U3-34E1XLS-C Rev.1.2 (1010750)

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

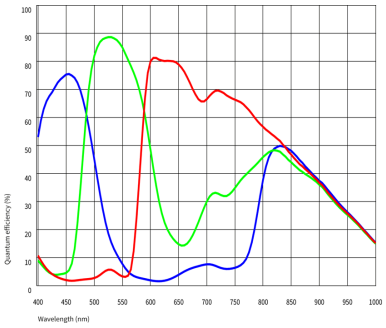




Specification

Sensor

Sensor type	CMOS Color
Shutter	Rolling shutter
Sensor characteristic	Linear
Pixel Class	4 MP
Resolution	4.15 Mpix
Resolution (h x v)	2704 x 1536 Pixel
Aspect ratio	16:9
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1/1.8"
Optical Size	7.842 mm x 4.454 mm
Optical sensor diagonal	9.02 mm 1/1.8"
Pixel size	2.9 µm
CRA (Chief Ray Angle)	0 °
Manufacturer	Sony
Sensor Model	IMX664-AAQR1-C
Gain (master/RGB)	31.6x/-
AOI horizontal	same frame rate
AOI vertical	increased frame rate
AOI image width / step width	1056 / 48
AOI image height / step width	808 / 4
AOI position grid (horizontal/vertical)	2 / 4
Binning horizontal	increased frame rate
Binning vertical	increased frame rate
Binning method	Horizontal: mean / Vertical: mean
Binning factor	2x2
Decimation (subsampling) horizontal	-
Decimation (subsampling) vertical	-
Decimation (subsampling) method	-



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Model

Frame rate freerun mode	49 fps @ 10Bit
Frame rate trigger (continuous)	49 fps @ 10Bit
Frame rate trigger (maximum)	49 fps @ 10Bit
Exposure time (minimum - maximum)	0.024 ms - 1999 ms
Long exposure (maximum)	120034 ms
Power consumption	1 W - 1.3 W
Image memory	-

HDR

Mode	ClearHDR

Ambient conditions

For PCB versions, refer to the separate hints in the respective documentation.

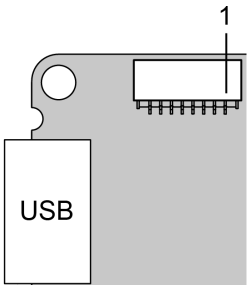
Allowed device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Allowed device temperature during storage	-20 °C - 80 °C / -4 °F - 176 °F
Humidity (relative, non-condensing)	20 % - 80 %

Connectors

Interface connector	USB 3.0 micro-B
I/O connector	8-pin Wuerth connector
Power supply	USB cable

Pin assignment I/O connector

1	Voltage output 3.3 V
2	Ground (GND)
3	Flash output without optocoupler - Line 1
4	Trigger input without optocoupler - Line 0
5	General Purpose I/O (GPIO) 1 - Line 2
6	General Purpose I/O (GPIO) 2 - Line 3
7	Ground (GND)
8	USB Power: 5 V, max. 400 mA



Design

Lens Mount	S-Mount
IP code	-
Dimensions H/W/L	32.5 mm x 32.5 mm x 14.0 mm
Mass	10 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).

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Image Acquisition	Freerun	✓
	Software trigger	✓
	Hardware trigger	✓
	Trigger controlled exposure	-
	Denoiser	-
	Long exposure	✓
	Line scan	-
	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	BayerRG10g40IDS BayerRG12g24IDS
	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	3.34

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