

IDS NXT rio Experience Kit 6 Monate (AS00029)

In series

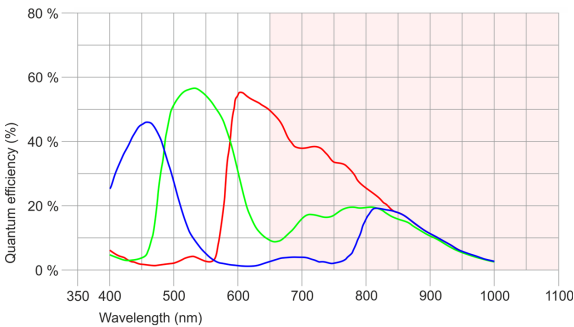
The model is in series and available for the long term.



Specification

Sensor

|                                         |                     |
|-----------------------------------------|---------------------|
| Sensor type                             | CMOS Color          |
| Shutter                                 | Global Shutter      |
| Sensor characteristic                   | Linear              |
| Readout mode                            | -                   |
| Pixel Class                             | 1.6 MP              |
| Resolution                              | 1.58 Mpix           |
| Resolution (h x v)                      | 1456 x 1088 Pixel   |
| Aspect ratio                            | 4:3                 |
| ADC                                     | 12 bit              |
| Color depth (camera)                    | 8 bit               |
| Optical sensor class                    | 1/3"                |
| Optical Size                            | 4.968 mm x 3.726 mm |
| Optical sensor diagonal                 | 7.03 mm (1/2.28")   |
| Pixel size                              | 3.45 µm             |
| Manufacturer                            | Sony                |
| Sensor Model                            | IMX273LQR-C         |
| Gain (master/RGB)                       | 24x/4x              |
| AOI horizontal                          | -                   |
| AOI vertical                            | -                   |
| AOI image width / step width            | - / -               |
| AOI image height / step width           | - / -               |
| AOI position grid (horizontal/vertical) | - / -               |
| Binning horizontal                      | -                   |
| Binning vertical                        | -                   |
| Binning method                          | -                   |
| Binning factor                          | -                   |
| Subsampling horizontal                  | -                   |
| Subsampling vertical                    | -                   |
| Subsampling method                      | -                   |
| Subsampling factor                      | -                   |



Subject to technical modifications (2025-07-02)

## Model

|                                   |                    |
|-----------------------------------|--------------------|
| Frame rate freerun mode           | 34 fps             |
| Frame rate trigger (continuous)   | 41 fps             |
| Frame rate trigger (maximum)      | 41 fps             |
| Exposure time (minimum - maximum) | 0.035 ms - 2000 ms |
| Power consumption                 | 5.4 W - 10 W       |
| Image memory                      | 128 MB             |

## Ambient conditions

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

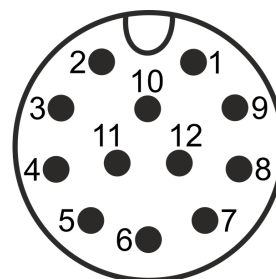
|                                             |                                 |
|---------------------------------------------|---------------------------------|
| Allowed device temperature during operation | 0 °C - 55 °C / 32 °F - 131 °F   |
| Allowed device temperature during storage   | -20 °C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

## Connectors

|                     |                                          |
|---------------------|------------------------------------------|
| Interface connector | GigE RJ45, screwable                     |
| I/O connector       | 12-pin M12 connector (Attend 216A-12MSR) |
| Power supply        | 12 V - 24 V or PoE                       |

## Pin assignment I/O connector

|    |                                                                 |
|----|-----------------------------------------------------------------|
| 1  | Power supply 12-24 V DC (VBUS)                                  |
| 2  | Reference level (ground) for power supply and RS-232 (VBUS GND) |
| 3  | Trigger input with optocoupler (Opto IN 0)                      |
| 4  | Input 1 with optocoupler (Opto IN 1)                            |
| 5  | Common reference level for all Opto IN (Opto IN COM)            |
| 6  | Common reference level for all Opto OUT (Opto OUT COM)          |
| 7  | Output 1 with optocoupler (Opto OUT 1)                          |
| 8  | Output 2 with optocoupler (Opto OUT 2)                          |
| 9  | Serial interface (RS232 Rx/D)                                   |
| 10 | Serial interface (RS232 Tx/D)                                   |
| 11 | Input 2 with optocoupler (Opto IN 2)                            |
| 12 | Flash output with optocoupler (Opto OUT 0)                      |



## Design

|                  |                             |
|------------------|-----------------------------|
| Lens Mount       | C-Mount                     |
| IP code          | IP30                        |
| Dimensions H/W/L | 34.0 mm x 44.0 mm x 73.0 mm |
| Mass             | 0 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                   | - |

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|                           |                                |             |
|---------------------------|--------------------------------|-------------|
| 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) |
| Others                    | Binning (FPGA)                 | -           |
|                           | Chunks                         | -           |
|                           | Sequencer                      | -           |
|                           | Firmware update                | -           |
|                           | 1st supported firmware version | 3.0         |