



LEOPARD
IMAGING

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 μm
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 E TYPE
Power Consumption (1944 x 1204 @ 10.5 fps)	Approx. 380 mA @ 12 VDC (2 VCSELs on)
Operating Temp	-25°C ~ +65°C
Storage Temp	-25°C ~ +85°C
Weight	TBD
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

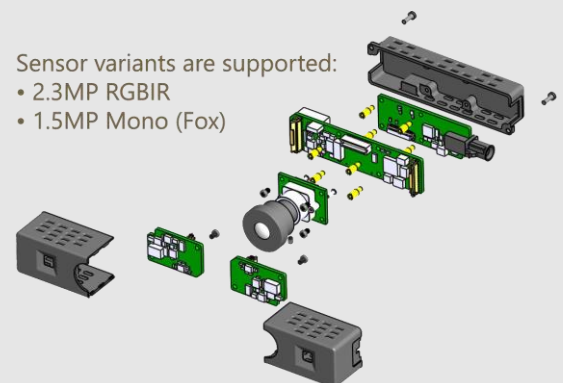
VCSEL SPECIFICATIONS

Wavelength	940 nm
Field of Illumination (FOI)	60° horizontal
	45° vertical
QTY on Camera	2



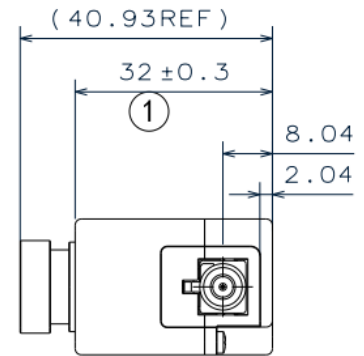
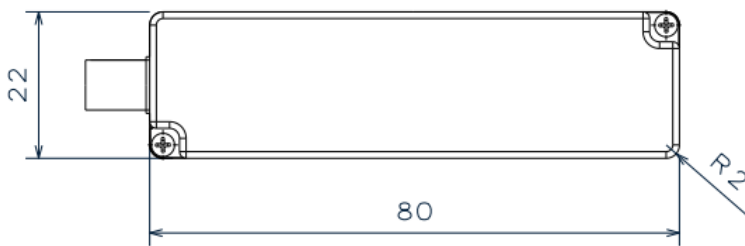
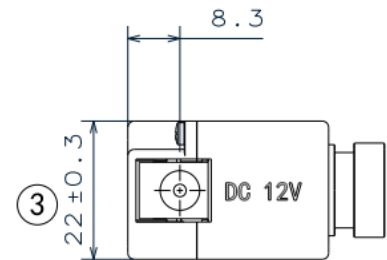
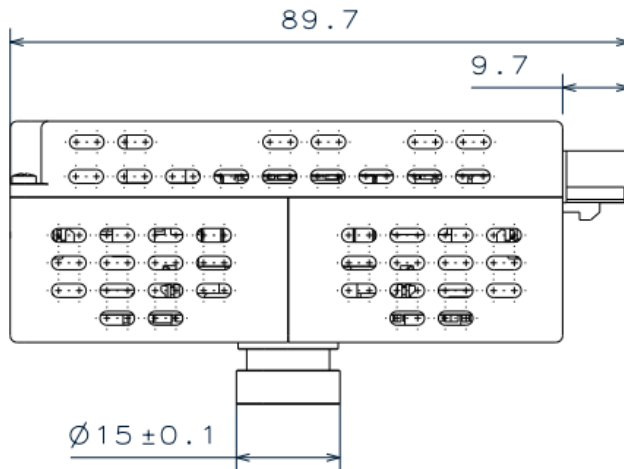
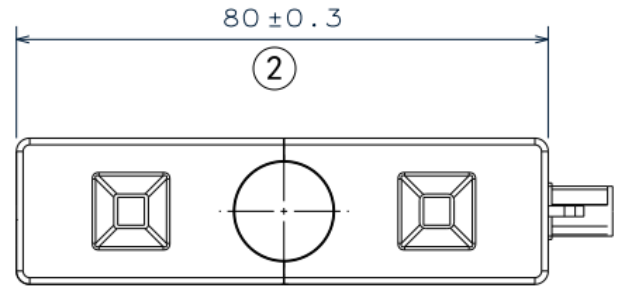
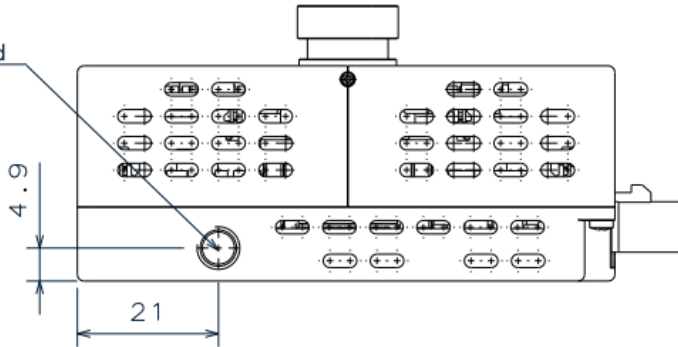
Sensor variants are supported:

- 2.3MP RGBIR
- 1.5MP Mono (Fox)



DIMENSIONS

1/4''-20
Mounting thread



NOTE:

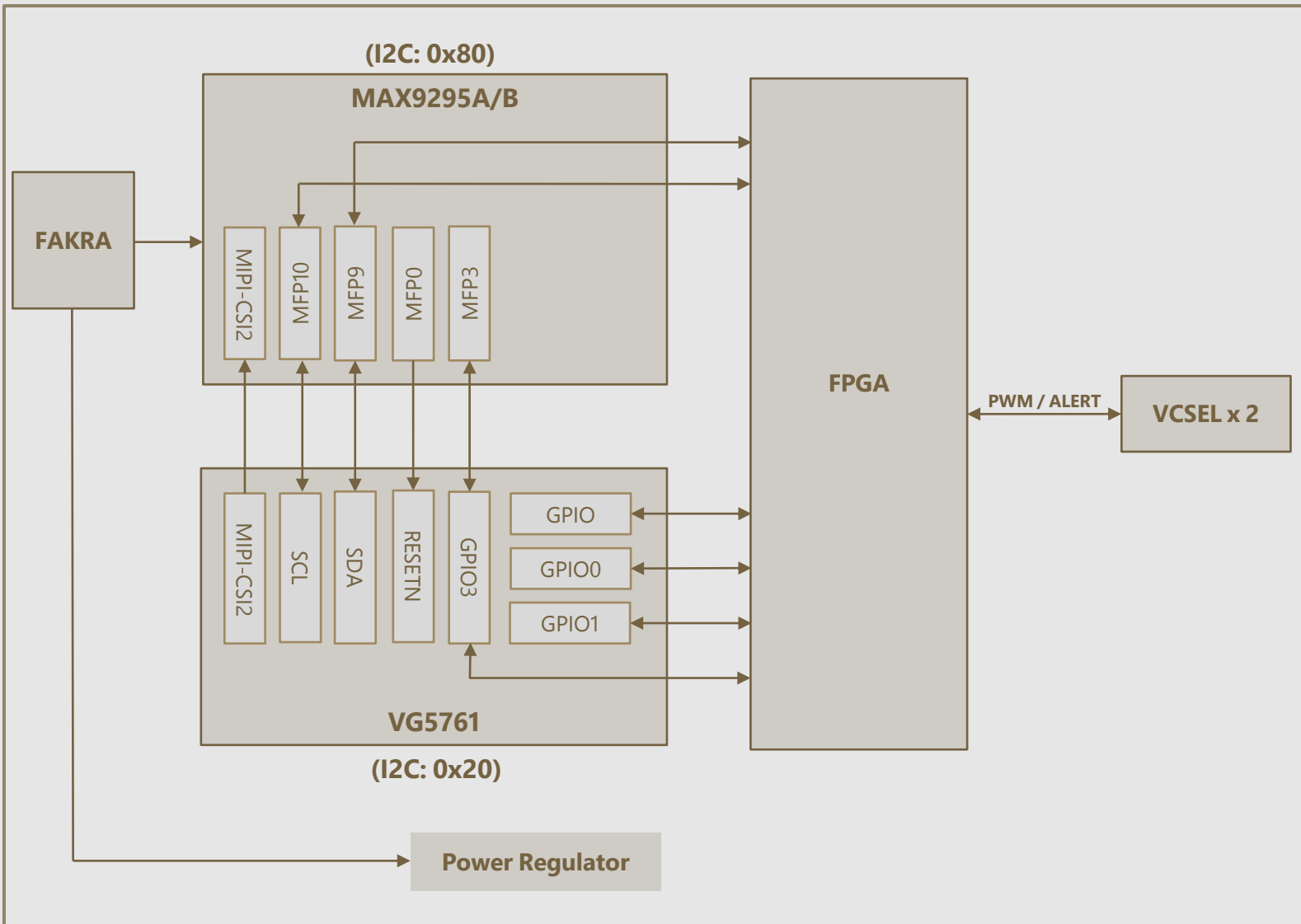
- ⊗ marked are important sizes.
- Tolerances for others unmarked are ± 0.3 mm.

Unit: mm

EYE-SAFETY

- Caution: when in use, do not stare at the device or view directly without eye protection.

● PINOUT CONNECTIONS



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 compliant
- Allows customization
- 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
- Compatible with Windows, Linux OS and other OS which have 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	1. First release.	30 Sep 2021
1.1	<ol style="list-style-type: none">1. Changed Part# from ST-VG5761-REV-B-CAM to LI-ST-VG5761-MONO-DMS.2. Updated introduction, operating temp range, lens FOV (V) value and VCSEL power description.3. Added explosion diagram.4. Added Rev No. (Rev B.)	01 Dec 2021
1.2	Updated USB30 image and changed power supply from 12 VDC Power Supply to LI-PS12-02.	15 Feb 2022
1.3	<ol style="list-style-type: none">1. Updated power consumption.2. Replaced System and Power Block with Pinout Connections.3. Added "Eye-Safety" section.4. Deleted optical power in "VCSEL Specifications" section.5. Revised connector type from FAKRA Z TYPE to FAKRA E TYPE.	11 Oct 2023

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