

The First Ultra-Low-Voltage

spiFlash Memories

New 1.2V, 1.5V Devices Feature Small 8-Pin Packages



1.2V/1.5V Serial NOR Flash

SpiFlash Memories with SPI, Dual-SPI, Quad-SPI

General Description

Winbond W25QxxNE 1.2V and W25QxxND extended 1.5V parts are the industry's lowest voltages NOR flash memories in 8-pin packages, these newest members of the SpiFlash family provide designers with serial flash memories for mobile, wearable, IoT and other demanding applications that call for low power in small packages.

Their low voltages and 52 megabytes per second transfer rate make the new SpiFlash memories optimal for a broad range of consumer and industrial applications.

Package Information

Voltage	Flash Density	Part Number	Package
1.2V	64 Mb	W25Q64NE	SOIC8 208mil, WSON8 6X5mm
	32 Mb	W25Q32NE	SOIC8 208mil, WSON8 6X5mm
	16 Mb	W25Q16NE	SOIC8 150mil, USON8 4X3mm
	8 Mb	W25Q80NE	SOIC8 150mil, USON8 2X3mm
	4 Mb	W25Q40NE	SOIC8 150mil, USON8 2X3mm
	2 Mb	W25Q20NE	SOIC8 150mil, USON8 2X3mm
1.5V	8 Mb	W25Q80ND	SOIC8 150mil, USON8 2X3mm

Low Power, Wide Temperature Range

- Single 1.14V to 1.3V supply for 1.2V family
- Single 1.14V to 1.6V supply for extended 1.5V family
- 2mA active current
- < 0.5μA power-down current
- -40°C to +85°C operating range

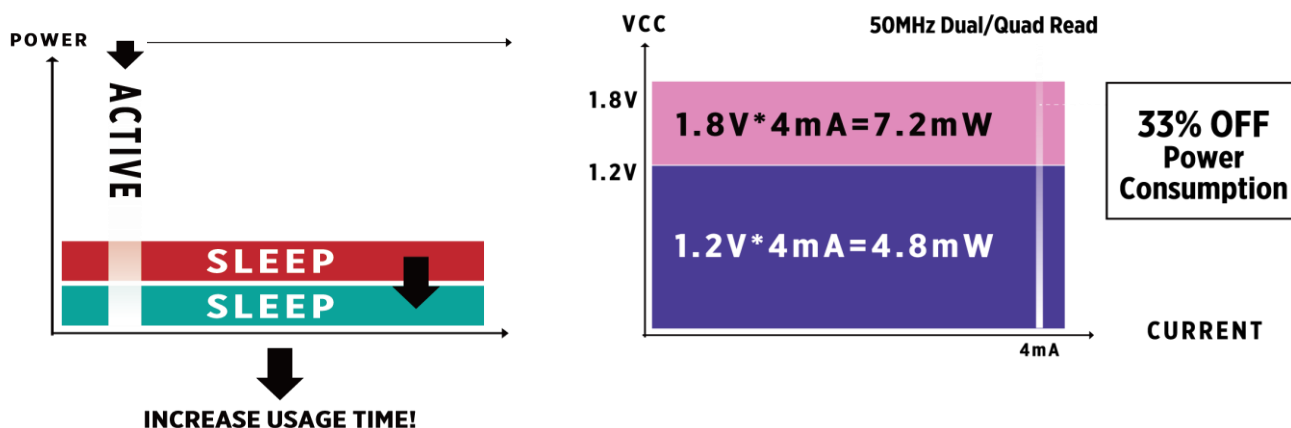
Flexible Architecture with 4KB Sectors

- Uniform sector erase (4K-bytes)
- Uniform block erase (32K and 64K-bytes)
- Programmable one to 256 bytes
- Erase/Program suspend & resume

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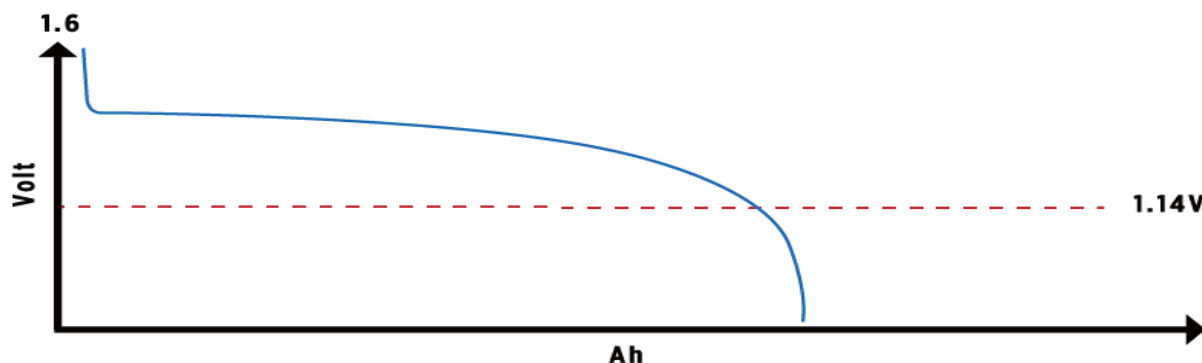
Key Features

- **Better power consumption**



- **Cover most of AA battery life**

Support 1.14V-1.6V



- **Easy to adopt**

Backward compatible command set

- No software/firmware change request
- Just voltage change

Small package for portable device

- SOP8 150mil
- WLCSP
- USON8 2x3
- Known Good Die

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