



LEOPARD
IMAGING

LI-VENUS-OX08B40-9295-030H



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INTRODUCTION

The LI-VENUS-OX08B40-9295-030H is equipped with OmniVision CMOS high-definition high dynamic range sensor OX08B40 which features PureCel®Plus-S technology to provide higher sensitivity and full-well capacity. This camera outputs 12-bit / 14-bit / 16-bit / 20-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 μ m
Output Format	12-bit / 14-bit / 16-bit / 20-bit RAW
Color / Mono	Color sensor
Maximum Frame Rate	36 fps @ 4K
HDR (High Dynamic Range)	Supported
LFM (LED Flicker Mitigation)	Supported
Serializer	Maxim MAX9295A/B
IP Rating	TBD
Power Supply Range	8 ~ 17 VDC
Connector	FAKRA Z TYPE
Power Consumption	96 mA @ 12 VDC (3840 x 2160 @ 10 fps)
Operating Temp	-40°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	TBD
Part#	LI-VENUS-OX08B40-9295-030H

APPLICATIONS

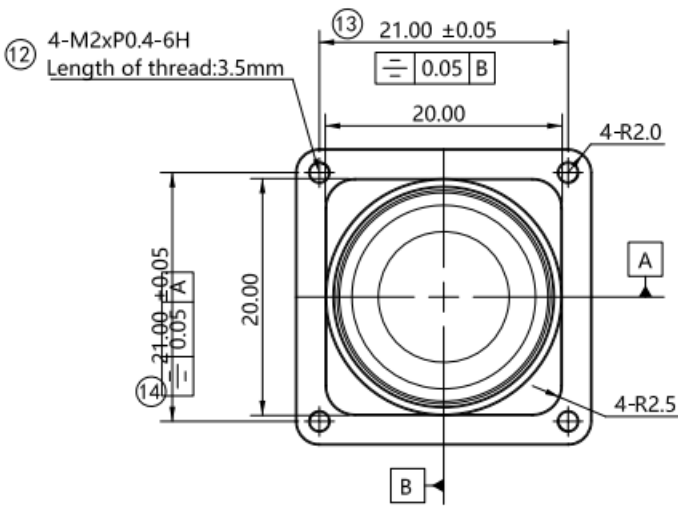
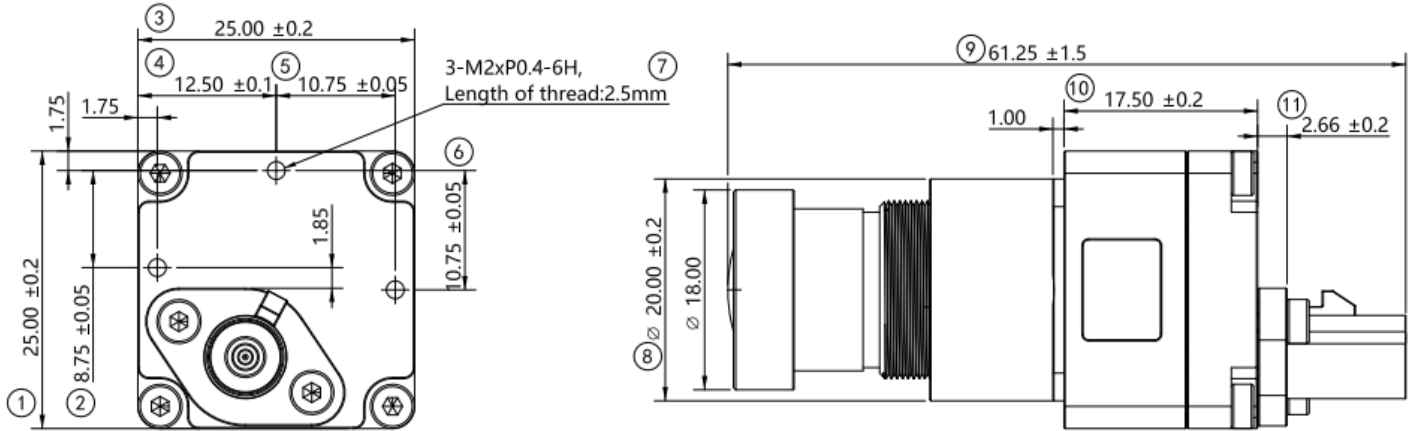
- Automotive
 - ◆ High Resolution Front Viewing
 - ◆ Machine Vision
 - ◆ Autonomous Driving
 - ◆ Assisted Driving
 - ◆ Digital Video Recording

LENS SPECIFICATIONS

Effective Focal Length	15.393 mm \pm 3.0%
Aperture, F/#	1.60 \pm 5.0%
Field of View (FOV)	34.42° \pm 2.0° diagonal
	30.0° \pm 2.0° horizontal
	16.9° \pm 2.0° vertical
TV Distortion	-2.87% \pm 5.0 %
Relative Illumination	70.15% \pm 10.0%
IR Filter	700 nm IR cut filter
Lens Mount	M16 x P0.5



DIMENSIONS



TOLERANCE TABLE

Size X (mm)	Tolerance (mm)	Angle Tolerance (°)
$0.5 < X \leq 3$	$\pm 0.1\text{mm}$	$\pm 0.05^\circ$
$3 < X \leq 6$	$\pm 0.1\text{mm}$	$\pm 0.05^\circ$
$6 < X \leq 30$	$\pm 0.2\text{mm}$	$\pm 0.05^\circ$
$30 < X \leq 120$	$\pm 0.3\text{mm}$	$\pm 0.05^\circ$
$120 < X \leq 400$	$\pm 0.5\text{mm}$	$\pm 0.1^\circ$
$400 < X \leq 1000$	$\pm 0.8\text{mm}$	$\pm 0.1^\circ$
$X > 1000$	$\pm 1.2\text{mm}$	$\pm 0.1^\circ$

NOTE:

- ⊗ marked are important sizes.
- Tolerances for others unmarked refer to the Tolerance table.

Unit: mm

BLOCK DIAGRAM

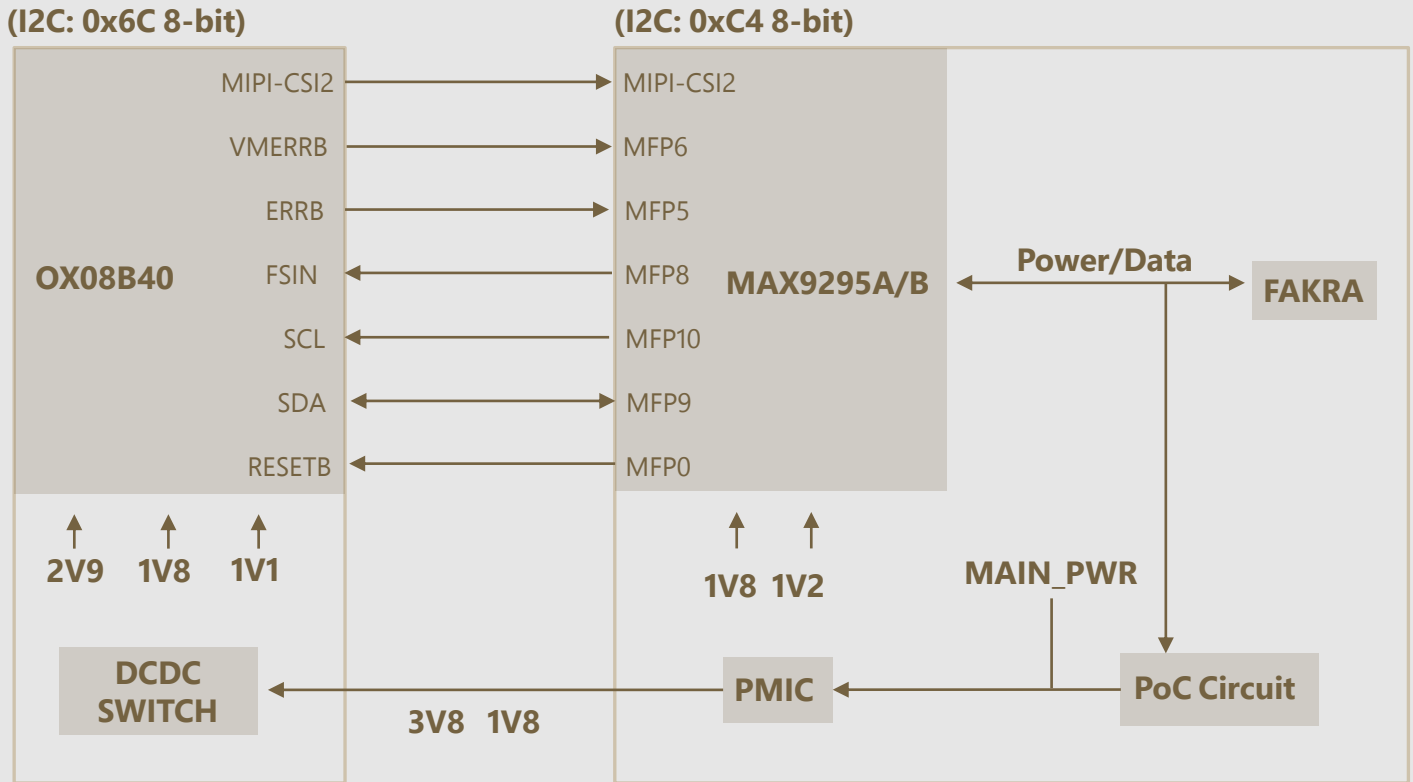
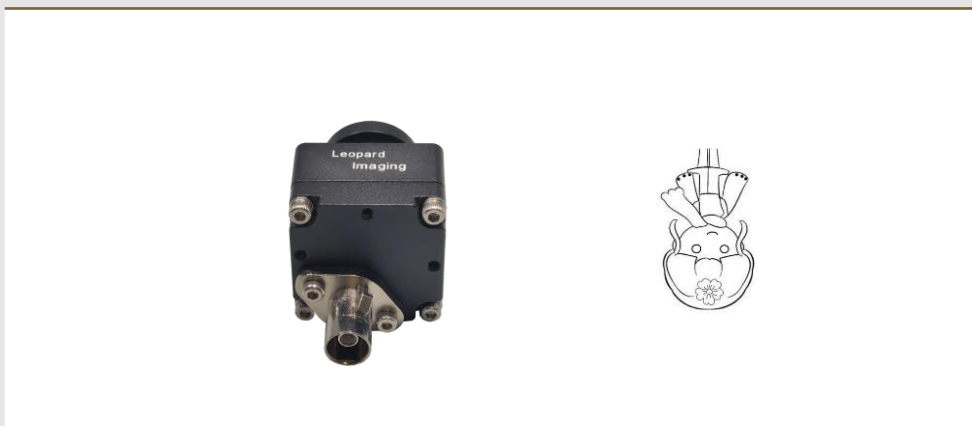
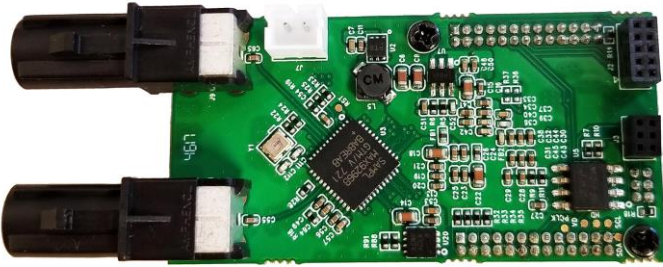


IMAGE ORIENTATION

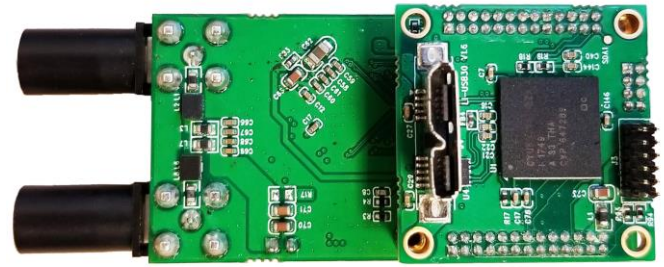


USB3.0 CAMERA KIT

LI-GMSL2-USB



Top View



Bottom View

LI-VENUS-OX08B40-9295-030H can connect to LI-GMSL2-USB as a USB 3.0 camera.

Part#: **LI-USB30-VENUS-OX08B40-9295-030H**

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: 3840 x 2160 @ 10 fps
- Power consumption: 96 mA @ 12 VDC
- Compatible with Windows, Linux OS and other OS which have UVC drivers

BOM

#	Items	QTY
1	LI-VENUS-OX08B40-9295-030H	1
2	LI-GMSL2-USB	1
3	FAK-SMZSMZ-3M 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.	25 Apr 2023
0.2	Updated image direction.	27 Dec 2023

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