



Applications

- Enterprise Computing
- Online Transaction Processing
- Telecommunications
- Network Caching
- High-density storage

The Viking Value Advantage

- Advanced Packaging Expertise
- Extensive DVT Infrastructure
- Available 30K Volt ESD Protection
- Industrialized Product Designs
- Comprehensive Production Test
- Locked BOM
- Long-standing Strategic Partnerships
- In-house R&D, design, layout, DVT, and production

SATADIMM – Enterprise SSD in a DIMM Form Factor

Designing faster and more efficient enterprise server & storage solutions is now possible with Viking Modular Solutions™ SATADIMM. SATADIMM is a high-performance, high-availability Enterprise Class Solid State Drive (SSD) in an industry-standard JEDEC 240-pin DDR3 DIMM form factor (JEDEC MO-269).

Viking Modular's SATADIMM is designed to take advantage of available DDR3 DIMM sockets, deriving power from the 1.5V supply in the DIMM socket; eliminating the need for a power cable. Simply insert SATADIMM into any available DIMM socket, connect a SATA data cable and begin enjoying all the benefits of high performance SSD.

For new designs, system architects will appreciate that the SATA data signals can be routed directly to the socket thus eliminating the need for any cables. Furthermore, a socket can be easily and cost-effectively designed to be used for either DDR3 DRAM modules or SATADIMM operation.

Adding SATADIMM to any available 240-pin DIMM socket delivers the performance and power savings you want from a SSD at a fraction of the space required to house a typical 2.5" SSD. Break free from traditional hard drive form factors with SATADIMM and explore a whole new world of design possibilities.



Features

- Best in class sequential and random performance
- Enterprise MLC (eMLC) NAND flash supported
- Advanced SSD-specific SMART command support
- Intelligent write management techniques for optimized endurance
- Protection against catastrophic flash sector/page/block failures
- Patented power fail data protection (super capacitor)
- Optional performance-throttling to guarantee service life
- Built-in AES-128 encryption for secure data protection
- Compatible with SAS host systems and infrastructure
- Compatible with standard operating systems, TRIM command support
- Industry standard JEDEC MO-269 form factor

Contact:

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Technical Information

Capacity

SLC	25GB to 200GB
MLC / eMLC	50GB to 400GB

Performance

Sustained Read / Write	260 MB/s
Sustained Random Read & Write IOPS	Up to 30,000 IOPS
Interface	SATA 3Gb/1.5Gb, S.M.A.R.T., NCQ

Reliability

ECC	Up to twelve 9-bit symbols per 512 byte sector
Bit Error Rate (BER)	< 1 in 10 ¹⁷ bits read
Power Fail Data Protection	Super Capacitor
Tiered Error Protection	Data recovery from sector, page, and block failures. End to end CRC protection
Endurance	5 Years *
Temperature Monitoring	On-board sensor, SMART attribute

Environmental

Shock	50g, 11ms, 3 shocks applied in each direction on 3 mutually perpendicular axes X, Y, Z
Vibration	16.4g rms 10-2,000 Hz, 3 axes
Operating Temperature - Commercial	0°C to 70°C
Non-operating Temperature	-40°C to 85°C
Altitude	80,000 feet
Humidity	5% to 95%, non-condensing, relative
Test Standard	MIL-STD-810F
Safety / Agency Compliance	FCC, CE, TUV

Power

Voltage	1.25-3.3V +/- 5%
Active	<2.0 watts
Idle	0.9 watts

Form Factor

Form Factor Standard	JEDEC MO-269F
Length	133.35mm
Width	7.75mm (max)
Height	25.5mm
SATA Connectivity	Internal Latching "L" Type **

* Performance throttling may be engaged to ensure 5-year endurance.

** Option to route SATA signals through DIMM edge connector is available. Contact your Viking representative for details.

Ordering Information

Part Number	Capacity (GB)	NAND Technology
VRFSD1050GBCRM	50	MLC
VRFSD1100GBCRM	100	MLC
VRFSD1200GBCSM	200	MLC
VRFSD1400GBCUM	400	MLC
VRFSD1050GBCQE	50	eMLC
VRFSD1100GBCRE	100	eMLC
VRFSD1200GBCSE	200	eMLC
VRFSD1400GBCUE	400	eMLC
VRFSD1025GBCKS	25	SLC
VRFSD1050GBCKS	50	SLC
VRFSD1100GBCNS	100	SLC
VRFSD1200GBCPS	200	SLC

About Viking Modular Solutions

Viking Modular Solutions develops and delivers innovative high-technology products that optimize the value and performance of our customers' applications. Founded in 1989, Viking Modular Solutions has been providing Original Equipment Manufacturers (OEMs) with industry leading designs, engineering, product support and customer service for over 20 years.

For more information, visit

<http://www.vikingmodular.com> or contact our sales department for datasheets and samples.

INNOVATIVE SOLUTIONS • WORLD CLASS SERVICE

