



RRT-3UVPX-NVME-A 3U VPX AIR Cooled NVME SSD Module with PCIe Interface

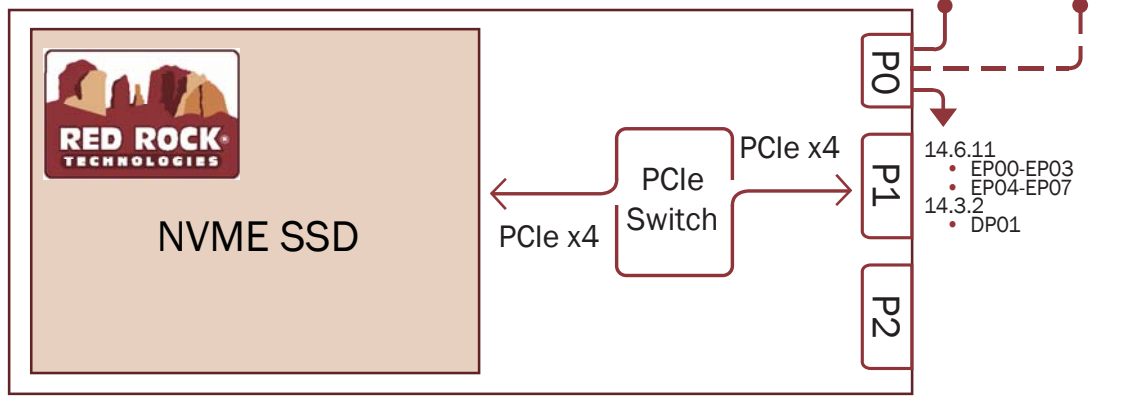
THE 3U VPX AIR COOLED NVME SSD MODULE WITH PCIe INTERFACE to VPX backplane adds SSD to a VPX system using one 3U VPX slot with COTS U.3/U.2 NVME Solid State Drives (SSDs) providing capacities up to 30TB and transfer rates of up to 6800MB/S. Options for FIPS140-2, FIPS197, TCG Opal, and military erase.

- Capacities up to 30TB
- Up to 6800MB/S transfer rates
- OpenVPX Fat Pipe (FP) PCIe x4 interface
- VITA 65 Slot Profiles:
 - SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11
 - VPX P1 EP00EP03 OR
 - VPX P1 EP04EP07
 - SLT3-PER-1F-14.3.2
- VITA 46, 47, 48, 65
- Boot and/or storage disk
- Air cooled
- COTS U.3/U.2 NVME SSDs
- Military erase options, FIPS140-2, FIPS197, TCG Opal options



SOSA Aligned Slot Profiles:

- SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11
- SLT3-PER-1F-14.3.2



3U VPX Air Cooled NVME SSD Module with PCIe Interface

RRT-3UVPX-NVME- A100 - P1EP00EP03 - MLC - 20TB - UR - X - SE1

Requirements

Cooling

A080	Air Cooled, 0.80" Pitch
A085	Air Cooled, 0.85" Pitch
A100	Air Cooled, 1.00" Pitch

VPX Interface

P1EP00EP03	Payload Slot EP00-EP03 (SOSA Aligned)
P1EP04EP07	Payload Slot EP04-EP07 (SOSA Aligned)
PER	Peripheral Slot

NAND Flash Type

TLC	3D NAND
MLC	Multi Level Cell
pSLC	Pseudo Single Level Cell

Capacity

500GB - 30TB	For TLC
500GB - 8TB	For TLC (ext. temp. range)
1TB - 16TB	For MLC

Options May be left blank

Conformal Coating

UR	Polyurethane
AR	Acrylic

Extended Temperature Range

X	-40°C to 85°C
---	---------------

Security

FE	Fast Erase
SE1	NSA/CSS Manual 9-12 Erase
SE2	RCC-TG IRIG 106-107 Chapter 10 Erase
OPAL	TCG OPAL Compliant SSD
FIPS140-2	FIPS 140-2 Compliant SSD
FIPS197	FIPS 197 Compliant SSD

ORDER EXAMPLES

RRT-3UVPX-NVME-A100-P1EP00EP03-TLC-30TB
RRT-3UVPX-NVME-A100-PER-pSLC-1TB-UR-X-SE1
RRT-3UVPX-NVME-A100-P1EP00EP03-MLC-16TB



Product Specifications

3U VPX AIR COOLED NVME SSD MODULE WITH PCIE INTERFACE

PERFORMANCE				
NAND FLASH TYPE	TLC	MLC	pSLC	TLC (ext. temp. range)
CAPACITIES ¹	Up to 30TB	Up to 16TB	Up to 4TB	Up to 8TB
INTERFACE ²	PCIe Gen 3/4 x4	PCIe Gen 2 x 4		PCIe Gen 3 x4
THROUGHPUT - SUSTAINED	3500MB/S (Gen3), 5000MB/S (Gen4)	800 MB/S	1000 MB/S	1500MB/S
RELIABILITY				
MTBF-DRIVE	1 million hours		2 million hours	
MTBF-VPX BOARD ³	3 million hours			
DATA RETENTION	1 year		5 years	1 year
ENDURANCE (100GB) TOTAL BYTES WRITTEN	70 TBW		250 TBW	70 TBW
POWER				
VOLTAGE-PAYLOAD SLOT	+12V, +3.3V Aux			
VOLTAGE-PERIPHERAL SLOT	12V +/- 5%, +5V +/- 5%, +3.3V +/- 5%			
WATTS (IDLE)	7 W	1.5 W		
WATTS (ACTIVE)	20 W	10 W		
ENVIRONMENTAL				
OPERATING TEMP., VITA 47 CLASS ⁴	0 °C to 55 °C, CC1		0 °C to 60 °C, CC1	N/A
EXT. OPERATING TEMP., VITA 47 CLASS ⁴	-40 °C to 85 °C, CC4	N/A	-40 °C to 85 °C, CC4	
STORAGE TEMP.	-40 °C to 85 °C			
ALTITUDE	10,000 ft. (3,000 meters)		80,000 ft. (24,000 meters)	
RELATIVE HUMIDITY	5% to 95%			
SHOCK, VITA 47 CLASS ⁵	20g, 11 millisecond terminal sawtooth pulse, OS		40g, 11 millisecond terminal sawtooth pulse, OS2	
VIBRATION, VITA 47 CLASS ⁶	0.4 g2/Hz, 5 Hz to 100 Hz, V1		0.1 g2/Hz, 100 Hz to 1000 Hz, V3	
PHYSICAL				
FORM FACTOR	3U VPX			
WEIGHT	14 oz. max			
PITCH	0.8”			
NOTES				
(1) Larger capacities available as new COTS U.3/U.2 NVMe drives released				
(2) Interface connected via compatible slot profile SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11 or SLT3-PER-1F-14.3.2				
(3) Telcordia SR-322, Issue 3, operating temp (40C), electrical stress (50%), environmental factor (1.0)				
(4) Thermal qualification per MIL-STD-810F, Method 501, Procedure II, and MIL-STD-810F, Method 502, Procedure II				
(5) Shock qualification per MIL-STD-810F, Method 516, Procedure I				
(6) Vibration qualification per MIL-STD-810F, Method 514, Procedure I				



Red Rock Technologies, Inc. reserves the right to modify, change or discontinue specific products within its product line at its own discretion. Red Rock Technologies, Inc. does not assume any liability resulting from the application or use of its products. The information contained herein has been checked and is believed to be entirely accurate; however, no responsibility is assumed for inaccuracies. "Red Rock Technologies" and the mountain logo are registered trademarks of Red Rock Technologies, Inc.

© Copyright 2026 Red Rock Technologies, Inc.
All rights reserved. (Rev. 20260115a)