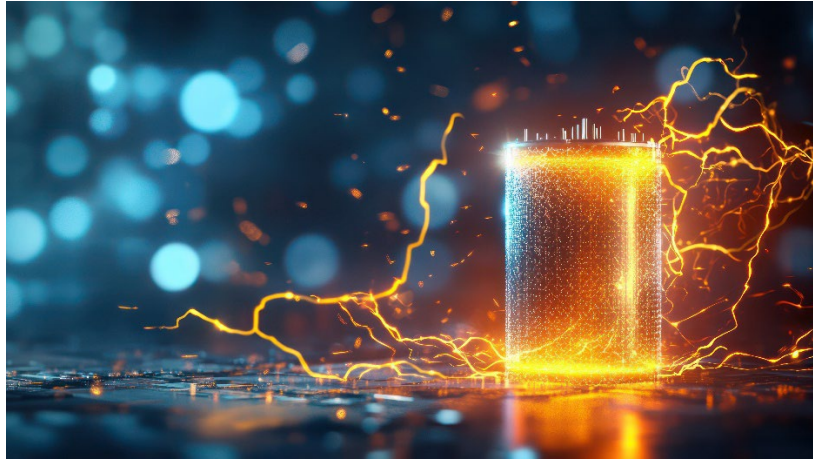


Built-in Supercap for Data Protection

When supercap protection is included with storage RAID adapters, it adds significant value by improving data safety and system reliability.



What Happens Without Supercap Protection?

RAID adapters often use a small amount of memory (cache) to temporarily store data before it's written to the hard drives. This makes the system faster. However, if there's a sudden power loss, any data in this cache can be lost, which might lead to data corruption or loss.

How Does Supercap Protection Help?

A supercap (supercapacitor) acts like a backup power source. If the main power fails, the supercap provides enough energy for the RAID adapter to quickly move all cached data from the temporary memory to a safe, non-volatile storage (like flash memory). This process ensures that no data is lost, even if the power goes out unexpectedly.

Added Value of Supercap Protection:

- **Data Integrity:** Protects against data loss and corruption during power failures.
- **No Battery Maintenance:** Unlike traditional battery backup units, supercaps don't need regular replacement or maintenance.
- **Longer Lifespan:** Supercaps last much longer than batteries, reducing long-term costs.
- **Environmentally Friendly:** Supercaps are less hazardous to the environment compared to batteries.

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Summary

Including supercap protection with RAID adapters means your data is much safer, maintenance is easier, and the system is more reliable over time.

This feature comes standard with all Microchip Adaptec® 315x and 325x SmartRAID products.