

The Ambiq Micro Apollo development suite is taking low power embedded system design to an entirely new level. With state of the art hardware and software design tools, developers can quickly realize low power embedded designs. Never before has bringing low power applications to production been so easy.

The Ambiq Micro Apollo Advantage

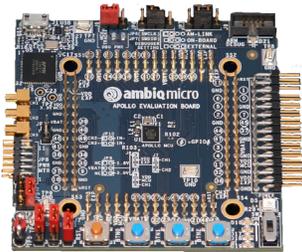
At Ambiq Micro, we have a culture of “picojoule fanaticism” that permeates everything we do. That is why the Apollo microcontroller is engineered to provide power savings orders of magnitude above competitive microcontroller products. We can’t stop there. We have also created a suite of tools that enables designers to advance their low power concepts to reality.

Apollo Evaluation Kit

The Apollo Evaluation Kit is the best place to start when designing with the Apollo MCU. The EVK system consists of three boards: an Apollo evaluation board, a multi-axis MEMs sensor board, and a Bluetooth communication board; all designed to work together and provide you a low power, connected sensing platform.



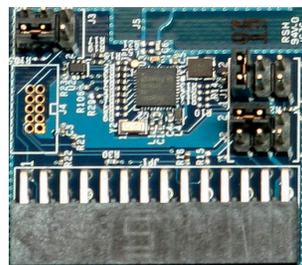
Apollo Evaluation Board



The Apollo Evaluation Board, or EVB, is the center of your low power computing system. The EVB includes a APOLLO512-KBR, which has an ARM M4F core, 512KB of Flash memory and 64KB of SRAM in a 64-ball BGA package. All of the I/O and peripheral functions are routed to easy to access 0.10” headers making prototyping painless.

Bluetooth Low Energy Connectivity Board

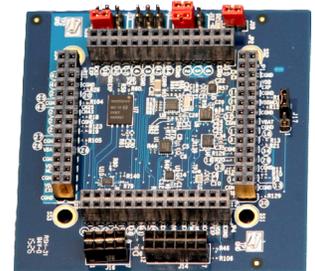
The Ambiq Micro BTLE connectivity board accelerates your design by making wireless connectivity an easy out of the box experience. Using the industry proven Dialog DA14581 Bluetooth SMART SoC, we have paired the world’s smallest, lowest power and most integrated Bluetooth Smart solution with the world’s lowest power MCU. It gives you the freedom to develop Bluetooth v4.1 applications without compromise.



Motion Sensing Development Platform

The Ambiq Micro Sensor Board is an ideal vehicle to develop sensor based algorithms for your application. The board is engineered to pair perfectly with the main EVB so that all power, ground, and communication signals are cleanly routed in a plug-in-play environment. The sensor board supports X, Y, and Z axis for acceleration, gyroscope, and magnetometer sensing. The sensor ICs that are included on the board are the following:

- Analog Devices, [ADXL362](#), 3-axis accelerometer
- ST, [LIS2DH12](#), 3-axis accelerometer
- Bosch, [BMI-160](#), 3-axis gyro, 3-axis accelerometer
- ST, [L3GD20H](#), 3-axis gyro
- ST, [LIS3MDL](#), 3-axis magnetometer



Specific details and the datasheets for each sensor can be found on the manufacturer’s website. This suite of sensors provides a wide degree of flexibility in developing sensor based applications.

In addition to the sensors, there is also an Ambiq Micro AM1805 low power Real-Time Clock and a N25Q128A, 128Mb serial Flash memory chip. These can be very useful for timestamping sensor data and logging it to external memory for post processing.

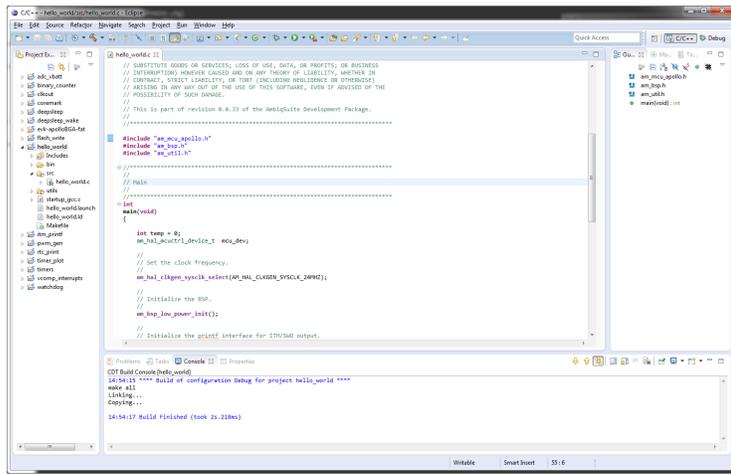
Ambiq Suite

Ambiq Suite is your one stop shop for documentation and software support. Software examples, device drivers, and board support packages are intuitively organized in a self-service fashion. Whether you need device drivers for the latest MEMs gyroscope or need an initialization routine for an I/O Master peripheral; Ambiq Suite ensures you are only a few clicks away.

Ambiq Software Development Environment

Ambiq Micro wants to make developing world-class low power applications using as easy as possible. That is why we compiled industry standard tools that operate on multiple platforms to support your development effort.

Our foundation is the trusted Eclipse IDE and the proven GCC compiler. This tool-chain can be downloaded for free from our website and is regularly updated to include community supported enhancements.



IAR Systems AG. These tools can be purchased directly from ARM (<http://www.keil.com/>) or IAR Systems (<https://www.iar.com/>) respectively.



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Software Downloads

The Ambiq Control Center, Ambiq Micro IDE, compiler, debugger, hardware board support packages, Flash programming utility, and code examples are free and can be downloaded from the Ambiq Micro website (<http://ambiqmicro.com/>). These are available for both Windows and Linux operating systems.

Third-Party Development Support

The Ambiq Micro Apollo microcontroller is fully supported by ARM's Keil™ Tools as well as the IAR Embedded Workbench® from

Ordering Information

The ordering information for the Apollo development tools are as follows:

Part Number: **APOLLO-EVK**
Price: \$299 USD

Part Number: **APOLLO-EVB**
Price: \$249 USD



Document: PB-EVK-EVB, Revision: 09/15

