

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, 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 [AIROC™ CYW55513](#) 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 Bosch Sensortech magnetometer, a barometric pressure sensor, a radar, two analog microphones (I2S interface) two digital microphones (PDM interface), Bosch Sensortech accelerometer and gyroscope, and a Sensirion humidity and temperature sensor, 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

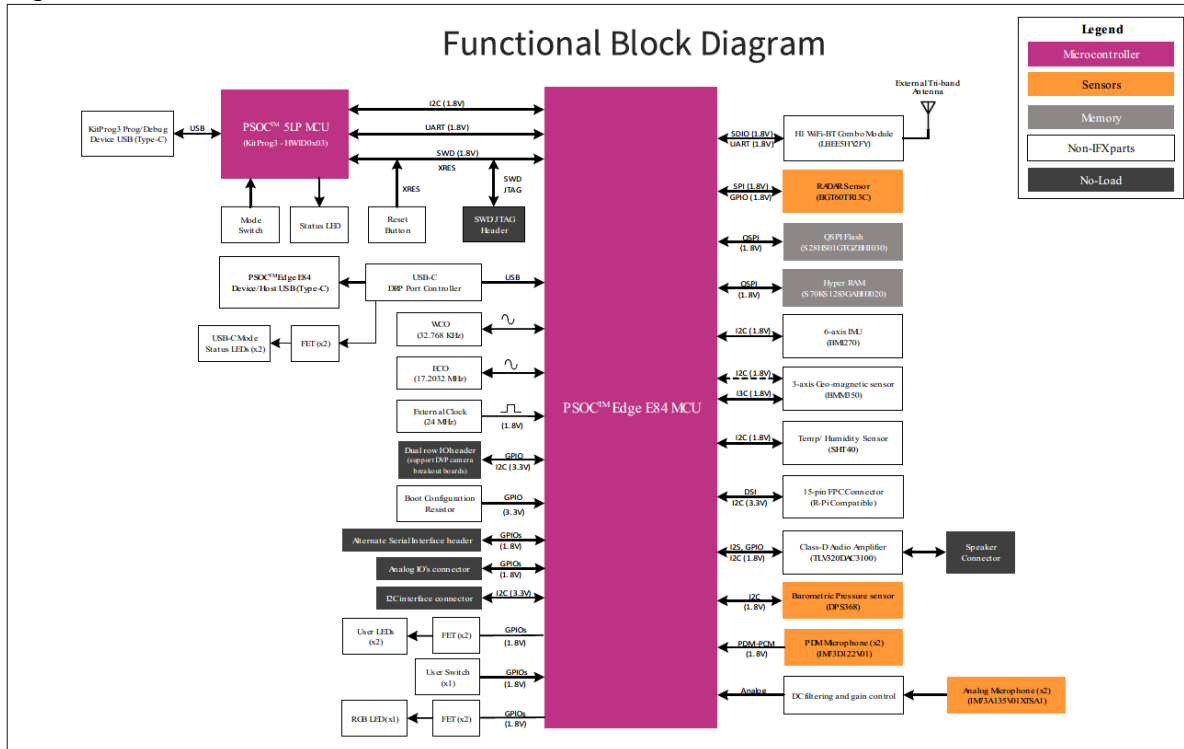
Kit Components

- 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
- Sensirion SHT40-AD1B-R2 Humidity and Temperature sensor
- Bosch Sensortech BMI270 6-axis Accelerometer and Gyroscope
- Bosch Sensortech BMM350 3-axis Magnetometer
- 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 cleaner robot, service robots, UAV, humanoid robot

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