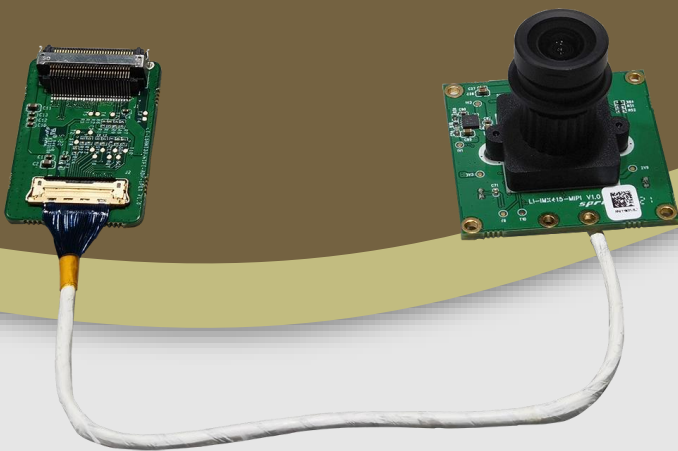




LI-ADL-ADP-IMX415-MIPI-081H



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KEY FEATURES

- Compatible with Intel ADL-N CRB (Alder Lake-N Customer Reference Board)
- MIPI CSI-2 interface
- Adapter board: LI-LSHM130-MIPI-ADP-IPEX
- Sensor: Sony Diagonal 6.43 mm (Type 1/2.8) CMOS Image Sensor IMX415
- Active pixels: 3864 (H) x 2176 (V)
- Color camera
- Length of the I-PEX cable: 300 mm
- Supports multiple length cables
- Connector Part# (sensor board): 20525-030E-02
- Allows customization
- Part#: **LI-ADL-ADP-IMX415-MIPI-081H**

APPLICATIONS

- IoT
- Robots
- Camera on Laptop

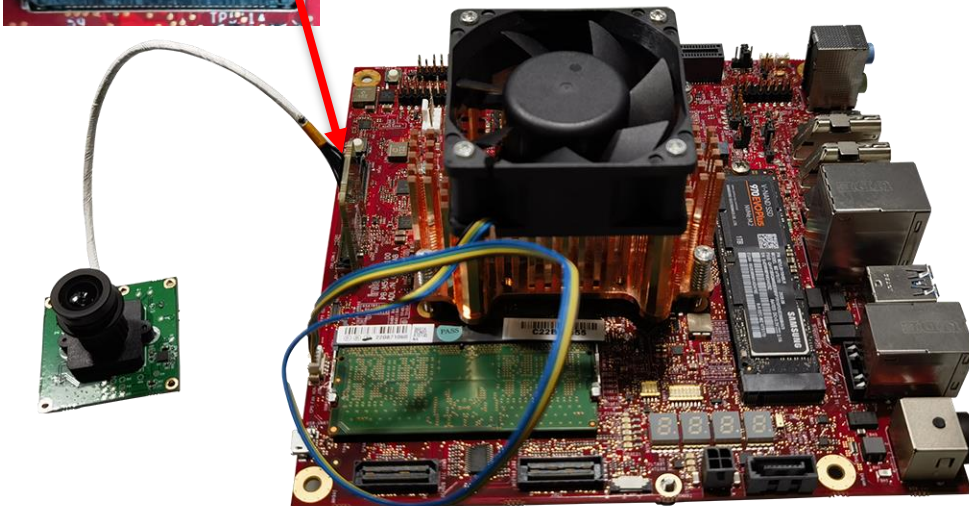
LENS SPECIFICATIONS

Effective Focal Length	4.063 mm
Aperture, F/#	2.29 ± 5%
Field of View (FOV)	81.7° horizontal
	44.7° vertical
	95.1° diagonal
Optical Distortion	-28.1%
TV Distortion	-9.3%
Relative Illumination	59.1%
IR Filter	650 nm IR cut filter
Lens Mount	M12 x 0.5

BOM

NOTE: Intel ADL-N CRB is **NOT** included.

#	Items	QTY
1	LI-LSHM130-MIPI-ADP-IPEX	1
2	LI-IMX415-MIPI-081H	1
3	FAW-1233-03 cable	1



NOTE:

- Intel ADL-N CRB is **NOT** included
- Connector on Intel ADL-N CRB to LI adaptor board: CRD CON-1
- Connector on LI adaptor board to Intel ADL-N CRB: LSHM-130-01-L-DH-A-S-TR

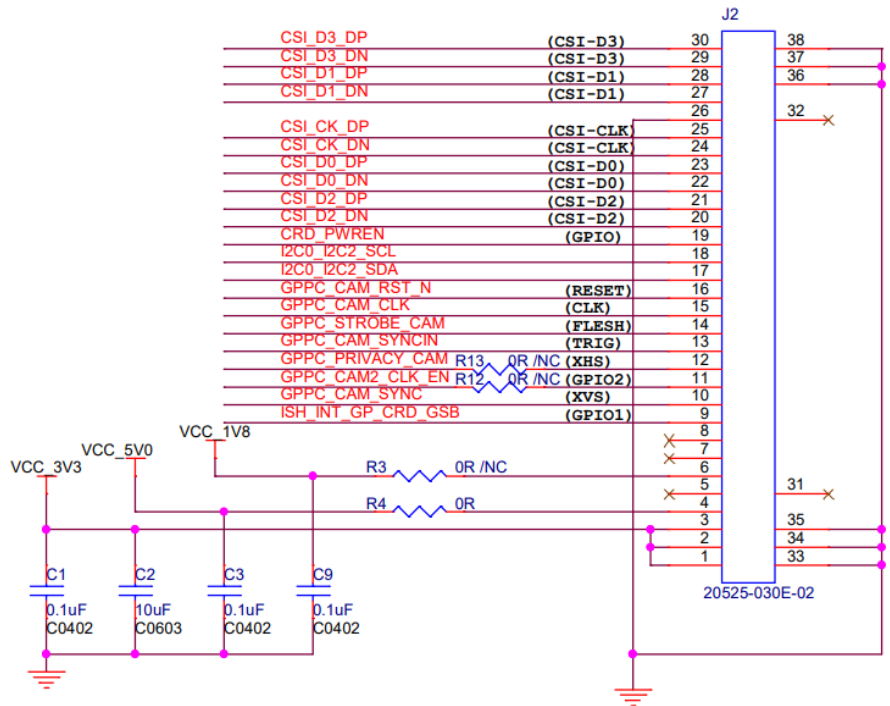
LI-LSHM130-MIPI-ADP-IPEX



INTERFACES

Interface J2 (To Sensor Board)

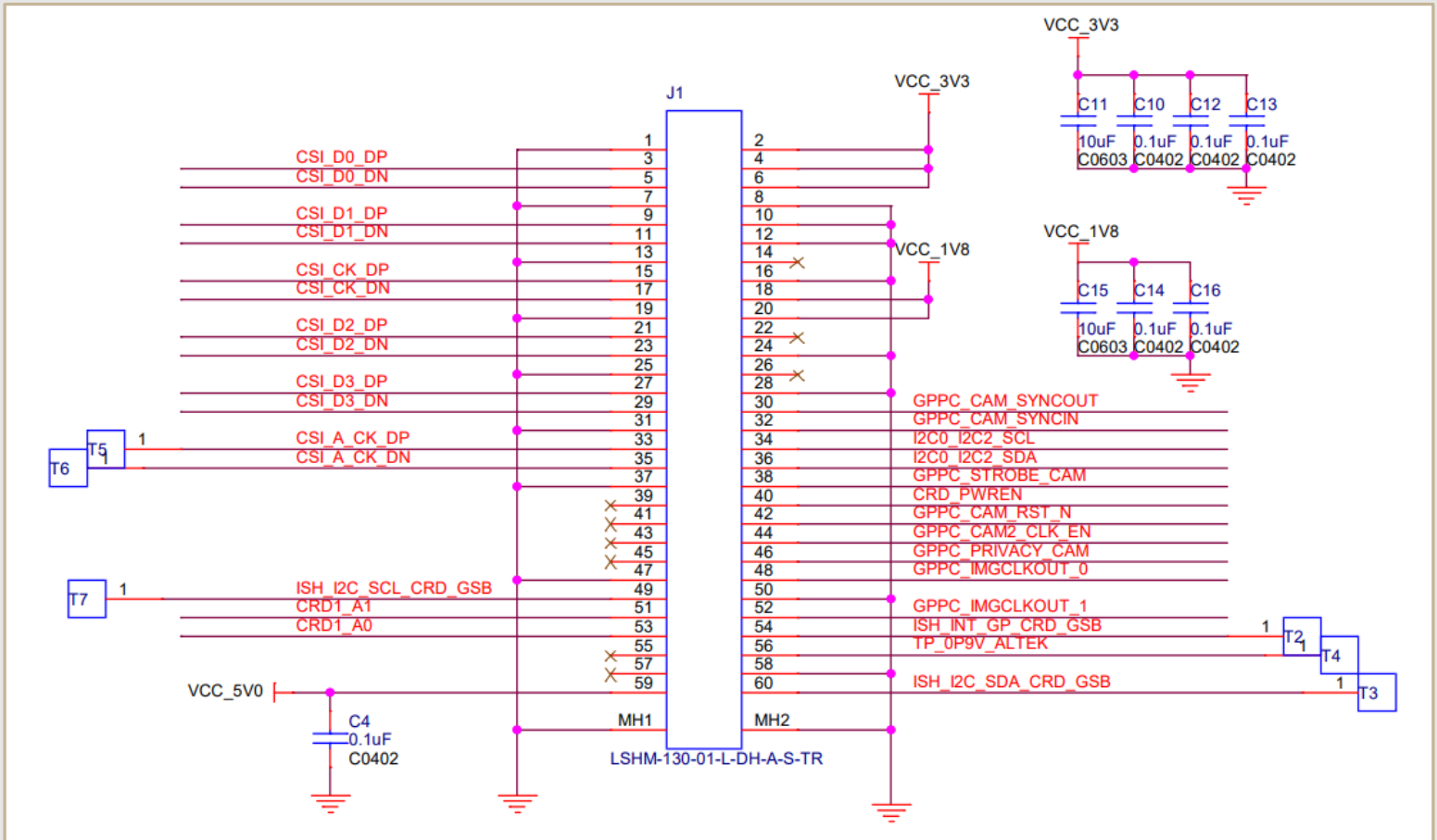
- Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX Cable: FAW-1233-XX



LI-LSHM130-MIPI-ADP-IPEX

INTERFACES

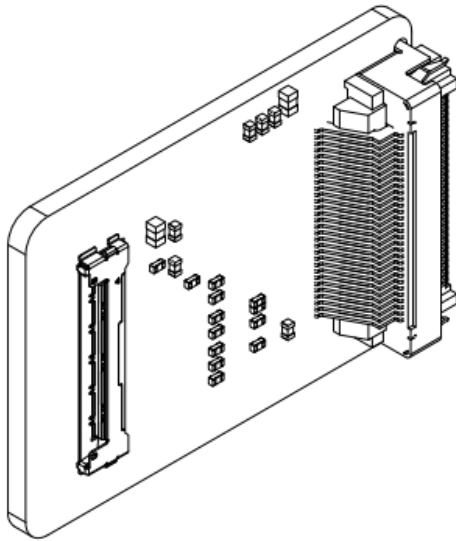
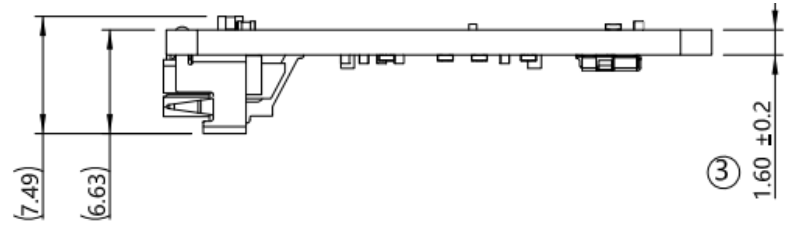
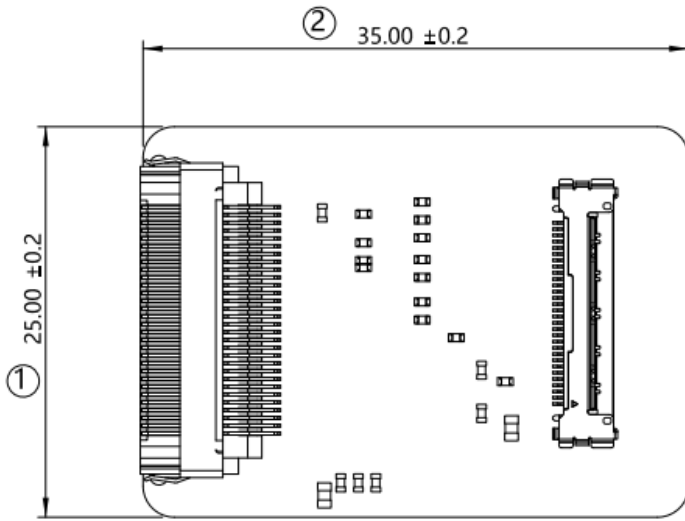
Interface J1 (To Intel ADL-N CRB)



- Part#: LSHM-130-01-L-DH-A-S-TR
- Number of Positions: 60
- Pitch: 0.02 mm
- Number of Rows: 2

LI-LSHM130-MIPI-ADP-IPEX

DIMENSIONS



NOTE:

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

Unit: mm

FAW-1233-03 Cable



MECHANICAL DIAGRAM

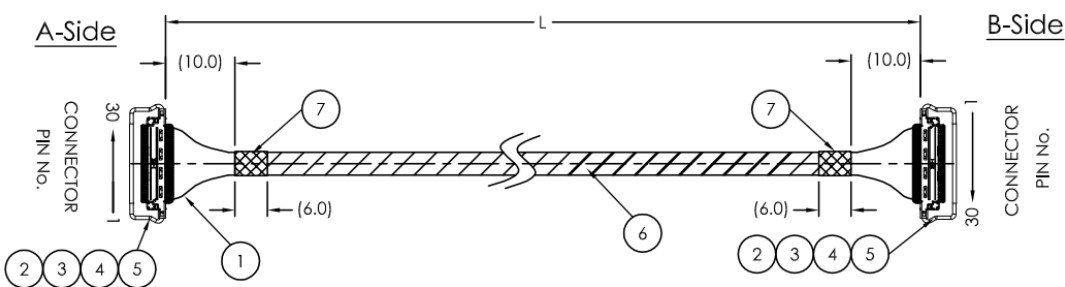
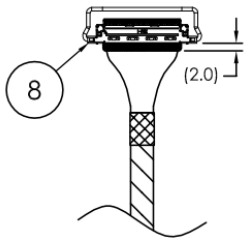
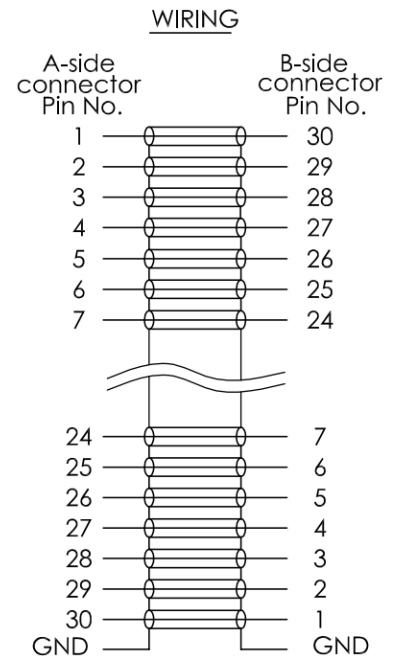


Fig. 1 Applying UV resin



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 ± 10.0 .
- Apply UV resin at the end of connector to cover cables both sides of the cable assembly (Fig.1).

Unit: mm

LI-IMX415-MIPI-081H



● CAMERA SPECIFICATIONS

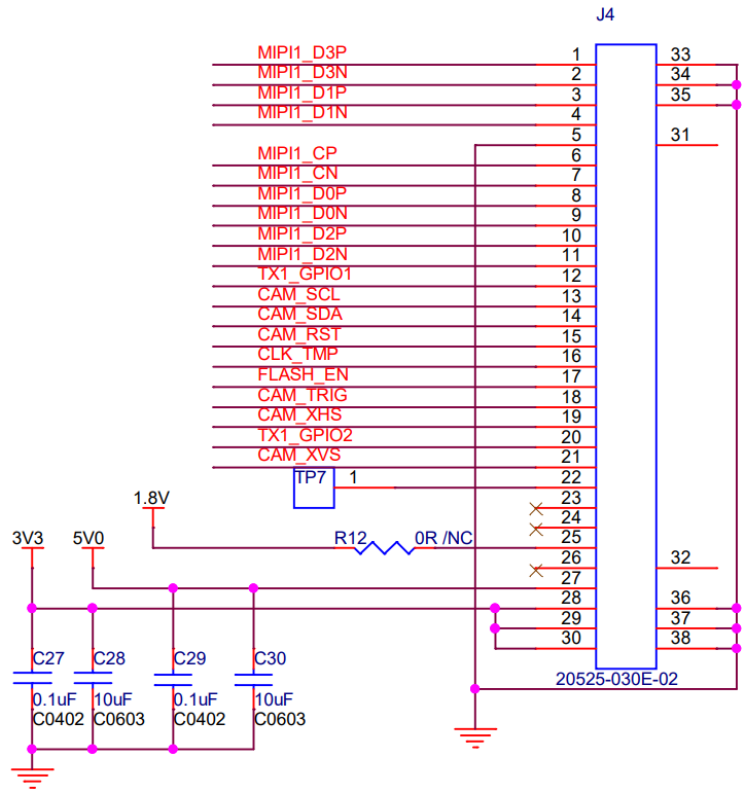
Sensor	Sony Diagonal 6.43 mm (Type 1/2.8) CMOS Image Sensor IMX415
Optical Format	1/2.8"
Resolution	3864 (H) x 2176 (V) (active pixels)
Pixel Size	1.45 x 1.45 μm
Output Format	10-bit / 12-bit RAW data
ISP	Not included
Color / Mono	Color sensor
Interface	4-lane MIPI CSI-2
Operating Temp	-20°C ~ +70°C
Storage Temp	-20°C ~ +70°C
Lens Mount	M12
Size	38 (L) x 38 (W) x 32.04 (D) mm
Weight	~ 17 g
Part#	LI-IMX415-MIPI-081H

LI-IMX415-MIPI-081H

INTERFACES

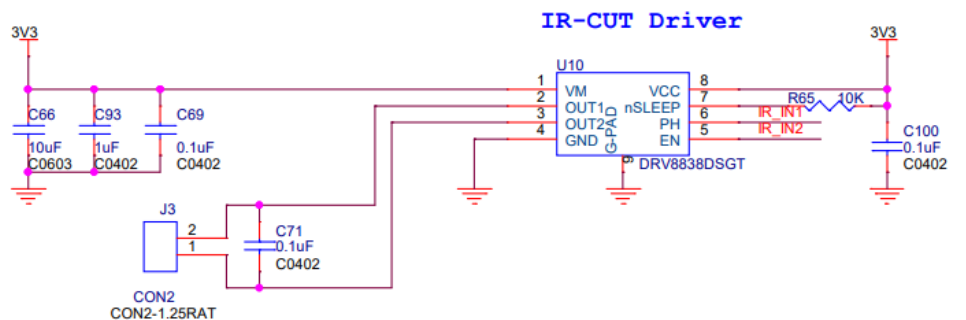
Interface J4

- Connector Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable: LI-FAW-1233
- Sensor I2C Address: 0x1A (7-bit)
- External Power Supply: 3.3V
- 2.9V (analog), 1.8V and 1.1V are generated from board



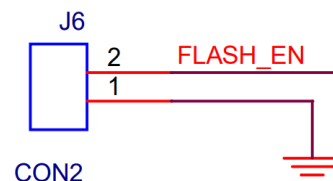
Interface J3

- Part#: 1734829-2
- Number of Positions: 2
- Pitch: 1.25 mm



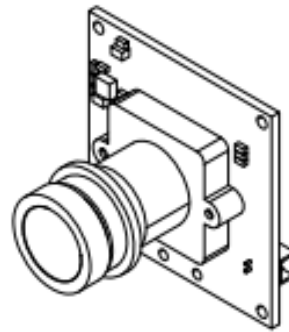
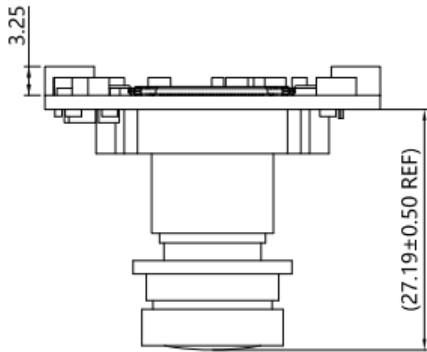
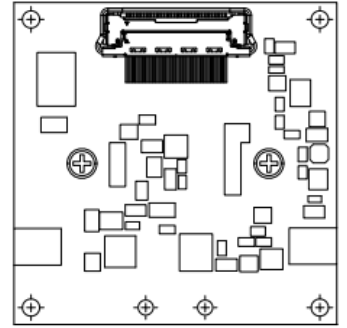
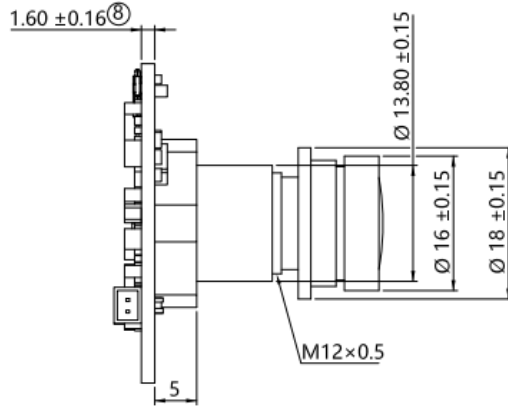
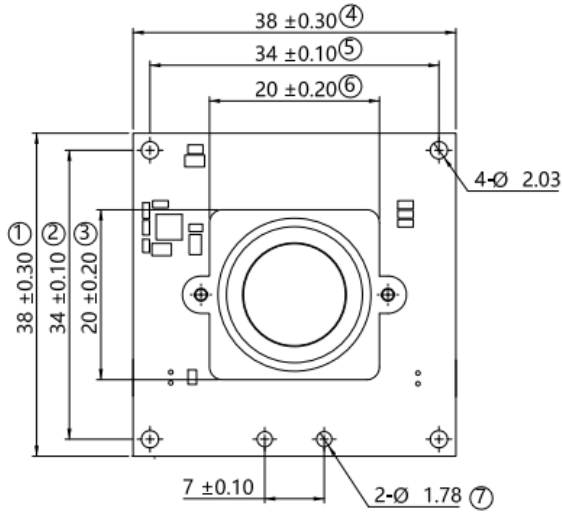
Interface J6

- Part#: 1734829-2
- Number of Positions: 2
- Pitch: 1.25 mm



LI-IMX415-MIPI-081H

DIMENSIONS



NOTE:

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

Unit: mm

● REVISION HISTORY

Revision	Description	Release Date
1.0	First release.	20 Feb 2023
1.1	Added 2D dimensions of LI-LSHM130-MIPI-ADP-IPEX.	19 Apr 2023

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