

# PSOC™ 4000T Multi-Sense Prototyping Kit

## Evaluate and develop superior capacitive, inductive and liquid sensing solutions

The CY8CPROTO-040T-MS PSOC™ 4000T Multi-Sense Prototyping Kit is a development platform designed to facilitate the evaluation of Infineon's Multi-Sense technologies. The kit offers a complete, out-of-the-box experience, allowing users to explore and assess the capabilities of various sensing technologies, including, capacitive sensing, inductive sensing, and liquid level sensing.

Developers can leverage the CY8CPROTO-040T-MS PSOC™ 4000T Multi-Sense Prototyping Kit to create their own custom sensing applications, tailored to specific use cases and requirements. The kit supports the development of applications utilizing capacitive sensing, inductive sensing, and liquid level sensing technologies. One notable example of a customized capacitive sensing application is hover touch. This innovative technology enables users to interact with devices without physically touching the sensor overlay.

The CY8CPROTO-040T-MS kit comprises a control board and multiple expansion boards. The expansion boards include two Touch-over-Metal boards, a liquid level sensing flexible printed circuit board (FPC) with a container, and a multi-button CAPSENSE™ hover touch board.

The PSOC™ 4000T's fifth-generation CAPSENSE™ technology and Multi-Sense capabilities make it an ideal choice for applications that require advanced sensing, low power consumption, and high performance. Its versatility and flexibility enable developers to create innovative solutions for a wide range of applications such as, home appliances, countertop appliances, wearables, hearables, and other consumer electronics applications.

The CY8CPROTO-040T-MS PSOC™ 4000T Multi-Sense Prototyping Kit makes full use of Infineon's ModusToolbox™ software, simplifying sensing design, with its comprehensive collection of multi-platform tools and software libraries, including board support packages (BSPs), peripheral driver library (PDL), and middleware such as CAPSENSE™.

For more Information visit [PSOC™ 4000T Multi-Sense Prototyping Kit](https://www.infineon.com/multi-sense)

### Kit contents

- PSOC™ 4000T Multi-Sense control board
- Inductive keypad - 4 expansion board
- Inductive keypad - 2 expansion board
- Liquid level sensor expansion board
- Plastic container for liquid level sensing demonstration
- USB-A to USB-C cable
- Quick start guide

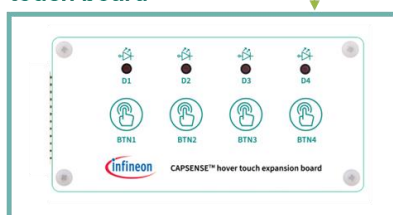
### Key benefits

- Complete out-of-the-box experience
- Ease of use with ModusToolbox™ support
- Code examples showcasing HMI capabilities
- Multi-sensing capability evaluation
- Contactless liquid level sensing
- High resolution liquid level sensing
- Touch interface for metal overlay
- CAPSENSE™ hover touch to support capacitive sensing with airgap

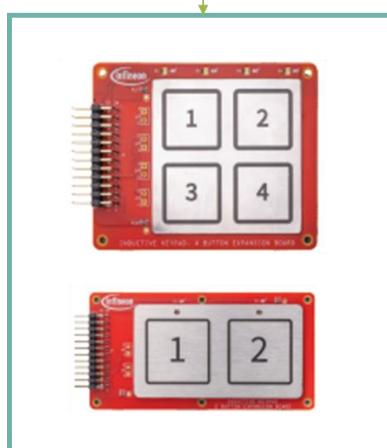
### PSOC 4000T Multi-Sense control board



### CAPSENSE™ hover touch board



### Inductive daughter boards



### Liquid sensing flex board



PRODUCT BRIEF

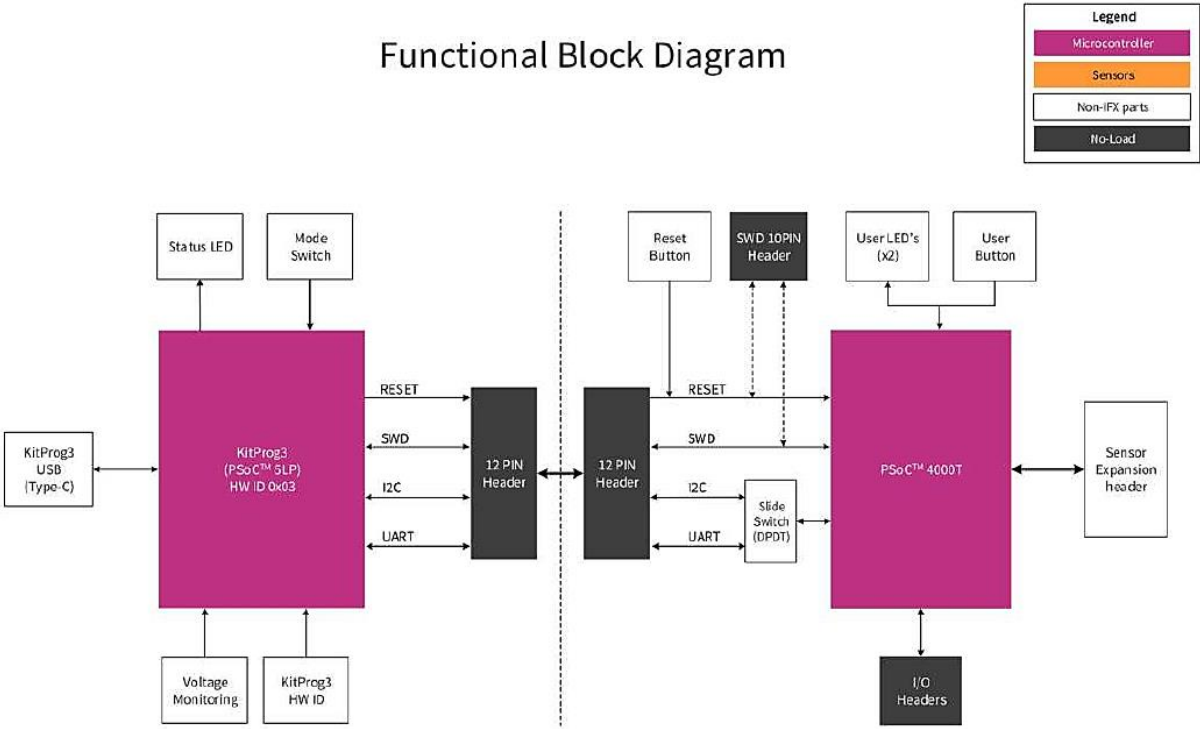
Key Applications

Wearables   Hearable	Wear Detection, Touchscreen, Slider, TP-Gestures
Smart Home   Appliance	Proximity Wakeup (Backlight), Capacitive Keypad, hover touch, inductive touch, Slider, Trackpad
Other consumer   Industrial	Proximity Wakeup (Backlight), Touchscreen, Capacitive Keypad, Slider, Trackpad, Liquid Level Sense

Ordering Part Numbers

PN	CPU Core	Max CPU Speed	CAPSENSE™	Inductive	TCPWM Blocks	SCB Blocks	GPIO	Package
CY8CPROTO-040T-MS	Arm® Cortex®-M0+	48 MHz	1	1	2	2	19	Kit

Block Diagram



For further assistance go to <https://www.infineon.com/cms/en/about-infineon/company/contacts/support/>.  
Visit [community.infineon.com](https://community.infineon.com) to ask questions in the Infineon developer community.



[www.infineon.com](https://www.infineon.com)

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