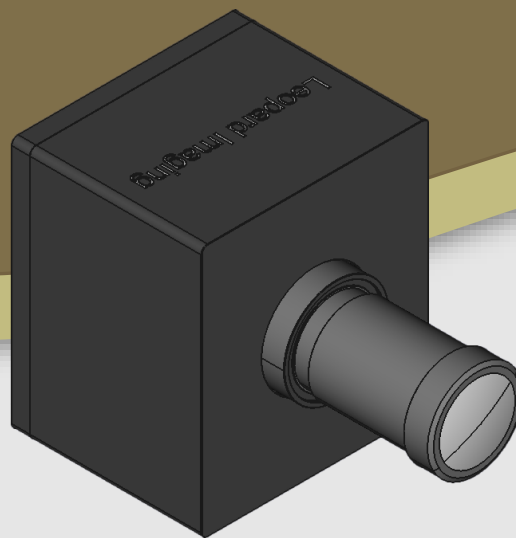




LEOPARD
IMAGING

LI-USB30-AR1223-YUV-098H



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INTRODUCTION

The LI-USB30-AR1223-YUV-098H is a high resolution USB 3.0 camera equipped with ON Semiconductor 12MP CMOS digital image color sensor AR1223, ISP and USB30 controller. It has a dedicated Inbuilt high-performance Image Signal Processor (ISP) chip tuned to bring out the best-in-class image quality and color reproduction, making it adaptable to different lighting conditions. This camera outputs YUV image data.

SPECIFICATIONS

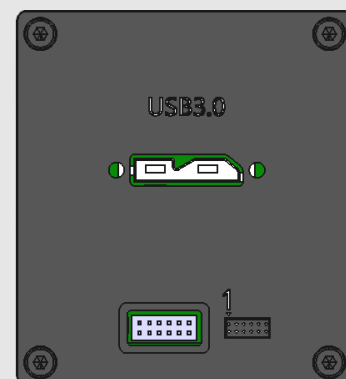
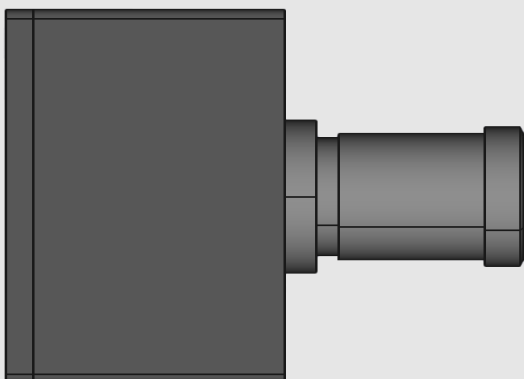
Frame Rate	TBD
Output Format	YUV422
Sensor	ON Semiconductor 12MP CMOS digital image sensor AR1223
Optical Format	1/1.6"
Color / Mono	Color
Pixel Size	2.0 μm
Resolution	4096 (H) x 3046 (V) active pixels
xDR (X-tended Dynamic Range)	Supported
ISP	Included
USB30 Controller	Included
Interface	USB 3.0
Power Supply Range	5 VDC (from USB3.0 port)
Power Consumption	TBD
Operating Temp	TBD
Storage Temp	TBD
Ingress Protection	TBD
Weight	TBD

Applications

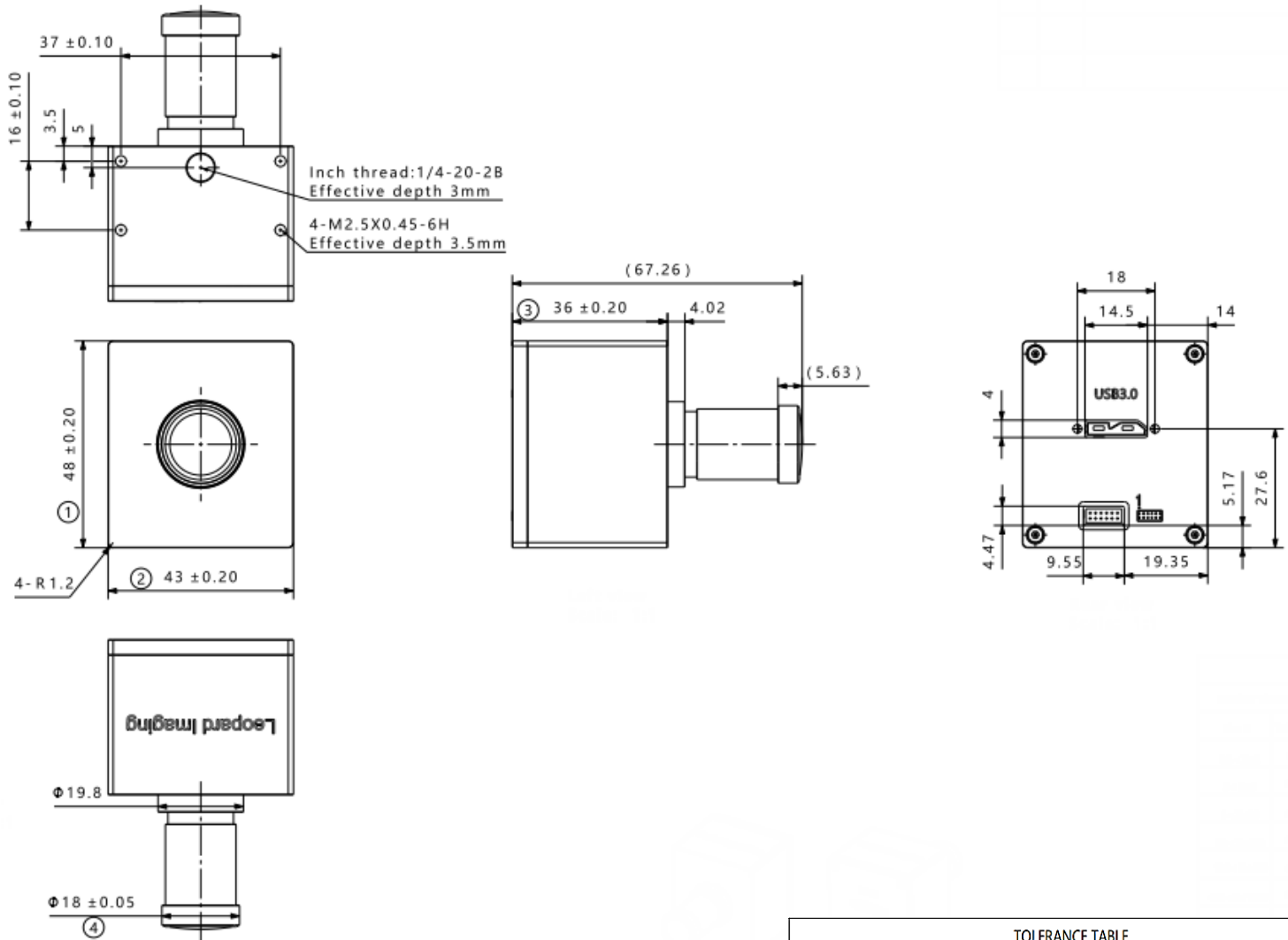
- Security
- IoT
- Car DVR

Lens Specifications

Effective Focal Length	5.17 $\pm$ 5% mm
Aperture, F/#	1.6 $\pm$ 5%
Field of View (FOV)	98° horizontal
IR Filter	650 nm IR CUT filter
Lens Mount	M16 x P0.5



DIMENSIONS



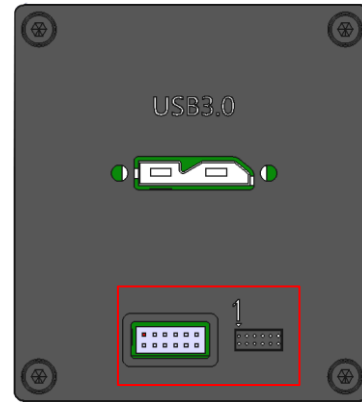
NOTE:

- ⊗ 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
$0.5 < X \leq 3$	± 0.1	$0.5 < X \leq 3$	± 0.2	$X \leq 10$	$\pm 1^\circ$
$3 < X \leq 6$	± 0.1	$3 < X \leq 6$	± 0.5	$10 < X \leq 50$	$\pm 30'$
$6 < X \leq 30$	± 0.2	$6 < X \leq 30$	± 1	$50 < X \leq 120$	$\pm 20'$
$30 < X \leq 120$	± 0.3	$X > 30$	± 2	$120 < X \leq 400$	$\pm 10'$
$120 < X \leq 400$	± 0.5			$X > 400$	$\pm 5'$
$400 < X \leq 1000$	± 0.8				
$X > 1000$	± 1.2				

INTERFACE

- Part#: PZ3161212PDGFCNN070
- Number of Positions: 12
- Pitch: 1.27mm



PINOUT DETAILS

Pin No	Pin Name	Description	Pin Type	Voltage Level
1	OPT_IN	Isolated Input of optoiso	Input	Max 30V
2	NC	No connection	-	-
3	UART_TX	Transmitting end of UART of CYUSB3014	Output	3.3V
4	UART_RX	Receiving end of UART of CYUSB3014	Input	3.3V
5	GND	Field Ground of optoiso	-	-
6	GND	Digital Ground	-	-
7	5V0	5V power	Power	5V
8	3V3	3.3V power	Power	3.3V
9	GPIO25	General-purpose input/output	Bidir	3.3V
10	GPIO60	General-purpose input/output	Bidir	3.3V
11	GPIO26	General-purpose input/output	Bidir	3.3V
12	GPIO27	General-purpose input/output	Bidir	3.3V

- REVISION HISTORY

Revision	Description	Release Date
0.1	Initial draft.	11 Nov 2025

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