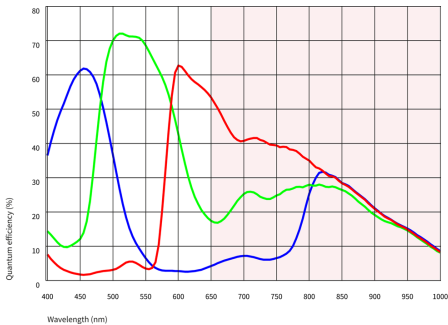


Not recommended for new designs  
The camera model is no longer recommended for new application development.



Specification

|                                         |                                   |
|-----------------------------------------|-----------------------------------|
| Sensor                                  |                                   |
| Sensor type                             | CMOS Color                        |
| Shutter                                 | Rolling shutter                   |
| Sensor characteristic                   | Linear                            |
| Pixel Class                             | 8 MP                              |
| Resolution                              | 8.41 Mpix                         |
| Resolution (h x v)                      | 3864 x 2176 Pixel                 |
| Aspect ratio                            | 16:9                              |
| ADC                                     | 12 bit                            |
| Color depth (camera)                    | 12 bit                            |
| Optical sensor class                    | 1/2.8"                            |
| Optical Size                            | 5.603 mm x 3.155 mm               |
| Optical sensor diagonal                 | 6.43 mm 1/2.8"                    |
| Pixel size                              | 1.45 µm                           |
| CRA (Chief Ray Angle)                   | 0 °                               |
| Manufacturer                            | Sony                              |
| Sensor Model                            | IMX415-AAQR-C                     |
| Gain (master/RGB)                       | 27.5x/-                           |
| AOI horizontal                          | same frame rate                   |
| AOI vertical                            | increased frame rate              |
| AOI image width / step width            | 24 / 24                           |
| AOI image height / step width           | 40 / 8                            |
| AOI position grid (horizontal/vertical) | 2 / 2                             |
| 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           | 25 fps @ 10Bit     |
| Frame rate trigger (continuous)   | 25 fps @ 10Bit     |
| Frame rate trigger (maximum)      | 25 fps @ 10Bit     |
| Exposure time (minimum - maximum) | 0.019 ms - 1999 ms |
| Power consumption                 | 0.5 W - 1 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 ambient 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       | -          |
| Power supply        | USB cable  |

## Design

|                  |                             |
|------------------|-----------------------------|
| Lens Mount       | S-Mount                     |
| IP code          | IP30                        |
| Dimensions H/W/L | 47.0 mm x 46.0 mm x 25.0 mm |
| Mass             | 30 g                        |
| Housing material | Plastic                     |

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

## U3-38J6XLE-C-HQ Rev.1.2 (1008754)

### 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 | 3.2 |