



LEOPARD
IMAGING

LI-AR0231-FPDLINKII-xxxH



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INTRODUCTION

The LI-AR0231-FPDLINKIII-xxxH is equipped with ON Semiconductor 1/2.7" 2.3MP RCCB CMOS image sensor AR0231 and Maxim FPDLinkIII serializer TI953. 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	10-bit / 12-bit / 14-bit / 16-bit / 20-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	TI953 FPD-Link III (DS90UB953-Q1)
Power Supply Range	9 ~ 19 VDC
Connector	FAKRA Z TYPE
IP Rating	060H / 120H: IP67 200H: IP69K
Power Consumption	73 mA @ 12 VDC (1916 x 1208 @ 33.5 fps)
Part#	LI-AR0231-FPDLINKIII-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-FPDLINKIII-060H

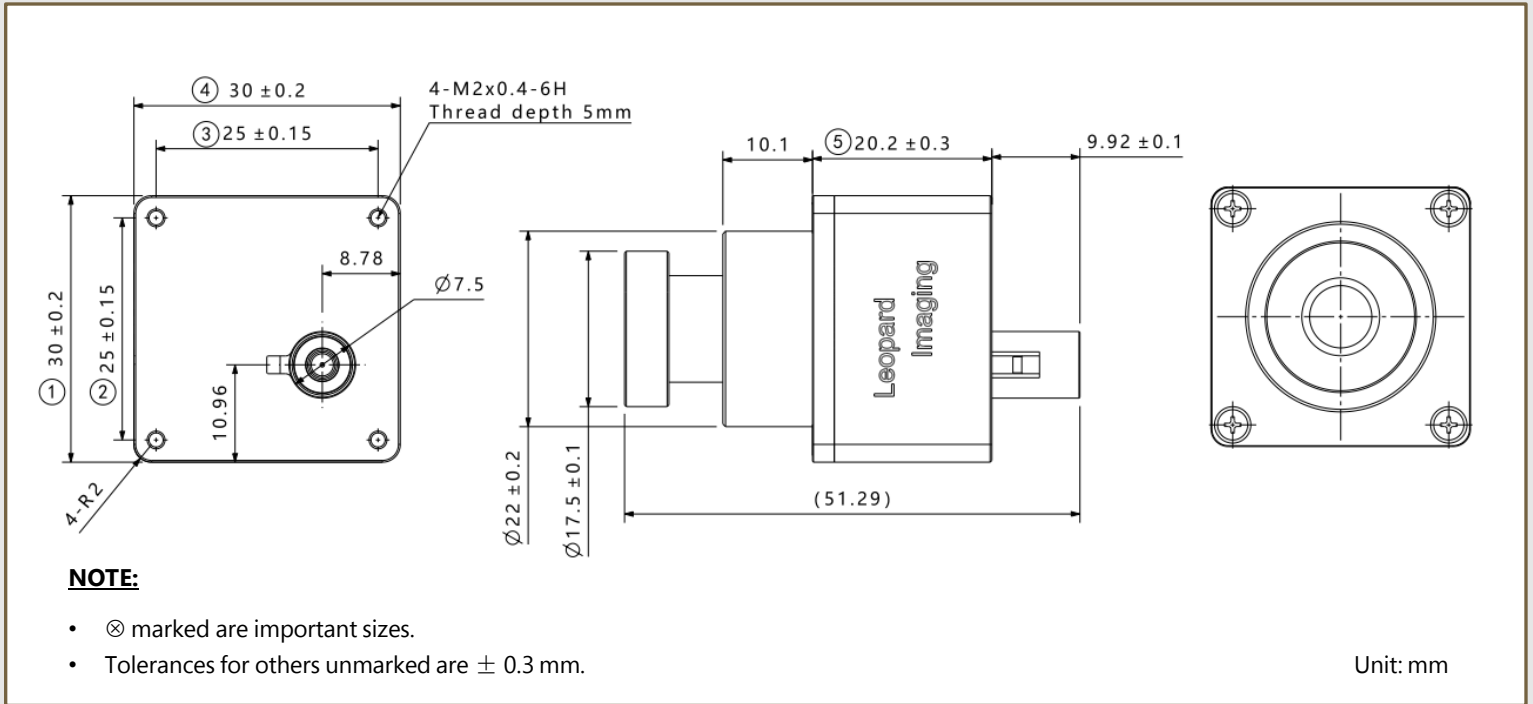


LI-AR0231-FPDLINKIII-120H

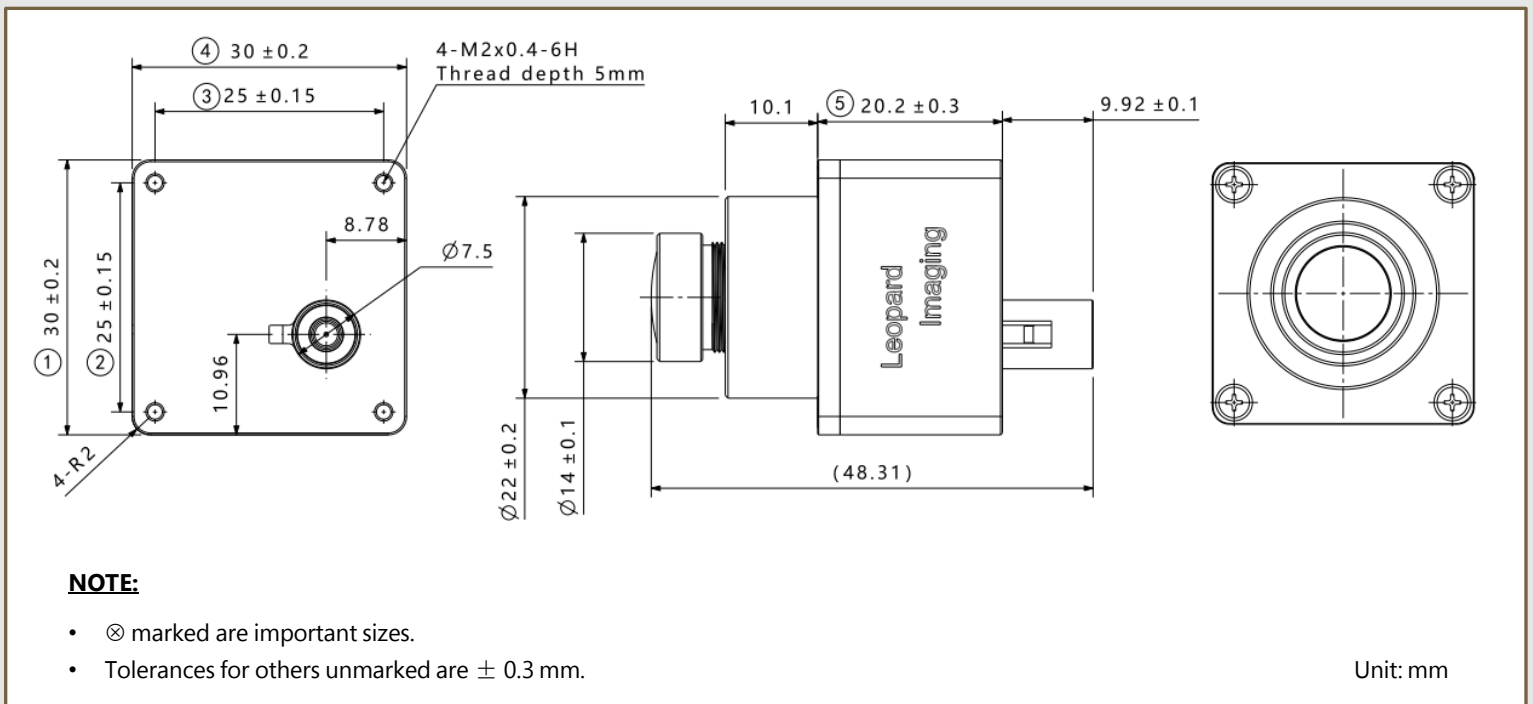


LI-AR0231-FPDLINKIII-200H

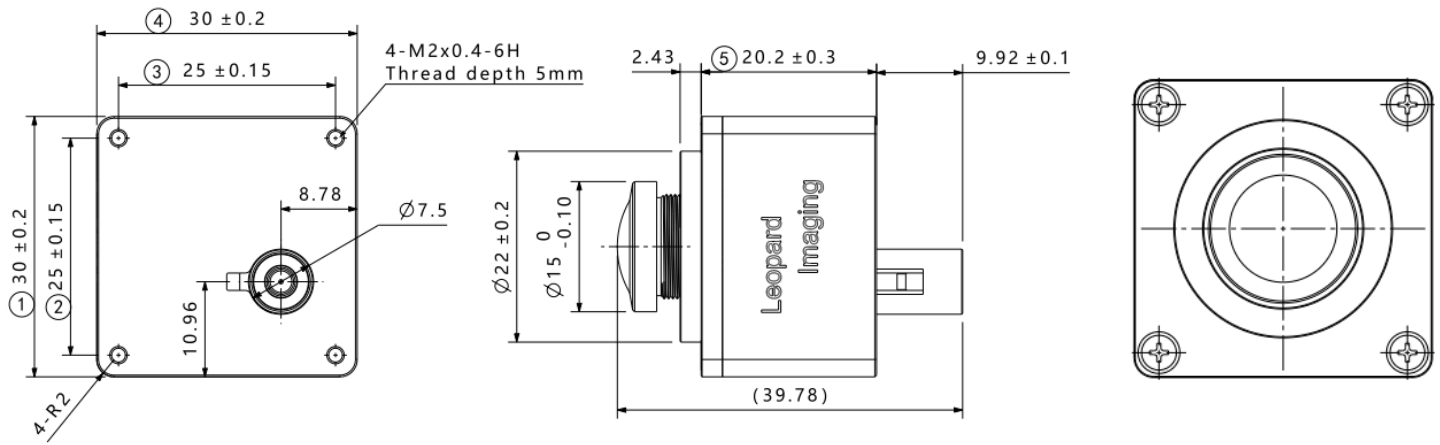
DIMENSIONS: LI-AR0231-FPDLINKIII-060H



DIMENSIONS: LI-AR0231-FPDLINKIII-120H



DIMENSIONS: LI-AR0231-FPDLINKIII-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-FPDLINKIII-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-FPDLINKIII-120H



Lens EFL: 2.8 mm

Aperture, F/#: 2.0

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

Mount: M12

LI-AR0231-FPDLINKIII-200H



Lens EFL: 0.95 mm \pm 5%

Aperture, F/#: 2.0 \pm 5%

Field of View (FOV): 200° (H)

Mount: M12

PINOUT CONNECTIONS

(I2C: 0x20 8-bit)



(I2C: 0x30 8-bit)

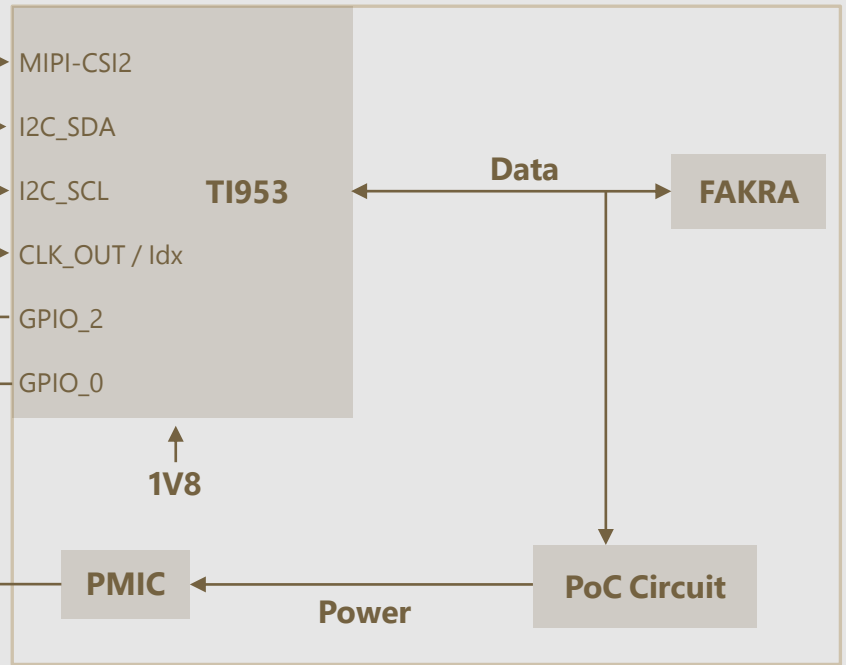
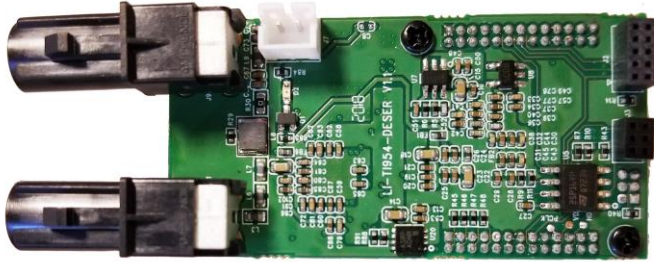


IMAGE ORIENTATION



USB3.0 CAMERA KIT

LI-FPDLINKIII-USB



Top View



Bottom View

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

Part#: **LI-USB30-AR0231-FPDLINKIII-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: 1916 x 1208 @ 33.5 fps
- Power consumption: 73 mA @ 12 VDC
- Compatible with Windows, Linux OS and other OS which have UVC drivers

BOM

#	Items	QTY
1	LI-AR0231-FPDLINKIII-xxxH	1
2	LI-FPDLINKIII-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 the LI-TI954-DESER to V1.1	11 Jan 2018
1.2	Updated USB30 kit pic and changed power description from "USB +5VDC powered device" to "External 12 VDC power supply" on USB30 page.	17 Jun 2018
1.3	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. 6. Updated power consumption and related frame rate. 7. Added default imaging direction.	20 Jul 2023
1.4	Updated 200H IP and image direction.	21 Dec 2023

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