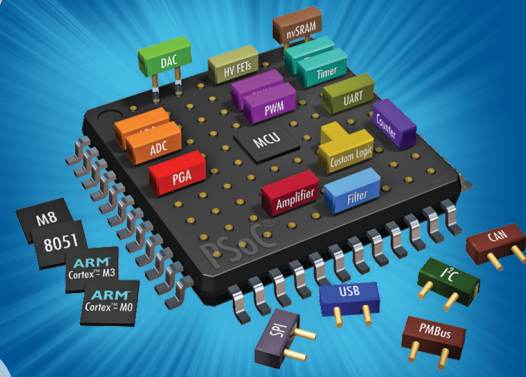


CYPRESS



INDUSTRY'S MOST FLEXIBLE AND LOWEST-POWER
ARM® CORTEX™-M0 MIXED SIGNAL ARCHITECTURE



PRODUCT OVERVIEW

BRINGING PROGRAMMABILITY TO THE MASSES

Most Reconfigurable ARM Cortex-M0

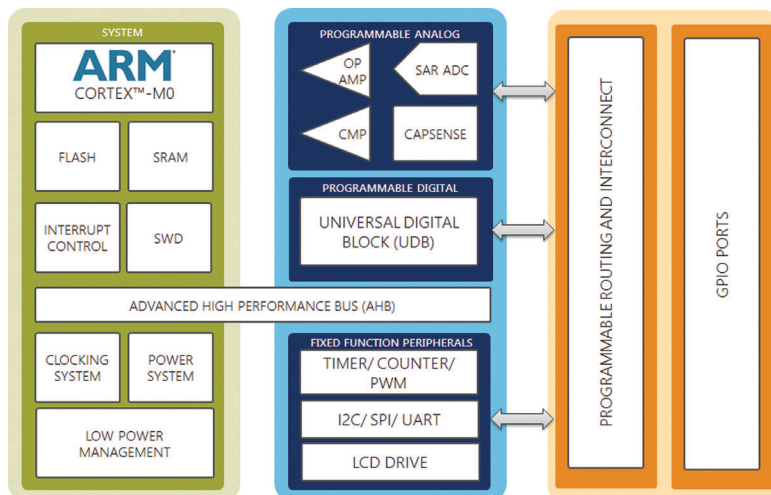
You can now build a custom mixed-signal SoC with programmable analog and digital blocks combined with flexible routing and interconnects. PSoC® 4 lets you redesign and rebuild your project as many times as your rapidly changing requirements. Cypress's extended partnership with ARM® enables you to future-proof your solutions based on standard MCU subsystems made feature-rich with unique PSoC programmability.

Truly Scalable Architecture

You can replace your entire portfolio of proprietary MCU-based solutions and migrate your legacy 8- and 16-bit designs to a single 32-bit platform with PSoC 4. This platform is fully scalable and infinitely reconfigurable with the flexibility of PSoC and the broad ARM ecosystem. It is the perfect fit for each solution and allows seamless migration across device families, without the need to recreate IP or learn new design tools.

Limitless Possibilities With PSoC Creator™

PSoC 4 leverages PSoC Creator™ – an easy to use, yet powerful graphical system design-based IDE enabling designers to drag-and-drop pre-characterized, production-ready analog and digital IP blocks – PSoC Components™ – into a single PSoC device to create customized, feature-rich, and highly differentiated products.



PSoC 4 Architecture

BROAD APPLICATIONS PORTFOLIO

USER INTERFACE

- Capacitive Touch Sensing
- LCD Drive
- Passive Keyless Entry

MOTOR CONTROL

- FOC Motor
- BLDC Motor

FPGA CO-PROCESSOR

INDUSTRIAL SYSTEM CONTROL

- Gas Sensor
- Temperature Sensor
- Flow Meter
- Humidity Sensor
- Fan Control
- Thermal Management

HOME APPLIANCES

- LCD Direct Drive
- Lighting Control

POWER MANAGEMENT

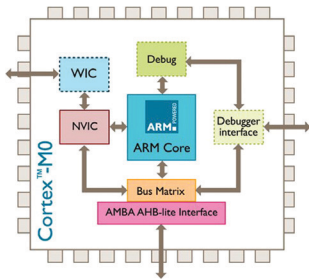
- Battery Charging
- Wireless Charging
- Power Supervision

SECURE ACCESS

- Magnetic Card Reader

MEDICAL

- Blood Glucose Meter
- Blood Pressure Meter
- Heart Rate Monitor

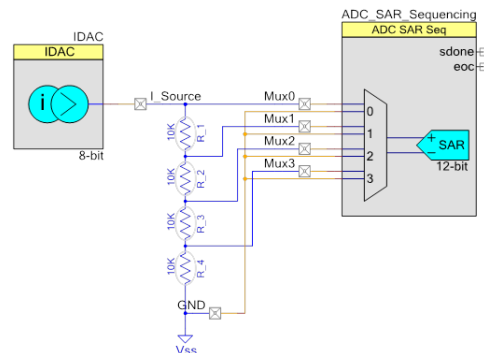


POWERED BY 32-BIT ARM CORTEX-M0

As the PSoC with the smallest ARM processor available, PSoC 4 provides high performance with the lowest-power consumption. It enables you to migrate your proprietary MCU designs to a single 32-bit platform architecture from a single vendor, while reducing your BOM cost through intelligent integration of analog ICs.

INTELLIGENT ANALOG

PSoC 4 features a high performance SAR ADC with 12-bit resolution sampling at 1 Msps providing zero-overhead sequencing and differential capability. This combined with other analog resources including Op-Amps, Comparators, IDACs, and a Precision Voltage Reference allow you to build a fully custom, analog signal-chain via flexible routing.



CAPSENSE® – CYPRESS DOES IT BEST

With over four billion buttons replaced with CapSense®, Cypress is the unrivaled leader in capacitive touch sensing. With PSoC 4, you get the industry’s most advanced capacitive sensing algorithm, SmartSense™ Auto-Tuning, combined for the first time with a Cortex-M0 microcontroller. This enables you to enhance your legacy designs with next-generation touch sensing technology, while also giving you the performance and flexibility of a 32-bit ARM-based architecture.

ARE YOU AWAKE?

The secret to making low-power devices is by ensuring that your designs have minimal leakage and the best sleep modes. PSoC 4 sets the industry standard with the lowest-power stop mode consuming only 20 nA while still retaining its ability to wake up, complemented by an extremely low-power retention sleep mode that draws only 150 nA without disturbing SRAM data.



GET STARTED NOW

To learn more about PSoC 4, visit www.cypress.com/go/PSoC4.

WHAT IS PSoC? INTEGRATE. ACCELERATE. LIBERATE

Cypress’s PSoC programmable system-on-chip is the world’s only programmable embedded system-on-chip (SoC) that integrates configurable analog and digital peripheral functions, memory, and a microcontroller on a single chip. With an extremely flexible visual embedded design methodology that includes preconfigured, user-defined peripherals and hierarchical schematic entry, PSoC allows you to design fully customizable and extremely reliable solutions.

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