



#### Technical Information

- Technology:
  - DDR2
- Density:
  - 1GB and 2GB
- Data Retention:
  - 10 years
- 100% data security
- Error Correction:
  - End-to-end RAS coverage
  - Incl. DRAM ECC and SATA SSD ECC algorithms
- Form Factor:
  - 240-pin DIMM
  - JEDEC compatible edge (pinout)
- Battery Free
- Maintenance Free:
  - Operational lifetime 5 years @ 60°C
- Environmentally friendly
- Low total cost of ownership

## ArxCis-NV™ - Non-Volatile Cache Module

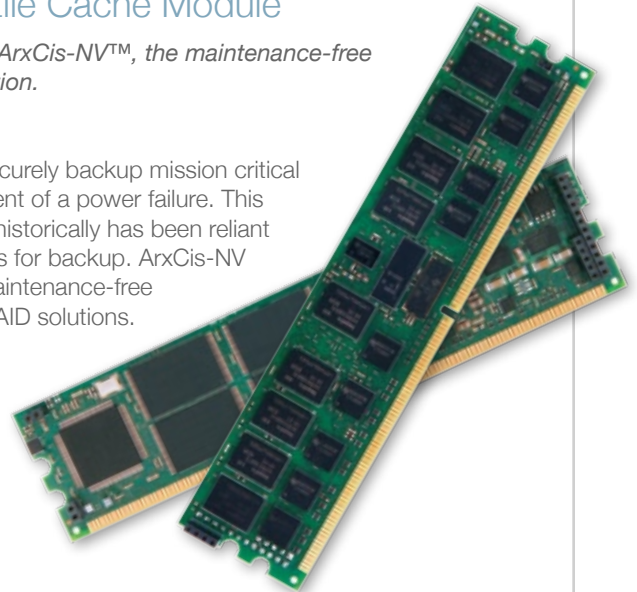
Viking Modular Solutions introduces ArxCis-NV™, the maintenance-free and non-volatile cache memory solution.

#### Overview

ArxCis-NV™ has been designed to securely backup mission critical data that must be preserved in the event of a power failure. This data, which resides in volatile DRAM, historically has been reliant on sub-optimal and unreliable batteries for backup. ArxCis-NV now offers a highly reliable, secure, maintenance-free and disaster-free solution for critical RAID solutions.

#### Simple Integration

In order to facilitate simple integration into industry standard sockets, the ArxCis-NV module is a JEDEC pin compatible ECC DRAM module, paired with an integrated embedded solid state drive (SSD) for data backup. ArxCis-NV continuously monitors voltage levels from the host system so that in the event of a voltage drop the save function is activated. Backup power for the module is provided by supercapacitors, therefore enabling the data to transfer into non-volatile NAND, where it can securely reside for up to 10 years.



#### Data Security

ArxCis-NV securely stores the data in non-volatile NAND for up to 10 years, offering a substantially increased level of data security when compared to a BBU (Battery Back-Up) solution of 72 hours. Additionally, this data security comes with the added benefit of a significantly lower total cost of ownership.

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#### Features:

- Data Protection
  - Data retention for up to 10 years
  - Continuous health monitoring
  - 100% data security
- Zero Recurring Costs
  - No system downtime
  - No battery replacement
  - No battery disposal
- Increased Productivity
  - No scheduled downtime for swap-out battery replacement
  - No unscheduled downtime for downed systems due to power failures
- Supercapacitors Integration
  - Integrated on module
  - External/tethered pack

### Cost Savings

It is widely agreed that BBU (Batter Back-Up) cache protection is not 100 percent secure and adds significant annual costs to the user. These costs include constant health monitoring, maintenance (conditioning cycles affecting productivity) and regular battery replacement. The capital expense of battery replacement over a five-year period will account for \$300 to \$500, plus productivity loss due to the maintenance and replacement of these batteries that will run into the thousands of dollars over a five-year period. ArxCis-NV eliminates the need for batteries creating a cost-effective, maintenance-free and non-volatile cache memory solution.

### ArxCis-NV: The Optimum Solution – Maintenance-free for 5 years at 60°C

The “ArxCis-NV Solution” takes into account that supercapacitors encounter certain aging effects, whereby the capacitance declines steadily over time with exposure to temperature. Viking Modular Solutions offers the ArxCis-NV Solution with a **5 year Maintenance-free Service Life** under worst case operating temperature conditions (60°C).

### The ArxCis-NV Solution:

- Assumes continuous operation at max ambient temperature over service life (100% duty cycle)
- Service life can be extended significantly if operated below max temperature specification

### Environmentally Conscious:

- Safe and green
- No toxic battery disposal

### 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 20 years.

For more information, visit <http://www.vikingmodular.com>. Contact our sales department for datasheets and samples.

### ArxCis-NV DDR2 DIMM Mechanical Dimensions

