CY8CKIT-062S2-AI



PSOC™ 6 Artificial Intelligence Evaluation Kit

Infineon's PSOC[™] 6 Artificial Intelligence Evaluation Kit is your perfect partner for easy prototyping and collecting real-life data to build compelling ML products fast. Being only the size of a cracker, the hardware platform focused on Edge AI enables customers to evaluate Infineon's Machine Learning platform DEEPCRAFT[™] Studio, as well as ready to deploy ML models, and other software products.

Data collection is enabled via <u>PSOC™6 MCU</u>, as well as Radar (<u>BGT60TR13C</u>), high-performance digital MEMS microphone (<u>IM72D128</u>), Barometric Air Pressure Sensor (<u>DPS368</u>) & IMU sensors (Bosch <u>BMI-270</u>, <u>BMM-350</u>). Connectivity is enabled with WiFi/BT BLE Combo (Murata <u>LBEE5KL1YN</u>).

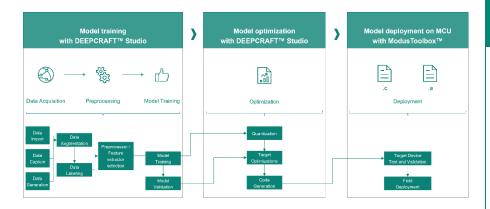






END-TO-END MACHINE LEARNING TO EMBEDDED SOFTWARE JOURNEY

No matter whether you have an ML model already and want to deploy on a target HW, or whether you want to create a new model, you can enter at any stage with DEEPCRAFT™ Studio.



CODE EXAMPLES (Highlights)

- DEEPCRAFT™ Data Collection with all onboard sensors: Collect your own data and feed it into DEEPCRAFT™ Studio for custom model creation.
- DEEPCRAFT™ Optimized Model Deployment: Deploy your newly created model optimized and quantized for the PSOC™ 6.
- Radar Presence Detection: Detect whether there is somebody within range of the kit.
- Wireless Connectivity for Cloud Connection and Reporting: Keep the edge informed of its intelligence by synchronizing within the cloud.

Key features

Designed for ease-of-use and end-to-end Machine Learning

- Small form-factor (35x45mm), wireless, low cost
- Solution approach with PSOC™ 6, QSPI Flash + multisensor input (radar, microphone, pressure & 6-axis motion sensors)
- Production ready ML models:
 DEEPCRAFT™ Ready Models
 (baby cry, cough, factory alarm, fall, gesture, siren, snoring)
- Complete ML to embedded
 SW journey: ModusToolbox™
 & DEEPCRAFT™ Studio
 compatible

Key benefits

- Low-cost evaluation board with efficient form factor for easy prototyping
- Rapid prototyping: Easy creation of sensor fusion-, ML-, acoustic-, time series- and radar models
- Fast time to market at minimal development cost, direct launch for PSOC™ 6 & AURIX™
- End-to-end: Collect data, create, train, evaluate & deploy
 ML models fast
- Seamless integration to ModusToolbox[™] and DEEPCRAFT[™] Studio with application code examples

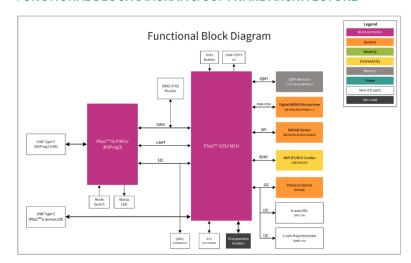




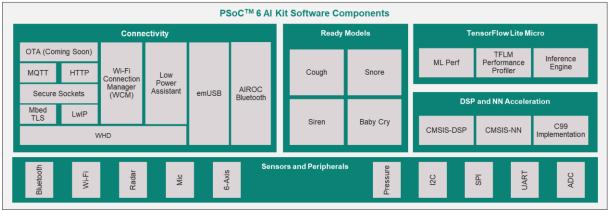




FUNCTIONAL BLOCK DIAGRAM & SOFTWARE ARCHITECTURE







Important Links

- Find out more about the kit here
- Download the DEEPCRAFT™ Studio development tool here
- Evaluate one of our Ready Machine Learning Models here

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

© 2024 Infineon Technologies AG All rights reserved.

Public

Document number: 002-40076 Rev. **
Date: 06/2024

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.

