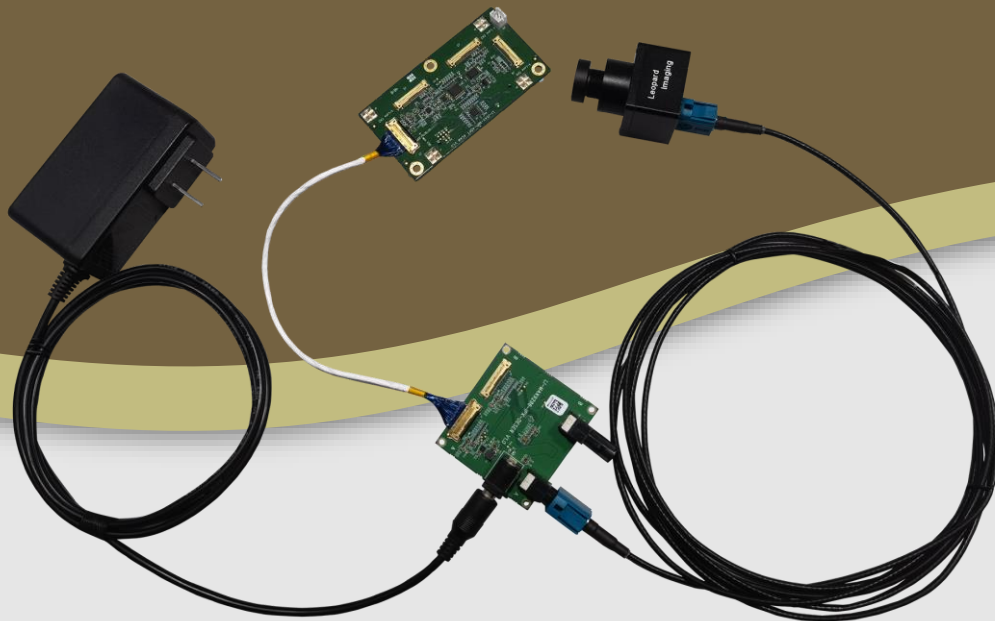




# LI-IMX390-GMSL2-XAVIER-xxxH



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## KEY FEATURES

- Compatible with Nvidia® Jetson AGX Xavier™ Developer Kit
- Supports one GMSL2 camera
- Sensor: Sony Diagonal 6.67 mm (Type 1/2.7) CMOS RGGB image sensor IMX390
- Active pixels: 1937 (H) x 1217 (V)
- Pixel size: 3.0 x 3.0 μm
- Color camera
- Lens: FOV H 60° / 120° / 200°
- GMSL2 Serializer
- Includes De-serializer to convert serial interface to MIPI interface
- Length of Fakra cable: 3 meters
- Supports multiple length Fakra cables
- Length of the I-PEX cable: 300 mm
- Supports M12 lens
- Allows customization
- Part#: LI-IMX390-GMSL2-XAVIER-xxxH

060H	LI-IMX390-GMSL2-XAVIER-060H
120H	LI-IMX390-GMSL2-XAVIER-120H
200H	LI-IMX390-GMSL2-XAVIER-200H

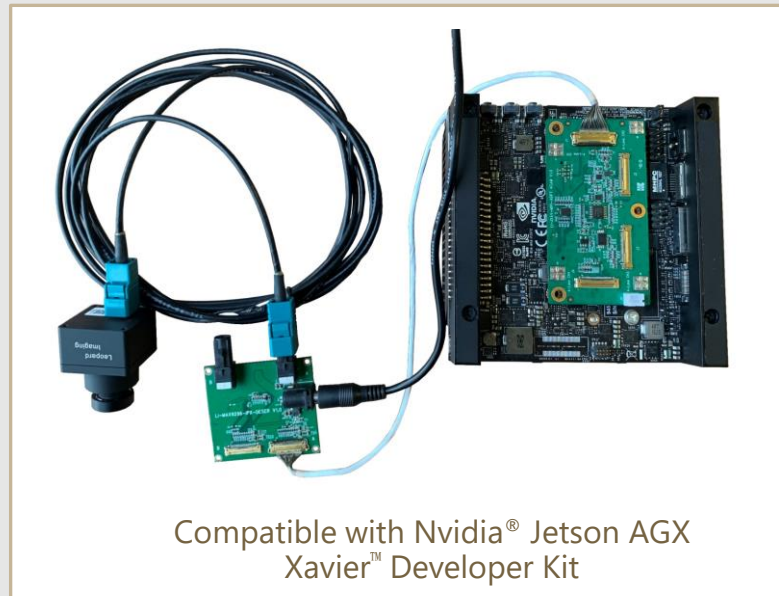
## APPLICATIONS

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

## BOM

Nvidia® Jetson AGX Xavier™ Developer Kit is **NOT** included.

#	Items	QTY
1	LI-IMX390-GMSL2-xxxH	1
2	FAK-SMZSMZ 3M	1
3	LI-GMSL2-IPX-DESER	1
4	FAW-1233-03 cable	1
5	LI-JXAV-MIPI-ADPT-4CAM	1
6	LI-PS12-01	1



Compatible with Nvidia® Jetson AGX Xavier™ Developer Kit

# LI-IMX390-GMSL2-xxxH

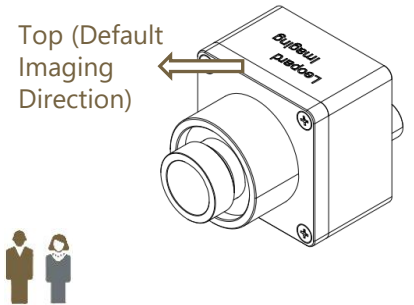


## KEY FEATURES

Sensor	Sony Diagonal 6.67 mm (Type 1/2.7) CMOS Image Sensor IMX390
Optical Format	1/2.7"
Resolution	1937 (H) x 1217 (V) (active pixels)
Pixel Size	3.0 x 3.0 $\mu\text{m}$
Data Format	20-bit /12-bit RAW data
Color / Mono	Color sensor
Lens	FOV H 60° / 120° / 200°
Serializer	Maxim MAX9295A/B
Power Supply Range	9 ~ 19 VDC
Interface	GMSL2 Serial interface
Operating Temp	-40°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	~ 45 g
Part#	LI-IMX390-GMSL2-xxxH

## DEFAULT IMAGING DIRECTION

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



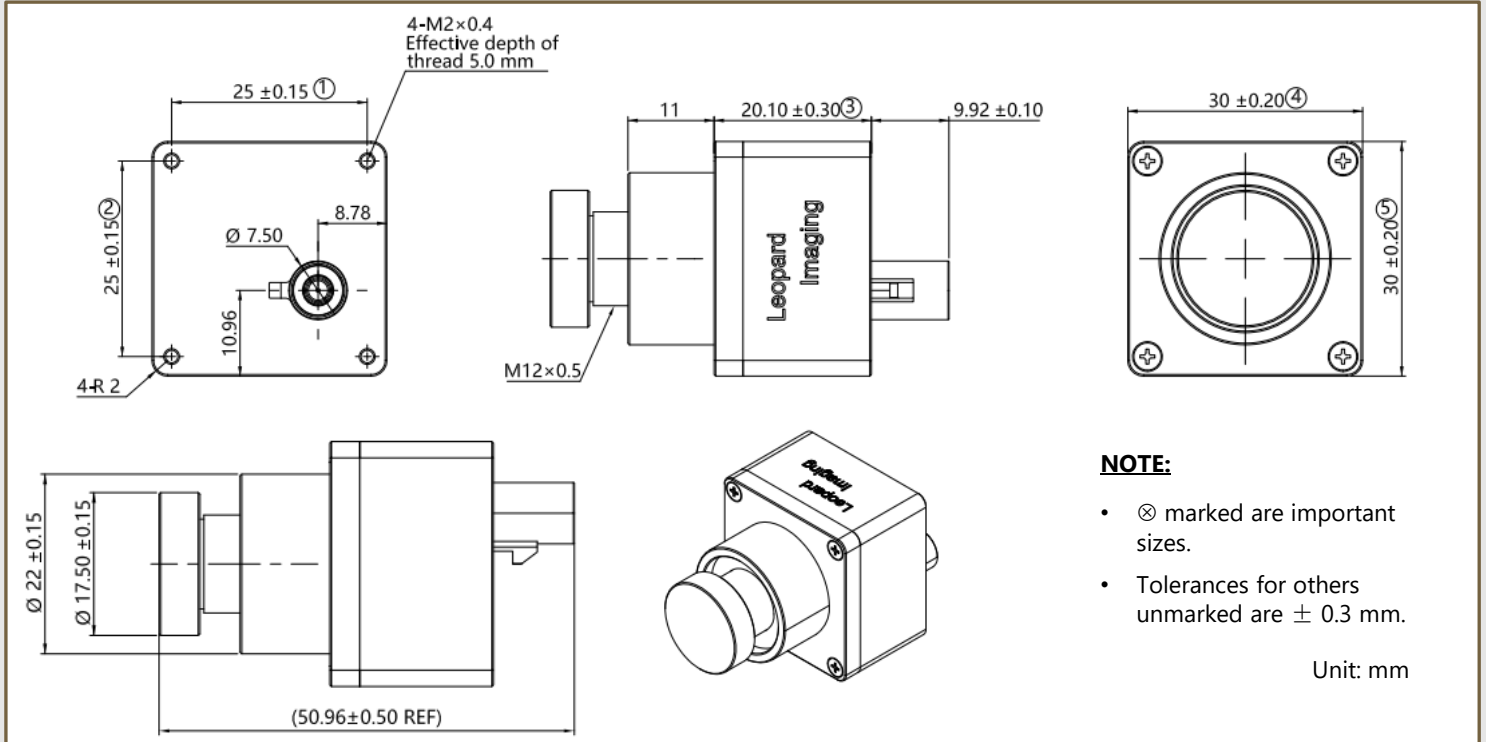
## CABLE CONNECTOR

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

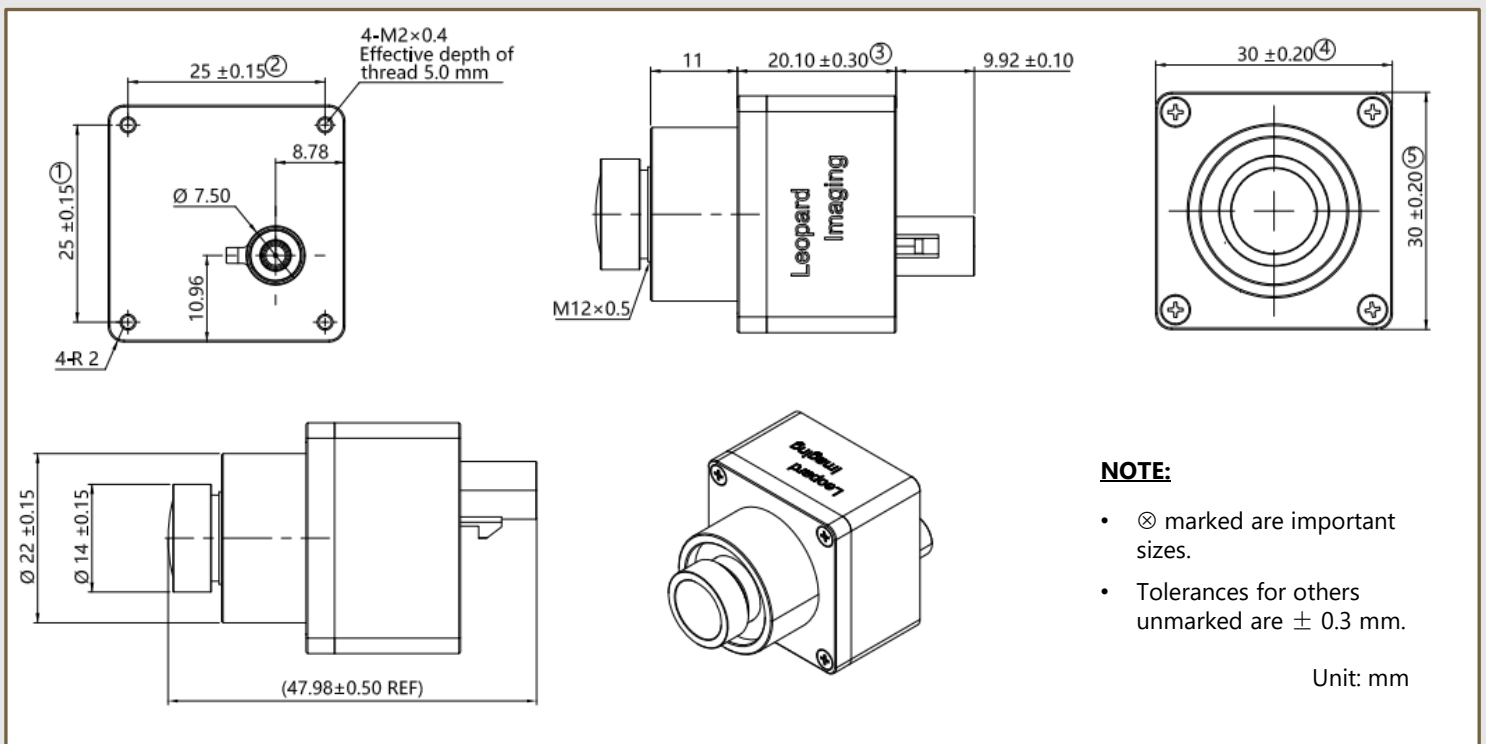


# LI-IMX390-GMSL2-xxxH

## DIMENSIONS: LI-IMX390-GMSL2-060H

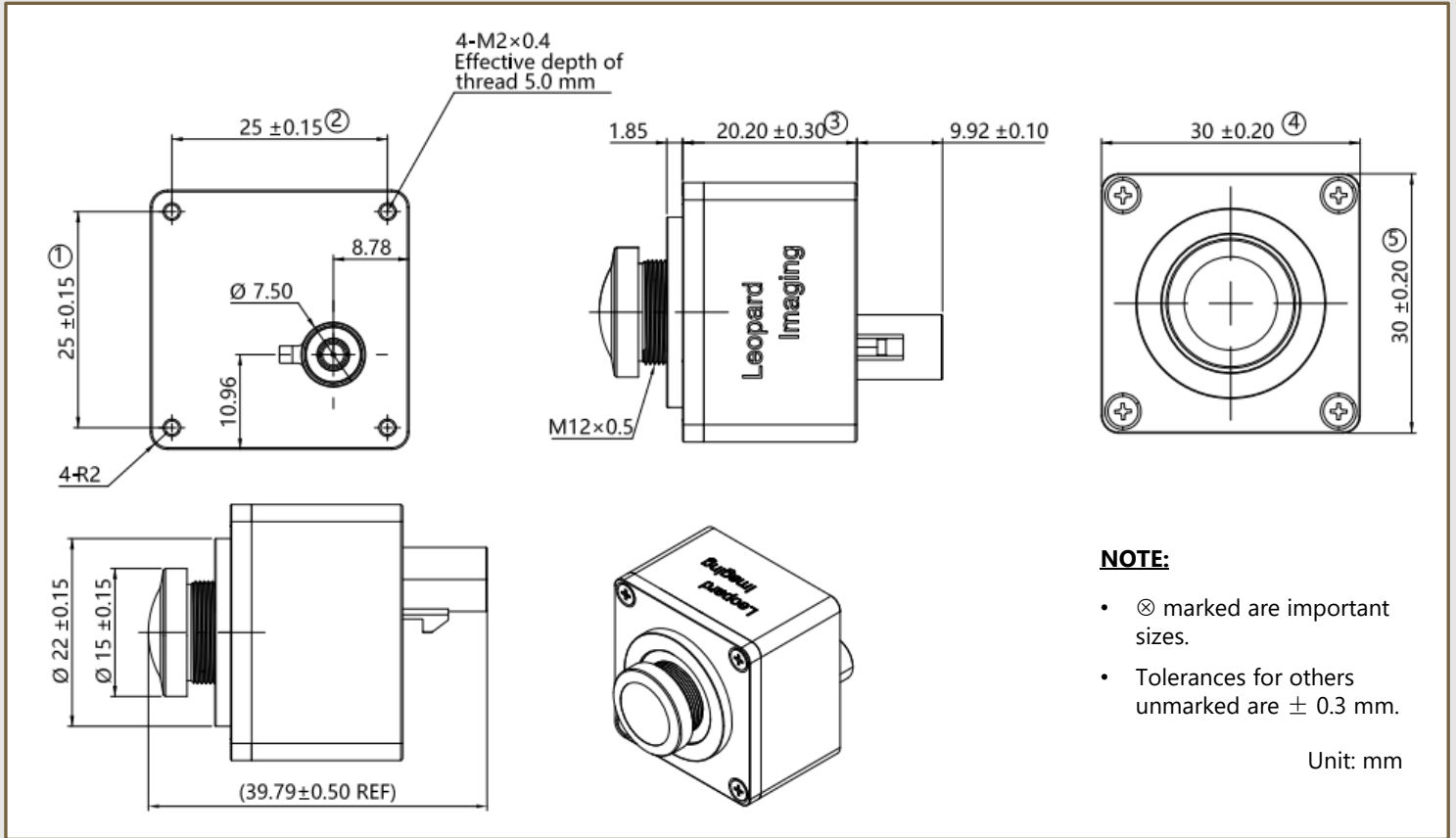


## DIMENSIONS: LI-IMX390-GMSL2-120H



# LI-IMX390-GMSL2-xxxH

## DIMENSIONS: LI-IMX390-GMSL2-200H



# LI-IMX390-GMSL2-xxxH

## LENS INFORMATION

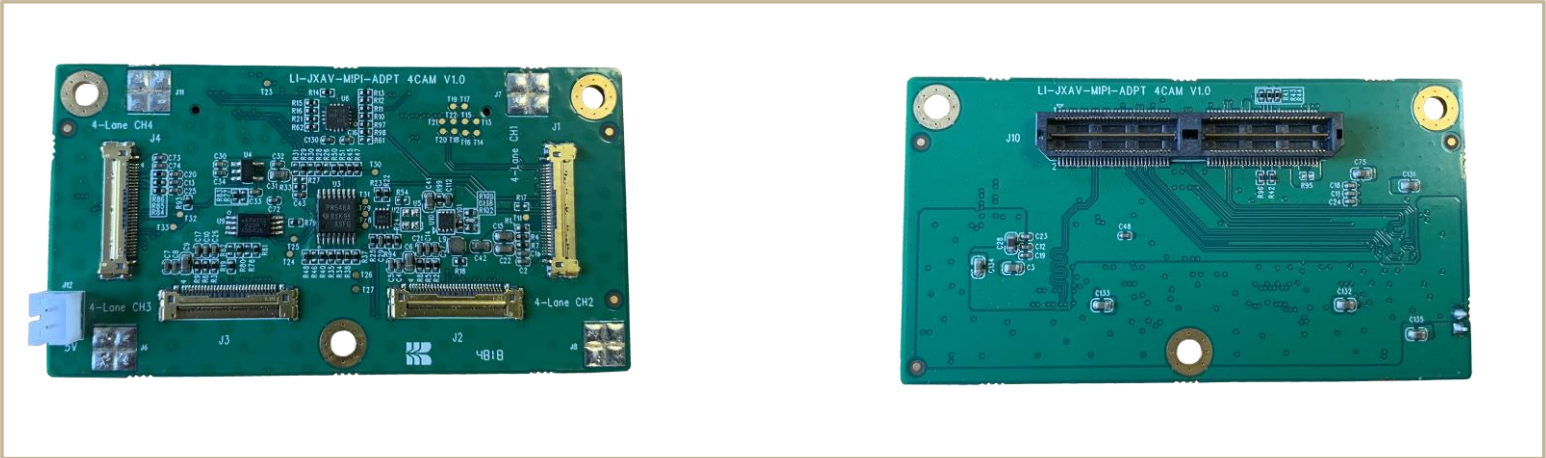
xxxH refers to 060H (FOV H 60°), 120H (FOV H 120°), 200H (FOV H 200°)

LI-IMX390-GMSL2-060H

Lens: M127B0618WR2
Lens EFL: 6.0 mm
Field of View (FOV): 74.5° (D) / 60.6° (H) / 36.1° (V)
Mount: M12
IP Rating: IP67

LI-IMX390-GMSL2-120H	LI-IMX390-GMSL2-200H
	
Lens: M128B02820WM12R1	Lens: E7393E-R8
Lens EFL: 2.8 mm	Lens EFL: 0.95 mm ± 5%
Field of View (FOV): 148° (D) / 122° (H) / 74° (V)	Field of View (FOV): 200° (H)
Mount: M12	Mount: M12
IP Rating: IP67	IP Rating: IP69K

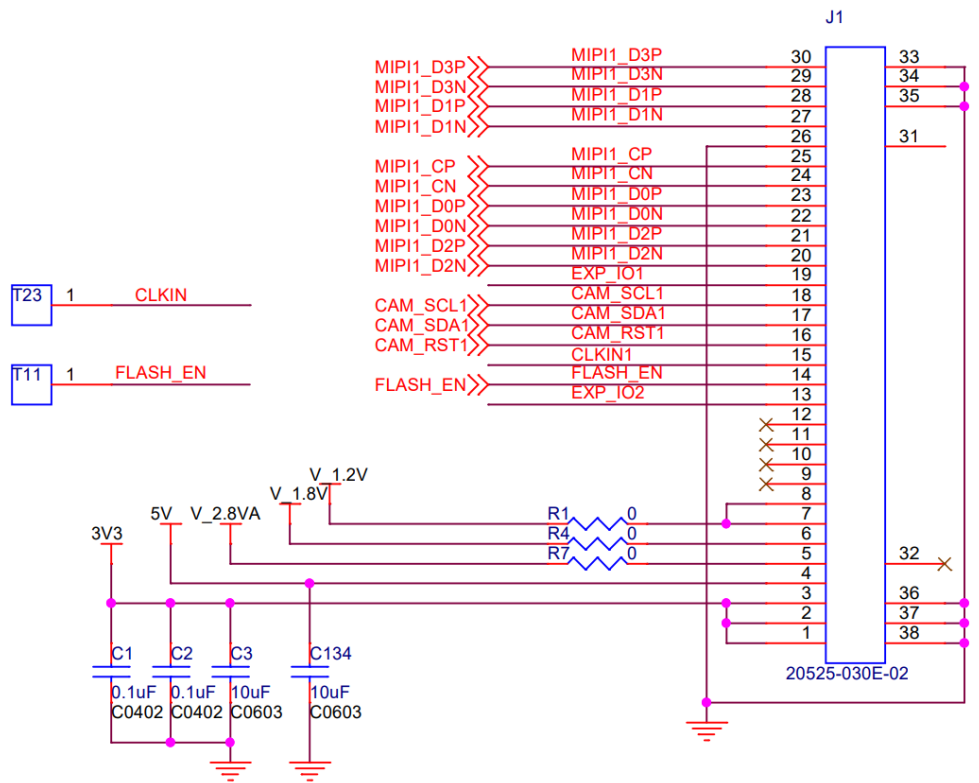
# LI-JXAV-MIPI-ADPT-4CAM



## INTERFACES

### Interface J1 (Camera Channel 1)

- Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX Cable: FAW-1233-XX

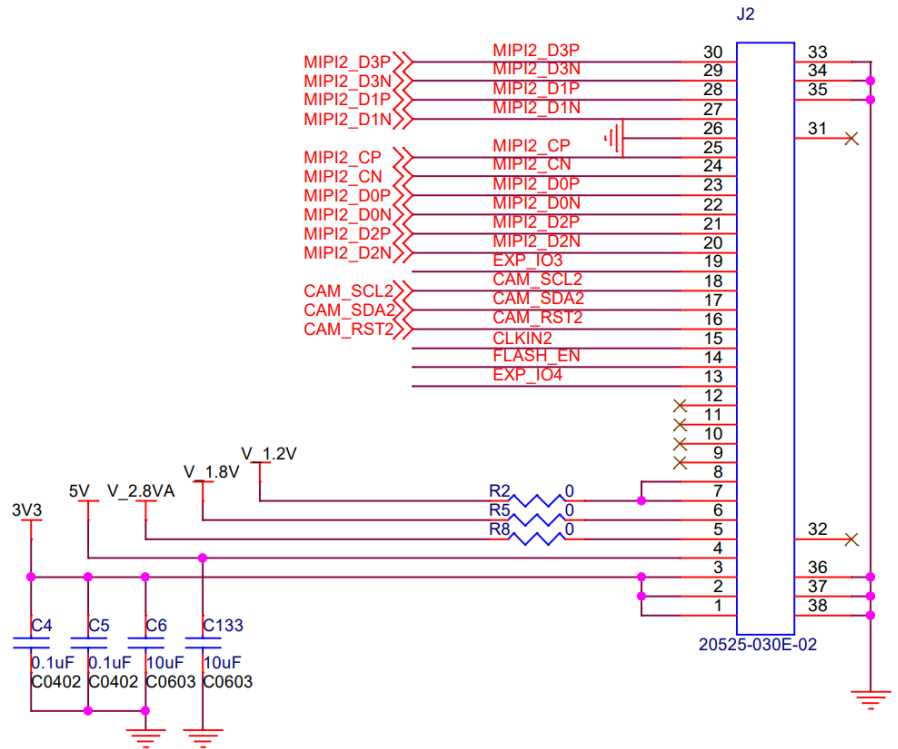


# LI-JXAV-MIPI-ADPT-4CAM

## INTERFACES

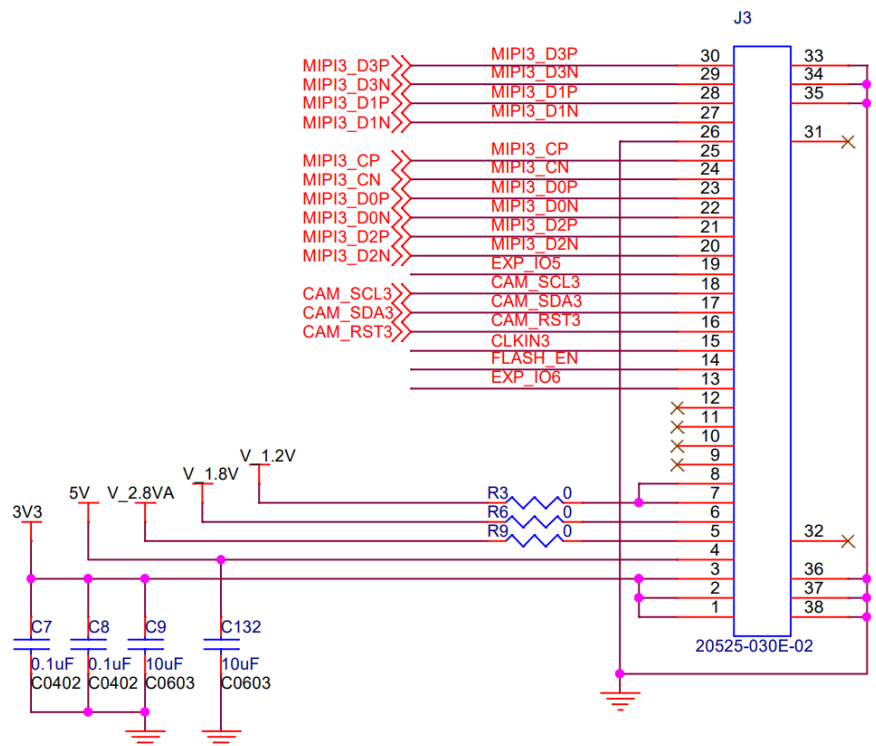
### Interface J2 (Camera Channel 2)

- Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX Cable: FAW-1233-XX



### Interface J3 (Camera Channel 3)

- Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX Cable: FAW-1233-XX



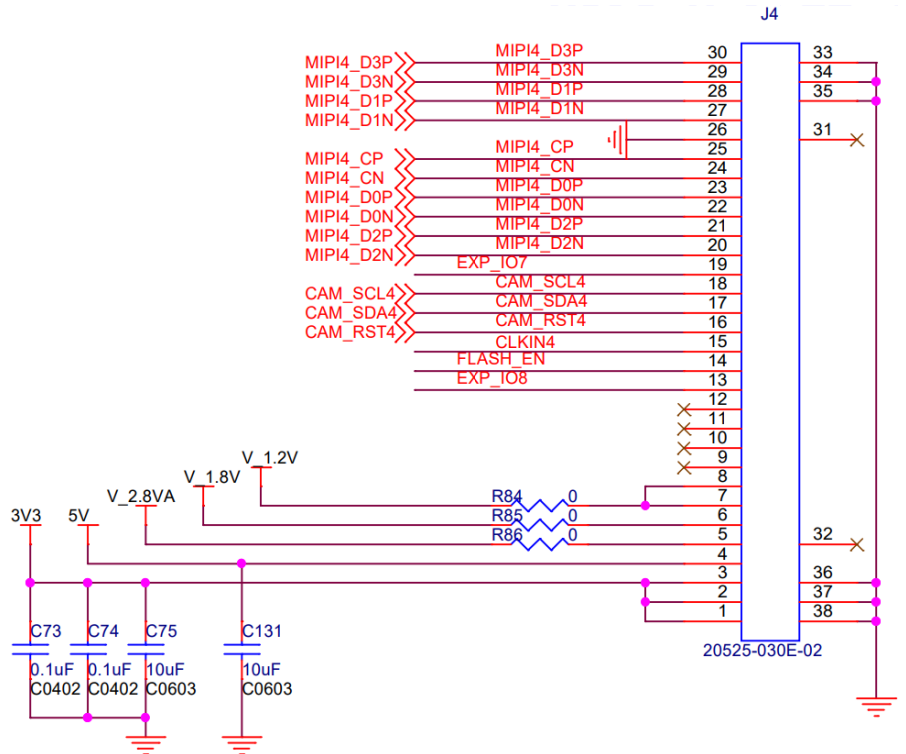


# LI-JXAV-MIPI-ADPT-4CAM

## INTERFACES

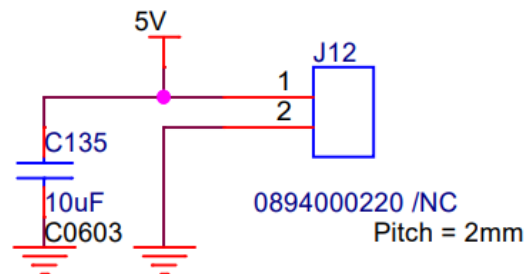
### Interface J4 (Camera Channel 4)

- Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX Cable: FAW-1233-XX



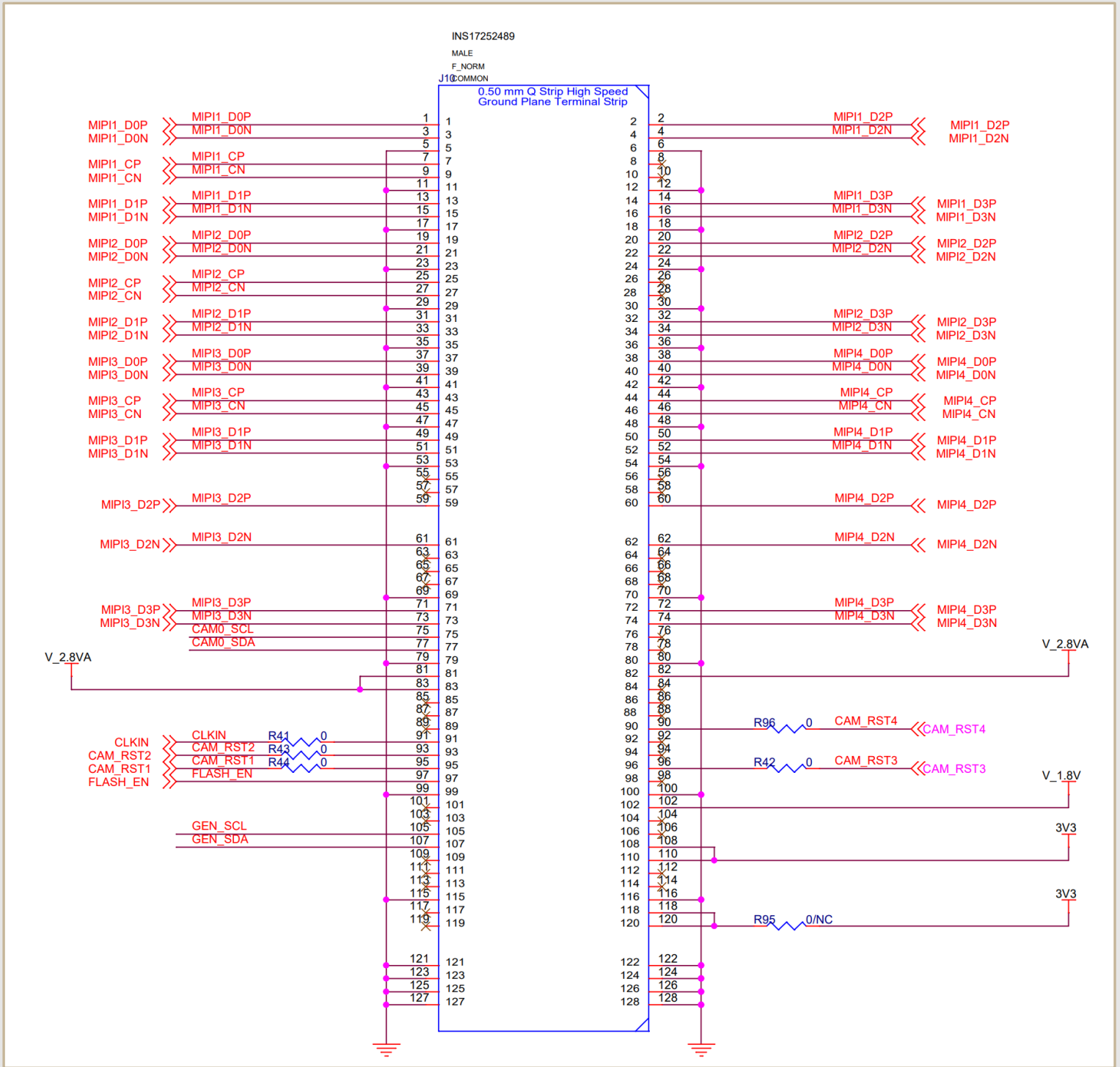
### Interface J12 (NOT Used)

- Part#: 0894000220
- Number of Positions: 2
- Pitch: 2 mm



# LI-JXAV-MIPI-ADPT-4CAM

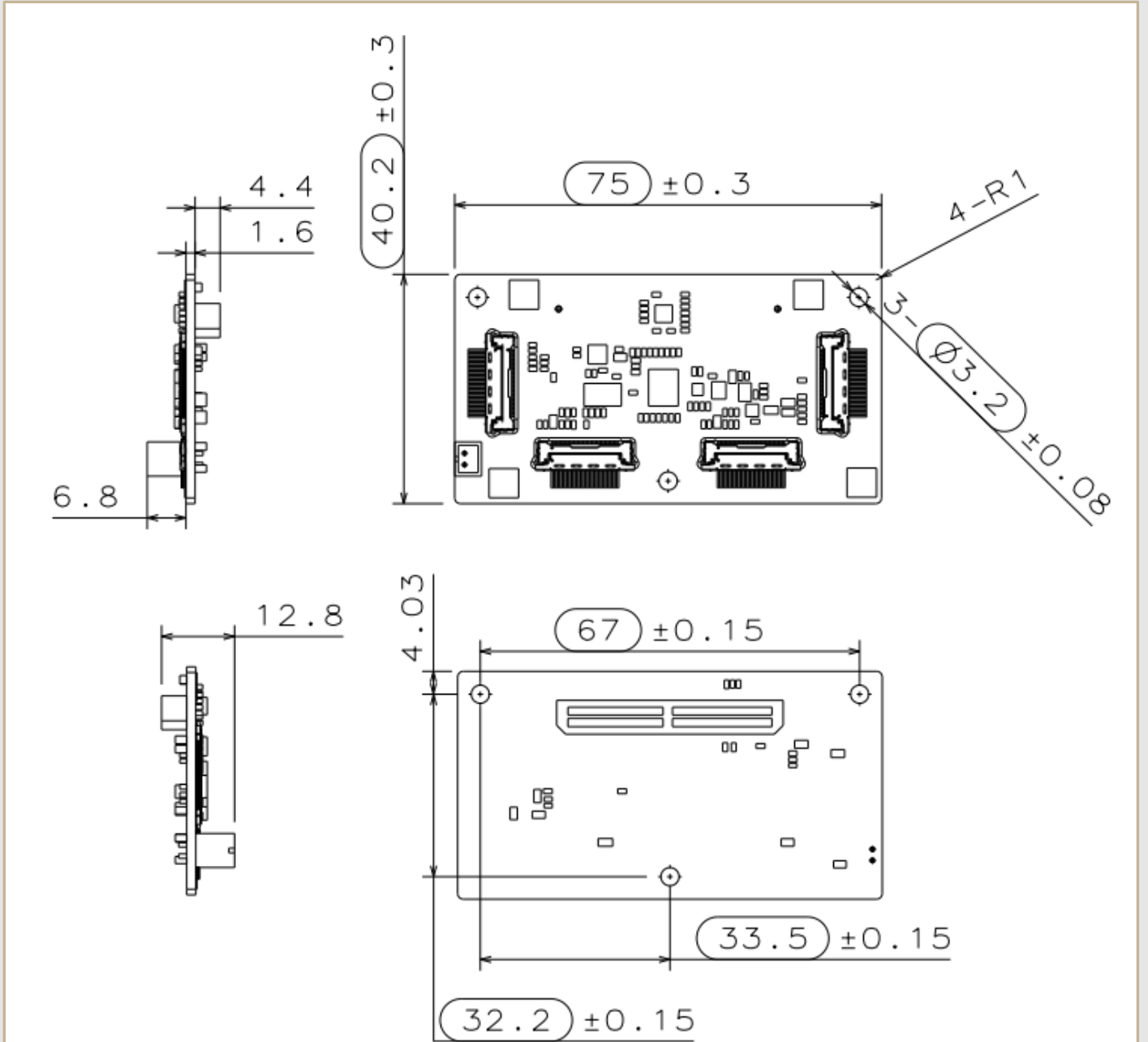
## INTERFACE J10 (To Xavier)



- Part#: QTH-060-01-L-D-A
- Number of Positions: 120
- Number of Rows: 2
- Pitch: 0.5 mm

# LI-JXAV-MIPI-ADPT-4CAM

## DIMENSIONS



**NOTE:**

- ◻ marked are important sizes.
- Tolerances for the unmarked are ± 0.3 mm.

Unit: mm

# FAW-1233-03 Cable



## MECHANICAL DIAGRAM

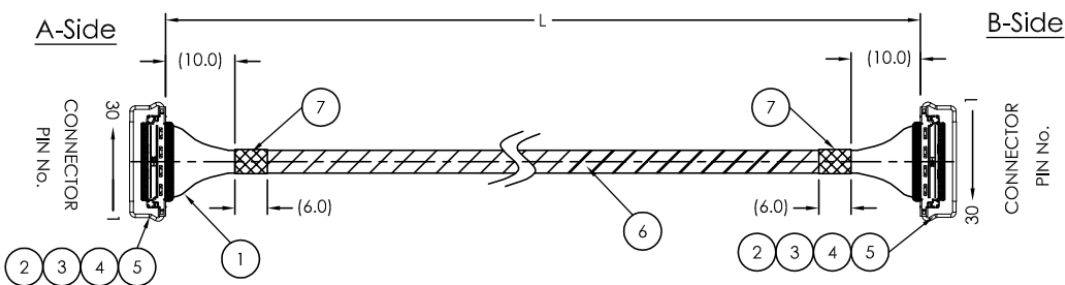
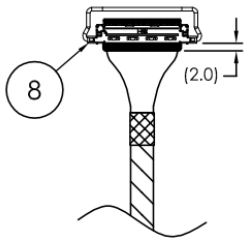
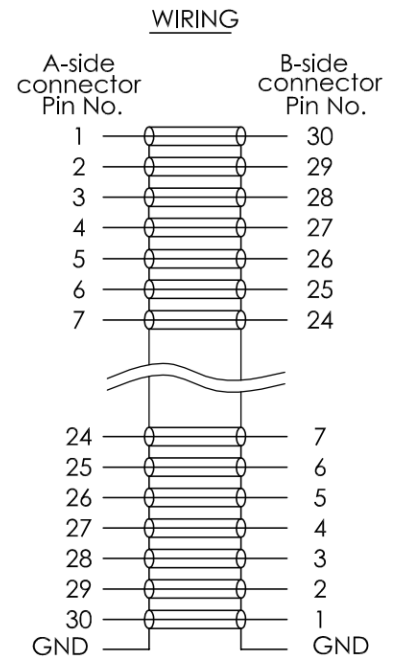


Fig. 1 Applying UV resin



### WIRING



8	UV RESIN	2	LOCBOND P/N : LOCBOND 349
7	TAPE	2	CHUKOH P/N: ASF-116T
6	TAPE	1	CHUKOH P/N: SEF-110
5	FLAT COPPER WIRE	4	GROUND BAR
4	PULL BAR	2	I-PEX P/N : 2766-0301
3	SHIELD PLATE	2	I-PEX P/N : 2764-0301-002
2	CONNECTOR	2	I-PEX P/N : 20634-130T-02
1	CABLE	30	UL10231 AWG40 MCX (Z=50ohm)
ITEM	DESCRIPTION	Q'TY	REMARK

### NOTE:

- Total length:  $300.0 \pm 10.0$ .
- Apply UV resin at the end of connector to cover cables both sides of the cable assembly (Fig.1).

Unit: mm

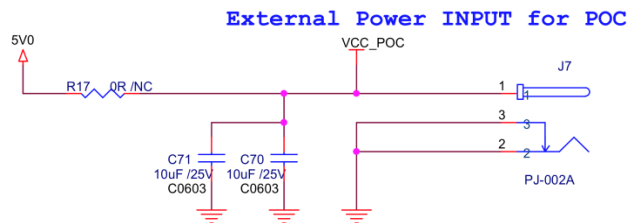
# LI-GMSL2-IPX-DESER



## INTERFACES

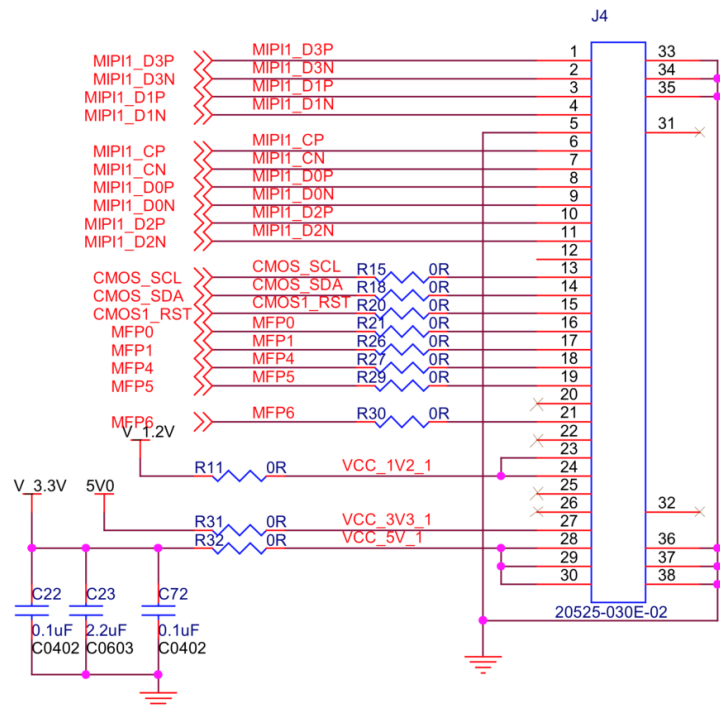
### Interface J7

- Part#: PJ-002A
- Power Supply: 12 VDC



### Interface J4

- Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable: FAW-1233-03 (300mm)

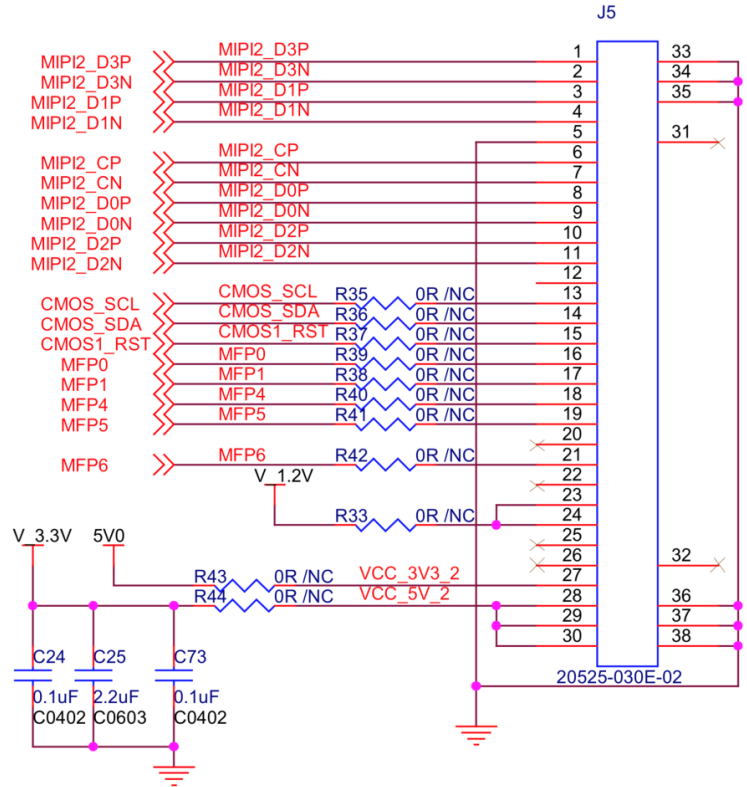


# LI-GMSL2-IPX-DESER

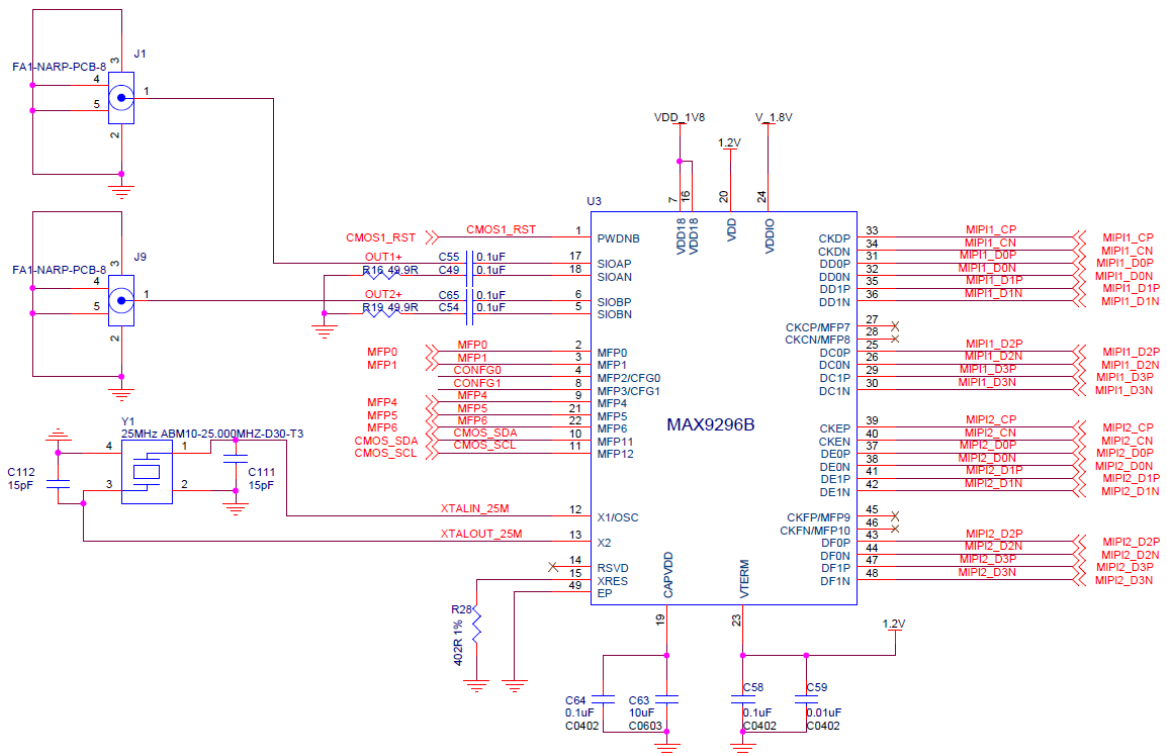
## INTERFACES

### Interface J5

- Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX Cable: FAW-1233-XX

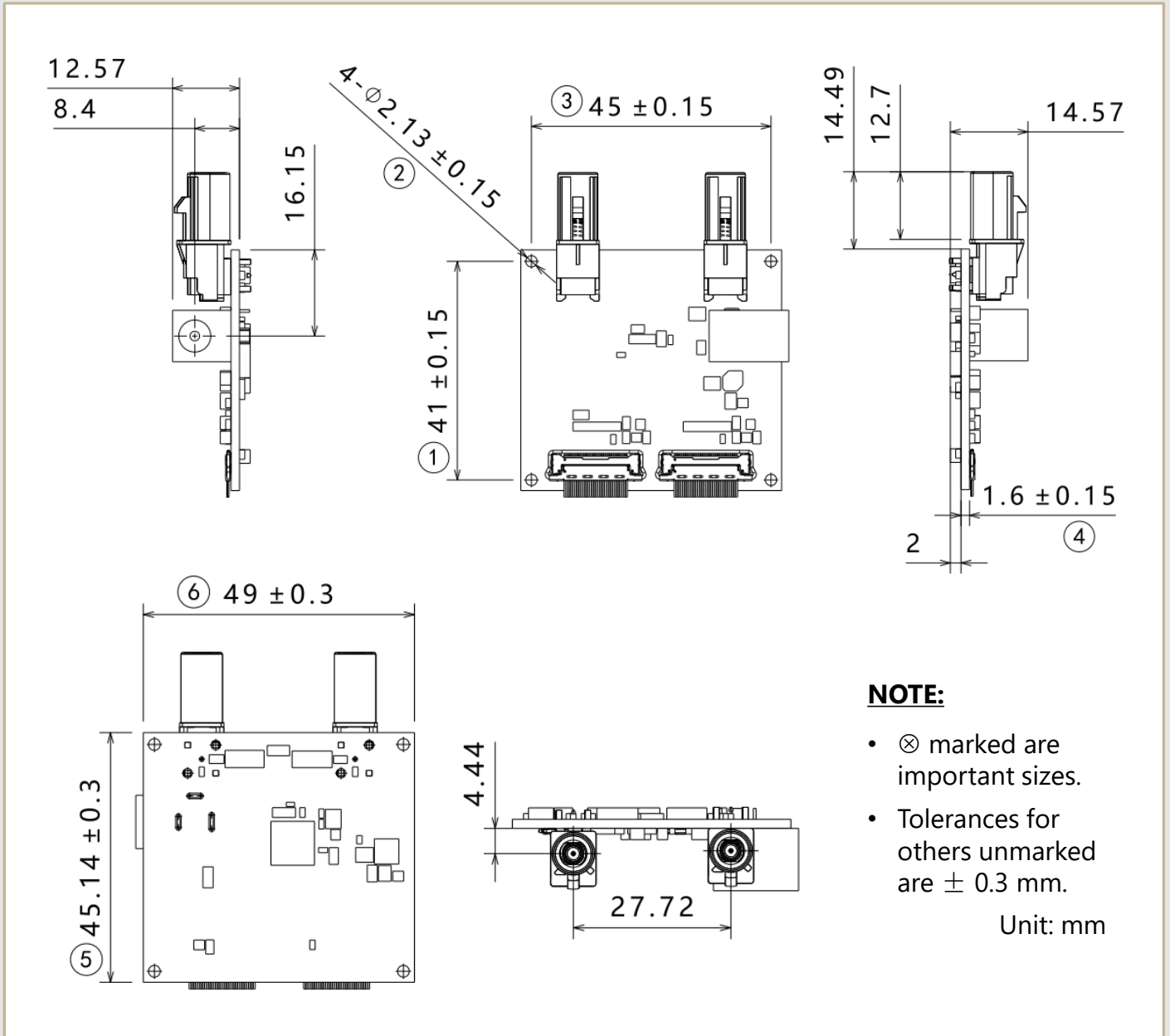


### De-Serializer



# LI-GMSL2-IPX-DESER

## DIMENSIONS



**NOTE:**

- ⊗ marked are important sizes.
- Tolerances for others unmarked are  $\pm 0.3$  mm.

Unit: mm

## ● REVISION HISTORY

Revision	Description	Release Date
1.0	First release.	11 Jul 2019
1.1	<ol style="list-style-type: none"><li>1. Changed 200H lens from F13B0108WM12R1 to E7393E-R8 and updated related pictures and 2D dimensions.</li><li>2. Added LI-GMSL2-IPX-DESER 2D dimensions.</li></ol>	23 Nov 2022

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