

# VCS-14MX2-M/C340 I

The Fastest Speed CMOS Digital Camera  
with Back-side Illuminated Sensor



(Model: VCS-14MX2-M/C340I)



The VCS-14MX2-M/C340I camera offers 338 frames per second at  $4,608 \times 3,072$  resolution. It delivers not only fast frame rates but also highly uniform images. With CoaXPress 2.0 interface, it can transmit image data at up to 50 Gbps using four coaxial cables. The back-side illuminated sensor significantly enhances image sensitivity. Combining high speed and high performance, the VCS-14MX2-M/C340I camera is an excellent choice for applications that require high data rates and resolutions—such as flat panel display, PCB, and semiconductor inspections.

For a wide range of choice, this amazing product is provided in two different types: a fan type and a heat sink type, both with the same specification.

## VIEWWORKS

[vision.viewworks.com](http://vision.viewworks.com)

# VCS-14MX2-M/C340I / VCS-14MX2-M/C340I-HS

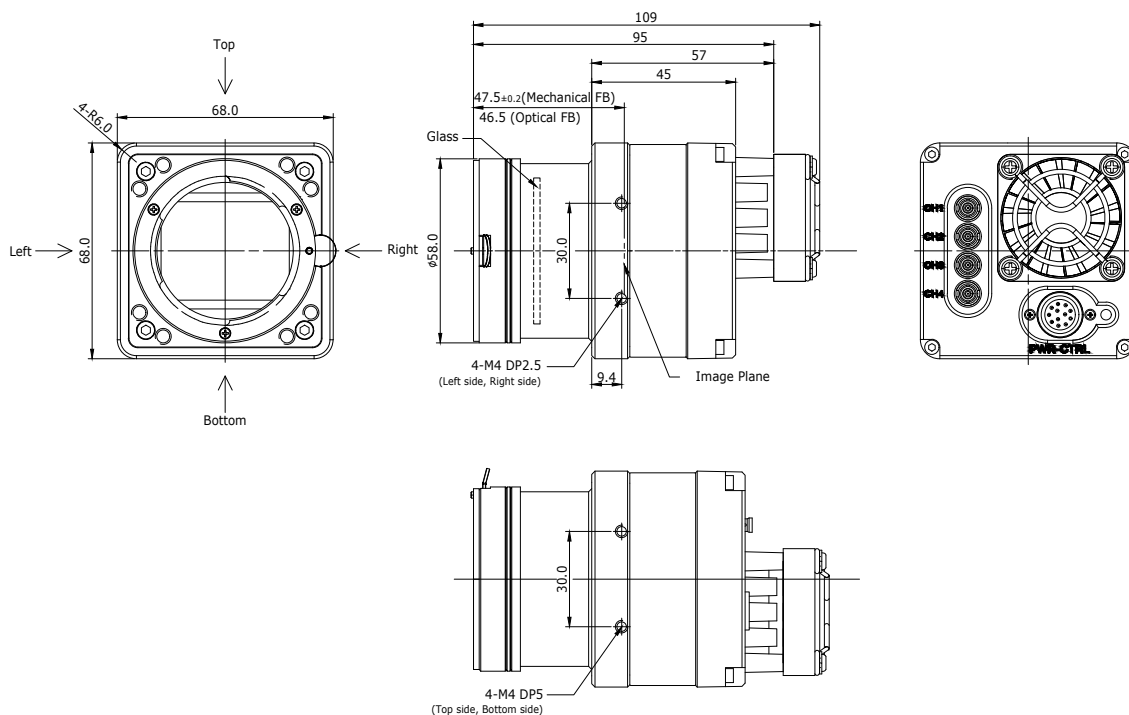
The Fastest Speed CMOS Digital Camera with Back-side Illuminated Sensor



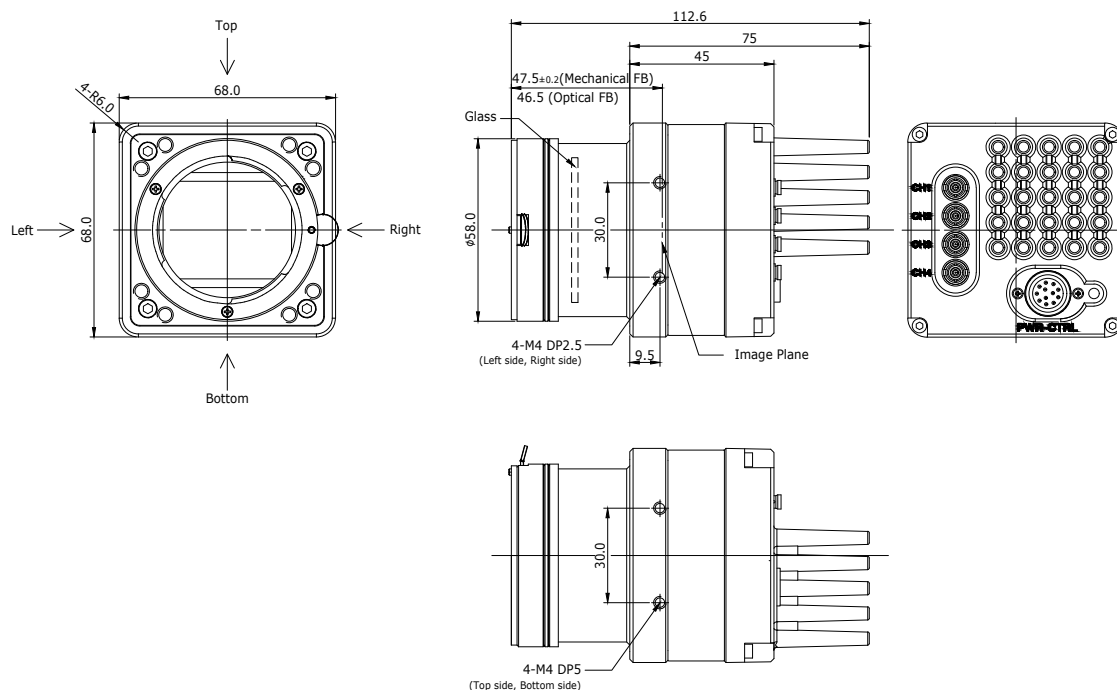
## Mechanical Dimensions

Unit: mm

### VCS-14MX2-M/C340I



### VCS-14MX2-M/C340I-HS



## Main Features

- High Speed 14 Megapixel CMOS Image Sensor
- BSI (Backside Illuminated) CMOS Image Sensor
- CoaXPress 2.0 Interface up to 338 fps at 50 Gbps using 4 CH
- Global Shutter CMOS Technology
- DSNU and PRNU Correction
- Flat Field Correction
- Defective Pixel Correction
- GenICam Compatible – XML based Control
- Low-gain and high-gain composite image

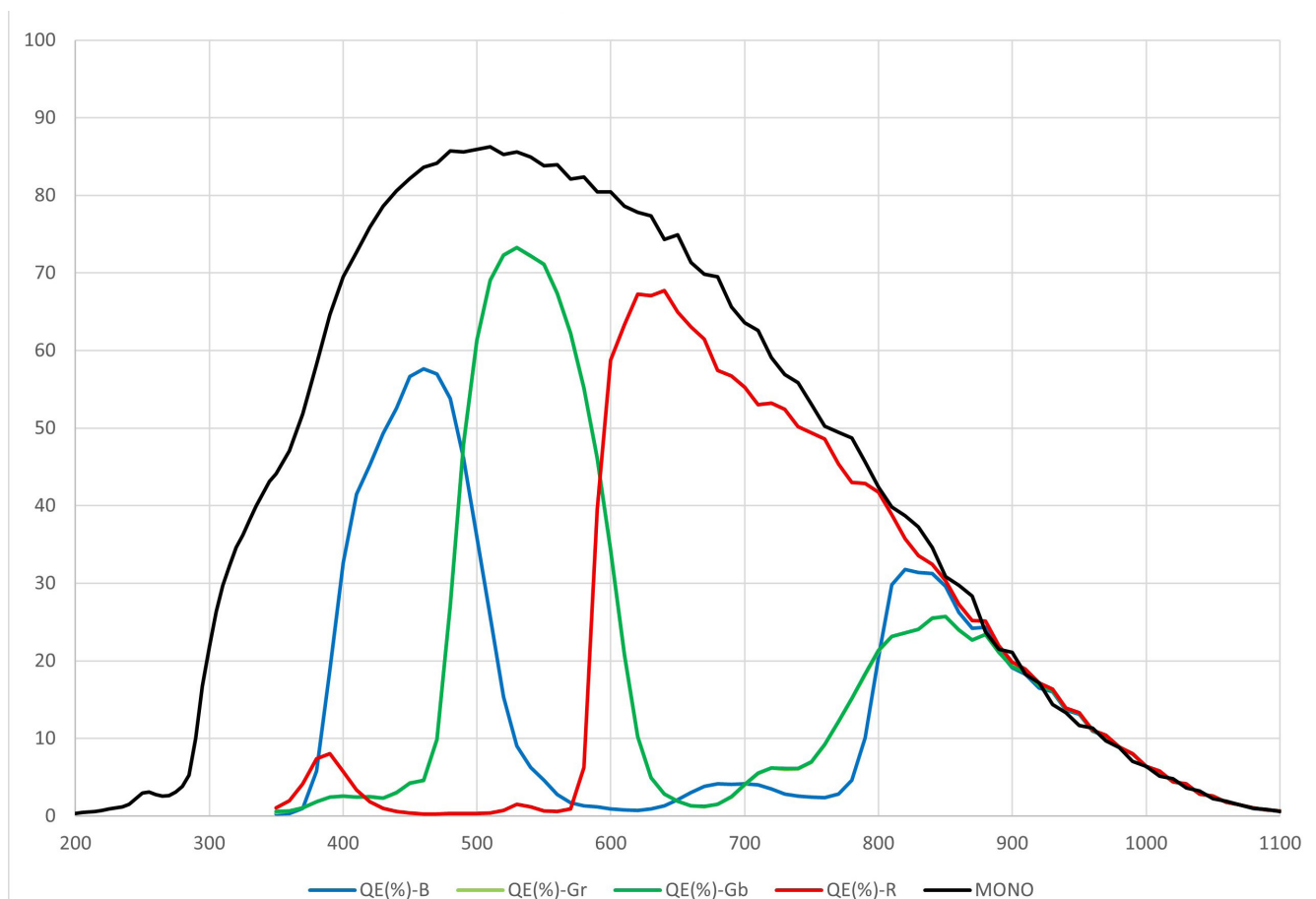
## Applications

- FPD and Electronics Inspection
- Semiconductor Inspection
- Research and Scientific Imaging
- Document / Film Scanning

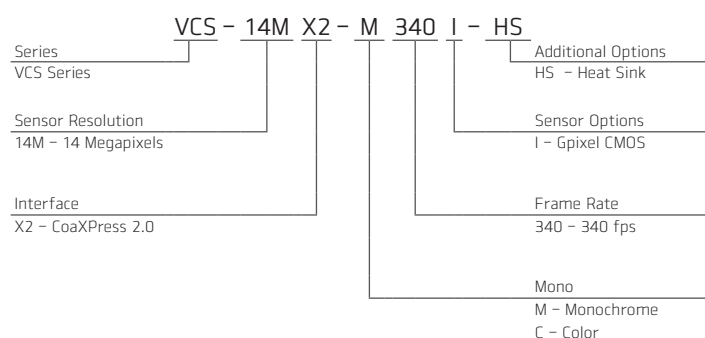
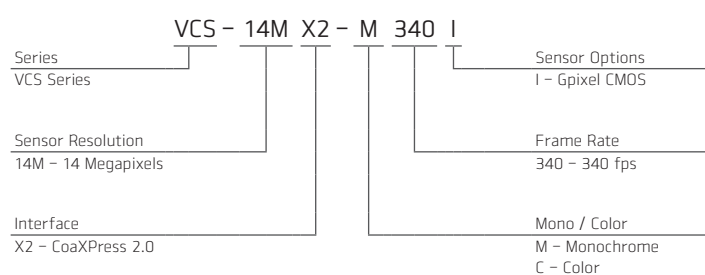
## Specifications

| Model                      |             | VCS-14MX2-M/C340I                                               | VCS-14MX2-M/C340I-HS                      |
|----------------------------|-------------|-----------------------------------------------------------------|-------------------------------------------|
| Resolution (H × V)         |             | 4,608 X 3,072                                                   |                                           |
| Sensor                     |             | GSPRINT5514                                                     |                                           |
| Optical Format (Diagonal)  |             | 25.34 mm x 16.90 mm (30.5mm)                                    |                                           |
| Sensor Type                |             | High Speed CMOS Image Sensor                                    |                                           |
| Pixel Size                 |             | 5.5 $\mu\text{m}$ × 5.5 $\mu\text{m}$                           |                                           |
| Interface                  |             | CoaXPress 2.0 (CXP-12)                                          |                                           |
| Max. Frame Rate<br>(8 bit) | CXP-12 × 1  | 84 fps                                                          |                                           |
|                            | CXP-12 × 2  | 169 fps                                                         |                                           |
|                            | CXP-12 × 4  | 338 fps                                                         |                                           |
| Exposure Time              |             | 4 $\mu\text{s}$ to 60 s                                         |                                           |
| Partial Scan (Max. Speed)  |             | 21037 fps at 32 Lines, CXP-12                                   |                                           |
| Pixel Data<br>Format       | Mono        | Mono 8/10/12                                                    |                                           |
|                            | Color       | RG Bayer 8/10/12                                                |                                           |
| Electronic Shutter         |             | Global Shutter                                                  |                                           |
| Gain Control               | Analog      | 1.0×, 1.55×, 2.17×, 2.77×, and 5.0x                             |                                           |
|                            | Digital     | 1 × to 32 ×                                                     |                                           |
| Black Level Control        |             | 0 to 255 LSB at 12 bit                                          |                                           |
| Trigger Synchronization    |             | Free-Run, Hardware Trigger, Software Trigger, or CXP            |                                           |
| External Trigger           |             | 3.3 V to 24.0 V, 10 mA, Logical Level Input, Optically Isolated |                                           |
| Software Trigger           |             | Asynchronous, Programmable via Camera API                       |                                           |
| Dynamic Range              |             | Typ. 66 dB at 12 bit                                            |                                           |
| Dimension / Weight         |             | 68mm x 68mm x 109mm, 530 g<br>(F-mount)                         | 68mm x 68mm x 112.5mm, 540 g<br>(F-mount) |
| Temperature                |             | Operating: 0°C to 40°C, Storage: -40°C to 70°C                  |                                           |
| Lens Mount                 |             | F-mount, Custom mount available upon request                    |                                           |
| Power                      | External    | 11 to 24 VDC                                                    |                                           |
|                            | Dissipation | Typ. 19 W                                                       |                                           |
|                            | PoCXP       | 24 VDC, Minimum of two PoCXP cables required                    |                                           |
| Compliance                 |             | CE, FCC, and KC                                                 |                                           |

## Spectral Response



## Ordering Scheme



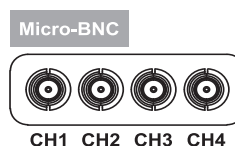
## Connector Specification

### Power / Control



- |                  |                                    |
|------------------|------------------------------------|
| 1: DC Ground     | 2: +12 VDC                         |
| 3: I/O Output-   | 4: I/O Output1+                    |
| 5: Trigger IN-   | 6: Trigger IN+                     |
| 7: I/O Output2+  | 8: I/O Output3+                    |
| 9: I/O Output4+  | 10: I/O Output5+                   |
| 11: I/O Output6+ | 12: Not Connected (HR10A-10R-12PB) |

### Data Transfer / Communications



CH1: Master Connection  
Micro-BNC (HD-BNC)

Connectors on camera body