



## APSSD-5000M Enterprise SSD

2.5" SATA Gen3 SSD for Data Center and Enterprise Workloads

### Key Features

- Enterprise-grade 2.5" SATA SSD
- Power Loss Protection (PLP)
- End-to-End Data Path Protection
- TCG Opal 2.0 support (SED models)
- DWPD = 1 for 5 years
- AES 256-bit encryption (SED models)
- MTBF: 2 million hours
- Available in SED and Non-SED variants

### Device Capacities & Model Info

Capacity	Non-SED P/N	SED P/N	User Addressable Sectors	Bytes per Sector
1920GB	S1201Y031T92P022T0400	S1201Y031T92P222T0400	3,750,748,848	512Bytes
3840GB	S1201Y033T84P024T0900	S1201Y033T84P224T0900	7,501,476,528	

### Performance - Sequential Read/Write (128KB QD32)

Model Name	Capacity	Read (MB/s)	Write (MB/s)
APSSD-5000M	1920GB	530	500
	3840GB	530	500

### Performance - Random Read/Write (4K QD32)

Model Name	Capacity	Flash Type	Read (IOPS)	Write (IOPS)
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APSD-5000M	1920GB	3D TLC	98K	39K
	3840GB		98K	35K

IOPS Consistency

Model Name	Capacity	Flash Type	Random 4KB (QD=32, Job=1)	
			Read	Write
APSSD-5000M	1920GB	3D TLC	99%	78%
	3840GB		99%	69%

Latency

Model Name	Capacity	Flash Type	Random 4KB (QD=1, Job=1)	
			Read (us)	Write (us)
APSSD-5000M	1920GB	3D TLC	110	30
	3840GB		100	30

Reliability - TBW (TeraBytes Written) and DWPD (Drive Write Per Day)

Model Name	Capacity	TBW (TB)	DWPD
APSSD-5000M	1920GB	3504	1
	3840GB	7008	1

ENVIRONMENTAL SPECIFICATIONS

Temperature and Humidity

Temperature	Operating	0°C to 70°C <sup>1</sup>
	Non-operating	-40°C to 85°C
Temperature Cycle Test	Operating	0°C to 70°C <sup>1</sup>
	Non-operating	-40°C to 85°C
Relative Humidity	<sup>42</sup> Operating	10% to 93%
	Non-operating	10% to 93%

NOTES:

1. Operating temperature is measured by device temperature sensor. Airflow is suggested and it will allow device to be operated at appropriate temperature for each component during heavy workloads environment.

Thermal Throttling

Thermal Management Temperature(TMT)	Condition	Throttled Performance
TMT1	Flash reaches 68°C	Decline 10% of max CE
TMT2	Flash reaches 70°C	Decline 20% of max CE
TMT Protect	Flash reaches 80°C	Forced to 1 CE
TMT Fatal	Controller reaches 120°C	Save data to NAND and shut down power

Power Consumption

Mode	Power (W)
Idle (Average RMS, W)	1.4-1.7
Read (Seq)	2.0-2.3
Write (Seq)	2.6-2.9
Random R/W Mix	2.5-3.3

Environmental & Physical

- Operating Temp: 0°C to 70°C
- Storage Temp: -40°C to 85°C
- Shock: 1000G / Vibration: 3.08Grms (op)
- Drop: 80 cm / Bending: 50N force
- Dimensions: 100.00 x 69.85 x 7.00 mm
- Weight: 56g - 62g (varies by capacity)

Compliance

- Certifications: BIS, CE, FCC, BSMI, VCCI, UKCA, RoHS, ICES, KCC, CB, UL
- RoHS Compliant

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- (2) failure to comply with Arin Computer's instructions;

- (3) Arin Computer's compliance with or use of the instructions, technologies, designs, specifications, devices, materials, components, parts, software and firmware provided, instructed or approved by Buyer (including any of its parents, subsidiaries, affiliates, suppliers, subcontractors or downstream customers);
- (4) combination of Arin Computer Product with other materials, components, parts, goods, hardware, firmware or software not supplied by Arin Computer;
- (5) any claim brought by a third party who is commonly known as intellectual property right assertion entity or patent troll;
- (6) NAND flash itself or NAND flash which is embedded into Arin Computer Products;
- (7) Arin Computer's compliance with general industry standards;
- (8) other error or failure not solely attributable to Arin Computer's cause (including without limitation, normal wear or tear, manufacturing or assembly wastage, improper operation, virus, unauthorized maintenance or repair).

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