



VC-5/9/18MX2 Series

5/9/18 Megapixel High Speed CMOS Digital Camera
with CoaXPress 2.0 Interface



The VC-5/9/18MX2 cameras, the latest model of the industrial proven VC series, are new 5/9/18-megapixel CoaXPress cameras and based on the CMOS global shutter image sensor technology (GMAX2505, 2509, 2518) from Gpixel. In the case of the VC-5MX2-289I camera, it offers up to 289 frames per second at 2,592 × 2,160 resolution. The camera comes with the next generation CoaXPress 2.0 (CXP-12) interface delivering up to 25 Gigabits per second over two coaxial cables. These combinations of the CMOS sensor technology and CoaXPress 2.0 interface set a new standard for industrial, scientific and surveillance digital imaging applications. Customers in the industrial market can take advantage of simple coax cabling to transmit images at rates and distance above and beyond previous standards. The high-speed and high-resolution camera is ideal for wide range of demanding applications such as FPD, PCB and semiconductor inspections.

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Main Features

- High Speed 5/9/18 Megapixel CMOS Image Sensor
- CoaXPress 2.0 Interface up to 289 fps at 25 Gbps using 2 CH (VC-5MX2-M/C289)
- Power over CoaXPress (PoCXP)
- Global Shutter CMOS Technology
- DSNU and PRNU Correction
- Flat Field Correction
- Defective Pixel Correction

Applications

- Flat Panel Display Inspection
- Electronics Inspection
- Semiconductor Inspection
- Document / Film Scanning
- Factory Automation, Robotics or AOI

Specifications

| Model | VC-5MX2-M/C289 | VC-9MX2-M/C262 | VC-18MX2-M/C132 |
|---------------------------|--|---|-----------------------------------|
| Resolution (H × V) | 2,592 × 2,160 | 4,192 × 2,160 | 4,480 × 4,096 |
| Sensor | Gpixel GMAX2505 | Gpixel GMAX2509 | Gpixel GMAX2518 |
| Sensor Size (Diagonal) | 6.5 mm × 5.4 mm (8.45 mm) | 10.5 mm × 5.4 mm (11.8 mm) | 11.27 mm × 10.24 mm (15.22 mm) |
| Sensor Type | High Speed CMOS Image Sensor | | |
| Pixel Size | 2.5 μm × 2.5 μm | | |
| Interface | CoaXPress 2.0 | | |
| Max. Frame Rate | 289 fps | 262 fps | 132 fps |
| Exposure Time (1 μs step) | 1 μs – 60 s | | |
| Partial Scan (Max. Speed) | 27459.9 fps at 2 Lines (8 bit) | 24844.7 fps at 2 Lines (8 bit) | 14101.0 fps at 2 Lines (8 bit) |
| Pixel Data Format | Mono | Mono 8 / 10 | |
| | Color | RG Bayer 8 / 10 | |
| Electronic Shutter | Global Shutter | | |
| Digital Gain | 1× ~ 32× | | |
| Black Level Control | 0 – 63 LSB at 10 bit (1 LSB step) | | |
| Exposure Mode | Free-Run, Timed, Trigger Width | | |
| External Trigger | 3.3 V ~ 24.0 V, 10mA, Logical Level Input Optically isolated, CoaXPress Control Port | | |
| Software Trigger | Asynchronous, Programmable via Camera API | | |
| Dynamic Range | 62 dB | | |
| Dimension / Weight | 50.0 mm × 50.0 mm × 91 mm, 270 g (C-mount) | | |
| Temperature | Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C | | |
| Lens Mount | C-mount | | |
| Power | Adapter | 11 ~ 24 V DC, Typ. 16 W | |
| | PoCXP | 24 V DC, Minimum of two PoCXP cables required | |
| Compliance | CE, FCC, KC | | |

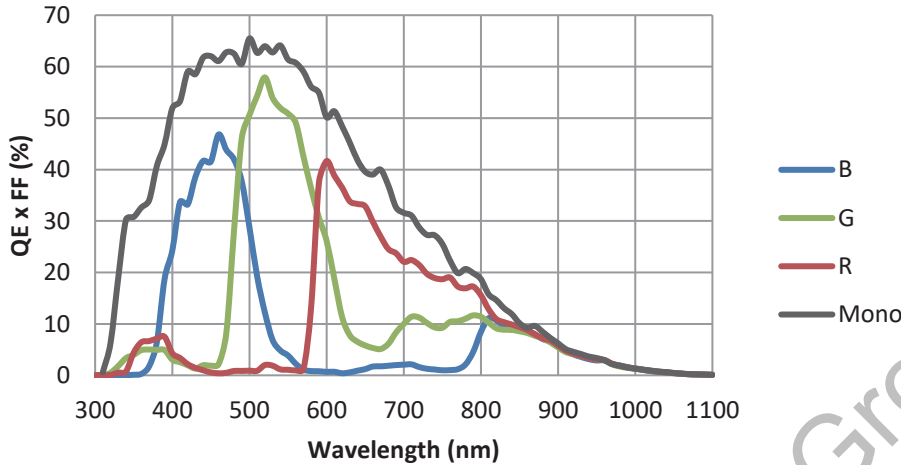
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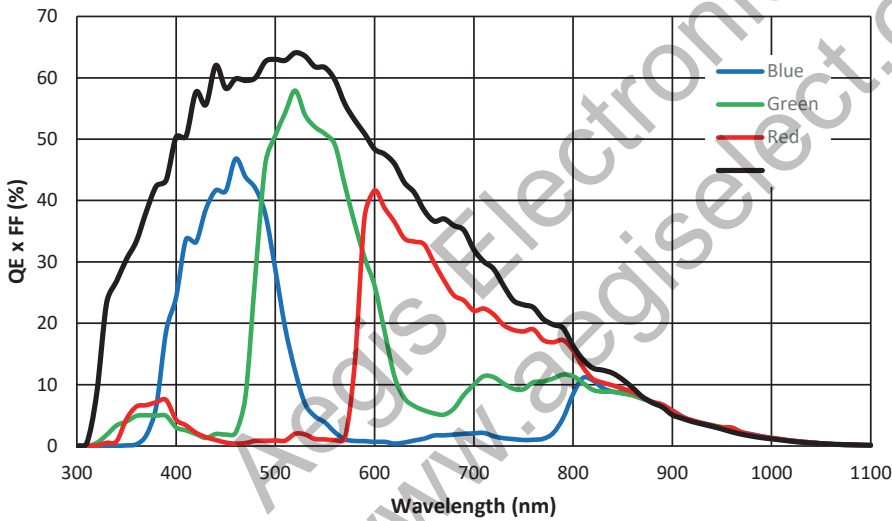


Spectral Response

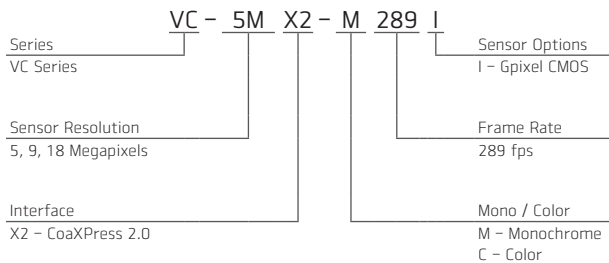
VC-5/9MX2



VC-18MX2

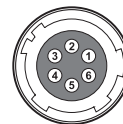


Ordering Scheme



Connector Specification

Power



- 1: +12V DC
- 2: Trigger IN+
- 3: Trigger IN-
- 4: Output+
- 5: Output-
- 6: DC Ground

Data Transfer / Communications



- CH1: Master Connection
- 75 Ω, Micro-BNC (HD-BNC)

Connectors on camera body

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Mechanical Dimensions

Unit: mm

