

CHEETAH

RUGGEDIZED CAMERA SERIES

C2020 CMOS 3.1 MP Camera Link®



Imperx: C2020

The CLF-C2020 camera features the Sony Pregius IMX-252 Global Shutter CMOS sensor with a native resolution of 2064 x 1544 in a 1/1.8" optical format delivering up to 148 frames per second with Camera Link® Full, PoCL output. The Sony Pregius image sensor delivers outstanding sensitivity and excellent image quality. Imperx puts you in control by providing full access to raw data without corrections. Using the simple intuitive graphical user interface, you can quickly apply or remove image corrections. The C2020's flexibility, image quality, and speed make it suitable for a broad range of diverse and demanding applications, but "one size doesn't fit all," and Imperx can help optimize the camera to your exact requirements.

Specifications

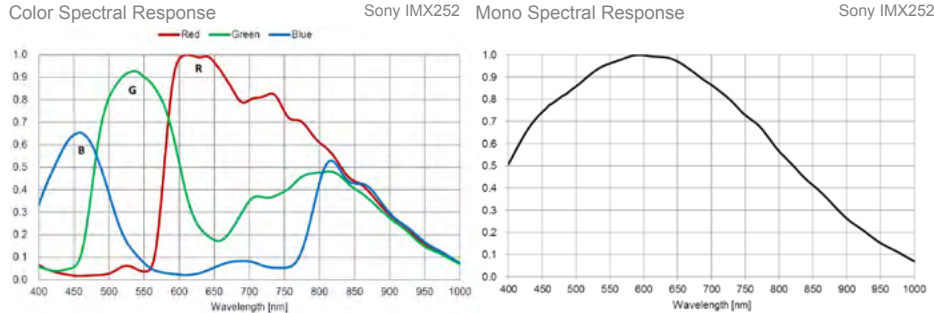
Feature	Description	Feature	Description
Interfaces available	Camera Link® Base, Medium, Full w/PoCL	Strobe Output	2 strobes, programmable position and duration
Resolution	2064 (H) x 1544 (V)	Pulse Generator	Yes, programmable
Sensor	Sony Pregius IMX-252 CMOS Color/Mono	Data Correction	4 LUTS; 1 LUT pre-programmed with Gamma 0.45; Bad pixel correction (static, dynamic)
Sensor Format	7.0 mm (H) x 5.3 mm (V), 1/1.8" diagonal	Lens Mount	C-Mount (default)
Pixel Size	3.45 microns square	P-IRIS	Optional
Shutter	Global shutter (GS)	Supply Voltage Range	12VDC (5V – 30V), 1.5 A inrush
Digitization	8, 10, 12 bit	Camera Current	Typical: 200mA/12V
Frame Rate	148 (8-bit), 121 (10-bit), 54 (12-bit)	PoCL	PoCL capable in medium/full mode
Pixel Clock Rate	37.125MHz	Size - Width/Height/Length	37mm (W), 37mm (H), 48.6mm (L)
Dynamic Range	71dB	Weight	91.8g
Output Bit Depth	8, 10, 12 bit	Vibration, Shock	TBD
Analog/Digital Gain	Manual, auto; 0-48 dB, 480 steps	Environmental	-30° C to +75° C
White Balance	Manual, Auto, Off	Humidity	10% to 90% non-condensing
Shutter Speed	1 µs/step, 14 µs to 16.0 sec.	MTBF	TBD
Exposure Control	Off, internal, external, auto	Military Standard	MIL-STD-810F
Regions of Interest (ROI)	2 ROI	Regulatory	FCC Part 15 Class A, CE, RoHs
Binning	1x2, 2x1, 2x2		
Sub-sampling	1x2, 2x1, 2x2		
Trigger Inputs	External, pulse generator, software, computer		
Trigger Options	Edge, debounce		
Trigger Modes	Free run, Standard, Fast		
External Inputs/Outputs	2 IN (OPTO, LVTTTL) / 2 OUT (OPTO, TTL)		

Imperx: C2020 Applications

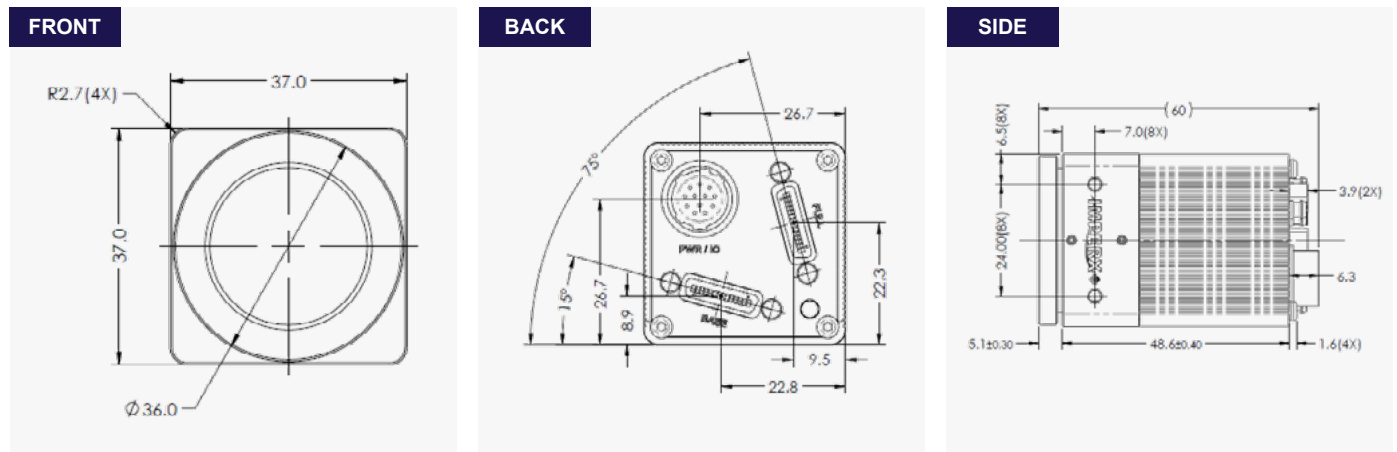
The CLF C2020 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

Aerospace • Satellites • Surveillance • Ball Grid Array • Printed Circuit Board Inspection • Motion Analysis • Broadcast Television • Telepresence • Unmanned Aerial Vehicles • Machine Vision • Intelligent Traffic Systems • Aerial Imaging • Open Road Tolling Systems • Situational Awareness

Absolute Quantum Efficiency



Dimensions



Ordering Information

Interface Available

- Camera Link® Full (CLF)
- 3G-SDI

Sensor Types available

- Monochrome
- Bayer Color

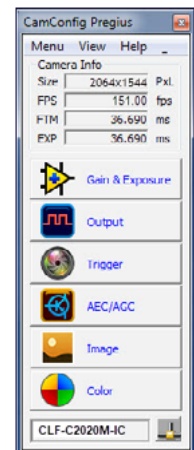
Lens Mounts

- C-Mount (Default)

Accessories (Sold separately)

- PS12V04A-Power Supply w/ 1 input and 1 output

Software/Drivers/Interface



Hirose Connectors

Power and I/O Interface

- 1. 12 VDC Return
- 2. +12 VDC
- 3. Reserved
- 4. Reserved
- 5. OUT2 RTN (OPTO)
- 6. OUT1 RTN
- 7. OUT1 (TTL)
- 8. IN1 (OPTO)
- 9. IN2 (LVTTTL)
- 10. IN1 RTN
- 11. IN2 RTN
- 12. OUT2 (OPTO)



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