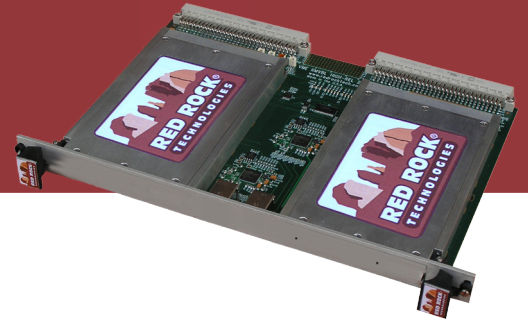


# 6U VME SATA Drive Module



## RRT-6UVME-SATA

The 6U VME SATA drive module provides storage using COTS 2.5" Hard Disk Drives (HDDs) or Solid State Drives (SSDs) with a range of capacity, speed and cost options.

Capacities up to 4TB in a single 6U VMEbus slot.

SATA2 compliant interface with speeds up to 3Gbits/S.

Options for discrete, controlled, secure erase.

## FEATURES INCLUDE

- SATA interface to front panel or VME P1 or P2 connectors
- Provides boot disk and/or disk storage
- Commercial and extended temperature versions
- Uses COTS 2.5" drives for wide range of options
- Options for discrete, controlled secure erase
- Robust design for high temperature, shock & vibration environments
- High performance SATA2 transfer rates. Backwards compatible with SATA1
- Compatible with all CPUs with a SATA controller
- Current limited
- No additional software required
- P2 adapter accessory available
- ROHS compliant
- Power supplied from VMEbus; no separate power supply required

# Security Options

## ERASE/DESTROY OPTIONS INVOKED BY COMMAND OR BY DISCRETE INPUT

**Fast Erase** Sets all locations to set value

**NSA/CSS Manual 9-12 Erase** Erases all locations, including bad blocks, then sets all locations to 0x55, then internal verification is performed reading 1% of capacity confirming data pattern

**RCC-TG IRIG 106-07 Chapter 10 Erase** Erases all locations, including bad blocks, then sets all locations to 0x55, then sets all locations to 0xAA, and finally erased

**Drive Destroy** Performs erase of all NAND flash including internal SSD firmware, file system, and tables which makes the drive unusable and unreadable

# Ordering Information

**RRT-6UVME-SATA** - P2 - F2 - MLC - 480GB - FE - UR - X

## Requirements

### SATA Interface

FP - Front Panel  
P2 - VME P2 Connector

### Drives

F1 - 1 fixed drive  
F2 - 2 fixed drives

### SATA Drive Type

HDD - Hard Disk Drive  
SLC - Single Level Cell SSD  
MLC - Multi Level Cell SSD

### Capacity of each Drive

Any capacity up to 2TB

## Options May be left blank

### Erase Types

FE - Fast Erase  
SE1 - NSA/CSS Manual 9-12 Erase  
SE2 - RCC-TG IRIG 106-07 Chapter 10

### Conformal Coating

UR - polyurethane  
AR - acrylic

### Extended Temperature Range

X - -40°C to 85°C

Example: RRT-6UVME-SATA-P2-F2-MLC-480GB-FE-UR-X

Example: RRT-6UVME-SATA-FP-F1-HDD-500GB

# 6U VME SATA DRIVE MODULE SPECIFICATIONS

Performance				
Version	HDD	SSD-SLC	SSD-MLC	SSD-Secure Erase
Capacities (1)	Up to 2TB	Up to 480GB	Up to 2TB	Up to 480GB
FLASH Type	NA	SLC	MLC	SLC
Interface (2)	SATA2 (SATA 300)			
Sustained Throughput	130 MB/S	220 MB/S		
Sector Size	512			
Reliability				
MTBF-Drive (hours)	500,000	3 million	1 million	1.2 million
MTBF-Drive Module (3)	3 million hours			
Power				
Voltage	5 V+/- 5%			
Watts-Idle	1	1.2		1
Watts-active	2.5	2.5		2
Environmental				
Temperature – operating, VITA 47 Class	0 to 60C, CC1, AC1	-40 to 85C, CC4, AC3 for –X option 0 to 60C, CC1, AC1 for Standard SSD		
Temperature – storage	-40 to 70C	-40 to 85C		
Relative Humidity	5% to 95%			
Altitude	10,000 ft. 3000 meters	80,000 ft. 24,000 meters		
Shock, VITA 47 Class	20g, OS1	40g, OS2		
Vibration, VITA 47 Class	0.04 g <sup>2</sup> /Hz,V2		0.01g <sup>2</sup> /Hz,V2	
Physical				
Form Factor	6U VME			
Weight	Base module 7.9 oz (222g); each drive 3.3 oz (93g)			
Pitch	1.0"			
(1) Larger capacities available as new COTS 2.5" drives released (2) Interface connected via compatible slot profile SLT3-STO-2U-14.5x or rear transition module (3) Telcordia SR-322, Issue 3, operating temp (40C), electrical stress (50%), environmental factor (1.0)				

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