



3U VPX NVMe PCIe Gen4 Flash Disk

High-Capacity eNAND | Conduction Cooled | MIL Conformal Coated
| Fast Erase
P/N: ASZxx3UV-3840NNETy0DF

QUICK REFERENCE

Interface: NVMe PCIe Gen4
×4
Form Factor: 3U VPX | VITA
46
Capacity: 7,680 GB eNAND
TLC
Temp: -40°C to +85°C
Cooling: Conduction (no
airflow)
Fast Erase: NVMe Sanitize
MTBF: 2,000,000 hours

7,680 GB
eNAND TLC Capacity

PCIe Gen4 ×4
NVMe Interface

-40°C to +85°C
Operating Temp

2,000,000 hrs
MTBF (Telcordia)

VITA 46
Form Factor



3U VPX module shown. Images for reference only.

PRODUCT OVERVIEW

The ASINE 3U VPX NVMe Flash Disk delivers up to 7,680 GB enterprise-grade eNAND TLC storage in a standard VITA 46 single-slot 3U VPX form factor, purpose-built for defense, aerospace, and mission-critical embedded platforms.

Integrates NVMe PCIe Gen4 ×4 performance with conduction cooling, MIL-grade conformal coating, and NVMe Sanitize fast erase. AES-256 hardware encryption and TCG OPAL available as factory-configured options.

Designed for airborne, ground vehicle, naval, and space platforms requiring high-capacity local storage with zero-maintenance operation across extended temperature ranges.

PERFORMANCE SPECIFICATIONS

Parameter	Specification	Notes
Sequential Read	Up to 3,600 MB/s sustained	PCIe Gen4 ×4; NVMe 1.4
Sequential Write	Up to 3,000 MB/s sustained	eNAND TLC write-optimized
Random Read (4KB)	≥ 330,000 IOPS (Q32)	Capacity dependent
Random Write (4KB)	≥ 280,000 IOPS (Q32)	Capacity dependent
Interface	NVMe PCIe Gen4 ×4 lanes	Gen3/2 backward compatible
NVMe Revision	NVMe 1.4 compliant	—
Form Factor	3U VPX, Single Slot	VITA 46; SOSA optional
OS Support	Windows • Linux • VxWorks	No special drivers required

ENVIRONMENTAL & MECHANICAL | RELIABILITY & DATA INTEGRITY

Environmental & Mechanical		Reliability & Data Integrity	
Operating Temp up to	-40°C to +85°C	MTBF	2,000,000 hrs (Telcordia)
Storage Temp	-50°C to +95°C	UBER	10 ⁻¹⁷
Altitude	-1,000 ft to 70,000 ft	ECC	EDC/ECC; LDPC; Bad Block Management
Shock (Op)	1,000 G / 0.5 ms	Power Protection	SPOR — Power Off Recovery
Vibration (Op)	2.17 GRMS (5–700 Hz)	TBW	~28,000 TBW @15TB (enterprise eNAND)
Vibration (Non-Op)	10Hz to 2000Hz 20Gpp	Certifications	RoHS
Cooling	Conduction option		
Conformal Coat	MIL-grade (standard)		
Form Factor	VITA 46; SOSA optional		

SECURITY FEATURES | POWER CONSUMPTION

Security Features		Power Consumption	
Fast Erase	NVMe Sanitize; completes in seconds	Active (max)	≤ 10 W
Encryption (NN)	None — standard	Idle (max)	≤ 1.5 W
Encryption (NA)	AES-256 hardware — option	Connector	VITA 46 P0 & P1 backplane
Encryption (NO)	TCG OPAL — option		
Secure Erase	NVMe Secure Erase compliant H/W trigger - option		

APPLICATIONS | ORDERING



Validated Applications		Ordering Information			
Airborne	Patrol aircraft, ISR, mission computers, EW	ASCxx3UV-ccccNNETy0DF			
Ground Vehicle	Vetronics, C4ISR, mobile command	cccc: 0330;0660;1000;2000;3840;7680 [GB]			
Naval	Combat management, sonar, data logging	<i>xx / y = factory codes • consult factory</i>			
Space	Satellite subsystems, launcher recorders	Sfx	Feature	Type	Status
Industrial	High-speed recorders, rugged edge compute	C>Z	Industrial temp.	Option	Available
		NN	--	Standard	Available
		NA	AES-256 H/W	Option	Available
		NO	TCG OPAL	Option	Available
		E>H	H/W trigger SE	Option	Available up to 2TB
		T>V	High 10X endurance	Option	330/660GB
<i>Prototype available. NDA required. Spec subject to change. Rev 2026.1</i>					