Synaptics Showcases Edge AI Strengths at tinyML Summit

March 28, 2022

Demonstrations using Katana and DBM10L low-power SoCs with neural network engines show latest vision, sound-event detection, keyword spotting, and speech processing innovations

SAN JOSE, Calif., March 28, 2022 (GLOBE NEWSWIRE) -- Synaptics Incorporated (Nasdaq: SYNA) will demonstrate how its ultra-low-power, edge-based artificial intelligence (AI) SoC solutions can be used to quickly and easily implement vision, sound-event detection (SED), keyword spotting, and speech processing capabilities in a variety of applications at this week's tinyML Summit (March 28-30). A Platinum sponsor of the gathering for the growing ecosystem of low-power machine learning (ML) developers, Synaptics will feature its Katana and DBM10L system-on-chip (SoC) ICs and development tools. Both processors have dedicated, on-chip neural network inference engines that are key to current and future ML applications and IoT devices.

In addition to the application demonstrations, an on-site poster will detail a power-efficient vision system for AI-based people-counting and occupancy applications.

"Ultra-low-power Edge solutions require localized intelligence that relies upon a unique combination of power-efficient hardware and sophisticated AI algorithms, yet must be readily adopted to new applications," said Venkat Kodavati, SVP and Chief Product Officer at Synaptics. "We've developed example applications that show how effective both our Katana and DBM10L platforms and associated tools are at enabling training models for specific use cases for the IoT. They are well suited to help accelerate the adoption of tinyML for the microwatt era of smart and flexible battery-powered devices across a wide range of industries."

<div align="center">

Schedule a one-on-one visit with Synaptics at the tinyML Summit
Email: press@synaptics.com; info@synaptics.com

</div>

The vision demonstration will use the recently announced Katana Edge AI Evaluation Kit (EVK) to read instrument meter clusters. It will show how expensive legacy industrial equipment can be brought into the industrial IoT (IIoT) revolution, by simply placing a Katana-enabled smart camera near the equipment's display and feeding the read values back to a central server. It can scale as needed to read meters across a factory floor of equipment.

There will be two DBM10L demonstrations. One will be a keyword spotting demonstration in partnership with Imagimob that shows how quickly and efficiently developers can implement new AI models on the DBM10L using the Imagimob tool.

The second DBM10L demo features an example of SED capabilities developed using Synaptics' algorithms. The sound to be detected will be played from an external speaker and classification will be done by the DBM10L's dedicated neural network inference engine. The demo highlights the robustness of the SED algorithm in a noisy environment, as well as the efficiency with which it can run on the DBM10L. In addition, an ML expert will be on hand to discuss how efficiently the model's robustness was achieved.

Along with the demos, a Poster will be on display that describes how to perform people detection and counting operations using the Katana Edge AI evaluation kit. People detection and counting are critical for smart buildings as well as occupancy detection in stadiums and theaters, but to be useful they must be simple and low-power enough to be deployed anywhere.

Availability
The Katana and DBM10L SoCs, as well as the Katana Edge AI EVK, are available now through Synaptics' sales channels . To learn more, view:
Demo: Katana Edge AI EVK reading meter display panel
Demo: Katana Edge AI EVK performing people detection and counting
Visit Synaptics at the tinyML Summit for a live demo of the Katana Edge AI Kit

For more info, contact your local Synaptics sales representative.

Synaptics and the Synaptics logo are trademarks of Synaptics in the United States and/or other countries. All other marks are the property of their respective owners.

About Synaptics Incorporated:
Synaptics (Nasdaq: SYNA) is changing the way humans engage with connected devices and data, engineering exceptional experiences throughout the home, at work, in the car, and on the go. Synaptics is the partner of choice for the world's most innovative intelligent system providers who are integrating multiple experiential technologies into platforms that make our digital lives more productive, insightful, secure, and enjoyable. These customers combine Synaptics' differentiated technologies in touch, display, and biometrics with a new generation of advanced connectivity and AI-enhanced video, vision, audio, speech, and security processing. Follow Synaptics on LinkedIn, Twitter, and Facebook, or visit www.synaptics.com.

For further information, please contact:

Patrick Mannion
Dir. of External PR and Technical Communications
Synaptics Inc.
+1 631-678-1015
patrick.mannion@synaptics.com