



NEWS RELEASE

Ambiq Enables Intelligence on Edge Devices with a Broadened Portfolio of Ultra-Low Power Processors

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The Apollo4 Plus and the Apollo4 Blue Plus SoCs, with Enhanced Graphics Performance, More Memory, and Enhanced Security Have Now Joined the Expanded Apollo4 Family Targeting IoT Edge Devices with a Tiny Power Budget

News Highlights:

- The expanded Apollo4 family now offers multiple new features, including enhanced graphics performance resulting in a rich display user interface (UI) and secureSPOT® for more robust security
- With up to 2MB of MRAM and 2.75MB of SRAM, the Apollo4 Plus and Apollo4 Blue Plus with Bluetooth® Low Energy 5.1 radio have the compute power and storage to handle complex algorithms and neural networks while displaying vibrant, clear, and smooth graphics
- Propelling clock frequency up to 192 MHz clock frequency via turboSPOT® for much lower total system power consumption

Austin, TX – Ambiq®, a technology leader in ultra-low power platforms and solutions, including system on chips (SoCs), and real-time clocks (RTCs), introduces an expanded Apollo4 SoC portfolio, including the latest Apollo4 Plus and Apollo4 Blue Plus with Bluetooth Low Energy connectivity with enhanced graphics display capabilities and more robust security features to better protect power-constrained IoT edge devices without compromising power efficiency.

The wearables market, including smartwatches, smartbands, and smart glasses, together will generate more than \$350 billion in cumulative revenues over the next five years¹. The role of wearables is evolving to become essential in medical, wellness, and fitness applications, where user experience, safety, and security are key factors in their

purchasing decisions.

The Apollo4 Plus is the 4th generation system processor solution built upon Ambiq's proprietary Sub-threshold Power-Optimized Technology (SPOT®) platform, enabling new features while reducing devices' overall system power consumption to extend their battery life. Embedded with our megabytes of MRAM, SRAM, ultra-low power processors, solid software stacks, and up to 192 MHz operating frequency with turboSPOT, the latest SoC to the Apollo4 family empowers more AI-capable operations, including data ingestion, pre-processing, inference, and actuation. Equipped with an ultra-low power, end-to-end audio subsystem, the Apollo4 is designed to run complex algorithms required for precise voice recognition and higher fidelity voice capability needed for voice calls. Its powerful, integrated GPU and display controller, coupled with fast and efficient memory access, offer manufacturers the ability to differentiate their products with bigger and richer display user interfaces with vivid colors, high-resolution and smooth graphics. Ambiq's Secure by Design™ features allow OEMs to secure their products from the ground up when implementing secureSPOT with tools to implement end-to-end security from the start.

"The future of IoT is in the intelligence of things that stay on and connected 24/7," said Dan Cermak, VP of Architecture and Product Planning at Ambiq. "The latest product and feature additions to our Apollo4 SoC family demonstrate that battery-operated devices no longer have to compromise performance for power constraints."

The latest addition to the Apollo4 family provides enhanced graphics display and greater voice capabilities to serve as either an application processor or a coprocessor for battery-powered edge devices. The Apollo4 Plus is now in mass production, targeting smartwatches and smart bands, consumer medical devices, motion and tracking units, and the smart home of the 21st century. For more product information, visit www.ambiq.com/apollo4-plus.

¹ https://report.counterpointresearch.com/posts/report_view/iot/2747

About Ambiq

Ambiq has been on a singular mission since 2010 to put intelligence everywhere by creating the most energy-efficient semiconductor solutions for battery-powered IoT edge devices. Ambiq has helped leading manufacturers worldwide develop products that can operate for days, months, and sometimes years on a battery, and even do away with the battery entirely by harvesting energy. Ambiq's patented Sub-threshold Power Optimized Technology (SPOT) platform has enhanced IoT edge devices by enabling a significant increase in compute power at reduced energy levels. Our goal is to bring Artificial Intelligence (AI) where it has never gone before in mobile and portable devices using Ambiq's advanced ultra-low power system on chip (SoC) solutions. Ambiq has shipped more than 150 million units at the beginning of 2022; we are focused now on enabling 100 billion IoT edge devices in the near future. For more information, visit www.ambiq.com.

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