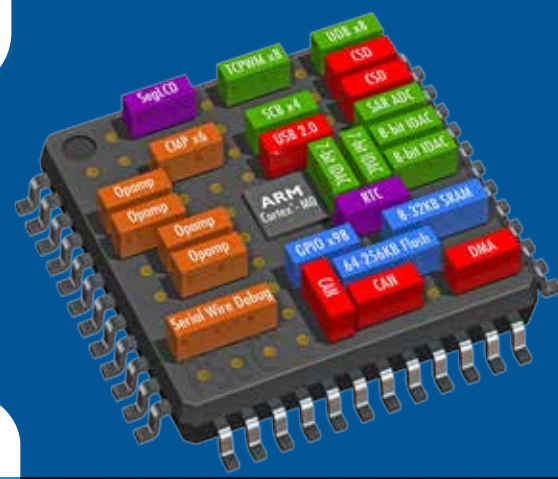


CYPRESS

PSOC[®] 4 L-SERIES

REPLACE LEGACY 8-/16-BIT PLATFORMS WITH THE
WORLD'S MOST FLEXIBLE 32-BIT ARM[®] CORTEX[®]-M0
ONE-CHIP SOLUTION



PRODUCT OVERVIEW

Solve Complex Design Problems with PSoC 4, The World's Most Flexible 32-bit ARM[®] Cortex[®]-M0 Platform

The new PSoC 4 L-Series expansion to the portfolio includes more programmable analog and digital blocks, expanded memory, new peripherals and higher number of I/Os for all your mixed-signal embedded requirements.

Design Custom Analog Front Ends (AFEs) with 13 Programmable Analog Blocks:

Implement complex AFEs with the integrated low-power opamps, comparators, analog multiplexers and an SAR ADC. Replace mechanical buttons with sophisticated CapSense touch-sensing interfaces.

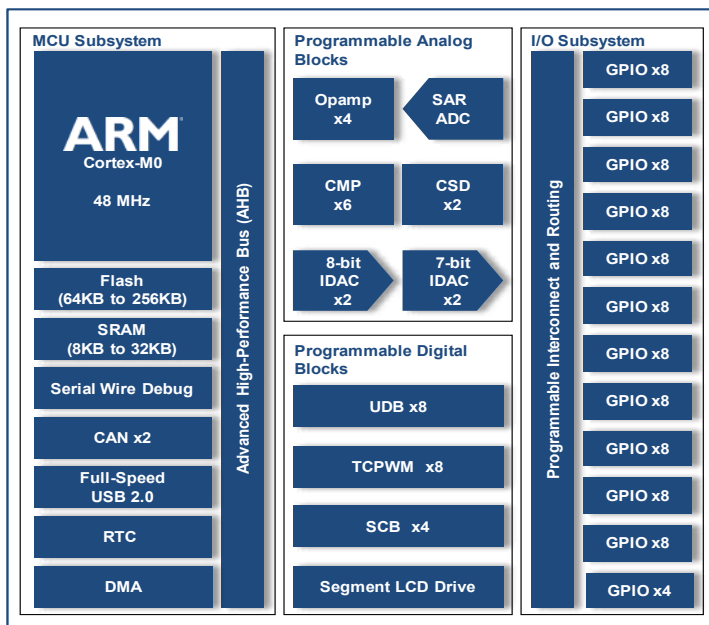
Implement Coprocessors and Serial Interfaces with 20 Programmable Digital Blocks:

Offload the CPU with custom coprocessors and support emerging interface standards by using the integrated timer/counter/PWM blocks, serial communication blocks and the Universal Digital Blocks.

Now Featuring:

Two Capacitive Sigma-Delta blocks for CapSense, Full Speed USB 2.0 Controller, Two Controller Area Network blocks (CAN 2.0), peripheral-to-peripheral Direct Memory Access (DMA) and up to 98 I/Os that support analog, digital and an LCD drive.

PSOC 4 L-Series Block Diagram



FEATURES

32-BIT MCU Subsystem

48-MHz ARM[®] Cortex[®]-M0 CPU
DMA Controller
Up to 256KB flash
32KB SRAM
Up to 98 GPIOs

CAPSENSE[®] WITH SMARTSENSE[™] AUTO-TUNING

2x Cypress Capacitive Sigma-Delta (CSD) blocks

PROGRAMMABLE ANALOG BLOCKS

4x configurable opamps
4x current DACs (IDACs)
2x low-power comparators (CMP)
One 12-bit, 1-Msps SAR ADC

PROGRAMMABLE DIGITAL BLOCKS

8x Universal Digital Blocks (UDBs)
8x configurable 16-bit TCPWMs
4x reconfigurable SCBs

CONTROLLER AREA NETWORK (CAN)

2x CAN Controllers

UNIVERSAL SERIAL BUS (USB)

Full-Speed USB 2.0 Controller

LOW POWER 1.71 TO 5.5 V OPERATION

Sleep - 1.3 mA
Deep Sleep Mode - 1.3 μ A
Hibernate Mode - 150 nA
Stop - 20 nA

PSOC 4 L-SERIES PIONEER KIT



Features

- PSoc 4200L device
- CapSense gesture pad
- CapSense proximity headers
- 2x Arduino compatible headers
- Detachable Arduino shield
- Digilent Pmod header
- PSoc 4200L USB interface
- On-board programming and debug interface
- Audio CODEC and audio jack
- On-board 1-Mbit Cypress FRAM
- MicroSD card interface
- Cypress Serial NOR Flash
- EZ-BLE PROc module footprint
- Energy Harvesting PMIC footprint
- Character LCD header

PSOC 4 L-SERIES DEVICE PORTFOLIO

MPN	Features									
	Flash (KB)	UDB	SAR /ADC	CapSense	Opamps	CMP	USB	CAN	TCPWM Blocks	Package
CY8C4246AZH-L433	64	8	1 Msps	0	2	2	Yes	No	8	48-TQFP
CY8C4246AZH-L445	64	8	1 Msps	2	2	2	Yes	No	8	64-TQFP
CY8C4247AZH-L475	128	8	1 Msps	2	4	2	Yes	No	8	64-TQFP
CY8C4247LTI-L475	128	8	1 Msps	2	4	2	Yes	No	8	68-QFN
CY8C4247LTI-L485	128	8	1 Msps	2	4	2	Yes	2	8	68-QFN
CY8C4247BZH-L489	128	8	1 Msps	2	4	2	Yes	2	8	124-VFBGA
CY8C4248AZH-L485	256	8	1 Msps	2	4	2	Yes	2	8	64-TQFP
CY8C4248LTI-L485	256	8	1 Msps	2	4	2	Yes	2	8	68-QFN
CY8C4248BZH-L489	256	8	1 Msps	2	4	2	Yes	2	8	124-VFBGA

GET STARTED NOW

1

2

3

4

Download the PSoC Creator Integrated Design Environment
www.cypress.com/Creator

Buy the \$49 PSoC 4 L-Series Pioneer Kit (CY8CKIT-046)
www.cypress.com/CY8CKIT-046

Download the Getting Started Application Note
www.cypress.com/go/AN79953

Register for a free PSoC 4 workshop in your area
www.cypress.com/workshops

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