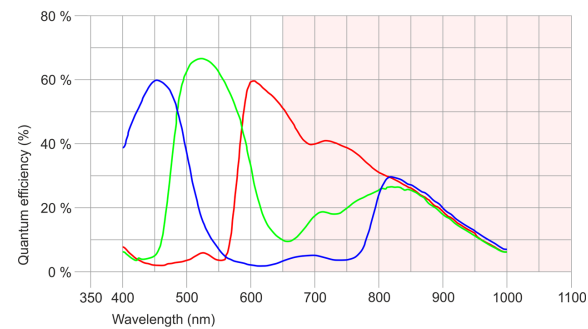


Not recommended for new designs
The camera model is no longer recommended for new application development.



Specification

Sensor	
Sensor type	CMOS Color
Shutter	Rolling shutter / Global Start Shutter
Sensor characteristic	Linear
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	1/2.8"
Optical Size	5.614 mm x 3.178 mm
Optical sensor diagonal	6.45 mm 1/2.8"
Pixel size	2.9 μm
CRA (Chief Ray Angle)	0 °
Manufacturer	Sony
Sensor Model	IMX290LQR-C
Gain (master/RGB)	20x/5x
AOI horizontal	same frame rate
AOI vertical	increased frame rate
AOI image width / step width	32 / 8
AOI image height / step width	2 / 2
AOI position grid (horizontal/vertical)	4 / 2
Binning horizontal	-
Binning vertical	-
Binning method	-
Binning factor	-
Decimation (subsampling) horizontal	same frame rate
Decimation (subsampling) vertical	same frame rate
Decimation (subsampling) method	M/C automatic



Model

Pixel clock range	20 MHz - 160 MHz
Frame rate freerun mode	53 fps
Frame rate trigger (continuous)	27 fps
Frame rate trigger (maximum)	27 fps
Exposure time (minimum - maximum)	0.02 ms - 999 ms
Long exposure (maximum)	120000 ms
Power consumption	1.3 W - 3.1 W
Image memory	128 MB
Special features	IDS line scan mode Sensor source gain

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 - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	20 % - 80 %

Connectors

Interface connector	GigE RJ45
I/O connector	8-pin Hirose connector (HR25-7TR-8PA(73))
Power supply	12 V - 24 V or PoE

Pin assignment I/O connector

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



Design

Lens Mount	C-Mount
IP code	-
Dimensions H/W/L	34.0 mm x 44.0 mm x 35.0 mm
Mass	62 g
Housing material	-

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	✓

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Flashing	Flashing	-
	PWM flashing	-
Image Adjustments	Auto exposure	-
	Auto gain	-
	Auto whitebalance	-
	Color correction	-
	Gamma	-
	LUT	-
On-board Image Processing	Mirror/flip	-
	Pixel formats	
	Region of interest	✓
	Decimation (FPGA)	-
	Decimation (Sensor)	(2,4)x(2,4)
	Binning (FPGA)	-
Others	Chunks	-
	Sequencer	-
	Firmware update	-
	1st supported firmware version	4.96.1