

In series

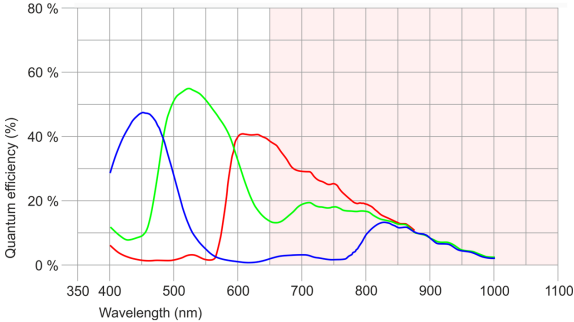
The model is in series and available for the long term.



Specification

Sensor

Sensor type	CMOS Color
Shutter	Global Shutter
Sensor characteristic	Linear
Readout mode	-
Pixel Class	16 MP
Resolution	16.20 Mpix
Resolution (h x v)	5328 x 3040 Pixel
Aspect ratio	16:9
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1.1"
Optical Size	14.599 mm x 8.330 mm
Optical sensor diagonal	20.65 mm
Pixel size	2.74 µm
Manufacturer	Sony
Sensor Model	IMX542-AAQJ-C
Gain (master/RGB)	16x/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	
Binning vertical	
Binning method	M/C automatic
Binning factor	2 / 4 / 8
Subsampling horizontal	increased frame rate
Subsampling vertical	increased frame rate
Subsampling method	M/C automatic
Subsampling factor	2, 4, 8



Model

Frame rate freerun mode	7.68582 fps
Frame rate trigger (continuous)	7.68582 fps
Frame rate trigger (maximum)	9.6736578453365 fps
Exposure time (minimum - maximum)	0.12 ms - 2000 ms
Long exposure (maximum)	120000 ms
Power consumption	1.8 W - 5 W
Image memory	128 MB

Ambient conditions

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

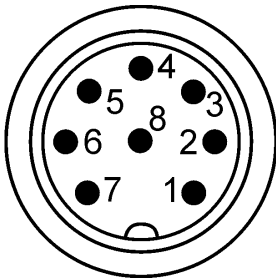
Allowed device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Allowed device temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	0 % - 100 %

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	175 g
Housing material	Aluminum

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	✓

Subject to technical modifications (2025-08-01)

Image Adjustments

Auto exposure	✓
Auto gain	✓
Auto whitebalance	✓
Color correction	✓
Gamma	✓
LUT	✓
Mirror/flip	X/Y

On-board Image Processing

Pixel formats	BayerRG8 BayerRG10 BayerRG10p BayerRG12 BayerRG12p RGB8 BGR8 Mono8
Region of interest	✓
Decimation (FPGA)	✓
Decimation (Sensor)	2x2
Binning (FPGA)	✓
Binning (Sensor)	

Others

IP settings	✓
Bandwidth management	✓
Chunks	✓
Sequencer	✓
PTP	✓
Firmware update	✓
1st supported firmware version	3.31