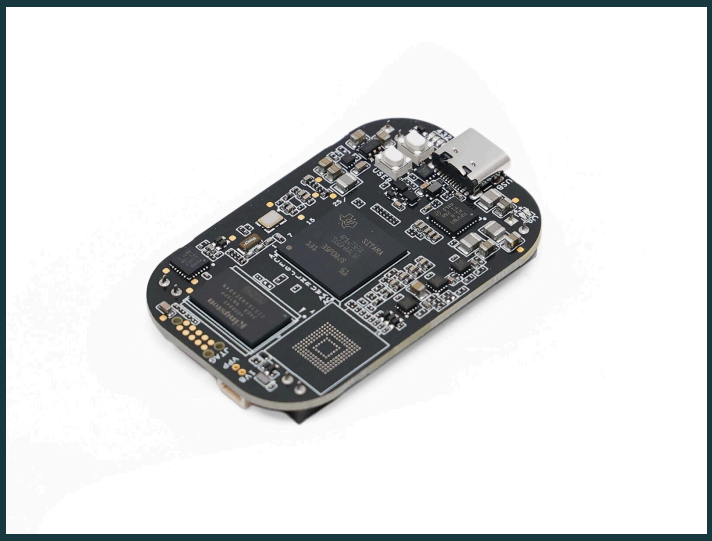
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INDUSTRIAL PRODUCT DATASHEET

BeagleBoard PocketBeagle 2

Created by BeagleBoard.org Foundation,BeagleBoard PocketBeagle 2 is an upgraded version of the popular BeagleBoard PocketBeagle, designed as an ultra-compact, low-cost, and powerful single-board computer (SBC).

SKU	UPDATED	PRICE
102110780	2026-11-11 09:10:24	$59.90(Excl. VAT)



Overview



Created by BeagleBoard.org Foundation,BeagleBoard PocketBeagle 2 is an upgraded version of the popular BeagleBoard PocketBeagle, designed as an ultra-compact, low-cost, and powerful single-board computer (SBC). Powered by Texas Instruments AM6254 SoC, it delivers high performance, advanced security, extensive connectivity, and advanced capabilities for developers, students, and hobbyists and innovators.

Key Features

01 **High-Performance Dual-Core Processing**

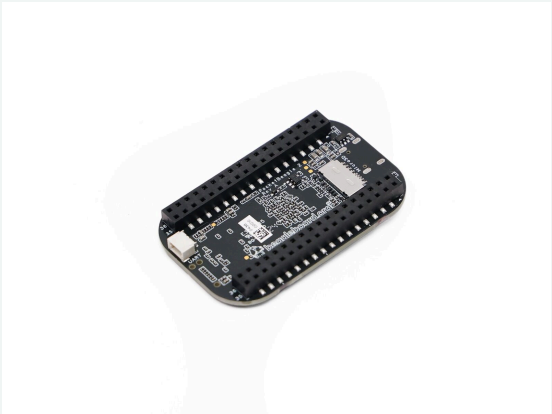
Now powered by the AM6254 SoC, featuring dual ARM Cortex-A53 cores up to 1.4 GHz (higher performance), with 512 MB LPDDR4 SDRAM running at 3200 MHz and a microSD card slot for flexible storage.

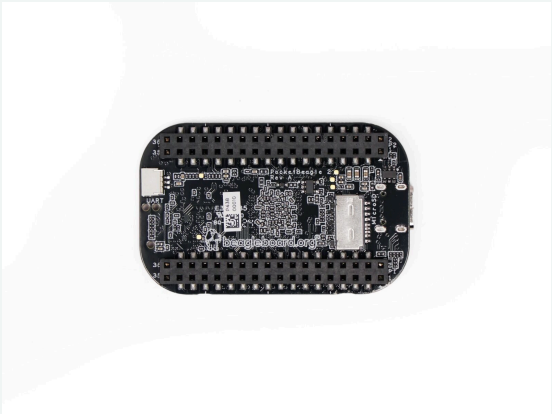
02 **Advanced Real-Time Control：A single-core ARM Cortex-M4F MCU running at up to 400 MHz and a dual-core Programmable Real-Time Unit Subsystem (PRUSS) at 333 MHz enable precise real-time control and automation, making it ideal for time-sensitive applications.**

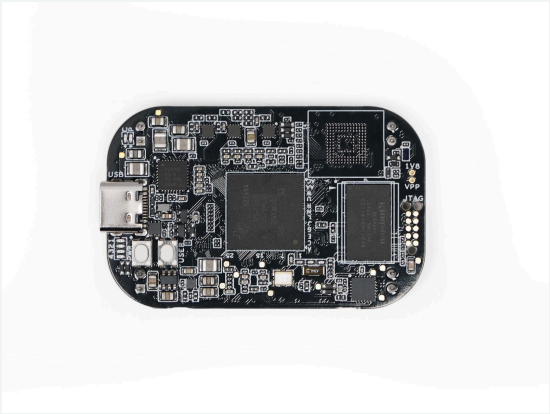
03 **Pocket-Size with Rich Peripherals：55 x 35 mm compact size and 72 expansion pin headers with power and battery I/Os, high-speed USB, 8 analog inputs, 52 digital I/Os, and numerous digital interface peripherals. One dedicated MSPM0L1105 Arm Cortex-M0+ MCU for 12-bit ADC.**

04 **Power Management System：The TPS6521903 PMIC combines system-level power management optimization with BQ21040 to support intelligent charging of single-cell Li-Ion and Li-Polymer batteries, enabling seamless power switching and facilitating space-limited portable applications.**

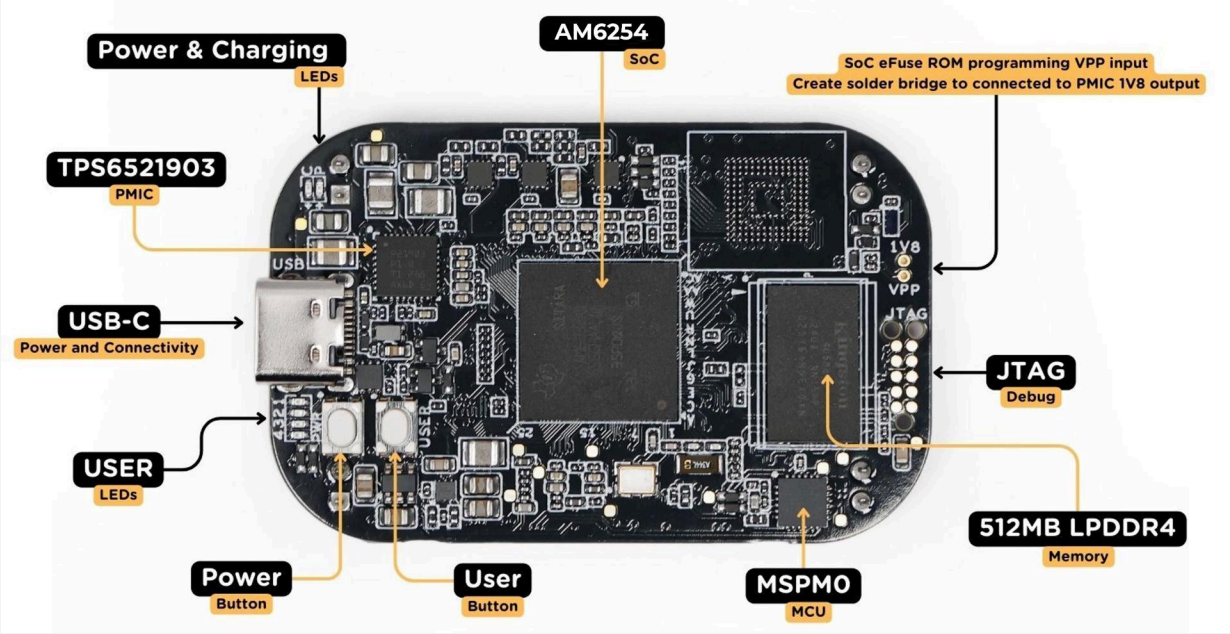
Product Gallery

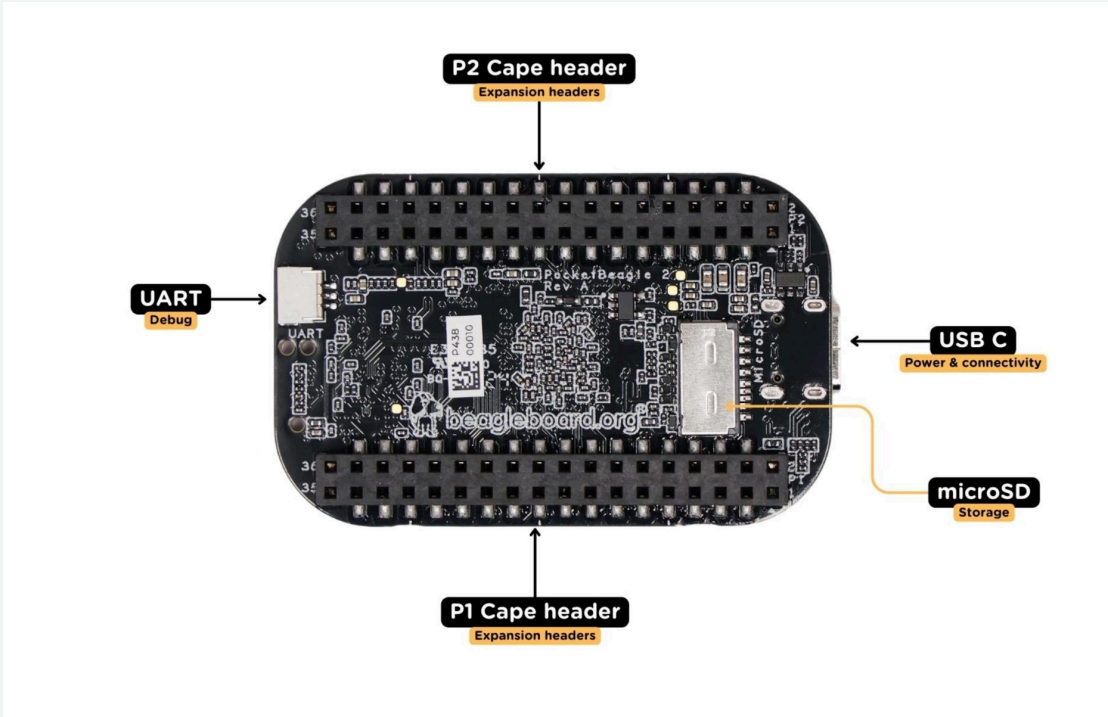


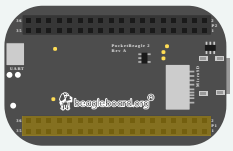


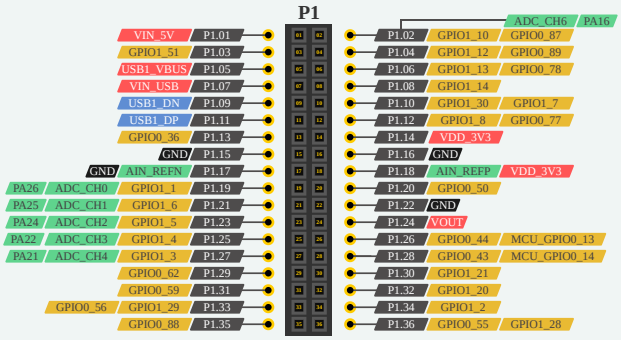


Hardware Overview





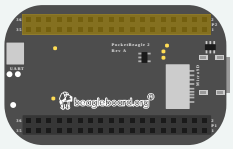


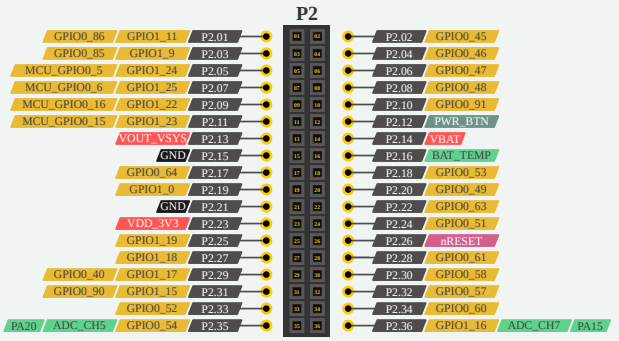


PocketBeagle 2

P1 cape header pinout

beagleboard.org





PocketBeagle 2

P2 cape header pinout

beagleboard.org

Applications

- **Industrial automation**
- **Robotics**
- **Internet of Things (IoT)**
- **Embedded teaching**
- **Home automation**
- **Edge computing**

Resource Links

- https://www.seeedstudio.com/BeagleBoard-PocketBeagle2-p-6371.html
- BeagleBoard PocketBeagle 2 Documentation

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