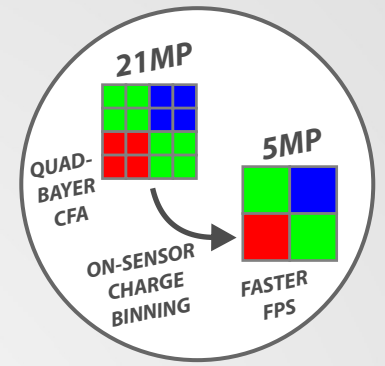


# REDWOOD™

## 5MP CAMERAS



CoaxPress

### Video Cameras with Gpixel GSPRINT4521 Sensors

#### APPLICATIONS

High Speed Motion Analysis

Specialty Video Production

Automated Inspection

Scientific Research



#### FEATURES INCLUDE:

- 21MP Quad-Bayer Color Sensor with On-Sensor Binning delivers 5MP Output at Fast Frame Rates
- Charge-Domain Global Shutter CMOS Sensor
- Fast CoaxPress 2.0 Video Output with Coaxial or Fiber Optic Cabling Options
- Selectable 8/10/12-bit Data Formats
- Multiple Lens Mount Options
- Flexible Image Adjustment and Enhancement

**IOI**  
IO INDUSTRIES

# SPECIFICATIONS

| <b>Camera Model</b>                   | <b>Redwood 5MP</b>   |
|---------------------------------------|--|
| <b>Sensor Size (H x V)</b>            | 2560 x 2016 (5.2 MP)   |
| <b>Frame rate (full resolution)</b>   | 872 fps (8-bit), 714 fps (10-bit), 583 fps (12-bit)  |
| <b>Optical Format</b>                 | APS-C (29.5 mm diagonal)   |
| <b>Sensor Type</b>                    | CMOS w. global electronic shutter  |
| <b>Sensor Options</b>                 | Color-only (Bayer)   |
| <b>Pixel Size</b>                     | 9.0 x 9.0 $\mu$ m  |
| <b>Dynamic Range</b>                  | 67.6 dB  |
| <b>Output Configurations</b>          | 1/2/4 links via coaxial or fiber cabling (1x CXP-10/12, 2x CXP-5/6/10/12, or 4x CXP-3/5/6/10/12) |
| <b>Multiple ROI / Binning</b>         | Single window, on-sensor charge binning always enabled   |
| <b>Pixel Bit Depth</b>                | 8/10/12-bit output   |
| <b>Exposure Control</b>               | Programmable or level-controlled exposure, triggered double exposure (PIV), or auto exposure     |
| <b>Image Correction</b>               | Black level, FPN/PRNU, bad pixel replacement, denoise filter, detail enhancement filter          |
| <b>Color Processing</b>               | White balance (Auto one-shot, tracking, or manual), Black balance (auto or manual), Gamma LUTs   |
| <b>Camera Configuration</b>           | GenICam or Redwood Control software  |
| Mechanical/Electrical                 |  |
| <b>Dimensions</b>                     | 62.0 mm x 62.0 mm x 162.6 mm (WxHxD, with F-mount)   |
| <b>Lens Mount</b>                     | C-mount, F-mount, M52 x 0.75 or Active Canon EF-mount  |
| <b>Weight</b>                         | 760 g (with F-mount, no lens)  |
| <b>Power Requirements</b>             | Approx. 21W @ 12V DC via Hirose 6-pin, CX models support PoCXP (min. 2 links required)           |
| <b>Additional I/O (Hirose 12-pin)</b> | TTL-level trigger input/output   |
| <b>Operating Temperature</b>          | -10°C to 50°C, 20-85% humidity (non-condensing)  |
| <b>Storage Temperature</b>            | -40°C to 85°C, 10-90% humidity (non-condensing)  |

## FRAME RATE CHART

| Example Output Resolution: | CXP Connection*:     | Frame Rate: |        |        |
|----------------------------|----------------------|-------------|--------|--------|
|                            |                      | 8-bit       | 10-bit | 12-bit |
| Maximum<br>(2560 x 2016)   | 4x CXP-12            | 872         | 714    | 583    |
|                            | 2x CXP-12 / 4x CXP-6 | 450         | 350    | 292    |
| 4MP 1:1<br>(2048 x 2016)   | 4x CXP-12            | 950         | 872    | 731    |
|                            | 2x CXP-12 / 4x CXP-6 | 552         | 437    | 358    |
| HD 1080p<br>(1920 x 1080)  | 4x CXP-12            | 1945        | 1639   | 1360   |
|                            | 2x CXP-12 / 4x CXP-6 | 1008        | 826    | 685    |
| 1.3MP<br>(1280 x 1024)     | 4x CXP-12            | 2976        | 2551   | 1782   |
|                            | 2x CXP-12 / 4x CXP-6 | 1636        | 1257   | 1039   |
| HD 720p<br>(1280 x 720)    | 4x CXP-12            | 3876        | 3378   | 2386   |
|                            | 2x CXP-12 / 4x CXP-6 | 2193        | 1689   | 1396   |

\*both Coaxial and CoaXPress-over-Fiber models support configurations up to 4x CXP-12

## ORDERING

Example: 52G872CCQ-A

Camera  
52G872

Lens Type

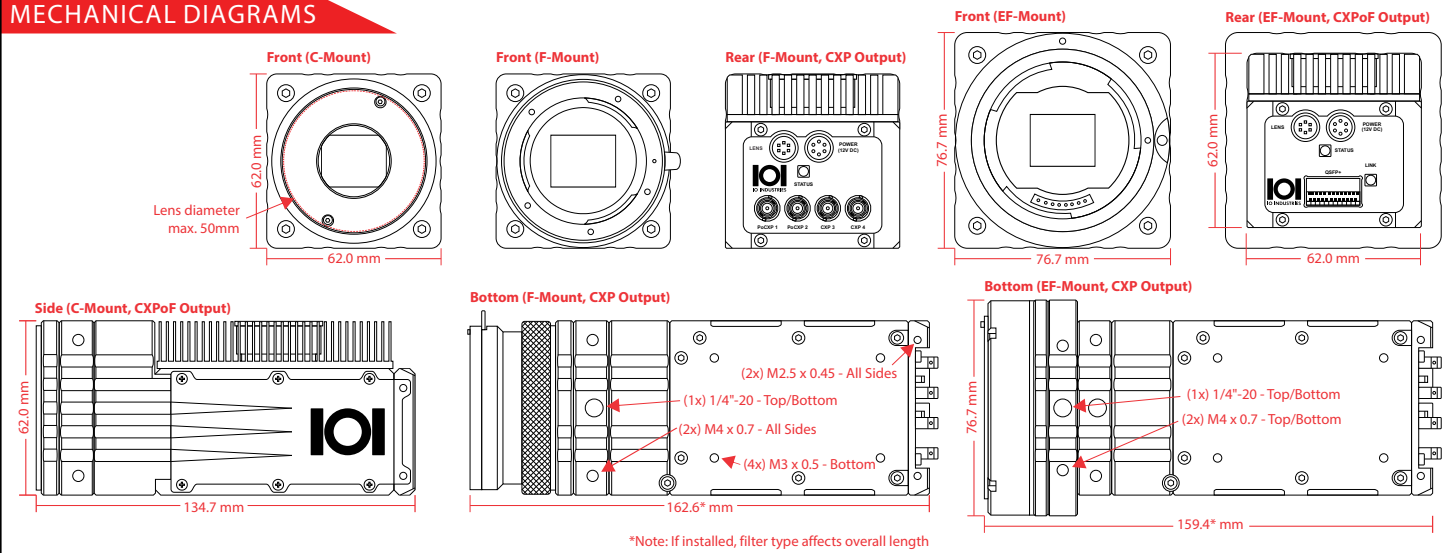
F - F-mount with IR-Cut filter  
A - Active EF-mount with IR-Cut filter  
CN - C-mount, no IR-Cut filter  
MN - M52 x 0.75 mount, no IR-Cut filter

Sensor Type  
C - Color

Interface

CX - CoaXPress (Coaxial)  
CQ - CoaXPress-over-Fiber (QSFP+)

## MECHANICAL DIAGRAMS



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LET'S STAY CONNECTED!



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