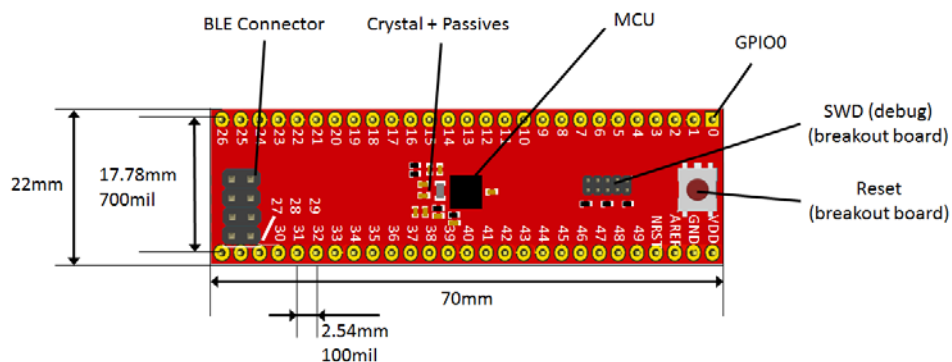
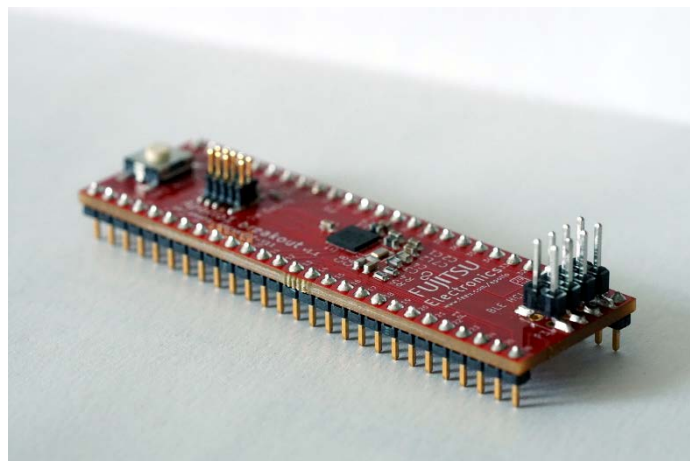


# AMBIQ MICRO APOLLO2 SERIES

## ARM CORTEX M4 MICROCONTROLLER

### SK-AMAP2-BREAKOUT-V11



## Introduction

The SK-AMAP2-BREAKOUT-V11 evaluation board includes an Ambiq Micro Apollo 2 MCU with all pins available at 54 pins.

### 1.1 Features

- Ambiq Micro Apollo 2:
  - o Ultra-low supply current:
    - <10  $\mu$ A/MHz executing from flash at 3.3 V
    - <10  $\mu$ A/MHz executing from RAM at 3.3 V
  - o High-performance ARM Cortex-M4F Processor:
    - Up to 48 MHz clock frequency
    - Floating point unit
    - Memory protection unit
    - Wake-up interrupt controller with 32 interrupts
  - o Ultra-low power memory:
    - Up to 1 MB of flash memory for code/data
    - Up to 256 KB of low leakage RAM for code/data
    - 16kB 2-way Associative Cache
  - o Ultra-low power interface for off-chip sensors:
    - 14 bit, 15-channel, up to 1.2 MS/s ADC
    - Temperature sensor with +/-3°C accuracy
    - Voltage Comparator
  - o Flexible serial peripherals:
    - 6x I2C/SPI master for communication with sensors, radios, and other peripherals
    - 1x I2C/SPI slave for host communications
    - 2x UART for communication with peripherals and legacy devices
  - o PDM for mono and stereo audio microphones
  - o Rich set of clock sources:
    - 32.768 kHz XTAL oscillator
    - Low frequency RC oscillator – 1.024 kHz
    - High frequency RC oscillator – 48 MHz
  - o RTC based on Ambiq's AM08X5/18X5 families
  - o Compact package options:
    - 2.5 x 2.5 mm (0.35mm) 49-pin CSP with 34 GPIO
    - 4.5 x 4.5 mm (0.5mm) 64-pin BGA with 50 GPIO
- Parts assembled:
  - o MCU
  - o Passives
  - o Crystal
  - o DC/DC converter coils
  - o Reset button
  - o SWD Debug header
  - o 2x 27 pin headers 2.54mm
  - o 1x 10 pin communication header

### 1.2 Dimensions

- Width: 22mm
- Height: 70mm

### 1.3 Scope of delivery

- Apollo 2 breakout board SK-AMAP2-BREAKOUT-V11 in ESD bag

