ASX Announcement

BrainChip Begins Volume Production of Akida AI Processor

San Francisco 13 April 2021: BrainChip Holdings Ltd (ASX:BRN), a leading provider of ultra-low power, high-performance AI technology, announced today that it has begun volume manufacturing of its Akida™ AKD1000 neuromorphic processor chip for edge AI devices.

The engineering layout for BrainChip's high-performance, ultra-low power chip was designed in partnership with Socionext, a global developer of advanced SoC solutions. Socionext has released the engineering layout of the production version of the AKD1000 chip to TSMC (Taiwan Semiconductor Manufacturing Company; TWSE: 2330, NYSE: TSM), which has begun preparing to manufacture at volume.

BrainChip Early Access Program (EAP) customers in strategic end markets purchased Akida evaluation systems for a range of edge applications. Following testing of the AKD1000 engineering samples, BrainChip improved the design in both performance, efficiency, and scalability, adding additional operating modes for even lower power consumption than its original design.

"I am grateful to our engineering team, who worked hard over the past eight months to release the Akida technology for volume production, and to our EAP customers that have helped lead us to market readiness," said Peter van der Made, BrainChip CEO. "This move to manufacturing is a major milestone for BrainChip and for the industry at large as the first realistic opportunity to bring AI processing capability to edge devices for learning, enabling personalization of products without the need for retraining."

Production units are expected to be available around August 2021.

Akida neuromorphic processors are revolutionary advanced neural networking processors that bring 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. The Akida NSoC is designed for use as a stand-alone embedded accelerator or as a co-processor, and includes interfaces for ADAS sensors, audio sensors, and other IoT sensors.

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 centre. 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 centres.

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