



# LI-AR0144IVEC-GMSL2-055H



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## INTRODUCTION

The LI-AR0144IVEC-GMSL2-055H is equipped with ON Semiconductor In-Vehicle Experience Camera Module (IVEC) AR0144 1/4-Inch CMOS Camera Module, Maxim GMSL2 Serializer MAX9295A and built-in IR LED. This camera outputs 1280 x 800 YUYV image data.

## SPECIFICATIONS

Sensor	ON Semiconductor AR0144 sensor
Optical Format	1/4"
Resolution	1280 (H) x 800 (V)
Pixel Size	3.0 x 3.0 $\mu\text{m}$
Output Format	YUV (YUYV) data
Color/Mono	Monochrome
Frame Rate	30 fps @ 1280 x 800
Shutter	Global Shutter
Serializer	Maxim MAX9295A
Power Supply Range	9 ~ 19 V
ISP	Not included
FPGA	Included for Raw to YUV conversion
IR LED	Included
LED Power Connector	0395061002 (Molex)
FAKRA Connector	FAKRA Z TYPE
Power Consumption	75 mA @ 12 VDC nominal (Camera) 270 mA @ 12 VDC nominal (IR LED)
Operating Temp	TBD
Storage Temp	TBD
Weight	~ 93 g
Part#	LI-AR0144IVEC-GMSL2-055H



## APPLICATIONS

- In Cabin Automotive
  - ◆ Gesture Recognition
  - ◆ Iris Scanning
  - ◆ Head Roll
  - ◆ Eye Tracking
  - ◆ Augmented Reality
  - ◆ Machine Vision

## SENSOR MODULE SPECIFICATIONS

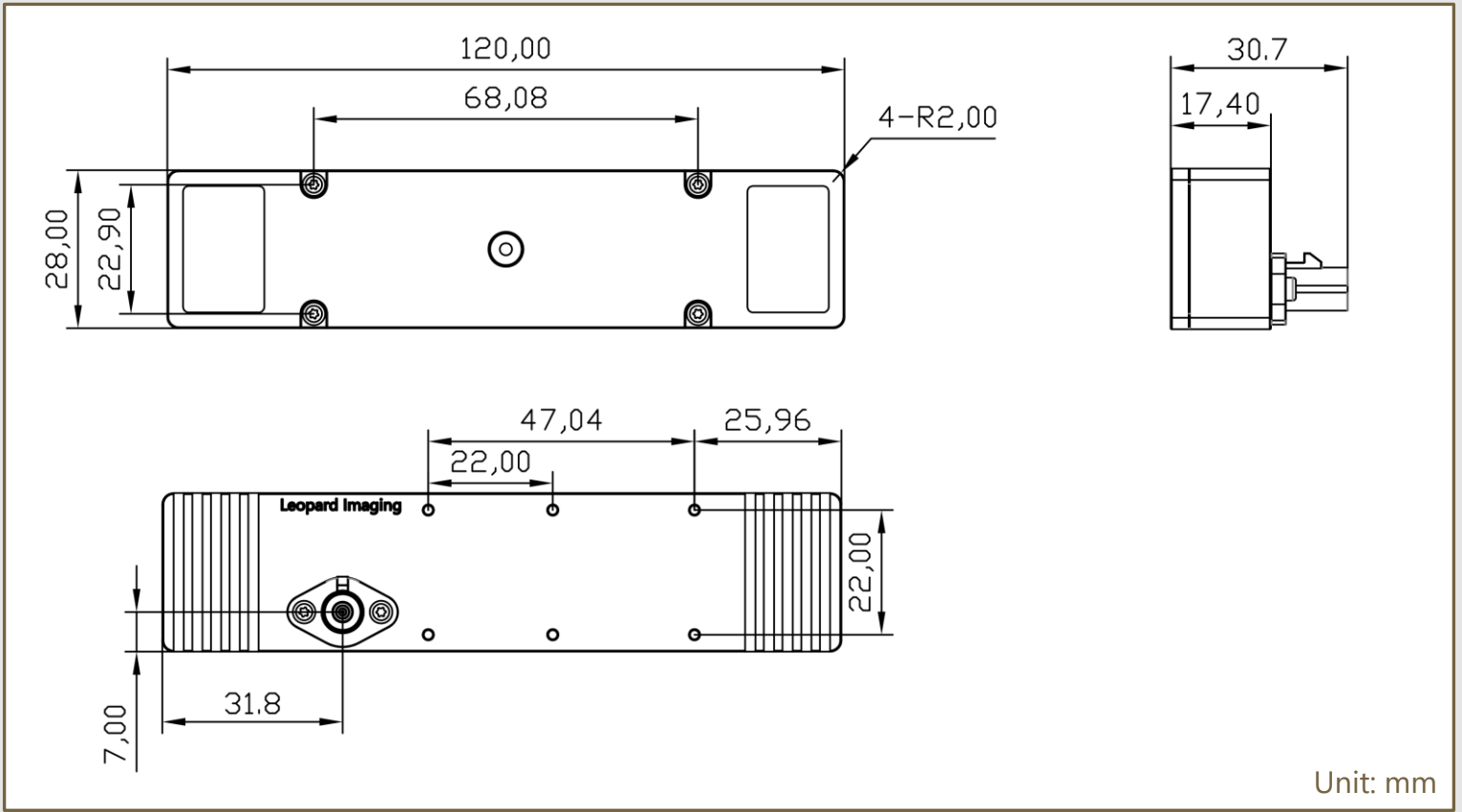
FOV	63.6° diagonal
	55.6° horizontal
	36.4° vertical
TV Distortion	0.1%
Relative Illumination	53% (at IH = 2.26 mm)
IR Coating	940 nm

## IR LED SPECIFICATIONS

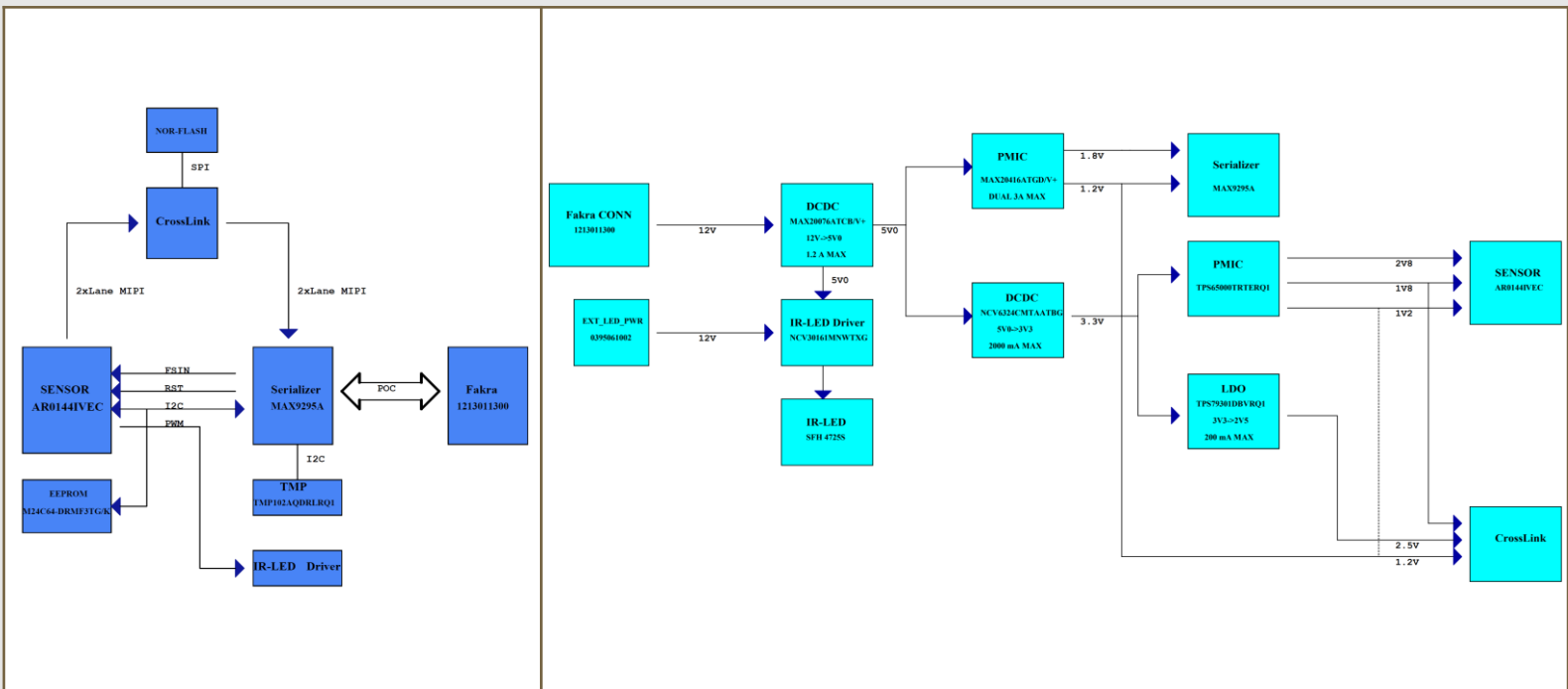
Wavelength	940 nm
Viewing Angle	90°
Power Supply	12 VDC
QTY on Camera	4



# DIMENSIONS



# SYSTEM AND POWER BLOCK DIAGRAM



# USB3.0 CAMERA KIT

LI-USB30-DESER-GMSL2



Top View



Bottom View

LI-AR0144IVEC-GMSL2-055H can connect to LI-USB30-DESER-GMSL2 as a USB 3.0 camera.

Part#: **LI-USB30-AR0144IVEC-GMSL2-055H**

## KEY FEATURES

- USB 3.0 Super Speed support
- UVC compliance
- Global Shutter
- Provide customization services
- 12VDC Power Supply for camera
- 12VDC Power Supply for IR LED
- Weight: ~ 168 g
- Single Coax Cable transmit up to 12 meters PoC (Power over Cable)
- Resolution: 1280 x 800 @ 30 fps
- Support Windows, Linux OS and other OS which include the UVC drivers

## BOM

#	Items	QTY
1	LI-AR0144IVEC-GMSL2-055H	1
2	LI-USB30-DESER-GMSL2	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
- Register Access Function

## ● REVISION HISTORY

Revision	Description	Release date
1.0	First release.	06 May 2021

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