

**In series**

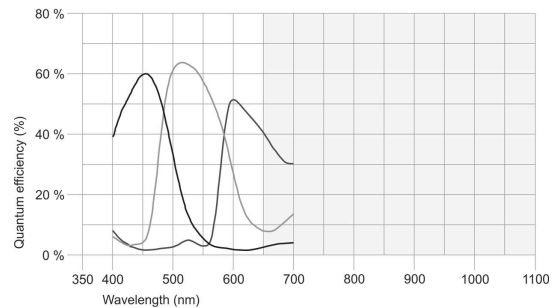
The model is in series and available for the long term.



## 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	256 / 8
AOI image height / step width	2 / 2
AOI position grid (horizontal/vertical)	8 / 2
Binning horizontal	increased frame rate
Binning vertical	increased frame rate
Binning method	Color
Binning factor	2
Subsampling horizontal	same frame rate
Subsampling vertical	same frame rate
Subsampling method	M/C automatic
Subsampling factor	2, 4, 8



## Model

Frame rate freerun mode	54 fps
Frame rate trigger (continuous)	54 fps
Frame rate trigger (maximum)	54 fps
Exposure time (minimum - maximum)	0.014 ms - 1090 ms
Long exposure (maximum)	57000 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.

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	-
Power supply	USB cable

## Design

Lens Mount	S-Mount
IP code	IP30
Dimensions H/W/L	47.0 mm x 46.0 mm x 25.0 mm
Mass	36 g

## Features

Image Acquisition	Freerun	✓
	Software trigger	✓
	Hardware trigger	✓
	Trigger controlled exposure	-
	Denoisier	✓
	Long exposure	✓
	Line scan	-
	Line scan highspeed	-
Global start	✓	
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	BayerRG8 BayerRG10p BayerRG10 BayerRG12 BayerRG12p
Region of interest	✓
Decimation (FPGA)	✓
Decimation (Sensor)	-
Binning (FPGA)	-
Binning (Sensor)	-

## Others

Chunks	-
Sequencer	-
Events	-
Firmware update	✓
1st supported firmware version	2.20