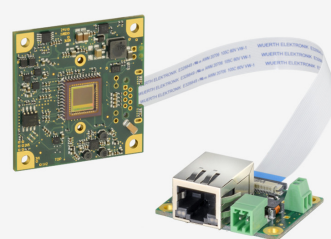
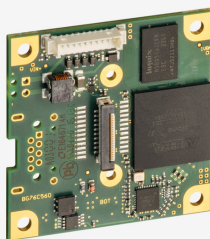
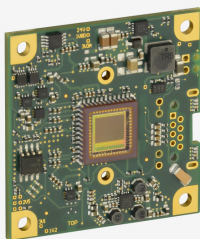


Discontinued
The model has been discontinued.



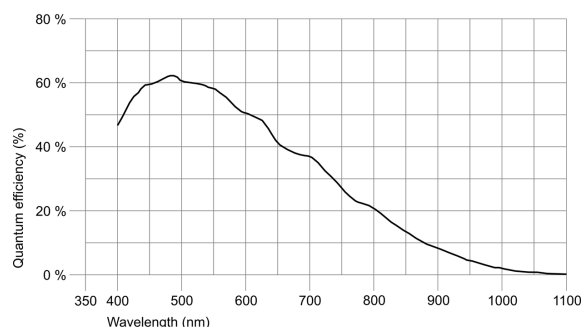
Daughterboard and flex ribbon cable shown are optional accessories



Specification

Sensor

Sensor type	CMOS Mono
Shutter	Rolling shutter / Global Start Shutter
Sensor characteristic	Linear
Pixel Class	5 MP
Resolution	4.92 Mpix
Resolution (h x v)	2560 x 1920 Pixel
Aspect ratio	4:3
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	1/2"
Optical Size	5.632 mm x 4.224 mm
Optical sensor diagonal	7.04 mm (1/2.27")
Pixel size	2.2 µm
CRA (Chief Ray Angle)	7 °
Manufacturer	Onsemi
Sensor Model	MT9P031STM
Gain (master/RGB)	30x/-
AOI horizontal	increased frame rate
AOI vertical	increased frame rate
AOI image width / step width	32 / 4
AOI image height / step width	4 / 2
AOI position grid (horizontal/vertical)	4 / 2
Binning horizontal	increased frame rate
Binning vertical	increased frame rate
Binning method	Horizontal: addition / Vertical: mean
Binning factor	2 / 3 / 4 / 6
Decimation (subsampling) horizontal	increased frame rate
Decimation (subsampling) vertical	increased frame rate
Decimation (subsampling) method	Color
Decimation (subsampling) factor	2 / 3 / 4 / 5 / 6



Model

Pixel clock range	4 MHz - 96 MHz
Frame rate freerun mode	14 fps
Frame rate trigger (maximum)	14 fps
Exposure time (minimum - maximum)	0.034 ms - 3404 ms
Power consumption	2.6 W - 3.1 W
Image memory	60 MB

Ambient conditions

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

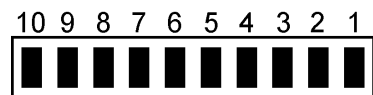
Allowed device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Allowed device temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	20 % - 80 %

Connectors

Interface connector	ZIF
I/O connector	10-pin Molex connector (Pico Blade)
Power supply	12 V - 24 V

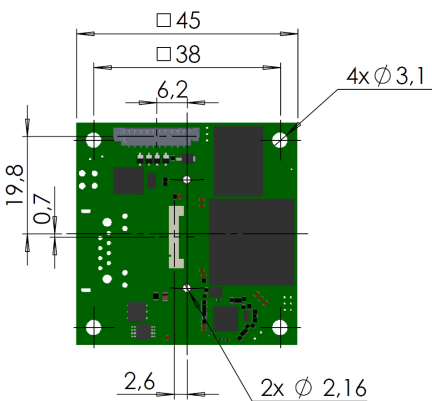
Pin assignment I/O connector

1	Ground (GND)
2	Vout 3.1 V max. 100 mA
3	Trigger input without optocoupler
4	Flash output without optocoupler
5	General Purpose I/O (GPIO) 1
6	General Purpose I/O (GPIO) 2
7	I2C bus clock signal
8	I2C bus data signal
9	Vin+ 12 V (160 mA) - 24 V (90 mA)
10	Vin- (GND)



Design

Lens Mount	No mount
IP code	-
Dimensions H/W/L	45.0 mm x 45.0 mm x 13.0 mm
Mass	10 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	-
	Global start	✓
Flashing	Flashing	-
	PWM flashing	-
Image Adjustments	Auto exposure	-
	Auto gain	-
	Auto whitebalance	-
	Color correction	-
	Gamma	-
	LUT	-
	Mirror/flip	-
On-board Image Processing	Pixel formats	
	Region of interest	✓
	Decimation (FPGA)	-
	Decimation (Sensor)	
	Binning (FPGA)	-
Others	Chunks	-
	Sequencer	-
	Firmware update	-
	1st supported firmware version	4.96.1