FORGE® 1GigE SWIR
Industrial Machine Vision Cameras | FG-PGE-13S3S-U-C

KEY FEATURES

Extended Spectral Range

Capture images from visible light to SWIR (400 nm to 1700 nm), enhancing detection and analysis across various materials and applications.

Compact and Balanced Design

The camera's compact housing balances image performance and size, ideal for space-constrained environments without compromising image quality.

Unmatched GigE Performance and Reliability

Experience best-in-class GigE driver performance, comprehensive software support with Spinnaker SDK for image acquisition, and Sapera Processing SDK for advanced image processing. The T2IR (Trigger to Image Reliability) framework offers advanced diagnostics for easy troubleshooting.
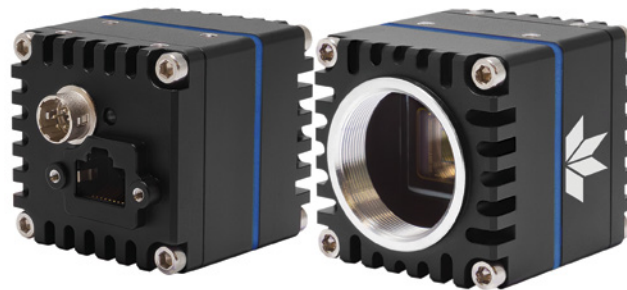
Accelerate Development and Output

Compatible with third party software and hardware. Reduce coding requirements using powerful on-camera features. Quickly build custom applications with rich sample code and descriptive API logging.

APPLICATIONS

- Industrial inspection
- Surveillance and security
- Agriculture for monitoring plant health and harvesting
- Environmental for monitoring water and air quality
- Plastic sorting and material identification
- Artwork analysis and document examination

Visible and Short Wave IR (SWIR) Camera

Experience Teledyne's long-standing expertise in SWIR technology with our new GigE area scan camera. Featuring a cutting-edge InGaAs sensor in a compact form factor, this camera delivers image performance and reliability in a wide variety of machine vision applications. It provides an ideal balance of performance, size, and GigE reliability, and covers a wide spectral range from 400 nm to 1700 nm.
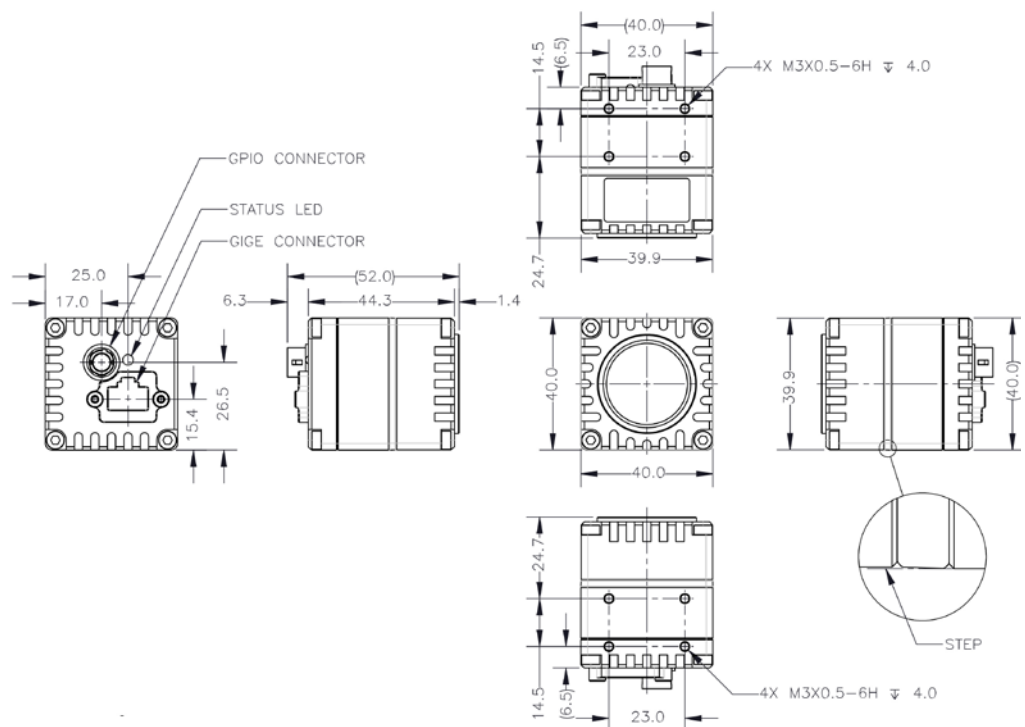
*Product appearance and specifications are subject to change without notice

SPECIFICATIONS

	FG-PGE-13S3S-U-C
RESOLUTION	1280 x 1024
FRAME RATE*	92 fps
MEGAPIXELS	1.3 MP
SENSOR SIZE	1/2"
READOUT METHOD	Global Shutter
PIXEL SIZE	5 µm
SPECTRUM	400 nm to 1700 nm
LENS MOUNT	C-mount
ADC	8-bit / 10-bit / 12-bit
MINIMUM FRAME RATE*	1 fps
GAIN RANGE*	0 – 42 dB
EXPOSURE RANGE*	15.0 µs to 30.0 s
SEQUENCER	Up to 8 sets using 6 features (Exposure Time, Gain, Offset X, Offset Y, Width, Height)
ACQUISITION MODES	Continuous, Single Frame, Multi Frame
PARTIAL IMAGE MODES	Decimation, ROI
IMAGE PROCESSING	Gamma, lookup table, and sharpness
IMAGE BUFFER	240 MB
USER SETS	2 user configuration sets for custom camera settings
FLASH MEMORY	1 MB (for user-defined data)
OPTO-ISOLATED I/O	1 input, 1 output
NON-ISOLATED I/O	1 bi-directional, 1 input
AUXILIARY OUTPUT	3.3 V 120 mA
INTERFACE	Gigabit Ethernet 1 Gbps
POWER REQUIREMENTS	Power over Ethernet (PoE); or 12 V nominal (9.5 - 24 V)
POWER CONSUMPTION	2.9 W
DIMENSIONS / MASS	40 mm x 40 mm x 44 mm / 116 g
MACHINE VISION STANDARD	GigE Vision v1.2
COMPLIANCE	CE, FCC, KCC, RoHS, REACH.
TEMPERATURE	Operating: 0°C to 50°C (ambient) / Storage: -30°C to 60°C
HUMIDITY	Operating: 20% - 80% / Storage: 30% - 95%
WARRANTY	3 years

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

FOR MORE INFORMATION CONTACT:

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