



SEAGATE
GOVERNMENT
SOLUTIONS

SOLUTIONS BRIEF

BarraCuda 515 SSD Series with FIPS & Common Criteria
Fast. Secure. Dependable. Versatile.



The BarraCuda™ 515 SSD series is designed with integrated advanced data security features for high-security data environments. BarraCuda delivers high performance, advanced reliability, data protection, and security.



BarraCuda 515 Series

- Ultra-dense form factor
- High performance up to 3400 MB/s and 640,000 IOPS
- MTBF 1.8M hours

Best-Fit Applications

- Laptops
- Workstations
- Business PCs
- Servers
- Thin clients
- Supported OS: Linux & Microsoft Windows® 7, 8, 10, 11

Available from Seagate Government Solutions, for more information or a quote contact Inquiries@seagategov.com

The Federal Information Processing Standard (FIPS) Publication 140-2 is a U.S. government computer security standard used to approve cryptographic modules. Trade Agreement Act: 19 U.S.C. § 2501-2581 (TAA) fosters fair and open international trade between nations, requiring that products are produced or undergo "substantial transformation" within the United States or designated country.

Key Advantages

Hardware

- M.2 NVMe SSD with integrated advanced data security
- Meets the requirements to keep sensitive and classified data
 - TCG Opal Compliant Self-Encrypting Drive
 - FIPS 140-2 Level 2 Certified
 - Common Criteria Certified - Full Disk Encryption Solution - (FDE - Authorization Acquisition and Encryption Engine)
 - Includes perpetual Cigent® PBA application environment and Windows® software license
 - TAA-compliant
 - Commercial Solutions for Classified Program (CSfC) in progress
- World class reliability and quality with 5-yr. hardware warranty and 1-yr. software warranty
- AES-256-XTS hardware encryption for data-at-rest protection
- Code signing for Secure Boot and firmware download protection using RSA-2048 Digital Signatures
- Supports TCG OPAL SSC 2.0

The Seagate BarraCuda 515 SSD and a perpetual Cigent® software license always protects your data

Software

Invisible Data

- Adversaries cannot steal what they cannot see: unreadable storage partition protected by non-recoverable key.

Tamper-Evidence Protection - Evident epoxy resin

- A novel approach to the creation and storage of credentials that make credential access impossible.

Multi-Factor Authentication (MFA) for File Access

- Zero-day ransomware, malware, and software service bypass prevention.

Verified Device Erasure

- Ensures every block has truly been wiped.

Immutable Insider Detection

- Secure data access logs capture all insider threat activity.

Automated Threat Response

- Makes data invisible if Cigent® Data Defense is disabled.

Cigent® Pre Boot Application Features

- Full Disk Encryption aka FDE (supports any OS) - compliant with NIAP Common Criteria FDE_AA Protection Profile and CSfC DAR Capabilities Package 5.0
- Pre Boot Authentication (PBA) with password, CAC/PIV, or both for MFA
- MFA (supports password and/or smart card) - compliant with NIST MFA definition and Executive Order E14028
- Cryptographic Erasure (Crypto Erase)
- Cigent® unique firmware-based full block erasure verification
- Cigent® Windows® application integration
- Full NVMe drive erasure verified by firmware-based verified device erasure



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Specifications	2048GB	1024GB	512GB	256GB
Self Encrypting Drive (SED) FIPS 140-2 Common Criteria Model ¹	ZP2048MC30012	ZP1024MC30012	ZP512MC30012	ZP256MC30012
Interface	PCIe G3 x4, NVMe 1.3	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	3D TLC
Form Factor	M.2 2280-D3	M.2 2280-D3	M.2 2280-D3	M.2 2280-D3
Part Number (Required when ordering)	3J9307-867	3J9306-867	3J9305-86	3J9304-867
Performance				
Sequential Read (Max, MB/s), 128KB ²	3400	3400	3400	3300
Sequential Write (Max, MB/s), 128KB ²	3000	3100	2500	1300
Random Read (Max, IPS), 4KB QD32 T8 ²	640,000	640,000	420,000	210,000
Random Write (Max, IOPS), 4KB QD32 T8 ²	640,000	640,000	625,000	320,000
Endurance/Reliability				
Total Bytes Written (TB)	2310	1140	545	245
Mean Time Between Failures (MTBF, hours)	1,800,000	1,800,00	1,800,00	1,800,00
Warranty, Limits (years)	5	5	5	5
Power Management				
Active Power, Average (W)	5.3	5.3	5.1	5.0
Idle Power PS3, Average (mW)	0.022	0.021	0.016	0.016
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, Non-operating (°C)	-40°C - 85°C	-40°C - 85°C	-40°C - 85°C	-40°C - 85°C
Shock, Non-operating: 0.5ms (Gs)	1500	1500	1500	1500
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
Perpetual Cigent® Software License for Windows®	Yes	Yes	Yes	Yes
TAA Compliance	Yes	Yes	Yes	Yes
Physical				
Length (mm/in, max)	3.156in	3.156in	3.156in	3.156in
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	8.0g/0.0196lb	8.5g/0.0187lb	8.5g/0.0187lb
Other				
Thermal Throttling	Yes	Yes	Yes	Yes
End-to-End Data Protection	Yes	Yes	Yes	Yes
Advanced LDPC ECC	Yes	Yes	Yes	Yes

¹ FIPS and Common Criteria certification pending

² 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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