



DATA SHEET

Fast. Dependable. Versatile.

## BarraCuda 515 SSD



The Seagate® BarraCuda™ 515 SSD—legendary storage designed with integrated advanced data security features delivers high performance, advanced reliability, data protection, and security.



### Best-Fit Applications

- Laptops
- Desktops
- Workstations
- Business PCs
- All-in-one PCs

## Key Advantages

**Secure firmware** meets strict encryption and security requirements set by the US Government to keep sensitive data protected and secure.

**TCG Opal compliant** self-encrypting SSD with strong AES-256 hardware-based encryption to help protect data-at-rest.

**FIPS 140-2 Level 2 certified**<sup>1</sup> complies with corporate and federal data security mandates.

**Common Criteria certified**<sup>2</sup>—a complete FDE solution that meets the requirements of Commercial Solutions for Classified (CSfC) Data at Rest (DAR) Capabilities Package 5.0

**Tamper-evident coating** seals SSD's circuitry and components to provide physical security.

**Instant secure erase** enables safe, fast, and cost-effective SSD retirement or redeployment.

**TAA-compliant** satisfies fair and open international trade agreements.

**Amazing speed** PCIe® Gen3 x4 interface delivers fast read and write speeds of up to 3400MB/s and 640,000 IOPS.

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

**Compact M.2 2280 form factor** for laptops, mini PCs, and desktop PCs.

<sup>1</sup> NIST certificate #4294

<sup>2</sup> NIAP Common Criteria FDE\_EE (VID 11322)



Specifications	2048GB	1024GB	512GB	256GB
SED-FIPS 140-2 / Common Criteria Model	ZP2048MC30012	ZP1024MC30012	ZP512MC30012	ZP256MC30012
Interface	PCIe Gen3 x4, NVMe 1.3	PCIe Gen3 x4, NVMe 1.3	PCIe Gen3 x4, NVMe 1.3	PCIe Gen3 x4, NVMe 1.3
NAND Flash Memory	3D TLC	3D TLC	3D TLC	3D TLC
Form Factor	M.2 2280-D2	M.2 2280-D2	M.2 2280-D2	M.2 2280-D2
Performance				
Sequential Read (Max, MB/s), 128KB <sup>1</sup>	3400	3400	3400	3300
Sequential Write (Max, MB/s), 128KB <sup>1</sup>	3000	3100	2500	1300
Random Read (Max, IOPS), 4KB QD32 T8 <sup>1</sup>	640000IOPS	640000IOPS	420000IOPS	210000IOPS
Random Write (Max, IOPS), 4KB QD32 T8 <sup>1</sup>	640,000	640,000	625,000	320,000
Endurance/Reliability				
Total Bytes Written (TB)	2310	1140	545	245
Mean Time Between Failures (MTBF, hours)	1800000 hrs	1800000 hrs	1800000 hrs	1800000 hrs
Warranty, Limited (years)	5	5	5	5
Power Management				
Active Power, Average (W)	5.3W	5.3W	5.1W	5.0W
Idle Power PS3, Average (mW)	0.022mW	0.021mW	0.016mW	0.016mW
Low Power L1.2 mode (mW)	2	2	2	2
Environmental				
Temperature, Operating Internal (°C)	0°C – 70°C	0°C – 70°C	0°C – 70°C	0°C – 70°C
Temperature, Nonoperating (°C)	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C	-40°C – 85°C
Shock, Nonoperating: 0.5ms (Gs)	1500Gs	1500Gs	1500Gs	1500Gs
Bulk Pack Specifications				
Carton Unit Quantity	20	20	20	20
Cartons Per Pallet/Layer	54/6	54/6	54/6	54/6
Special Features				
TRIM	Yes	Yes	Yes	Yes
S.M.A.R.T.	Yes	Yes	Yes	Yes
RoHS Compliance	Yes	Yes	Yes	Yes
TCG Opal 2.0	Yes	Yes	Yes	Yes
TAA Compliance	Yes	Yes	Yes	Yes
Physical				
Length (mm/in, max)	80.15mm/3.155in	80.15mm/3.155in	80.15mm/3.155in	80.15mm/3.155in
Width (mm/in, max)	22.15mm/0.872in	22.15mm/0.872in	22.15mm/0.872in	22.15mm/0.872in
Height (mm/in, max)	4.78mm/0.188in	4.78mm/0.188in	4.78mm/0.188in	4.78mm/0.188in
Weight (g/lb)	9.2g/0.0203lb	8.9g/0.0196lb	8.5g/0.0187lb	8.5g/0.0187lb

<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.6.0. x64 on Windows 10 host.

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