

RRT-3UVPX-PCIe-R-C

3U VPX Conduction Cooled PCIe Carrier with Removable SSD Module

The 3U VPX Conduction Cooled PCIe carrier with 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 (PCIe) 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.

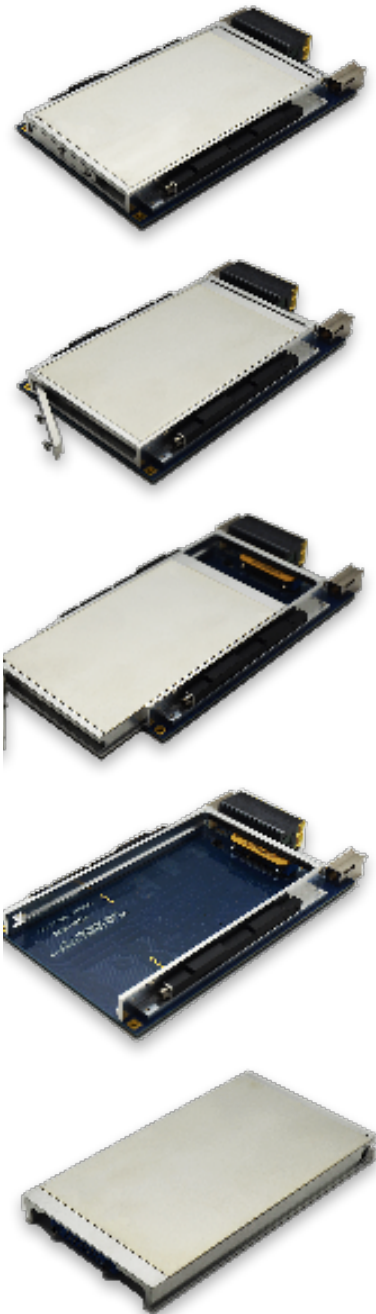
The drive module can use any COTS 2.5" SATA Solid State Drive (SSD) providing capacities up to 16TB and transfer rates of up to 600MB/S. Options for TCG opal and military erase.



FEATURES

- Capacities up to 16 TB
- 600MB/S Transfer Rates
- Removable SSD module
- PCIe Gen 2 x 2 interface
- 100,000 mating cycles
- OpenVPX Thin Pipe (TP) MOD-3-PER-1T-16.3.3.x
- VITA 46, 47, 48, 65
- Boot and/or storage disk
- Conduction cooled
- COTS 2.5" SATA SSDs
- SATA 3 (SATA600) Interface to SSD
- Military erase options
- FIPS197, FIPS140-2, TCG Opal options
- Rugged design
- IDE or AHCI Mode
- VxWorks™, Linux and Windows™ support

**EASILY REMOVE SSD DRIVE
MODULE FROM VPX BOARD**



3U VPX Conduction Cooled Carrier with PCIe Interface

RRT-3UVPX-PCIe-R-C-□-□

OPTIONS (MAY BE LEFT BLANK)	
CONFORMAL COATING	
UR	POLYURETHANE
AR	ACRYLIC
EXTENDED TEMP. RANGE	
X	-40°C to 85°C

EXAMPLES:
RRT-3UVPX-PCIe-R-C-UR-X
RRT-3UVPX-PCIe-R-C

Removable SATA SSD Drive Module

RRT-DM-SATA-□-□-□-□-□

REQUIREMENTS	
NAND FLASH TYPE	
SLC	SINGLE LEVEL CELL
MLC	MULTI LEVEL CELL
TLC	TRI LEVEL CELL (3D)
CAPACITY	
CAPACITIES UP TO 16TB	
OPTIONS (MAY BE LEFT BLANK)	
CONFORMAL COATING	
UR	POLYURETHANE
AR	ACRYLIC
EXTENDED TEMP. RANGE	
X	-40°C to 85°C
NO TOOLS	
TS	THUMB SCREWS
SECURITY	
FE	FAST ERASE
SE1	NSA/CSS MANUAL 9-12 ERASE
SE2	RCC-TG IRIG 106-07 CHAPTER 10 ERASE
OPAL	TCG OPAL COMPLIANT SSD
FIPS140-2	FIPS140-2 COMPLIANT SSD
FIPS197	FIPS197 COMPLIANT SSD

EXAMPLES:
RRT-DM-SATA-TLC-16TB
RRT-DM-SATA-SLC-1TB-UR-X-SE1
RRT-DM-SATA-MLC-8TB-UR-X

3U VPX PCIe Conduction Cooled Carrier with Removable SSD Module

PERFORMANCE			
NAND FLASH TYPE	TLC	MLC	SLC
CAPACITIES ¹	UP TO 16TB	UP TO 8TB	UP TO 480GB
INTERFACE ²	PCIe Gen 2x2		
THROUGHPUT - SUSTAINED	450 MB/S	400 MB/S	400 MB/S
RELIABILITY			
MTBF-DRIVE	1 MILLION HOURS	1 MILLION HOURS	2 MILLION HOURS
MTBF-VPX BOARD ⁶	3 MILLION HOURS		
DATA RETENTION	1 YEAR	1 YEAR	10 YEARS
ENDURANCE (100GB) TOTAL BYTES WRITTEN	70 TBW	70 TBW	350 TBW
CARRIER/DRIVE MODULE MATING CYCLES	100,000 CYCLES		
POWER			
VOLTAGE	+5V +/- 5%, +3.3V +/- 5%		
WATTS (IDLE)	1.2 W	3.5 W	1 W
WATTS (ACTIVE)	4 W	10 W	2.5 W
ENVIRONMENTAL			
OPERATING TEMP., VITA 47 CLASS ³	0 to 60C, CC1	0 to 60C, CC1 -40 to 85C, CC4, for -X option	
STORAGE TEMP.	-40°C to 85°C	-40°C to 85°C	
ALTITUDE	80,000 FT (24,000 METERS)		
RELATIVE HUMIDITY	5% TO 95%		
SHOCK, VITA 47 CLASS ⁴	40 g 11 MILLISECOND HALF-SINE, OS2		
VIBRATION, VITA 47 CLASS ⁵	0.1 g ² /HZ100 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 (2) Interface connected via compatible slot profile SLT3-PER-1X-14.3.X (3) Thermal qualification per MIL-STD-810, Method 501, Procedure II, and MIL-STD-810, Method 502, Procedure II (4) Shock qualification per MIL-STD-810F, Method 516, Procedure I (5) Vibration qualification per MIL-STD-810F, Method 514, Procedure 1 (6) Telcordia SR-322, Issue 3, operating temp (40C), electrical stress (50%), environmental factor (1.0)</p>			

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