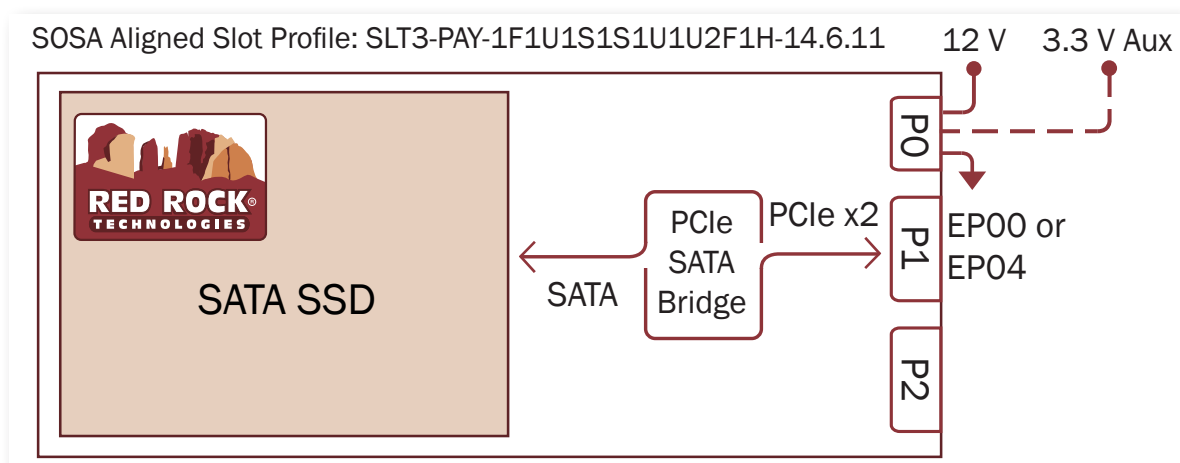
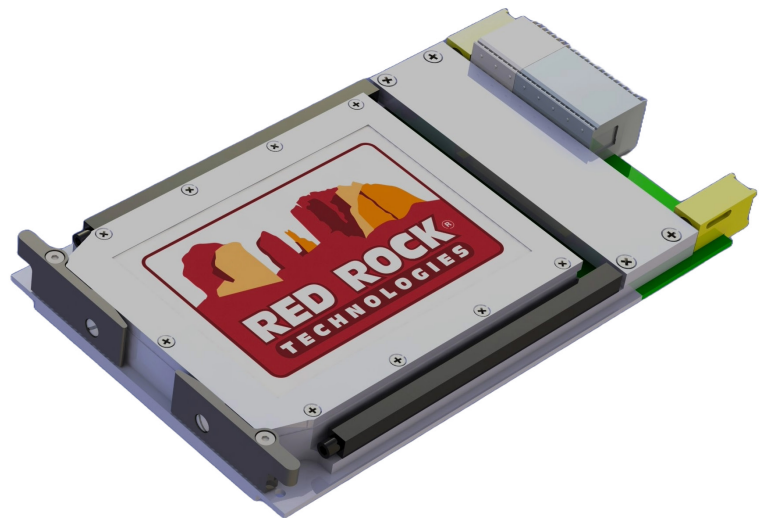




# RRT-3UVPX-PCIe-C 3U VPX Conduction Cooled SSD Module with PCIe Interface

THE 3U VPX CONDUCTION COOLED SSD MODULE WITH PCIE INTERFACE to VPX backplane adds SSD to a VPX system using one 3U VPX slot with COTS 2.5" SATA Solid State Drives (SSDs) providing capacities up to 20TB and transfer rates of up to 600MB/S. Options for FIPS140-2, FIPS197, TCG Opal, and military erase.

- Capacities up to 20TB
- 600MB/S transfer rates
- OpenVPX Thin Pipe (TP) PCIe x1 interface
- VITA 65 Slot Profiles:
  - SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11
    - VPX P1 EP00 OR
    - VPX P1 EP04
  - SLT3-PER-1F-14.3.2
- VITA 46, 47, 48, 65
- Boot and/or storage disk
- Conduction cooled
- COTS 2.5" SATA SSDs
- SATA3 (SATA600) Interface to SSD
- Military erase options, FIPS140-2, FIPS197, TCG Opal options
- IDE or AHCI Mode
- VPX board injectors/ejectors



# Ordering Information

## 3U VPX Conduction Cooled SSD Module with PCIe Interface

RRT-3UVPX-PCIe-C- P1EP00 - MLC - 20TB - UR - X - SE1

### Requirements

#### VPX Interface

P1EP00	Payload Slot EP00 (SOSA Aligned)
P1EP04	Payload Slot EP04 (SOSA Aligned)
PER	Peripheral Slot

#### NAND Flash Type

HDD	Hard Disk Drive
TLC	3D NAND
MLC	Multi Level Cell
SLC	Single Level Cell

#### Capacity

1TB - 5TB	For HDD
120GB - 8TB	For TLC
60GB - 20TB	For MLC
7GB - 240GB	For SLC

### Options May be left blank

#### Conformal Coating

UR	Polyurethane
AR	Acrylic

#### Extended Temperature Range

X	-40°C to 85°C
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#### 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-PCIe-C-P1EP00-MLC-20TB-UR-X-SE1  
RRT-3UVPX-PCIe-C-PER-SLC-240GB  
RRT-3UVPX-PCIe-C-P1EP00-TLC-8TB  
RRT-3UVPX-PCIe-C-P1EP04-HDD-1TB-FIPS140-2



# Product Specifications

## 3U VPX CONDUCTION COOLED SSD MODULE WITH PCIe INTERFACE

PERFORMANCE					
NAND FLASH TYPE	HDD	SSD: TLC	SSD: MLC	SSD: MLC-X	SSD: SLC
CAPACITIES <sup>1</sup>	Up to 5TB	Up to 8TB	Up to 20TB		Up to 240GB
INTERFACE <sup>2</sup>	PCIe Gen 2 x 1				
THROUGHPUT - SUSTAINED	130 MB/S	400 MB/S			
RELIABILITY					
MTBF-DRIVE	500,000 hours	1 million hours	2 million hours		3 million hours
MTBF-VPX BOARD <sup>3</sup>	3 million hours				
DATA RETENTION	Not applicable	1 year			10 years
ENDURANCE (100GB) TOTAL BYTES WRITTEN	Not applicable	70 TBW			350 TBW
POWER					
VOLTAGE-PAYLOAD SLOT	+12V, +3.3V Aux				
VOLTAGE-PERIPHERAL SLOT	+5V +/- 5%				
WATTS (IDLE)	1 W	1.2 W	3.5 W		1 W
WATTS (ACTIVE)	2.5 W	4 W	10 W		2.5 W
ENVIRONMENTAL					
OPERATING TEMP., VITA 47 CLASS	5 °C to 55 °C	0 °C to 60 °C, CC1	0 °C to 70 °C, CC1	See MLC	0 °C to 70 °C, CC1
EXTENDED OPERATING TEMP., VITA 47 CLASS <sup>4</sup>	Not available		See MLC-X	-40 °C to 85 °C, CC4	
STORAGE TEMP.	-40 °C to 70 °C	-40 °C to 85 °C			
ALTITUDE	10,000 ft. (3,000 meters)			80,000 ft. (24,000 meters)	
RELATIVE HUMIDITY	5% to 95% non-condensing				
SHOCK, VITA 47 CLASS <sup>5</sup>	20g, 11 millisecond terminal sawtooth pulse, OS1			40g, 11 millisecond terminal sawtooth pulse, OS2	
VIBRATION, VITA 47 CLASS <sup>6</sup>	0.04 g2/Hz, 5 Hz to 100 Hz, V1			0.1 g2/Hz, 100 Hz to 1000 Hz, V3	
PHYSICAL					
FORM FACTOR	3U VPX				
WEIGHT	10 oz. max				
PITCH	0.8"				
NOTES					
<p>(1) Larger capacities available as new COTS 2.5" drives released</p> <p>(2) Interface connected via compatible slot profile SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11 or SLT3-PER-1F-14.3.2</p> <p>(3) Telcordia SR-322, Issue 3, operating temp (40C), electrical stress (50%), environmental factor (1.0)</p> <p>(4) Thermal qualification per MIL-STD-810, Method 501, Procedure II, and MIL-STD-810, Method 502, Procedure II</p> <p>(5) Shock qualification per MIL-STD-810F, Method 516, Procedure I</p> <p>(6) Vibration qualification per MIL-STD-810F, Method 514, Procedure I</p>					



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