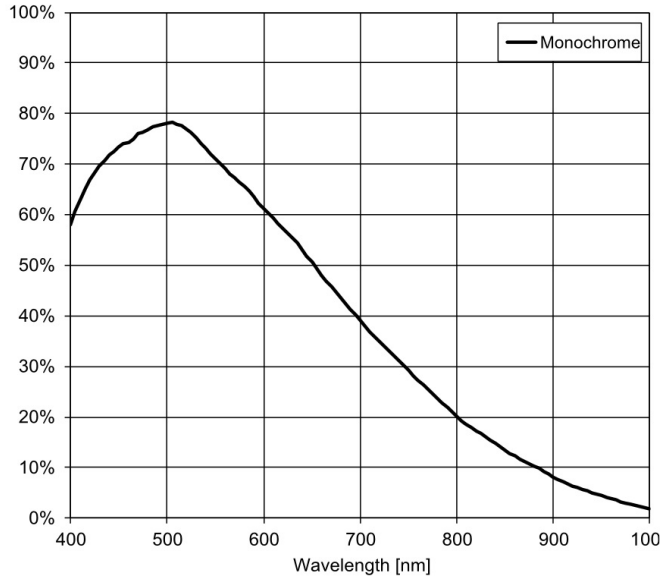
DR0-D1920-S01-480-G2

The Double Rate camera series DR0-D1920(C)-S01-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, NIR and color
- Extended sensor and camera features
- Up to 12bit greyscale resolution
- Boardlevel and OEM solution available
- GigEVision interface (PoE)

Quantum Efficiency Image Sensor



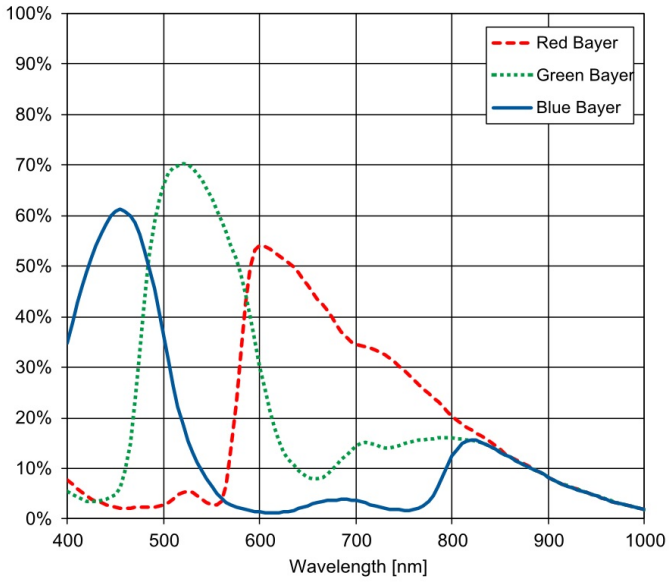


Image Sensor Specifications

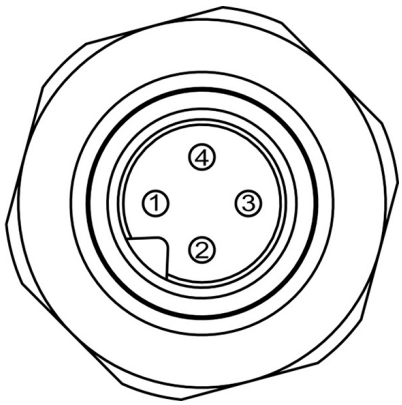
Manufacturer / Type	Sony / IMX174	
Technology	CMOS	
Optical format	1"	
Optical diagonal	13.27mm	
Resolution	1920 x 1200	
Pixel size	5.86µm x 5.86µm	
Active optical area	11.25mm x 7.03mm	
Dark current	9.3e^-/s	
Read out noise	4e^-	
Full well capacity / SNR	32.5ke^- / 180: 1	
Spectral range	Monochrome: Color:	< 330 to 930nm (to 10% of peak responsivity) < 380 to 670nm (to 10% of peak responsivity)
Responsivity	Monochrome: Color:	943 x 10^3 DN / (J/m²) @ 540nm / 8bit 734 x 10^3 DN / (J/m²) @ 540nm / 8bit
Quantum Efficiency	Monochrome: Color:	> 57% > 45%
Optical fill factor	TBD	
Dynamic range	78dB	
Characteristic curve	Linear, Piecewise linear	
Shutter mode	Global shutter	

Camera Specifications

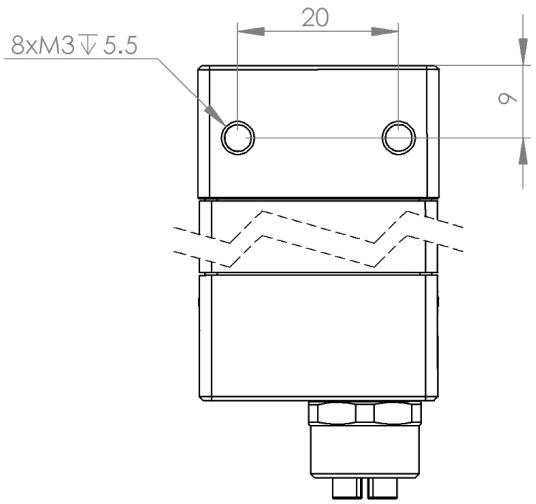
Interface	GigE
Frame rate	94fps
Pixel clock	72MHz
Camera taps	2
Greyscale resolution	8Bit
Fixed pattern noise (FPN)	< 1DN RMS @ 8Bit
Exposure time range	10µs - 419ms
Analog gain	yes
Digital gain	0.1 to 15.99 (FineGain)
Trigger Modes	Free running (non triggered), external Trigger, SWTrigger
Features	Double 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	1x Opto-isolated
I/O Outputs	1x Opto-isolated
Dimensions	30 x 30 x 53mm³
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

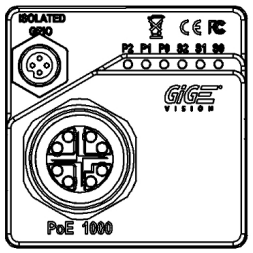
Connectors

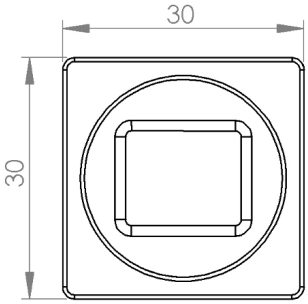
Pin	I/O Type	Name	Description
1	PWR	ISO_GND	I/O GND 0V
2	I	ISO_IN	Trigger input (opto-isolated)
3	n.a.	Reserved	Do not connect
4	O	ISO_OUT	Strobe output (opto-isolated)

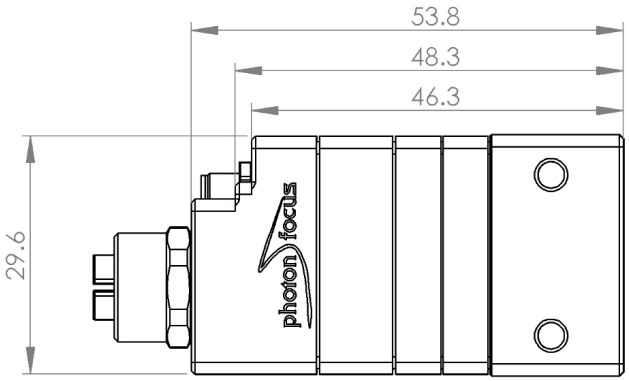


Dimensions









Explanation

DN	DigitalNumber (equals to LSB)
e^-	Electrons

Order Information

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

Compatibility

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