

# CHEETAH

## RUGGEDIZED CAMERA SERIES

Front View

Rear View

# P67-C4110

## CMOS 12 MP

*GigE Vision® with Power over Ethernet (PoE)*

### Imperx: C4110

The P67-C4110 provides the same robust camera design as the POE-C4110 with an IP67 enclosure. This camera features the Sony Pregius IMX304 Global Shutter CMOS sensor with a native resolution of 4112 x 3008 in a 1.1" optical format delivering up to 9.6 frames per second with GigE Vision®, Power over Ethernet (PoE)® output. Imperx puts you in control by providing the user the ability to set the camera up very easily. The Cheetah is designed to provide the optimal image quality for simple imaging applications to the most demanding of applications. Using the simple GenCam™ compliant user interface, you can easily apply image corrections to enhance recognition or quality. By combining the powerful Imperx camera control with an IP67 rated housing to protect the camera from dust, water and other contaminants the camera can be utilized in harsh environments.

### Specifications

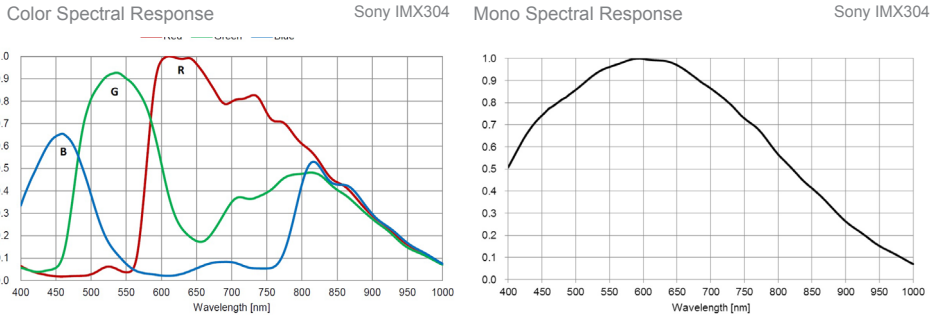
Feature	Description	Feature	Description
<b>Output Interface</b>	GigE Vision® with Power over Ethernet (PoE)	<b>Data Corrections</b>	2 LUTs pre-programmed with Gamma 0.45, 2 LUTs pre-programmed with Negative LUT Bad pixel correction (static), Flat field correction
<b>Resolution</b>	4112 (H) x 3008 (V)	<b>Lens Mount</b>	C-Mount (default)
<b>Sensor</b>	Sony Pregius IMX304 CMOS Color/Mono	<b>Supply Voltage Range</b>	12 V DC (6 V – 30 V), 1.5 A inrush @ 12 V PoE (IEEE 802.3af / IEEE 802.3at)
<b>Sensor Format</b>	14.2 mm (H) x 10.4 mm (V), 1.1" optical format	<b>Power Consumption</b>	Typical: 3.48 W @ 12 V; PoE: 4.86 W
<b>Pixel Size</b>	3.45 microns square	<b>Camera Current</b>	Typical: 290 mA @ 12 V
<b>Shutter</b>	Global shutter (GS)	<b>Size - Width/Height/Length</b>	48.5 mm (W) x 42.0 mm (H) x 61 mm (L) (without connectors and a lens tube)
<b>Sensor Digitization</b>	12-bit	<b>Lens Tube Dimensions</b>	44 mm Lens tube: -Inner diameter 44 mm -Outer diameter 50 mm -Length varies (see IP67 lens tubes spec sheet)
<b>Frame Rate</b>	9.6 fps (8-bit), 4.8 fps (10-bit/12-bit unpacked), 6.4 fps (10-bit/12-bit packed)	64 mm Lens tube: -Inner diameter 64 mm -Outer diameter 70 mm -Length varies (see IP67 lens tubes spec sheet)	
<b>Dynamic Range</b>	71 dB	<b>Weight</b>	196 g (without a lens tube)
<b>Output Bit Depth</b>	8, 10, 12-bit	<b>Vibration, Shock</b>	20G (20 – 200 Hz XYZ) / 100G
<b>Analog/Digital Gain</b>	Manual, Auto; 0 dB – 48 dB, 480 steps	<b>Environmental</b>	-30 °C to +75 °C Operating (-40 °C to +85 °C tested), -40 °C to +85 °C Storage
<b>Digital Gain</b>	1x (0 dB) to 4x (12 dB) with a precision of 0.001x	<b>Humidity</b>	10% to 90% non-condensing – for exposure longer than 30 minutes 100% non-condensing – for exposure up to 30 minutes
<b>Black Level Offset</b>	Manual (0 – 4095), Auto	<b>MTBF</b>	550,000 hours @ 50 °C (EST) (Telcordia SR-332)
<b>White Balance</b>	Manual, Auto, Once, Off	<b>Military Standard</b>	MIL-STD-810G
<b>Shutter Speed</b>	49 µs to 16 s	<b>Regulatory</b>	FCC Part 15 Class A, CE, RoHs, UKCA
<b>Exposure Control</b>	Off, Manual, Auto, External		
<b>Regions of Interest (ROI)</b>	2 ROI		
<b>Sub-sampling</b>	1x2, 2x1, 2x2		
<b>Trigger Inputs</b>	External, Pulse generator, Software		
<b>Trigger Options</b>	Edge, Pulse width, Trigger delay, Debounce		
<b>Trigger Modes</b>	Free run, Standard, Fast		
<b>External Inputs/Outputs</b>	1 IN (OPTO) / 2 OUT (OPTO, TTL)		
<b>Strobe Output</b>	2 strobes, programmable position and duration		
<b>Pulse Generator</b>	Yes, programmable		

## Imperx: C4110 Applications

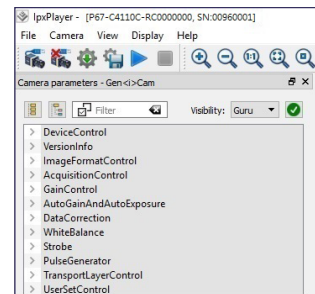
The P67-C4110 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

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

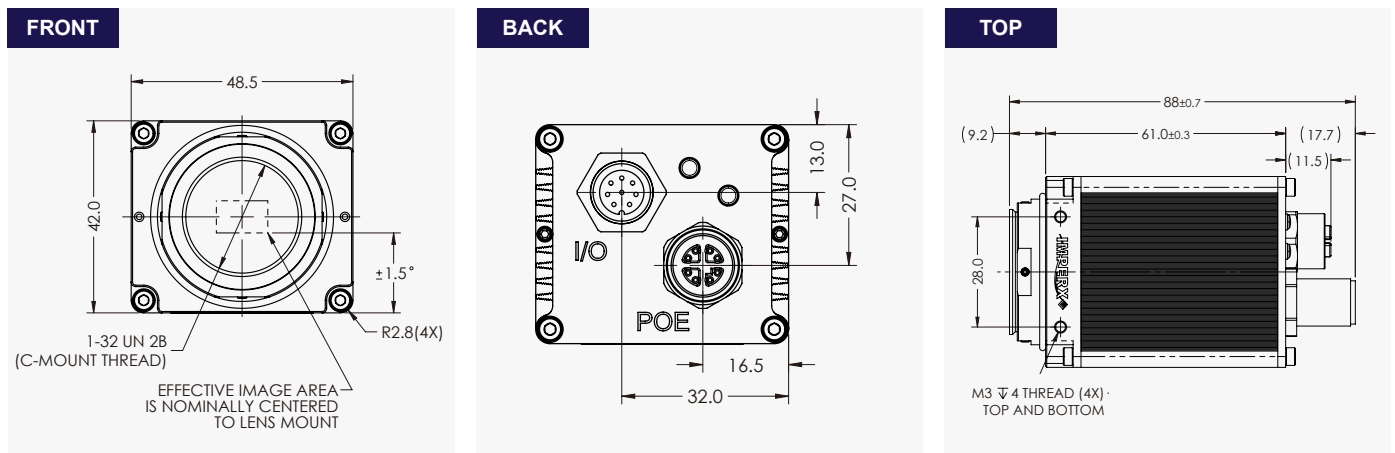
## Absolute Quantum Efficiency



## Gen<I>Cam Compliant Camera Configurator



## Dimensions



## Ordering Information

Please specify the camera model code and select an IP67 lens tube (see IP67 lens tubes spec sheet).

Output Interface	Accessories (Sold separately)
GigE Vision® with Power over Ethernet (PoE)® in IP67 enclosure (P67)	CBL-IO08-0001 – Cable, 8 pin I/O, BULGIN CONN to Pigtail, 2 m
<b>Sensor Types available</b>	CBL-XRJ45-0002 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 2 m
Monochrome	CBL-XRJ45-0003 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 3 m
Bayer Color	CBL-XRJ45-0005 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 5 m
<b>Lens Mounts</b>	CBL-XRJ45-0010 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 10 m
C-Mount	CBL-XRJ45-0015 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 15 m
	CBL-XRJ45-0020 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 20 m

## Connectors

Power and I/O Interface	1000BASE-T Ethernet Interface	Cable Wires:
<ol style="list-style-type: none"> <li>Reserved</li> <li>+12V DC</li> <li>IN1 (OPTO)</li> <li>IN1/OUT1 RETURN</li> <li>OUT2 RETURN</li> <li>OUT1 (OPTO)</li> <li>+12V DC RETURN</li> <li>OUT2 (TTL)</li> </ol>	<ol style="list-style-type: none"> <li>TD0+</li> <li>TD0-</li> <li>TD1+</li> <li>TD1-</li> <li>TD3+</li> <li>TD3-</li> <li>TD2-</li> <li>TD2+</li> </ol>	<ul style="list-style-type: none"> <li>White/Orange</li> <li>Orange</li> <li>White/Green</li> <li>Green</li> <li>White/Brown</li> <li>Brown</li> <li>White/Blue</li> <li>Blue</li> </ul>

Connector: BULGIN PXMBN112RPM08APCM12

Connector: MACOM MMT361A315

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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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