



# LI-ST-VG5761-MONO-DMS



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## INTRODUCTION

The LI-ST-VG5761-MONO-DMS is equipped with STMicroelectronics 2.3 megapixel high-dynamic global shutter image sensor VG5761 which features high MTF, 940 nm IR filter, current monitoring, over current protection and over temp protection. This camera outputs 8-bit / 10-bit / 12-bit / 14-bit / 16-bit RAW data.

## SPECIFICATIONS

Sensor	STMicroelectronics 2.3MP HDR Global Shutter Image Sensor VG5761
Optical Format	1/2.5"
Resolution	1944 (H) x 1204 (V)
Pixel Size	3.2 x 3.2 $\mu\text{m}$
Output Format	8-bit / 10-bit / 12-bit / 14-bit / 16-bit RAW data
Color / Mono	Monochrome
Shutter	Global shutter
Maximum Frame Rate	60 fps @ 1944 x 1204
Dynamic Range	96 dB
Serializer	Maxim MAX9295A/B
Power Supply Range	9 ~ 19 VDC, 3A
FPGA	Included for VCSEL control
ISP	Not included
VCSEL	Included
FAKRA Connector	FAKRA Z TYPE
Power Consumption	450 mA @ 12 VDC
Operating Temp	-25°C ~ +65°C
Storage Temp	-25°C ~ +85°C
Weight	TBD
Rev No.	Rev B
Part#	LI-ST-VG5761-MONO-DMS

## APPLICATIONS

- DMS Application
- Autonomous Driving
- IR Application

## LENS SPECIFICATIONS

Effective Focal Length	4.726 mm
Aperture, F/#	1.8
Field of View (FOV)	65° horizontal
	39.5° vertical
Distortion	-7.17%
Relative Illumination	95.0% @ 1.0F
IR Filter	940 nm IR filter
Lens Mount	M12 x P0.5

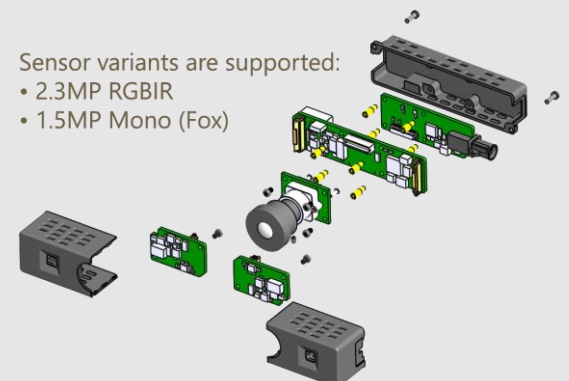
## VCSEL SPECIFICATIONS

Wavelength	940 nm
Field of Illumination (FOI)	60° horizontal
	45° vertical
Optical Power	4.5 W per VCSEL
QTY on Camera	2

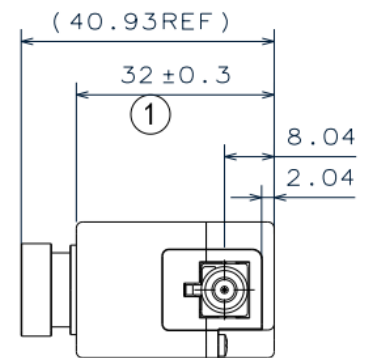
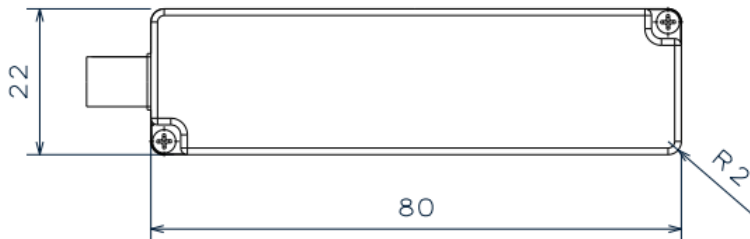
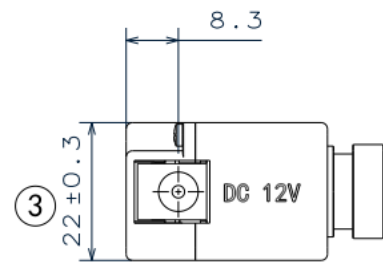
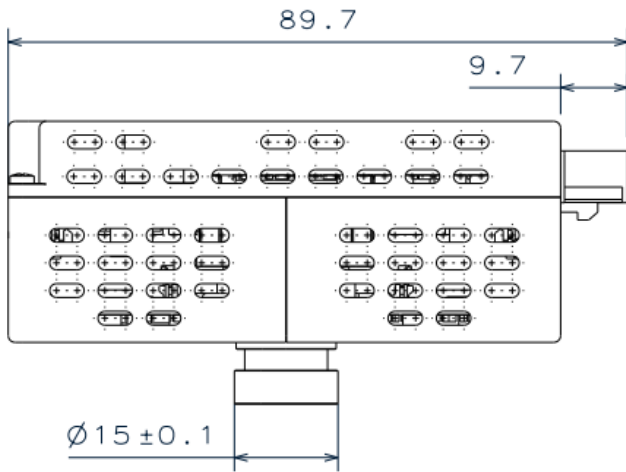
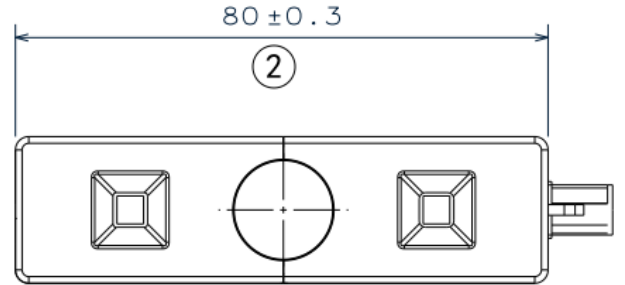
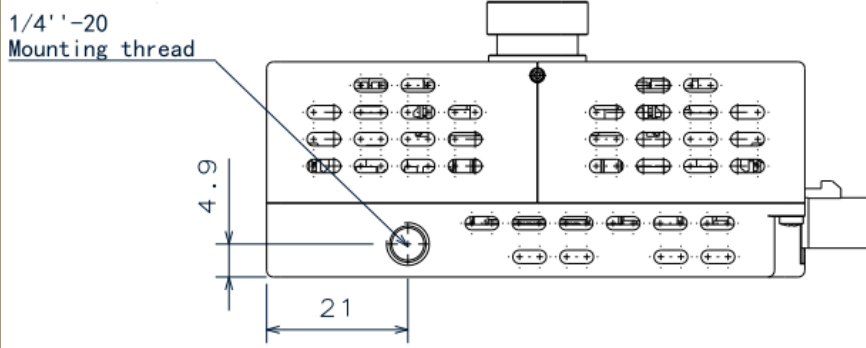


Sensor variants are supported:

- 2.3MP RGBIR
- 1.5MP Mono (Fox)



# DIMENSIONS

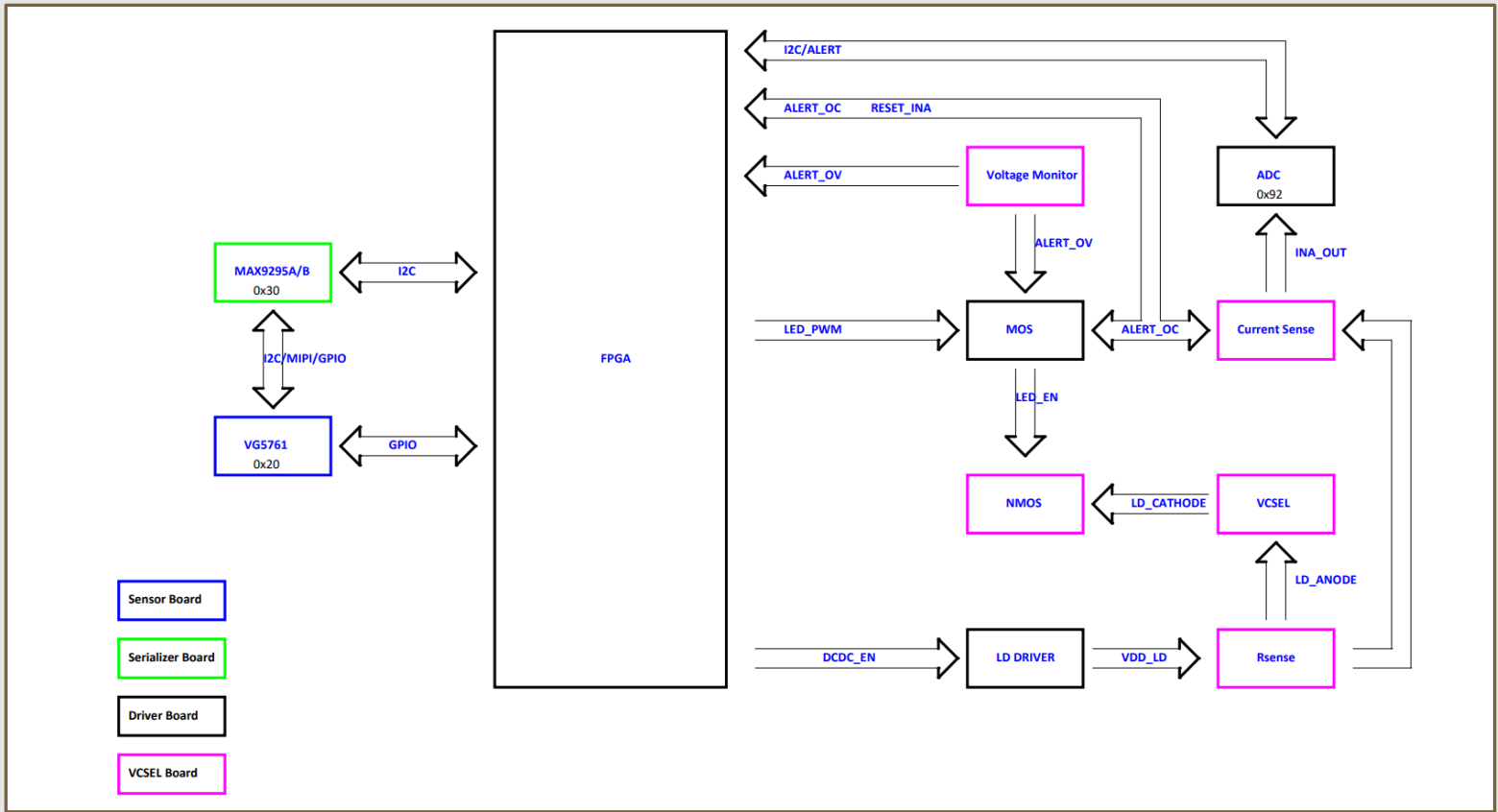


**Note:**

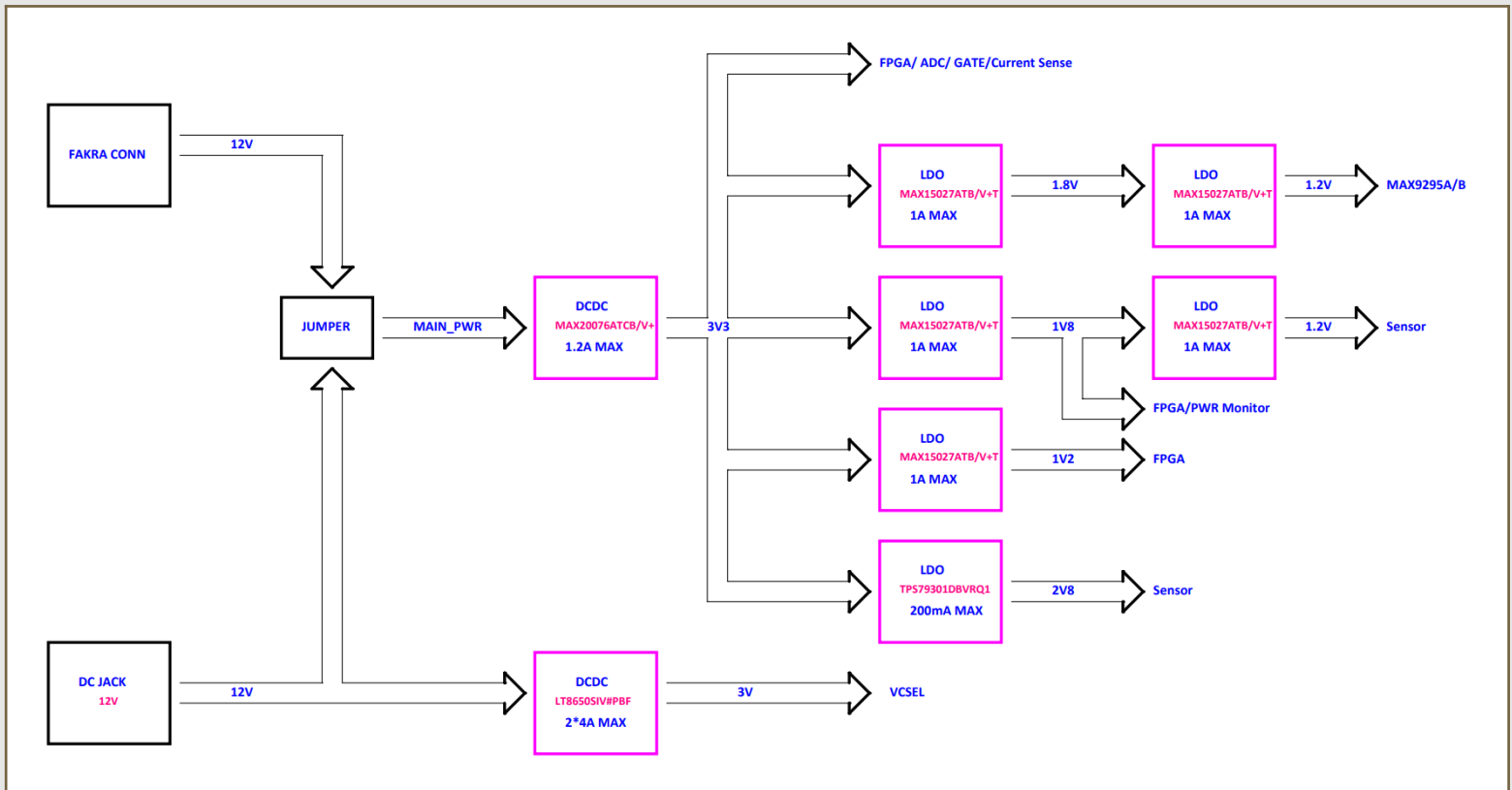
- ⊗ marked are important sizes.
- Tolerance for others unmarked is ± 0.3 mm.

Unit: mm

# SYSTEM BLOCK DIAGRAM



# POWER BLOCK DIAGRAM



# USB3.0 CAMERA KIT

LI-GMSL2-USB-BOX



Front View



Side View

LI-ST-VG5761-MONO-DMS can connect to LI-GMSL2-USB-BOX as a USB 3.0 camera.

Part#: **LI-USB30-ST-VG5761-MONO-DMS**

## SPECIFICATIONS

- USB 3.0 Super Speed support
- RAW output
- Global shutter
- UVC compliance
- Provide customization services
- 12 VDC power supply for camera
- Weight: TBD
- Single Coax Cable transmits up to 12 meters PoC (Power over Cable)
- Resolution: 1944 x 1204 @ 60 fps
- Support Windows, Linux OS and other OS which include the UVC drivers

## BOM

#	Items	QTY
1	LI-ST-VG5761-MONO-DMS	1
2	LI-GMSL2-USB-BOX	1
3	3-Meter Fakra Cable	1
4	LI-PS12-02	1
5	USB3.0 Cable	1



## SDK SUPPORTED

- Camera Tool Source Code in C#
- Capture & Display



## ● REVISION HISTORY

Revision	Description	Release Date
1.0	First release.	30 Sep 2021
1.1	<ol style="list-style-type: none"><li>1. Changed Part# from ST-VG5761-REV-B-CAM to LI-ST-VG5761-MONO-DMS.</li><li>2. Updated introduction, operating temp range, lens FOV (V) value and VCSEL power description.</li><li>3. Added explosion diagram.</li><li>4. Added Rev No. (Rev B.)</li></ol>	01 Dec 2021
1.2	Updated USB30 image and changed power supply from 12 VDC Power Supply to LI-PS12-02.	15 Feb 2022

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Leopard Imaging Inc.