GV-51A0FA-M-GL Rev.1.2 (1010416)

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

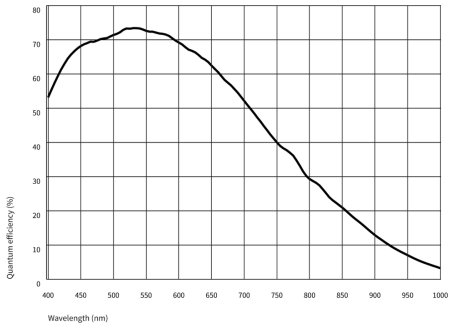




Specification

Sensor

Sensor type	CMOS Mono
Shutter	Global Shutter
Sensor characteristic	Linear
Pixel Class	0.5 MP
Resolution	0.51 Mpix
Resolution (h x v)	816 x 624 Pixel
Aspect ratio	4:3
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1/1.7"
Optical Size	7.344 mm x 5.616 mm
Optical sensor diagonal	9.25 mm 1/1.7"
Pixel size	9 µm
CRA (Chief Ray Angle)	2.7 °
Manufacturer	Sony
Sensor Model	IMX426LLJ-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	-
Binning vertical	-
Binning method	Horizontal: addition / Vertical: addition
Binning factor	-
Decimation (subsampling) horizontal	-
Decimation (subsampling) vertical	-
Decimation (subsampling) method	M/C automatic



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Model

Frame rate freerun mode	225 fps
Frame rate trigger (continuous)	225 fps
Frame rate trigger (maximum)	225 fps
Exposure time (minimum - maximum)	0.017 ms - 2000 ms
Long exposure (maximum)	90000 ms
Line rate freerun mode (line scan)	1236 1/s
Line rate trigger mode (line scan)	1248 1/s
Lines per frame (line scan)	8000
Power consumption (Power over Ethernet)	4.9 W
Power consumption (external power supply)	4.2 W
Image memory	128 MB

HDR

Mode	Sequencer

Ambient conditions

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

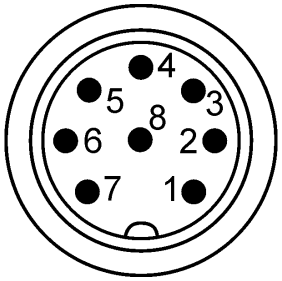
Allowed device temperature during operation	-20 °C - 55 °C / -4 °F - 131 °F
Allowed ambient temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	0 % - 100 %

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	174 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	✓
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)	
	Binning (FPGA)	✓
	Binning (Sensor)	
Others	IP settings	✓
	Bandwidth management	✓
	Chunks	✓
	Sequencer	✓
	PTP	✓
	Firmware update	✓
	1st supported firmware version	3.32

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