

In series

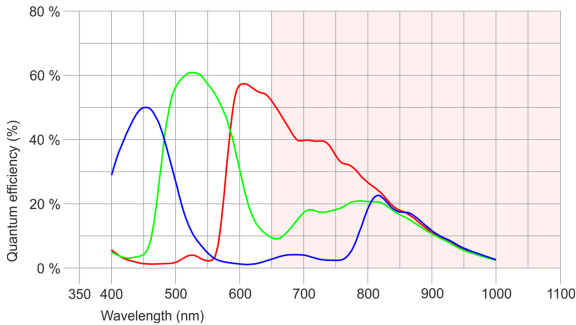
The model is in series and available for the long term.



Specification

Sensor

Sensor type	CMOS Color
Shutter	Global Shutter
Sensor characteristic	Linear
Readout mode	Progressive scan
Pixel Class	12 MP
Resolution	12.29 Mpix
Resolution (h x v)	4096 x 3000 Pixel
Aspect ratio	4:3
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1.1"
Optical Size	14.131 mm x 10.350 mm
Optical sensor diagonal	17.52 mm
Pixel size	3.45 µm
Manufacturer	Sony
Sensor Model	IMX304LQR-C
Gain (master/RGB)	24x/4x
AOI horizontal	same frame rate
AOI vertical	increased frame rate
AOI image width / step width	264 / 8
AOI image height / step width	2 / 2
AOI position grid (horizontal/vertical)	8 / 2
Binning horizontal	same frame rate
Binning vertical	same frame rate
Binning method	M/C automatic
Binning factor	2 / 4 / 8
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 (in 8-bit mode)	10 fps
Frame rate trigger (continuous)	10 fps
Frame rate trigger (maximum)	10 fps
Exposure time (minimum - maximum)	0.046 ms - 2000 ms
Long exposure (maximum)	90000 ms
Power consumption	1.7 W - 3.1 W
Image memory	128 MB

Ambient conditions

The temperature values given below refer to the outer device temperature of the camera housing.

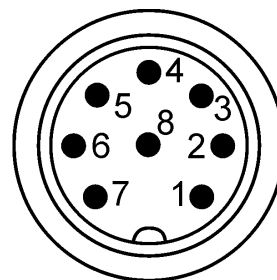
Device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Device temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	0 % - 100 %

Connectors

Interface connector	GigE M12, screwable
I/O connector	8-pin Binder connector (Binder series 712: 09-0427-020-08)
Power supply	12 V - 24 V or PoE

Pin assignment I/O connector

1	Trigger input with optocoupler (+) - Line 0
2	Input power supply (VCC) 12-24 V DC
3	General Purpose I/O (GPIO) 1 - Line 2
4	Ground (GND)
5	Flash output with optocoupler (+) - Line 1
6	Flash output with optocoupler (-) - Line 1
7	Trigger input with optocoupler (-) - Line 0
8	General Purpose I/O (GPIO) 2



Design

Lens Mount	C-Mount
IP code	IP65/67
Dimensions H/W/L	41.0 mm x 53.0 mm x 42.7 mm
Mass	173 g

Features

Image Acquisition

Freerun	✓
Software trigger	✓
Hardware trigger	✓
Trigger controlled exposure	✓
Denoiser	✓
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	-

On-board Image Processing

Pixel formats	BayerRG8 BayerRG10p BayerRG12 BayerRG12p BayerRG10
Region of interest	✓
Decimation (FPGA)	✓
Decimation (Sensor)	-
Binning (FPGA)	✓
Binning (Sensor)	-

Others

IP settings	✓
Bandwidth management	✓
Chunks	✓
Sequencer	✓
PTP	-
Firmware update	✓
1st supported firmware version	2.10