



ASX Announcement

BrainChip Confirms Completion of the Akida™ Production Design

Socionext to Provide Physical Design Services in Preparation for Production Mask Set and Wafer Fabrication at TSMC

Aliso Viejo, California – 2 December, 2020 – [BrainChip Holdings Ltd](#) (ASX: BRN), a leading provider of ultra-low power high performance artificial intelligence technology, today provides the following update on the development of the Company's Akida™ Neuromorphic System-on-Chip. (NSoC).

The Company confirms that the Register-Transfer Level (RTL) design has been completed and transferred to the Company's manufacturing partner, Socionext America (SNA). SNA will complete the physical design of the device and all related engineering tasks required to transfer the full device files (tape-out) to Taiwan Semiconductor Manufacturing Company (TSMC) for mask creation and wafer fabrication.

The mask set will be utilized to manufacture production wafers as well as support qualification testing and parametric testing of the Akida device. Production wafers will be used to support potential customer requirements, including a full range of Quality and Reliability (QA) data as well as a detailed Data Sheet (DS) and User's Manual.

BrainChip CEO, Louis DiNardo commented, "The Akida device design will be transferred to TSMC for use in manufacturing production wafers in support of potential customer requirement in 2021 and beyond. This is a major milestone for the Company as we move to commercialize the Akida NSoC." He continued, "Our chosen markets in Smart Home, Smart Transportation, Smart Medical and Smart City include some of the most discriminating customers in the electronics industry. Through our partnership with SNA and TSMC we have world-class resources and expect to have a robust Integrated Circuit (IC) that suits their requirements for both performance and reliability."

Akida brings artificial intelligence to the edge in a way that existing technologies are not capable. The solution is high-performance, small, ultra-low power and enables a wide array of edge capabilities. The Akida NSoC and intellectual property, can be used in applications including Smart Home, Smart Health, Smart City and Smart Transportation. These applications include but are not limited to home automation and remote controls, industrial IoT, robotics, security cameras, sensors, unmanned aircraft, autonomous vehicles, medical instruments, object detection, sound detection, odor and taste detection, gesture control and cybersecurity.

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



About Brainchip Holdings Ltd (ASX: BRN)

BrainChip is a global technology company that is producing a groundbreaking neuromorphic processor that brings artificial intelligence to the edge in a way that is beyond the capabilities of other products. The chip is high performance, small, ultra-low power and enables a wide array of edge capabilities that include on-chip training, learning and inference. The event-based neural network processor is inspired by the spiking nature of the human brain and is implemented in an industry standard digital process. By mimicking brain processing BrainChip has pioneered a processing architecture, called Akida™, which is both scalable and flexible to address the requirements in edge devices. At the edge, sensor inputs are analyzed at the point of acquisition rather than through transmission via the cloud to a data center. Akida is designed to provide a complete ultra-low power and fast AI Edge Network for vision, audio, olfactory and smart transducer applications. The reduction in system latency provides faster response and a more power efficient system that can reduce the large carbon footprint of data centers.

Additional information is available at <https://www.brainchipinc.com>

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