



NEWS RELEASE

# Smartaly and Ambiq Develop Energy Efficient AI-Enabled Medical-Grade ECG Monitor

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March 19, 2024, Austin, TX – Ambiq®, a technology leader in ultra-low power semiconductors to enable local AI on devices, partners with Smartaly, a designer of electronics to develop an energy-efficient and intelligent handheld electrocardiogram (ECG) monitor, tested in hospitals for widespread use.

Smartaly's handheld ECG relies on the Apollo3 SoC with built-in AI to monitor and detect the heart's electrical activities 24/7 for up to one week on battery. With more than 99% accuracy, the ECG can notify the users of any abnormality or disturbance in real time for immediate response. The Smartaly ECG is lightweight and can last one year on standby mode. It connects via Bluetooth to other smart devices, giving users actionable insight into their health data.

"We are very proud to have taken on this global challenge of providing the medical sector with a portable, battery-powered electrocardiogram (ECG) monitor," says Arnaud Duclap, CEO of Smartaly. "We chose Ambiq's Apollo3 SoC for its perfect match of processing power, high memory, and extremely low power consumption to run the embedded neural network engine. We hope to further participate in other medical projects to contribute to the well-being of people."

The Smartaly ECG Monitor workflow via the Apollo3 SoC

"Our partnership with Smartaly is a strategic move to accelerate their development of digital health devices," says Mike Kenyon, VP of Sales and Business Development at Ambiq, "The medical field is an extremely important industry that requires consistent and data-driven monitoring. Helping medical devices overcome their power



constraints to provide insightful health analysis that patients can depend on is exactly what we envision with the Smartaly ECG Monitor.”

The Apollo3 is Ambiq’s third generation of systems on chip (SoC), providing industry-leading ultra-low power and performance for applications ranging from digital health devices to tracking units for pets, wildlife, and animal husbandry. Built upon Ambiq’s Sub-threshold Power Optimization Technology (SPOT) platform, the Apollo3 reduces power consumption to 6µA/MHz in active mode and 1 µA in deep sleep mode. Visit **Apollo3 – Ambiq** for more information.

#### About Smartaly

SMARTALY is an electronic design office that specializes in IoT and connected objects. Smartaly offers the design of electronic cards, embedded software and mechanics at very competitive prices. They are a human-sized and agile company, which allows them to quickly adapt to customer needs. They work on designs and optimization projects. They meet technological challenges that their competitors cannot meet. They accelerate the development of IoT products by 50% thanks to millimeter-focused project management, indisputable know-how, ownership of equipment that allows prototyping, prequalification’s for CE / FCC certifications directly from them.

#### About Ambiq

Ambiq’s mission is to develop the lowest-power semiconductor solutions to enable intelligent devices everywhere and drive a more energy-efficient, sustainable, and data-driven world. Ambiq has helped leading manufacturers worldwide develop products that last weeks on a single charge (rather than days) while delivering a maximum feature set in compact industrial designs. Ambiq’s goal is to take 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 230 million units. For more information, visit **[www.ambiq.com](http://www.ambiq.com)**.

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