

MV0-D2048x1088-C01-HS03-160-G2

The camera series MV0-D2048x1088-HS03-G2 is based on the IMEC CMV2K-SM4X4-470-630-VIS CMOS image sensor

Features

- IMEC CMV2K-SM4X4-470-630-VIS CMOS image sensor
- 2048 x 1088 pixel resolution
- Good Visible spectral response
- Suitable for hyperspectral applications
- Up to 50fps @ full resolution
- Global shutter
- 16 pass bands from 470nm to 630nm
- Extended sensor and camera features
- Binning for data pre processing
- Up to 10bit greyscale resolution
- Boardlevel and OEM solution available
- GigEVision interface



GIGEVISION
GEN<i>CAM

Quantum Efficiency Image Sensor

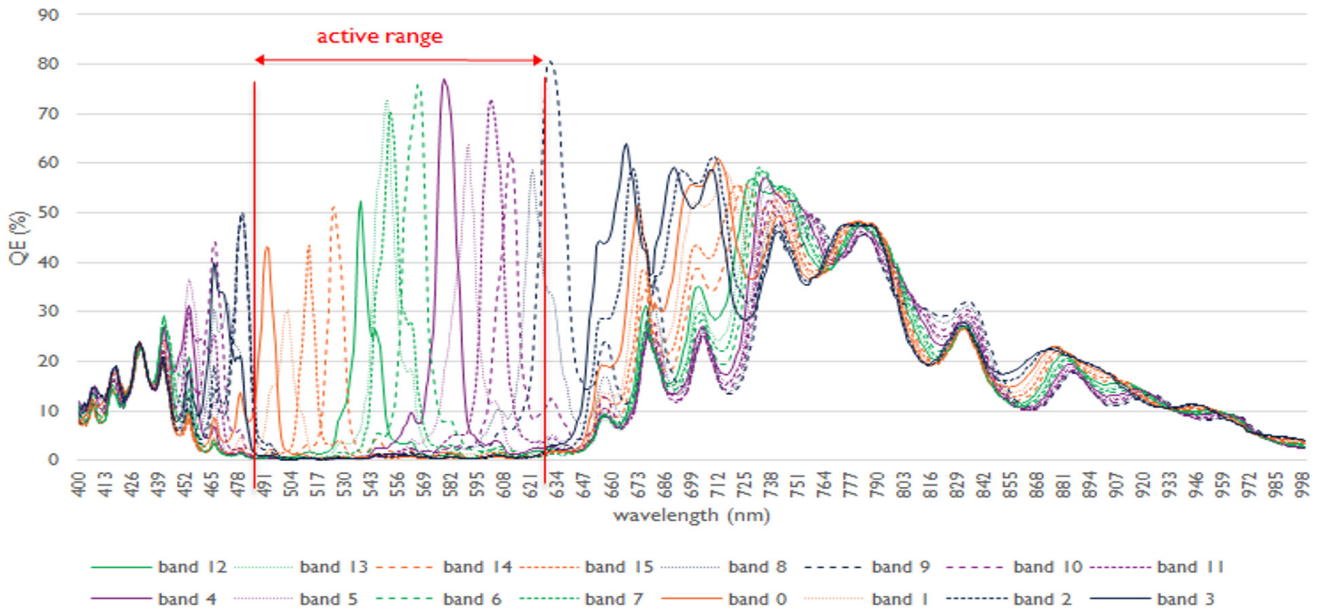


Image Sensor Specifications

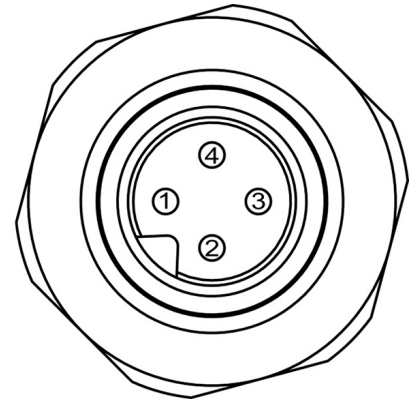
Manufacturer / Type	IMEC / CMV2K-SM4X4	
Technology	CMOS	
Optical format	2/3"	
Optical diagonal	12.76mm	
Resolution	2048 x 1088	
Pixel size	5.5µm x 5.5µm	
Active optical area	11.26mm x 5.98mm	
Dark current	125e ⁻ /s	
Read out noise	13e ⁻	
Full well capacity / SNR	11ke ⁻ / 105: 1	
Spectral range	Hyperspectral:	470 to 630nm (16 pass bands)
Responsivity	Hyperspectral:	454 x 10 ³ DN / (J/m ²) @ 715nm / 8bit
Quantum Efficiency	Hyperspectral:	> 76%
Optical fill factor	42% without micro lenses	
Dynamic range	60dB	
Characteristic curve	Linear, Piecewise linear	
Shutter mode	Global shutter	

Camera Specifications

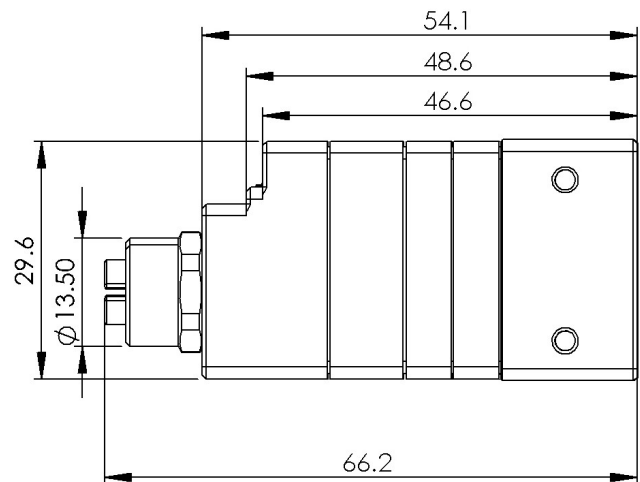
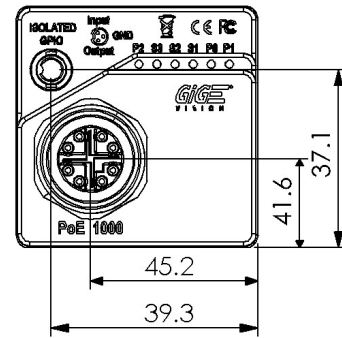
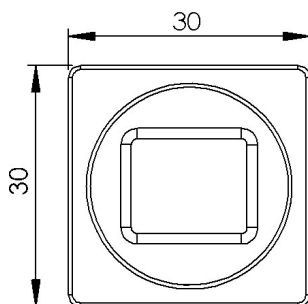
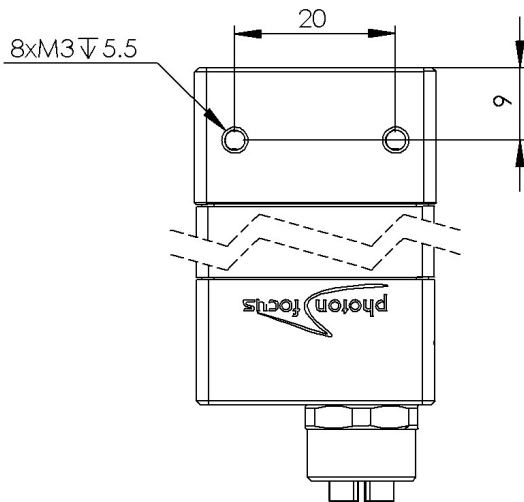
Interface	GigE
Frame rate	50fps
Pixel clock	80MHz
Camera taps	2
Greyscale resolution	8Bit / 10Bit
Fixed pattern noise (FPN)	< 1DN RMS @ 8Bit
Exposure time range	13µs - 349ms
Analog gain	yes
Digital gain	0.1 to 15.99 (FineGain)
Trigger Modes	Free running (non triggered), external Trigger, SWTrigger
Features	Configurable region of interest (ROI), Up to 8 regions of interest (MROI), Binning for data pre processing, 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	+12VDC (-10%) ... +24VDC (+10%)
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 53mm ³
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

MV0-D2048x1088-HS03-160-G2-10 Hyperspectral model

Compatibility



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