



LEOPARD
IMAGING

LI-OV2312-OAX40-VCL-OMS-GM2B-175H



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INTRODUCTION

The LI-OV2312-OAX40-VCL-OMS-GM2B-175H is equipped with OmniVision 1/2.9" RGB-IR CMOS 2MP (1600 x 1300) global shutter image sensor OV2312, automotive ISP OAX4000, Maxim GMSL2 serializer MAX96717 and 2 VCSELS. This camera outputs YUV data.

SPECIFICATIONS

Sensor	OmniVision RGB-IR CMOS 2MP Image Sensor OV2312
Optical Format	1/2.9"
Resolution	1600 (H) x 1300 (V) (Based on ISP binary)
Pixel Size	3.0 x 3.0 μm
Output Format	YUV422 (8-bit)
Color / Mono	RGB-IR
Frame Rate	30 fps @ 1600 x 1300
Shutter	Global shutter
Serializer	Maxim MAX96717
Power Supply Range	9 ~ 19 VDC
ISP	OMNIVISION automotive ISP OAX4000
VCSEL	Included
IP Rating	TBD
FAKRA Connector	FAKRA Z TYPE
Power Consumption (1600 x 1300 @ 30 fps)	Approx. 413 mA @ 12 VDC (2 VCSELS on) Approx. 83 mA @ 12 VDC (2 VCSELS off)
Operating Temp	-40°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	~ 222 g
Part#	LI-OV2312-OAX40-VCL-OMS-GM2B-175H

APPLICATIONS

- Autonomous Driving
- Driver Monitoring System
- Occupant Monitoring System
- In-Cabin Monitoring System

LENS SPECIFICATIONS

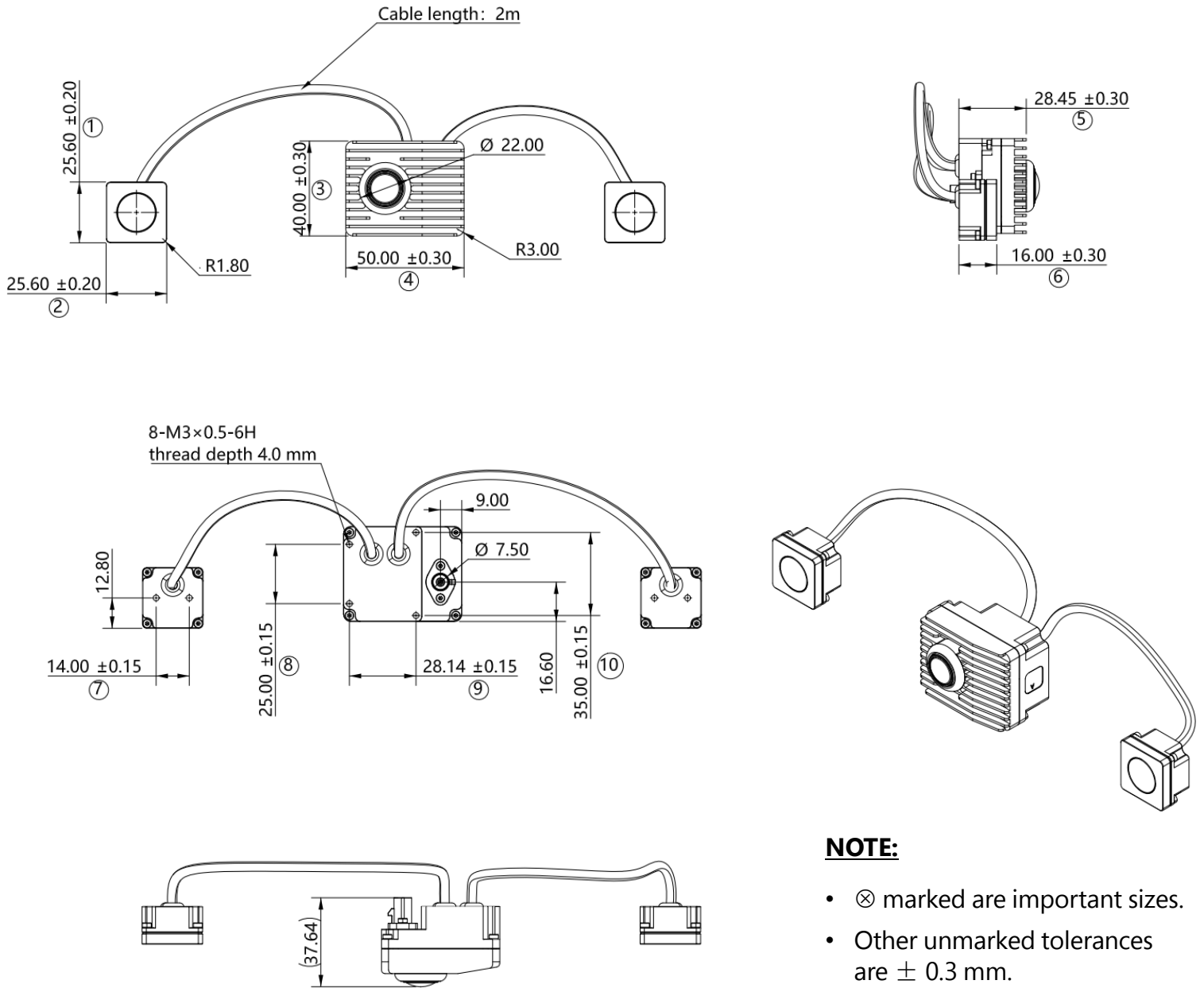
Focal Length	1.44 mm
Aperture, F/#	2.0 \pm 5%
Field of View (FOV)	145.0° (V) @ IH 1.95
	175.0° (H) @ IH 2.40
IR Filter	Visible + 940 nm band pass filter
Relative Illumination	40.0% @ IH 2.4
Distortion ($y=f\theta$)	+10% @ IH 2.77
Lens Mount	M12 x P0.5

VCSEL SPECIFICATIONS

Wavelength	940 nm
Field of Illumination (FOI)	125.5° horizontal
	111.5° vertical
QTY on Camera	2



DIMENSIONS

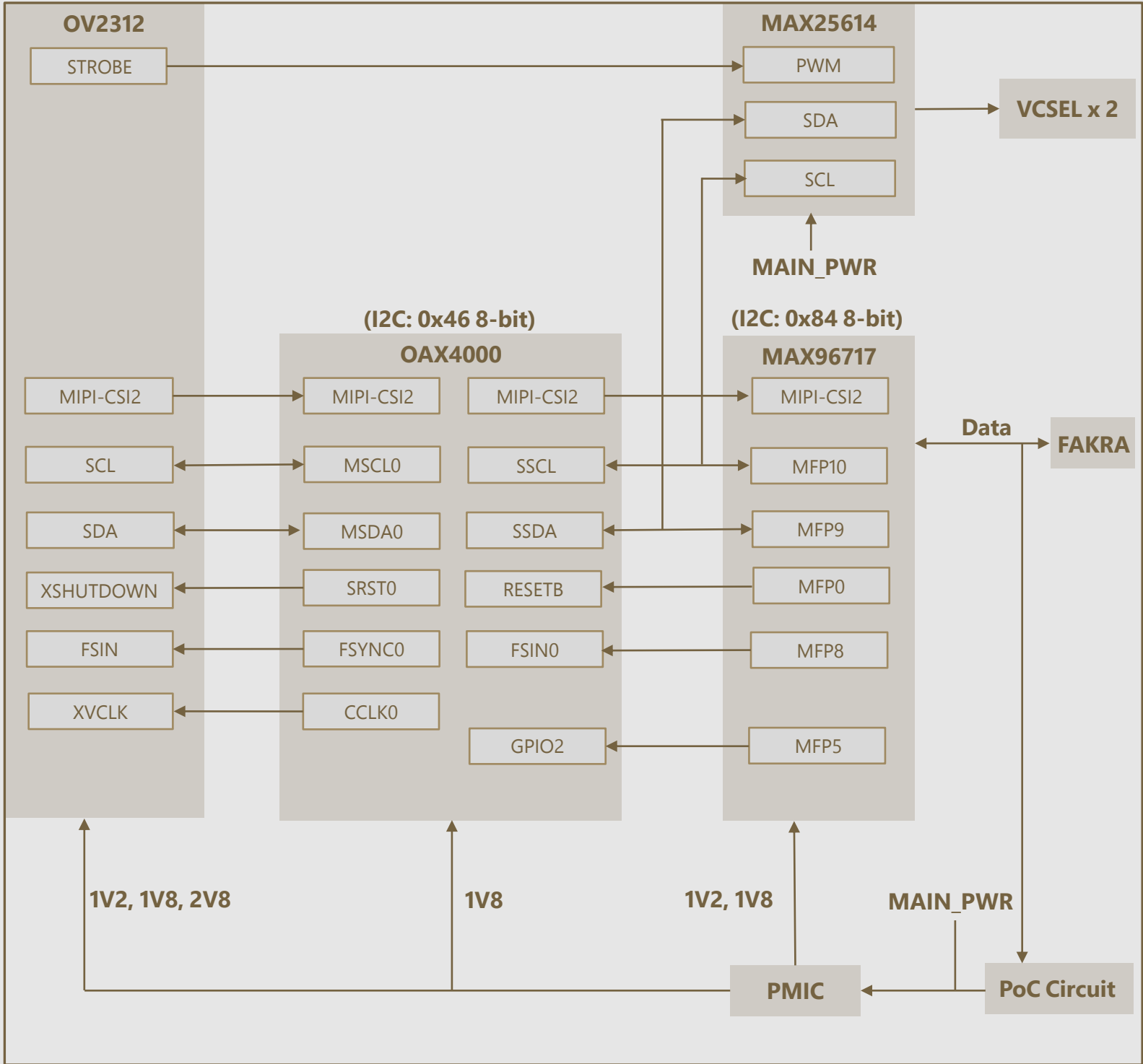


Unit: mm

PINOUT CONNECTIONS

(I2C: 0x20 8-bit)

(I2C: 0x94 8-bit)



● REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	26 May 2023
0.2	Updated temp info.	07 Jun 2023
0.3	1. Changed part# from LI-OV2312-OAX40-VCL-OMS-GM2B-200H to LI-OV2312-OAX40-VCL-OMS-GM2B-175H. 2. Replaced block diagram with pinout connections.	31 Aug 2023

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