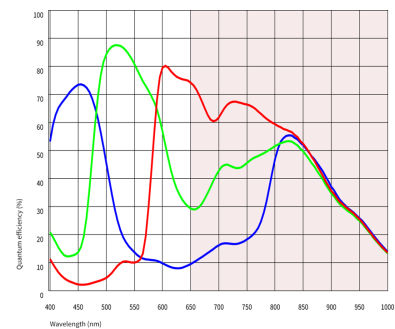


**In series**  
The model is in series and available for the long term.



Specification

|                                         |                                   |
|-----------------------------------------|-----------------------------------|
| Sensor                                  |                                   |
| Sensor type                             | CMOS Color                        |
| Shutter                                 | Rolling shutter                   |
| Sensor characteristic                   | Linear                            |
| Pixel Class                             | 5 MP                              |
| Resolution                              | 5.11 Mpix                         |
| Resolution (h x v)                      | 2608 x 1960 Pixel                 |
| Aspect ratio                            | 4:3                               |
| ADC                                     | 12 bit                            |
| Color depth (camera)                    | 12 bit                            |
| Optical sensor class                    | 1/2.8"                            |
| Optical Size                            | 5.216 mm x 3.920 mm               |
| Optical sensor diagonal                 | 6.52 mm 1/2.8"                    |
| Pixel size                              | 2 µm                              |
| CRA (Chief Ray Angle)                   | 0 °                               |
| Manufacturer                            | Sony                              |
| Sensor Model                            | IMX675-AAQR1-C                    |
| Gain (master/RGB)                       | 26.8x/-                           |
| AOI horizontal                          | same frame rate                   |
| AOI vertical                            | increased frame rate              |
| AOI image width / step width            | 1056 / 48                         |
| AOI image height / step width           | 956 / 4                           |
| AOI position grid (horizontal/vertical) | 2 / 4                             |
| Binning horizontal                      | increased frame rate              |
| Binning vertical                        | increased frame rate              |
| Binning method                          | Horizontal: mean / Vertical: mean |
| Binning factor                          | 2x2                               |
| Decimation (subsampling) horizontal     | -                                 |
| Decimation (subsampling) vertical       | -                                 |
| Decimation (subsampling) method         | -                                 |



## Model

|                                   |                    |
|-----------------------------------|--------------------|
| Frame rate freerun mode           | 41 fps @ 10Bit     |
| Frame rate trigger (continuous)   | 41 fps @ 10Bit     |
| Frame rate trigger (maximum)      | 41 fps @ 10Bit     |
| Exposure time (minimum - maximum) | 0.012 ms - 1999 ms |
| Long exposure (maximum)           | 120036 ms          |
| Power consumption                 | 1 W - 1 W          |
| Image memory                      | -                  |

## HDR

|      |          |
|------|----------|
| Mode | ClearHDR |
|------|----------|

## 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 operation | 0 °C - °C / 32 °F - 32 °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 Wuerth 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 | General Purpose I/O (GPIO) 1 - Line 2      |
| 6 | General Purpose I/O (GPIO) 2 - Line 3      |
| 7 | Ground (GND)                               |
| 8 | USB Power: 5 V, max. 400 mA                |



## Design

|                  |                             |
|------------------|-----------------------------|
| Lens Mount       | C-Mount                     |
| IP code          | IP30                        |
| Dimensions H/W/L | 29.0 mm x 29.0 mm x 17.0 mm |
| Mass             | 62 g                        |
| Housing material | Zinc nickel-plated          |

## 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).

## U3-34F0XCP-C-HQ Rev.1.2 (1010606)

|                           |                                |                                    |
|---------------------------|--------------------------------|------------------------------------|
| 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                    | X/Y                                |
| On-board Image Processing | Pixel formats                  | BayerRG10g40IDS<br>BayerRG12g24IDS |
|                           | Region of interest             | ✓                                  |
|                           | Decimation (FPGA)              | -                                  |
|                           | Decimation (Sensor)            | -                                  |
|                           | Binning (FPGA)                 | -                                  |
|                           | Binning (Sensor)               | 2x2<br>Increases frame rate.       |
| Others                    | Chunks                         | -                                  |
|                           | Sequencer                      | -                                  |
|                           | Events                         | -                                  |
|                           | Firmware update                | ✓                                  |
|                           | 1st supported firmware version | 3.34                               |