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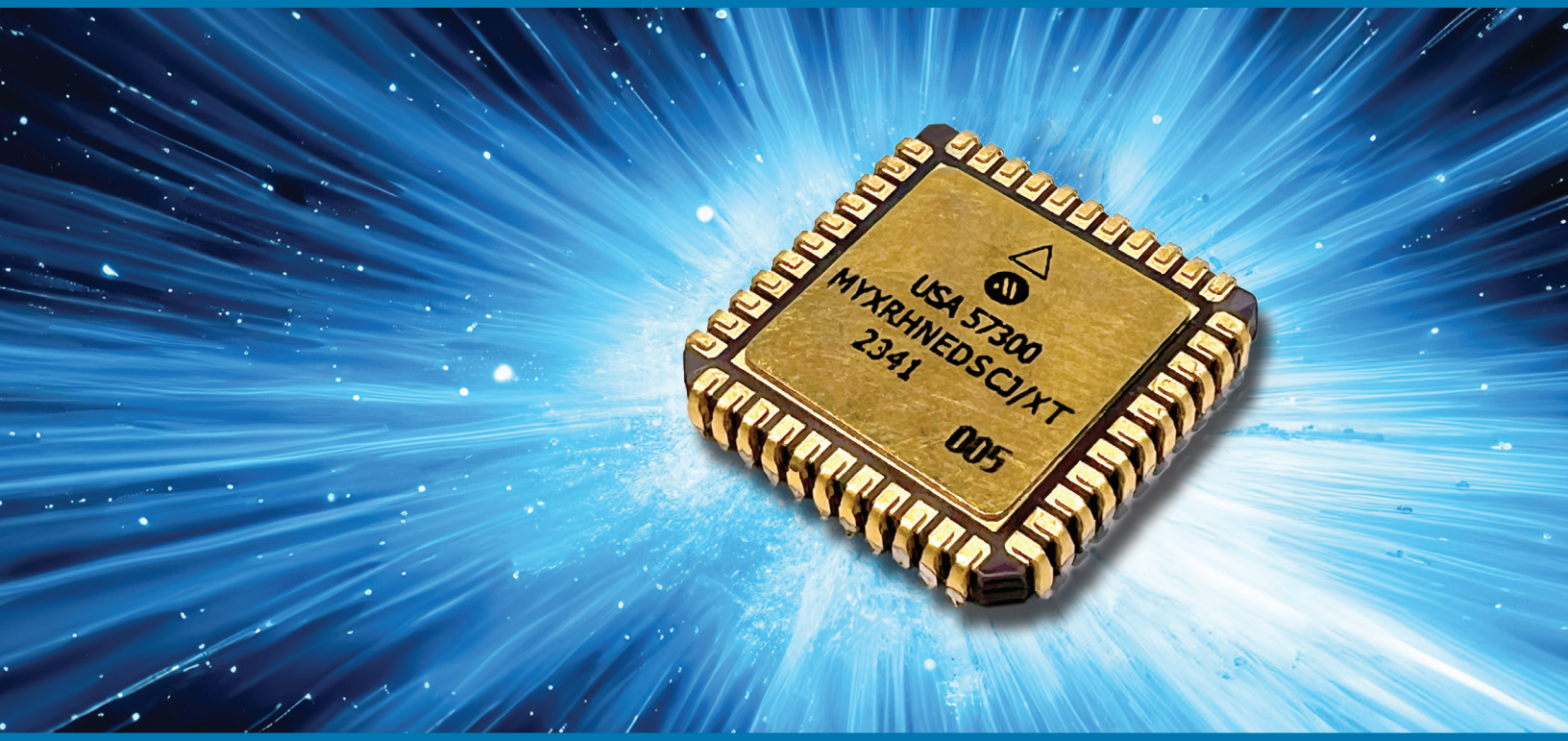
Nuclear Event Detector

Standard-Performance NED

Preliminary Product Brief



The Standard-Performance Nuclear Event Detectors (NED) features a 2X increase in radiation dose rate sensitivity, and faster response times at 5X lower overdrive levels relative to legacy devices. With integrated differential drivers providing SWaP reduction, improved noise immunity and reduced delay times.

KEY FEATURES

- Gamma Dose Rate Sensitivity Threshold Range Adjustable from 1×10^5 to 2×10^7 rads (Si) / sec.
- 44 Pin Non-Hermetic J-Lead SMT Package (.650in x .650in x .113in)
- Integrated Differential Line Drivers and Receivers
- Radiation Specifications
  - Total Dose (Device Survivability): 1×10^6 rads (Si)
  - Dose Rate (Operate Through): 1×10^{12} rads (Si) / sec.
  - Neutron Fluence (Operate Through): 5×10^{13} neutrons / cm^2
- 3.3V Power Requirement
- -55°C to +125°C Extended Full MIL-Temperature Range (XT)
- Integrated Differential Line Drivers and Receivers All Operate Through Prompt Dose Without Extra Shielding

BENEFITS

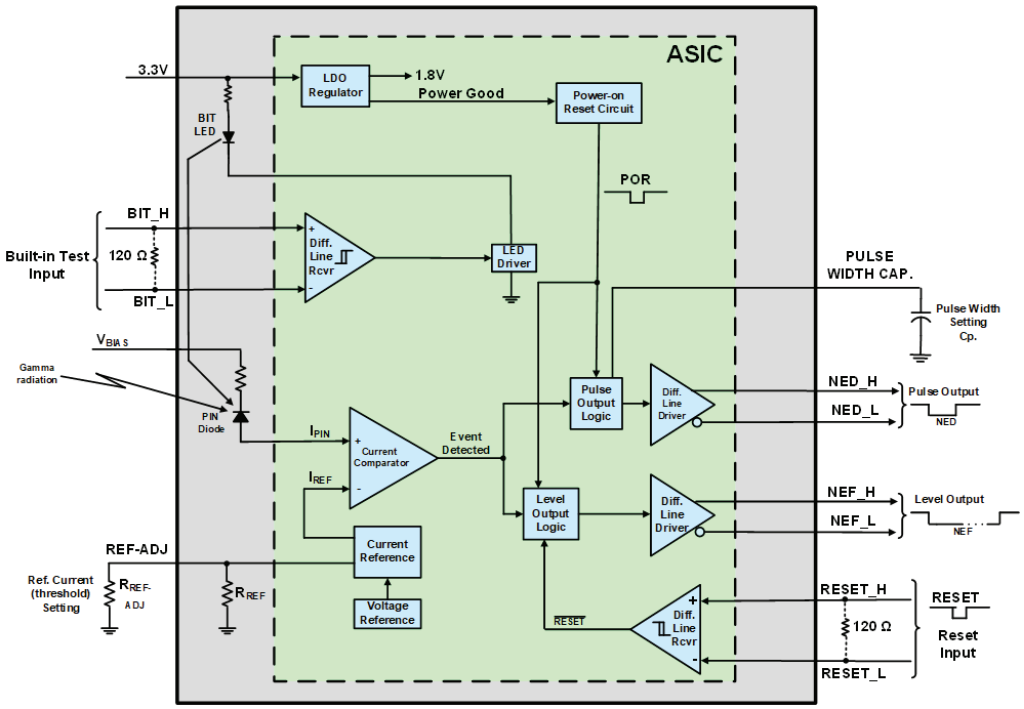
- 2X Lower Minimum Dose Rate Sensitivity
- Fast Delay Time to Enable Rapid Shutdown and Minimize Damage to Other Electronics
- Rad-Hard for Strategic Environments
- Small Compact Package Facilitates Use on Densely Populated Circuit Cards and Boards
- Built-In Differential Drivers and Receivers Provide SWaP (Space, Weight, & Power) Savings, Improved Noise Immunity, and Reduced Delay Times
- Use Output Signal to Shut Down Power Supplies, Take Processors Offline and Block Memory Write Operations

APPLICATIONS

- Aircrafts and Drones
- Defense Weapon Systems
- Satellites
- Military Ground Vehicles
- Nuclear Material Storage

Standard-Performance NED

INTEGRATED LINE DRIVERS & RECEIVERS



ORDERING INFORMATION

MYX RH NED S CJ / H

Screening Flow

XT	Extended Temperature Range, -55°C to +125°C, Internal and External Visual Inspections, Fine & Gross Leak Testing
H	MIL-PRF-38534 Class H Screened and Qualified

Package

CJ	Ceramic J-Lead

Configuration

S	Standard Performance NED

Product

NED	Nuclear Event Detector

Radiation Rating

RH	Rad-Hard

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Disclaimer

The information in this Preliminary Product Brief is believed to be accurate; however, no responsibility is assumed by Micross Hi-Rel Components for its use, and no license or rights are granted by implication or otherwise in connection therewith. Specifications are subject to change without notice. Further, although Micross is currently able to supply small quantities of this product to interested customers, the product described herein has not yet been qualified in accordance with MIL-PRF-38534. For production, Micross plans on offering versions of the product with Class H or Class K qualification in compliance with MIL-PRF-38534.

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