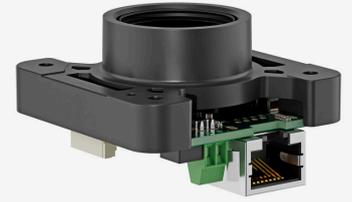# IDS

GV-53D4LE-C-HQ Rev.2 (1011702)

■ In development
The model is not yet in series production, but will be introduced shortly.

Specification

- PRELIMINARY -

Sensor

Sensor type	CMOS Color
Shutter	Global Shutter
Sensor characteristic	Linear
Readout mode	Progressive scan
Pixel Class	3 MP
Resolution	3.20 Mpix
Resolution (h x v)	2064 x 1552 Pixel
Aspect ratio	4:3
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1/3.1""
Optical Size	4.644 mm x 3.492 mm
Optical sensor diagonal	5.81 mm (1/2.75")
Pixel size	2.25 µm
Manufacturer	Sony
Sensor Model	IMX900-AQR-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	
Binning factor	-
Subsampling horizontal	increased frame rate
Subsampling vertical	increased frame rate
Subsampling method	M/C automatic
Subsampling factor	-
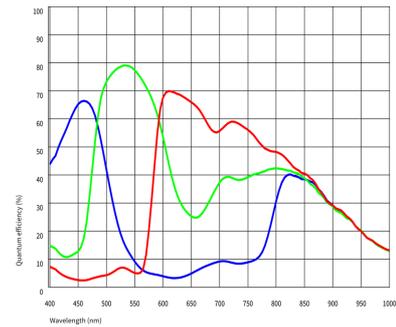
Model

Frame rate freerun mode	39 fps
Frame rate trigger (continuous)	39 fps
Frame rate trigger (maximum)	50 fps
Exposure time (minimum - maximum)	0.023 ms - 2000 ms
Power consumption	2 W - 3.4 W

Ambient conditions

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

Allowed device temperature during operation	0 °C - 80 °C / 32 °F - 176 °F
Allowed ambient temperature during operation	0 °C - 25 °C / 32 °F - 77 °F
Allowed ambient 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	10-pin Wuerth connector (WR-WTB 1.00 mm)
Power supply	12 V - 24 V

Pin assignment I/O connector

Pin 1

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

RJ45
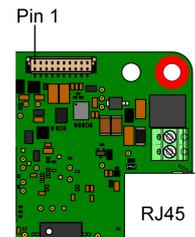
Design

Lens Mount	C-Mount
IP code	-
Dimensions H/W/L	50.0 mm x 50.0 mm x 32.0 mm
Mass	0 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).

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 BayerRG10p BayerRG12 BayerRG12p BayerRG10
	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	