

TR-T25301



Features

- SATA II (3Gbps) interface, or SATA I (1.5Gbps).
- ATA command set ATA-8 ACS2, S.M.A.R.T. & SUPERCAP features.
- Wide capacity range to meet actual application - SLC (64 and 128GB), MLC (64, 128, 256 and 512GB).
- Fast data purge, access control option available for data security.
- S.M.A.R.T features optimized for SSD, readable with shareware from CRYSTALMARK.INFO.
- Real time background Garbage-Collection, no performance degrade on heavy loading or long time usage.
- Advanced bad block management.
- 90nm controller process, low power consumption.
- Specially designed hardware and firmware to protect user data integrity during sudden loss of power.
- Advanced static, dynamic and active wear-levelling algorithm.
- Self-healing technology, automatic detect and correct hidden error bit.
- No internal copy back operation, no ECC accumulation problem.
- Build-in 16bits/sector ECC (BCH).
- FW-based application extensions - data purge, write protection and partition recovery.
- ATA Security Command Set support - optional
- Operating temperature range of -40 ~ 85°C (-40 ~ 185°F) conformal coating options available for harsh environment.
- Can be used with any Transduction panel or rack mount computer systems.
- MTBF > 2,000,000 hours.
- Warranty 3 years.
- Always in stock.

TR-T25301

TR-T25301 2.5" High Speed Industrial Flash SSD

Specification

Model

- TR-T25301 - 2.5" High Speed MLC or SLC Flash SATA SSD up to 512GB.

Interface

- SATA II (3.0Gbps) or SATA I (1.5Gbps)

Capacity

- SLC - 64GB and 128GB
- MLC - 64GB, 128GB, 256GB and 512GB

Performance

- SLC is faster than MLC
- Higher capacity will be faster than low capacity in write mode
- SLC will consume less power than MLC at same write speed

Data Transfer Rate

- SLC - Read: 100MB/s, Write: 95MB/s
- MLC - Read: 100MB/s, Write: 75MB/s

4kb Random IOPS

- SLC - Read: 3000, Write: 1000
- MLC - Read: 2400, Write: 500

Access Time

- 0.3ms

Power

- Input power - 5V \pm 5%
- Maximum ripple - 70mV, 0 ~ 20MHz
- Maximum supply rise time - 100ms
- Maximum supply fall time - 3sec

Power Consumption

- Idle - SLC: 30mA, MLC: 30mA
- Read: SLC: 70mA, MLC: 70mA
- Write: SLC: 110mA, MLC: 160mA

Operating Temperature

- -40 ~ 85°C (-40 ~ 185°F)

Storage Temperature

- -55 ~ 90°C (-67 ~ 194°F)

Shock Endurance

- 1,500G

Vibration Endurance

- 20G

Reliability

- Applies static, dynamic and active wear-levelling algorithms to endure the NAND flash memory blocks under same wear-levelling
- Building ECC (Error Correction Code) correct 16bits per 528 bytes
- NAND flash has limited program/erase cycle limitation, but has unlimited on read operations.
- Data retention above 10 years @ 25°C (77°F)
- Embedded advanced bad block management automatically replaces bad blocks
- On-board back-up power units are provided, it works with special designed FW and hardware circuits to protect user data integrity during sudden loss of power

Endurance

- SLC lasts longer than MLC
- High capacity lasts longer than low capacity
- Sequential data lasts longer than random data
- 64 and 128GB SLC - Read: unlimited, Write: > 3yrs @ 500G/day
- 64, 128, 256 and 512GB MLC - Read: unlimited, Write: > 3yrs @ 50G/day

MTBF

- > 2,000,000 hours

Compatible with Windows (Win 7, XP, Me, NT, CE, and Vista), LINUX, QNX, Unix, Solaris and Vxworks

Ordering Information

- TR-T25301-64/128GB-SLC - 64GB or 128GB SLC SSD
- TR-T25301-64/128/256/512GB-MLC - 64GB, 128GB, 256 or 512GB MLC SSD

Warranty: 3 years