DR0-D1920-S01-480-G2

The Double Rate camera DR0-D1920-S01-480-G2 is based on the SONY IMX174 CMOS image sensor

Features

- Double Rate Technology
- SONY IMX174 CMOS image sensor
- 1920 x 1200 pixel resolution
- Good NIR spectral response
- Suitable for standard and low light applications
- Up to 94fps @ full resolution
- Global shutter
- Available in monochrome and NIR
- Extended sensor and camera features
- Up to 8bit greyscale resolution
- Boardlevel and OEM solution available
- GigEVision interface (PoE)

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Quantum Efficiency Image Sensor

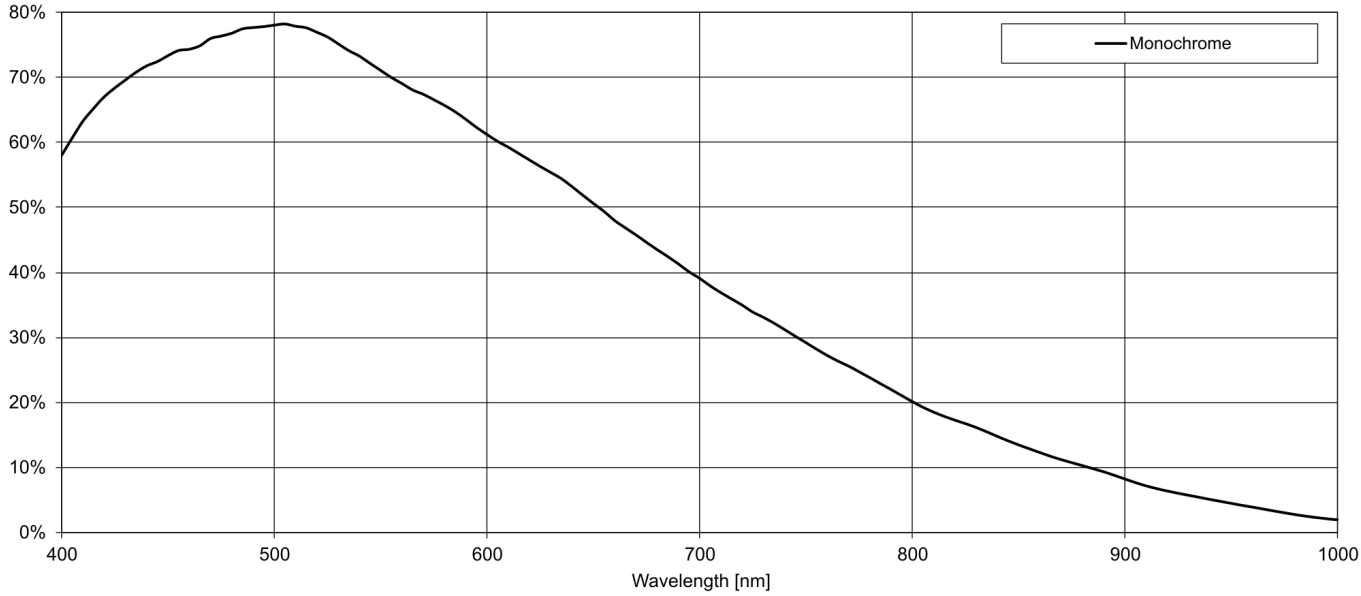

Image Sensor Specifications

Manufacturer / Type	Sony, IMX174
Technology	CMOS
Optical format	1/1.2"
Optical diagonal	13.27mm
Resolution	1920 x 1200
Pixel size	5.86µm x 5.86µm
Active optical area	11.25mm x 7.03mm
Dark current	5e- (1/30 s storage)
Read out noise	4e-
Full well capacity / SNR	32.5ke- / 180:1
Spectral range	Monochrome: 360 to 900nm (to 10% of peak responsivity)
Responsivity	Monochrome: 500 x 10^3 DN / (J/m^2) @ 540nm / 8bit
Quantum Efficiency	Monochrome: < 75%
Optical fill factor	n/a
Dynamic range	78dB
Characteristic curve	Linear
Shutter mode	Global shutter

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Camera Specifications

Interface	GigE
Frame rate	94fps
Pixel clock	n/a
Camera taps	n/a
Greyscale resolution	8Bit
Fixed pattern noise (FPN)	< 1DN RMS @ 8Bit
Exposure time range	18.53µs - 559ms
Analog gain	yes
Digital gain	0.1 to 15.99 (FineGain)
Trigger Modes	Free running (non triggered), external Trigger, SWTrigger
Features	Double Rate technology, Configurable region of interest (ROI), Up to 8 regions of interest (MROI), Binning in x- and y-direction, Decimation in y-direction, 2 look-up tables (12-to-8Bit) on user-defined image region (Region-LUT), Constant frame rate independent of exposure time, Crosshairs overlay on the image, Temperature monitoring of camera, Camera informations readable over SDK, Ultra low trigger delay and low trigger jitter, Extended trigger input and strobe output functionality, Status line in picture
Operation temperature / moisture	0°C ... + 50°C / 20% ... 80%
Storage temperature / moisture	-25°C ... 60°C / 20% ... 95%
Power supply	PoE (compliant according to IEEE 802.3af standard Class: 2)
Power consumption	< 4.2W
Lens mount	C-Mount
I/O Inputs	2x Opto-isolated
I/O Outputs	1x Opto-isolated
Dimensions	30 x 30 x 53,8mm³
Mass	75g
Connector I/O (Power)	Binder 4-pole (mating plug M5 x 0.5, Series 707)
Connector Interface	X-coded M12
Conformity	CE / RoHS / WEEE
IP Code	IP40

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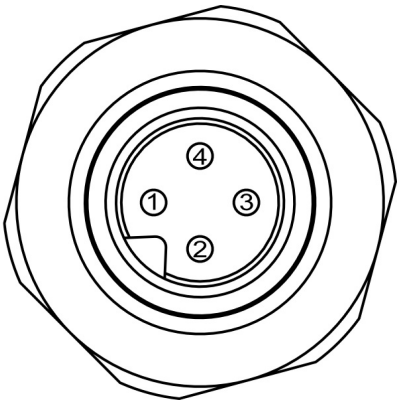
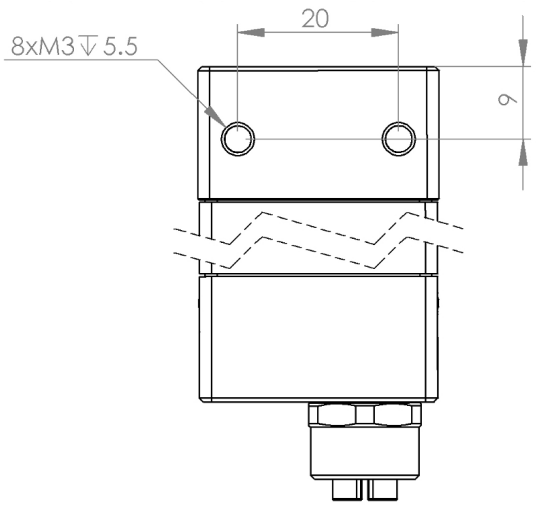
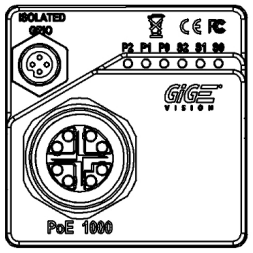
Connectors

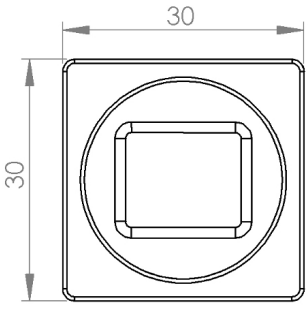
Pin	I/O Type	Name	Description
1	I	ISO_IN	Trigger input (opto-isolated)
2	PWR	ISO_GND	I/O GND 0V
3	O	ISO_OUT	Strobe output (opto-isolated)
4	n.a.	Reserved	Do not connect

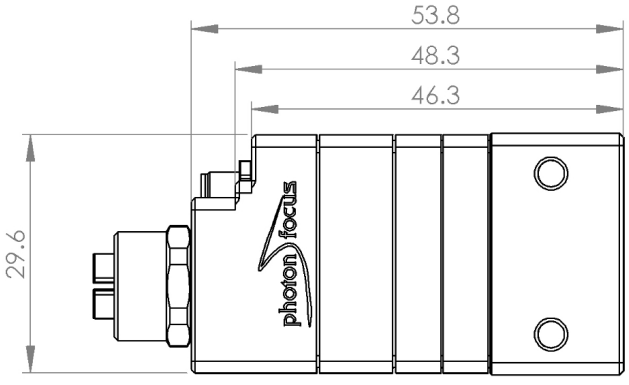


Dimensions









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Explanation

DN DigitalNumber (equals to LSB)

e^- Electrons

Order Information

DR0-D1920-S01-480-G2-8	BW model

Compatibility

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