SB AMC51™

PCIe SAS RAID, with integrated disk

DATASHEET

Product Highlights

- PCI-Express SAS controller
- One integrated SAS Disk, 10K RPM
- RAID 0,1 option
- Disk activity LED
- Mid or full height front panels

Key Applications

- AMC storage for MicroTCA
- ATCA, In chassis embedded storage systems requiring high performance
- *Micro* TCA applications
- Enterprise SAS storage
- Rugged, high capacity, high throughput, mission critical requirements

Features

- AMC.0 rev.2 front panel compliant
- AMC.1 rev.2 PCI express signaling
- AMC.3 rev1, storage signaling option
- One Integrated 2.5" SAS hard drive
- Field configuration option
  - Drive SAS to AMC port 3
  - Drive SAS to AMC port 2
- JBOD, RAID0, RAID1
- Capacity options 146-600 GB
- Front panel disk activity LED
- Serial burst data rate 3.0Gb/s
- S.M.A.R.T support
- Hot Swappable
- RoHS Compliant
- Integrated IPMI

Regulatory

- RoHS 6/6
- IEC60950, EN60950
- EN55022, EN50024
- FCC, VCCI, EN5022 (Class A)
- Designed for NEBs compliance

SB-AMC51MxxxD

SB-AMC51Mxxx

AdvancedMC™

PCIe to SAS Disk Drive Module

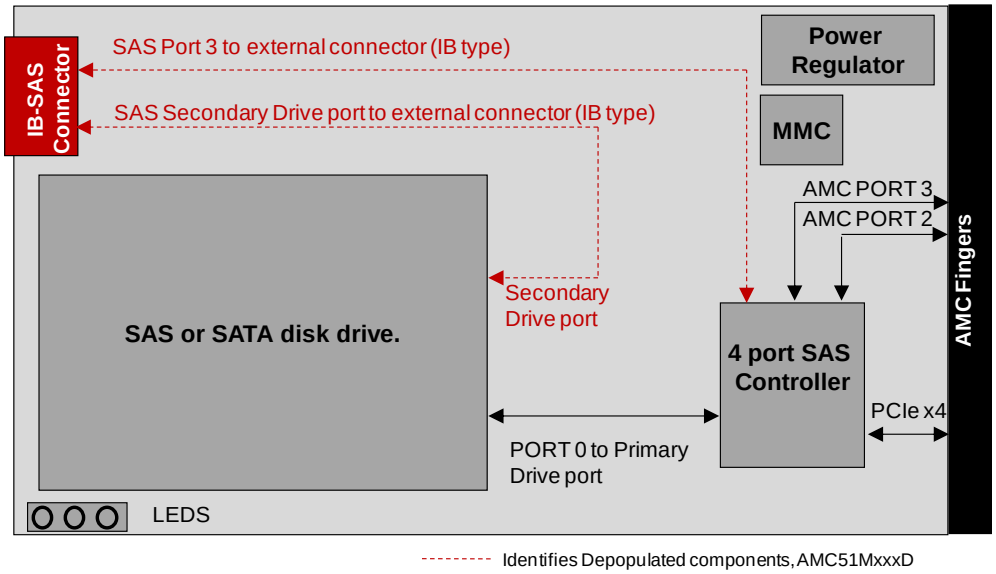
The **SANBlaze SB-AMC51** is an AdvancedMC module featuring a PCI-express to SAS controller, one 2.5” SAS disk, and MMC support logic. Consuming only one AMC slot, the highly integrated combination provides embedded systems designers the ability to add an Enterprise SAS Hard Disk Drive (HDD) to a systems which do not have native SAS connectivity. The SB-AMC51 is offered as a single-width AMC, with ship options for mid or full height panels with or without front panel IB-SAS connector.

The SB-AMC51 may be field configured to support a single disk (default) or multiple disks by optionally driving AMC ports 2 and 3. This later option allows the modules RAID controller to apply RAID0 (stripping) or RAID1 (mirroring) *algorithms* with up to 3 SAS hard disks. Configuration tools are available for pre-boot (BIOS) or OS setup tools that include Windows, Linux and Solaris environments.

The modules innovative construction with a mechanical cut-out area accommodates a SAS disk drive and front panel options for full or mid height (MH) Advanced Mezzanine Card (AMC). The module is AMC.0 rev 2.0 compliant and uses the serial storage signaling defined in AMC.3. LED indicators on the front panel provide visual status for hot swap, out-of-service (OOS) and disk I/O activity.

The SB-AMC51 features an enterprise class, 10K RPM SAS disk for superior random I/O performance, vs. slower spinning disk alternatives. SAS is considered the most robust solution for telecommunication applications that require the highest workload profiles in a 24x7 duty cycle environment.

Block Diagram:



Technical Specifications:

SB AM51	SAS Drives	
Capacity:	146, 300, 600GB	500GB
Average Seek:	4.0/4.4 ms (Read/Write)	4.17ms
Rotational speed	10,000 RPM	7200
Buffer size	16MB	16 MB
Front panel activity LED	Green LED blinks for disk I/O activity	
Environmental Conditions		
Operating Temperature	5ºC to +55ºC	5ºC to +60ºC
Storage Temperature	-40ºC to +70ºC	-40ºC to +70ºC
Relative Humidity	5%-95% (Operating)	5%-95% (Operating)
Power typical	5 W (typical)	2.5 W (typical)

Ordering Information:

SB-AMC51M146#

Base Part Number	Front Panel Height Designation	Drive Size Giga Byte (GB)	# build option
SB-AMC51	**M= mid** **F= full**	**146, 300, 500** **600**	**Blank =** front panel IB-SAS connector **D =** depopulated, no front panel connector

For more information please visit the SANBlaze web site at: www.sanblaze.com
or send email info@sanblaze.com.

SANBlaze is a leading provider of storage solutions for embedded systems, delivering high performance enterprise storage technologies and functionality to the embedded computing market. Our AMC, PMC, ATCA and cPCI board level storage solutions provide maximum design flexibility, ease of integration and cost effectiveness.

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