



LEOPARD
IMAGING

LI-IMX490-GW5400-GMSL2-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-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 μm
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	040H / 065H: IP67 030H: IP69K 120H: 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

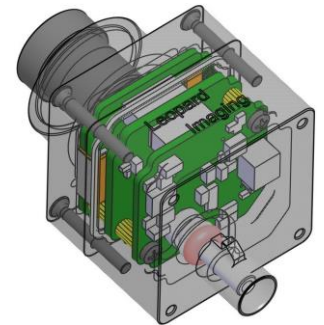
APPLICATIONS

- 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.

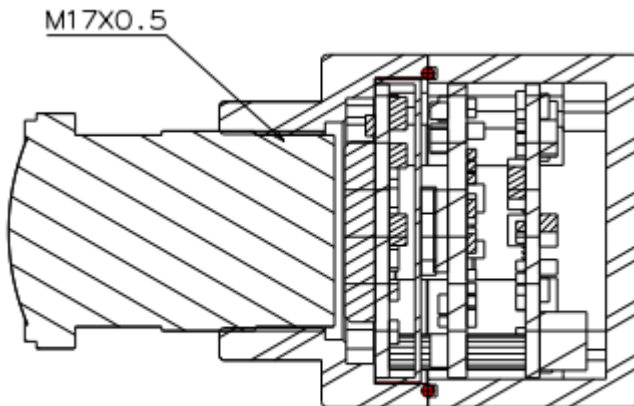
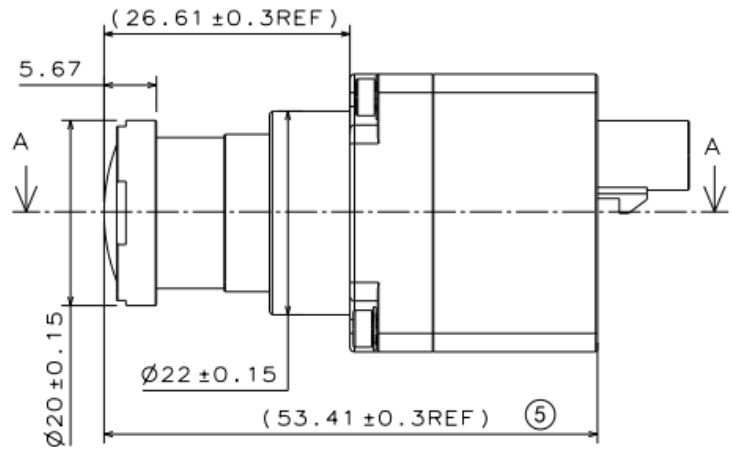
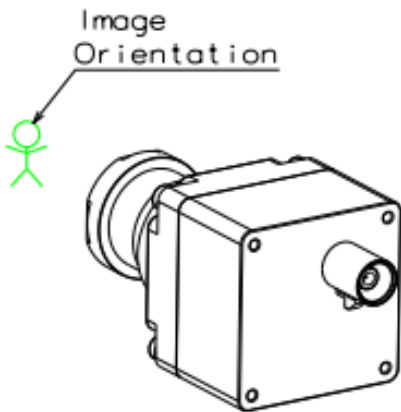
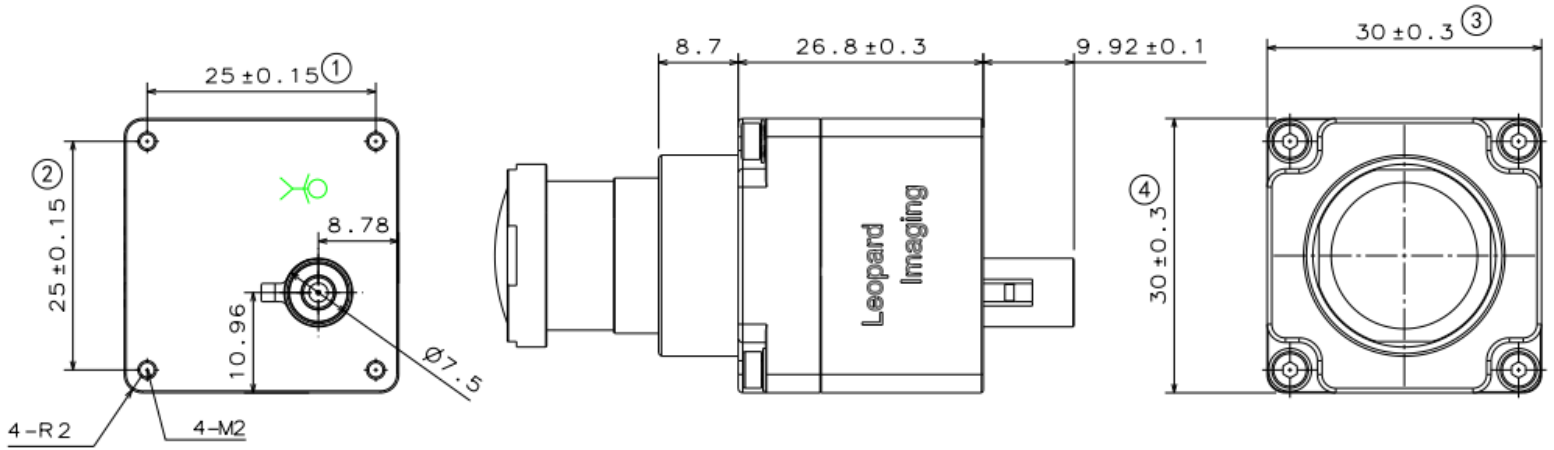


CABLE CONNECTOR

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



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



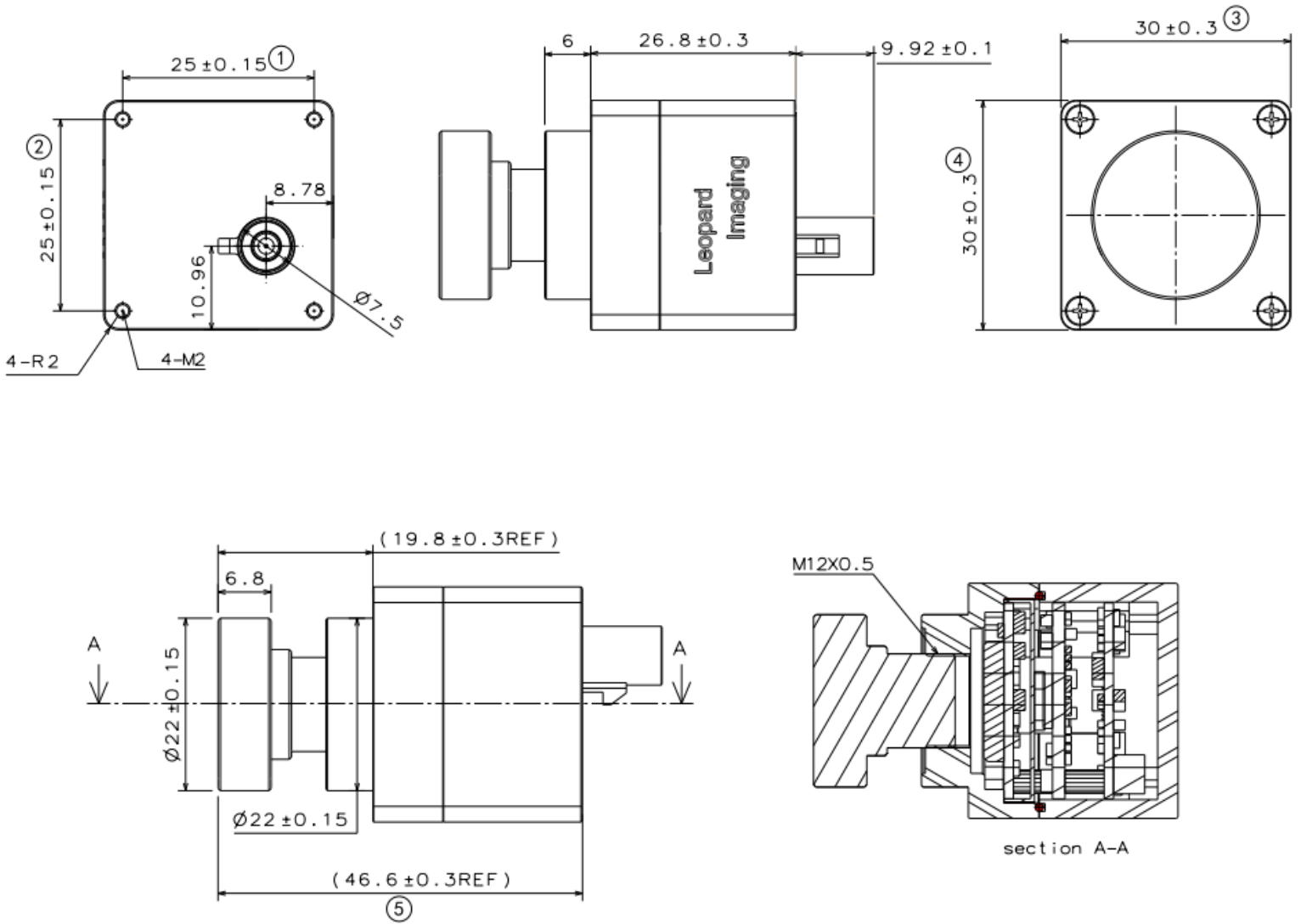
section A-A

NOTE:

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

Unit: mm

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

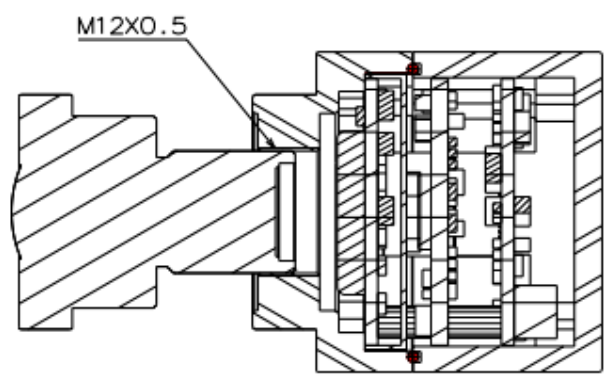
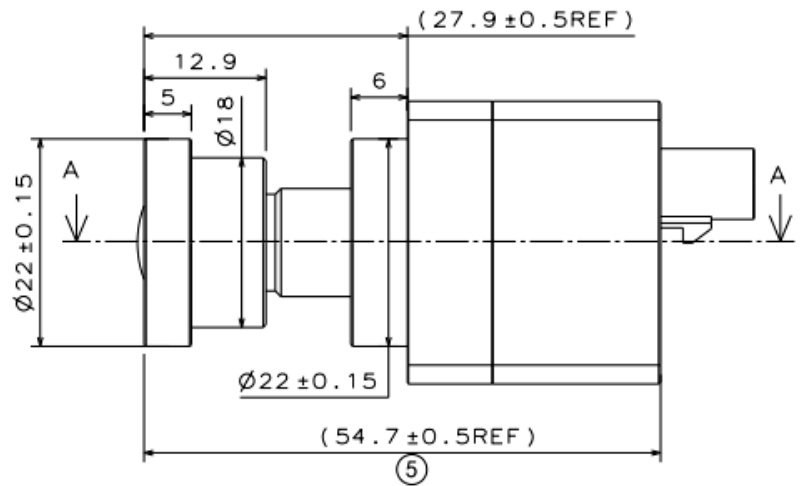
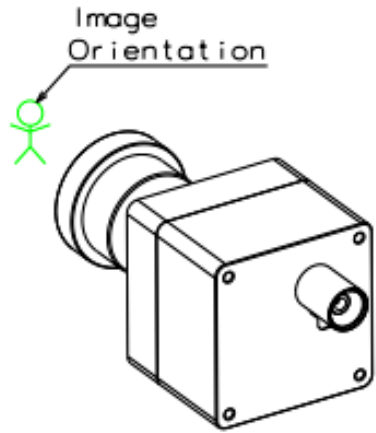
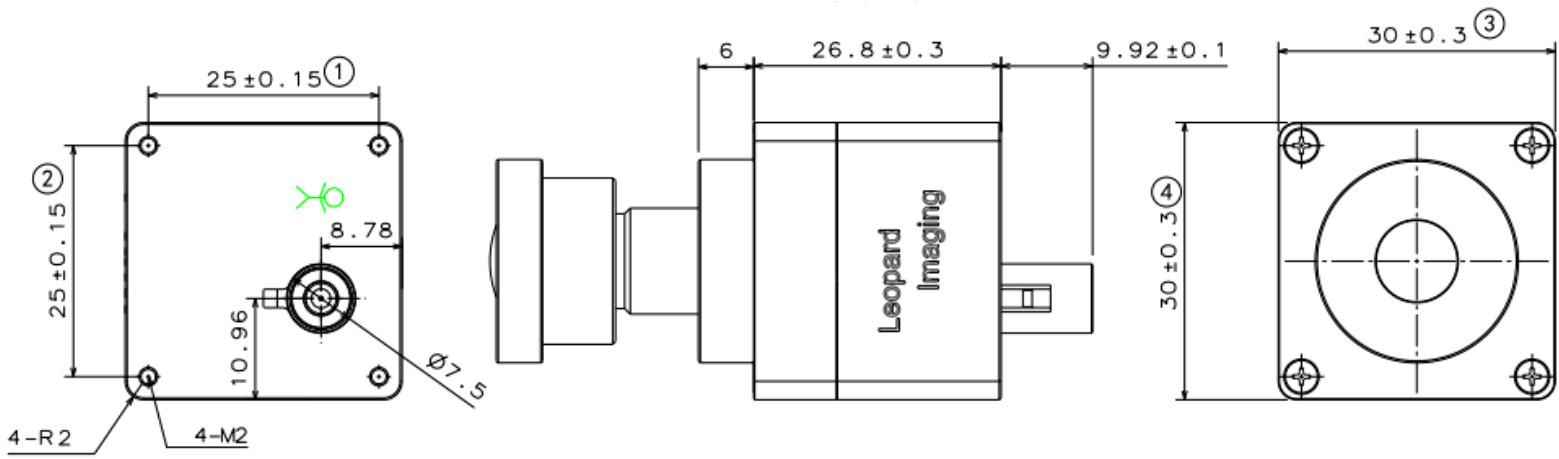


NOTE:

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Unit: mm

DIMENSIONS: LI-IMX490-GW5400-GMSL2-065H



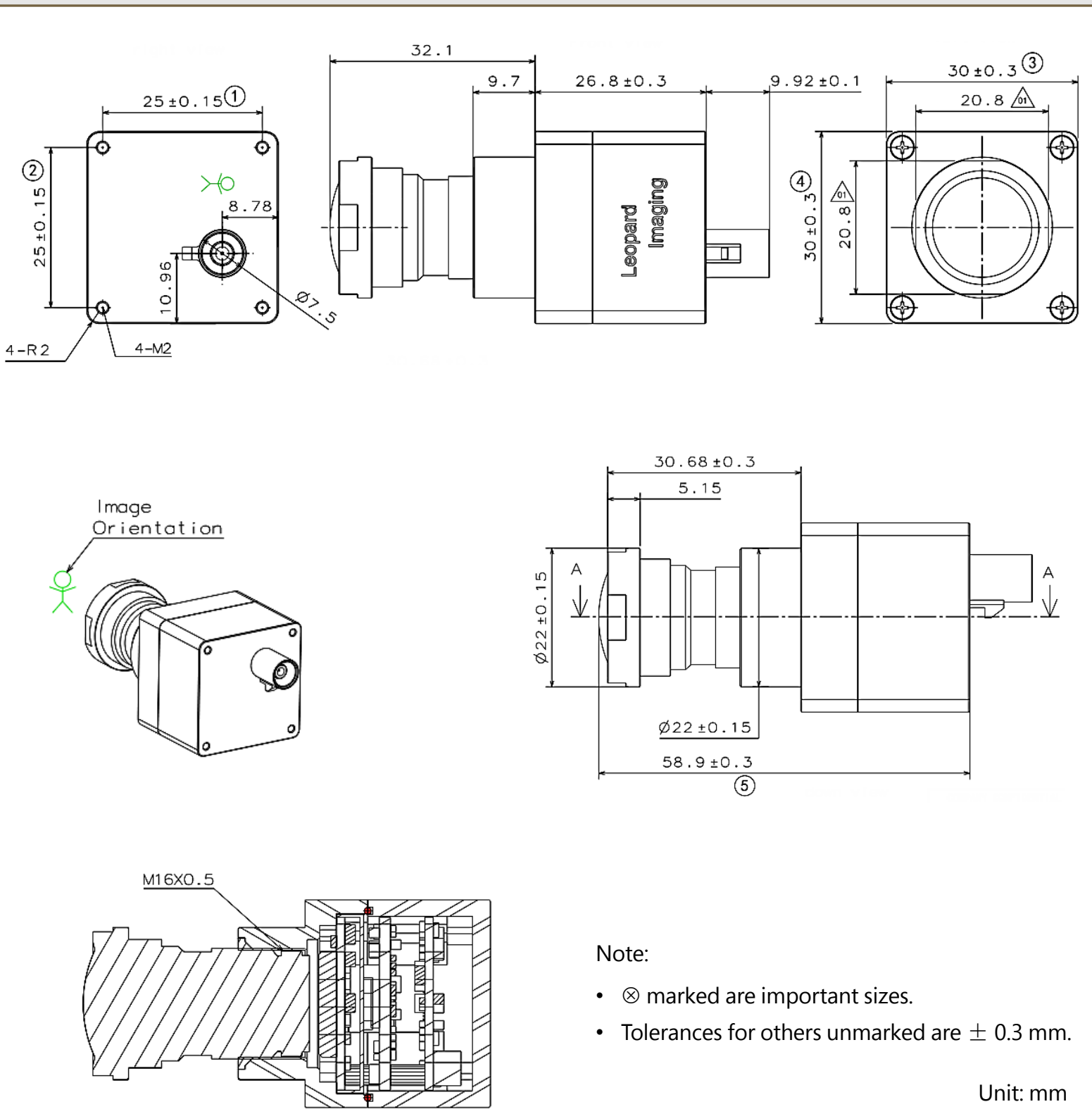
section A-A

Note:

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Unit: mm

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



Note:

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

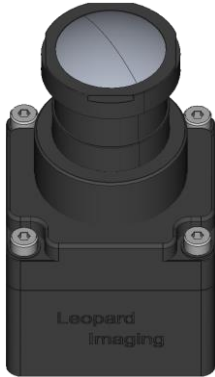
Unit: mm

ORDERING INFORMATION

NOTE:

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

LI-IMX490-GW5400-GMSL2-030H



LI-IMX490-GW5400-GMSL2-040H



Lens EFL: 16.37 mm

Aperture, F/#: 1.6

Field of View (FOV): 35.5° (D) / 30.0° (H) / 19.5° (V)

Mount: M17

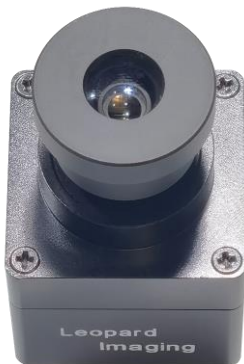
Lens EFL: 11.9 mm

Aperture, F/#: 2.0

Field of View (FOV): 44.4° (D) / 38.0° (H) / 20.8° (V)

Mount: M12

LI-IMX490-GW5400-GMSL2-065H



LI-IMX490-GW5400-GMSL2-120H



Lens EFL: 7.9 mm

Aperture, F/#: 2.0

Field of View (FOV): 74° (D) / 65° (H) / 37° (V)

Mount: M12

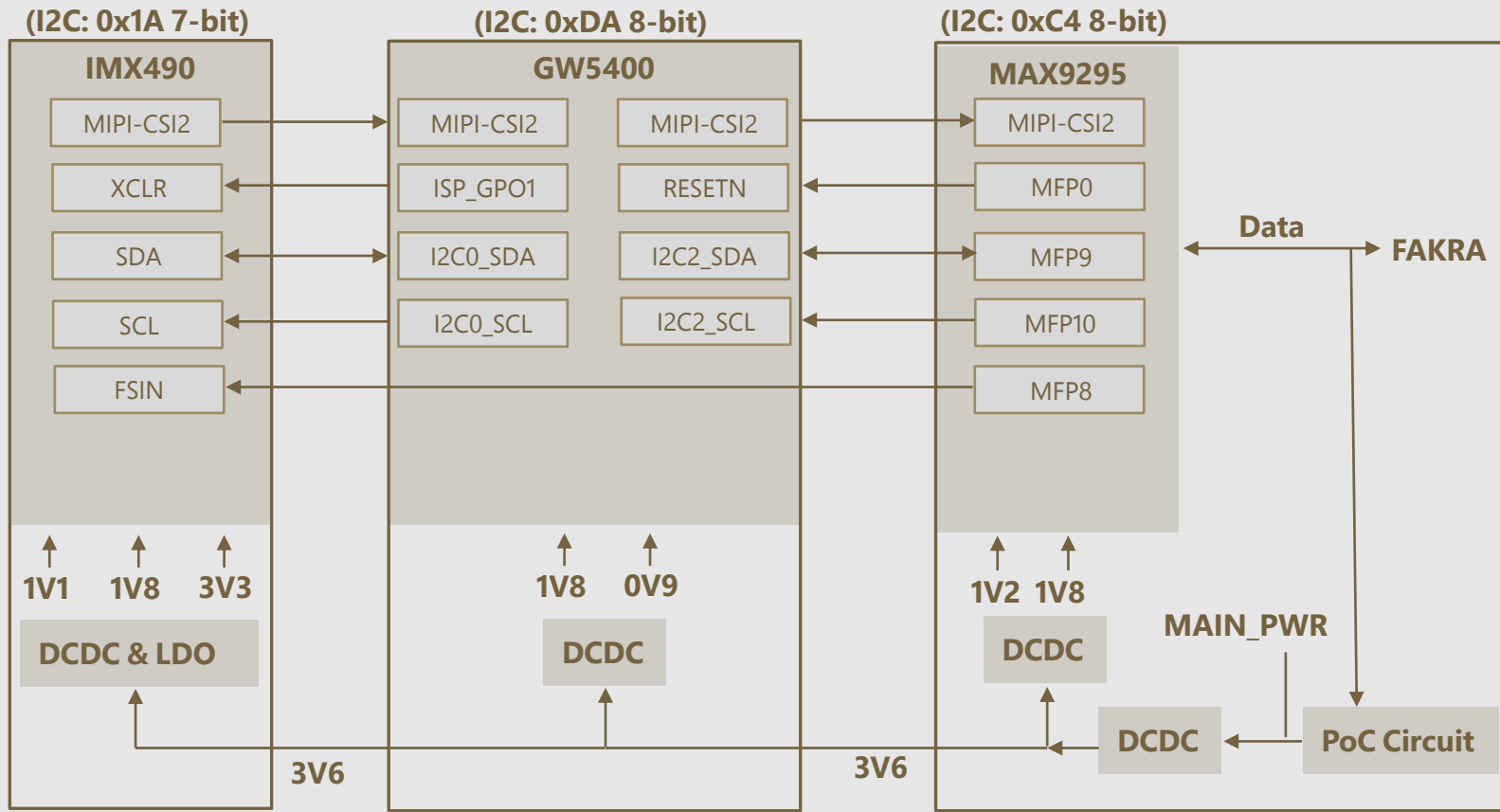
Lens FL: 4.49 mm

Aperture, F/#: 1.6

Field of View (FOV): 154.9° (D) / 120° (H) / 73.2° (V)

Mount: M16

SYSTEM 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 compliant
- Allows customization
- 12 VDC power supply for camera
- Weight: ~ 144 g
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: 2880 x 1860 @ 25 fps
- Compatible with Windows, Linux OS and other OS which have 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
1.3	Deleted 120H lens and power block diagram.	22 Jan 2024
1.4	1. Added CAR-55 lens camera info. 2. Deleted 3 meters fakra cable P/N.	13 Nov 2024
1.5	Updated 120H IP rating.	24 Apr 2026

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