

1. Features

- Capacity¹: 1TB (Unformatted)
- Form Factor: M.2 Type 22110-D5-M
- PCle Gen2 5Gbps Interface, up to x4 lanes
- NVMe specification revision 1.1a compliant
- Temperature⁶
 - Operating (commercial) : -45°C to +85°C
 - Non-Operating: -55°C to 95°C
 - Temperature monitoring and logging
 - Thermal throttling support
- Full end-to-end data protection
- NVMe command sets supported
- Supported sector size : 512 Bytes
- Self-monitoring, analysis, and reporting technology (SMART) attribute supported
- Certifications and Declarations
 - CE, FCC
- Performance^{2,3}
 - Sequential 128KB Read: Up to 1,2000 MB/s
 - Seguential 128KB Write: Up to 1,000 MB/s
 - Random 4KB Read: Up to 80K IOPS
 - Random 4KB Write: Up to 70K IOPS
 - Read/Write Latency: 40 us (TYP)

- Reliability
 - MTBF: 1.5 million hours⁴
 - Static and dynamic wear leveling
 - Field-upgradable firmware
 - Uncorrectable bit error rate (UBER): <1 sector per 10¹⁵ bits read
- Endurance ⁵: 2,500TBW (1TB)
- Warranty: 5 years
- Secure firmware update with digitally signed firmware image
- Mechanical / Electrical
 - PCle-compliant, x4 lane combo connector
 - M.2 Form Factor: 22mm x 110mm x 3.8mm
 - 3.3V power (±5%)
 - Weight: TBD
 - Shock: 50 G Trapezoidal, 170 in/s
 - Vibration
 - Operating: 2.17 G_{RMS} (5-700Hz)
 - Non-operating: 3.1 G_{RMS} (5–800Hz)

Notes:

- 1. User capacity: 1GB = 1,000,000,000 bytes.
- Typical I/O performance numbers as measured fresh-out-ofthe-box (FOB) using lometer with a queue depth of 32 and write cache enabled.
- 3. 4KB transfers used for READ/WRITE latency values.
- The product achieves a mean time between failure (MTBF) based on population statistics not relevant to individual units.
- 5. Based on JESD218 standard with JESD219 workload
- 6. Operating temperature is the drive case temperature as measured by the SMART temperature attribute.

Novachips Co., Ltd. 5