Genie™ Nano

Smaller, faster, stronger, cheaper.
Better in every way that matters.

GiGE VISION

Built on a proven platform and a rich legacy of **performance** and **versatility**

- GigE Vision®
- State-of-the-art CMOS sensors
- Higher frame rates
- Wider, deeper feature set
- Small and robust quality build
- Our lowest price ever

Powerful features **Accelerated** system performance

Fits Tight Spaces
44 mm × 29 mm × 21 mm

Slimmest body width available

Wide Temperature Range
-20°C to 60°C (housing)

Reliable in harsh environments

Versatile I/O
2 inputs + 2 opto-coupled outputs

Easy integration and deployment

TurboDrive
Up to 2x faster transmission

Achieve data rate beyond GigE Vision limits

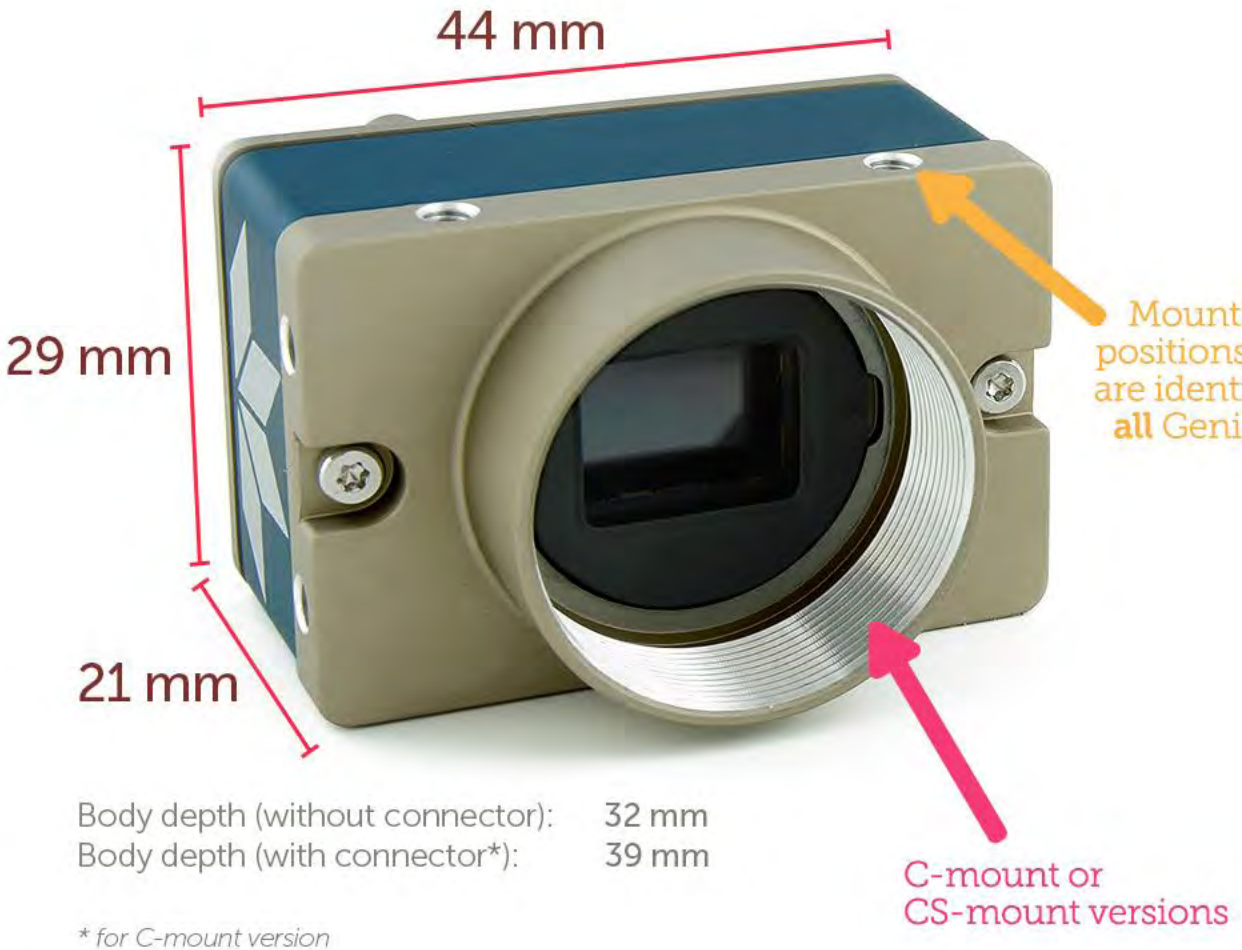
Super Lightweight
46 grams

Ideal for UAV or robotics

Trigger-to-Image Reliability
System-level track and trace

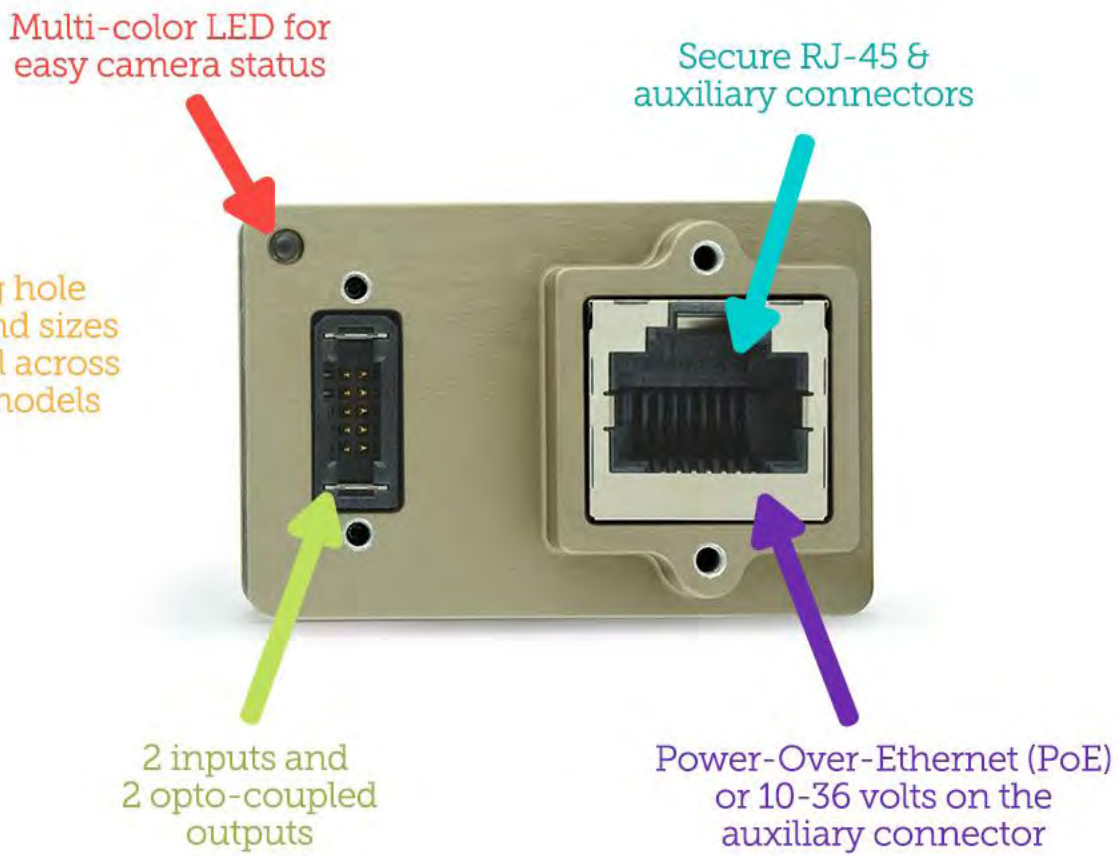
Protection from data loss and improved reliability

Small package. **Big** functionality.



Body depth (without connector): 32 mm
Body depth (with connector*): 39 mm

** for C-mount version*



Introducing **TurboDrive™**. Break through the GigE limit.

TurboDrive technology allows Genie Nano to transfer full image quality at faster frame rates – with no changes to your GigE network.

- Proprietary patent-pending technology
- Does not affect image integrity
- Enabled through CamExpert, or through the Sapera LT API

Genie Nano with Sony IMX174	Standard	With TurboDrive
Actual FPS received on the computer	52 fps	**84 fps***
Effective bandwidth received at the computer	115 MB/s	**184 MB/s**

GiGE VISION

TURBODRIVE™ BY TELEDYNE DALSA

**Transfer speed with TurboDrive is image dependent. Refer to TurboDrive Primer on our web site .*

Advanced Acquisition Features

Multi-ROI windows, up to 16 ROIs

» Capture only the data you need – for increased throughput

Burst acquisition

» Grab at the highest sensor rate to capture fast events

General-purpose counter and timer

» Centralize acquisition controls – never miss an event or strobe

Trigger-to-Image Reliability

Improved system reliability and customer confidence

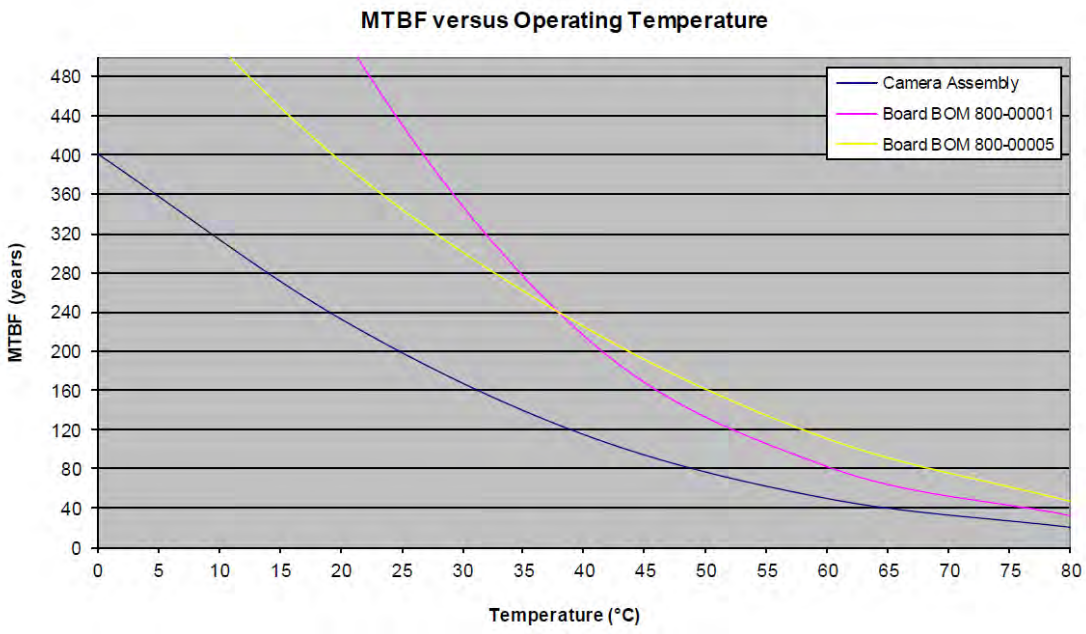
» System-level monitoring, tracing, and debugging
» Helps protect from data loss
» GUI tools and API

Built for **endurance** and **reliability**

A wide operating temperature range, from -20 to 60°C (housing), helps extend camera life and increase system reliability

	CAMERA ASSEMBLY		
Temperatures	MTBF (hours)	MTBF (years)	Failure Rate*
0°C	3 514 728	401.2	0.28
20°C	2 040 096	232.9	0.49
40°C	1 005 703	114.8	0.99
60°C	434 538	49.6	2.30
80°C	177 030	20.2	5.65

** Failures per million hours*



CMOS Sensor Platform

SONY Pregius

IMX174 and IMX249 (2.3M), mono and color (1/1.2”)
IMX252 and IMX265 (3.1M), mono and color (1/1.8”)
IMX264 and IMX250 (5M), mono and color (2/3”)
IMX255 (8.9M), mono and color (1” sensor)
IMX253 (12M), mono and color (1.1” sensor)

Future Deployment

- IMX267 (8.9M), mono and color (1” sensor)
- IMX305 (12M), mono and color (1.1” sensor)
- IMX273 (1.6M), mono and color (1/3” sensor)
- IMX287 (0.3M), mono and color (1/3” sensor)

ON Semiconductor®

- Python 0.3/0.5/1.3M Mono, NIR, and color
- Python 2.3/5.1M Mono, NIR, and color
- Python 16M /25M Mono and color
- Aptina – 18M Color (rolling shutter)

NEW: Genie Nano **XL**

All of the same great features, but with spectacular resolution up to 25 MP.

- OnSemi Python 16 MP and 25 MP CMOS global shutter
- Burst mode imaging, TurboDrive, and T2IR
- M42 lens mount, slim form factor

Genie Nano XL Models	Standard	TurboDrive[1]	Burst Mode[2]
16 megapixel mono/color	7.1 fps	**15.6 fps**	**31.2 fps**
25 megapixel mono/color	4.5 fps	**10 fps**	**20.1 fps**

1. *Transfer speed with TurboDrive is image dependent. Refer to TurboDrive Primer on our web site .*
2. *500 MB onboard buffer*

GiGE VISION

TURBODRIVE™ BY TELEDYNE DALSA

Features Roadmap

Available in Firmware v1.03

Multi-ROI Windows (up to 16 ROI)
- Capture only the data you need – for increased throughput

Multi-Exposures in Cycling Mode
- Improves image quality for better analysis

Multicast Feature
- Commands and image distribution to simplify setup

Precise Time Protocol (IEEE 1588) Support
- Same timestamp on multiple cameras
- Can be used for multi-camera synchronization

Q2-2016 (Contact Teledyne DALSA)

Auto-Brightness (AGC and Exposure)
- Improves image quality in challenging lighting conditions

Color Enhancement
- Improves image quality for better quality control

Genie™ Nano

www.visionsystech.com

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