



RRT-6UVPX-PCIe-R-C

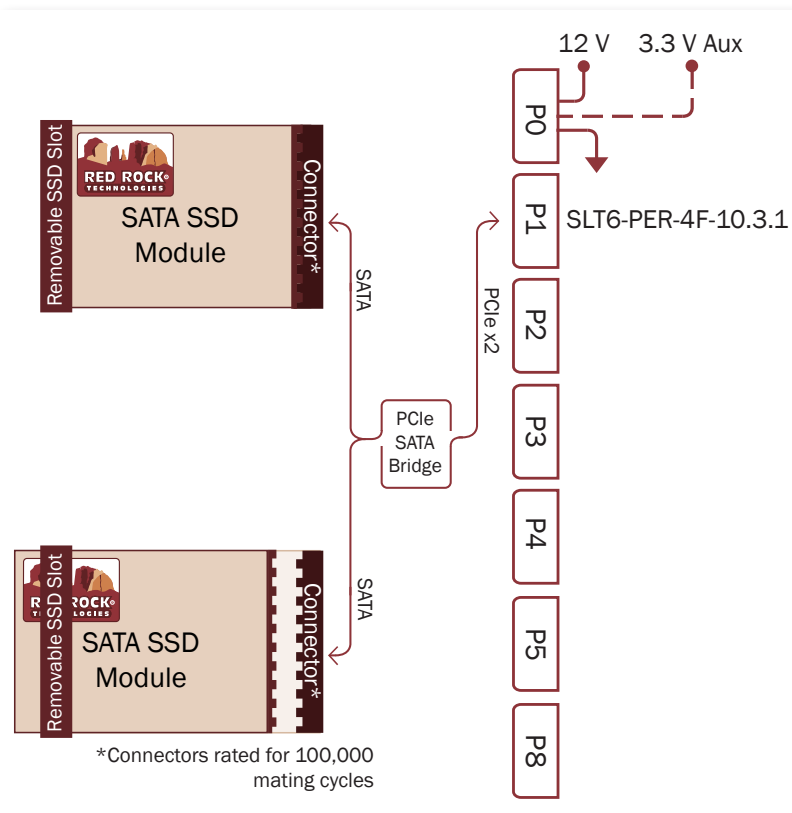
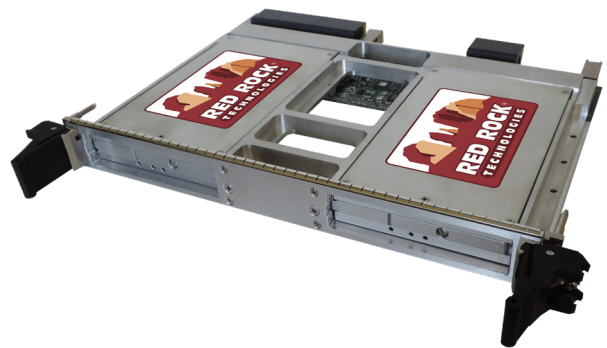
6U VPX Conduction Cooled Carrier with PCIe Interface and Removable SATA SSD Modules

6U VPX CONDUCTION COOLED CARRIER WITH PCIe INTERFACE AND REMOVABLE SATA SSD MODULES

is for applications that require the frequent removal of SSD, fast transfer rates and large capacities. It consists of two components: the 6U VPX carrier board with PCI express (PCIe) interface to VPX backplane that mounts in one slot of 6U VPX chassis and the removable NVMe SSD modules. The connectors between the drive module and the carrier are rated for 100,000 mating cycles to support frequent insertions and removals.

The SATA SSD module can use any COTS SATA Solid State Drive (SSD) providing capacities up to 40TB (16TB per drive module) and transfer rates of up to 600 MB/S.

- Capacities up to 40TB (2 x 20TB)
- 600 MB/S transfer rates
- 100,000 mating cycles
- Removable module with COTS SATA SSDs
- Two OpenVPX Fat Pipe (FP) PCIe x4 interfaces
- 100,000 mating cycles
- VITA 65 Slot Profiles (SOSA Aligned):
 - SLT6-PER-4F-10.3.1
- VITA 46, 47, 48, 65
- Boot and/or storage disk
- Conduction cooled
- Military erase options
- FIPS140-2, FIPS197, TCG Opal options
- Option for thumbscrews to remove drive module without tools
- Requires only +12V and +3.3V Aux power
- VxWorks, Linux, and Windows support



Parhelia B.V.
www.parheliabv.com
☎ +31(0)10 741 00 28

Ordering Information

6U VPX Conduction Cooled Carrier with PCIe Interface

RRT-6UVPX-PCIe-R-C- **UR** - **X**

Options *May be left blank*

Extended Temperature Range
X -40°C to 85°C

Conformal Coating
UR Polyurethane
AR Acrylic

ORDER EXAMPLES

RRT-6UVPX-PCIe-R-C-X
RRT-6UVPX-PCIe-R-C-UR-X

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

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

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



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Product Specifications

6U VPX CONDUCTION COOLED CARRIER WITH PCIE INTERFACE AND REMOVABLE SATA SSD MODULES

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-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-PAYLOAD SLOT	+12V, +3.3V Aux				
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 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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