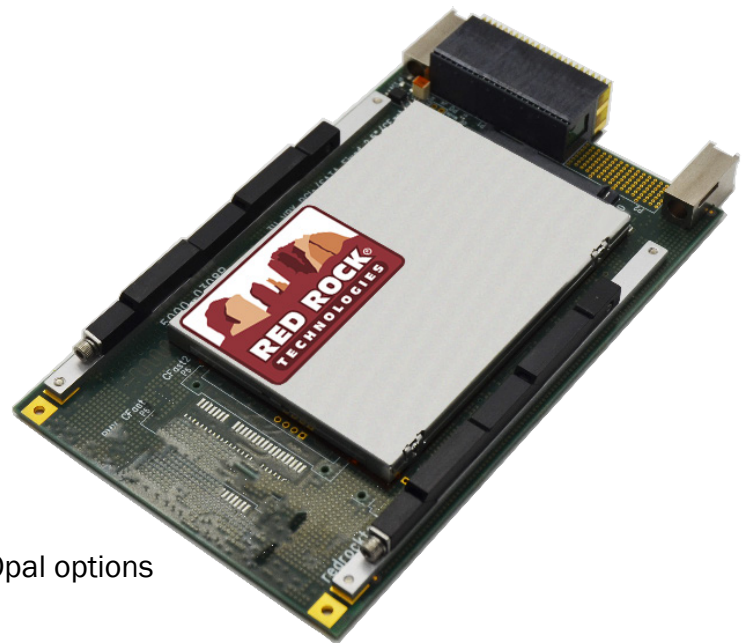




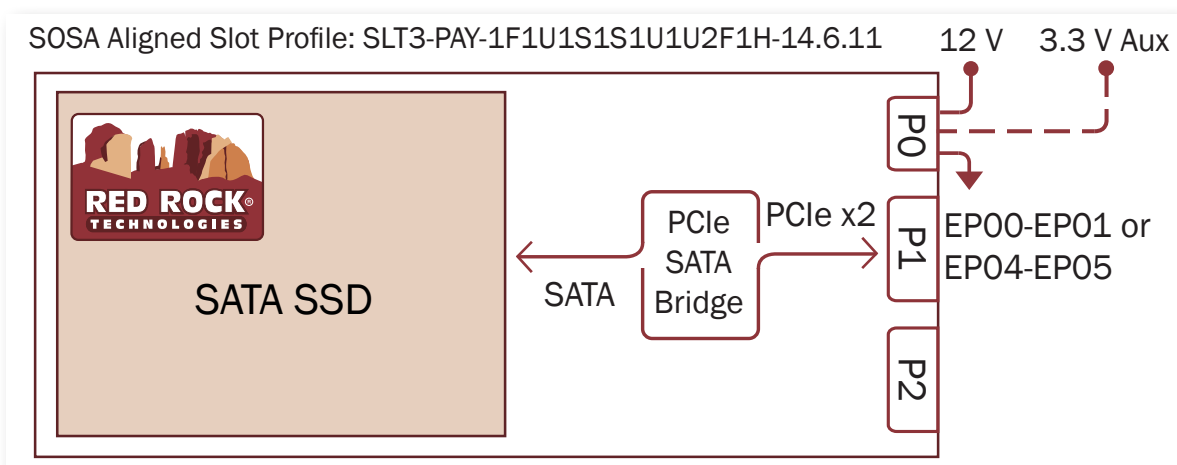
RRT-3UVPX-PCIe-C 3U VPX Conduction Cooled SSD Module with PCIe Interface

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 x2 interface
- VITA 65 Slot Profiles:
 - SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11
 - VPX P1 EP00-EP01 OR
 - VPX P1 EP04-EP05
 - 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
- Desktop version available to connect drive module to PC
- VxWorks, Linux, Windows Support



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Ordering Information

3U VPX Conduction Cooled SSD Module with PCIe Interface

RRT-3UVPX-PCIe-C- P1EP00EP01 - MLC - 20TB - UR - X - SE1

Requirements

VPX Interface

P1EP00EP01	Payload Slot EP00-EP01 (SOSA Aligned)
P1EP04EP05	Payload Slot EP04-EP05 (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-A100-P1EP00EP01-MLC-20TB-UR-X-SE1
RRT-3UVPX-PCIe-A080-PER-SLC-240GB
RRT-3UVPX-PCIe-A100-P1EP00EP01-TLC-8TB
RRT-3UVPX-PCIe-A100-P1EP04EP05-HDD-1TB-FIPS140-2



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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 ¹	Up to 5TB	Up to 8TB	Up to 20TB		Up to 240GB
INTERFACE ²	PCIe Gen 2 x 2				
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 ³	3 million hours				
DATA RETENTION	Not applicable	1 year			10 years
ENDURANCE (100GB) TOTAL BYTES WRITTEN	Not applicable	70 TBW			350 TBW
CFAST CONNECTOR MATING CYCLES	10,000 mating cycles				
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 ⁴	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 ⁵	20g, 11 millisecond terminal sawtooth pulse, OS1			40g, 11 millisecond terminal sawtooth pulse, OS2	
VIBRATION, VITA 47 CLASS ⁶	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					
(1) Larger capacities available as new COTS 2.5" drives released					
(2) Interface connected via compatible slot profile SLT3-PAY-1F1U1S1S1U1U2F1H-146.11 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-810, Method 501, Procedure II, and MIL-STD-810, 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					



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