



LEOPARD
IMAGING

LI-IMX900C-MIPI-078H



Address:

910 Auburn Ct
Fremont, CA 94538
USA



Phone:

+1 (408)263-0988

Fax:

+1 (408)217-1960



Sales:

sales@leopardimaging.com

Support:

support@leopardimaging.com

INTRODUCTION

The LI-IMX900C-MIPI-078H is a MIPI CSI-2 camera equipped with Sony diagonal 5.81 mm (Type 1/3.1) Pregius CMOS image color sensor IMX900 which features a global shutter, and achieves high sensitivity and low dark current. This camera outputs 8-bit / 10-bit / 12-bit RAW data.

SPECIFICATIONS

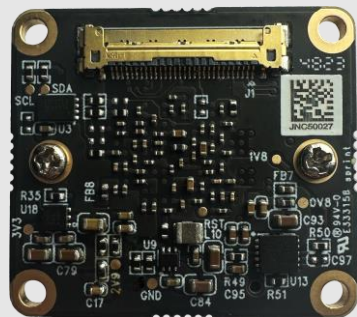
Sensor	Sony Diagonal 5.81 mm Pregius Sensor IMX900
Optical Format	1/3.1"
Shutter Type	Global shutter
Resolution	2064 (H) x 1552 (V) (active pixels)
Pixel Size	2.25 x 2.25 μ m
Output Format	8-bit / 10-bit / 12-bit RAW data
Maximum Frame Rate	8-bit: 121 fps @ All-pixel scan mode 10-bit: 113.4 fps @ All-pixel scan mode 12-bit: 70.6 fps @ All-pixel scan mode
ISP	Not included
Color / Mono	Color sensor
Interface	4-lane MIPI CSI-2
Power Consumption	~ 0.3W
Operating Temp	-30°C ~ +70°C
Storage Temp	-30°C ~ +70°C
Weight	~ 14 g
Part#	LI-IMX900C-MIPI-078H

APPLICATIONS

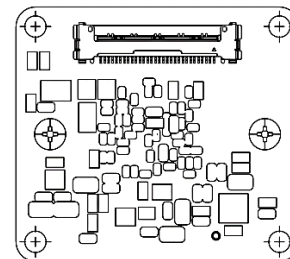
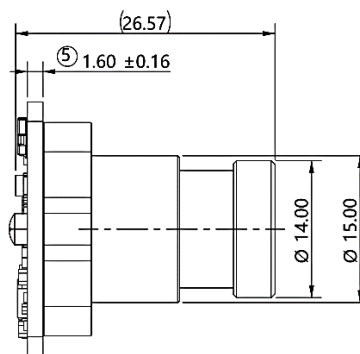
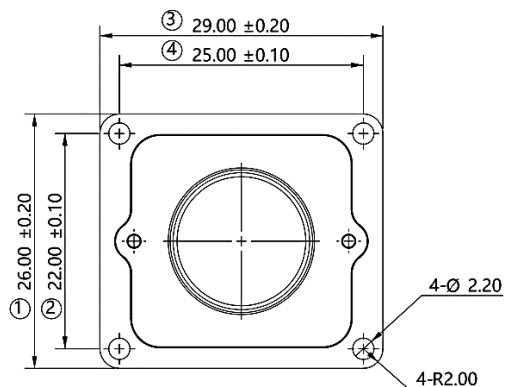
- FA camera
- Code reading camera
- Embedded vision systems

LENS SPECIFICATIONS

Focal Length	3.6 mm
Aperture, F/#	2.0 $\pm$ 5%
Field of View (FOV)	78° horizontal
TV Distortion	-10 %
Relative Illumination	> 78 %
IR Filter	650 nm IR cut Filter
Lens Mount	M12 x P0.5



DIMENSIONS



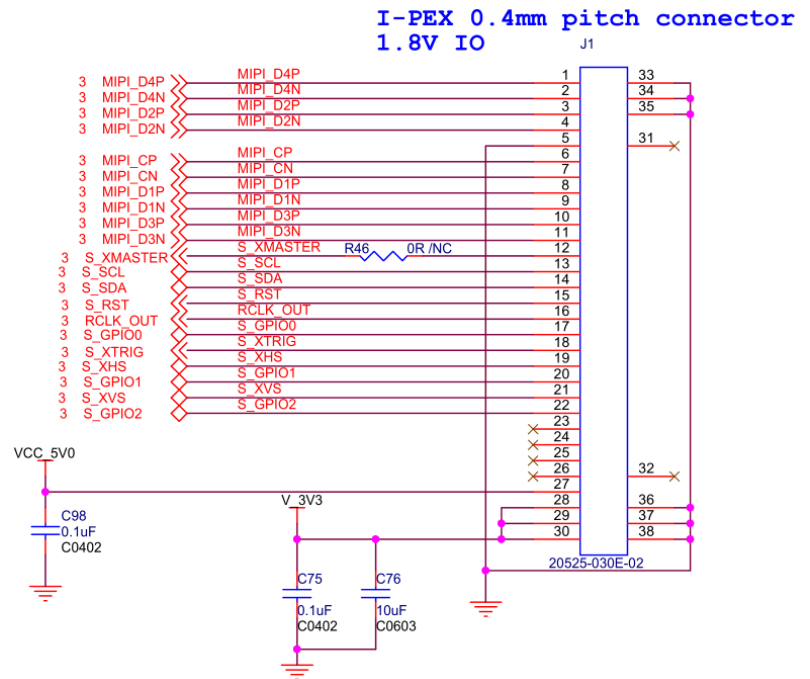
TOLERANCE TABLE					
LENGTH TOLERANCE		CHAMFER TOLERANCE		ANGLE TOLERANCE	
Size X	Tolerance	Size X	Tolerance	Size X	Tolerance
0.5 < X ≤ 3	±0.1	0.5 < X ≤ 3	±0.2	X ≤ 10	±1°
3 < X ≤ 6	±0.1	3 < X ≤ 6	±0.5	10 < X ≤ 50	±30'
6 < X ≤ 30	±0.2	6 < X ≤ 30	±1	50 < X ≤ 120	±20'
30 < X ≤ 120	±0.3	X > 30	±2	120 < X ≤ 400	±10'
120 < X ≤ 400	±0.5			X > 400	±5'
400 < X ≤ 1000	±0.8				
X > 1000	±1.2				

NOTE:

- ⊗ marked are important sizes.
- Tolerances for the unmarked refer to the tolerance table.
- All materials are compliant with RoHS requirements.
- Unit: mm

MIPI CONNECTOR INTERFACE J1

- Connector Part#: 20525-030E-02
- Number of Positions: 30
- Mating I-PEX Cable: FAW-1233-03
- Sensor I2C Address: 0X36 (7-bit)
- External Power Supply: 5V0, 3.3V



MIPI Connector Pinout

Pin No	Signal Name	Pin Type	Description	Voltage Level
1	MIPI_D4P	OUTPUT	MIPI Clock Data4 Differential Pair +	MIPI DPHY
2	MIPI_D4N	OUTPUT	MIPI Clock Data4 Differential Pair -	MIPI DPHY
3	MIPI_D2P	OUTPUT	MIPI Clock Data2 Differential Pair +	MIPI DPHY
4	MIPI_D2N	OUTPUT	MIPI Clock Data2 Differential Pair -	MIPI DPHY
5	GND	-	-	-
6	MIPI_CP	OUTPUT	MIPI Clock Lane Differential Pair +	MIPI DPHY
7	MIPI_CN	OUTPUT	MIPI Clock Lane Differential Pair -	MIPI DPHY
8	MIPI_D1P	OUTPUT	MIPI Clock Data1 Differential Pair +	MIPI DPHY
9	MIPI_D1N	OUTPUT	MIPI Clock Data1 Differential Pair -	MIPI DPHY
10	MIPI_D3P	OUTPUT	MIPI Clock Data3 Differential Pair +	MIPI DPHY
11	MIPI_D3N	OUTPUT	MIPI Clock Data3 Differential Pair -	MIPI DPHY
12	X_MASTER	INPUT	Master / Slave selection input (Reserved) Master mode in default	1.8V
13	S_SCL	INPUT	1.8V IO Camera I2C SCL signal (Pulled up to 1.8V with 1k)	1.8V

Pin No	Signal Name	Pin Type	Description	Voltage Level
14	S_SDA	I/O	1.8V IO Camera I2C SDA signal (Pulled up to 1.8V with 1k)	1.8V
15	S_RST	INPUT	1.8V IO camera reset signal (Pulled up to 1.8V with 10k)	1.8V
16	RCLK_OUT	INPUT	Reserved CLK for camera	1.8V
17	S_GPIO0	OUTPUT	1.8V IO camera digital output	1.8V
18	S_XTRIG	INPUT	1.8V IO camera trigger signal	1.8V
19	S_XHS	I/O	Horizontal sync signal	1.8V
20	S_GPIO1	OUTPUT	1.8V IO camera digital output	1.8V
21	S_XVS	I/O	Vertical sync signal	1.8V
22	S_GPIO2	OUTPUT	1.8V IO camera digital output	1.8V
23	-	-	-	-
24	-	-	-	-
25	-	-	-	-
26	-	-	-	-
27	5V0	POWER	5V power supply	5V
28	3V3	POWER	3.3V power supply	3.3V
29	3V3	POWER	3.3V power supply	3.3V
30	3V3	POWER	3.3V power supply	3.3V

LI-RB-IMX900C-MIPI-078H

INTRODUCTION

When connecting IMX900 MIPI camera with Qualcomm platform, following adaptor board and cables will be needed.

P/N for kit connection: **LI-RB-IMX900C-MIPI-078H**

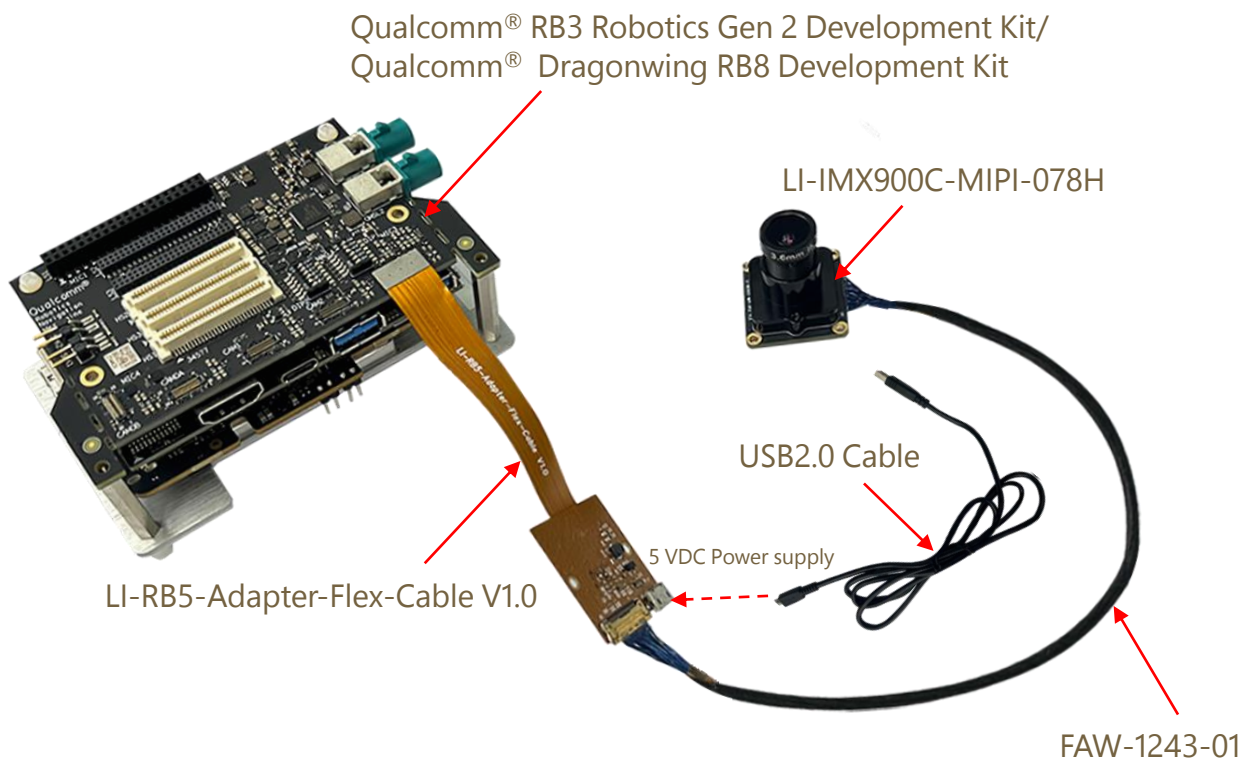
BOM

#	Items	QTY
1	LI-IMX900C-MIPI-078H	1
2	LI-RB5-Adapter-Flex-Cable V1.0	1
3	FAW-1243-01	1
4	USB 2.0 Cable (Connecting with platform USB port as camera external power source)	1

NOTE: Qualcomm® Development Kit is **NOT** included.

Supported platform:

- ✓ Qualcomm® RB3 Robotics Gen 2 Development Kit
- ✓ Qualcomm® Dragonwing RB8 Development Kit



LI-RPI-IMX900C-MIPI-078H

INTRODUCTION

When connecting IMX900 MIPI camera with Raspberry platform, following adaptor board and cables will be needed.

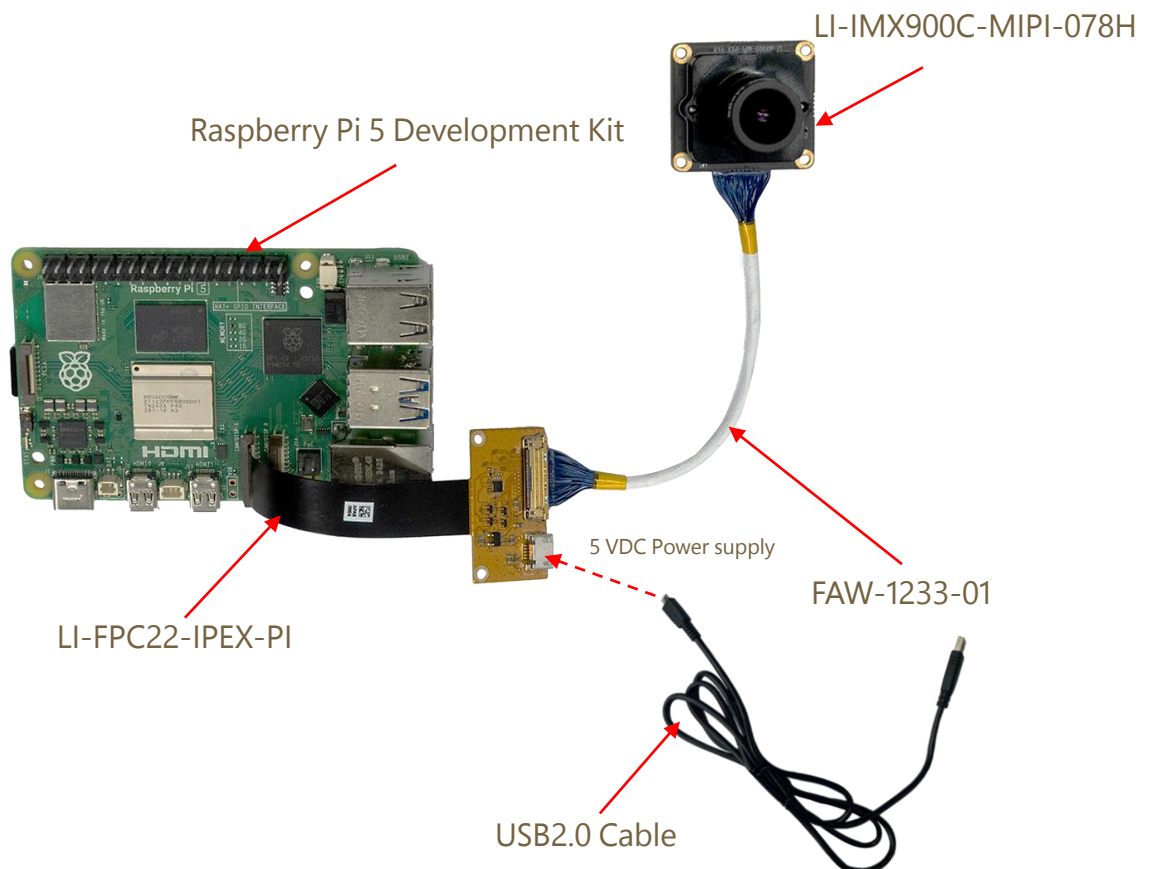
P/N for kit connection: **LI-RPI-IMX900C-MIPI-078H**

BOM

#	Items	QTY
1	LI-IMX900C-MIPI-078H	1
2	LI-FPC22-IPEX-PI	1
3	FAW-1233-01	1
4	USB 2.0 Cable (Connecting with platform USB port as camera external power source)	1

NOTE: Raspberry Pi 5 Development Kit is **NOT** included.

Supported platform: Raspberry Pi 5 Development Kit



● REVISION HISTORY

Revision	Description	Release Date
1.0	First release.	05 Nov 2024
1.1	Added supported platforms.	09 Aug 2025

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Leopard Imaging Inc.