

RAZOR

RAZOR SSD - 1U Solid State Disk RAID Solution



RAID Inc. introduces its first entry into the solid state drive (SSD) RAID storage subsystem market with the Razor SSD. The Razor SSD is the newest addition to the company's existing Razor product family based on 2.5 inch drive technology and comes in a 1U 12-bay RAID subsystem that has unprecedented I/O and sustained throughput performance. The new Razor SSD adds to this legacy and takes it to the next level for Tier 0 storage.

The Razor SSD has been qualified with 64GB drives, which allows customers to obtain nearly a terabyte of storage in a 1U rack. The system is scalable using 1U JBODs up to 60 drives, or about 4 terabytes, in a 5U form factor. The Razor drives are single-level cell (SLC) NAND Flash, which are non-volatile unlike DRAM and also represent a 10x improvement in lifespan over the multi-level cell (MLC) versions of Flash that have become prevalent in the market.

Razor SSD is ideal for higher-end database or other OLTP applications in which the disks have traditionally been the bottleneck, especially for random I/O reads and writes. It is also a perfect fit for mobile applications where the physical characteristics of standard drives can become a major issue. These include harsh environments where shock, vibration, and altitude can wreak havoc on spinning disks, and solid state drives perform much better. In remote environments such as planes, submarines, and tanks, there is often no choice but to utilize this type of technology.

Benefits

- Greater application performance and higher reliability than traditional hard drive solutions
- Can be added in a tiered storage environment where disk drives are the limiting factor in performance
- Less volatile in environments where physical shock may be present
- Capacity: 192GB to 768GB in a single 1U solution, a maximum of 3.8 TB in a 5U form factor
- 70% smaller: Smaller space requirement than comparable 3.5" drive solution
- Consumes 80% less power: In addition to cost reduction, less power means a cooler enclosure, and therefore a higher overall reliability
- Improved write amplification that is 50% greater than industry standard SSD drives
- Higher MTBF of 2,000,000 hours per drive
- Wear level factor 3x greater than industry average
- Quieter operation than traditional HDD drive solutions

Compact in Size

2.5-inch disk drives are simply smaller than their 3.5-inch counterparts. The compact 1U enclosure houses twelve 2.5-inch SAS disk drives while the same number of 3.5-inch disk drives requires at least a 2U-profile enclosure.

Power Consumption, Vibration, Shock, and Heat Generation:

While 2.5-inch spinning disk drives consume 45% less power than their 3.5-inch counterparts, 2.5-inch SSD Drives provide a phenomenal advantage over these, consuming over 6 times less power while active and 185 times less power while idle. They also run much cooler and produce absolutely no sound. In terms of physical environment specifications, SSD drives can operate in conditions where spinning disk simply cannot, providing superior vibration, shock, and temperature characteristics.

This product is available with:
STORAGEWATCH®

Exceptional 24/7 Support

The Razor SSD comes with a maintenance and management service package that not only monitors but manages your data 24/7. RAID Inc.'s patent pending StorageWatch® remote monitoring service provides real-time proactive monitoring of the overall condition of your storage solution 24 hours a day, 7 days a week. All components of your solution and environment are monitored for irregularities including: storage arrays, RAID controllers, disk drives, power supplies, cooling, switches & fabric (all SAN devices) and backup devices.