



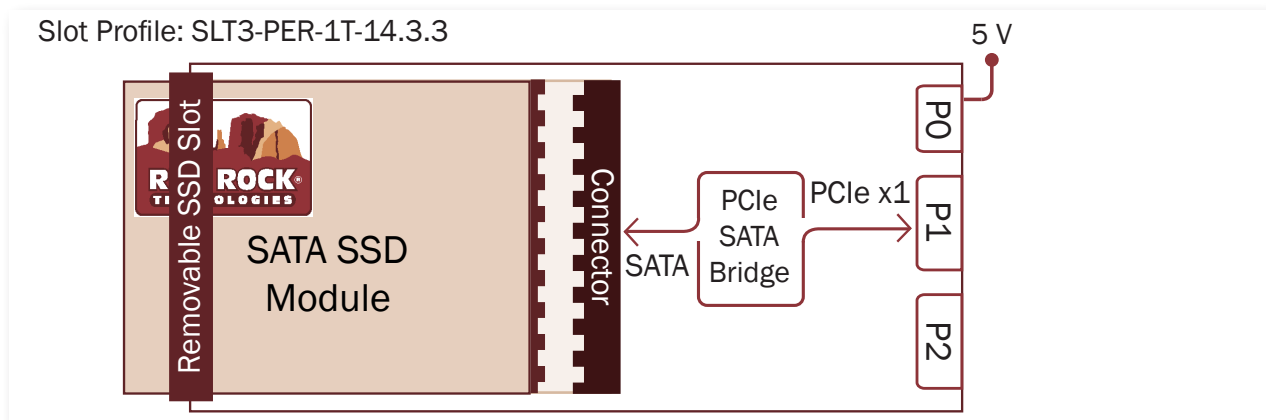
RRT-3UVPX-PCle-R-A 3U VPX Air Cooled Carrier with PCle Interface and Removable SSD Module

- Capacities up to 20 TB
- 600 MB/S Transfer rates
- Removable SSD module
- OpenVPX Ultra Thin Pipe (UTP) PCIe x1 interface
- 100,000 mating cycles
- VITA 65 Slot Profiles:
 - 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
- Option for thumbscrews to remove drive module without tools
- IDE or AHCI Mode
- Desktop version available to connect drive module to PC



3U VPX AIR COOLED CARRIER WITH PCIE INTERFACE AND REMOVABLE SSD MODULE is for applications that require the frequent removal of SSD, fast transfer rates and large capacities. It consists of two components: the 3U VPX carrier board with PCI express (PCle) interface that mounts in one slot of 3U VPX chassis and the removable SATA SSD Module. The connectors between the drive module and the carrier are rated for 100,000 mating cycles to support frequent insertions and removals.

The drive module can use any COTS 2.5" SATA Solid State Drive (SSD) providing capacities up to 20TB and transfer rates of up to 600MB/S. Options for FIPS140-2, FIPS197, TCG Opal, and military erase.



Ordering Information

3U VPX Air Cooled Carrier with PCIe Interface

RRT-3UVPX-PCIe-R- **A100** - **PER** - **UR** - **X**

Requirements

Cooling

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

VPX Interface

PER	Peripheral Slot
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Options May be left blank

<u>Extended Temperature Range</u>	
X	-40°C to 85°C

Conformal Coating

UR	Polyurethane
AR	Acrylic

ORDER EXAMPLES

RRT-3UVPX-PCIe-R-A100-PER-UR-X
RRT-3UVPX-PCIe-R-A080-PER

Removable SATA SSD Drive Module

RRT-DM-SATA- **MLC** - **20TB** - **UR** - **X** - **FE** - **TS**

Requirements

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

No Tools

TS	Thumbscrews
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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

Extended Temperature Range

X	-40°C to 85°C
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Conformal Coating

UR	Polyurethane
AR	Acrylic

ORDER EXAMPLES

RRT-DM-SATA-SLC-240GB-TS
RRT-DM-SATA-MLC-20TB-UR-X-SE1
RRT-DM-SATA-HDD-1TB-FIPS140-2

Product Specifications

3U VPX AIR COOLED CARRIER WITH PCIE INTERFACE AND REMOVABLE SSD MODULE

PERFORMANCE

NAND FLASH TYPE	HDD	SSD: TLC	SSD: MLC	SSD: SLC
CAPACITIES ¹	Up to 5TB	Up to 8TB	Up to 20TB	Up to 240GB
INTERFACE ²	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-DRIVE MODULE	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	
CARRIER/DRIVE MODULE MATING CYCLES	100,000 mating cycles			

POWER

VOLTAGE-STORAGE	+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 TEMPERATURE	5°C to 55°C	0°C to 60°C,	0°C to 70°C,	0°C to 70°C,
OPERATING TEMPERTURE - X VERSION	Not available	-40°C to 85°C		
STORAGE TEMP.	-40°C to 70°C	-40°C to 85°C		
ALTITUDE	10,000 ft. (3,000 meters)			
ALTITUDE - X VERSION	Not available	80,000 ft. (24,000 meters)		
RELATIVE HUMIDITY	5% to 95% non-condensing			
SHOCK	20g, 11 millisecond terminal sawtooth pulse			
SHOCK - X VERSION	Not available	40g, 11 millisecond terminal sawtooth pulse		
VIBRATION	0.04 g ² /Hz, 5 Hz to 100 Hz			
VIBRATION - X VERSION	Not available	0.04 g ² /Hz, 100 Hz to 1000 Hz		

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-PER-1T-14.3.3
- (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



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