

MV-CL044-91NM

4096 P CMOS 2.5 GigE Line Scan Camera



GEN<i>CAM

GIG<i>E</i>
VISION

Introduction

MV-CL044-91NM camera adopts CMOS sensor to provide high-quality image, and uses 2.5 GigE interface to transmit images in real time. It adopts multiple ISP image algorithms and functions, and supports external trigger modes like line trigger, frame trigger, and line + frame trigger.

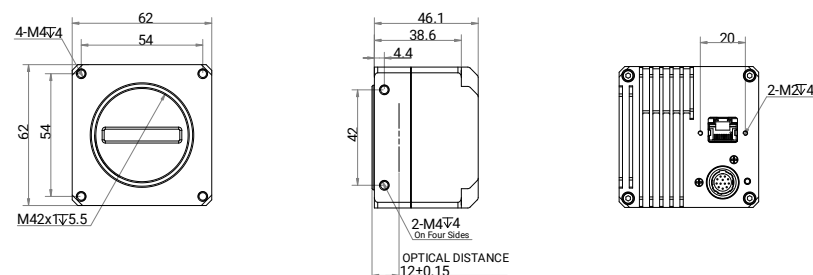
Available Model

MV-CL044-91NM

Applicable Industry

New energy, consumer electronics, medical material, textiles, railway, material sorting, etc.

Dimension

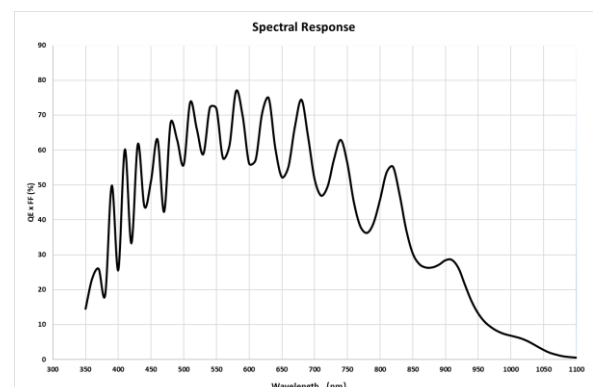


Unit: mm

Key Feature

- Adopts 2.5 GigE interface to transmit data, and supports max. line rate of 75.3 kHz and peak value of 160 kHz.
- Supports image modes of 1-Line, 2-TDI, and 4-TDI.
- Supports ISP image functions and manual adjustment of Gamma correction, FFC, LUT, black level, etc.
- Adopts bi-directional I/O hardware design.
- Compact design and flexible installation.
- Compatible with GigE Vision V2.0 and GenICam standard.

Sensor Quantum Efficiency



Specification

Model	MV-CL044-91NM
Performance	
Sensor type	CMOS
Pixel size	7 μm \times 7 μm
Resolution	4096 \times 4
Image mode	Supports 1-Line, 2-TDI, 4-TDI
Max. line rate	Full resolution: 75.3 kHz @ Mono 8 (1-Line, 2-TDI), 40 kHz @ Mono 8 (4-TDI), 37.6 kHz @ Mono 10/12 (1-Line, 2-TDI, 4-TDI) Line rate after ROI: Max. 160 kHz @ Mono 8 & 1-Line (1928 P and below)
Dynamic range	60.9 dB
SNR	40.5 dB
Gain	1.0 \times , 2.0 \times , 3.0 \times , 4.0 \times
Exposure time	1 μs to 10 ms
Exposure mode	Off/Once/Continuous exposure mode, and supports 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 feature	
Data interface	2.5 Gigabit Ethernet (2500 Mbit/s), compatible with Gigabit Ethernet (1000 Mbit/s) and Fast Ethernet (100 Mbit/s)
Digital I/O	12-pin P10 connector provides power and I/O: bi-directional configurable I/O \times 4 (Line 0/1/3/4) and support single-ended/differential I/O signal
Power supply	12 VDC to 24 VDC, supports PoE
Power consumption	Typ. 7.3 W @ 12 VDC
Mechanical	
Lens mount	M42 *1.0, flange back length 12 mm Connecting to F-mount, C-mount, and other lenses via adapter ring
Dimension	62 mm \times 62 mm \times 46.1 mm (2.4" \times 2.4" \times 1.8")
Weight	Approx. 260 g (0.6 lb.)
Ingress protection	IP40 (under proper lens installation and wiring)
Temperature	Working temperature: -20 $^{\circ}\text{C}$ to 55 $^{\circ}\text{C}$ (-4 $^{\circ}\text{F}$ to 131 $^{\circ}\text{F}$) Storage temperature: -30 $^{\circ}\text{C}$ to 80 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 176 $^{\circ}\text{F}$)
Humidity	20% RH to 80% RH (no condensation)
General	
Client software	MVS or the third-party software meeting with GigE Vision protocol
Operating system	32/64-bit Windows 7/10, 64-bit Windows 11 and 32/64-bit Linux
Compatibility	GigE Vision V2.0, GenICam
Certification	CE, RoHS, KC