

Giga Computing and Graid Technology Team Up to Set New NVMe Standards for Storage

Computing Performance Breakthrough with SupremeRAID™ SR-1010 and NVMe SSD Supported by GIGABYTE R Series Servers.

April 28, 2023 ([Gigabyte.com](https://www.gigabyte.com)) – Giga Computing, a subsidiary of GIGABYTE ([TWSE: 2376](https://www.twse.com.tw/stock/summary.do?symbol=2376)) and an industry leader in high-performance servers, server motherboards, and workstations, today announced continued collaboration with Graid Technology, and the creation of GIGABYTE R Series servers to overcome NVMe bottlenecks in storage applications.

Online shopping, financial trading, editing high-resolution images, and AI-generated content have all become parts of everyday life. Enterprise companies are now developing better server solutions with faster compute speeds, greater energy efficiency, and more secure data protection. Giga Computing focuses on the design of computing hardware for GIGABYTE servers and works with Graid Technology to develop integration solutions that disrupt the storage market.



Together they have created next-generation servers and NVMe controllers that will become the new standards for RAID across NVMe SSDs.

Traditional RAID technologies have become a bottleneck for NVMe SSD performance, so Graid Technology developed the SupremeRAID™ high-speed RAID card which Giga Computing used to develop a comprehensive solution.

The GIGABYTE R283-S92 server became the first server to support the SupremeRAID™ SR-1010 RAID card. **In addition, all future GIGABYTE R283 and R183 servers will incorporate this optimization and become servers with the highest compatibility for Graid Technology's next-generation technologies.**

After installing SupremeRAID™ SR-1010, the user simply installs the corresponding driver and software on the operating system to activate the controllers on the NVMe SSD, process storage and computing functions, and satisfy the ultra-high-performance requirements for all types of workloads.

Architectural Advantages:

- **High NVMe Performance:** A single server can easily reach 19 million 4k random read IOPS and write performance of 22GB/s throughput, which is the best performance possible today.
- **Free up CPU Resources:** Unlike traditional software RAID, it does not take up vast amounts of CPU resources.
- **Overcome Traditional RAID Bottlenecks:** Due to GIGABYTE's server design optimized for PCIe Gen5, R283-S92 supports up to 24 NVMe SSDs and integrates software/hardware to provide ultra-high IOPS for high computing performance.
- **Plug and Play:** The hot-swapping hard drive slots for NVMe SSDs use [PCIe Gen5](#) to connect directly to the CPU for optimal NVMe performance.
- **Compatible SCI Architecture:** The user can use the NVMe-oF protocol to connect to external computing clusters to meet the needs of large-scale cloud data centers.
- **High Scalability:** The high-scalability storage technologies in SupremeRAID™ support up to 32 NVMe SSDs and are compatible with SATA, SAS, and NVMe-oF protocols to provide data security and top performance.

Giga Computing continues to work with top companies in the enterprise industry to maximize customer satisfaction with the aim of simplicity to facilitate applications in all types of demanding computing. The high throughput and data consistency requirements for AI model training, scientific computing and inference, and big data analysis can be met with Giga Computing's R Series flash array servers with the latest next-generation NVMe storage solutions from Graid Technology.

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About Giga Computing

Giga Computing Technology is an industry innovator and leader in the enterprise computing market. Having spun off from GIGABYTE, we maintain hardware expertise in manufacturing and product design, while operating as a standalone business that can drive more investment into core competencies. We offer a complete product portfolio that addresses all workloads from the data center to edge including traditional and emerging workloads in HPC and AI to data analytics, 5G/edge, cloud computing, and more. Our longstanding partnerships with key technology leaders ensure that our new products will be the most advanced and launch with new partner platforms. Our systems embody performance, security, scalability, and sustainability. To find out more, visit <https://www.gigacomputing.com/> and join our newsletter.

About Graid Technology

Graid Technology, creators of SupremeRAID™ next-generation GPU-based RAID, is led by a

GIGABYTE™



team of experts in the storage industry and is headquartered in Silicon Valley, California with an R&D center in Taipei, Taiwan. Designed for performance-demanding workloads, SupremeRAID™ is the world's fastest NVMe and NVMeoF RAID solution for PCIe Gen 3, 4, and 5 servers. A single SupremeRAID™ card delivers up to 19M IOPS and 110GB/s and supports up to 32 native NVMe drives, delivering superior NVMe/NVMeoF performance while increasing scalability, improving flexibility, and lowering TCO. For more information on Graid Technology, visit [Graid Technology](#) or connect with us on [Twitter](#) or [LinkedIn](#).