

# Extreme Density, All-Flash Servers with SupremeRAID™ for Unbeatable HPC Performance

AIC SB201-HK & AIC SB201-TU with SupremeRAID™, a revolutionary software-defined GPU-based RAID controller by Graid Technology Inc.

 Graid Technology Inc.

# AIC

AIC's SB201-HK and SB201-TU servers offer powerful 2U 24-bay hot-swappable solutions for high-performance workloads. The SB201-HK emphasizes cutting-edge technology with its newer processor generation and DDR5 support, and the SB201-TU provides a more compact and flexible solution for space-sensitive environments. Together, these servers offer a versatile and powerful solution for a wide range of applications, from data center, simulation, and hyperscale environments to HPC and all-flash array storage.

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 blasts performance up to 28M IOPS and 260GB/s and supports up to 32 native NVMe drives, delivering superior NVMe/NVMeoF performance while increasing scalability, improving flexibility, and lowering TCO.



## AIC SB201-HK

with SupremeRAID™ SR-1010

- 2U all-flash server solution
- 24 x 2.5" front NVMe hot-swappable bays and 2 x 2.5" rear SATA hot-swappable bays
- Supports dual 4th or 5th Gen Intel® Xeon® Scalable Processors (codename: Sapphire Rapids, Emerald Rapids)
- 32x DDR5 RDIMM and 4x PCIe Gen5 extensions



## AIC SB201-TU

with SupremeRAID™ SR-1010

- 2U 24-Bay high density storage server barebone
- Supports 3rd Gen. Intel® Xeon® Scalable processors (Ice Lake) and includes Intel® C621A Chipset to provide 5+ years product life cycle
- Onboard Baseboard Management Controller for system management and IPMI control
- Dedicated BMC management port
- Front-to-back airflow and easy swap redundant fans to provide optimal thermal conditions



## APPLICATIONS

- Data Analytics
- Simulations
- Media & Broadcasting
- HCI & HPC

## SPECIFICATIONS

- Server Vendor: Yang Ming International Corp.
- CPU Platform: 4th/5th Generation Intel Xeon
- OS Version: Ubuntu 22.04
- SupremeRAID™ Model: SR-1010, 2U
- SSD Model: Samsung PM943 7.68T NVMe Gen4 (24 Pcs)
- Card Serial Number: 1421522093706



## SupremeRAID™ SR-1010

GPU-based NVMe/NVMeoF RAID

SupremeRAID™ delivers 28M IOPS and 260GB/s of throughput

**28M**  
IOPS

**260GB/s**  
Throughput

UP TO **100%**  
SSD Performance

**80%**  
Cost Savings

**9x**  
Faster



### Flexible & Future Ready

Unmatched flexibility with features like new O/S support, compression, encryption, thin provisioning, or boot drive protection easily added with software releases



### World Record Performance

Unprecedented NVMe/NVMeoF performance up to 28M IOPS and 260GB/s throughput with a single SupremeRAID™ card delivers the full value of your server investment



### Highly Scalable

Easily manage 32 direct attached NVMe SSDs; extend data protection without sacrificing performance with Software Composable Infrastructure



### Plug & Play

Effortless installation, no cabling or motherboard re-layout required; direct connect to SSD without PCIe switches



### Free Up CPU Resources

Offload your entire RAID computation to SupremeRAID™ to free-up CPU computing resources for 5G, AI and AIoT applications



### Easy to Use

SupremeRAID™ doesn't rely on memory caching technology, eliminating the need for battery backup modules

#### SupremeRAID™ SR-1000

#### SupremeRAID™ SR-1010

#### High-end Hardware RAID

|                            |            |            |            |
|----------------------------|------------|------------|------------|
| 4k Random Read             | 16 M IOPS  | 28 M IOPS  | 6.9 M IOPS |
| 4k Random Write            | 900 k IOPS | 2 M IOPS   | 651 k IOPS |
| 1M Sequential Read         | 220 GB/s   | 260 GB/s   | 28.2 GB/s  |
| 1M Sequential Write        | 90 GB/s    | 100 GB/s   | 10.4 GB/s  |
| 4k Random Read In Rebuild  | 3 M IOPS   | 5.5 M IOPS | 1 M IOPS   |
| 4k Random Write In Rebuild | 600 k IOPS | 1.1 M IOPS | 548 k IOPS |



“The synergy between AIC’s all-flash SB201-HK server and SupremeRAID™ by Graid Technology has been extraordinary for RackMount Pro. Together, they provide **the fastest NVMe solution, maintaining peak performance while ensuring data integrity.**”

~ RACKMOUNT PRO



SB201-HK



SB201-TU

## Challenge the status quo for performance-demanding workloads with SupremeRAID™

AIC is a leading provider of both standard OTS (off-the-shelf) and OEM/ODM server and storage solutions. With expert in-house design, manufacturing, and validation capabilities, AIC's products are highly flexible and configurable to any form factor, standard or custom. AIC leads the industry with over 28 years of experience in mechanical, electronic, and system-level engineering as well as a dedication to innovation and customer satisfaction. Headquartered in Taiwan, AIC has offices and operations throughout the United States, Asia, and Europe. For more information, please visit: <https://www.aicpc.com>

Graid Technology Inc. is headquartered in Silicon Valley, with an R&D center in Taipei, Taiwan. Our leadership is composed of a dedicated team of experts with decades of experience in the SDS, ASIC and storage industries. Learn more at [www.graidtech.com](http://www.graidtech.com).

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