

# L-3 Targa Systems

## VME 25 – ATA Flash Module

### OVERVIEW

Targa's Flash ATA Storage Module has been specifically designed to replace ATA hard disk drives in rugged and environmentally demanding applications. The single slot, 6U VME card incorporating FLASH disk technology, is currently available in VME convection cooled and conduction cooled form factors.

- Two Product Models
  - ATA bus via P2 ATA/ATAPI-7
  - VME bus via P1 VME memory mapped access to ATA registers
- Ruggedized, high reliability, solid state design, no moving parts
- Single slot – 6U VME in conduction or convection cooled
  - Up to 128 GBytes ; 64GBytes max per ATA drive
- Dual Slot – Convection cooled
  - Up to 320 GBytes; 160GBytes max per ATA drive
- Low power consumption
- Noiseless operation
- MTBF: 500,000 hrs (MIL-STD-217, GB)
- Write Protect and High Speed Erase features

### PRODUCT MODEL NUMBERS

Targa's VME25 ATA module is available in a broad range of memory capacities and environmental classifications. The product model designations are:

#### ATA Bus Models

#### VME25/ATA-xx[-yy]-ee

xx Capacity Drive 1  
 yy Capacity Drive 2 (if installed)  
 ee Environmental class

#### Environmental Classes = ee

Basic -00  
 Enhanced -10  
 Extended -20  
 Conduction -50

#### VME bus I/O Mapped Models

#### VME25/V-xx[-yy]-ee

xx Capacity Drive 1  
 yy Capacity Drive 2 (if installed)  
 ee Environmental class

#### xx & yy Capacities:

8G; 12G; 16G; 24G;  
 32G; 48G; 64G  
 "G" = Gigabyte





communications

Targa Systems Division

Targa's Flash Data Storage Solutions are available in a wide range of form factors and interfaces.

- VME SCSI & ATA  
6U, single slot
- cPCI SCSI  
6U & 3U, single slot
- PC Card DTU's  
Serial; SCSI; 1553; USB
- SCSI Flash Disks  
3.5" and 2.5"
- IDE Flash Disks  
3.5" and 2.5"
- Removable Disk Systems

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## VME25 ATA Module Performance

### VME25/ATA

Supported Modes	PIO 0 – 4; DMA 0 – 2; UDMA 0 - 5
Read / Write Rates MB/sec	> 30 MBytes / sec (UDMA 5)

### VME25/V\*

Command I/O	Read / Write	3 / 3	MB/sec
DMA Xfer	Read / Write	4 / 7	MB/sec

\* VME bus transfer rates as measured over Tundra Universe II PCI to VME bridge

## VME25 ATA Module Specifications

<b>Power Requirements</b>	4.85 - 5.25 Vdc 0.7 - 1.5 Amp (Configuration Dependant)
<b>Reliability</b>	
<b>Data Reliability</b>	Built-in EDC / interleaved Reed Soloman ECC
<b>Undetected Data Error</b>	<10 <sup>-30</sup>
<b>MTBF</b>	500,000 hrs (MIL-STD-217 GB, per 512MB; preliminary)
<b>BIT Features</b>	Yes, Power-up Self Test
<b>Data Integrity</b>	10 Years
<b>Entire Media Erase</b>	2 sec / GByte nominal
<b>Form Factor</b>	6U, single slot per IEEE 1014-1987 Convection 6U single slot per IEEE 1101.2 Conduction
<b>Front Panel – Indicators:</b>	Power (green) Busy (green) Error (red) Write Protected (yellow)
<b>Switches:</b>	Write Protect Enable
<b>Weight</b>	500 - 800 grams (Configuration Dependant)

Environmentals	Basic (-00)	Enhanced (-10)	Extended (-20)	Conduction Cooled (-50)
Operating Temperature	0°C to +60°C	-20°C to +75°C	-40°C to +85°C	-40°C to +71°C
Storage Temperature	-50°C to +85°C	-50°C to +85°C	-50°C to +85°C	-50°C to +85°C
<b>Altitude</b>	50,000 ft	50,000 ft	50,000 ft	50,000 ft
Ascent, Descent	10 m/s, 13 m/s	10 m/s, 13 m/s	10 m/s, 13 m/s	10 m/s, 13 m/s
<b>Humidity</b>	10 – 85%	----- 10 – 100% with condensation -----		
Shock	n/a	----- 8g, 11ms, ½ sine -----		20g, 11ms, ½ sine
Vibration	n/a	----- 0.04 g <sup>2</sup> /Hz, 5 to 2000 Hz -----		
<b>Stiffening Ribs</b>	No	Yes	Yes	Yes
<b>Conformal Coat</b>	No	Yes	Yes	Yes

Specifications are subject to change without notice.

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