

# swissbit®

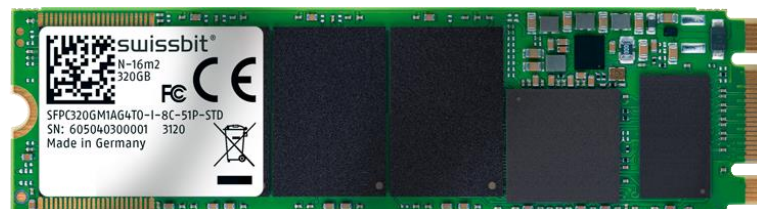
## Product Fact Sheet

### Industrial M.2 PCIe SSD

### N-16m2 2280 Series PCIe 3.1, 3D pSLC

Commercial and Industrial  
Temperature Grade

Date: March 30, 2021  
Revision: 1.00



## Product Summary

- **Capacities:** 40 GBytes, 80 GBytes, 160 GBytes, 320 GBytes
- **Form Factor:** PCI Express® M.2 2280 (80 mm x 22 mm x 2.23 mm)
- **Compliance<sup>1</sup>:** PCI Express (PCIe) Specification Revision 3.1
- **Interface:** Gen3 x 2 Lanes
  - Drive operates in x1 mode in x1 M.2 PCIe slots
  - Drive operates in x2 mode in x2 or x4 M.2 PCIe slots
- **Command Sets:** Supports NVMe 1.2
- **Performance:**
  - Read Performance: Sequential Read up to 1,600 MBytes/s, Random Read 4K up to 190,000 IOPS
  - Write Performance: Sequential Write up to 1,050 MBytes/s, Random Write 4K up to 190,000 IOPS
- **Operating Temperature Range<sup>2</sup>:**
  - Commercial: 0 °C to 70 °C
  - Industrial: -40 °C to 85 °C
- **Storage Temperature Range:** -40 °C to 85 °C
- **Operating Voltage:** 3.3 V ± 5%
- **Low Power Consumption**
- **Data Retention:** 10 Years @ Life Begin; 1 Year @ Life End
- **Endurance in TeraBytes Written (TBW) @ Max Capacity<sup>3</sup>:**
  - Sequential ≥ 10,600
  - Client ≥ 8,390
  - Enterprise ≥ 2,000
- **Shock/Vibration:** 1,500 *g* / 50 *g*
- **High-Performance 32-Bit Processor with Integrated, Parallel Flash Interface Engines:**
  - Triple-Level Cell (TLC) 3D NAND Flash in pSLC Mode
  - ECC with up to 120 bit correction per 1 KByte page
- **High Reliability:**
  - Mean Time Between Failure (MTBF): > 2,000,000 hours
- **Data Reliability:** < 1 non-recoverable error per 10<sup>16</sup> bits read

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<sup>1</sup> The verification of host system and storage device compatibility is in customer's responsibility. Swissbit can provide guidance and support on request.

<sup>2</sup> Adequate airflow is required to ensure the temperature, as reported in the S.M.A.R.T. data, does not exceed 125°C (industrial temperature drive) and 110°C (commercial temperature drive) respectively.

<sup>3</sup> According to JEDEC (JESD471), the time to write the full TBW is a minimum of 18 months. Higher average daily data volume reduces the specified TBW. The values listed are estimates and are subject to change without notice.