

# SupremeRAID™ SR-1010

For PCIe Gen 3, 4, & 5 Servers



**Test Environment Specifications** | Software: Linux Version: CentOS 8.5;  
Windows Version: Windows Server 2019 | Hardware: CPU: Intel(R) Xeon(R)  
Gold 6338 CPU 32-Core with 2.0GHz x 2, Memory: SK Hynix HMA82GR7CJR8N  
-XN DIMM DDR4 3200 MHz 16GB x 16, SSD: INTEL SSDPF2KX038TZ 3.8TB  
| RAID Configuration: Random performance based on a drive group with 12  
physical drives and 1 virtual drive; sequential performance based on a drive  
group with 20 physical drives and 1 virtual drive



## SR-1010 Software Specs

Supported RAID levels	RAID 0, 1, 5, 6, 10
Max Physical Drives	32
Max Drive Groups	4
Max Virtual Drives per Drive Group	1023
Max Drive Group Size	Defined by physical drive size
OS Support	AlmaLinux 8.5, 8.6 (Kernel 4.18) Rocky Linux 8.5, 8.6 (Kernel 4.18) CentOS 7.9, 8.3, 8.4, 8.5 (Kernel 4.18) openSUSE Leap 15.2, 15.3 (Kernel 5.3) RHEL 7.9, 8.3, 8.4, 8.5, 8.6 (Kernel 4.18) RHEL 9.0 (Kernel 5.14) SLES 15 SP2, 15 SP3 (Kernel 5.3) Ubuntu 20.04.0-20.04.5 (Kernel 5.15) Ubuntu 22.04 (Kernel 5.15) Windows Server 2019 x86-64 Windows Server 2022 x86-64 Windows 11 x86-64

## SR-1010 Card Specs

Host Interface	x16 PCIe Gen 4.0
Max Power Consumption	70 W
Form Factor	2.713" H x 6.6" L, Dual Slot
Product Weight	306 g



### Flexible & Future Ready

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



### World Record Performance

SupremeRAID™ SR-1010 increases read performance to up 19M IOPS and 110GB/s throughput and write performance up to 1.5M IOPS and 22GB/s throughput in RAID5/6



### 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

## Contact Graid Technology

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For PCIe Gen 3, 4, & 5 Servers



The ultimate in flexibility and choice. SupremeRAID™ SR-1010 is the world's fastest NVMe/NVMeoF RAID card, designed to deliver the full potential of PCIe Gen 3, 4, & 5 systems in enterprise data centers. The SR-1010 increases performance of both reads and writes while maintaining the superior level of data protection our customers and partners have come to expect.



## Unbeatable Performance

Chosen by CRN as one of the Ten Hottest Data Storage Startups of 2021 and a 2022 Emerging Vendor in the Storage & Disaster Recovery category, Graid Technology Inc. has developed the world's fastest NVMe and NVMeoF RAID card to unlock the full potential of enterprise SSDs for high performance applications: SupremeRAID™ SR-1010 NVMe/NVMeoF RAID card for PCIe Gen 3, 4, & 5 servers.

	Linux Environment		
	RAID 5	RAID 6	RAID 10
<b>OPTIMAL</b>			
4k Random Read IOPS	19 M IOPS	19 M IOPS	19 M IOPS
4k Random Write IOPS	1.5 M IOPS	1 M IOPS	6 M IOPS
1M Sequential Read THROUGHPUT	110 GB/s	110 GB/s	110 GB/s
1M Sequential Write THROUGHPUT	22 GB/s	21 GB/s	25 GB/s

	Windows Environment		
	RAID 5	RAID 6	RAID 10
4k Random Read IOPS	2 M IOPS	2 M IOPS	2 M IOPS
4k Random Write IOPS	600 k IOPS	450 k IOPS	1 M IOPS
1M Sequential Read THROUGHPUT	74 GB/s	68 GB/s	70 GB/s
1M Sequential Write THROUGHPUT	15 GB/s	15 GB/s	35 GB/s

	Linux Environment		
	RAID 5	RAID 6	RAID 10
<b>REBUILD</b> REBUILD_SPEED=SLOW			
4k Random Read IOPS	5.5 M IOPS	5.5 M IOPS	9 M IOPS
4k Random Write IOPS	1.1 M IOPS	800 k IOPS	5 M IOPS
1M Sequential Read THROUGHPUT	23 GB/s	24 GB/s	55 GB/s
1M Sequential Write THROUGHPUT	21 GB/s	21 GB/s	25 GB/s

	Windows Environment		
	RAID 5	RAID 6	RAID 10
4k Random Read IOPS	300 k IOPS	350 k IOPS	2 M IOPS
4k Random Write IOPS	500 k IOPS	500 k IOPS	1 M IOPS
1M Sequential Read THROUGHPUT	21 GB/s	21 GB/s	15 GB/s
1M Sequential Write THROUGHPUT	12 GB/s	12 GB/s	13 GB/s

BASED ON TESTING SPECIFICATIONS LISTED ON PREVIOUS PAGE

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