GV-54J0FA-C-HQ Rev.1.3 (1012655)

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

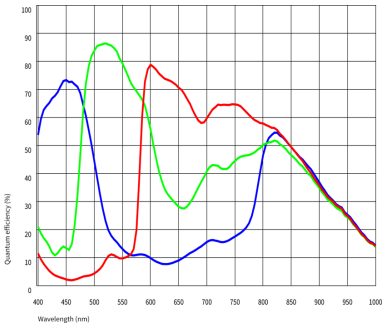




Specification

Sensor

Sensor type	CMOS Color
Shutter	Rolling shutter
Sensor characteristic	Linear
Pixel Class	8 MP
Resolution	8.39 Mpix
Resolution (h x v)	3856 x 2176 Pixel
Aspect ratio	16:9
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1/1.8"
Optical Size	7.712 mm x 4.352 mm
Optical sensor diagonal	8.86 mm 1/1.8"
Pixel size	2 µm
CRA (Chief Ray Angle)	0 °
Manufacturer	Sony
Sensor Model	IMX678-AAQR1-C
Gain (master/RGB)	26.6x/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	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	M/C automatic



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Model

Frame rate freerun mode	14 fps
Frame rate trigger (continuous)	9.4 fps
Frame rate trigger (maximum)	9.4 fps
Exposure time (minimum - maximum)	0.02 ms - 1999 ms
Long exposure (maximum)	120036 ms
Power consumption (Power over Ethernet)	4.1 W
Power consumption (external power supply)	3.8 W
Image memory	128 MB

HDR

Mode	ClearHDR

Ambient conditions

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

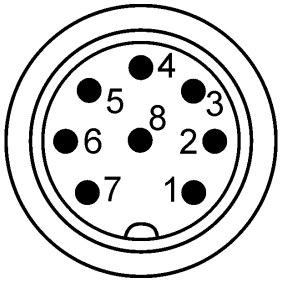
Allowed device temperature during operation	-20 °C - 55 °C / -4 °F - 131 °F
Allowed ambient temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	0 % - 100 %

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	IP66, IP67, IP69, IPx9K
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).

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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	Mono8 BayerRG8 BayerRG10 BayerRG10p BayerRG12 BayerRG12p BGR8 RGB8 BGR10p32 RGB10p32
	Region of interest	✓
	Decimation (FPGA)	✓
	Decimation (Sensor)	
	Binning (FPGA)	✓
	Binning (Sensor)	2x2 Increases frame rate.
Others	IP settings	✓
	Bandwidth management	✓
	Chunks	✓
	Sequencer	-
	PTP	✓
	Firmware update	✓
	1st supported firmware version	3.95.28444

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