

U3-3160CP-M-GL Rev.2.2 (1008066)

In series

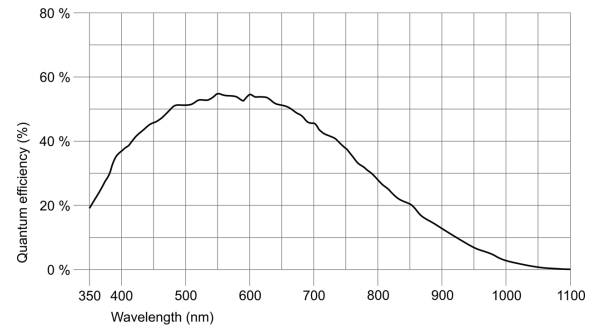
The model is in series and available for the long term.



Specification

Sensor

Sensor type	CMOS Mono
Shutter	Global Shutter
Sensor characteristic	Linear
Readout mode	Progressive scan
Pixel Class	2 MP
Resolution	2.30 Mpix
Resolution (h x v)	1920 x 1200 Pixel
Aspect ratio	16:10
ADC	10 bit
Color depth (camera)	12 bit
Optical sensor class	2/3"
Optical Size	9.216 mm x 5.760 mm
Optical sensor diagonal	10.87 mm (1/1.47")
Pixel size	4.8 µm
Micro lens shift	4.00
Manufacturer	Onsemi
Sensor Model	NOIP1SN2000A-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	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



Subject to technical modifications (2023-12-12)

Model

Frame rate freerun mode (in 8-bit mode)	169 fps
Frame rate trigger (continuous)	169 fps
Frame rate trigger (maximum)	181 fps
Exposure time (minimum - maximum)	0.044 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.

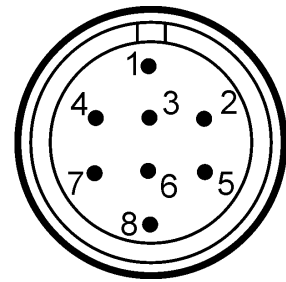
Device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Device temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	20 % - 80 %

Connectors

Interface connector	USB 3.0 micro-B, screwable
I/O connector	8-pin 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	-
Denoisier	✓
Long exposure	-
Line scan	-
Line scan highspeed	-

Flashing

Flashing	✓
PWM flashing	✓

Image Adjustments

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

On-board Image Processing

Pixel formats	Mono8 Mono10p
Region of interest	✓
Decimation (FPGA)	✓
Decimation (Sensor)	-
Binning (FPGA)	✓
Binning (Sensor)	-

Others

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