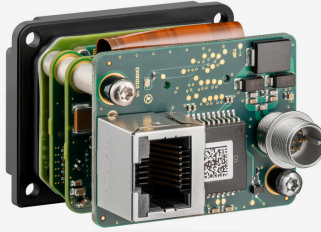


### In series

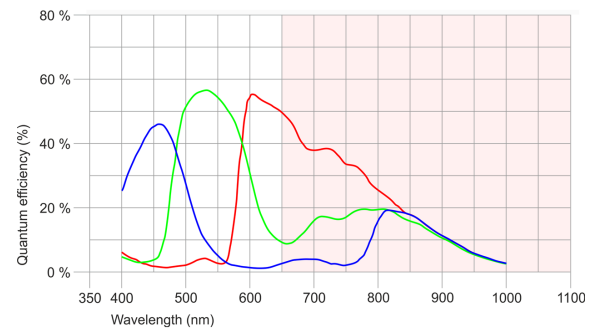
The model is in series and available for the long term.



## Specification

### Sensor

|   |                      |
|---|----------------------|
| Sensor type                             | CMOS Color           |
| Shutter                                 | Global Shutter       |
| Sensor characteristic                   | Linear               |
| Readout mode                            | Progressive scan     |
| Pixel Class                             | 1.6 MP               |
| Resolution                              | 1.58 Mpix            |
| Resolution (h x v)                      | 1456 x 1088 Pixel    |
| Aspect ratio                            | 4:3                  |
| ADC                                     | 12 bit               |
| Color depth (camera)                    | 12 bit               |
| Optical sensor class                    | 1/3"                 |
| Optical Size                            | 5.023 mm x 3.754 mm) |
| Optical sensor diagonal                 | 6.27 mm (1/2.55")    |
| Pixel size                              | 3.45 µm              |
| Manufacturer                            | Sony                 |
| Sensor Model                            | IMX273LQR-C          |
| Gain (master/RGB)                       | 24x/4x               |
| AOI horizontal                          | same frame rate      |
| AOI vertical                            | increased frame rate |
| AOI image width / step width            | 264 / 8              |
| AOI image height / step width           | 2 / 2                |
| AOI position grid (horizontal/vertical) | 8 / 2                |
| 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           | 78 fps             |
| Frame rate trigger (continuous)   | 78 fps             |
| Frame rate trigger (maximum)      | 81 fps             |
| Exposure time (minimum - maximum) | 0.025 ms - 2000 ms |
| Long exposure (maximum)           | 90000 ms           |
| Power consumption                 | 1.1 W - 3.5 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 | GigE RJ45                                 |
| I/O connector       | 8-pin Hirose connector (HR25-7TR-8PA(73)) |
| Power supply        | 12 V - 24 V or PoE                        |

## Pin assignment I/O connector

|   |   |
|---|---|
| 1 | Ground (GND)                                |
| 2 | Flash output with optocoupler (-) - Line 1  |
| 3 | General Purpose I/O (GPIO) 1 - Line 2       |
| 4 | Trigger input with optocoupler (-) - Line 0 |
| 5 | Flash output with optocoupler (+) - Line 1  |
| 6 | General Purpose I/O (GPIO) 2                |
| 7 | Trigger input with optocoupler (+) - Line 0 |
| 8 | Input power supply (VCC) 12-24 V DC         |



## Design

|                  |                             |
|------------------|-----------------------------|
| Lens Mount       | C-Mount                     |
| IP code          | -                           |
| Dimensions H/W/L | 34.0 mm x 44.0 mm x 35.0 mm |
| Mass             | 61 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                    | -   |
| On-board Image Processing | Pixel formats                  | Mono8<br>BayerRG8<br>BayerRG10<br>BayerRG10p<br>BayerRG12<br>BayerRG12p<br>BGR8<br>RGB8<br>BGR10p32<br>RGB10p32 |
|                           | Region of interest             | ✓   |
|                           | Decimation (FPGA)              | ✓   |
|                           | Decimation (Sensor)            | -   |
|                           | Binning (FPGA)                 | ✓   |
|                           | Binning (Sensor)               | -   |
|                           |                                |   |
| Others                    | IP settings                    | ✓   |
|                           | Bandwidth management           | ✓   |
|                           | Chunks                         | ✓   |
|                           | Sequencer                      | ✓   |
|                           | PTP                            | ✓   |
|                           | Firmware update                | ✓   |
|                           | 1st supported firmware version | 2.10  |
|                           |                                |   |



**VISION CONSULTANCY**  
MAKING THE UNSEEN VISIBLE

Thank you for downloading this document from  
[www.machine-vision-shop.com](http://www.machine-vision-shop.com)

If you have any questions, you need help composing the  
right package for your application or do you want to order?

Feel free to contact us via e-mail at [sales@vision-consultancy.nl](mailto:sales@vision-consultancy.nl) or visit our webshop.

Our vision experts are happy to help you.



Natascha Overhof



Christian Cromptoets



**VISION CONSULTANCY**

Robert Schumandomein 2  
6229 ES Maastricht  
The Netherlands

+31 (0) 438 522 651

[sales@vision-consultancy.nl](mailto:sales@vision-consultancy.nl)

Scan me to visit  
[machine-vision-shop](http://machine-vision-shop)

