

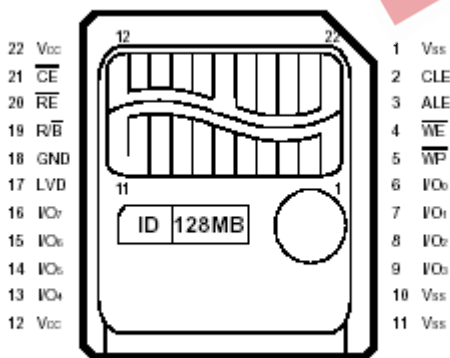
# TS128MVSSFDC

128M SmartMedia

## Description

The TS128MVSSFDC is a 128M(134,217,728)x8bit NAND Flash Memory with a spare 4096K(4,194,304)x8bit. Its NAND cell provides the most cost-effective solution for the solid state mass storage market. A program operation programs the 528-byte page in typically 200us and an erase operation can be performed in typically 2ms on an 16K-byte block. Data in the page can be read out at 50ns cycle time per byte. The I/O pins serve as the ports for address and data input/output as well as command inputs. The on-chip write controller automates all program and erase functions including pulse repetition, where required, and internal verify and margining of data. Even the write-intensive systems can take advantage of the TS128MVSSFDC's extended reliability of 1,000,000 program/erase cycle by providing either ECC(Error Correction Code) or real time mapping-out algorithm. The TS128MVSSFDC is an optimum solution for large nonvolatile storage applications such as solid state file storage, digital voice recorder, digital still camera and other portable applications requiring non-volatility.

## SmartMedia™ CARD(SSFDC)



22 PAD SmartMedia™

## Features

- Single 2.7V~3.6V supply
- Organization  
Memory Cell Array : (128M + 4096K)bitx8bit  
Data Register : (512 + 16)bit x8bit
- Automatic Program and Erase  
Page Program : (512 + 16)Byte  
Block Erase : (16K + 512)Byte
- 528-Byte Page Read Operation  
Random Access : 10us(Max.)  
Serial Page Access : 50ns(Min.)
- Fast Write Cycle Time  
Program time : 200us(typ.)  
Block Erase time : 2ms(typ.)
- Command/Address/Data Multiplexed I/O port
- Hardware Data Protection  
Program/Erase Lockout During Power Transitions
- Reliable CMOS Floating-Gate Technology  
Endurance : 1M Program/Erase Cycles  
Data Retention : 10 years
- Command Register Operation
- 22 pad SmartMedia™ (SSFDC)

## Pin Identification

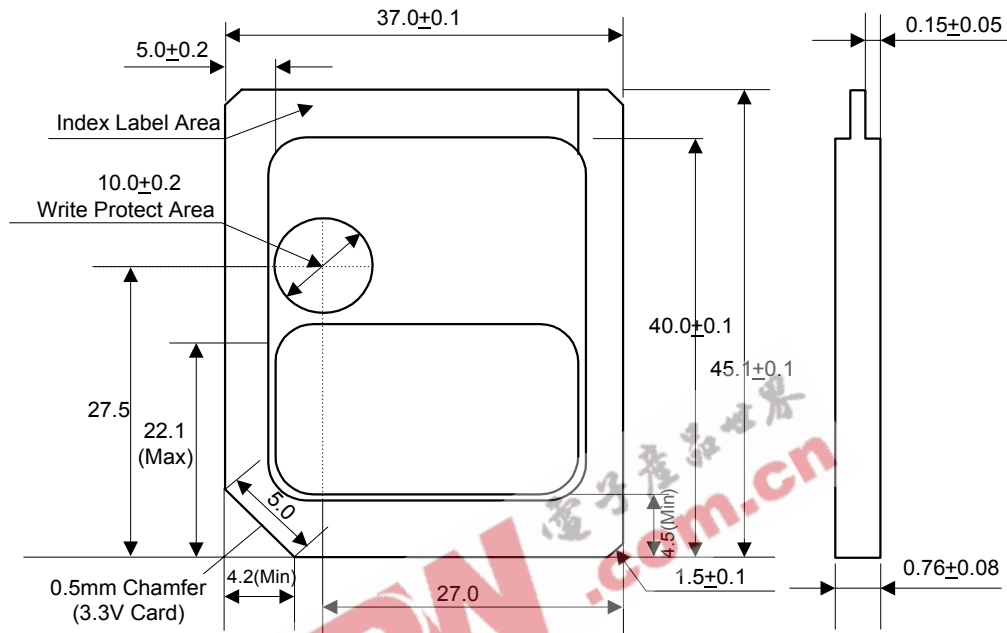
Symbol	Function
I/O0~I/O7	Data Input/Outputs
CLE	Command Latch Enable
ALE	Address Latch Enable
/CE	Chip Enable
/RE	Read Enable
/WE	Write Enable
/WP	Write Protect
GND	Ground
R/B	Ready/Busy output
Vcc	Power(2.7~3.6V)
Vss	Ground
N.C	No Connection

**Transcend Information Inc.**

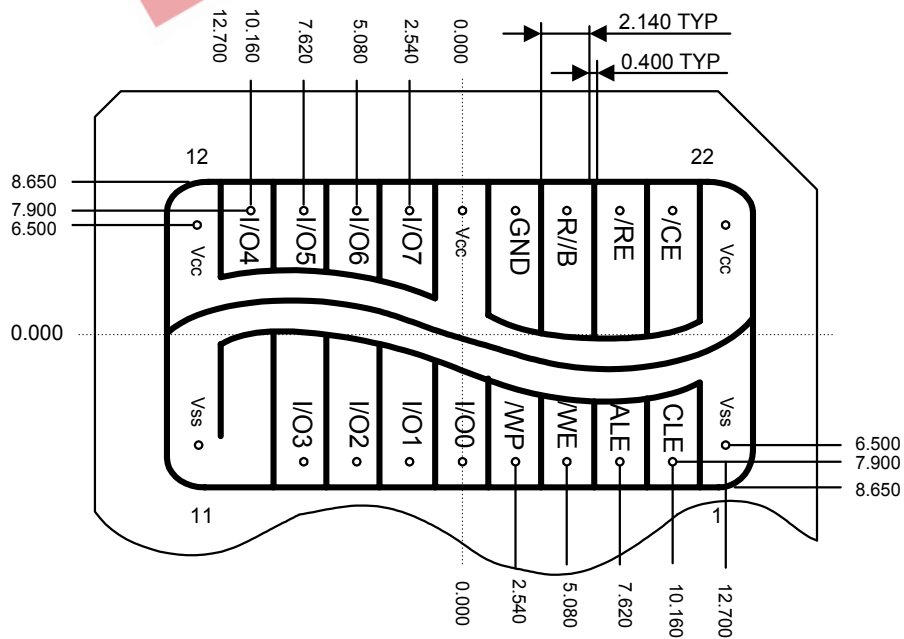
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## Outline



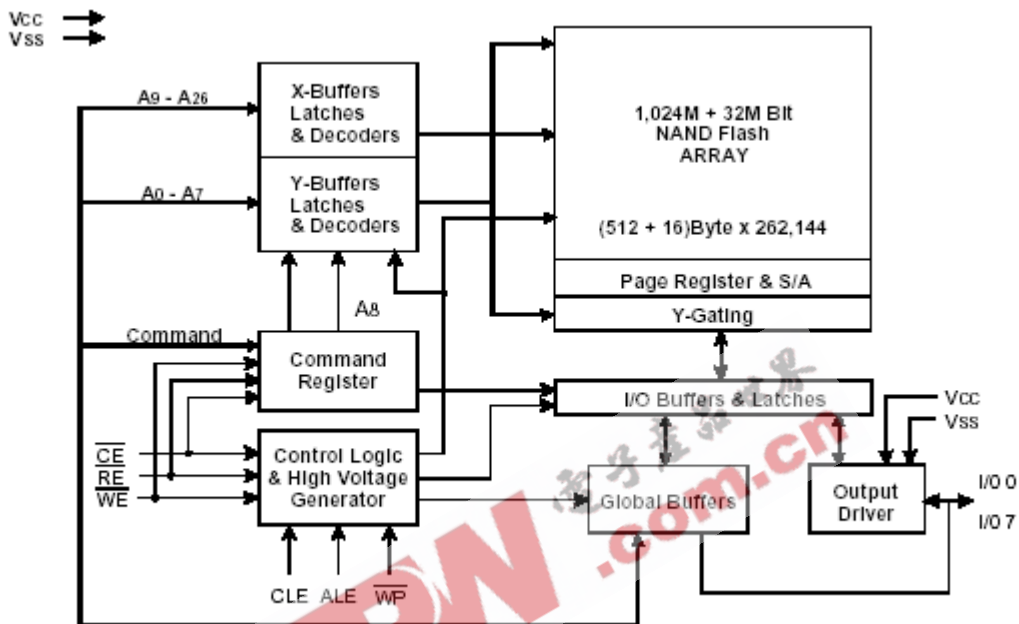
## Pinouts



# TS128MVSSFDC

128M SmartMedia

TS128MVSSFDC-Block Diagram



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