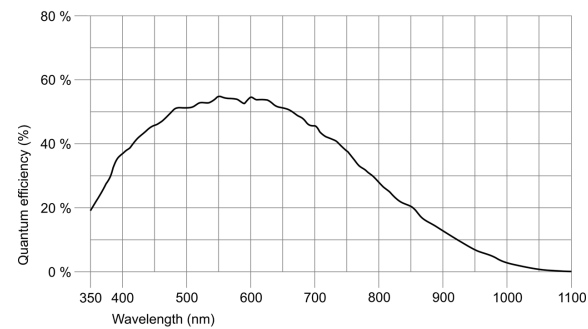


Not recommended for new designs  
The camera model is no longer recommended for new application development.



Specification

|                                         |                                   |
|-----------------------------------------|-----------------------------------|
| Sensor                                  |                                   |
| Sensor type                             | CMOS Mono                         |
| Shutter                                 | Global Shutter                    |
| 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                    | 1/2"                              |
| Optical Size                            | 6.144 mm x 4.915 mm               |
| Optical sensor diagonal                 | 7.87 mm 1/2"                      |
| Pixel size                              | 4.8 µm                            |
| CRA (Chief Ray Angle)                   | 2.7 °                             |
| Manufacturer                            | Onsemi                            |
| Sensor Model                            | NOIP1SN1300A-QDI                  |
| Gain (master/RGB)                       | 4x/4x                             |
| AOI horizontal                          | increased frame rate              |
| AOI vertical                            | increased frame rate              |
| AOI image width / step width            | 120 / 8                           |
| AOI image height / step width           | 2 / 2                             |
| AOI position grid (horizontal/vertical) | 8 / 2                             |
| Binning horizontal                      | same frame rate                   |
| Binning vertical                        | same frame rate                   |
| Binning method                          | Horizontal: mean / Vertical: mean |
| Binning factor                          | 2                                 |
| Decimation (subsampling) horizontal     | increased frame rate              |
| Decimation (subsampling) vertical       | increased frame rate              |
| Decimation (subsampling) method         | M/C automatic                     |
| Decimation (subsampling) factor         | 2_4x2_4                           |



## Model

|                                   |                                                                          |
|-----------------------------------|--------------------------------------------------------------------------|
| Pixel clock range                 | 120 MHz - 152 MHz                                                        |
| Frame rate freerun mode           | 88 fps                                                                   |
| Frame rate trigger (continuous)   | 88 fps                                                                   |
| Frame rate trigger (maximum)      | 88 fps                                                                   |
| Exposure time (minimum - maximum) | 0.069 ms - 434 ms                                                        |
| Long exposure (maximum)           | 5000 ms                                                                  |
| Power consumption                 | 1.7 W - 2.8 W                                                            |
| Image memory                      | 128 MB                                                                   |
| Special features                  | IDS line scan mode<br>Overlap trigger<br>Sensor source gain<br>Multi-AOI |

## Ambient conditions

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

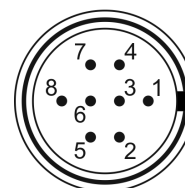
|                                             |                                 |
|---------------------------------------------|---------------------------------|
| Allowed device temperature during operation | 0 °C - 55 °C / 32 °F - 131 °F   |
| Allowed ambient temperature during storage  | -20 °C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

## Connectors

|                     |                                           |
|---------------------|-------------------------------------------|
| Interface connector | GigE RJ45, screwable                      |
| I/O connector       | 8-pin Hirose connector (HR25-7TR-8PA(73)) |
| Power supply        | 12 V - 24 V or PoE                        |

## Pin assignment I/O connector

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



## Design

|                  |                             |
|------------------|-----------------------------|
| Lens Mount       | C-Mount                     |
| IP code          | IP30                        |
| Dimensions H/W/L | 34.0 mm x 44.0 mm x 47.0 mm |
| Mass             | 109 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).

### Image Acquisition

|                             |   |
|-----------------------------|---|
| Freerun                     | ✓ |
| Software trigger            | - |
| Hardware trigger            | ✓ |
| Trigger controlled exposure | - |
| Denoiser                    | - |
| Long exposure               | ✓ |
| Line scan                   | ✓ |

Subject to technical modifications (2026-07-13)

## UI-5140SE-M-GL Rev.4.2 (AB12072)

|                           |                                |             |
|---------------------------|--------------------------------|-------------|
| Flashing                  | Flashing                       | -           |
|                           | PWM flashing                   | -           |
| Image Adjustments         | Auto exposure                  | -           |
|                           | Auto gain                      | -           |
|                           | Auto whitebalance              | -           |
|                           | Color correction               | -           |
|                           | Gamma                          | -           |
|                           | LUT                            | -           |
| On-board Image Processing | Mirror/flip                    | -           |
|                           | 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      |