CHEETAH

RUGGEDIZED CAMERA SERIES

C6440

CMOS 31 MP

10G GigE Vision®

PRELIMINARY

Imperx: *C6440*

The 10G-C6440 camera features the Sony Pregius IMX342 Global Shutter CMOS sensor with a native resolution of 6464 x 4852 in an APS-C optical format. The Gen<I>Cam™ compliant camera delivers up to 32 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 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
Output Interface	10G GigE Vision®
Resolution	6464 (H) x 4852 (V)
Sensor	Sony Pregius IMX342 CMOS Color/Mono
Sensor Format	22.3 mm (H) x 16.7 mm (V), 27.9 diagonal, APS-C optical format
Pixel Size	3.45 microns square
Shutter	Global shutter (GS)
Sensor Digitization	8, 10, 12-bit
Frame Rate	32 fps (8-bit), 16 fps (10-bit/12-bit unpacked), 21 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 – 255), Auto
White Balance	Manual, Auto, Once, Off
Shutter Speed	1 µs/step, 30 µs to 16.0 s
Exposure Control	Off, Internal, External, Auto
Regions of Interest (ROI)	2 ROI
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)

Feature	Description
Strobe Output	2 strobes, programmable position and duration
Pulse Generator	Yes, programmable
Data Correction	4 LUTs pre-programmed with Gamma 0.45; Bad pixel correction (static, dynamic), Flat field correction
Lens Mount	F-Mount (default)
Canon EF-Mount	Optional, Active or Passive
Supply Voltage Range	12 VDC (5 V – 30 V), 1.5 A inrush
Camera Current	Typical: 320 mA/12 V (EST)
Power Consumption	Typical: 3.8 W (EST)
PoE Capable	Yes
Size - Width/Height/Length	60 mm (W) x 60 mm (H) x 59.5 mm (L) (EST)
Weight	TBD
Vibration, Shock	20G/100G
Environmental	-30 °C to +75 °C Operating, -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

IMPERX

Industrial Cameras & Imaging Systems

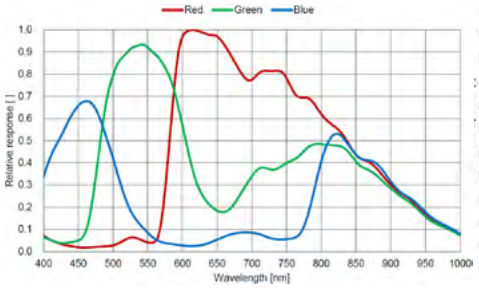
Imperx: *C6440 Applications*

The 10G-C6440 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

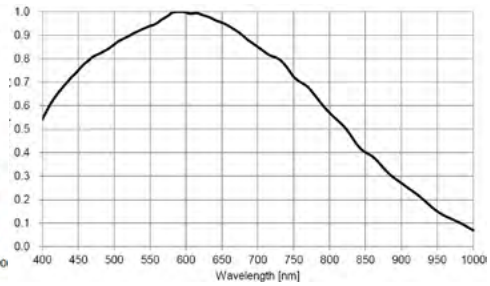
Aerospace ● Satellites ● Surveillance ● Ball Grid Array ● Printed Circuit Board Inspection ● Motion Analysis ● Broadcast Television ● Telepresence ● Unmanned Aerial Vehicles ● Machine Vision ● Intelligent Traffic Systems ● Aerial Imaging ● Open Road Tolling Systems ● Situational Awareness

Absolute Quantum Efficiency

Color Spectral Response — Sony IMX342

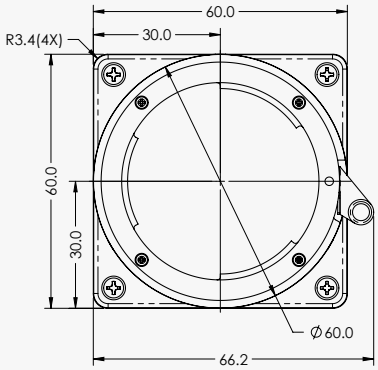


Mono Spectral Response — Sony IMX342



Dimensions

FRONT



BACK

TBD

SIDE

TBD

Ordering Information

Output Interface

10G GigE Vision® (10G)

Sensor Types available

Monochrome
Bayer Color

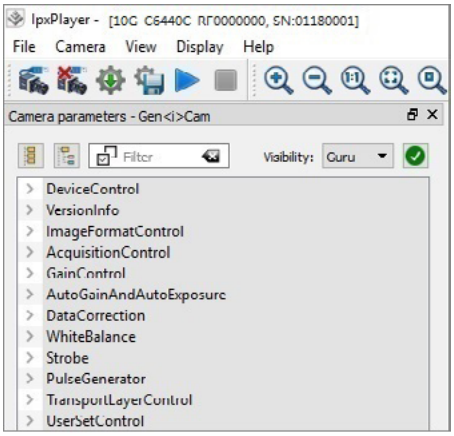
Lens Mounts

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	7. OUT1 (TTL)
2. +12 VDC	8. IN1 (OPTO)
3. Reserved	9. IN2 (LVTTL)
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: 10g_c6440_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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