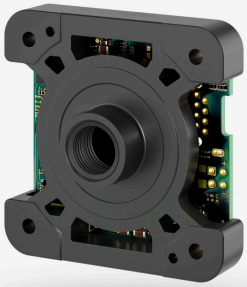
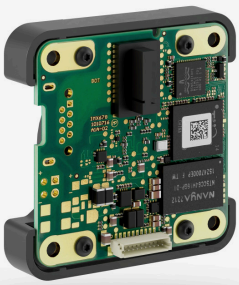
GV-54J1LE-M-MB Rev.2 (1011663)

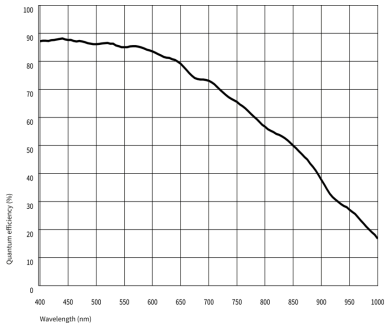
In series
The model is in series and available for the long term.


Specification

Sensor

Sensor type	CMOS Mono
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-AAMR1-C
Gain (master/RGB)	26.6x/-
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	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)	14 fps
Frame rate trigger (maximum)	21 fps
Exposure time (minimum - maximum)	0.02 ms - 1999 ms
Long exposure (maximum)	119978 ms
Power consumption	2.3 W - 3.6 W
Image memory	128 MB

HDR

Mode	ClearHDR

Ambient conditions

For PCB versions, refer to the separate hints in the respective documentation.

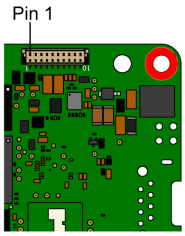
Allowed device temperature during operation	0 °C - 85 °C / 32 °F - 185 °F
Allowed ambient temperature during operation	0 °C - 40 °C / 32 °F - 104 °F
Allowed ambient temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	20 % - 80 %

Connectors

Interface connector	ZIF
I/O connector	10-pin Wuerth connector (WR-WTB 1.00 mm)
Power supply	12 V - 24 V

Pin assignment I/O connector

1	Power supply (VCC) 12-24 V
2	Power supply, ground
3	General Purpose I/O (GPIO) 2, 3.3 V - Line 3
4	General Purpose I/O (GPIO) 1, 3.3 V - Line 2
5	I2C SCL (signal clock) 3.3 V
6	I2C SDA (signal data) 3.3 V
7	Trigger input without optocoupler 3.3 V - Line 0
8	Flash output without optocoupler 3.3 V - Line 1
9	Ground (GND)
10	Voltage output 3.3 V, max. 100 mA



Design

Lens Mount	S-Mount
IP code	-
Dimensions H/W/L	50.0 mm x 50.0 mm x 23.5 mm
Mass	27 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-54J1LE-M-MB Rev.2 (1011663)

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 Mono10 Mono10p Mono12 Mono12p
	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	3.60

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