

PSOC™ 4100T Plus Prototyping Kit

Easy out-of-the-box experience to develop advanced sensing solutions

CY8CPROTO-041TP Prototyping Kit is a development platform designed to facilitate the evaluation of PSOC™ 4100T Plus MCU which is powered with Infineon's 5th Generation CAPSENSE™ and Multi-Sense technologies. The kit offers a complete, out-of-the-box experience with CAPSENSE™, allowing users to explore and assess the capabilities of CAPSENSE™ and Multi-Sense technologies

The kit is plug-and-play, allowing users to start evaluating the MCUs within seconds of connecting the USB cable. The control board carries the main MCU, user LEDs, user switch, reset switch and an ALS sensor. Two peripheral boards, resembling butterfly wings, provide interactive components for the evaluation of various CAPSENSE™ applications.

The control board features an integrated Ambient Light Sensor (ALS), which enables users to easily evaluate the performance of the Analog-to-Digital Converter (ADC) on the PSOC™ 4100T Plus MCU. Additionally, the kit provides convenient access to 52 GPIOs via through-hole connections, allowing users to connect headers and utilize the GPIOs for a variety of applications, such as ADC measurements, PWM outputs, serial communication, and more.

The peripheral butterfly wings feature a self-capacitive button, a mutual capacitive button, a 4x5 touchpad, and a proximity sensor. The buttons, covered with a 4mm acrylic overlay, showcasing the 5th Gen CAPSENSE™'s high signal-to-noise ratio (SNR). The touchpad can operate in self or mutual mode, allowing users to explore different capacitive sensing configurations. It demonstrates features like finger tracking accuracy, gesture recognition, multi-touch, and liquid tolerance. The proximity antenna, integrated as a loop around the touchpad, highlights the long proximity range capabilities of the 5th Gen CAPSENSE™ technology, enabling users to experience its advanced features.

The CY8CPROTO-041TP Prototyping Kit is fully compatible with CY8CPROTO-040T-MS kit's expansion boards, expanding user's access to inductive sensing, liquid level sensing and CAPSENSE™ hover touch. Designers can also take advantage of the onboard expansion connector to develop their own custom sensing board.

The PSOC™ 4100T Plus 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™.

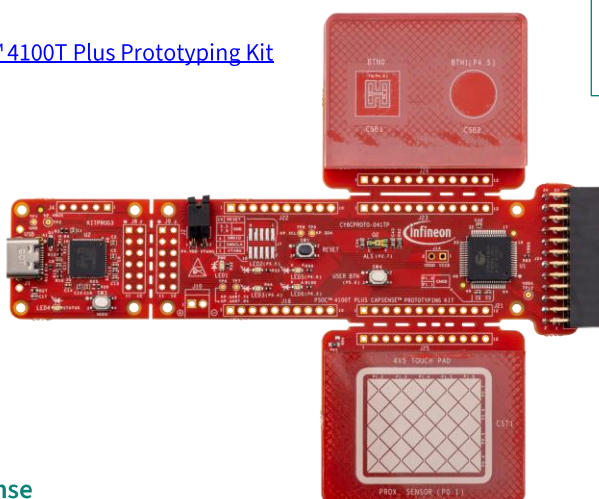
For more Information visit [PSOC™ 4100T Plus Prototyping Kit](https://www.infineon.com/multi-sense)

Kit contents

- PSOC™ 4100T Plus Prototyping Board
- Quick start guide
- Self-capacitance based button
- Mutual-capacitance based button
- Capacitive proximity sensor
- Capacitive touchpad
 - Self-capacitive touchpad
 - Mutual-capacitive touchpad
- Expansion connector for custom sensor board
- Ambient light sensor (ALS) based ADC measurements

Key benefits

- Complete out-of-the-box experience
- Ease of use with ModusToolbox™ support
- Code examples showcasing device capabilities
- PSOC™ 4100T Plus device
- Onboard programmer/debugger (KitProg3)
- Ambient light sensor (ALS)
- User LEDs (PWM enabled)
- User button
- Expansion connector to fully evaluate Multi-Sense capabilities:
 - Inductive Sensing
 - Liquid Level Sensing
 - Capsense™ Hover Touch



PRODUCT BRIEF

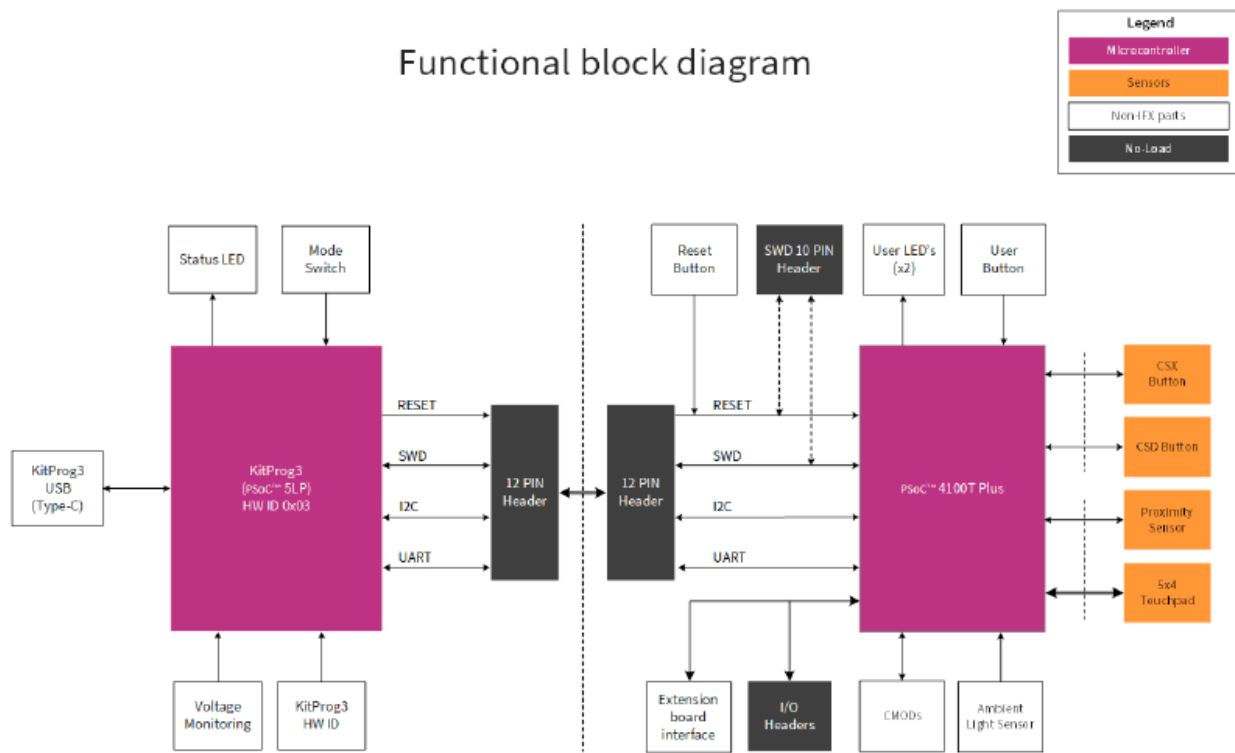
Key Applications

Wearables Hearable	VR glasses, Over the ear headphones
Smart Home Appliance	White goods, countertop appliances, touch-controlled screens, smart connected IoT products
Other consumer Industrial	PC and Gaming, consumer electronics, dimming controller, remote controls, printers, touchscreens

Ordering Part Numbers

PN	CPU Core	Max CPU Speed	FLASH	SRAM	CAPSENSE™	TCPWM Blocks	SCB Blocks	UART	Sensing inputs	GPIO	Package
CY8CPROTO-041TP	Cortex®-M0+	48 MHz	128KB	32KB	1	6	2	3	15	52	Kit

Block Diagram



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



www.infineon.com

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