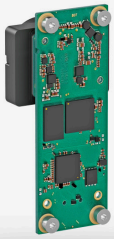
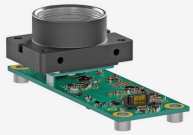
U3-30C1ACP-M-GL Rev.1.2 (AB13500)

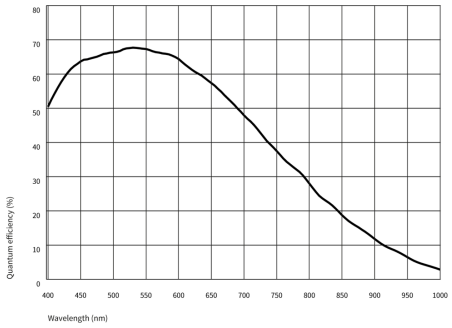
In series
The model is in series and available for the long term.

Specification

Sensor

Sensor type	CMOS Mono
Shutter	Global Shutter
Sensor characteristic	Linear
Pixel Class	2 MP
Resolution	2.35 Mpix
Resolution (h x v)	1936 x 1216 Pixel
Aspect ratio	16:10
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1/2.3"
Optical Size	6.679 mm x 4.195 mm
Optical sensor diagonal	7.89 mm 1/2.3"
Pixel size	3.45 µm
CRA (Chief Ray Angle)	0 °
Manufacturer	Sony
Sensor Model	IMX392LLR-C
Gain (master/RGB)	16x/-
AOI horizontal	same frame rate
AOI vertical	increased frame rate
AOI image width / step width	256 / 2
AOI image height / step width	1 / 1
AOI position grid (horizontal/vertical)	2 / 1
Binning horizontal	increased frame rate
Binning vertical	increased frame rate
Binning method	Horizontal: addition / Vertical: addition
Binning factor	2x2
Decimation (subsampling) horizontal	increased frame rate
Decimation (subsampling) vertical	increased frame rate
Decimation (subsampling) method	M/C automatic



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Model

Frame rate freerun mode	168 fps
Frame rate trigger (continuous)	168 fps
Frame rate trigger (maximum)	168 fps
Exposure time (minimum - maximum)	0.023 ms - 2000 ms
Long exposure (maximum)	30000 ms
Line rate freerun mode (line scan)	5084 1/s
Line rate trigger mode (line scan)	5485 1/s
Lines per frame (line scan)	8000
Power consumption	1.9 W - 3.8 W
Image memory	128 MB

Ambient conditions

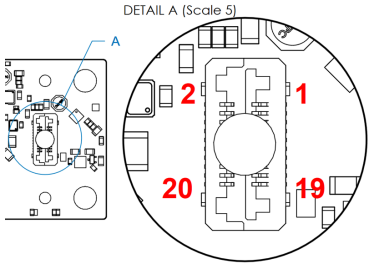
For PCB versions, refer to the separate hints in the respective documentation.

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	Samtec LSHM 20-pin
I/O connector	20-pin header (Samtec LSHM-110-L02.5-L-DV-A-N-K-TR)
Power supply	USB cable

Pin assignment I/O connector



1	Input power supply (VCC), 5 V DC USB
2	Do not connect (for future use)
3	Input power supply (VCC), 5 V DC USB
4	Do not connect (for future use)
5	USB 2 data (-)
6	I2C SDA (signal data) 3.3 V
7	USB 2 data (+)
8	I2C SCL (signal clock) 3.3 V
9	Ground (GND)
10	Trigger input without optocoupler 3.3 V
11	USB 3 TX (-)
12	Flash output without optocoupler 3.3 V 8 mA
13	USB 3 TX (+)
14	General Purpose I/O (GPIO) 1, 3.3 V
15	Ground (GND)
16	General Purpose I/O (GPIO) 2, 3.3 V
17	USB 3 RX (-)
18	Do not connect (for future use)
19	USB 3 RX (+)
20	Output power voltage, 5 V (900 mA – camera current depending on sensor)

Design

Lens Mount	C-Mount
IP code	-
Dimensions H/W/L	84.0 mm x 40.0 mm x 29.7 mm
Mass	45 g
Housing material	-

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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	✓
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	Mono8 Mono10 Mono10p Mono12 Mono12p
	Region of interest	✓
	Decimation (FPGA)	✓
	Decimation (Sensor)	2x2
	Binning (FPGA)	✓
	Binning (Sensor)	2x2 Increases frame rate.
Others	Chunks	✓
	Sequencer	✓
	Events	✓
	Firmware update	✓
	1st supported firmware version	2.20

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