

In series

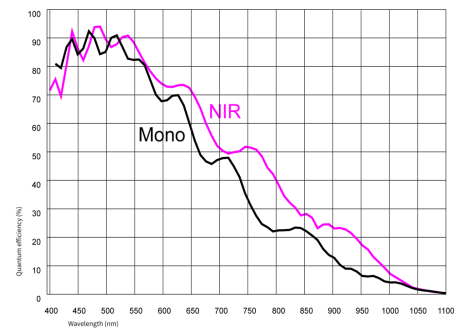
The model is in series and available for the long term.



Specification

Sensor

Sensor type	CMOS Mono
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	AR0522SRSM09SURA0
Gain (master/RGB)	15x/-
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



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)	0.010 ms - 635 ms
Power consumption	0.5 W - 1 W

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)	20 % - 80 %

Connectors

Interface connector	USB 3.0 micro-B, screwable
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	



Design

Lens Mount	C-Mount
IP code	IP30
Dimensions H/W/L	29.0 mm x 29.0 mm x 17.0 mm
Mass	61 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	Mono8 Mono10g40IDS Mono12g24IDS
	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	3.20