

1. Features

- Form Factor: M.2 Type 2280-D5-BM:
- Capacity : 1TB
- Compliance
 - SATA Revision 3.0; compatible with SATA 6Gb/s, 3Gb/s and 1.5Gb/s interface rates
 - ATA8-ACS2; includes SCT (Smart Command Transport) and device statistics log support
 - Enhanced SMART ATA feature set
 - Native Command Queuing (NCQ) command set
 - Data set management Trim command
- ATA modes supported
 - PIO mode 3, 4
 - Multiword DMA mode 0, 1, 2
 - Ultra DMA mode 0, 1, 2, 3, 4, 5
- Industry-standard, 512-byte sector size support
- Performance^{1,2}
 - Sequential 128KB Read: Up to 520 MB/s
 - Sequential 128KB Write: Up to 300 MB/s
 - Random 4KB Read: Up to 50,000 IOPS
 - Random 4KB Write: Up to 50,000 IOPS
 - Read/Write Latency: 65µs/40µs (TYP)
- Power
 - 3.3V Only
 - Active : Up to 5.54W (Burst)
 - Idle : 0.96W (Avg.)
 - Power on to Ready after proper shutdown : 2sec (Typ)
- Warranty⁴: 5 year
- Secure firmware update with digitally signed firmware image
- Temperature⁵
 - Operating : -40°C to +85°C
 - Non-Operating: -55°C to 95°C
 - Temperature monitoring and logging
 - Thermal throttling
- Shock (operating and non-operating)
 - 1,000 G/0.5ms
- Vibration
 - Operating : 2.17 G_{RMS} (5-700 Hz)
 - Non-Operating: 3.13 G_{RMS} (5-800 Hz)
- Altitude
 - Operating: -1,000 to 10,000 ft.
 - Non-Operating: -1,000 to 40,000 ft.
- Mechanical
 - M.2 Type 2280-D5-BM: 22mm x 80mm
 - Z-Height 1.5mm x 1.5mm
 - Weight: 100gram
- Reliability
 - Uncorrectable bit error rate (UBER): <1 sector per 10¹⁵ bits read
 - MTBF: 1.5 million hours³
 - End-to-End data protection
- Endurance Rating⁴
 - 1TB : 270 TBW
- Notes:
 1. Typical I/O performance numbers as measured fresh-out-of-the-box (FOB) using Iometer with a queue depth of 32 and write cache enabled.
 2. 4KB transfers used for READ/WRITE latency values.
 3. The product achieves a mean time between failure (MTBF) based on population statistics not relevant to individual units.
 4. Based on JESD218 standard with JESD219 workload
 5. Operating temperature is the drive case temperature as measured by the SMART temperature attribute.