



**LEOPARD**  
IMAGING

# LI-AR0231-GMSL2-xxxH



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## INTRODUCTION

The LI-AR0231-GMSL2-xxxH is equipped with ON Semiconductor 1/2.7" 2.3MP RCCB CMOS image sensor AR0231 and Maxim GMSL2 serializer MAX9295A/B. This camera outputs RAW image data.

## KEY FEATURES

Sensor	ON SEMI 2.3MP RCCB Sensor AR0231
Optical Format	1/2.7"
Maximum Resolution	1928 (H) x 1208 (V)
Pixel Size	3.0 x 3.0 $\mu\text{m}$
Data Format	10-bit / 12-bit / 14-bit / 16-bit / 20-bit RAW data
Color / Mono	Color sensor
Maximum Frame Rate	40 fps at 1928 x 1208 / 3-exposure 60 fps at 1928 x 1208 / 2-exposure and Linear
HDR (High Dynamic Range)	Supported
LFM (LED Flicker Mitigation)	Supported
Lens	FOV H 60° / 120° / 200°
Serializer	Maxim MAX9295A/B
Power Supply Range	9 ~ 19 VDC
Connector	FAKRA Z TYPE
IP Rating	060H / 120H: IP67 200H: IP69K
Power Consumption	65 mA @ 12 VDC (1928 x 1208 @ 12 fps)
Part#	LI-AR0231-GMSL2-xxxH

## APPLICATIONS

- Automotive ADAS
- 1080p30 Video Applications
- ADAS + Viewing Fusion

## MECHANICAL & ENVIRONMENTAL

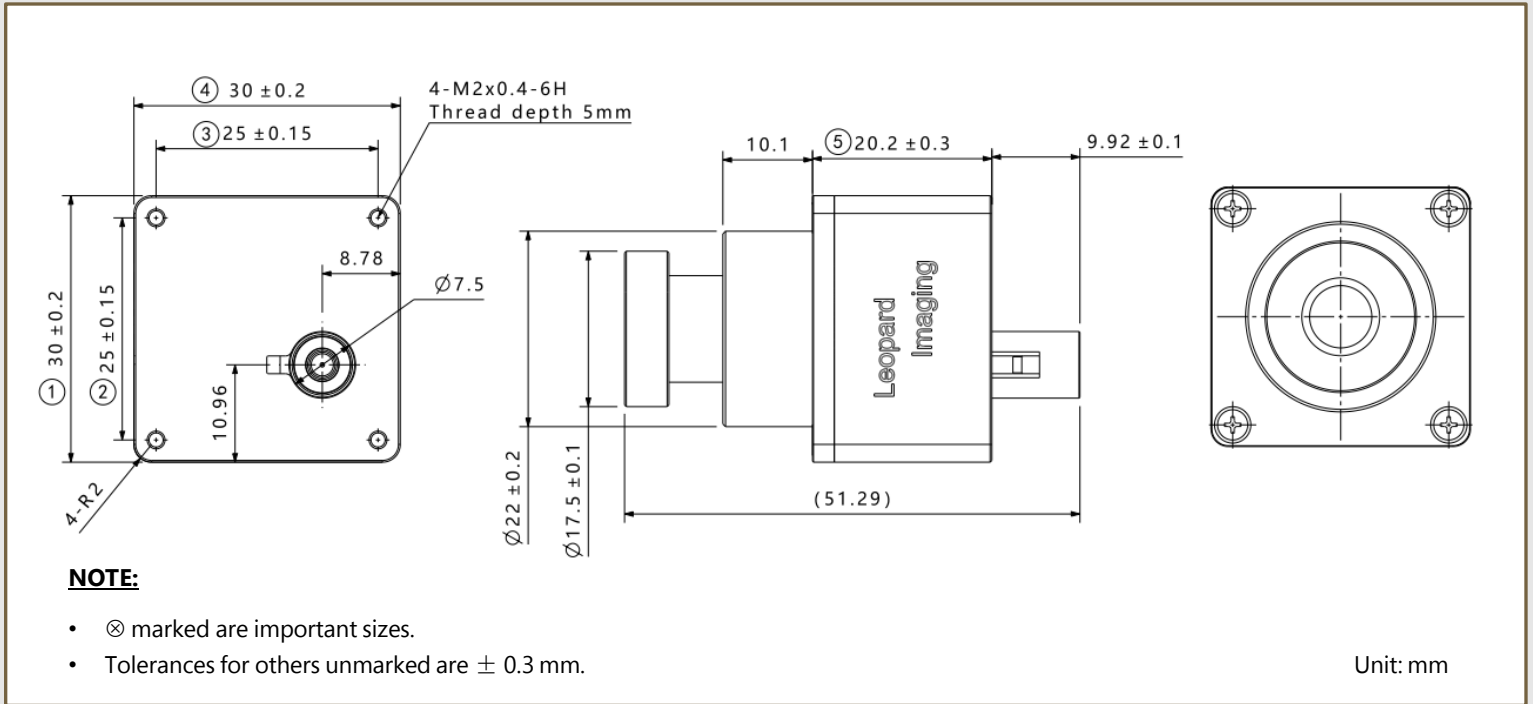
Dimensions	30.0 (L) x 30.0 (W) mm
Weight	~ 45 g
Operating Temp	-40°C ~ +85°C
Storage Temp	-40°C ~ +125°C

## CABLE CONNECTOR

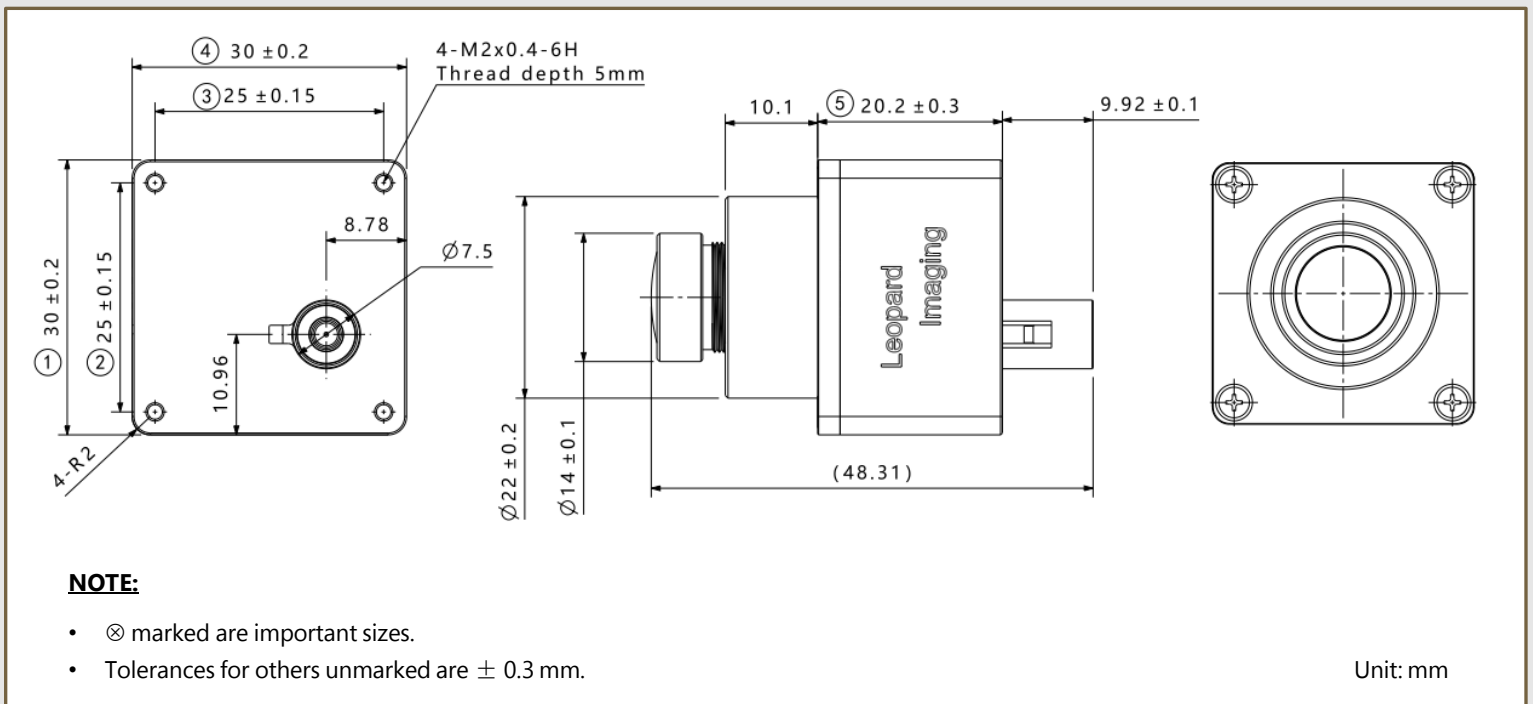
- Housing Connector: FAKRA Z Type
- Cable Length: 3 meters
- Cable Part#: FAK-SMZSMZ-3M



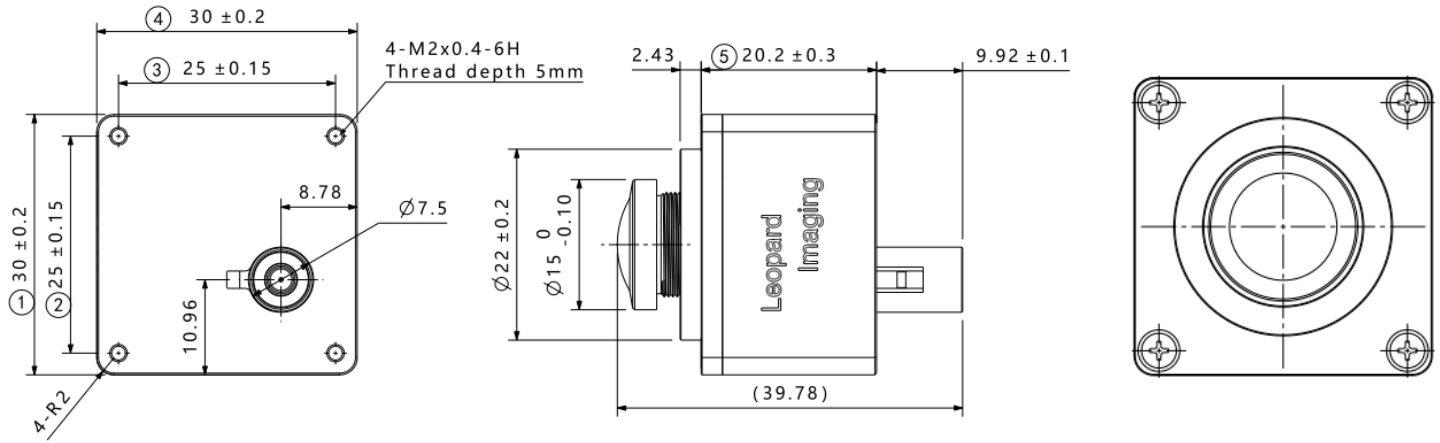
## DIMENSIONS: LI-AR0231-GMSL2-060H



## DIMENSIONS: LI-AR0231-GMSL2-120H



# DIMENSIONS: LI-AR0231-GMSL2-200H



**NOTE:**

- $\otimes$  marked are important sizes.
- Tolerances for others unmarked are  $\pm 0.3$  mm.

Unit: mm

## ORDERING INFORMATION

xxxH refers to 060H (FOV H 60°), 120H (FOV H 120°), 200H (FOV H 200°)

**LI-AR0231-GMSL2-060H**



Lens EFL: 6.0 mm

Aperture, F/#: 1.8

Field of View (FOV): 74.5° (D) / 60.6° (H) / 36.1° (V)

Mount: M12

**LI-AR0231-GMSL2-120H**



Lens EFL: 2.8 mm

Aperture, F/#: 2.0

Field of View (FOV): 148° (D) / 122° (H) / 74° (V)

Mount: M12

**LI-AR0231-GMSL2-200H**



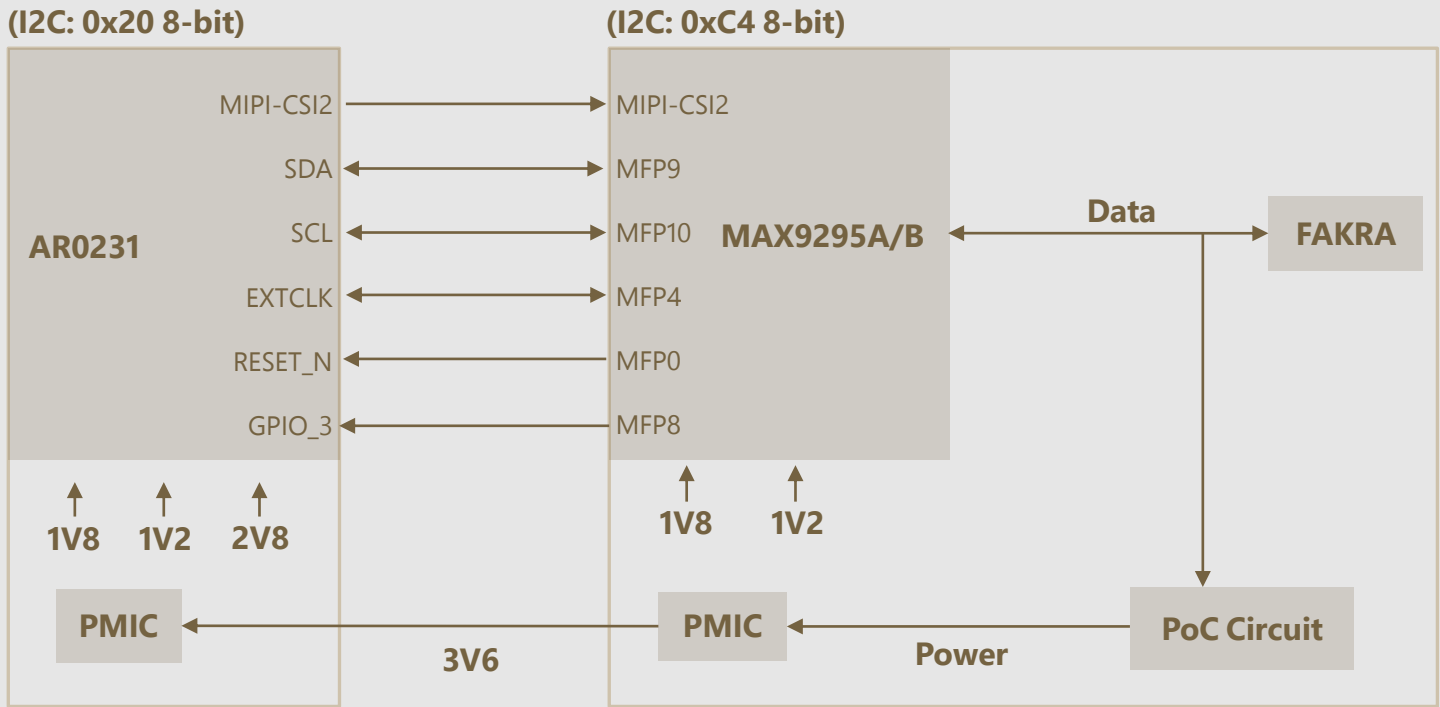
Lens EFL: 0.95 mm  $\pm$  5%

Aperture, F/#: 2.0  $\pm$  5%

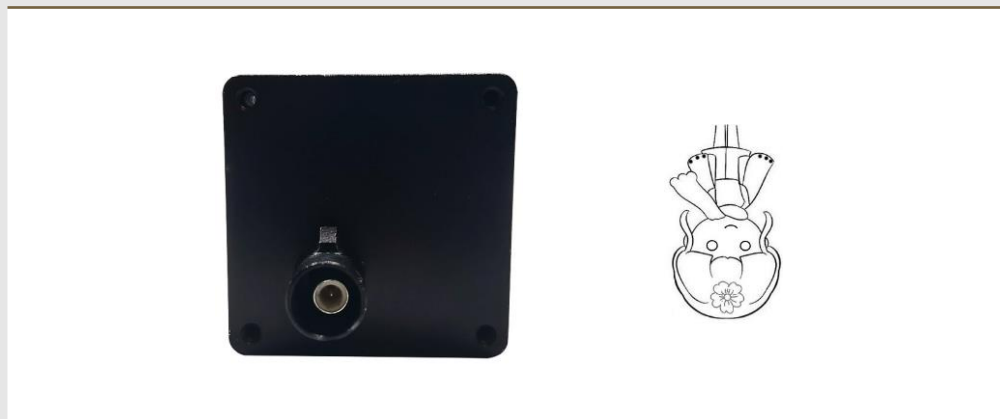
Field of View (FOV): 200° (H)

Mount: M12

## PINOUT CONNECTIONS



## IMAGE ORIENTATION



## USB3.0 CAMERA KIT

LI-GMSL2-USB



Top View



Bottom View

LI-AR0231-GMSL2-xxxH can connect to LI-GMSL2-USB as a USB 3.0 camera.

Part#: **LI-USB30-AR0231-GMSL2-xxxH**

### 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: 1928 x 1208 @ 12 fps
- Power consumption: 65 mA @ 12 VDC
- Compatible with Windows, Linux OS and other OS which have UVC drivers

### BOM

#	Items	QTY
1	LI-AR0231-GMSL2-xxxH	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
1.0	First release.	02 Aug 2017
1.1	Update spec information.	11 Jan 2018
1.2	Changed Part# without R7.	17 Jun 2018
1.3	Added power consumption.	30 Jul 2019
1.4	<ol style="list-style-type: none"><li>1. Changed 200H lens to E7393E-R8 and updated related product images and 2D dimensions.</li><li>2. Updated power consumption, USB30 frame rate and resolution.</li><li>3. Deleted IP information on the "Ordering Information" page.</li></ol>	27 Apr 2023
1.5	Updated 200H IP and image direction.	21 Dec 2023

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