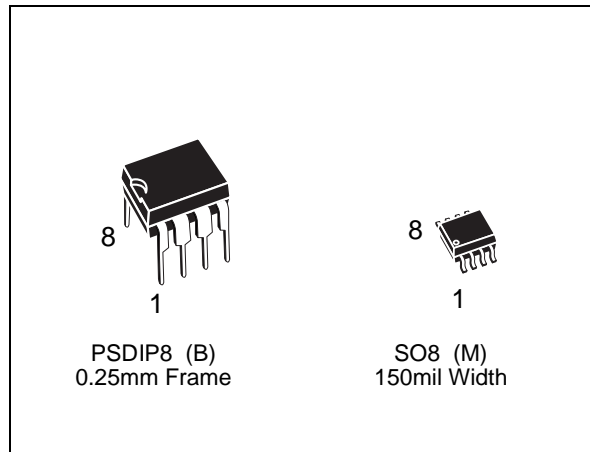




**1Kb (x8) DUAL MODE SERIAL EEPROM**  
**for VESA PLUG & PLAY**

**DATA BRIEFING**

- 1 MILLION ERASE/WRITE CYCLES
- 40 YEARS DATA RETENTION
- 3.6V to 5.5V SINGLE SUPPLY VOLTAGE
- HARDWARE WRITE CONTROL (ST24LW21 and ST24FW21)
- TTL SCHMITT-TRIGGER on VCLK INPUT
- 100k / 400k Hz COMPATIBILITY with the I<sup>2</sup>C BUS BIT TRANSFER RANGE
- TWO WIRE SERIAL INTERFACE I<sup>2</sup>C BUS COMPATIBLE
- I<sup>2</sup>C PAGE WRITE (up to 8 Bytes)
- I<sup>2</sup>C BYTE, RANDOM and SEQUENTIAL READ MODES
- SELF TIMED PROGRAMMING CYCLE
- AUTOMATIC ADDRESS INCREMENTING
- ENHANCED ESD/LATCH UP PERFORMANCES
- ERROR RECOVERY MECHANISM (ST24FC21 and ST24FW21) VESA 2 COMPATIBLE



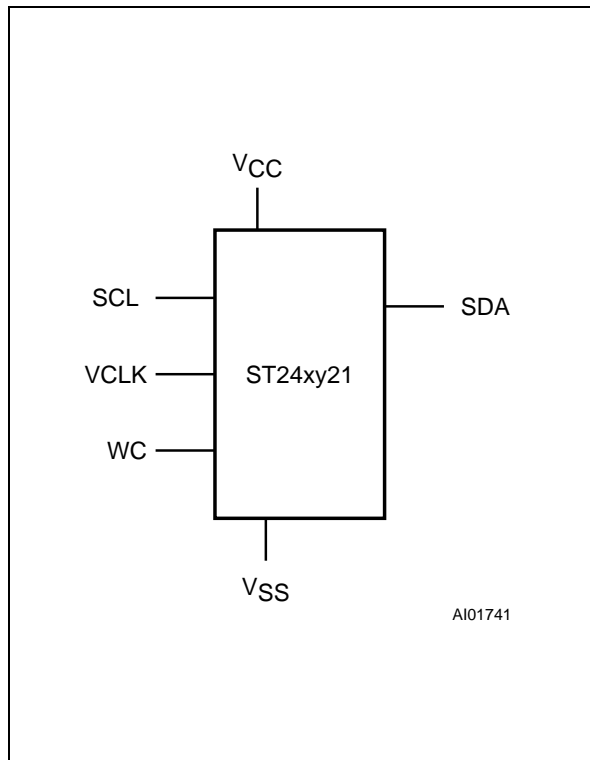
**DESCRIPTION**

The ST24LC21B, ST24LW21, ST24FC21 and ST24FW21 are 1K bit electrically erasable programmable memory (EEPROM), organized in 128x8 bits. In the text, products are referred as ST24xy21, where "x" is either "L" for VESA 1 or "F" for VESA 2 compatible memories and where "y" indicates the Write Control pin connection: "C" means WC on pin 7 and "W" means WC on pin 3.

**Signal Names**

SDA	Serial Data Address Input/Output
SCL	Serial Clock (I <sup>2</sup> C mode)
V <sub>CC</sub>	Supply Voltage
V <sub>SS</sub>	Ground
VCLK	Clock Transmit only mode
WC	Write Control

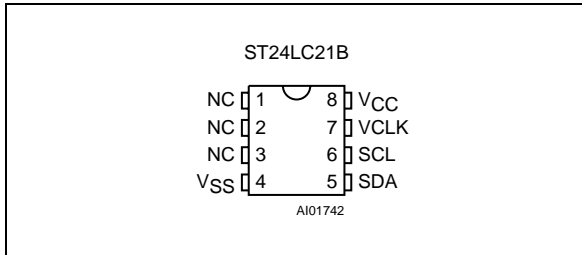
**Logic Diagram**



**Note:** WC signal is only available for ST24LW21 and ST24FW21 products.

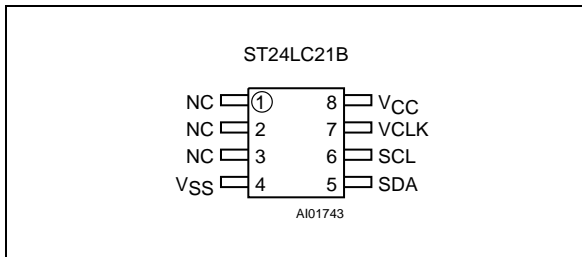
# ST24LC21B, ST24LW21, ST24FC21, ST24FW21

## DIP Pin Connections



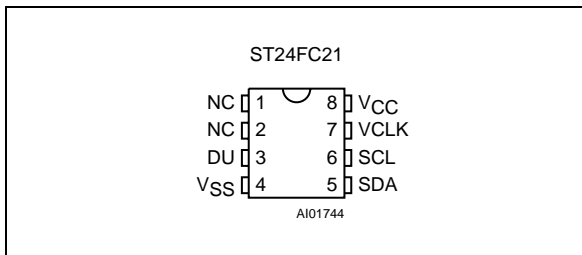
**Warning:** NC = Not Connected.

## SO Pin Connections



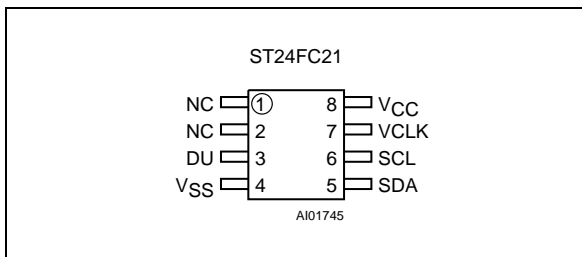
**Warning:** NC = Not Connected.

## DIP Pin Connections



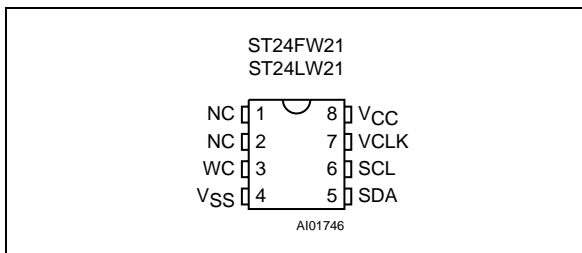
**Warning:** NC = Not Connected. DU = Don't Use, must be left open or connected to V<sub>CC</sub> or V<sub>SS</sub>.

## SO Pin Connections



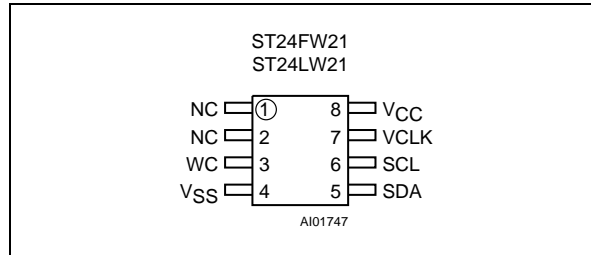
**Warning:** NC = Not Connected. DU = Don't Use, must be left open or connected to V<sub>CC</sub> or V<sub>SS</sub>.

## DIP Pin Connections



**Warning:** NC = Not Connected.

## SO Pin Connections



**Warning:** NC = Not Connected.

## 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: ST24LC21B M 1 TR

Family Range	Package	Temp. Range	Option
ST24LC21B VESA 1 WC on pin 7	B PSDIP8 0.25mm Frame	1 0 to 70 °C	TR Tape & Reel Packing
ST24LW21 VESA 1 WC on pin 3	M SO8 150mil Width	6 -40 to 85 °C	
ST24FC21 VESA 2 WC on pin 7			
ST24FW21 VESA 2 WC on pin 3			

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