M.2 2280 PCIe PT33 Series

10K endurance, high speed PCIe Gen3 x4

Industrial 3D TLC
10K P/E cycle

Features

- PCIe Gen3x4 M.2 2280 with NVMe 1.3 supported
- Read/Write speeds of up to 2116/1340MB/s
- Random Performance of up to 188K/211K IOPS
- Industrial Micron 3D TLC, up to 10K P/E Cycles
- SLC cache with dynamic write acceleration
- End-to-end data path protection with CRC parity, better safe and data guard features
- LDPC ECC for improved data integrity
- Support thermal throttling
- Built-in OCP/OVP Protection
- 30u" thickness Gold finger

Specification

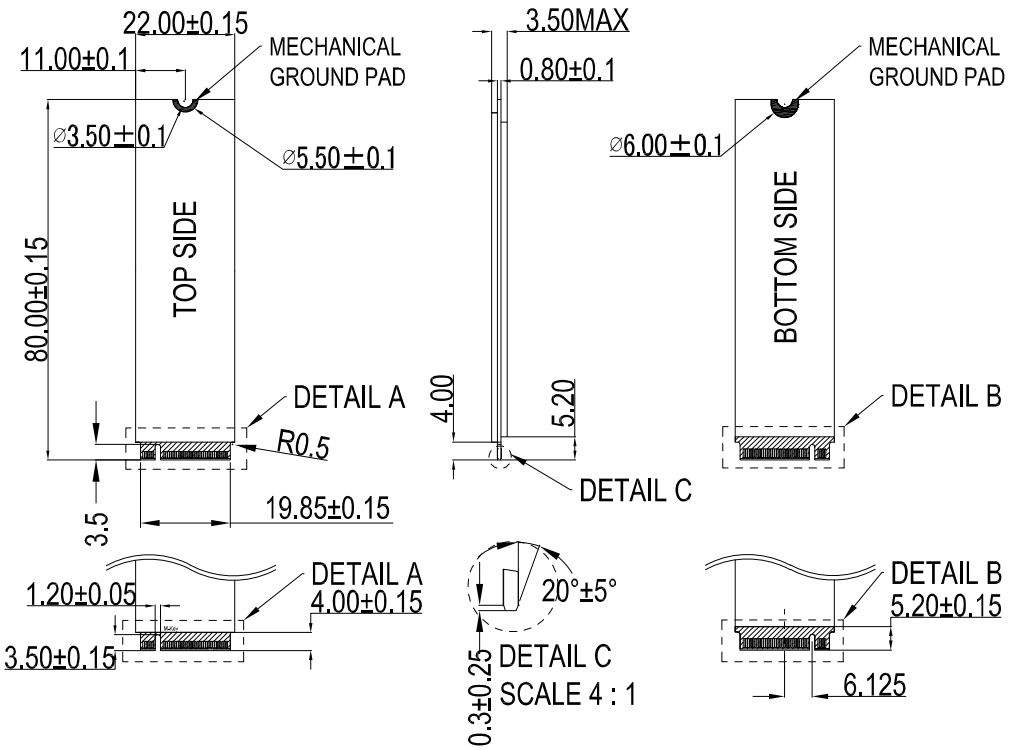
Product Model	M.2 2280 PCIe PT33
Interface	PCIe Gen 3 X 4
Form Factor	M.2 2280
Controller	SMI SM2263EN
Flash Type	3D TLC (Original Micron B17)
P/E Cycle	10,000 (SLC cache)
Max. Channel	4
Density	128GB ~1TB
Sequential R/W (Q32T1) (MB/sec, Max.)	2100/1900
Operating Temperature	-40°C~+85°C
Max. Power Consumption	4.9W (3.3Vx1500mA)
Dimension (L x W x H/mm)	80x22x3.5
Operating Voltage	3.3V±5%
Storage Temperature	-55°C~+95°C
Security Option*	AES 256-bit Encryption TCG Opal 2.0 compliant Built-in H/W SHA256 and TRNG
External DRAM Buffer	✓
Thermal Sensor	✓
NVMe 1.3	✓
Vibration	20G (7~2KHz)
Shock Resistance	1500G@0.5ms
MTBF	>3 million hours

*: The functions will be activated by specific firmware versions.

Dimensions

Preliminary v0.6

Unit: mm



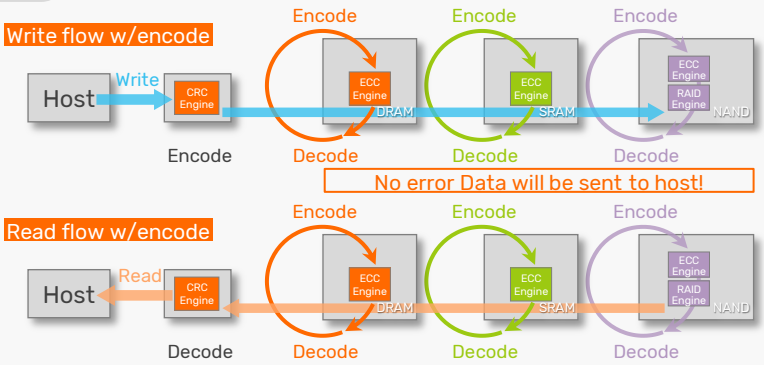
Ordering Information

Capacity	Industrial (-40°C~+85°C)
128GB M.2 2280 PCIe SSD, TLC, 24/7, -40°C to 85°C	Z1-SP-TP0-128-280
256GB M.2 2280 PCIe SSD, TLC, 24/7, -40°C to 85°C	Z1-SP-TP0-256-280
512GB M.2 2280 PCIe SSD, TLC, 24/7, -40°C to 85°C	Z1-SP-TP0-512-280
1024GB M.2 2280 PCIe SSD, TLC, 24/7, -40°C to 85°C	Z1-SP-TP1-000-280

Tip: End-to-end data path protection

MEMXPRO SSD controller solutions incorporate full data error detection with recovery engines to provide enhanced data integrity throughout the entire Host-to-NAND-to-Host data path.

The data recovery algorithm can effectively detect any error in the SSD data path, including hardware (i.e. ASIC) errors, firmware errors and memory errors arising in SRAM, DRAM or NAND.



MEMXPRO Make it Possible

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