



CYPRESS **MEMORY** SOLUTIONS

HIGH-PERFORMANCE AND LOW-POWER MEMORIES
FROM THE GLOBAL LEADER IN EMBEDDED SYSTEMS



TECHNOLOGY YOU CAN RELY ON, EXPERIENCE YOU CAN TRUST

Cypress is the trusted leader in high-performance, low-power memories for embedded systems with the broadest portfolio of Flash, nonvolatile RAMs (NVRAMs) and SRAMs on the planet. Whether you are building mission-critical systems in automotive, networking, industrial, military, aerospace, or medical segments, or creating a new device for the Internet of Things (IoT), you can be sure that Cypress has the speeds, densities, and package types you need, when you need them, and that the devices will work with unmatched performance and reliability.

Our vision is to put a Cypress memory into every embedded system. To achieve this, we use our uniquely scalable, high-performance and power-efficient embedded nonvolatile technologies like SONOS, MirrorBit®, and eCT, in our memory and MCU products. We also license these technologies to foundries around the world, where they are used to build a wide array of products for embedded systems.

THE MOST-TRUSTED SUPPLIER

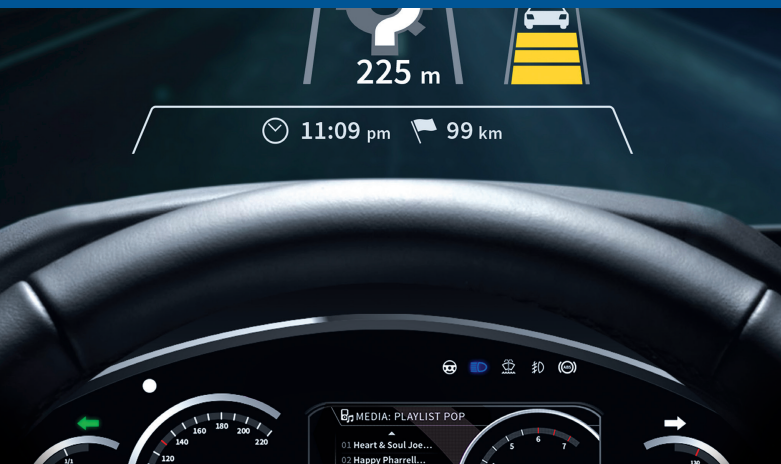
For more than 30 years, Cypress has been delighting customers with products and support they can trust. We employ a flexible manufacturing strategy, using our own and external fabs, resulting in 99% on-time delivery with four-week lead times at superior quality levels.

THE LEADER IN PERFORMANCE MEMORIES

Flash, NVRAM and SRAM memories have become the building blocks of today's most-advanced embedded systems. Cypress is not only the market-share leader in these product areas, but also a major technology innovator, with the broadest memory technology and product portfolio.

PREPARING FOR AN EXPLOSION OF DATA:

Today's connectivity boom is increasing data flow and the demand for reliable memory. In just five years, more than one million gigabytes of data will be produced each day from things like connected factories, self-driving cars, and wearables. Cypress' unique blend of MCUs and memories is poised to facilitate this rapid market transition.



MEMORY FOR AUTOMOTIVE

The self-driving and connected cars of tomorrow will feature on-board networks of connected sensors that monitor critical systems and respond to external data. Cypress offers a complete array of AEC-Q100-qualified memory and MCU products with extended temperature ranges to process and protect this data.

MEMORY FOR THE INTERNET OF THINGS (IoT)

Portable medical devices, fitness trackers, and other wearables require robust, low-power solutions. Cypress offers a full suite of compact, ultra-low-power devices that meet the rigorous demands of these systems, while providing a variety of radio technologies to connect them.

MEMORY FOR ALL

Cypress serves many large and growing markets with a broad array of high-performance memory devices:



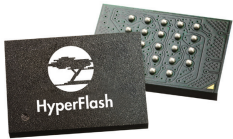
NOR Flash

NOR Flash memory solutions, including HyperFlash™, Serial NOR, and Parallel NOR with the highest read bandwidth, fastest program erase times, and lowest standby currents.



NAND Flash

Reliable, high-density data storage targeting automotive instrument clusters and infotainment systems, communications equipment, consumer and industrial applications.



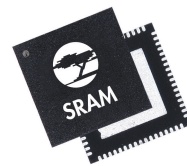
HyperFlash™ and HyperRAM™

With a read bandwidth up to 333 MBps on the HyperBus interface, HyperFlash and HyperRAM devices enable instant-on systems, superior execute-in-place (XiP) performance, and fast delivery of high-resolution graphics. The low-pin-count interface is standardized in the JEDEC xSPI spec, simplifies board design and allows reduced numbers of PCB layers. The combination of HyperRAM and HyperFlash on a single bus requires only 13 pins for a complete Flash memory subsystem.



Nonvolatile RAM (NVRAM)

Cypress' F-RAM™ and nvSRAM devices are the fastest, most energy-efficient, and highest-reliability NVRAMs on the market, and can store data instantaneously on power loss. Cypress nvSRAMs can access data in as fast as 20 ns.



SRAM

Cypress offers the world's broadest portfolio of both Sync and Async SRAMs with ECC, and is the market-share leader. Cypress SRAMs are widely used in networking, automotive consumer, industrial, medical, and military apps.



MEMORY FOR INDUSTRIAL

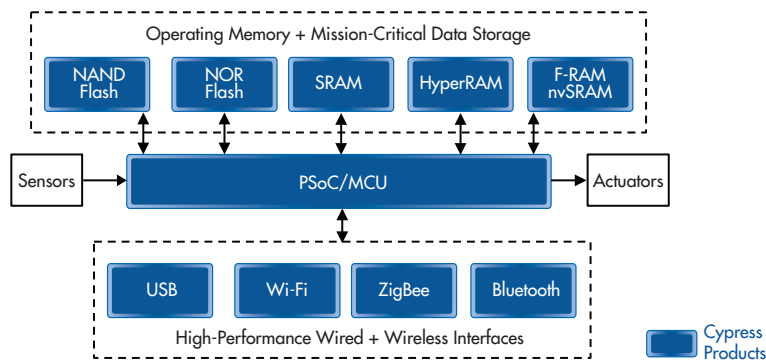
Wireless sensor networks and automation are radically transforming the industrial landscape. Cypress' broad range of low-power memory and MCU solutions can help to keep remote industrial networks humming and connected, with instantaneous and highly reliable data capture on power loss.

MEMORY FOR COMMUNICATION

The growth of connectivity will drive a tsunami of demand for data storage, both on physical servers and in the cloud. Cypress's solutions provide immediate access to information and the ability to protect it in the event of a system failure.

THE IDEAL MEMORY SOLUTION FOR EMBEDDED SYSTEMS

Cypress has the broadest memory product portfolio for embedded systems, including NAND Flash and NOR Flash for data storage and program code. Cypress also offers SRAM, HyperRAM, and NVRAM for cache and mission-critical data storage.



Cypress is a one-stop shop with the broadest portfolio of high-performance, high-reliability memories used in embedded systems.

Product Category		Cypress	Competitor					Performance Advantage	Metrics
			A	B	C	D	E		
No. 1 Automotive NOR Flash	Parallel NOR Flash	✓	✓	✓	✓	✓		Highest read bandwidth Fastest program/erase	102 MBps
	Serial NOR Flash	✓	✓	✓	✓	✓		Highest read bandwidth Fastest program/erase	160 MBps
	HyperFlash™	✓	✓					Highest read bandwidth	333 MBps
No. 1 SRAM	QDR®-IV Synchronous SRAM	✓						Highest RTR (Random Transaction Rate)	2.1 GT/s
	Asynchronous SRAM with ECC	✓	✓					Highest reliability	<0.1 FIT
	MicroPower™ SRAM	✓	✓					Lowest standby current	1.5 µA
No. 1 NVRAM	Serial F-RAM™	✓					✓	Lowest hibernate current	0.1 uA
	Parallel nvSRAM	✓						Fastest NVRAM	20 ns
	AGIGARAM®	✓						Highest-density NVRAM	16GB
NAND Flash	SLC NAND Flash	✓		✓	✓	✓		Highest operating temperature	105°C

CONTACT US

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FOR MORE INFORMATION ON CYPRESS MEMORY DEVICES:

www.cypress.com/memory