

DDR3 NVDIMM

DDR3 NVDIMM

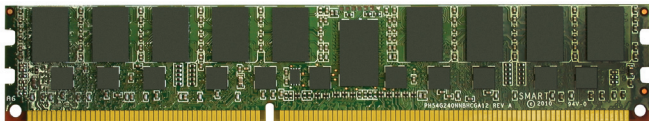
SMART has developed a family of NVDIMMs targeted for RAID storage applications. During normal operation, the NVDIMM will function as a standard RDIMM module, but during a system power interruption, the NVDIMM backup the DRAM contents into on-board Flash with no need for batteries. When the power is restored, the contents of the Flash are transferred back into the DRAM with no loss of critical data.

Application

- Nonvolatile cache backup for RAID storage systems

Benefits

- Eliminates need for batteries and their associated issues (cost, maintenance, environmental, etc)
- Eliminates need to maintain a duplicate cache memory subsystem separate from main memory
- Simplifies memory system design
- Allows for increased cache backup size
- Saves costs
- Saves space



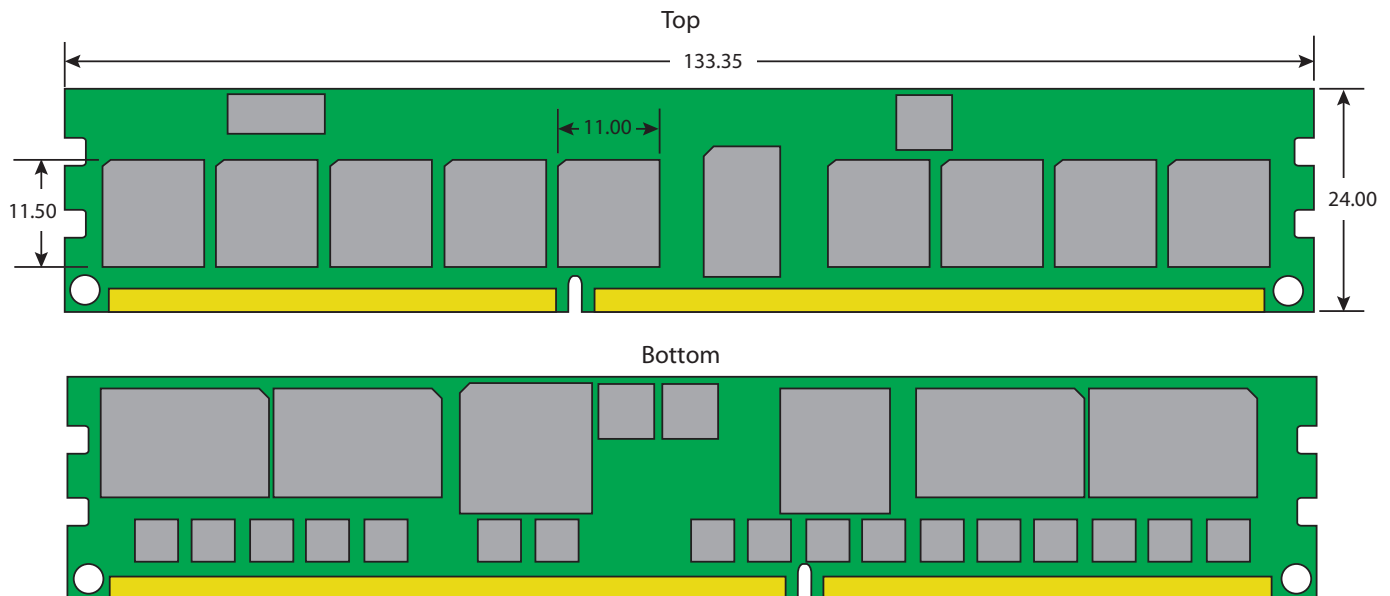
Key Features & Specs

- DDR3-1333 RDIMM 24mm height (1GB 1R x8, 2GB 1R x8)
- DDR3-1333 RDIMM 30mm height (4GB 2R x8, 8GB 2R x8)
- Fits standard 240-pin RDIMM form factor
- During normal operation, NVDIMM will function as a standard RDIMM module (supports JEDEC standard SPD Data)
- System upon power-loss, must place the DRAM in self-refresh operation (in current design offering)
- Backup initiated using either side-band signals or I2C interface
- DDR3 Mode Register values will be restored during hand-off
- Brown-out or power-glitch (return of power during backup) is supported
- Restore also initiated using either side-band signals or I2C interface
- Once restore is complete, on-board FPGA will set the flag and turn on the busswitches for system to take over normal operation
- 4GB backup in 34 seconds
- Greater than 10 year life span operating at 70°C ambient temperature.
- Greater than 10 year unpowered data retention.
- Able to monitor external power supply controllers for state-of-health monitoring.
- Able to survive multiple power glitches without losing protected data.

Ordering Information

DDR3-1333 Flash Back RDIMM

SMART Part Number	Density	Height (in)	Module Config.	Device Type
SGN72288FH8P6PH	1GB	24mm	1R x8	DDR3-1333
SGN72568FH8P0PH	2GB	24mm	1R x8	DDR3-1333
SGN72128FH8P0PH	4GB	30mm	2R x8	DDR3-1333
SGN72128FH8P6PH	8GB	30mm	2R x8	DDR3-1333



Corporate Headquarters

39870 Eureka Dr.
Newark CA 94560
Tel: (+1) 800-956-7627
Tel: (+1) 510-623-1231
Fax: (+1) 510-623-1434
Email: info@smartm.com

Customer Service

Tel: (+1) 978-303-8500
Fax: (+1) 978-303-8757
Email: customers@smartm.com

Latin America

Tel: (+55) 11 4417-7200
Fax: (+55) 11 4417-7219
Email: sac@smartm.com

Europe

Phone: (+33) 1 43 54 58 80
Fax: (+33) 1 43 26 64 81
Email: euro.sales@smartm.com

Asia/Pacific

Phone: (+65) 6232-2858
Fax: (+65) 6232-2300
Email: infoasia@smartm.com

www.smartm.com