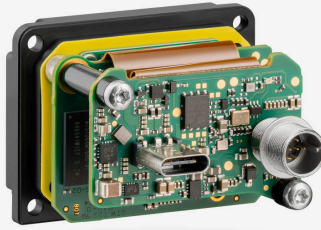
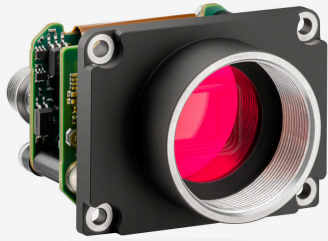


**In series**

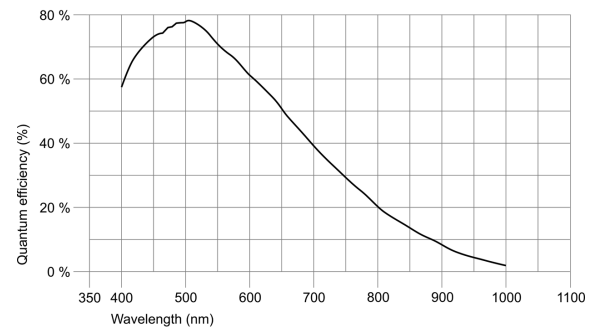
The model is in series and available for the long term.



## Specification

### Sensor

|   |                       |
|---|-----------------------|
| Sensor type                             | CMOS Mono             |
| Shutter                                 | Global Shutter        |
| Sensor characteristic                   | Linear                |
| Readout mode                            | Progressive scan      |
| Pixel Class                             | 2 MP                  |
| Resolution                              | 2.30 Mpix             |
| Resolution (h x v)                      | 1920 x 1200 Pixel     |
| Aspect ratio                            | 16:10                 |
| ADC                                     | 12 bit                |
| Color depth (camera)                    | 12 bit                |
| Optical sensor class                    | 1/1.2"                |
| Optical Size                            | 11.251 mm x 7.032 mm) |
| Optical sensor diagonal                 | 13.27 mm (1/1.21")    |
| Pixel size                              | 5.86 µm               |
| Manufacturer                            | Sony                  |
| Sensor Model                            | IMX174LLJ-C           |
| Gain (master/RGB)                       | 24x/4x                |
| AOI horizontal                          | same frame rate       |
| AOI vertical                            | increased frame rate  |
| AOI image width / step width            | 96 / 8                |
| AOI image height / step width           | 1 / 1                 |
| AOI position grid (horizontal/vertical) | 8 / 1                 |
| Binning horizontal                      | same frame rate       |
| Binning vertical                        | same frame rate       |
| Binning method                          | M/C automatic         |
| Binning factor                          | 2 / 4 / 8             |
| Subsampling horizontal                  | same frame rate       |
| Subsampling vertical                    | same frame rate       |
| Subsampling method                      | M/C automatic         |
| Subsampling factor                      | 2, 4, 8               |



## Model

|                                   |                    |
|-----------------------------------|--------------------|
| Frame rate freerun mode           | 161 fps            |
| Frame rate trigger (continuous)   | 161 fps            |
| Frame rate trigger (maximum)      | 164 fps            |
| Exposure time (minimum - maximum) | 0.039 ms - 2000 ms |
| Long exposure (maximum)           | 60000 ms           |
| Power consumption                 | 1.7 W - 3.4 W      |
| Image memory                      | 128 MB             |

## 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 (-) - Line 1   |
| 3 | General Purpose I/O (GPIO) 1, 3.3 V - Line 2 |
| 4 | Trigger input with optocoupler (-) - Line 0  |
| 5 | Flash output with optocoupler (+) - Line 1   |
| 6 | General Purpose I/O (GPIO) 2, 3.3 V - Line 3 |
| 7 | Trigger input with optocoupler (+) - Line 0  |
| 8 | Output supply voltage, 5 V (100 mA)          |



## Design

|                  |                             |
|------------------|-----------------------------|
| Lens Mount       | C-Mount                     |
| IP code          | -                           |
| Dimensions H/W/L | 34.0 mm x 44.0 mm x 31.0 mm |
| Mass             | 46 g                        |

## Features

### Image Acquisition

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

### Flashing

|              |   |
|--------------|---|
| Flashing     | ✓ |
| PWM flashing | ✓ |

|                                |                     |   |
|--------------------------------|---------------------|---|
| Image Adjustments              | Auto exposure       | ✓   |
|                                | Auto gain           | ✓   |
|                                | Auto whitebalance   | -   |
|                                | Color correction    | -   |
|                                | Gamma               | ✓   |
|                                | LUT                 | ✓   |
|                                | Mirror/flip         | X/Y   |
| On-board Image Processing      | Pixel formats       | Mono8<br>Mono10<br>Mono10p<br>Mono12<br>Mono12p |
|                                | Region of interest  | ✓   |
|                                | Decimation (FPGA)   | ✓   |
|                                | Decimation (Sensor) | -   |
|                                | Binning (FPGA)      | ✓   |
|                                | Binning (Sensor)    | -   |
|                                | Others              | Chunks  |
| Sequencer                      |                     | ✓   |
| Events                         |                     | ✓   |
| Firmware update                |                     | ✓   |
| 1st supported firmware version |                     | 2.20.17746                                      |



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