Front View	Rear View

SFP-C5440
CMOS 17 MP
10 GigE Vision® with SFP+

Imperx: *C5440*

The SFP-C5440 camera features the Sony Pregius IMX387 Global Shutter CMOS sensor with a native resolution of 5472 x 3084 in a 4/3" optical format. The Gen<I>Cam™ compliant camera delivers up to 56.5 frames per second in global shutter mode using the 10 GigE Vision® interface via SFP+ transceiver. The camera can be used with either copper or optical cable for extreme distances. 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 C5440'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.
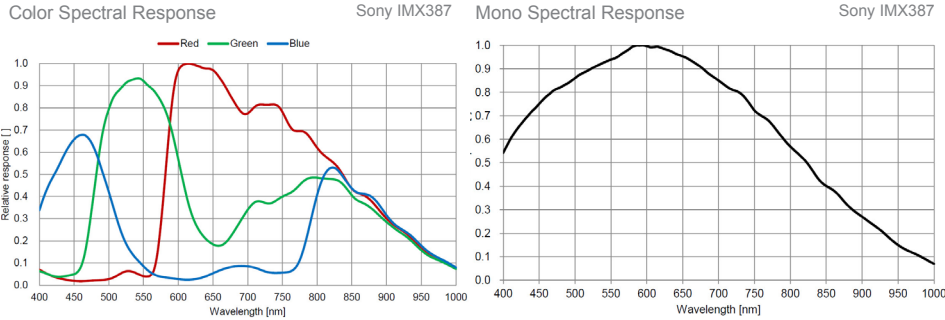
Specifications

Feature	Description
Output Interface	10 GigE Vision® with SFP+
Resolution	5472 (H) x 3084 (V)
Sensor	Sony Pregius IMX387 CMOS Color/Mono
Sensor Format	18.8 mm (H) x 10.6 mm (V), 4/3" optical format
Pixel Size	3.45 microns square
Shutter	Global shutter (GS)
Sensor Digitization	10 or 12-bit
Frame Rate	56.5 fps (8-bit), 34.7 fps (10-bit/12-bit un-packed), 40.4 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
AEC/AGC	Yes
Black Level Offset	Manual (0 – 4095), Auto
White Balance	Manual, Auto, Once, Off
Shutter Speed	36 µs to 16.0 s
Exposure Control	Off, Internal, External, Auto
Regions of Interest (ROI)	1 ROI
Binning	1 x 2, 2 x 1, 2 x 2 (mono cameras only)
Sub-sampling	1 x 2, 2 x 1, 2 x 2
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	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 Hot and Defective pixel correction (static) 8 Flat Field Correction tables
Forced Air Cooling Control	On, Off, Auto
Lens Mount	F-Mount (default)
Canon EF-Mount	Optional, Active or Passive
Supply Voltage Range	12 VDC (6.5V–33V), 2 A inrush @ 12 V
Camera Current	Typical: 1.2 A @ 12 V
Power Consumption	Typ.:14.4 W, Max.:16.8 W
Size - Width/Height/Length	60 mm (W) x 60 mm (H) x 99 mm (L)
Weight	530 g
Vibration, Shock	20G (20 – 200 Hz XYZ) /100G
Environmental	-30 °C to +70 °C (EST) Operating (with a fiber 10GBase-R transceiver module), (may vary depending on the transceiver module used) -30 °C to +45 °C Operating (with a copper 10GBase-T transceiver module) -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

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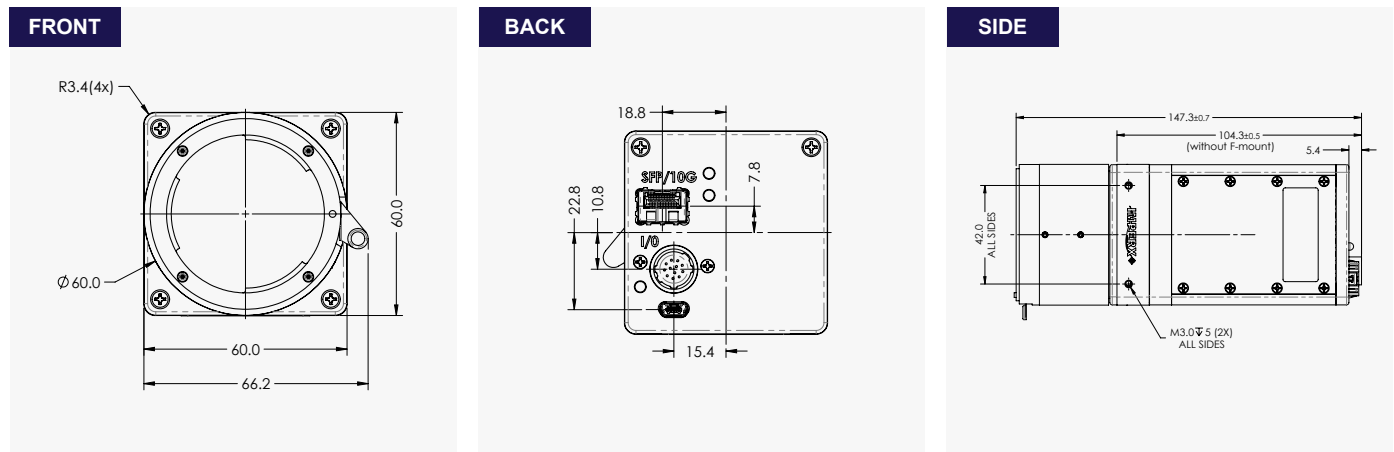
Imperx: *C5440 Applications*

The SFP-C5440 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
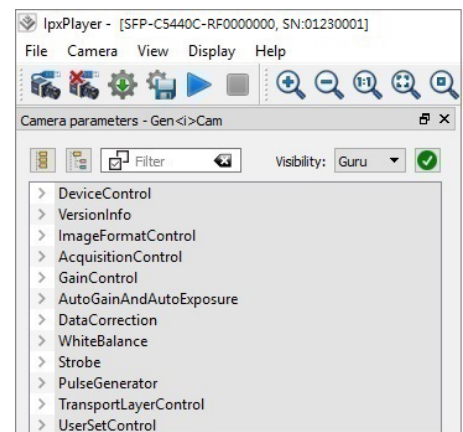
Absolute Quantum Efficiency

Color Spectral Response   Sony IMX387   Mono Spectral Response   Sony IMX387

Dimensions

FRONT	BACK	SIDE

Ordering Information

Output Interface

10 GigE Vision® with SFP+ (SFP)

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. +12V DC
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)

Rev: sfp_c5440_r7_2021

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