

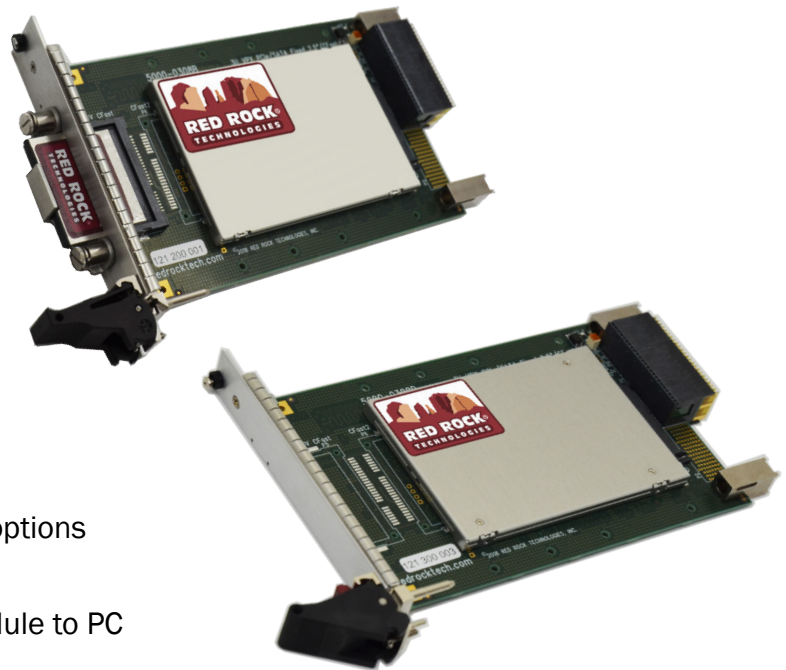


RRT-3UVPX-PCIE-A 3U VPX Air Cooled SSD Module with PCIe Interface

THE 3U VPX AIR 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.

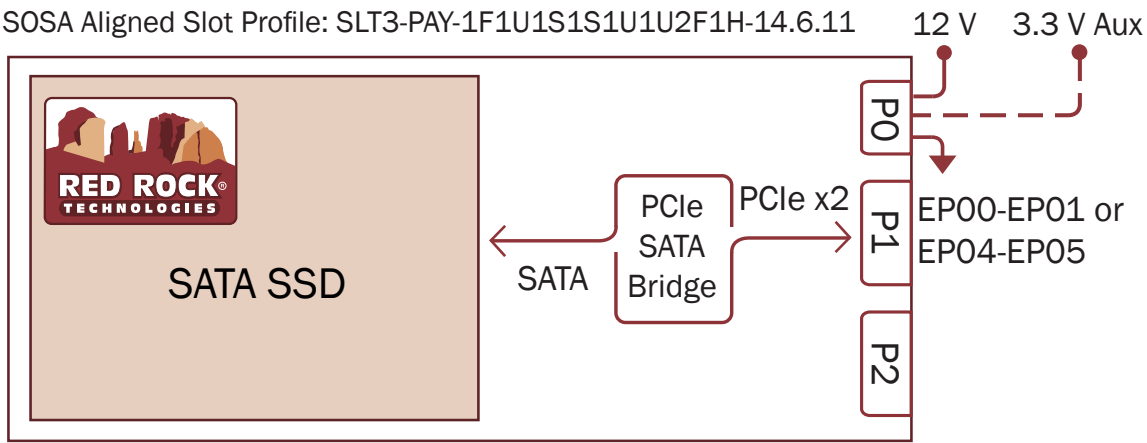
Optional removable CFast port on front panel with CFast secured by a rugged retainer clip. CFast is the same form factor as Compact Flash but has a SATA interface for faster speeds.

- 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-1T-14.3.3
- VITA 46, 47, 48, 65
- Boot and/or storage disk
- Air cooled
- COTS 2.5" SATA SSDs
- SATA3 (SATA600) Interface to SSD
- Military erase, FIPS140-2, FIPS197, TCG Opal options
- IDE or AHCI Mode
- Desktop version available to connect drive module to PC
- VxWorks, Linux, Windows Support
- Option for removable CFast port



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SOSA Aligned Slot Profile: SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11



Ordering Information

3U VPX Air Cooled SSD Module with PCIe Interface

RRT-3UVPX-PCIe- **A100** - **P1EP00EP01** - **MLC** - **20TB** - **UR** - **X** - **SE1** - **CFast**

Requirements

Cooling

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

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

CFast Front Panel Port

CFAST	Removable CFast
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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-CFast
RRT-3UVPX-PCIe-A100-P1EP04EP05-HDD-1TB-FIPS140-2



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Product Specifications

3U VPX AIR 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 2x2				
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, AC1	0°C to 70°C, AC1	See MLC	0°C to 70°C, AC1
EXTENDED OPERATING TEMP., VITA 47 CLASS ⁴	Not available		See MLC-X	-40°C to 85°C, AC3	
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", 0.85", and 1.0" options

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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