



**LEOPARD**  
IMAGING

LI-IMX390-GW5400-FPDLINKIII-xxxH



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## INTRODUCTION

The LI-IMX390-GW5400-FPDLINKIII-xxxH is equipped with Sony diagonal 6.67 mm (Type 1/2.7) CMOS RGGB image sensor IMX390, GEO Semiconductor GW5400 ISP and FPD-Link III serializer TI953. This camera outputs YUV data.

## SPECIFICATIONS

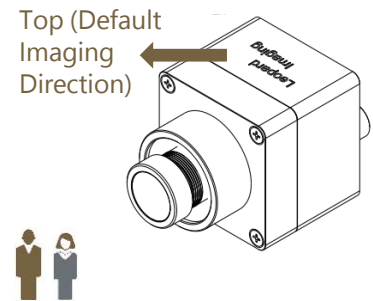
|  |   |
|--|---|
| Sensor                                   | Sony Diagonal 6.67mm (Type 1/2.7) CMOS RGGB Image Sensor IMX390 |
| Optical Format                           | 1/2.7"  |
| Resolution                               | 1920 (H) x 1080 (V) (based on ISP binary)                       |
| Pixel Size                               | 3.0 x 3.0 $\mu\text{m}$   |
| Output Format                            | YUV output without compression                                  |
| ISP                                      | GEO Semi GW5400   |
| HDR (High Dynamic Range)                 | Supported   |
| LFM (LED Flicker Mitigation)             | Supported   |
| Lens                                     | FOV H 40° / 120°  |
| IP Rating                                | 120H: IP67<br>040H: Not waterproof                              |
| Color / Mono                             | Color sensor  |
| Frame Rate                               | 60 fps @ 1920 x 1080  |
| Serializer                               | TI953 FPD-Link III (DS90UB953-Q1)                               |
| Power Supply Range                       | 9 ~ 19 VDC  |
| FAKRA Connector                          | FAKRA Z TYPE  |
| Power Consumption (1920 x 1080 @ 60 fps) | Approx. 193 mA @ 12 VDC   |
| Operating Temp                           | TBD   |
| Storage Temp                             | TBD   |
| Weight                                   | ~ 50 g  |
| Part#                                    | LI-IMX390-GW5400-FPDLINKIII-xxxH                                |

## APPLICATIONS

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

## DEFAULT IMAGING DIRECTION

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

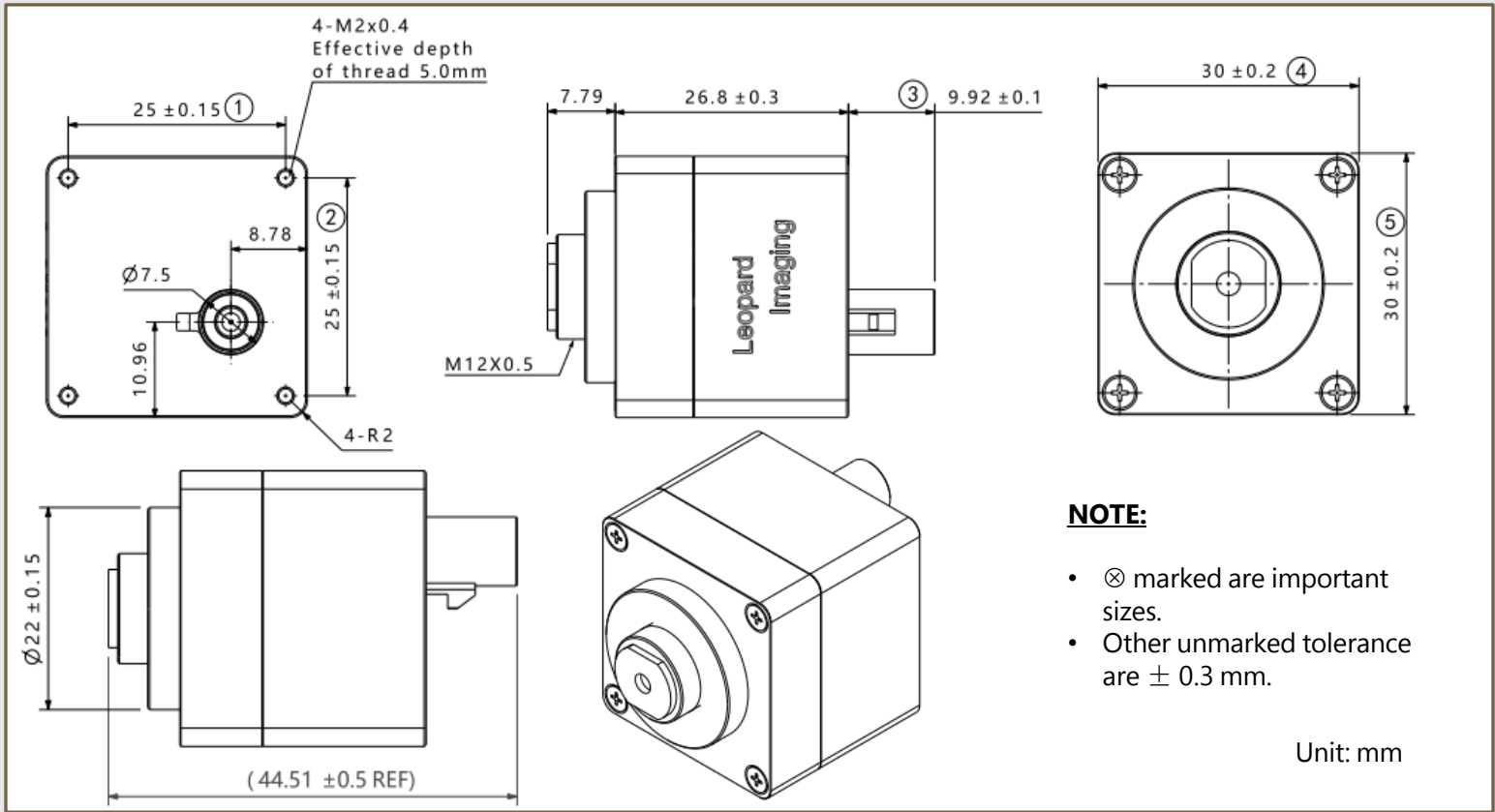


## CABLE CONNECTOR

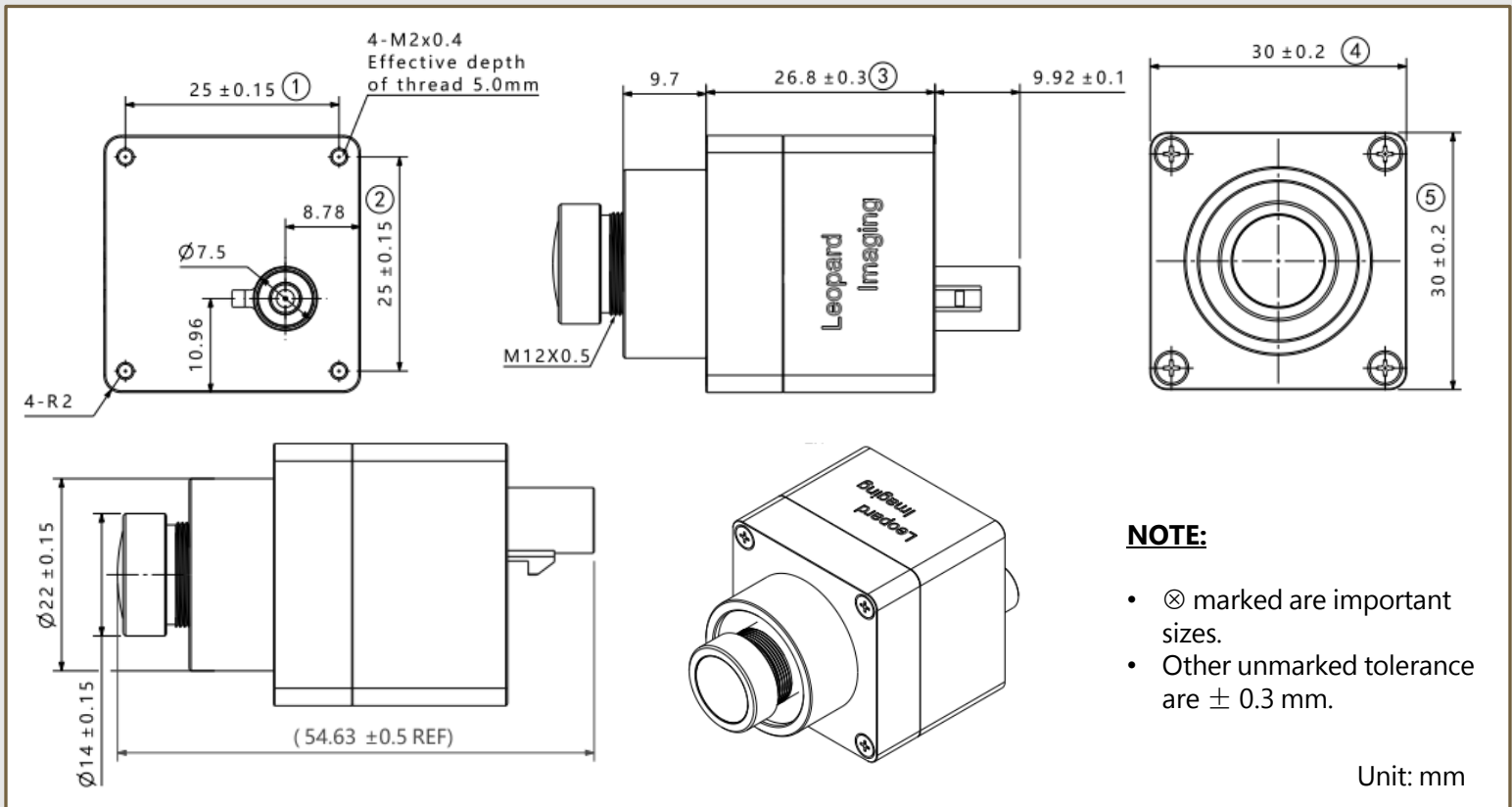
- Housing Connector: FAKRA Z Type
- Cable Length: 3 meters
- Cable Part#: FAK-SMZSMZ-3M



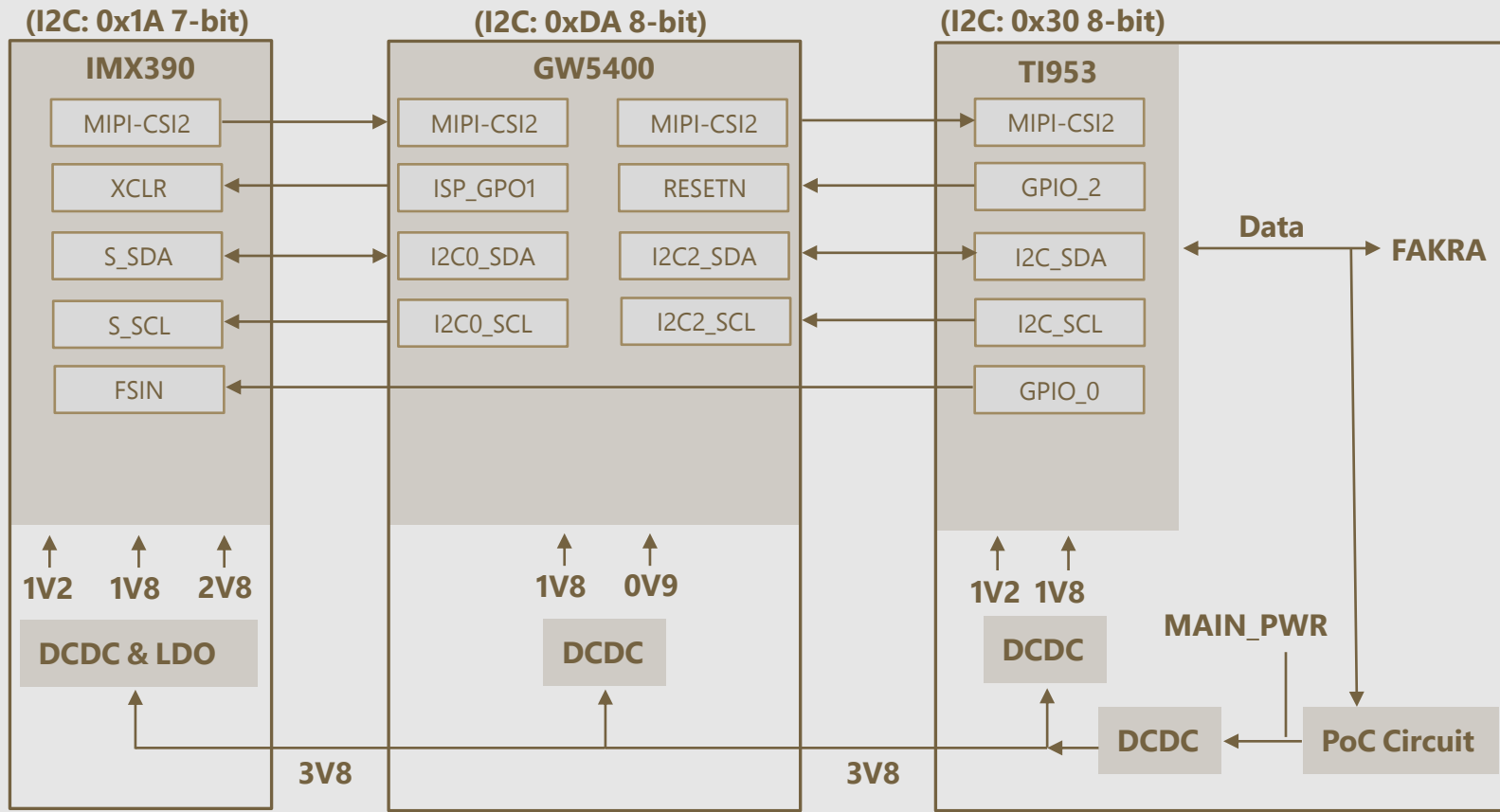
## DIMENSIONS: LI-IMX390-GW5400-FPDLINKIII-040H



## DIMENSIONS: LI-IMX390-GW5400-FPDLINKIII-120H



● BLOCK DIAGRAM



## ORDERING INFORMATION

**NOTE:**

xxxH refers to 040H (FOV H 40° ), or 120H (FOV H 120° )

**LI-IMX390-GW5400-FPDLINKIII-040H**



**LI-IMX390-GW5400-FPDLINKIII-120H**



|  |  |
|--|--|
| Lens EFL: 7.5 mm                                   | Lens EFL: 2.8 mm                                   |
| Aperture, F/#: 2.8                                 | Aperture, F/#: 2.8                                 |
| Field of View (FOV): 47° (D) / 41° (H) / 23.5° (V) | Field of View (FOV): 148° (D) / 122° (H) / 74° (V) |
| Mount: M12   | Mount: M12   |
| Waterproof: No                                     | IP Rating: IP67                                    |

## USB3.0 CAMERA KIT

LI-FPDLINKIII-FP-USB-BOX



Front View



Side View

LI-IMX390-GW5400-FPDLINKIII-xxxH can connect to LI-FPDLINKIII-FP-USB-BOX as a USB 3.0 camera.

Part#: **LI-USB30-IMX390-GW5400-FPDLINKIII-xxxH**

### SPECIFICATIONS

- USB 3.0 Super Speed support
- UVC compliant
- Supports WDR
- Allows customization
- 12 VDC power supply for camera
- Weight: ~ 178 g
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: 1920 x 1080 @ 60 fps
- Power consumption: Approx. 193 mA @ 12 VDC
- Compatible with Windows, Linux OS and other OS which have UVC drivers



### BOM

| # | Items                            | QTY |
|---|----------------------------------|-----|
| 1 | LI-IMX390-GW5400-FPDLINKIII-xxxH | 1   |
| 2 | LI-FPDLINKIII-FP-USB-BOX         | 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
- ISP Rom Update

## ● REVISION HISTORY

| Revision | Description  | Release Date |
|----------|--|--------------|
| 1.0      | Initial draft.   | 20 Nov 2018  |
| 1.1      | Added E3292B-R3 HFOV 120 lens.   | 08 Jan 2019  |
| 1.2      | Added DSL958 HFOV 70 lens.   | 13 Aug 2019  |
| 1.3      | Removed 040H and 070H lens.  | 30 Dec 2020  |
| 1.4      | Added 040H lens and changed USB3.0 Tester to FP version.   | 30 Jan 2021  |
| 1.5      | 1. Replaced GW5200 with GW5400.<br>2. Added 2D dimensions for 040H camera and 120H camera.<br>3. Added "DEFAULT IMAGING DIRECTION" part.<br>4. Added Pinout Connections diagram. | 29 Jun 2022  |

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