

MV1-D2048x1088-240-CL

The camera series MV1-D2048x1088(I/C)-CL is based on the CMOSIS CMV2000 CMOS image sensor

Features

- CMOSIS CMV2000 CMOS image sensor
- 2046 x 1088 pixel resolution
- Good NIR spectral response
- Suitable for standard and low light applications
- Up to 85fps @ full resolution

- Global shutter
- Available in monochrome, NIR and color
- Extended sensor and camera features
- Boardlevel and OEM solution available
- CameraLink® interface







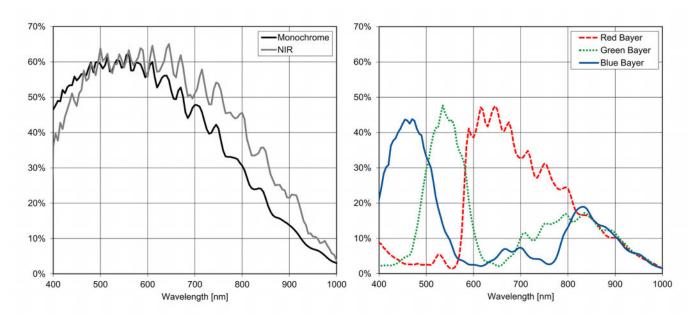
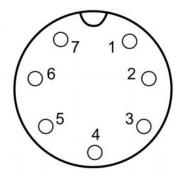


Image Sensor Specifications

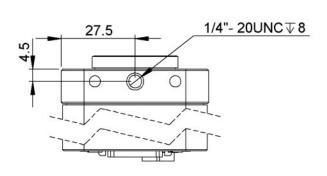
Manufacturer / Type	CMOSIS / CMV2	2000	
Technology	CMOS		
Optical format	2/3"		
Optical diagonal	12.76mm		
Resolution	2046 x 1088		
Pixel size	5.5µm x 5.5µm		
Active optical area	11.26mm x 5.98	mm	
Dark current	125e ⁻ /s		
Read out noise	13e ⁻		
Full well capacity / SNR	11ke ⁻ / 105: 1		
Spectral range	Monochrome:	< 350 to 950nm (to 10% of peak responsivity)	
	NIR:	< 350 to 1000nm (to 10% of peak responsivity)	
	Color:	< 380 to 670nm (to 10% of peak responsivity)	
Responsivity	Monochrome:	1100 x 10 ³ DN / (J/m ²) @ 520nm / 8bit	
	NIR:	900 x 10 ³ DN / (J/m ²) @ 850nm / 8bit	
	Color:	857 x 10 ³ DN / (J/m ²) @ 540nm / 8bit	
Quantum Efficiency	Monochrome:	> 60%	
	NIR:	> 60%	
	Color:	> 45%	
Optical fill factor	42% without mic	42% without micro lenses	
Dynamic range	60dB	60dB	
Characteristic curve	Linear, Piecewis	Linear, Piecewise linear	
Shutter mode	Global shutter	Global shutter	

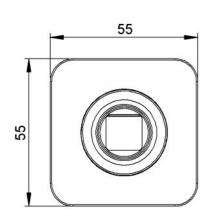
Frame rate 85fps Pixel clock 80MHz Camera taps 3 Greyscale resolution 8Bit Fixed pattern noise (FPN) < 1DN RMS @ 8Bit Exposure time range 13µs - 349ms Analog gain yes Digital gain 0.1 to 15.99 (FineGain)
Camera taps Greyscale resolution Bit Fixed pattern noise (FPN) < 1DN RMS @ 8Bit Exposure time range 13µs - 349ms Analog gain yes Digital gain 0.1 to 15.99 (FineGain)
Greyscale resolution8BitFixed pattern noise (FPN)< 1DN RMS @ 8Bit
Fixed pattern noise (FPN) < 1DN RMS @ 8Bit Exposure time range 13µs - 349ms Analog gain yes Digital gain 0.1 to 15.99 (FineGain)
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Analog gain yes Digital gain 0.1 to 15.99 (FineGain)
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), Decimation in y-direction, 2 look-up tables (12-to-8Bit) on user-defined image region (Region-LUT), Constant frame rate independent of exposu time, Crosshairs overlay on the image, Temperature monitoring of came Camera informations readable over SDK, Ultra low trigger delay and low trigger jitter, Extended trigger input and strobe output functionality, Statu 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%) +12VDC (+10%)
Power consumption < 4.2W
Lens mount C-Mount (CS-Mount optional)
I/O Inputs 1x Opto-isolated
I/O Outputs 1x Opto-isolated
Dimensions 55 x 55 x 42mm³
Mass 230g
Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07)
Connector Interface CameraLink Base (MDR)
Conformity CE / RoHS / WEEE
IP Code IP20

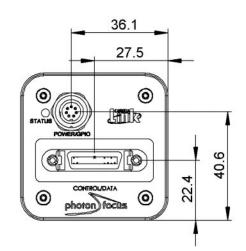
Pin	I/O Type	Name	Description
1	PWR	CAMERA_PWR	Camera Power 12VDC
2	PWR	CAMERA_GND	Camera GND 0V
3	0	RESERVED	Do not connect
4	PWR	STROBE-VDD	+5 +15 VDC
5	0	STROBE	Strobe control (opto-isolated)
6	1	TRIGGER	External trigger (opto-isolated), +5 +15VDC
7	PWR	GROUND	Signal ground (for opto-isolated strobe signal)

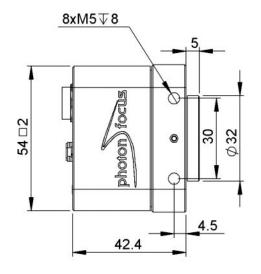


Dimensions









MV1-D2048x1088-240-CL

Explanation

DN	DigitalNumber (equals to LSB)
e ⁻	Electrons

Order Information

MV1-D2048x1088-240-CL-8	BW model
MV1-D2048x1088I-240-CL-8	NIR model
MV1-D2048x1088C-240-CL-8	Color model

Photonfocus AG

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MV1-D2048x1088-160-CL

The camera series MV1-D2048x1088(I/C)-CL is based on the CMOSIS CMV2000 CMOS image sensor

Features

- CMOSIS CMV2000 CMOS image sensor
- 2048 x 1088 pixel resolution
- Good NIR spectral response
- Suitable for standard and low light applications
- Up to 70fps @ full resolution
- Global shutter

- Available in monochrome, NIR and color
- Extended sensor and camera features
- Up to 10bit greyscale resolution
- Boardlevel and OEM solution available
- CameraLink® interface







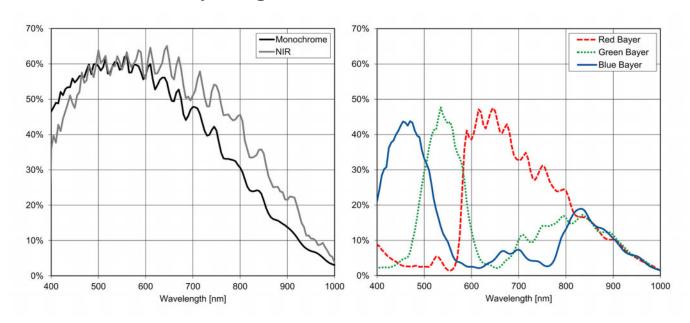
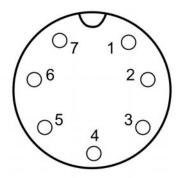


Image Sensor Specifications

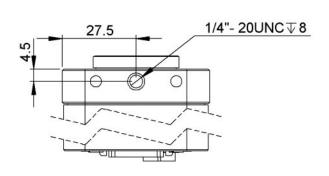
Manufacturer / Type	CMOSIS / CMV2000	
Technology	CMOS	
Optical format	2/3"	
Optical diagonal	12.76mm	
Resolution	2048 x 1088	
Pixel size	5.5µm x 5.5µm	
Active optical area	11.26mm x 5.98m	nm
Dark current	125e ⁻ /s	
Read out noise	13e ⁻	
Full well capacity / SNR	11ke ⁻ / 105: 1	
Spectral range	Monochrome:	< 350 to 950nm (to 10% of peak responsivity)
	NIR:	< 350 to 1000nm (to 10% of peak responsivity)
	Color:	< 380 to 670nm (to 10% of peak responsivity)
Responsivity	Monochrome:	1100 x 10 ³ DN / (J/m ²) @ 520nm / 8bit
	NIR:	900 x 10 ³ DN / (J/m ²) @ 850nm / 8bit
	Color:	857 x 10 ³ DN / (J/m ²) @ 540nm / 8bit
Quantum Efficiency	Monochrome:	> 60%
	NIR:	> 60%
	Color:	> 45%
Optical fill factor	42% without micro lenses	
Dynamic range	60dB	
Characteristic curve	Linear, Piecewise linear	
Shutter mode	Global shutter	

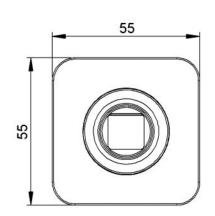
Frame rate 70fps Pixel clock 80MHz Camera taps 2 Greyscale resolution 8Bit / 10Bit Fixed pattern noise (FPN) < 1DN RMS @ 8Bit Exposure time range 15µs - 419ms Analog gain yes Digital gain 0.1 to 15.99 (FineGain) Trigger Modes Free running (non triggered), external Trigger, SWTrigger Features Configurable region of interest (ROI), Up to 8 regions of interest (MROI), 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 moioring 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%) +12VDC (+10%) Power supply +12VDC (-10%) +12VDC (+10%) Power supply +12VDC (-10%) +12VDC (+10%) Power supply 1x Opto-isolated I/O Outputs 1x Opto-isolated I/O Outputs 1x Opto-isolated <	Interface	CameraLink
Camera taps 2 Greyscale resolution 8Bit / 10Bit Fixed pattern noise (FPN) < 1DN RMS @ 8Bit Exposure time range 15µs - 419ms 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), 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%) +12VDC (+10%) Power consumption < 4.2W Lens mount C-Mount (CS-Mount optional) I/O Inputs 1x Opto-isolated I/O Outputs 1x Opto-isolated I/O Outputs 1x Opto-isolated Dimensions 55 x 55 x 42mm³ Mass 230g Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface Camera Link Base (MDR) Ce / RoHS / WEEE	Frame rate	70fps
Greyscale resolution 8Bit / 10Bit Fixed pattern noise (FPN) < 1DN RMS @ 8Bit	Pixel clock	80MHz
Fixed pattern noise (FPN) < 1DN RMS @ 8Bit Exposure time range 15µs - 419ms 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), 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%) +12VDC (+10%) Power consumption < 4.2W Lens mount C-Mount (CS-Mount optional) I/O Inputs 1x Opto-isolated J/O Outputs 1x Opto-isolated Dimensions 55 x 55 x 42mm³ Mass 230g Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface CameraLink Base (MDR) Ce / RoHS / WEEE	Camera taps	2
Exposure time range 15µs - 419ms 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), 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%) +12VDC (+10%) Power consumption -4.2W Lens mount C-Mount (CS-Mount optional) I/O Inputs 1x Opto-isolated I/O Outputs 1x Opto-isolated Dimensions 55 x 55 x 42mm³ Mass 230g Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface CameraLink Base (MDR) Cef / RoHS / WEEE	Greyscale resolution	8Bit / 10Bit
Analog gain Digital gain O.1 to 15.99 (FineGain) Trigger Modes Free running (non triggered), external Trigger, SWTrigger Configurable region of interest (ROI), Up to 8 regions of interest (MROI), 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 Operation temp	Fixed pattern noise (FPN)	< 1DN RMS @ 8Bit
Digital gain O.1 to 15.99 (FineGain) Trigger Modes Free running (non triggered), external Trigger, SWTrigger Configurable region of interest (ROI), Up to 8 regions of interest (MROI), 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 O°C + 50°C / 20% 80% Storage temperature / moisture -25°C 60°C / 20% 95% Power supply +12VDC (-10%) +12VDC (+10%) -4.2W Lens mount C-Mount (CS-Mount optional) I/O Inputs 1x Opto-isolated I/O Outputs 1x Opto-isolated Dimensions 55 x 55 x 42mm³ Mass 230g Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface CameraLink Base (MDR) Cel / RoHS / WEEE	Exposure time range	15µs - 419ms
Trigger Modes Free running (non triggered), external Trigger, SWTrigger Configurable region of interest (ROI), Up to 8 regions of interest (MROI), 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 O°C + 50°C / 20% 80% Storage temperature / moisture -25°C 60°C / 20% 95% Power supply +12VDC (-10%) +12VDC (+10%) -4.2W Lens mount C-Mount (CS-Mount optional) I/O Inputs 1x Opto-isolated I/O Outputs 1x Opto-isolated Dimensions 55 x 55 x 42mm³ Mass 230g Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface CameraLink Base (MDR) Conformity CE / RoHS / WEEE	Analog gain	yes
Features Configurable region of interest (ROI), Up to 8 regions of interest (MROI), 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 O°C + 50°C / 20% 80% Storage temperature / moisture -25°C 60°C / 20% 95% Power supply +12VDC (-10%) +12VDC (+10%) Power consumption < 4.2W Lens mount C-Mount (CS-Mount optional) I/O Inputs 1x Opto-isolated I/O Outputs 1x Opto-isolated Dimensions 55 x 55 x 42mm³ Mass 230g Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface CameraLink Base (MDR) CE / ROHS / WEEE	Digital gain	0.1 to 15.99 (FineGain)
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 Operation temperature / moisture O°C + 50°C / 20% 80% Storage temperature / moisture -25°C 60°C / 20% 95% Power supply +12VDC (-10%) +12VDC (+10%) Power consumption < 4.2W Lens mount C-Mount (CS-Mount optional) I/O Inputs 1x Opto-isolated I/O Outputs 1x Opto-isolated Dimensions 55 x 55 x 42mm³ Mass 230g Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface CameraLink Base (MDR) CE / RoHS / WEEE	Trigger Modes	Free running (non triggered), external Trigger, SWTrigger
Storage temperature / moisture -25°C 60°C / 20% 95% Power supply +12VDC (-10%) +12VDC (+10%) Power consumption < 4.2W Lens mount C-Mount (CS-Mount optional) I/O Inputs 1x Opto-isolated I/O Outputs 1x Opto-isolated Dimensions 55 x 55 x 42mm³ Mass 230g Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface CameraLink Base (MDR) Conformity CE / RoHS / WEEE	Features	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
Power supply +12VDC (-10%) +12VDC (+10%) Power consumption < 4.2W Lens mount C-Mount (CS-Mount optional) I/O Inputs 1x Opto-isolated I/O Outputs 1x Opto-isolated Dimensions 55 x 55 x 42mm³ Mass 230g Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface CameraLink Base (MDR) Conformity CE / RoHS / WEEE	Operation temperature / moisture	0°C + 50°C / 20% 80%
Power consumption < 4.2W Lens mount C-Mount (CS-Mount optional) I/O Inputs 1x Opto-isolated I/O Outputs 1x Opto-isolated Dimensions 55 x 55 x 42mm³ Mass 230g Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface CameraLink Base (MDR) Conformity CE / RoHS / WEEE	Storage temperature / moisture	-25°C 60°C / 20% 95%
Lens mount C-Mount (CS-Mount optional) I/O Inputs 1x Opto-isolated I/O Outputs 1x Opto-isolated Dimensions 55 x 55 x 42mm³ Mass 230g Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface CameraLink Base (MDR) Conformity CE / RoHS / WEEE	Power supply	+12VDC (-10%) +12VDC (+10%)
I/O Inputs1x Opto-isolatedI/O Outputs1x Opto-isolatedDimensions55 x 55 x 42mm³Mass230gConnector I/O (Power)Binder 7-pole (mating plug 99-0421-00-07)Connector InterfaceCameraLink Base (MDR)ConformityCE / RoHS / WEEE	Power consumption	< 4.2W
I/O Outputs1x Opto-isolatedDimensions55 x 55 x 42mm³Mass230gConnector I/O (Power)Binder 7-pole (mating plug 99-0421-00-07)Connector InterfaceCameraLink Base (MDR)ConformityCE / RoHS / WEEE	Lens mount	C-Mount (CS-Mount optional)
Dimensions 55 x 55 x 42mm³ Mass 230g Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface CameraLink Base (MDR) Conformity CE / RoHS / WEEE	I/O Inputs	1x Opto-isolated
Mass 230g Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface CameraLink Base (MDR) Conformity CE / RoHS / WEEE	I/O Outputs	1x Opto-isolated
Connector I/O (Power) Binder 7-pole (mating plug 99-0421-00-07) Connector Interface CameraLink Base (MDR) Conformity CE / RoHS / WEEE	Dimensions	55 x 55 x 42mm³
Connector Interface CameraLink Base (MDR) Conformity CE / RoHS / WEEE	Mass	230g
Conformity CE / RoHS / WEEE	Connector I/O (Power)	Binder 7-pole (mating plug 99-0421-00-07)
·	Connector Interface	CameraLink Base (MDR)
IP Code IP20	Conformity	CE / RoHS / WEEE
	IP Code	IP20

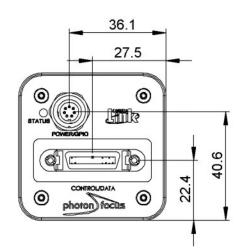
Pin	I/O Type	Name	Description
1	PWR	CAMERA_PWR	Camera Power 12VDC
2	PWR	CAMERA_GND	Camera GND 0V
3	0	RESERVED	Do not connect
4	PWR	STROBE-VDD	+5 +15 VDC
5	0	STROBE	Strobe control (opto-isolated)
6	1	TRIGGER	External trigger (opto-isolated), +5 +15VDC
7	PWR	GROUND	Signal ground (for opto-isolated strobe signal)

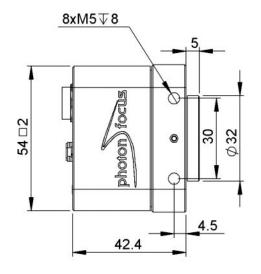


Dimensions









MV1-D2048x1088-160-CL

Explanation

DN	DigitalNumber (equals to LSB)
e ⁻	Electrons

Order Information

MV1-D2048x1088-160-CL-10	BW model
MV1-D2048x1088I-160-CL-10	NIR model
MV1-D2048x1088C-160-CL-10	Color model

Photonfocus AG

Bahnhofplatz 10 CH-8853 Lachen SZ Switzerland

Phone: +41 55 451 00 00 www.photonfocus.com info@photonfocus.com



MV1-D2048x1088-96-G2

The camera series MV1-D2048x1088(I/C)-G2 is based on the CMOSIS CMV2000 CMOS image sensor

Features

- CMOSIS CMV2000 CMOS image sensor
- 2048 x 1088 pixel resolution
- Good NIR spectral response
- Suitable for standard and low light applications
- Up to 42fps @ full resolution
- Global shutter

- Available in monochrome, NIR and color
- Extended sensor and camera features
- Up to 10bit greyscale resolution
- Boardlevel and OEM solution available
- GigEVision interface







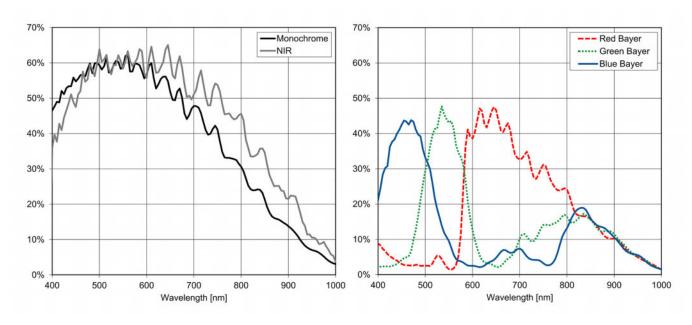
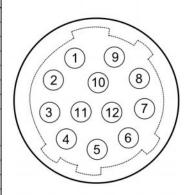


Image Sensor Specifications

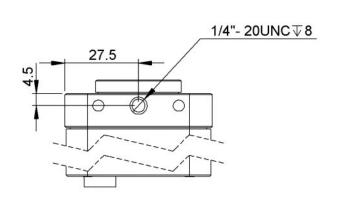
Manufacturer / Type	CMOSIS / CMV20	000
Technology	CMOS	
Optical format	2/3"	
Optical diagonal	12.76mm	
Resolution	2048 x 1088	
Pixel size	5.5µm x 5.5µm	
Active optical area	11.26mm x 5.98m	nm
Dark current	125e ⁻ /s	
Read out noise	13e ⁻	
Full well capacity / SNR	11ke ⁻ / 105: 1	
Spectral range	Monochrome:	< 350 to 950nm (to 10% of peak responsivity)
	NIR:	< 350 to 1000nm (to 10% of peak responsivity)
	Color:	< 380 to 670nm (to 10% of peak responsivity)
Responsivity	Monochrome:	1100 x 10 ³ DN / (J/m ²) @ 520nm / 8bit
	NIR:	900 x 10 ³ DN / (J/m ²) @ 850nm / 8bit
	Color:	857 x 10 ³ DN / (J/m ²) @ 540nm / 8bit
Quantum Efficiency	Monochrome:	> 60%
	NIR:	> 60%
	Color:	> 45%
Optical fill factor	42% without micro lenses	
Dynamic range	60dB	
Characteristic curve	Linear, Piecewise linear	
Shutter mode	Global shutter	

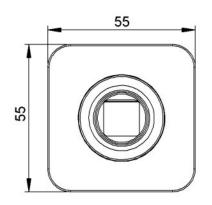
Interface	GigE
Frame rate	42fps
Pixel clock	48MHz
Camera taps	2
Greyscale resolution	8Bit / 10Bit
Fixed pattern noise (FPN)	< 1DN RMS @ 8Bit
Exposure time range	13µs - 349ms
Analog gain	yes
Digital gain	0.1 to 15.99 (FineGain)
Trigger Modes	Free running (non triggered), external Trigger, SWTrigger
Features	Configurable region of interest (ROI), Up to 8 regions of interest (MROI), 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	< 5.1W
Lens mount	C-Mount (CS-Mount optional)
I/O Inputs	2x Opto-isolated 2x RS-422 Opto-isolated
I/O Outputs	2x Opto-isolated
Dimensions	55 x 55 x 52mm ³
Mass	
Connector I/O (Power)	265g Hirose 12-pole (mating plug HR10A-10P-12S)
Connector Interface	RJ-45
Conformity	CE / RoHS / WEEE
IP Code	
IF COUC	IP20

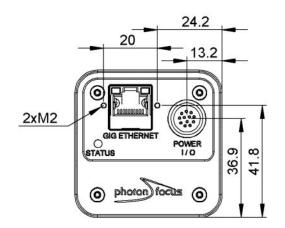
Pin	I/O Type	Name	Description
1	PWR	CAMERA_GND	Camera GND 0V
2	PWR	CAMERA_PWR	Camera Power 12V 24V
3	0	ISO_OUT0	Default Strobe out, internally Pulled up to ISO_PWR with 4k7 Resistor
4	1	ISO_INC0_N	INC0 differential input (G2: RS-422, H2: HTL), negative polarity
5	1	ISO_INC0_P	INC0 differential input (G2: RS-422, H2: HTL), positive polarity
6	PWR	ISO_PWR	Power supply 5V 24V for output signals
7	1	ISO_IN0	IN0 input signal
8	0	ISO_OUT1 (MISC)	Q1 output from PLC, no Pull up to ISO_PWR; can be used as additional output (by adding Pull up) or as controllable switch (max. 100mA, no capacitive or inductive load)
9	1	ISO_IN1(Trigger IN)	Default Trigger IN
10	1	ISO_INC1_N	INC1 differential input (G2: RS-422, H2: HTL), negative polarity
11	1	ISO_INC1_P	INC1 differential input (G2: RS-422, H2: HTL), positive polarity
12	PWR	ISO GND	I/O GND 0V

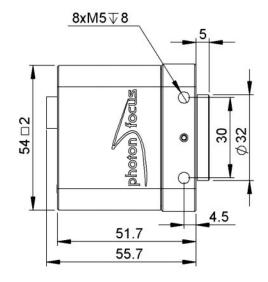


Dimensions









Explanation

DN	DigitalNumber (equals to LSB)
e ⁻	Electrons

Order Information

MV1-D2048x1088-96-G2-10	BW model
MV1-D2048x1088I-96-G2-10	NIR model
MV1-D2048x1088C-96-G2-10	Color model

Compatibility







Photonfocus AG

Bahnhofplatz 10 CH-8853 Lachen SZ Switzerland

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MV1-D2048x1088-80-G2

The camera series MV1-D2048x1088(I/C)-G2 is based on the CMOSIS CMV2000 CMOS image sensor

Features

- CMOSIS CMV2000 CMOS image sensor
- 2048 x 1088 pixel resolution
- Good NIR spectral response
- Suitable for standard and low light applications
- Up to 35fps @ full resolution
- Global shutter

- Available in monochrome, NIR and color
- Extended sensor and camera features
- Up to 10bit greyscale resolution
- Boardlevel and OEM solution available
- GigEVision interface







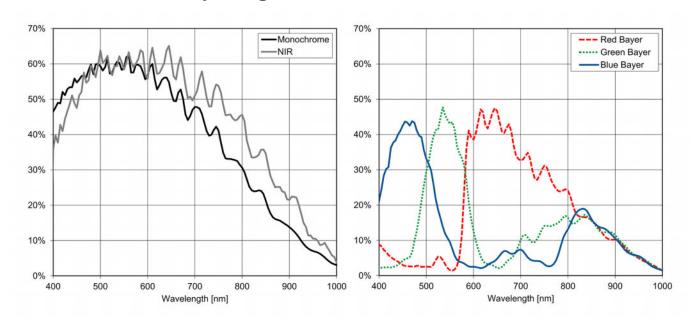
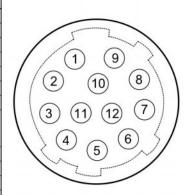


Image Sensor Specifications

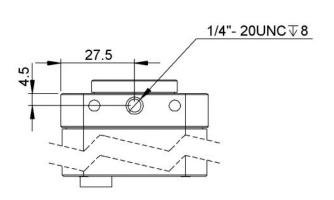
Manufacturer / Type	CMOSIS / CMV20	000
Technology	CMOS	
Optical format	2/3"	
Optical diagonal	12.76mm	
Resolution	2048 x 1088	
Pixel size	5.5µm x 5.5µm	
Active optical area	11.26mm x 5.98m	nm
Dark current	125e ⁻ /s	
Read out noise	13e ⁻	
Full well capacity / SNR	11ke ⁻ / 105: 1	
Spectral range	Monochrome:	< 350 to 950nm (to 10% of peak responsivity)
	NIR:	< 350 to 1000nm (to 10% of peak responsivity)
	Color:	< 380 to 670nm (to 10% of peak responsivity)
Responsivity	Monochrome:	1100 x 10 ³ DN / (J/m ²) @ 520nm / 8bit
	NIR:	900 x 10 ³ DN / (J/m ²) @ 850nm / 8bit
	Color:	857 x 10 ³ DN / (J/m ²) @ 540nm / 8bit
Quantum Efficiency	Monochrome:	> 60%
	NIR:	> 60%
	Color:	> 45%
Optical fill factor	42% without micro	lenses
Dynamic range	60dB	
Characteristic curve	Linear, Piecewise	linear
Shutter mode	Global shutter	

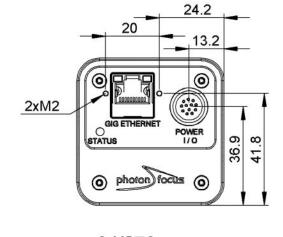
Interface	GigE
Frame rate	35fps
Pixel clock	40MHz
Camera taps	2
Greyscale resolution	8Bit / 10Bit
Fixed pattern noise (FPN)	< 1DN RMS @ 8Bit
Exposure time range	15μs - 419ms
Analog gain	yes
Digital gain	0.1 to 15.99 (FineGain)
Trigger Modes	Free running (non triggered), external Trigger, SWTrigger
Features	Configurable region of interest (ROI), Up to 8 regions of interest (MROI), 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	< 5.1W
Lens mount	C-Mount (CS-Mount optional)
I/O Inputs	2x Opto-isolated
I/O Outputs	2x RS-422 Opto-isolated
Dimensions	2x Opto-isolated
	55 x 55 x 52mm³
Mass (Contractor I/O (Payer)	265g
Connector I/O (Power)	Hirose 12-pole (mating plug HR10A-10P-12S)
Connector Interface	RJ-45
Conformity	CE / RoHS / WEEE
IP Code	IP20

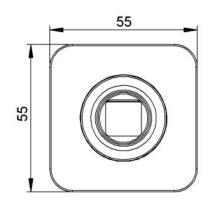
Pin	I/O Type	Name	Description
1	PWR	CAMERA_GND	Camera GND 0V
2	PWR	CAMERA_PWR	Camera Power 12V 24V
3	0	ISO_OUT0	Default Strobe out, internally Pulled up to ISO_PWR with 4k7 Resistor
4	1	ISO_INC0_N	INC0 differential input (G2: RS-422, H2: HTL), negative polarity
5	1	ISO_INC0_P	INC0 differential input (G2: RS-422, H2: HTL), positive polarity
6	PWR	ISO_PWR	Power supply 5V 24V for output signals
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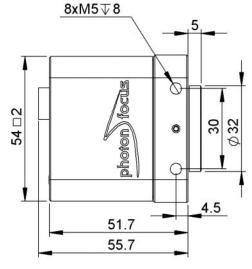


Dimensions









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Order Information

MV1-D2048x1088-96-G2-10	BW model
MV1-D2048x1088I-96-G2-10	NIR model
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Compatibility







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