



LEOPARD
IMAGING

LI-AR0231-GMSL-xxxH



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INTRODUCTION

The LI-AR0231-GMSL-xxxH is equipped with ON Semiconductor 1/2.7" 2.3MP RCCB CMOS image sensor AR0231 and Maxim GMSL serializer MAX96705. 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 μm
Data Format	12-bit RAW data
Color / Mono	Color sensor
Maximum Frame Rate	40 fps @ 1928 x 1208 / 3-exposure 60 fps @ 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 MAX96705
Power Supply Range	4 ~ 7 VDC
Nvidia Drive PX2	Supported
Clock Input	27 MHz
Connector	FAKRA Z TYPE
IP Rating	060H / 120H: IP67 200H: IP69K
Power Consumption	350 mA @ 5 VDC (1928 x 1256 @ 30 fps)
Part#	LI-AR0231-GMSL-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 ~ +105°C

CABLE CONNECTOR

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



LI-AR0231-GMSL-060H

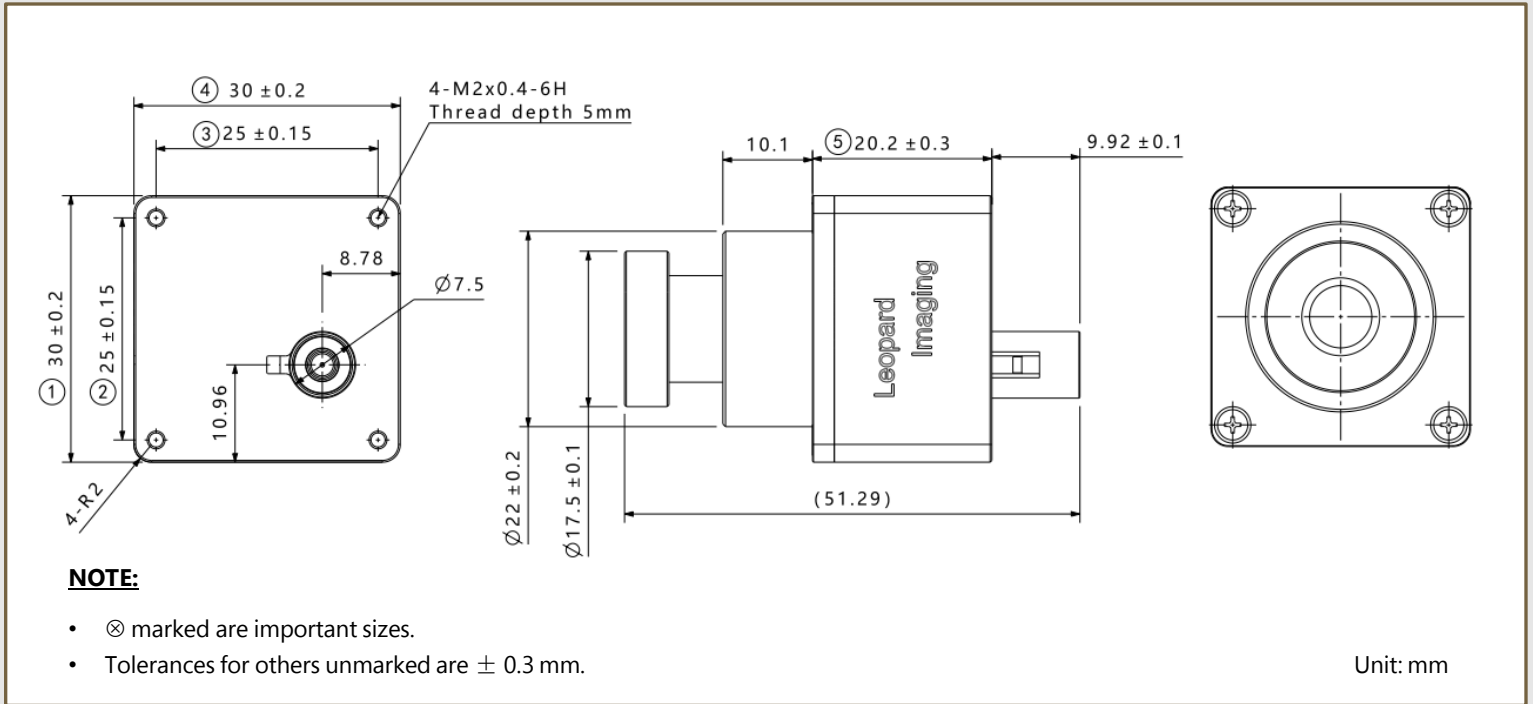


LI-AR0231-GMSL-120H

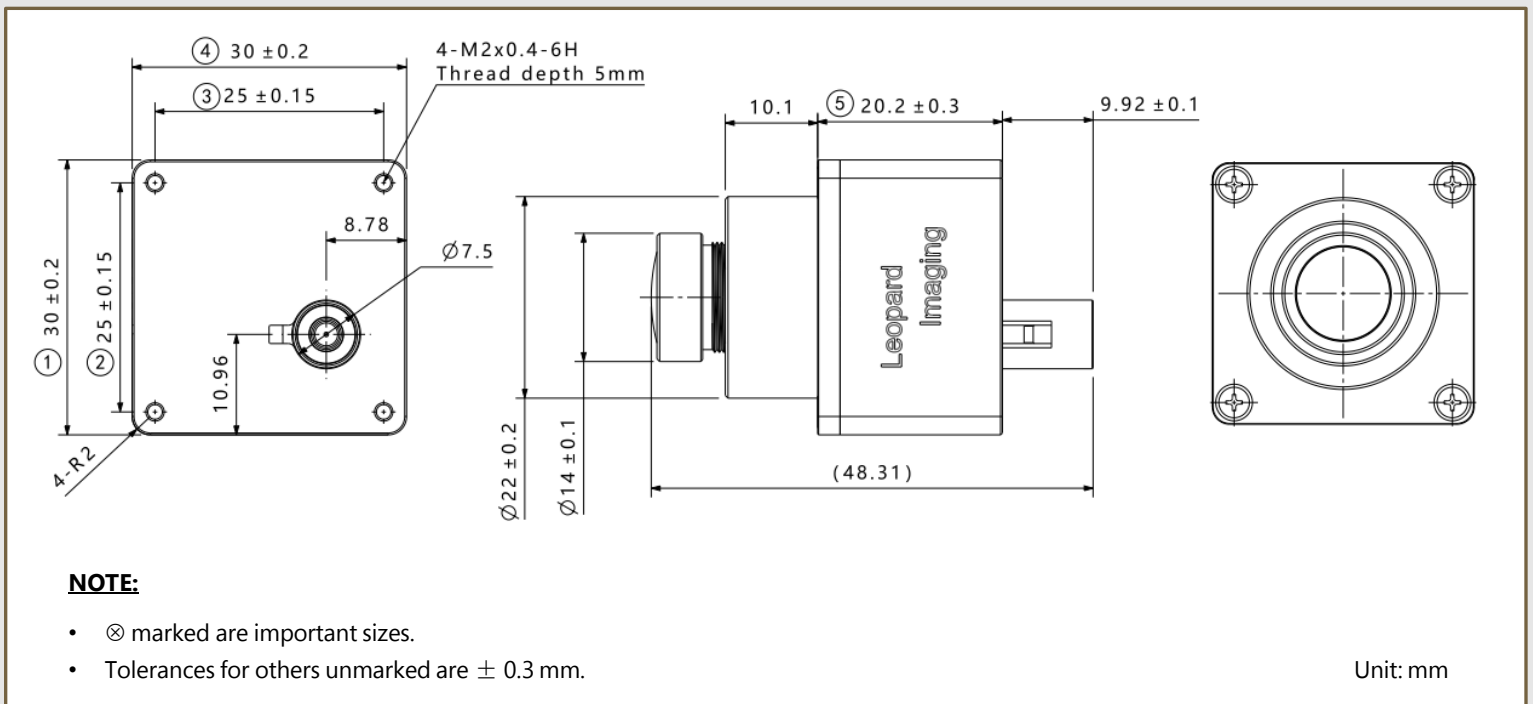


LI-AR0231-GMSL-200H

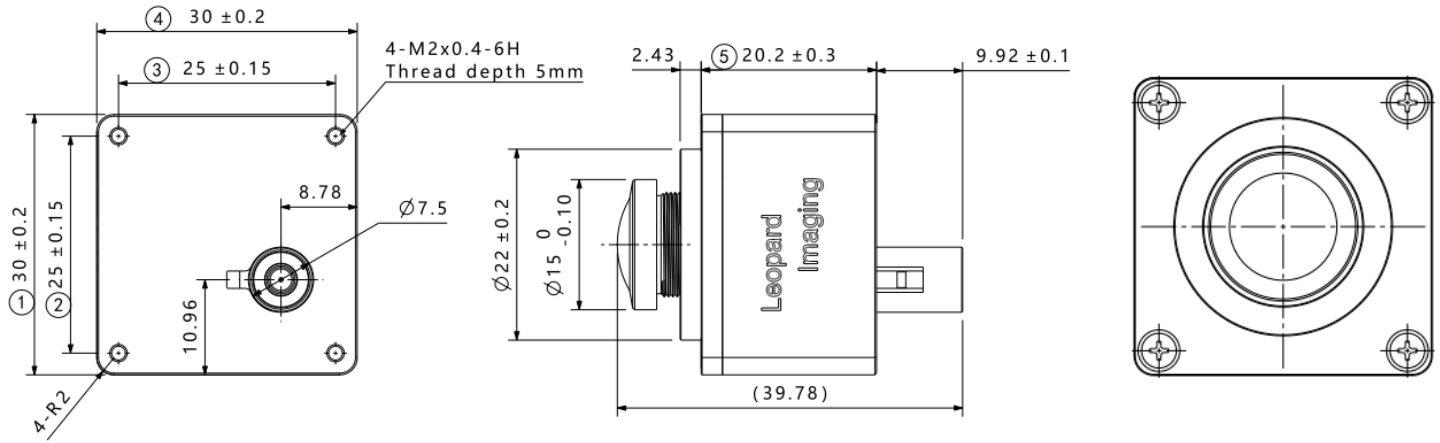
DIMENSIONS: LI-AR0231-GMSL-060H



DIMENSIONS: LI-AR0231-GMSL-120H



DIMENSIONS: LI-AR0231-GMSL-200H



NOTE:

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

Unit: mm

ORDERING INFORMATION

Sensor Revision 7: RCCB

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

LI-AR0231-GMSL-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-GMSL-120H



Lens EFL: 2.8 mm

Aperture, F/#: 2.0

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

Mount: M12

LI-AR0231-GMSL-200H



Lens EFL: 0.95 mm \pm 5%

Aperture, F/#: 2.0 \pm 5%

Field of View (FOV): 200° (H)

Mount: M12

PINOUT CONNECTIONS

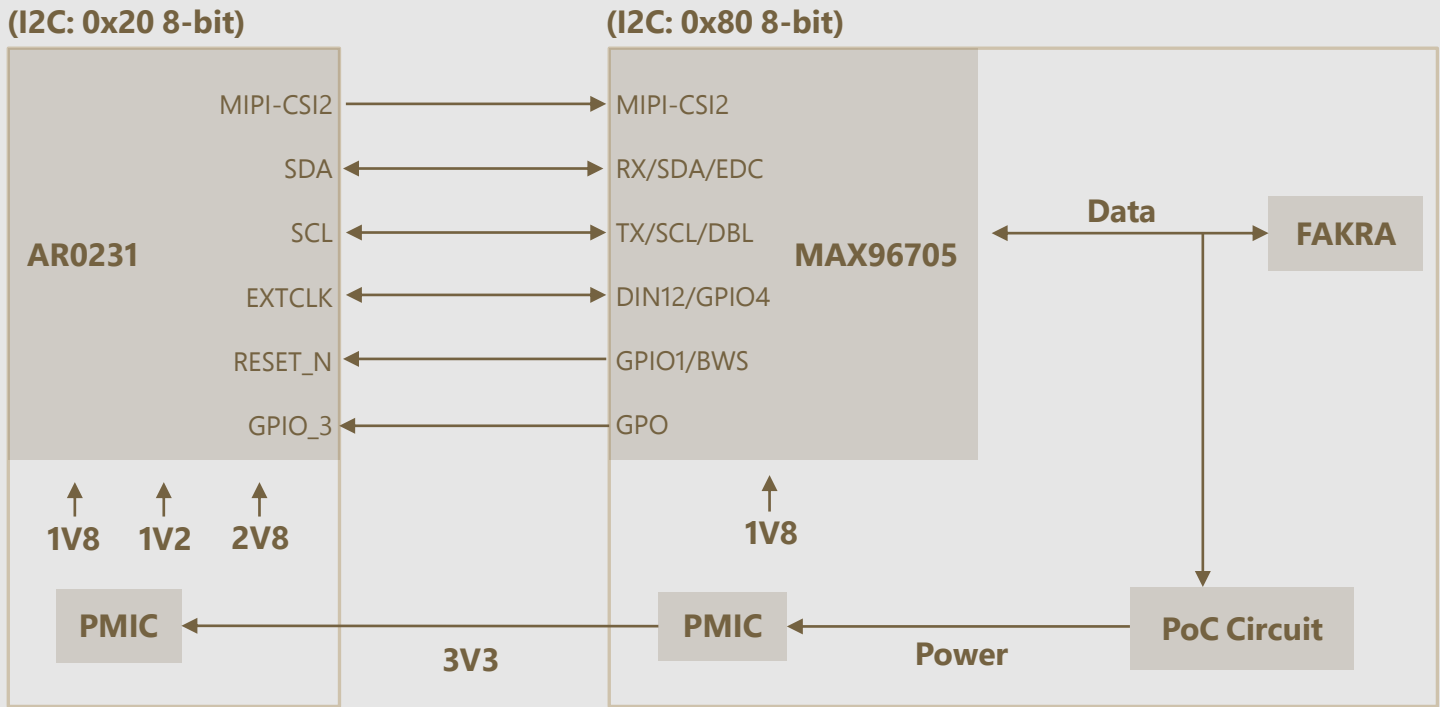


IMAGE ORIENTATION

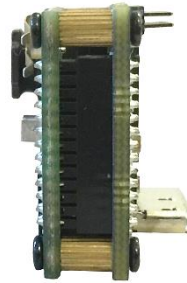


USB3.0 CAMERA KIT

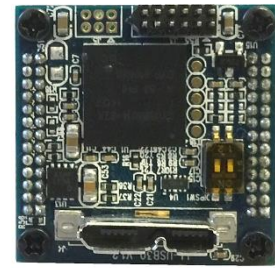
LI-GMSL-USB



Top View



Side View



Bottom View

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

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

SPECIFICATIONS

- USB 3.0 Super Speed support
- RAW data output without compression
- UVC compliant
- Allows customization
- USB + 5 VDC powered device
- Weight: ~ 86 g
- Single Coax Cable transmits up to 15 meters PoC (Power over Cable)
- Resolution: 1928 x 1256 @ 30 fps
- Power consumption: 350 mA @ 5 VDC

BOM

#	Items	QTY
1	LI-AR0231-GMSL-xxxH	1
2	LI-GMSL-USB	1
3	3-Meter Fakra Cable	1
4	USB3.0 Cable	1



SDK SUPPORTED

- Camera Tool Source Code in C#
- Capture & Display
- Save file as BMP & RAW format

● REVISION HISTORY

Revision	Description	Release Date
1.0	First release.	05 Feb 2017
1.1	Updated Part Numbers.	29 Mar 2017
1.2	Added USB 3.0 module.	05 Apr 2017
1.3	Added VFOV.	30 Jul 2019
1.4	Changed the cable length to 3 meters.	08 May 2017
1.5	Updated the camera dimensions and lens information.	21 May 2017
1.6	Added Sensor Revision 7.	14 June 2017
1.7	Changed the part# and removed Rev4 and Rev6.	11 Jan 2018
1.8	<ol style="list-style-type: none"> 1. Updated 200H lens and related pics. 2. Changed the old format datasheet to the new PPT format. 3. Added 2D for 060H and 120H. 4. Added BOM. 5. Added Pinout Connections diagram. 	10 Jul 2023
1.9	Updated IP of 200H lens and Image Orientation section.	08 Dec 2023

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