

The High-Performance NED features a 4X increase in radiation dose rate sensitivity and 25% faster response times at 5X lower overdrive levels relative to legacy devices, with integrated differential drivers providing SWaP savings, improved noise immunity & reduced delay times; screened to MIL-PRF-38534 Classes H & K.



## KEY FEATURES

- Gamma Dose Rate Sensitivity Threshold Range Adjustable from  $5 \times 10^4$  to  $2 \times 10^7$  rads (Si) / sec.
- 44 Pin Hermetic J-Lead SMT Package (.650in x .650in x .113in)
- Integrated Differential Line Drivers and Receivers
  - Eliminates the Need for Shielding External 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>
- Delay from Radiation Detected to Output Signal Asserted: 15ns at 2X Overdrive
- 3.3V Power Requirement
- -55 to +125°C Extended Full MIL-Temperature Range (XT)
- MIL-PRF-38534 Classes H & K

## BENEFITS

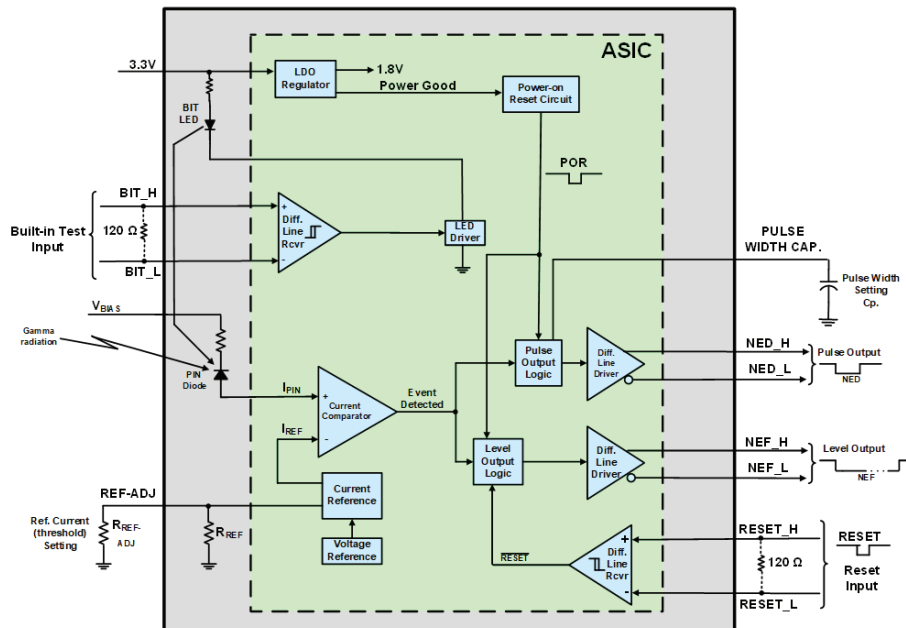
- 4X Lower Minimum Dose Rate Sensitivity
- 25% Faster Response Time at 5X Lower Overdrive Level – Enabling a More Rapid Shutdown of Critical Electronics
- Improved Noise Immunity
- Use Output Signal to Shut Down Power Supplies, Take Processors Offline and Block Memory Write Operations
- Manufactured on US Soil
- Improvements in Obsolescence Mitigation with In-House PIN Diode and Controller
- Screening for Space Option Available

## APPLICATIONS

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

# High-Performance NED

## INTEGRATED LINE DRIVERS & RECEIVERS



## ORDERING INFORMATION

### MYX RH NED H CJ / K

#### Screening Flow

- EM Engineering Model, Non-Hermetic, Designed for -55°C to 125°C, but tested at only 25°C
- XT Extended Temperature, -55°C to 125°C, Internal and External Visual Inspections, Fine & Gross Leak Testing
- H MIL-PRF-38534 Class H Screened and Qualified
- K MIL-PRF-38534 Class K Screened and Qualified

#### Package

- CJ Ceramic J-Lead

#### Configuration

- H High-Performance NED

#### Product

- NED Nuclear Event Detector

#### Radiation Rating

- RH Rad-Hard

#### Micros

### Disclaimer

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