

PRELIMINARY

C6420

CMOS 31 MP

CameraLink®, CoaXPress®, 10GigE Vision®



Imperx: C6420

The Cheetah CLF-C6420 camera features the Sony Pregius IMX-342 Global Shutter CMOS sensor with a native resolution of 6464 (H) x 4852 (V) in a APS-C optical format delivering up to 17 frames per second with a 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 C6420'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 Full, CoaXPress, 10GigE	Strobe Output	2 strobes, programmable position and duration
Resolution	6464 (H) x 4852 (V)	Pulse Generator	Yes, programmable
Sensor	Sony Pregius IMX-342 CMOS Color/Mono	Data Correction	4 LUTs; 1 LUT pre-programmed with Gamma 0.45; Bad pixel correction (static, dynamic)
Sensor Format	22.3mm (H) x 16.6mm (V); 27.9mm diagonal	Lens Mount	F-mount (default), M42
Pixel Size	3.45 microns square	Supply Voltage Range	12VDC (5V – 30V), TBD inrush
Shutter	Global shutter (GS)	Camera Current	Typical: TBD/12V
Digitization	8, 10, 12 bit	PoCL	PoCL capable in medium/full mode
Frame Rate	17 fps (8 bit), 14 fps (10), 12 fps (12 bit)	Size - Width/Height/Length	CLF 60mm (W) x 60mm (H) x 59.9mm (L) CXP 62mm (W) x 62mm (H) x 69.9mm (L) 10GigE 62mm (W) x 62mm (H) x 81.3mm (L)
Pixel Clock Rate	37.125MHz	Weight	TBD
Dynamic Range	71dB	Vibration, Shock	TBD
Output Bit Depth	8, 10, 12 bit	Environmental	TBD
Analog/Digital Gain	Manual, auto; 0-48 dB, 480 steps	Humidity	10% to 90% non-condensing
White Balance	Manual, Auto, Off	MTBF	TBD
Shutter Speed	1 μs/step, 30μS to 16.0S	Military Standard	MIL-STD-810F
Exposure Control	Off, internal, external, auto	Regulatory	FCC Part 15, CE, RoHS
Regions of Interest (ROI)	2 ROI		
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: C6420 Applications

The CLF C6420 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

Color Spectral Response

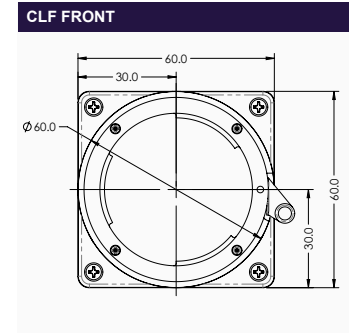
Sony IMX342 Mono Spectral Response

Sony IMX342

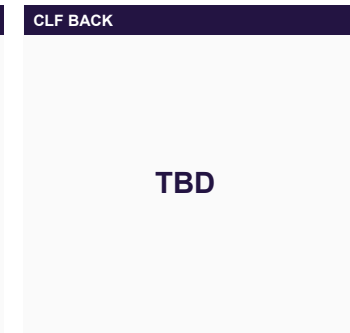
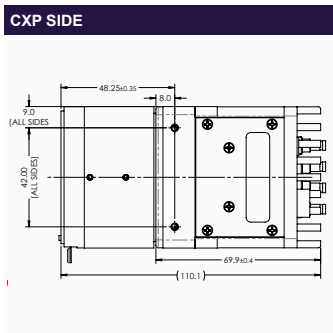
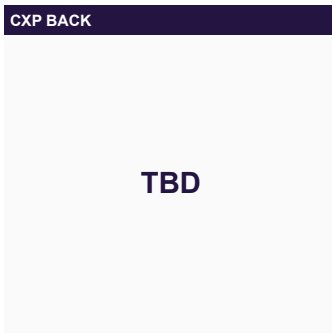
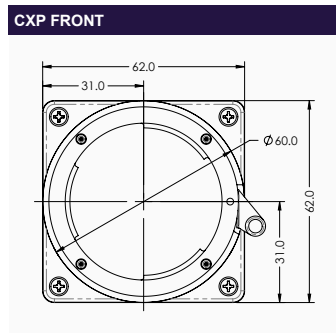
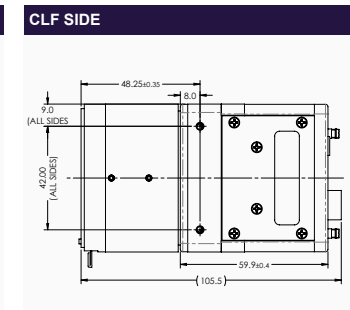
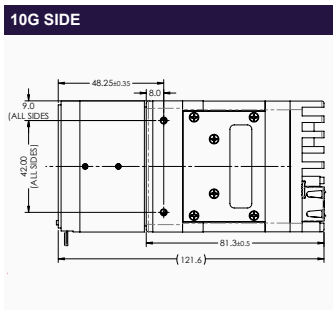
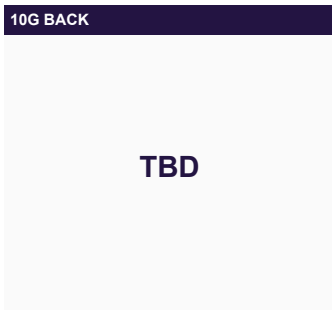
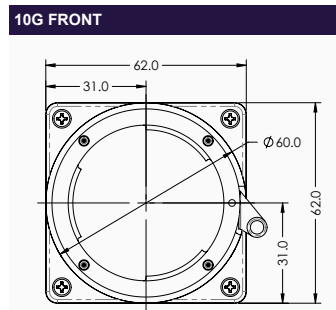
TBD

TBD

Dimensions



Dimensions



Hirose Connectors

Power and I/O Interface

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

Ordering Information

Interface Available Camera Link® Full (CLF) CoaXPress (CXP) 10GigE (10G)	Lens Mounts F-Mount (Default) M42
Sensor Types available Monochrome Bayer Color	Accessories (Sold separately) PS12V04A-Power Supply w/ 1 input and 1 output