

## In series

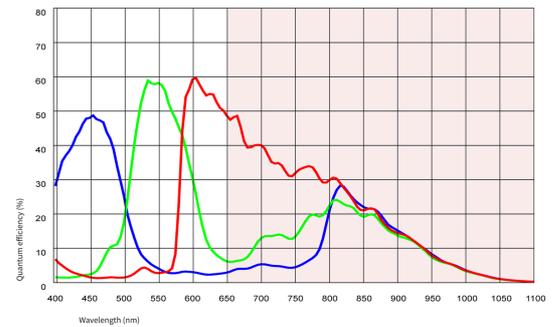
The model is in series and available for the long term.



## Specification

### Sensor

Sensor type	CMOS Color
Shutter	Global Shutter
Sensor characteristic	Linear
Readout mode	-
Pixel Class	20 MP
Resolution	20.32 Mpix
Resolution (h x v)	4508 x 4508 Pixel
Aspect ratio	1:1
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	4/3"
Optical Size	14.400 mm x 14.400 mm
Optical sensor diagonal	20.36 mm 4/3"
Pixel size	3.2 µm
Manufacturer	Onsemi
Sensor Model	NOIX1SE020KB-GTI
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	M/C automatic
Binning factor	1x1
Decimation (subsampling) horizontal	
Decimation (subsampling) vertical	
Decimation (subsampling) method	M/C automatic
Decimation (subsampling) factor	1x1



### Model

Frame rate freerun mode	39 fps
Frame rate trigger (continuous)	39 fps
Frame rate trigger (maximum)	39 fps
Exposure time (minimum - maximum)	0.042 ms - 2000 ms
Power consumption	12.6 W - 15.9 W
Image memory	2032 MB

### Ambient conditions

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

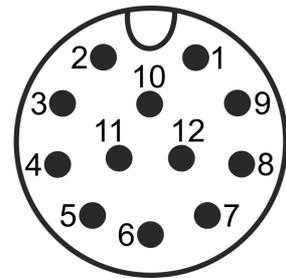
Allowed device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Allowed device temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	20 % - 80 %

### Connectors

Interface connector	GigE RJ45
I/O connector	12-pin M12 connector (Attend 216A-12MSR)
Power supply	12 V - 24 V or PoE+

### Pin assignment I/O connector

1	Power supply, 12-24 V DC
2	Power supply, ground
3	(Trigger) input 0 with optocoupler - Line0
4	Reference level for all optocoupler outputs
5	Reference level for all optocoupler inputs
6	(Trigger) input 1 with optocoupler - Line1
7	(Flash) output 1 with optocoupler - Line4
8	Fast (flash) output 2 with optocoupler - Line5
9	Power supply for fast (flash) outputs, 3-5 V DC
10	Fast (flash) output 3 with optocoupler - Line6
11	(Trigger) input 2 with optocoupler - Line2
12	(Flash) output 0 with optocoupler - Line3



### Design

Lens Mount	TFL (M35 x 0.75)
IP code	IP30
Dimensions H/W/L	60.0 mm x 75.0 mm x 94.5 mm
Mass	570 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).

#### Image Acquisition

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

GV-77Q5WP-C-HQ (1008277)

Flashing	Flashing	✓
	PWM flashing	✓
Image Adjustments	Auto exposure	✓
	Auto gain	✓
	Auto whitebalance	✓
	Color correction	✓
	Gamma	✓
	LUT	✓
	Mirror/flip	-
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)	
Others	IP settings	✓
	Bandwidth management	✓
	Chunks	-
	Sequencer	-
	PTP	✓
	Firmware update	✓
	1st supported firmware version	3.20