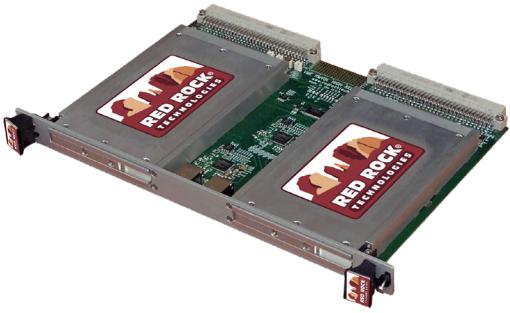




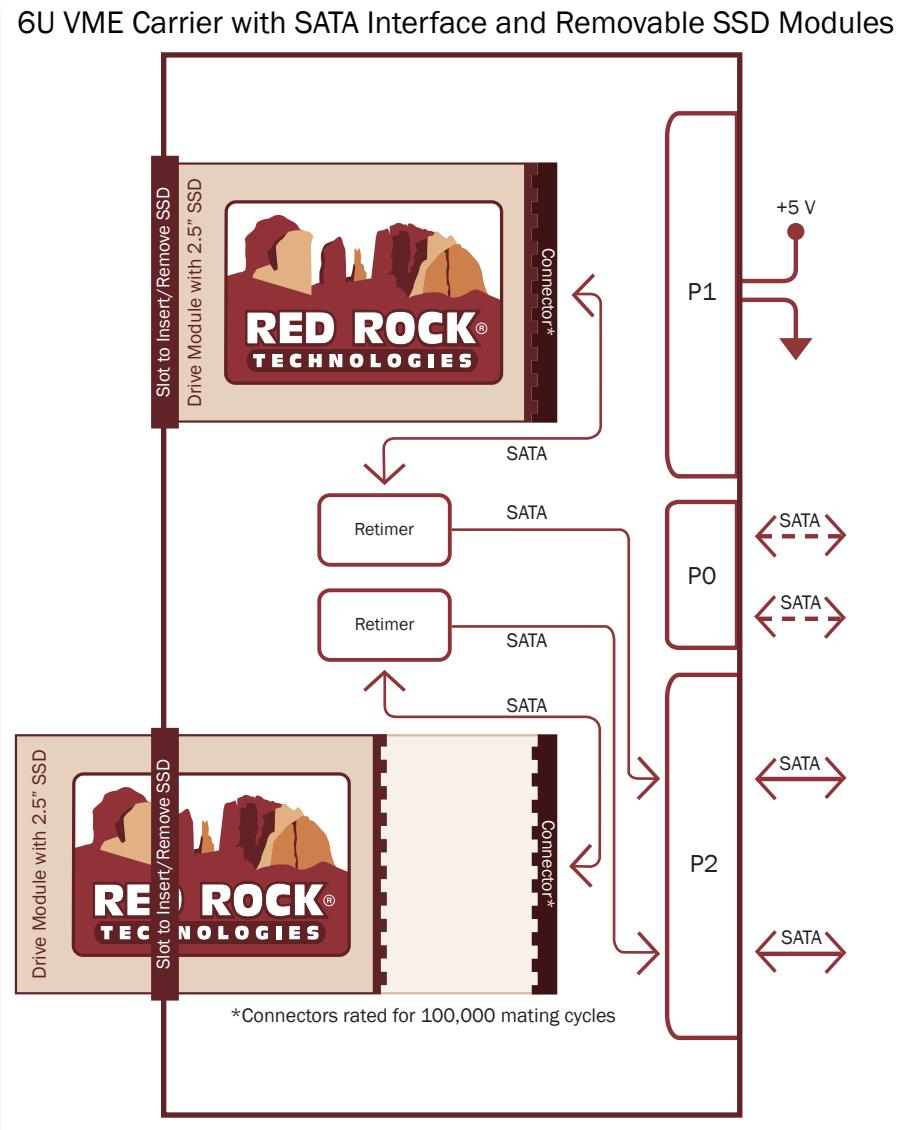
6U VME Carrier with SATA Interface and Removable SSD Modules

6U VME CARRIER WITH SATA INTERFACE AND REMOVABLE 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 VME carrier board with SATA interface that mounts in one slot of 6U VME chassis and the removable SATA 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 drive module can use any COTS 2.5" SATA Solid State Drive (SSD) providing capacities up to 40TB (20TBx2) and transfer rates of up to 200MB/S. Options for FIPS140-2, FIPS197, TCG Opal, and military erase. Each drive has a separate SATA interface.



- Capacities up to 40TB (2x20TB)
- 200 MB/s transfer rates
- SATA interfaces via VME P0 or P2
- Removable SSD modules
- Boot and/or storage disk
- 100,000 mating cycles
- COTS 2.5" SATA SSDs
- Military erase options
- FIPS 140-2, FIPS 197, TCG Opal options
- Option for thumbscrews to remove drive module without tools
- P2 adapter with SATA interface available



Ordering Information

6U VME Carrier with SATA Interface

RRT-6UVME-SATA- **R1** - **P2** - **UR** - **X**

Requirements

Drive Modules

R1 1 removable drive module
R2 2 removable drive module

SATA Interface

P0 VME P0 Connector
P2 VME P2 Connector

Options May be left blank

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

Conformal Coating

UR Polyurethane
AR Acrylic

ORDER EXAMPLES

RRT-6UVME-SATA-R1-P0-UR-X
RRT-6UVME-SATA-R2-P2

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-16TB-UR-X-SE1
RRT-DM-SATA-HDD-1TB-FIPS140-2



Product Specifications

6U VME CARRIER WITH SATA INTERFACE AND REMOVABLE 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	SATA2 (SATA 300)				
THROUGHPUT - SUSTAINED	130 MB/S	400 MB/S			
SECTOR SIZE	512 bytes				

RELIABILITY

MTBF - DRIVE	500,000 hours	1 million hours	2 million hours	3 million hours
MTBF - DRIVE MODULE	3 million hours			
MTBF - CARRIER ³	3 million hours			
DATA RETENTION	Not applicable	1 year ⁴		10 years ⁵
ENDURANCE (100GB) TOTAL BYTES WRITTEN	Not applicable	70 TBW		350 TBW
CARRIER/DRIVE MODULE MATING CYCLES	100,000 mating cycles			

POWER

VOLTAGE	+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.	5 °C to 55 °C	0 °C to 60 °C	0 °C to 70 °C	See MLC	0 °C to 70 °C	
EXTENDED OPERATING TEMP.	Not available		See MLC-X	-40 °C to 85 °C		
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	20g, 11 millisecond terminal sawtooth pulse, OS1			40g, 11 millisecond terminal sawtooth pulse, OS2		
VIBRATION	0.04 g2/Hz, 5 Hz to 100 Hz, V1			0.1 g2/Hz, 100 Hz to 1000 Hz, V3		

PHYSICAL

FORM FACTOR	6U VME			
WEIGHT	11 oz. (310 g) max for carrier, 8.5 oz. (245 g) max per drive module 28 oz. (800 g) max total (carrier + 2 drive modules)			
PITCH	1.0"			

NOTES

(1) Larger capacities available as new COTS 2.5" drives released.

(2) Interface connected via front panel or P2.

(3) Telcordia SR-322, issue 3, operating temp (40 °C), electrical stress (50%), environmental factor (1.0)

(4) MLC 10 years at 0% TBW ramping down to 1 year at 100% TBW

(5) SLC 10 years at 10% TBW ramping down to 1 year at 100% TBW



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