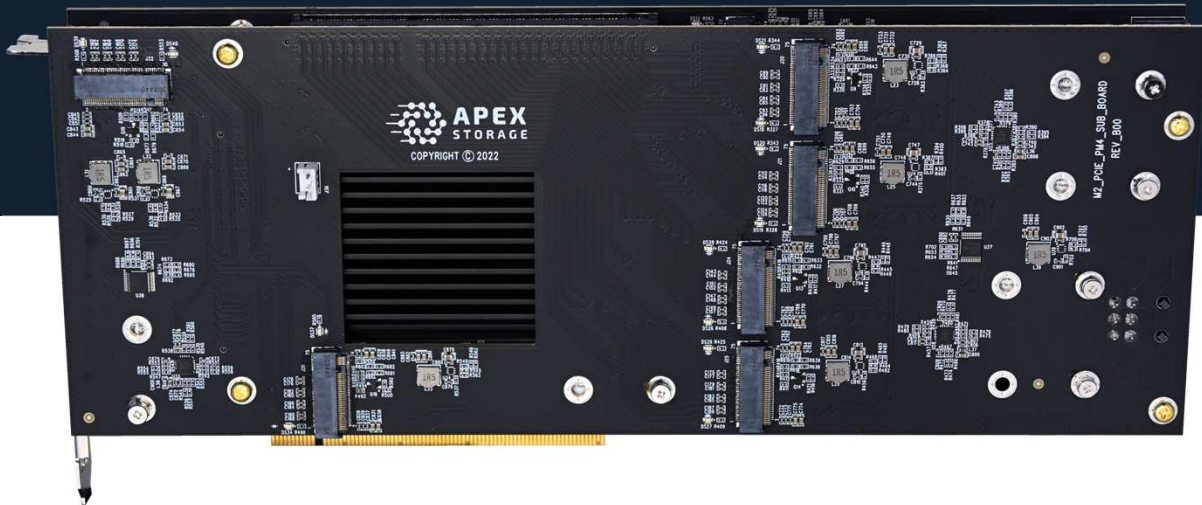# APEX STORAGE

NEXT-GENERATION HARDWARE SOLUTIONS

MAXIMUM CAPACITY & DENSITY

The Apex Storage X21 PCIe Add-In-Card (AIC) features the highest storage capacity and density with industry leading performance for mission critical workloads. A double width, standard form factor full-height full-length (FHFL) card designed to work seamlessly with systems existing PCIe slots. Making the Apex Storage X21 ideal for deployment in demanding enterprise flash storage environments.

MARKET LEADING HARDWARE

With the Apex Storage X21 you have the freedom to choose system hardware that suits your work environment best with the following benefits:

→ Host 21 x M.2 Gen 4 NVMe SSD's

→ 168Tb+ Storage Per Card**

→ 31GBps Read/Write Speeds per card

→ Industry Leading IOPS Support

→ 100 PCI-e Lane Enterprise Fanout

→ Multicard 100 + GBps w/ 10+Mil IOPS

MAXIMUM PLATFORM SUPPORT

You will have the ability to create the industry's largest high performance NVME arrays on Windows or Linux operating systems. Both AMD or Intel based system with a dedicated PCIe 3.0/4.0 x16 slot can take full advantage of the Apex Storage X21 AIC without needing mainboard bifurcation support or specialized software. This provides you with the benefits of the industry's fastest and most dense storage solution, with a capacity of 168TB** or more of NVME storage capacity per x21.

MACHINE LEARNING & HYPER CONVERGED INFRASTRUCTURE

Enabling faster intelligence and access to critical data, the X21 AIC meets the growing demands of Machine Learning applications. The X21 AIC delivers extreme performance and ultra-low latency to compete with top-tier enterprise storage solutions. The X21 AIC takes hyper-converged infrastructure (HCI) system throughput to new levels.

EXTENDED SSD PRODUCT LIFECYCLE

The X21 is fully backwards compatible with PCIe Gen 3 platforms and NVME Drives, enabling customers to take full advantage of Gen 4 Platform speeds while extending their Gen 3 storage media lifecycle. This means older Gen 3 NVME SSD's can fully saturate a 16x PCIe 4.0 Bus while extending product lifecycle and performance.

KEY FEATURES:

→ High Performance PCIe SSD
→ Ultra Fast PCIe 4.0 x16 Interface
→ NVMe v2.0 Protocol Supported
→ High Capacity Design, up to 168 TB w/ 8TB Drive Populating each M.2 slot (336TB w/ future 16TB M.2 SSD)
→ Standard Form Factor M.2 SSD
→ Double Width FHFL Card
→ Plug-n-Play Compatibility

→ UEFI & Secure Boot Support
→ Enterprise Grade Reliability
→ 21 Gen 4 M.2 NVME Drive support
→ Advanced ECC and Data Protection
→ Advanced Error Recovery
→ Low Overhead Architecture
→ No Host CPU or DRAM Off Load
→ Software or OS RAID Supported Data Protection

SPECIFICATION

Raw Capacity**	168TB w/ 8TB M.2 NVME SSD's (336TB w/ future 16TB M.2 SSD's)
Drive Interface	M.2 Pci-e Gen 4
Read Bandwidth	30.5 GBps 107+ GBps Multicard
Write Bandwidth	28.5 GBps 80+ GBps Multicard
Read/Write IOPS	10 Million +
Read Access Latency	79us avg.
Write Access Latency	52us avg.
Host Protocol	Pci-e Gen 4 16x
M.2 Protocol	Gen 4 NVME v2.0/v1.4c
Warranty	Lifetime
Weight	19 oz
Power	Active: ~95 Watt Typical 2 x Pci-e 6 pin 12v
Air Flow	Min 400 LFM
Humidity	5% to 95% (non-condensing)
Supported OS	Windows, Windows Server, Linux

DIMENSIONS
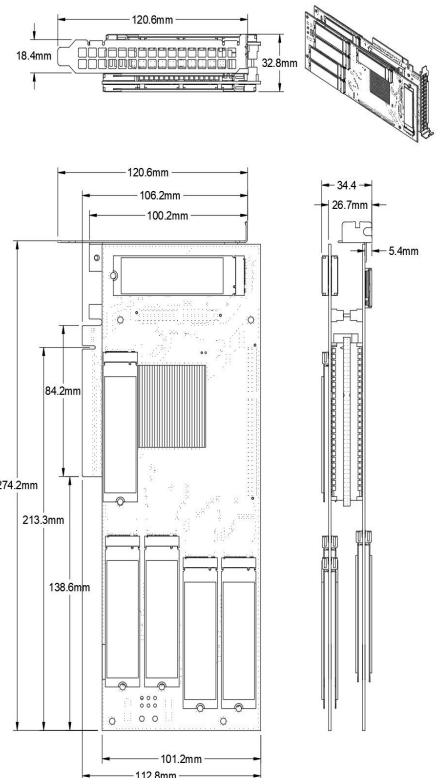
Contact Apex Storage today to see how the x21 can best support your platform needs: Henry@apexstoragedesign.com