

CYPRESS ULTRA-LOW-POWER SRAM

Performance, Reliability, and Industry-leading Low Power Consumption

The Ultra-Low Power MoBL SRAM family with on-chip ECC is Cypress' newest ultra-low power, high-performance, reliable asynchronous SRAM solution specifically designed for mission-critical industrial and consumer systems. This family takes advantage of advanced 65 nm technology to offer SRAMs from 8 Mb to 64 Mb densities to meet the industry's growing need for reliable low-power SRAMs.



FEATURES

HIGH PERFORMANCE

- 45 nsec access times
- x8, x16, x32 parallel interfaces
- Operating voltage range 2.2V – 3.6V and 1.65V – 2.25V
- Standby current ISB2 max at 85°C 0.5 μ A/Mb

RELIABLE

- On-chip ECC
- Bit interleaving to prevent multi-bit errors
- Industrial grade: -40°C to +85°C
- Automotive grades: -40°C to +85°C and -40°C to +125°C

PACKAGE OPTIONS

- 48 TSOP I
- 48 BGA
- 119 BGA
- 44 TSOP II

ULTRA-LOW-POWER SRAM ADVANTAGES:

ULP SRAM memories support high reliability, low-power, battery-backed applications:

- Best-in-class standby power
- Highest reliability using embedded ECC
- Package compatibility with legacy SRAMs supports footprint-compatible upgrade path
- Drop-in compatibility with legacy SRAMs

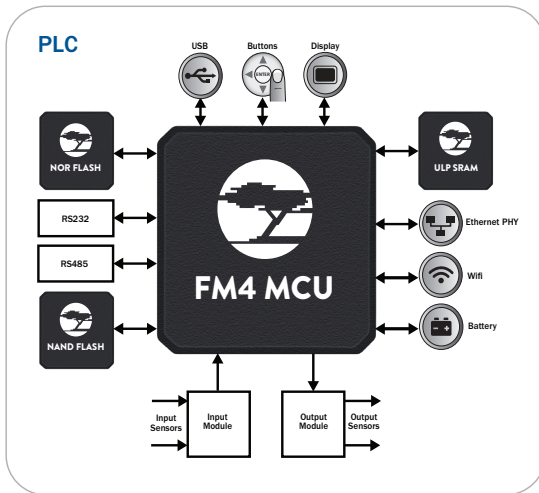
ULP SRAM is Cypress' next-generation memory family purpose-built to operate in harsh industrial and energy-saving battery-backed systems, without compromising performance or reliability. Cypress' advanced design and process set the industry standard in SRAM technology.

APPLICATIONS

Cypress' Ultra-Low-Power SRAM is an ideal solution for a variety of industrial applications, including:

- Industrial Automation
- Data Logging
- Point-of-Sale
- Programmable Logic Controllers
- Test and Measurement
- Motor Controls
- Automotive

INDUSTRIAL AUTOMATION SYSTEMS



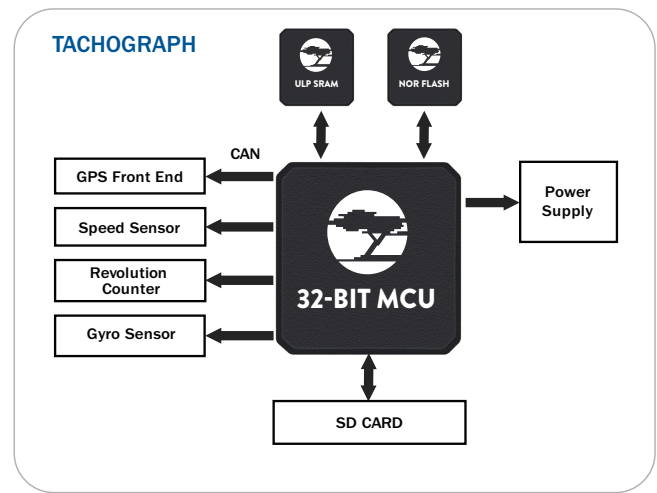
PROBLEM:

I'm developing a controller for use in harsh factory automation environments that must retain data when power is lost, but must operate at high speed with 32-bit microcontrollers and have perfect data integrity.

SOLUTION:

Cypress' Ultra-Low Power SRAMs support high performance parallel I/Os with on-chip ECC while delivering best-in-class standby power for exceptional battery-backed data retention.

AUTOMOTIVE SYSTEMS



PROBLEM:

I need a fixed-function system to track driving speed and work-related operations on a vehicle. The low-power expansion memory must offer high reliability.

SOLUTION:

Cypress' 65-nm Async SRAM is a high-capacity (8Mb to 64Mb) parallel SRAM with <0.1FIT/Mb. It provides AEC-Q100-qualified memory components, and operates at ultra-low power.

ULP SRAM PORTFOLIO

Density	Part Number	Organization	Voltage Range	Speed	Package	Temperature	AEC-Q100
8Mbit	CY6215x	x8, x16	1.6v5V - 2.25V, 2.2V - 3.6V	45ns	48FBGA, 48TSOPI, 44TSOPII	-40C to +85C, -40C to +125C	Yes
16Mbit	CY6216x	x8, x16, x32	2.2V - 3.6V	45ns	48FBGA, 48TSOPI, 119PBGA	-40C to +85C	No
32Mbit	CY6217x	x8, x16	2.2V - 3.6V	55ns	48FBGA, 48TSOPI	-40C to +85C	No
64Mbit	CY6218x	x16	2.2V - 3.6V	55ns	48FBGA	-40C to +85C	No



LEARN MORE

WWW.CYPRESS.COM/PRODUCTS/ASYNCHRONOUS-SRAM

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