



**LEOPARD**  
IMAGING

# LI-OX08D10-GM2B-120H



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## INTRODUCTION

The LI-OX08D10-GM2B-120H is equipped with OmniVision 1/1.73" 8MP CMOS high dynamic range RGGGB sensor OX08D10 which features PureCel®Plus-S technology. This camera outputs RAW data.

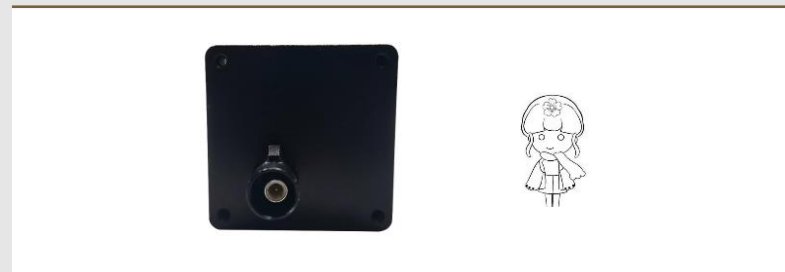
## SPECIFICATIONS

|                              |   |
|------------------------------|---|
| Sensor                       | OmniVision 8MP CMOS HDR RGGGB Sensor OX08D10            |
| Optical Format               | 1/1.73"   |
| Resolution                   | 3840 (H) x 2160 (V) (active pixels)                     |
| Pixel Size                   | 2.1 x 2.1 $\mu$ m                                       |
| Output Format                | 10-bit / 12-bit / 14-bit / 16-bit / 20-bit / 24-bit RAW |
| Color / Mono                 | Color sensor  |
| Maximum Frame Rate           | 45 fps @ 3840 x 2160                                    |
| HDR (High Dynamic Range)     | Supported   |
| LFM (LED Flicker Mitigation) | Supported   |
| Serializer                   | Maxim MAX96717G   |
| Power Supply Range           | 9 ~ 19 VDC  |
| Connector                    | FAKRA Z TYPE  |
| Waterproof                   | No  |
| Power Consumption            | 114 mA @ 12 VDC<br>(3840 x 2160 @ 20 fps)               |
| Operating Temp               | -40°C ~ +85°C   |
| Storage Temp                 | -40°C ~ +85°C   |
| Weight                       | ~ 42 g  |
| Part#                        | LI-OX08D10-GM2B-120H                                    |

## APPLICATIONS

- Automotive
  - ◆ High Resolution Front Viewing
  - ◆ Machine Vision
  - ◆ Autonomous Driving
  - ◆ Assisted Driving
  - ◆ Digital Video Recording

## IMAGE ORIENTATION

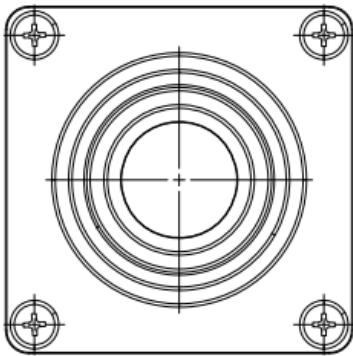
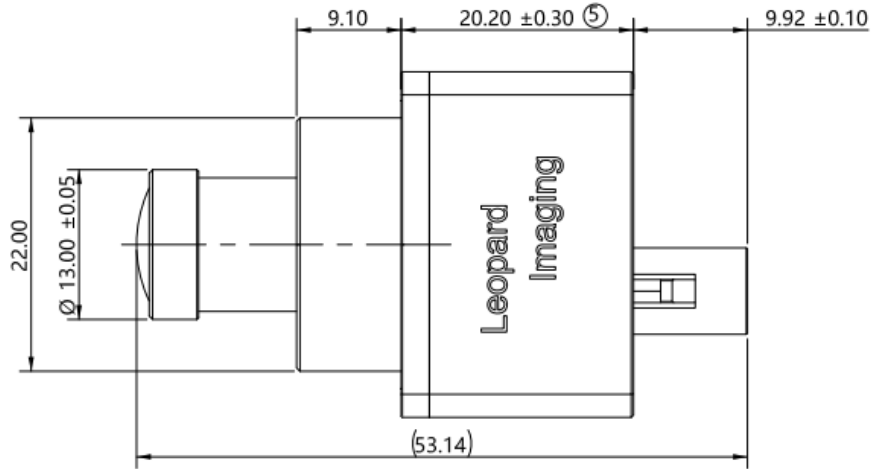
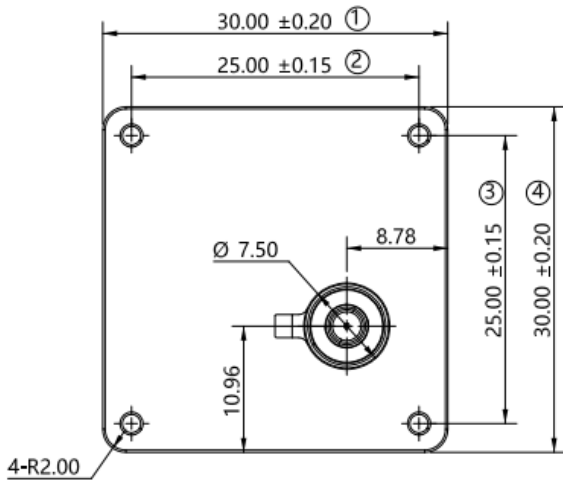


## LENS SPECIFICATIONS

|                     |                      |
|---------------------|----------------------|
| Focal Length        | 5.1 mm $\pm$ 2%      |
| Aperture, F/#       | 1.6 $\pm$ 5%         |
| Field of View (FOV) | 120° horizontal      |
| IR Cut Filter       | 700 nm IR cut filter |
| Lens Mount          | M16 x P0.5           |



## DIMENSIONS



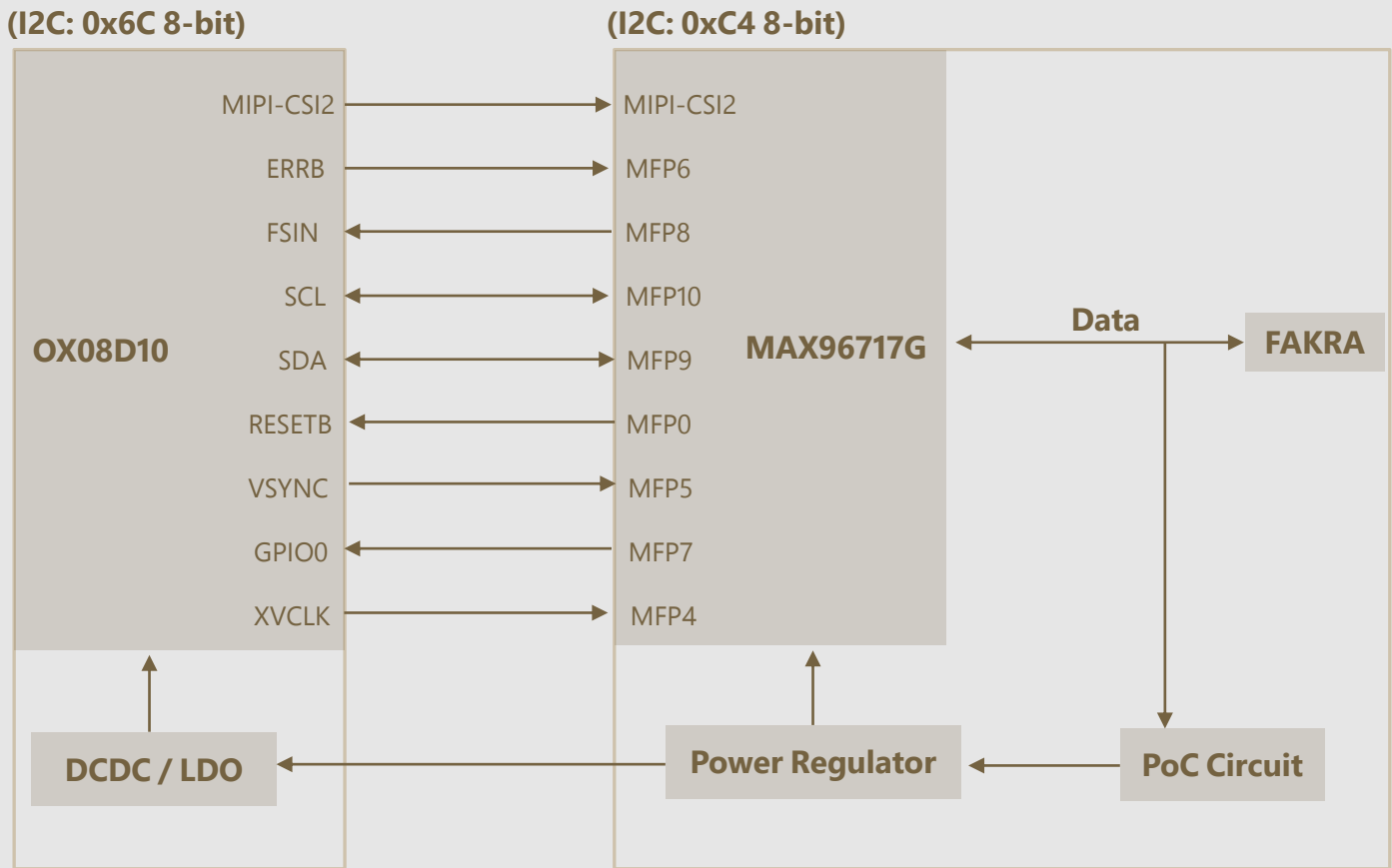
| TOLERANCE TABLE  |           |                   |           |                 |           |
|------------------|-----------|-------------------|-----------|-----------------|-----------|
| LENGTH TOLERANCE |           | CHAMFER TOLERANCE |           | ANGLE TOLERANCE |           |
| Size X           | 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      |                   |           |                 |           |

### NOTE:

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

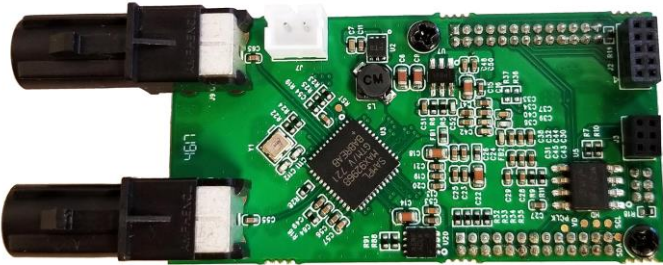
Unit: mm

# PINOUT CONNECTIONS

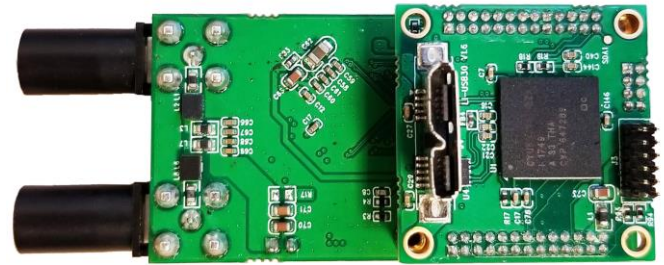


## USB3.0 CAMERA KIT

LI-GMSL2-USB



Top View



Bottom View

LI-OX08D10-GM2B-120H can connect to LI-GMSL2-USB as a USB 3.0 camera.

Part#: **LI-USB30-OX08D10-GM2B-120H**

### SPECIFICATIONS

- USB 3.0 Super Speed support
- UVC compliant
- Allows customization
- 12 VDC Power Supply for camera
- Weight: ~ 124 g (Without USB30 cable)
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: 3840 x 2160 @ 20 fps
- Power consumption: 114 mA @ 12 VDC
- Compatible with Windows, Linux OS and other OS which have UVC drivers

### BOM

| # | Items                | QTY |
|---|----------------------|-----|
| 1 | LI-OX08D10-GM2B-120H | 1   |
| 2 | LI-GMSL2-USB         | 1   |
| 3 | FAK-SMZSMZ-3M Cable  | 1   |
| 4 | 12 VDC Power Supply  | 1   |
| 5 | USB3.0 Cable         | 1   |



12 VDC power supply for camera

### SDK SUPPORTED

- Camera Tool Source Code in C#
- Capture & Display
- Register Access Function

- REVISION HISTORY

| Revision | Description    | Release Date |
|----------|----------------|--------------|
| 1.0      | First release. | 25 Dec 2023  |

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