

## PSD320

Transcend PSD is a series of 2.5 PATA SSD with high performance and advanced flash control techniques. Due to smaller size (fit the standard dimensions of 2.5" IDE 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.



### Features

- RoHS compliant products
- Single Power Supply: 5V±10%
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- Operating Temperature: 0°C to 70°C
- Storage Temperature: -40°C to 85°C
- Operating Humidity (Non condensation): 0% to 95%
- Storage Humidity (Non condensation): 0% to 95%
- Built-in BCH ECC (Error Correction Code) functionality and global wear-leveling algorithm ensures highly reliable of data transfer
- True IDE Mode supports:
  - Ultra DMA Mode 0 to Ultra DMA Mode 6
  - MultiWord DMA Mode 0 to MultiWord DMA Mode 2
  - PIO Mode 0 to PIO Mode 6
- MTBF: 1,000,000 hours
- Support S.M.A.R.T (Self-defined) to monitor Erase Count for lifetime evaluation
- Support Security Command
- Support Static Data Refresh, Early Retirement to extend product life

### Dimensions

Side	Millimeters	Inches
A	100.30 ± 0.40	3.949 ± 0.016
B	69.85 ± 0.20	2.750 ± 0.008
C	7.40 ± 0.15	0.292 ± 0.004

## Specifications

Physical Specification	
Form Factor	2.5-inch HDD
Storage Capacities	32 to 128 GB
Input Voltage	5V ± 10%
Weight	55g ± 5g
Connector	44-Pin standard IDE/ATA connector (Pitch 2.0 mm)

Configuration			
Part Number	Interface	Transfer Mode	Disk Type
TS32G~128G320	True IDE mode	Ultra DMA mode 0~6 Multi-Word DMA Mode 0~4 PIO Mode 0 ~ 6	Fixed Disk

Power Consumption (DC 5V @25°C)				
Product		TS32GPSD320	TS64GPSD320	TS128GPSD320
Current Magnitude (mA)	Standby	8.4	8.7	8.6
	Read	202.6	210.4	251.4
	Write	234	342	371

\* Note: Power consumption is measured by Crystal Disk Mark 3.0 on P5K-VM, 1GB RAM \* 2, Windows<sup>®</sup> XP Version 2003 SP3 under 25°C.

Product	Read (MB/s)				Write (MB/s)			
	Seq	512K	4K	4K QD	Seq	512K	4K	4K QD
TS32GPSD320	85.5	82.5	9.424	9.651	60.81	36.58	0.981	1.101
TS64GPSD320	87.44	84.33	9.786	10.32	93.26	39.82	0.88	1.002
TS128GPSD320	103.7	98.4	7.733	9.499	93.15	41.66	0.722	0.982

\* Note: Read / Write Speed is measured by Crystal Disk Mark 3.0 on P5K-VM, 1GB RAM \* 2, Windows<sup>®</sup> XP Version 2003 SP3 under 25°C.

Capacity					
Model P/N	Cylinder	Head	Sector	User LBA	Physical Capacity
TS32GPSD320	16383	15	63	61,833,216	31,658,606,592
TS64GPSD320	16383	15	63	123,666,432	63,317,213,184
TS128GPSD320	16383	15	63	247,398,400	126,660,300,800

Endurance	
Model P/N	Tera Byte Write
TS32GPSD320	20 TBW

<b>TS64GPSD320</b>	40 TBW
<b>TS128GPSD320</b>	80 TBW

<b>Environmental Specifications</b>	
<b>Operating Temperature</b>	0 °C to 70 °C
<b>Storage Temperature</b>	-40 °C to 85 °C

<b>Humidity</b>	
<b>Operating Humidity (Non condensation)</b>	0% to 95%
<b>Storage Humidity (Non condensation)</b>	0% to 95%