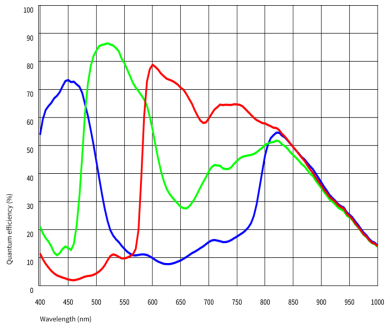
U3-34J0CP-C-HQ Rev.2.3 (1012128)

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

Specification

Sensor

Sensor type	CMOS Color
Shutter	Rolling shutter
Sensor characteristic	Linear
Pixel Class	8 MP
Resolution	8.39 Mpix
Resolution (h x v)	3856 x 2176 Pixel
Aspect ratio	16:9
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1/1.8"
Optical Size	7.712 mm x 4.352 mm
Optical sensor diagonal	8.86 mm 1/1.8"
Pixel size	2 µm
Manufacturer	Sony
Sensor Model	IMX678-AAQR1-C
Gain (master/RGB)	26.6x/16x
AOI horizontal	same frame rate
AOI vertical	increased frame rate
AOI image width / step width	256 / 2
AOI image height / step width	2 / 2
AOI position grid (horizontal/vertical)	2 / 2
Binning horizontal	increased frame rate
Binning vertical	increased frame rate
Binning method	
Binning factor	2x2
Decimation (subsampling) horizontal	-
Decimation (subsampling) vertical	-
Decimation (subsampling) method	M/C automatic
Decimation (subsampling) factor	-



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Model

Frame rate freerun mode	48 fps
Frame rate trigger (maximum)	-
Exposure time (minimum - maximum)	0.0088 ms - 1999 ms
Long exposure (maximum)	120036 ms
Power consumption	1.6 W - 2.9 W
Image memory	-

Ambient conditions

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

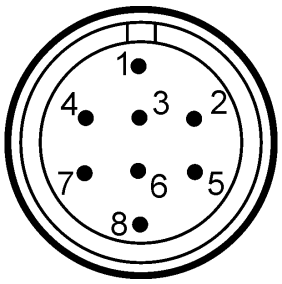
Allowed device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Allowed ambient temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	20 % - 80 %

Connectors

Interface connector	USB 3.0 micro-B, screwable
I/O connector	8-pin Hirose connector (HR25-7TR-8PA(73))
Power supply	USB cable

Pin assignment I/O connector

1	Ground (GND)
2	Flash output with optocoupler (-) - Line 1
3	General Purpose I/O (GPIO) 1 - Line 2
4	Trigger input with optocoupler (-) - Line 0
5	Flash output with optocoupler (+) - Line 1
6	General Purpose I/O (GPIO) 2
7	Trigger input with optocoupler (+) - Line 0
8	Output supply voltage, 5 V (100 mA)



Design

Lens Mount	C-Mount
IP code	IP30
Dimensions H/W/L	29.0 mm x 29.0 mm x 29.0 mm
Mass	50 g
Housing material	Magnesium / stainless steel

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	✓

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Image Adjustments	Auto exposure	✓
	Auto gain	✓
	Auto whitebalance	✓
	Color correction	✓
	Gamma	✓
	LUT	✓
	Mirror/flip	X/Y
On-board Image Processing	Pixel formats	Mono8 BayerRG8 BayerRG10 BayerRG10p BayerRG12 BayerRG12p BGR8 RGB8 BGR10p32 RGB10p32
	Region of interest	✓
	Decimation (FPGA)	✓
	Decimation (Sensor)	
	Binning (FPGA)	✓
	Binning (Sensor)	2x2 Increases frame rate.
Others	Chunks	✓
	Sequencer	-
	Events	✓
	Firmware update	✓
	1st supported firmware version	

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