

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

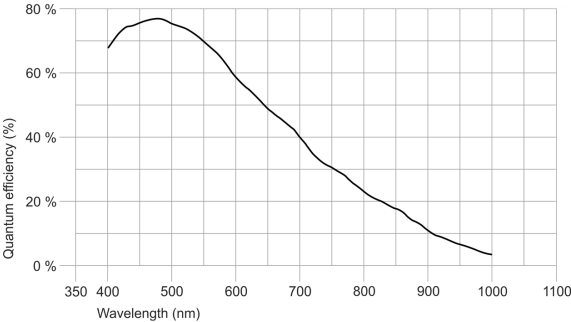


uEye industrial cameras now also work with IDS peak! We recommend the Software Development Kit for the implementation of new projects. [Learn about the process here and switch now.](#)
Please note: The technical data given here was measured using the IDS Software Suite.

Specification

Sensor

| | |
|---|--|
| Sensor type | CMOS Mono |
| Shutter | Rolling shutter / Global Start Shutter |
| Sensor characteristic | Linear |
| Readout mode | Progressive scan |
| Pixel Class | 6 MP |
| Resolution | 6.41 Mpix |
| Resolution (h x v) | 3088 x 2076 Pixel |
| Aspect ratio | 3:2 |
| ADC | 12 bit |
| Color depth (camera) | 12 bit |
| Optical sensor class | 1/1.8" |
| Optical Size | 7.411 mm x 4.982 mm |
| Optical sensor diagonal | 8.93 mm (1/1.79") |
| Pixel size | 2.4 µm |
| Manufacturer | Sony |
| Sensor Model | IMX178LLJ-C |
| Gain (master/RGB) | 14.5x/5x |
| AOI horizontal | same frame rate |
| AOI vertical | increased frame rate |
| AOI image width / step width | 88 / 8 |
| AOI image height / step width | 28 / 2 |
| AOI position grid (horizontal/vertical) | 4 / 2 |
| Binning horizontal | - |
| Binning vertical | - |
| Binning method | - |
| Binning factor | - |
| Subsampling horizontal | - |
| Subsampling vertical | - |
| Subsampling method | - |
| Subsampling factor | - |



Subject to technical modifications (2024-03-28)

Model

| | |
|-----------------------------------|--|
| Pixel clock range | 20 MHz - 474 MHz |
| Frame rate freerun mode | 58 |
| Frame rate trigger (continuous) | 58 |
| Frame rate trigger (maximum) | 58 |
| Exposure time (minimum - maximum) | 0.013 ms - 1000 ms |
| Long exposure (maximum) | 120000 ms |
| Power consumption | 0.7 W - 1.6 W |
| Special features | Overlap trigger, Sensor source gain |

Ambient conditions

The temperature values given below refer to the outer device temperature of the camera housing.
For PCB versions, refer to the separate hints in the respective documentation.

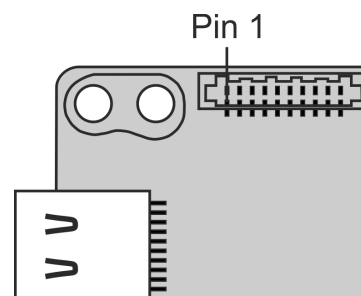
| | |
|-------------------------------------|---------------------------------|
| Device temperature during operation | 0 °C - 55 °C / 32 °F - 131 °F |
| Device temperature during storage | -20 °C - 80 °C / -4 °F - 176 °F |
| Humidity (relative, non-condensing) | 20 % - 80 % |

Connectors

| | |
|---------------------|-------------------------------------|
| Interface connector | USB Type-C |
| I/O connector | 10-pin Molex connector (IllumiMate) |
| Power supply | USB cable |

Pin assignment I/O connector

| | |
|----|---|
| 1 | Voltage output (USB Power Delivery), 5-15 V |
| 2 | Ground (GND) |
| 3 | General Purpose I/O (GPIO) 2, 3.3 V |
| 4 | General Purpose I/O (GPIO) 1, 3.3 V |
| 5 | TWI (Two Wire Interface) clock signal |
| 6 | TWI (Two Wire Interface) data signal |
| 7 | Trigger input without optocoupler 3.3 V |
| 8 | Flash output without optocoupler 3.3 V |
| 9 | Ground (GND) |
| 10 | Voltage output 3.3 V |



Camera rear view

Design

| | |
|------------------|-----------------------------|
| Lens Mount | S-Mount |
| IP code | - |
| Dimensions H/W/L | 36.0 mm x 36.0 mm x 26.3 mm |
| Mass | 21 g |