



LEOPARD
IMAGING

LI-IMX676-MIPI-115H



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-IMX676-MIPI-115H is a MIPI CSI-2 camera with Sony STARVIS 2 diagonal 10.04 mm (Type 1/1.6) CMOS solid-state color sensor IMX676 which has low power consumption and achieves high sensitivity, low dark current and no smear. This camera outputs 10-bit / 12-bit RAW data.

SPECIFICATIONS

| | |
|--------------------------|--|
| Sensor | Sony STARVIS2 Diagonal 10.04 mm CMOS Image Sensor IMX676 |
| Optical Format | 1/1.6" |
| Pixel Size | 2.0 x 2.0 μm |
| Color / Mono | Color sensor |
| Shutter Type | Rolling shutter |
| Resolution | 3552 (H) x 3552 (V) (active pixels) |
| Output Format | 10-bit / 12-bit RAW |
| Maximum Frame Rate | 12 bit: 30 fps @ all-pixel scan mode 10 bit: 60 fps @ all-pixel scan mode |
| ISP | Not included |
| HDR (High Dynamic Range) | Supported |
| Interface | 4-lane MIPI CSI-2 |
| Connector | 30-PIN IPEX MIPI Connector |
| Power Consumption | 298 mA @ 5 VDC (3552 x 3556 @ 8 fps) |
| Operating Temp | -30°C ~ +85°C |
| Storage Temp | -30°C ~ +85°C |
| Weight | ~ 14 g |

APPLICATIONS

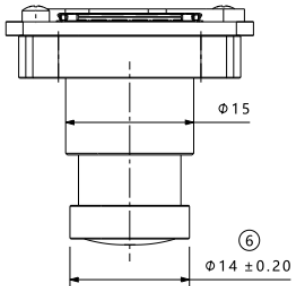
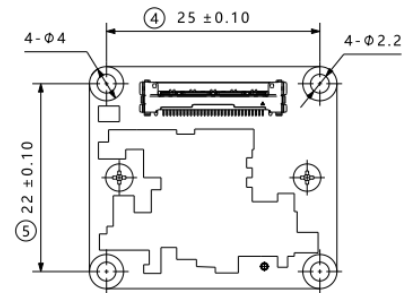
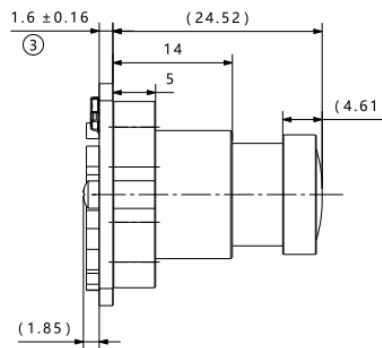
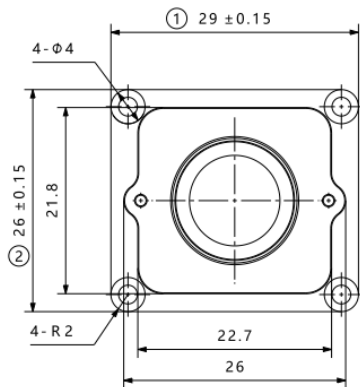
- IoT
- Drone
- Robots

LENS SPECIFICATIONS

| | |
|------------------------|----------------------|
| Effective Focal Length | 3.8 mm |
| Aperture, F/# | 2.6 |
| Field of View (FOV) | 115° horizontal |
| TV Distortion | -15.7% |
| Relative Illumination | 38.1% |
| IR Filter | 650 nm IR cut filter |
| Lens Mount | M12 x 0.5 |



DIMENSIONS



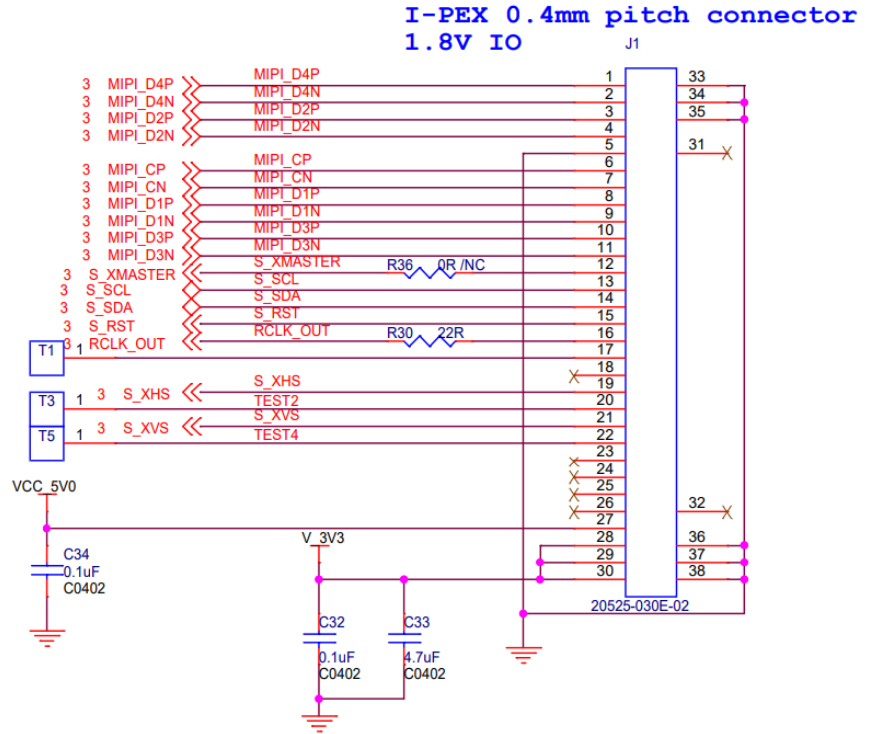
| TOLERANCE TABLE | | | | | |
|------------------|-----------|-------------------|-----------|-----------------|-----------|
| LENGTH TOLERANCE | | CHAMFER TOLERANCE | | ANGLE TOLERANCE | |
| Size X | Tolerance | Size X | Tolerance | Size X | Tolerance |
| 0.5 < X ≤ 3 | ±0.1 | 0.5 < X ≤ 3 | ±0.2 | X ≤ 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 INTERFACE

- Connector Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX cable: LI-FAW-1233
- Sensor I2C Address: 0x1A (7-bit)
- External Power Supply: 3.3V, 5.0V



Pinout Details

| 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 | S_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 | TP | - | Test point | - |
| 18 | - | - | - | - |
| 19 | S_XHS | I/O | Horizontal sync signal | 1.8V |
| 20 | TEST2 | - | Test point | - |
| 21 | S_XVS | I/O | Vertical sync signal | 1.8V |
| 22 | TEST4 | - | Test point | - |
| 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 |

- REVISION HISTORY

| Revision | Description | Release Date |
|----------|---------------------|--------------|
| 1.0 | First release. | 20 May 2026 |
| 1.1 | Updated dimensions. | 26 Jun 2026 |

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