

In series

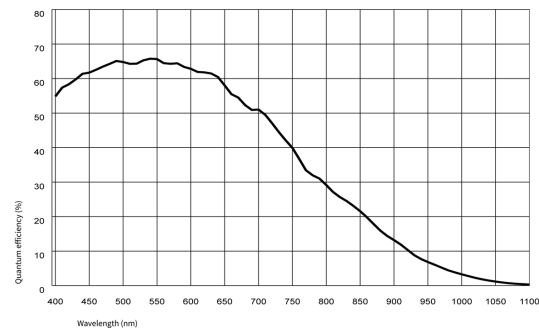
The model is in series and available for the long term.



Specification

Sensor

Sensor type	CMOS Mono
Shutter	Global Shutter
Sensor characteristic	Linear
Readout mode	-
Pixel Class	2 MP
Resolution	2.30 Mpix
Resolution (h x v)	1920 x 1200 Pixel
Aspect ratio	16:10
ADC	10 bit
Color depth (camera)	10 bit
Optical sensor class	1/2.6"
Optical Size	5.760 mm x 3.600 mm
Optical sensor diagonal	8.15 mm (1/1.96")
Pixel size	3 μm
Manufacturer	Onsemi
Sensor Model	AR0234CS-MONO
Gain (master/RGB)	16x/-
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)	4 / 2
Binning horizontal	same frame rate
Binning vertical	increased frame rate
Binning method	-
Binning factor	2
Subsampling horizontal	same frame rate
Subsampling vertical	increased frame rate
Subsampling method	M/C automatic
Subsampling factor	2, 4



Model

Frame rate freerun mode	102 fps
Frame rate trigger (continuous)	72 fps
Frame rate trigger (maximum)	72 fps
Exposure time (minimum - maximum)	0.012 ms - 2000 ms
Power consumption	0.5 W - 1 W

Ambient conditions

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

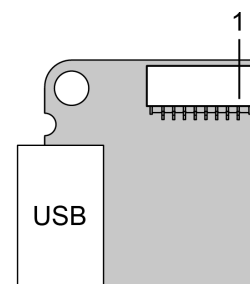
Allowed device temperature during operation	0 °C - 85 °C / 32 °F - 185 °F
Allowed device temperature during storage	-20 °C - 80 °C / -4 °F - 176 °F
Humidity (relative, non-condensing)	20 % - 80 %

Connectors

Interface connector	USB 3.0 micro-B
I/O connector	8-pin Wuerth 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
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	-

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
Region of interest	✓
Decimation (FPGA)	-
Decimation (Sensor)	(2,4)x(2,4)
Binning (FPGA)	-
Binning (Sensor)	2x2 Increases frame rate.

Others

Chunks	-
Sequencer	-
Events	✓
Firmware update	✓
1st supported firmware version	3.2