

Theory of Operation

The Artemis Module from SparkFun Electronics is comprised of a printed circuit assembly.

It is powered by 1.8V to 3.3V from a DC source. The PCB is a module and has two power pads: VCC and GND and accepts unregulated power through these pads. The printed circuit board regulates the supply voltage to the necessary core voltages.

The main processing unit of Artemis Module is the Ambiq Apollo3. The Apollo3 is a Cortex-M4F which contains a 2.4GHz transceiver with Bluetooth® 5 transceiver. The module utilizes an RF shield over the main IC and components with a RF matched 2dBi chip antenna external to the RF shield. Memory configuration is 1MB of Flash + 384Kbytes of SRAM. The device comes preloaded with firmware that does not activate the radio.

The Artemis Module is intended to be soldered onto the user's product using standard pick-and-place and SMD reflow techniques.