

AP923P SSD

BIWIN AP923P OEM SSD is engineered for high-performance storage needs. Combining cutting-edge 3D TLC NAND flash technology with PCIe Gen4x4 and NVMe 2.0, it delivers data transfer speeds with up to 6000 MB/s read and 5600 MB/s write for faster load times and improved system responsiveness. Available in capacities from 512 GB to 2 TB, the AP923P is housed in a compact M.2 2280 form factor, providing a versatile and space-efficient solution. It includes TCG Pyrite 2.0 encryption, ensuring advanced protection for data.

With comprehensive hardware and firmware optimizations, the AP923P delivers exceptional performance while maintaining outstanding power efficiency.



Key Features

Unleash High-Speed Data Transfers

The BIWIN AP923P leverages a PCIe Gen4x4 interface and NVMe 2.0 protocol to provide read and write speeds up to 6000 MB/s and 5600 MB/s. With its advanced technology, the AP923P delivers reliable, fast data transfers, improving overall system efficiency and minimizing downtime across applications.

Intelligent Temperature Control

The BIWIN AP923P 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 AP923P 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 AP923P integrates cutting-edge features such as dynamic/static wear leveling, TRIM command, S.M.A.R.T., intelligent thermal throttling, garbage collection, and more. It includes TCG Pyrite 2.0 encryption for advanced protection for data. Designed for optimal durability and efficiency, it offers continuous performance and comprehensive protection against data loss.

Quality Assurance with Rigorous Testing

The BIWIN AP923P 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 AP923P 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

Model Name	AP923P
Interface	PCIe Gen4x4, NVMe 2.0
Form Factor	M.2 2280
Flash Type	3D TLC
Firmware	SLC Cache
DRAM Cache	DRAM-less
Capacity	512 GB / 1 TB / 2 TB
Sequential Read (Up to)	6000 MB/s
Sequential Write (Up to)	5600 MB/s
Random Read 4K (Up to)	800K IOPS
Random Write 4K (Up to)	1300K IOPS
Read Power Consumption (Max.)	3.4 W
Write Power Consumption (Max.)	4.0 W
Idle Power Consumption (Max.)	60 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 (Up to)	600 TBW
Warranty	3-Year Limited

Order Information

Capacity	Part Number
512 GB	CE980Q41R00-512
1 TB	CE980Q41R00-1TB
2 TB	CE980Q41R00-2TB

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

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