

TS32GSSD25S-S/M TS64GSSD25S-S/M

2.5" Solid State Disk

Description

Due to smaller size (fit the standard dimensions of 2.5" SATA Hard Disk Drives), huge capacity, high speed, and low power consumption, Solid State Disk is perfect replacement storage device for PCs, Laptops, gaming systems, and handheld devices.

Placement



Features

- RoHS compliant
- Fully compatible with devices and OS that support the SATA II 3.0Gbps standard
- Non-volatile Flash Memory for outstanding data retention
- Built-in ECC (Error Correction Code) functionality and wear-leveling algorithm ensures highly reliable of data transfer
- Shock resistance

Dimensions

Side	Millimeters	Inches
A	100.00 ± 0.40	3.937 ± 0.016
B	69.85 ± 0.20	2.750 ± 0.008
C	9.50 ± 0.15	0.374 ± 0.004

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Specifications

Physical Specification		
Form Factor		2.5-inch HDD
Storage Capacities		32 GB to 64 GB
Dimensions (mm)	Length	100.0 0 ± 0.40
	Width	69.85 ± 0.20
	Height	9.50 ± 0.15
Input Voltage		5V ± 5%
Weight		48 g
Connector		SATA 7+15 pins combo connector

Environmental Specifications	
Operating Temperature	0 °C to 70 °C
Storage Temperature	- 40 °C to 85 °C

Power Requirements			
Input Voltage		5V ± 10%	
Mode		TYP (mA)	MAX (mA)
TS32GSSD25S-M Power Consumption (DC 5V @25°C)	Write	221.15	282.41
	Read	159.87	181.94
	Idle	122.29	122.33
TS32GSSD25S-S Power Consumption (DC 5V @25°C)	Write	217.50	268.31
	Read	158.14	180.29
	Idle	121.35	121.39
TS64GSSD25S-M Power Consumption (DC 5V @25°C)	Write	223.32	290.81
	Read	160.43	180.75
	Idle	122.34	122.36
TS64GSSD25S-S Power Consumption (DC 5V @25°C)	Write	218.72	274.46
	Read	159.92	185.43
	Idle	123.04	123.70

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Reliability	
Data Reliability	Support 8 Bytes ECC in 512 data bytes
Data Retention	10 years

Performance				
Model P/N	Read (KB/s)	Write (KB/s)	Random Read (KB/s)	Random Write (KB/s)
TS32GSSD25S-M	116894	38994	68221	11913
TS32GSSD25S-S	119069	64851	70426	23825
TS64GSSD25S-M	116894	43097	67501	12457
TS64GSSD25S-S	119069	64851	70378	23654

* Note : 25 °C , according to 7+15 pins combo connector test on GIGABYTE GA-965PDS3, 1GB RAM, Windows® XP Version 2002 SP2, benchmark utility HDBENCH (version 3.4006), copied file 100MB.

Actual Capacity				
Model P/N	User Max. LBA	Cylinder	Head	Sector
TS32GSSD25S-M	59,047,936	16,383	16	63
TS32GSSD25S-S	59,047,936	16,383	16	63
TS64GSSD25S-M	118,095,872	16,383	16	63
TS64GSSD25S-S	118,095,872	16,383	16	63

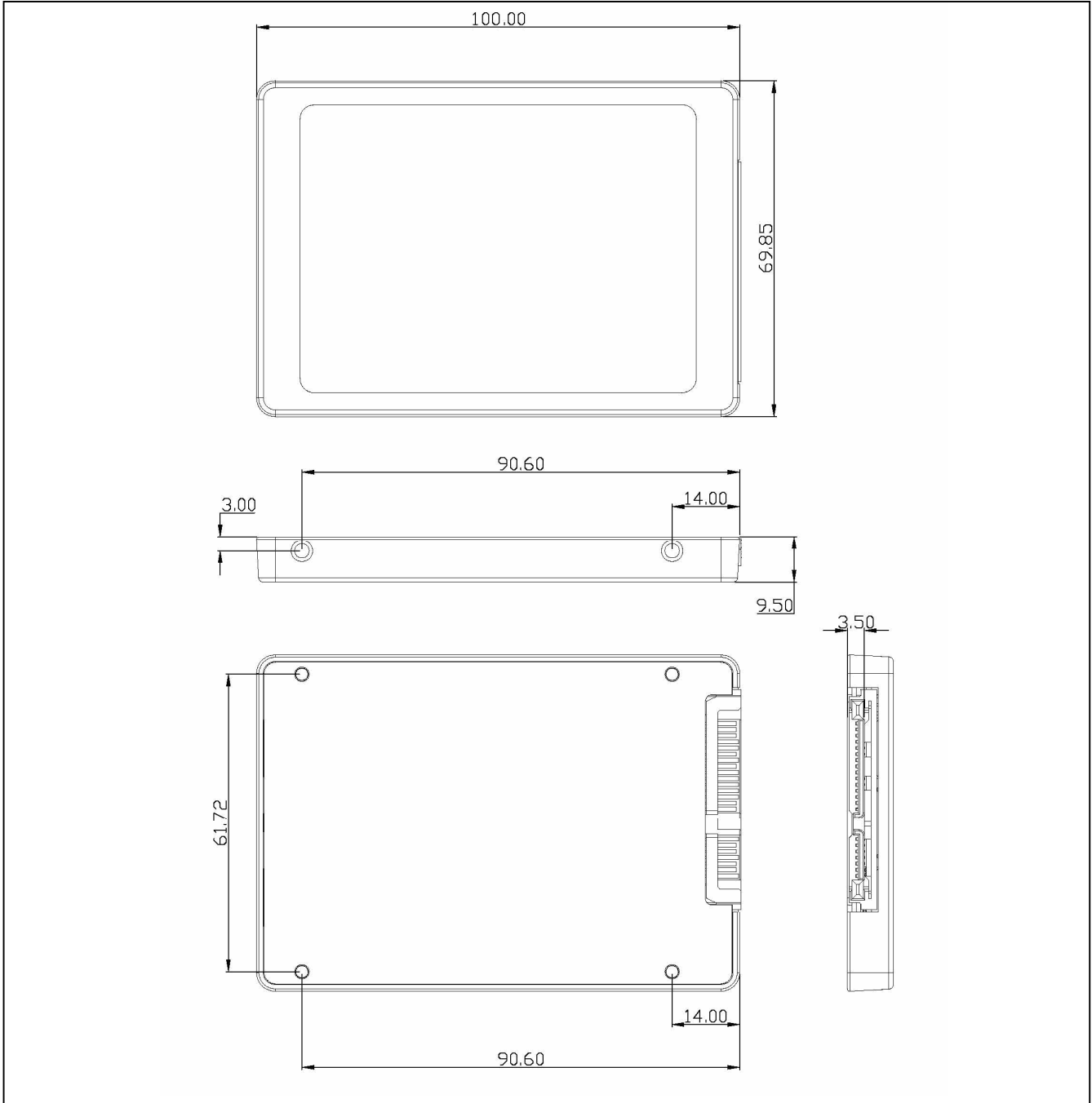
Regulations	
Compliance	CE, FCC and BSMI

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Package Dimensions

Below figure illustrates the Transcend 2.5" SATA Solid State Disk. All dimensions are in mm.



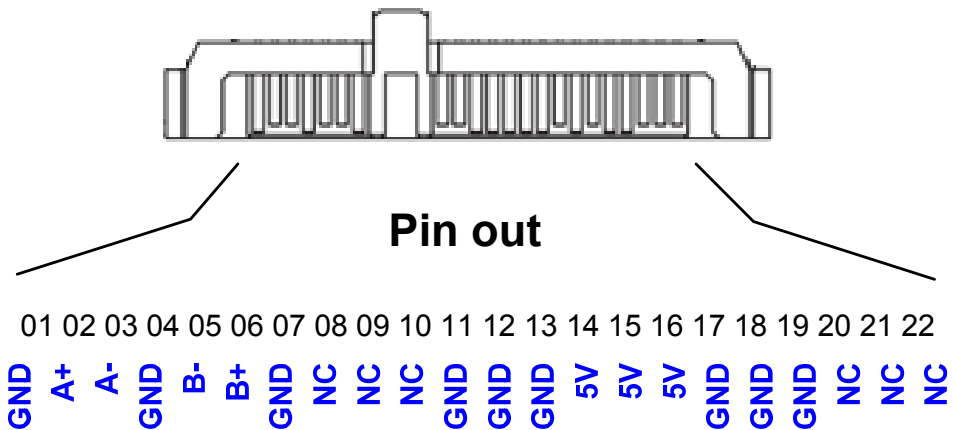
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TS64GSSD25S-S/M

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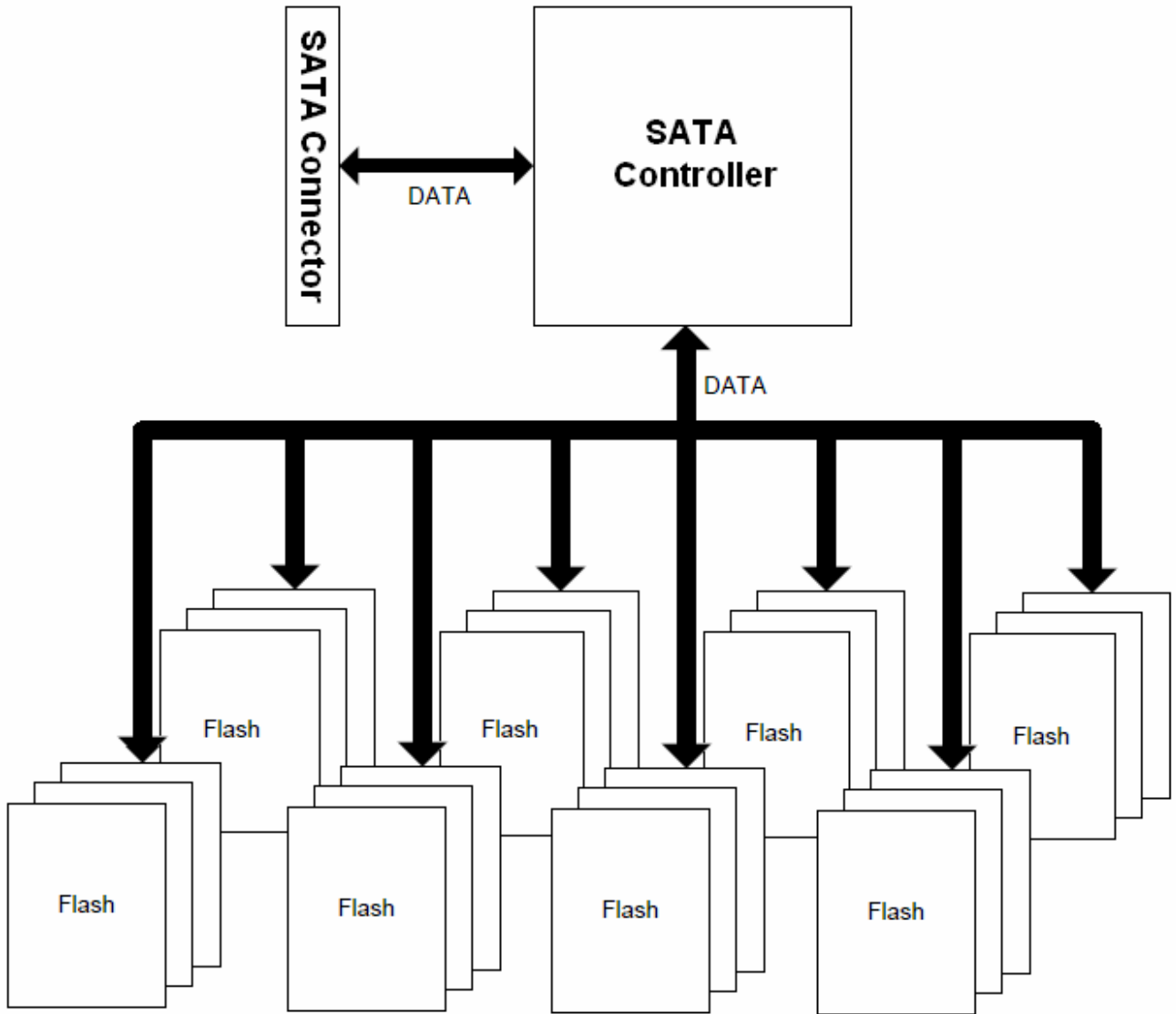
Pin Assignments

Pin No.	Pin Name	Pin No.	Pin Name
01	GND	02	A+
03	A-	04	GND
05	B-	06	B+
07	GND	08	NC
09	NC	10	NC
11	GND	12	GND
13	GND	14	5V
15	5V	16	5V
17	GND	18	GND
19	GND	20	NC
21	NC	22	NC

Pin Layout



Block Diagram



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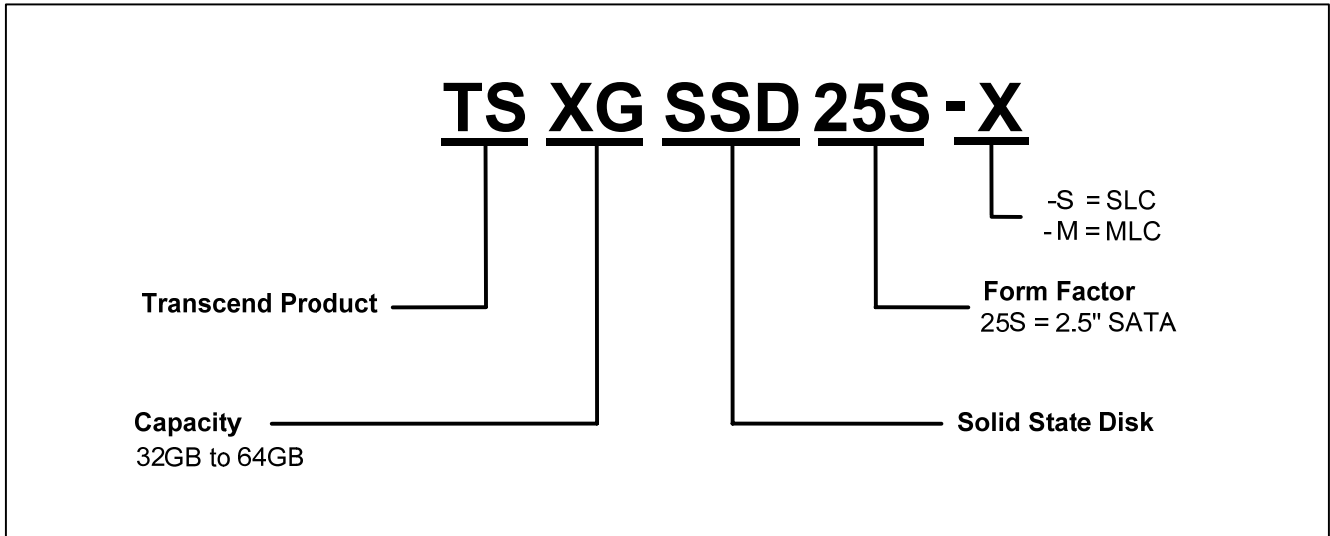
Command Set

Command Name	Code
RECALIBRATE	10h
READ SECTOR(S)	20h
WRITE SECTOR(S)	30h
READ VERIFY SECTOR(S)	40h
INITIALIZE DEVICE PARAMETERS	91h
DOWNLOAD MICRICODE	92h
SMART	B0h
READ MULTIPLE	C4h
WRITE MULTIPLE	C5h
SET MULTIPLE MODE	C6h
READ DMA	C8h
WRITE DMA	CAh
STANDBY IMMEDIATE	E0h
IDLE IMMEDIATE	E1h
STANDBY	E2h
IDLE	E3h
CHECK POWER MODE	E5h
SLEEP	E6h
FLUSH CACHE	E7h
IDENTIFY DEVICE	ECh
SET FEATURES	EFh
SECURITY SET PASSWORD	F1h
SECURITY UNLOCK	F2h
SECURITY ERASE PREPARE	F3h
SECURITY ERASE UNIT	F4h
SECURITY FREEZE LOCK	F5h
SECURITY DISABLE PASSWORD	F6h

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Ordering Information



The above technical information is based on industry standard data and has been tested to be reliable. However, Transcend makes no warranty, either expressed or implied, as to its accuracy and assumes no liability in connection with the use of this product. Transcend reserves the right to make changes to the specifications at any time without prior notice.



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