

CHEETAH

RUGGEDIZED CAMERA SERIES

CXP-C6440 CMOS 31 MP Dual CXP-12



PRELIMINARY

Imperx: C6440

The CXP-C6440 camera features the Sony Pregius IMX342 Global Shutter CMOS sensor with a native resolution of 6464 x 4852 in an APS-C optical format delivering up to 35.4 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-C6440'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

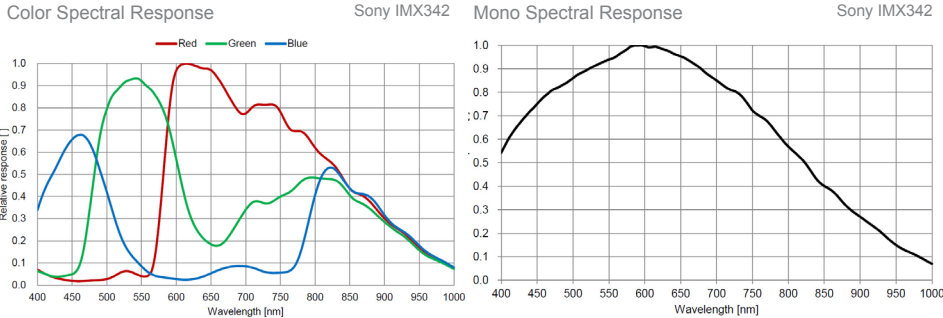
Feature	Description	Feature	Description
Output Interface	2-channel CXP-12 CoaXPress® w/PoCXP®	Strobe Output	2 strobes, programmable position and duration
Resolution	6464 (H) x 4852 (V)	Pulse Generator	Yes, programmable
Sensor	Sony Pregius IMX342 CMOS Color/Mono	Data Correction	4 LUTs pre-programmed with Gamma 0.45; Bad pixel correction (static, dynamic), Flat field correction
Sensor Format	22.3 mm (H) x 16.7 mm (V), 27.9 diagonal, APS-C optical format	Lens Mount	F-Mount (default)
Pixel Size	3.45 microns square	Canon EF-Mount	Optional, Active or Passive
Shutter	Global shutter (GS)	Power	Power over CoaXPress or 24 V external power supply (Optional)
Sensor Digitization	8, 10, 12-bit	Power Consumption	Typical: TBD, Maximum: TBD
Frame Rate	35.4 (8-bit), 35.4 (10-bit), 25.8 (12-bit)	Size - Width/Height/Length	60 mm (W) x 60 mm (H) x 59.5 mm (L) (EST)
Dynamic Range	71 dB	Weight	TBD
Output Bit Depth	8, 10, 12-bit	Vibration, Shock	20G (20 – 200 Hz XYZ) / 100G
Analog/Digital Gain	Manual, Auto; 0 dB – 48 dB, 480 steps	Environmental	-30 °C to +75 °C Operating, -40 °C to +85 °C Storage
Digital Gain	1x (0 dB) to 4x (12 dB) with a precision of 0.001x	Humidity	10% to 90% non-condensing
AEC/AGC	Yes	MTBF	TBD
Black Level Offset	Manual (0 – 255), Auto	Military Standard	MIL-STD-810G
White Balance	Manual, Auto, Once, Off	Regulatory	FCC Part 15 Class A, CE, RoHS
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, LVTTTL) / 2 OUT (OPTO, TTL)		

Imperx: C6440 Applications

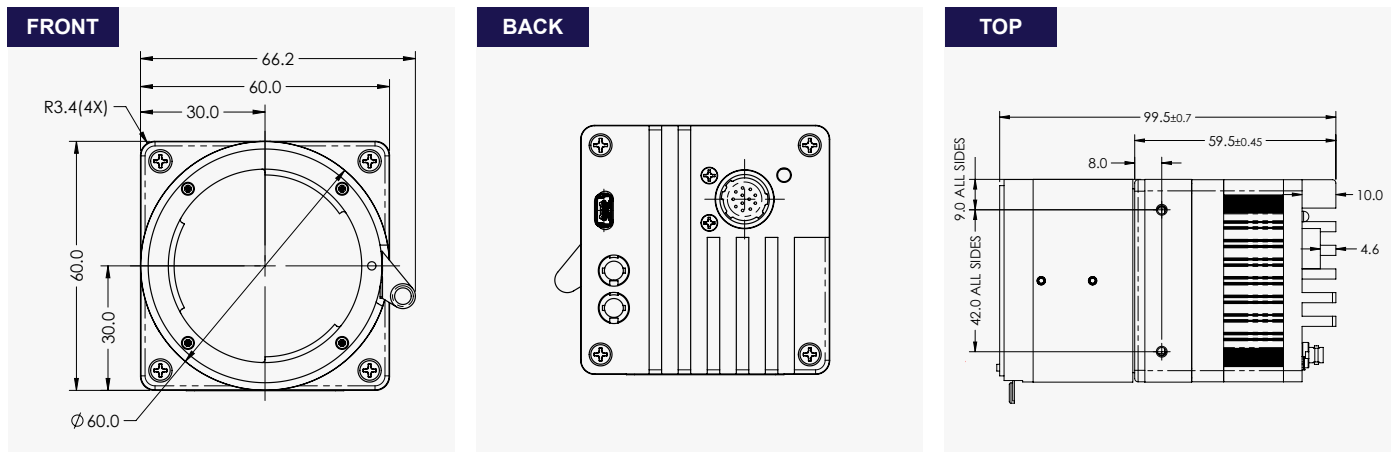
The CXP-C6440 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

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



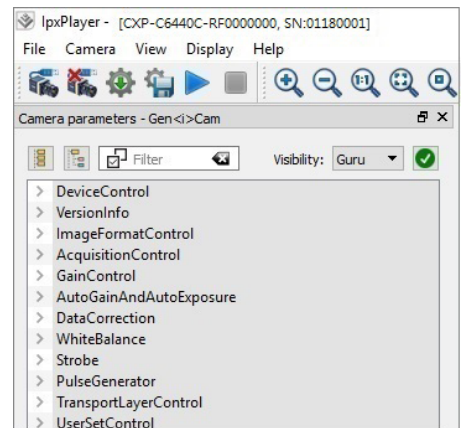
Dimensions (Preliminary)



Ordering Information

Output Interface 2-channel CXP-12 CoaXPress® w/PoCXP® (CXP)	Lens Mounts F Mount (Default) M42 (Optional) Canon EF Mount (Optional)
Sensor Types available Monochrome Bayer Color	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	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)

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

Rev: cxp_c6440_r1_2019

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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