

DATA SHEET

Fast. Dependable. Versatile.

## BarraCuda 510 SSD



The Seagate® BarraCuda® 510 SSD — legendary storage designed for taking your data to the next level of performance, reliability and efficiency.



### Best-Fit Applications

- Ultra-thin laptops
- Business PCs and laptops
- Workstations and all-in-one PCs

## Key Advantages

**Amazing speed** with next-level 3D TLC NAND and a PCIe Gen3 ×4, NVMe 1.3 unlock sequential read/write speeds of up to 3,400/2,180 MB/s

**The trusted dependability** of the BarraCuda brand with a 5-year limited warranty and MTBF of 1.8M hours.

**Amazing versatility** with capacities of 256 GB and 512 GB lets you pick the right drive for the job and budget

**Slim form factor** with single-sided M.2 2280 for ultra-thin/ultra-small laptops, mini PCs, and desktop PCs

**Low power** consumption with up to 4.2W active power and multiple low power modes make for longer battery life and cooler running speeds



Specifications	512 GB	256 GB
Standard Model (TCG Pyrite)	ZP512CM30011	ZP256CM30011
SED Model (TCG Opal)	ZP512CM30031	ZP256CM30031
Interface	PCIe G3 x4, NVMe 1.3	PCIe G3 x4, NVMe 1.3
NAND Flash Memory	3D TLC	3D TLC
Form Factor	M.2 2280-S2	M.2 2280-S2
<b>Performance</b>		
Sequential Read (Max, MB/s), 128KB <sup>1</sup>	3400	3100
Sequential Write (Max, MB/s), 128KB <sup>1</sup>	2180	1050
Random Read (Max, IOPS), 4 KB QD32 T8 <sup>1</sup>	350,000	180,000
Random Write (Max, IOPS), 4KB QD32 T8 <sup>1</sup>	530,000	260,000
<b>Endurance/Reliability</b>		
Total Bytes Written (TB)	320	160
Mean Time Between Failures (MTBF, hours)	1,800,000	1,800,000
Warranty, Limited (years)	5	5
<b>Power Management</b>		
Active Power, Average (W)	4.2	3.0
Idle Power PS3, Average (mW)	16	16
Low Power L1.2 mode (mW)	2	2
<b>Environmental</b>		
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
<b>Special Features</b>		
TRIM	Yes	Yes
S.M.A.R.T.	Yes	Yes
Halogen-free	Yes	Yes
RoHS compliance	Yes	Yes
<b>Physical</b>		
Length,(mm)	80.15	80.15
Width (mm)	22.15	22.15
Height (mm)	2.23	2.23
Weight (g)	6.9	6.5

<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.

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/1320 mm
Weight (lb/kg)	0.134 lb/0.061 kg	2.006 lb/0.91 kg	424.389 lb/192.5 kg
Quantities			
Boxes per Master Carton	10		
Master Cartons per Pallet	196		
Pallet Layers	7		

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® 10, Windows 8.1, Windows 7</li> <li>• Linux</li> </ul> | <ul style="list-style-type: none"> <li>• Seagate® BarraCuda® 510 SSD</li> </ul> |
|--|---|

Region	Model Number	Capacity	Limited Warranty (years)	UPC Code	EAN Code	Multi-Pack UPC
WW	ZP256CM30041	256GB	5	763649134009	8719706016612	10763649134006
WW	ZP512CM30041	512GB	5	763649134016	8719706016629	10763649134013

<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.

[seagate.com](http://seagate.com)



AMERICAS	Seagate Technology LLC 10200 South De Anza Boulevard, Cupertino, California 95014, United States, 408-658-1000
ASIA/PACIFIC	Seagate Singapore International Headquarters Pte. Ltd. 7000 Ang Mo Kio Avenue 5, Singapore 569877, 65-6485-3888
EUROPE, MIDDLE EAST, AND AFRICA	Seagate Technology SAS 16-18, rue du Dôme, 92100 Boulogne-Billancourt, France, 33 1-4186 10 00

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