

## 4K I<sup>2</sup>C™ Serial EEPROM with Software Write-Protect Product Brief

### Features:

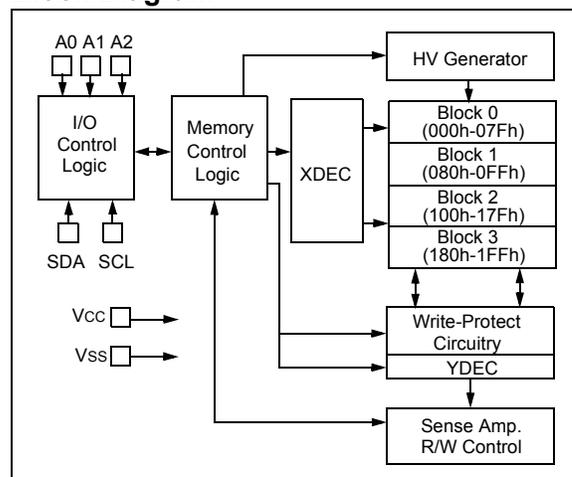
- 4 Kbit EEPROM:
  - Internally organized as two 256 x 8-bit banks
  - Byte or page writes (up to 16 bytes)
  - Byte or sequential reads within a single bank
  - Self-timed write cycle (5 ms max.)
- JEDEC® JC42.4 (EE1004-v) Serial Presence Detect (SPD) compliant for DRAM (DDR 4) modules
- High-Speed I<sup>2</sup>C™ Interface:
  - Industry standard 100 kHz, 400 kHz, and 1 MHz
  - Schmitt Trigger inputs for noise suppression
  - SMBus-compatible bus time out
  - Cascadable up to eight devices
- Write Protection:
  - Reversible software write protection for four individual 128-byte blocks
- Low-Power CMOS Technology:
  - Voltage range: 1.7V to 3.6V
  - Write current: 1.5 mA at 3.6V
  - Read current: 200 µA at 3.6V, 400 kHz
  - Standby current: 1 µA at 3.6V
- High Reliability:
  - More than one million erase/write cycles
  - Data retention: > 200 years
  - ESD protection: > 4000V
- 8-lead PDIP, SOIC, MSOP, TSSOP, TDFN, and UDFN Packages
- Available Temperature Ranges:
  - Industrial (I): -40°C to +85°C
  - Automotive (E): -40°C to +125°C

### Description:

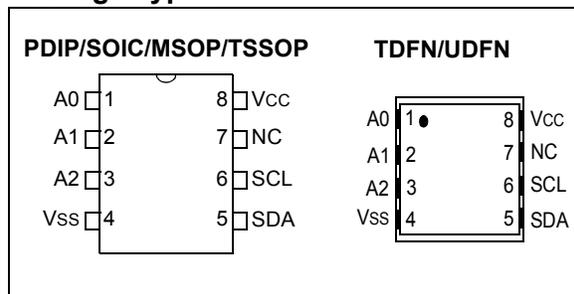
The Microchip Technology Inc. 34AA04 is a 4 Kbit Electrically Erasable PROM which utilizes the I<sup>2</sup>C serial interface and is capable of operation across a broad voltage range (1.7V to 3.6V). This device is JEDEC JC42.4 (EE1004-v) Serial Presence Detect (SPD) compliant and includes reversible software write protection for each of four independent 128 x 8-bit blocks. The device features a page write capability of up to 16 bytes of data. Address pins allow up to eight devices on the same bus.

The 34AA04 is available in the 8-lead PDIP, SOIC, MSOP, TSSOP, TDFN, and UDFN packages.

### Block Diagram



### Package Types



NOTES:

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**Note the following details of the code protection feature on Microchip devices:**

- Microchip products meet the specification contained in their particular Microchip Data Sheet.
- Microchip believes that its family of products is one of the most secure families of its kind on the market today, when used in the intended manner and under normal conditions.
- There are dishonest and possibly illegal methods used to breach the code protection feature. All of these methods, to our knowledge, require using the Microchip products in a manner outside the operating specifications contained in Microchip's Data Sheets. Most likely, the person doing so is engaged in theft of intellectual property.
- Microchip is willing to work with the customer who is concerned about the integrity of their code.
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