

The Standard-Performance Nuclear Event Detectors (NED) features a 2X increase in radiation dose rate sensitivity, and 50%+ reduced response times at 10X lower overdrive levels relative to legacy devices. With integrated differential drivers providing SWaP reduction, improved noise immunity & reduced delay times.



## KEY FEATURES

- Gamma Dose Rate Sensitivity Threshold Range Adjustable from  $1 \times 10^5$  to  $2 \times 10^7$  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):  $1 \times 10^6$  rads (Si)
  - Dose Rate (Operate Through):  $1 \times 10^{12}$  rads (Si) / sec.
  - Neutron Fluence (Operate Through):  $5 \times 10^{13}$  neutrons / cm<sup>2</sup>
- 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

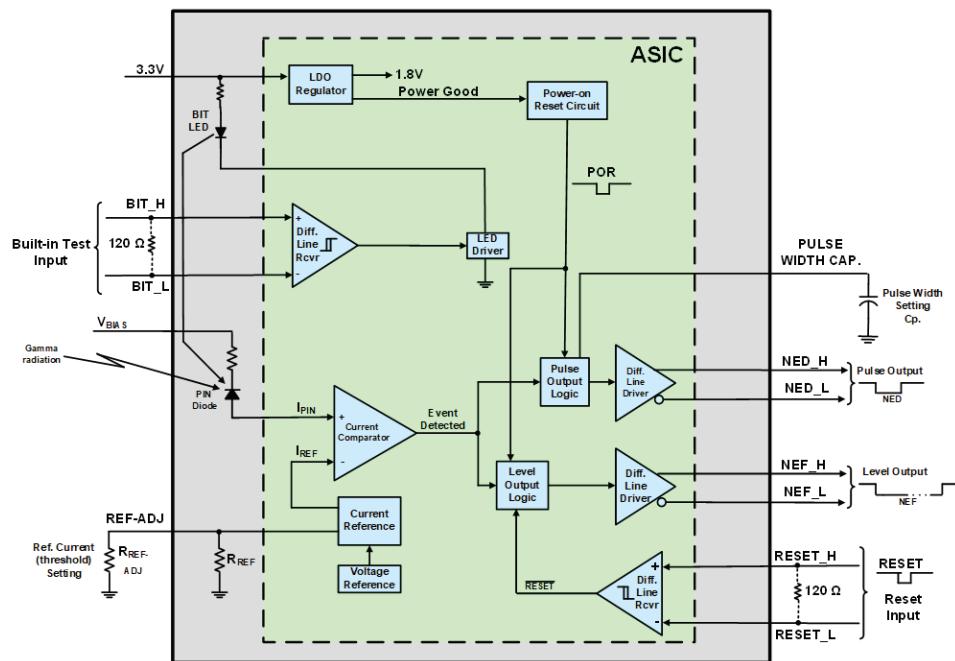
- 2X Lower Minimum Dose Rate Sensitivity
- Fast Delay Time to Enable Rapid Shutdown and Minimize Damage to Other Electronics
- Rad-Hard for Strategic Environments
- Small Compact Package Facilitates Use on Densely Populated Circuit Cards and Boards
- Built-In Differential Drivers and Receivers Provide 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

EM Engineering Model, Non-Hermetic, Designed for -55°C to 125°C, but tested at only 25°C

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

### Micross

### Disclaimer

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