

PSOC™ Edge E84 HMI Kit

Design and develop next generation Machine Learning edge devices

The PSOC™ Edge E84 HMI kit is a hardware evaluation platform for rapid prototyping and evaluation of next-generation HMI for Edge AI applications. This kit provides a variety of sensors and interfaces to get started on HMI use cases and AI designs, in an application-centric form factor.

The HMI kit leverages the PSOC™ Edge family of MCUs, a flexible system-on-chip designed to enable high-performance, responsive, and visually rich HMI applications. It integrates dual CPUs: an Arm® Cortex®-M55 with Helium-DSP paired with Ethos-U55 running at up to 400MHz, and an Arm® Cortex®-M33 core paired with Infineon's NNLite NPU supporting ultra-low-power, energy-efficient operation. In addition, PSOC™ Edge provides a 2.5D Graphics Processing Unit (GPU) for smooth graphics rendering, a secure enclave with crypto accelerators and protection units high-performance memory expansion (QSPI, and Octal HYPERRAM™), a low-power analog subsystem with high-performance analog-to-digital conversion and low-power comparators, multiple communication channels, and programmable analog and digital blocks for increased flexibility, and in-field tuning of the design.

The HMI kit features a [PSOC™ Edge E84 MCU](#) with advanced Edge AI capabilities, 128-MB Octal-SPI NOR Flash, 64-MB Octal-SPI HYPERRAM, and a SIP-based wireless interface based on a Murata module with [AIROC™ CYW55513](#) Wi-Fi and Bluetooth® combo.

This kit also integrates a 4-inch capacitive touch display (480x480 (RGB)), USB camera, two analog microphones (I2S interface), four digital microphones (PDM interface), audio amplifier with speaker, a 60GHz radar, Bosch Sensortech 6-axis Accelerometer and Gyroscope, and a Sensirion humidity and temperature sensor.

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

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

Kit Contents

- PSOC™ Edge E84 HMI Kit includes:
- Enclosure, sensors, and 4-inch touch display
 - USB Type-C to Type-C cable
 - Quick start guide via QR Code

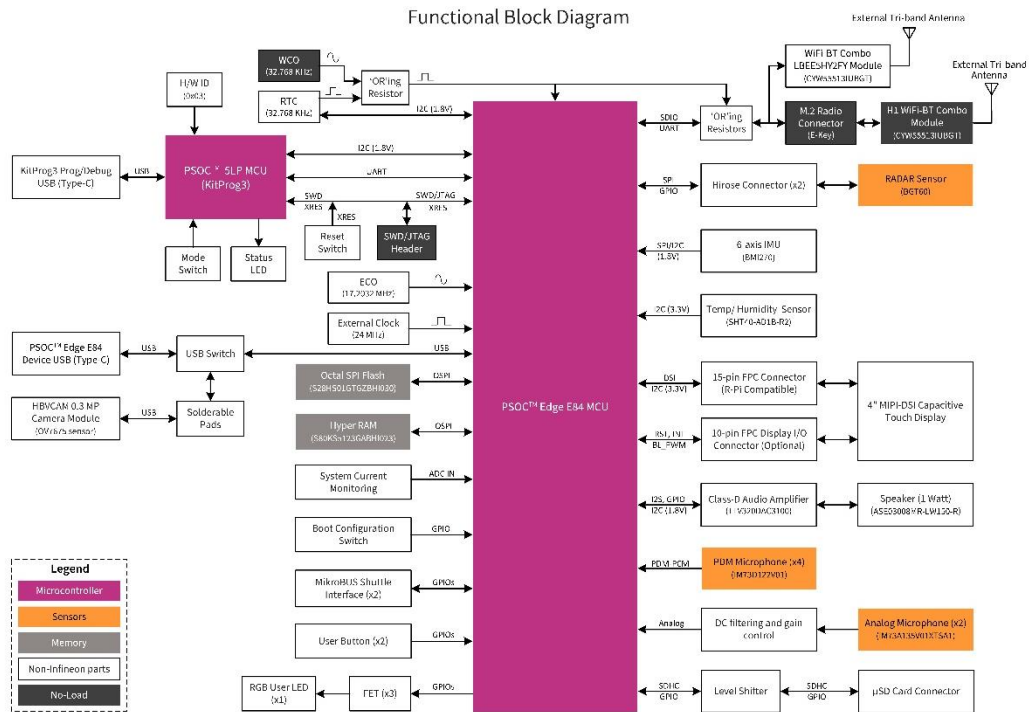
Kit Components

- PSE846GPS2DBZC4 PSOC™ Edge E84 MCU
- Murata LBEE5HY2FY Wi-Fi + Bluetooth® module (AIROC™ CY55513)
- 4-inch Capacitive Touch Display
- HBVCAM-1939V11 USB camera (OV7675 sensor)
- Audio Amplifier with Speaker
- 2x IM73A135V01 Analog Microphone
- 4x IM73D122V01 Digital Microphone
- BGT60TR13C 60GHz Radar
- Sensirion SHT40-AD1B-R2 Humidity and Temperature sensor
- Bosch Sensortech BMI270 6-axis Accelerometer and Gyroscope
- S80KS5123GABHI023 64MB Octal-SPI HYPERRAM
- S28HS01GTGZBHI030 128MB Octal-SPI NOR Flash



PRODUCT BRIEF

Block diagram



Part Numbers

PN	Kit	Function
KIT_PSE84_HMI	PSOC™ Edge E84 HMI Kit	Smart HMI kit with multiple sensors and interfaces for fast prototyping of HMI applications with AI capabilities

Key Applications

Smart Home	Smart thermostats, smart home appliances, residential alarm and security, smart locks
HMI	Appliances, Industrial HMI, factory automation
Robotics	Vacuum cleaner robot, service robots, humanoid robot

Published by
Infineon Technologies AG
Am Campeon 1-15, 85579 Neubiberg
Germany

© 2026 Infineon Technologies AG
All rights reserved.

Public

Version: V1.0_EN
Date: 06/2026

Please note!
This Document is for information purposes only and any information given herein shall in no event be regarded as a warranty, guarantee or description of any functionality, conditions and/or quality of our products or any suitability for a particular purpose. With regard to the technical specifications of our products, we kindly ask you to refer to the relevant product data sheets provided by us. Our customers and their technical departments are required to evaluate the suitability of our products for the intended application.

We reserve the right to change this document and/or the information given herein at any time.

Additional information
For further information on technologies, our products, the application of our products, delivery terms and conditions and/or prices, please contact your nearest Infineon Technologies office (www.infineon.com).

Warnings
Due to technical requirements, our products may contain dangerous substances. For information on the types in question, please contact your nearest Infineon Technologies office.

Except as otherwise explicitly approved by us in a written document signed by authorized representatives of Infineon Technologies, our products may not be used in any life-endangering applications, including but not limited to medical, nuclear, military, life-critical or any other applications where a failure of the product or any consequences of the use thereof can result in personal injury.



Scan QR code and explore offering
www.infineon.com