

In series

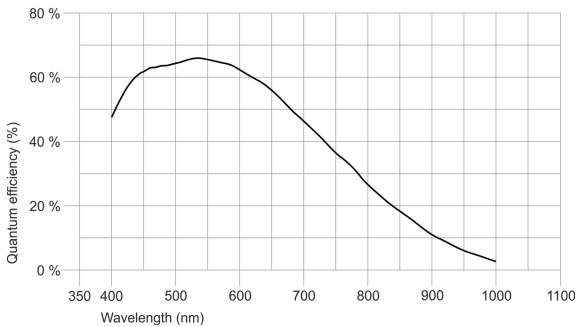
The model is in series and available for the long term.



Specification

Sensor

|                                         |                       |
|-----------------------------------------|-----------------------|
| Sensor type                             | CMOS Mono             |
| Shutter                                 | Global Shutter        |
| Sensor characteristic                   | Linear                |
| Readout mode                            | Progressive scan      |
| Pixel Class                             | 12 MP                 |
| Resolution                              | 12.29 Mpix            |
| Resolution (h x v)                      | 4096 x 3000 Pixel     |
| Aspect ratio                            | 4:3                   |
| ADC                                     | 12 bit                |
| Color depth (camera)                    | 12 bit                |
| Optical sensor class                    | 1.1"                  |
| Optical Size                            | 14.131 mm x 10.350 mm |
| Optical sensor diagonal                 | 17.52 mm              |
| Pixel size                              | 3.45 µm               |
| Manufacturer                            | Sony                  |
| Sensor Model                            | IMX253MZR-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 (in 8-bit mode) | 10 fps             |
| Frame rate trigger (continuous)         | 10 fps             |
| Frame rate trigger (maximum)            | 10 fps             |
| Exposure time (minimum - maximum)       | 0.046 ms - 2000 ms |
| Long exposure (maximum)                 | 90000 ms           |
| Power consumption                       | 2 W - 4 W          |
| Image memory                            | 128 MB             |

Ambient conditions

The temperature values given below refer to the outer device temperature of the camera housing.

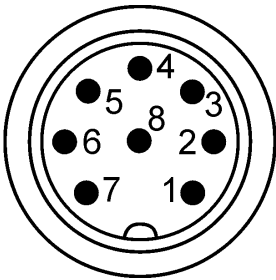
|                                     |                                 |
|-------------------------------------|---------------------------------|
| Device temperature during operation | 0 °C - 55 °C / 32 °F - 131 °F   |
| Device temperature during storage   | -20 °C - 60 °C / -4 °F - 140 °F |
| Humidity (relative, non-condensing) | 0 % - 100 %                     |

Connectors

|                     |                                                            |
|---------------------|------------------------------------------------------------|
| Interface connector | GigE M12, screwable                                        |
| I/O connector       | 8-pin Binder connector (Binder series 712: 09-0427-020-08) |
| Power supply        | 12 V - 24 V or PoE                                         |

Pin assignment I/O connector

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



Design

|                  |                             |
|------------------|-----------------------------|
| Lens Mount       | C-Mount                     |
| IP code          | IP65/67                     |
| Dimensions H/W/L | 41.0 mm x 53.0 mm x 42.7 mm |
| Mass             | 173 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>Mono10<br>Mono10p<br>Mono12<br>Mono12p<br>RGB8 |
|                           | 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 | 2.11                                                    |