

**INDUSTRIAL MACHINE VISION CAMERAS**

# FORGE 5GigE

The Forge is based on an all-new camera platform designed to support a feature and sensor set to easily built robust and powerful systems faster. It offers flexibility link speeds as well as the ability to go beyond 5GigE performance and control data transfer to the host. With OEMs in mind, the Forge provides features for easy integration, a seamless upgrade path from 1GigE systems and supports a choice of SDK's and GigE Vision compliant software packages.

**FEATURES****BUILDING RELIABLE AND POWERFUL SYSTEMS, FASTER**

Constructed on an all-new platform, the Forge is designed to offer the richest combination of on-camera pre-processing features, leverage the industry's most advanced sensors, and support the Trigger-to-Image Reliability (T2IR) framework for you to easily build robust systems.

**BEYOND 5GIGE PERFORMANCE**

In addition to supporting link speeds of 1, 2.5, and 5GigE, the Forge offers burst mode to capture images at speeds up to 10Gb/s into memory. This combined with a 500 MB image buffer allows engineers to control data transfer without overwhelming the host.

**EASE OF INTEGRATION**

Designed to simplify OEM integration with features including PoE, strong thermal management and opto-isolated triggering for streamlined peripherals & easier camera control. Upgrade current system performance with Forge without changing your application software. Forge supports both Teledyne Spinnaker and Sopera SDKs and GigE Vision compliant software packages.

**APPLICATIONS**

Electronics Inspection

Food Processing

Pharmaceuticals

Sports Analytics

Virtual Reality Motion Capture

SPECS	FG-P5G-50S4M-C	FG-P5G-50S4C-C
Resolution	2448 x 2048	
Frame Rate	122 FPS	
Megapixels	5 MP	
Chroma	Mono	Color
Sensor	Sony IMX547, CMOS, 1/1.8"	
Readout Method	Global shutter	
Pixel Size	2.74 $\mu$ m	
Lens Mount	C-mount	
ADC	8-bit / 10-bit / 12-bit	
Minimum Frame Rate*	1 FPS	
Gain Range*	0 to 48 dB	
Exposure Range*	6 $\mu$ s to 30 s	
Acquisition Modes	Continuous, Single Frame, Multi Frame	
Partial Image Modes	Pixel binning, decimation, ROI	
Image Processing	Gamma, lookup table, and sharpness	Gamma, lookup table, saturation, and sharpness
Sequencer	Up to 8 sets using 2 features	
Image Buffer	500 MB	
User Sets	2 user configuration sets for custom camera settings	
Flash Memory	4 MB non-volatile memory	
Opto-isolated I/O	1 input, 1 output	
Non-isolated I/O	1 bi-directional, 1 input	
Auxiliary Output	3.3 V, 120 mA maximum	
Synchronization	IEEE 1588 PTP	
Interface	5GigE PoE	
Power Requirements	Power over Ethernet (PoE), or 12 V nominal (9.5 - 24 V) via GPIO	
Power Consumption	8.5 W maximum PoE / 6.6 W maximum GPIO	
Dimensions / Mass	29 mm x 44 mm x 74 mm / 132 g	
Machine Vision Standard	GigE Vision v2.0	
Compliance	CE, FCC, KCC, RoHS, REACH. The ECCN for this product is: EAR099.	
Temperature	Operating: 0°C to 50°C Storage: -30°C to 60°C	
Humidity	Operating: 20% to 80% (no condensation) Storage: 30% to 95% (no condensation)	
Warranty	3 years	

\*Values are the same in binning and no binning modes.



For more information please contact:

**BOCK OPTRONICS INC.**

14 Steinway Blvd., Unit 7  
Toronto, Ontario M9W 6M6

Tel: (416) 674-2804  
[sales@bockoptronics.ca](mailto:sales@bockoptronics.ca)  
[www.bockoptronics.ca](http://www.bockoptronics.ca)

[www.teledyneflir.com](http://www.teledyneflir.com)

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