BARRACUDA COMPUTE

SEAGATE

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 cTLC NAND and a PCIe Gen3 ×4, NVMe 1.3 unlock sequential read/write speeds of up to 3400/2100MB/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 4.1W active power and multiple low power modes make for longer battery life and cooler running speeds

Specifications	512GB	256GB
Standard Model Numbers	ZP512CM30011	ZP256CM30011
Seagate Secure™ SED Model (TCG Opal)	ZP512CM30031	ZP256CM30031
Interface	PCIe G3 ×4, NVMe 1.3	PCIe G3 ×4, NVMe 1.3
NAND Flash Memory	3D cTLC	3D cTLC
Form Factor	M.2 2280-S2	M.2 2280-S2
Performance		
Sequential Read (Max, MB/s), 128KB[1]	3,400	3,050
Sequential Write (Max, MB/s), 128KB[1]	2,100	1,050
Random Read (Max, IOPS), 4 KB QD32 T8[1]	340,000	180,000
Random Write (Max, IOPS), 4KB QD32 T8[1]	500,000	255,000
Endurance/Reliability		
Total Bytes Written (TB)	320	160
Mean Time Between Failures (MTBF, hours)	1,800,000	1,800,000
Limited Warranty (years)	5	5
Power Management		
Active Power, Average (W)	4.1	3
Idle Power, Average (mW)	20	20
Low Power L1.2 mode (mW)	2	2
Environmental		
Temperature, Operating Internal (°C)	0°C – 70°C	0°C – 70°C
Temperature, Non-operating (°C)	-40°C – 85°C	-40°C – 85°C
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/in)	80.15 mm/3.156 in	80.15 mm/3.156 in
Width, Max (mm/in)	22.15 mm/0.872 in	22.15 mm/0.872 in
Height, Max (mm/in)	2.23 mm/0.088 in	2.23 mm/0.088 in
Weight, Max (g/lb)	6.9 g/0.0152 lb	6.5 g/0.0143 lb
Carton Unit Quantity	20	20
Cartons per Pallet / Cartons per Layer	54/6	54/6

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.

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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