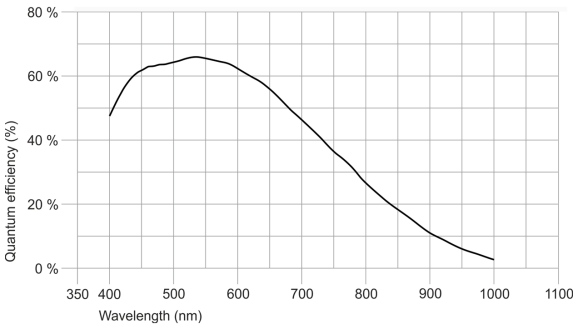


Not recommended for new designs
The camera model is no longer recommended for new application development.



Specification

Sensor	
Sensor type	CMOS Mono
Shutter	Global Shutter
Sensor characteristic	Linear
Pixel Class	5 MP
Resolution	5.04 Mpix
Resolution (h x v)	2456 x 2054 Pixel
Aspect ratio	5:4
ADC	12 bit
Color depth (camera)	12 bit
Optical sensor class	2/3"
Optical Size	8.473 mm x 7.086 mm
Optical sensor diagonal	11.05 mm 2/3"
Pixel size	3.45 µm
CRA (Chief Ray Angle)	0 °
Manufacturer	Sony
Sensor Model	IMX250LLR-C
Gain (master/RGB)	24x/4x
AOI horizontal	same frame rate
AOI vertical	increased frame rate
AOI image width / step width	256 / 8
AOI image height / step width	2 / 2
AOI position grid (horizontal/vertical)	4 / 2
Binning horizontal	same frame rate
Binning vertical	same frame rate
Binning method	Horizontal: addition / Vertical: addition
Binning factor	2
Decimation (subsampling) horizontal	same frame rate
Decimation (subsampling) vertical	increased frame rate
Decimation (subsampling) method	M/C automatic
Decimation (subsampling) factor	2 / 4 / 6 / 8 / 16



Model

Pixel clock range	80 MHz - 474 MHz
Frame rate freerun mode	77 fps
Frame rate trigger (continuous)	77 fps
Frame rate trigger (maximum)	86 fps
Exposure time (minimum - maximum)	0.019 ms - 999 ms
Long exposure (maximum)	30000 ms
Power consumption	1.6 W - 3.7 W
Image memory	128 MB
Special features	IDS line scan mode Overlap trigger Sensor source gain Multi-AOI

Ambient conditions

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

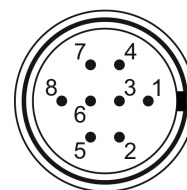
Allowed device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Allowed device temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	20 % - 80 %

Connectors

Interface connector	USB Type-C
I/O connector	8-pin Hirose connector (HR25-7TR-8PA(73))
Power supply	USB cable

Pin assignment I/O connector

1	Ground (GND)
2	Flash output with optocoupler (-)
3	General Purpose I/O (GPIO) 1, 3.3 V
4	Trigger input with optocoupler (-)
5	Flash output with optocoupler (+)
6	General Purpose I/O (GPIO) 2, 3.3 V
7	Trigger input with optocoupler (+)
8	Voltage output (USB Power Delivery), 5-15 V



Design

Lens Mount	C-Mount
IP code	-
Dimensions H/W/L	34.0 mm x 44.0 mm x 31.0 mm
Mass	47 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	✓

Subject to technical modifications (2026-07-29)

UI-3081SE-M-GL (AB00988)

Flashing	Flashing	-
	PWM flashing	-
Image Adjustments	Auto exposure	-
	Auto gain	-
	Auto whitebalance	-
	Color correction	-
	Gamma	-
	LUT	-
On-board Image Processing	Mirror/flip	-
	Pixel formats	
	Region of interest	✓
	Decimation (FPGA)	-
	Decimation (Sensor)	
Others	Binning (FPGA)	-
	Chunks	-
	Sequencer	-
	Firmware update	-
	1st supported firmware version	4.90