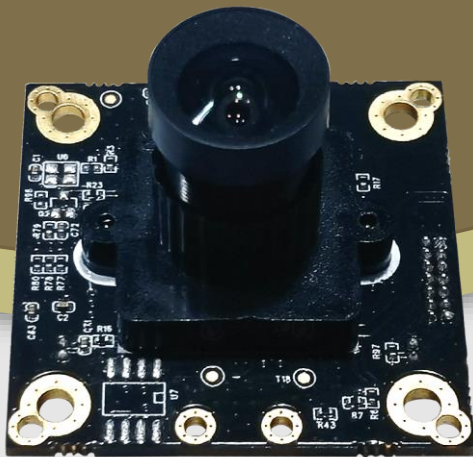




LEOPARD
IMAGING

LI-IMX185-MIPI-M12



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INTRODUCTION

The LI-IMX185-MIPI-M12 is equipped with Sony diagonal high sensitivity, low dark current 8.58 mm CMOS solid-state image sensor IMX185. This camera outputs RAW data.

SPECIFICATIONS

| | |
|--------------------|--|
| Sensor | Sony Diagonal 8.58 mm Type 1/1.9 CMOS Image Sensor IMX185LQJ |
| Optical Format | 1/1.9" |
| Resolution | 1937 (H) x 1217 (V) (active pixels) |
| Pixel Size | 3.75 x 3.75 μm |
| Color / Mono | Color sensor |
| Output Format | 12-bit / 10-bit RAW data |
| Maximum Frame Rate | 120 fps @ 1080p-HD |
| ISP | Not included |
| Color / Mono | Color sensor |
| Interface | 4-lane MIPI CSI-2 |
| Power Consumption | TBD |
| Operating Temp | TBD |
| Storage Temp | TBD |
| Weight | ~ 12 g |
| Part# | LI-IMX185-MIPI-M12 |

APPLICATIONS

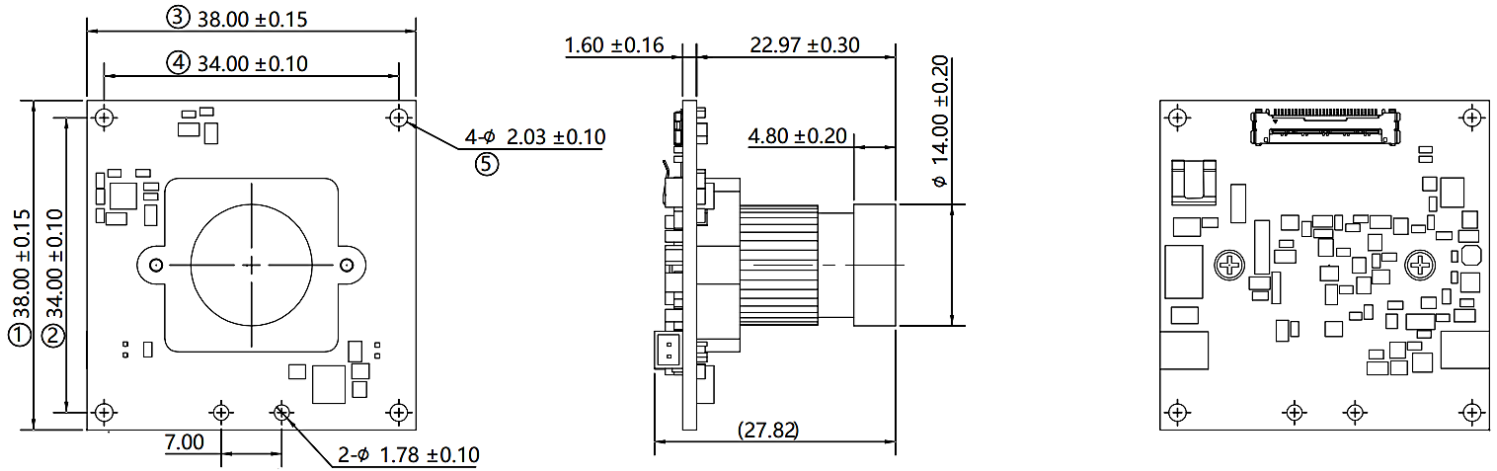
- Surveillance Cameras
- FA Cameras
- Industrial Cameras

LENS SPECIFICATIONS

| | |
|------------------------|----------------------|
| Effective Focal Length | 4.2 mm \pm 5% |
| Aperture, F/# | 2.5 |
| Field of View (FOV) | 82° horizontal |
| Optical Distortion | -1.2% |
| Relative Illumination | 40% |
| 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 | | | | |

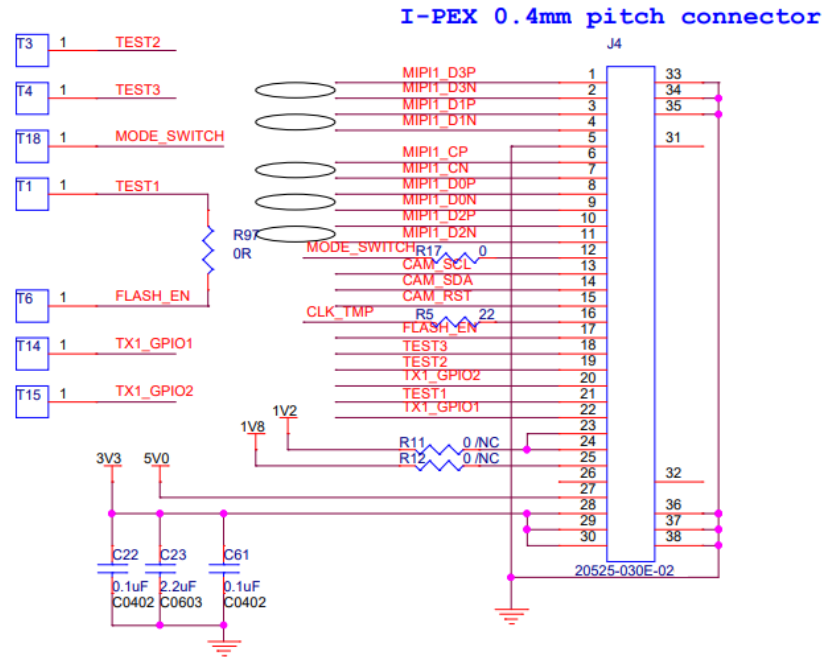
NOTE:

- ⊗ marked are important sizes.
- Tolerances for the unmarked – refer to the Tolerance table.
- All materials are compliant with RoHS & REACH requirements.

Unit: mm

INTERFACE J4

- Connector Part#: 20525-030E-02
- Number of Positions: 30
- Pitch: 0.4 mm
- Mating I-PEX Cable: FAW-1233
- Sensor I2C Address: 0x1A (7-bit)
- External Power Supply: 3.3V, 5.0V
- 3V3, 1V8, 1V2 are generated from board.



INTERFACE J3 & J6

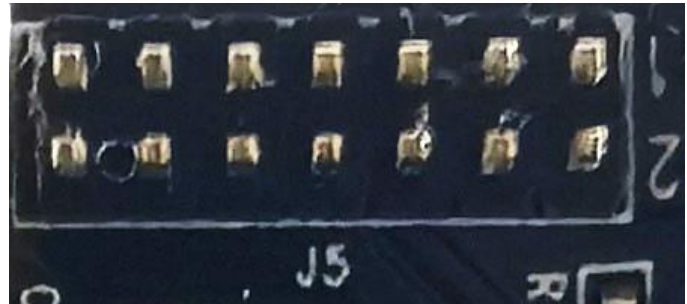
| Interfaces | Description |
|------------------------|--|
| J3 for IR-Cut switcher | <ul style="list-style-type: none"> ■ Part#: 1734829-2 ■ Number of Positions: 2 ■ Pitch: 1.25 mm |
| J6 for Flash_EN | <ul style="list-style-type: none"> ■ Part#: 1734829-2 ■ Number of Positions: 2 ■ Pitch: 1.25 mm |



● INTERFACE J5 (14-Pin Header to Lens Control Board)

- Part#:20021111-00014T4LF
- Number of Positions: 14
- Pitch: 1.27 mm

| Pin | Definition |
|---------------------|-------------|
| Pin 1, 3, 8, 13, 14 | GND |
| Pin 2, 4 | 3V3 |
| Pin 5 | TX1_GPIO1 |
| Pin 6 | 1V8 |
| Pin 7 | TEST1 |
| Pin 9 | TEST2 |
| Pin 10 | CAM_SCL_3V3 |
| Pin 11 | TEST3 |
| Pin 12 | CAM_SDA_3V3 |



● DIP SWITCH FOR MODE SELECTION

- Two modes: Master (default) and Slave.



Master mode
by default

● REVISION HISTORY

| Revision | Description | Release Date |
|----------|--|--------------|
| 1.0 | First release. | 25 Dec 2019 |
| 1.1 | Deleted info quoted from sensor spec. | 26 May 2022 |
| 1.2 | 1. Updated lens and related product pics and 2D. 2. Updated interface J3, J4, J5, J6 and DIPSWITCH. | 06 Dec 2023 |

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