U3-3180CP-C-HQ Rev.2.2 (1008072)

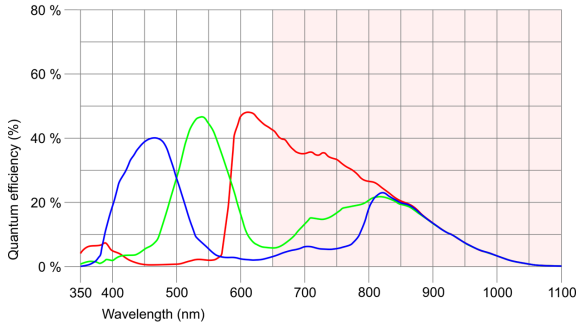
In series
The model is in series and available for the long term.



Specification

Sensor

Sensor type	CMOS Color
Shutter	Global Shutter
Sensor characteristic	Linear
Readout mode	Progressive scan
Pixel Class	5 MP
Resolution	5.31 Mpix
Resolution (h x v)	2592 x 2048 Pixel
Aspect ratio	5:4
ADC	10 bit
Color depth (camera)	12 bit
Optical sensor class	1""
Optical Size	12.441 mm x 9.830 mm)
Optical sensor diagonal	15.86 mm (1/1.01")
Pixel size	4.8 µm
Manufacturer	Onsemi
Sensor Model	NOIP1SE5000A-LTI
Gain (master/RGB)	4x/4x
AOI horizontal	increased frame rate
AOI vertical	increased frame rate
AOI image width / step width	128 / 16
AOI image height / step width	2 / 2
AOI position grid (horizontal/vertical)	16 / 2
Binning horizontal	-
Binning vertical	-
Binning method	-
Binning factor	-
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	73 fps
Frame rate trigger (continuous)	73 fps
Frame rate trigger (maximum)	81 fps
Exposure time (minimum - maximum)	0.052 ms - 500 ms
Power consumption	1.6 W - 4.3 W
Image memory	128 MB

Ambient conditions

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

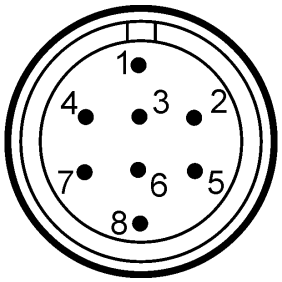
Allowed device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Allowed device temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	20 % - 80 %

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	50 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	BayerRG8 BayerRG10 BayerRG10p
	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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