



Highlights

Application Acceleration

- Tier-1 storage for business critical applications
- Best value for performance demanding environments
- Full redundancy for mission critical deployments

Performance

- Up to 1 Million IOPS
- Latency in hundreds of microseconds
- Up to 70TB of raw flash capacity
- Only 3 Rack Units (3U)

Applications

- Mixed workloads welcome
- Transactional database workloads
- Latency sensitive applications
- Virtualized Server and VDI
- Real-time Big Data Analytics
- Performance Cloud Storage

Capabilities

- Powerful – Consistent, ultra-low latency delivers amazing application performance for mixed workloads
- Economical – Lower your CPU wait times for greater consolidation saving on servers and software
- Available – Global support services combined with full redundancy keeps your data safe and available

Violin 6000 Series All Flash Array

Accelerate your business and reduce your infrastructure costs with the data center storage designed for mixed and multiple workloads.

Enterprises increasingly expect and depend on real-time transaction processing and real-time insights from their IT infrastructure. However, delivering on these business expectations at significant scale has historically been difficult due to cost and technical limitations. Violin 6000 Series All Flash Arrays allow you to overcome these challenges and simply run all your applications and reporting systems at flash speed with higher consolidation ratios, higher levels of availability and lower overall costs than legacy disk, hybrid or SSD-based solutions.

Simply Accelerate Your Business

Violin 6000 Series All Flash Arrays are built from the ground up and hardware optimized to maximize the high-speed, low latency and low energy characteristics of flash technology. The unique architecture of Violin All Flash Arrays deliver consistent, spike free, low latency measured in hundreds of microseconds to dramatically accelerate applications, as well as extreme amounts of I/O per second (up to 1 million IOPS) to drive new levels of storage consolidation.

This game changing combination of sustained low latency and performance scale makes the 6000 Series the storage of choice for scale-out virtual infrastructure configurations, transactional business critical applications and advanced real-time big data analytics environments.

Data Center Workloads

There are a number of all-flash arrays available today. Only one has Violin's Flash Fabric Architecture™ which provides the performance, resilience and low operating costs that enterprises demand. The FFA does not use SSDs, but rather mounts flash chips on our own card design, then inserts into our proprietary backplane design with multiple paths, redundancy, and controller technology to get the most from flash technology. The result is consistent low latency, hot plug components, redundancy for availability, low operating costs due to high density for an enterprise storage solution that enables new levels of consolidation for all kinds of workloads.

The 6000 Series All Flash Arrays with FFA deliver massive performance and capacity density (up to 70TB in 3 rack units) at a fraction of the power and cooling requirements of alternative solutions. Additionally, Violin Memory Operating System (vMOS) software allows you to run I/O intensive workloads on vMOS space efficient snapshots thus eliminating the wasted capacity for full clones or duplicate infrastructure. All software and firmware (down to the flash controller firmware on the Violin Intelligent Memory Modules) can also be upgraded without application downtime (NDU).

6000 Series Members

Violin 6000 Series All Flash Arrays are comprised of three members: 6600 with SLC flash for ultimate performance, the 6200 with excellent performance and enterprise capacities making it the workhorse of the data center, and the 6100 for a mid-tier enterprise solution with smaller capacities and good performance. Violin unique patented capabilities ensure that you get high availability, sustained performance, and lowest cost for all your applications, physical or virtualized.

Characteristic	6600	6200 Series			6100 Series		
Model	Violin 6616	Violin 6232	Violin 6248	Violin 6264	Violin 6100-17	Violin 6100-26	Violin 6100-35
Flash Type	SLC	MLC					
Raw Capacity (TiB/TB)	16 TiB/17.5 TB	32 TiB/ 35 TB	48 TiB/52 TB	64 TiB/70 TB	16 TiB/17.5 TB	24TiB/26 TB	32 TiB/35 TB
Maximum Usable Capacity (TiB/TB)*	10 TiB/11 TB	20 TiB/ 22 TB	30 TiB/33.2 TB	40 TiB/44 TB	10 TiB/11 TB	15.1 TiB/16.6 TB	20 TiB/22 TB
Maximum 4KB IOPS	1,000,000	900,000			600,000		
Maximum Bandwidth (100% Reads)	4 GB/s				2.3 GB/s		
Minimum Latency	200 µsec	220 µsec			225 µsec		
VIMM Count (Data + Hot Spares)	60 + 4	60 + 4	60 + 4	60 + 4	30 + 2	30 + 2	30 + 2
Reliability/Resiliency	Highly Available Hardware Configuration; System Level hardware Based vRAID Dual or Quad vRAID Controller Modules; 2 Array Controller Modules and Memory Gateways; 99.999% Availability						
IO/Connectivity	8 x 4/8 Gb/s Fibre Channel 8 x 10GbE iSCSI 4 x 40Gb/s QSFP Infiniband				8 x 4/8 Gb/s Fibre Channel 8 x 10GbE iSCSI		
Height	3RU	3RU	3RU	3RU	3RU	3RU	3RU
Width	17.5"/420mm	17.5"/420mm	17.5"/420mm	17.5"/420mm	17.5"/420mm	17.5"/420mm	17.5"/420mm
Depth	27"/700mm	27"/700mm	27"/700mm	27"/700mm	27"/700mm	27"/700mm	27"/700mm
Cable Management	6"/153mm	6"/153mm	6"/153mm	6"/153mm	6"/153mm	6"/153mm	6"/153mm
Weight	89 lbs/40.4kg	92 lbs/41.7kg	92 lbs/41.7kg	92 lbs/41.7kg	82 lbs/37.3kg	82 lbs/37.3kg	82 lbs/37.3kg
Power**	1700W	1500W	1500W	1500W	1150W	1150W	1150W
Cooling	5780 BTU/hr	4961 BTU/hr	4961 BTU/hr	4961 BTU/hr	3927 BTU/hr	3927 BTU/hr	3927 BTU/hr
Client OS Support	RHEL, SLES, Windows, VMware, Hyper-V, Citrix, AIX, Solaris SPARC, Solaris x64, HP-UX						
Virtualization Integration	VMware VAAI, vCenter Plug-in / OpenStack						
Management	CLI:Serial, SSH / SNMP / WebGUI / REST XML API / Violin Symphony						
Environmentals	Inlet Temp: 0°C to 35°C, 0 to 7,500 feet; 0°C to 30°C, 7,500 to 10,000 feet; Humidity: 5-95% (non condensing)						
Regulatory	Safety: IEC/EN 60950, CB Certificate, UL60950-1 CAN/CSA-C22.2 No.60950-1, CE Mark Emissions Class A: EN55022/CISPR 22, FCC Part 14 Class A, ICES-003 Issue 4 Class A, VCCI Class A, AS/NZS CISPR22:2006 Class A BSMI CNS 13438 Class A, Korea RRA Notice No. 2011-18 Class A Immunity: EN55024, EN 61000-4-2,3,4,5,6,8,11 Korea RRA Notice No. 2011-17 RoHS 2011/65/EU;For a full list of specific country approvals, please contact Violin Memory in your country						
Acoustic	A-Weighted Sound Power Level (LWAD) 7.7B when fans are running nominal speed at 27°C; 9.1B when fans are running high speed at 27°C						
Relative Humidity: Unpackaged	10-85%						
Rel. Humidity: Packaged	15-95%						
Dry Bulb Temperature: Unpackaged	0°C to 50°C						
Dry Bulb Temperature: Packaged	-25°C to 70°C						
Non-Operating Altitude	40,000 feet/12,192 meters						



Pay as You Grow	VIMMs	Upgrade Path
V-6100-17	32	Up to 35TB with 2 additional capacity license keys
V-6100-26	32	Up to 35TB with 1 additional capacity license key
V-6100-35	32	Maximum capacity- no further upgrades
V-6100-8-U	n/a	QTY 1 6100 capacity license key
V-6232-HA64	64	Up to 70TB with 2 additional capacity license keys
V-6248-HA64	64	Up to 70TB with 1 additional capacity license key
V-6264-HA64	64	Maximum capacity- no further upgrades
V-6200-8-U	n/a	QTY 1 6200 capacity license key

* Maximum usable capacity is with 84% format level

** Nominal power measurements for Fibre Channel configuration