PRODUCT BROCHURE

Parallel NOR Flash memory

Proven and trusted products with unmatched longevity

Infineon offers the industry's most complete range of parallel NOR flash memory products. We build on our heritage of more than forty years of semiconductor memory innovation to deliver a broad portfolio of reliable, high-performance, and JEDEC-compatible products based on floating gate and proprietary MIRRORBIT™ technologies. Our longevity program provides extended continuity of supply – as long as 10 years – making Infineon the most trusted supplier of parallel NOR Flash solutions.

Longevity program

Infineon's Flash memory product longevity program extends availability of our most popular memory products to serve long-lived platforms. By selecting parallel NOR flash products covered by this program, you benefit from peace-of-mind and a robust supply chain for critical memory devices.
Visit www.infineon.com/nor-flash/longevity for more information.

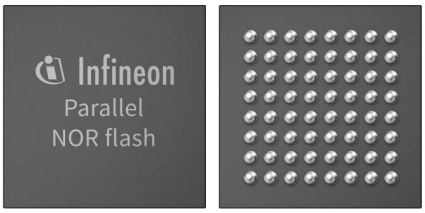
Parallel NOR segments and applications

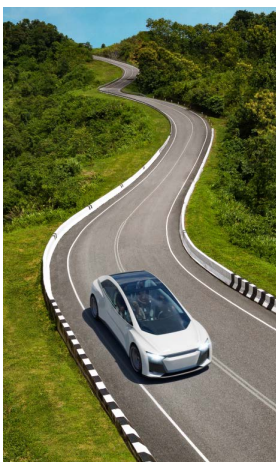
Whether designing for industrial, automotive, communications or consumer markets, there is an Infineon Parallel NOR product that provides you with fast access times and high endurance cycles at an optimal cost.

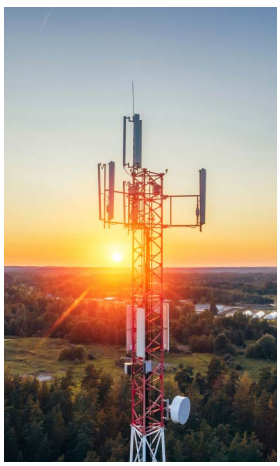
- **Industrial:** Industry 4.0, increasing demand for IoT, and Edge Computing are some of the driving forces behind increased demand for Parallel NOR. Smart factories, automation, robotics, and energy storage systems are key applications driving the continued growth of Parallel NOR flash.
- **Automotive:** Infineon Parallel NOR products are designed to meet stringent automotive standards. Many Infineon devices are AEC-Q100 qualified, and PPAP support is available upon request. High-density and high-temperature parallel NOR devices support ADAS, chassis, drivetrain, and infotainment systems.
- **Communications and Data Center:** The unique performance characteristics of Parallel NOR flash enable wired and wireless infrastructure, M2M devices, and industrial communication.

Key features

- Technology: 2-bit-per-cell MIRRORBIT™ technology with high-density devices based on 45 nm node
- Density: 8 Mbit to 2 Gbit
- Voltage: 1.8 to 3.0 V
- Packaging: BGA, TSOP, KGD/KGW
- Temperature
  - Industrial (-40 to 85°C)
  - Industrial plus (-40 to 105°C)
  - Extended (-40 to 125°C)
  - AEC-Q100 Grade 1, 2, 3 (up to 125°C)
- Performance
  - 55-110 ns initial access
  - 15-20 ns page access time
- Automatic Error-Correction Code (ECC) in select devices
- Advanced Sector Protection (ASP)
- Up to 20 years data retention
- Up to 1,000,000 program/erase cycles







Parallel NOR portfolio summary

Infineon's Parallel NOR product portfolio includes 8 Mb to 2 Gb densities; 1.8 V and 3.0 V operating voltages; page mode, standard mode, and simultaneous read/write interfaces; and temperature ranges as wide as -40 to 125°C.

Product family	Bus widths [bit]	Mode	Operating voltage [V]	Density	Performance (Initial/ Page Access)	Packaging	Temperature range [°C]	Automotive grade
S29AL-J	16/8	Standard	3.0	16 Mb 8 Mb	55 ns	TSOP FBGA	-40 to 125	●
S29AS-J	16/8	Standard	1.8	16 Mb	70 ns	TSOP FBGA	-40 to 85	●
S29CD-J	32	Burst	2.5	16 Mb	54 ns/ 66 MHz	FBGA KGD PQFP	-40 to 125	●
S29GL-P	16/8	Page	3.0	256 Mb 128 Mb	90 ns/ 25 ns	TSOP FBGA	-40 to 85	
S29GL-S	16[1)]	Page	3.0	2 Gb 1 Gb 512 Mb 256 Mb 128 Mb 64 Mb	70-110 ns/ 15-20 ns	TSOP FBGA KGD/KGW	-40 to 105	●
S29GL-T	16/8	Page	3.0	2 Gb 1 Gb 512 Mb	100-110 ns/ 15-20 ns	TSOP FBGA	-40 to 125	●
S29JL-J	16/8	Simultaneous Read/Write	3.0	64 Mb 32 Mb	55-60 ns	TSOP FBGA	-40to 85	●
S29PL-J	16	Page, Simultaneous Read/Write	3.0	128 Mb 64 Mb 32 Mb	55-60 ns/ 20 ns	TSOP FBGA	-40 to 85	●

1) 64 Mb supports 16/8-bit

Resources

When transitioning from other manufacturer's NOR Flash memory to an Infineon product, Infineon's cross reference search helps you find the right device for your design. Visit www.infineon.com/crossref to get started, or contact sales for assistance.

For chipset pairing guides, visit chipset pairing guides site at www.infineon.com/nor-flash-pairing. Infineon collaborates with ecosystem partners to ensure system-level compliance with leading MCUs and SoCs. It saves development time freeing engineers to focus on differentiation and value-add solutions.

Visit Infineon's Parallel NOR Flash home page at www.infineon.com/nor-flash or contact your sales representative for more details.

www.infineon.com

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