Overview:

Highest Serial EEPROM density:

2 Mbit

A world leader in providing the semiconductor solutions that help our customers to improve quality of life for everyone, both today and in the future.
Key messages

ST is the #1 EEPROM supplier in the world with 27% market share

ST was the first to launch 2 Mbit device in 2010!
Available in S08 and WLCSP

Increase the number of parameters in the EEPROM, and make your application SMARTER!
History / Roadmap

- 2016 plan: 4 Mbit EEPROM in WLCSP
- 2010: 1st 2 Mbit EEPROM in SO8N
- 2009: 1st 512 kbit EEPROM in MLP 2x3
- 2007: 1st 1 Mb EEPROM in SO8N
- 2004: 1st 512 kbit EEPROM in TSSOP

ST is market leader on high-density EEPROM
External EEPROM is the first choice for high quality and flexible parameter management.
- 2 Mbit memory array (256 Kbytes)
- 2 bus types: I²C and SPI
- Page size: 256 bytes
- Error Correction Code (ECC) embedded
- Additional write lockable page (identification page)
- 1.8 to 5.5 V for compatibility with advanced digital cores
- Package: SO8N and WLCSP
Application benefits

• Low energy (for I2C bus)
  - VCC min: 1.8 V support
  - ICC read: 1 mA
  - ICC write: 2 mA
  - ICC standby: 3 μA

• Flexibility for data updates
  - Byte alterability
  - Fast erase time (10 ms)

• More parameters update
  - 4M write cycles
  - 1 billion write cycles over full memory area
    - At characterization level, each of the 1024 pages was cycled 1M times
  - More than 200 years data retention
2 Mbit in WLCSP and SO8N (max)

- D = 5 mm
- E = 6.2 mm
- A = 1.75 mm
- Projected PCB area = 31 mm²

- D = 3.576 mm
- E = 2.031 mm
- A = 0.58 mm (height)
- Projected PCB area = 7.2 mm²

Divide PCB area by 4!

I²C: M24M02-DRMN6TP
SPI: M95M02-DRMN6TP

I²C: M24M02-DRC6TP/K
SPI: M95M02-DRC6TP/K
Third parties Programmer for 2 Mbit

- Third Parties for EEPROM Programmers
  - **Dediprog** model EE-100
  - **Leap** model LP-56
  - And you will find on our website other partners:
Conclusion

**ST EEPROM Number #1**
- Outstanding robustness:
  - 200 Years data retention
  - 4 Million Cycles
- 2 Mbit: Highest memory size of the market
- Best in class quality, below 1ppm
- Easy Buy-on-Line through our Distributors

**ST EEPROM service**
- IBIS and Verilog models
- EEPROM Programmer partners
- Short Lead time
- Double sourcing strategy
- ROHS and Leadfree package

Join us at [www.st.com/eeprom](http://www.st.com/eeprom)
Thank you!

ST stands for *life.augmented*