



NXP Announces Low-cost, Low-power, MCU-based Face Recognition Solution with Liveness Detection for Touchless Access Control

November 5, 2020

EINDHOVEN, The Netherlands, Nov. 5, 2020 – NXP Semiconductors N.V. (NASDAQ:NXP) today announced its latest NXP EdgeReady IoT solution for secure face recognition that enables original equipment manufacturers (OEMs) to quickly, easily and inexpensively add vision-based touchless access control. NXP's turnkey solution includes the LMX RT106F crossover microcontroller (MCU) and license to AI/ML-based face recognition software, which makes possible face recognition with liveness checking using infrared and RGB cameras, flash and SDRAM memories at a total cost lower than \$10 (USD).

This solution can be used to implement face recognition for authenticating and operating secure machines, equipment, and access points for hotels, public buildings, and homes, including doors, locks, amenities, elevators, garage doors, security systems and more.

- **Detects for liveness:** The combination of an infrared camera operating in unison with a visible light (RGB) camera helps distinguish a real person from a photograph to prevent unauthorized access without the need for an expensive 3D structured light or time-of-flight (ToF) camera.
- **Responds in half a second:** Face detection, quality check, liveness detection and face recognition in less than 500 milliseconds at the MCU-based edge instead of the cloud.
- **Enhances data privacy:** Personal biometric data can all remain on the device at the edge to help address privacy regulations and concerns of many consumers.
- **Maximizes battery life:** Fast MCU boot up time allows the device to remain in power-saving mode when not in use. Fast recognition time combined with the MCU's low-active power further meets low-power system requirements.
- **Registers biometrics remotely:** Customizable example smartphone or PC application can enable biometric models to be sent to remote locks and other devices, allowing convenient control access for hospitality, smart building and smart home applications.

Speed time to market with the LMX RT106F MCU-based development kit (SLN-VIZNAS-IOT)

Unlike other development kits that require integration and coding, the NXP EdgeReady IoT solution for secure face recognition based on the LMX RT106F development kit (SLN-VIZNAS-IOT) contains all the software and hardware information to complete designs in as little as six months. The kit includes schematics, bill of materials (BoM), board layout for a turnkey design experience, and the ready-to-use face biometric registration application.

Pricing and Availability

The SLN-VIZNAS-IOT secure face recognition development kit is available now from NXP and authorized distributors, priced at MSRP of \$199 (USD) each.

Available now, the LMX RT106F MCU includes a license to use the NXP face recognition SDK. The device is available in consumer and industrial temperature grades, with a suggested resale price starting at \$4.00 (USD) for 10,000-unit quantities. More information can be found at www.nxp.com/iot/secure

About NXP EdgeReady Solutions

NXP EdgeReady solutions bring the power of edge compute intelligence to your applications. Each ready-for-the-edge platform includes hardware optimized for cost and form-factor, and comes with fully integrated, self-contained software, fully tested, and certified by NXP. Find out more at www.nxp.com/EdgeReady.

About the LMX RT Series of Crossover MCUs

The LMX RT series of crossover MCUs, which are designed to bridge the gap between high-performance and integration while minimizing costs to meet today's need for high performance embedded processing at the edge. The series delivers advanced microcontrollers (MCUs) with the functionality of applications processors, at low costs, enabling advanced computation and machine learning capabilities in millions of connected edge devices.

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 29,000 employees in more than 30 countries and posted revenue of \$8.88 billion in 2019. Find out more at www.nxp.com.

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