



Atmel's Serial EEPROMs

Solutions for all your design needs

Every Configuration of Serial EEPROMS

Atmel entered the Serial-interface EEPROM market in 1992. Since then, Atmel has become a leading supplier of these small, low-power memory devices. Serial EEPROMs are in-system reprogrammable and are used to "remember" personal preference and set-up/configuration data in consumer, telecommunication, and automotive applications.

Atmel manufactures every Serial-interface EEPROM in the market today. The Company offers the broadest selection of 2-wire, 3-wire, 4-wire, and SPI devices available.

All of Atmel's Serial EEPROMs are in densities up to 1M, operate down to 1.8 volts and have one million erase/write cycles. Atmel offers the ideal Serial memory solution at competitive prices.

So...if you are looking for Serial EEPROMs, think about Atmel—we have solutions for all your design needs.

Benefits

- Densities ranging from 1K-1M bits and options to cascade densities for up to 2M bits of memory
- Pioneered 1.8-volt EEPROMs, which reduce power needs up to 80-percent—Ideal for portable or battery-operated systems
- Standard one million erase/write cycles
- Devices offered in commercial, industrial, and automotive temperature ranges
- Choose from the industry's smallest footprints, including MSOP, TSSOP and LAP packages



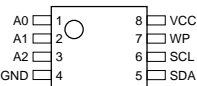
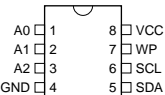
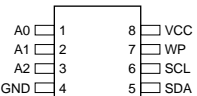
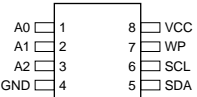
Atmel's Broad Serial EEPROM Family

Part Number	Density	Organization	V _{CC}	Description	Availability
AT24C01	1K	128 x 8	1.8, 2.5, 2.7, 5.0V	1K, 2-Wire Bus Serial EEPROM, Non-Cascadable	Now
AT24C01A	1K	128 x 8	1.8, 2.5, 2.7, 5.0V	1K, 2-Wire Bus Serial EEPROM, Full Write Protect	Now
AT24C21	1K	128 x 8	2.5V	1K, 2-Wire Bus Serial EEPROM Dual Mode, Plug & Play Operation	Now
AT24C02	2K	256 x 8	1.8, 2.5, 2.7, 5.0V	2K, 2-Wire Bus Serial EEPROM, Full Write Protect	Now
AT24C02A	2K	256 x 8	1.8, 2.5, 2.7, 5.0V	2K, 2-Wire Bus Serial EEPROM, Half Write Protect	Now
AT34C02	2K	256 x 8	1.8, 2.7, 5.0V	2K, 2-Wire Bus Serial EEPROM with Permanent Software Write Protect	Now
AT24C04	4K	512 x 8	1.8, 2.5, 2.7, 5.0V	4K, 2-Wire Bus Serial EEPROM, Full Write Protect	Now
AT24C04A	4K	512 x 8	1.8, 2.5, 2.7, 5.0V	4K, 2-Wire Bus Serial EEPROM, Half Write Protect	Now
AT24C08	8K	1028 x 8	1.8, 2.5, 2.7, 5.0V	8K, 2-Wire Bus Serial EEPROM	Now
AT24C08A	8K	1028 x 8	1.8, 2.5, 2.7, 5.0V	8K, 2-Wire Bus Serial EEPROM, Full Write Protect	Now
AT24C16	16K	2048 x 8	1.8, 2.5, 2.7, 5.0V	16K, 2-Wire Bus Serial EEPROM, Half Write Protect	Now
AT24C164	16K	2048 x 8	1.8, 2.5, 2.7, 5.0V	16K, 2-Wire Bus Serial EEPROM with Cascadable Feature	Now
AT24C32	32K	4096 x 8	1.8, 2.5, 2.7, 5.0V	32K, 2-Wire Bus Serial EEPROM with Cascadable Feature	Now
AT24C64	64K	8192 x 8	1.8, 2.5, 2.7, 5.0V	64K, 2-Wire Bus Serial EEPROM with Cascadable Feature	Now
AT24C128	128K	16384 x 8	1.8, 2.7, 5.0V	128K, 2-Wire Bus Serial EEPROM with Cascadable Feature	Now
AT24CS128	128K	16384 x 8	1.8, 2.7, 5.0V	128K, 2-Wire Bus Serial EEPROM with Cascadable Feature and Permanent Software Write Protect	1Q99
AT24C256	256K	32768 x 8	1.8, 2.7, 5.0V	256K, 2-Wire Bus Serial EEPROM with Cascadable Feature	Now
AT24CS256	256K	32768 x 8	1.8, 2.7, 5.0V	256K, 2-Wire Bus Serial EEPROM with Cascadable Feature and Permanent Software Write Protect	1Q99
AT24C512	512K	65536 x 8	1.8, 2.7, 5.0V	512K, 2-Wire Bus Serial EEPROM with Cascadable Feature	Now
AT93C46	1K	64 x 16 / 128 x 8	1.8, 2.5, 2.7, 5.0V	1K, 3-Wire Bus Serial EEPROM	Now
AT93C46A	1K	64 x 16	2.5, 2.7, 5.0V	1K, 3-Wire Bus Serial EEPROM	Now
AT93C46C	1K	64 x 16	2.5, 2.7, 5.0V	1K, 3-Wire Bus Serial EEPROM with Schmitt Trigger Inputs	Now
AT93C56	2K	128 x 16 / 256 x 8	2.5, 2.7, 5.0V	2K, 3-Wire Bus Serial EEPROM	Now
AT93C57	2K	128 x 16 / 256 x 8	2.5, 2.7, 5.0V	2K, 3-Wire Bus Serial EEPROM with Special Address	Now
AT93C66	4K	256 x 16 / 512 x 8	2.5, 2.7, 5.0V	4K, 3-Wire Bus Serial EEPROM	Now
AT93C86	16K	1024 x 16 / 2048 x 8	2.7, 5.0V	16K, 3-Wire Bus Serial EEPROM with Sequential Read and Schmitt Trigger Inputs	2Q99
AT59C11	1K	64 x 16 / 128 x 8	2.5, 2.7, 5.0V	1K, 4-Wire Bus Serial EEPROM	Now
AT59C22	2K	128 x 16 / 256 x 8	2.5, 2.7, 5.0V	2K, 4-Wire Bus Serial EEPROM	Now
AT59C13	4K	256 x 16 / 512 x 8	2.5, 2.7, 5.0V	4K, 4-Wire Bus Serial EEPROM	Now
AT25010	1K	128 x 8	1.8, 2.7, 5.0V	1K, SPI Bus Serial EEPROM, Supports SPI Mode 0 and 3	Now
AT25020	2K	256 x 8	1.8, 2.7, 5.0V	2K, SPI Bus Serial EEPROM, Supports SPI Mode 0 and 3	Now
AT25040	4K	512 x 8	1.8, 2.7, 5.0V	4K, SPI Bus Serial EEPROM, Supports SPI Mode 0 and 3	Now
AT25080	8K	1024 x 8	1.8, 2.7, 5.0V	8K, SPI Bus Serial EEPROM, Supports SPI Mode 0 and 3	Now
AT25160	16K	2048 x 8	1.8, 2.7, 5.0V	16K, SPI Bus Serial EEPROM, Supports SPI Mode 0 and 3	Now
AT25320	32K	4096 x 8	1.8, 2.7, 5.0V	32K, SPI Bus Serial EEPROM, Supports SPI Mode 0 and 3	Now
AT25640	64K	8192 x 8	1.8, 2.7, 5.0V	64K, SPI Bus Serial EEPROM, Supports SPI Mode 0 and 3	Now
AT25128	128K	16384 x 8	1.8, 2.7, 5.0V	128K, SPI Bus Serial EEPROM, Supports SPI Mode 0 and 3	Now
AT25256	256K	32768 x 8	1.8, 2.7, 5.0V	256K, SPI Bus Serial EEPROM, Supports SPI Mode 0 and 3	Now

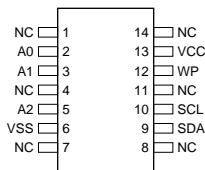
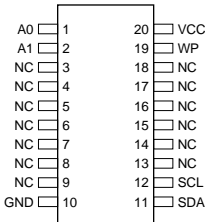
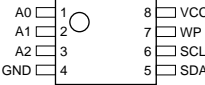

Atmel's Broad Serial EEPROM Family (Continued)

Part Number	Density	Organization	V _{CC}	Description	Availability
AT25HP256	256K	32768 x 8	1.8, 2.7, 5.0V	256K, SPI Bus Serial EEPROM, Supports SPI Mode 0 and 3, High Speed and Page Write Only	1Q99
AT25HP512	512K	65536 x 8	1.8, 2.7, 5.0V	512K, SPI Bus Serial EEPROM, Supports SPI Mode 0 and 3, High Speed and Page Write Only	1Q99
AT25P1024	1M	131072 X 8	1.8, 2.7, 5.0V	1M, SPI Bus Serial EEPROM, Supports SPI Mode 0 and 3, Page Write Only	Now

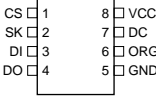
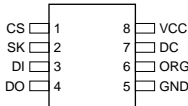
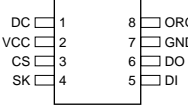
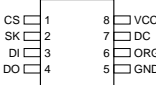
2-Wire Bus

Package Type	Density	Ordering Part No.	V _{CC} Options
5 x 6 mm LAP  Bottom View	128K 256K	AT24C128-10C AT24C256-10C	1.8, 2.7, 5.0 1.8, 2.7, 5.0
5 x 8 mm LAP  Bottom View	128K 256K 512K	AT24C128C1-10C AT24C256C1-10C AT24C512C1-10C	1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0
8-Pin MSOP 	1K 2K 4K	AT24C01/01A-10M AT24C02/02A-10M AT24C04/04A-10M	1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0
8-Pin PDIP 	1K 1K 2K 2K 4K 8K 16K 32K 64K 128K 128K 256K 256K 512K	AT24C01/01A-10P AT24C21-10P AT24C02/02A-10P AT34C02-10P AT24C04/04A-10P AT24C08/08A-10P AT24C16/16A-10P AT24C32-10P AT24C64-10P AT24C128-10P AT24CS128-10P AT24C256-10P AT24CS256-10P AT24C512-10P	1.8, 2.5, 2.7, 5.0 2.5 1.8, 2.5, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0
8-Pin JEDEC SOIC 	1K 1K 2K 2K 4K 8K 16K 32K 64K 128K 128K 256K	AT24C01/01A-10S AT24C21-10S AT24C02N/02AN-10S AT34C02N-10S AT24C04N/04AN-10S AT24C08N/08AN-10S AT24C16N/16A-10S AT24C32N-10S AT24C64N-10S AT24C128N-10S AT24CS128N-10S AT24C256N-10S	1.8, 2.5, 2.7, 5.0 2.5 1.8, 2.5, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0
8-Pin EIAJ SOIC 	32K 64K 128K 128K 256K 256K	AT24C32W-10S AT24C64W-10S AT24C128W-10S AT24CS128W-10S AT24C256W-10S AT24CS256W-10S	1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0

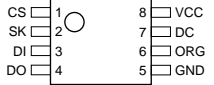
2-Wire Bus (Continued)

Package Type	Density	Ordering Part No.	V _{CC} Options
14-Pin JEDEC SOIC 	2K 4K 8K 16K 32K 64K	AT24C02/02A-10S AT24C04/04A-10S AT24C08/08A-10S AT24C16-10S AT24C32-10S AT24C64-10S	1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0
20-Pin JEDEC SOIC 	512K	AT24C512W1-10S	1.8, 2.7, 5.0
8-Pin TSSOP 	1K 2K 2K 4K 8K 16K 32K 64K	AT24C01/01A-10T AT24C02/02A-10T AT34C02-10T AT24C04/04A-10T AT24C08/08A-10T AT24C16-10T AT24C32-10T AT24C64-10T	1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0 1.8, 2.5, 2.7, 5.0
14-Pin TSSOP 	128K 256K	AT24C128T1-10T AT24C256T1-10T	1.8, 2.7, 5.0 1.8, 2.7, 5.0

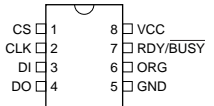
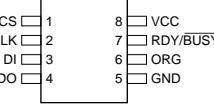
3-Wire Bus

Package Type	Density	Ordering Part No.	V _{CC} Options
8-Pin PDIP 	1K 1K 1K 2K 2K 4K 16K	AT93C46-10P AT93C46A-10P AT93C46C-10P AT93C56-10P AT93C57-10P AT93C66-10P AT93C86-10P	1.8, 2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.7, 5.0
8-Pin JEDEC SOIC 	1K 1K 1K 2K 2K 4K 16K	AT93C46-10S AT93C46A-10S AT93C46C-10S AT93C56-10S AT93C57-10S AT93C66-10S AT93C86-10S	1.8, 2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.7, 5.0
8-Pin Rotated JEDEC SOIC 	1K	AT93C46R-10S	1.8, 2.5, 2.7, 5.0
8-Pin EIAJ SOIC 	1K 2K 2K 4K	AT93C46W-10S AT93C56W-10S AT93C57W-10S AT93C66W-10S	1.8, 2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.5, 2.7, 5.0



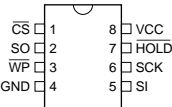
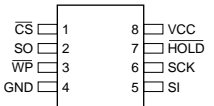
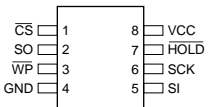
3-Wire Bus

Package Type	Density	Ordering Part No.	V _{CC} Options
8-Pin TSSOP 	1K 1K 16K	AT93C46-10T AT93C46A-10T AT93C86-10T	1.8, 2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.7, 5.0

4-Wire Bus

Package Type	Density	Ordering Part No.	V _{CC} Options
8 Pin PDIP 	1K 2K 4K	AT59C11-10P AT59C22-10P AT59C13-10P	2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.5, 2.7, 5.0
8-Pin EIAJ SOIC 	1K 2K 4K	AT59C11W-10S AT59C22W-10S AT59C13W-10S	2.5, 2.7, 5.0 2.5, 2.7, 5.0 2.5, 2.7, 5.0

SPI Bus

Package Type	Density	Ordering Part No.	V _{CC} Options
5 x 6 mm LAP  Bottom View	128K 256K 256K	AT25128-10C AT25256-10C AT25HP256-10C	1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0
5 x 8 mm LAP  Bottom View	128K 256K 256K 512K 1M	AT25128C1-10C AT25256C1-10C AT25HP256C1-10C AT25HP512C1-10C AT25P1024C1-10C	1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0
8-Pin PDIP 	1K 2K 4K 8K 16K 32K 64K 128K 256K 256K 512K	AT25010-10P AT25020-10P AT25040-10P AT25080-10P AT25160-10P AT25320-10P AT25640-10P AT25128-10P AT25256-10P AT25HP256-10P AT25HP512-10P	1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0
8-Pin JEDEC SOIC 	1K 2K 4K 8K 16K 32K 64K 128K	AT25010N-10S AT25020N-10S AT25040N-10S AT25080N-10S AT25160N-10S AT25320N-10S AT25640N-10S AT25128N-10S	1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0
8-Pin EIAJ SOIC 	128K 256K 256K	AT25128W-10S AT25256W-10S AT25HP256W-10S	1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0

SPI Bus (Continued)

Package Type	Density	Ordering Part No.	V _{CC} Options
<p>16-Pin JEDEC SOIC</p>	<p>128K 512K</p>	<p>AT25128N1-10S AT25HP512W2-10S</p>	<p>1.8, 2.7, 5.0 1.8, 2.7, 5.0</p>
<p>20-Pin JEDEC SOIC</p>	<p>1M</p>	<p>AT25P1024W1-10S</p>	<p>1.8, 2.7, 5.0</p>
<p>14-Pin TSSOP</p>	<p>8K 16K 32K 64K 128K</p>	<p>AT25080T1-10T AT25160T1-10T AT25320T1-10T AT25640T1-10T AT25128T1-10T</p>	<p>1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0</p>
<p>20-Pin TSSOP</p>	<p>8K 16K 32K 64K 128K 256K</p>	<p>AT25080T2-10T AT25160T2-10T AT25320T2-10T AT25640T2-10T AT25128T2-10T AT25256T2-10T</p>	<p>1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0 1.8, 2.7, 5.0</p>

Note: Please refer to device datasheets for complete ordering information.



Atmel Headquarters

Corporate Headquarters

2325 Orchard Parkway
San Jose, CA 95131
TEL (408) 441-0311
FAX (408) 487-2600

Europe

Atmel U.K., Ltd.
Coliseum Business Centre
Riverside Way
Camberley, Surrey GU15 3YL
England
TEL (44) 1276-686677
FAX (44) 1276-686697

Asia

Atmel Asia, Ltd.
Room 1219
Chinachem Golden Plaza
77 Mody Road
Tsimshatsui East
Kowloon, Hong Kong
TEL (852) 27219778
FAX (852) 27221369

Japan

Atmel Japan K.K.
Tonetsu Shinkawa Bldg., 9F
1-24-8 Shinkawa
Chuo-ku, Tokyo 104-0033
Japan
TEL (81) 3-3523-3551
FAX (81) 3-3523-7581

Atmel Operations

Atmel Colorado Springs

1150 E. Cheyenne Mtn. Blvd.
Colorado Springs, CO 80906
TEL (719) 576-3300
FAX (719) 540-1759

Atmel Rousset

Zone Industrielle
13106 Rousset Cedex, France
TEL (33) 4 42 53 60 00
FAX (33) 4 42 53 60 01

Fax-on-Demand

North America:
1-(800) 292-8635
International:
1-(408) 441-0732

e-mail

literature@atmel.com

Web Site

<http://www.atmel.com>

BBS

1-(408) 436-4309

© Atmel Corporation 1998.

Atmel Corporation makes no warranty for the use of its products, other than those expressly contained in the Company's standard warranty which is detailed in Atmel's Terms and Conditions located on the Company's website. The Company assumes no responsibility for any errors which may appear in this document, reserves the right to change devices or specifications detailed herein at any time without notice, and does not make any commitment to update the information contained herein. No licenses to patents or other intellectual property of Atmel are granted by the Company in connection with the sale of Atmel products, expressly or by implication. Atmel's products are not authorized for use as critical components in life support devices or systems.

Marks bearing ® and/or ™ are registered trademarks and trademarks of Atmel Corporation.

Terms and product names in this document may be trademarks of others.



Printed on recycled paper.

0358F-12/98/15M