



LI-OV2311-VCSEL-GMSL2-055H



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INTRODUCTION

The LI-OV2311-VCSEL-GMSL2-055H is equipped with OmniVision 2MP CMOS image sensor OV2311, Maxim serializer MAX96717F and VCSEL. This camera outputs 1600 x 1300 RAW image data.

SPECIFICATIONS

| | |
|--------------------|-------------------------------------------|
| Sensor | OmniVision CMOS Image Sensor OV2311 |
| Optical Format | 1/2.9" |
| Resolution | 1600 (H) x 1300 (V) (active pixels) |
| Pixel Size | 3.0 x 3.0 μm |
| Output Format | 10-bit RAW data |
| Color / Mono | Monochrome |
| 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 | 131 mA @ 12 VDC (1600 x 1300 @ 60 fps) |
| Operating Temp | TBD |
| Storage Temp | TBD |
| Weight | ~ 80 g |
| Part# | LI-OV2311-VCSEL-GMSL2-055H |

APPLICATIONS

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

LENS SPECIFICATIONS

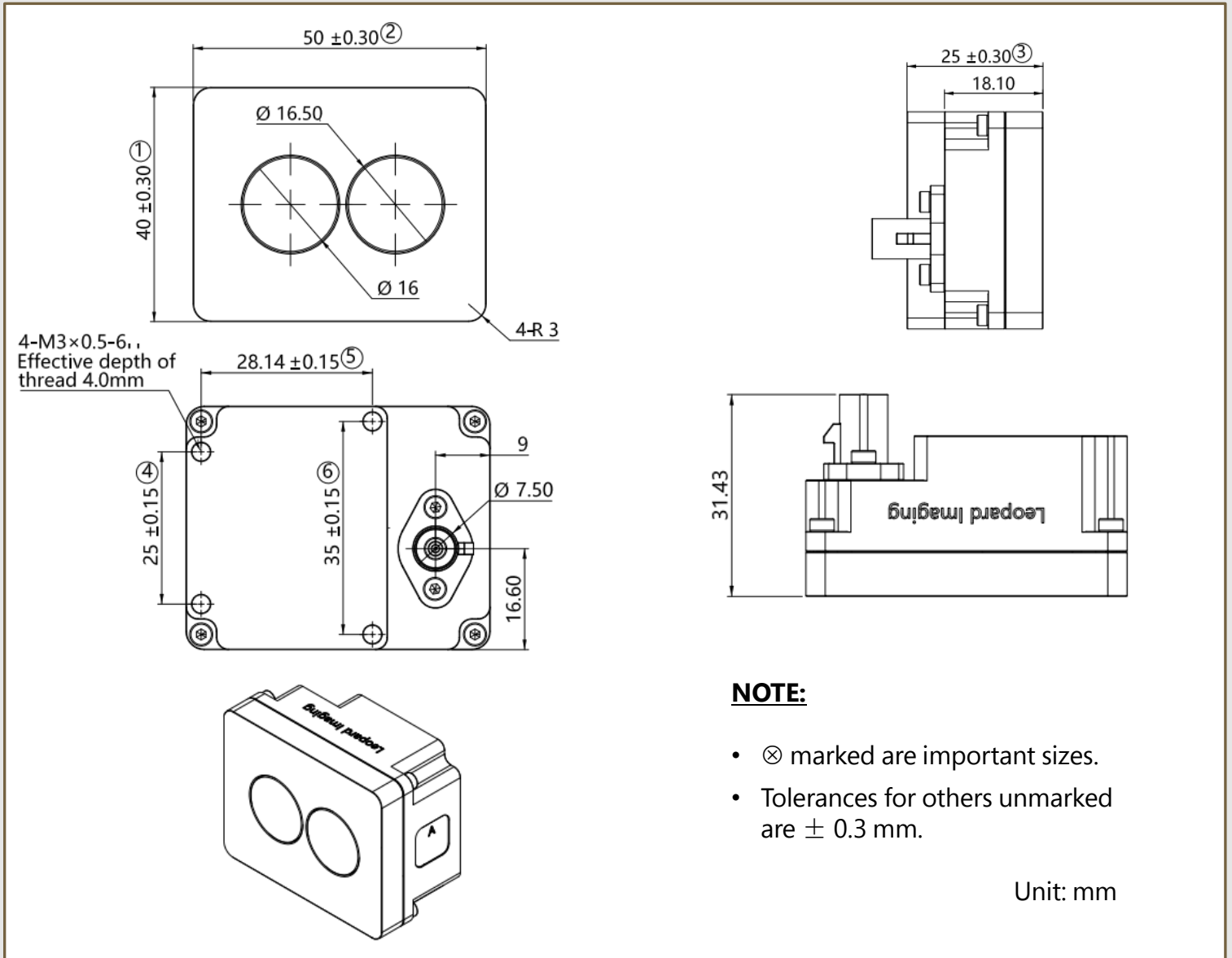
| | |
|-----------------------|---------------------------|
| Focal Length | 4.58 mm \pm 5% |
| Aperture, F/# | 1.8 \pm 0.1 |
| Field of View (FOV) | 55.3° \pm 1° horizontal |
| | 45.6° \pm 1° vertical |
| | 70° \pm 1.5° diagonal |
| Optical Distortion | (-5.2 \pm 3)% @ D FOV |
| Relative Illumination | (63 \pm 5)% @ D FOV |
| IR Filter | 940 nm IR filter |
| Lens Mount | M8 x P0.35 |

VCSEL SPECIFICATIONS

| | |
|-----------------------------|----------------|
| Wavelength | 940 nm |
| Field of Illumination (FOI) | 59° horizontal |
| | 42° vertical |
| QTY on Camera | 1 |



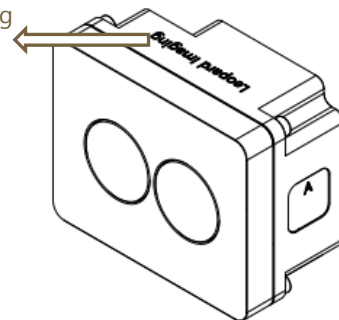
DIMENSIONS



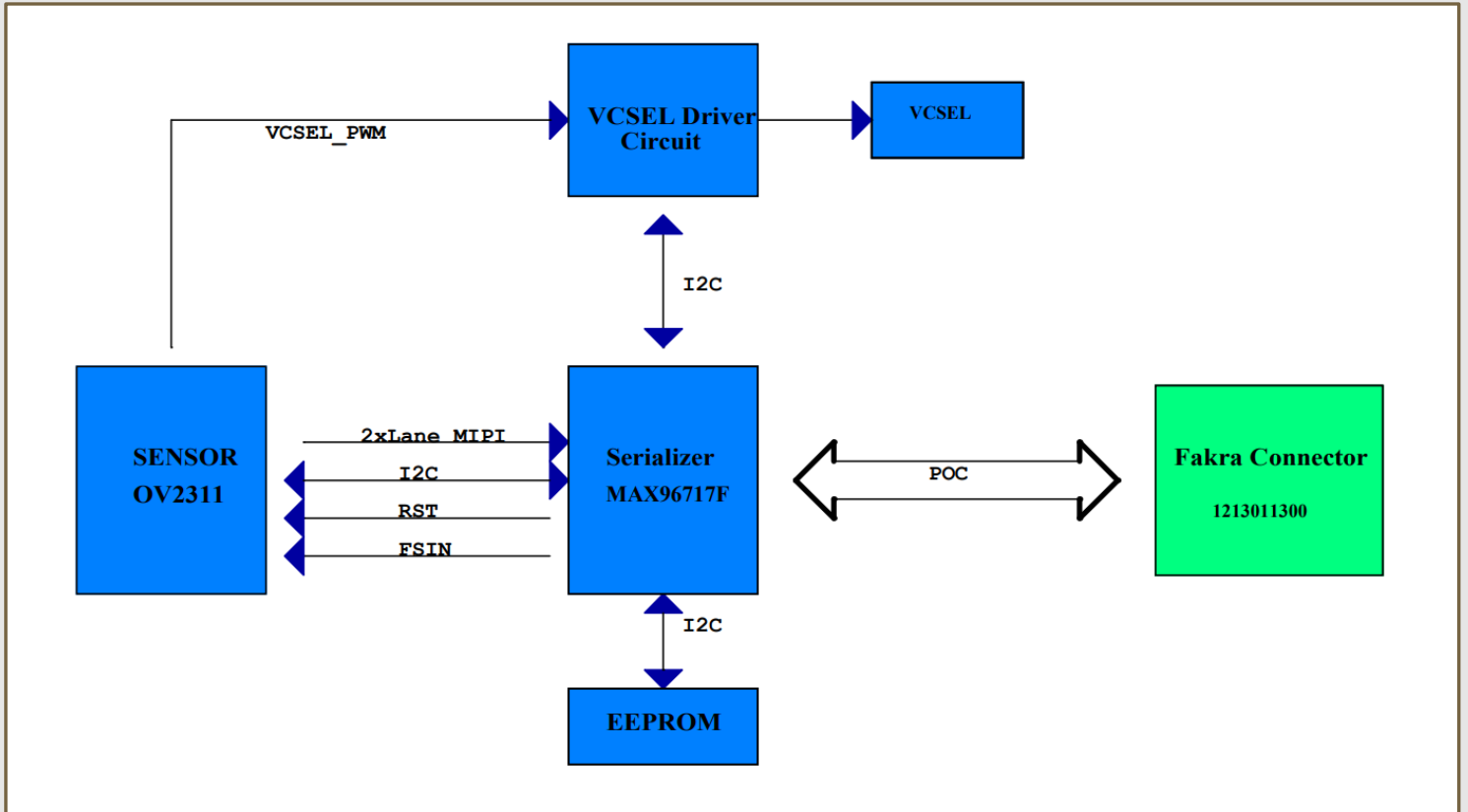
DEFAULT IMAGING DIRECTION

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

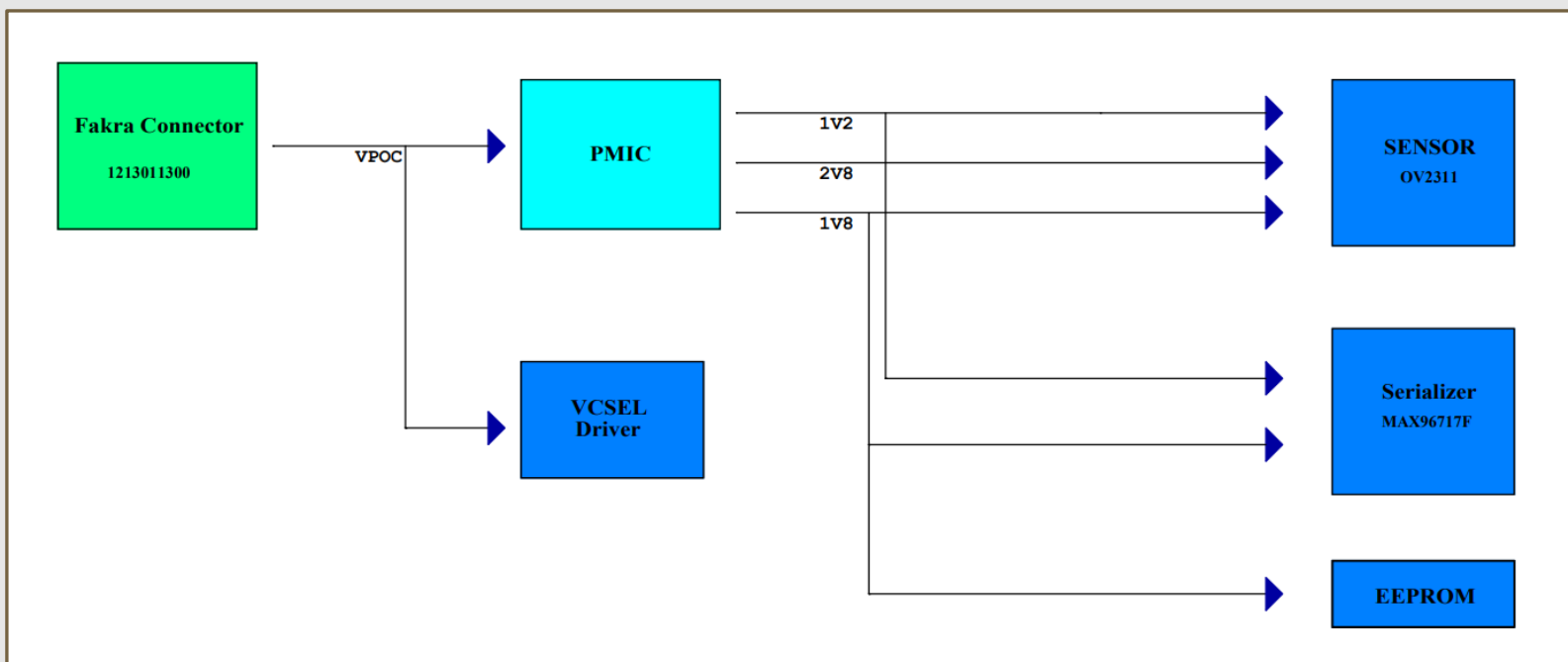
TOP (Default Imaging Direction)



SYSTEM BLOCK DIAGRAM

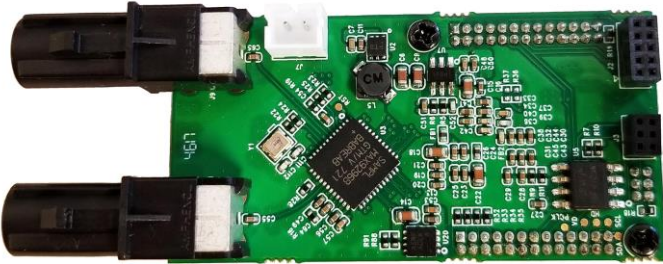


POWER BLOCK DIAGRAM



USB3.0 CAMERA KIT

LI-GMSL2-USB



Top View



Bottom View

LI-OV2311-VCSEL-GMSL2-055H can connect to LI-GMSL2-USB as a USB 3.0 camera.

Part#: **LI-USB30-OV2311-VCSEL-GMSL2-055H**

SPECIFICATIONS

- USB 3.0 Super Speed support
- UVC compliant
- Global shutter
- Allows customization
- 12 VDC power supply for camera
- Weight: ~ 372 g
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: 1600 x 1300 @ 60 fps
- Compatible with Windows, Linux OS and other OS which have UVC drivers



BOM

| # | Items | QTY |
|---|--------------------------------|-----|
| 1 | LI-OV2311-VCSEL-GMSL2-055H | 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 |
|----------|----------------------------|--------------|
| 0.1 | Initial draft. | 17 May 2022 |
| 0.2 | Updated IP rating. | 28 Jan 2023 |
| 0.3 | Updated power consumption. | 01 Mar 2023 |

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