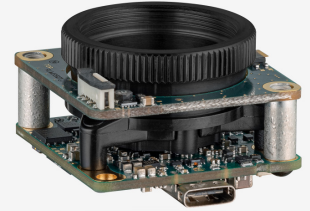
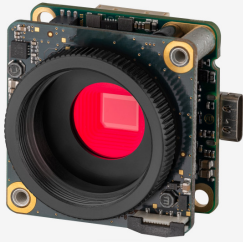


**In series**

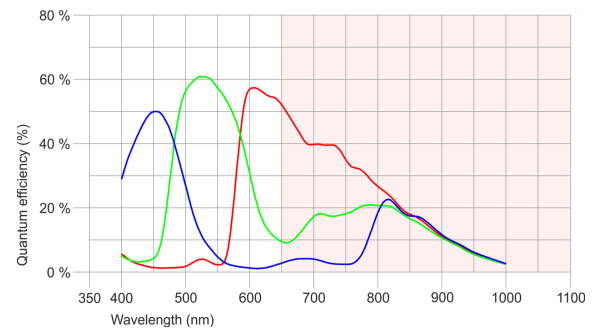
The model is in series and available for the long term.



## Specification

### Sensor

|                                         |                      |
|-----------------------------------------|----------------------|
| Sensor type                             | CMOS Color           |
| Shutter                                 | Global Shutter       |
| Sensor characteristic                   | Linear               |
| Readout mode                            | Progressive scan     |
| Pixel Class                             | 3 MP                 |
| Resolution                              | 3.19 Mpix            |
| Resolution (h x v)                      | 2064 x 1544 Pixel    |
| Aspect ratio                            | 4:3                  |
| ADC                                     | 12 bit               |
| Color depth (camera)                    | 12 bit               |
| Optical sensor class                    | 1/1.8"               |
| Optical Size                            | 7.121 mm x 5.327 mm  |
| Optical sensor diagonal                 | 8.89 mm (1/1.8")     |
| Pixel size                              | 3.45 $\mu$ m         |
| Manufacturer                            | Sony                 |
| Sensor Model                            | IMX265LQR-C          |
| Gain (master/RGB)                       | 24x/4x               |
| AOI horizontal                          | same frame rate      |
| AOI vertical                            | increased frame rate |
| AOI image width / step width            | 265 / 8              |
| AOI image height / step width           | 2 / 2                |
| AOI position grid (horizontal/vertical) | 8 / 2                |
| Binning horizontal                      | -                    |
| Binning vertical                        | -                    |
| Binning method                          | -                    |
| Binning factor                          | -                    |
| 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 (in 8-bit mode) | 58 fps             |
| Frame rate trigger (continuous)         | 58 fps             |
| Frame rate trigger (maximum)            | 58 fps             |
| Exposure time (minimum - maximum)       | 0.025 ms - 1900 ms |
| Long exposure (maximum)                 | 90000 ms           |
| Power consumption                       | 1 W - 2 W          |

## Ambient conditions

The temperature values given below refer to the outer device temperature of the camera housing.  
For PCB versions, refer to the separate hints in the respective documentation.

|                                     |                                 |
|-------------------------------------|---------------------------------|
| Device temperature during operation | 0 °C - 55 °C / 32 °F - 131 °F   |
| Device temperature during storage   | -20 °C - 80 °C / -4 °F - 176 °F |
| Humidity (relative, non-condensing) | 20 % - 80 %                     |

## Connectors

|                     |                                          |
|---------------------|------------------------------------------|
| Interface connector | USB Type-C                               |
| I/O connector       | 10-pin Wuerth connector (WR-WTB 1.00 mm) |
| Power supply        | USB cable                                |

## Pin assignment I/O connector

|    |                                                                |
|----|----------------------------------------------------------------|
| 1  | Voltage output 5 V, max. 400 mA                                |
| 2  | Ground (GND)                                                   |
| 3  | General Purpose I/O (GPIO) 2, 3.3 V - Line 3                   |
| 4  | General Purpose I/O (GPIO) 1, 3.3 V - Line 2                   |
| 5  | I2C clock signal - requires USB3 Vision Firmware 3.2 or higher |
| 6  | I2C data signal - requires USB3 Vision Firmware 3.2 or higher  |
| 7  | Trigger input without optocoupler 3.3 V - Line 0               |
| 8  | Flash output without optocoupler 3.3 V - Line 1                |
| 9  | Ground (GND)                                                   |
| 10 | Voltage output 3.3 V                                           |



## Design

|                  |                             |
|------------------|-----------------------------|
| Lens Mount       | CS- / C-Mount               |
| IP code          | -                           |
| Dimensions H/W/L | 36.0 mm x 36.0 mm x 20.0 mm |
| Mass             | 20 g                        |

## Features

|                   |                             |   |
|-------------------|-----------------------------|---|
| Image Acquisition | Freerun                     | ✓ |
|                   | Software trigger            | ✓ |
|                   | Hardware trigger            | ✓ |
|                   | Trigger controlled exposure | ✓ |
|                   | Denoiser                    | ✓ |
|                   | Long exposure               | ✓ |
|                   | Line scan                   | - |
|                   | Line scan highspeed         | - |
| Flashing          | Flashing                    | ✓ |
|                   | PWM flashing                | - |

Subject to technical modifications (2023-08-08)

|                           |                                |                                                                |
|---------------------------|--------------------------------|----------------------------------------------------------------|
| Image Adjustments         | Auto exposure                  | -                                                              |
|                           | Auto gain                      | -                                                              |
|                           | Auto whitebalance              | -                                                              |
|                           | Color correction               | -                                                              |
|                           | Gamma                          | -                                                              |
|                           | LUT                            | -                                                              |
|                           | Mirror/flip                    | X/Y                                                            |
| On-board Image Processing | Pixel formats                  | BayerRG8<br>BayerRG10p<br>BayerRG12<br>BayerRG12p<br>BayerRG10 |
|                           | Region of interest             | ✓                                                              |
|                           | Decimation (FPGA)              | ✓                                                              |
|                           | Decimation (Sensor)            | -                                                              |
|                           | Binning (FPGA)                 | -                                                              |
|                           | Binning (Sensor)               | -                                                              |
|                           | Others                         | Chunks                                                         |
|                           | Sequencer                      | -                                                              |
|                           | Events                         | -                                                              |
|                           | Firmware update                | ✓                                                              |
|                           | 1st supported firmware version | 2.20                                                           |