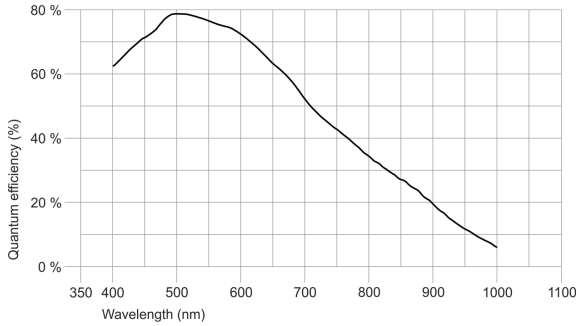
U3-3864LE-M-GL-AF Rev.1.2 (1008105)

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
Readout mode	Progressive scan
Pixel Class	2 MP
Resolution	2.12 Mpix
Resolution (h x v)	1936 x 1096 Pixel
Aspect ratio	16:9
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1/3"
Optical Size	5.614 mm x 3.178 mm
Optical sensor diagonal	6.45 mm (1/2.48")
Pixel size	2.9 µm
Manufacturer	Sony
Sensor Model	IMX290LLR-C
Gain (master/RGB)	20x/5x
AOI horizontal	same frame rate
AOI vertical	increased frame rate
AOI image width / step width	256 / 8
AOI image height / step width	1 / 1
AOI position grid (horizontal/vertical)	8 / 1
Binning horizontal	-
Binning vertical	-
Binning method	-
Binning factor	-
Subsampling horizontal	same frame rate
Subsampling vertical	same frame rate
Subsampling method	M/C automatic
Subsampling factor	2, 4, 8



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Model

Frame rate freerun mode (in 8-bit mode)	135 fps
Frame rate trigger (continuous)	67 fps
Frame rate trigger (maximum)	67 fps
Exposure time (minimum - maximum)	0.011 ms - 1649 ms
Long exposure (maximum)	114000 ms
Power consumption	1 W - 1.5 W

Ambient conditions

The temperature values given below refer to the outer device temperature of the camera housing.
For PCB versions, refer to the separate hints in the respective documentation.

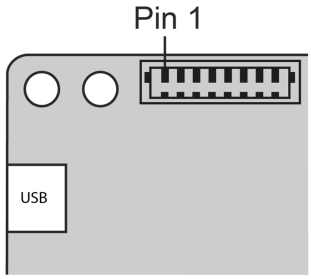
Device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Device temperature during storage	-20 °C - 80 °C / -4 °F - 176 °F
Humidity (relative, non-condensing)	20 % - 80 %

Connectors

Interface connector	USB Type-C
I/O connector	10-pin Wuerth connector (WR-WTB 1.00 mm)
Power supply	USB cable

Pin assignment I/O connector

1	Voltage output 5 V, max. 400 mA
2	Ground (GND)
3	General Purpose I/O (GPIO) 2, 3.3 V - Line 3
4	General Purpose I/O (GPIO) 1, 3.3 V - Line 2
5	I2C clock signal - requires USB3 Vision Firmware 3.2 or higher
6	I2C data signal - requires USB3 Vision Firmware 3.2 or higher
7	Trigger input without optocoupler 3.3 V - Line 0
8	Flash output without optocoupler 3.3 V - Line 1
9	Ground (GND)
10	Voltage output 3.3 V



Design

Lens Mount	CS- / C-Mount
IP code	-
Dimensions H/W/L	36.0 mm x 36.0 mm x 20.0 mm
Mass	18 g

Features

Image Acquisition	Freerun	✓
	Software trigger	✓
	Hardware trigger	✓
	Trigger controlled exposure	-
	Denoiser	✓
	Long exposure	✓
	Line scan	-
	Line scan highspeed	-
	Global start	-

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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 Mono10 Mono10p Mono12 Mono12p
	Region of interest	✓
	Decimation (FPGA)	✓
	Decimation (Sensor)	-
	Binning (FPGA)	-
	Binning (Sensor)	-
Others	Chunks	-
	Sequencer	-
	Events	-
	Firmware update	✓
	1st supported firmware version	2.20

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