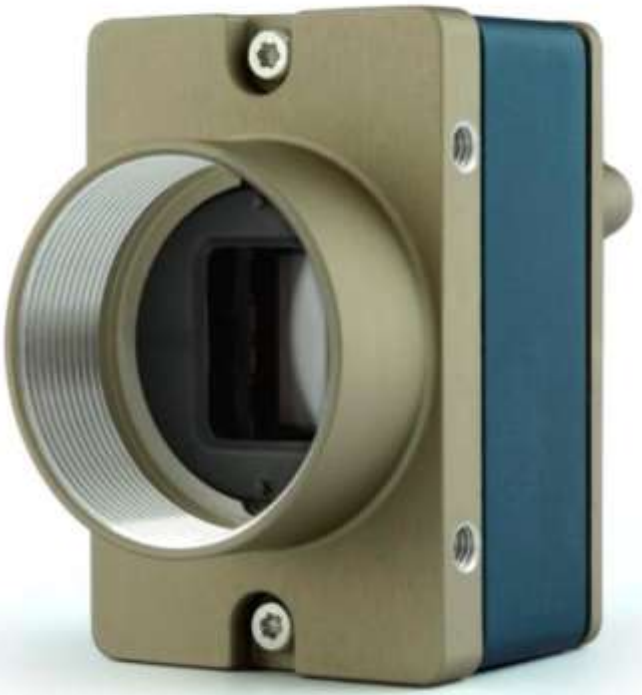
Genie™ Nano

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



GiGE VISION

Customer Edition

Genie™ Nano…built on a proven platform and a rich legacy of performance and versatility.

Genie Elite

Genie TS

Genie

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

TELEDYNE DALSA
Everywhereyoulook™

Genie™ Nano

Powerful Features, Accelerated System Performance

Fits Tight Spaces
44mm x 29mm x 21mm

Slimmest Body Length Available

Wide Temperature Range
-20 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 Light-Weight
46 Grams

Ideal for UAV or Robotics

Trigger-to-Image Reliability
System Level Track and Trace

Protection from Data Loss and Improved Reliability

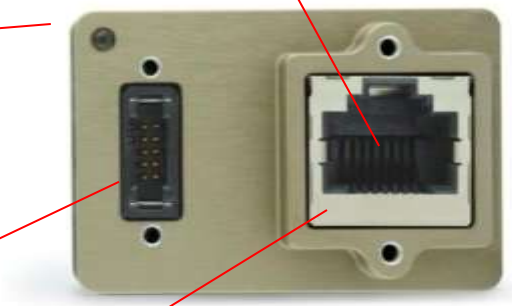
Genie™ Nano

Small Package, Big Functionality

Genie **Nano** Dimensions (mm)

Width	44
Height	29
Body length	21.15
Length (w/o connector*)	31.6
Length (with connector*) * for C-mount version	38.8

- Secure RJ-45 & Auxiliary connectors
- Multi-color LED for easy camera status
- 2 inputs & 2 opto-coupled outputs
- Power-Over-Ethernet (PoE) or 10-36 volts on the auxiliary connector
- C-mount or CS-Mount versions



Note: The front mounting holes of all Genie series are at the same position and are the same size

Genie™ Nano

Introducing TurboDrive™ …Break Through the GigE Limit

- **TurboDrive** technology allows Genie Nano to transfer full image quality at faster frame rates —with no change 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	115MB/sec	184MB/sec

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

Genie™ Nano

Advanced Acquisition Features (Firmware v1.0)

Multi-ROI Windows (in-sensor) up to 16 ROI's

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

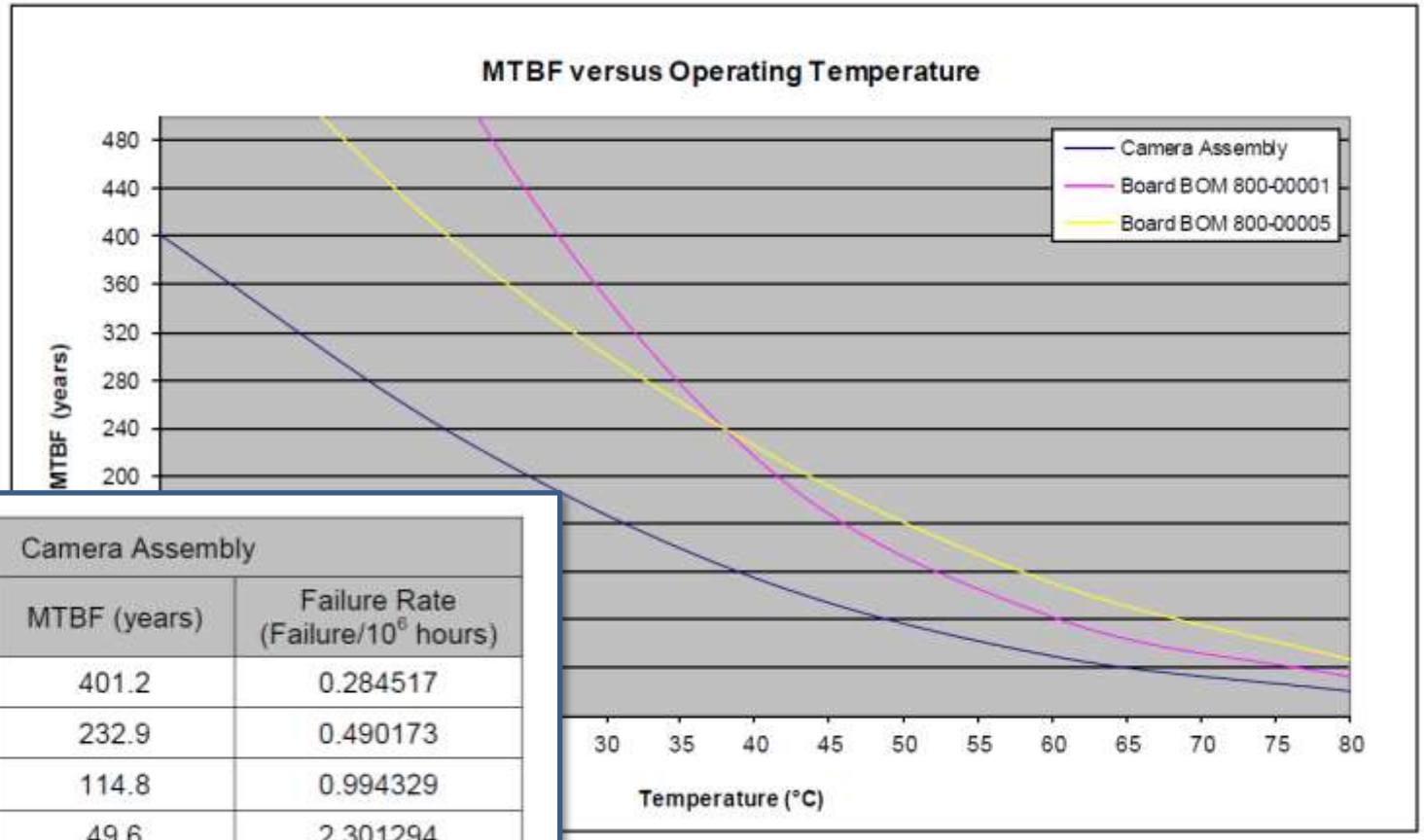
Improved system reliability and customer confidence

- Packet resend statistics
- Over trigger event monitors
- In-camera image accumulation count

Genie™ Nano

Built For Endurance and Reliability

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

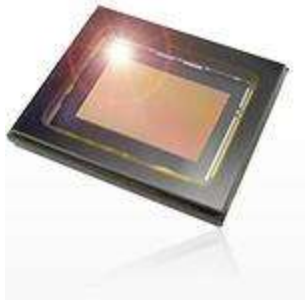


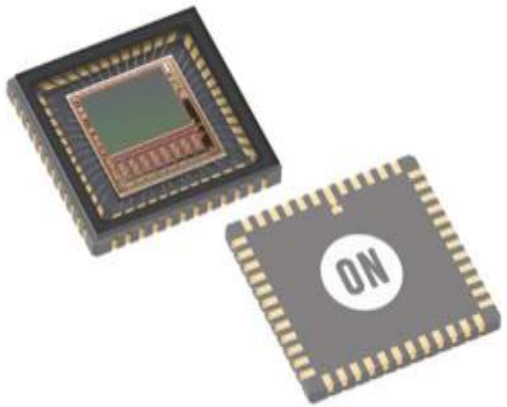
	Camera Assembly		
Temperatures	MTBF (hours)	MTBF (years)	Failure Rate (Failure/10^6 hours)
0	3514728	401.2	0.284517
20	2040096	232.9	0.490173
40	1005703	114.8	0.994329
60	434538	49.6	2.301294
80	177030	20.2	5.648757

Genie™ Nano

CMOS Sensor Platform

- Q3/15: IMX174 and IMX249 (2.3M), mono and color (1/1.2” sensor)
- Future Deployment
  - Q1/16: IMX252 and IMX265 (3.2M), mono and color (1/1.8” sensor)
  - IMX250 and IMX264 (5.1M), mono and color (2/3” sensor)
  - All new Sony Pregius sensors





ON Semiconductor®

- Q4/15: Python 0.3/0.5/1.3M Mono, NIR and color versions
- Q1/16: Python 2.3/5.1M Mono, NIR and color versions
- TBD Aptina – 14M/18M (rolling shutter)

Genie™ Nano
Features Roadmap

- ✓ Multi-ROI Windows (FPGA based) for the IMX249
  - Capture only the data you need – increased throughput
- ✓ Multi-Exposures in Cycling Mode
  - Improves image quality for better analysis
- ✓ Auto-Brightness (AGC and Exposure)
  - Improves image quality in challenging lighting conditions
- ✓ Color Enhancement
  - Improves image quality for better quality control
- ✓ Multicast Feature
  - Commands and image distribution to simplify setup
- ✓ Precise Time Protocol (IEEE 1588) support
  - Same timestamp on multiple cameras

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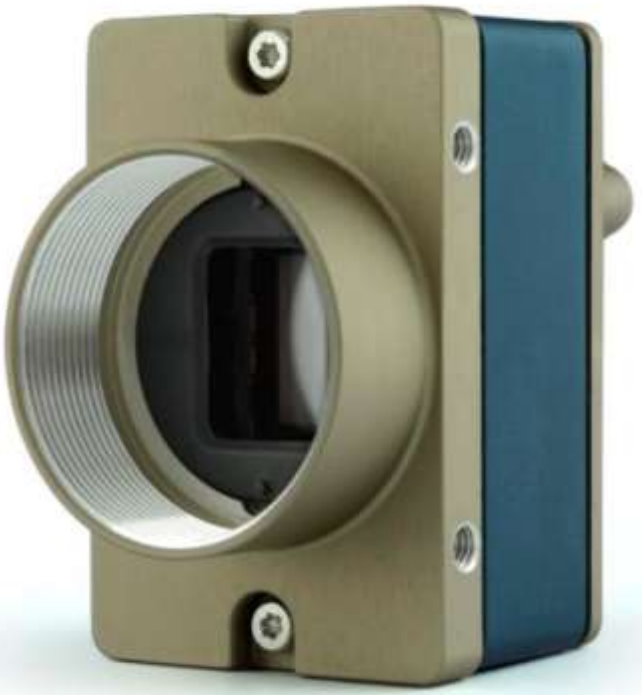

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