CHEETAH

RUGGEDIZED CAMERA SERIES

Front View | Rear View

CXP-C9440
CMOS 65 MP
Quad CXP-6

Imperx: *C9440*

The CXP-C9440 camera features the GPIXEL GMAX3265 Global Shutter CMOS sensor with a native resolution of 9344 x 7000 delivering up to 34.7 frames per second with a quad CXP-6 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-C9440'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	4-channel CXP-6 CoaXPress w/PoCXP
Resolution	9344 (H) x 7000 (V)
Sensor	GPIXEL GMAX3265 CMOS Color/Mono
Sensor Format	29.9 mm (H) x 22.4 mm (V),37.4 mm diagonal
Pixel Size	3.2 microns square
Shutter	Global shutter (GS)
Sensor Digitization	10- or 12-bit
Frame Rate	34.7 fps (8-bit), 28.9 fps (10-bit), 24.0 fps (12-bit)
Dynamic Range	66 dB
Output Bit Depth	8, 10, 12-bit
Analog Gain	0.75x to 6.0x, x0.25 step
Digital Gain	Manual, Auto, Once; 1x (0 dB) to 4x (12 dB) with a precision of 0.001x
AEC/AGC	Off, Auto, Once
Gamma Correction	0.00 to 4.00, with a step of 0.01
Black Level Offset	Manual (-8192 to 8191)
White Balance	Manual, Auto, Once, Off
Shutter Speed	11 µs to 16.0 s
Exposure Control	Off, Internal, External, Auto
Regions of Interest (ROI)	1 ROI
Sub-sampling	2 x 1
Trigger Inputs	External, Pulse generator, Software, Link trigger (Trigger over CXP)
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	2 LUTs pre-programmed with Gamma 0.45, 2 LUTs pre-programmed with Negative LUT; Bad and Defective pixel correction (static), Defective cluster correction (static), 8 Flat field correction tables
Lens Mount	F-Mount (default)
Canon EF-Mount	Optional, Active or Passive
Power	Power over CoaXPress or 6.5 V–33 V external power supply (Optional)
Power Consumption	Typ. (Fan is On): 13.1 W (at 25 °C) Max. (Fan is Off): 15 W (at 25 °C)
Size - Width/Height/Length	87 mm x 87 mm x 47 mm
Weight	655 g
Vibration, Shock	20G (20 – 200 Hz XYZ) / 100G
Environmental	-40 °C to +55 °C Operating (Fan is On), -40 °C to +30 °C Operating (Fan is Off); -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, UKCA

IMPERX
Industrial Cameras & Imaging Systems

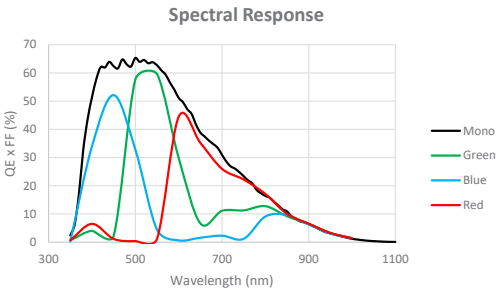
Imperx: *C9440 Applications*

The CXP-C9440 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

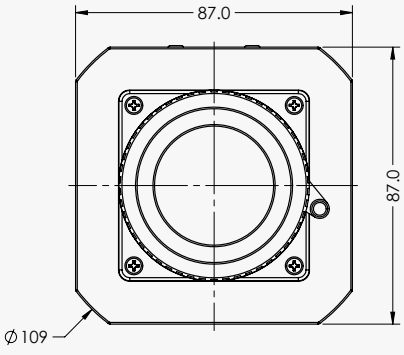
Absolute Quantum Efficiency

Color and Mono Spectral Responses GMAX3265

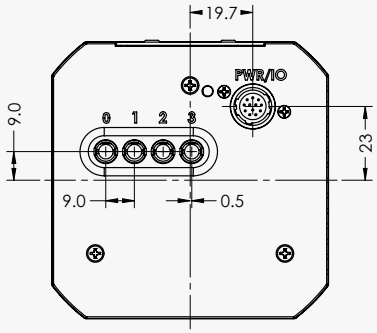


Dimensions

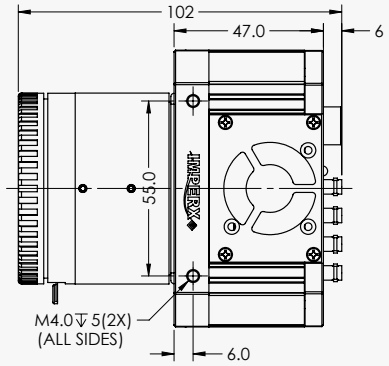
FRONT



BACK



TOP



Ordering Information

Output Interface

4-channel CXP-6 CoaXPress w/PoCXP (CXP)

Sensor Types available

M = Monochrome C = Bayer Color

Accessories (Sold separately)

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

PS12V14A: Power Supply w/1 input and output

Lens Mounts

F = F Mount (Default)
M = M42 (Optional)
E = Canon EF EOS Active Mount (Optional)
L = Canon EF EOS Passive Mount (Optional)

Sensor Grade

00 = Grade 1 (Mono or Color)
G2 = Grade 2 (Mono or Color)
G3 = Grade 3 (Mono)

Gen<I>Cam Compliant Camera Configurator

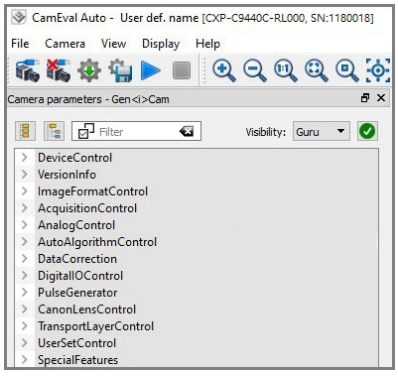


Image of the software interface is for illustrative purposes only.

Camera configurator software is not available from Imperx, but is available from the frame grabber supplier.

Connectors

Power and I/O Interface

1. 12/24 VDC Return
2. +12/24 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)

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

CXP-connectors

Four micro-BNC (HD_BNC)
75 Ohm jacks

Rev: cxp_c9440_r6_2023

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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