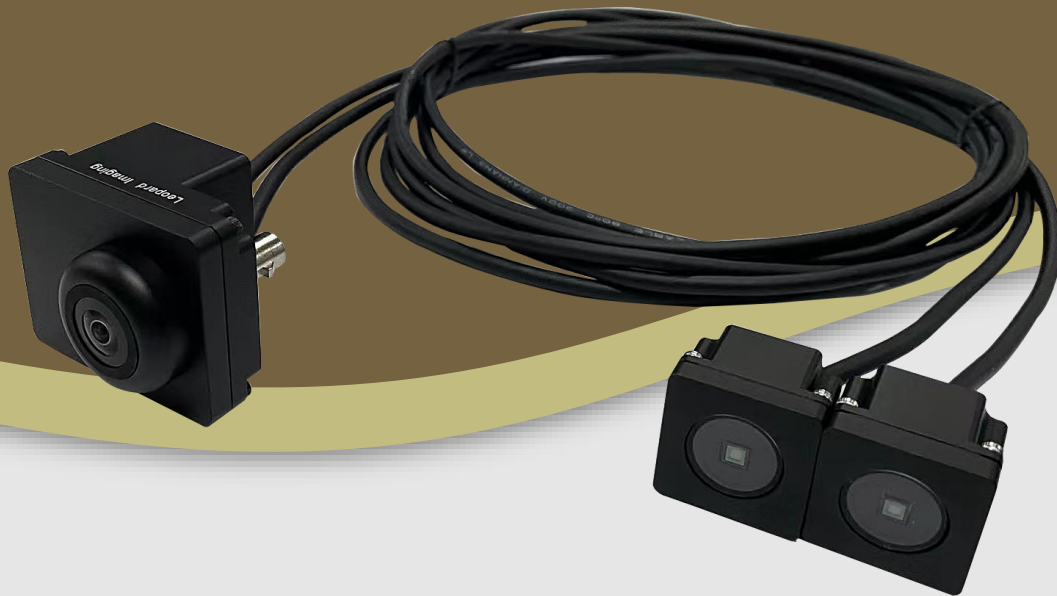




LI-VB1940-VCL-OMS-GM2B-137H



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INTRODUCTION

The LI-VB1940-VCL-OMS-GM2B-137H is equipped with STMicroelectronics automotive 5.1 megapixel, 2.25 μm global shutter image sensor VB1940, Maxim GMSL2 serializer MAX96717 and 2 VCSELs. This camera outputs RAW RGB-IR data.

SPECIFICATIONS

Sensor	STMicroelectronics 5.1 MP Global Shutter Image Sensor VB1940
Optical Format	1/2.5"
Resolution	2560 (H) x 1984 (V)
Pixel Size	2.25 x 2.25 μm
Output Format	RAW RGB-IR, 12-bit / 10-bit / 8-bit
Color / Mono	RGB-IR
Maximum Frame Rate	60 fps @ full resolution
Shutter	Global shutter
Serializer	Maxim MAX96717
Power Supply Range	9 ~ 19 VDC
ISP	Not included
IP Rating	TBD
VCSEL	Included
FAKRA Connector	FAKRA Z TYPE
Power Consumption	397 mA @ 12 VDC (2560 x 1984 @ 30 fps)
Operating Temp	TBD
Storage Temp	TBD
Weight	~ 248 g
Part#	LI-VB1940-VCL-OMS-GM2B-137H

APPLICATIONS

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

LENS SPECIFICATIONS

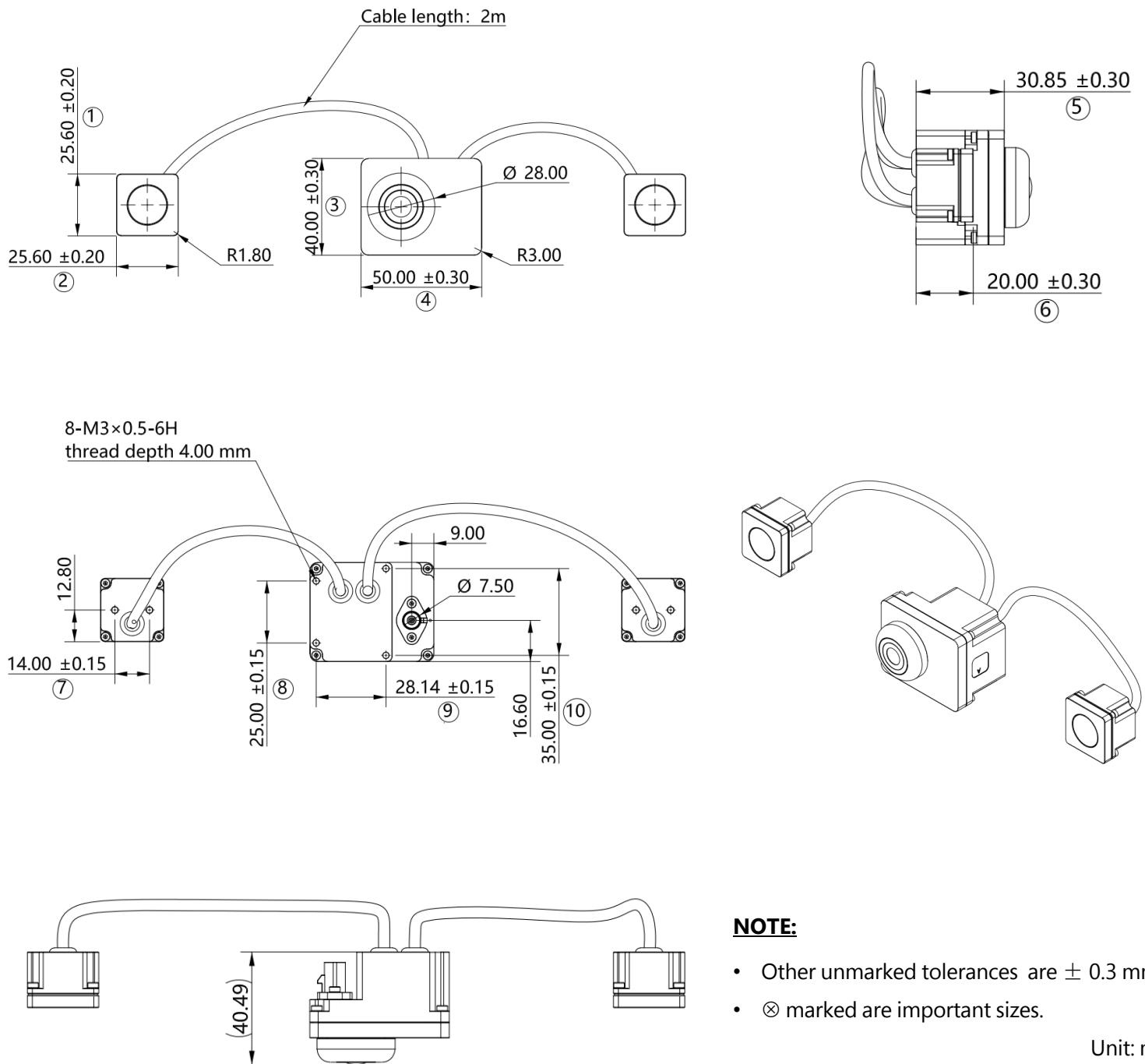
Focal Length	2.666 mm
Aperture, F/#	2.4
Field of View (FOV)	137° horizontal
IR Filter	Visible + 940 nm band pass filter
Relative Illumination	43.99%
Optical Distortion	-87.08% (F-tan θ)
Lens Mount	M12 x P0.5

VCSEL SPECIFICATIONS

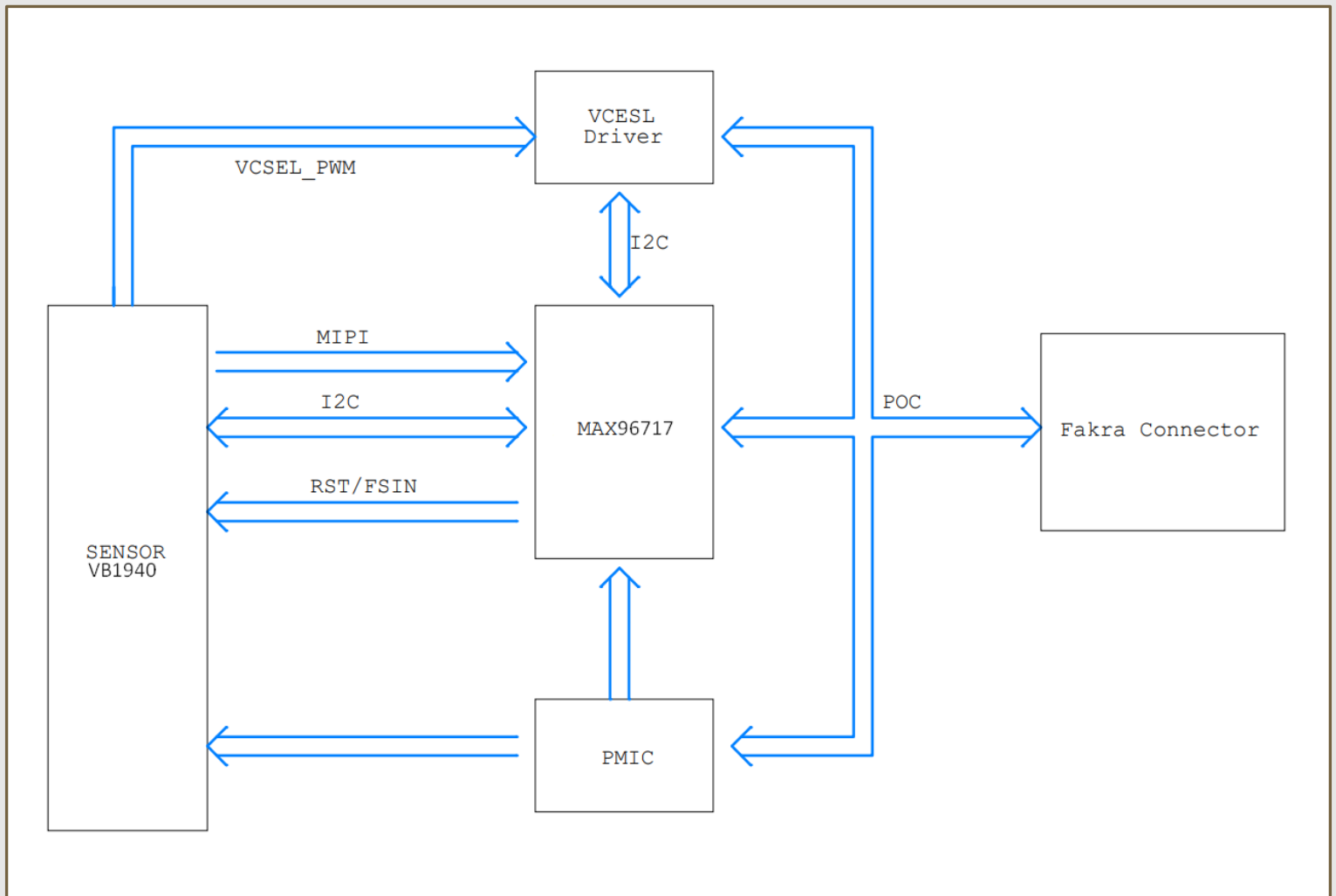
Wavelength	940 nm
Field of Illumination (FOI)	125.5° horizontal 111.5° vertical
QTY on Camera	2



DIMENSIONS



BLOCK DIAGRAM



DEFAULT IMAGING DIRECTION

- The logo "Leopard Imaging" is on the TOP.

TOP (Default Imaging Direction)



USB3.0 CAMERA KIT

LI-GMSL2-USB



Top View



Bottom View

LI-VB1940-VCL-OMS-GM2B-137H can connect to LI-GMSL2-USB as a USB 3.0 camera.

Part#: **LI-USB30-VB1940-VCL-OMS-GM2B-137H**

SPECIFICATIONS

- USB 3.0 Super Speed support
- UVC compliant
- Global shutter
- Allows customization
- 12 VDC power supply for camera
- Weight: ~ 315 g
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: 2560 x 1984 @ 30 fps
- Compatible with Windows, Linux OS and other OS which have UVC drivers



BOM

#	Items	QTY
1	LI-VB1940-VCL-OMS-GM2B-137H	1
2	LI-GMSL2-USB	1
3	3-Meter Fakra 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.	29 Dec 2022
0.2	Updated 2D dimensions and 3D images.	17 Feb 2023
0.3	1. Updated 2D dimensions and 3D images. 2. Updated part# from LI-VB1940-VCSEL-OMS-96717-137H to LI-VB1940-VCL-OMS-GM2B-137H.	21 Mar 2023
0.4	1. Updated power consumption, weight, and USB30 resolution. 2. Replaced 3D images with actual product images.	28 Apr 2023

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