life.augmented

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

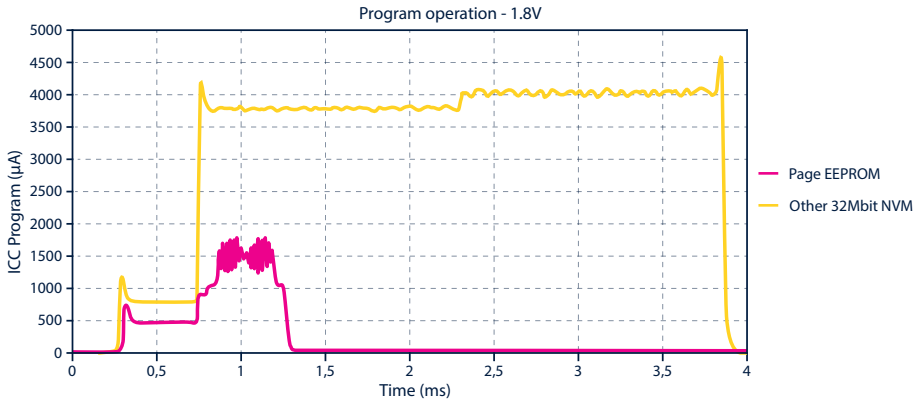
- Power-saving for intensive use
- Lower downtime during FOTA
- Easy data logging
- Code integrity & high reliability
- Write byte flexibility

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.

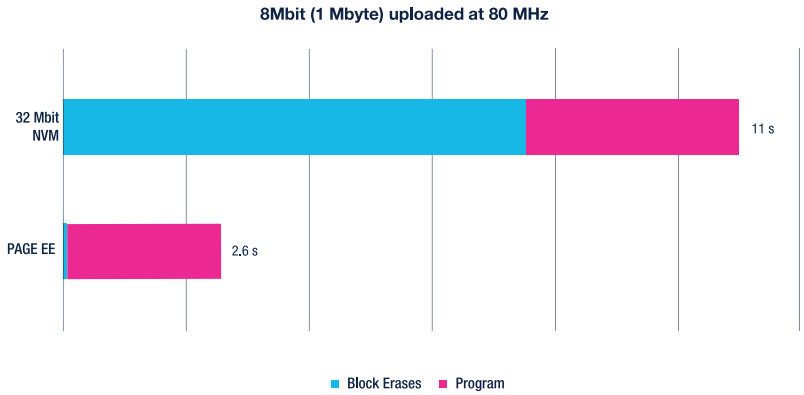
Page EEPROM offers a current peak control **below 3mA** for any SPI operation, as illustrated here on the left for the program operation.

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.

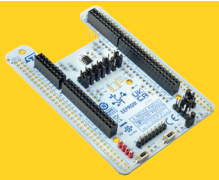


Ultra fast operations

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)	SO-8, DFN, WLCSP
M95P16-I/E	16 Mbit				
M95P08-I/E	8 Mbit				



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.

FIND OUT MORE