

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

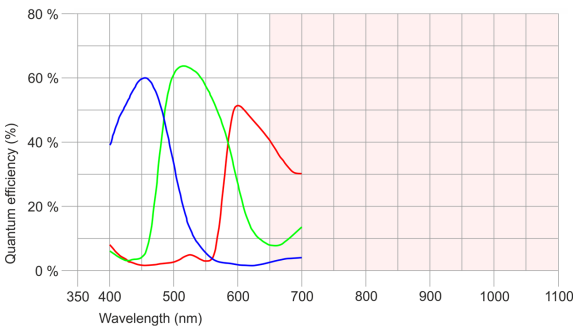


uEye industrial cameras now also work with IDS peak! We recommend the Software Development Kit for the implementation of new projects. [Learn about the process here and switch now.](#)
Please note: The technical data given here was measured using the IDS Software Suite.

Specification

Sensor

Sensor type	CMOS Color
Shutter	Rolling shutter / Global Start Shutter
Sensor characteristic	Linear
Readout mode	Progressive scan
Pixel Class	6 MP
Resolution	6.41 Mpix
Resolution (h x v)	3088 x 2076 Pixel
Aspect ratio	3:2
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1/1.8"
Optical Size	7.411 mm x 4.982 mm
Optical sensor diagonal	8.93 mm (1/1.79")
Pixel size	2.4 µm
Manufacturer	Sony
Sensor Model	IMX178LQJ-C
Gain (master/RGB)	14.5x/5x
AOI horizontal	same frame rate
AOI vertical	increased frame rate
AOI image width / step width	88 / 8
AOI image height / step width	28 / 2
AOI position grid (horizontal/vertical)	4 / 2
Binning horizontal	-
Binning vertical	-
Binning method	-
Binning factor	-
Subsampling horizontal	-
Subsampling vertical	-
Subsampling method	-
Subsampling factor	-



Subject to technical modifications (2024-04-25)

Model

Pixel clock range	20 MHz - 474 MHz
Frame rate freerun mode	58
Frame rate trigger (continuous)	58
Frame rate trigger (maximum)	58
Exposure time (minimum - maximum)	0.013 ms - 1000 ms
Long exposure (maximum)	120000 ms
Power consumption	0.7 W - 1.6 W
Special features	Overlap trigger, Sensor source gain

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.

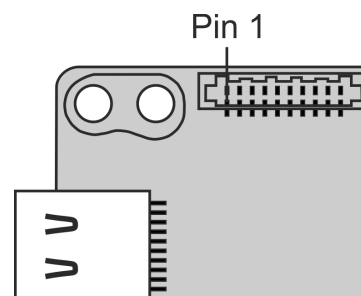
Device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Device temperature during storage	-20 °C - 80 °C / -4 °F - 176 °F
Humidity (relative, non-condensing)	20 % - 80 %

Connectors

Interface connector	USB Type-C
I/O connector	10-pin Molex connector (IllumiMate)
Power supply	USB cable

Pin assignment I/O connector

1	Voltage output (USB Power Delivery), 5-15 V
2	Ground (GND)
3	General Purpose I/O (GPIO) 2, 3.3 V
4	General Purpose I/O (GPIO) 1, 3.3 V
5	TWI (Two Wire Interface) clock signal
6	TWI (Two Wire Interface) data signal
7	Trigger input without optocoupler 3.3 V
8	Flash output without optocoupler 3.3 V
9	Ground (GND)
10	Voltage output 3.3 V



Camera rear view

Design

Lens Mount	CS- / C-Mount
IP code	-
Dimensions H/W/L	36.0 mm x 36.0 mm x 19.6 mm
Mass	26 g