

# AP665 SSD

BIWIN AP665 OEM SSD integrates high-performance controllers with advanced 3D TLC NAND flash technology, supporting PCIe 3.0 and NVMe 1.4 protocols. It delivers exceptional read speeds up to 3500 MB/s and write speeds up to 3100 MB/s for optimal performance for demanding applications.

Designed with both hardware and firmware optimizations, the AP665 offers outstanding power efficiency alongside its high-speed capabilities. It is available in capacities of 512 GB and 1 TB and features a compact M.2 2230 form factor, providing flexible storage solutions for a wide range of devices.



## Key Features

### Unleash High-Speed Data Transfers

The BIWIN AP665 leverages a PCIe Gen3x4 interface and NVMe 1.4 protocol to provide read and write speeds up to 3500 MB/s and 3100 MB/s. With its advanced technology, the AP665 delivers reliable, fast data transfers, improving overall system efficiency and minimizing downtime across applications.

### Intelligent Temperature Control

The BIWIN AP665 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 for consistent performance and a longer lifespan.

### Low Power Consumption

The BIWIN AP665 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 AP665 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 AP665 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 AP665 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

<b>Model Name</b>	AP665
<b>Interface</b>	PCIe Gen3x4, NVMe 1.4
<b>Form Factor</b>	M.2 2230
<b>Flash Type</b>	3D TLC
<b>Firmware</b>	SLC Cache
<b>DRAM Cache</b>	DRAM-less
<b>Capacity</b>	512 GB / 1 TB
<b>Sequential Read (Up to)</b>	3500 MB/s
<b>Sequential Write (Up to)</b>	3100 MB/s
<b>Random Read 4K (Up to)</b>	500K IOPS
<b>Random Write 4K (Up to)</b>	350K IOPS
<b>Read Power Consumption (Max.)</b>	2.5 W
<b>Write Power Consumption (Max.)</b>	2.6 W
<b>Idle Power Consumption (Max.)</b>	50 mW
<b>Dimensions</b>	22.00±0.15 x 30.00±0.15 x 2.30 (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>	250 TBW
<b>Warranty</b>	3-Year Limited

## Order Information

Capacity	Part Number
<b>512 GB</b>	CE430TI8800-512
<b>1 TB</b>	CE430TI8800-1TB

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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