C5440
CMOS 17 MP
10G GigE Vision®

PRELIMINARY

Imperx: *C5440*

The 10G-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 70 frames per second in global shutter mode using the GigE Vision® standard interface. 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.
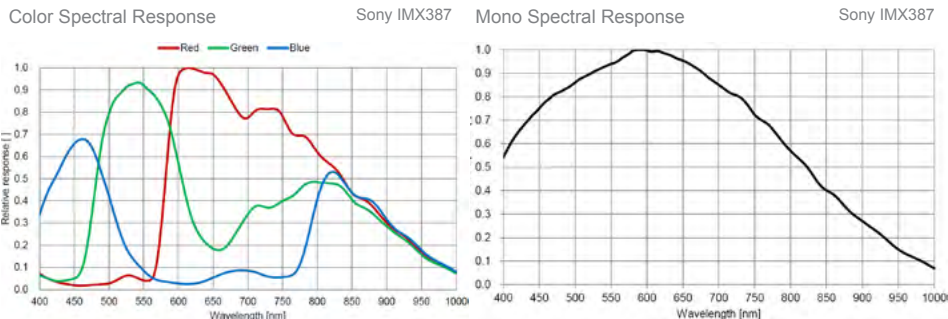
Specifications

Feature	Description	Feature	Description
Output Interface	10G GigE Vision®	Strobe Output	2 strobes, programmable position and duration
Resolution	5472 (H) x 3084 (V)	Pulse Generator	Yes, programmable
Sensor	Sony Pregius IMX387 CMOS Color/Mono	Data Correction	4 LUTs pre-programmed with Gamma 0.45; Bad pixel correction (static, dynamic), Flat field correction
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)	Lens Mount	F-Mount (default)
Sensor Digitization	8, 10, 12-bit	Canon EF-Mount	Optional, Active or Passive
Frame Rate	70 fps (8-bit), 35 fps (10-bit/12-bit unpacked), 46 fps (10-bit/12-bit packed)	Supply Voltage Range	12 VDC (5 V – 30 V), 1.5 A inrush
		Camera Current	Typical: 320 mA/12 V (EST)
Dynamic Range	71 dB	Power Consumption	Typical: 3.8 W (EST)
Output Bit Depth	8, 10, 12-bit	PoE Capable	Yes
Analog/Digital Gain	Manual, Auto; 0 dB – 48 dB, 480 steps	Size - Width/Height/Length	60 mm (W) x 60 mm (H) x 59.5 mm (L) (EST)
Digital Gain	1x (0 dB) to 4x (12 dB) with a precision of 0.001x	Weight	TBD
		Vibration, Shock	20G/100G
AEC/AGC	Yes	Environmental	-30 °C to +75 °C Operating,
Black Level Offset	Manual (0 – 255), Auto		-40 °C to +85 °C Storage
White Balance	Manual, Auto, Once, Off	Humidity	10% to 90% non-condensing
Shutter Speed	1 μs/step, 30 μs to 16.0 s	MTBF	TBD
Exposure Control	Off, Internal, External, Auto	Military Standard	MIL-STD-810G
Regions of Interest (ROI)	2 ROI	Regulatory	FCC Part 15 Class A, CE, RoHS
Binning	1 x 2, 2 x 1, 2 x 2		
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)		

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Industrial Cameras & Imaging Systems
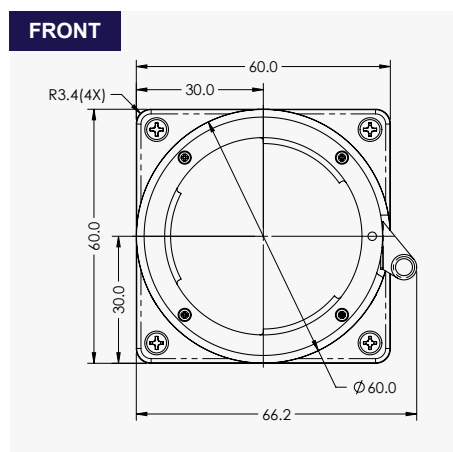
Imperx: *C5440 Applications*

The 10G-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
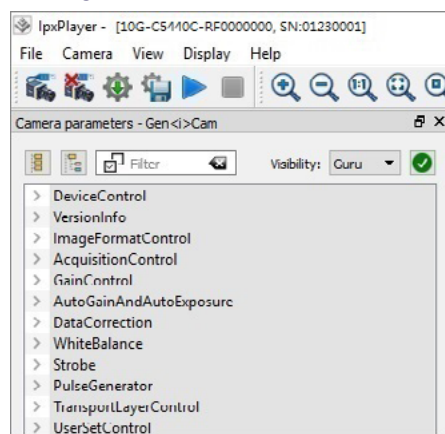
Absolute Quantum Efficiency

Color Spectral Response   Sony IMX387   Mono Spectral Response   Sony IMX387

Dimensions

FRONT	BACK	SIDE

BACK: TBD

SIDE: TBD

Ordering Information

Output Interface

10G GigE Vision® (10G)

Sensor Types available

Monochrome
Bayer Color

Lens Mounts

F Mount (Default)
M42 (Optional)
Canon EF Mount (Optional)

Accessories (Sold separately)

PS12V04A-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: 10g_c5440_r2_2019

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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