PCI Express 4.0 Video Recorder Platform

The demand for high impact video content continues to advance, pushing broadcast and digital cinema grade standards to new levels of resolution, frame rate, and color depth driving an increase in bandwidth of uncompressed video signals through the production and post chains. These workflows require the highest performance tools possible and OSS delivers. This rackmount expansion platform provides high performance video capture and storage expansion capabilities to any PCI Express 4.0 server or workstation. The platform connects to the host system with 2 PCIe 4.0 x16 host-connections providing up to 512 Gbps bandwidth. The system supports up to 4 high end video capture cards and 8 NVMe PCIe storage devices aggregating the bandwidth of Gen 3.0 components to full Gen 4.0 bandwidth to the host system.

Features

- 24GBs video IO
- 50TB NVMe Storage
  - Scale up to 196TB NVMe
- Two PCIe 4.0 x16 Host Connections
- PCIe x16 Cables (up to 3-Meters)

Specifications

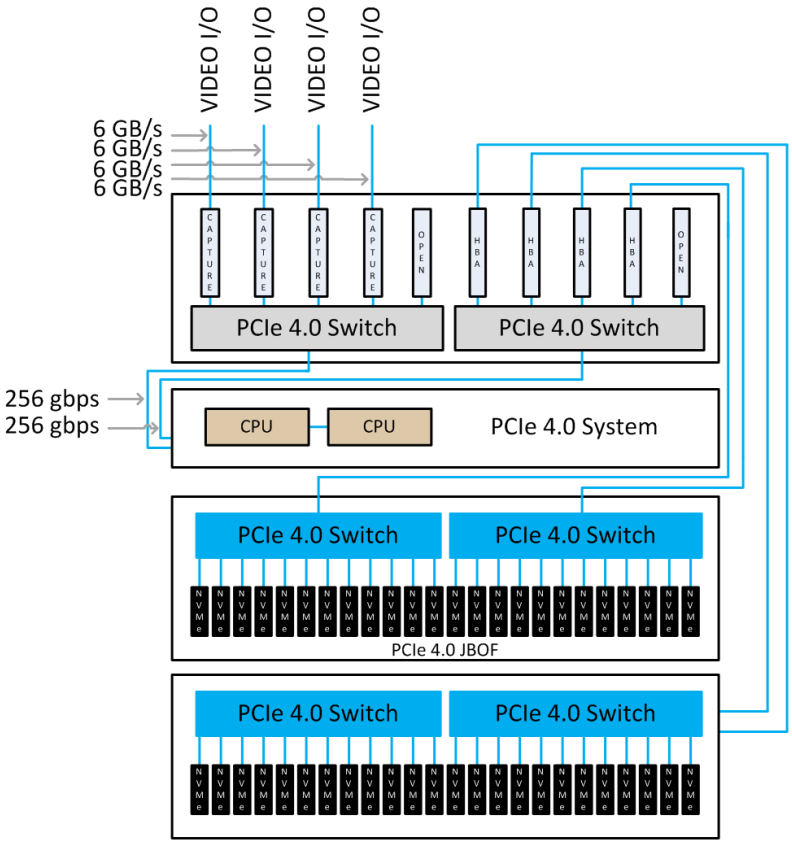
Video Capture and Storage Support	**Supports**:
	• 4 High Speed Video Capture Cards
	  ○ 16 channels 12G-SDI
	  ○ DMA to NVMe Storage
	• 8 NVMe AICs with 6.4TB capacity per card
	• Scale up option storage to two 96TB JBOF enclosures with 2 PCIe 4.0 x16 connections each

Enclosure	**Enclosure**: • 19”W x 18.5”D x 7”H (4U) • System Status Tri-Color LED Panel (Power and Fan-Status) **Aesthetics:** Black Medium-Texture Liquid-Paint Finish with Optional OEM-Logo Area **Rackmounts:** Toolless Rack-Slides Included

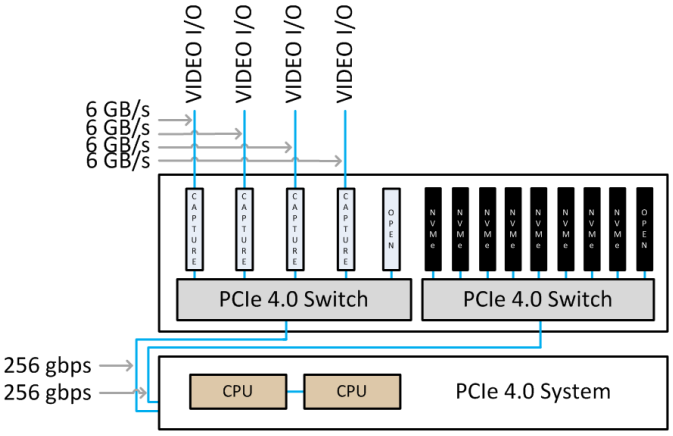
Host/Target Interface	Two PCIe 4.0 x16 Host/Target Adapter Cards for Expansion-to-Host Uplink
	Host/Target Interface Boards:
	• **Form Factor**: Half-Height/Half-Length, Single-Slot PCIe 4.0 x16 Add-in-Card
	• **Card-Edge Connector**: PCIe4 x16 Physical (256 Gbps)
	• **Cable Connector**: PCIe Cable Specification 4.0 x16 (256 Gbps)
	  ○ **Host Interface Board**
	  ▪ SFF-8644 Connector
	  ▪ Accepts Mini-SAS HD Cables with SFF-8644 Connectors
	• **Switch:**
	  ○ Fast Cut-Through (132ns Latency)
	  ○ SSC Isolation
	  ○ Non-Blocking Switch Fabric

	○ Integrated 4-channel DMA Engine • **Average Power Consumption:** 6.4W Typical
Cables	**Host Interface Board Option (Includes 8 Cables per System)** • 1-Meter Mini-SAS HD Cables • 2-Meter Mini-SAS HD Cables • 3-Meter Mini-SAS HD Cables
Cooling	Three High-Power Fans, Mounted to Front Bezel of the Chassis • **Speed:** 250CFM • **Monitoring:** Tachometer Monitoring via Front-Panel LED
Power	Dual Load-Sharing Power Supplies, Pluggable from the Rear of the Chassis • **Two 2000W 80Plus Titanium Efficiency Power Supplies with Dual IEC C14 AC Input Connectors** • **Redundancy:** ○ 1 + 1 redundant and Hot-Swap with 220-240Vac input power, 10A max, 50-60 Hz ○ Non-redundant with 100-127Vac input power, 12.5A max, 50-60 Hz
Operating Environment	0-35°C 10-90% relative humidity 0-10,000 feet above sea level
Storage Environment	-40 to 85°C 5-96% relative humidity 0-50,000 feet above sea level
Agency Compliance	**Agency Certifications** (testing pending): • FCC Class A • CE Safety & Emissions • UL, cUL • RoHS2

Architecture



SCALE UP



BASE CONFIGURATION