

BrainChip Commences AKD1500 Tape-out for Volume Production

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- Initiative driven by customer demand
 - Company forecasts production parts will be available by late Q3 of 2026
 - Production mask set, related fabrication and testing costs amount to approximately \$2.3M USD

Sydney – 20 Oct 2025 – [BrainChip Holdings Ltd](#) (ASX: **BRN**, OTCQX: **BRCHF, BCHPY**), (BrainChip or Company) the world's first commercial producer of neuromorphic artificial intelligence IP, today announces that it is commencing the tape-out process for its AKD1500 reference design for volume production. This move is in response to customer demand and increasing market demand for at-sensor and low-power embedded AI solutions.

Key Highlights:

- **Response to Demand:** The decision to move the AKD1500 from a reference design to volume production is driven by strong customer engagement across various target markets, including military, aerospace, medical, and consumer wearables.
- **Neuromorphic Advantage:** The AKD1500 leverages BrainChip's energy-efficient, event-based Akida technology, enabling high performance at milliwatt power levels. This is crucial for real-time edge processing and on-device learning in battery-powered devices. The AKD1500 occupies a unique ultra-low power position in the market for those workloads where low power is critical.
- **Strategic Expansion:** The Company is expanding its capabilities as a leader in delivering full-stack solutions for critical use cases. Moving to volume chip production is the next strategic step in bringing those solutions to market quickly. The AKD1500 production release capitalises on the market's demand for deploying on-device AI, which offers benefits such as reduced latency, reduced cloud costs, enhanced privacy, and improved data security. Production availability of the AKD1500 will deliver a low-cost, accessible form factor of our Akida technology, paving the way for its integration and widespread adoption in a diverse range of commercial use cases.
- **Timeline:** The Company is now proceeding with the final stages of the design process, known as "tape-out," before sending the design to its foundry partner for manufacturing. The Company expects the first units from the production mask set to be available by Q3 2026.

A significantly increased emphasis on low power at the edge

In the last few years, the demand for low-power AI at the edge has grown exponentially, fueled by the proliferation of Internet of Things (IoT) and other embedded devices. These devices, ranging from wearables to satellites, have limited power resources and often operate in constrained environments. The AKD1500's energy efficiency is a critical advantage, enabling on-device AI processing that extends battery life and reduces operational costs for customers. It provides the capability to perform real-time data analysis locally, without the latency and power consumption associated with constant cloud connectivity.

Successful customer testing and benchmarking

The AKD1500's successful deployment in customers' hands has proven its capabilities beyond initial projections. Rigorous testing and benchmarking during the initial engineering sample phase confirmed that the chip could meet the specific performance and efficiency needs of real-world AI workloads. Customer validation proved the chip's viability for a wide range of applications, providing the market credibility needed to justify a ramp-up to volume production.

As the market matures, and partners become more deeply integrated into the ecosystem, it is expected that a portion of this demand will transition to an Intellectual Property (IP) licensing model. This shift would allow partners to integrate BrainChip's proven architecture directly into their own system-on-chip (SoC) designs, offering greater customization and further accelerating time-to-market for their smart products.

The Company's strategic expansion has enabled it to move beyond simply providing hardware. By significantly enhancing its internal capabilities in model development, software engineering, and system integration, the Company is now well-equipped to support customers with complete, end-to-end AI solutions. This holistic approach allows the Company to serve not just as a chip provider, but as a full-stack AI partner, from initial concept to final deployment. The Company's improved ability to offer comprehensive integrations and robust support streamlines the customer experience, ensuring faster time-to-market and more successful outcomes for clients implementing the AKD1500 in their products.

CEO Quote:

BrainChip CEO, Sean Hehir, said:

"This is a major milestone for BrainChip and a direct response to the market's clear demand for our Akida-based products. Our customers recognize that the AKD1500's ultra-low-power and on-chip learning capabilities are perfectly suited for next-generation edge AI devices. Moving to volume production will enable us to meet this growing demand and accelerate the adoption of our neuromorphic technology across a range of high-growth markets. We are confident that this strategic step will position BrainChip for commercial success."

This announcement is authorised for release by the BRN Board of Directors.

About BrainChip Holdings Ltd (ASX: BRN)

BrainChip is the worldwide leader in edge AI on-chip processing and learning. The Company's first-to-market neuromorphic processor, Akida™, mimics the human brain to analyze only essential sensor inputs at the point of acquisition, processing data with unparalleled efficiency, precision, and economy of energy. Keeping machine learning local to the chip, independent of the cloud, also dramatically reduces latency while improving privacy and data security. In enabling effective edge compute to be universally deployable across real world applications such as connected cars, consumer electronics, and industrial IoT, BrainChip is proving that on-chip AI, close to the sensor, is the future for its customers' products as well as the planet. Explore the benefits of Essential AI at www.brainchip.com.

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