



LI-IMX490-GMSL2-xxxH



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INTRODUCTION

The LI-IMX490-GMSL2-xxxH is equipped with Sony automotive sensor IMX490 and Maxim GMSL2 serializer MAX9295A/B and is designed for automotive applications. This camera outputs RAW image data with HDR (High Dynamic Range) supported.

KEY FEATURES

Sensor	Sony Diagonal 10.36 mm (Type 1/1.55) CMOS Image Sensor IMX490
Optical Format	1/1.55"
Resolution	2897 (H) x 1877 (V) (active pixels)
Pixel Size	3.0 x 3.0 μm
Data Format	20-bit / 16-bit / 14-bit /12-bit RAW
Color / Mono	Color sensor
Maximum Frame Rate	40 fps @ 2880 x 1860
HDR (High Dynamic Range)	Supported
LFM (LED Flicker Mitigation)	Supported
Lens	FOV H 30° / 40° / 65° / 90° / 120°
Serializer	Maxim MAX9295A/B
Power Supply Range	9 ~ 19 VDC
Connector	FAKRA Z TYPE
IP Rating	IP67
Power Consumption	102 mA @ 12 VDC
Operating Temp	-40°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	~ 55 g
Part#	LI-IMX490-GMSL2-xxxH

APPLICATIONS

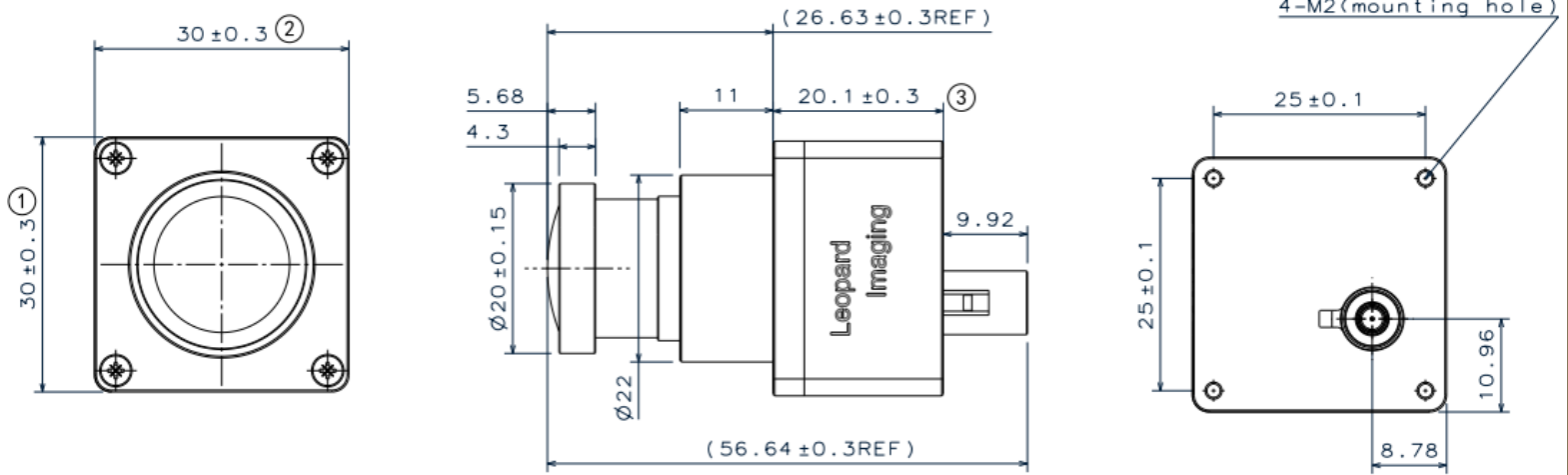
- Automotive ADAS
- Automotive Rear View or Backup

CABLE CONNECTOR

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



DIMENSIONS: LI-IMX490-GMSL2-030H

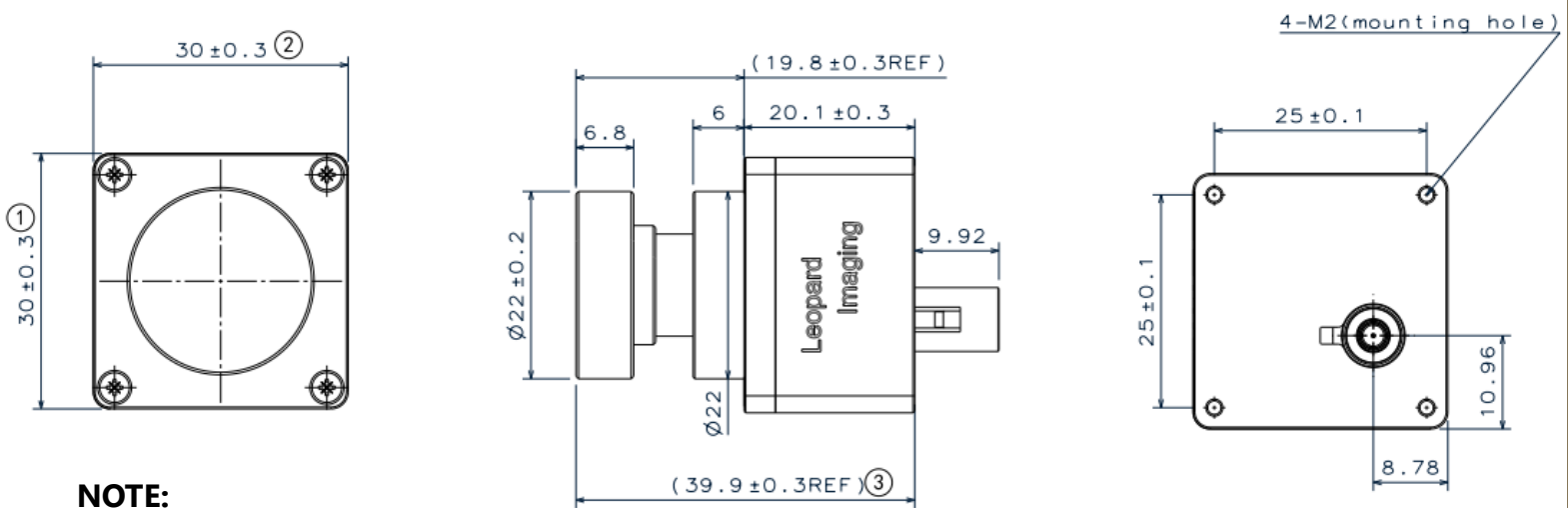


NOTE:

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

Unit: mm

DIMENSIONS: LI-IMX490-GMSL2-040H

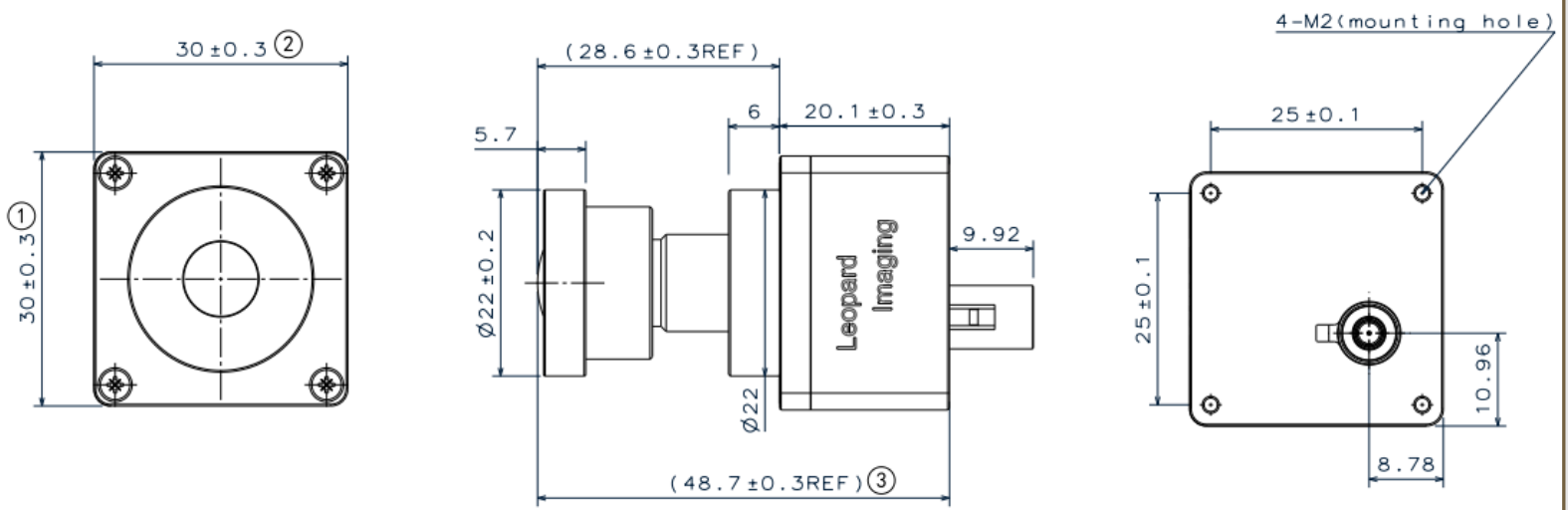


NOTE:

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

Unit: mm

DIMENSIONS: LI-IMX490-GMSL2-065H

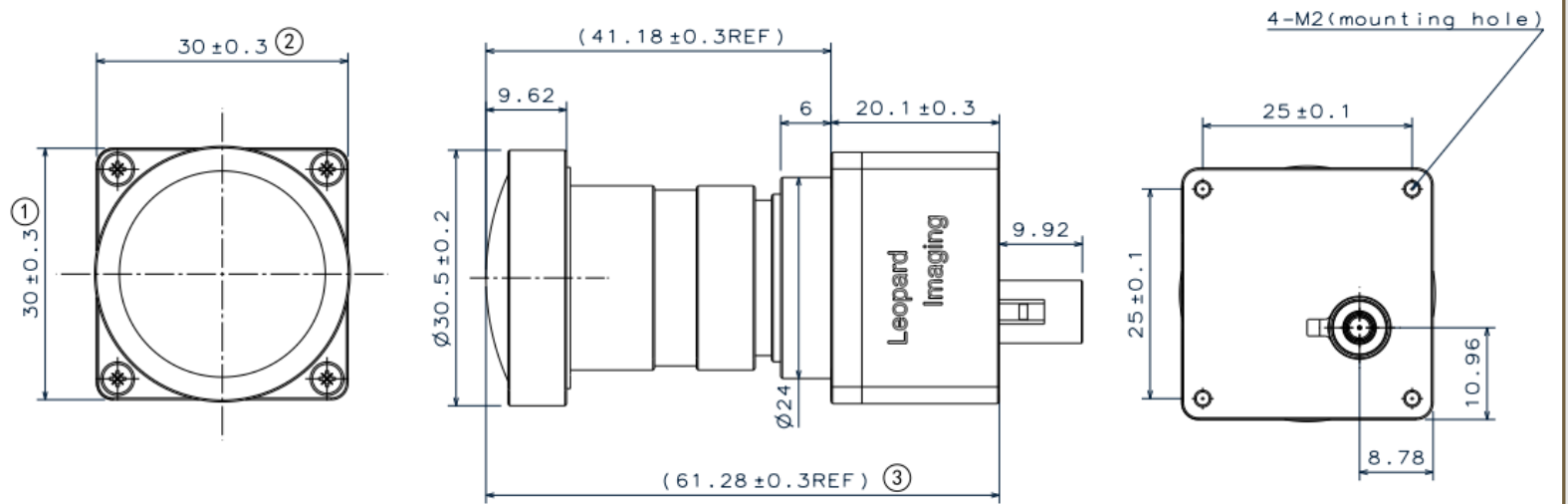


NOTE:

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

Unit: mm

DIMENSIONS: LI-IMX490-GMSL2-090H

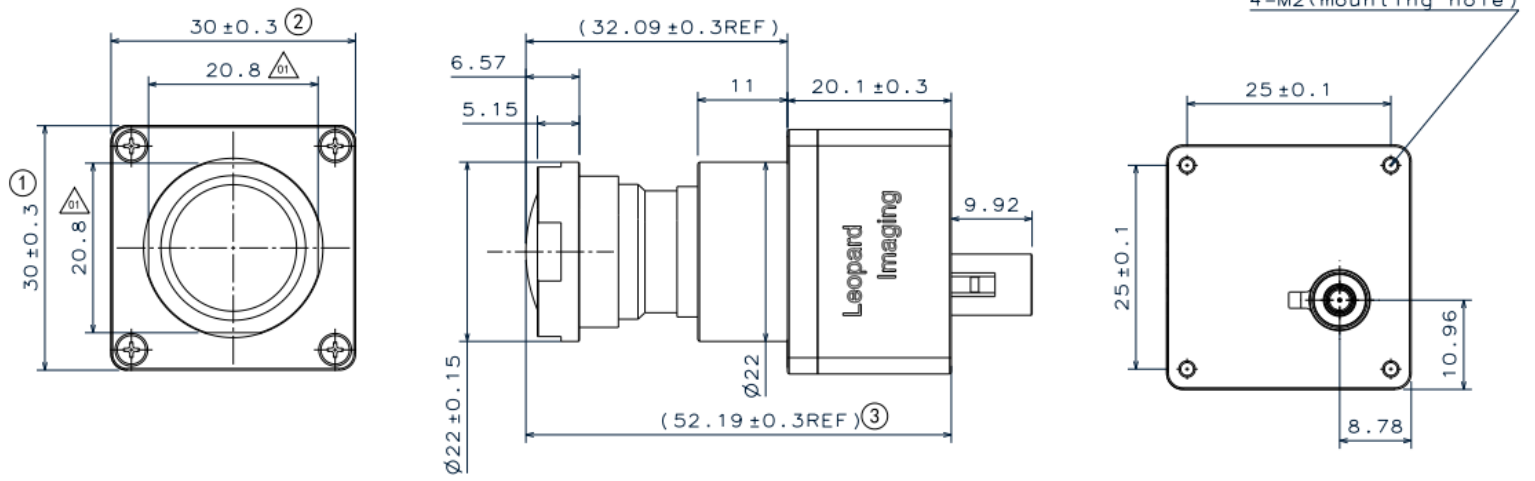


NOTE:

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

Unit: mm

DIMENSIONS: LI-IMX490-GMSL2-120H



NOTE:

- \otimes marked are important sizes.
- Tolerance for others unmarked is ± 0.3 mm.
- \triangle indicates revisions have been made.

Unit: mm

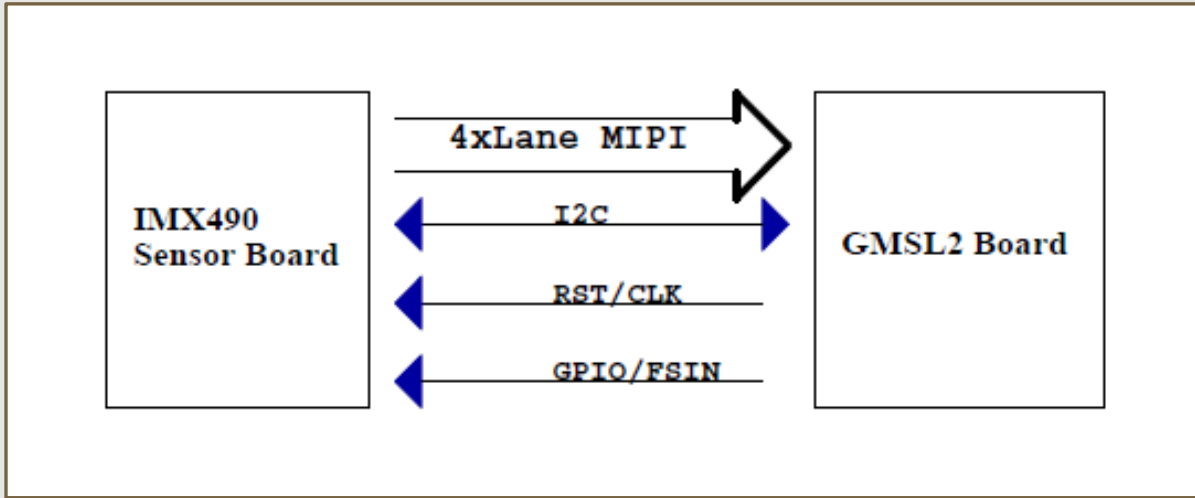
LENS SPECIFICATIONS

xxxH refers to 030H (FOV H 30°), 040H (FOV H 40°), 065H (FOV H 65°), 090H (FOV H 90°), 120H (FOV H 120° .)

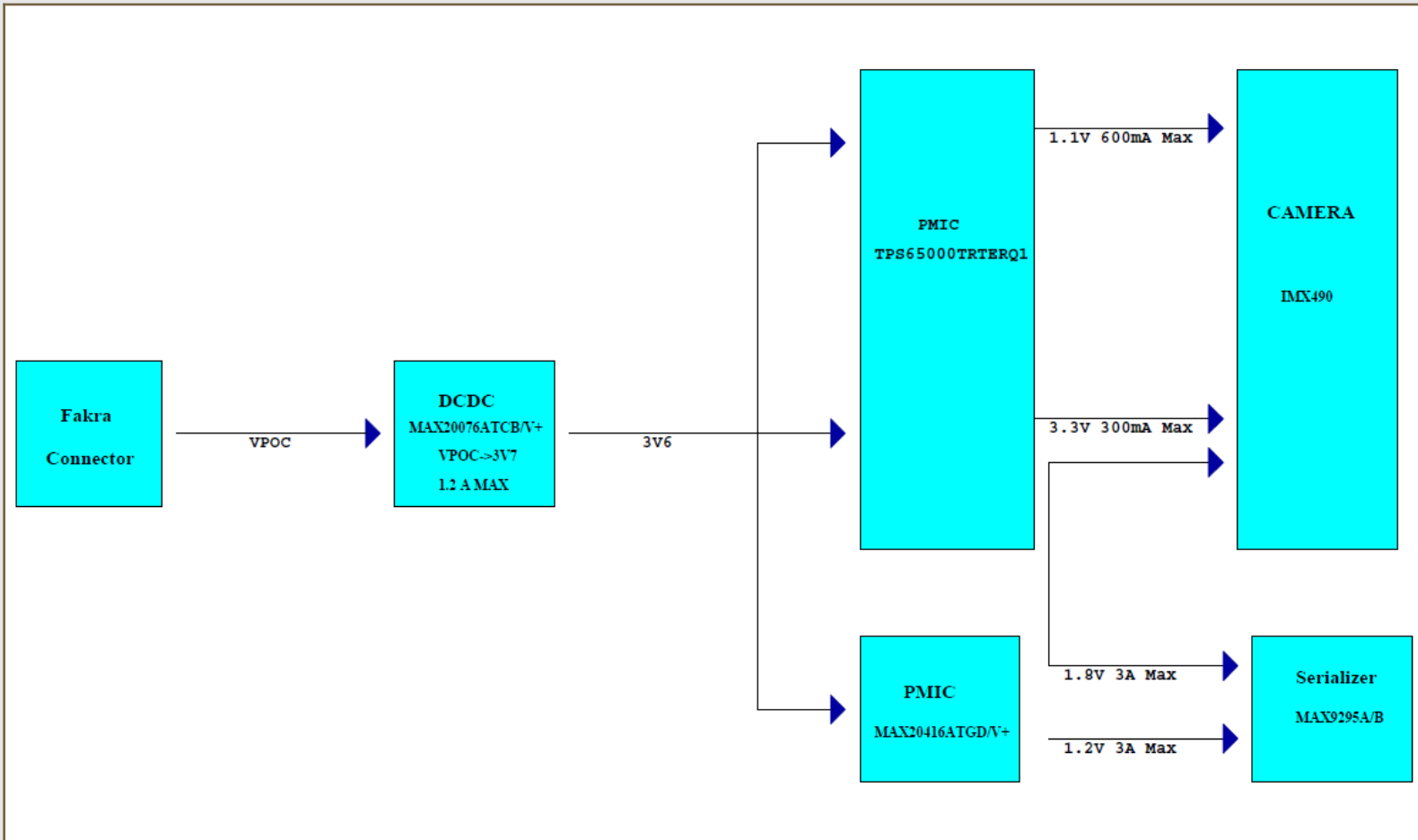
LI-IMX490-GMSL2-030H	LI-IMX490-GMSL2-040H
	
Lens: CAR-56	Lens: DSL612
Lens EFL: 16.37 mm	Lens EFL: 11.9 mm
Aperture, F/#: 1.6	Aperture, F/#: 2.0
Field of View (FOV): 35.5° (D) / 30.0° (H) / 19.5° (V)	Field of View (FOV): 44.4° (D) / 38.0° (H) / 20.8° (V)
Mount: M17	Mount: M12

LI-IMX490-GMSL2-065H	LI-IMX490-GMSL2-090H	LI-IMX490-GMSL2-120H
		
Lens: DSL608	Lens: DSL492	Lens: CAR-55
Lens EFL: 7.9 mm	Lens EFL: 5.9 mm	Lens EFL: 4.49 mm
Aperture, F/#: 2.0	Aperture, F/#: 2.9	Aperture, F/#: 1.6
Field of View (FOV): 74.0° (D) / 65.0° (H) / 37.0° (V)	Field of View (FOV): 100.8° (D) / 88.4° (H) / 52.0° (V)	Field of View (FOV): 154.9° (D) / 120.0° (H) / 73.2° (V)
Mount: M12	Mount: M20	Mount: M16

SYSTEM BLOCK DIAGRAM



POWER BLOCK DIAGRAM



USB3.0 CAMERA KIT

LI-USB30-DESER-GMSL2



Top View



Bottom View

LI-IMX490-GMSL2-xxxH can connect to LI-USB30-DESER-GMSL2 as a USB 3.0 camera.

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

SPECIFICATIONS

- USB 3.0 Super Speed support
- RAW data output without compression
- UVC compliance
- Provide customization services
- 12 VDC power supply for camera
- Support HDR
- Weight: ~ 86 g
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: 2880 x 1860 @ 19 fps
- Power consumption: 102 mA @ 12 VDC
- Support Windows, Linux OS and other OS which include the UVC drivers

BOM

#	Items	QTY
1	LI-IMX490-GMSL2-xxxH	1
2	LI-USB30-DESER-GMSL2	1
3	3-Meter Fakra Cable	1
4	12 VDC Power Supply	1
5	USB3.0 Cable	1



12 VDC power supply for camera

SDK SUPPORTED

- Camera Tool Source Code in C#
- Capture & Display
- Register Access Function
- Save file as BMP & RAW format

● REVISION HISTORY

Revision	Description	Release Date
1.0	First release.	20 Aug 2019
1.1	Added DSL492 lens and updated the resolution to full size.	26 Aug 2019
1.2	Added 030H lens.	02 Aug 2019
1.3	Changed CAR-53 lens to CAR-55.	02 Jun 2021
1.4	Replaced CAR-36 with CAR-56 and updated 2D dimensions, power consumption, frame rate, resolution, and storage temp.	26 Nov 2021

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