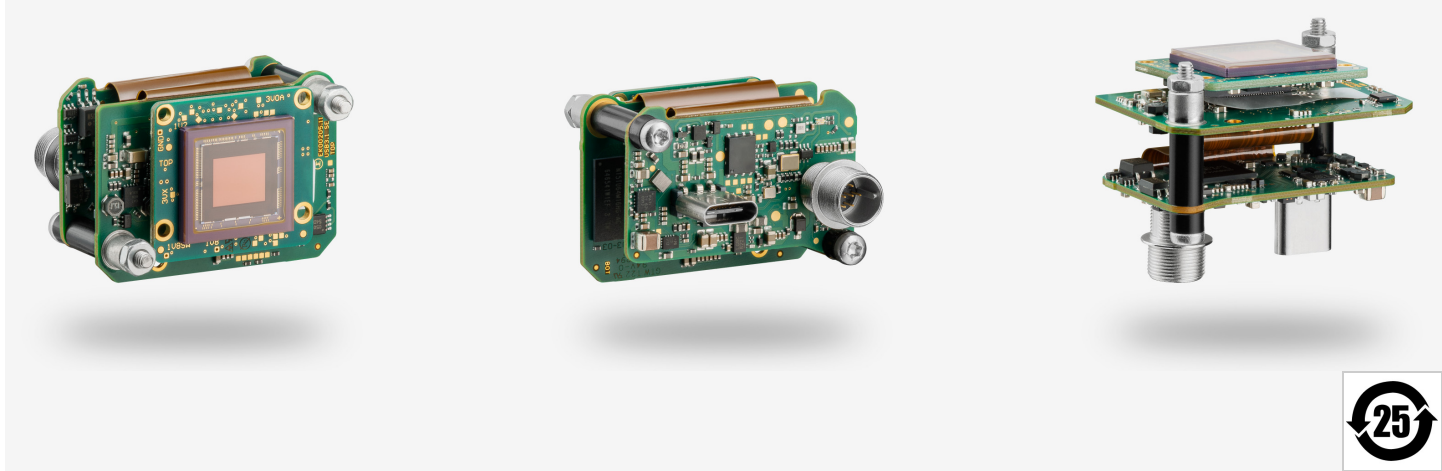


In series

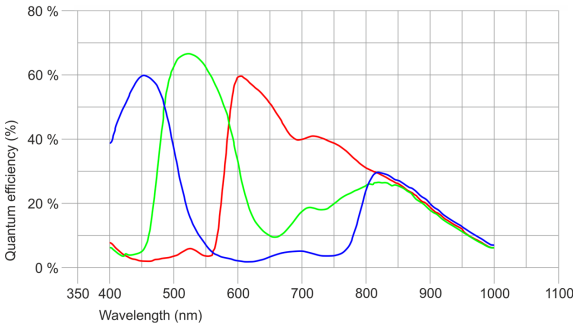
The model is in series and available for the long term.



Specification

Sensor

Sensor type	CMOS Color
Shutter	Rolling shutter
Sensor characteristic	Linear
Readout mode	Progressive scan
Pixel Class	2 MP
Resolution	2.12 Mpix
Resolution (h x v)	1936 x 1096 Pixel
Aspect ratio	16:9
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1/3"
Optical Size	5.614 mm x 3.178 mm
Optical sensor diagonal	6.45 mm (1/2.48")
Pixel size	2.9 μm
Micro lens shift	0.00
Manufacturer	Sony
Sensor Model	IMX290LQR-C
Gain (master/RGB)	20x/5x
AOI horizontal	same frame rate
AOI vertical	increased frame rate
AOI image width / step width	32 / 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)	135 fps
Frame rate trigger (continuous)	67 fps
Frame rate trigger (maximum)	67 fps
Exposure time (minimum - maximum)	0.011 ms - 1735 ms
Long exposure (maximum)	120000 ms
Power consumption	1.6 W - 2.8 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.

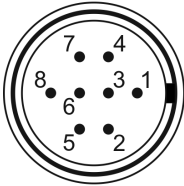
Device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Device temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	20 % - 80 %

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	19 g

Features

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

Subject to technical modifications (2024-05-10)



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)	-
	Binning (FPGA)	✓
	Binning (Sensor)	-
Others	Chunks	✓
	Sequencer	-
	Events	✓
	Firmware update	✓
	1st supported firmware version	2.20.17746