

In series

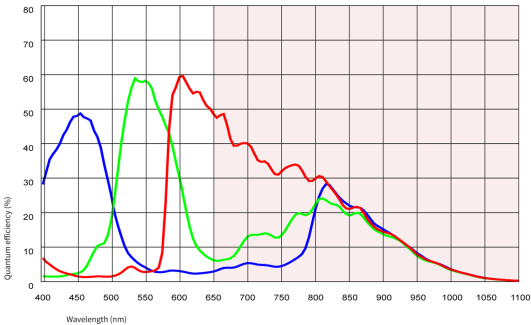
The model is in series and available for the long term.



Specification

Sensor

Sensor type	CMOS Color
Shutter	Global Shutter
Sensor characteristic	Linear
Readout mode	Progressive scan
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	14.426 mm x 14.426 mm
Optical sensor diagonal	20.4 mm
Pixel size	3.2 µm
Micro lens shift	10.00
Manufacturer	Onsemi
Sensor Model	NOIX1SE020KB-GTI
Gain (master/RGB)	4x/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	same frame rate
Binning vertical	same frame rate
Binning method	M/C automatic
Binning factor	2 / 4 / 8
Subsampling horizontal	same frame rate
Subsampling vertical	same frame rate
Subsampling method	M/C automatic
Subsampling factor	2, 4, 8



Model

Frame rate freerun mode (in 12-bit mode)	30 fps
Frame rate trigger (maximum)	-
Exposure time (minimum - maximum)	0.037 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.

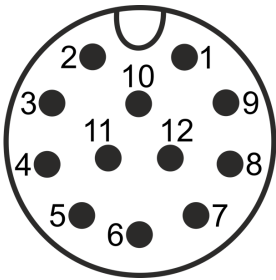
Device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Device temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	20 % - 80 %

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

Features

Image Acquisition	Freerun	✓
	Software trigger	✓
	Hardware trigger	✓
	Trigger controlled exposure	✓
	Denoiser	✓
	Long exposure	-
	Line scan	-
	Line scan highspeed	-

Flashing	Flashing	✓
	PWM flashing	✓

Subject to technical modifications (2024-05-15)

Image Adjustments

Auto exposure	✓
Auto gain	✓
Auto whitebalance	✓
Color correction	✓
Gamma	✓
LUT	✓
Mirror/flip	X/Y

On-board Image Processing

Pixel formats	BayerRG12 BayerRG12p RGB8 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