

# CHEETAH

## RUGGEDIZED CAMERA SERIES

Front View

Rear View

# P67-C1911

## CMOS 2.86 MP

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

### Imperx: C1911

The P67-C1911 provides the same robust camera design as the POE-C1911 with an IP67 enclosure. The P67-C1911 camera features the Sony Pregius IMX429 Global Shutter CMOS sensor with a native resolution of 1944 x 1472 in a 2/3" optical format delivering up to 40 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. Using the simple GenCam™ compliant user interface, you can quickly apply image corrections to enhance recognition or quality. The C1911's flexibility, outstanding sensitivity, image quality, and speed make it suitable for a broad range of diverse and demanding applications. By combining the powerful Imperx camera control with an IP67 rated enclosure protecting the camera from dust, water and other contaminants, the P67-C1911 can be utilized in harsh environments.

### Specifications

| Feature                   | Description  | Feature                    | Description   |
|---------------------------|--|----------------------------|---|
| Output Interface          | GigE Vision® with Power over Ethernet (PoE)                                    | Strobe Output              | 2 strobes, programmable position and duration   |
| Resolution                | 1944 (H) x 1472 (V)  | Pulse Generator            | Yes, programmable   |
| Sensor                    | Sony Pregius IMX429 CMOS Color/Mono  | Data Correction            | 2 LUTs pre-programmed with Gamma 0.45, 2 LUTs pre-programmed with Negative LUT  |
| Sensor Format             | 8.7 mm (H) x 6.6 mm (V), 2/3" optical format, 11.0 mm diagonal                 |                            | Bad pixel correction (static, dynamic)  |
| Pixel Size                | 4.5 microns square   | Lens Mount                 | C-Mount   |
| Shutter                   | Global shutter (GS)  | Supply Voltage Range       | 12 V DC (6 V-30 V), 1.5 A inrush @ 12 V PoE (IEEE 802.3af / IEEE 802.3at)   |
| Sensor Digitization       | 12-bit   | Power Consumption          | Typical: 3.84 W @ 12 V; PoE: 5 W  |
| Frame Rate                | 40 fps (8-bit), 20 fps (10-bit/12-bit unpacked), 26 fps (10-bit/12-bit packed) | Camera Current             | Typical: 320 mA @ 12 V  |
| Dynamic Range             | 77 dB  | Size - Width/Height/Length | 48.5 mm (W) x 42.0 mm (H) x 61 mm (L) (without lens tube and connectors)  |
| Output Bit Depth          | 8, 10, 12-bit  | Lens Tube Dimensions       | 44 mm Lens tube:<br>-Inner diameter 44 mm<br>-Outer diameter 50 mm<br>-Length varies (see IP67 lens tubes spec sheet) |
| Analog/Digital Gain       | Manual, Auto; 0 dB – 48 dB, 480 steps  |                            | 64 mm Lens tube:<br>-Inner diameter 64 mm<br>-Outer diameter 70 mm<br>-Length varies (see IP67 lens tubes spec sheet) |
| Digital Gain              | 1x (0 dB) to 4x (12 dB) with a precision of 0.001x                             | Weight                     | 196 g (without a lens tube)   |
| Black Level Offset        | Manual (0 – 255), Auto   | Vibration, Shock           | 20G (20 – 200 Hz XYZ) / 100G  |
| White Balance             | Manual, Auto, Once, Off  | Environmental              | -30 °C to +75 °C Operating (-40 °C to +85 °C tested), -40 °C to +85 °C Storage  |
| Shutter Speed             | 1 µs/step, 5 µs to 16 s  | Humidity                   | 10% to 90% non-condensing   |
| Exposure Control          | Off, Manual, Auto, External  | MTBF                       | TBD   |
| Regions of Interest (ROI) | 2 ROI  | Military Standard          | MIL-STD-810G  |
| Binning                   | 1x2, 2x1, 2x2 (Mono cameras only)  | Regulatory                 | FCC Part 15 Class A, CE, RoHs   |
| Sub-sampling              | 1x2, 2x1, 2x2  |                            |   |
| 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   | 1 IN (OPTO) / 2 OUT (OPTO, TTL)  |                            |   |

## Imperx: C1911 Applications

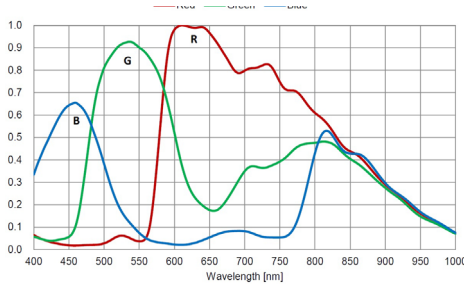
The P67-C1911 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

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

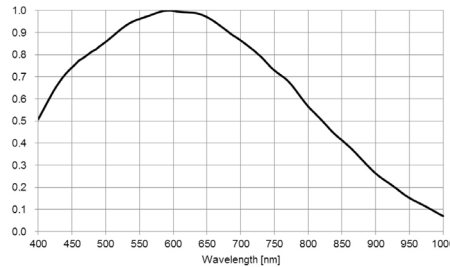
Color Spectral Response

Sony IMX429

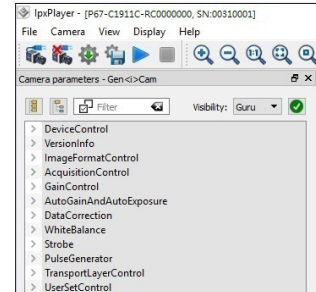


Mono Spectral Response

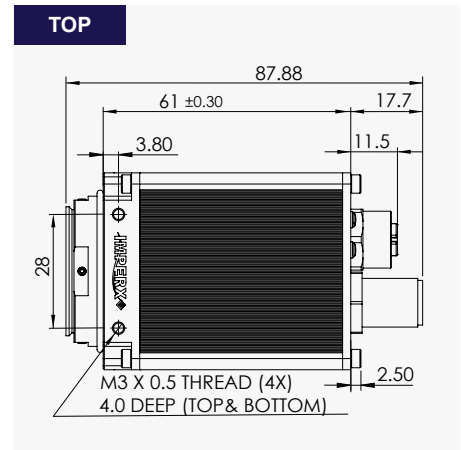
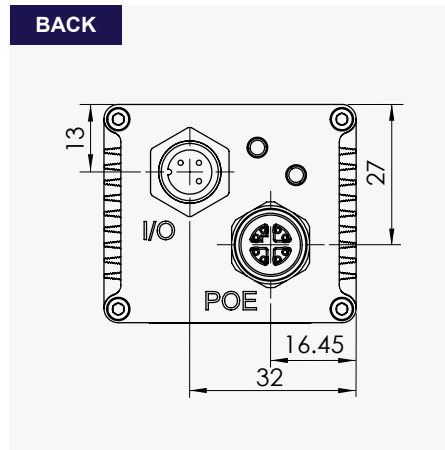
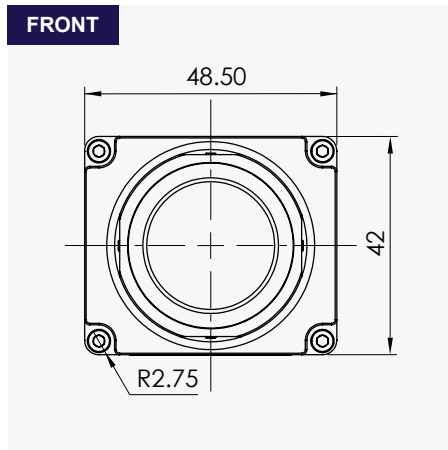
Sony IMX429



## 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).

|  |
|--|
| <b>Output Interface</b>  |
| GiGE Vision® with Power over Ethernet (PoE)® in IP67 enclosure (P67) |
| <b>Sensor Types available</b>  |
| Monochrome   |
| Bayer Color  |
| <b>Lens Mounts</b>   |
| C-Mount  |

|   |
|---|
| <b>Accessories (Sold separately)</b>  |
| CBL-IO08-0001 – Cable, 8 pin I/O, BULGIN CONN to Pigtail, 2 m               |
| CBL-XRJ45-0002 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 2 m  |
| CBL-XRJ45-0003 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 3 m  |
| CBL-XRJ45-0005 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 5 m  |
| CBL-XRJ45-0010 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 10 m |
| 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**

- Reserved
- +12 VDC
- IN1 (OPTO)
- IN1/OUT1 RETURN
- OUT2 RETURN
- OUT1 (OPTO)
- +12 VDC RETURN
- OUT2 (TTL)

Connector: BULGIN PXMBN112RPM08APCM12

**1000BASE-T Ethernet Interface**

**Cable Wires:**

- TD0+ White/Orange
- TD0- Orange
- TD1+ White/Green
- TD1- Green
- TD3+ White/Brown
- TD3- Brown
- TD2- White/Blue
- TD2+ Blue

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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