

EEPROM Serial-SPI 512K-bit 64K x 8 2.5V/3.3V/5V Automotive 8-Pin SOIC N



Images are for reference only

Manufacturer: [Microchip Technology, Inc](#)

Package/Case: SOP-8

Product Type: Memory

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

[Inquiry](#)

General Description

The Microchip 25AA512 is a 512 Kb Serial EEPROM utilizing the industry standard Serial Peripheral Interface (SPI) compatible serial bus. The device is organized as one block of 64K x 8-bit and is optimized for use in consumer electronics, industrial, medical, and automotive applications where reliable and dependable nonvolatile memory storage is essential. Software write protection allows the user to protect ¼, ½, or the entire memory array. A hardware write protect pin is also provided, which additionally protects against inadvertent writes to the status register. The EEPROM is available in a variety of space-saving packaging options.

Key Features

64K x 8-bit (512 Kbit)

Supports SPI modes 0 and 3

Up to 20 MHz clock frequency

Self-Timed Erase and Write Cycles (6 ms max.)

Read current: 10 mA (Max) at 20 MHz

Write current: 5 mA (Max) at 10 MHz

Standby current: 10 µA (Max) at 5.5 V

Deep power-down current: 1 µA (Max) at 2.5 V

Block Write Protection: Protect 1/4, 1/2 or Entire Array

More than 1 million erase/write cycles

Data retention > 200 years

Industrial (I): -40°C to +85°C

Automotive AECQ-100 Qualified1

Factory Programming Available

Available in standard packages including 8-lead PDIP, SOIC and SOIJ and advanced package 8-lead 5x6 DFN

Recommended For You

SST25VF080B-50-4C-S2AF

Microchip Technology, Inc
SOP8

AT25256B-SSHL-T

Microchip Technology, Inc
SOP8

AT24C256C-SSHL-T

Microchip Technology, Inc
SOP8

AT25040B-SSHL-B

Microchip Technology, Inc
SOP-8

AT25128B-SSPDGV-T

Microchip Technology, Inc
SOP8

23K256-I/SN

Microchip Technology, Inc
SOP8

AT27C256R-70JU

Microchip Technology, Inc
PLCC32

25AA1024-I/SM

Microchip Technology, Inc
SOP8

AT25320B-SSHL-T

Microchip Technology, Inc
SOP8

25AA1024T-I/MF

Microchip Technology, Inc
DFN-8

AT25512N-SH-T

Microchip Technology, Inc
SOP8

25LC1024-I/SM

Microchip Technology, Inc
SOP8

25AA256T-I/SN

Microchip Technology, Inc

SOP8

25LC640A-I/SN

Microchip Technology, Inc

SOP8

AT25640B-SSHL-T

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SOP8