SGS-THOMSON MICROELECTRONICS

ST24164
ST25164

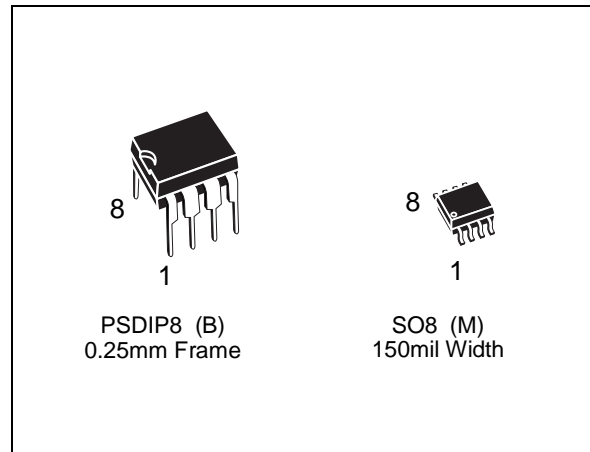# 16Kb (x8) SERIAL EEPROM

- 1 MILLION ERASE/WRITE CYCLES with OVER 40 YEARS DATA RETENTION
- SINGLE SUPPLY VOLTAGE:
  - 4.5V to 5.5V for ST24164 version
  - 2.5V to 5.5V for ST25164 version
- HARDWARE WRITE CONTROL PIN
- TWO WIRE SERIAL INTERFACE
- PAGE WRITE (up to 16 BYTES)
- BYTE, RANDOM and SEQUENTIAL READ MODES
- SELF TIMED PROGRAMMING CYCLE
- AUTOMATIC ADDRESS INCREMENTING
- ENHANCED ESD/LATCH-UP PERFORMANCES

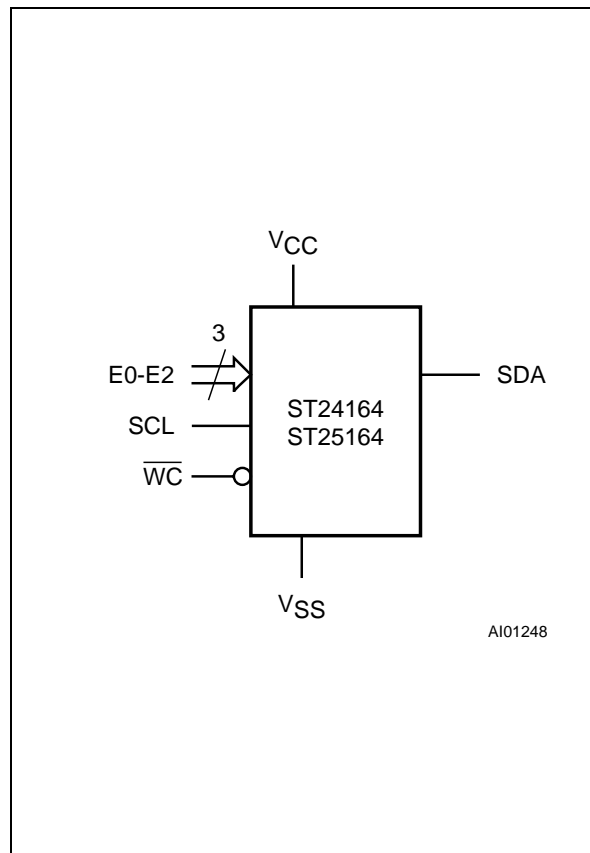PSDIP8 (B)
0.25mm Frame

SO8 (M)
150mil Width

DESCRIPTION

The ST24/25164 are 16K bit electrically erasable programmable memories (EEPROM), organized as 2048 x 8 bits. They are manufactured in SGS-THOMSON's Hi-Endurance Advanced CMOS technology which guarantees an endurance of one million erase/write cycles with a data retention of over 40 years. The memories operate with a power supply value as low as 2.5V.
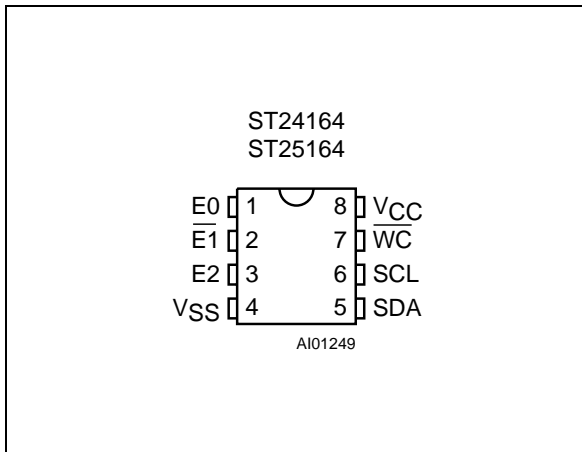
Logic Diagram

AI01248

Signal Names

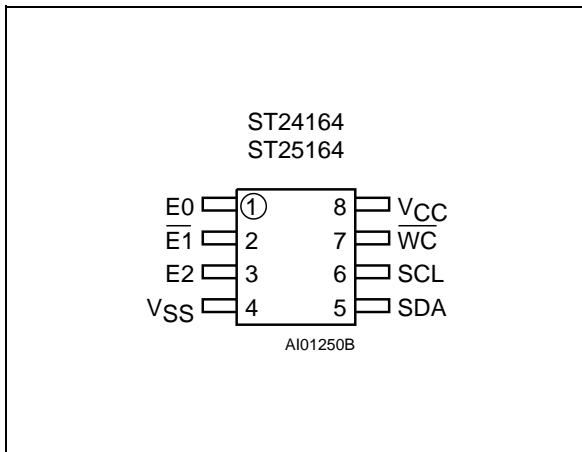| E0-E2	Chip Enable Inputs
SDA	Serial Data Address Input/Output
SCL	Serial Clock
$\overline{WC}$	Write Control
V_{CC}	Supply Voltage
V_{SS}	Ground

DIP Pin Connections

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E0	1	8	V_{CC}
$\overline{E1}$	2	7	$\overline{WC}$
E2	3	6	SCL
V_{SS}	4	5	SDA

AI01249

SO Pin Connections

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ST25164

E0	①	8	V_{CC}
$\overline{E1}$	2	7	$\overline{WC}$
E2	3	6	SCL
V_{SS}	4	5	SDA

AI01250B

Ordering Information Scheme

For a list of available options or for further information on any aspect of this device, please contact the SGS-THOMSON Sales Office nearest to you.

Example: ST24164   M   1   TR

Operating Voltage	
24	4.5V to 5.5V
25	2.5V to 5.5V

Package	
B	PSDIP8 0.25mm Frame
M	SO8 150mil Width

Temp. Range	
1	0 to 70 °C
6	–40 to 85 °C
3 [1]	–40 to 125 °C

Option	
TR	Tape & Reel Packing

Notes: 1. Temperature range on special request only.

Devices are shipped from the factory with the memory content set at all "1's" (FFh).