



**LEOPARD**  
IMAGING

# LI-AR0830C-MIPI-078H



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## INTRODUCTION

The LI-AR0830C-MIPI-078H is a MIPI D-PHY camera equipped with ON Semiconductor 1/2.9 inch 8 MP CMOS digital image sensor AR0830 which features onsemi's breakthrough low-noise CMOS imaging technology, super low power mode and on-chip Temperature Sensor & Lens Shading Correction. This camera outputs 10-bit RAW data.

## SPECIFICATIONS

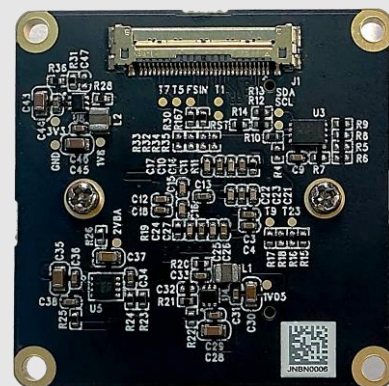
Sensor	ON Semiconductor 1/2.9-inch 8 MP (16:9) CMOS Image Sensor AR0830
Optical Format	1/2.9"
Resolution	3840 (H) x 2160 (V) (active pixels)
Pixel Size	1.4 $\mu\text{m}$ Back Side Illuminated (BSI)
Color / Mono	Color sensor
Output Format	10-bit RAW data
Frame Rate	60 fps @ full size (linear mode)
ISP	Not included
Interface	4-lane MIPI D-PHY
Power Consumption	TBD
Operating Temp	-30°C ~ +85°C
Storage Temp	-40°C ~ +85°C
Weight	~ 18 g
Part#	LI-AR0830C-MIPI-078H

## APPLICATIONS

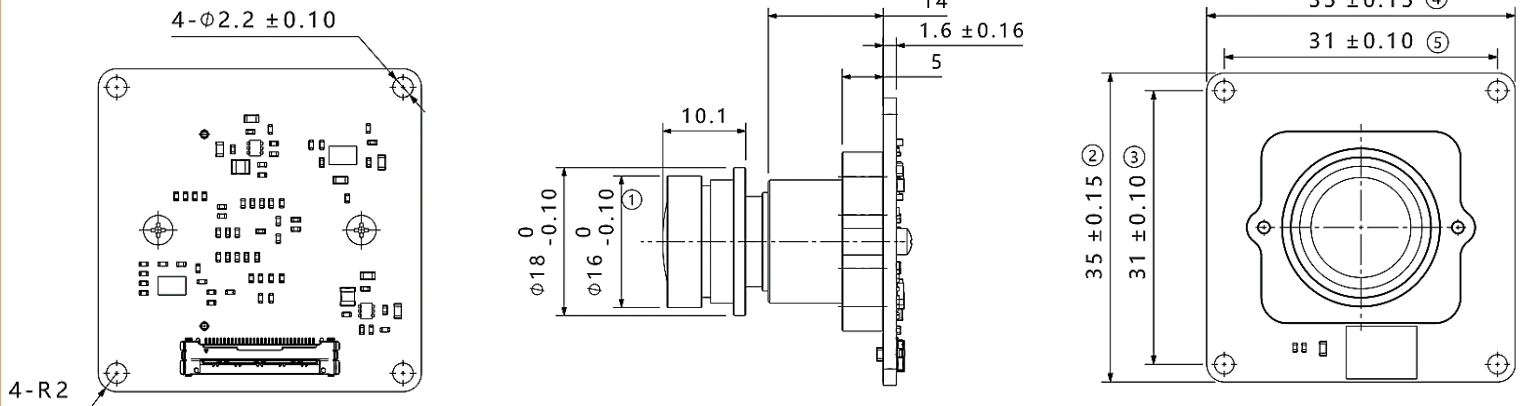
- Videoconferencing Endpoint
- Webcam
- Machine Vision Camera
- Video Doorbell
- Retail In-store Camera, Bodycam, etc.
- 3D and Stereo Camera

## LENS SPECIFICATIONS

Effective Focal Length	4.063 mm
Aperture, F/#	2.29 $\pm$ 5%
Field of View (FOV)	78° horizontal
Optical Distortion	-75%
Relative Illumination	30.2% @ 1.0F (IH 4.626mm)
IR Filter	650 nm IR cut filter
Lens Mount	M12 x P0.5



## DIMENSIONS



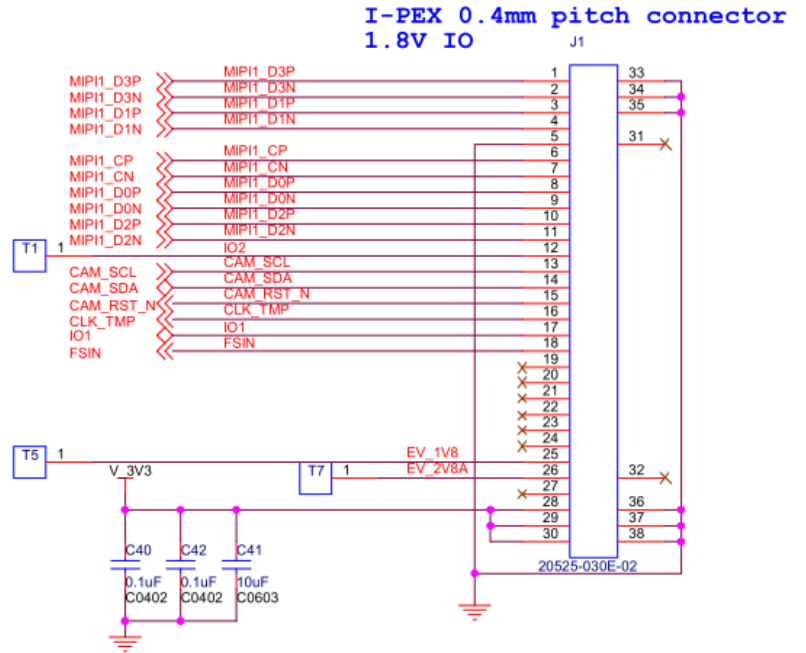
### NOTE:

- $\otimes$  marked are important sizes.
- Tolerances for the unmarked – refer to the Tolerance table.
- All materials are compliant with RoHS requirements.
- Unit: mm

TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
$0.5 < X \leq 3$	$\pm 0.1$	$0.5 < X \leq 3$	$\pm 0.2$	$X \leq 10$	$\pm 1^\circ$
$3 < X \leq 6$	$\pm 0.1$	$3 < X \leq 6$	$\pm 0.5$	$10 < X \leq 50$	$\pm 30'$
$6 < X \leq 30$	$\pm 0.2$	$6 < X \leq 30$	$\pm 1$	$50 < X \leq 120$	$\pm 20'$
$30 < X \leq 120$	$\pm 0.3$	$X > 30$	$\pm 2$	$120 < X \leq 400$	$\pm 10'$
$120 < X \leq 400$	$\pm 0.5$			$X > 400$	$\pm 5'$
$400 < X \leq 1000$	$\pm 0.8$				
$X > 1000$	$\pm 1.2$				

# INTERFACE J1

- Connector Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX Cable: FAW-1233
- Sensor I2C Address: 0x36 (7-bit)
- External Power Supply: 3.3V
- 1.05V, 1.8V, 2.8V are generated from board.



## ● REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	24 Jan 2024

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