Biwin
Storage Technology

AP683 OEM SSD

BIWIN AP683 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 3600 MB/s and write speeds up to 2900 MB/s, ensuring exceptional system responsiveness and fast load times for high-performance PCs. Available in capacities ranging from 256 GB to 2 TB, the AP683 utilizes a compact 2280 form factor, providing a versatile and reliable storage solution for various devices.

Key Features

Unleash High-Speed Data Transfers

The BIWIN AP683 leverages a PCIe Gen3x4 interface and NVMe 1.4 protocol to provide read and write speeds up to 3600 MB/s and 2900 MB/s. With its advanced technology, the AP683 delivers reliable, fast data transfers, improving overall system efficiency and minimizing downtime across applications.

Intelligent Temperature Control

The BIWIN AP683 employs a single-sided design combined with dual intelligent temperature control algorithms, 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 BIWIN AP683 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 AP683 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 AP683 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 AP683 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

Specifications

Model Name	AP683
Interface	PCIe Gen3x4, NVMe 1.4
Form Factor	M.2 2280
Flash Type	3D TLC
Firmware	SLC Cache
DRAM Cache	DRAM-less
Capacity	256 GB / 512 GB / 1 TB / 2 TB
Sequential Read (Up to)	3600 MB/s
Sequential Write (Up to)	2900 MB/s
Random Read 4K (Up to)	500K IOPS
Random Write 4K (Up to)	400K IOPS
Read Power Consumption (Max.)	3.5 W
Write Power Consumption (Max.)	3.8 W
Idle Power Consumption (Max.)	50 mW
Dimensions	22.00±0.15 x 80.00±0.15 x 2.23(Max.) mm
Operating Temperature	0°C to + 70°C
Storage Temperature	-40°C to + 85°C
MTBF	>1,500,000 hours
Certifications	CE, FCC, RoHS, HF, REACH
TBW	1500 TBW
Warranty	3-Year Limited

Order Information

Capacity	Part Number
256 GB	CE480V88800-256
512 GB	CE480V88800-512
1 TB	CE480V88800-1TB
2 TB	CE480V88800-2TB

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.biwintechnology.com for warranty details in your region.
8. For more information, please contact sales@biwintech.com.

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