

D300Pro Tantalum Capacitor Series SATA SSD



Introduction

D300Pro tantalum capacitor series uses the latest MAS1101 SATA controller and Yangtze Memory 128L 3D NAND TLC. Its SATA interface supports 6 Gb/s transmission speed. D300Pro tantalum capacitor series supports AES 256-bit encryption engine. At the same time, the product can better protect important data stored in it with more reliable end-to-end data protection function and exception read-only firmware auto reloading function.

Features

- **Optimized Firmware for Complex I/O Load in Data Center**

The product can achieve better QoS (Quality of Service) performance in SATA interface via optimized firmware. The sequential read/write speeds of up to 536 / 505 MB/s and random read/write speeds of up to 96K / 56K IOPS makes it easy to handle a large number of complex data read/write requests.

- **More Reliable Data Protection Design**

Data integrity is of the utmost importance to the enterprise or data center. The product is designed with reliable end-to-end data protection strategy, complete exception power-off protection, and the read-only firmware auto reloading function in exceptional circumstances.

- **Good Maintainability**

The product supports hot update of the firmware. After applying the update command, the firmware will take effect without restarting, avoiding causing inconvenience. Meanwhile, Hiksemi's all-series SSD product provides management tool for more convenient maintenance of your storage system.

- **Professional Aftersales Team**

Relying on Hikvision's after-sales outlets, you can easily obtain technical services and warranty replacement. Our SSD supports a limited 5-year warranty or 3DWPD (Drive Writes Per Day). If the product fails, we will provide you with a solution.

Ordering Information

Capacity	Model
240 GB	D300Pro 240G-SSDD13DKB3AA240GC00
480 GB	D300Pro 480G-SSDD13DKB5AA480GC00
960 GB	D300Pro 960G-SSDD13DKB6AA960GC00
1920 GB	D300Pro 1920G SSDD13DKB8AA1920GC00
3840 GB	D300Pro 3840G-SSDD13DKB12AA3840GC00

Note

Please contact the local sales for detailed model information.

Specification

Model		D300Pro Tantalum Capacitor Series				
Capacity ¹		240 GB	480 GB	960 GB	1920 GB	3840 GB
Form Factor		2.5 inch 7mmT				
Dimensions (L × W × H)		100.2 × 69.85 × 6.80 (mm)				
Weight		Max. 85 g				
NAND Type		YMTC 128Layer 3D TLC				
Interface		SATA 6.0 Gbps				
Performance ²	Seq.Read (128 KiB)	536 MB /s				
	Seq.Write (128 KiB)	388 MB/s	504 MB/s	504 MB/s	505 MB/s	504 MB/s
	Random Read (4 KiB QD32 100% Span)	95,000 IOPS	96,000 IOPS	96,000 IOPS	95,000 IOPS	94,000 IOPS
	Random Write (4 KiB QD32 100% Span)	48,000 IOPS	49,000 IOPS	53,000 IOPS	56,000 IOPS	56,000 IOPS
Encryption Support		AES 256-bit Encryption Engine				
Average Power Consumption ³		Average read power consumption is up to 2.7 W, and average write power consumption up to 3.4 W.				
Allowed Voltage		5.0V ± 5% 12.0V ± 10%				
MTBF ⁴		2 M Hours				
UBER ⁵		10 ⁻¹⁷				
Operating Temperature ⁶		0 to 70 °C (32 °F to 158 °F)				
Storage Temperature (No Operation)		-40 to 85 °C (-40 °F to 185 °F)				
Shock (No Operation)		1500 G / 20 G				
Warranty Write		1314 TB	2628 TB	5256 TB	10512 TB	21024 TB
Warranty Period ⁷		5-year limited warranty, or 3DWPD, whichever comes first				

Note

- 1 GB = 1,000,000,000 bytes according to the International Disk Drive Device Equipment and Materials Association (IDEMA). The available space may be smaller due to formatting, partitioning method, operating system, application, or other factors.
- Hardware environment and application software are different during actual use. Performance may be affected. Test conditions in list are as follows:

- Use FIO 3.7 to test under QD32 condition. The test platform uses Intel Xeon Scalable 4210R dual-channel server to connect to Intel 6G SATA interface.
 - Read/write span is full disk LBA span (Full LBA Span) during test.
 - Write Cache Enabled
 - 1MB /s = 1,048,676 bytes/sec
3. Power consumption is influenced by operating system, hardware, and other parameters during actual use. Power consumption test in list is based on 128 KiB writing and 128 KiB reading.
 4. The Mean Time Between Failure (MTBF) is the estimated time between two faults during SSD operation.
 5. UBER characterization data error rate. JEDEC JESD218 document stipulates that the number of data errors read per bit. In enterprise-level applications, UBER should be less than 10^{-16} .
 6. The operating temperature is obtained from the SMART temperature captured by the sensor on the SSD.
 7. Warranty period and writing amount, whichever is earlier.

For more information, go to <https://www.hiksemitech.com/> or contact regional sales for details.

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Revision History

Version	Description	Date
V1.0.0	D300Pro Tantalum Capacitor Series	20240430

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