

# AP476 OEM SSD

The BIWIN AP476 OEM SSD offers high-performance storage solutions with the advanced 3D TLC NAND flash technology, PCIe Gen3x4 interface, and NVMe 1.4 protocol. It delivers read speeds up to 3200 MB/s and write speeds up to 2700 MB/s, ensuring exceptional performance for demanding applications. Available in capacities ranging from 256 GB to 2 TB, the AP476 utilizes a compact 2242 form factor, as an ideal match for space-constrained devices such as ultrabooks and portable consoles.



## Key Features

### Unleash High-Speed Data Transfers

The BIWIN AP476 leverages a PCIe Gen3x4 interface and NVMe 1.4 protocol to provide read and write speeds up to 3200 MB/s and 2700 MB/s. With its advanced technology, the AP476 delivers reliable, fast data transfers, improving overall system efficiency and minimizing downtime across applications.

### Compact Form Factor

The AP476 SSD features a 2242 form factor (22.00 mm x 42.00 mm), making it an ideal solution for space-constrained devices such as ultrabooks and handheld consoles. Its compact size ensures efficient integration into portable and slim devices while maintaining high performance.

### Intelligent Temperature Control

The BIWIN AP476 employs an intelligent temperature control algorithm, effectively managing heat dissipation. By preventing overheating, it remains reliable and stable under demanding applications, extending its lifespan and maintaining consistent performance.

### Low Power Consumption

The AP476 SSD incorporates an advanced intelligent power management unit with NVMe power management technology. Through precise control and optimization at the firmware level across various power modes, it achieves a power consumption of less than 5mW in low-power states, supporting extended battery life for devices.

### Multiple Cutting-Edge Technologies

Built to meet the rigorous demands of high-performance environments, the BIWIN AP476 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 comprehensive protection against data loss.

### Quality Assurance with Rigorous Testing

The BIWIN AP476 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 AP476 ensures 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 Interference

Firmware Update

## Applications



Desktop



Laptop



Tablet



All-in-One PC



Thin Client



Mini PC

<b>Model Name</b>	AP476
<b>Interface</b>	PCIe Gen3x4, NVMe 1.4
<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>	256 GB / 512 GB / 1 TB / 2 TB
<b>Sequential Read (Up to)</b>	3200 MB/s
<b>Sequential Write (Up to)</b>	2700 MB/s
<b>Random Read 4K (Up to)</b>	270K IOPS
<b>Random Write 4K (Up to)</b>	210K IOPS
<b>Read Power Consumption (Max.)</b>	3 W
<b>Write Power Consumption (Max.)</b>	3.3 W
<b>Idle Power Consumption (Max.)</b>	400 mW
<b>Dimensions</b>	22.00±0.15 x 42.00±0.15 x 2.38(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>Certifications</b>	CE, FCC, RoHS, HF, REACH
<b>TBW (Up to)</b>	3000 TBW
<b>Warranty</b>	3-Year Limited

## Order Information

Capacity	Part Number
<b>256 GB</b>	CE442V8D100-256
<b>512 GB</b>	CE442V8D100-512
<b>1 TB</b>	CE442V8D100-1TB
<b>2 TB</b>	CE442V8D100-2TN

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).

### Global Headquarters:

#### BIWIN STORAGE TECHNOLOGY CO., LTD.

Building #4, South Zone #2, Zhongguan Honghualing Industrial Zone,  
Nanshan District, Shenzhen, Guangdong, China  
+86 (755) 2671-5701  
[sales@biwintech.com](mailto:sales@biwintech.com)

