

IDS NXT ocean Design-In Kit (AS00029)

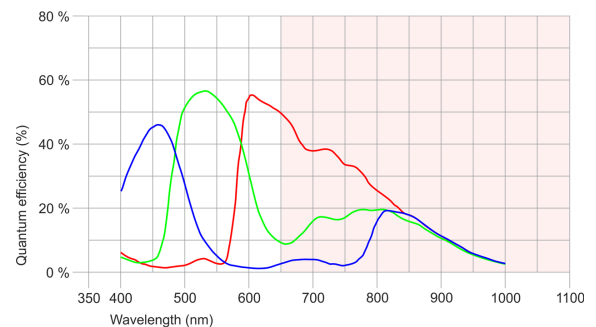


Specification

- PRELIMINARY -

Sensor

Sensor type	CMOS Color
Shutter	Global Shutter
Sensor characteristic	Linear
Readout mode	Progressive scan
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)	12 bit
Optical sensor class	1/3"
Optical Size	5.023 mm x 3.754 mm
Optical sensor diagonal	6.27 mm (1/2.55")
Pixel size	3.45 µm
Manufacturer	Sony
Sensor Model	IMX273LQR-C
Gain (master/RGB)	24x/4x
AOI horizontal	same frame rate
AOI vertical	increased frame rate
AOI image width / step width	264 / 8
AOI image height / step width	2 / 2
AOI position grid (horizontal/vertical)	8 / 2
Binning horizontal	-
Binning vertical	-
Binning method	-
Binning factor	-
Subsampling horizontal	same frame rate
Subsampling vertical	same frame rate
Subsampling method	M/C automatic
Subsampling factor	2, 4, 8



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Model

Pixel clock range	130 MHz - 130 MHz
Frame rate freerun mode	79
Frame rate trigger (continuous)	79
Frame rate trigger (maximum)	82
Exposure time (minimum - maximum)	0.025 ms - 2000 ms
Long exposure (maximum)	90000 ms
Power consumption	1.3 W - 3.1 W
Image memory	128 MB

Ambient conditions

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

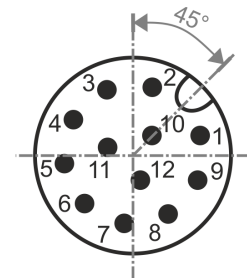
Device temperature during operation	0 °C - 55 °C / 32 °F - 131 °F
Device temperature during storage	-20 °C - 60 °C / -4 °F - 140 °F
Humidity (relative, non-condensing)	20 % - 80 %

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 RxD)
10	Serial interface (RS232 TxD)
11	Input 2 with optocoupler (Opto IN 2)
12	Flash output with optocoupler (Opto OUT 0)



Camera rear view

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



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System

AI Support	✓
Operating System	Linux Embedded
SoC (system on chip)	Xilinx Zynq UltraScale+ (ZU3CG)