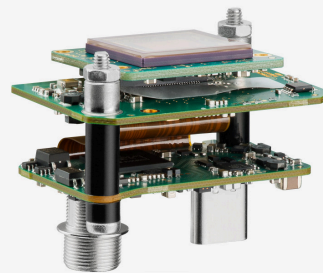
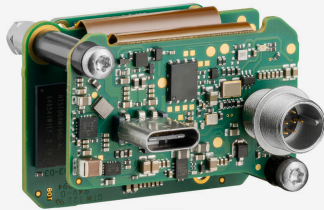
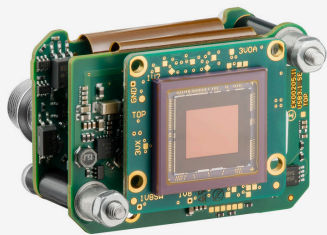


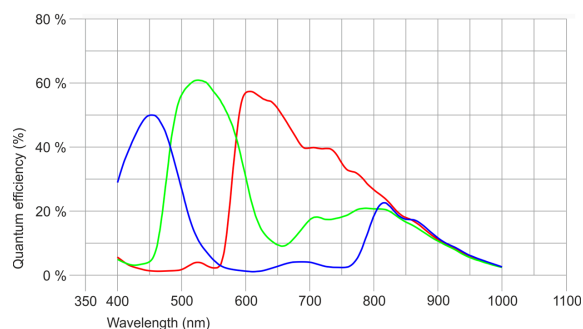
Not recommended for new designs  
The camera model is no longer recommended for new application development.



## Specification

### Sensor

|                                         |                                           |
|-----------------------------------------|-------------------------------------------|
| Sensor type                             | CMOS Color                                |
| Shutter                                 | Global Shutter                            |
| Sensor characteristic                   | Linear                                    |
| Pixel Class                             | 5 MP                                      |
| Resolution                              | 5.04 Mpix                                 |
| Resolution (h x v)                      | 2456 x 2054 Pixel                         |
| Aspect ratio                            | 5:4                                       |
| ADC                                     | 12 bit                                    |
| Color depth (camera)                    | 12 bit                                    |
| Optical sensor class                    | 2/3"                                      |
| Optical Size                            | 8.473 mm x 7.086 mm                       |
| Optical sensor diagonal                 | 11.05 mm 2/3"                             |
| Pixel size                              | 3.45 µm                                   |
| CRA (Chief Ray Angle)                   | 0 °                                       |
| Manufacturer                            | Sony                                      |
| Sensor Model                            | IMX250LQR-C                               |
| Gain (master/RGB)                       | 24x/4x                                    |
| AOI horizontal                          | same frame rate                           |
| AOI vertical                            | increased frame rate                      |
| AOI image width / step width            | 256 / 8                                   |
| AOI image height / step width           | 4 / 2                                     |
| AOI position grid (horizontal/vertical) | 4 / 2                                     |
| Binning horizontal                      | same frame rate                           |
| Binning vertical                        | same frame rate                           |
| Binning method                          | Horizontal: addition / Vertical: addition |
| Binning factor                          | 2                                         |
| Decimation (subsampling) horizontal     | same frame rate                           |
| Decimation (subsampling) vertical       | increased frame rate                      |
| Decimation (subsampling) method         | M/C automatic                             |



### Model

|                                   |                                                                          |
|-----------------------------------|--------------------------------------------------------------------------|
| Pixel clock range                 | 80 MHz - 474 MHz                                                         |
| Frame rate freerun mode           | 77 fps                                                                   |
| Frame rate trigger (continuous)   | 77 fps                                                                   |
| Frame rate trigger (maximum)      | 86 fps                                                                   |
| Exposure time (minimum - maximum) | 0.019 ms - 999 ms                                                        |
| Long exposure (maximum)           | 30000 ms                                                                 |
| Power consumption                 | 1.6 W - 3.7 W                                                            |
| Image memory                      | 128 MB                                                                   |
| Special features                  | IDS line scan mode<br>Overlap trigger<br>Sensor source gain<br>Multi-AOI |

### Ambient conditions

For PCB versions, refer to the separate hints in the respective documentation.

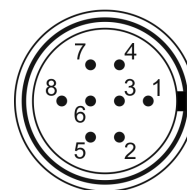
|                                             |                                 |
|---------------------------------------------|---------------------------------|
| Allowed device temperature during operation | 0 °C - 55 °C / 32 °F - 131 °F   |
| Allowed device temperature during storage   | -20 °C - 60 °C / -4 °F - 140 °F |
| Humidity (relative, non-condensing)         | 20 % - 80 %                     |

### Connectors

|                     |                                           |
|---------------------|-------------------------------------------|
| Interface connector | USB Type-C                                |
| I/O connector       | 8-pin Hirose connector (HR25-7TR-8PA(73)) |
| Power supply        | USB cable                                 |

### Pin assignment I/O connector

|   |                                             |
|---|---------------------------------------------|
| 1 | Ground (GND)                                |
| 2 | Flash output with optocoupler (-)           |
| 3 | General Purpose I/O (GPIO) 1, 3.3 V         |
| 4 | Trigger input with optocoupler (-)          |
| 5 | Flash output with optocoupler (+)           |
| 6 | General Purpose I/O (GPIO) 2, 3.3 V         |
| 7 | Trigger input with optocoupler (+)          |
| 8 | Voltage output (USB Power Delivery), 5-15 V |



### Design

|                  |                             |
|------------------|-----------------------------|
| Lens Mount       | No mount                    |
| IP code          | -                           |
| Dimensions H/W/L | 29.5 mm x 40.0 mm x 25.0 mm |
| Mass             | 20 g                        |
| Housing material | -                           |

### Features

List of on-camera image pre-processing features.

All features of the table are available via our IDS peak software for image pre-processing on the host computer (sensor model dependent).

#### Image Acquisition

|                             |   |
|-----------------------------|---|
| Freerun                     | ✓ |
| Software trigger            | - |
| Hardware trigger            | ✓ |
| Trigger controlled exposure | - |
| Denoiser                    | - |
| Long exposure               | ✓ |
| Line scan                   | ✓ |

Subject to technical modifications (2026-09-11)

## UI-3082SE-C (AB00989)

|                           |                                |      |
|---------------------------|--------------------------------|------|
| Flashing                  | Flashing                       | -    |
|                           | PWM flashing                   | -    |
| Image Adjustments         | Auto exposure                  | -    |
|                           | Auto gain                      | -    |
|                           | Auto whitebalance              | -    |
|                           | Color correction               | -    |
|                           | Gamma                          | -    |
|                           | LUT                            | -    |
| On-board Image Processing | Mirror/flip                    | -    |
|                           | Pixel formats                  |      |
|                           | Region of interest             | ✓    |
|                           | Decimation (FPGA)              | -    |
|                           | Decimation (Sensor)            |      |
| Others                    | Binning (FPGA)                 | -    |
|                           | Chunks                         | -    |
|                           | Sequencer                      | -    |
|                           | Firmware update                | -    |
|                           | 1st supported firmware version | 4.90 |