



# LI-AR2020-MIPI-079H



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## INTRODUCTION

The LI-AR2020-MIPI-079H is a MIPI CSI-2 camera equipped with ON Semiconductor 1/1.8-inch 20 Mp CMOS sensor AR2020 which features advanced 1.4  $\mu\text{m}$  pixel stacked BSI Technology and enhanced NIR response on 850 nm and 940 nm wavelength. This camera outputs 10-bit RAW data.

## SPECIFICATIONS

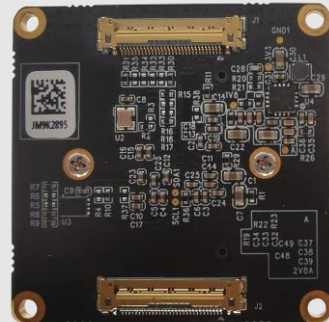
Sensor	ON Semiconductor 20 Mp CMOS sensor AR2020
Optical Format	1/1.8"
Resolution	5120 (H) x 3840 (V) (active pixels)
Pixel Size	1.4 $\mu\text{m}$ Back Side Illuminated (BSI)
Output Format	10-bit RAW data
Frame Rate	30 fps @ 5120 x 3840
ISP	Not included
Color / Mono	Color sensor
Interface	4-lane MIPI D-PHY
xDR (Extended Dynamic Range)	Support
Power Consumption	Approximate 435 mW
Operating Temp	TBD
Storage Temp	TBD
Weight	~ 25 g
Part#	LI-AR2020-MIPI-079H

## APPLICATIONS

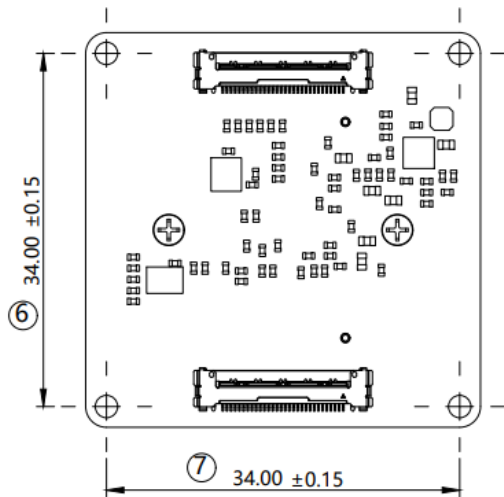
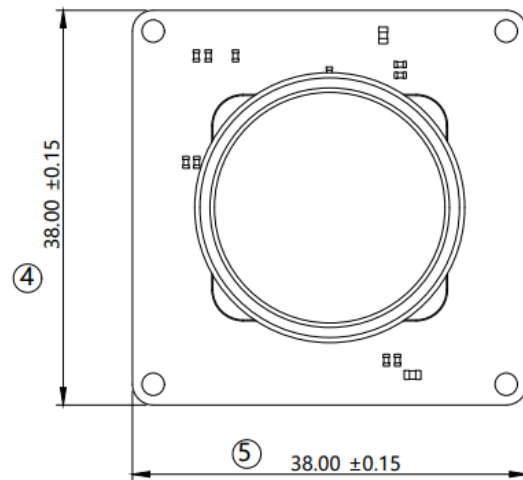
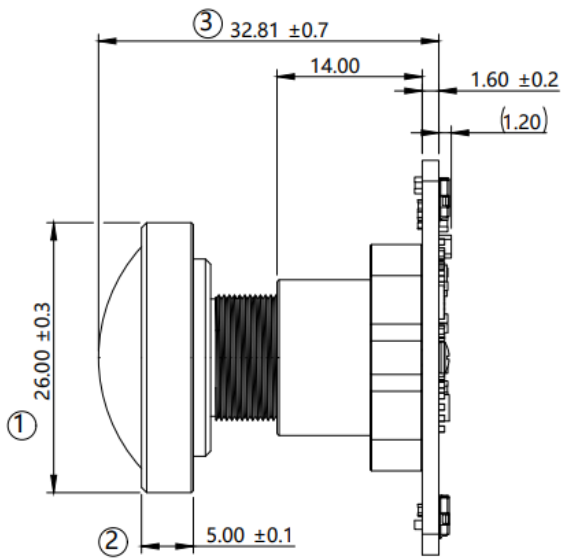
- Surveillance Camera
- Video Conferencing
- Machine Vision
- 3D and Stereo Imaging

## LENS SPECIFICATIONS

Effective Focal Length	4.5 mm
Aperture, F/#	1.8
Field of View (FOV)	90° diagonal
	79° horizontal
	63° vertical
Optical Distortion	-2.8%
Relative Illumination	> 50%
IR Filter	650 nm IR cut filter
Lens Mount	M12 x P0.5



## DIMENSIONS



TOLERANCE TABLE

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

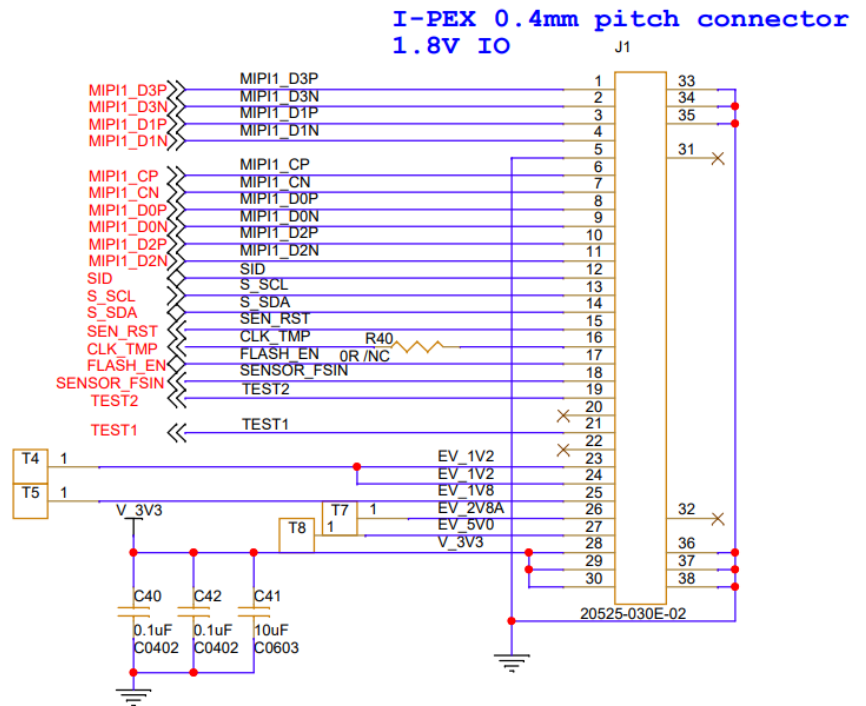
### NOTE:

- ⊗ marked are important sizes.
- Tolerances for the unmarked – refer to the Tolerance table.

Unit: mm

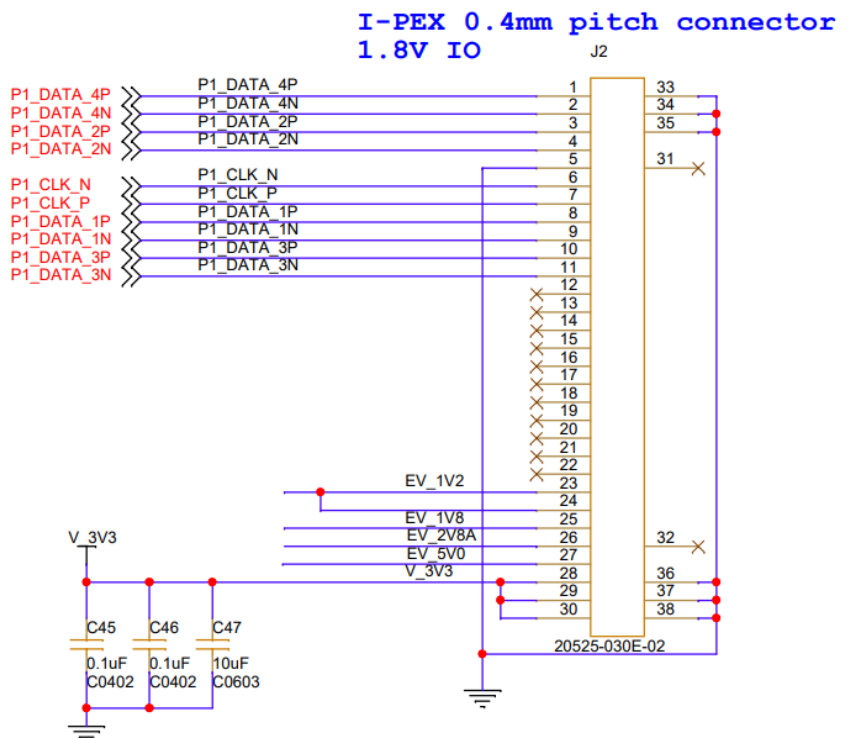
## ● INTERFACE J1

- Connector Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX Cable: FAW-1233
- Sensor I2C Address: 0x6C (8-bit)
- External Power Supply: 3.3V
- 2.8V, 1.8V, 1.05V are generated from board.



## ● INTERFACE J2 (Not Used)

- Connector Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX Cable: FAW-1233



## ● REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	18 Apr 2023

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