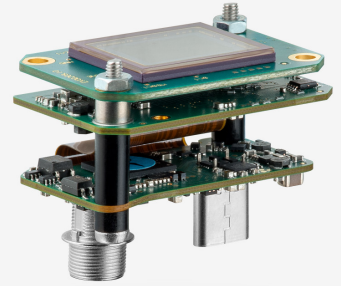
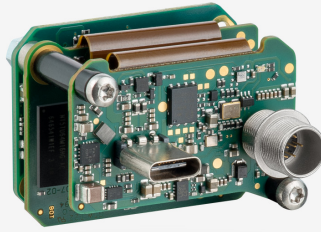
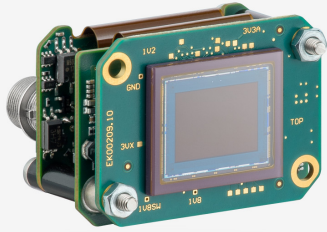


### In series

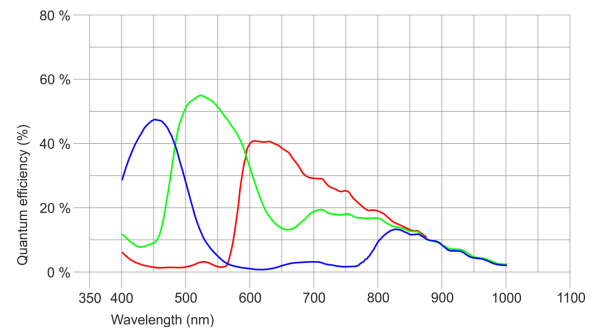
The model is in series and available for the long term.



## Specification

### Sensor

Sensor type	CMOS Color
Shutter	Global Shutter
Sensor characteristic	Linear
Readout mode	Progressive scan
Pixel Class	16 MP
Resolution	16.20 Mpix
Resolution (h x v)	5328 x 3040 Pixel
Aspect ratio	16:9
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1.1"
Optical Size	14.599 mm x 8.330 mm
Optical sensor diagonal	16.81 mm
Pixel size	2.74 $\mu$ m
Micro lens shift	0.00
Manufacturer	Sony
Sensor Model	IMX542-AAQJ-C
Gain (master/RGB)	-/-
AOI horizontal	same frame rate
AOI vertical	increased frame rate
AOI image width / step width	256 / 2
AOI image height / step width	2 / 2
AOI position grid (horizontal/vertical)	2 / 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



Subject to technical modifications (2024-01-17)

## Model

Frame rate freerun mode (in 8-bit mode)	25 fps
Frame rate trigger (continuous)	25 fps
Frame rate trigger (maximum)	26 fps
Exposure time (minimum - maximum)	0.015 ms - 2000 ms
Long exposure (maximum)	120000 ms
Power consumption	1.6 W - 4.4 W
Image memory	128 MB

## 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 - 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	-
IP code	-
Dimensions H/W/L	29.5 mm x 40.0 mm x 25.0 mm
Mass	22 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 (2024-01-17)

Image Adjustments

Auto exposure	✓
Auto gain	✓
Auto whitebalance	✓
Color correction	✓
Gamma	✓
LUT	✓
Mirror/flip	X/Y

On-board Image Processing

Pixel formats	Mono8 BayerRG8 BayerRG10 BayerRG10p BayerRG12 BayerRG12p BGR8 RGB8 BGR10p32 RGB10p32
Region of interest	✓
Decimation (FPGA)	✓
Decimation (Sensor)	2x2
Binning (FPGA)	✓
Binning (Sensor)	-

Others

Chunks	✓
Sequencer	✓
Events	✓
Firmware update	✓
1st supported firmware version	3.x