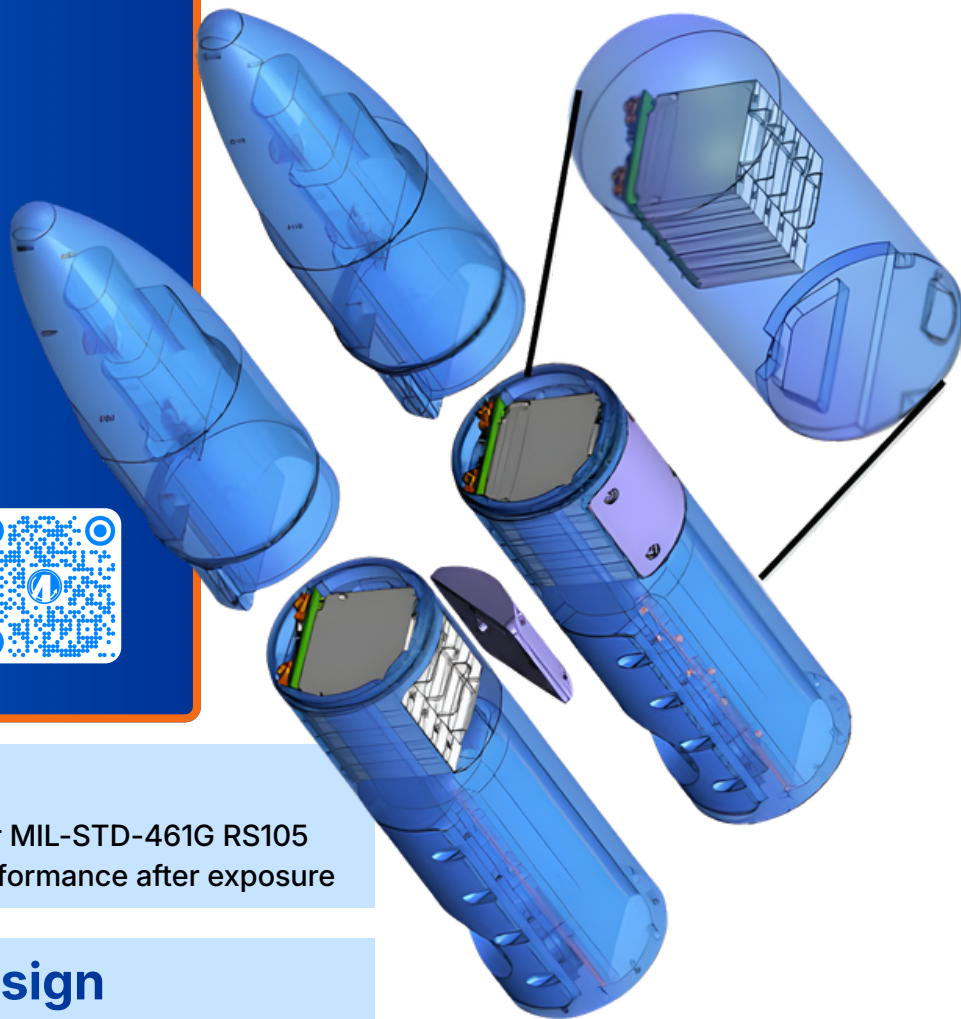


VNX+ STORAGE

Where tactical speed meets
trusted storage.



3450 W. Warren Avenue
Fremont, CA 94538
+1 (510) 897-3300
info@avalanche-technology.com



EMP-Tolerant

- Tested to 50 kV/m per MIL-STD-461G RS105
- No degradation in performance after exposure



Rugged by Design

- MIL-STD-810G tailored environmental testing
- Fully functional in extreme conditions

THE 5 CRITERIA FOR SPACE GRADE

1

SURVIVE

Radiation
immune

2

RETAIN

Permanent
data retention

3

ENDURE

Unlimited
writes

4

COMMIT

Commit data
instantly

5

PROVE

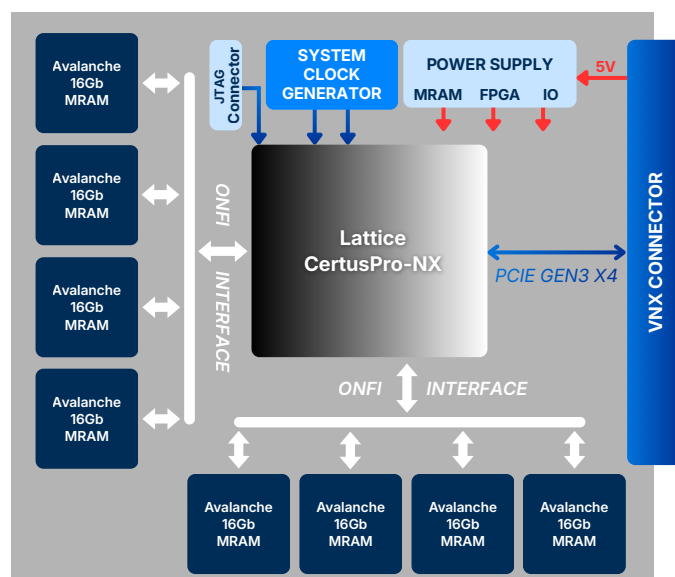
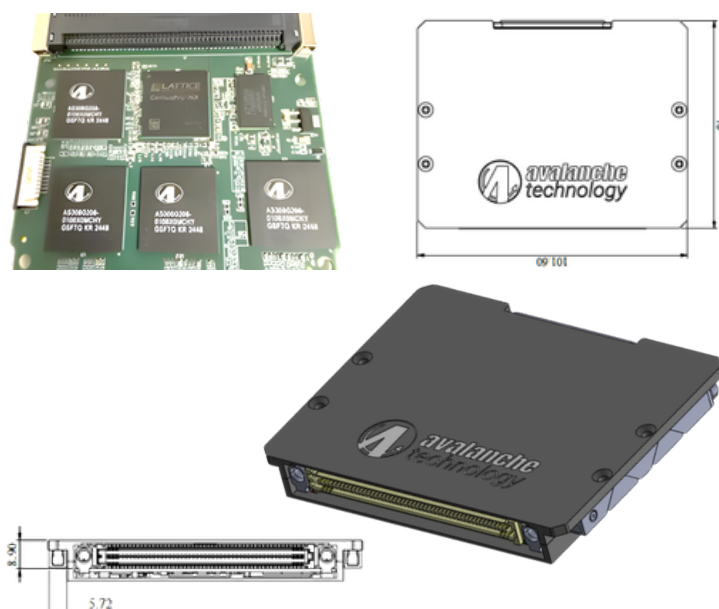
Space heritage
you can trust

AVALANCHE TECHNOLOGY **De-Risking Each Space Mission**

The ruggedized VNX+ Storage platform leverages Avalanche's field-tested Space Grade MRAM non-volatile memory. This ensures enduring data integrity for mission critical LEO Space & Mil-Aero applications. Avalanche offers the only reliable, scalable, and low power memory solutions for satellites and rocket missions.

- Radiation Immunity
- Cosmic Data Retention
- Low Power
- "Never Lost" Technology
- Standard Form Factor
- Space Heritage

MECHANICALS AND BLOCK DIAGRAM



"Avalanche Technology's VNX+ platform is controlled by the Radiation Tolerant CertusPro™-NX built on the Lattice Nexus™ FPGA Platform. As the main control logic for the Space Grade MRAM, this device built on the low power 28nm FD-SOI technology offers high reliability and radiation resiliency due to its extremely low Soft Error Rate."



SPECIFICATIONS

FPGA	Lattice Certus Pro-NX
On Board MRAM	Avalanche Ava-MRAM 8GB
Host Interface	PCIe Gen 3x4, NVMe Interface with Linux drivers & optional RDMA
Endurance	74.5 TBW in yottabytes
Performance	650 MB/s, 175k 4k IOPS
Power Modes	Low power: 3.9 watts standby, 5.4 watts operating
Radiation Tolerance	37-74 MeV-cm ² /mg, 100Krad
Cooling	ANSI/VITA 90.4 Options
Environment	Operating temperature: -40°C to +65°C, Storage: -50°C to +125°C
Quality	IPC-A-610 Class 3, RoHS compliant
Form Factor	ANSI/VITA 90 - VNX+ Module, Single slot height 13.0mm
Slot Profile	VNX.PL-1-HH.200-8.2.1.1-<General Payload>

Read/write speeds are based on internal testing under controlled conditions; actual performance varies with system configuration.