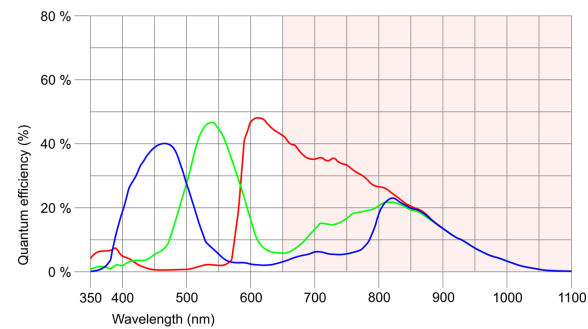


**In series**  
The model is in series and available for the long term.



Specification

|                                         |                      |
|-----------------------------------------|----------------------|
| Sensor                                  |                      |
| Sensor type                             | CMOS Color           |
| Shutter                                 | Global Shutter       |
| Sensor characteristic                   | Linear               |
| Pixel Class                             | 5 MP                 |
| Resolution                              | 5.31 Mpix            |
| Resolution (h x v)                      | 2592 x 2048 Pixel    |
| Aspect ratio                            | 5:4                  |
| ADC                                     | 10 bit               |
| Color depth (camera)                    | 12 bit               |
| Optical sensor class                    | 1"                   |
| Optical Size                            | 12.442 mm x 9.830 mm |
| Optical sensor diagonal                 | 15.86 mm 1"          |
| Pixel size                              | 4.8 µm               |
| CRA (Chief Ray Angle)                   | 5.4 °                |
| Manufacturer                            | Onsemi               |
| Sensor Model                            | NOIP1SE5000A-LTI     |
| Gain (master/RGB)                       | 4x/4x                |
| AOI horizontal                          | increased frame rate |
| AOI vertical                            | increased frame rate |
| AOI image width / step width            | 128 / 16             |
| AOI image height / step width           | 2 / 2                |
| AOI position grid (horizontal/vertical) | 16 / 2               |
| Binning horizontal                      | -                    |
| Binning vertical                        | -                    |
| Binning method                          | -                    |
| Binning factor                          | -                    |
| Decimation (subsampling) horizontal     | increased frame rate |
| Decimation (subsampling) vertical       | increased frame rate |
| Decimation (subsampling) method         | M/C automatic        |



### Model

|                                   |                   |
|-----------------------------------|-------------------|
| Frame rate freerun mode           | 73 fps            |
| Frame rate trigger (continuous)   | 73 fps            |
| Frame rate trigger (maximum)      | 81 fps            |
| Exposure time (minimum - maximum) | 0.052 ms - 500 ms |
| Power consumption                 | 3.7 W - 4.9 W     |
| Image memory                      | 128 MB            |

### Ambient conditions

The temperature values given below refer to the outer device temperature of the camera housing.

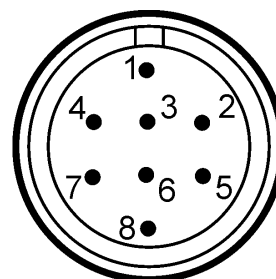
|                                             |                                 |
|---------------------------------------------|---------------------------------|
| Allowed device temperature during operation | 0 °C - 55 °C / 32 °F - 131 °F   |
| Allowed ambient temperature during storage  | -20 °C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

### Connectors

|                     |                                           |
|---------------------|-------------------------------------------|
| Interface connector | USB 3.0 micro-B, screwable                |
| 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 (-) - Line 1  |
| 3 | General Purpose I/O (GPIO) 1 - Line 2       |
| 4 | Trigger input with optocoupler (-) - Line 0 |
| 5 | Flash output with optocoupler (+) - Line 1  |
| 6 | General Purpose I/O (GPIO) 2                |
| 7 | Trigger input with optocoupler (+) - Line 0 |
| 8 | Output supply voltage, 5 V (100 mA)         |



### Design

|                  |                             |
|------------------|-----------------------------|
| Lens Mount       | C-Mount                     |
| IP code          | IP30                        |
| Dimensions H/W/L | 29.0 mm x 29.0 mm x 29.0 mm |
| Mass             | 50 g                        |
| Housing material | Magnesium / stainless steel |

### 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                   | - |

#### Flashing

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

## U3-3180CP-C-HQ Rev.2.2 (1008072)

|                           |                                |                                     |
|---------------------------|--------------------------------|-------------------------------------|
| Image Adjustments         | Auto exposure                  | ✓                                   |
|                           | Auto gain                      | ✓                                   |
|                           | Auto whitebalance              | ✓                                   |
|                           | Color correction               | -                                   |
|                           | Gamma                          | ✓                                   |
|                           | LUT                            | ✓                                   |
|                           | Mirror/flip                    | Y                                   |
| On-board Image Processing | Pixel formats                  | BayerRG8<br>BayerRG10<br>BayerRG10p |
|                           | Region of interest             | ✓                                   |
|                           | Decimation (FPGA)              | ✓                                   |
|                           | Decimation (Sensor)            | -                                   |
|                           | Binning (FPGA)                 | ✓                                   |
|                           | Binning (Sensor)               | -                                   |
|                           |                                |                                     |
| Others                    | Chunks                         | -                                   |
|                           | Sequencer                      | -                                   |
|                           | Events                         | ✓                                   |
|                           | Firmware update                | ✓                                   |
|                           | 1st supported firmware version | 3.4                                 |