



LEOPARD
IMAGING

LI-AR2020-GM2B-096H



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INTRODUCTION

The LI-AR2020-GM2B-096H is equipped with ON Semiconductor 1/1.8-inch 20 Mp CMOS sensor AR2020 which features advanced 1.4 μm pixel stacked BSI technology and Maxim GMSL2 serializer MAX96717. This camera outputs 5120 x 3840 RAW data.

SPECIFICATIONS

Maximum Frame Rate	19 fps @ 5120 x 3840
Output Format	10-bit RAW data
Focused Range	Focused at 6m to cover 2.777m ~ infinity. (CoC 1 pixel)
Sensor	ON Semiconductor 20 Mp CMOS sensor AR2020
Optical Format	1/1.8"
Resolution	5120 (H) x 3840 (V) (active pixels)
Pixel Size	1.4 μm Back Side Illuminated (BSI)
Sensor	Color sensor
HDR (High Dynamic Range)	Supported
Serializer	Maxim GMSL2 MAX96717
Power Supply Range	9 ~ 19 VDC
Connector	FAKRA Z TYPE
IP Rating	TBD
Power Consumption	69 mA @ 12 VDC (5120 x3840 @ 8 fps)
Operating Temp	-30°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	~ 46 g

APPLICATIONS

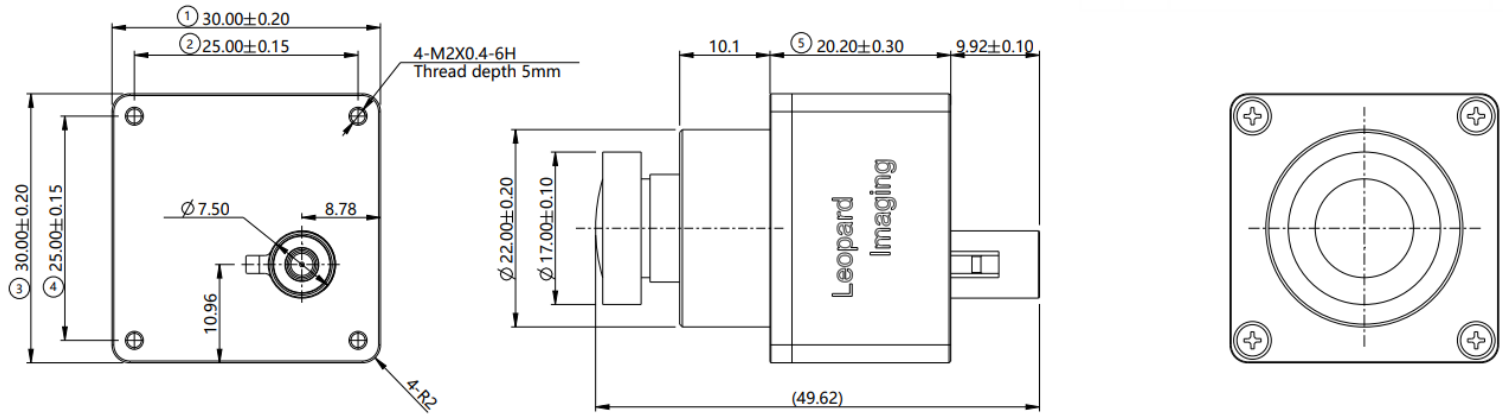
- Surveillance Camera
- Video Conferencing
- Machine Vision
- 3D and Stereo Imaging
- Barcode Scan

Lens Specifications

Focal Length	4.5 mm
Aperture, F/#	2.8
Field of View (FOV)	124° diagonal
	96° horizontal
	71° vertical
Optical Distortion	<-44%
IR Filter	650 nm IR cut filter
Lens Mount	M12 x P0.5



DIMENSIONS



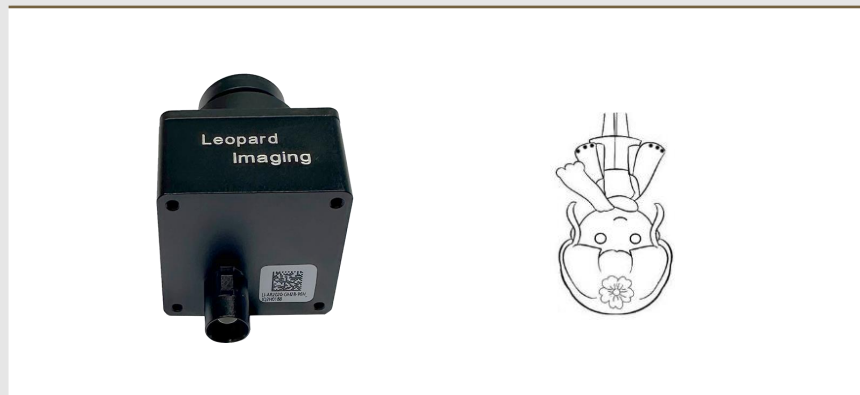
NOTE:

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

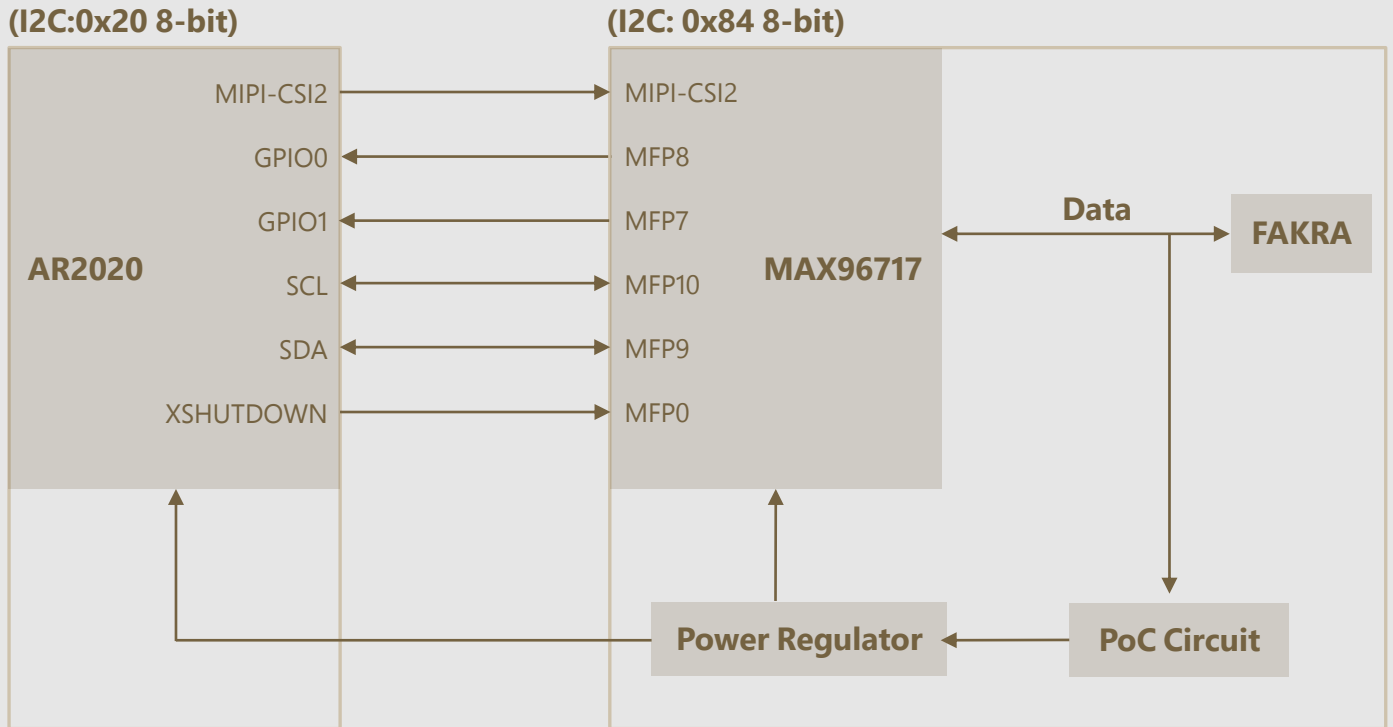
Unit: mm

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				

IMAGE ORIENTATION



SYSTEM BLOCK DIAGRAM



USB3.0 CAMERA KIT

LI-GMSL2-USB



Top View



Bottom View

LI-AR2020-GM2B-096H can connect to LI-GMSL2-USB as a USB 3.0 camera.

Part#: **LI-USB30-AR2020-GM2B-096H**

SPECIFICATIONS

- USB 3.0 Super Speed support
- UVC compliant
- Allows customization
- 12 VDC Power Supply for camera
- Weight: TBD
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: 5120 x3840 @ 8 fps
- Power consumption: 69 mA @ 12 VDC
- Compatible with Windows, Linux OS and other OS which have UVC drivers

BOM

#	Items	QTY
1	LI-AR2020-GM2B-096H	1
2	LI-GMSL2-USB	1
3	3-Meter Fakra Cable	1
4	12 VDC Power Supply	1
5	USB3.0 Cable	1



REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	15 Apr 2025
0.2	Added focused range.	31 Dec 2025
0.3	Deleted SDK support for USB3.0 camera.	19 Jan 2026
0.4	Deleted LFM specification.	19 Jan 2026
0.5	Updated Maximum Frame Rate.	29 May 2026

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