
VC-2MC-M/C 150/340

VC-3MC-M/C 280

VC-4MC-M/C 80/180

2, 3 & 4 MEGAPIXELS RESOLUTIONS, GLOBAL ELECTRONIC SHUTTER,
HIGH-SPEED CMOS DIGITAL CAMERA



VC Series is high-resolution CMOS digital cameras for machine vision. Equipped with the latest global shutter CMOS image sensor technology available today, these cameras offer not only high-speed image processing capabilities but also precise exposure control. Furthermore, its outstanding noise reduction technology and a wide range of camera resolutions make these cameras ideal for use in various industrial inspection and scientific research applications.

VIEWORKS

VC-2MC / VC-3MC / VC-4MC

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Main Features

- * 2M/3M/4M Resolutions
- * High-Speed Progressive Scan CMOS Image Sensor
- * Global Shutter CMOS Technology
- * Full Camera Link Interface with 8 bit or 10 bit Data Output
- * Excellent Noise Reduction
- * Field Upgradable Firmware
- * Pixel Defect Correction

Applications

- * Machine Vision Inspection
- * Research and Scientific Imaging
- * Microscopy and Metrology

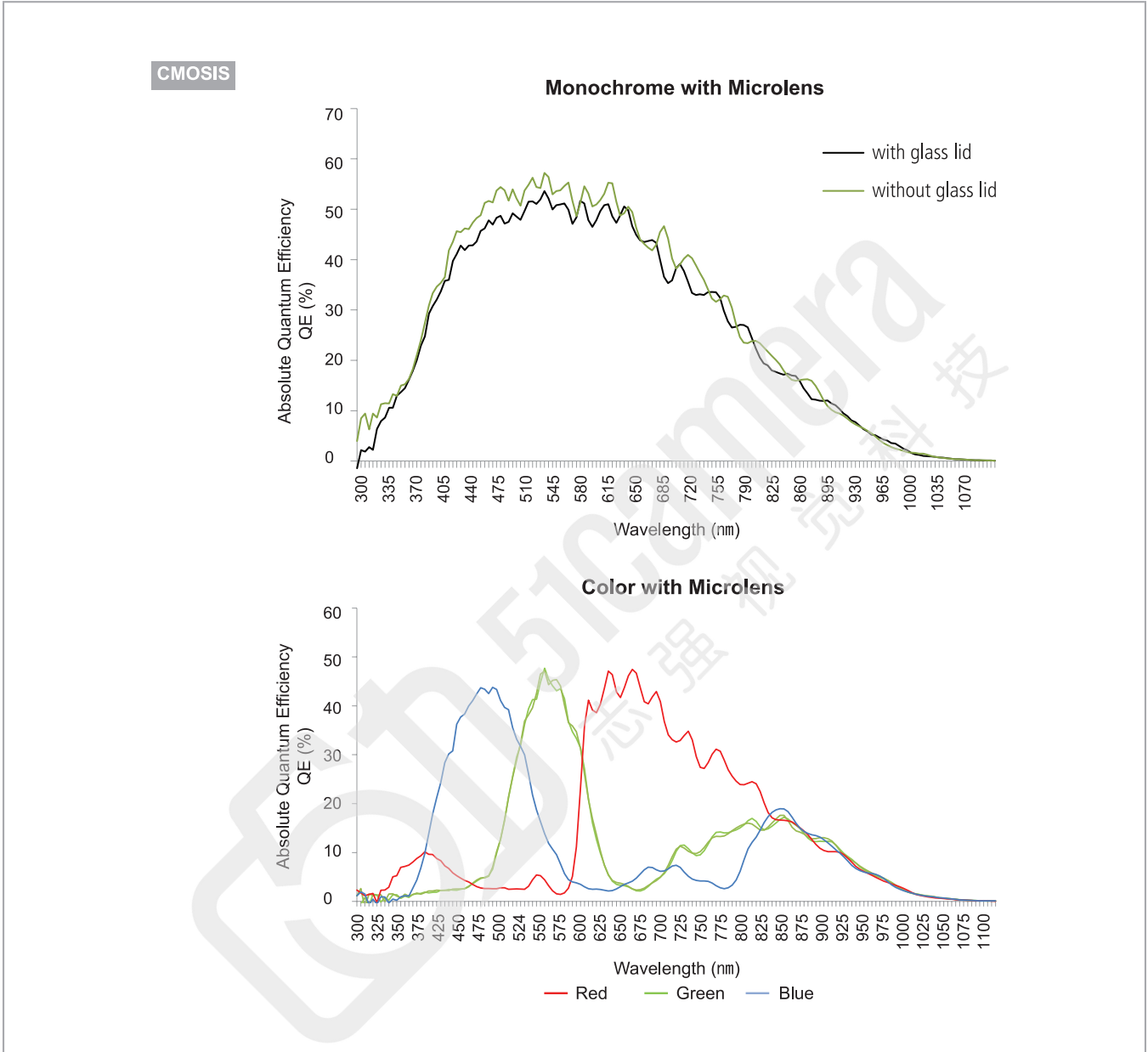
Specifications

| Model | VC-2MC-M/C 150 | VC-2MC-M/C 340 | VC-3MC-M/C 280 | VC-4MC-M/C 80 | VC-4MC-M/C 180 |
|-------------------------------|--|--|-----------------------------------|-------------------------------------|--|
| Resolution (H × V) | 2048 × 1088 | | 1696 × 1710 | 2048 × 2048 | |
| Sensor | CMOSIS CMV 2000 | | On Semiconductor LUPA 3000 | CMOSIS CMV 4000 | |
| Sensor Size (Optical Format) | 11.26 mm × 5.98 mm (2/3") | | 13.57 mm × 13.68 mm (1") | 11.26 mm × 11.26 mm (1") | |
| Sensor Type | High Speed CMOS Image Sensor | | | | |
| Pixel Size | 5.5 μm × 5.5 μm | | 8.0 μm × 8.0 μm | 5.5 μm × 5.5 μm | |
| Interface | Camera Link | | | | |
| Max. Frame Rate | 2 Tap: 74.4 fps 4 Tap: 148.5 fps | | 2 Tap: N/A 4 Tap: N/A | 2 Tap: 39.6 fps 4 Tap: 78.9 fps | |
| | 8 Tap: N/A 10 Tap: N/A | 8 Tap: 295.4 fps 10 Tap: 337.6 fps | 8 Tap: 227 fps 10 Tap: 284 fps | 8 Tap: N/A 10 Tap: N/A | 8 Tap: 157.1 fps 10 Tap: 179.5 fps |
| | 2 Tap: 13.44 ms 4 Tap: 6.73 ms | | 2 Tap: N/A 4 Tap: N/A | 2 Tap: 25.3 ms 4 Tap: 12.67 ms | |
| Transfer Time | 8 Tap: N/A 10 Tap: N/A | 8 Tap: 3.38 ms 10 Tap: 2.96 ms | 8 Tap: 4.41 ms 10 Tap: 3.51 ms | 8 Tap: N/A 10 Tap: N/A | 8 Tap: 6.37 ms 10 Tap: 5.58 ms |
| | 8 bit (2/4 Tap) 10 bit (2/4 Tap) | 8 bit (2/4/8/10 Tap) 10 bit (2/4/8 Tap) | 8 bit (8/10 Tap) | 8 bit (2/4 Tap) 10 bit (2/4 Tap) | 8 bit (2/4/8/10 Tap) 10 bit (2/4/8 Tap) |
| Electronic Shutter | Global Shutter | | | | |
| Data Output Pixel Clock Speed | 85 MHz | | | | |
| Trigger Mode | Free-Run, Trigger Programmable Exposure Time and Trigger Polarity | | | | |
| Dynamic Range | 60 dB | | | | |
| Dimension / Weight | 68 mm × 68 mm × 54 mm, 373 g (with C-mount) | | | | |
| Temperature | Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C | | | | |
| Lens Mount | C or F-mount | | | | |
| Power | 10 ~ 14 V DC Typ. 4 W | 10 ~ 14 V DC Typ. 4 W | 10 ~ 14 V DC Typ. 5 W | 10 ~ 14 V DC Typ. 4 W | 10 ~ 14 V DC Typ. 4 W |
| Compliance | CE, FCC, KC (Application of VC-3MC in preparation) | | | | |
| Configuration Software | Configurator | | | | |

VC-2MC / VC-3MC / VC-4MC

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Quantum Efficiency Curves

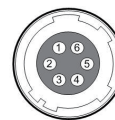


Ordering Scheme

| | |
|-----------------------------|--------------------------------------|
| VC - 4M C - M 180 D0 | |
| Series | Sensor Options |
| VC Series | D0 - On Semiconductor EO - CMOSIS |
| Sensor Resolution | Frame Rate |
| 2M - 2 Megapixels | 80 - 80 fps |
| 3M - 3 Megapixels | 150 - 150 fps |
| 4M - 4 Megapixels | 180 - 180 fps |
| | 280 - 280 fps |
| | 340 - 340 fps |
| Interface | Mono / Color |
| C - Camera Link | M - Monochrome C - Color |

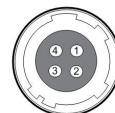
Connector Specification

Power



1 2 3: +12V DC, 4 5 6: GND
(HR10A-7R-6PB)

Control



1: Trigger IN+, 2: Trigger IN-
3: DC Ground, 4: Strobe OUT+
(HR10A-7R-4S)

Connectors on camera body

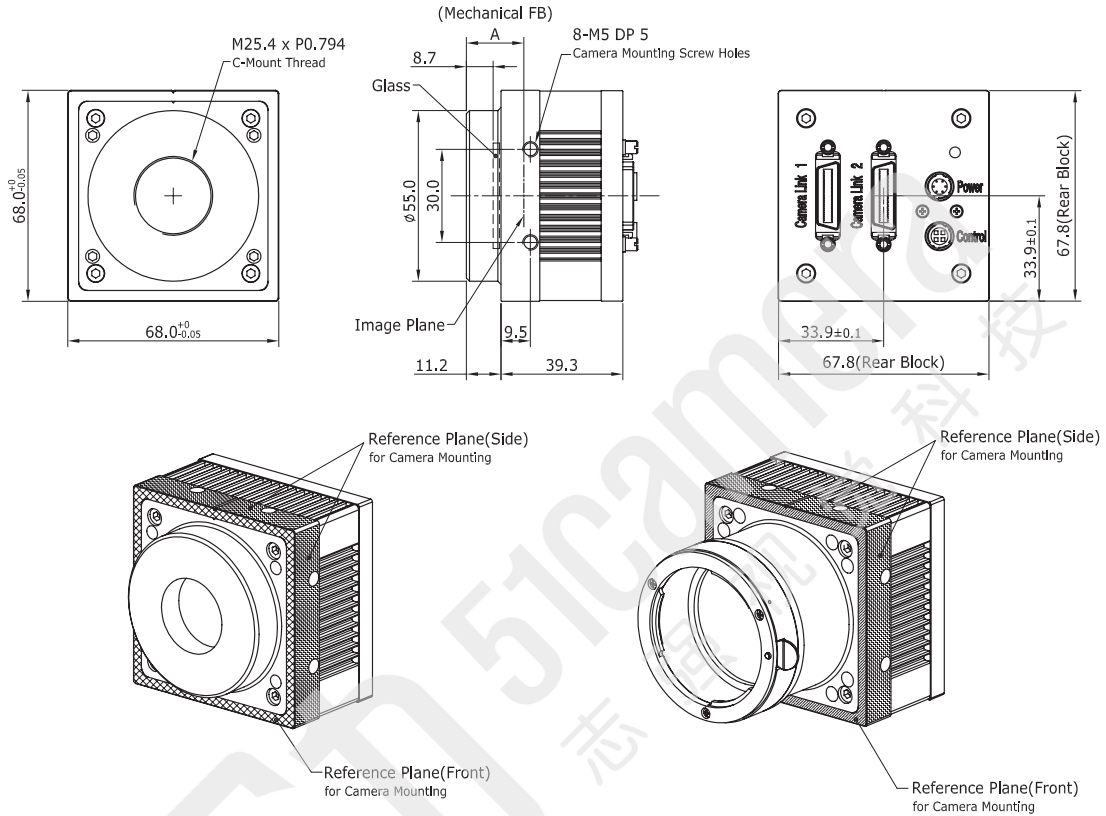
VC-2MC / VC-3MC / VC-4MC

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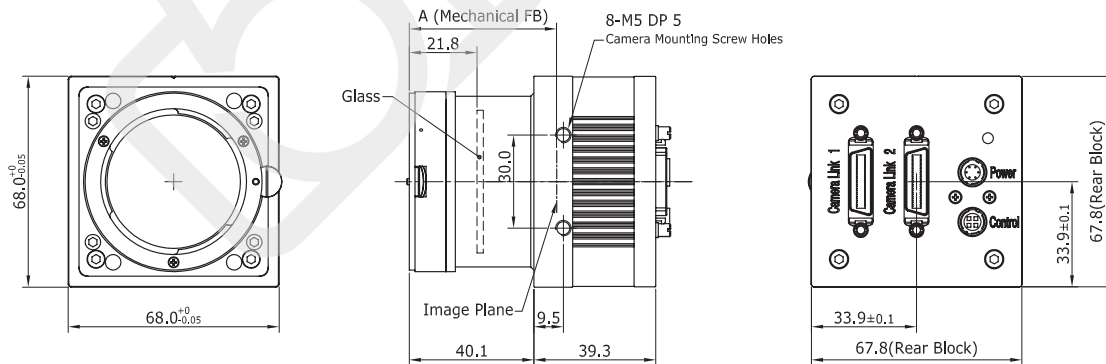
Mechanical Dimensions

Unit: mm

C-mount for VC-2MC, VC-3MC, VC-4MC



F-mount for VC-2MC, VC-3MC, VC-4MC



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VIEWWORKS

41-3, Burim-ro 170 beon-gil, Dongan-gu, Anyang-si, Gyeonggi-do, 14055 Republic of Korea
tel +82-70-7011-6161 fax +82-31-386-8631 e-mail sales@viewworks.com