Datasheet

2.5" SATA III SSD

Features

- Faster load times & lag-free multitasking
- Powerful Transcend controller with ultra-fast MLC/SLC flash chips
- Supports TRIM, NCQ, S.M.A.R.T. and firmware updates
- Silent, low-power operation. Resistant to shock and vibration
- Backwards compatible with SATA II (3Gb/s) and SATA I (1.5Gb/s)
- SuperMLC technology of Transcend to make the MLC NAND act as high-speed SLC NAND
- Built-in ECC (Error Correction Code) functionality and Wear-Leveling algorithm ensure reliable data transfer
- Built-in Power Shield active monitoring circuit prevents data loss in the event of a sudden power outage

Introduction

Featuring a SATA III 6Gb/s interface and a powerful controller, Transcend's SATA III SSD is the ideal high-speed, lightweight and shockproof replacement for traditional rotating hard drives. With Intelligent Power Shield (IPS) (optional), Transcend's SATA III SSD provides extra protection to data integrity against sudden power failures or blackouts. Using SLC/MLC NAND flash chips, Transcend's SSD ensures superior performance and reliability for industrial-grade applications, such as embedded automation computers, engineering machines, and fanless PCs. In addition, Transcend exclusive SuperMLC technology provides superior reliability and endurance nearly equivalent to SLC NAND flash, yet at a cost-effective price.

Specifications

	SSD410K	SSD420K	SSD420I	SSD510K	SSD570K	SSD570KI
Flash Type	MLC			SUPER MLC	SLC	
DRAM cache	No	DDR3 DRAM cache embedded				
Connector	SATA (7+15-pin)					
Controller	Transcend TS6510	Transcend TS6500		Transcend TS6500		
Capacity	64GB~128GB	32GB~1TB		64GB~128GB	8GB~256GB	32GB
Sequential Read*	540 MB/s	560 MB/s		570 MB/s	570 MB/s	
Sequential Write*	200 MB/s	460 MB/s		460 MB/s	490 MB/s	
4K Random Read*	35,000 IOPS	75,000 IOPS		75,000 IOPS	75,000 IOPS	
4K Random Write*	50,000 IOPS	75,000 IOPS		75,000 IOPS	80,000 IOPS	
Operating Temperature	0℃~70℃**		-40℃~85℃	0℃~70℃**	0℃~70℃	-40℃~85℃
Storage Temperature	-40℃~85℃					
Humidity	0%~95%					
Shock	1,500G					
Vibration	5G (Peak-to-Peak), 5Hz to 800Hz (Frequency)					
Operating Voltage	5V±5%					
Power Consumption	3.5W (active), 0.35W (idle)					
Dimensions	100 x 69.85 x 6.8mm		99.8 x 69.8 x 7mm	100 x 69.85 x 6.8mm		
TBW (Varies from capacities)	80 TB	1,180 TB	1,180 TB	1,420 TB	6,400 TB	800 TB
MTBF	1,000,000 hours	1,500,000 hours				
Warranty	3-year Limited					

*Max. Performance
**optional: -40℃~85℃

Ordering Information

	TS32GSSD420K	32GB
	TS32GSSD420I	32GB
	TS64GSSD420K	64GB
	TS64GSSD420I	64GB
	TS128GSSD420K	128GB
SSD420 MLC Series	TS128GSSD420I	128GB
	TS256GSSD420K	256GB
	TS256GSSD420I	256GB
	TS512GSSD420K	512GB
	TS512GSSD420I	512GB
	TS1TSSD420K	1TB
	TS1TSSD420I	1TB

	TS8GSSD570K	8GB
	TS16GSSD570K	16GB
	TS32GSSD570K	32GB
SSD570K SLC Series	TS32GSSD570KI	32GB
	TS64GSSD570K	64GB
	TS128GSSD570K	128GB
	TS256GSSD570K	256GB
SSD510K SUPER MLC	TS64GSSD510K	64GB
	TS128GSSD510K	128GB
SSD410K MLC	TS64GSSD410K	64GB
	TS128GSSD410K	128GB

Drawing

Item	Milimeter	Item	Milimeter
A1	0.25	A11	4.8
A2	0.2	A12	14.0
A3	69.85	A13	76.6
A4	100.0		
A5	3.5		
A6	6.8		
A7	3.0		
A8	14.0		
A9	76.6		
A10	61.72		
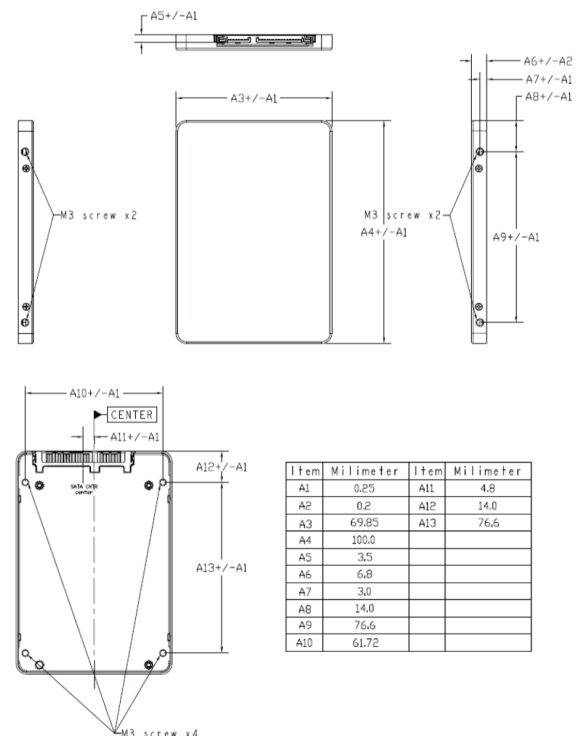
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