

CHEETAH

RUGGEDIZED CAMERA SERIES

Front View

Rear View

C1921

CMOS 2.86 MP

Camera Link®

Imperx: C1921

The CLF-C1921 camera features the Sony Pregius IMX421 Global Shutter CMOS sensor with a native resolution of 1944 x 1472 in a 2/3" optical format delivering up to 174 frames per second with Camera Link® Full Power over Camera Link (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 image corrections, if desired. The C1921'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

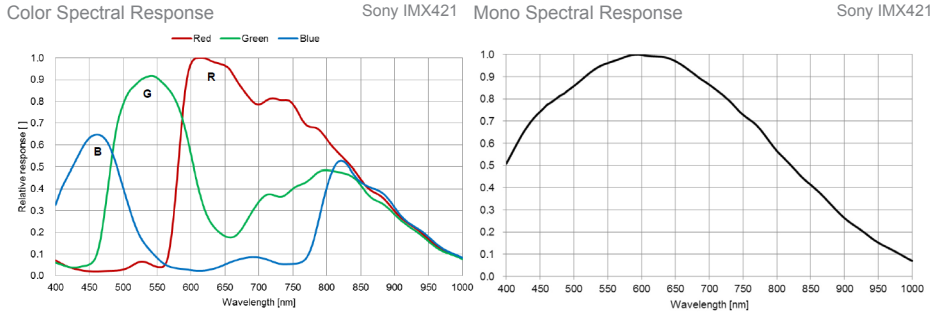
Feature	Description	Feature	Description
Output Interface	Camera Link® Base, Medium, Full w/PoCL®	Strobe Output	2 strobes, programmable position and duration
Resolution	1944 (H) x 1472 (V)	Pulse Generator	Yes, programmable
Sensor	Sony Pregius IMX421 CMOS Color/Mono	Data Correction	4 LUTs pre-programmed with Gamma 0.45; Bad pixel correction (static, dynamic) 2 Flat Field Correction tables
Sensor Format	8.7 mm (H) x 6.6 mm (V), 2/3" optical format	Lens Mount	C-Mount (default)
Pixel Size	4.5 microns square	P-IRIS	Optional
Shutter	Global shutter (GS)	P-IRIS Control	Auto, Programmable
Sensor Digitization	8, 10, 12-bit	Supply Voltage Range	12 V DC (6 V – 30 V), 1.5 A inrush @ 12 V
Frame Rate	174 fps (8-bit), 143 fps (10-bit), 62.8 fps (12-bit)	Camera Current	Typical: 200 mA/12 V
Dynamic Range	77 dB	PoCL	PoCL capable in Medium/Full mode
Output Bit Depth	8, 10, 12-bit	Size - Width/Height/Length	37 mm (W) x 37 mm (H) x 47.2 mm (L)
Analog/Digital Gain	Manual, Auto; 0 dB – 48 dB, 480 steps	Weight	103.4 g
Digital Gain	1x (0 dB) to 4x (12 dB) with a precision of 0.001x	Vibration, Shock	Complies with IEC60068-2-64 and IEC60068-2-27
Black Level Offset	Manual (0 – 255), Auto	Environmental	-30 °C to +75 °C Operating; -40 °C to 85 °C Storage
White Balance	Manual, Auto, Off	Humidity	10% to 90% non-condensing
Shutter Speed	5 µs to 16.0 s	MTBF	TBD
Exposure Control	Off, Manual, External, Auto	Military Standard	MIL-STD-810G
Regions of Interest (ROI)	2 ROI	Regulatory	FCC Part 15 Class A, CE, RoHS, UKCA
Binning (mono only)	1x2, 2x1, 2x2		
Sub-sampling	1x2, 2x1, 2x2		
Trigger Inputs	External, Pulse generator, Software, Computer		
Trigger Options	Edge, Pulse width, Trigger filter, Trigger delay, Debounce		
Trigger Modes	Free run, Standard, Fast		
External Inputs/Outputs	2 IN (OPTO, LVTTTL) / 2 OUT (OPTO, TTL)		

Imperx: C1921 Applications

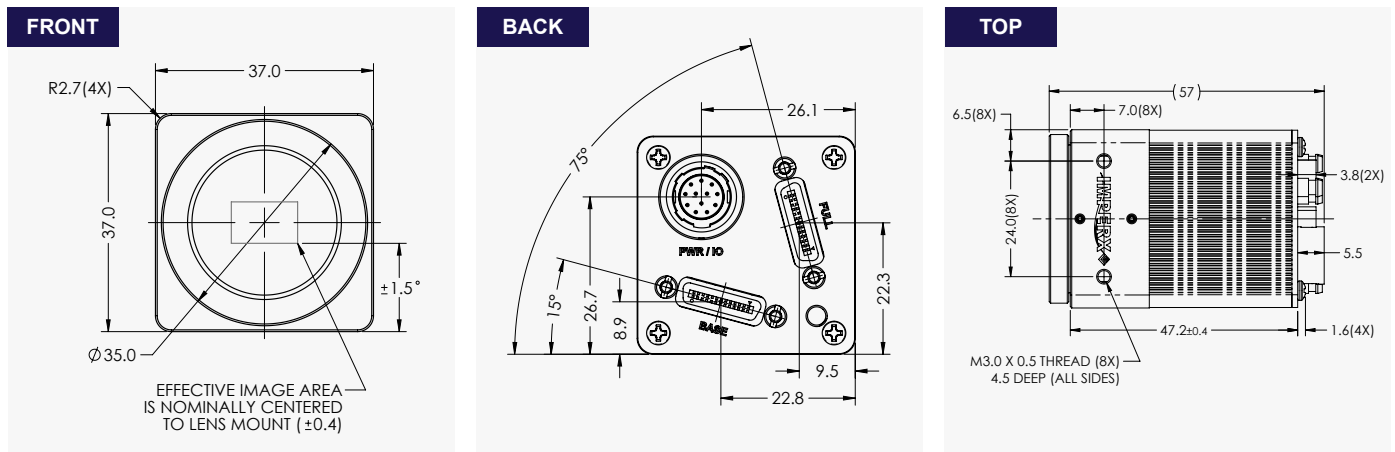
The CLF-C1921 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

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

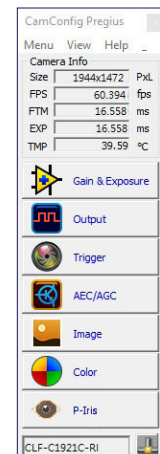


Ordering Information

Output Interface
Camera Link® Full (CLF) w/PoCL®
Sensor Types available
Monochrome
Bayer Color

Lens Mounts
C-Mount (Default)
P-Iris (optional)
Accessories (Sold separately)
PS12V14A – Power Supply w/ 1 input & 1 output
PS12V18A – Power Supply w/ 1 input, 1 output, and a P-Iris connector

Software/Drivers/Interface



Hirose Connectors

Power and I/O Interface	
	<ol style="list-style-type: none"> 12 VDC Return +12 VDC Reserved Reserved OUT2 RTN (OPTO) OUT1 RTN OUT1 (TTL) IN1 (OPTO) IN2 (LVTTTL) IN1 RTN IN2 RTN OUT2 (OPTO)

Connector: Hirose HR10A-10R-12PB(71)

Rev: cl_c1921_r7_2021

Quality Management System ISO 9001:2015 Registered
 Environmental Management System ISO 14001:2015 Registered
 DDTC Registered (Directorate of Defense Trade Controls, US Department of State)



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