swissbit®

Product Fact Sheet

powersafe™

Datacenter
U.3 PCIe SSD

D1200 Series
PCIe 4.0, 3D eTLC

Commercial Temperature Grade

Date: September 13, 2023
Revision: 1.02

Made in Germany

Product Summary

- **Capacities:** 7.68TBytes, 15.4 TBytes
- **Form Factor:** PCI Express® U.3 (15mm)
- **Compliance:**
  - PCI Express (PCIe) Specification Revision 4.0
  - NVM Express Specification 1.4
- **Interface:** Gen4 x 4 Lanes
- **Command Sets:** Supports NVMe 1.4
- **Target Performance:**
  - Sequential Read up to 7,000 MB/s, Random Read 4K up to 1,600k IOPS (sustained)
  - Sequential Write up to 6,900 MB/s, Random Write 4K up to 900k IOPS (sustained)
- **Operating Temperature Range:**
  - Ambient 0°C to 35°C
  - Case 0°C to 70°C
- **Storage Temperature Range:** –40 °C to 85 °C
- **Data Retention[1]:** 3 month @ 40°C (Life End)
- **High-Performance Processor with Integrated, Parallel Flash Interface Engines:**
  - Triple-Level Cell (TLC) 3D NAND Flash
- **High Reliability:**
  - Mean Time Between Failure (MTBF): > 2,000,000 hours
  - Data Reliability UBER: 1 Sector per 10^{17} Read
- **Endurance DWPD (5years EP WL):** 1.5
- **Endurance in TeraBytes Written (TBW) @ Max Capacity:**
  - 7.68TBytes   21000TBW

Product Features

- powersafe™ Functionality
- Full Data Path Protection
- S.M.A.R.T
- Flexible Power Management
- Hot Pluggable
- TRIM
- Multi-namespace support up to 128
- AES 256 Data Encryption & Crypto Erase
- EUI64/NGUID
- Firmware Upgrade without Reset
- Timestamp
- Telemetry
- Weighted Round Robin (WRR)
- Persistent Event Log
- Secure Download
- Secure Boot

Why Swissbit?

Swissbit is focused on the design, development, manufacture, and support of leading edge memory and storage solutions for the worldwide OEM/ODM marketplace. As a global supplier, Swissbit recognizes and addresses the higher level of application requirements of today's industrial, Netcom, and automotive customers by providing best-in-class products and services, with uncompromised attention to driving overall value and quality.

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[1] NAND Flash suppliers refer to JEDEC JESD47 and JESD22 for Data Retention testing. Based on the information provided by the NAND Flash suppliers, Data Retention is targeted as shown