

# PSOC™ Edge E84 AI Kit

## Design and develop next generation Machine Learning edge devices

The PSOC™ Edge E84 AI Kit is designed for rapid prototyping of ML/AI-powered applications. It features the PSOC™ Edge E84 series microcontroller (MCU) and a multitude of on-board multimedia, Machine Learning (ML), and connectivity features.

The [PSOC™ Edge series MCU](#) is a true programmable embedded system-on-chip with dual CPUs, integrating a 400 MHz Arm® Cortex®-M55 as the primary application processor, a 200 MHz Arm® Cortex®-M33 that supports low-power operations, and a 400 MHz Arm® Ethos-U55 as a neural net companion processor, graphics and audio block, DSP capability, security enclave with crypto accelerators and protection units, high-performance memory expansion capability (QSPI, and Octal HYPERRAM™), low-power analog subsystem with high performance analog-to-digital conversion and low-power comparators, IoT connectivity module, communication channels, programmable analog and digital blocks for higher flexibility, in-field tuning of the design, and faster time-to-market.

The evaluation kit carries a PSOC™ Edge E84 MCU, with 512-Mbit QSPI flash, 128-Mbit Octal RAM, and a SIP-based wireless interface based on an CYW55513 AIROC™ Wi-Fi and Bluetooth® combo.

This kit features an on-board programmer/debugger (KitProg3) SWD debug header, a MIPI-DSI connector, speaker interface, USB host and device interfaces, IO expansion headers, an IMU sensor, a magnetometer, a barometric pressure sensor, a radar, two analog microphones (PDM interface), and an image sensor.

This evaluation kit helps accelerate time-to-market by enabling ML/AI-powered application designs, built on a robust ecosystem, comprehensive documentation, and full use of Infineon's [ModusToolbox™ software](#), including its [DEEPCRAFT™ AI Suite](#) integration.

For more Information visit [PSOC™ Edge E84 AI Kit](#)



### Kit Contents

PSOC™ Edge E84 AI Evaluation Kit includes:

- PSOC™ Edge E84 AI Evaluation Board
- OV7675 DVP camera module
- Quick start guide

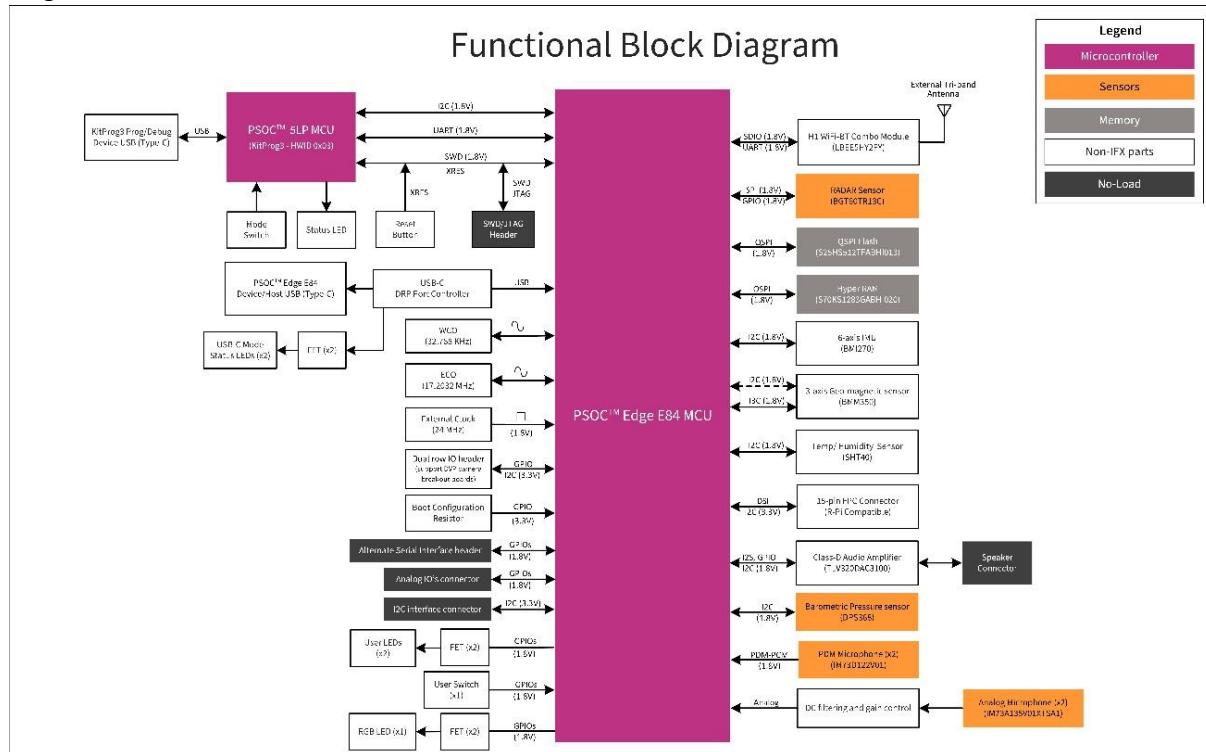
### Kit Components

- PSE846GPS2DBZC4 PSOC™ Edge E84 MCU
- AIROC™ CY55513 Wi-Fi + Bluetooth® combo chip
- BGT60TR13C 60GHz Radar
- IM73A135V01 Analog Microphone
- IM73D122V01 Digital Microphone
- DPS368 Barometric pressure sensor
- S25FS128SAGBHM203 16MB Flash Memory
- S70KS1283GABHI020 16MB PSRAM
- KitProg3 onboard SWD programmer/debugger, USB-UART, and USB-I2C bridge functionality
- Supports 1.8 V and 3.3 V operation



## PRODUCT BRIEF

### Block diagram



### Part Numbers

PN	Kit	Function
KIT_PSE84_AI	PSOC™ Edge E84 AI Kit	Low-cost kit with multiple sensors for evaluation of AI capabilities and fast prototyping

### Key Applications

Smart Home	Smart thermostats, smart locks, smart home appliances
HMI	Appliances, Industrial HMI, factory automation
Wearables	Fitness watches, AR/MR/VR glasses & accessories, audio accessories
Robotics	Vacuum cleaners, vacuum robots, service robots, industrial robotics

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