

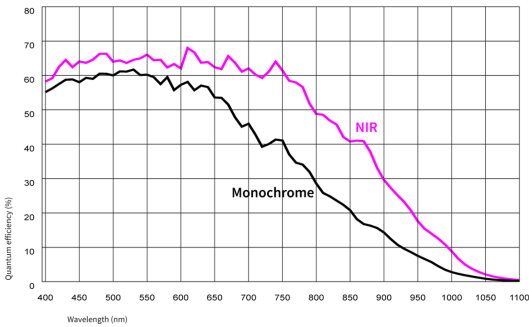
Not recommended for new designs  
The camera model is no longer recommended for new application development.



Specification

Sensor

|                                         |                                                         |
|-----------------------------------------|---------------------------------------------------------|
| Sensor type                             | CMOS Mono                                               |
| Shutter                                 | Global Shutter / Rolling shutter / Global Start Shutter |
| Sensor characteristic                   | Linear                                                  |
| Pixel Class                             | 1.3 MP                                                  |
| Resolution                              | 1.31 Mpix                                               |
| Resolution (h x v)                      | 1280 x 1024 Pixel                                       |
| Aspect ratio                            | 5:4                                                     |
| ADC                                     | 10 bit                                                  |
| Color depth (camera)                    | 12 bit                                                  |
| Optical sensor class                    | 1/1.8"                                                  |
| Optical Size                            | 6.784 mm x 5.427 mm                                     |
| Optical sensor diagonal                 | 8.69 mm 1/1.8"                                          |
| Pixel size                              | 5.3 µm                                                  |
| CRA (Chief Ray Angle)                   | 12 °                                                    |
| Manufacturer                            | e2v                                                     |
| Sensor Model                            | EV76C661ABT                                             |
| Gain (master/RGB)                       | 4x/-                                                    |
| AOI horizontal                          | same frame rate                                         |
| AOI vertical                            | increased frame rate                                    |
| AOI image width / step width            | 16 / 4                                                  |
| AOI image height / step width           | 4 / 2                                                   |
| AOI position grid (horizontal/vertical) | 2 / 2                                                   |
| Binning horizontal                      | same frame rate                                         |
| Binning vertical                        | same frame rate                                         |
| Binning method                          | Horizontal: addition / Vertical: mean                   |
| Binning factor                          | 2                                                       |
| Decimation (subsampling) horizontal     | -                                                       |
| Decimation (subsampling) vertical       | -                                                       |
| Decimation (subsampling) method         | -                                                       |
| Decimation (subsampling) factor         | 2_4x2_4                                                 |



### Model

|                                   |                                                                                                               |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------|
| Pixel clock range                 | 7 MHz - 86 MHz                                                                                                |
| Frame rate freerun mode           | 60 fps                                                                                                        |
| Frame rate trigger (maximum)      | 59 fps                                                                                                        |
| Exposure time (minimum - maximum) | 0.009 ms - 2000 ms                                                                                            |
| Power consumption                 | 1.7 W - 2.2 W                                                                                                 |
| Image memory                      | 128 MB                                                                                                        |
| Special features                  | Linescan mode<br>Scaler<br>Sequencer<br>Log mode<br>Sensor hot pixel correction<br>Fine exposure<br>Multi-AOI |

### Ambient conditions

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

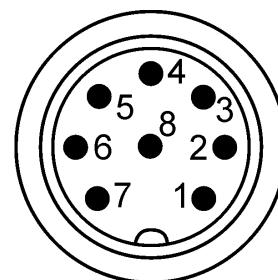
|                                             |                                 |
|---------------------------------------------|---------------------------------|
| Allowed device temperature during operation | 0 °C - 55 °C / 32 °F - 131 °F   |
| Allowed ambient temperature during storage  | -20 °C - 60 °C / -4 °F - 140 °F |
| Humidity (relative, non-condensing)         | 0 % - 100 %                     |

### Connectors

|                     |                                                            |
|---------------------|------------------------------------------------------------|
| Interface connector | GigE M12, screwable                                        |
| I/O connector       | 8-pin Binder connector (Binder series 712: 09-0427-020-08) |
| Power supply        | 12 V - 24 V or PoE                                         |

### Pin assignment I/O connector

|   |                                     |
|---|-------------------------------------|
| 1 | Trigger input with optocoupler (+)  |
| 2 | Input power supply (VCC) 12-24 V DC |
| 3 | General Purpose I/O (GPIO) 1        |
| 4 | Ground (GND)                        |
| 5 | Flash output with optocoupler (+)   |
| 6 | Flash output with optocoupler (-)   |
| 7 | Trigger input with optocoupler (-)  |
| 8 | General Purpose I/O (GPIO) 2        |



### Design

|                  |                             |
|------------------|-----------------------------|
| Lens Mount       | C-Mount                     |
| IP code          | IP65, IP67                  |
| Dimensions H/W/L | 41.0 mm x 53.0 mm x 42.7 mm |
| Mass             | 173 g                       |
| Housing material | Aluminum                    |

### 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).

## UI-5240FA-NIR-GL Rev.1.2 (AB12428)

|                           |                                |             |
|---------------------------|--------------------------------|-------------|
| 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                    | -           |
| On-board Image Processing | Pixel formats                  |             |
|                           | Region of interest             | ✓           |
|                           | Decimation (FPGA)              | -           |
|                           | Decimation (Sensor)            | (2,4)x(2,4) |
|                           | Binning (FPGA)                 | -           |
| Others                    | Chunks                         | -           |
|                           | Sequencer                      | ✓           |
|                           | Firmware update                | -           |
|                           | 1st supported firmware version | 4.96.1      |