

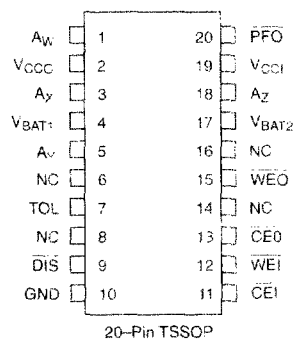
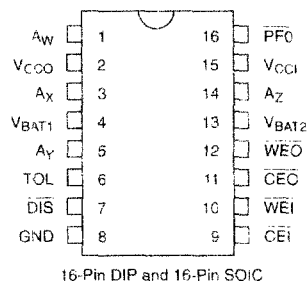
FEATURES

- Converts CMOS RAMs into nonvolatile memories
- Automatically selects +3.0V or +5.0V operation
- SOIC version is pin compatible with the Dallas Semiconductor DS1210S and DS1610S NV Controllers
- Unconditionally write protects all of memory when V_{CC} is out of tolerance
- Write protects selected blocks of memory regardless of V_{CC} status when programmed
- Automatically switches to battery backup supply when power fail occurs
- Provides for multiple batteries
- Consumes less than 100 nA of battery current
- Tests battery on power up by inhibiting the second memory cycle
- Optional 5% or 10% Power Fail Detection
- 16-pin DIP or 16-pin SOIC surface mount package or 20-pin TSSOP package
- Low forward voltage drop on the V_{CC} switch with currents of up to 150 mA
- Optional industrial temperature range of -40°C to $+85^{\circ}\text{C}$

DESCRIPTION

The DS1710 is a low power CMOS circuit which solves the application problems of converting CMOS RAMS into nonvolatile memories. In addition the device has the ability to unconditionally write protect blocks of memory so that inadvertent write cycles do not corrupt program and special data space. The incoming power supply voltage at the V_{CC1} input pin is constantly monitored for an out of tolerance condition. When such a condition is detected, both the chip enable and write enable outputs are inhibited to protect stored data.

PIN ASSIGNMENT



PIN DESCRIPTION

V_{CC1}	– Input 2.7 to 5.5 Volt Supply
V_{BAT1}	– + Battery 1 Input
V_{BAT2}	– + Battery 2 Input
V_{CCO}	– RAM Power (V_{CC}) Supply
GND	– Ground
\overline{CEI}	– Chip Enable Input
\overline{CEO}	– Chip Enable Output
\overline{WEI}	– Write Enable Input
\overline{WEO}	– Write Enable Output
TOL	– Power Supply Tolerance Select
$A_W - A_Z$	– Address Inputs
\overline{DIS}	– Memory Partition Disable
PFO	– Power Fail Output
NC	– No Connect