



# LI-IMX490-GW5400-GMSL2-xxxH



**Address:**

48820 Kato Road  
Suite 100B  
Fremont, CA 94538  
USA



**Phone:**

+1 (408)263-0988

**Fax:**

+1 (408)217-1960



**Sales:**

[sales@leopardimaging.com](mailto:sales@leopardimaging.com)

**Support:**

[support@leopardimaging.com](mailto:support@leopardimaging.com)

## INTRODUCTION

The LI-IMX490-GW5400-GMSL2-xxxH is equipped with Sony diagonal 10.36 mm (Type 1/1.55) CMOS solid-state image sensor IMX490, GEO Semiconductor GW5400 ISP and Maxim GMSL2 serializer MAX9295A/B. This camera outputs 2880 x 1860 YUV 8-bit data.

## SPECIFICATIONS

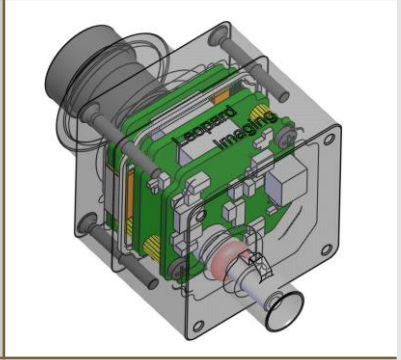
|                              |   |
|------------------------------|---|
| Sensor                       | Sony Diagonal 10.36 mm CMOS Solid-State Image Sensor IMX490 |
| Optical Format               | 1/1.55"   |
| Resolution                   | 2880 (H) x 1860 (V) (based on ISP)                          |
| Pixel Size                   | 3.0 x 3.0 $\mu\text{m}$                                     |
| Color / Mono                 | Color sensor  |
| Frame Rate                   | 25 fps @ 2880 x 1860  |
| Output Format                | Fine tuned YUV422 8-bit data                                |
| ISP                          | GEO Semi GW5400   |
| HDR (High Dynamic Range)     | Supported   |
| LFM (LED Flicker Mitigation) | Supported   |
| Lens                         | FOV H 30° / 40° / 65° / 120°                                |
| Serializer                   | Maxim MAX9295A/B  |
| Power Supply Range           | 9 ~ 19 VDC  |
| FAKRA Connector              | FAKRA Z TYPE  |
| IP Rating                    | IP67 or IP69K   |
| Power Consumption            | 176 mA @ 12 VDC   |
| Operating Temp               | -40°C ~ +85°C   |
| Storage Temp                 | -40°C ~ +85°C   |
| Weight                       | ~ 68 g  |
| Part#                        | LI-IMX490-GW5400-GMSL2-xxxH                                 |

## APPLICATIONS

- Automotive ADAS
- 5MP Video Applications
- ADAS + Viewing Fusion

## WATER PROOF

- Metal Housing
  - Water-Proof Lens
  - Sealed Gasket (White)
  - Sealed O-Ring (Red)
- Note: The lens must be glued for water-proof.

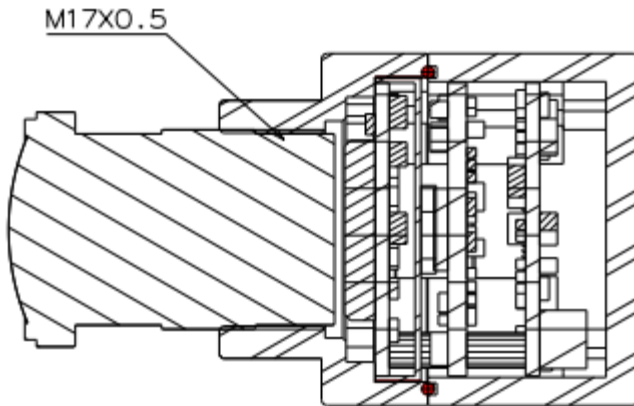
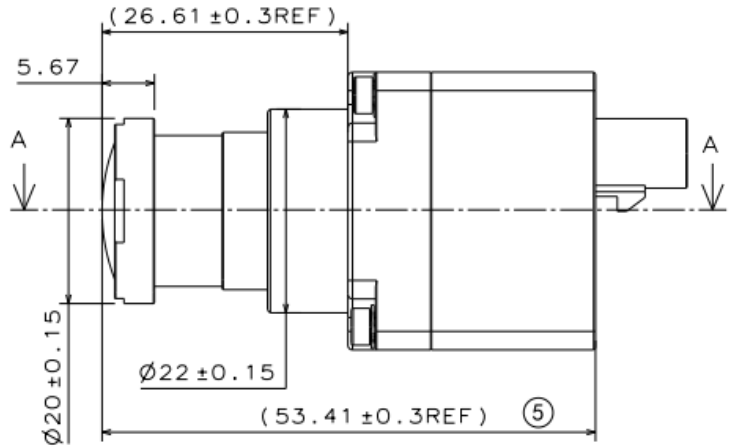
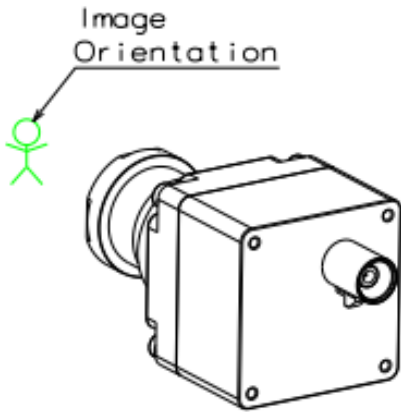
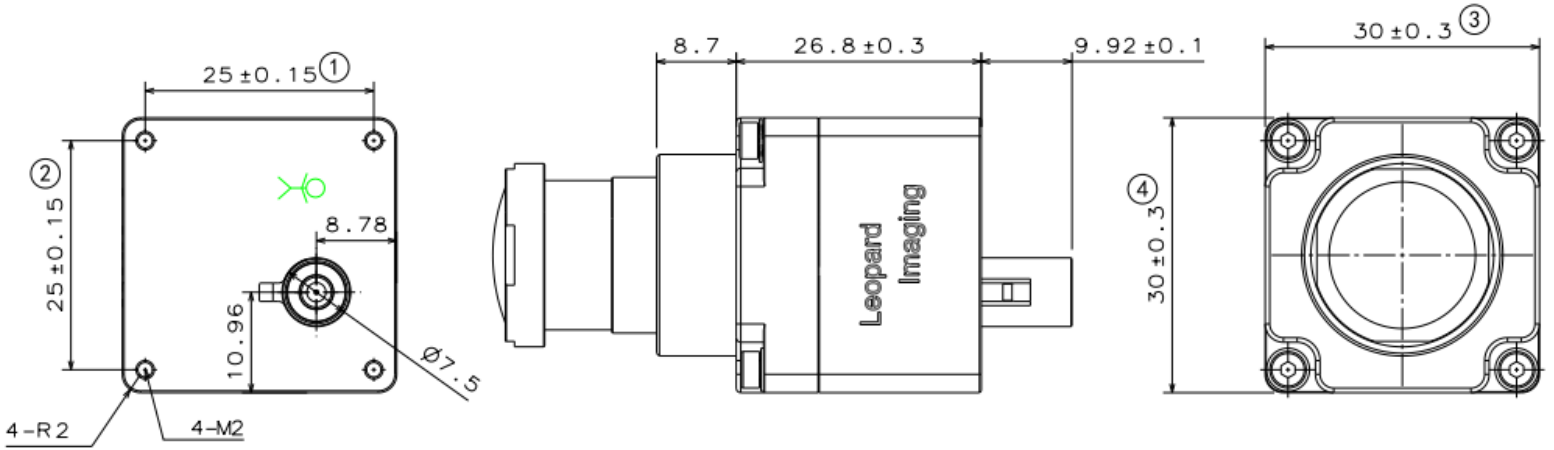


## CABLE CONNECTOR

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



# DIMENSIONS: LI-IMX490-GW5400-GMSL2-030H



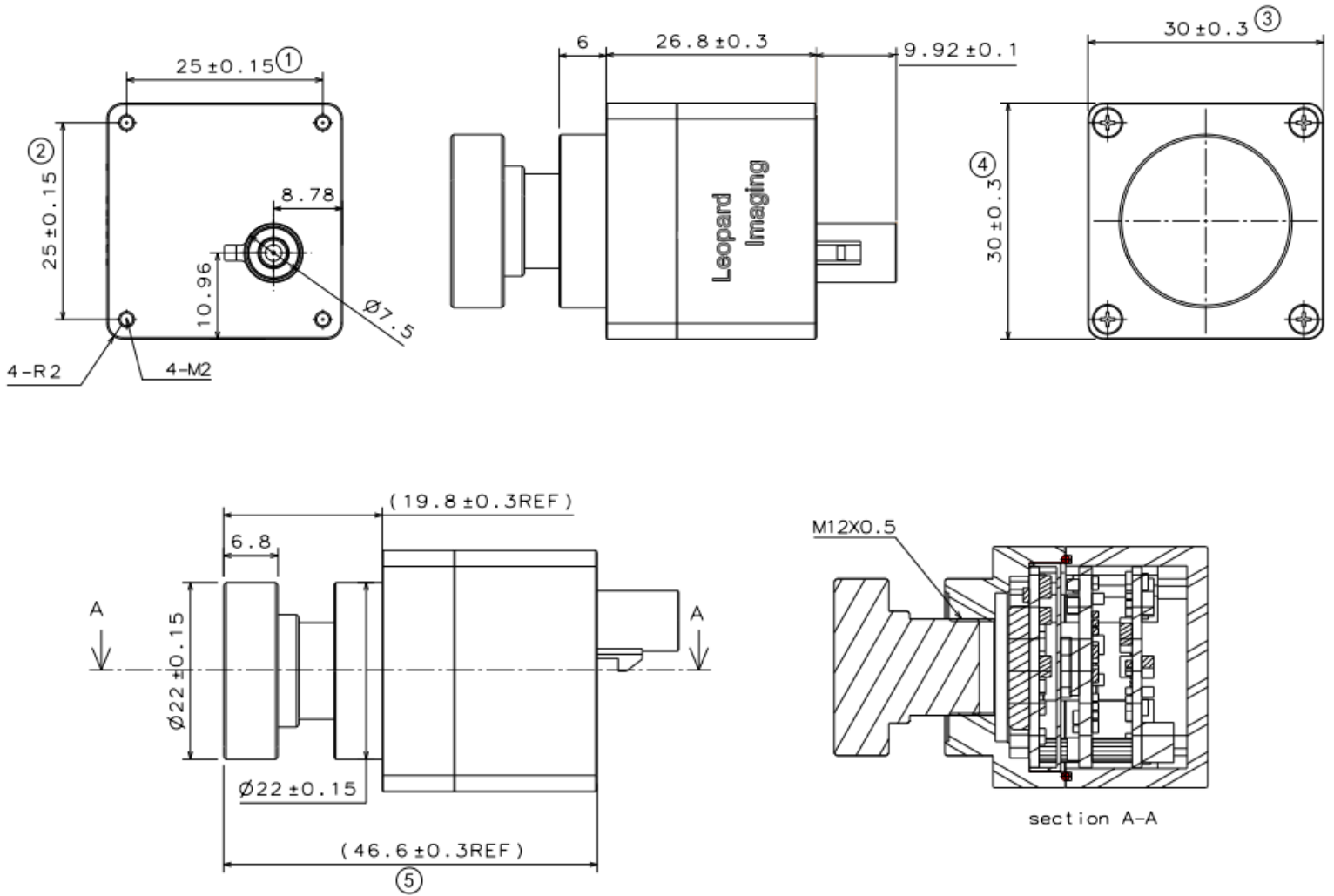
section A-A

**NOTE:**

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

Unit: mm

# DIMENSIONS: LI-IMX490-GW5400-GMSL2-040H

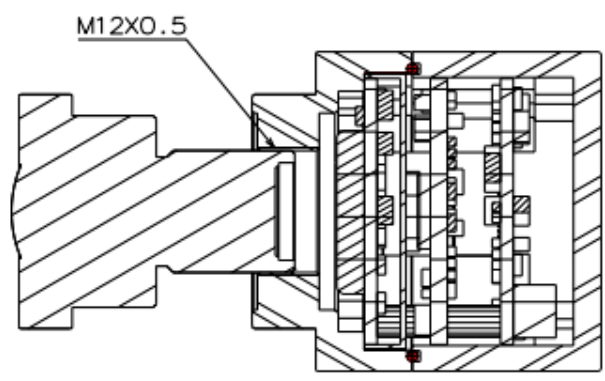
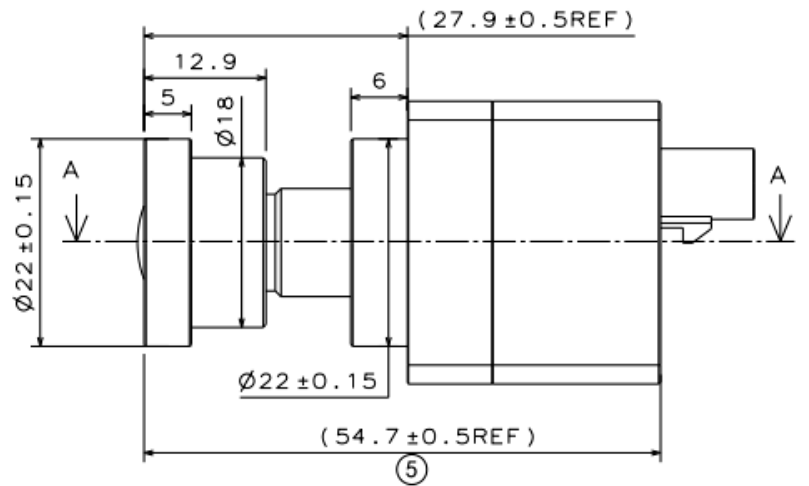
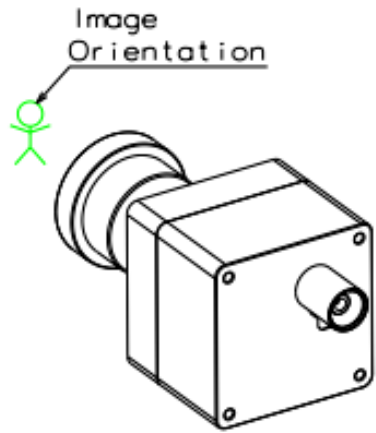
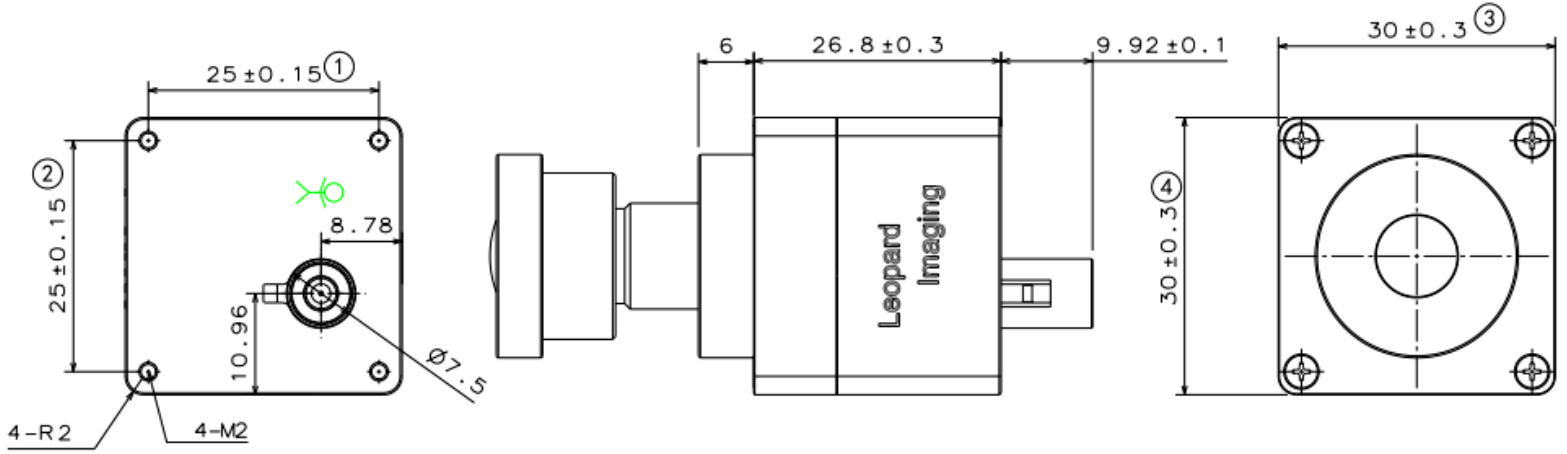


**NOTE:**

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

Unit: mm

# DIMENSIONS: LI-IMX490-GW5200-GMSL2-065H



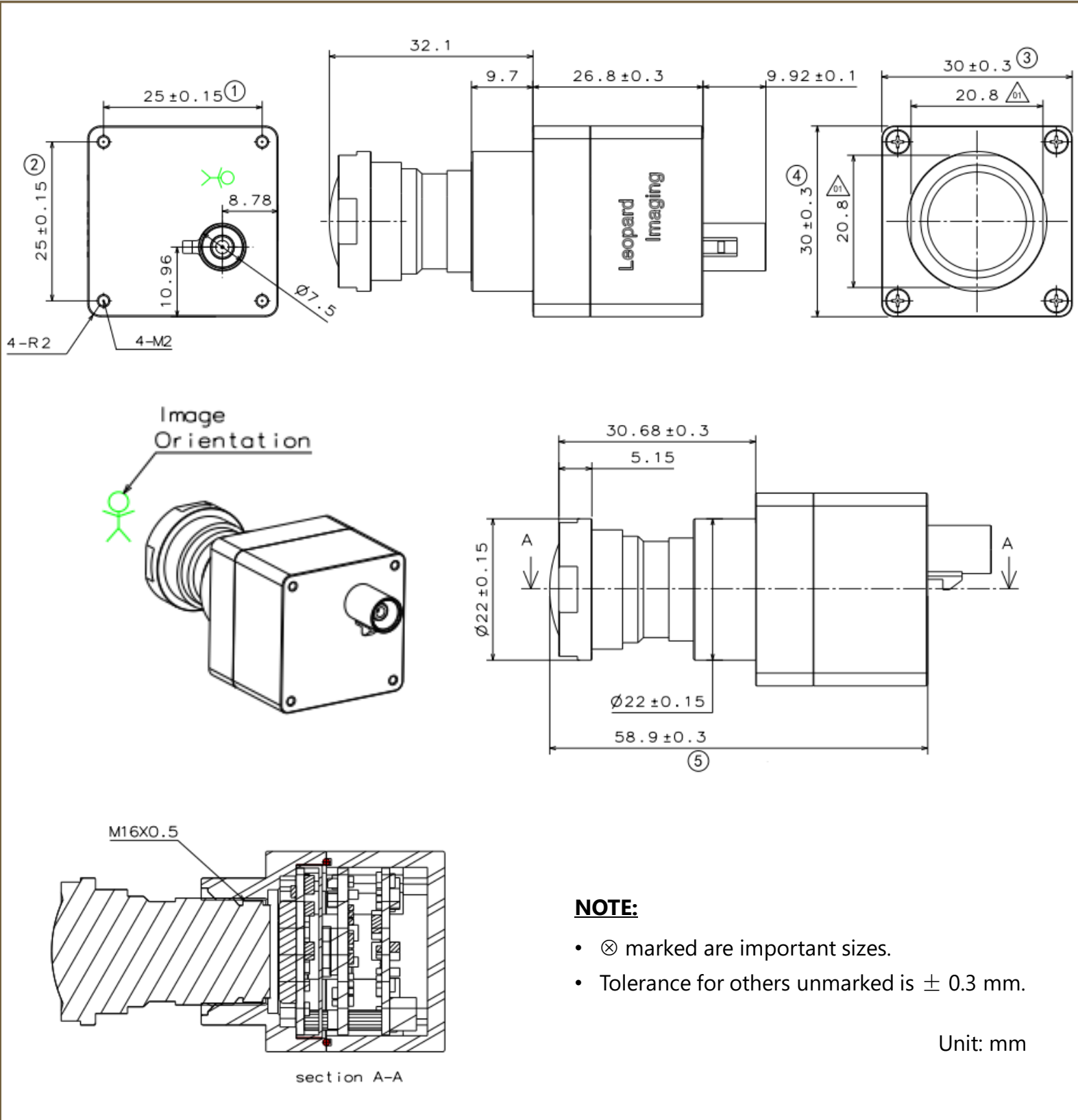
section A-A

Note:

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

Unit: mm

# DIMENSIONS: LI-IMX490-GW5400-GMSL2-120H



**NOTE:**

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

Unit: mm

## LENS SPECIFICATIONS

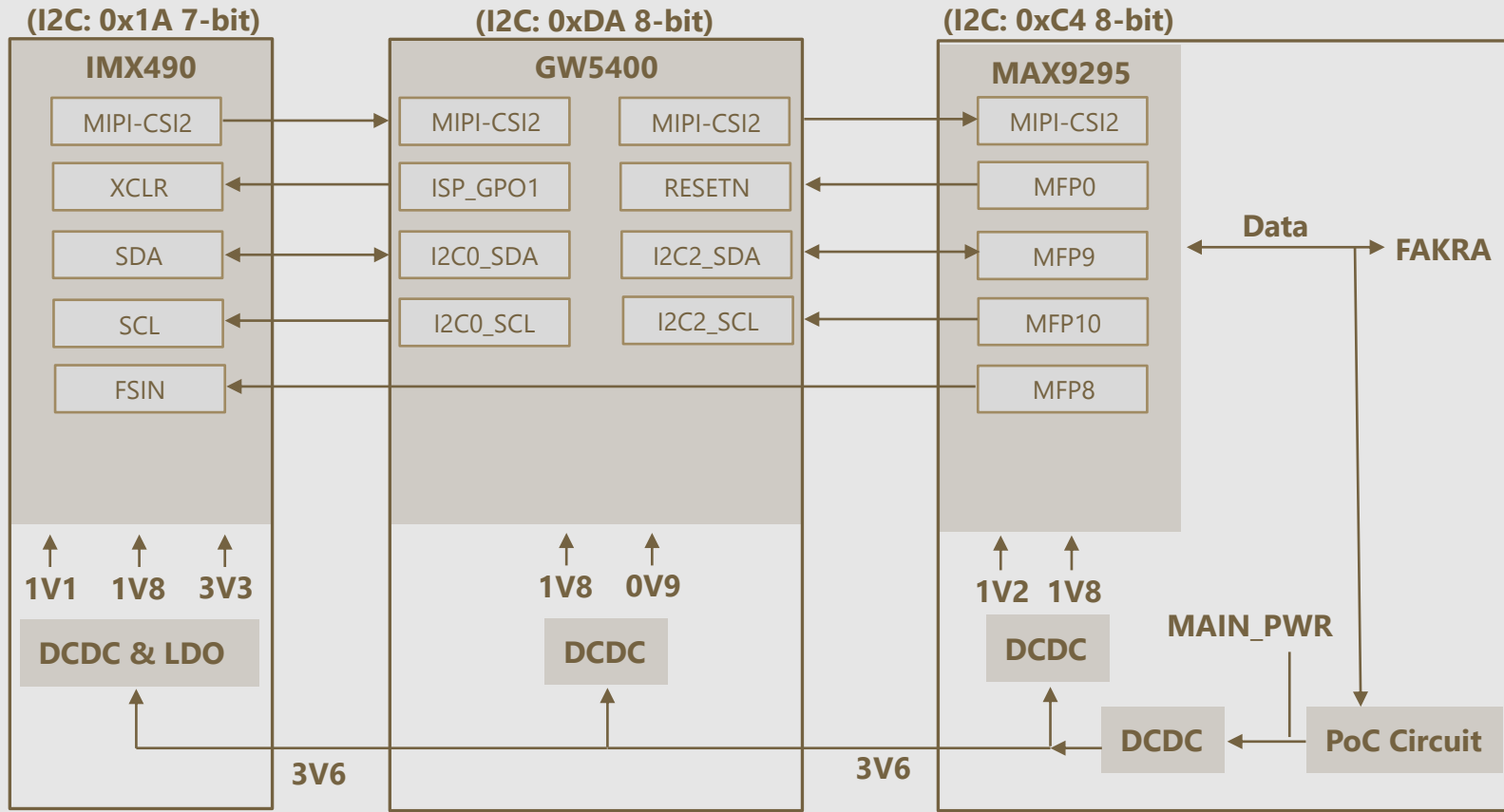
Note:

xxxH - 030H: FOV H 30°    xxxH - 065H: FOV H 65°  
 xxxH - 040H: FOV H 40°    xxxH - 120H: FOV H 120°

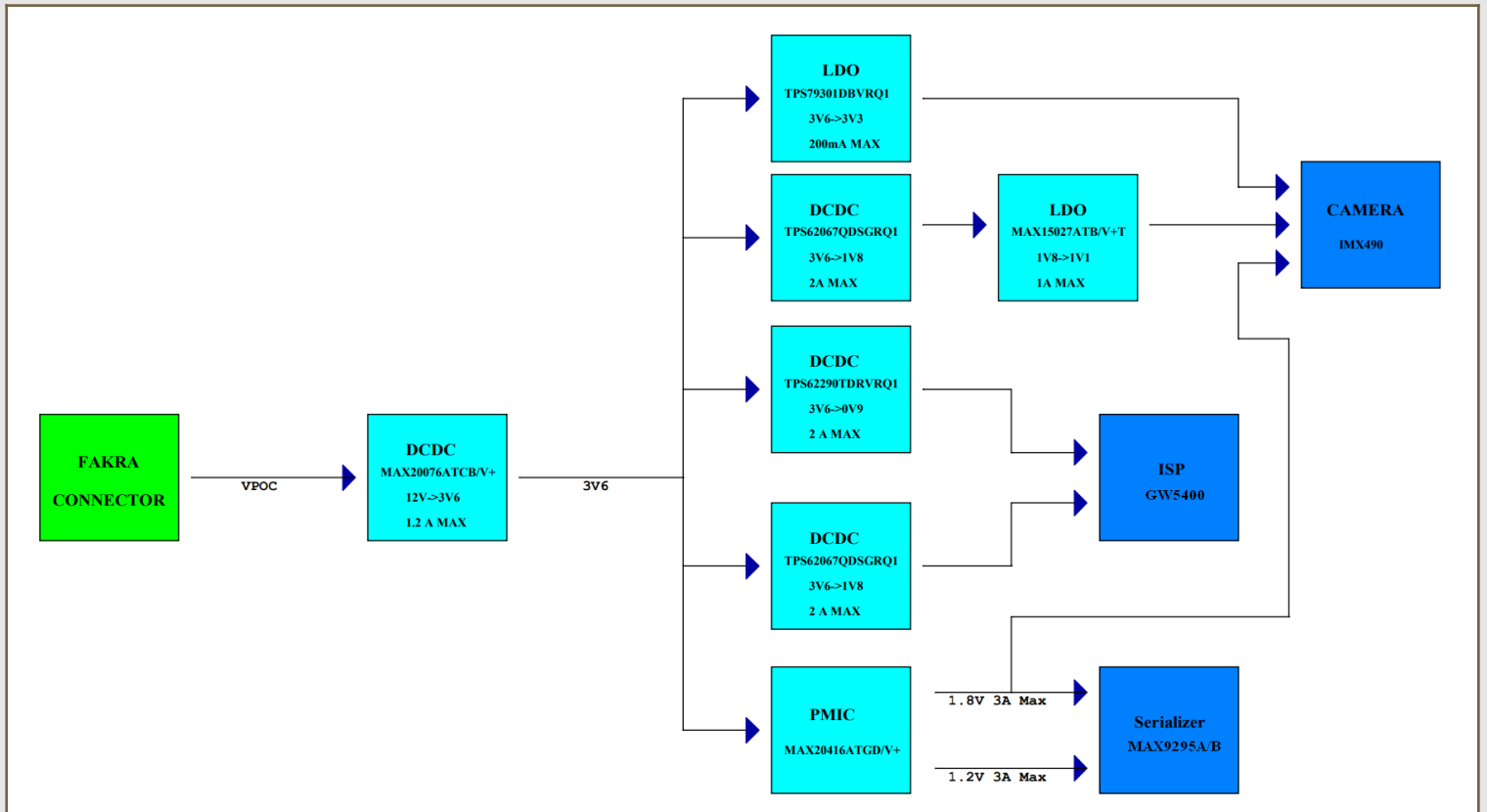
| LI-IMX490-GW5400-GMSL2-030H   | LI-IMX490-GW5400-GMSL2-040H   |
|---|---|
|  |  |
| Lens: CAR-56  | Lens: DSL612  |
| Lens EFL: 16.37 mm  | Lens EFL: 11.9 mm   |
| Aperture, F/#: 1.6  | Aperture, F/#: 2.0  |
| Field of View (FOV): 35.5° (D) / 30.0° (H) / 19.5° (V)                            | Field of View (FOV): 44.4° (D) / 38.0° (H) / 20.8° (V)                              |
| Mount: M17  | Mount: M12  |
| IP Rating: IP69K  | IP Rating: IP67   |

| LI-IMX490-GW5400-GMSL2-065H   | LI-IMX490-GW5400-GMSL2-120H   |
|---|---|
|  |  |
| Lens: DSL608  | Lens: CAR-55  |
| Lens EFL: 7.9 mm  | Lens EFL: 4.49 mm   |
| Aperture, F/#: 2.0  | Aperture, F/#: 1.6  |
| Field of View (FOV): 74° (D) / 65° (H) / 37° (V)                                    | Field of View (FOV): 154.9° (D) / 120° (H) / 73.2° (V)                                |
| Mount: M12  | Mount: M16  |
| IP Rating: IP67   | IP Rating: IP69K  |

## BLOCK DIAGRAM



## POWER BLOCK DIAGRAM





# USB3.0 CAMERA KIT

LI-GMSL2-FP-USB-BOX



Front View



Side View

LI-IMX490-GW5400-GMSL2-xxxH can connect to LI-GMSL2-FP-USB-BOX as a USB 3.0 camera.

Part#: **LI-USB30-IMX490-GW5400-GMSL2-xxxH**

## SPECIFICATIONS

- USB 3.0 Super Speed support
- UVC compliance
- Provide customization services
- 12 VDC power supply for camera
- Weight: ~ 144 g
- Single Coax Cable transmit up to 12 meters PoC (Power over Cable)
- Resolution: 2880 x 1860 @ 25 fps
- Support Windows, Linux OS and other OS which include the UVC drivers

## BOM

| # | Items                       | QTY |
|---|-----------------------------|-----|
| 1 | LI-IMX490-GW5400-GMSL2-xxxH | 1   |
| 2 | LI-GMSL2-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      | First release.  | 08 Sep 2021  |
| 1.1      | Updated 2D drawing.                                       | 09 Oct 2021  |
| 1.2      | Added CAR-55 and CAR-56 lenses and updated block diagram. | 12 Jan 2021  |

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