

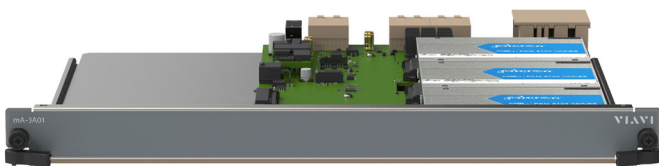
VIAVI

mA-3A01

High-Performance AXIe Mass Data Storage Module

The VIAVI Solutions mA-3A01 is an AXIe-based mass storage tray which supports up to four NVMe (Non-Volatile Memory Express) Solid State Drives (SSDs). Given the high throughput and large capacity of NVMe SSD's, the mA-3A01 supports both large file streaming data and mass storage on the same solid state drives. The mA-3A01 is designed to provide storage capability to an AXIe chassis (mA-1302 or mA-1305). Hardware installation options include three 3.2 TB enterprise grade Micron U.2 2.5" form factor SSDs as standard (9.6 TB), or optionally allow up to four SSDs (12.8 TB).

The high write durability of these enterprising drives make them ideal for streaming data, while the large storage capacity also makes them useful for mass data storage. When used in combination with the mA-6806 vector signal transceiver and mA-3011 embedded host controller, the mA-3A01 supports streaming large file storage for RF signal captures, as well as extended playback via the mA-6806's arbitrary waveform generation.



Advantages

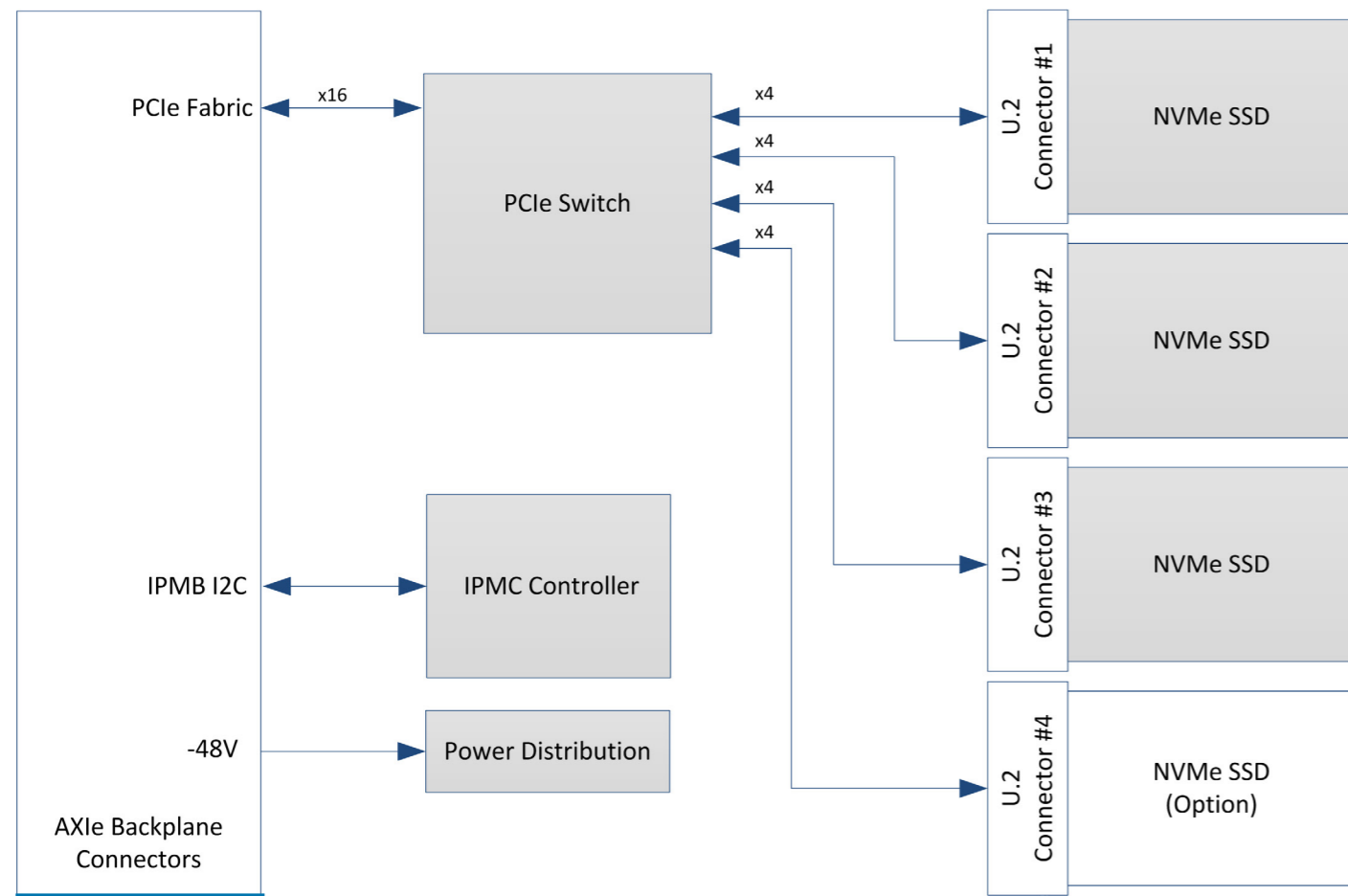
- Up to 12.8 GB of high-performance data storage
- NVMe SSDs provide high throughput and large capacity
- Enterprise-grade SSDs provide high write durability for improved reliability and longevity
- Gen 3.0 PCIe x16 for high throughput
- Supports data streaming and mass storage
- Can be used with the mA-6806 Vector Signal Transceiver to generate and record complex waveforms
- Can store 2.5 hours of full-bandwidth waveform data when paired with the mA-6806 Vector Signal Transceiver
- Drives can be used individually for mass data storage or in a striped volume for high data throughput

Applications

- SIGINT, COMINT, ELINT
- Complex signal environment simulation, recording, and analysis
- High-speed data streaming
- Mass storage and archiving of test data
- Redundant data storage
- Emulation and simulation

The mA-3A01 interfaces to the AXIe PCIe fabric channel and is compliant to the AXIe-1 specification. Moreover, it connects to the AXIe backplane with a Gen 3.0 PCIe x16 wide port interface. The PCIe switch has four downstream x4 wide ports, each routed to a U.2 connector, giving each SSD a Gen 3.0 PCIe x4 wide port interface.

Each of the installed SSDs will present to the operating system as an independent storage device. The operating system and application / driver software will typically have the SSDs configured into a single striped volume for increased read / write bandwidth.



mA-3A01 Product Specifications

Power Requirements	
DC Voltage	-48 VDC (Supplied by mA-1305 Chassis)
Power Consumption	120 W Max
Capacity	
Capacity	9.6 TB (9,600 GB) ¹ total
Endurance	
SSD Estimates	28.8 Petabytes Written 3000 total drive writes 3 DWPD ² over 2.7 years
Performance	
Sequential Read / Write	>1000 MB/s Half-Duplex R/W Streaming throughput >1.0 TB of contiguous streaming at full rate
Environmental	
Operating Temperature	0° - 50° C (Tested in accordance with MIL-PRF-28800F Class 3)
Warm-up Time	None
Storage Temperature	-40° - 71° C (Tested in accordance with MIL-PRF-28800F Class 3)
Relative Humidity	80% up to 31° C decreasingly linearly to 50% at 40° C (Tested in accordance with MIL-PRF-28800F Class 3)
Altitude	4600 m (Tested in accordance with MIL-PRF-28800F Class 3)
Shock and Vibrations	30 G Shock (Functional Shock) 5 - 500 Hz random vibrations (Tested in accordance with MIL-PRF-28800F Class 3)
EMC	EN 613.26, Class 2 IEC / EN 61326-1 IEC / EN 61000-3-2 IEC / EN 6100-3-3 MIL-PRF-28800F
Reliability	Calculated MTBF Per MIL-HDBK-217F, Notice 2 >400,000 hour
RoHS	Compliant with EU RoHS directive 2011 / 65 / EU
Dimensions and Weight	
Form Factor	1 slot AXIe
Dimensions	30 mm (H) x 322.2 mm (W) x 280 mm (D)
Weight	1.81 kg
Safety Standards	
Safety	IEC / EN 61010-1

¹ 1 GB = 1,000,000,000 bytes by IDEMA. A certain portion of capacity may be used for system file and maintenance use, so the actual capacity may differ.

² DWPD = Drive Writes Per Day



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