BrainChip Ships Akida^{TM} Evaluation Boards

Company Provides Shipments to Early Access Partners

Aliso Viejo, California – 7 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 on the shipment of the Company's evaluation boards for the Akida Neuromorphic System-on-Chip (NSoC).

The Company confirms that shipment of evaluation boards began in November 2020. The evaluation board compliments the Company's Akida Development Environment (ADE) for Early Access Partners (EAP) that have developed Akida compatible networks. The ADE is a robust development environment that allows potential customers to design a neural network as a Convolutional Neural Network (CNN) and utilize the ADE workflow to convert the network to an Event-Based CNN or develop a native Spiking Neural Network (SNN).

The effect of implementing an Event-Based CNN is to significantly reduce power consumption by processing only non-zero activations and take advantage of the sparsity in most data. Additional power savings are captured by aggressive quantization without a meaningful loss of accuracy for most network designs. Once converted to an Event-Based CNN network, a designer can quantize both weights and activations to 1, 2 or 4 bits selectively.

The Akida neural fabric provides significant new features that allow true AI Edge Learning rather than simple AI Edge Training, which requires connectivity through the cloud or a data center to re-train a network as new classifiers are detected. Additionally, the ability to implement AI Edge Incremental Learning is unique to the Akida NSoC and allows potential customers to deploy a new and valuable feature in the AI Edge products.

BrainChip CEO, Louis DiNardo commented, "The Akida NSoC has proven to provide significant power savings and is the complete integration of a neural network design. Akida introduces new and powerful features to the high-growth AI Edge market." He continued, "True AI Edge learning does not exist with current AI solutions and our ability to provide this and other features while significantly reducing both power consumption, size and the Bill-of-Materials (BOM) has attracted the attention of leading suppliers in the Smart Home, Smart Transportation and Smart City markets. We believe that these capabilities also will provide new solutions in Smart Healthcare applications that serve our mission of supporting Beneficial AI applications and improve the human condition globally in terms of diagnosis of infectious diseases, cancers and a wide array of challenging global health concerns. We are excited about our technology and the potential to impact many industries including healthcare and energy conservation which are clearly a global concern."

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

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BrainChip Holdings Ltd
ACN 151 159 812
Level 12 225 George St Sydney NSW 2000
T: +61 2 9290 9606 | F: +61 2 9297 0664 | W: www.brainchipinc.com

including Smart Home, Smart Healthcare, 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 and sound detection and classification as well as odor and taste, gesture control and cybersecurity.

This announcement is authorized 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.

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Company contact:
Louis DiNardo
ldinardo@brainchip.com
+1 (415) 699-9163