



PBlaze5 900 Series PCIe NVMe™ SSD

Design for Enterprise Applications

PBlaze5 900 Series Highlights

- End to End Data Protection & Reduced Silent Bit Error (SBER) ,lower than 10^{-23}
- Mean Time Between Failures (MTBF) 2.1 million hours and UBER 10^{-17}
- Security Protection with data encryption AES-256
- 3 DWPD endurance at JEDEC Enterprise workload in 5 years
- High availability with Dual Port

Applications & Workloads

- Mission Critical Database
- High Performance Storage System
- ERP, SAP HANA
- BOSS, Banking, Taxing
- High Frequency Trading
- Online Payment



MemSolid®3.0

- High Reliability
- High Availability
- High Serviceability
- High Security



MemSpeed®3.0

- High Performance
- Extra Low Latency
- High Qos

PBlaze5 900 Series NVMe SSD has the MemSpeed3.0 and MemSolid3.0 two core technologies of Memblaze for the provision of comprehensive support. Featuring high data consistency, high reliability, high availability, data security and high endurance, it fully meets Enterprise mission critical business requirements.

End to End Data Protection

PBlaze5 900 Series supports T10 DIF / DIX standard with end-to-end data protection, protects delivering Silent Bit Error Rate (SBER) lower than 10^{-23} , protects against data corruption which are caused by silent bit errors, ensures data consistency, and fully meets Enterprise mission critical business requirements of todays high reliability system.

High Reliability

Delivering high reliability Enterprise SSD Uncorrectable Bit Error Rate(UBER) 10^{-17} and Mean Time Between Failures of (MTTF) 2.1 million hours, the PBlaze5 900 Series SSD reduces system failure and maintenance cost.

Security Protection with Data Encryption

Security Protection with data encryption AES-256, the PBlaze5 900 Series protects against unauthorized access and reduces the risk of data leaks.

High Endurance

Delivering endurance up to 3 DWPD over 5 years, the PBlaze5900 Series Enterprise JEDEC 219 delivers high endurance to satisfy Enterprise write intensive applications.

High Availability, Dual Port

With dual port high availability designs, the PBlaze5 900 Series SSD protects against single path failures. Through dual-host and dual-path, the host system ensures uninterrupted service for Enterprise critical business in the case of single-link or single-node failure, improving the service quality of system.

Firmware Signature

Delivering Firmware signature, the PBlaze5 900 Series SSD avoids unauthorized Firmware attack and improves drive and system security.



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PBlaze5 900 Series Spec ^[1]	PBlaze5 D900				PBlaze5 C900			
Form Factor	2.5-inch U.2				HHHL AIC			
Interface	PCIe 3.0 x 4				PCIe 3.0 x 8			
User Capacity (TB)	2	3.2	4	8	2	3.2	4	8
Sequential Read (128KB)	Up to 3.2GB/s				Up to 6GB/s			
Sequential Write (128KB)	Up to 2.4GB/s				Up to 2.4GB/s			
Sustained Random Read (4KB/8KB) IOPS	Up to 760K				Up to 1042K			
Sustained Random Write (4KB) IOPS (Steady State) ^[2]	Up to 304K				Up to 304K			
Latency Read/Write ^[3]	90/15 μs							
Lifetime Endurance ^[4]	3 DWPD							
Silent Bit Error	< 1 sector error per 10 ²³ bits read							
Uncorrectable Bit Error Rate	< 1 sector error per 10 ¹⁷ bits read							
Mean Time Between Failures	2.1 million hours							
Protocol	NVMe 1.2a							
NAND Flash Memory	3D eTLC NAND							
Operation System	RHEL, SLES, CentOS, Ubuntu, Windows Server, VMware ESXi							
Power Consumption	7 ~ 23w							
Feature Support	Power Failure Protection, Hot pluggable, AES 256 data encryption End to End Protection, Dual Port, Crypto Erase, PCIe ECRC, Firmware Signature							
Software Support	CLI Management Tool, OS in-box driver							
Certification	America: FCC		Europe: CE, RoHS, WEEE			Taiwan: BSMI		

NOTES:

[1] Performance may vary due to different system configurations and firmware version.

[2] Measurement is performed at Steady State follow SNIA SSS-PTS-E test specification.

[3] Average latency measured with 4KB random I/O pattern.

[4] DWPD, Drive Write Per Day for 5 year, all lifetime evaluations are based on sequential workload and the Joint Electron Device Engineering Council, JEDEC218 with JESD219 workload.

For more information, please contact your Memblaze representative or visit: www.memblaze.com

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