

Features

- Memory array: 32-256Kbit EEPROM-compatible non-volatile serial memory
- Two standard supply voltages for minimum power consumption
 - V_{DDC} : 1.2V +/- 3%
 - V_{DDIO} : 1.8V, 2.5V or 3.3V
- Serial peripheral interface (SPI) compatible
 - Supports SPI modes 0 and 3
- 1.0 MHz maximum clock rate
- Flexible Programming
 - Byte/Page Program (1 to 32 Bytes)
 - Page size: 32 Bytes
- Ultra Low Energy Word Write
 - 32 bit Word Write consuming 50 nJ
- Low power consumption
 - 15 μ W active Read power @ 500 kbit/s (Typical)
 - 25 μ W active Write power @ 10 kbit/s (Typical)
 - 90 nW Power-Down
- Auto Ultra-Deep Power-Down
 - Device can enter Ultra-Deep Power-Down automatically after finishing a Write operation
- Self-timed write cycles
- Hardware reset
- 8-lead SOIC package
- RoHS-compliant and halogen-free packaging
- Data Retention: 10 years
- Based on Adesto's proprietary CBRAM[®] technology

Description

The Adesto[®] RM3300 Series is a 32-256Kbit, serial memory device that utilizes Adesto's CBRAM[®] resistive technology.

The memory device is optimized for low power operation offering lowest available power for data-transfer, power-down, and writing. In order to efficiently optimize power consumption, the device makes use of two supplies, V_{DDC} , and V_{DDIO} . Read power is supplied from the V_{DDC} and the device consumes approximately 15 μ W at 500Kbit/s. To further reduce data-transfer power, the device is available in I/O voltages in the range of 1.8 to 3.3V (see ordering table).

The RM3300 Series is accessed through a 4-wire SPI interface consisting of a Serial Data Input (SDI), Serial Data Output (SDO), Serial Clock (SCK), and Chip Select (CS). The maximum clock (SCK) frequency in read mode is 1.0MHz.