

CHEETAH

RUGGEDIZED CAMERA SERIES

Front View

Rear View

SFP-C4440

CMOS 20 MP

10 GigE Vision® with SFP+

Imperx: C4440

The low-power SFP-C4440 camera features the Sony Pregius IMX367 Global Shutter CMOS sensor with a native resolution of 4416 x 4436 in a 4/3" optical format. The Gen<I>Cam™ compliant camera delivers up to 39.6 frames per second in global shutter mode using 10 GigE Vision® interface via SFP+ transceiver. The camera can be used with either copper or optical cable for extreme distances. The camera conforms to the GigE Vision 2.0 and supports IEEE1588 PTP synchronization and Scheduled Action Commands. The Sony Pregius image sensor delivers outstanding sensitivity and excellent image quality. The camera features low power consumption and operates in extended temperature range from -30 °C to +75 °C. 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. The C4440'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

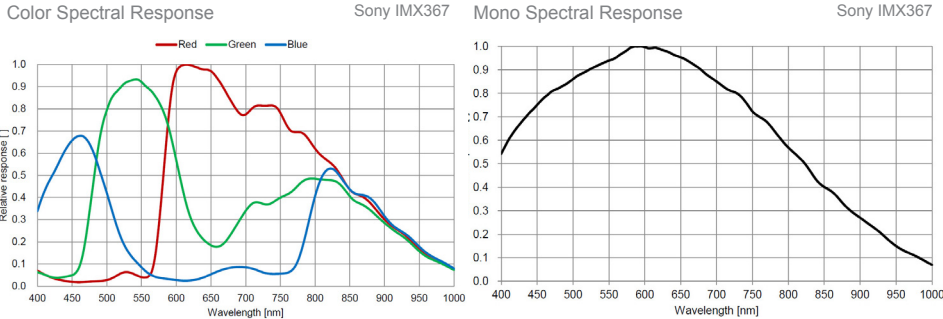
Feature	Description	Feature	Description
Output Interface	10 GigE Vision® with SFP+	Data Correction	2 LUTs pre-programmed with Gamma 0.45 2 LUTs pre-programmed with Negative LUT Hot and Defective pixel correction (static) 8 Flat Field Correction tables
Resolution	4416 (H) x 4436 (V)	IEEE 1588 PTP	Supported
Sensor	Sony Pregius IMX367 CMOS Color/Mono	Lens Mount	F-Mount (default)
Sensor Format	15.2 mm (H) x 15.3 mm (V), 4/3" optical format	Canon EF-Mount	Optional, Active or Passive
Pixel Size	3.45 microns square	Supply Voltage Range	12 V DC (6.5V–33V), 2 A inrush @ 12 V
Shutter	Global shutter (GS)	Camera Current	Typical: 1.2 A @ 12 V
Sensor Digitization	10 or 12-bit	Power Consumption	Typ.: 6.24 W
Frame Rate	39.6 fps (8-bit), 24.1 fps (10-bit/12-bit unpacked), 28.3 fps (10-bit/12-bit packed)	Size - Width/Height/Length	60 mm (W) x 60 mm (H) x 87.7 mm (L)
Dynamic Range	71 dB	Size with SFP-MMF-MOD	60 mm (W) x 60 mm (H) x 101 mm (L)
Output Bit Depth	8, 10, 12-bit	Size with SFP-RJ45-MOD	60 mm (W) x 60 mm (H) x 114 mm (L)
Analog/Digital Gain	Manual, Auto; 0 dB – 48 dB, 480 steps	Weight	526.5 g
Digital Gain	0x to 4x (12 dB) with a step of 1/4096	Vibration, Shock	20G (20 – 200 Hz XYZ) / 100G
AEC/AGC	Off, Once, Auto	Environmental	-30 °C to +75 °C Operating -40 °C to +85 °C Storage
Gamma Correction	0.00 to 4.00 with a step of 0.01	Humidity	10% to 90% non-condensing
Black Level Offset	Manual (0 – 4095), Auto	MTBF	TBD
White Balance	Manual, Auto, Once, Off	Military Standard	MIL-STD-810G
Shutter Speed	36 µs to 16.0 s	Regulatory	FCC Part 15 Class A, CE, RoHS, UKCA
Exposure Control	Off, Internal, External, Auto		
Regions of Interest (ROI)	One Master ROI, two Processing 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 over Ethernet		
Trigger Options	Edge, Pulse width, Trigger filter, Trigger delay, Debounce		
Trigger Modes	Free run, Standard, Fast		
External Inputs/Outputs	2 IN (OPTO, LVTTTL) / 2 OUT (OPTO, TTL)		
Strobe Output	2 strobes, programmable position and duration		
Pulse Generator	Yes, programmable		

Imperx: C4440 Applications

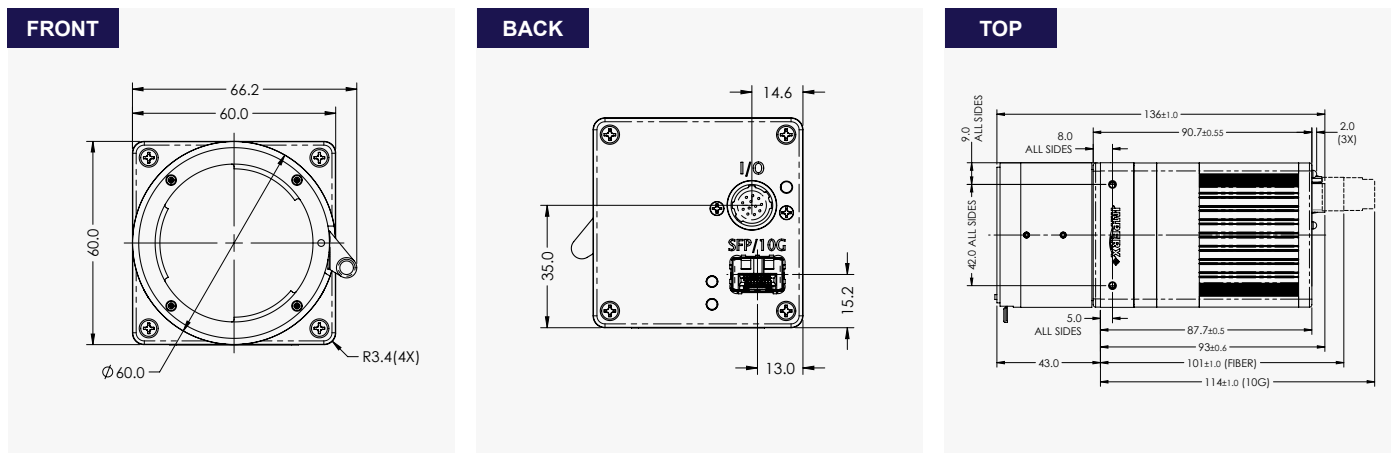
The SFP-C4440 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

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



Dimensions



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)	

* When ordering the camera, make sure to choose an SFP+ transceiver module.

Accessories (Sold separately)	
PS12V14A – Power Supply w/ 1 input and 1 output	
SFP-MMF-MOD – SFP+ multi-mode fiber transceiver module 850 nm, up to 300 m	
SFP-RJ45-MOD – SFP+ 10G copper RJ-45 module, up to 30 m	
CBL-PWIO01 – Cable Power; Hirose 12p (F) to loose end; 2 meters	

Hirose Connectors

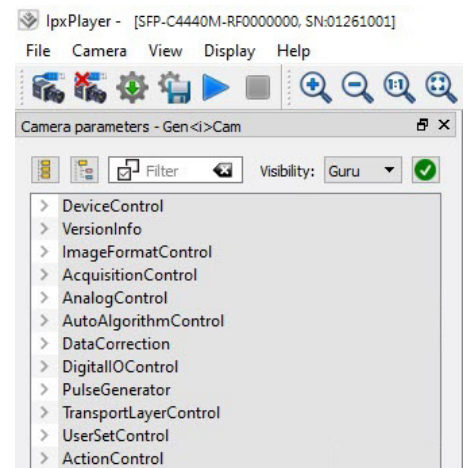
Power and I/O Interface	
1. 12/24V Return	7. OUT1 (TTL)
2. +12/24V DC Power	8. IN1 (OPTO)
3. Reserved	9. IN2 (LVTTTL)
4. Reserved	10. IN1 RTN
5. OUT2 RTN (OPTO)	11. IN2 RTN
6. OUT1 RTN	12. OUT2 (OPTO)

Connector: Hirose HR 10A-10R-12PB(71)

Rev: sfp_c4440_r11_2024

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)

Gen<I>Cam Compliant Camera Configurator



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