
VN-25MX-M/C 72

PIXEL SHIFTING CAMERA WITH COAXPRESS INTERFACE



The VN-25MX, the new model of the VN series, is the world first CMOS pixel shifting camera equipped with new CoaXPress interface and based on the latest CMOS global shutter imager. It features 25 megapixel resolutions with frame rate up to 72 fps. This is the first CMOS pixel shifting camera whose resolution is extended from 25 MP up to 235 MP through vieworks' iconic pixel shifting technology.

With the VN-25MX, customers in the industrial market can take advantage of 235 million pixels resolution at 8 fps. Its CoaXPress interface supports transmitting image data at up to 6.25 Gbps using a single coaxial cable and up to 25 Gbps using four cables. Featured with high speed and high resolution, this new technology is ideal for inspection systems such as FPD, PCB and semiconductor as well as 3D imaging and digitizing of different objects.

VN-25MX

PIXEL SHIFTING CAMERA WITH COAXPRESS INTERFACE

Main Features

- * 25 Megapixels Resolution
- * High Speed Progressive Scan CMOS Image Sensor
- * Global Shutter CMOS Technology
- * CoaXPRESS Interface up to 72 fps at 25 Gbps using 4 coax cables (4 CH)
- * Pixel Shifting Mechanism
- * Extended Resolution up to 235 MP at 8 fps (9 Shot Mode)

Applications

- * FPD and PCB Inspection
- * Semiconductor Inspection
- * High Speed 3D Imaging
- * Digitizing and Scanning
- * Research and Scientific Imaging

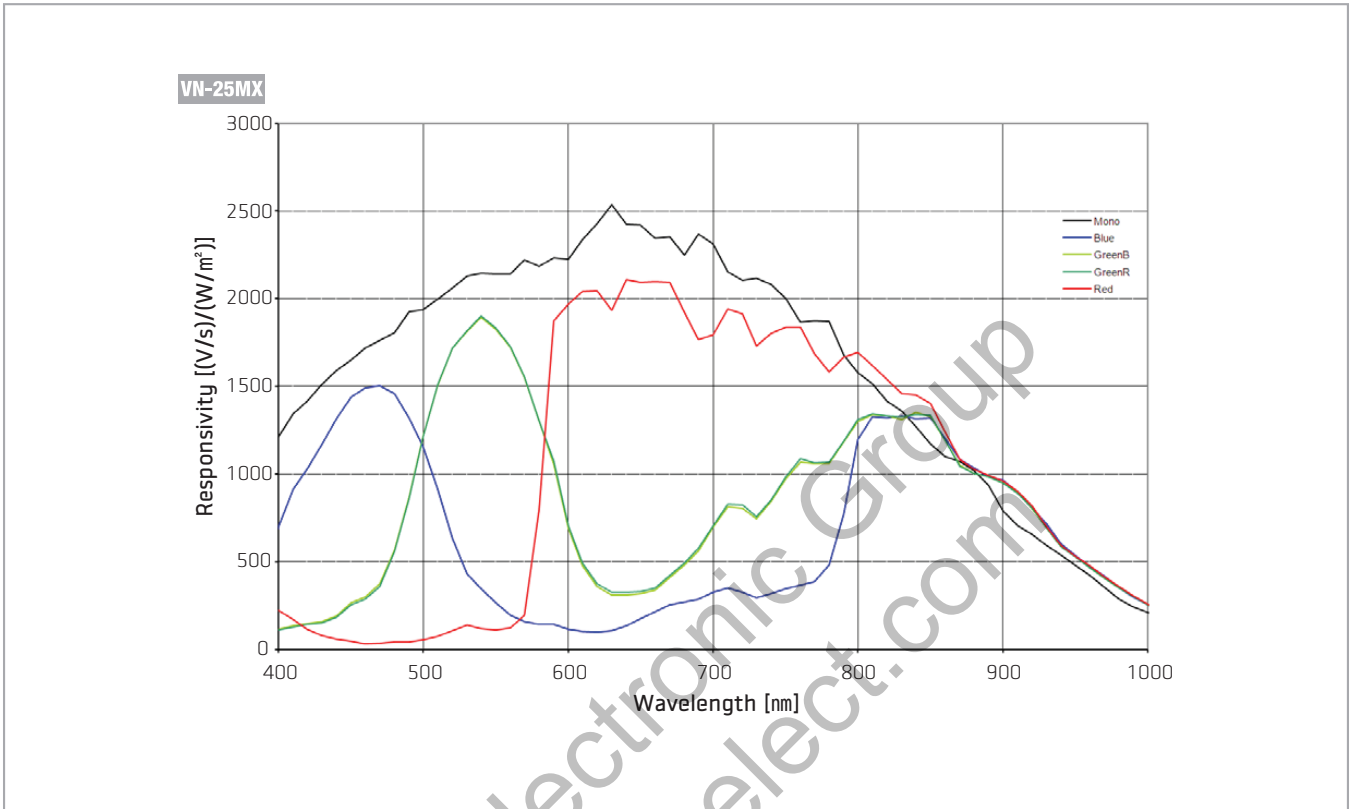
Specifications

| | | | |
|------------------------------|---|---|---------------------------|
| Model | VN-25MX-M/C 72 | | |
| Resolution (H × V) | 5120 × 5120 | | |
| Sensor | On Semiconductor VITA-25K | | |
| Sensor Size (Optical Format) | 23.04 mm × 23.04 mm (35 mm) | | |
| Sensor Type | High Speed CMOS Image Sensor | | |
| Pixel Size | 4.5 μm × 4.5 μm | | |
| Interface | CoaXPRESS | | |
| Max. Frame Rate | 25 MP | 2 CH: 36 fps at 6.25 Gbps | 4 CH: 72 fps at 6.25 Gbps |
| | 100 MP | 2 CH: 9 fps at 6.25 Gbps | 4 CH: 18 fps at 6.25 Gbps |
| | 235 MP | 2 CH: 4 fps at 6.25 Gbps | 4 CH: 8 fps at 6.25 Gbps |
| Exposure Time (1 μs step) | 10 μs – 60 s | | |
| Partial Scan (Max. Speed) | 7692 fps at 4 Lines (H: 256) | | |
| Pixel Data Format | Mono | Mono 8, Mono 10 | |
| | Color | Bayer 8, Bayer 10 | |
| Electronic Shutter | Global Shutter | | |
| Gain Control | ×1 ~ ×4 | | |
| Black Level Control | 0 – 16 LSB at 8 bit, 0 – 64 LSB at 10 bit (1 LSB step) | | |
| Exposure Mode | Free-Run, Timed, Trigger Width | | |
| Dynamic Range | 54 dB | | |
| Shift Range | 0 ~ 7.5 μm, 1 nm step | | |
| Shift Resolution | 0.001 μm | | |
| Shift Control | Sequence Mode (mono4, mono9, mono2H, mono2V, bayer4, bayer16) | | |
| Dimension / Weight | 80 mm × 80 mm × 150 mm, 1100 g | | |
| Temperature | Operating: 0°C ~ 40°C, Storage: -40°C ~ 70°C | | |
| Lens Mount | F-mount | | |
| Power | Adapter | 11 ~ 30 V DC, Typ. 13 W | |
| | PoCXP | 24 V DC, Minimum of two PoCXP cables required | |
| Compliance | CE, FCC, KC | | |
| API SDK | Vieworks Imaging Solution 7.X | | |

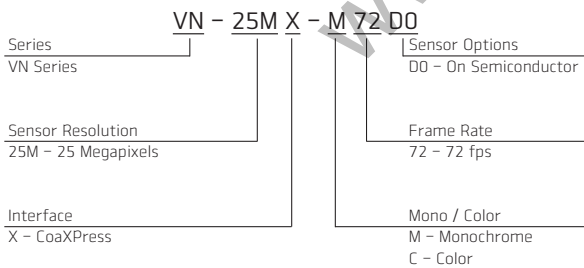
VN-25MX

PIXEL SHIFTING CAMERA WITH COAXPRESS INTERFACE

Quantum Efficiency Curves



Ordering Scheme



Connector Specification

Power



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

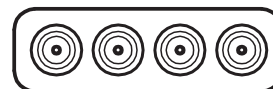
Control



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

Data Transfer / Communications

DIN



CH1 CH2 CH3 CH4

CH1: Master Connection

(75 Ω, DIN 1.0/2.3)

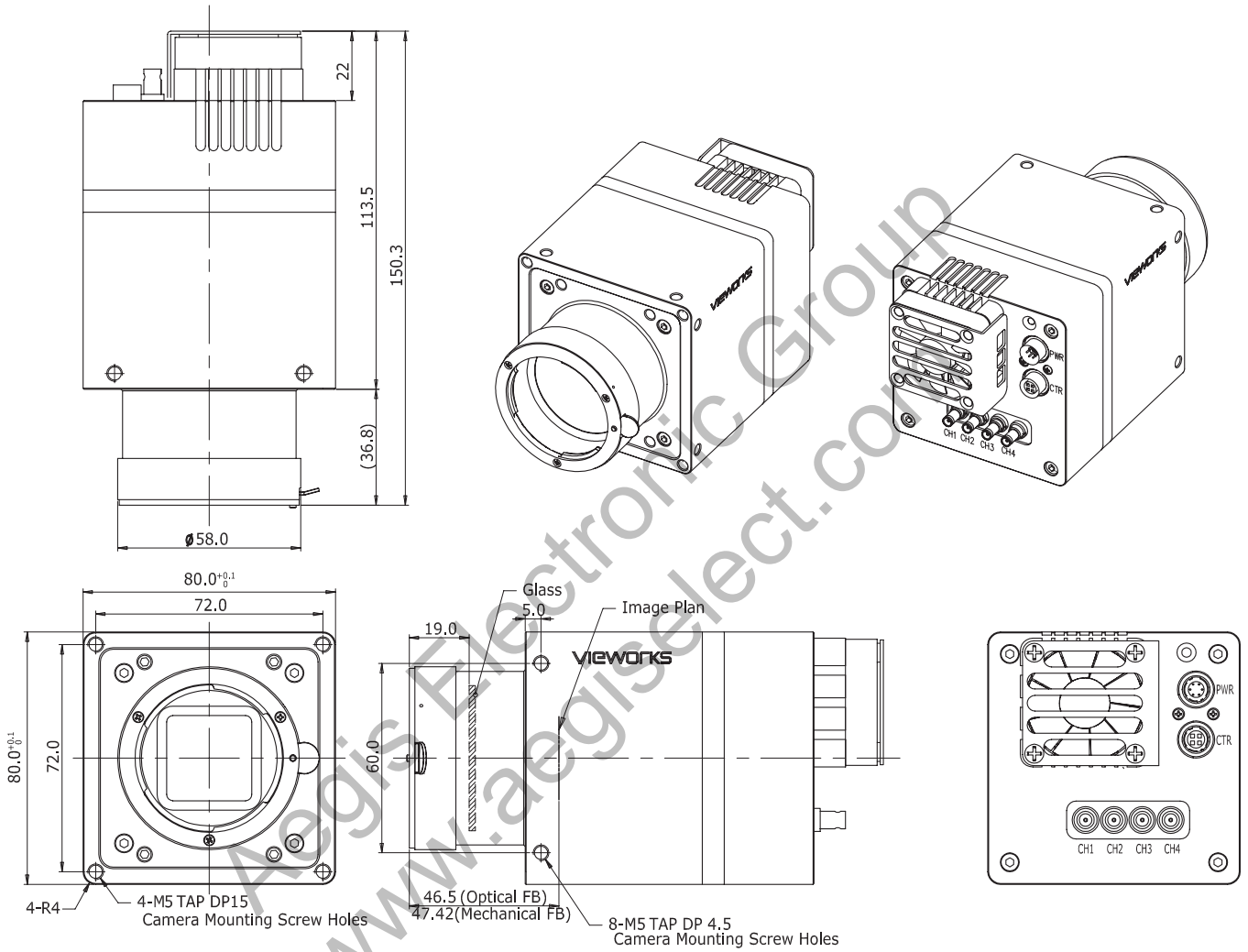
Connectors on camera body

VN-25MX

PIXEL SHIFTING CAMERA WITH COAXPRESS INTERFACE

Mechanical Dimensions

Unit: mm



For more information please contact local distributor or visit our website at <http://www.vieworks.com>.

Reproduction in whole or in part without written permission is prohibited. Vieworks Co., Ltd. is not responsible for any technical or typographical errors and reserves the right to make changes to products, specifications and documentation without prior notice.

RA14-14B-004