

REDWOOD™

21MP CAMERAS



CoaxPress

Video Cameras with Gpixel GSPRINT4521 Sensors

APPLICATIONS

High Speed Motion Analysis

Specialty Video Production

Automated Inspection

Scientific Research



FEATURES INCLUDE:

- Monochrome and Color Models
- High Resolution with High Speed Output
- 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

IO
INDUSTRIES

SPECIFICATIONS

Camera Model	Redwood 21MP
Sensor Size (H x V)	5120 x 4096 (21.0 MP)
Frame rate (full resolution)	230 fps (8-bit), 183 fps (10-bit), 152 fps (12-bit)
Optical Format	APS-C (29.5 mm diagonal)
Sensor Type	CMOS w. global electronic shutter
Sensor Options	Monochrome or color (Bayer)
Pixel Size	4.5 x 4.5 μm
Dynamic Range	66.8 dB
Output Configurations	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)
Multiple ROI / Binning	Single window, optional 2x2 on-sensor binning (monochrome models only)
Pixel Bit Depth	8/10/12-bit output
Exposure Control	Programmable or level-controlled exposure, triggered double exposure (PIV), or auto exposure
Image Correction	Black level, FPN/PRNU, bad pixel replacement, denoise filter, detail enhancement filter
Color Processing	White balance (Auto one-shot, tracking, or manual), Black balance (auto or manual), Gamma LUTs
Camera Configuration	GenICam or Redwood Control software

Mechanical/Electrical

Dimensions	62.0 mm x 62.0 mm x 162.6 mm (WxHxD, with F-mount)
Lens Mount	C-mount, F-mount, M52 x 0.75 or Active Canon EF-mount
Weight	760 g (with F-mount, no lens)
Power Requirements	Approx. 21W @ 12V DC via Hirose 6-pin, CX models support PoCXP (min. 2 links required)
Additional I/O (Hirose 12-pin)	TTL-level trigger input/output
Operating Temperature	-10°C to 50°C, 20-85% humidity (non-condensing)
Storage Temperature	-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 (5120 x 4096)	4x CXP-12	230	183	152
	2x CXP-12 / 4x CXP-6	115	90	74
4K UHD (3840 x 2160)	4x CXP-12	551	454	375
	2x CXP-12 / 4x CXP-6	283	221	183
HD 1080p (1920 x 1080)	4x CXP-12	2032	1652	903
	2x CXP-12 / 4x CXP-6	1040	816	668
Maximum (2x2 Binning, mono only) (2560 x 2016)	4x CXP-12	871	714	583
	2x CXP-12 / 4x CXP-6	450	350	292
HD 1080p (2x2 Binning, mono only) (1920 x 1080)	4x CXP-12	1945	1639	1360
	2x CXP-12 / 4x CXP-6	1008	826	685

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

ORDERING

Example: 210G230CCQ-A

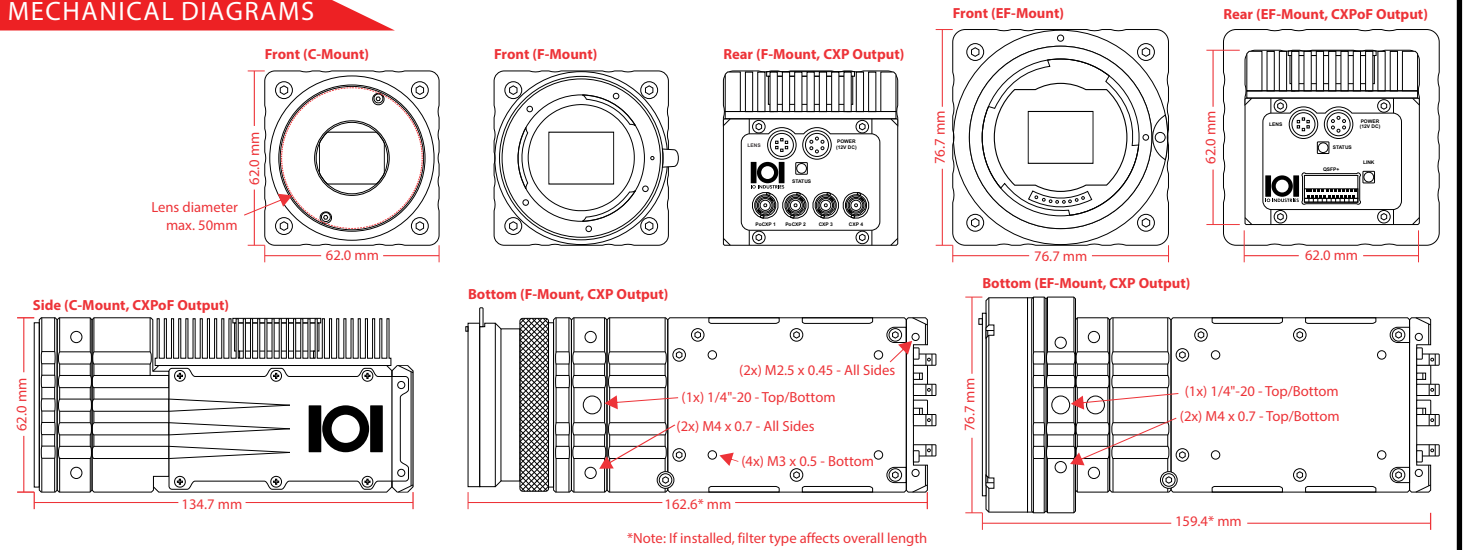
Camera
210G230

Lens Type
C - C-mount
F - F-mount
M - M52 x 0.75
A - Active EF-mount

Sensor Type
M - Monochrome
C - Color (with IR-Cut filter)

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

MECHANICAL DIAGRAMS



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