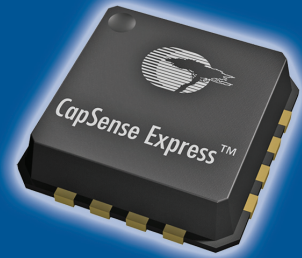


CYPRESS
CAPSENSE EXPRESS™
 TOUCH SENSING
 CONTROLLER

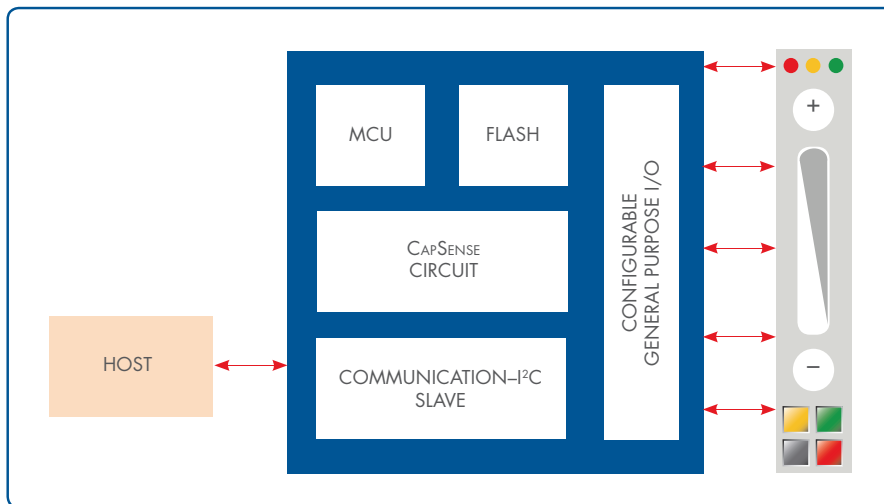


PRODUCT OVERVIEW

CODE-FREE CAPSENSE

The world leader in touch sensing solutions is driving the Touch Revolution across many industries – wireless, consumer, computation, white goods, and automotive. Cypress’s CapSense™ Capacitive Touch Sensing portfolio, powered by PSoC® Mixed-Signal Array technology, represents the most diverse, flexible, and easy-to-use touch sensing solutions that enable designers to speed their time to market. The newest addition, CapSense Express, offers the fastest time to market in the industry.

The CapSense Express Touch Sensing Controller, supported by PSoC Express™ Visual Embedded System Design Tool and the CapSense Express Configuration Tool, supports up to ten general purpose I/Os for buttons, a multi-segment slider, LEDs, and other general purpose functions. Simply select which function is needed for each I/O in the menu-driven CapSense Express Configuration Tool within PSoC Express and tune the parameters before applying the firmware to silicon. Your design is done in record speed – all without having to write a single line of code. It is that easy and quick to provide touch sensing capability to any application.



CapSense Express Block Diagram

ADVANTAGES

RAPID TIME TO MARKET FOR TOUCH SENSING APPLICATIONS

- Design touch sensing functionality in minutes
- Quickly change functionality with the CapSense Express Configuration Tool
- PSoC Express visual real-time monitoring and tuning
- No C or assembly code necessary via PSoC Express design software
- Accommodates last-minute design changes

BROAD AND FLEXIBLE FUNCTIONALITY FOR ELEGANT AND SLEEK LOOKING DESIGNS

- Functionality configurable to Buttons, Sliders, LEDs, and user-defined input/output
- Up to 10 General Purpose I/O including interrupt outputs and wake on interrupt input
- Any function to any pin flexible routing

REDUCTION IN BOARD REAL-ESTATE AND COST

- No external tuning components
- No external oscillator or crystals
- Multiple package options in tiny foot print

APPLICATIONS FOR MECHANICAL BUTTON/SLIDER REPLACEMENT

- Automotive • Communications • Computation • Consumer • Digital Still And Video Cameras • Gaming Devices • Handheld Devices
- HMI (Human Machine Interface) Devices • Home Entertainment • Industrial • LCD Displays • Medical • Monitors • Mobile Phones
- Notebooks/Desktop Computers • Peripherals • Point-Of-Sale Terminals • Portable Media Players • Printers • Remote Controls • Routers • Sensors
- Servers • Set-Top Boxes • Switchers • Televisions • Toys • White Goods • Wireless

PART NUMBER	DESCRIPTION	SLIDER	I ² C SLAVE INTERFACE	INDUSTRIAL TEMPERATURE GRADE	PACKAGES			2K FLASH MEMORY
					8 SOIC	16 SOIC	16 QFN	
CY8C20140	4 Buttons and/or configurable GPIOs		■	■		■	■	■
CY8C20142	4 Buttons and/or configurable GPIOs		■	■	■			■
CY8C20160	6 Buttons and/or configurable GPIOs		■	■		■	■	■
CY8C20180	8 Buttons and/or configurable GPIOs		■	■		■	■	■
CY8C20110	10 Buttons and/or Configurable GPIO		■	■		■	■	■
CY8C201A0	10 Buttons/sliders and/or configurable GPIOs	■	■	■		■	■	■

HARDWARE TOOLS

For further evaluation and development with CapSense Express, Cypress offers a complete set of kits to suit the touch sensing functionality of your individual design requirements.

KIT NUMBER	FEATURES
CY3218-CAPEXP1	This kit showcases the CY8C20110-LDX21 (16 pin QFN) providing functionality for 3 CapSense buttons, 3 backlighting LEDs, 3 status LEDs, and 1 mechanical button.
CY3218-CAPEXP2	This kit features the CY8C201A0-LDX21 (16 pin QFN) providing functionality for a 5 segment slider, 4 status LEDs, and 1 mechanical button
CY3218-CAPEXP3	This kit features the CY8C20142-SX21 (8 pin SOIC) providing functionality for 2 CapSense buttons and 2 status LEDs

GET STARTED NOW.

For additional information, please go to cypress.com/CapSense to get more information on CapSense Express, download software, and order kits.

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 to reach your local sales representative

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