

MV-CL042-91CM-V2

4096 P Camera Link Line Scan Camera



GEN<i>i</i>CAM



Introduction

MV-CL042-91CM-V2 camera adopts CMOS sensor to provide high quality images and uses Camera Link interface to transmit images in real time. It adopts multiple ISP technologies, and supports external trigger modes like line trigger, frame trigger, and trigger-width exposure.

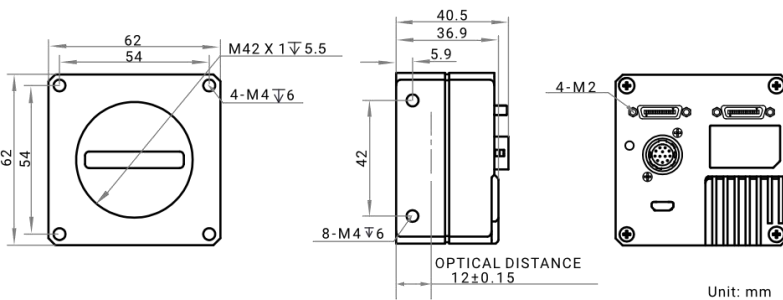
Available Model

MV-CL042-91CM-V2

Applicable Industry

Printing, metallurgy, transportation, new energy, PCB, papermaking, etc.

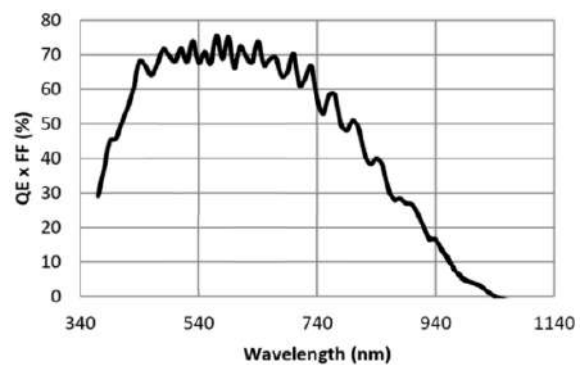
Dimension



Key Feature

- Adopts multiple ISP technologies and supports manual adjustment for Gamma correction, flat correction, LUT, black level.
- Supports multiple exposure and image acquisition methods with max. line rate of 195 kHz.
- Supports bi-directional I/O wiring for flexible input/output settings.
- Compact design and flexible installation.
- Compatible with Camera Link Protocol and GenICam Standard.

Sensor Quantum Efficiency



Model	MV-CL042-91CM-V2
Performance	
Sensor type	CMOS
Pixel size	7 μ m
Resolution	4096 \times 2
Image mode	Supports 1-line and 2-TDI
Max. line rate	40.5 kHz (Base), 81 kHz (Medium), 162 kHz (Full), 195 kHz (80-bit)
Configuration mode	Base, Medium, Full, 80-bit
Tap geometry	1 \times 2, 1 \times 4, 1 \times 8, 1 \times 10
Tap number	2 Taps, 4 Taps, 8 Taps, 10 Taps
Pixel clock	40 MHz, 66 MHz, 80 MHz, 85 MHz
Dynamic range	65.6 dB
SNR	40 dB
Gain	Supports 1.0 \times , 1.4 \times , 1.6 \times , 2.4 \times , 3.2 \times
Exposure time	3 μ s to 10 ms
Exposure mode	Off/ Once/ Continuous exposure mode; supports fixed time exposure, trigger-width exposure
Mono/color	Mono
Pixel format	Mono 8/10/12
Binning	Supports 1 \times 1, 1 \times 2, 1 \times 4, 2 \times 1, 2 \times 2, 2 \times 4, 4 \times 1, 4 \times 2, 4 \times 4
Reverse image	Supports horizontal reverse image output
Trigger mode	External trigger, internal trigger
External trigger mode	Line trigger, frame trigger, line + frame trigger
Electrical features	
Data interface	Camera Link (SDR connector); USB interface for updating firmware
Digital I/O	12-pin P10 connector provides power and I/O: configurable input/output \times 4 (Line 0/1/3/4) and support single-ended/differential. Camera Link provides I/O (CC1/CC2/CC3/CC4).
Power supply	12 VDC to 24 VDC
Power consumption	Typ. 8 W@12 VDC
Mechanical	
Lens mount	M42*1.0, flange focal length: 12 mm (0.5"), applicable to F-mount, C-mount and lens of other types via lens adapter
Dimension	62 mm \times 62 mm \times 36.9 mm (2.4" \times 2.4" \times 1.5")
Weight	Approx. 238 g (0.5 lb.)
Ingress protection	IP40 (under proper lens installation and wiring)
Temperature	Working temperature: -20 $^{\circ}$ C to 45 $^{\circ}$ C (-4 $^{\circ}$ F to 113 $^{\circ}$ F) Storage temperature : -30 $^{\circ}$ C to 80 $^{\circ}$ C (-22 $^{\circ}$ F to 176 $^{\circ}$ F)
Humidity	5% to 95% RH, non-condensing
General	
Client software	MVS and frame grabber software meeting with Camera Link Protocol
Operating system	32/64-bit Windows XP/7/10, 64-bit Windows 11
Compatibility	Camera Link V2.1, GenICam
Certification	CE, RoHS, KC