

In series

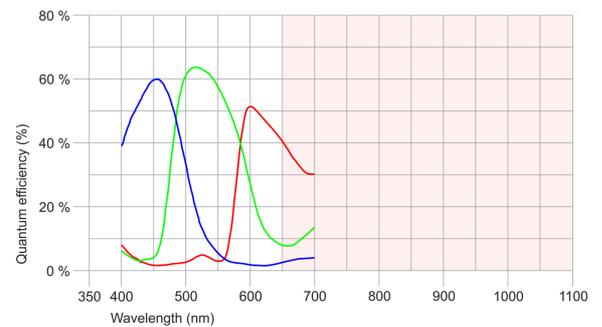
The model is in series and available for the long term.



Specification

Sensor

Sensor type	CMOS Color
Shutter	Rolling shutter
Sensor characteristic	Linear
Readout mode	-
Pixel Class	6 MP
Resolution	6.41 Mpix
Resolution (h x v)	3088 x 2076 Pixel
Aspect ratio	3:2
ADC	12 bit
Color depth (camera)	8 bit
Optical sensor class	1/1.8"
Optical Size	7.411 mm x 4.982 mm
Optical sensor diagonal	8.93 mm 1/1.8"
Pixel size	2.4 µm
Manufacturer	Sony
Sensor Model	IMX178LQJ-C
Gain (master/RGB)	14.5x/5x
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	-
Decimation (subsampling) horizontal	-
Decimation (subsampling) vertical	-
Decimation (subsampling) method	-
Decimation (subsampling) factor	2_4x2_4



Model

Frame rate freerun mode	5 fps
Frame rate trigger (continuous)	5 fps
Frame rate trigger (maximum)	5 fps
Exposure time (minimum - maximum)	0.13 ms - 2000 ms
Power consumption	6 W - 10 W
Image memory	128 MB

Ambient conditions

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

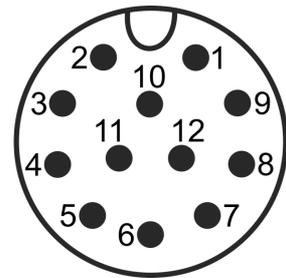
Allowed device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Allowed device temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	20 % - 80 %

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	169 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	-
Denoisier	-
Long exposure	-
Line scan	-
Global start	-

Subject to technical modifications (2026-01-28)

IDS NXT rio Rev.1.2 RS18064C-HQ (1009149)

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