June 17, 2019

QuickLogic EOS S3 Voice and Sensor Processing Platform Powers Infineon "IAS" Security IoT Reference Design

- Infineon design targets to dramatically reduce the number of false burglar alarm calls to police

- Uses integrated "LPSD" sound detection, FFE and Sensor Manager to reduce power and increase battery life

SUNNYVALE, Calif., June 17, 2019 /PRNewswire/ -- QuickLogic Corporation (NASDAQ: QUIK), a developer of ultra-low power multi-core voice-enabled SoCs, embedded FPGA IP, and Endpoint AI solutions, today announced that Infineon has selected its EOS™ S3 Voice and Sensor Processing Platform to enable a new ultra-low power Integrated Alarm System (IAS) reference design utilizing the Infineon XENSIV™ MEMS Microphone and Digital Barometric pressure sensor.

This design takes advantage of QuickLogic's integrated Low Power Sound Detection (LPSD) block, Sensor Manager and Flexible Fusion Engine (FFE) on the EOS S3 to significantly reduce the computation power consumption by a factor of ten. These blocks enable the ARM M4-F core in EOS S3 to be asleep for the majority of the time, only running Infineon's own sensor fusion based glass break algorithm when significant events occur. The Infineon cutting edge sensor fusion software synchronizes the information from the microphone and pressure sensor to optimize the system's performance and reduce false alarms. Existing glass break alarm systems on the market can react to numerous sounds, pets or movie background noises for example. With the Infineon patent pending concept of combining audio with pressure information, Infineon's Alarm System only acts when a real event is detected, significantly reducing the number of false alarm calls.

The IAS reference design is targeted to customers in the home IoT space. The design can be integrated with a stand-alone product, or added to an existing home, commercial and industrial products such as light sockets, smoke detectors, motion sensors, and cameras to enable event detection such as an intruder breaking a window. A variety of well-known consumer product developers are currently adopting or investigating the IAS reference design solution for integration into their products.

"Infineon's reference design represents an excellent use case for the EOS S3 Voice and

Sensor Processing Platform," said Scott Haylock, director of product management at QuickLogic Corporation. "Through the use of our platform's integrated features such as LPSD and FFE, they are able to deliver a very sophisticated solution at the ultra-low levels of power consumption required by IoT battery-powered applications."

About EOS S3 Sensor Processing Platform
The EOS S3 Voice and Sensor Processing Platform is an ultra-low power SoC that combines always-on/always listening voice processing with fast, efficient and sophisticated sensor processing capabilities. It includes a proprietary, patent-pending uDSP-like Flexible Fusion Engine (FFE) that handles the bulk of the sensor algorithm processing, which minimizes the processing load for the floating point MCU. The multi-core design of EOS S3 enables it to be used as a host processor as well as a companion co-processor. Power consumption in the always-listening mode is minimized by its hardware integrated Low Power Sound Detector (LPSD). System-level power consumption is further optimized by the EOS S3's dynamic power management technology.

Availability
The Infineon Integrated Alarm System (IAT) security IoT reference design is available now. For more information, visit http://www.infineon.com/alarmsystem. The EOS S3 platform is available now from QuickLogic Corporation. For more information, please visit https://www.quicklogic.com/products/eos-s3

About QuickLogic
QuickLogic Corporation (NASDAQ: QUIK) is a fabless semiconductor company that develops low power, multi-core semiconductor platforms and Intellectual Property (IP) for Artificial Intelligence (AI), voice and sensor processing. The solutions include embedded FPGA IP (eFPGA) for hardware acceleration and pre-processing, and heterogeneous multi-core SoCs that integrate eFPGA with other processors and peripherals. The Analytics Toolkit from our recently acquired wholly-owned subsidiary, SensiML Corporation, completes the 'full stack' end-to-end solution with accurate sensor algorithms using AI technology. The full range of platforms, software tools and eFPGA IP enables the practical and efficient adoption of AI, voice and sensor processing across mobile, wearable, hearable, consumer, industrial, edge and endpoint IoT. For more information, visit www.quicklogic.com and https://www.quicklogic.com/blog/.

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