



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 x4** 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 28GB reserved provides longer bursts of data

**2TB, 1TB, and 500GB 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 1.8M hours

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

**Three years of Rescue Data Recovery Services<sup>1</sup>**, offering an industry-leading 95% success rate against unexpected data loss.

<sup>1</sup> Rescue Data Recovery Services not available in all countries.



Specifications	2TB	1TB	500 GB
Standard Model (TCG Pyrite)	ZP2000GM30001	ZP1000GM30001	ZP500GM30001
Interface	PCIe G3 x4, NVMe 1.3	PCIe G3 x4, NVMe 1.3	PCIe G3 x4, NVMe 1.3
NAND Flash Memory	3D TLC	3D TLC	3D TLC
Form Factor	M.2 2280-D2	M.2 2280-D2	M.2 2280-D2
<b>Performance</b>			
Sequential Read (Max, MB/s), 128KB <sup>1</sup>	3450	3450	3450
Sequential Write (Max, MB/s), 128KB <sup>1</sup>	3200	3200	2500
Random Read (Max, IOPS), 4KB QD32 T8 <sup>1</sup>	485,000	620,000	420,000
Random Write (Max, IOPS), 4KB QD32 T8 <sup>1</sup>	600,000	600,000	600,000
<b>Endurance/Reliability</b>			
Total Bytes Written (TB)	2600	1300	650
Mean Time Between Failures (MTBF, hours)	1,800,000	1,800,000	1,800,000
Rescue Data Recovery Services (years) <sup>2</sup>	3	3	3
Warranty, Limited (years)	5	5	5
<b>Power Management</b>			
Active Power, Average (W)	6.0	5.5	4.7
Idle Power PS3, Average (mW)	26.4	20	16
Low Power L1.2 mode (mW)	2	2	2
<b>Environmental</b>			
Temperature, Operating Internal (°C)	0 to 70	0 to 70	0 to 70
Temperature, Nonoperating (°C)	-40 to 85	-40 to 85	-40 to 85
Shock, Nonoperating: 0.5ms (Gs)	1500	1500	1500
<b>Special Features</b>			
TRIM	Yes	Yes	Yes
S.M.A.R.T.	Yes	Yes	Yes
Halogen Free	Yes	Yes	Yes
RoHS Compliance	Yes	Yes	Yes
<b>Physical</b>			
Length (mm/in, max)	80.15mm/3.156in	80.15mm/3.156in	80.15mm/3.156in
Width (mm/in, max)	22.15mm/0.872in	22.15mm/0.872in	22.15mm/0.872in
Height (mm/in, max)	3.58mm/0.140in	3.58mm/0.140in	3.58mm/0.140in
Weight (g/lb)	8.7g/0.019lb	8.5g/0.018lb	8.0g/0.017lb

<sup>1</sup> 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 x64 on Windows 10 host.

<sup>2</sup> Rescue Data Recovery Services not available in all countries.



Ordering Information			
Specifications			
Retail Packaging	Box Dimensions	Master Carton Dimensions	Pallet Dimensions
Depth/Length (in/mm)	5.285in/134.25mm	5.078in/129mm	47.992in/1219mm
Width (in/mm)	4.291in/109mm	10.944in/278mm	20in/508mm
Height (in/mm)	0.944in/24mm	6.653in/169mm	27.795in/706mm
Weight (lb/kg)	0.136lb/0.062kg	2.028lb/0.92kg	104.80lb/47.54kg
Quantities			
Boxes per Master Carton	10		
Master Cartons per Pallet	48		
Pallet Layers	4		

System Requirements	What's Included
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|---|--|
| <ul style="list-style-type: none"> <li>• M.2 (M key) slot, PCIe G3 x4 interface</li> <li>• Windows<sup>®</sup> 10, Windows 8.1, Windows 7</li> <li>• Linux</li> </ul> | <ul style="list-style-type: none"> <li>• Seagate<sup>®</sup> FireCuda<sup>®</sup> 510 SSD</li> </ul> |
|---|--|

Region	Model Number	Capacity	Limited Warranty (years)	UPC Code	EAN Code	Multi-Pack UPC
WW	ZP500GM3A001	500GB	5	763649138458	8719706020169	10763649138455
WW	ZP1000GM30011	1000GB	5	763649133989	8719706016599	10763649133986
WW	ZP2000GM30021	2000GB	5	763649133996	8719706016605	10763649133993

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