



DATA SHEET

Accelerate. Dominate. Endure.

FireCuda 510 SSD

Built specifically for professional-level gamers, the Seagate[®] FireCuda[®] 510 SSD brings the intense speeds, lasting endurance, and large capacity needed to accelerate PC storage performance.





Best-Fit Applications

- Gaming PC desktops
- Gaming PC laptops
- High-performance PCs and workstations
- Creative professional systems

Key Advantages

NVMe PCIe Gen3 ×4 interface unleashes the speed of NAND and delivers up to 6× faster performance than SATA SSDs

Blazing-fast sequential read/writes bring faster load times, faster program installations, and faster processing

Ultra-high random read/write IOPS translates to faster program response times and more responsive multiple program multitasking

Enhanced dynamic SLC cache with up to 28 GB reserved provides longer bursts of data

1 TB and 2 TB capacities for the storage of huge files and games without the worry of maxing out your drive or partitioning

M.2 2280 form factor for massive speed and capacity in a compact package for installation in tight spaces, leaving room for other components

Top-tier endurance gives pro-level gamers peace of mind with a 5-year limited warranty and MTBF of 1.8 M hours

SeaTools[™] SSD enhanced gaming tool with drive management and health monitoring so gamers can tune the drive to their performance needs





Specifications	2 TB	1 TB			
Standard Model (TCG Pyrite)	ZP2000GM30001	ZP1000GM30001			
Interface	PCIe G3 ×4, NVMe 1.3	PCIe G3 ×4, NVMe 1.3			
NAND Flash Memory	3D TLC	3D TLC			
Form Factor	M.2 2280-D2	M.2 2280-D2			
Performance					
Sequential Read (Max, MB/s), 128KB ¹	3450	3450			
Sequential Write (Max, MB/s), 128KB ¹	3,200	3,200			
Random Read (Max, IOPS), 4 KB QD32 T8	485,000	620,000			
Random Write (Max, IOPS), 4KB QD32 T8 ¹	600,000	600,000			
Endurance/Reliability					
Total Bytes Written (TB)	2,600	1,300			
Mean Time Between Failures (MTBF, hours)	1,800,000	1,800,000			
Warranty, Limited (years)	5	5			
Power Management					
Active Power, Average (W)	6.0	5.3			
Idle Power PS3, Average (mW)	26	20			
Low Power L1.2 mode (mW)	2	2			
Environmental					
Temperature, Operating Internal (°C)	0 to 70	0 to 70			
Temperature, Non-operating (°C)	-40 to 85	-40 to 85			
Shock, Non-operating: 0.5 ms (Gs)	1,500	1,500			
Special Features					
TRIM	Yes	Yes			
S.M.A.R.T.	Yes	Yes			
Halogen-free	Yes	Yes			
RoHS compliance	Yes	Yes			
Physical					
Length, Max (mm)	80.15	80.15			
Width, Max (mm)	22.15	22.15			
Height, Max (mm)	3.58	3.58			
Weight (g)	8.3	8.1			

¹ Fresh out of box (FOB) performance obtained on newly formatted drive. Performance may vary based on SSD's firmware version, system hardware, and configuration. Performance based on CrystalDiskMark v.5.2.1 × 64 on Windows 10 host.

Ordering Information						
Specifications						
Retail Packaging		Box Dimensions	Master Carton Dimensions	Pallet Dimensions		
Depth/Length (in/mm)		5.285 in/134.25 mm	5.078 in/129 mm	47.244 in/1200 mm		
Width (in/mm)		4.291 in/109 mm	10.944 in/278 mm	39.37 in/1000 mm		
Height (in/mm)		0.944 in/24 mm	6.653 in/169 mm	51.968 in/1,320 mm		
Weight (lb/kg)		0.136 lb/0.062 kg	2.028 lb/0.92 kg	428.799 lb/194.5 kg		
Quantities						
Boxes per Master Carton	10					
Master Cartons per Pallet	196					
Pallet Layers	7					

System Requirements

What's Included

- M.2 (M key) slot, PCIe G3 ×4 interface
- Windows[®] 10, Windows 8.1, Windows 7
- Linux

	Sagrata®	FireCuda®	510	990
_	Seagale	rifeGuda®	210	330

Region	Model Number	Capacity	Limited Warranty (years)	UPC Code	EAN Code	Multi-Pack UPC
ww	ZP1000GM30011	1000GB	5	763649133989	8719706016599	10763649133986
ww	ZP2000GM30021	2000GB	5	763649133996	8719706016605	10763649133993

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