



2.5" PCIe 8 TB Blue Series SSD

BLUE Series

2.5" 8 TB SATA/PCIe

Overview

Memkor's 3rd generation Blue Series PCIe and SATA SSDs aim to provide the highest throughput performance combined with the highest capacities currently available. Blue Series offer up to 8192/4096 GB of MLC/SLC NAND in 2.5" /15 mm height form factor. If higher profile can be supported, we can increase the SSD capacity to 12 TB.

This family of Memkor SSDs is designed for highest speed and capacity server, streaming and recording net-centric applications.

The latest Memkor Blue Series SSDs support either PCIe/NVMe or SATA interface, military grade Data Elimination function, built into hardware AES-256 encryption engine and built into firmware functions enabling a number of Self Encrypted Drive (SED) management schemes (such as TCG OPAL data at rest protection management scenario).

For an increased ruggedness, Blue Series SSDs can be equipped with HiVibe® SATA connector that withstand up to 30 G RMS vibration and allow for 20k insertion cycles.

State of the art flash management techniques combined with a strong EDC/ECC/CRC and end-to-end data protection ensure performance stability and consistency, along with the highest reliability and unparalleled user data integrity.

Sudden power loss safeguards integrated in software and hardware ensures data at rest protection and integrity.

Memkor Blue Series SSDs are built to meet both Commercial and Defense focused environmental requirements.

All Memkor products are available with locked BOM configurations and Supply Chain component management for long-term deployment applications.

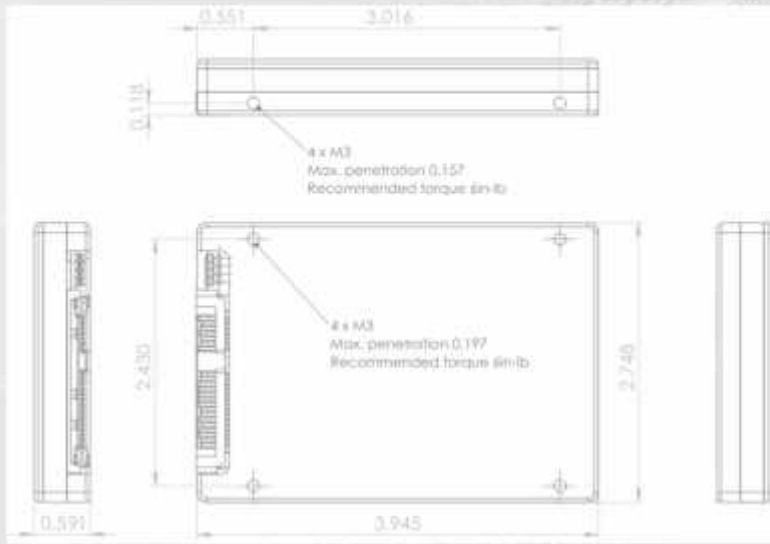
Features and Values

- The most popular SSD form factor
- Highest capacity 2.5" SSD in the world
- Highest performance 2.5" SSD in the world
- Available with HiVibe® ruggedized SATA connector
- Available with either PCIe or SATA interface
- Enterprise or Client applications
- Streaming/recording/cloud applications
- Rugged design for Defense and Industrial applications
- Extensive SMART for health monitoring
- Military grade Data Elimination
- Hardware and/or software triggered Data Elimination
- Hardware or software enabled Write Protect
- AES-256, various SED management schemes
- MBR shadowing to allow graceful SED boot process
- Sudden Power Loss Safeguard logic and circuit
- All Industrial grade SSDs include conformal coating
- End-to-end Data Protection
- Custom firmware and feature set are available

Specification

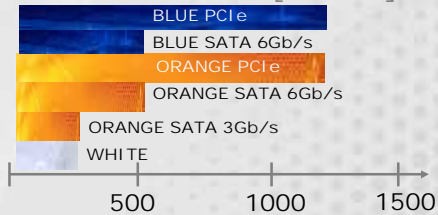
Standard Form Factor	<ul style="list-style-type: none"> • Standard 2.5" • SFF-8369 or Standard SATA 15+7 Connector
Interface	<ul style="list-style-type: none"> • PCIe V2.0/NVMe 1.1a or SATA 6Gb/s or SATA 3Gbps
Data throughput	<ul style="list-style-type: none"> • SATA III: up to 500/540 MB/s Write/Read • PCIe: 1200/1200 Write/Read
Maximum Capacity	<ul style="list-style-type: none"> • up to 8192 GB MLC NAND • up to 4096 GB SLC NAND
Temperature Range	<ul style="list-style-type: none"> • -40°C to 85°C Industrial/Military • 0°C to 70°C Commercial
Vibration/shock	<ul style="list-style-type: none"> • 16.3 GRMS/100G
Data Reliability	<ul style="list-style-type: none"> • Flash managed by static and dynamic wear leveling and powerful ECC/EDC/CRC • End-to-end Data Protection • Uncorrectable bit error rate (UBER): less than 10⁻¹⁶
Data Retention	<ul style="list-style-type: none"> • 10 y beginning of SSD life • 1 y at the end of life
Endurance	<ul style="list-style-type: none"> • up to 6144 TB (8192 GB MLC NAND) • up to 49152 TB (4096 GB SLC NAND)
Data Security	<ul style="list-style-type: none"> • Optional TCG OPAL V2.0 Self Encrypted Drive (SED) • Enhanced ATA Security/Authentication support • Military grade Data Elimination • HW and/or SW Write Protect
Component reliability	<ul style="list-style-type: none"> • MTBF: 1,000,000
Health monitoring	<ul style="list-style-type: none"> • S.M.A.R.T. to report system health • Thermal performance monitoring and management

Memkor 2.5" Blue Series — Mechanical



Memkor General Application and Product Guide

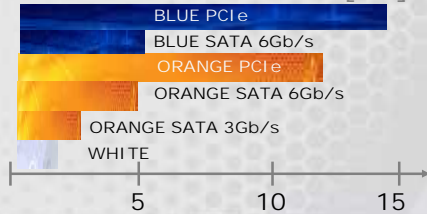
Performance [MB/s]



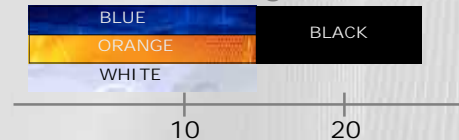
Capacity [GB] [MLC NAND]



MAX Power Draw [W]



Ruggedization Vibration [g's RMS]



Ordering Information

Model: MKD 25 ii xxx y B - O2 s n ee ww

Model: MKD ff ii xxx y O					
Memkor SSD	Form Factor ff:	Interface ii:	Capacity xxx:	Operating temp	Series
MKD	25 - 2.5" ff	P2 - PCIe 2.0 2-lanes P3 - PCIe 2.0 4-lanes ST - SATA	4T0 - 4096 GB 8T0 - 8192 GB	C - 0° to 70°C I - -40° to 85°C	B - BLUE
- O2 s n ee ww					
Technology Code	Secure Erase: s	NAND: n	Encryption: e	Write Protect: ww	
O2	0 - no SE (D) Ask us about available option	- SLC (D) M - MLC	- No Encryption (D) Ask us about available option	- no WP (D) Ask us about available option	

D - default
I - Low
H - High
E - Enabled
SE - Secure Erase
WP - Write Protect