

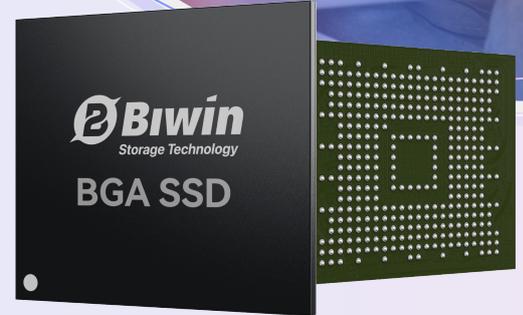
EP401

BIWIN EP401 PCIe Gen4x2 BGA SSD provides exceptional performance and efficiency for demanding applications.

With the NVMe 2.0 protocol, the EP401 SSD delivers sequential read speeds up to 3700 MB/s and write speeds up to 3450 MB/s.

Compact in design, the EP401 measures just 11.50 × 13.00 × 1.35 mm and provides capacities up to 1 TB. Tested by BIWIN labs, the EP401 SSD offers double the read and write speeds of PCIe 3.0 ×2 BGA SSDs, while maintaining the same size as eMMC and UFS storage.

It also offers significant performance improvements over UFS 3.1, suitable for use in a wide variety of mobile devices, including high-performance ultrabooks, smartphones, autonomous driving systems, drones, and other advanced applications that require fast, reliable storage in a compact form factor.



Key Features

High-Performance Storage

The BIWIN EP401 SSD PCIe Gen4x2 offers sequential read speeds up to 3700 MB/s and write speeds up to 3450 MB/s. These high-performance speeds result in faster data access, reducing system load times and improving overall responsiveness.

Efficient Thermal Management

The BIWIN EP401 SSD uses advanced packaging technology paired with a thermal management algorithm to regulate operating temperatures effectively. This system ensures the SSD operates within optimal temperature ranges, preventing overheating during intensive tasks and ensuring stable performance throughout prolonged use.

Low Power Consumption

The BIWIN EP401 SSD is equipped with an advanced intelligent power management unit, using NVMe power management technology. By leveraging precise control and optimization through its firmware, the drive ensures ultra-low power consumption in both operational and idle states, enhancing battery life for host devices.

Data Protection Features

The EP401 SSD comes with a comprehensive set of data protection features, including dynamic and static wear leveling, TRIM command, S.M.A.R.T., intelligent thermal throttling, garbage collection, and data erasure, ensuring smooth and reliable operation and safeguarding data with exceptional reliability.

Premium Quality Assurance

The BIWIN EP401 SSD is built with premium-grade flash memory chips, carefully selected for their consistent, high-performance reliability. Each unit undergoes comprehensive quality tests, including electrical, application, and compatibility tests. Backed by a 3-year warranty and free technical support, the EP401 offers customers peace of mind and dependable service.

Technologies

ATA Encryption

End-to-End Data Protection

S.M.A.R.T.

Garbage Collection

TRIM Command

Global Wear Leveling

In-drive RAID

Bad Block Management

Read Scrub

SLC Cache Acceleration

Intelligent Thermal Throttling

ESD Protection

Read Disturb

Firmware Update

Applications



Ultrabook



Mobile Phone



Tablet



Autonomous Driving



Drone



Network Switch

Model Name	EP401
Interface	PCIe Gen4x2, NVMe 2.0
Flash Type	3D TLC
Firmware	SLC Cache
Capacity	256 GB / 512 GB / 1 TB
Sequential Read (Up to)	3700 MB/s
Sequential Write (Up to)	3450 MB/s
Random Read 4K (Up to)	900K IOPS
Random Write 4K (Up to)	695K IOPS
Read Power Consumption (Max.)	3.1 W
Write Power Consumption (Max.)	2.5 W
Idle Power Consumption (Max.)	10 mW
Dimensions	11.50 × 13.00 × 1.35 (Max.) mm
Package	FBGA 345 Ball
Operating Temperature	0°C to + 70°C
Storage Temperature	-40°C to + 85°C
Endurance	3000 P/E cycles
MTBF	>1,500,000 hours
Certifications	CE, FCC, RoHS
Warranty	3-Year / 750 TBW

Order Information

Capacity	Part Number
256 GB	BWP4ETHDC-256G
512 GB	BWP4ETHDC-512G
1 TB	BWP4ETHDC-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 life cycle. 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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