

SMART RUGGED™

T5E+ | 2.5″ SATA

SMART's RUGGED T5E+ 2.5" SATA solid state drives (SSDs) deliver high performance, high capacity storage solutions optimized for defense, aerospace and other applications requiring durable, rugged and secure storage. T5E+ 2.5" SATA SSDs provide sustained read/write performance to meet the needs of high throughput applications, such as flight data recorders and sensor data capture. They are also well suited for high-reliability telemetry, surveillance, and mission-critical applications.

Conforming to SMART's "true" industrial grade standards, T5E+ 2.5" SATA SSDs are superior to typical SSDs and HDDs in terms of ruggedness, vibration and shock resistance, and environmental resilience.



Features & Benefits

- AES-XTS 256-Bit Encryption Automatically Protects Data Written to The Drive
- True Industrial Grade Storage Solution for "No-Compromise" Applications
- Advanced Flash Management for Enhanced Reliability and Durability
- Self-Monitoring Analysis and Reporting Technology (S.M.A.R.T.) Support
- 100% 8 Hour Burn-In (I-Temp -40°C to +85°C)
- SafeDATA™ Technology Combines Unique Power Loss Detection and Hold-Up Circuitries That Protects Data in Case of Sudden Power Failure
- Secure Data Elimination Technology (SDET) Meets Current Military Data Declassification Standards (Optional)
- High Endurance pSLC Configurations (Optional)
- TCG OPAL 2.0 Compliant (Optional)

Applications

- Military
- Defense
- Aerospace
- Telemetry
- Surveillance

Product Family Overview

Capacity	Sequential Performance	Random Performance
240GB to 15360GB	Up to 560 MB/sec Up to 535 MB/sec	Up to 97,000 IOPS Up to 52,000 IOPS

One gigabyte, or GB, equals one billion bytes when referring to drive capacity. Accessible capacity may vary based on the operating environment and drive formatting

Specifications

	T5E+ 2.5" SATA	
NAND Type	TLC	pSLC
Performance		
Host Interface Rate (maximum)	6Gb/s (Backwards compatible to 3Gb/s & 1.5Gb/s)	
Capacities	240GB to 15360GB	240GB to 3840GB
Burst	600MB/S	
Sequential Read (maximum)	Up to 560 MB/sec	
Sequential Write (maximum)	Up to 535 MB/sec	
Random Read (maximum)	Up to 97,000 IOPS	
Random Write (maximum)	Up to 20,000 IOPS	Up to 52,000 IOPS
Reliability		
MTBF	> 2M hours, Telcordia 25°C[1]	
Data Reliability	1 in 10^{17} bits read	
Data Retention	JESD218	
Endurance	2.5 DWPD JESD219 Client 1.0 DWPD JESD219 Enterprise	65 DWPD JESD219 Client 40 DWPD JESD219 Enterprise
Warranty	1 Year	
Power		
Input Voltage	5 V	
Idle (typical)	< 4W	
Operational (typical)	5 W	
Environmental		
Shock	1500G half-sine, 0.5 msec, 1 shock along each axis, X, Y, Z in each direction[1]	
Vibration	10 G (peak, 10-2000 Hz)	
Relative Humidity	5% to 95% non-condensing	
Conformal Coating	Optional	
Operating Temperature	Industrial: -40°C to +85°C	
Storage Temperature	-55°C to +95°C	
Altitude	24,384 m [80,000 ft]	
Mechanical		
Length	100.2 mm	
Width	69.85 mm	
Height	7.0 mm	

[1]Based and tested on 240GB Drive

Data Security Features

	2.5″ SATA
Encryption	AES-XTS 256-bit (FIPS 197 compliant)
Protection	Write-Protect Feature
Elimination (Optional)	ATA-8 Security Erase ATA-8 Sanitize Device Feature Set Clear DoD NISPOM 5220.22-M DoD NISPOM 5220.22-M-Sup 1 NSA/CSS Manual 130-2 NSA/CSS Manual 9-12 Army AR 380-19 Navy NAVSO P-5239-26 Air Force AFSSI-5020 Two External Triggers

Ordering Information

Part Number	Density
Non-Secure TLC Models	
HRGA2X15T3RI001*	15360GB
HRGA2X7680RI001*	7680GB
HRGA2X3840RI001*	3840GB
HRGA2X1920RI001*	1920GB
HRGA2X0960RI001*	960GB
HRGA2X0480RI001*	480GB
HRGA2X0240RI001*	240GB
Secure TLC Models (with TCG Opal & Mil Erase)	
HRGA2P15T3RI001*	15360GB
HRGA2P7680RI001*	7680GB
HRGA2P3840RI001*	3840GB
HRGA2P1920RI001*	1920GB
HRGA2P0960RI001*	960GB
HRGA2P0480RI001*	480GB
HRGA2P0240RI001*	240GB
Non-Secure pSLC Models	
HRGA2X3840SI001*	3840GB
HRGA2X1920SI001*	1920GB
HRGA2X0960SI001*	960GB
HRGA2X0480SI001*	480GB
HRGA2X0240SI001*	240GB
Secure pSLC Models (with TCG Opal & Mil Erase)	
HRGA2P3840SI001*	3840GB
HRGA2P1920SI001*	1920GB
HRGA2P0960SI001*	960GB
HRGA2P0480SI001*	480GB
HRGA2P0240SI001*	240GB

*Conformal Coat Option Replace "001" with "CC1

SMART® Modular Technologies
A PENGUIN SOLUTIONS® BRAND

For more information, please visit: **www.smartm.com**

**Product images are for promotional purposes only. Labels may not be representative of the actual product.*

Headquarters/North America:
T: (+1) 800-956-7627 • T: (+1) 510-623-1231
F: (+1) 510-623-1434 • E: info@smartm.com

Latin America:
T: (+55) 11 4417-7200 • E: sales.br@smartm.com

Asia/Pacific:
T: (+65) 6678-7670 • E: sales.asia@smartm.com

EMEA:
T: (+44) 0 7826-064-745 • E: sales.euro@smartm.com

Customer Service:
T: (+1) 510-623-1231 • E: customers@smartm.com

© 2026 SMART Modular Technologies, Inc., a Penguin Solutions brand. All rights reserved. The stylized "S" in conjunction with "SMART", as well as "SMART Modular Technologies" are registered trademarks of SMART Modular Technologies, Inc. All other trademarks are the property of the respective owners. These materials are provided by SMART Modular Technologies, Inc. as a service to its customers and may only be used for informational purposes.

07.20.26/T5E+/Rev.2