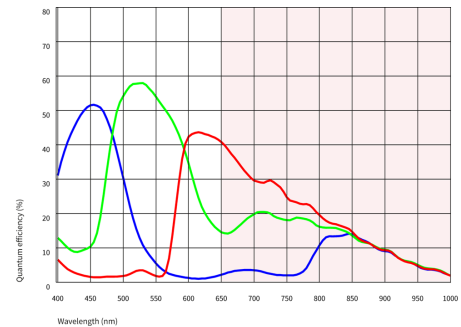


**GV-51J0FA-C-HQ Rev.1.2 (1009796)**
■ **In series**

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	Progressive scan
Pixel Class	8 MP
Resolution	8.13 Mpix
Resolution (h x v)	2856 x 2848 Pixel
Aspect ratio	1:1
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	2/3"
Optical Size	7.825 mm x 7.804 mm
Optical sensor diagonal	11.05 mm (1/1.45")
Pixel size	2.74 μm
Micro lens shift	0.00
Manufacturer	Sony
Sensor Model	IMX546AAQJ-C
Gain (master/RGB)	15.9x/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	same frame rate
Binning vertical	same frame rate
Binning method	M/C automatic
Binning factor	2 / 4 / 8
Subsampling horizontal	same frame rate
Subsampling vertical	same frame rate
Subsampling method	M/C automatic
Subsampling factor	2, 4, 8



Subject to technical modifications (2023-12-12)

## Model

Frame rate freerun mode (in 8-bit mode)	15 fps
Frame rate trigger (continuous)	15 fps
Frame rate trigger (maximum)	17 fps
Exposure time (minimum - maximum)	0.023 ms - 2000 ms
Long exposure (maximum)	120000 ms
Power consumption	2 W - 4 W
Image memory	128 MB

## Ambient conditions

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

Device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
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	178 g

## Features

### Image Acquisition

Freerun	✓
Software trigger	✓
Hardware trigger	✓
Trigger controlled exposure	✓
Denoiser	✓
Long exposure	✓
Line scan	✓
Line scan highspeed	-

### 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 BayerRG8 BayerRG10 BayerRG10p BayerRG12 BayerRG12p BGR8 RGB8 BGR10p32 RGB10p32
	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	3.20