swissbit®

Product Fact Sheet

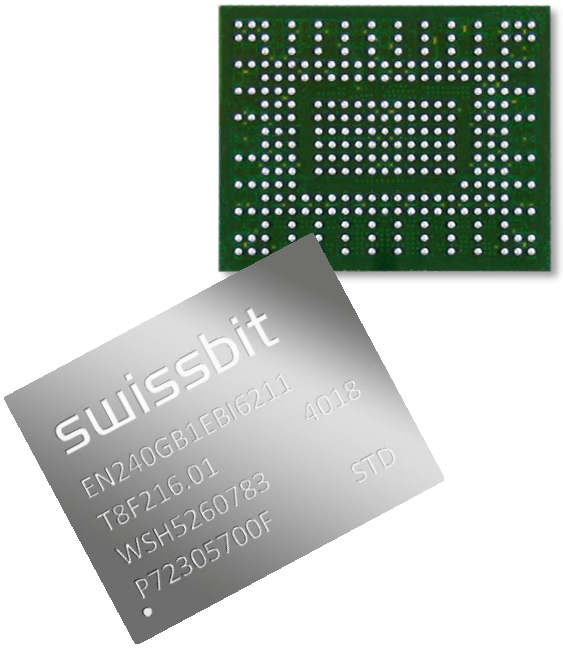
Industrial PCIe BGA SSD (M.2 1620 BGA)

EN-20 Series

PCIe Gen 3.1, 16x20mm BGA

Industrial Temperature Grade

Date: February 17, 2020
Revision: 1.00



made in germany

Product Fact Sheet
EN-20 Series

Product Summary

- **Capacities:** 15 GBytes, 30 GBytes, 60 GBytes, 120 GBytes, 240 GBytes
- **Form Factor:** PCI Express® M.2 BGA (1620) (16mm x 20mm x 1.8mm)
- **Compliance:** PCI Express (PCIe) Specification Revision 3.1
- **Interface:** Gen3 x 4 Lanes
- **Command Sets:** Supports NVMe 1.3
- **Performance:**
  - Read Performance: Sequential Read up to 1,600 MBytes/s, Random Read 4K up to 145,000 IOPS
  - Write Performance: Sequential Write up to 680 MBytes/s, Random Write 4K up to 105,000 IOPS
- **Operating Temperature Range**[1]
  - Industrial: -40 °C to 85 °C
- **Storage Temperature Range:** -40°C to 85°C
- **Operating Voltage:** 3.3, 1.8 and 0.9V supply voltages
- **Low Power Consumption**
- **Power:**
  - Power States PS0, PS1, PS2, PS3 and PS4
  - Thermal Throttling supported
- **Data Retention:** 10 Years @ Life Begin; 1 Year @ Life End
- **High-Performance Processor with Integrated, Parallel Flash Interface Engines:**
  - 3D NAND Flash
  - LDPC Code ECC (up to 120bit corrections per 1KByte page)
  - End-to-end data path protection
  - Increased Overprovisioning for improved performance and endurance
  - Page RAID feature

Product Features

- Dynamic and Static Wear Leveling
- Subpage Mode Flash Translation Layer (FTL)
- Data Care Management
  - Active: Adaptive Read Refresh
  - Passive: Background Media Scan
- Lifetime Enhancements
  - Dynamic Bad Block Remapping
  - Write Amplification Reduction
- Power Fail Data Loss Protection
- In-Field Firmware Update
- Self-Monitoring, Analysis, and Reporting Technology (S.M.A.R.T.)
- Swissbit Life Time Monitoring (SBLTM) Tool and SDK for SBLTM
- AES256 Encryption (on request)

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 addressees 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.

[1] Adequate airflow is required to ensure the drive temperature, as reported in the S.M.A.R.T. data, does not exceed the specified maximum operating temperature.