SMARTER IMAGING FOR BETTER LIVES
ADEPT TURNKEY
Perth: 08 9242 5411 Melbourne: 03 9384 1775
Sydney: 02 9905 5551
Email: sales@adeptturnkey.com.au
Web: www.adept.net.au
TELEDYNE DALSA
Everywhereyoulook™

Genie™ Nano Cameras

Smaller, faster, stronger, cheaper.

Compact GigE Vision cameras with unprecedented speed and uncompromised image quality.

Introducing Genie Nano, a GigE vision CMOS area scan camera that redefines **low cost** performance. Genie Nano starts with industry leading image CMOS sensors from VGA to 18M Pixels resolution and adds proprietary camera technology for **breakthrough speed**, a robust build quality for wide operating temperature, and an unmatched feature set–all at an **incredible price**. Teledyne DALSA's proprietary **TurboDrive**™ technology allows Genie Nano to deliver its full image quality at faster frame rates—often 150% or higher—with no changes to your GigE network. Like all Teledyne DALSA GigE cameras, the Genie Nano is based on AIA GigE Vision Standard to directly link the camera to a PC.

TURBODRIVE™
BY TELEDYNE DALSA

Key Features

- Uses standard PC Ethernet port & hardware
- Supports cable lengths up to 100 m (CAT-5e or CAT-6)
- Simplified set-up with field proven Sapera LT software featuring CamExpert
- Engineered to accommodate industrial environment with a ruggedized screw mount RJ-45 connector

Programmability

- Higher frame rates achievable in partial scan mode
- Global electronic shutter with exposure control
- Multi-exposure feature
- Multi-ROI feature
- Metadata support
- IEEE1588 (Precision Time Protocol) support
- Binning
- Look-up-table and More

Reliability

- Robust all-metal body
- 3 year warranty
- Trigger to Image Reliability (T2IR) framework improves the reliability of your inspection system and protects you from data loss

Typical Applications

- Electronics manufacturing inspection
- Industrial metrology
- Intelligent traffic systems

Regulatory Compliance

- CE, FCC and RoHS

GENIE NANO INDIVIDUAL MODEL SPECIFICATIONS

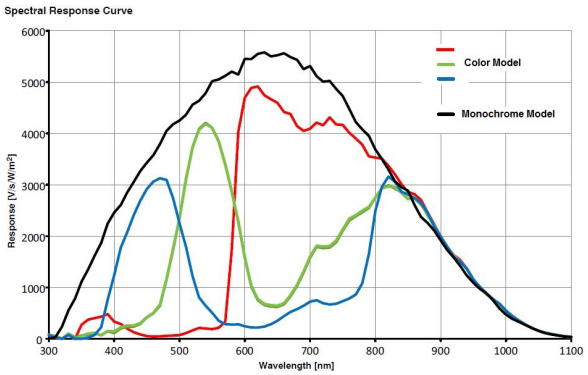
	Active Resolution	Sensor Model	Frame Rate (Burst Mode)	Pixel Size	Dynamic Range	Max. Image Circle	Data Format	Part Number (for C-mount option)
M640/M640-NIR	640 x 480	On-Semi Python300	862 fps	4.8 µm	62.1 dB	1/4" Optical Format	8 or 10-Bit Mono	G3-GM10-M0640 G3-GM12-M0640 (NIR)
C640	640 x 480	On-Semi Python300	862 fps	4.8 µm	62.1 dB	1/4" Optical Format	8 or 10-Bit Bayer	G3-GC10-C0640 G3-GC10-C0640IF (with IR cut-off filter)
M800/M800-NIR	800 x 600	On-Semi Python500	566 fps	4.8 µm	62.1 dB	1/3.3" Optical Format	8 or 10-Bit Mono	G3-GM10-M0800 G3-GM12-M0800 (NIR)
C800	800 x 600	On-Semi Python500	566 fps	4.8 µm	62.1 dB	1/3.3" Optical Format	8 or 10-Bit Bayer	G3-GC10-C0800 G3-GC10-C0800IF (with IR cut-off filter)
M1280/M1280-NIR	1280 x 1024	On-Semi Python1300	213 fps	4.8 µm	62.1 dB	1/2" Optical Format	8 or 10-Bit Bayer	G3-GM10-M1280 G3-GM12-M1280 (NIR)
C1280	1280 x 1024	On-Semi Python1300	213 fps	4.8 µm	62.1 dB	1/2" Optical Format	8 or 10-Bit Bayer	G3-GC10-C1280 G3-GC10-C1280IF (with IR cut-off filter)
M1920	1920 x 1200	Sony IMX249	39 fps	5.86 µm	75.5 dB	1/1.2" Optical Format	8 or 12-Bit Mono	G3-GM11-M1920
C1920	1920 x 1200	Sony IMX249	39 fps	5.86 µm	75.5 dB	1/1.2" Optical Format	8 or 12-Bit Bayer	G3-GC11-C1920 G3-GC11-C1920IF (with IR cut-off filter)
M1940	1920 x 1200	Sony IMX174	84 fps	5.86 µm	68.3 dB	1/1.2" Optical Format	8 or 10-Bit Mono	G3-GM10-M1940
C1940	1920 x 1200	Sony IMX174	84 fps	5.86 µm	68.3 dB	1/1.2" Optical Format	8 or 10-Bit Bayer	G3-GC10-C1940 G3-GC10-C1940IF (with IR cut-off filter)
M1930/M1930-NIR	1920 x 1200	On-Semi Python2000	116 fps	4.8 µm	62.1 dB	2/3" Optical Format	8 or 10-Bit Mono	G3-GM10-M1930 G3-GM12-M1930 (NIR)
C1930	1920 x 1200	On-Semi Python2000	116 fps	4.8 µm	62.1 dB	2/3" Optical Format	8 or 10-Bit Bayer	G3-GC10-C1930 G3-GC10-C1930IF (with IR cut-off filter)
M2020	2048 x 1536	Sony IMX265	55 fps	3.45 µm	76.4 dB	1/1.8" Optical Format	8 or 12-Bit Mono	G3-GM11-M2020
C2020	2048 x 1536	Sony IMX265	55 fps	3.45 µm	76.4 dB	1/1.8" Optical Format	8 or 12-Bit Bayer	G3-GC11-C2020 G3-GC11-C2020IF (with IR cut-off filter)
M2050	2048 x 1536	Sony IMX252	140 fps	3.45um	56.4 dB	1/1.8" Optical Format	8-Bit Mono	G3-GM10-M2050
C2050	2048 x 1536	Sony IMX252	140 fps	3.45 µm	56.4 dB	1/1.8" Optical Format	8-Bit Bayer	G3-GC10-C2050 G3-GC10-C2050IF (with IR cut-off filter)
M2420	2448 x 2048	Sony IMX264	35 fps	3.45 µm	76.4 dB	2/3" Optical Format	8 or 12-Bit Mono	G3-GM11-M2420
C2420	2448 x 2048	Sony IMX264	35 fps	3.45 µm	76.4 dB	2/3" Optical Format	8 or 12-Bit Bayer	G3-GC11-C2420 G3-GC11-C2420IF (with IR cut-off filter)
M2450	2448 x 2048	Sony IMX250	90 fps	3.45 µm	56.4 dB	2/3" Optical Format	8-Bit Mono	G3-GM10-M2450
C2450	2448 x 2048	Sony IMX250	90 fps	3.45 µm	56.4 dB	2/3" Optical Format	8-Bit Bayer	G3-GC10-C2450 G3-GC10-C2450IF (with IR cut-off filter)
M2590/M2590-NIR	2592 x 2048	On-Semi Python5000	51 fps	4.8 µm	62.1 dB	1" Optical Format	8 or 10-Bit Mono	G3-GM10-M2590 G3-GM12-M2590 (NIR)
C2590	2592 x 2048	On-Semi Python5000	51 fps	4.8 µm	62.1 dB	1" Optical Format	8 or 10-Bit Bayer	G3-GC10-C2590 G3-GC10-C2590IF (with IR cut-off filter)
M4060	4112 x 2176	Sony IMX255	56 fps	3.45 µm	56.4 dB	1" Optical Format	8-Bit Mono	G3-GM10-M4060
C4060	4112 x 2176	Sony IMX255	56 fps	3.45 µm	56.4 dB	1" Optical Format	8-Bit Bayer	G3-GC10-C4060 G3-GC10-C4060IF (with IR cut-off filter)
M4040	4112 x 3012	Sony IMX253	40 fps	3.45 µm	56.4 dB	1.1" Optical Format	8-Bit Mono	G3-GM10-M4040
C4040	4112 x 3012	Sony IMX253	40 fps	3.45 µm	56.4 dB	1.1" Optical Format	8-Bit Bayer	G3-GC10-C4040 G3-GC10-C4040IF (with IR cut-off filter)
M4030	4112 x 2176	Sony IMX267	30 fps	3.45 µm	76.4 dB	1" Optical Format	8 or 12-Bit Mono	G3-GM-11-M4030
C4030	4112 x 2176	Sony IMX267	30 fps	3.45 µm	76.4 dB	1" Optical Format	8 or 12-Bit Bayer	G3-GC-11-C4030 G3-GC-11-C4030IF (with IR cut-off
M4020	4112 x 3012	Sony IMX304	20 fps	3.45 µm	76.4 dB	1.1" Optical Format	8 or 12-Bit Mono	G3-GM-11-M4020
C4020	4112 x 3012	Sony IMX304	20 fps	3.45 µm	76.4 dB	1.1" Optical Format	8 or 12-Bit Bayer	G3-GC-11-C4020 G3-GC-11-C4020IF (with IR cut-off

www.adept.net.au

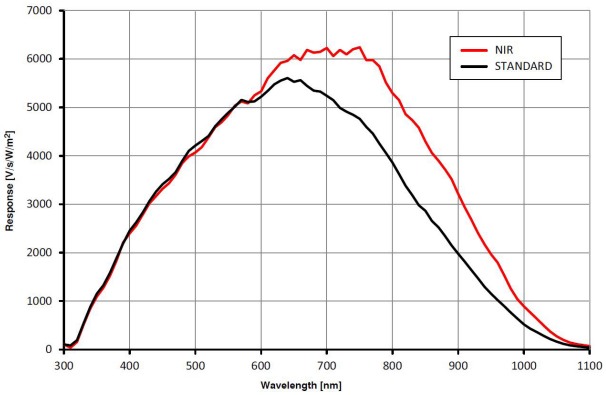
GENIE NANO FAMILY SPECIFICATIONS (COMMON TO ALL MODELS)

Data Output Transfer	Gigabit Ethernet (1000 Mbit/s) only
Exposure Control	Programmable, or via external trigger
I/O Ports	2 opto-isolated inputs, 2 opto-isolated ouputs, 1 input/3 outputs option available on demand
Image Buffers (On-board memory)	90MB for VGA to 5 Mpixel models 200 MB for the 9M, 12M and 18 Mpixels models
Lens Mount	C and CS-Mount available
Size (L x H x W) (C-mount option)	21.2 mm x 29 mm x 44 mm (no lens adapter or connectors) 38.9 mm x 29 mm x 44 mm (with lens adapter and connectors)
Mass	~46 g
Operating Temp	-20 to +60°C (housing temperature)
Power Supply	10 to 36V or Power Over Ethernet (POE)
Power Dissipation (model dependent)	3.6 W to 4.6 W(12V) 4.0 W to 4.9 W (PoE)
Data Connector	Standard or screw mount RJ-45
Power and I/O Connector	SAMTEC TFM-105 type
Camera Specification	GigE Vision v1.2 compliant
Software Platform	Teledyne DALSA Sapera LT 8.0 for Windows, Teledyne DALSA GigE-V for Linux or 3rd Party GenICam compliant SDK

RESPONSIVITY GRAPHS



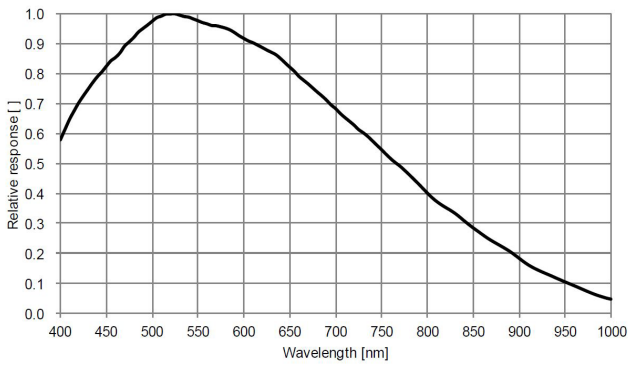
C640
C800
C1280
C1930
C2590



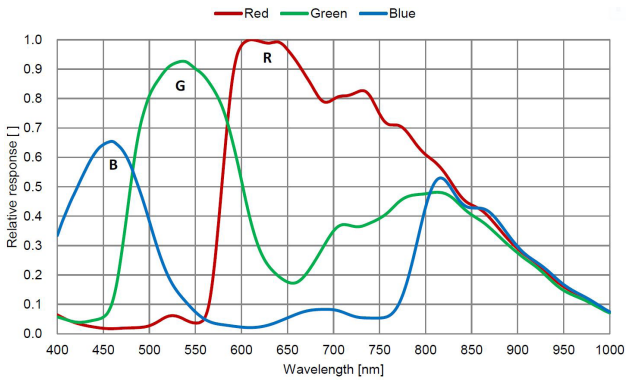
M640/NIR
M800/NIR
M1280/NIR
M2590/NIR
M1930/NIR

Spectral Sensitivity Characteristics

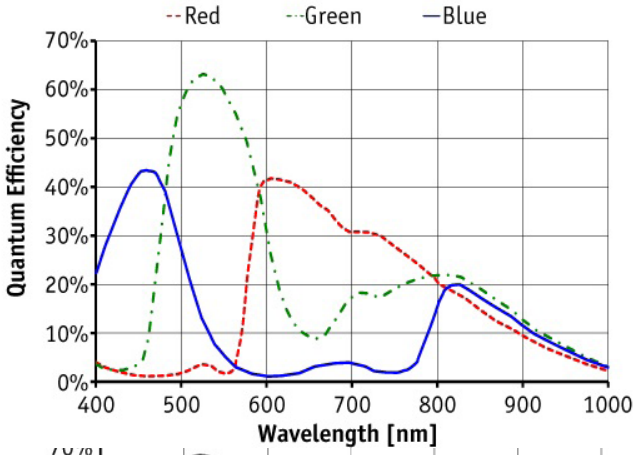
(Excludes lens characteristics and light source characteristics.)



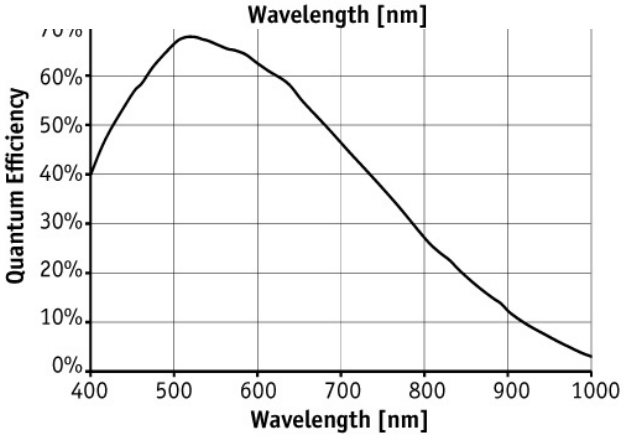
M4060
M4040
M4030
M4020
M2020
M2050
M2420
M2450



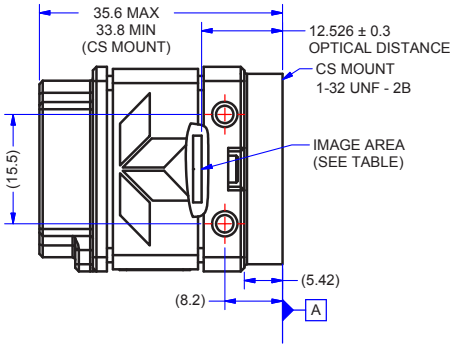
C4060
C4040
C4030
C4020
C2020
C2050
C2420
C2450

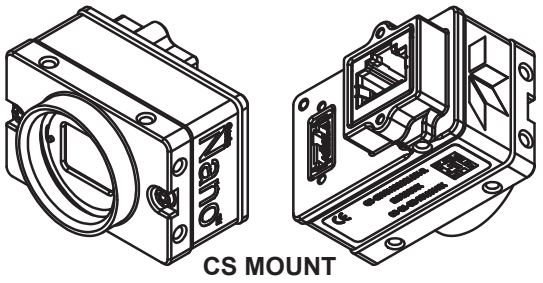


C1920
C1940

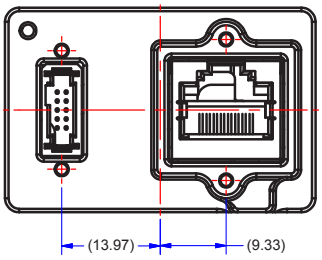


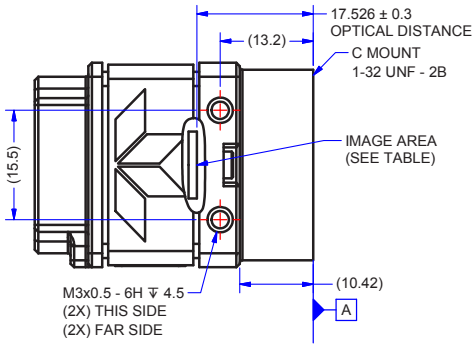
M1920
M1940

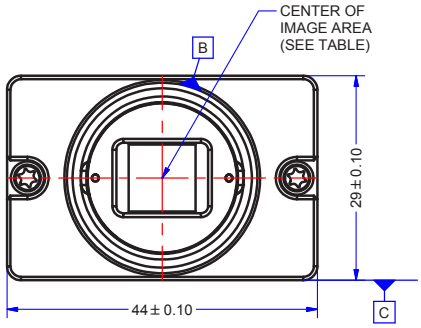


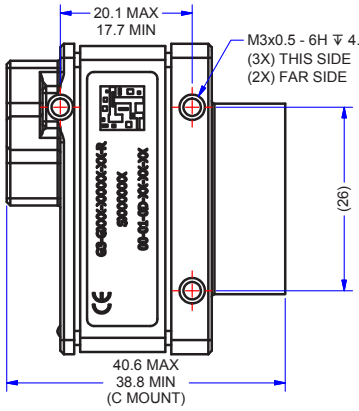


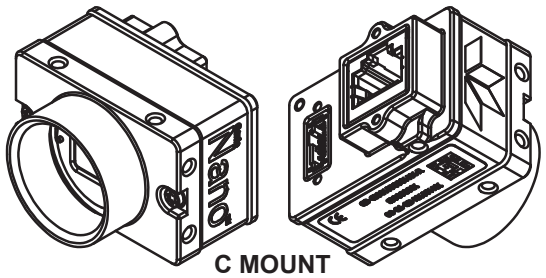
CS MOUNT











C MOUNT

NOTES:
1. UNITS: MILLIMETERS.
2. IMAGE AREA IS ALIGNED TO DATUMS A B & C.

TELEDYNE DALSA
Everywhereyoulook™

www.adept.net.au