# 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 a wide range of capacity, speed, environmental and security options



#### **FEATURES**

- Capacities up to 16TB
- 600MB/S transfer rates
- PCIe Gen 2x2 interface
- Open VPX Thin Pipe (TP) MOD3-PER-IT-16.3.3-X
- VITA 46, 47, 48, 65
- Boot and/or storage disk
- Conduction cooled
- Uses COTS 2.5" SATA SSDs
- SATA 3 (SATA600) Interface to SSD
- Military erase options
- FIPS197, TCG Opal options
- Rugged design
- IDE or AHCI Mode
- Current limited
- Power supplied from VPX backplane
- VxWorks, Linux, Windows Support



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REQUIREMENTS						
NAND FLASH TYPE						
MLC	MULTI LEVEL CELL					
SLC	SINGLE 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	-40C TO 85C					
SECURITY						
FE	FAST ERASE					
SE1	NSA/CSS MANUAL 9-12 ERASE					
SE2	RCC-TG IRIG 106-07 CHAPTER 10 ERASE					
OPAL	TCG OPAL COMPLIANT					
FIPS197	FIPS197 COMPLIANT					

#### **EXAMPLES**

RRT-3UVPX-PCIe-C-MLC-8TB-UR-X-SE1 RRT-3UVPX-PCIe-C-SLC-120GB RRT-3UVPX-PCIe-C-TLC-16TB



## 3U VPX Conduction Cooled SSD Module with PCIe Interface

	PERFORMANCE						
NAND FLASH TYPE	TLC	MLC	SLC				
CAPACITIES <sup>1</sup>	UP TO 16TB	UP TO 8TB	UP TO 480GB				
INTERFACE <sup>2</sup>	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 <sup>6</sup>	3 MILLION HOURS						
DATA RETENTION	1 YEAR	1 YEAR	10 YEARS				
ENDURANCE (100GB)	70 TBW	70 TBW	350 TBW				
TOTAL BYTES WRITTEN							
	POWER						
VOLTAGE	+5V +/- 5%, +3.3V +/- 5%						
WATTS (IDLE)	1.2 W	1.2 W	1 W				
WATTS (ACTIVE)	2.5 W	2.5 W	2.5 W				
	ENVIRONMENTAL						
OPERATING TEMP., VITA 47 CLASS <sup>3</sup>	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 <sup>4</sup>	40 g 11 MILLISECOND HALF-SINE, OS2						
VIBRATION, VITA 47 CLASS <sup>5</sup>	0.1 g <sup>2</sup> /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-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)

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