CXP-C4440
CMOS 20 MP
Dual CXP-12

PRELIMINARY

Imperx: *C4440*

The CXP-C4440 camera features the Sony Pregius IMX367 Global Shutter CMOS sensor with a native resolution of 4432 x 4436 in a 4/3" optical format delivering up to 43 frames per second with a dual CXP-12 CoaXPress® output. CMOS technology eliminates smear columns from areas of ultra-bright intensity and specular reflections in uncontrolled lighting applications. The Imperx Cheetah line provides excellent image quality with Imperx proprietary processing. In addition, Imperx puts you in control and gives you full access to raw data without corrections. Using the simple, intuitive GenICam™ compliant user interface, you can quickly apply image corrections, if desired. The CXP-C4440'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.
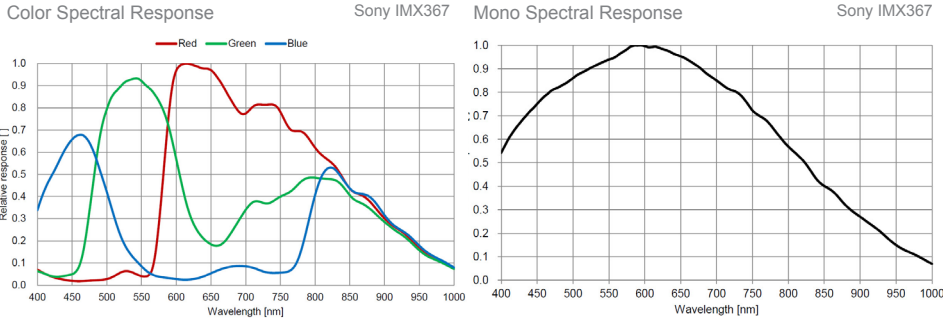
Specifications

Feature	Description
Output Interface	2-channel CXP-12 CoaXPress® w/PoCXP®
Resolution	4432 (H) x 4436 (V)
Sensor	Sony Pregius IMX367 CMOS Color/Mono
Sensor Format	15.2 mm (H) x 15.3 mm (V), 4/3" optical format
Pixel Size	3.45 microns square
Shutter	Global shutter (GS)
Sensor Digitization	8, 10, 12-bit
Frame Rate	43 fps (8-bit), 39.6 fps (10-bit), 28.3 fps (12-bit)
Dynamic Range	71 dB
Output Bit Depth	8, 10, 12-bit
Analog/Digital Gain	Manual, Auto; 0 dB – 48 dB, 480 steps
Digital Gain	1x (0 dB) to 4x (12 dB) with a precision of 0.001x
AEC/AGC	Yes
Black Level Offset	Manual (0 – 255), Auto
White Balance	Manual, Auto, Once, Off
Shutter Speed	1 µs/step, 30 µs to 16.0 s
Exposure Control	Off, Internal, External, Auto
Regions of Interest (ROI)	2 ROI
Binning	1 x 2, 2 x 1, 2 x 2
Sub-sampling	1 x 2, 2 x 1, 2 x 2
Trigger Inputs	External, Pulse generator, Software
Trigger Options	Edge, Pulse width, Trigger filter, Trigger delay, 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 pre-programmed with Gamma 0.45; Bad pixel correction (static, dynamic), Flat field correction
Lens Mount	F-Mount (default)
Canon EF-Mount	Optional, Active or Passive
Power	Power over CoaXPress or 24 V external power supply (Optional)
Power Consumption	Typical: TBD, Maximum: TBD
Size - Width/Height/Length	60 mm (W) x 60 mm (H) x 59.5 mm (L) (EST)
Weight	TBD
Vibration, Shock	20G (20 – 200 Hz XYZ) /100G
Environmental	-30 °C to +75 °C Operating, -40 °C to +85 °C Storage
Humidity	10% to 90% non-condensing
MTBF	TBD
Military Standard	MIL-STD-810G
Regulatory	FCC Part 15 Class A, CE, RoHS

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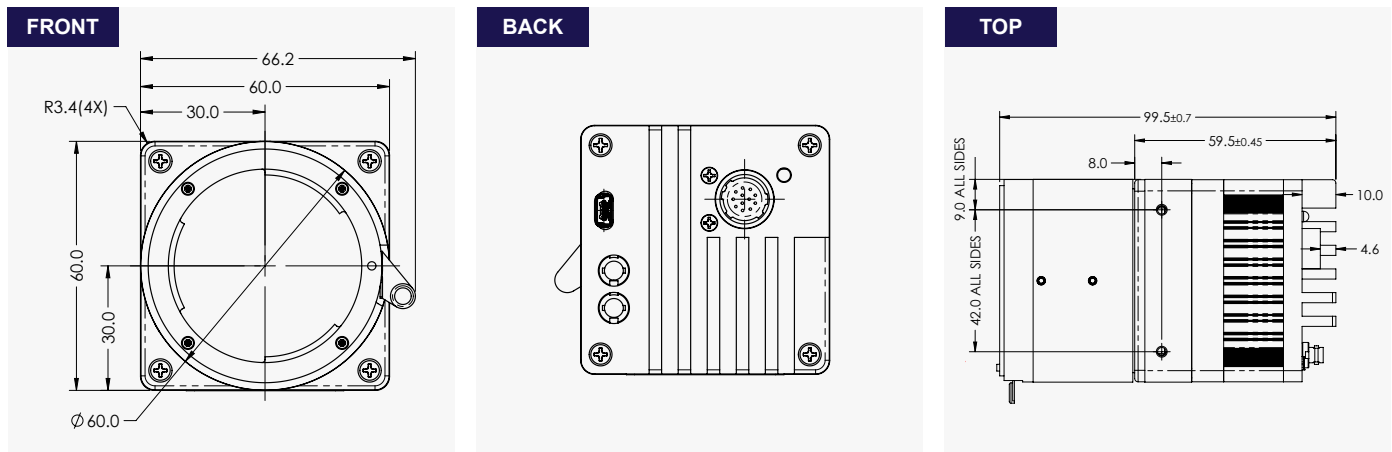## Imperx: *C4440 Applications*

The CXP-C4440 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
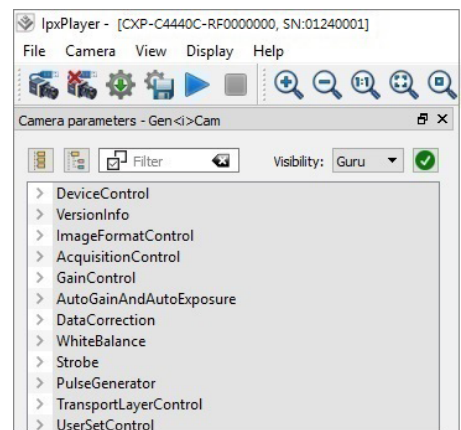
Absolute Quantum Efficiency

Color Spectral Response   Sony IMX367   Mono Spectral Response   Sony IMX367

Dimensions *(Preliminary)*

FRONT

BACK

TOP

Ordering Information

Output Interface
2-channel CXP-12 CoaXPress® w/PoCXP® (CXP)

Sensor Types available
Monochrome
Bayer Color

Lens Mounts
F Mount (Default)
M42 (Optional)
Canon EF Mount (Optional)

Accessories (Sold separately)
CBL-PWIO01: Cable Power; Hirose 12p (F) to loose end; 2 meters

Gen<I>Cam Compliant Camera Configurator

Hirose Connectors

Power and I/O Interface

1. 12 VDC Return
2. +12V DC
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)

Connector: Hirose HR 10A-10R-12PB(71)

Rev: cxp_c4440_r1_2019

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