

QspiNAND Flash

- High data thru-put with small package
- Reliable with built-in ECC



QspiNAND Flash

Faster & cost effective code storage solution from 512Mbit to 4Gbit densities

General Description

Winbond, a renowned provider of memory solutions, has unveiled a range of QspiNAND Flash products with a standard SPI interface and a bus width of x1/x2/x4. These products, which are available in densities of 512Mb, 1Gb, 2Gb, and 4Gb, operate at a nominal voltage of either 1.8V or 3.3V.

In an effort to simplify the process of storing code on NOR Flash systems with densities above 512Mb, Winbond is also offering QspiNAND products with the same SPI interface in 1Gb and 2Gb densities. While NOR Flash may be more cost-effective at lower densities, NAND Flash becomes a more cost-effective option at densities of 512Mb and above.

In addition to their cost-effectiveness, QspiNAND products from Winbond also offer the benefit of a smaller package size, which can lead to cost savings in manufacturing processes such as PCB cost and others. For those looking for a reliable and cost-effective memory solution, Winbond's QspiNAND products are an excellent choice.



SLC NAND Flash

80% Package Size Reduction

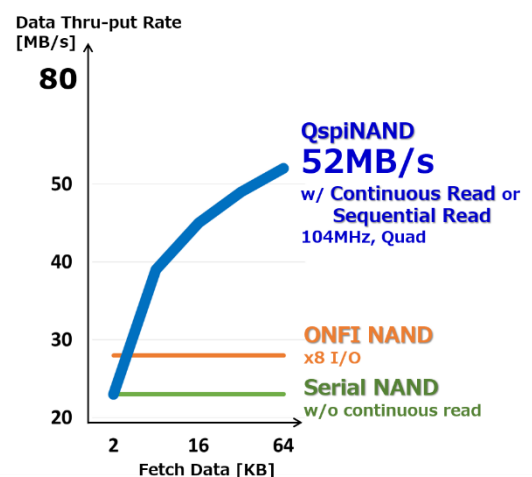


QspiNAND Flash

Code Shadowing

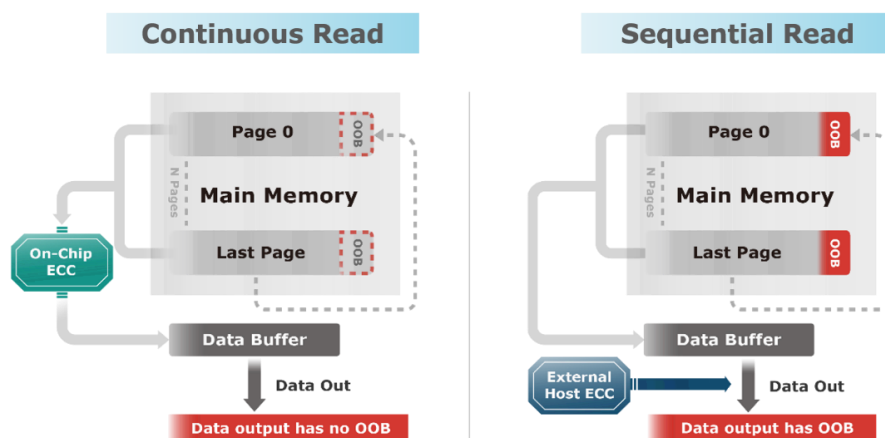
Code stored in Flash memory is often transferred to DRAM for faster execution by the processor, a process known as code shadowing. To facilitate this process, system designers seek out products that can quickly and efficiently transfer code from Flash to DRAM.

Winbond offers a solution with their "Continuous Read" & "Sequential Read" functionalities, which enables the rapid



transfer of the contents of NAND to DRAM. This feature is particularly useful for those looking to optimize the performance of their systems and ensure smooth and efficient code execution.

By choosing a memory solution with this functionality, system designers can be confident that they are selecting a product that can keep up with the demands of their applications. If you are in need of a high-performing memory solution that can quickly transfer code from Flash to DRAM, consider Winbond's NAND products with Continuous Read functionality.



*OOB is spare area

Applications

Automotive

- Instrument Cluster Applications
- ADAS (Advanced Driving Assistance Systems)
- Central Control

Consumer

- Networking
- Edge Computing
- Camera
- OTA (Over-the-Air Software/Firmware Updates)

Package Information

Voltage	Density	Part Number	Page Size	ECC	Speed (MHz)	I/O	Package
3V	512Mb	W25N512GV	2K+64Bytes	1-bit	104MHz	x1/x2/x4	WS0N5x6,WS0N6x8 BGA24,WLCSP
	1Gb	W25N01KV	2K+64Bytes	4-bit			
		W25N01GV	2K+64Bytes	1-bit			
	2Gb	W25N02KV	2K+128Bytes	8-bit			WS0N6x8 BGA24,WLCSP
	4Gb	W25N04KV	2K+128Bytes	8-bit			
1.8V	512Mb	W25N512GW	2K+64Bytes	1-bit	104MHz	x1/x2/x4	WS0N5x6,WS0N6x8 BGA24,WLCSP
	1Gb	W25N01GW	2K+64Bytes	1-bit			
		2Gb	W25N02KW	2K+128Bytes			8-bit
	4Gb	W25N04KW	2K+128Bytes	8-bit			

* See datasheet for further technical information. This is subject to change without notice.



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