



LEOPARD
IMAGING

LI-S5K1H1SBRCCG-96717-xxxH



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INTRODUCTION

The LI-S5K1H1SBRCCG-96717-xxxH is equipped with Samsung automotive 1/1.7" 8.3MP CMOS RCCG image sensor S5K1H1SB which has On-Chip HDR and LFM. Its serializer is Maxim GMSL2 serializer MAX96717. This camera outputs RAW image data.

SPECIFICATIONS

Sensor	Samsung Automotive 1/1.7" 8.3MP CMOS RCCG Image Sensor S5K1H1SB
Optical Format	1/1.7"
Resolution	3856 (H) x 2176 (V) (active pixels)
Pixel Size	2.1 x 2.1 μ m
Output Format	20-bit / 16-bit / 14-bit / 12-bit RAW
Color / Mono	Color sensor
Maximum Frame Rate	36 fps (intra-scene) @ 8.3MP with HDR4_NEW or HDR4_VS 45 fps @ all operation mode
HDR (High Dynamic Range)	Supported
LFM (LED Flicker Mitigation)	Supported
Serializer	Maxim MAX96717
Lens	FOV H 30° / 70° / 97°
IP Rating	TBD
Power Supply Range	7 ~ 24 VDC
Connector	FAKRA Z TYPE
Power Consumption	98 mA @ 12 VDC (3840 x 2160 @ 20 fps)
Operating Temp	-40°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	Around 48 g
Part#	LI-S5K1H1SBRCCG-96717-xxxH

APPLICATIONS

- Automotive
 - ◆ Autonomous Driving
 - ◆ High Performance ADAS
 - ◆ Front Forwarding Camera
 - ◆ Surround Sensing / Viewing Camera

IMAGE ORIENTATION



CABLE CONNECTOR

- Housing Connector
FAKRA Z Type
- Cable Length: 3 meters



LI-S5K1H1SBRCCG-96717-030H



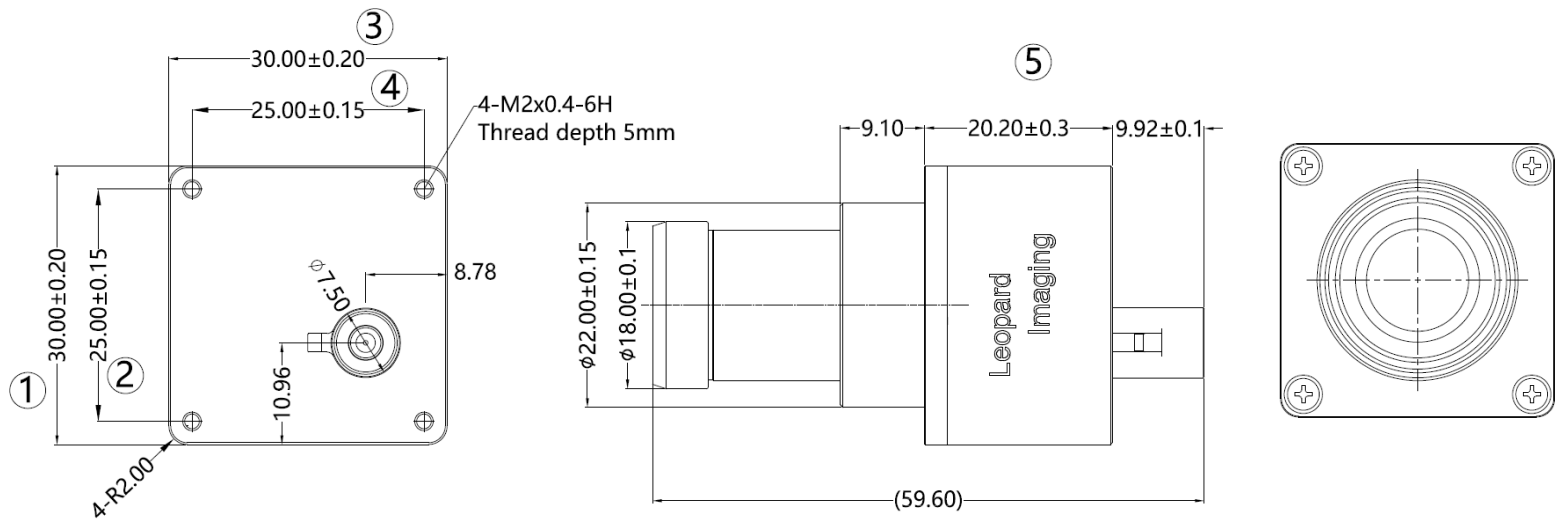
LI-S5K1H1SBRCCG-96717-070H



LI-S5K1H1SBRCCG-96717-097H



DIMENSIONS: LI-S5K1H1SBRCCG-96717-030H

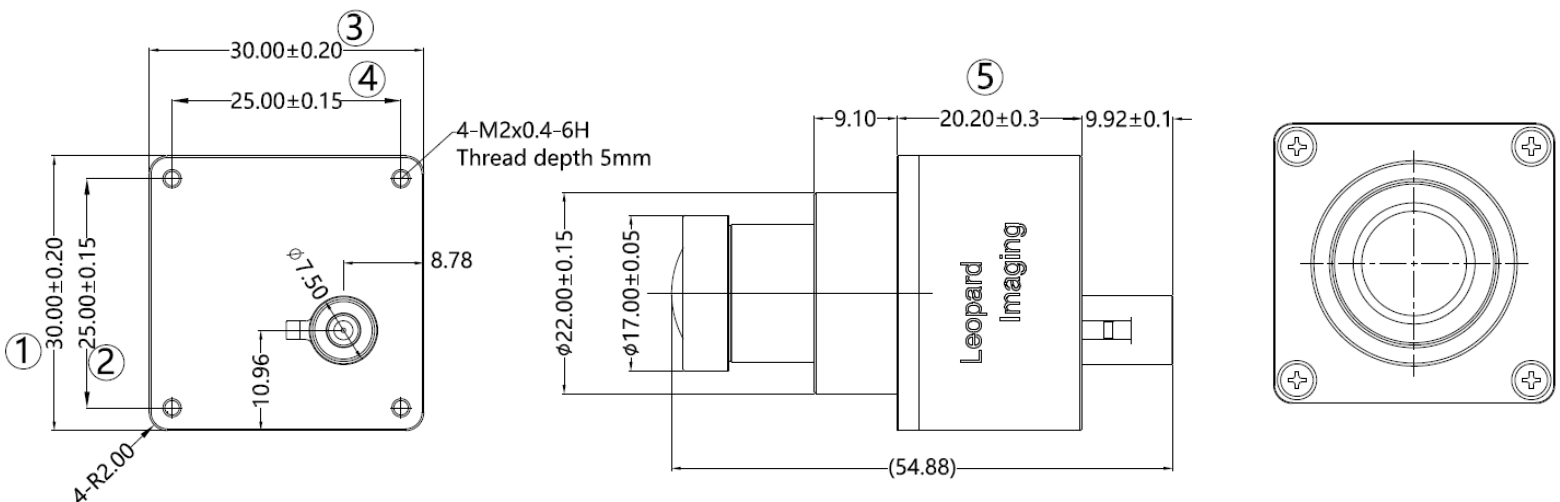


NOTE:

- ⊗ marked are important sizes.
- All materials are compliant with RoHS requirements.
- Tolerances for others unmarked are ± 0.3 mm.

Unit: mm

DIMENSIONS: LI-S5K1H1SBRCCG-96717-070H

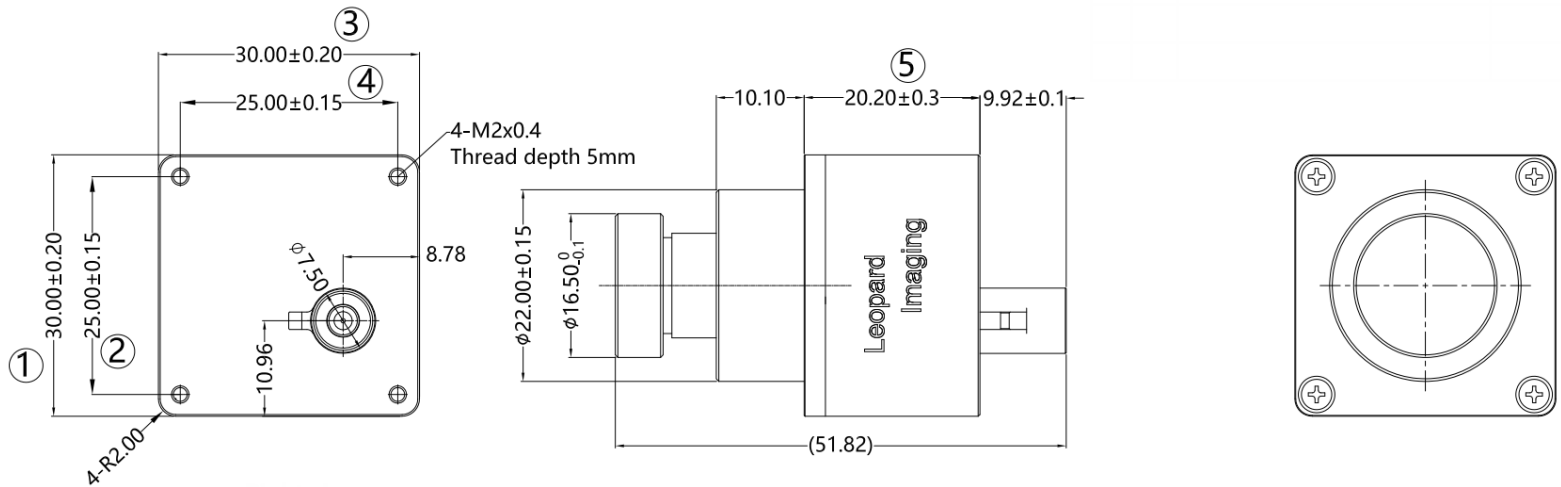


NOTE:

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Unit: mm

DIMENSIONS: LI-S5K1H1SBRCCG-96717-097H

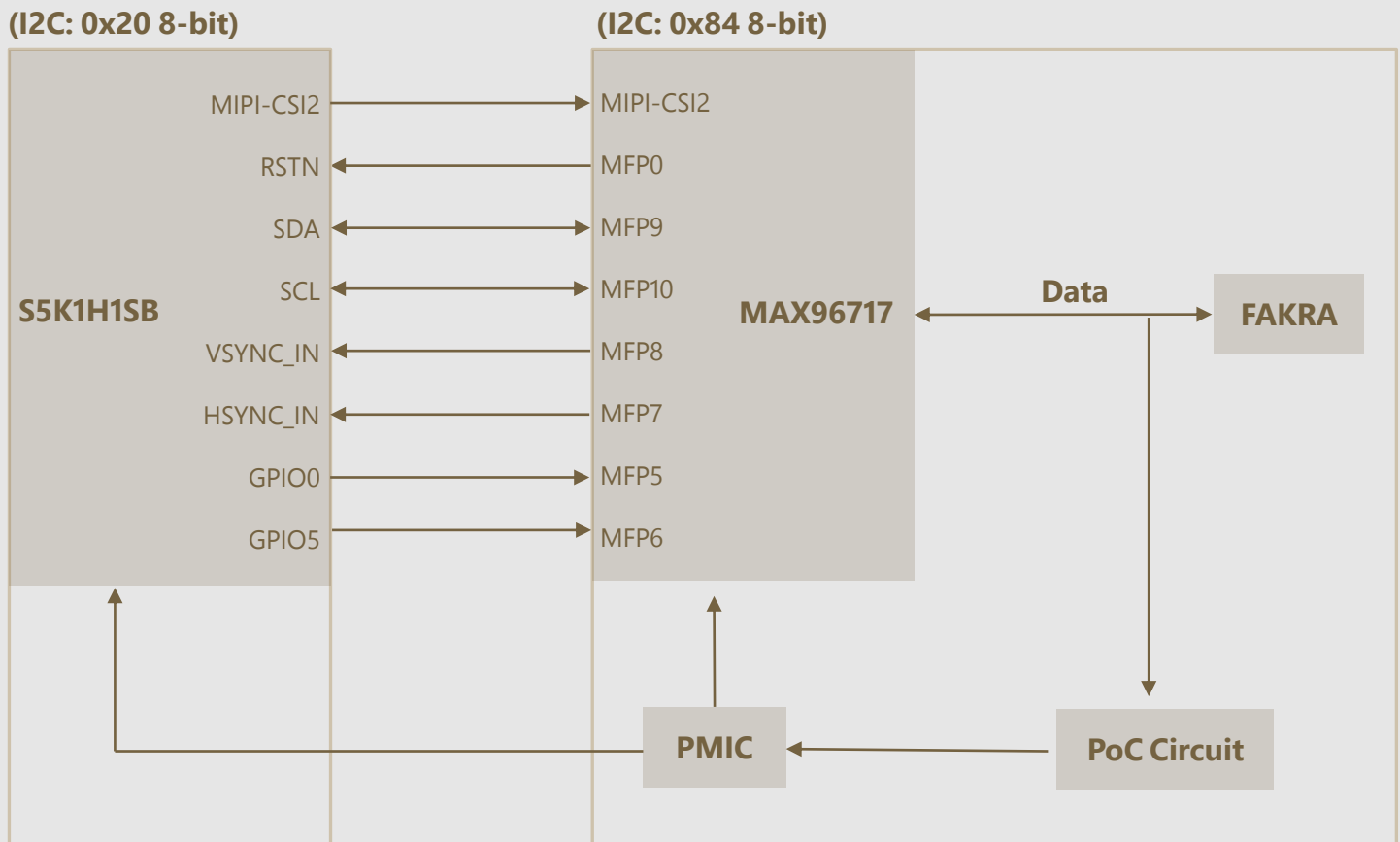


NOTE:

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Unit: mm

SYSTEM BLOCK DIAGRAM



ORDERING INFORMATION

NOTE:

xxxH refers to 030H (FOV H 30°), 070H (FOV H 70°) or 097H (FOV H 97°)

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Lens EFL: 15.34 mm $\pm$ 5%

Aperture, F/#: 1.6 $\pm$ 5%

Field of View (FOV): 30° $\pm$ 1° (H) / 17° $\pm$ 1° (V) / 34.4° $\pm$ 1° (D)

Optical Distortion: : (-2.7 $\pm$ 1)%

Relative Illumination: (70 $\pm$ 5)%

IR Filter: 650 nm IR cut filter

Mount: M17

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Lens EFL: 6.6 mm $\pm$ 3%

Aperture, F/#: 1.6 $\pm$ 5%

Field of View (FOV): 70° $\pm$ 1.5° (H) / 39.3° $\pm$ 1.5° (V) / 80.1° $\pm$ 1.5° (D)

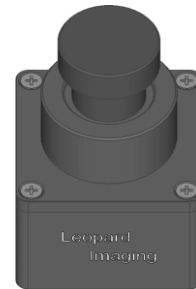
Optical Distortion: (-16.7 $\pm$ 2)%

Relative Illumination: (61 $\pm$ 5)%

IR Filter: 650 nm IR cut filter

Mount: M16

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Lens EFL: 5.0 mm $\pm$ 5%

Aperture, F/#: 1.8

Field of View (FOV): 97.4° (H) / 50° (V) / 120.3° (D)

Optical Distortion: -50%

IR Filter: 650 nm IR cut filter

Mount: M12

● REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	25 Jun 2023
0.2	1. Updated weight, System Block Diagram and Image Orientation. 2. Replaced 3D images with actual product pictures.	19 Feb 2024
0.3	1. Updated operating temp and storage temp. 2. Replaced lens 100H to lens 097H.	4 Aug 2025

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