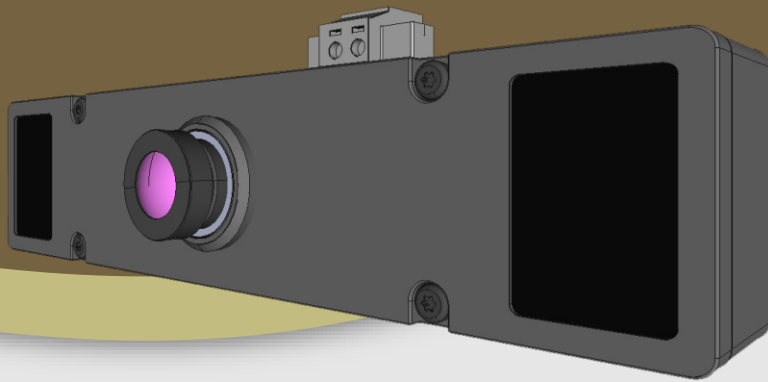




# LI-AR0239-GW-OMS-GMSL2-137H



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## INTRODUCTION

LI-AR0239-GW-OMS-GMSL2-137H is equipped with ON Semiconductor 1/2.7" RGB-IR CMOS digital image sensor AR0239, GEO SEMI GW5400 ISP and Maxim serializer MAX9295A, capable of capturing both videos and single frames in RGB and IR mode. The camera outputs 1920 × 1080 YUV422 8-bit data.

## SPECIFICATIONS

Sensor	ON Semiconductor CMOS image sensor AR0239
Optical Format	1/2.7"
Resolution	1920 (H) × 1080 (V)
Pixel Size	3.0 x 3.0 μm BSI
Output Format	Fine tuned YUV422 8-bit data
Color / Mono	RGB-IR
Frame Rate	30 fps @ 1080p
Shutter	Electronic rolling shutter
Serializer	Maxim MAX9295A
Power Supply Range	9 ~ 19 V
ISP	GEO SEMI GW5400
IR LED	Included
LED Power Connector	0395061002 (Molex)
FAKRA Connector	FAKRA Z TYPE
Power Consumption	TBD
Operating Temp	TBD
Storage Temp	TBD
Weight	~ 96.6 g
Size	120.0 (L) × 28.0 (W) × 41.4 (D) mm
Part#	LI-AR0239-GW-OMS-GMSL2-137H

## APPLICATIONS

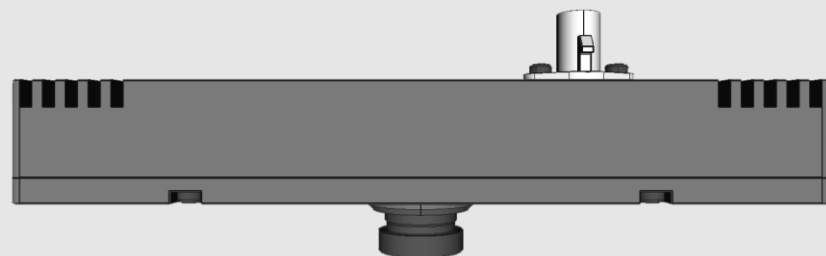
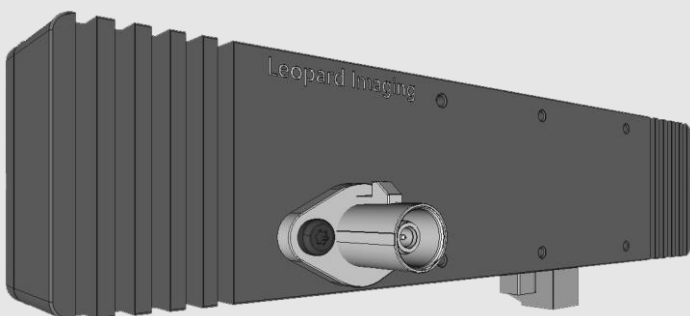
- Car Digital Video Recorder
- Automotive In-Cabin Applications
- Object Detection
- Driver or Occupant Monitoring

## LENS SPECIFICATIONS

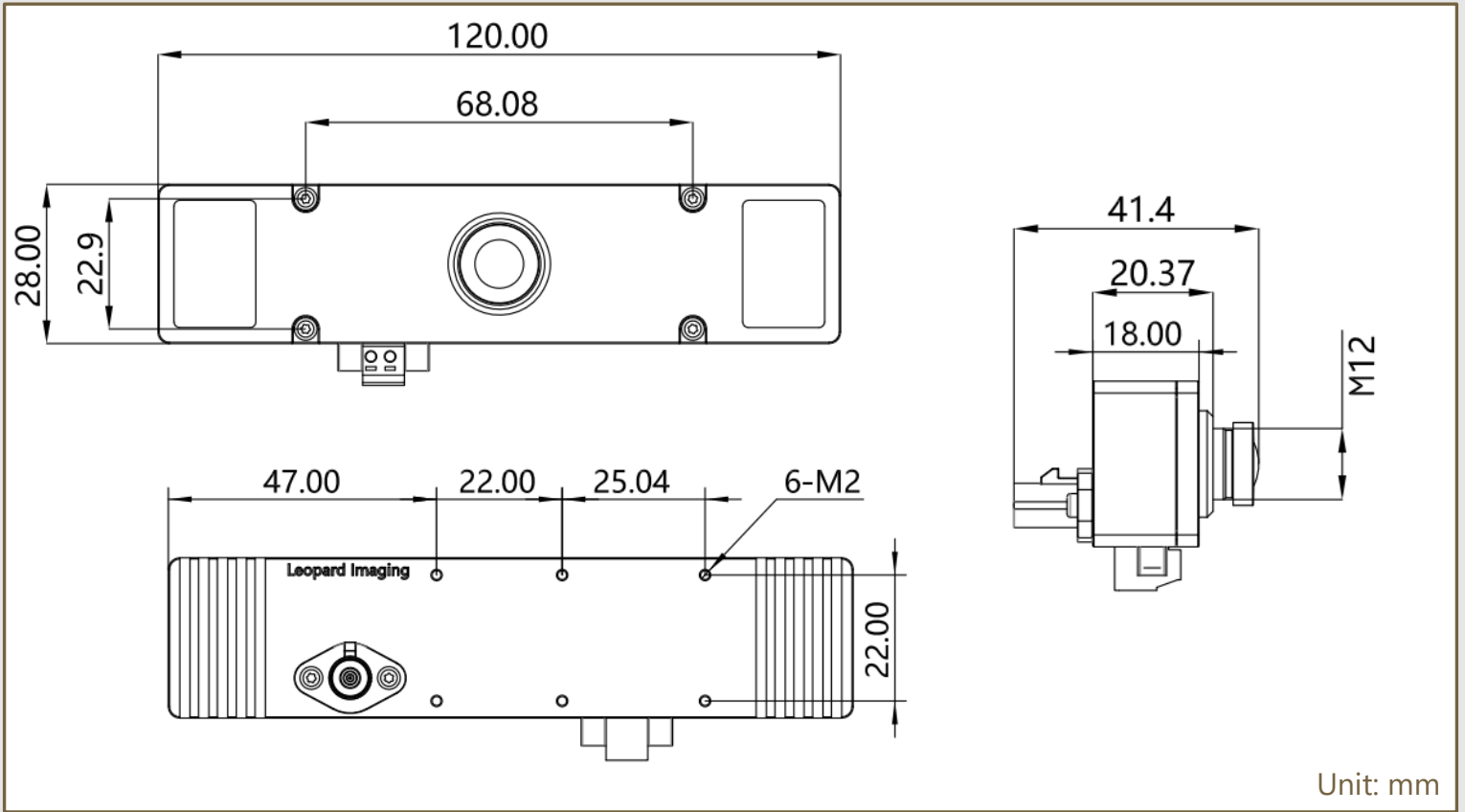
Focal Length	2.666 mm
Aperture, F/#	2.4
Field of View (FOV)	168.14° diagonal
	137.54° horizontal
	71.58° vertical
Optical Distortion	-87.08%
Relative Illumination	43.99%
IR Filter	Visible + 940 nm IR filter
Lens Mount	M12 x P0.5

## IR LED SPECIFICATIONS

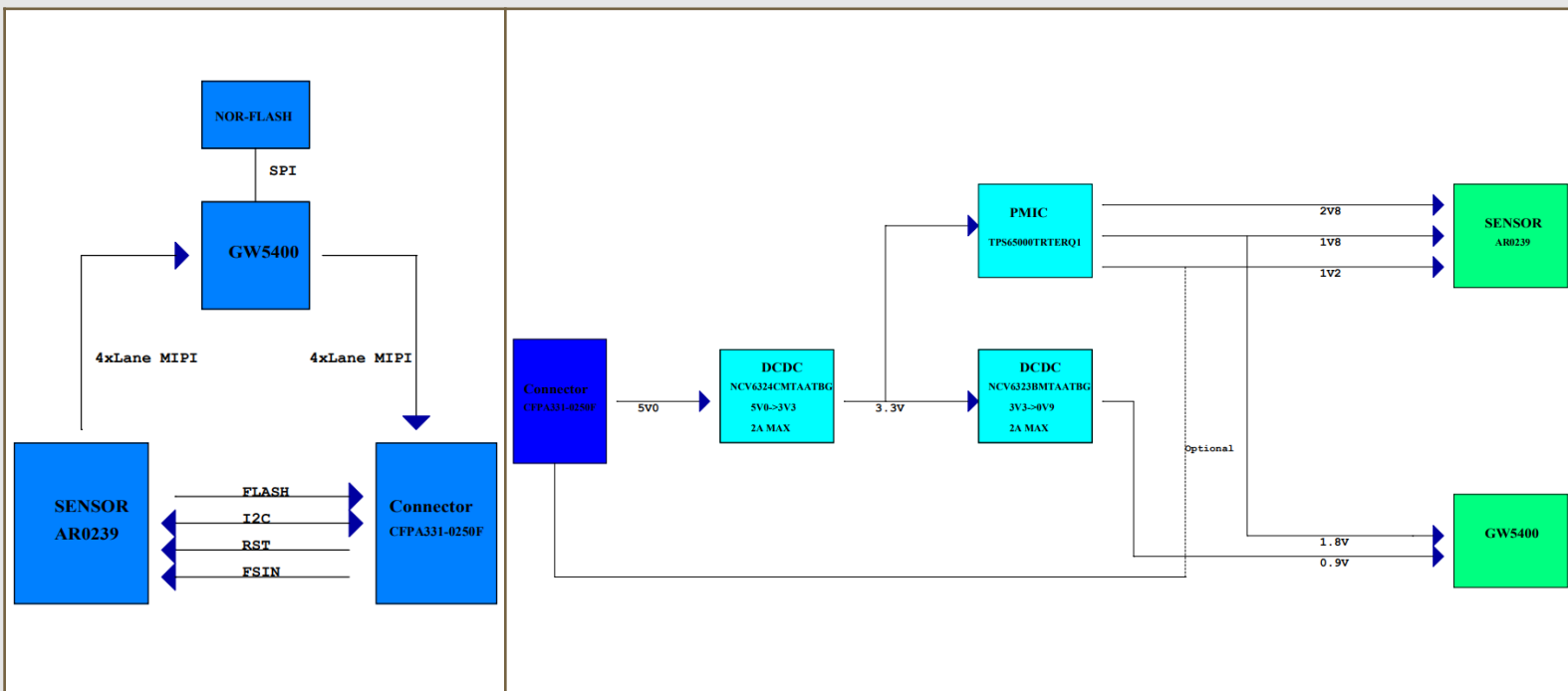
Wavelength	940 nm
Viewing Angle	90°
Power Supply	12 VDC
QTY on Camera	4



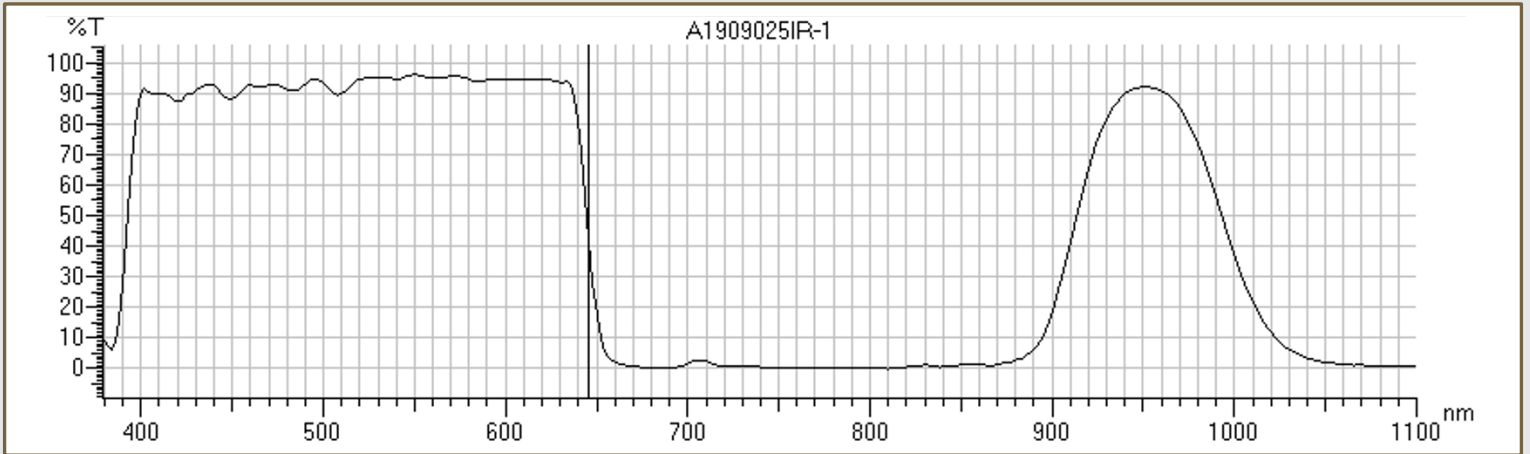
## DIMENSIONS



## SYSTEM AND POWER BLOCK DIAGRAM



## VISIBLE + 940NM DUAL BAND FILTER



nm	%T
1100	1.01
1050	1.97
1000	37.93
950	91.95
900	18.72
850	1.43
800	0.01
750	0.08

nm	%T
700	1.54
650	17.15
600	94.49
550	96.02
500	93.36
450	87.77
400	89.69

## IMAGE SAMPLE



RGB Mode



IR Mode

# USB3.0 CAMERA KIT

LI-USB30-DESER-GMSL2-FP



Top View



Bottom View

LI-AR0239-GW-OMS-GMSL2-137H can connect to LI-USB30-DESER-GMSL2-FP as a USB 3.0 camera.

Part#: LI-USB30-AR0239-GW-OMS-GMSL2-137H

## SPECIFICATIONS

- USB 3.0 Super Speed support
- UVC compliance
- Electronic rolling shutter
- Provide customization services
- 12 VDC power supply for camera
- 12 VDC power supply for IR LED
- Support RGB and IR mode
- Weight: ~ 473 g
- Single Coax Cable transmit up to 12 meters PoC (Power over Cable)
- Resolution: 1920 × 1080 @ 30 fps
- Support Windows, Linux OS and other OS which include the UVC drivers



## BOM

#	Items	QTY
1	LI-AR0239-GW-OMS-GMSL2-137H	1
2	LI-USB30-DESER-GMSL2-FP	1
3	3-Meter Fakra Cable	1
4	12V DC Power Supply	2
5	USB3.0 Cable	1

## SDK SUPPORTED

- Camera Tool Source Code in C#
- Capture & Display
- RGB and IR mode switch

## ● REVISION HISTORY

Revision	Description	Release Date
1.0	First release.	17 May 2021

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