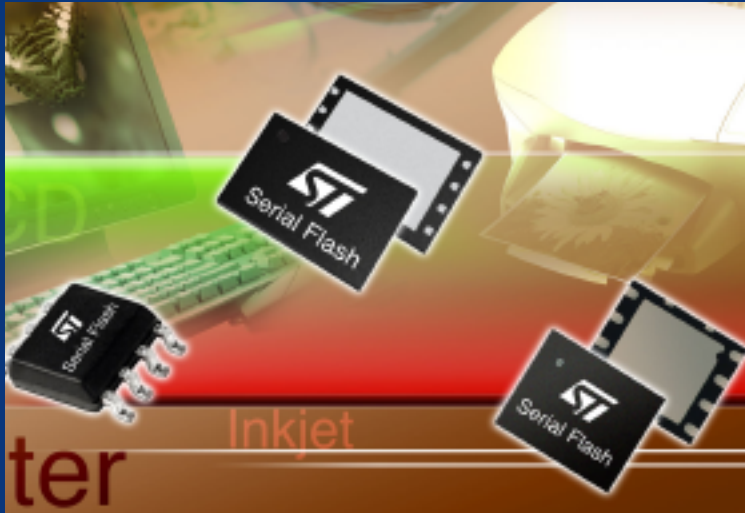


Serial Flash memories

for code storage



Code storage solution with Serial Flash

STMicroelectronics, the world leader in Serial Flash applications has introduced the M25P family, dedicated to code storage. Highly reliable and with proven technology, the M25P uses a serial access Flash memory, allowing savings to be made on space, time and ASIC costs. The ST Serial Flash for code storage family is the leading solution in terms of performance, compact packages, flexibility, cost-effectiveness and has the broadest portfolio available.

A solution for all applications

The Serial Flash M25P portfolio, with densities from 512 Kbit to 64 Mbit, is tailored for emerging code storage and other non-volatile memory applications. The M25P solution creates added-value for all applications requiring fast download of code, such as hard disk drives, multi-function printers, graphic cards, flat panel displays, DVD players, digital TV and cameras. New and wide ranging applications such as wireless LANs, set-top boxes, DSL and cable modems and other applications are turning to Serial Flash to reduce controller or ASIC pin counts, board space, power consumption, and overall system costs.

The fastest portfolio on the market

The high-speed, low-voltage M25P family reads and writes data through a SPI bus, in which data is clocked serially at 40MHz for the 512 Kbit to 8 Mbit densities, and at 50MHz for the higher densities (16 to 64 Mbit). Software and hardware protection features prevent overwriting of stored code. The M25P is supplied with a single voltage of 2.7 to 3.6V and, in order to reduce power consumption, the M25P features a deep power-down mode of a few 1µA. In addition, the four-wire SPI interface considerably reduces the bus master (ASIC) pin-count, making it more cost competitive. M25P Serial Flash memories are available in MLP and SO packages.

Key features

- SPI bus compatible serial interface
- Clock frequency up to 40 or 50MHz
- Power supply: 2.7 to 3.6V
- Page: 256 bytes
- Sector: 64Kx8
- Software features:
 - Sector and bulk erase command
 - Electronic signature
 - Write protection function
- Deep power-down mode
- More than 100,000 erase/program cycles
- Over 20 years data retention

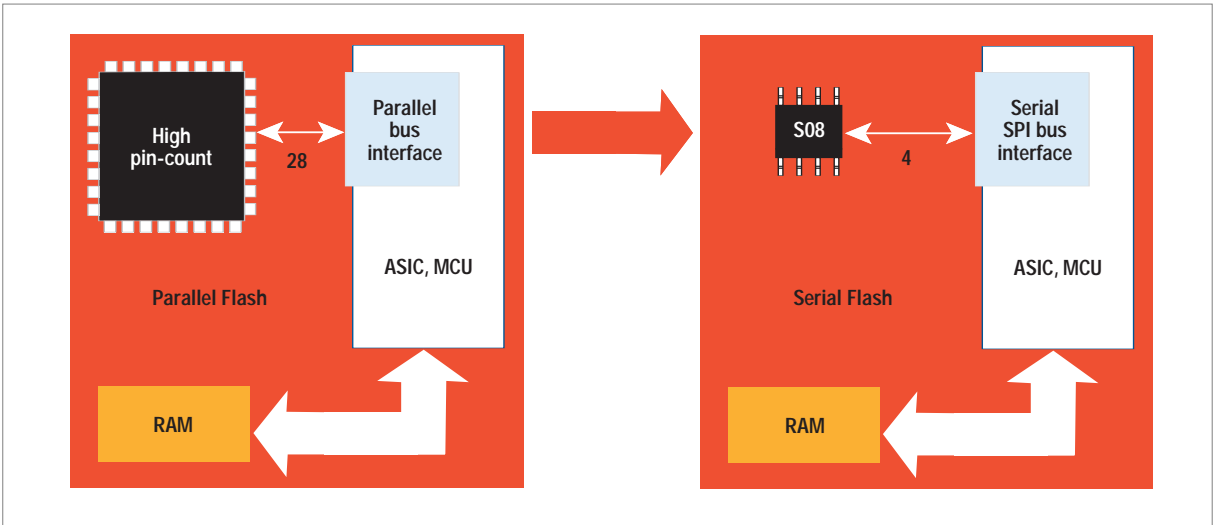
Benefits

- Cost-effective solution
- Reduces pin-count to any accompanying ASICs
- Saves space on printed circuit board
- Simpler hardware
- Easy upgrades with faster hardware and software
- Same footprint for any memory capacity
- Low-cost packages
- Low-power consumption

Part number	Memory size	Features	Packages*
M25P05-AVMN6T/AVMP6T	512Kb	40MHz, SPI, sector erase	SO8N, MLP8 (5x6)
M25P10-AVMN6T/AVMP6T	1Mb	40MHz, SPI, sector erase	SO8N, MLP8 (5x6)
M25P20-VMN6T/VMP6T	2Mb	40MHz, SPI, sector erase	SO8N, MLP8 (5x6)
M25P40-VMN6T/VMP6T	4Mb	40MHz, SPI, sector erase	SO8N, MLP8 (5x6)
M25P80-VMW6T/VMP6T	8Mb	40MHz, SPI, sector erase	SO8W, MLP8 (5x6)
M25P16-VMF6T/VME6T	16Mb	50MHz, SPI, sector erase	SO16W, MLP8 (6x8)
M25P32-VMF6T/VME6T	32Mb	50MHz, SPI, sector erase	SO16W, MLP8 (6x8)
M25P64-VMF6T/VME6T	64Mb	50MHz, SPI, sector erase	SO16W, MPL8 (6x8)

* All packages use ST ECOPACK® lead-free technology for RoHS compliance (the EU's directive for the restriction on use of hazardous substances)

From parallel to serial architecture



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For selected STMicroelectronics sales offices fax:
 France +33 1 55489569; Germany +49 89 4605454; Italy +39 02 8250449; Japan +81 3 57838216; Singapore +65 6481 5124;
 Sweden +46 8 58774411; Switzerland +41 22 9292900; United Kingdom and Eire +44 1628 890391; USA +1 781 861 2678

Full product information at www.st.com

ORDER CODE: FL5RFLASH/0804

