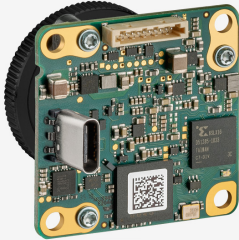
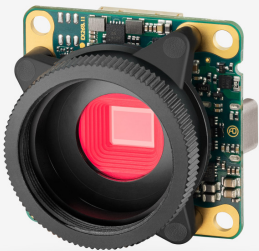


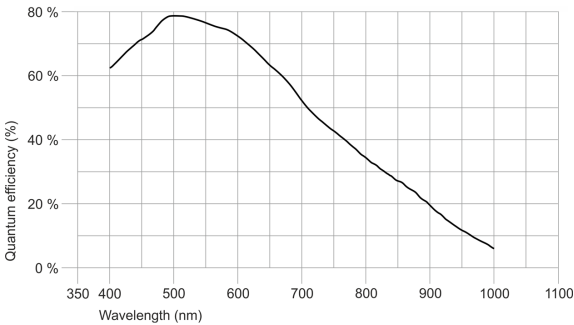
Not recommended for new designs  
The camera model is no longer recommended for new application development.



Specification

Sensor

|                                         |                                        |
|-----------------------------------------|----------------------------------------|
| Sensor type                             | CMOS Mono                              |
| Shutter                                 | Rolling shutter / Global Start Shutter |
| Sensor characteristic                   | Linear                                 |
| Pixel Class                             | 2 MP                                   |
| Resolution                              | 2.12 Mpix                              |
| Resolution (h x v)                      | 1936 x 1096 Pixel                      |
| Aspect ratio                            | 16:9                                   |
| ADC                                     | 12 bit                                 |
| Color depth (camera)                    | 12 bit                                 |
| Optical sensor class                    | 1/2.8"                                 |
| Optical Size                            | 5.614 mm x 3.178 mm                    |
| Optical sensor diagonal                 | 6.45 mm 1/2.8"                         |
| Pixel size                              | 2.9 µm                                 |
| CRA (Chief Ray Angle)                   | 0 °                                    |
| Manufacturer                            | Sony                                   |
| Sensor Model                            | IMX290LLR-C                            |
| Gain (master/RGB)                       | 20x/5x                                 |
| AOI horizontal                          | same frame rate                        |
| AOI vertical                            | increased frame rate                   |
| AOI image width / step width            | 32 / 8                                 |
| AOI image height / step width           | 2 / 2                                  |
| AOI position grid (horizontal/vertical) | 4 / 2                                  |
| Binning horizontal                      | -                                      |
| Binning vertical                        | -                                      |
| Binning method                          | -                                      |
| Binning factor                          | -                                      |
| Decimation (subsampling) horizontal     | -                                      |
| Decimation (subsampling) vertical       | -                                      |
| Decimation (subsampling) method         | -                                      |



## UI-3864LE-M-GL-VU (AB02212)

### Model

|                                   |                    |
|-----------------------------------|--------------------|
| Pixel clock range                 | 20 MHz - 474 MHz   |
| Frame rate freerun mode           | 135 fps            |
| Frame rate trigger (continuous)   | 67 fps             |
| Frame rate trigger (maximum)      | 67 fps             |
| Exposure time (minimum - maximum) | 0.011 ms - 999 ms  |
| Long exposure (maximum)           | 120000 ms          |
| Power consumption                 | 0.9 W - 1.5 W      |
| Image memory                      | -                  |
| Special features                  | Sensor source gain |

### Ambient conditions

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

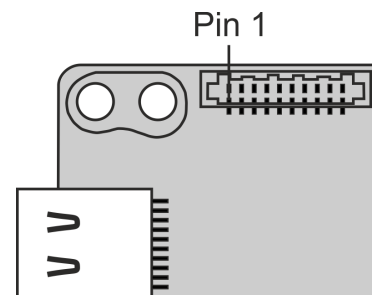
|                                             |                                 |
|---------------------------------------------|---------------------------------|
| Allowed device temperature during operation | 0 °C - 55 °C / 32 °F - 131 °F   |
| Allowed device temperature during storage   | -20 °C - 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                        |



### Design

|                  |                             |
|------------------|-----------------------------|
| Lens Mount       | CS- / C-Mount               |
| IP code          | -                           |
| Dimensions H/W/L | 36.0 mm x 36.0 mm x 25.7 mm |
| Mass             | 18 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).

## UI-3864LE-M-GL-VU (AB02212)

|                           |                                |      |
|---------------------------|--------------------------------|------|
| 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 | 4.82 |