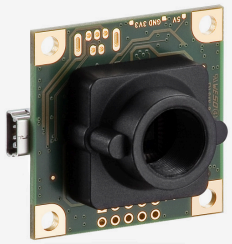
UI-1251LE-M-GL (AB00334)

Not recommended for new designs
The camera model is no longer recommended for new application development.



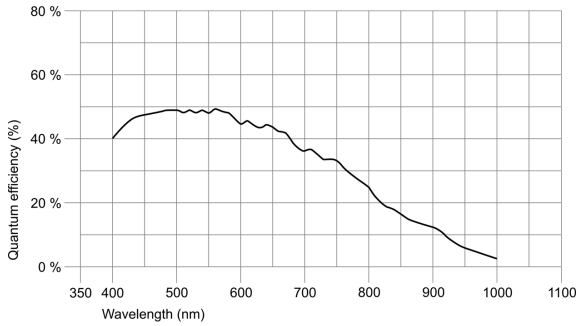




Specification

Sensor

Sensor type	CMOS Mono
Shutter	Global Shutter / Rolling shutter / Global Start Shutter
Sensor characteristic	Linear
Pixel Class	1.9 MP
Resolution	1.92 Mpix
Resolution (h x v)	1600 x 1200 Pixel
Aspect ratio	4:3
ADC	10 bit
Color depth (camera)	8 bit
Optical sensor class	1/1.8"
Optical Size	7.200 mm x 5.400 mm
Optical sensor diagonal	9 mm 1/1.8"
Pixel size	4.5 µm
CRA (Chief Ray Angle)	12 °
Manufacturer	e2v
Sensor Model	EV76C570ABT
Gain (master/RGB)	4x/-
AOI horizontal	same frame rate
AOI vertical	increased frame rate
AOI image width / step width	16 / 4
AOI image height / step width	4 / 2
AOI position grid (horizontal/vertical)	2 / 2
Binning horizontal	same frame rate
Binning vertical	same frame rate
Binning method	Horizontal: addition / Vertical: mean
Binning factor	2
Decimation (subsampling) horizontal	-
Decimation (subsampling) vertical	-
Decimation (subsampling) method	-



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Model

Pixel clock range	10 MHz - 35 MHz
Frame rate freerun mode	17 fps
Frame rate trigger (maximum)	17 fps
Exposure time (minimum - maximum)	0.02 ms - 10000 ms
Long exposure (maximum)	10000 ms
Power consumption	0.3 W - 0.7 W
Image memory	-
Special features	Linescan mode Scaler Sequencer Log mode Sensor hot pixel correction Fine exposure Multi-AOI

Ambient conditions

For PCB versions, refer to the separate hints in the respective documentation.

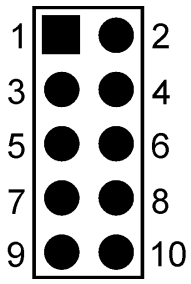
Allowed device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Allowed device temperature during storage	-20 °C - 80 °C / -4 °F - 176 °F
Humidity (relative, non-condensing)	20 % - 80 %

Connectors

Interface connector	USB 2.0 mini-B
I/O connector	10-pin plated-through holes
Power supply	USB cable

Pin assignment I/O connector

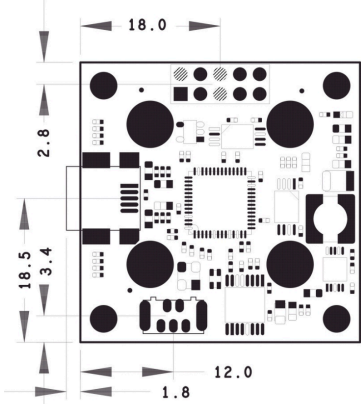
1	USB Power supply (VCC) 5 V
2	USB Ground (GND)
3	Trigger input without optocoupler (+)
4	Flash output without optocoupler (+)
5	Power supply (internal voltage transformer), 3.3 V or 3.0 V (sensor-dependent)
6	USB Ground (GND)
7	General Purpose I/O (GPIO) 1
8	General Purpose I/O (GPIO) 2
9	I2C bus clock signal
10	I2C bus data signal

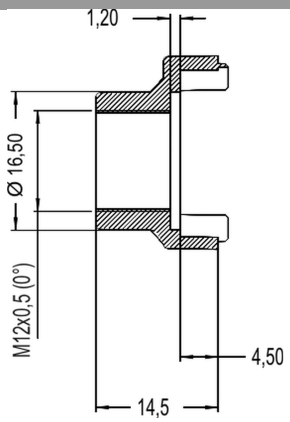


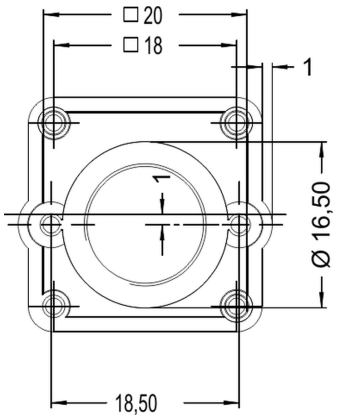
Design

Lens Mount	S-Mount
IP code	-
Dimensions H/W/L	36.0 mm x 36.0 mm x 20.2 mm
Mass	16 g
Housing material	-

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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	-

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On-board Image Processing	Pixel formats	
	Region of interest	✓
	Decimation (FPGA)	-
	Decimation (Sensor)	
	Binning (FPGA)	-
Others	Chunks	-
	Sequencer	✓
	Firmware update	-
	1st supported firmware version	4.21

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