

# BIWIN SP50Y Enterprise SSD

The BIWIN SP50Y Enterprise PCIe 5.0 SSD features a next-generation controller and Yangtze Memory's Xtacking® 4.0 NAND technology, and is compliant with the NVMe 2.0 specifications to unlock the full potential of its PCIe Gen5 interface.

Available in capacities ranging from 4 TB to 16 TB, it offers 1 DWPD endurance.

Delivering exceptional performance, high reliability, and outstanding power efficiency, the SP50Y provides a robust storage foundation for mission-critical workloads including AI training, cloud computing, core databases, and virtualization.



## Key Features

### Exceptional Performance

Powered by the high-speed PCIe 5.0 x4 interface with up to twice the bandwidth of Gen4, the entire series integrates customized firmware optimization to unleash the performance potential of the Gen5 interface. The SP50Y delivers sequential read/write speeds of up to 14,200 MB/s and 11,000 MB/s, with 4K random read/write performance reaching up to 3,300K IOPS and 500K IOPS, respectively.

### Multiple Configurations for Flexible Deployment

Available in capacities of 3.84 TB, 7.68 TB, and 15.36 TB, the SP50Y offers 1 DWPD read-intensive endurance configurations to meet the demands of large-scale data storage applications.

## Technologies

NVMe 2.0 & NVMe-MI 1.2

Multiple Namespaces

Multiple Sector Sizes

Atomic Write

Internal RAID

PLP

Data-Path E2E Protection

Thermal Throttling

Power Management

S.M.A.R.T.

Health Log

Telemetry Log

## Applications



Data Centers



Cloud Computing



Databases



Servers



AI Training

<b>Model Name</b>	SP50Y		
<b>Form Factor</b>	2.5" U.2		
<b>Protocol</b>	NVMe 2.0 & NVMe-MI 1.2		
<b>Interface</b>	PCIe Gen5 x4		
<b>Flash Type</b>	3D eTLC		
<b>DWPD (Drive Writes Per Day)</b>	1 DWPD		
<b>Capacity</b>	3.84 TB	7.68 TB	15.36 TB
<b>Sequential Read (Up to)</b>	14,200 MB/s	14,200 MB/s	12,000 MB/s
<b>Sequential Write (Up to)</b>	6,000 MB/s	11,000 MB/s	9,000 MB/s
<b>Random Read 4K (Up to)</b>	3,300K IOPS	3,300K IOPS	3,300K IOPS
<b>Random Write 4K (Up to)</b>	300K IOPS	500K IOPS	450K IOPS
<b>Random Read/Write Latency (µs)</b>	70/6	70/6	70/6
<b>4K Read Latency (µs)</b>	60	60	60
<b>4KWrite Latency (µs)</b>	5	5	5
<b>Read Power Consumption (Max.)</b>	16 W	20 W	21 W
<b>Write Power Consumption (Max.)</b>	14 W	18 W	23 W
<b>Operating Temperature</b>	0°C to 70°C		
<b>Storage Temperature</b>	-40°C to 85°C		
<b>Uncorrectable Bit Error Rate (UBER)</b>	≤ 1 sector in 10 <sup>17</sup> bits read		
<b>MTBF</b>	>2,500,000 Hours		
<b>Certifications</b>	CE, FCC, RoHS, REACH, WEEE, HF, China RoHS		
<b>Warranty</b>	5-Year Limited		

## Order Information

Capacity	Part Number	Power-Loss Protection Options
<b>3.84 TB</b>	CEAU2YAG110-3T8	Firmware-Based, Hardware-Based
<b>7.68 TB</b>	CEAU2YAG110-7T6	Firmware-Based, Hardware-Based
<b>15.36 TB</b>	CEAU2YAG110-15T3	Firmware-Based, Hardware-Based

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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