

6U VMEbus Storage

STORAGE MODULES WITH SATA AND DVD DRIVES

DESCRIPTION

Elma's Model 5050 family of 6U VME SATA Storage Modules are designed to meet the ever-increasing storage capacity and high-speed data storage needs in embedded computing systems. Using a direct SATA interface, the modules are an ideal solution for new system designs while allowing fast and easy storage upgrades in existing systems. A RAID solution can be scaled to size using multiple blades with software RAID, or external raid controllers. The module is also available in a CompactPCI® form factor (Model 6050).

Functional Features

- Two available configurations:
 - Three 2.5in drives in a single 6U slot
 - One single 2.5in drive plus DVD
- Rotating or solid-state SATA drives
 - Solid flash drives with SLC or MLC flash technology
- More than 1.8TB of SSD (solid-state drive) storage in a single blade*
- More than 3TB of rotating storage in a single blade*
- Front panel SATA ports or rear SATA ports via RTM (VME64x only)
- Up to 300MB/sec individual drive data rates (configuration dependent)
- Multi-slot expansion capability for multi-terabyte array options
- Suited for high shock and vibration applications*
- Extended temperature versions -40° C to +85° C*

Benefits

- High data rates for current application speeds
- Addresses high capacity storage needs
- Capable of providing RAID 0, 1 or 5 via software RAID
- Easy system upgrade via DVD drive
- Three drive version qualified for -40°C to +85°C operation using solid-state drives

APPLICATIONS

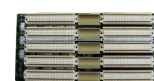
- › High capacity storage arrays in a wide range of defense applications including ground, shipboard and airborne systems
 - › Signal intelligence data storage
 - › Engine control systems data
 - › Flight data recorders
- › Rugged industrial and defense storage arrays supporting systems requiring resistance to high temperature and high shock and vibration
- › Low to moderate capacity single blade storage for medical imaging equipment with expansion capability

Example Order Number: 50501010TRNS

VMESstor with one 1TB 2.5in rotating drive and one DVD R/W,
no conformal coating



RELATED PRODUCTS



- › Intel & Freescale Single Board Computers
- › Blade level networking boards (Ethernet, PCI Express)
- › FPGA configurable I/O solutions
- › Rackmount, desktop, and ATR chassis platforms
- › Ruggedization programs

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ORDERING INFORMATION

Ordering Number	5050	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
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(15-18 Project Spec.)

4

Configuration
 1 = 2.5" drive and one DVD R/W
 2 = Three 2.5" drives

5, 6

Drive RPM
 54
 72
 00 (solid state drive)

7, 8, 9, 10

2.5" Drive capacity (configuration 2 - all drives same capacity)
 xxxG
 xxxT
 Example
 064G = 64GB drive
 500G = 500GB drive
 012T = 1.2TB drive
 000G = no drive installed
 (Applicable to configuration 1 only)

15

Temperature Requirements
 S = +5° C to +45° C with DVD
 E = -40° C to 85° C
 O = Other


14

Conformal Coating
 Y/N

11, 12, 13

2.5" Drive Type
 RSD = standard duty rotating
 RED = enhanced duty rotating
 RXD = extended duty rotating
 SSS = commercial solid state SLC SSM = commercial solid state MLC SSE = commercial solid state eMLC STS = extended temp solid state SLC STM = extended temp solid state MLC STE = extended temp solid state eMLC NNN = Not applicable
 (Applies to configuration 1 if no 2.5" drive installed)

RTM Part Number:
5050-RTM



I/O Board Options:
 5050-RTM, rear transition module

ENVIRONMENTALS

General	Each module is 6U high by 4HP (0.8in) wide by 160mm deep and compatible with VME64 (Front I/O Only) and VME64X (Front and Rear I/O) mechanical and electrical specifications. Weight: <2 pounds (configuration dependent).		
Input/Output	Direct SATA access to each drive through front panel SATA connectors or rear transition module via P0		
Compatibility	Model 5050 VME SATA Storage Modules are directly compatible with VME Single Board Computers supporting SATA I/O connectivity		
	Input Power		
Power Requirements	Typical Power Required Hard Drive: +5 V +5/-3% @ 0.75 A per drive DVD/RW Drive: +5 V +5/-3% @1.2 A +3.3 V +5/-3% @ 0.03 A		
Environment	Operating Temp:	0° C to 45° C with DVD 0° C to 60° C with Commercial Drive	
	Non-operating:	-40° C to 85° C with Industrial SSD	
	Operating shock	-20° C to +60° C (limited by DVD)	
	Operating vibration:	10Gs at 11 msecs (configuration dependent)	
	Humidity:	2Gs, 20 to 2,000Hz (configuration dependent)	
		5 to 95%, non-condensing	

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