Synaptics Launches Industry-First Smart Edge SoCs Integrating Neural Network Acceleration, Custom Wake Word, Far-Field Voice

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New AudioSmart Family Enables Secure Intelligence at the Edge for Privacy, Superior User Experience

LAS VEGAS and SAN JOSE, Calif., Jan. 07, 2019 (GLOBE NEWSWIRE) -- **CES –** Synaptics® Incorporated (NASDAQ: SYNA), the leading developer of human interface solutions, today announced its new AS3xx series, a comprehensive family of Smart Edge AudioSmart® solutions including the world's first fully integrated SoCs comprising neural network acceleration, a proprietary wake word engine with support for custom wake words, and highly-advanced far-field voice processing. Designed using a 22nm process node, and targeting a broad variety of voice-enabled Smart Home devices including hubs, Wi-Fi repeaters, speakers and appliances, the AudioSmart AS371 is sampling now and incorporates a new powerful machine learning engine using innovative SyNAP™ (Synaptics Neural Network Acceleration and Processing) technology.

Intelligence at the edge results in an enhanced user experience through better response times and robustness. For example, performing Automated Speech Recognition (ASR) and Natural Language Understanding (NLU) locally on-device ensures core Smart Home voice control works when there is poor or intermittent internet connectivity. SyNAP™ enables advanced features such as user identification and behavioral prediction which allows voice assistants to perform ambient computing and a more intuitive interaction with users.

In this era of "always on" and connected, amplified by an ever-growing set of devices within the Smart Home, your device and data security are only as strong as your weakest link. Ensuring a high level of device and system security is a fundamental tenet of the unique selling points of Synaptics' AudioSmart AS3xx family of SoCs, ranging from a dedicated security processor, to architecting every element of the SoC and system implementation. The AS371 solution with SyNAP™ on-device intelligence enhances consumer privacy by greatly reducing the need to continuously send personal data to the cloud. SyNAP also takes the right steps to support GDPR compliance as well as other current and emerging regulations.

Another innovation of the AudioSmart AS3xx family is the introduction of our fully integrated and purpose-built far-field voice processing and wake word technology developed by Synaptics. Having been used in a variety of global retail products for over seven years, Synaptics continues to improve its market-leading voice processing solution to further improve voice pick-up in noisy, real-world conditions and barge-in capabilities during very loud playback. Through in-house design of the SoC, wake word engine, voice pre-processing and playback enhancement, Synaptics has optimized the complete system to achieve the highest possible far-field voice performance at affordable consumer electronics price points. Furthermore, by providing the complete solution including acoustics system expertise, Synaptics greatly reduces the time-to-market for Smart Home product manufacturers and allows them to add an excellent voice-first experience while maintaining focus on their core expertise. In addition, Synaptics' AS3xx solutions are fully compatible with all voice assistant platforms worldwide.

New AS3xx Products:

- AS371 (for voice-enabled devices with SyNAP) Sampling Now
- AS390 (for voice-enabled devices with displays) Target sampling CY19Q1
- AS350 (for voice-enabled low-power devices) Target sampling CY19Q1
- AS320 (for voice-enabled microcontroller-based devices) Target sampling CY19Q1

"Intelligence at the edge begins in the Smart Home where privacy is paramount and with voice as the fastest growing and most natural human interface," said Huibert Verhoeven, senior vice president and general manager, IoT Division, Synaptics. "Adding to our established market-leading position in voice, our new cutting-edge voice processing technology designed using a 22nm process node, along with our innovative SyNAP integration, not only provides unmatched performance and security, it also opens numerous new opportunities across consumer IoT products spanning speakers, displays, set-top-boxes, thermostats, lighting, Wi-Fi repeaters, home appliances and much more."

Join us at CES:
Please join us at the 2019 International Consumer Electronics Show (CES) where we will be showcasing our latest technologies including SyNAP. By appointment only, please contact your Synaptics sales representative to arrange a demonstration. We are located in South Hall 2, ground level of the Las Vegas Convention Center.

About Synaptics:
Synaptics is the pioneer and leader of the human interface revolution, bringing innovative and intuitive user experiences to intelligent devices. Synaptics' broad portfolio of touch, display, biometrics, voice, audio, and multimedia products is built on the company's rich R&D, extensive IP and dependable supply chain capabilities. With solutions designed for mobile, PC, smart home, and automotive industries, Synaptics combines ease of use, functionality and aesthetics to enable products that help make our digital lives more productive, secure and enjoyable. (NASDAQ: SYNA) www.synaptics.com.

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