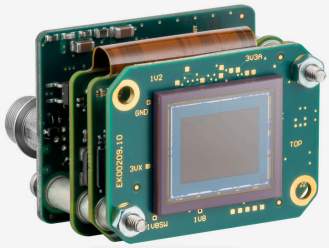
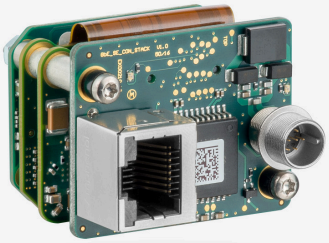
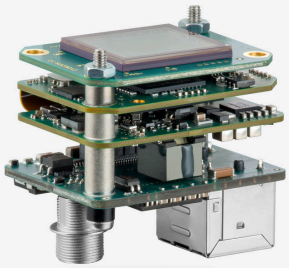
GV-51N2SE-C-HQ Rev.4.2 (1010107)

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



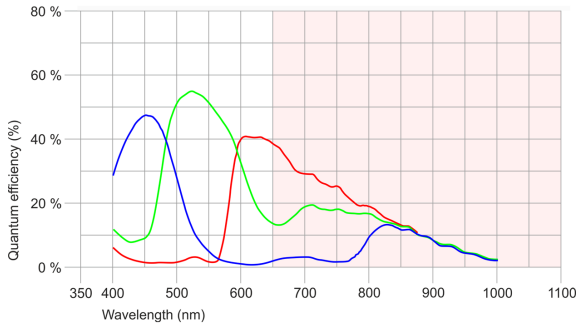




Specification

Sensor

Sensor type	CMOS Color
Shutter	Global Shutter
Sensor characteristic	Linear
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	16.81 mm 1.1"
Pixel size	2.74 µm
CRA (Chief Ray Angle)	0 °
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	Horizontal: addition / Vertical: addition
Binning factor	-
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	7.7 fps
Frame rate trigger (continuous)	7.7 fps
Frame rate trigger (maximum)	9.7 fps
Exposure time (minimum - maximum)	0.035 ms - 2000 ms
Long exposure (maximum)	120000 ms
Power consumption (Power over Ethernet)	5.1 W
Power consumption (external power supply)	4.2 W
Image memory	128 MB

HDR

Mode	Sequencer

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 (-) - 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 - Line 3
7	Trigger input with optocoupler (+) - Line 0
8	Input power supply (VCC) 12-24 V DC



Design

Lens Mount	No mount
IP code	-
Dimensions H/W/L	31.5 mm x 40.0 mm x 30.0 mm
Mass	39 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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GV-51N2SE-C-HQ Rev.4.2 (1010107)

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	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

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