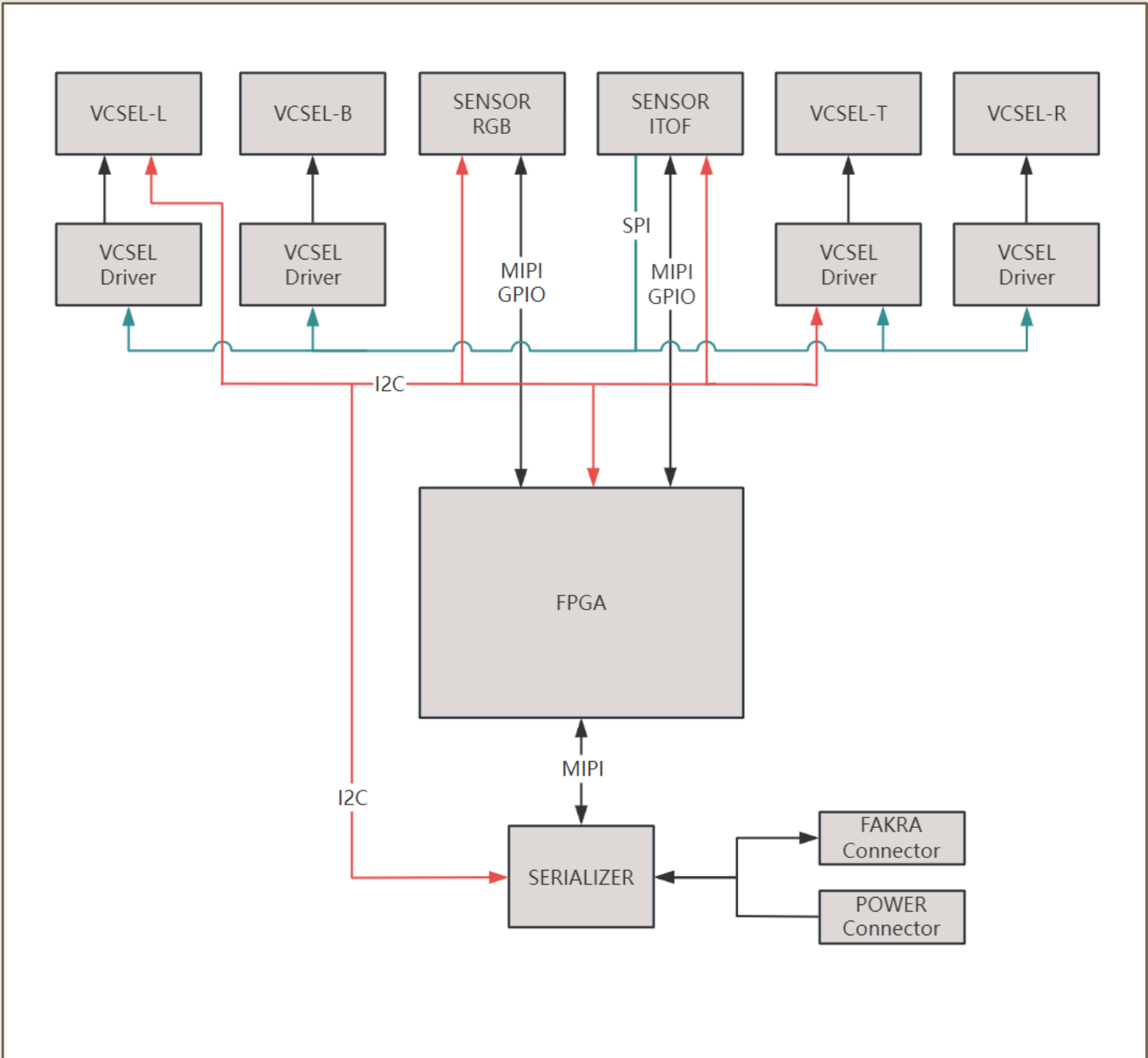


**NOTE:**

- ⊗ marked are important sizes.
- Tolerances for others unmarked refer to tolerance table.
- All materials are compliant with RoHS 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				

# SYSTEM BLOCK DIAGRAM



## External 12 VDC Power Supply

- Inner Diameter: 2.1 mm
- Outer Diameter: 5.5mm
- Minimum current consumption of the power supply adapter: 5A @ 12VDC



## ● REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	29 Jan 2026
0.2	1. Updated system block diagram. 2. Updated pictures on the page 1 & page 6.	02 Apr 2026

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