



NEWS RELEASE

Ambiq and Bravechip Cut Smart Ring Costs by 85% with New Edge AI Chiplet

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AMBIQ'S APOLLO330B PLUS FUELS
A NEXT-GENERATION, ULTRA-
EFFICIENT SMART RING PLATFORM
TO ACCELERATE MASS-MARKET
ADOPTION

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Austin, TX, Jan 06, 2026 – Ambiq Micro, Inc. (NYSE: AMBQ), a global leader in ultra-low-power semiconductors for edge AI, has partnered with Bravechip, a pioneer in AIoT System-in-Package (SiP) technologies, to launch the BCL603S3H—a purpose-built chiplet platform that reduces smart ring costs by up to 85%, boosts production yield by 20%, and speeds development of next-generation wearables.

Smart rings are rapidly moving from niche gadgets to mainstream digital health devices. As brands pursue more sensors, richer AI features, and multi-day battery life in an ultra-compact form factor, manufacturers need a scalable, power-optimized platform that can deliver real-time, on-device intelligence without compromising reliability.

Advancing Smart Ring Capabilities with Apollo330B Plus

The BCL603S3H is powered by Ambiq's Apollo330B Plus SoC, offering greater processing performance, improved energy efficiency, and expanded memory to support advanced AI features, including voice recognition, gesture detection, and continuous health monitoring.

Introduced in March 2025, the Apollo330B Plus shares the architecture of Ambiq's flagship Apollo510B—minus the GPU—to achieve a smaller footprint and lower power suited for compact wearables. Its real-time, on-device inferencing enables up to seven days of battery life while delivering the always-on intelligence consumers expect.

A Mass-Production-Ready Chiplet Platform for Smart Rings

Smart rings require precise integration of multiple sensors, radios, and compute blocks in a constrained space. Bravechip designed the BCL603S3H as an open, modular chiplet platform optimized for manufacturability, consistency, and long-term reliability.

Key Platform Benefits

- Up to 85% lower BOM with an integrated, customizable chiplet architecture
- 20% higher production yield with optimized packaging and board-level reliability
- Standardized algorithms and protocols for stable performance and simplified integration
- Complete firmware, app, and tooling suite to shorten development cycles

Featured Edge AI Use Cases

- Voice AI: transcription, snore detection, voice wake-up
- Gesture Controls: touch/touchless interaction for phones, PCs, smart glasses, and smart homes
- Health Monitoring: SpO₂, HR, HRV, stress, sleep, and activity insights
- Haptics: vibration alerts and notifications
- NFC: secure payments and access control

Executive Commentary

"Smart rings are an ideal showcase for Ambiq's SPOT platform," said Fumihide Esaka, CEO of Ambiq. "Our partnership with Bravechip delivers a highly integrated, cost-efficient solution engineered for scale—and unlocks the next generation of intelligent, health-focused wearables."

"With Ambiq's Apollo330B Plus at the core of our new chiplet platform, we're delivering a tightly integrated SiP engineered for always-on edge AI," said Zongming Jin, CEO of Bravechip. "This collaboration enables customers to build more capable rings with unprecedented power efficiency."

To explore the BCL603S3H platform or begin evaluation, visit <http://www.bravechip.com/> or contact xiaojian.cui@bravechip.com.

About Ambiq

Headquartered in Austin, Texas, Ambiq's mission is to enable intelligence (artificial intelligence (AI) and beyond) everywhere by delivering the lowest power semiconductor solutions. Ambiq enables its customers to deliver AI compute at the edge where power consumption challenges are the most severe. Ambiq's technology innovations, built on the patented and proprietary subthreshold power optimized technology (SPOT®), fundamentally deliver a multi-fold improvement in power consumption over traditional semiconductor designs. Ambiq has powered over 280 million devices to date. For more information, visit www.ambiq.com.

About Bravechip

Founded at the end of 2018, Bravechip Technology is a chiplet chip-level solution provider for the AIoT market. The company has abundant chiplet "core" resources and packages multiple bare dies together through advanced packaging to provide chip-level solutions for downstream users. The company's products can be widely used in narrowband IoT scenarios with tens of billions of connections such as medical, industrial, and home. The company will combine high-quality industry, academia, and research resources such as Tsinghua University School of Integrated Circuits and Nanjing Linkwah Institute of Integrated Circuit Technology to become a world-class chip company. For more information, visit <http://www.bravechip.com/>.

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