



VNX Radiation Mitigated GPU



KEY FEATURES

CPU Architecture

- NVIDIA® Jetson TX2i series System-on-Module

General

- TX2i module per VITA 74
- Electrical topology per VITA 74
- Backplane connector family per SAMTEC SEAF
- Linux, RTOS, or Android OS

Environmental Resiliency

- -20°C to +55°C operating temperature

Radiation Tolerance

- 30 KRad processor with rad-hard supervisory circuit and power switch

Power Supply

- +12 VDC and +3.3 VDC (provided by VNX backplane)

OVERVIEW

The VNX Radiation Mitigated GPU enables the integration of the NVIDIA TX2 GPU which has superior performance a robust design and reduced complexity into the VNX ecosystem. The VNX Radiation Mitigated GPU has a combination of performance, power efficiency, integrated deep learning capabilities and rich I/O remove the barriers to a new generation of space computing. The module has been designed and optimized by IDEAS-TEK to offer high performance computing for a wide range of space applications. The dimensions of the VNX Rad-Tolerant GPU are 84mm by 73mm by 39mm.

COMPLIANCE

The VNX Radiation Mitigated GPU is compliant to VNX (VITA 74) which is a PCIe-centric ratified standard for high performance and small form factor systems. This standard is also used in systems that require the capability to be used in rugged applications.

The VNX Radiation Mitigated GPU is also compatible with the IDEAS-TEK Galileo architecture. The IDEAS-TEK Galileo architecture also complies to the VNX (VITA 74) standard and can be used to integrate different computing, communication and sensing modules for small spacecraft in a reliable way, using radiation hard/tolerant electronics and fault mitigation strategies.

APPLICATIONS

The VNX Radiation Mitigated GPU provides the following standard interfaces for communication: SD Card, I2C, PCIe, SPI, JTAG, CAN, and USB. The module is ideal for the following applications:

- Intelligent Video Analytics (IVA)
- Robotics
- Machine Learning
- Virtual and Augmented Reality (VR/AR)

DISCLAIMER

Product data is current as of the publication date. This document gives only a general description of the product and, except where expressly provided otherwise, shall not form any part of any contract. From time to time, changes may be made in the products or the conditions of supply.

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