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
Interfaces available	Camera Link Full, CoaXPress, 10GigE
Resolution	6464 (H) x 4852 (V)
Sensor	Sony Pregius IMX-342 CMOS Color/Mono
Sensor Format	22.3mm (H) x 16.6mm (V); 27.9mm diagonal
Pixel Size	3.45 microns square
Shutter	Global shutter (GS)
Digitization	8, 10, 12 bit
Frame Rate	17 fps (8 bit), 14 fps (10), 12 fps (12 bit)
Pixel Clock Rate	37.125MHz
Dynamic Range	71dB
Output Bit Depth	8, 10, 12 bit
Analog/Digital Gain	Manual, auto; 0-48 dB, 480 steps
White Balance	Manual, Auto, Off
Shutter Speed	1 µs/step, 30µS to 16.0S
Exposure Control	Off, internal, external, auto
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, LVTTL) / 2 OUT (OPTO, TTL)

Feature	Description
Strobe Output	2 strobes, programmable position and duration
Pulse Generator	Yes, programmable
Data Correction	4 LUTs; 1 LUT pre-programmed with Gamma 0.45; Bad pixel correction (static, dynamic)
Lens Mount	F-mount (default), M42
Supply Voltage Range	12VDC (5V – 30V), TBD inrush
Camera Current	Typical: TBD/12V
PoCL	PoCL capable in medium/full mode
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)
Weight	TBD
Vibration, Shock	TBD
Environmental	TBD
Humidity	10% to 90% non-condensing
MTBF	TBD
Military Standard	MIL-STD-810F
Regulatory	FCC Part 15, CE, RoHS

IMPERX
Industrial Cameras & Imaging Systems

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

CLF FRONT

Dimensions

10G FRONT

10G BACK

TBD

10G SIDE

CLF SIDE

CXP FRONT

CXP BACK

TBD

CXP SIDE

CLF BACK

TBD

Ordering Information

Interface Available
Camera Link® Full (CLF)
CoaXPress (CXP)
10GigE (10G)

Sensor Types available
Monochrome
Bayer Color

Lens Mounts
F-Mount (Default)
M42

Accessories (Sold separately)
PS12V04A-Power Supply w/ 1 input and 1 output
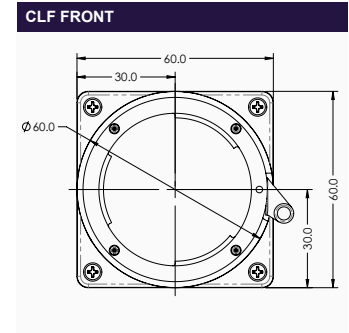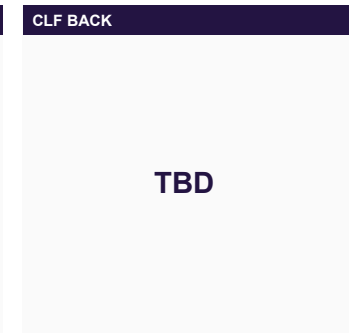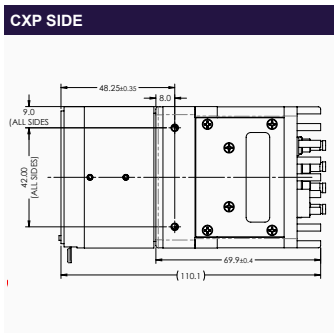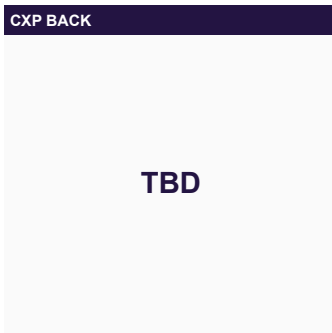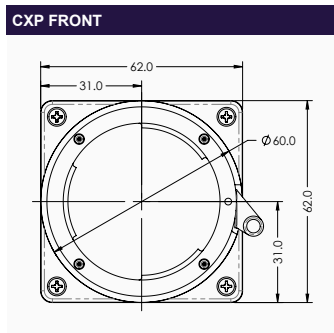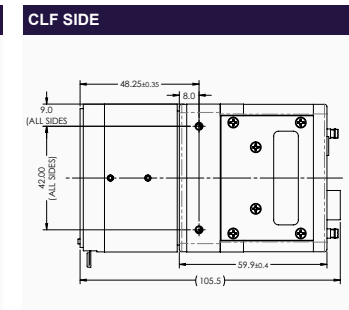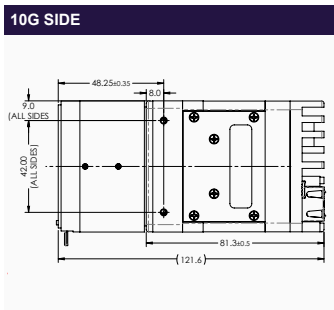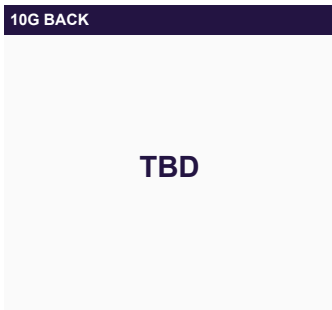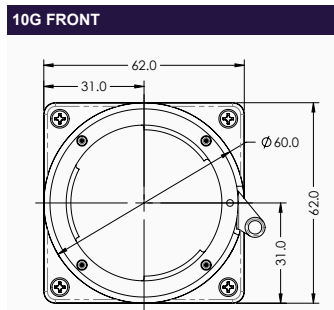
Hirose Connectors

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 (LVTTL)
10. IN1 RTN
11. IN2 RTN
12. OUT2 (OPTO)

IMPERX

Industrial Cameras & Imaging Systems