Front View    Rear View

# C5410
# CMOS 17 MP
## GigE Vision® with Power over Ethernet (PoE)

## Imperx: *C5410*

The POE-C5410 camera features the Sony Pregius IMX387 Global Shutter CMOS sensor with a native resolution of 5472 x 3084 in a 4/3" optical format delivering up to 7 frames per second with GigE Vision® Power over Ethernet (PoE) output. The Sony Pregius image sensor delivers outstanding sensitivity and excellent image quality. Imperx puts you in control by providing full access to raw data without corrections. Using the simple intuitive graphical user interface, you can quickly apply image corrections, if desired. The C5410'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.
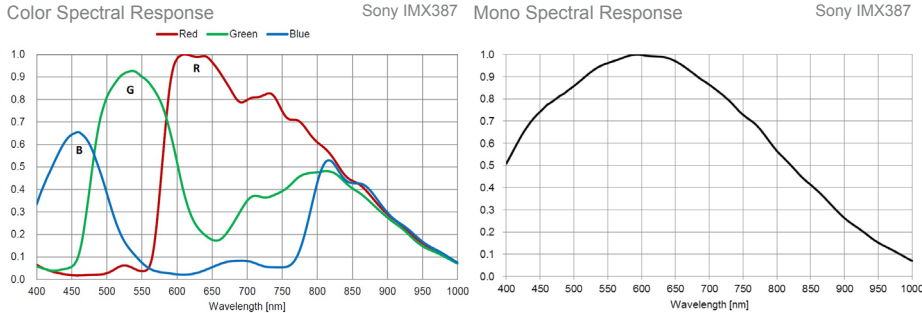
## Specifications

| Feature | Description |
|---|---|
| Output Interface | GigE Vision® with Power over Ethernet (PoE) |
| Resolution | 5472 (H) x 3084 (V) |
| Sensor | Sony Pregius IMX387 CMOS Color/Mono |
| Sensor Format | 18.9 mm (H) x 10.6 mm (V), 4/3" optical format |
| Pixel Size | 3.45 microns square |
| Shutter | Global shutter (GS) |
| Sensor Digitization | 12-bit |
| Frame Rate | 7 fps (8-bit), 3.5 fps (10-bit/12-bit unpacked), 4.6 fps (10-bit/12-bit packed) |
| 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 |
| Black Level Offset | Manual (0 – 4095), Auto |
| White Balance | Manual, Auto, Off |
| Shutter Speed | 76 µs to 16.0 s |
| Exposure Control | Off, Manual, External, Auto |
| Regions of Interest (ROI) | 2 ROI |
| Binning | 1x2, 2x1, 2x2 (Mono cameras only) |
| Sub-sampling | 1x2, 2x1, 2x2 |
| Trigger Inputs | External, Pulse generator, Software, Computer |
| Trigger Options | Edge, Pulse width, 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 Corrections | 2 LUTs pre-programmed with Gamma 0.45, 2 LUTs pre-programmed with Negative LUT Bad pixel correction (static), Flat field correction |
| Lens Mount | F-Mount (default) |
| Canon EF Mount | Optional, Active or Passive |
| Supply Voltage Range | 12 VDC (6 V – 30 V), 1.5 A inrush @ 12 V PoE (IEEE 802.3af / IEEE 802.3at) |
| Power Consumption | Typical: 5.4 W @ 12 V; PoE: 6.5 W – without enabled Canon controller, Max: 7.8 W; PoE (Max): 7 W – with enabled Canon controller |
| Camera Current | Typical: 450 mA @ 12 V |
| Size - Width/Height/Length | 60 mm (W) x 60 mm (H) x 56.5 mm (L) |
| Weight | 475.7 g |
| Vibration, Shock | 20G/100G |
| Environmental | -30 °C to +75 °C Operating -40 °C to +85 °C Storage (-40 °C to +85 °C tested) |
| Humidity | 10% to 90% non-condensing |
| MTBF | TBD |
| Military Standard | MIL-STD-810G |
| Regulatory | FCC Part 15 Class A, CE, RoHS, UKCA |

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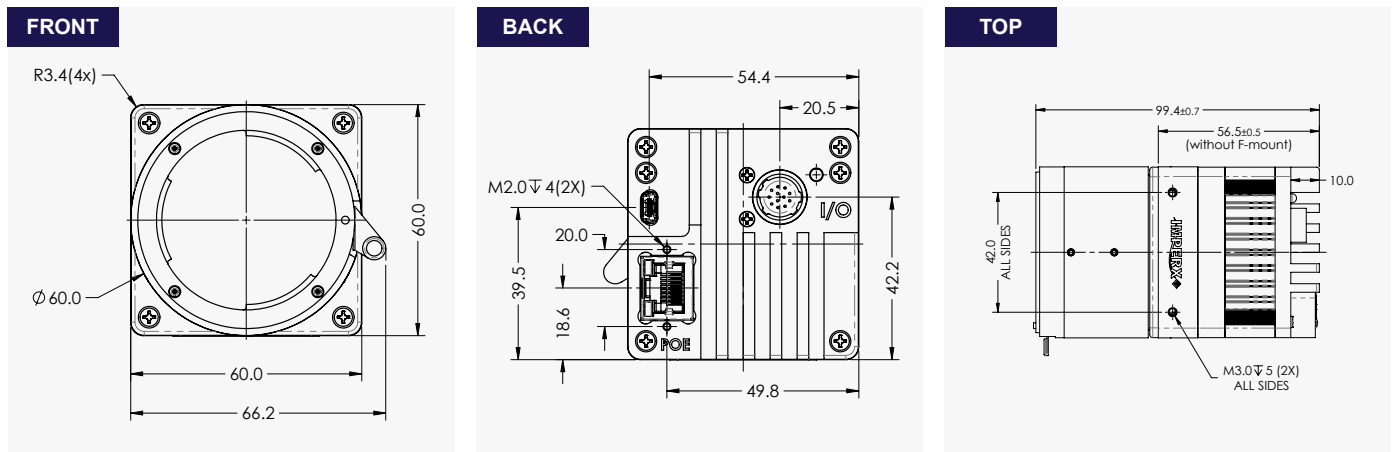
## Imperx: *C5410 Applications*

The POE-C5410 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
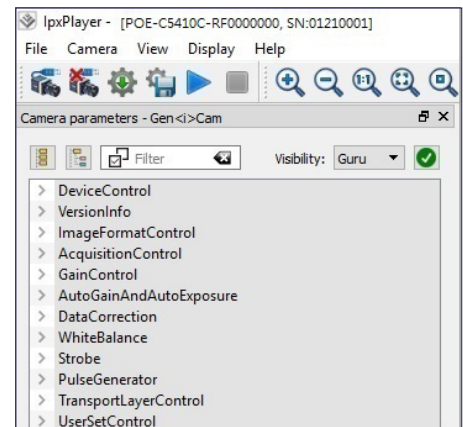
## Absolute Quantum Efficiency

Color Spectral Response — Sony IMX387

Mono Spectral Response — Sony IMX387



## Dimensions



FRONT

BACK

TOP

## Ordering Information

| Output Interface |
| --- |
| GigE Vision® with Power over Ethernet (PoE®) |

| Sensor Types available |
| --- |
| Monochrome |
| Bayer Color |

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

| Accessories (Sold separately) |
| --- |
| PS12V14A-Power Supply w/ 1 input and 1 output |

## Gen<I>Cam Compliant Camera Configurator



## Hirose Connectors

**Power and I/O Interface**



1. 12 VDC Return
2. +12 VDC Power
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 HR10A-10R-12PB(71)

*Rev: poe_c5410_r7_2021*

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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