Front View   Rear View

P67-C5310
CMOS 24.6 MP
GigE Vision® with Power over Ethernet (PoE)

Imperx: *C5310*

The P67-C5310 provides the same robust camera design as the POE-C5310 with an IP67 enclosure. The P67-C5310 camera features the Sony Pregius S™ IMX540 Global Shutter CMOS sensor with a native resolution of 5328 x 4608 in a 1.8" optical format delivering up to 4.9 frames per second with GigE Vision® Power over Ethernet (PoE) output. The Pregius S technology uses a stacked back-illuminated pixel structure offering reduced pixel size, increased peak quantum efficiency, and improved sensitivity with fast lenses. Imperx puts you in control by providing the user the ability to set the camera up very easily. Using the simple Gen<I>Cam™ compliant user interface, you can quickly apply image corrections to enhance recognition or quality. The C5310'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-C5310 can be utilized in harsh environments.

Specifications

Feature	Description	Feature	Description
Output Interface	GigE Vision® with Power over Ethernet (PoE)	Data Corrections	2 LUTs pre-programmed with Gamma 0.45, 2 LUTs pre-programmed with Negative LUT Bad pixel correction (static), Flat field correction
Resolution	5328 (H) x 4608 (V)		
Sensor	Sony Pregius S IMX540 CMOS Color/Mono	Lens Mount	C-Mount (default)
Sensor Format	14.6 mm (H) x 12.6 mm (V), 1.2" optical format (19.3 mm diagonal)	Supply Voltage Range	12 V DC (6 V – 30 V), 1.5 A inrush @ 12 V PoE (IEEE 802.3af / IEEE 802.3at)
Pixel Size	2.74 microns square	Power Consumption	Typical: 3.96 W @ 12 V; PoE: 5.95 W
Shutter	Global shutter (GS)	Camera Current	Typical: 330 mA @ 12 V
Sensor Digitization	12-bit	Size - Width/Height/Length	48.5 mm (W) x 42.0 mm (H) x 61 mm (L) (without connectors and a lens tube)
Frame Rate	4.9 fps (8-bit), 2.4 fps (10-bit/12-bit unpacked), 3.2 fps (10-bit/12-bit packed)		
		Lens Tube Dimensions	44 mm Lens tube: -Inner diameter 44 mm -Outer diameter 50 mm -Length varies (see IP67 lens tubes spec sheet)
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		64 mm Lens tube: -Inner diameter 64 mm -Outer diameter 70 mm -Length varies (see IP67 lens tubes spec sheet)
Black Level Offset	Manual (0 – 4095), Auto		
White Balance	Manual, Auto, Once, Off	Weight	196 g (without a lens tube)
Shutter Speed	57 µs to 16 s	Vibration, Shock	20G (20 – 200 Hz XYZ) / 100G
Exposure Control	Off, Manual, Auto, External	Environmental	-30 °C to +75 °C Operating (-40 °C to +85 °C tested), -40 °C to +85 °C Storage
Regions of Interest (ROI)	2 ROI		
Binning	1x1, 2x2 (Mono cameras only)	Humidity	10% to 90% non-condensing – for exposure longer than 30 minutes
Sub-sampling	1x1, 2x2		
Trigger Inputs	External, Pulse generator, Software		100% non-condensing – for exposure up to 30 minutes
Trigger Options	Edge, Pulse width, Trigger delay, Debounce, Trigger over Ethernet		
		MTBF	550,000 hours @ 50 °C (EST) (Telcordia SR-332)
Trigger Modes	Free run, Standard, Fast	Military Standard	MIL-STD-810G
External Inputs/Outputs	1 IN (OPTO) / 2 OUT (OPTO, TTL)	Regulatory	FCC Part 15 Class A, CE, RoHS, UKCA
Strobe Output	2 strobes, programmable position and duration		
Pulse Generator	Yes, programmable		

IMPERX
Industrial Cameras & Imaging Systems
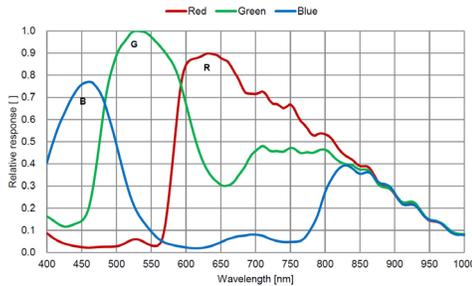
Imperx: *C5310 Applications*

The P67-C5310 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
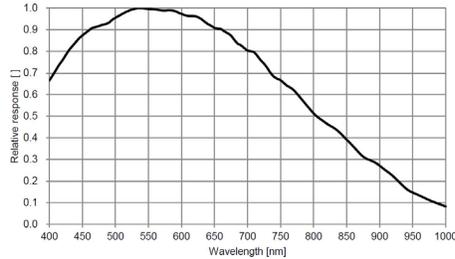
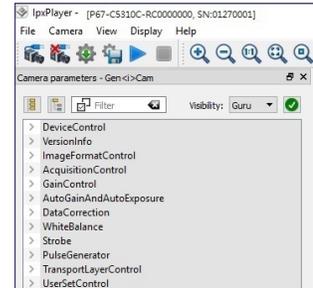## Absolute Quantum Efficiency

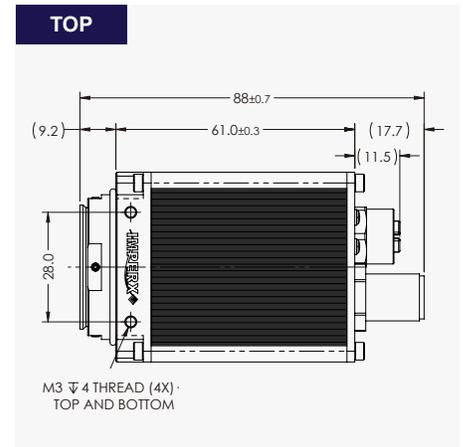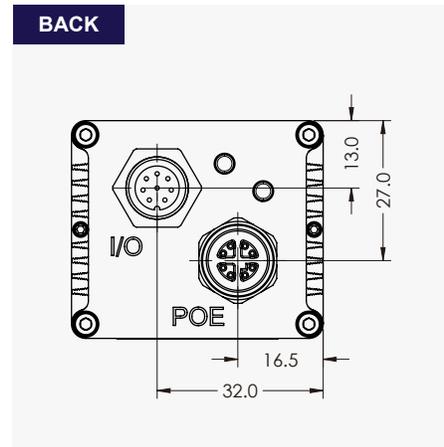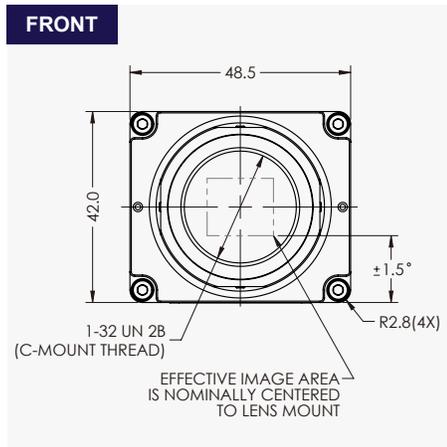Color Spectral Response — Sony IMX540

Mono Spectral Response — Sony IMX540

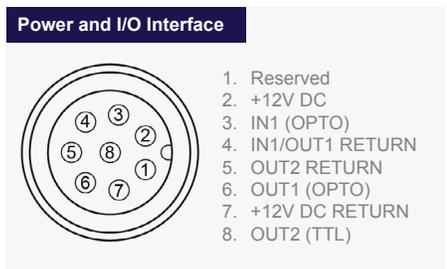## Gen<I>Cam Compliant Camera Configurator

Dimensions

FRONT

48.5
42.0
± 1.5°
1-32 UN 2B (C-MOUNT THREAD)
R2.8(4X)
EFFECTIVE IMAGE AREA IS NOMINALLY CENTERED TO LENS MOUNT

BACK

I/O
POE
13.0
27.0
16.5
32.0

TOP

88±0.7
(9.2) 61.0±0.3 (17.7)
(11.5)
28.0
M3 ↧ 4 THREAD (4X) TOP AND BOTTOM

Ordering Information

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

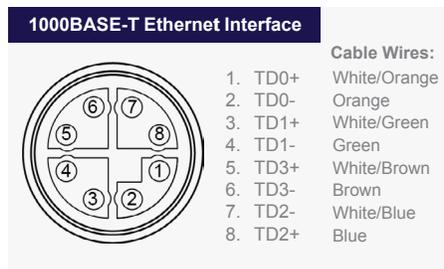| Output Interface |
| --- |
| GigE Vision® with Power over Ethernet (PoE)® in IP67 enclosure (P67) |

Sensor Types available
Monochrome
Bayer Color

Lens Mounts
C-Mount

Accessories (Sold separately)
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

1. Reserved
2. +12V DC
3. IN1 (OPTO)
4. IN1/OUT1 RETURN
5. OUT2 RETURN
6. OUT1 (OPTO)
7. +12V DC RETURN
8. OUT2 (TTL)

Connector: BULGIN PXMBNI12RPM08APCM12

1000BASE-T Ethernet Interface

Cable Wires:

1. TD0+ — White/Orange
2. TD0- — Orange
3. TD1+ — White/Green
4. TD1- — Green
5. TD3+ — White/Brown
6. TD3- — Brown
7. TD2- — White/Blue
8. TD2+ — Blue

Connector: MACOM MMT361A315

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