U3-3680XLE-NIR-GL Rev.1.2 (1008748)

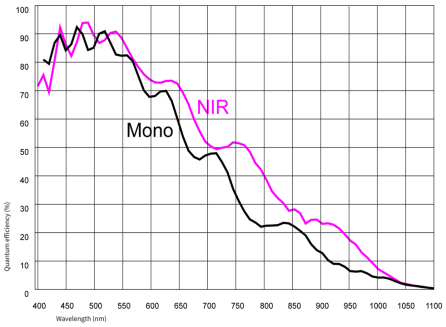
In series
The model is in series and available for the long term.



Specification

Sensor

Sensor type	CMOS Mono
Shutter	Rolling shutter
Sensor characteristic	Linear
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 1/2.5"
Pixel size	2.2 µm
CRA (Chief Ray Angle)	9 °
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	Horizontal: - / Vertical: -
Binning factor	2x2
Decimation (subsampling) horizontal	same frame rate
Decimation (subsampling) vertical	increased frame rate
Decimation (subsampling) method	Color



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Model

Frame rate freerun mode	48 fps
Frame rate trigger (continuous)	44 fps
Frame rate trigger (maximum)	44 fps
Exposure time (minimum - maximum)	0.01 ms - 635 ms
Power consumption	0.6 W - 1.2 W
Image memory	-

Ambient conditions

The temperature values given below refer to the outer device temperature of the camera housing.

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

Connectors

Interface connector	USB Type-C
I/O connector	-
Power supply	USB cable

Design

Lens Mount	CS- / C-Mount
IP code	IP30
Dimensions H/W/L	47.0 mm x 46.0 mm x 23.9 mm
Mass	33 g
Housing material	Plastic

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	-
	Global start	-
Flashing	Flashing	✓
	PWM flashing	-
Image Adjustments	Auto exposure	-
	Auto gain	-
	Auto whitebalance	-
	Color correction	-
	Gamma	-
	LUT	-
	Mirror/flip	X/Y

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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	3.1

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