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The world's first Automotive-Qualified 4Mbit SPI EEPROM

M95M04-A125

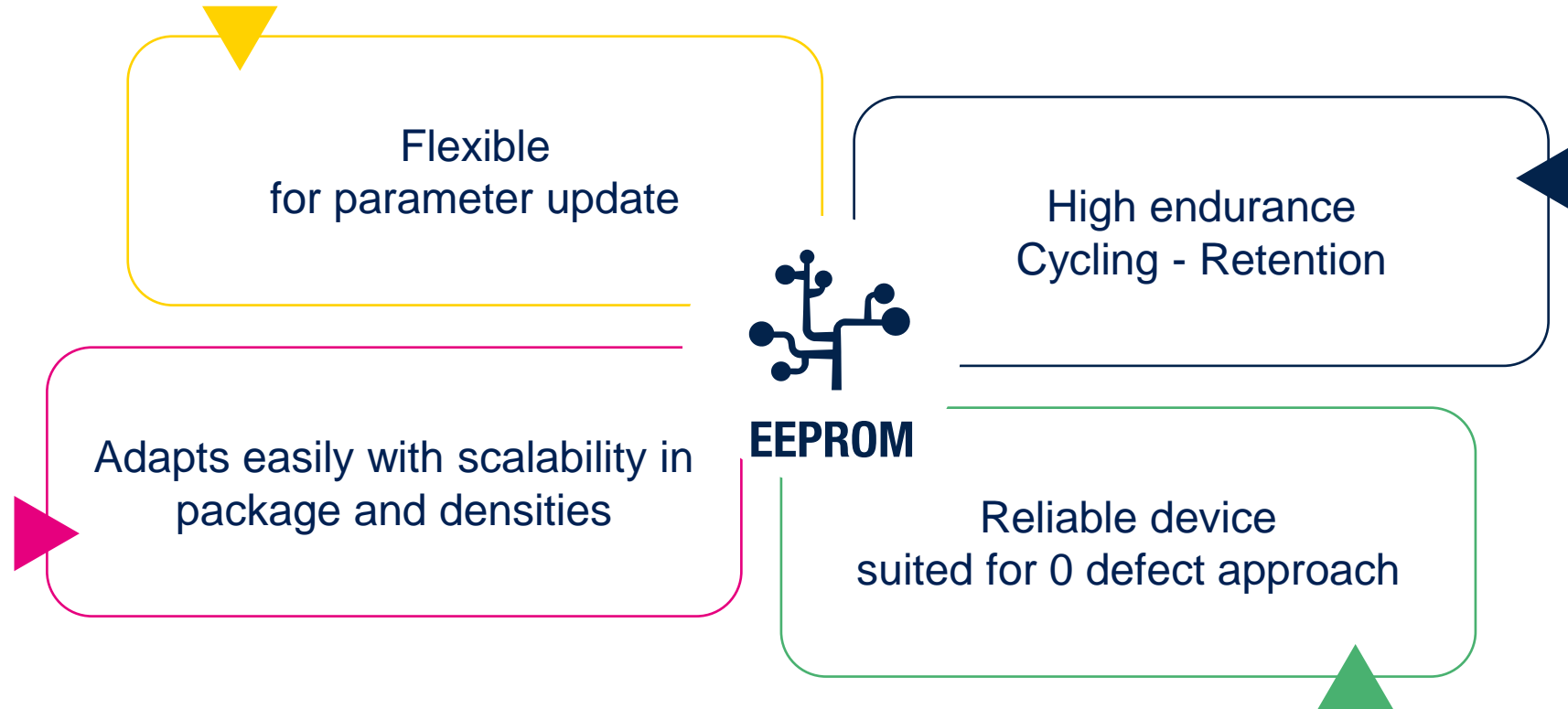
M95M04-A145

STMicroelectronics - June 2021

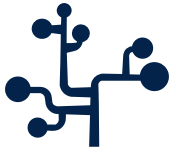


EEPROM

EEPROMs make Applications Smarter



**High quality
Flexible parameter management**



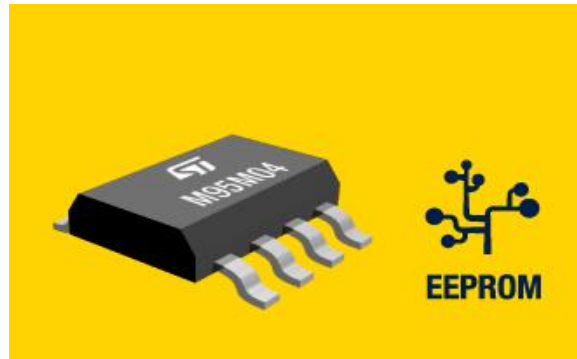
EEPROM

4Mbit Automotive EEPROM

Storage



- 512 Kbytes with embedded **Error Correction Code (ECC)**
- 1024 **pages of 512 bytes**
- Additionnal IDentification Lockable page
- Page **write time 4ms**
- 1 Million E/W cycles
- 50years data retention
- SPI bus 10MHz
- **Vcc 2.9 to 5.5V**



AEC-Q100 Grade 1 (125°C) SO8N & TSSOP

AEC-Q100 Grade 0 (145°C) TSSOP

Store safe your most sensitive data



Lockable
page

Additional Lockable page of 512 bytes

- Delivered with 3 ID bytes for software identification
- Access with specific instruction set
- Lockable in read only mode at anytime



EEPROM

Flexible data management

SPI 10MHz speed clock

- Sequential read of **512Kbytes (4Mbit)** in **less than 0.5 sec**



Fast 512 bytes page write

- Full memory write **512Kbytes (4Mbit)** in **less than 5 sec.**

Store 512 bytes in 1 single instruction

- Fast event recording of 512bytes in **less than 4ms**



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Monitoring and datalog function



1 Million cycles per byte at 25°C

- **1 Cycle/min** for active mission profile of 18000h

100 Million cycles per device

- **1 Cycle/sec.** for active mission profile of 18000h
- Cycled data must be evenly distributed over 65 different locations*

*1 cycle/sec during 18000h are 64,8 Million cycles. To respect the 1Million cycles per byte, total cycling must be distributed over 65 different locations.

Less than 1mA operating current

Write mode

- At 3.3V, average 0.75mA current consumption during 4ms
- Only 10 μ J energy budget for write instruction

Read mode

- At 3.3V, average 0.65mA current consumption at 10Mhz
- Only 1 μ J energy budget for reading 512 bytes





EEPROM

Apply for samples at [st.com](https://www.st.com)



SO8N M95M04-DWMN3TP/V

TSSOP M95M04-DWDW3TP/V

TSSOP M95M04-DWDW4TP/V



[Automotive Serial EEPROM](#)



[4Mbit 125°C](#) / [4Mbit 145°C](#)



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Serial EEPROM - make it easy

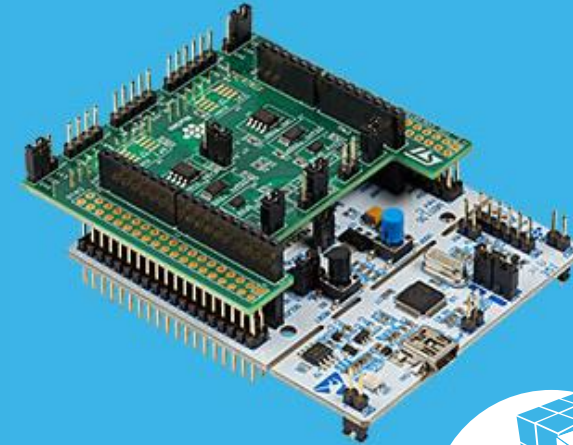
ST EEPROM Finder app

*Select & order the right EEPROM
for your design*



X-Nucleo-EEPRMA2 *Plug-in shield*

Prototype and validate



New 4Mbit for a Safer and Greener Trip



»» ST EEPROM service

- IBIS and Verilog models
- Easy Buy-on-Line & through our Distributors
- ROHS and Halogen-free package
- Long term commitment

Thank you



EEPROM

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