

# AP846 OEM SSD

BIWIN AP846 OEM SSD is a high-performance storage solution that integrates advanced 3D TLC NAND flash technology, the PCIe 4.0 interface, and NVMe 2.0 protocol. With read speeds up to 7000 MB/s and write speeds up to 6500 MB/s, the AP846 ensures optimal responsiveness, enabling swift data transfer and improved system performance for high-demand applications. Available in capacities ranging from 512 GB to 2 TB, the AP846 is designed with the M.2 2242 form factor, providing a compact and versatile storage solution for various devices.



## Key Features

### Unleash High-Speed Data Transfers

The BIWIN AP846 leverages a PCIe Gen4x4 interface and NVMe 2.0 protocol to provide read and write speeds up to 7000 MB/s and 6500 MB/s. With its advanced technology, the AP846 delivers reliable, fast data transfers, improving overall system efficiency and minimizing downtime across applications.

### Intelligent Temperature Control

The BIWIN AP846 employs a single-sided design combined with an intelligent temperature control algorithm, effectively managing heat dissipation. Engineered to prevent overheating, it delivers reliable stability under heavy workloads to ensure consistent performance and a longer lifespan.

### Low Power Consumption

The BIWIN AP846 integrates an advanced intelligent power management unit with NVMe power management technology, offering precise control over power consumption in both active and idle modes. This ensures ultra-low power usage, enhancing battery life and supporting extended operation.

### Multiple Cutting-Edge Technologies

Built to meet the rigorous demands of high-performance environments, the BIWIN AP846 integrates cutting-edge features such as dynamic/static wear leveling, TRIM command, S.M.A.R.T., intelligent thermal throttling, garbage collection and more. Designed for optimal durability and efficiency, it offers continuous performance and multiple protections against data loss.

### Quality Assurance with Rigorous Testing

The BIWIN AP846 is built with premium flash memory chips and undergoes a rigorous testing process, including electrical, application, and compatibility tests, ensuring exceptional performance and reliability. With a 3-year warranty and technical support, the BIWIN AP846 provides long-term reliability and performance, offering complete peace of mind for customers.

## Technologies

Modern Standby

ATA Encryption

End-to-End Data Protection

S.M.A.R.T.

Garbage Collection

TRIM Command

Dynamic/Static Wear Leveling

In-drive RAID

Bad Block Management

Read Scrub

SLC Cache Acceleration

Intelligent Thermal Throttling

ESD Protection

Read Disturbance

Firmware Update

## Applications



Desktop



Laptop



Tablet



All-in-One PC



Thin Client



Mini PC

## Specifications

<b>Model Name</b>	AP846
<b>Interface</b>	PCIe Gen4x4, NVMe 2.0
<b>Form Factor</b>	M.2 2242
<b>Flash Type</b>	3D TLC
<b>Firmware</b>	SLC Cache
<b>DRAM Cache</b>	DRAM-less
<b>Capacity</b>	512 GB / 1 TB / 2 TB
<b>Sequential Read (Up to)</b>	7000 MB/s
<b>Sequential Write (Up to)</b>	6500 MB/s
<b>Random Read 4K (Up to)</b>	1000K IOPS
<b>Random Write 4K (Up to)</b>	1000K IOPS
<b>Read Power Consumption (Max.)</b>	4.6 W
<b>Write Power Consumption (Max.)</b>	4.5 W
<b>Idle Power Consumption (Max.)</b>	60 mW
<b>Dimensions</b>	22.00±0.15 x 42.00±0.15 x 2.20 (Max.) mm
<b>Operating Temperature</b>	0°C to + 70°C
<b>Storage Temperature</b>	-40°C to + 85°C
<b>MTBF</b>	>1,500,000 hours
<b>TBW</b>	1500 TBW
<b>Warranty</b>	3-Year Limited

## Order Information

Capacity	Part Number
<b>512 GB</b>	CE942V88900-512
<b>1 TB</b>	CE942V88900-1TB
<b>2 TB</b>	CE942V88900-2TB

1. Tested by BIWIN labs. Actual performance may vary due to systems, devices, or environment.
2. Maintenance and future updates are required throughout the product lifecycle. Specifications are subject to change without notice.
3. The pictures are for illustration only. Actual products may vary due to product enhancements or changes.
4. Not all products are sold in all regions of the world.
5. As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on the operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabyte per second (GB/s) = one billion bytes per second.
6. MTBF = Mean Time Between Failures based on internal testing using the Telcordia stress testing standard.
7. Please visit [www.biwintech.com](http://www.biwintech.com) for warranty details in your region.
8. For more information, please contact [sales@biwintech.com](mailto:sales@biwintech.com).

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