



NXP Announces World's First Microcontroller-based Solution for Offline Face Recognition and Expression Identification

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News Highlights

- Turnkey face and expression recognition solution offers low latency without the need for cloud connectivity
- Localized processing at the edge ensures user privacy
- Based on the i.MX RT crossover microcontroller (MCU) running FreeRTOS, it drastically reduces system costs and total cost of ownership

BERLIN, Sept. 06, 2019 (GLOBE NEWSWIRE) -- (IFA 2019) -- NXP Semiconductors N.V. (NASDAQ:NXPI) unveiled today the world's first microcontroller (MCU) -based solution for adding offline face and expression recognition capabilities to smart home, commercial and industrial devices. Built on NXP's latest crossover MCU, the i.MX RT106F, running FreeRTOS, the new MCU-based face recognition solution enables original equipment manufacturers (OEMs) to quickly, easily and inexpensively incorporate face, expression and emotion recognition into a diverse range of IoT products.

The i.MX RT106F leverages the power of NXP's OASIS face processing engine to provide a breakthrough in price and performance, using a neural network to perform face detection, recognition and anti-spoofing, without the need for cloud connectivity. OEMs now have the ability to take advantage of NXP's proven hardware and software-based platform to offer advanced human machine interface (HMI) capabilities that can anticipate and personalize the end user's experience with smart edge devices such as smart appliances, thermostats, lighting, alarms and power tools.

"Think about a toy that recognizes each member of the family and responds appropriately depending on their facial expressions or a smart appliance that can intuitively adjust its settings to a user's preferences based on previous interaction," said Denis Cabrol, executive director for NXP's IoT Solutions. "All this is possible today with NXP's turnkey, low cost solution. Developers are no longer constrained to Linux-based systems running on expensive multicore application processors that require large flash memory and SDRAM footprints, complex power management and costly, high layer count printed circuit boards."

The MCU-based face recognition solution bundles everything required to implement accurate, low latency face and expression recognition using an ultra-small form factor that fits into existing applications. The self-contained platform includes production ready pre-certified hardware and software tools, and NXP's fully integrated OASIS face processing engine for face and expression recognition with camera and display drivers. In addition to creating the easiest path to adding these capabilities to MCU-based devices, the all-inclusive offering clears away any need for specialized expertise, supply chains or logistics.

With total system costs less than half that of microprocessor-based alternatives, the new offering has already been embraced by OEMs who are excited about the possibilities of delivering more advanced and unique user experiences.

NXP is now engaging with OEMs to provide early access to the evaluation and development kit for this solution, and broad market availability is expected to begin in Q1 2020.

See the MCU-based face recognition solution in action at IFA Berlin 2019

NXP is demonstrating the new solution during IFA in Berlin, Germany, in Stand 1.2-117 (Hall 1.2) at the Berlin Exhibition Grounds (ExpoCenter City) from September 6-11, 2019. More information can be found at www.nxp.com/mcu-face-recognition.

About NXP Semiconductors

NXP Semiconductors N.V. enables secure connections for a smarter world, advancing solutions that make lives easier, better, and safer. As the world leader in secure connectivity solutions for embedded applications, NXP is driving innovation in the automotive, industrial & IoT, mobile, and communication infrastructure markets. Built on more than 60 years of combined experience and expertise, the company has approximately 30,000 employees in more than 30 countries and posted revenue of \$9.41 billion in 2018. Find out more at www.nxp.com.

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