

FORGE® 5GigE

Industrial Machine Vision Camera | FG-P5G-51S4M-C and FG-P5G-51S4C-C

KEY FEATURES

Building Reliable and Powerful Systems, Faster

Constructed on an all-new platform, the Forge camera 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 into memory at speeds up to 10 Gb/s. This combined with a 500 MB image buffer allows engineers to control data transfer without overwhelming the host.

Ease of Integration

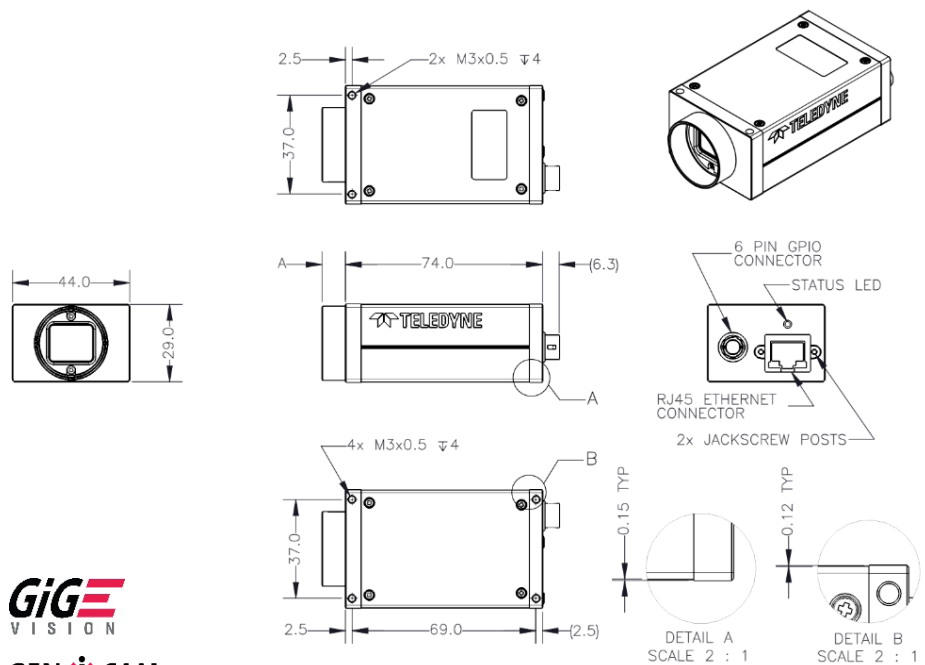
Forge is designed to simplify OEM integration with features including PoE, strong thermal management, and isolated triggering for streamlined peripherals and easier camera control. Forge supports both Teledyne Spinnaker and Sapura SDKs and GigE Vision compliant software packages.

APPLICATIONS

- Electronics Inspection
- Food Processing
- Pharmaceuticals
- Sports Analytics
- Virtual Reality Motion Capture

High Speed, High Precision Image Acquisition

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, 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.



GigE
VISION
GEN<I>CAM

SPECIFICATIONS

	FG-P5G-51S4M/C-C
Resolution	2448 x 2048
Frame Rate*	122 FPS Base / 207 Burst Mode
Megapixels	5.1 MP
Sensor Size	1/1.8"
Readout Method	Global Shutter
Pixel Size	2.74 µm
Spectrum	Mono or Color
Lens Mount	C-mount
ADC	8-bit / 10-bit / 12-bit
Minimum Frame Rate*	1 FPS
Gain Range*	0 – 48 dB
Exposure Range*	5 µs to 30 seconds
Acquisition Modes	Continuous, Single Frame, Multi Frame
Partial Image Modes	Pixel binning, decimation, ROI
Image Processing	Gamma, lookup table
Image Buffer	500 MB
User Sets	2 user configuration sets for custom camera settings
Flash Memory	4 MB (for user-defined data)
Opto-isolated I/O	1 input, 1 output
Non-isolated I/O	1 bi-directional, 1 input
Serial Port	1 over non-isolated I/O
Auxiliary Output	3.3 V 120 mA
Interface	Gigabit Ethernet 5 Gbps / 2.5 Gbps / 1 Gbps
Power Requirements	Power over Ethernet (PoE); or 12 V nominal (9.5 - 24 V)
Power Consumption	9.1 W maximum PoE / 7.3 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 65° (measured at the front face of the camera) / Storage: -30°C to 60°C
Humidity (no condensation)	Operating: 20% - 85% / Storage: 20% - 95%
Warranty	3 years

* Frame rates are in free running mode. Exposure and gain values are the same in binning and no binning modes.



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