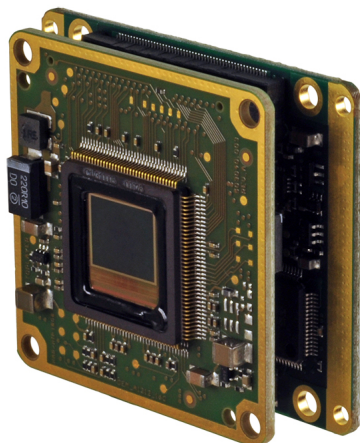


OEM-D1312-160-LC

For customers that prefer to design their own camera solution but do not want to spend time on the sensor integration we offer a range of OEM camera modules

Features

- Photonfocus A1312 CMOS image sensor
- 1312 x 1082 pixel resolution
- Very good NIR spectral response
- Exceptional SNR up to 300:1
- Dynamic range up to 120dB via LinLog®
- Up to 108fps @ full resolution
- Global shutter
- Available in monochrome, NIR, enhanced NIR and color
- Extended sensor and camera features
- Reduction of ROI in x- and y-direction increases frame rate
- Up to 12bit greyscale resolution
- Camera and board level solution available
- Perfect fit for embedded solutions
- Parallel interface



Quantum Efficiency Image Sensor

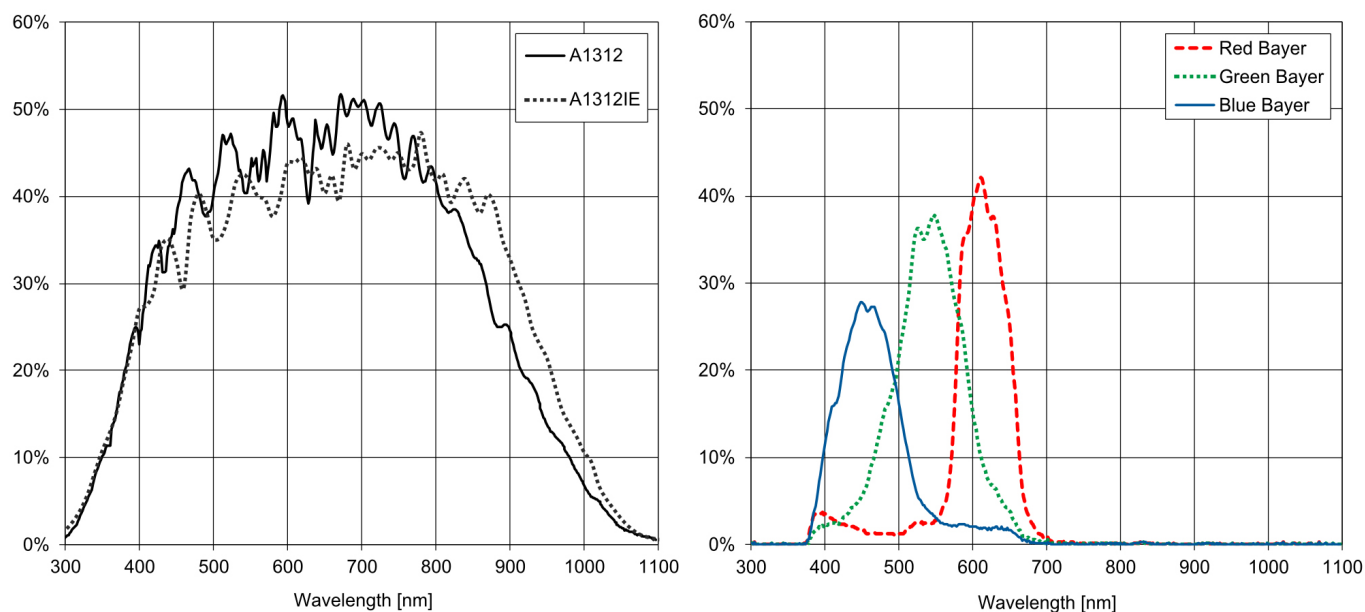


Image Sensor Specifications



Manufacturer / Type	Photonfocus, A1312
Technology	CMOS
Optical format	1"
Optical diagonal	13.6mm
Resolution	1312 x 1082
Pixel size	8µm x 8µm
Active optical area	10.48mm x 8.64mm
Dark current	4000e-/s
Read out noise	110e-
Full well capacity / SNR	90ke- / 300:1
Spectral range	Monochrome: 350 to 980nm (to 10% of peak responsivity) NIR Enhanced: 320 to 1000nm (to 10% of peak responsivity)
Responsivity	Monochrome: 295 x 10 ³ DN / (J/m ²) @ 670nm / 8bit NIR Enhanced: 305 x 10 ³ DN / (J/m ²) @ 850nm / 8bit
Quantum Efficiency	Monochrome: < 50% NIR Enhanced: < 50%
Optical fill factor	> 60%
Dynamic range	60dB in linear mode; 120dB with LinLog®
Characteristic curve	Linear, LinLog®
Shutter mode	Global shutter

Camera Specifications

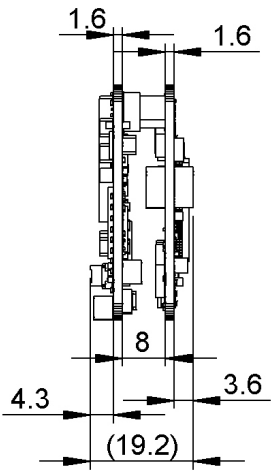
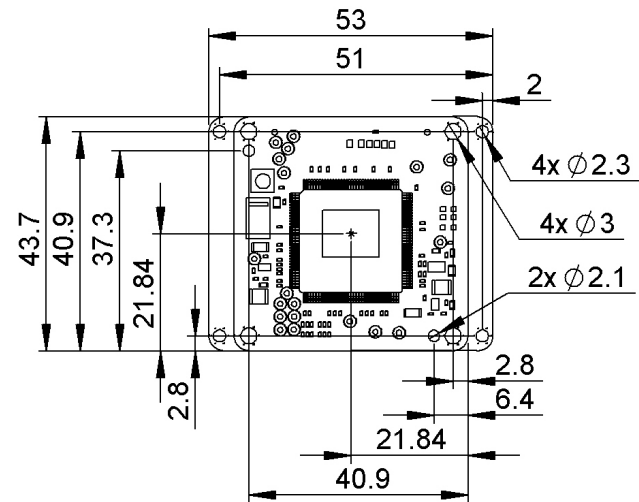
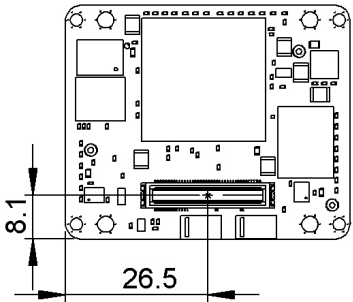
Interface	LVC MOS
Frame rate	108fps
Pixel clock	80MHz
Camera taps	2
Greyscale resolution	8Bit / 10Bit / 12Bit
Fixed pattern noise (FPN)	< 1DN RMS @ 8bit
Exposure time range	10µs - 419ms
Analog gain	n/a
Digital gain	0.1 to 15.99 (FineGain)
Trigger Modes	Free running (non triggered), external Trigger, SWTrigger
Features	Configurable region of interest (ROI), Up to 512 regions of interest (MROI), Decimation in y-direction, Image correction, 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, 3x3 convolver for image preprocessing, Temperature monitoring of sensor and 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	details in the manual
Power consumption	< 3.3W
Lens mount	n/a
I/O Inputs	details in the manual
I/O Outputs	details in the manual
Dimensions	53 x 44 x 19mm ³
Mass	35g
Connector I/O (Power)	n/a
Connector Interface	DF17 series (mating plug DF17(4.0)-80DS-0.5V)
Conformity	CE / RoHS / WEEE
IP Code	IP20

Connectors

Hirose DF17 series, 80 contacts

Receptable Customer side		DF17(?.?) -80DS-0.5V	
		3 mm	4 mm
Header Photonfocus side	DF17(2.0)-80DP-0.5V		
		mating height 5 mm (not recommended)	mating height 6 mm

Dimensions



Explanation

DN DigitalNumber (equals to LSB)

e- Electrons

Order Information

OEM-D1312-160-LC-12	BW model
OEM-D1312IE-160-LC-12	NIR-Enhanced model

Compatibility

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