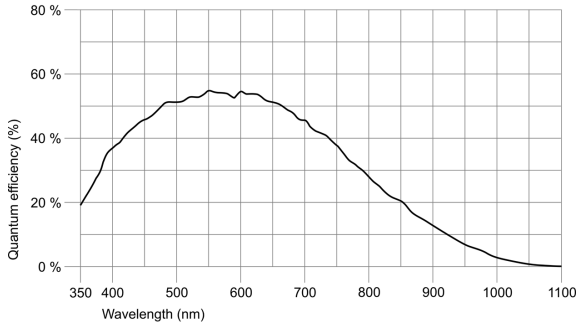
U3-3140CP-M-GL Rev.2.2 (1008062)

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	Progressive scan
Pixel Class	1.3 MP
Resolution	1.31 Mpix
Resolution (h x v)	1280 x 1024 Pixel
Aspect ratio	5:4
ADC	10 bit
Color depth (camera)	12 bit
Optical sensor class	1/2""
Optical Size	6.144 mm x 4.915 mm)
Optical sensor diagonal	7.87 mm (1/2.03")
Pixel size	4.8 µm
Manufacturer	Onsemi
Sensor Model	NOIP1SN1300A-QDI
Gain (master/RGB)	4x/4x
AOI horizontal	increased frame rate
AOI vertical	increased frame rate
AOI image width / step width	120 / 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	Mono
Binning factor	2
Subsampling horizontal	increased frame rate
Subsampling vertical	increased frame rate
Subsampling method	M/C automatic
Subsampling factor	2



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Model

Frame rate freerun mode	169 fps
Frame rate trigger (continuous)	169 fps
Frame rate trigger (maximum)	169 fps
Exposure time (minimum - maximum)	0.035 ms - 434 ms
Power consumption	1.7 W - 3.2 W
Image memory	128 MB

Ambient conditions

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

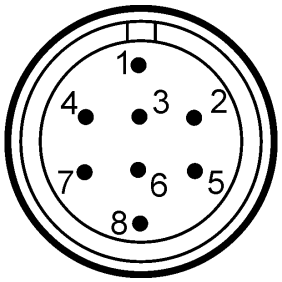
Allowed device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Allowed device temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	20 % - 80 %

Connectors

Interface connector	USB 3.0 micro-B, screwable
I/O connector	8-pin 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 - Line 2
4	Trigger input with optocoupler (-) - Line 0
5	Flash output with optocoupler (+) - Line 1
6	General Purpose I/O (GPIO) 2
7	Trigger input with optocoupler (+) - Line 0
8	Output supply voltage, 5 V (100 mA)



Design

Lens Mount	C-Mount
IP code	IP30
Dimensions H/W/L	29.0 mm x 29.0 mm x 29.0 mm
Mass	52 g

Features

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

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Image Adjustments	Auto exposure	✓
	Auto gain	✓
	Auto whitebalance	-
	Color correction	-
	Gamma	✓
	LUT	✓
	Mirror/flip	Y

On-board Image Processing	Pixel formats	Mono8 Mono10 Mono10p
	Region of interest	✓
	Decimation (FPGA)	✓
	Decimation (Sensor)	-
	Binning (FPGA)	✓
	Binning (Sensor)	-

Others	Chunks	-
	Sequencer	✓
	Events	✓
	Firmware update	✓
	1st supported firmware version	3.4

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