**Name:** SparkFun Artemis Module - Low Power Machine Learning BLE Cortex-M4F
**Single Line Description:** The Artemis Module from SparkFun is the first FCC certified, open-source, Cortex-M4F with BLE 5.0 running up to 96MHz and with as low power as 6uA per MHz.
**SKU:** WRL-15484

**Description:**
The Artemis Module from SparkFun is a Cortex-M4F with BLE 5.0 running up to 96MHz and with as low power as 6uA per MHz (less than 5mW). This is the world's first module to bridge the market between hobbyists and consumer products. We've packaged all the power of a modern microcontroller into a module that is both extremely easy to use but is mass-market ready.

The flexibility of the Artemis module starts with our [Arduino core] (https://github.com/sparkfun/Arduino_Apollo3). You can program and use the Artemis module just like you would an Uno or any other Arduino. Time to first blink is just 5 minutes away! We built the core from the ground up, making it fast and as lightweight as possible.

Next is the module itself. Measuring 10x15mm the Artemis module has all the support circuitry you need to use the fantastic Apollo3 processor in your next project. We're proud to say the SparkFun Artemis module is the first open-source hardware module with the design files freely and easily available. We've carefully designed the module so that implementing Artemis into your design can be done with low-cost 2-layer PCBs and 8mil trace/space.

Made in the USA at SparkFun's Boulder production line, the Artemis module is designed for consumer-grade products. This truly differentiates the Artemis from its Arduino brethren. Ready to scale your product? The Artemis will grow with you beyond the Uno footprint and Arduino IDE. Additionally, the Artemis has an advanced HAL (hardware abstraction layer) allowing users to push the modern Cortex-M4F architecture to its limit.

The SparkFun Artemis Module is fully F CC/IC/CE certified and is available in full tape and reel quantities. With 1M flash and 384k RAM, you'll have plenty of room for your code. The Artemis module runs at 48MHz with a 96MHz turbo mode available and with Bluetooth to boot!

**Features:**

- 1M Flash / 384k RAM
- 48MHz / 96MHz turbo available
- 6uA/MHz (operates less than 5mW at full operation)
- 48 GPIO - all interrupt capable
- 31 PWM channels
- Built-in BLE radio and antenna
- 10 ADC channels with 14-bit precision with up to 2.67 million samples per second effective continuous, multi-slot sampling rate
- 2 channel differential ADC
- 2 UARTs
- 6 I2C Buses
- 6 SPI Buses
- 2/4/8-bit SPI bus
- PDM Interface
- I2S Interface
- Secure 'Smart Card' interface
- FCC/IC/CE Certified
- Dimensions: 10mm x 15mm

**Documents:**

- Schematic
- Eagle Files
- Designing with the SparkFun Artemis
- Artemis Development with Arduino
- Arduino Core
- Artemis Info Page
- GitHub Hardware Repo