

# Genie™ Nano-M640 / Nano-M640-NIR

Area Scan Monochrome Cameras



## Overview

# Small compact GigE Vision camera with uncompromised speed.

The Genie Nano-M640 offers both the On-Semi Python300 Monochrome and the NIR enhance version sensor with a resolution of 640 x 480. Teledyne DALSA's "Burst Acquisition" and "Turbo Drive" feature allows for image capture rates of 850 fps in VGA resolution while maintaining very good image quality. The Genie Nano-M640 takes advantage of gigabit Ethernet technology, transmitting data over standard CAT-5e and CAT-6 cables to distances of up to 100 m. Like all Teledyne DALSA GigE cameras, the Genie Nano-M640 is based on AIA (Automated Imaging Association) GigE Vision Standard to directly link the camera to a PC.



## 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 Sopera Essential software featuring CamExpert
- Engineered to accommodate industrial environment with a Ruggedize, 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

## Typical Applications

- Electronics manufacturing inspection
- Industrial metrology
- Intelligent traffic systems

## Regulatory Compliance

- CE, FCC and RoHS

## Specifications

|                         |  |
|-------------------------|--|
| Active Resolution       | 640 x 480  |
| Acquisition Frame Rate  | 850 fps (with TurboDrive™)   |
| Data Output Transfer    | Gigabit Ethernet (1000 Mbit/s) only  |
| Pixel Size              | 4.8 μm x 4.8 μm  |
| Data Format             | 8 or 10-Bits output (User selectable)  |
| Exposure Control        | Automatic, Programmable, or via External Trigger   |
| Dynamic Range           | 62.1 dB  |
| Gain Control            | Automatic, Manual up to 8x analog gain   |
| I/O Ports               | 2 opto-isolated input, 2 opto-isolated output  |
| Image Buffer            | 96 MB of On-board memory   |
| Lens Mount              | C and CS-Mount available   |
| Size (L x H x W)        | 21.2 mm x 29 mm x 44 mm (without lens adapter or connectors)<br>38.9 mm x 29 mm x 44 mm (with lens adapter and connectors) |
| Mass                    | ~46g   |
| Operating Temp          | -20 to +60c (Housing temperature)  |
| Power Supply            | 10 to 36V or Power Over Ethernet (POE)   |
| Power Dissipation       | 3.6 W(12V) 4.1 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 Sopera LT 8.0 or 3rd Party Genicam Compliant SDK  |
| Part Number             | G3-GM10-M0640 Standard Model (C-mount Option)<br>G3-GM11-M0640 NIR Model (C-mount Option)                                  |

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All Genie cameras feature value added functionality designed specifically for imaging and machine vision applications. All features are easily accessible with Teledyne DALSA's advanced software tools. These tools deliver superior image capture, performance, and control.

