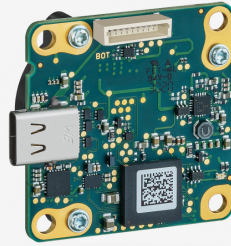


U3-3681XLE-C-NO Rev.1.1 (1007701)

In series

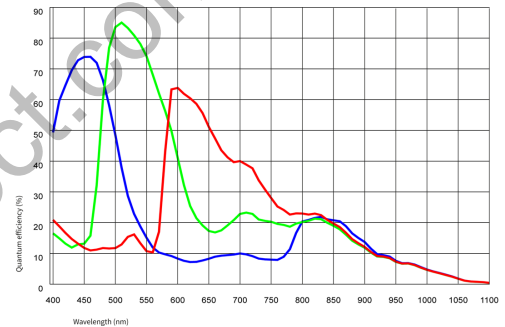
The model is in series and available for the long term.



Specification

Sensor

| | |
|---|----------------------|
| Sensor type | CMOS Color |
| Shutter | Rolling shutter |
| Sensor characteristic | Linear |
| Readout mode | Progressive scan |
| Pixel Class | 5 MP |
| Resolution | 5.04 Mpix |
| Resolution (h x v) | 2592 x 1944 Pixel |
| Aspect ratio | 4:3 |
| ADC | 12 bit |
| Color depth (camera) | 12 bit |
| Optical sensor class | 1/2.5" |
| Optical Size | 5.702 mm x 4.277 mm) |
| Optical sensor diagonal | 7.13 mm (1/2.24") |
| Pixel size | 2.2 μm |
| Manufacturer | Onsemi |
| Sensor Model | AR0521SR2C09SURA0 |
| Gain (master/RGB) | 15x/8x |
| AOI horizontal | same frame rate |
| AOI vertical | increased frame rate |
| AOI image width / step width | 48 / 12 |
| AOI image height / step width | 4 / 2 |
| AOI position grid (horizontal/vertical) | 8 / 2 |
| Binning horizontal | same frame rate |
| Binning vertical | increased frame rate |
| Binning method | Color |
| Binning factor | 2 |
| Subsampling horizontal | same frame rate |
| Subsampling vertical | increased frame rate |
| Subsampling method | Color |
| Subsampling factor | 2, 4 |



Subject to technical modifications (2023-06-19)

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Model

| | |
|-----------------------------------|--------------------|
| Frame rate freerun mode | 48 fps |
| Frame rate trigger (continuous) | 44 fps |
| Frame rate trigger (maximum) | 44 fps |
| Exposure time (minimum - maximum) | 0.016 ms - 2000 ms |
| Power consumption | 0.6 W - 1.2 W |

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.

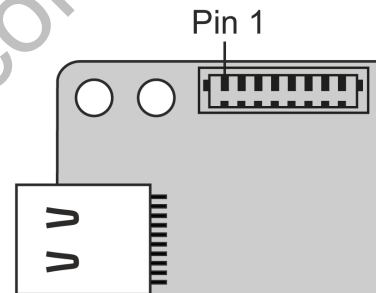
| | |
|-------------------------------------|---------------------------------|
| Device temperature during operation | 0 °C - 55 °C / 32 °F - 131 °F |
| Device temperature during storage | -20 °C - 80 °C / -4 °F - 176 °F |
| Humidity (relative, non-condensing) | 20 % - 80 % |

Connectors

| | |
|---------------------|-----------------|
| Interface connector | USB Type-C |
| I/O connector | 8-pin connector |
| Power supply | USB cable |

Pin assignment I/O connector

| | |
|---|--|
| 1 | Voltage output 3.3 V |
| 2 | Ground (GND) |
| 3 | Flash output without optocoupler - Line 1 |
| 4 | Trigger input without optocoupler - Line 0 |
| 5 | not connected |
| 6 | not connected |
| 7 | Ground (GND) |
| 8 | USB Power: 5 V, max. 400 mA |



Design

| | |
|------------------|-----------------------------|
| Lens Mount | S-Mount |
| IP code | - |
| Dimensions H/W/L | 36.0 mm x 36.0 mm x 21.0 mm |
| Mass | 13 g |

Features

Image Acquisition

| | |
|-----------------------------|---|
| Freerun | ✓ |
| Software trigger | ✓ |
| Hardware trigger | ✓ |
| Trigger controlled exposure | - |
| Denoisier | - |
| Long exposure | - |
| Line scan | - |
| Line scan highspeed | - |
| Global start | - |

Flashing

| | |
|--------------|---|
| Flashing | ✓ |
| PWM flashing | - |

Image Adjustments

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

On-board Image Processing

| | |
|---------------------|--|
| Pixel formats | BayerGR8 BayerGR10g40IDS BayerGR12g24IDS |
| Region of interest | ✓ |
| Decimation (FPGA) | - |
| Decimation (Sensor) | 2x(2,4) |
| Binning (FPGA) | - |
| Binning (Sensor) | 2x2 Increases frame rate. |

Others

| | |
|--------------------------------|-----|
| Chunks | - |
| Sequencer | - |
| Events | - |
| Firmware update | ✓ |
| 1st supported firmware version | 2.6 |

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