



# Product Datasheet

500GB TLC SSD SED SATA7mm 6Gb/s 2.5IN TCG OPAL V2



- **Product Code:** NB-500SSD/SED-TLC
- **Product EAN:** 5055146625476
- **Warranty:** Advanced Replacement - 3 Years

Origin Storage Ltd manufactures a full range of Matched SSD Solutions for most major branded Servers, laptops and desktops, such as Dell, HP, Toshiba, and Lenovo. All of our Matched SSD Solutions come with up to 5 years advanced replacement warranty and also come with free pre and post sales technical support. We can supply replacements or upgrades in form factors of 2.5" or 3.5", M.2 & AIC with either SATA, SAS or PCIe interfaces respectively, available in a range of capacities and drive write endurances for laptop, desktop or Server. All our Matched SSD Solutions are just that, matched to the system you have for 100% compatibility, right first time, every time!

# Technical Specifications

## Weight & Dimensions

<b>Height:</b>	7 mm
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## Power

<b>Operating Voltage:</b>	5 V
<b>Power Consumption (read):</b>	3.1 W
<b>Power Consumption (write):</b>	4.55 W
<b>Power Consumption (max):</b>	4.55 W
<b>Power Consumption (average):</b>	3.825 W
<b>Power Consumption (idle):</b>	0.54 W

## Operational Conditions

<b>Operating Temperature (T-T):</b>	0 - 70 °C
<b>Storage Temperature (T-T):</b>	-45 - 105 °C
<b>Operating Relative Humidity (H-H):</b>	5 - 98%
<b>Storage Relative Humidity (H-H):</b>	5 - 98%
<b>Operating Vibration:</b>	16 G
<b>Operating Shock:</b>	1500 G
<b>Maximum Operating Altitude:</b>	36576 m

## Packaging Data

<b>Storage Drive Adapter Included:</b>	No
<b>Screws Included:</b>	No
<b>Package Type:</b>	Blister

## Other Features

<b>Internal:</b>	Yes
<b>Internal Memory Type:</b>	TLC
<b>Compliance Certificates:</b>	RoHS
<b>Compatible Products:</b>	Universal

## Features

<b>SSD Capacity:</b>	512 GB
<b>SSD Form Factor:</b>	2.5"
<b>Interface:</b>	Serial ATA
<b>NVMe:</b>	No
<b>Memory Type:</b>	3D TLC
<b>Component For:</b>	PC/Laptop
<b>Hardware Encryption:</b>	No
<b>Data Transfer Rate:</b>	6 Gbit/s
<b>Read Speed:</b>	550 MB/s
<b>Write Speed:</b>	500 MB/s
<b>Random Read (4KB):</b>	53760 IOPS
<b>Random Write (4KB):</b>	56320 IOPS
<b>Access Time:</b>	0.1 ms
<b>Seek Time:</b>	0 ms
<b>S.M.A.R.T. Support:</b>	Yes
<b>TRIM Support:</b>	Yes
<b>Hot-swap:</b>	No
<b>Mean Time Between Failures (MTBF):</b>	1000000 h
<b>Windows Operating Systems Supported:</b>	Yes

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**Linux Operating Systems Supported:** Yes

**TBW Rating:** 100

**Certification:** TCG OPAL V2

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## Logistics Data

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**Harmonized System (HS) Code:** 84717070

## Origin Storage Limited

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