

CHEETAH

RUGGEDIZED CAMERA SERIES

Front View

Rear View

SFP-C6440

CMOS 31 MP

10 GigE Vision® with SFP+

Imperx: C6440

The SFP-C6440 camera features the Sony Pregius IMX342 Global Shutter CMOS sensor with a native resolution of 6464 x 4860 in an APS-C optical format. The Gen<I>Cam™ compliant camera delivers up to 35.4 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 C6440'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

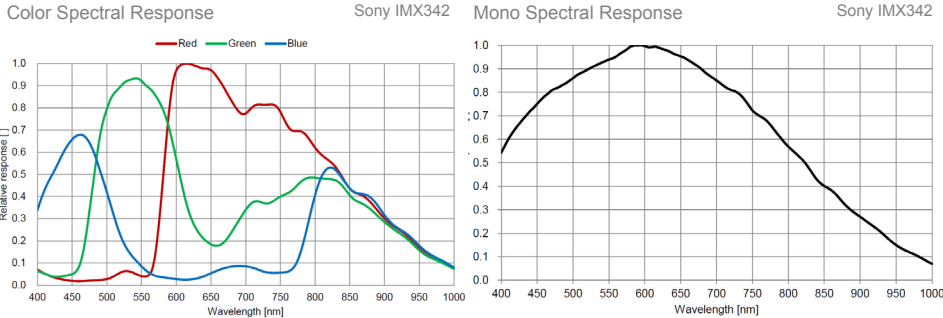
Feature	Description	Feature	Description
Output Interface	10 GigE Vision® with SFP+	Strobe Output	2 strobes, programmable position and duration
Resolution	6464 (H) x 4860 (V)	Pulse Generator	Yes, programmable
Sensor	Sony Pregius IMX342 CMOS Color/Mono	Data Correction	2 LUTs pre-programmed with Gamma 0.45 2 LUTs pre-programmed with Negative LUT Hot and Defective pixel correction (static) 8 Flat Field Correction tables
Sensor Format	22.3 mm (H) x 16.7 mm (V), 27.9 diagonal, APS-C optical format	Forced Air Cooling Control	On, Off, Auto
Pixel Size	3.45 microns square	Lens Mount	F-Mount (default)
Shutter	Global shutter (GS)	Canon EF-Mount	Optional, Active or Passive
Sensor Digitization	10 or 12-bit	Supply Voltage Range	12 VDC (6.5V–33V), 2 A inrush @ 12 V
Frame Rate	35.4 fps (8-bit), 16 fps (10-bit/12-bit unpacked), 25.8 fps (10-bit/12-bit packed)	Camera Current	Typical: 1.2 A @ 12 V
Dynamic Range	71 dB	Power Consumption	Typ.:14.4 W, Max.:16.8 W
Output Bit Depth	8, 10, 12-bit	Size - Width/Height/Length	60 mm (W) x 60 mm (H) x 99 mm (L)
Analog/Digital Gain	Manual, Auto; 0 dB – 48 dB, 480 steps	Size with SFP-MMF-MOD	60 mm (W) x 60 mm (H) x 112.2 mm (L)
Digital Gain	1x (0 dB) to 4x (12 dB) with a precision of 0.001x	Size with SFP-RJ45-MOD	60 mm (W) x 60 mm (H) x 125 mm (L)
AEC/AGC	Yes	Weight	530 g
Black Level Offset	Manual (0 – 4095), Auto	Vibration, Shock	20G (20 – 200 Hz XYZ) /100G
White Balance	Manual, Auto, Once, Off	Environmental	-30 °C to +70 °C 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
Shutter Speed	36 µs to 16.0 s	Humidity	10% to 90% non-condensing
Exposure Control	Off, Internal, External, Auto	MTBF	378,000 hours @ 50 °C (EST) (Telcordia SR-332)
Regions of Interest (ROI)	1 ROI	Military Standard	MIL-STD-810G
Binning	1 x 2, 2 x 1, 2 x 2 (mono cameras only)	Regulatory	FCC Part 15 Class A, CE, RoHS, UKCA
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, LVTTTL) / 2 OUT (OPTO, TTL)		

Imperx: C6440 Applications

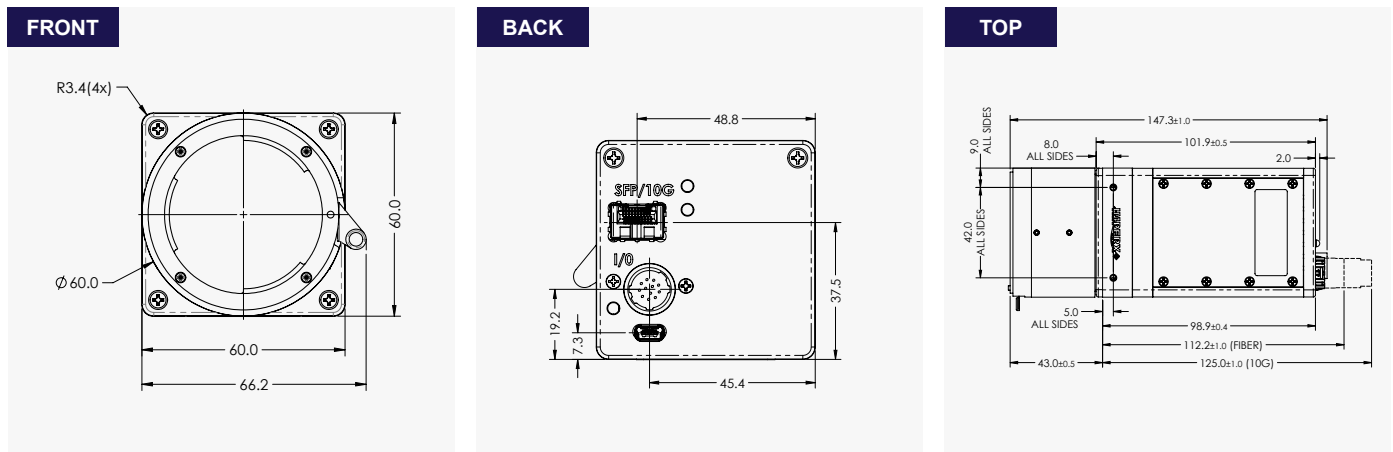
The SFP-C6440 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

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)	

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	

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

Hirose Connectors

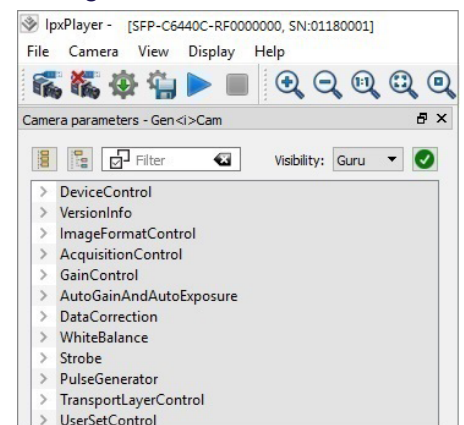
Power and I/O Interface	
1. 12 VDC Return	7. OUT1 (TTL)
2. +12 VDC	8. IN1 (OPTO)
3. Reserved	9. IN2 (LVTTTL)
4. Reserved	10. IN1 RTN
5. OUT2 RTN (OPTO)	11. IN2 RTN
6. OUT1 RTN	12. OUT2 (OPTO)

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

Rev: sfp_c6440_r9_2022

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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