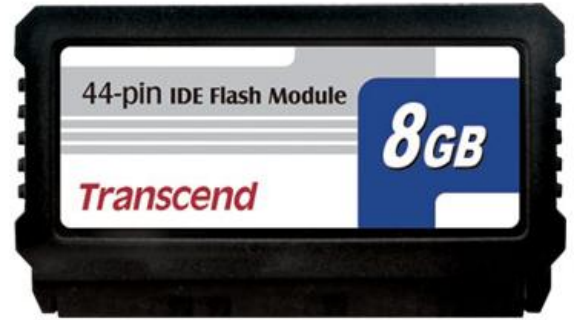


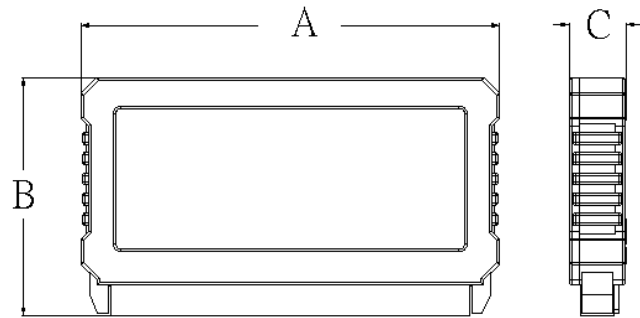
44pin IDE FLASH Module

Transcend PTM510-44V series is designed to install on host with 44pin, 2.0mm pitch IDE interface. With compact size and high quality NAND flash memory, PTM510 is ideal for harsh environments such as Industrial PCs, Set-Top Boxes, etc.



Features

- RoHS compliant products
- Built-in 13/24-bit ECC (Error Correction Code) functionality and wear-leveling algorithm ensures highly reliable of data transfer
 - 13bit BCH ECC (2k+64 / 4k+128 byte per page flash)
 - 24bit BCH ECC (4k+208 / 8k+436 byte per page flash)
- True IDE Mode supports:
 - Ultra DMA Mode 0 to 5
 - Multi-Word DMA Mode 0 to 4
 - PIO Mode 0 to 6
- Support Global Wear-Leveling, Static Data Refresh, Early Retirement, and Erase Count Monitor functions to extend product life
- Support S.M.A.R.T (Self-defined)
- Support Security Command
- Support Host Protected Area
- Durability of Connector: 100 cycles
- MTBF: 1,000,000 hours (in 25 °C)



Dimensions

Side	Millimeters	Inches
A	52.00 ± 0.40	2.047 ± 0.016
B	29.50 ± 0.50	1.162 ± 0.020
C	7.10 ± 0.20	0.280 ± 0.008

Specifications

Capacity					
Model P/N	Cylinder	Head	Sector	User LBA	Physical Capacity
TS2GPTM510-44V	3884	16	63	3,915,072	2,004,516,864 Byte
TS4GPTM510-44V	7769	16	63	7,831,152	4,009,549,824 Byte
TS8GPTM510-44V	15538	16	63	15,662,304	8,019,099,648 Byte
TS16GPTM510-44V	16383	15	63	31,325,805	16,038,812,160 Byte

Note. PTM510 series is shipped with RAW format. Inquiry for formatted device please contact with sales/PM.

Performance				
	Sequential Read	Sequential Write	Random 4K Read	Random 4K Write
2GB	29.94	11.77	9.287	0.053
4GB	56.29	22.29	13.08	0.058

8GB	50.66	34.98	8.409	0.058
16GB	57.56	38.84	10.31	0.059

Note : Test by Crystal Disk Mark V3.0.1, 500MB size @25 °C, P5K-VM(ICH 9), 1GB RAM * 2, IDE interface support up to UDMA6, Windows® XP SP3.

Power consumption				
Capacity	2GB	4GB	8GB	16GB
Read	58.1	119.1	112.3	135.1
Write	58	80.2	92.9	122.3
Idle	0.4	0.4	0.4	0.4

Note: All data above are maximum value from various test pattern.

Endurance				
Capacity	2GB	4GB	8GB	16GB
Tera Byte Write	41.6 TBW	83.3 TBW	166.6 TBW	333.3 TBW

Note: Based on JEDEC JESD218A specification, Client Application Class. And based on the following scenario: Active use : 40°C, 8hrs/day.

Interface			
Part Number	Interface	Transfer Mode	Connector
TS2G~16GPT510-44V	True IDE mode	Ultra DMA mode 0~5 Multi-Word DMA Mode 0~4 PIO Mode 0 ~ 6	44pin 2.0 mm pitch Pin Header

Environmental Specifications	
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%

SHOCK & Vibration Test		
	Condition	Standard
Mechanical Shock Test	1500G, 0.5ms, 3 axes	IEC 60068-2-27
Vibration Test	20G (Peak-to-Peak) 20Hz to 2000Hz (Frequency)	IEC 60068-2-6

Note: If Third party report is needed, please contact with sales/PM.

EMC/EMI	
Compliance	CE, FCC and BSMI

Note: If Third party report is needed, please contact with sales/PM.