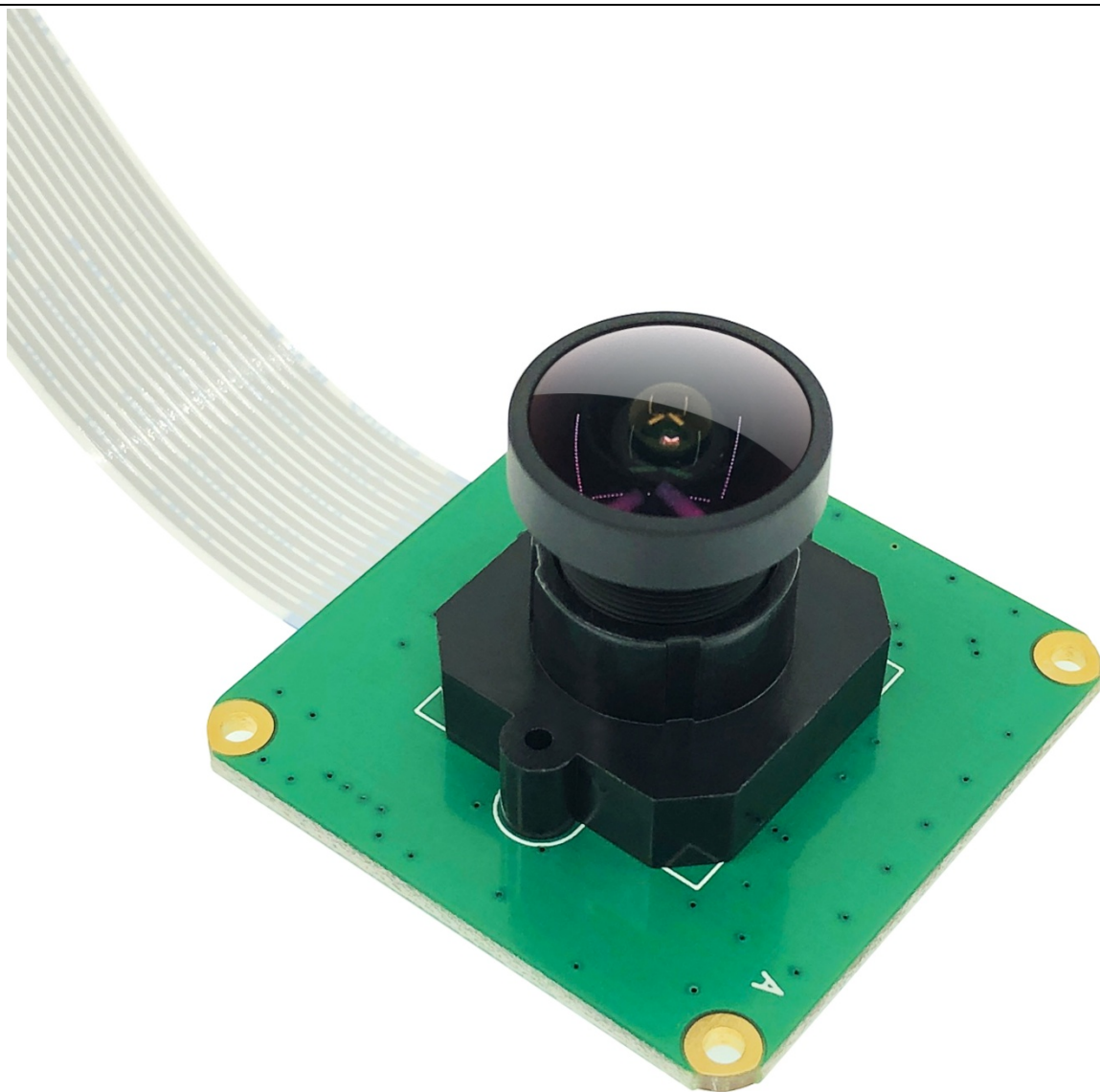




CAM-IMX219

InnoMaker IMX219 Camera Module with FOV90

CAM-IMX219 User Manual



Date	Revision	Description
2025/09/11	V1.0	First Released

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CAM-IMX219 User Manual	1
1 Description	3
2, Specification.....	3
3, Hardware	4
3.1 Camera Module Pins Out	4
3.2 Camera Size	5
3.2 Camera Lens	6
3.4 Connection.....	8
4, Software.....	8
Quick Start for Raspberry PI Series.....	8
Quick Start for Nvidia Series.....	9
5, Documentation.....	10

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1 Description

InnoMaker CAM-IMX219 with 8MP Sony IMX219 Sensor for raspberry pi Compatible with Raspberry Pi camera v2, Options with,FOV90, Camera Lens.

- Sensor Type: Low-cost 8 Megapixel IMX219 Sensor,
- Static Images:3280(H)x2464(V) pixel,
- Support 1080p@30fps, 720p@60fps and 640x480p@90fps video record.
- Lens: M12
- Board Size: 32mm x 32mm.

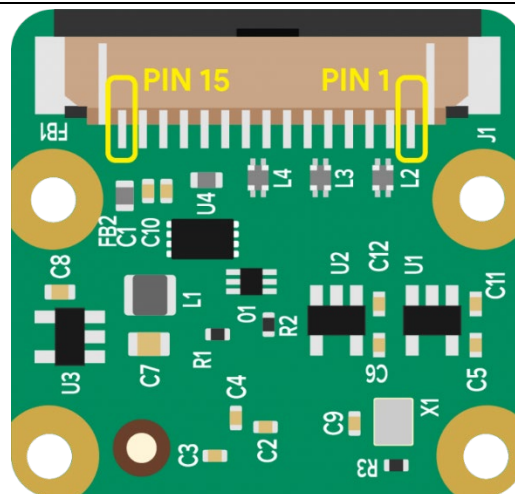
2, Specification

Image Sensor	IMX219
Still Resolution	8 Megapixels
Sensor Resolution	3280 × 2464 pixels
Video Modes	1080p 47fps, 1640 × 1232p41fps, 640 × 480p 206fps
Pixel Size	1.12 μm x 1.12 μm
Optical Size	1/4"
IR-Cut	Yes
Module Size	38mm*38mm
Lens	FOV90

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3, Hardware

3.1 Camera Module Pins Out

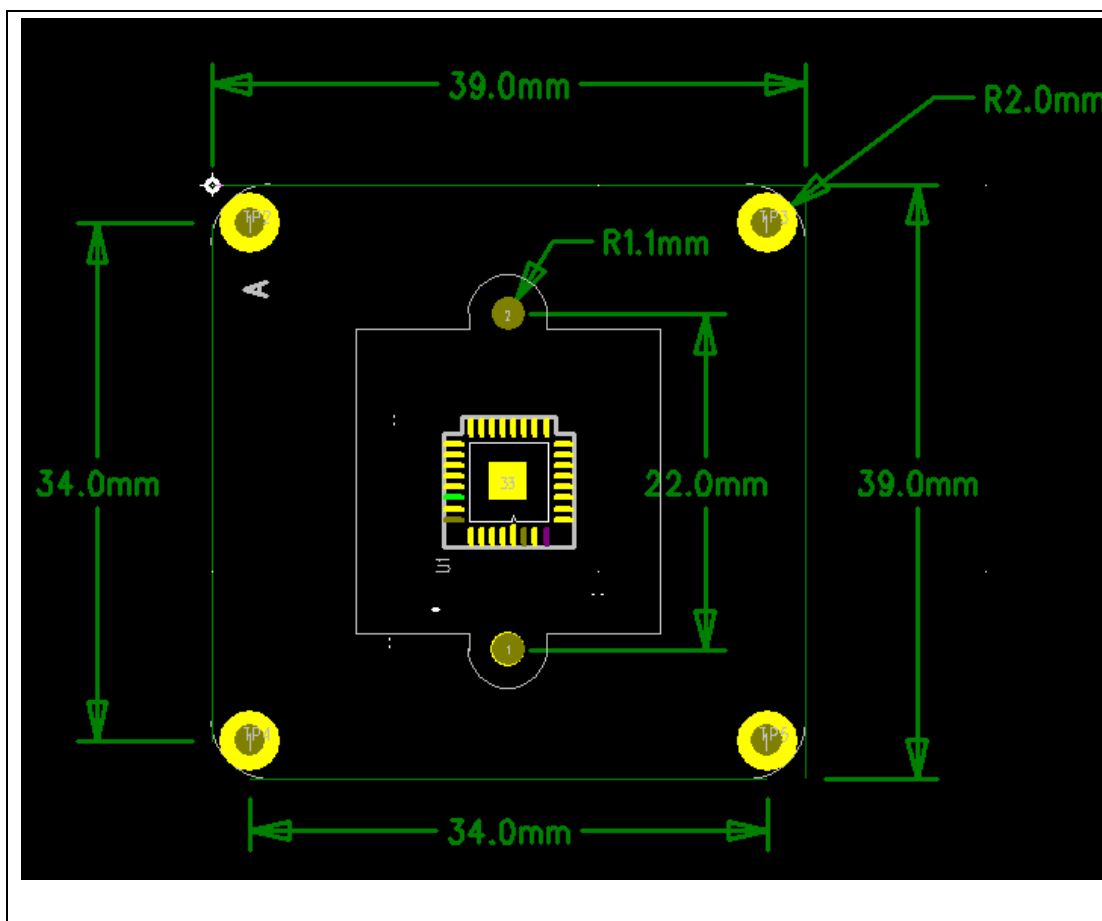


Pin #	Name	Description
1	GND	Ground
2	CAM_D0_N	MIPI Data Lane 0 Negative
3	CAM_D0_P	MIPI Data Lane 0 Positive
4	GND	Ground
5	CAM_D1_N	MIPI Data Lane 1 Negative
6	CAM_D1_P	MIPI Data Lane 1 Positive
7	GND	Ground
8	CAM_CK_N	MIPI Clock Lane Negative
9	CAM_CK_P	MIPI Clock Lane Positive
10	GND	Ground

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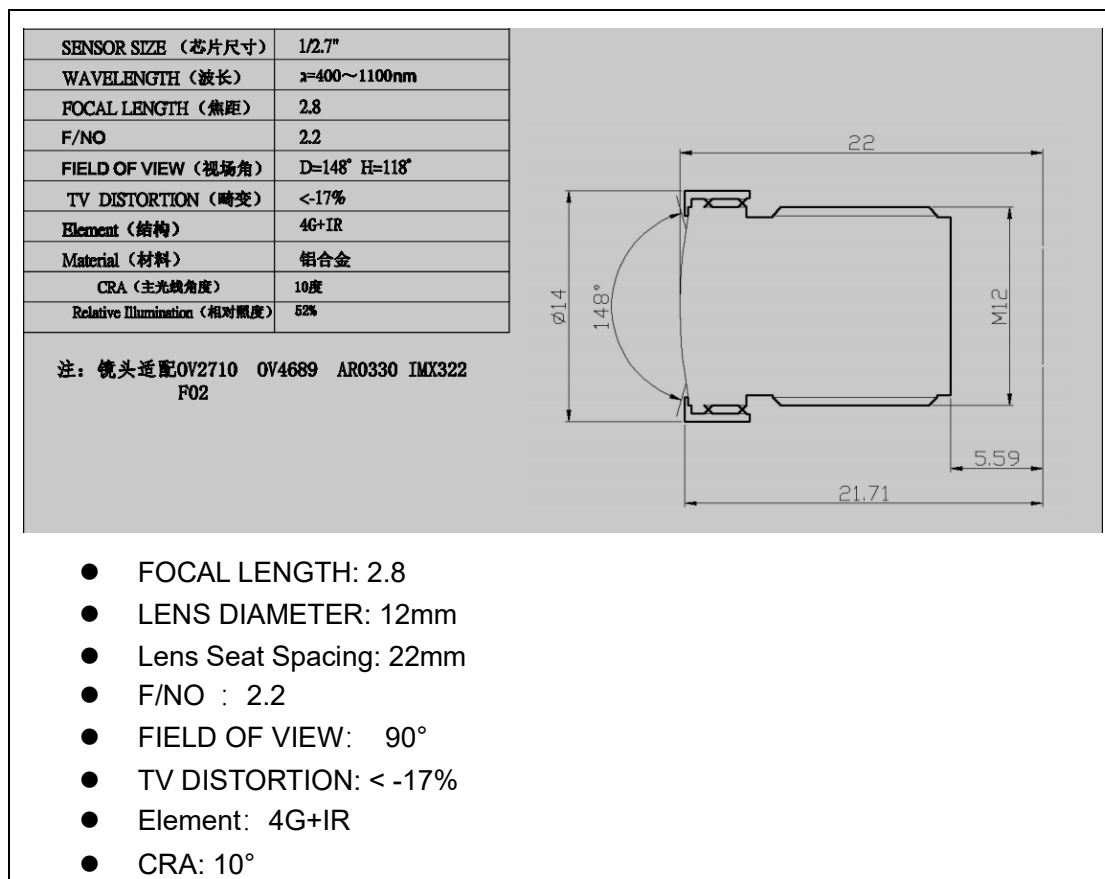
11	CAM_IO0	Power Enable
12	CAM_IO1	LED Indicator
13	CAM_SCL	I2C SCL
14	CAM_SDA	I2C SDA
15	CAM_3V3	3.3V Power Input

3.2 Camera Size

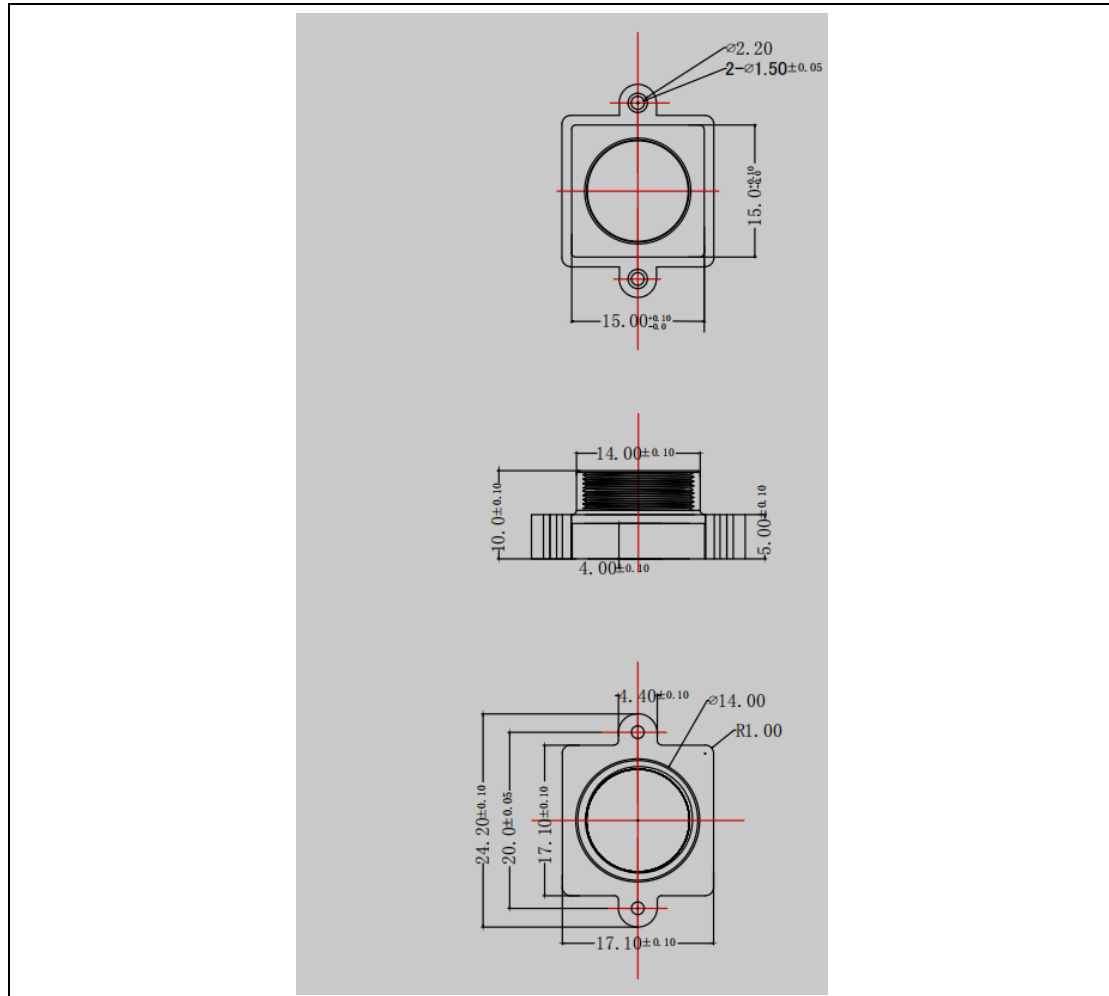


3.2 Camera Lens

FOV90 Lens

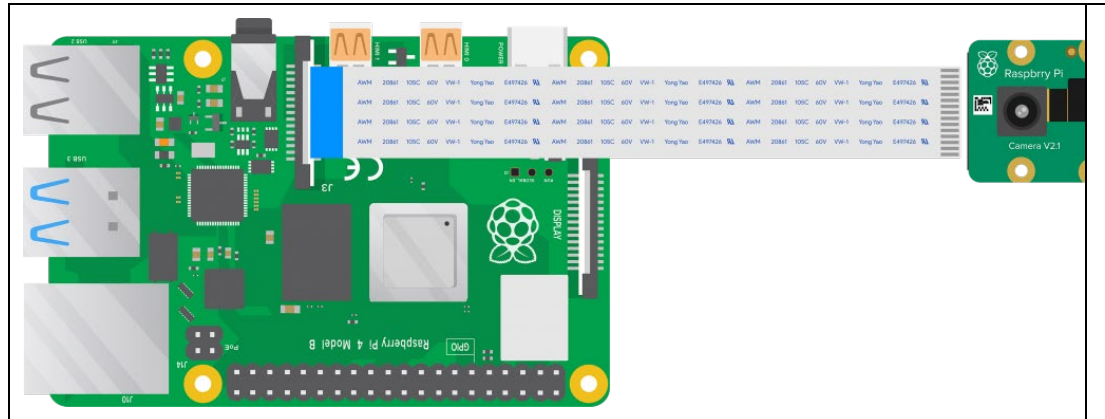


Len Seat Size information



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3.4 Connection



4, Software

Quick Start for Raspberry PI Series

Step1, Modify config.txt

- `sudo nano /boot/firmware/config.txt`

For the older version raspberry Pi OS, it should be

- `sudo nano /boot/config.txt`

Step2, Add below content to the last line

- `dtoverlay=imx219`

Step3, Reboot and use below command to preview

- `libcamera-hello -t 0`

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Quick Start for Nvidia Series

Step 1: Open the terminal and execute the following

- `sudo /opt/nvidia/jetson-io/jetson-io.py`

Step 2: Select Configure Jetson Nano CSI Connector

Step 3: Select Configure for compatible hardware

Step 4: Select the camera that you want to use

- Camera IMX219 DUAL

Step 5: Select Save pin changes

Step 6: Select Save and reboot to reconfigure pins

Step 7: Press any key on the keyboard and the device will reboot with the applied camera configuration

For CAM0 port

- `nvgstcapture-1.0 sensor-id=0`

For CAM1 port

- `nvgstcapture-1.0 sensor-id=1`

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5, Documentation

More information

- [Camera Description on Raspberry Pi](#)
- [Camera Software On Raspberry Pi](#)

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