



LEOPARD
IMAGING

LI-VENUS-OX08B40-APHY-xxxH



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INTRODUCTION

The LI-VENUS-OX08B40-APHY-xxxH is equipped with OmniVision CMOS high-definition high dynamic range sensor OX08B40 and Valens MIPI® A-PHY compliant CSI-2 serializer VA7031. This camera outputs 12-bit / 14-bit / 16-bit / 20-bit / 24-bit RAW data.

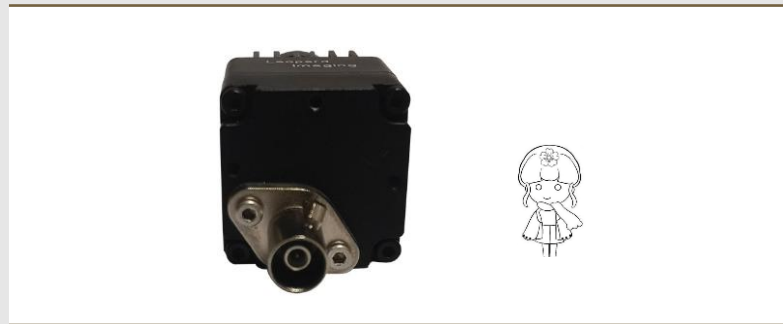
SPECIFICATIONS

Sensor	OmniVision CMOS HDR HD sensor OX08B40
Optical Format	1/1.73"
Resolution	3840 (H) x 2160 (V) (active pixels)
Pixel Size	2.1 x 2.1 μm
Output Format	12-bit / 14-bit / 16-bit / 20-bit / 24-bit RAW
Color / Mono	Color sensor
Maximum Frame Rate	36 fps @ 4 K
HDR (High Dynamic Range)	Supported
LFM (LED Flicker Mitigation)	Supported
Serializer	Valens VA7031
Lens	FOV H 30° / 60° / 120°
Power Supply Range	8 ~ 17 VDC
Connector	FAKRA Z TYPE
IP Rating	030H: IP67 060H / 120H: TBD
Power Consumption	492 mA @ 12 VDC 3840 x 2160 @ 20.96 fps
Operating Temp	-40°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	~ 56 g
Part#	LI-VENUS-OX08B40-APHY-xxxH

APPLICATIONS

- Automotive
 - ◆ High Resolution Front Viewing
 - ◆ Machine Vision
 - ◆ Autonomous Driving
 - ◆ Assisted Driving
 - ◆ Digital Video Recording

IMAGE ORIENTATION



CABLE CONNECTOR

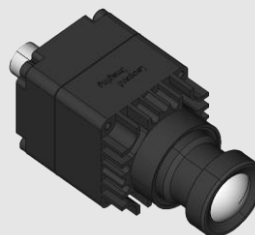
- Housing Connector
FAKRA Z Type
- Cable Length: 3 meters
- Cable Part#: FAK-SMZSMZ-3M



LI-VENUS-OX08B40-APHY-030H

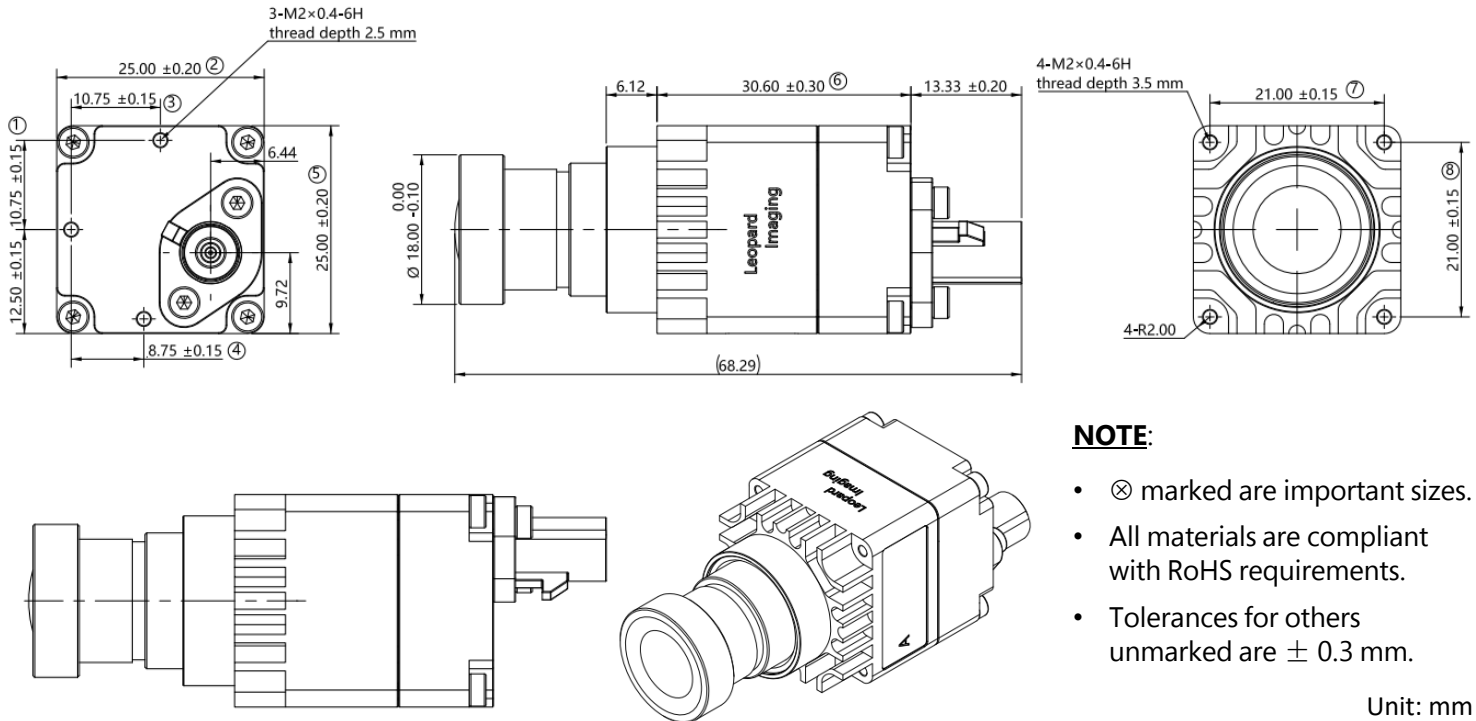


LI-VENUS-OX08B40-APHY-060H

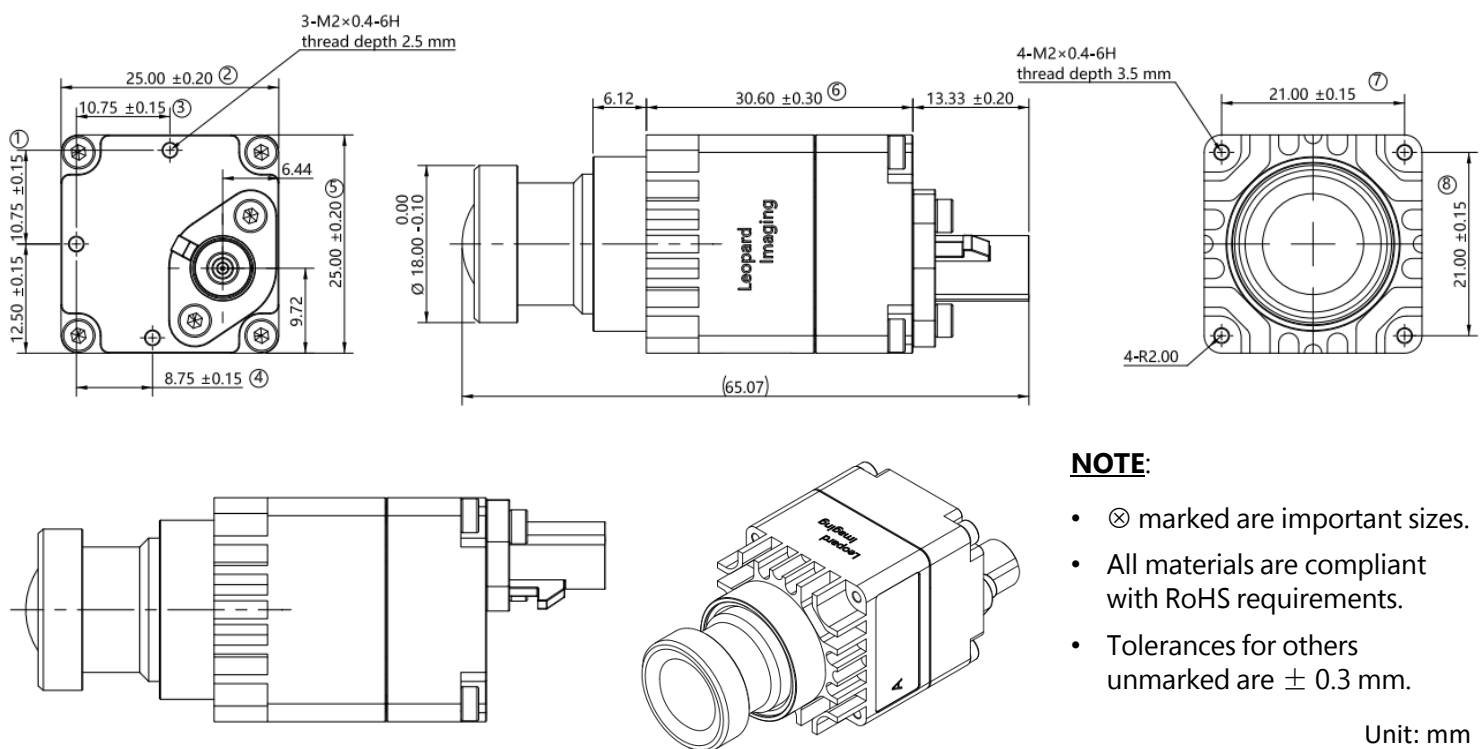


LI-VENUS-OX08B40-APHY-120H

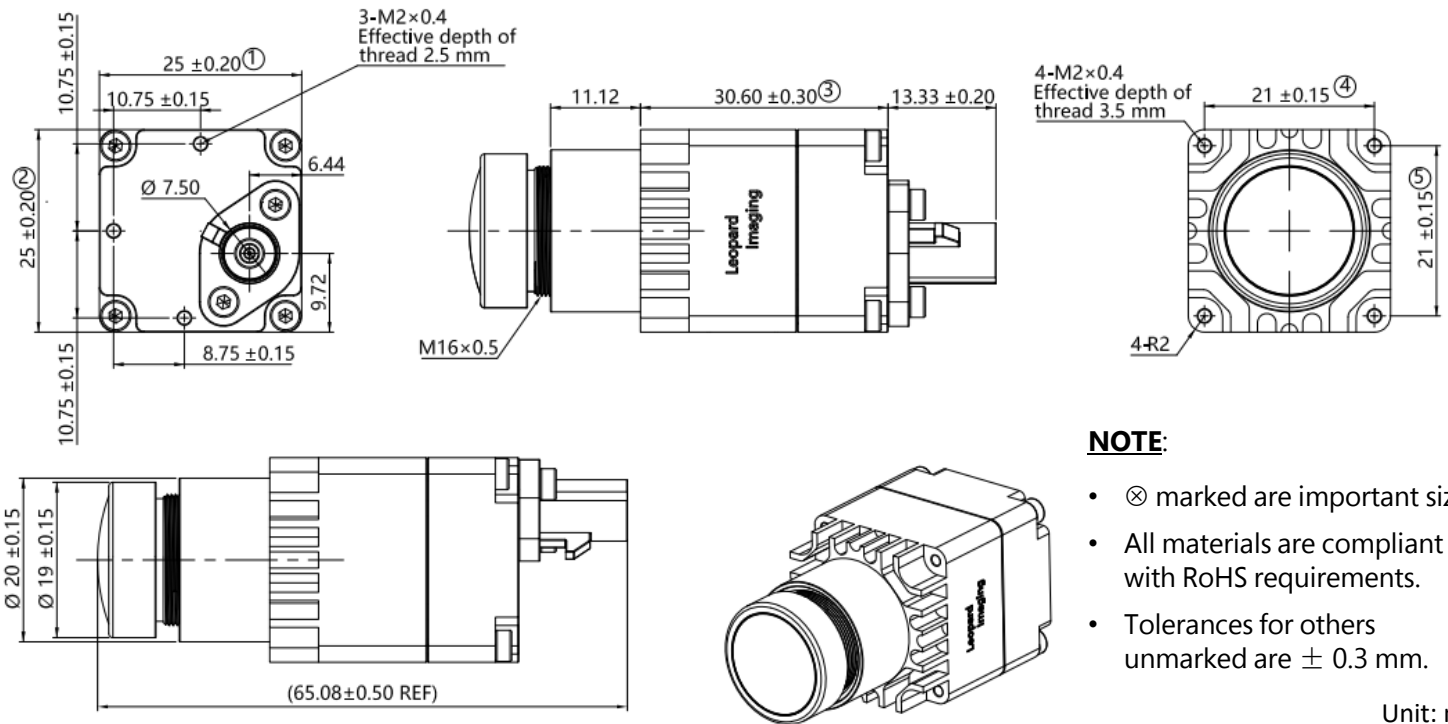
DIMENSIONS: LI-VENUS-OX08B40-APHY-030H



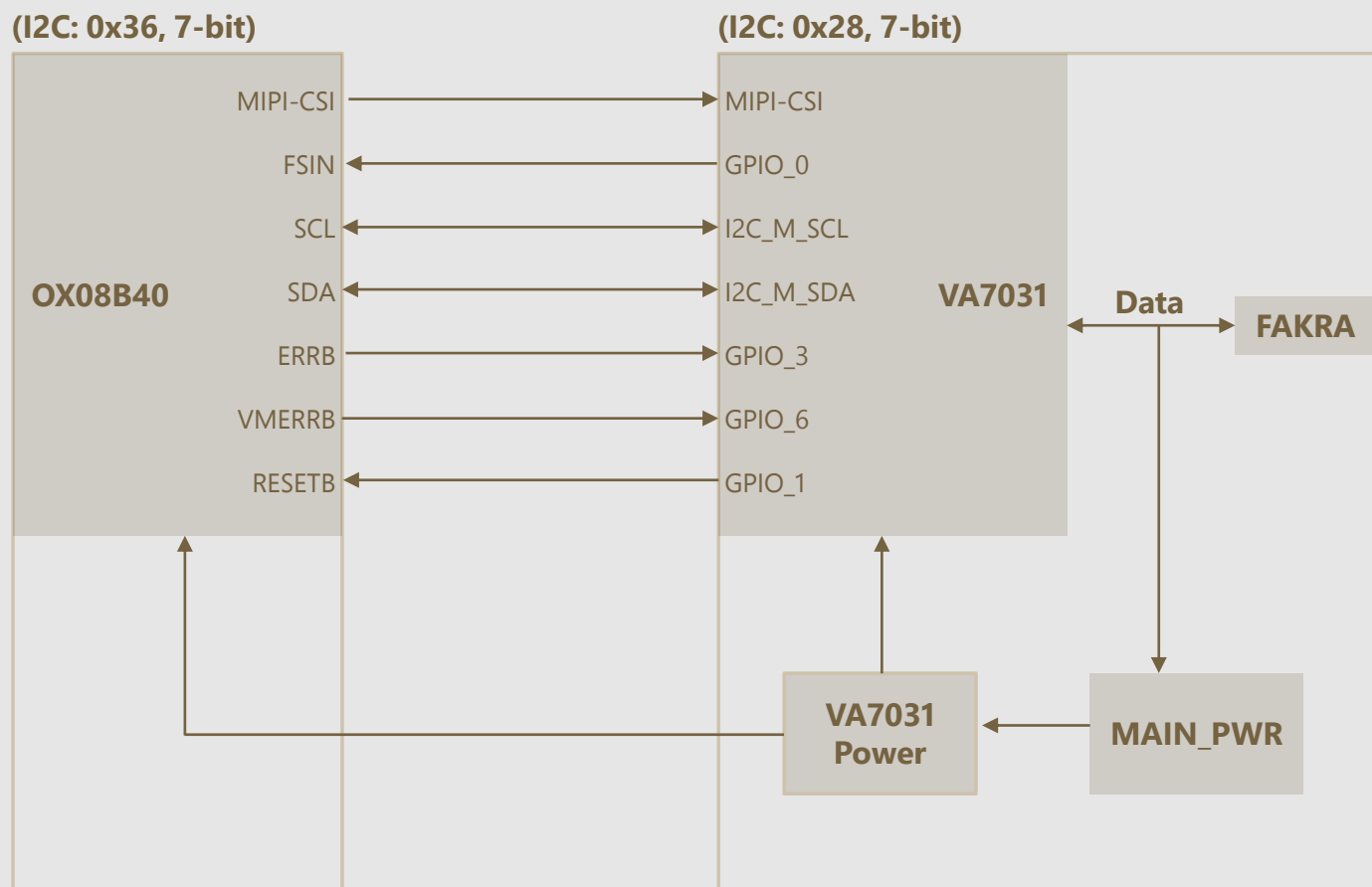
DIMENSIONS: LI-VENUS-OX08B40-APHY-060H



DIMENSIONS: LI-VENUS-OX08B40-APHY-120H



SYSTEM BLOCK DIAGRAM

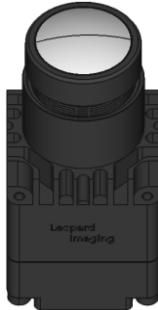


ORDERING INFORMATION

NOTE:

xxxH refers to 030H (FOV H 30°), 060H (FOV H 60°) or 120H (FOV H 120°)

LI-VENUS-OX08B40-APHY-030H	
	
Lens EFL:	15.393 mm $\pm$ 3%
Aperture, F/#:	1.6 $\pm$ 5%
Field of View (FOV):	30° $\pm$ 2° horizontal
TV Distortion:	-2.87% $\pm$ 5% ($f * \tan \theta$)
Relative Illumination:	70.15% $\pm$ 10%
IR Filter:	700 nm IR cut filter
Mount:	M16

LI-VENUS-OX08B40-APHY-060H	LI-VENUS-OX08B40-APHY-120H
	
Lens EFL: 7.75 mm $\pm$ 5%	Lens EFL: 3.69 mm $\pm$ 5%
Aperture, F/#: 1.6 $\pm$ 10%	Aperture, F/#: 1.6 $\pm$ 5%
Field of View (FOV): 60.0° $\pm$ 3° horizontal	Field of View (FOV): 123.2° $\pm$ 3° horizontal (Ø8.064 mm)
Optical Distortion: -12.66% $\pm$ 5% ($F \cdot \tan \theta$)	Distortion: -54.57% $\pm$ 5% ($f \cdot \theta$) (DFOV)
Relative Illumination: $\geq$ 60%	Relative Illumination: 58% (DFOV)
IR Filter: 700 nm IR cut filter	IR Filter: 700 nm IR cut filter
Mount: M12	Mount: M16

• REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	01 Sep 2022
0.2	Added 030H lens and 060H lens.	09 Oct 2022
0.3	1. Updated System Block Diagram. 2. Replaced 030H 3D with actual pics. 3. Deleted IP in "Ordering Information" section.	30 Nov 2023
0.4	Updated 030H IP Rating, Power Consumption, Operating Temp, Storage Temp.	26 Jan 2024

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