



LEOPARD
IMAGING

LI-AR0341-GM2A-xxxH



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INTRODUCTION

The LI-AR0341-GM2A-xxxH is equipped with ON Semiconductor 3MP CMOS RGGGB image sensor AR0341 which supports for Full resolution 150 dB HDR + LFM with Super Exposure (SE) + T2 Mode and Maxim GMSL2 serializer MAX9295A/B. This camera outputs 1920 x 1536 RAW data.

SPECIFICATIONS

Sensor	ON Semiconductor AR0341 CMOS RGGGB Sensor
Optical Format	1/3.6"
Resolution	1920 (H) x 1536 (V) (active pixels)
Pixel Size	2.1 μ m
Sensor	Color sensor
Output Format	12, 16, 24 (22 significant bits) and 28-bit (26 significant bits)
Maximum Frame Rate	60 fps @ full resolution (in Super Exposure + T2 mode and in Super Exposure mode)
HDR (High Dynamic Range)	Supported
LFM (LED Flicker Mitigation)	Supported
Lens	FOV H 124° / 187°
Serializer	Maxim GMSL2 MAX9295A/B
Power Supply Range	9 ~ 19 VDC
Connector	FAKRA Z TYPE
IP Rating	124H: TBD 187H: TBD
Power Consumption	80 mA @ 12 VDC (1920 x 1536 @ 45 fps)
Operating Temp	-40°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	~ 39 g
Part#	LI-AR0341-GM2A-xxxH

APPLICATIONS

- Automotive Front Camera (ADAS)
- Mirror Replacement (CMS)
- ADAS + Viewing Fusion
- High Dynamic Range Imaging
- Surround View + Sensing

IMAGING ORIENTATION



CABLE CONNECTOR

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

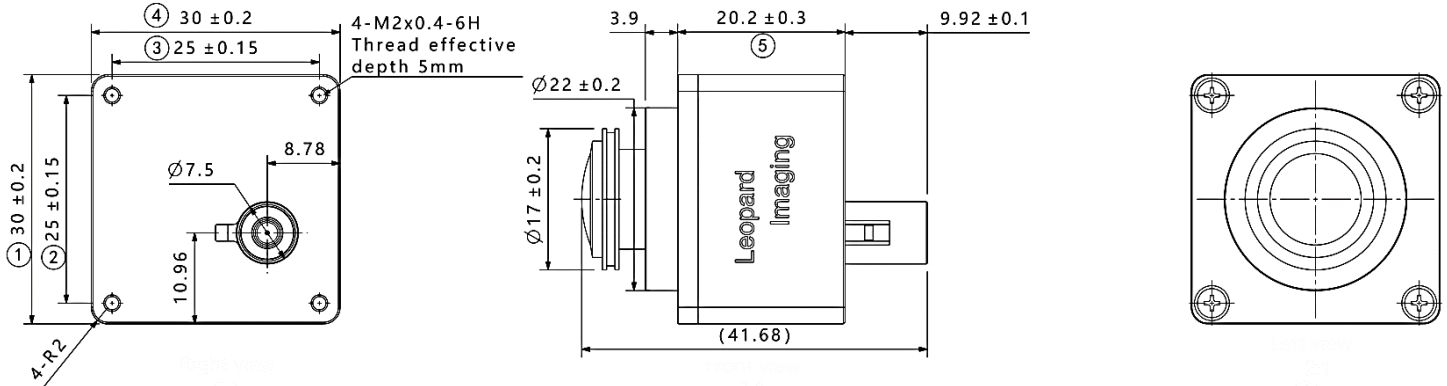


LI-AR0341-GM2A-124H



LI-AR0341-GM2A-187H

DIMENSIONS: LI-AR0341-GM2A-124H



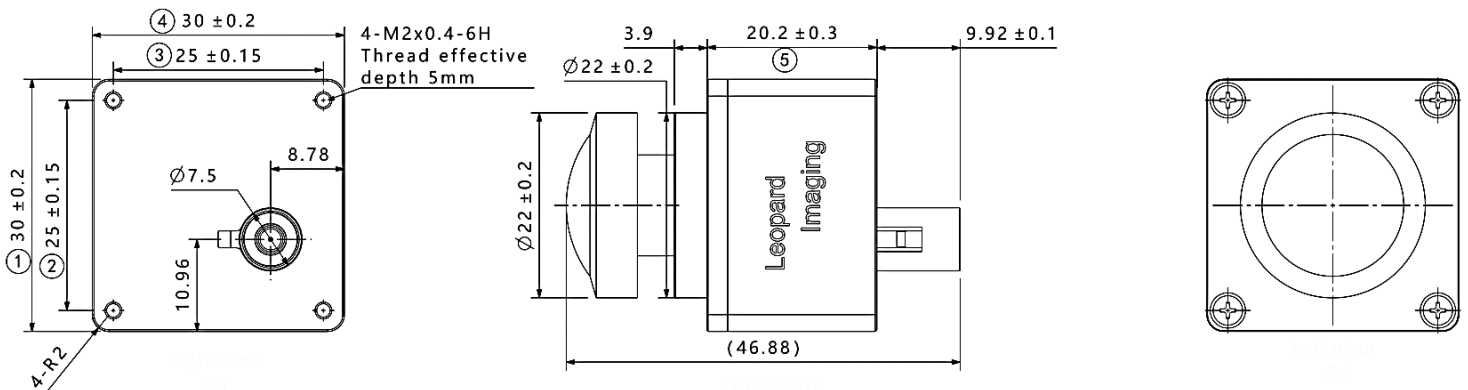
TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
0.5 < X ≤ 3	±0.1	0.5 < X ≤ 3	±0.2	X ≤ 10	±1°
3 < X ≤ 6	±0.1	3 < X ≤ 6	±0.5	10 < X ≤ 50	±30'
6 < X ≤ 30	±0.2	6 < X ≤ 30	±1	50 < X ≤ 120	±20'
30 < X ≤ 120	±0.3	X > 30	±2	120 < X ≤ 400	±10'
120 < X ≤ 400	±0.5			X > 400	±5'
400 < X ≤ 1000	±0.8				
X > 1000	±1.2				

NOTE:

- ⊗ marked are important sizes.
- Tolerances for others unmarked refer to the Tolerance table.
- All materials are compliant with RoHS requirements.

Unit: mm

DIMENSIONS: LI-AR0341-GM2A-187H



TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
0.5 < X ≤ 3	±0.1	0.5 < X ≤ 3	±0.2	X ≤ 10	±1°
3 < X ≤ 6	±0.1	3 < X ≤ 6	±0.5	10 < X ≤ 50	±30'
6 < X ≤ 30	±0.2	6 < X ≤ 30	±1	50 < X ≤ 120	±20'
30 < X ≤ 120	±0.3	X > 30	±2	120 < X ≤ 400	±10'
120 < X ≤ 400	±0.5			X > 400	±5'
400 < X ≤ 1000	±0.8				
X > 1000	±1.2				

NOTE:

- ⊗ marked are important sizes.
- Tolerances for others unmarked refer to the Tolerance table.
- All materials are compliant with RoHS requirements.

Unit: mm

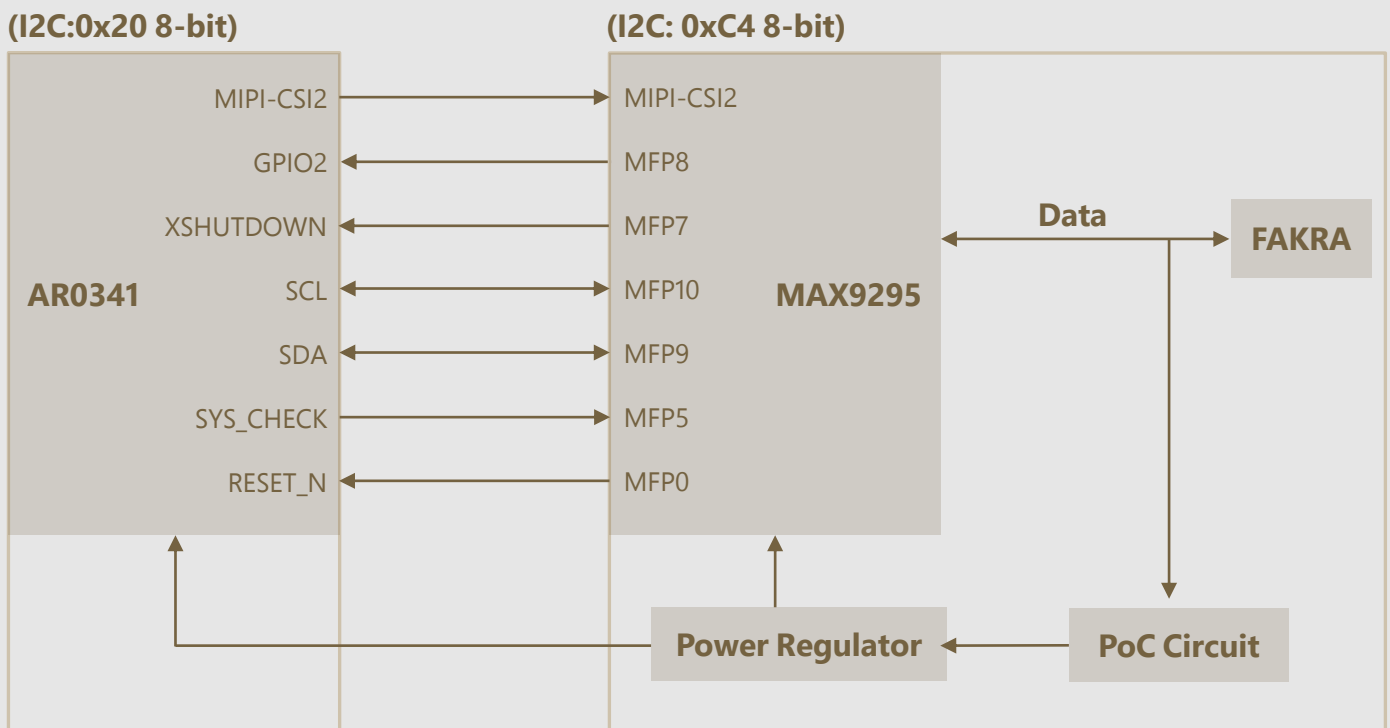
ORDERING INFORMATION

NOTE:

xxxH refers to 124H (FOV H 124°) and 187H (FOV H 187°).

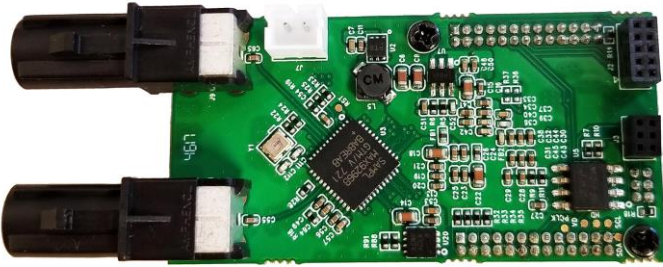
LI-AR0341-GM2A-124H	LI-AR0341-GM2A-187H
	
Lens EFL: 1.95 mm	Lens EFL: 1.2 mm
Aperture, F/#: 2.3	Aperture, F/#: 2.2
Field of View (FOV): 96.7° (V) / 124° (H) / 172.3° (D)	Field of View (FOV): 147.5°(V) / 187°(H) / 220° (D)
TV Distortion(%): 16.40%	F-theta Distortion(%): -2.03%
Relative Illumination: 54.2%	Relative Illumination: 40%
IR Filter: 650 nm IR cut filter	IR Filter: 650 nm IR cut filter
Mount: M12	Mount: M12

PINOUT CONNECTIONS

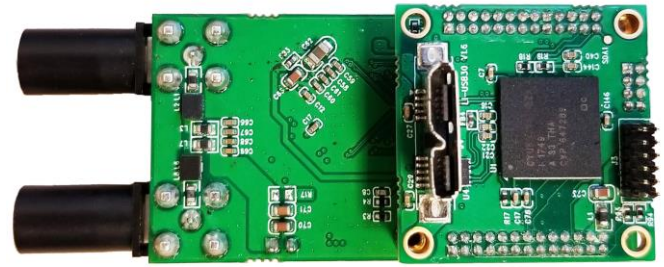


USB3.0 CAMERA KIT

LI-GMSL2-USB



Top View



Bottom View

LI-AR0341-GM2A-xxxH can connect to LI-GMSL2-USB as a USB 3.0 camera.

Part#: **LI-USB30-AR0341-GM2A-xxxH**

SPECIFICATIONS

- USB 3.0 Super Speed support
- UVC compliant
- Allows customization
- 12 VDC Power Supply for camera
- Weight: ~ 167 g (LI-GMSL2-USB + LI-AR0341-GM2A-xxxH + 3-Meter Fakra Cable + USB3.0 Cable + Power Cable)
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: 1920 x 1536 @ 45 fps
- Power consumption: 80 mA @ 12 VDC
- Compatible with Windows, Linux OS and other OS which have UVC drivers

BOM

#	Items	QTY
1	LI-AR0341-GM2A-xxxH	1
2	LI-GMSL2-USB	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
- Register Access Function

REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	02 Apr 2024

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