

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 backs up 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

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• 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 and space

Key Features & Specs

- Fits standard 240-pin & 244-pin form factors
- 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
- Greater than 10 year life span operating at 70°C ambient temperature.



With SMART's SafeStor[™] Technology

Ordering Information

| 240 PIN - DDR3 NVDIMM | | | | | | | | | | | |
|-----------------------|---------|-------------|---------------|---------------|-----------|---------|-------------|--|--|--|--|
| SMART Part Number | Density | Height (mm) | Module Config | Device Config | Speed | Voltage | Command Set | | | | |
| SH1027NV351816SE | 8GB | 30.00 | 1G x72 | 512M x8 | 1600 MT/s | 1.35V | SMART | | | | |
| SH1027NV351816HD | 8GB | 30.00 | 1G x72 | 512M x8 | 1600 MT/s | 1.35V | SMART | | | | |
| SH1027NV351816SD | 8GB | 30.00 | 1G x72 | 512M x8 | 1600 MT/s | 1.35V | SMART | | | | |
| SH5127NR351893SDV | 4GB | 24.00 | 512M x72 | 512M x8 | 1333 MT/s | 1.5V | SMART | | | | |



NVDIMM (24mm)

| 244 PIN - DDR3 Mini-NVDIMM SMART Part Number Density Height (mm) Module Config Device Config Speed Voltage Command Set | | | | | | | | | | | |
|---|-------------|---------------------|-----------------------------------|---|---|---|--|--|--|--|--|
| Density | Height (mm) | Module Config | Device Config | Speed | Voltage | Command Set | | | | | |
| 2GB | 30.00 | 256M x72 | 256M x8 | 1333 MT/s | 1.35V | SMART | | | | | |
| | Density | Density Height (mm) | Density Height (mm) Module Config | Density Height (mm) Module Config Device Config | Density Height (mm) Module Config Device Config Speed | Density Height (mm) Module Config Device Config Speed Voltage | | | | | |

Mini-NVDIMM

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