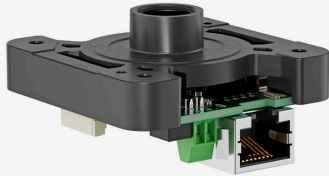
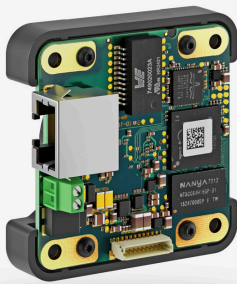
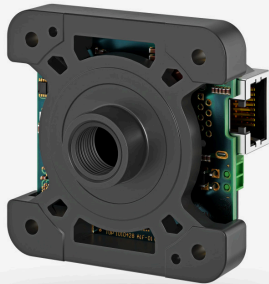


In development

The model is not yet in series production, but will be introduced shortly.



Specification

- PRELIMINARY -

Sensor

|                                         |                      |
|-----------------------------------------|----------------------|
| Sensor type                             | CMOS Mono            |
| Shutter                                 | Rolling shutter      |
| Sensor characteristic                   | Linear               |
| Readout mode                            | -                    |
| Pixel Class                             | 8 MP                 |
| Resolution                              | 8.39 Mpix            |
| Resolution (h x v)                      | 3856 x 2176 Pixel    |
| Aspect ratio                            | 16:9                 |
| ADC                                     | 12 bit               |
| Color depth (camera)                    | 12 bit               |
| Optical sensor class                    | 1/1.8"               |
| Optical Size                            | 7.712 mm x 4.352 mm  |
| Optical sensor diagonal                 | 8.86 mm (1/1.81")    |
| Pixel size                              | 2 µm                 |
| Manufacturer                            | Sony                 |
| Sensor Model                            | IMX678-AAMR1-C       |
| Gain (master/RGB)                       | 31.6x/-              |
| AOI horizontal                          | same frame rate      |
| AOI vertical                            | increased frame rate |
| AOI image width / step width            | 1056 / 2             |
| AOI image height / step width           | 1 / 1                |
| AOI position grid (horizontal/vertical) | 2 / 1                |
| Binning horizontal                      | increased frame rate |
| Binning vertical                        | increased frame rate |
| Binning method                          |                      |
| Binning factor                          | -                    |
| Subsampling horizontal                  |                      |
| Subsampling vertical                    |                      |
| Subsampling method                      | M/C automatic        |
| Subsampling factor                      | -                    |

Subject to technical modifications (2025-06-06)

## Model

|                                   |                    |
|-----------------------------------|--------------------|
| Frame rate freerun mode           | 14 fps             |
| Frame rate trigger (continuous)   | 14 fps             |
| Frame rate trigger (maximum)      | 17 fps             |
| Exposure time (minimum - maximum) | 0.026 ms - 1999 ms |
| Long exposure (maximum)           | 119978 ms          |
| Power consumption                 | 2.3 W - 3.6 W      |

## Ambient conditions

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

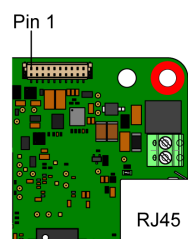
|                                              |                                 |
|----------------------------------------------|---------------------------------|
| Allowed device temperature during operation  | 0 °C - 85 °C / 32 °F - 185 °F   |
| Allowed ambient temperature during operation | 0 °C - 40 °C / 32 °F - 104 °F   |
| Allowed ambient 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       | 10-pin Wuerth connector (WR-WTB 1.00 mm) |
| Power supply        | 12 V - 24 V                              |

## Pin assignment I/O connector

|    |                                                  |
|----|--------------------------------------------------|
| 1  | Power supply (VCC) 12-24 V                       |
| 2  | Power supply, ground                             |
| 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 SCL (signal clock) 3.3 V                     |
| 6  | I2C SDA (signal data) 3.3 V                      |
| 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, max. 100 mA                |



## Design

|                  |                             |
|------------------|-----------------------------|
| Lens Mount       | S-Mount                     |
| IP code          | -                           |
| Dimensions H/W/L | 50.0 mm x 50.0 mm x 28.5 mm |
| Mass             | 30 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                   | - |
|                   | Global start                | - |

Subject to technical modifications (2025-06-06)

## 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)    | 2x2<br>Increases frame rate.                    |

## Others

|                                |   |
|--------------------------------|---|
| IP settings                    | ✓ |
| Bandwidth management           | ✓ |
| Chunks                         | - |
| Sequencer                      | - |
| PTP                            | ✓ |
| Firmware update                | ✓ |
| 1st supported firmware version |   |