

# JV2-IMX390C-MIPI-HXXX

## 2MP MIPI CAMERA

### GENERAL DESCRIPTION

The camera is equipped with SONY CMOS image ,is supplied with an M12 lens that is focused and glued in our factory, can be adapted to difference SOC platforms.

### KEY PARAMETERS

|                  |                         |
|------------------|-------------------------|
| Sensor           | SONY 2.12MP IMX390 RGGB |
| ISP              | /                       |
| Image Size       | 1/2.7 inch CMOS         |
| Output Pixels    | 1920H*1080V             |
| Frame Rate       | Up to 60 fps            |
| Pixel Size       | 3um                     |
| HDR Support      | Yes                     |
| Output data      | MIPI/RAW@10bit/12bit    |
| Power Supply     | 3.3V                    |
| Current          | <300mA@3.3VDC           |
| Camera interface | FPC                     |
| Connector        | FH67-30S-0.5SV          |
| Operating temp.  | -40~+85°C               |
| Dimensions       | W: 20mm, L:35mm, H:25mm |
| Weight           | <50g                    |



### Features

- Output format: Uncompressed RAW format
- Industrial high performance
- Support different focal length lens
- Support external triggering
- Multi-Camera synchronization

### Application

- Machine-vision
- Intelligent transportation
- Aeronautics and Astronautics
- Industrial inspection

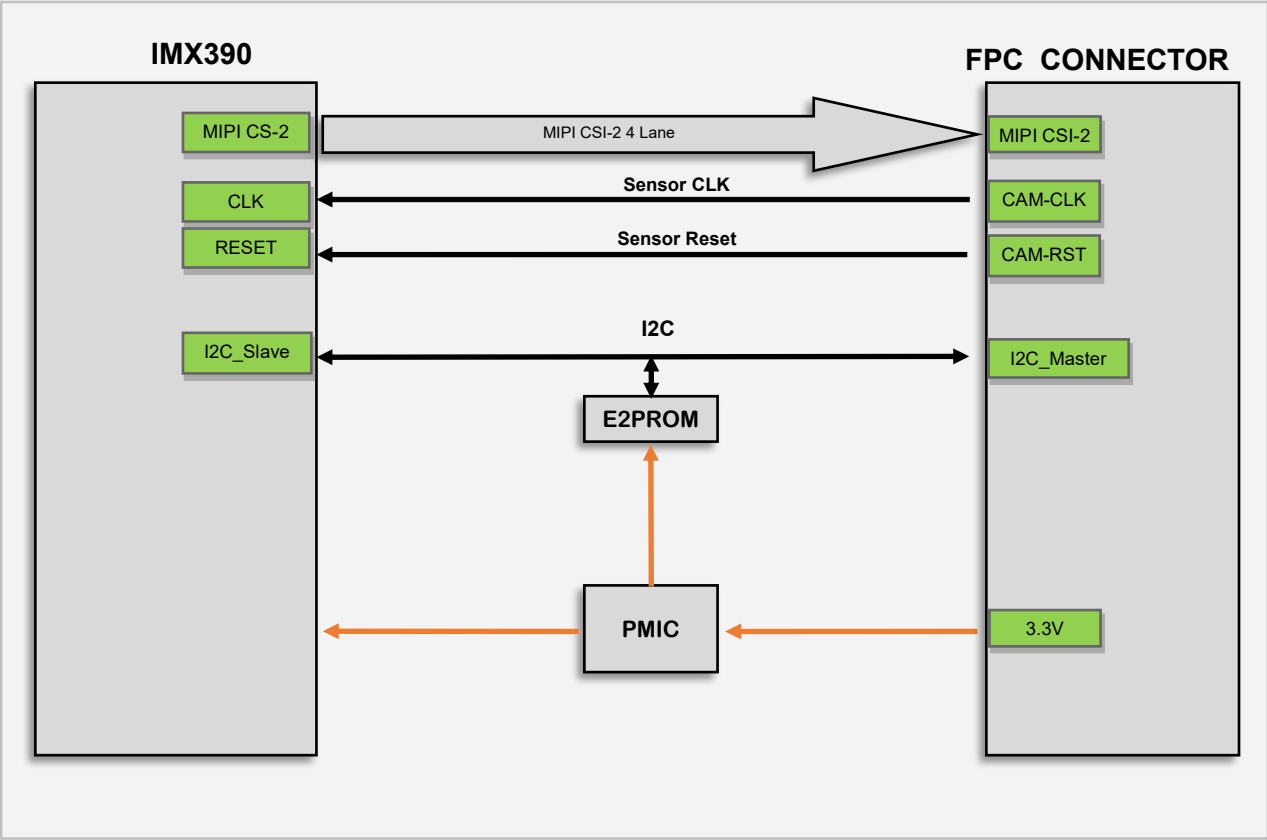




HARDWARE SETTING

| EEPROM      |                    |
|-------------|--------------------|
| I2C Address | 0xA0(8bit address) |

| Sensor      |                     |
|-------------|---------------------|
| Model       | IMX390              |
| I2C Address | 0x20 (8bit address) |



Block Diagram



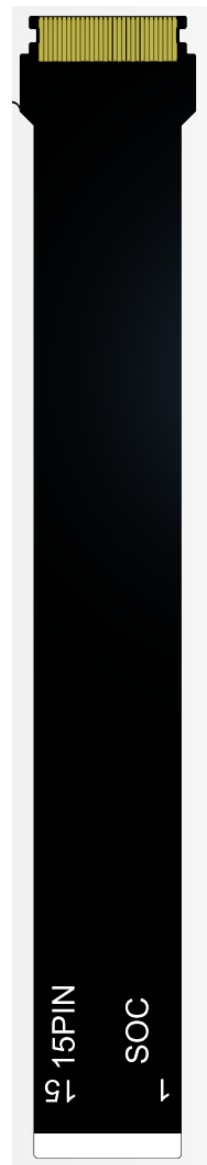


## Pin Definitions

Through 2 types of FPC cables, 15pin and 22pin signals can be output. Different specifications can be selected according to the needs.

| Part number | Name      | description   | remark                            |
|-------------|-----------|---------------|-----------------------------------|
| 339901-0010 | 22Pin FPC | Spacing 0.5mm | Jetson Orin Nano/NX DK<br>4lane   |
| 339901-0011 | 15Pin FPC | Spacing 1mm   | Jetson Nano/Raspberry Pi<br>2lane |

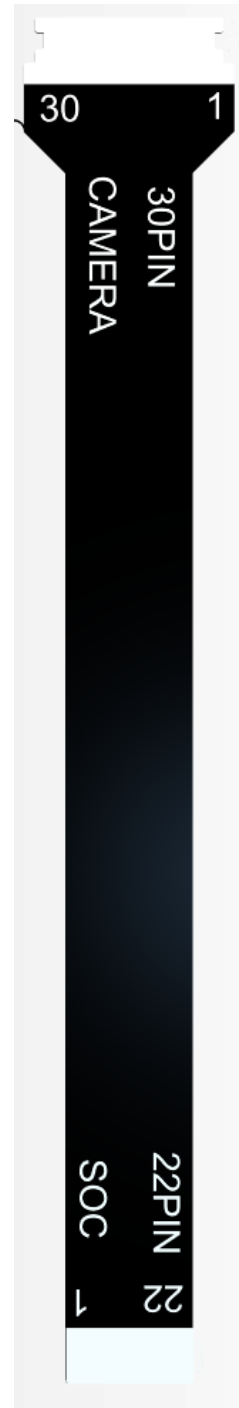
| 15Pin |               |
|-------|---------------|
| 1     | GND           |
| 2     | D1N           |
| 3     | D1 P          |
| 4     | GND           |
| 5     | D2 N          |
| 6     | D2 P          |
| 7     | GND           |
| 8     | CLK N         |
| 9     | CLK P         |
| 10    | GND           |
| 11    | SENSOR-RESETn |
| 12    | CAM-CLK       |
| 13    | CAM-SCL       |
| 14    | CAM-SDA       |
| 15    | VCC-3.3V      |





## Pin Definitions

| 22Pin |               |
|-------|---------------|
| 1     | GND           |
| 2     | D1 N          |
| 3     | D1 P          |
| 4     | GND           |
| 5     | D2 N          |
| 6     | D2 P          |
| 7     | GND           |
| 8     | CLK N         |
| 9     | CLK P         |
| 10    | GND           |
| 11    | D3 N          |
| 12    | D3 P          |
| 13    | GND           |
| 14    | D4 N          |
| 15    | D4 P          |
| 16    | GND           |
| 17    | SENSOR-RESETn |
| 18    | CAM-CLK       |
| 19    | GND           |
| 20    | CAM-SCL       |
| 21    | CAM-SDA       |
| 22    | VCC-3.3V      |



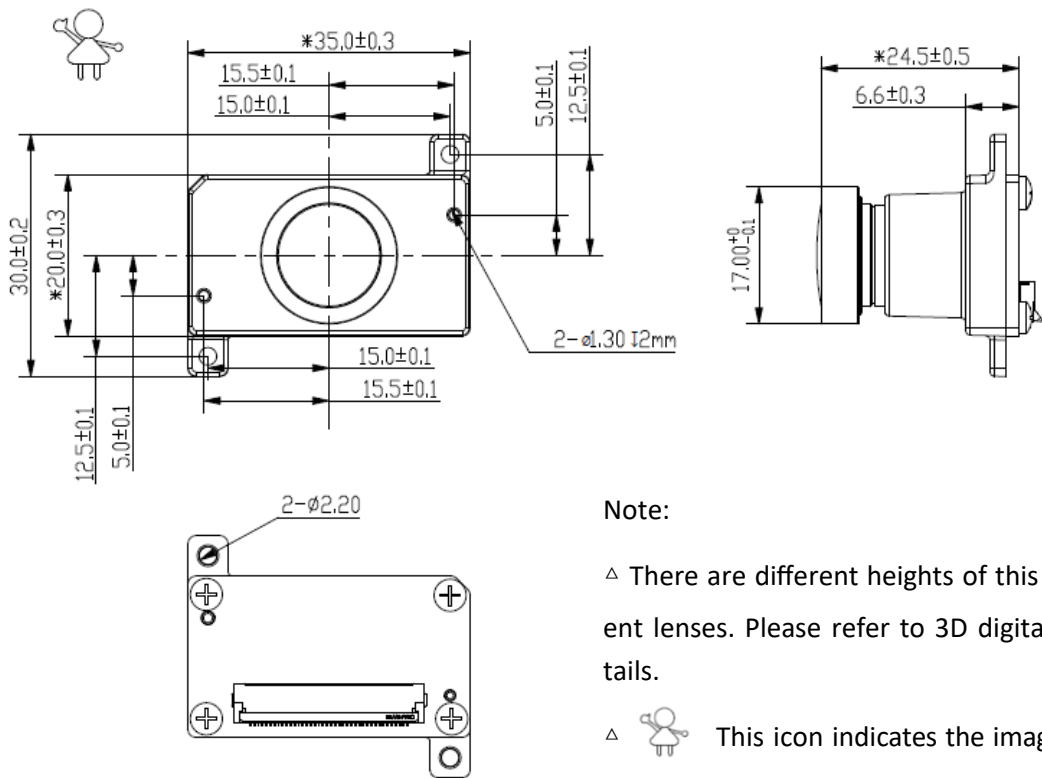


MODEL AND LENS

| Model                   | HFOV | VFOV | F.No | EFL     | Max Optical Distortion | Lens Mount |
|-------------------------|------|------|------|---------|------------------------|------------|
| JV2-IMX390C-MIPI-H30X   | 30°  | 17°  | 1.6  | 10.96mm | -2%                    | M12        |
| JV2-IMX390C-MIPI-H60F   | 60°  | 32°  | 1.6  | 5.8mm   | -21.5%                 | M12        |
| JV2-IMX390C-MIPI-H100F1 | 100° | 53°  | 1.6  | 3.55mm  | -45%                   | M12        |
| JV2-IMX390C-MIPI-H120H  | 118° | 62°  | 2.0  | 3mm     | -62%                   | M12        |



DIMENSIONS



Note:

- △ There are different heights of this size to match different lenses. Please refer to 3D digital analog size for details.
- △  This icon indicates the imaging direction is positive.





PLATFORMS SUPPORT

| Platforms                                                                                                                                  | Product Link                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>NVIDIA Jetson Platforms<br/>(Jetson Orin Nano/NX)</p>  | <p>Provide development driver package</p> <p><a href="https://www.sensing-world.com/jetson_camera_ecosystem">https://www.sensing-world.com/jetson_camera_ecosystem</a></p>  |





## Revision History

| Version | Description             | Release date |
|---------|-------------------------|--------------|
| Rev1.0  | First Release           | 2023.04      |
| Rev1.1  | Added remarks about FPC | 2023.06      |





# Contact Us

## SZ Sensing TECH., LTD

**HQ Address:** 8/F,block B, building 1,wisdom home,No.76,Baohe Avenue,Baolong street, Longgang District, Shenzhen

**Company Website:** [www.sensing-world.com](http://www.sensing-world.com)

