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PAGE EEPROM FAMILY

From 8- to 32-Mbit EEPROMs

Page EEPROM combines robust data logging and firmware storage with best-in-class ultralow power performance.

The Page EEPROM devices are high-density, page-erasable SPI EEPROMs with **ultralow power performance,** ideal for battery-powered devices.

Page EEPROM combines EEPROM and Serial flash commands in one NVM for **more flexibility.** Its high endurance and error correction code (ECC) offer **excellent reliability.**

Page EEPROM addresses systems that typically require an external memory for **firmware management and data logging.**

KEY FEATURES

- 1.6 to 3.6 V
- -40 to +105 °C temperature
- 80 MHz Quad output SPI
- Write byte granularity
- Page program up to 512 bytes
- Page/sector/block erase
- 500k write cycle endurance
- Current peak below 3 mA
- Deep power down below 1µA
- Error Correction Code
- 100-year data retention

BENEFITS

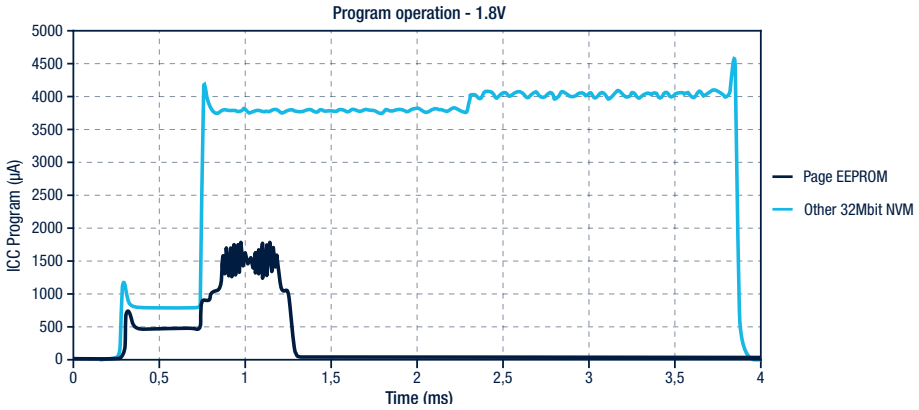
- Power-saving for intensive use
- Lower downtime during FOTA
- Easy data logging
- Code integrity & high reliability
- Write byte flexibility

KEY APPLICATIONS

- Wearables
  - Smart watches
  - Fitness trackers
- Medical and Healthcare
  - Hearing aids
  - Glucose meters
  - Blood pressure monitors
  - Implantable devices
- Asset tracking
  - Goods guarantee
  - Real-time monitoring

www.st.com/pageeeprom

Ultralow power performance for size-constrained applications



Battery-powered modules, such as medical devices or sensor modules, often require compact batteries.

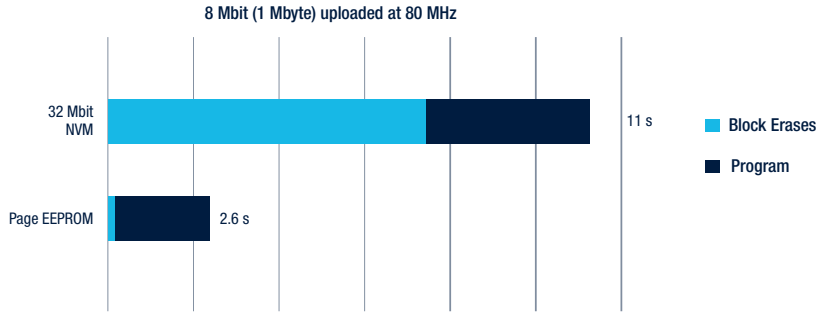
Page EEPROM offers a current peak control **below 3mA** for any SPI operation, as illustrated here on the left for the program operation.

Page EEPROM gives you more design freedom to **choose the right battery** for your application.

Reduced downtime during FOTA

High-density NVM devices are used in systems to store the firmware package and its back-up. The memory performance during firmware updates over the air (FOTA) plays a significant role in reducing application downtime.

Thanks to fast block erase and program operations, the Page EEPROM can **reduce device downtime by 4** compared to standard Serial Flash devices.



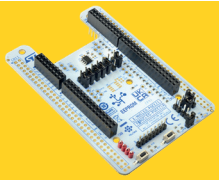
Ultra fast operations

Operation	Time
Page Program 512 bytes	1.2 ms
Page Write 512 bytes	2 ms
Page/Sector/Block/Chip (32 Mbit) Erase	1.1 / 1.1 / 4 / 15 ms
Wake up time	30 µs

Page EEPROM portfolio

Part number	Memory size	Serial Interface	Supply (V)	Temperature range (°C)	Packages
M95P32-I/E	32 Mbit	SPI	1.6 to 3.6	-40 to 85 (industrial) -40 to 105 (extended)(*)	SO8N, DFN, WLCSP
M95P16-I/E	16 Mbit				
M95P08-I/E	8 Mbit				

Note (*) in SO8N only



X-NUCLEO-PGEEZ1

Try out the Page EEPROM

This expansion board is designed for the M95P32 series SPI page EEPROM for data reading and writing.

Compatible with ZIO and Arduino UNO connectors.

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