

**In development**  
The model is not yet in series production, but will be introduced shortly.

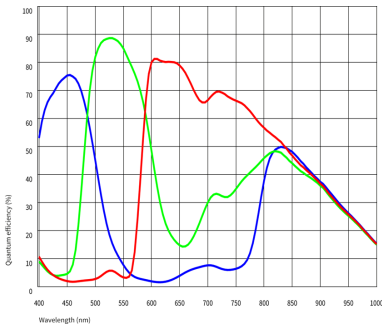


Specification

- PRELIMINARY -

Sensor

|                                         |                      |
|-----------------------------------------|----------------------|
| Sensor type                             | CMOS Color           |
| Shutter                                 | Rolling shutter      |
| Sensor characteristic                   | Linear               |
| Readout mode                            | -                    |
| Pixel Class                             | 4 MP                 |
| Resolution                              | 4.15 Mpix            |
| Resolution (h x v)                      | 2704 x 1536 Pixel    |
| Aspect ratio                            | 16:9                 |
| ADC                                     | 12 bit               |
| Color depth (camera)                    | 12 bit               |
| Optical sensor class                    | 1/1.8"               |
| Optical Size                            | 7.842 mm x 4.454 mm  |
| Optical sensor diagonal                 | 9.02 mm 1/1.8"       |
| Pixel size                              | 2.9 µm               |
| Manufacturer                            | Sony                 |
| Sensor Model                            | IMX664-AAQR1-C       |
| Gain (master/RGB)                       | 31.6x/16x            |
| AOI horizontal                          | same frame rate      |
| AOI vertical                            | increased frame rate |
| AOI image width / step width            | 256 / 2              |
| AOI image height / step width           | 2 / 2                |
| AOI position grid (horizontal/vertical) | 2 / 2                |
| Binning horizontal                      | increased frame rate |
| Binning vertical                        | increased frame rate |
| Binning method                          |                      |
| Binning factor                          | 2x2                  |
| Decimation (subsampling) horizontal     | -                    |
| Decimation (subsampling) vertical       | -                    |
| Decimation (subsampling) method         | M/C automatic        |
| Decimation (subsampling) factor         | -                    |



## Model

|                                   |                    |
|-----------------------------------|--------------------|
| Frame rate freerun mode           | 85 fps             |
| Frame rate trigger (continuous)   | 85 fps             |
| Frame rate trigger (maximum)      | 85 fps             |
| Exposure time (minimum - maximum) | 0.013 ms - 1999 ms |
| Long exposure (maximum)           | 120034 ms          |
| Power consumption                 | 1.6 W - 2.7 W      |
| Image memory                      | -                  |

## 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 device 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                   | - |
| Global start                | - |

### Flashing

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

Subject to technical modifications (2026-03-30)

## U3-34E0CP-C-HQ Rev.2.3 (1012587)

### Image Adjustments

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

### On-board Image Processing

|                     |                                                                |
|---------------------|----------------------------------------------------------------|
| Pixel formats       | BayerRG8<br>BayerRG10p<br>BayerRG12<br>BayerRG12p<br>BayerRG10 |
| 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 |   |