



LEOPARD
IMAGING

LI-IMX390-FPDLINKIII-xxxH



Address:

910 Auburn Ct
Fremont, CA 94538
USA



Phone:

+1 (408)263-0988

Fax:

+1 (408)217-1960



Sales:

sales@leopardimaging.com

Support:

support@leopardimaging.com

INTRODUCTION

The LI-IMX390-FPDLINKIII-xxxH is equipped with Sony automotive RRGB sensor IMX390 and Maxim FPDLINKIII serializer TI953 and is designed for automotive applications. This camera outputs 12-bit / 20-bit / 24-bit RAW data.

KEY FEATURES

Sensor	Sony Diagonal 6.67 mm (Type 1/2.7) CMOS RRGB Image Sensor IMX390
Optical Format	1/2.7"
Resolution	1937 (H) x 1217 (V) (active pixels)
Pixel Size	3.0 x 3.0 μ m
Data Format	20-bit / 12-bit / 24-bit RAW data
Color / Mono	Color sensor
Maximum Frame Rate	60 fps @ 1937 x 1217
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	Approx. 122 mA @ 12 VDC (1936 x 1100 @ 35 fps)
Operating Temp	-40°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	~ 45 g
Part#	LI-IMX390-FPDLINKIII-xxxH

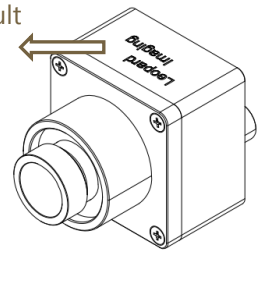
APPLICATIONS

- Automotive ADAS
- 1080p Video Applications

DEFAULT IMAGING DIRECTION

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

Top (Default Imaging Direction)

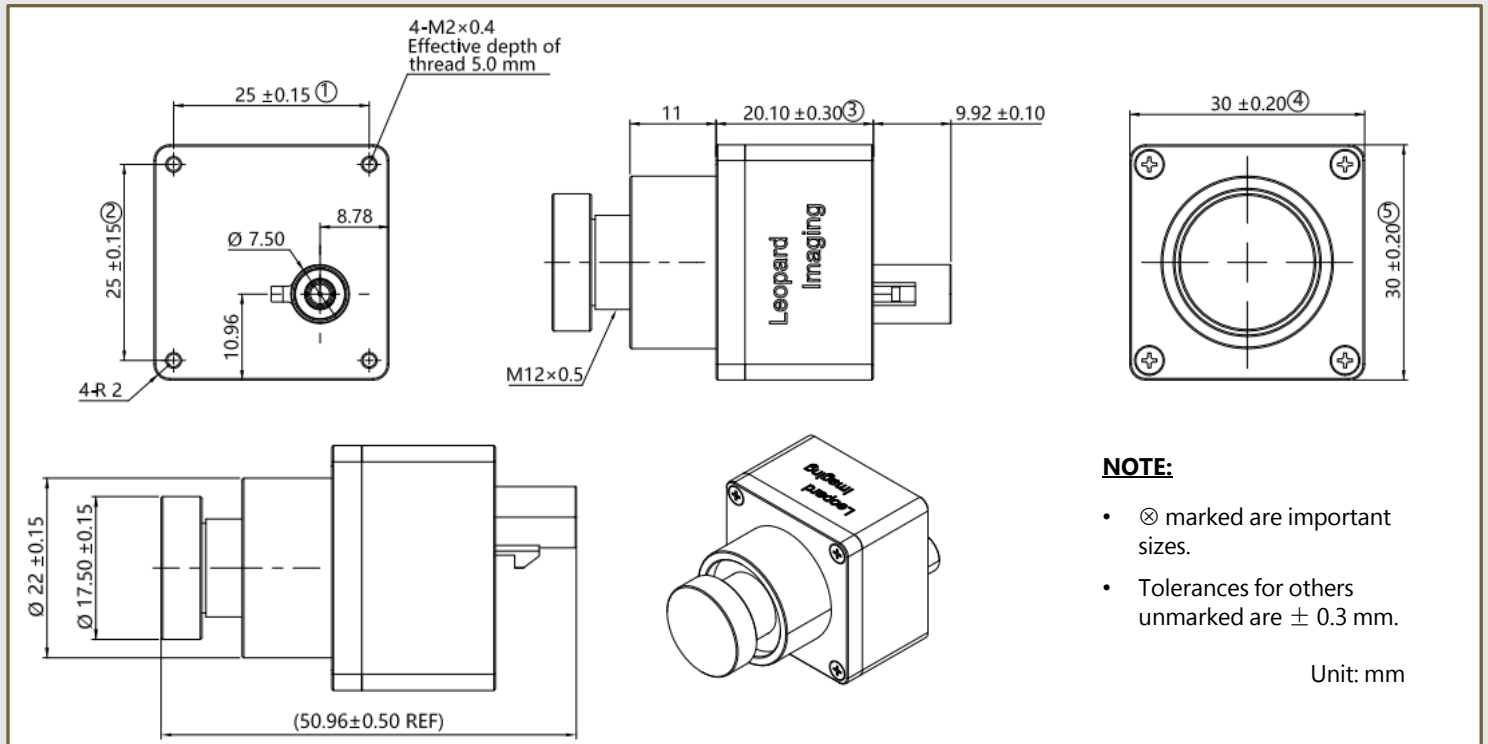


CABLE CONNECTOR

- Housing Connector: FAKRA Z Type
- Cable Length: 3 meters



DIMENSIONS: LI-IMX390-FPDLINKIII-060H

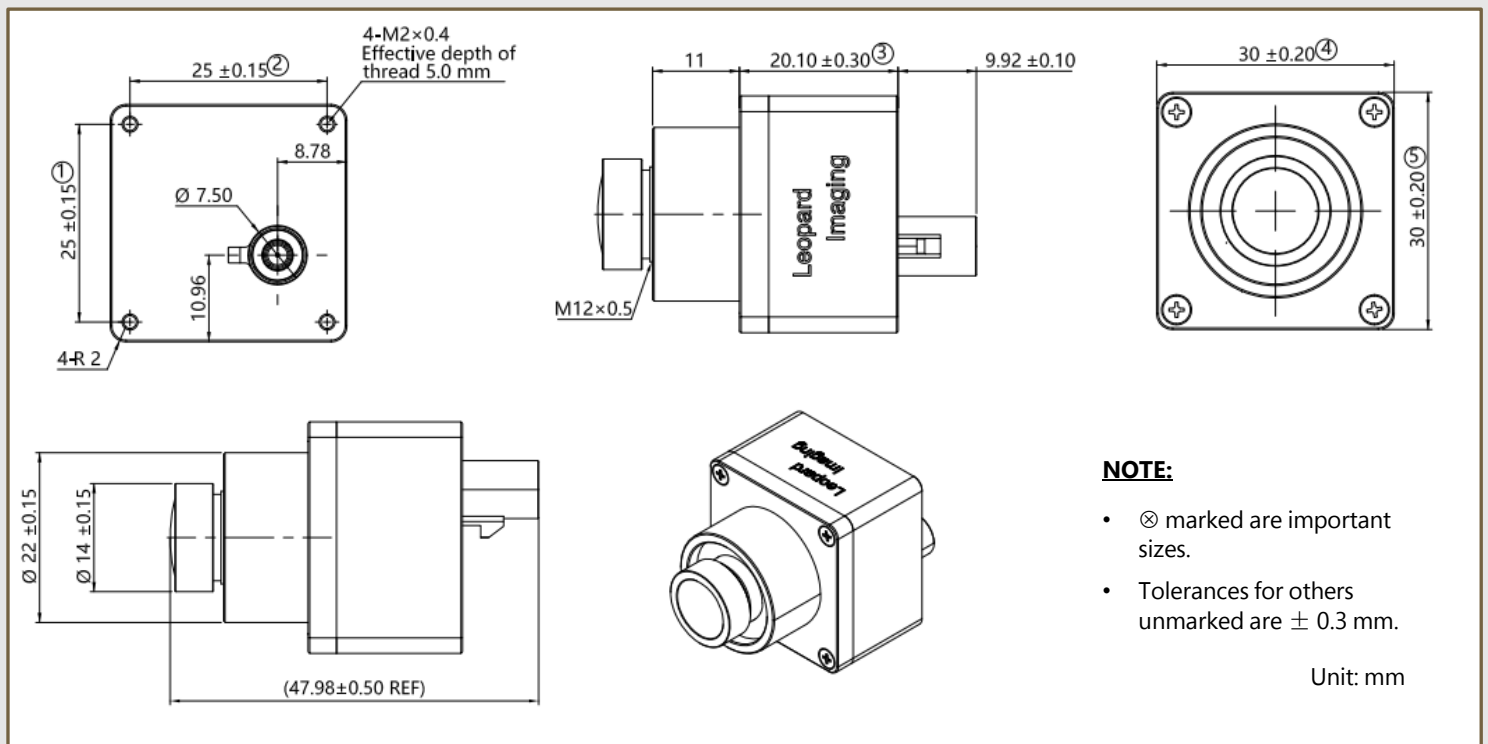


NOTE:

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

Unit: mm

DIMENSIONS: LI-IMX390-FPDLINKIII-120H

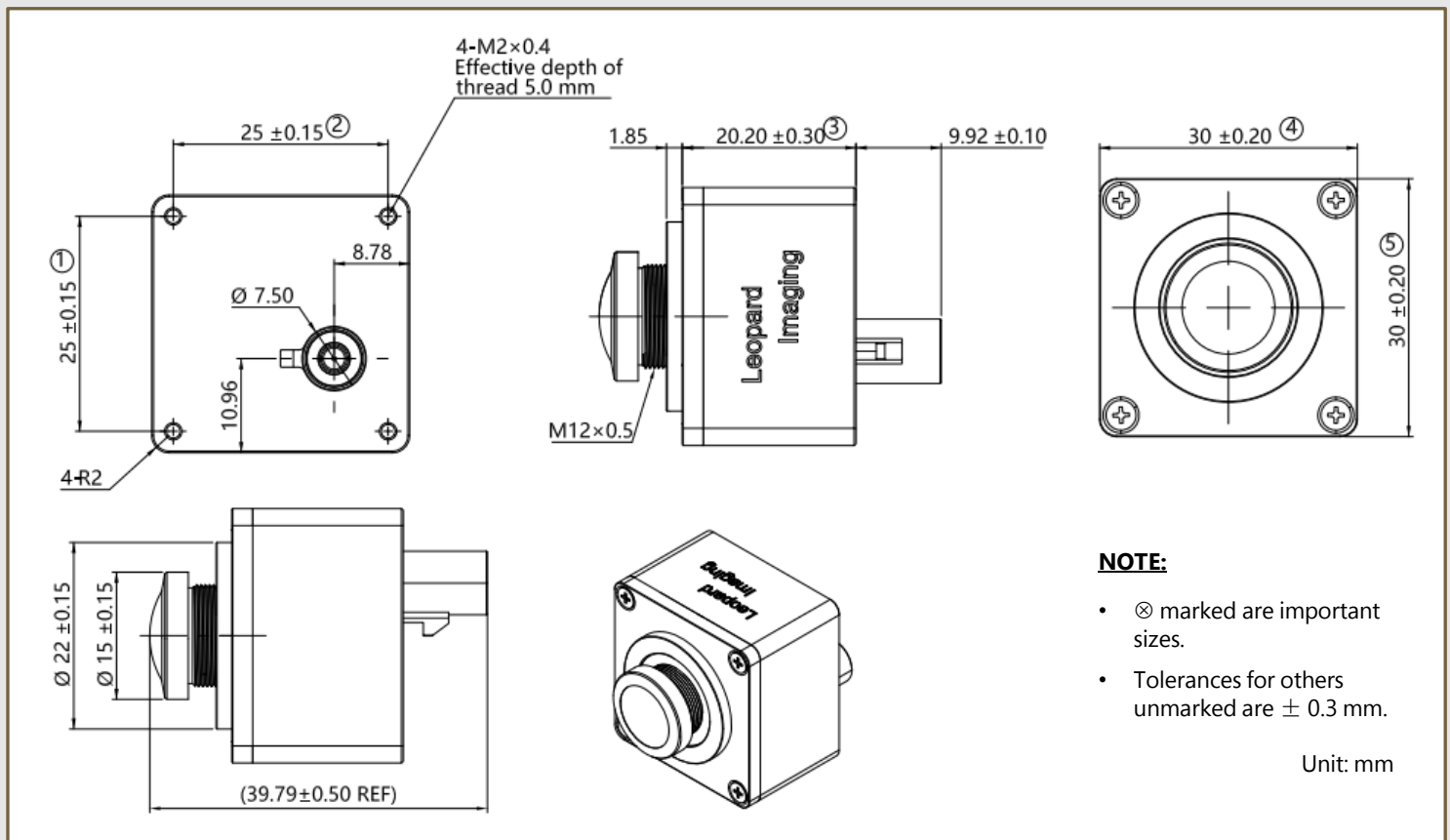


NOTE:

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

Unit: mm

DIMENSIONS: LI-IMX390-FPDLINKIII-200H



ORDERING INFORMATION

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

LI-IMX390-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-IMX390-FPDLINKIII-120H



Lens EFL: 2.8 mm

Aperture, F/#: 2.0

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

Mount: M12

LI-IMX390-FPDLINKIII-200H



Lens EFL: 0.95 mm $\pm$ 5%

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

Field of View (FOV): 200° (H)

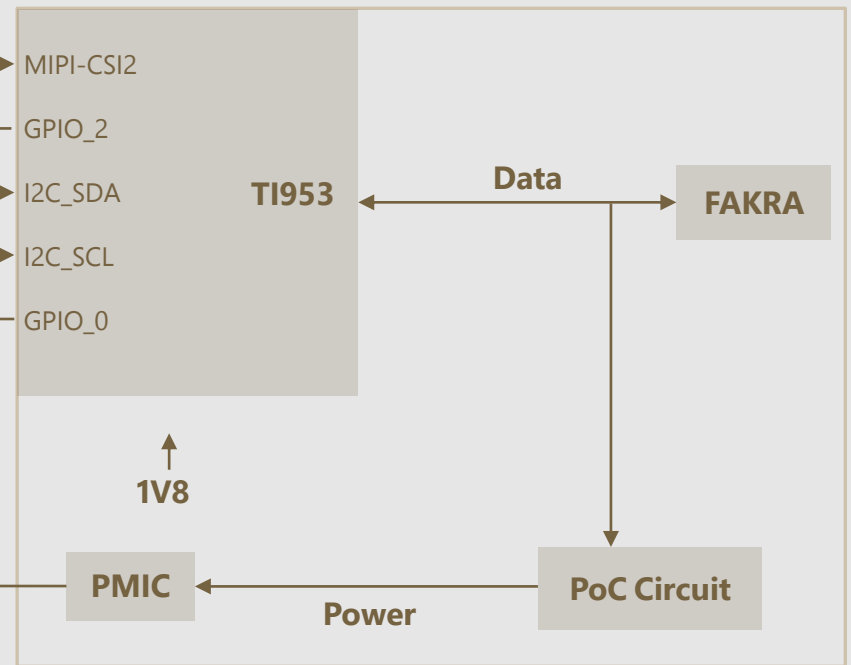
Mount: M12

PINOUT CONNECTIONS

(I2C: 0x42 8-bit)



(I2C: 0x30 8-bit)



USB3.0 CAMERA KIT

LI-FPDLINKIII-USB



Top View



Bottom View

LI-IMX390-FPDLINKIII-xxxH can connect to LI-FPDLINKIII-USB as a USB 3.0 camera.

Part#: **LI-USB30-IMX390-FPDLINKIII-xxxH**

SPECIFICATIONS

- USB 3.0 Super Speed support
- RAW data output without compression
- UVC compliant
- Allows customization
- 12 VDC power supply for camera
- DeSerializer: TI954 FPD-Link III (DS90UB954-Q1)
- Weight: ~ 200 g
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: 1936 x 1100 @ 35 fps
- Power consumption: Approx. 122 mA @ 12 VDC
- Compatible with Windows, Linux OS and other OS which have UVC drivers

BOM

#	Items	QTY
1	LI-IMX390-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.	11 Jan 2018
1.1	Updated spec information.	17 Jun 2018
1.2	1. Replaced 200H lens F13B0108WM12R1 with E7393E-R8 and updated related 2D dimension and lens info. 2. Updated storage temp from +105°C to +85°C.	05 Dec 2022
1.3	Replaced 3D images of 200H lens with actual product pictures.	21 Mar 2023
1.4	Updated 200H IP in "Key Features" section and deleted IP in "Ordering Information" section.	27 Dec 2023
1.5	Deleted 3 meters fakra cable P/N.	08 Nov 2024

910 Auburn Ct, Fremont, CA 94538, USA

Phone: +1-408-263-0988

Fax: +1-408-217-1960

Email: sales@leopardimaging.com

Website: www.leopardimaging.com



Leopard Imaging Inc.