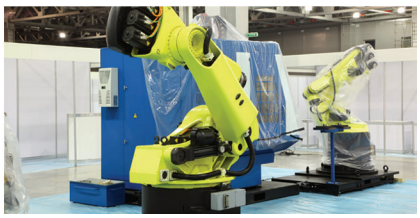
Fast, Dependable, Secure Parallel NOR Flash



Today's applications demand an unprecedented combination of features—high performance, high density, high reliability, and low power consumption. Strike a balance between design requirements and cost by equipping your demanding platforms with our reliable, high-performance parallel NOR.

Built on advanced process technology, our parallel NOR is constructed to meet the diverse design requirements of automotive, industrial, networking, medical, and consumer products that require fast and reliable code execution. With high densities, architectural flexibility, and a track record of proven reliability, our parallel NOR is also ideal for long-term placement in rigorous industrial settings.

We also offer the industry's broadest portfolio of parallel NOR MCPs, combining the benefit of fast parallel NOR code execution with pseudo SRAM (PSRAM) or LPDDR in a single, very small form factor package.

Key Features and Benefits

- **Density**: Industry-standard 2Mb–2Gb
- **Performance**: Burst, page, multibank, and multi I/O offer a broad range of performance options across the product line
- **Security**: Block/sector locking, OTP protection register, HW/SW protection, modifiable security device state, protection after power-up, write protection
- **Voltage**: 1.8V/3V V_{DD}; 1.8V/3V/5V V_{IO}
- **Software**: RTOS, Linux, Windows® CE drivers

Why Buy Micron NOR?

1. Broad Portfolio

Micron has one of the most comprehensive NOR portfolios in the industry, with a broad offering of densities voltages (1.8V, 3V and 5V), and packages to meet your needs.

2. Supply Continuum

With multiple wafer fabrication facilities and assembly/test sites dedicated to the production of NOR flash memory, Micron offers a full-spectrum, global manufacturing network, enabling extended supply in a rapidly changing market.

3. Expert Support

Our NOR products are backed by 30 years of industry-leading technical expertise and innovation in semiconductor design and manufacturing. You'll get the stability, flexibility, support, and availability that you need in a long-term memory solution and in a long-term memory provider.

A Balanced Parallel Portfolio

Compatibility-tested to work with key processors, our comprehensive portfolio of parallel NOR products offers a wide range of densities and performance options to provide advanced memory solutions for a diverse array of leading-edge designs. Empower your data-intensive applications with proven reliability and fast memory execution, while staying on target with design costs.

Parallel NOR Applications

Our parallel NOR flash meets the requirements of many segments:

- **Consumer Applications**: Our parallel NOR solutions are purpose-built to meet the design requirements of consumer and mobile products such as wearables, home automation, cameras, cellular devices, e-readers, GPS/navigation, and other handheld multitasking applications.
- **Embedded Applications**: Our parallel NOR solutions help designers reduce board space, lower power consumption, and reduce overall costs in the embedded systems that serve medical, enterprise and client networks, military, industrial automation, and avionics.
- **Automotive Applications**: Using advanced NOR flash process technology, our reliable automotive solutions support an extended and automotive temperature range in a variety of environmental conditions. They provide higher-capacity storage solutions for power train controls, dashboard applications, in-car infotainment systems, and driver safety equipment.

Micron's Product Lifecycle Solutions

Micron's Product Lifecycle Solutions bring the stability of our memory support in alignment with the lifecycle of your design. Depending on your specific requirements, choose between our standard lifecycle support and the extended support of our Product Longevity Program (PLP).

Our Standard Lifecycle Products include robust support that aligns with a vast majority of application time lines. Our PLP products go one step further for long-life applications that need extended support for 7 to 10+ years.

Contact Us

Visit ***micron.com*** for more details on parallel NOR flash solutions. Contact your Micron sales representative with questions or for samples and support.

Parallel NOR Product Family

Product Family	Core Voltage	I/O Voltage	Bus Width	Density Range	Multibank Option[1]	A/D MUX[2]	Security Features	Access Time/ Burst Speed Performance	Package Options
G18[3]	1.7–2V	1.7–2V	x16	256Mb–1Gb	X	X	X	133 MHz burst, 266 MB/s	eBGA
WR[3]	1.7–2V	1.7–2V	x16	32Mb–64Mb	X	X	X	133 MHz burst, 160 MB/s	FBGA
P30	1.7–2V	1.7–3.6V	x16	64Mb–2Gb[4]			X	52 MHz burst, 104 MB/s	TSOP, eBGA, QUAD+
P33	2.3–3.6V	2.3–3.6V	x16	64Mb–2Gb[4]			X	52 MHz burst, 104 MB/s	TSOP, eBGA
MT28EW	2.7–3.6V	1.65–3.6V	x8, x16	128Mb–2Gb[4]			X	95ns, 20ns page	TSOP, BGA
M29EW	2.7–3.6V	1.65–3.6V	x8, x16	32Mb–2Gb[4]			X	100–110ns, 25ns page	TSOP, BGA
M29W	2.7–3.6V	2.7–3.6V	x8, x16	4Mb–256Gb			X	45–90ns	TSOP, TBGA
M29DW	2.7–3.6V	2.7–3.6V	x8, x16	32Mb, 128Mb, 256Mb	X			90ns	TSOP, TFBGA
J3	2.7–3.6V	2.7–3.6V	x8, x16	32Mb–256Mb			X	75ns, 95ns (256Mb)	TSOP, eBGA
M28W	2.7–3.6V	1.65–3.6V	x16	16Mb–64Mb			X	70–100ns	TSOP, TFBGA
M58BW	2.7–3.6V,	2.7–3.6V,	x32	16Mb, 32Mb	X			45–70ns, 56–75 MHz burst	PQFP, LBGA
M29F[3]	5V	5V	x16	2Mb–16Mb				55ns	TSOP, SO, KGD
NOR + RAM MCP	1.7–2V	1.7–2V	x16	32Mb–512Mb (NOR) 16Mb–512Mb (RAM)	X	X	X	133–80 MHz burst, 256–160 MB/s	VBGA

[1]Multibank option enables read-while-write and erase functionality for faster performance; [2]50% less active pins; [3]Automotive temp available; [4]Stacked solution

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Products are warranted only to meet Micron's production data sheet specifications. Products and specifications are subject to change without notice. Dates are estimates only.