

CYPRESS CapSense® MBR3 SOLUTION

MBR = MECHANICAL BUTTON REPLACEMENT



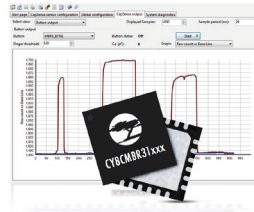
PRODUCT OVERVIEW

INTRODUCTION

CapSense® MBR3 is Cypress's solution for quickly and easily replacing mechanical buttons with sleek and reliable capacitive-sensing buttons. The CapSense MBR3 family is the world's easiest capacitive-sensing solution that allows you to design with the click of a mouse using our GUI-based software tool EZ-Click™. The CapSense MBR3 solution includes advanced features like SmartSense Auto-tuning, robust water tolerance and the industry's best capacitive proximity sensing enabling reliable performance under all conditions. The CapSense MBR3 family comes in four small packages that are suited for various capacitive-sensing designs.

Easiest-to-Design

- CapSense MBR3 requires no firmware development
- EZ-Click GUI-based software tool configures devices without the need to write code



SmartSense™ Auto-Tuning

- A CapSense algorithm that continuously compensates for system, manufacturing and environmental changes
- Eliminates the need for manual tuning during all product design phases

SmartSense™
Auto-Tuning

Robust Water Tolerance

- CapSense MBR3 works under water droplets, rain, mist and even other liquids
- Ensures no false touches even under streaming water



Industry's Best Capacitive Proximity Sensing

- Achieve up to 30 cm in proximity sensing distance
- Implement advanced features like wake-on-approach to support ultra-low power applications



Reliable Performance

- Advanced sensing algorithms ensure reliable performance even in noisy environments
- Implement designs with a Signal-to-Noise Ratio (SNR) > 100:1

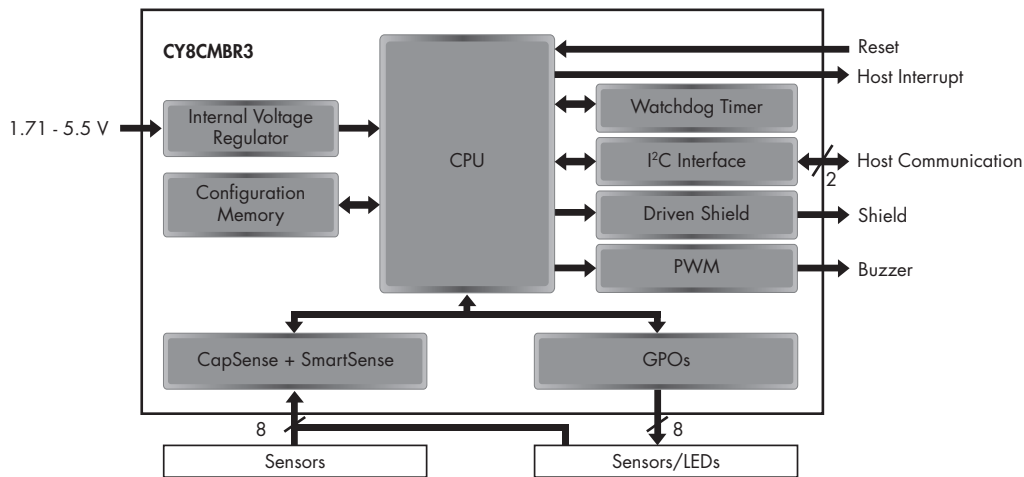


FEATURES

- Up to 16 buttons, or 8 buttons and 8 LEDs
- Up to two 5-segment sliders
- SmartSense Auto-tuning
- Proximity sensing of up to 30 cm
- LED control
- Buzzer output
- Water tolerance
- Register-configurability using EZ-Click
- Wide operating voltage : 1.71 - 5.5 V
- Packages : 8-SOIC, 16-SOIC, 16-QFN, 24-QFN

APPLICATIONS

- White goods • Small home appliances • Mobile phones, tablets • Keypads • Industrial control panels • Elevator controls
- TVs, monitors • Music players • Medical equipment



CapSense MBR3 Block Diagram

CAPSENSE MBR3 DEVICE PORTFOLIO

MPN	Package	CapSense Sensors	GPOs	Slider Capability	Proximity Sensors	Communication Interface	Buzzer
CY8CMBR3002-SX1I	8-SOIC	2	2	N	0	GPO	N
CY8CMBR3102-SX1I	8-SOIC	2	1	N	2	I²C	N
CY8CMBR3108-LQXI	16-QFN	8	4	N	2	I²C	Y
CY8CMBR3110-SX2I	16-SOIC	10	5	N	2	I²C	Y
CY8CMBR3106S-LQXI	24-QFN	11	0	Y	2	I²C	Y
CY8CMBR3116-LQXI	24-QFN	16	8	N	2	I²C	Y

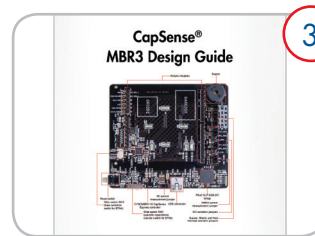
GET STARTED NOW



Buy the \$25 CY3280-MBR3 kit to evaluate the CapSense MBR3 solution's features including configurability, button performance, proximity sensing and water-tolerance
www.cypress.com/MBR3Kit



Download the EZ-Click software for free and design different configurations with ease
www.cypress.com/EZClick



Download the CapSense MBR3 Design Guide for guidelines on designing with your solution
www.cypress.com/MBRDesignGuide



Register for a CapSense workshop in your area
www.cypress.com/CapSenseWorkshop

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