

9 S E A G A T E

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



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ŝ.	2P512CM38011	512GB BarraCuda*510 SSD	10
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Specifications	512 GB	256 GB	
Standard Model (TCG Pyrite)	ZP512CM30011	ZP256CM30011	
SED Model (TCG Opal)	ZP512CM30031	ZP256CM30031	
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-S2	M.2 2280-S2	
Performance			
Sequential Read (Max, MB/s), 128KB ¹	3400	3100	
Sequential Write (Max, MB/s), 128KB ¹	2180	1050	
Random Read (Max, IOPS), 4 KB QD32 T8 ¹	350,000	180,000	
Random Write (Max, IOPS), 4KB QD32 T8 ¹	530,000	260,000	
Endurance/Reliability			
Total Bytes Written (TB)	320	160	
Mean Time Between Failures (MTBF, hours)	1,800,000	1,800,000	
Warranty, Limited (years)	5	5	
Power Management			
Active Power, Average (W)	4.2	3.0	
Idle Power PS3, Average (mW)	16	16	
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,(mm)	80.15	80.15	
Width (mm)	22.15	22.15	
Height (mm)	2.23 2.23		
Weight (g)	6.9	6.5	

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 \times 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/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	ers 7					

System Requirements

• M.2 (M key) slot, PCIe G3 ×4 interface

• Windows[®] 10, Windows 8.1, Windows 7

• Linux

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

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What's Included

• Seagate[®] BarraCuda® 510 SSD

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