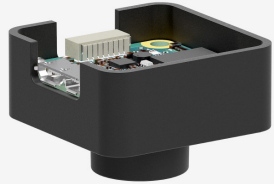
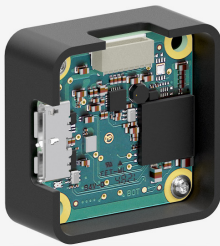


In series

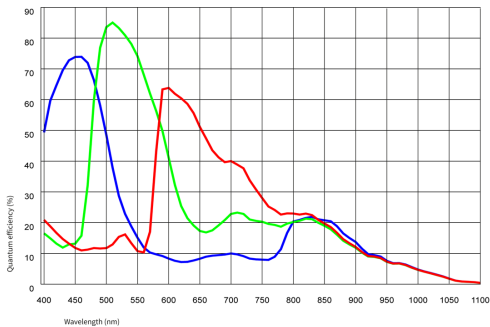
The model is in series and available for the long term.



Specification

Sensor

Sensor type	CMOS Color
Shutter	Rolling shutter
Sensor characteristic	Linear
Readout mode	Progressive scan
Pixel Class	5 MP
Resolution	5.04 Mpix
Resolution (h x v)	2592 x 1944 Pixel
Aspect ratio	4:3
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1/2.5"
Optical Size	5.702 mm x 4.277 mm
Optical sensor diagonal	7.13 mm (1/2.24")
Pixel size	2.2 µm
Micro lens shift	9.00
Manufacturer	Onsemi
Sensor Model	AR0521SR2C09SURA0
Gain (master/RGB)	15x/8x
AOI horizontal	same frame rate
AOI vertical	increased frame rate
AOI image width / step width	48 / 12
AOI image height / step width	4 / 2
AOI position grid (horizontal/vertical)	8 / 2
Binning horizontal	same frame rate
Binning vertical	increased frame rate
Binning method	Color
Binning factor	2
Subsampling horizontal	same frame rate
Subsampling vertical	increased frame rate
Subsampling method	Color
Subsampling factor	2, 4



Subject to technical modifications (2024-05-05)

Model

Frame rate freerun mode (in 8-bit mode)	48 fps
Frame rate trigger (continuous)	44 fps
Frame rate trigger (maximum)	44 fps
Exposure time (minimum - maximum)	0.016 ms - 2000 ms
Power consumption	0.6 W - 1.2 W

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.

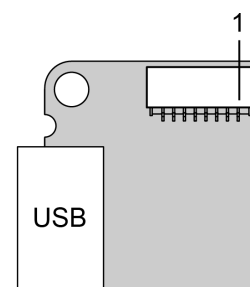
Device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Device temperature during storage	-20 °C - 80 °C / -4 °F - 176 °F
Humidity (relative, non-condensing)	20 % - 80 %

Connectors

Interface connector	USB 3.0 micro-B
I/O connector	8-pin connector
Power supply	USB cable

Pin assignment I/O connector

1	Voltage output 3.3 V
2	Ground (GND)
3	Flash output without optocoupler - Line 1
4	Trigger input without optocoupler - Line 0
5	General Purpose I/O (GPIO) 1 - Line 2
6	General Purpose I/O (GPIO) 2 - Line 3
7	Ground (GND)
8	USB Power: 5 V, max. 400 mA



Design

Lens Mount	S-Mount
IP code	-
Dimensions H/W/L	32.5 mm x 32.5 mm x 14.0 mm
Mass	13 g

Features

Image Acquisition

Freerun	✓
Software trigger	✓
Hardware trigger	✓
Trigger controlled exposure	-
Denoiser	-
Long exposure	-
Line scan	-
Line scan highspeed	-
Global start	-

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	BayerGR8 BayerGR10g40IDS BayerGR12g24IDS
	Region of interest	✓
	Decimation (FPGA)	-
	Decimation (Sensor)	2x(2,4)
	Binning (FPGA)	-
	Binning (Sensor)	2x2 Increases frame rate.
Others	Chunks	-
	Sequencer	-
	Events	-
	Firmware update	✓
	1st supported firmware version	3.2