

**EEPROM Serial-I2C 256K-bit 32K x 8 1.8V/2.5V/3.3V/5V
Automotive 8-Pin SOIC N T/R**



Images are for reference only

Manufacturer: [Microchip Technology, Inc](#)

Package/Case: SOP8

Product Type: Memory

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

[Inquiry](#)

General Description

The Microchip AT24C256C is a 256Kb Serial EEPROM utilizing an I²C (2-wire) serial interface. The device is organized as one block of 32K x 8 and is optimized for use in consumer, industrial, and automotive applications where reliable and dependable nonvolatile memory storage is essential. The EEPROM is available in a variety of space-saving packaging options.

Key Features

Description

The AT24C256C provides 262,144 bits of Serial Electrically Erasable and Programmable Read-Only Memory (EEPROM) organized as 32,768 words of 8 bits each. The device's cascading feature allows up to eight devices to share a common 2-wire bus. The device is optimized for use in many industrial and commercial applications where low-power and low-voltage operation are essential. The devices are available in space-saving 8-lead SOIC, 8-lead TSSOP, 8-pad UDFN and 8-ball VFBGA packages. All packages operate from 1.7V to 5.5V.

Features

- Low-Voltage and Standard-Voltage Operation:
 - VCC = 1.7V to 5.5V
- Internally Organized as 32,768 x 8 (256K)
- Industrial Temperature Range: -40°C to +85°C
- I2C-Compatible (2-Wire) Serial Interface:
 - 100 kHz Standard mode, 1.7V to 5.5V
 - 400 kHz Fast mode, 1.7V to 5.5V
 - 1 MHz Fast Mode Plus (FM+), 2.5V to 5.5V
- Schmitt Trigger, Filtered Inputs for Noise Suppression
- Bidirectional Data Transfer Protocol
- Write-Protect Pin for Full Array Hardware Data Protection
- Ultra Low Active Current (3 mA maximum) and Standby Current (6 μ A maximum)
- 64-Byte Page Write Mode:
 - Partial page writes allowed
- Random and Sequential Read Modes
- Self-Timed Write Cycle within 5 ms Maximum
- ESD Protection > 4,000V
- High Reliability:
 - Endurance: 1,000,000 write cycles
 - Data retention: 100 years
- Green Package Options (Lead-free/Halide-free/RoHS compliant)
- Die Sale Options: Wafer Form and Bumped Wafers



Recommended For You

AT93C46E-PU

Microchip Technology, Inc
DIP8

AT93C46D-PU

Microchip Technology, Inc
DIP8

AT24C64D-SSHMT

Microchip Technology, Inc
SOP8

AT24C128C-MAHMT

Microchip Technology, Inc
UDFN-8

AT93C66B-XHM-T

Microchip Technology, Inc
TSSOP8

AT25256B-SSHL-T

Microchip Technology, Inc
SOP8

AT24C08C-SSHMT

Microchip Technology, Inc
SOP8

AT24C04C-PUM

Microchip Technology, Inc
DIP8

AT24C02C-XHM-T

Microchip Technology, Inc
TSSOP8

AT24C02C-XHM-B

Microchip Technology, Inc
TSSOP8

AT24C32D-SSHMT

Microchip Technology, Inc
SOP8

AT24C02C-SSHMT

Microchip Technology, Inc
SOP8

AT24C16C-SSHM-B

Microchip Technology, Inc

SOP-8

AT93C56B-SSHM-T

Microchip Technology, Inc

SOP8

AT24C02C-STUM-T

Microchip Technology, Inc

SOT23-5