

4K ELECTRICALLY ERASABLE PROGRAMMABLE ROM

FEATURES :

- Power Supply Voltage
Single Vcc for Read and Programming
(Vcc = 2.7 V to 5.5 V)
- Low Power (I_{sb} = 2µa @ 5.5 V)
- I²C Bus, 2-Wire Serial Interface
- Support Byte Write and Page Write (16 Bytes)
- Automatic Page write Operation (maximum 10 ms)
Internal Control Timer
Internal Data Latches for 16 Bytes
- High Reliability CMOS Technology with EEPROM Cell
Endurance : 1,000,000 Cycles
Data Retention : 100 Years

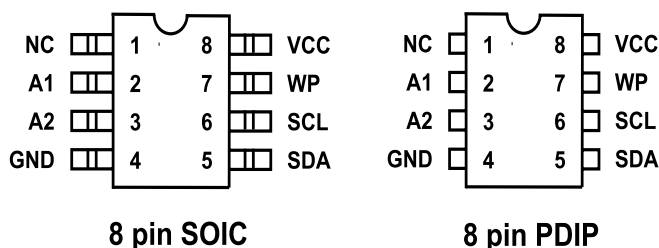
DESCRIPTION:

The Turbo IC 24C04 is a serial 4K EEPROM fabricated with Turbo's proprietary, high reliability, high performance CMOS technology. It's 4K of memory is organized as 512x8 bits. The memory is configured as 32 pages with each page containing 16 bytes. This device offers significant advantages in low power applications.

The Turbo IC 24C04 uses the I²C addressing protocol and 2-wire serial interface which includes a bidirectional serial data bus synchronized by a clock. It offers a flexible byte write and a faster 16-byte page write.

The Turbo IC 24C04 is assembled in either a 8-pin PDIP or 8-pin SOIC package. Pin #1 is not connected (NC). Pin#2 is the A1 device address input for the 24C04. Pin #3 is the A2 device address input for the 24C04, such that a total of four 24C04 devices can be connected on a single bus. Pin# 4 is the ground (Vss). Pin #5 is the serial data (SDA) pin used for bidirectional transfer of data. Pin #6 is the serial clock (SCL) input pin. Pin #7 is the write protect (WP) pin used to protect hardware data. Pin #8 is the power supply (Vcc) pin.

PIN DESCRIPTION



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DEVICE ADDRESS (A1 & A2)

A1 and A2 are device address inputs that enables a total of four 24C04 devices to connect on a single bus. When the address input pin is left unconnected, it is interpreted as zero.

WRITE PROTECT (WP)

When the write protect input is connected to Vcc, the entire memory array is protected against write operations. For normal write operations, the write protect pin should be grounded. When the pin is left unconnected, WP is interpreted as zero.

SERIAL DATA (SDA)

SDA is a bidirectional pin used to transfer data in and out of the Turbo IC 24C04. The pin is an open-drain output. A pullup resistor must be connected from SDA to Vcc.

SERIAL CLOCK (SCL)

The SCL input synchronizes the data on the SDA bus. It is used in conjunction with SDA to define the start and stop conditions. It is also used in conjunction with SDA to transfer data to and from the Turbo IC 24C04.