

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Serial EEPROM

# Boost your flexibility with the world's n°1 EEPROM supplier



# More robust than ever: now offering 4 million erase/write cycles per byte and 200 years data retention

ST's EEPROMs perfectly meet the major market requirement of flexibility, with a complete portfolio of densities in standard packages, accommodating power supplies from 1.6 to 5.5 V. All this is achieved with the highest robustness in terms of cycling performance and data retention. This makes ST's EEPROMs the first choice for standard applications as well as for automotive applications.

#### **KEY FEATURES**

- 4 million E/W cycles per byte, 100 million cycles per device, 200 years data retention
- Bus type: I2C, SPI, Microwire
- Complete range of densities in a single package form
  - S08: 1 Kbit to 2 Mbits
  - TSSOP8: 1 Kbit to 1 Mbit
  - UFDFPN8: 2 Kbits to 512 Kbits
- Wide voltage range: 5.5 V down to 1.6 V
- High frequency
  - 1 MHz even at 1.6 V
  - 10 MHz at 2.5 V for SPI
- 64-Kbit EEPROM in 1.1 mm<sup>2</sup> with wafer level chip scale package (WLCSP)
- Additional write-lockable page option
- Automotive grade up to 150°C, AEC-Q100 and PPAP compliant

#### **KEY BENEFITS**

- The most reliable choice for heavy cycling even at high temperatures, and data retention forever
- The cheapest non-volatile memory solution and most flexible for parameter storage
  - No dedicated software development required
  - Choice of the memory density once project completed, just pay for the bytes you need
  - Ideal for low V<sub>CC</sub>, low-energy applications (battery powered)
- Reduced board space with WLCSP package
- Store the manufacturing settings safely
- Fully qualified devices for the most challenging automotive applications

#### PRODUCT SELECTOR









Generic part number	Serial interface	Storage capacity (Kbit)	Suffix for commercial products			
			SO8N package	TSSOP8 package	UFDFPN8 (2x3) package	WLCSP package
M24M02	I <sup>2</sup> C	2048	-DRMN6TP			-DRCS6TP/K <sup>1</sup>
M24M01	I <sup>2</sup> C	1024	-RMN6TP	-RDW6TP		-DFCS6TP/K
M24512	I <sup>2</sup> C	512	-RMN6TP	-RDW6TP	-DFMC6TG	-DFCS6TP/K
M24256	I <sup>2</sup> C	256	-BRMN6TP	-BRDW6TP	-BFMC6TG	-DFCS6TP/K
M24128	I <sup>2</sup> C	128	-BRMN6TP	-BRDW6TP	-BFMC6TG	-DFCS6TP/K <sup>1</sup>
M24C64	I <sup>2</sup> C	64	-RMN6TP	-RDW6TP	-FMC6TG	-FCS6TP/K <sup>2</sup>
M24C32	I <sup>2</sup> C	32	-RMN6TP	-RDW6TP	-FMC6TG	
M24C16	I <sup>2</sup> C	16	-RMN6TP	-RDW6TP	-RMC6TG	-FCS5TP/S
M24C08	I <sup>2</sup> C	8	-RMN6TP	-RDW6TP	-RMC6TG	-FCS5TP/S
M24C04	I <sup>2</sup> C	4	-RMN6TP	-RDW6TP	-RMC6TG	
M24C02	I <sup>2</sup> C	2	-RMN6TP	-RDW6TP	-RMC6TG	
M24C01	I <sup>2</sup> C	1	-RMN6TP	-RDW6TP		
M95M02	SPI	2048	-DRMN6TP			-DRCS6TP/K <sup>1</sup>
M95M01	SPI	1024	-RMN6TP	-RDW6TP		-DFCS6TP/K
M95512	SPI	512	-RMN6TP	-RDW6TP	-DFMC6TG	-DFCS6TP/K
M95256	SPI	256	-RMN6TP	-RDW6TP	-RMC6TG	-DFCS6TP/K <sup>1</sup>
M95128	SPI	128	-RMN6TP	-RDW6TP	-RMC6TG	-DFCS6TP/K <sup>1</sup>
M95640	SPI	64	-RMN6TP	-RDW6TP	-RMC6TG	-DFCT6TP/K <sup>1</sup>
M95320	SPI	32	-RMN6TP	-RDW6TP	-RMC6TG	
M95160	SPI	16	-RMN6TP	-RDW6TP	-RMC6TG	-RCS6TP/S
M95080	SPI	8	-RMN6TP	-RDW6TP	-RMC6TG	
M95040	SPI	4	-RMN6TP	-RDW6TP	-RMC6TG	
M95020	SPI	2	-RMN6TP	-RDW6TP		
M95010	SPI	1	-RMN6TP	-RDW6TP		
M93C86	Microwire	16	-WMN6TP	-WDW6TP		
M93C76	Microwire	8	-WMN6TP	-WDW6TP		
M93C66	Microwire	4	-WMN6TP	-WDW6TP	-RMC6TG	
M93S66	Microwire	4	-WMN6TP			
M93C56	Microwire	2	-WMN6TP	-WDW6TP		
M93S56	Microwire	2	-WMN6TP			
M93C46	Microwire	1	-WMN6TP	-WDW6TP		
M93S46	Microwire	1	-WMN6TP			
M34E02	I <sup>2</sup> C / DDR3	2		-FDW6TP	-FMC6TG	

Note 1 = available in Q1/2013

Note <sup>2</sup> = also available in thin package (0.33 mm)

#### **Ordering information scheme**





