



NXP Expands Popular LPC MCU Portfolio with Industry-Leading Power Efficiency

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Power efficiency up to 100 MHz enables embedded designers with uncompromised performance and power consumption

NUREMBURG, Germany--(BUSINESS WIRE)--Feb. 23, 2016-- NXP Semiconductors N.V. (NASDAQ: NXPI) today introduced its next-generation family of low-power, multi-market MCUs – the LPC5411x. With today's introduction, NXP extends its LPC54000 series of MCUs with improved power efficiency, a host of serial peripherals, flexible run-modes, autonomous operations when the CPU is not active and voice-detection DSP hardware.

The LPC5411x MCU family finds the right balance between power efficiency and feature integration for consumer and industrial applications that require low-power, always-on processing. This includes applications in gaming, USB accessories, healthcare devices, patient monitoring, IoT, as well as building automation. LPC5411x MCUs feature the ARM® Cortex®-M4, which has an active mode current of 80 µA/MHz. With an industry-leading dual-core option, the LPC5411x MCU can shut down the Cortex®-M4 for a tiered power approach and use the Cortex®-M0+ to perform less taxing tasks, achieving an even lower active mode of 60 µA/MHz.

The family includes up to 256KB of Flash and 192KB of SRAM. This large amount of SRAM provides designers with ample space for stacks or data buffering as well as running large programs in SRAM to save power even further. The dedicated on-chip DMIC subsystem dramatically reduces power required for voice input and processing, achieving the stringent power efficiencies required to support always-on features in battery operated products. The LPC5411x family does not compromise fast wake-up time to achieve low power. It can wake up from all power-down modes quickly and starts processing immediately.

Other embedded features include crystal-less full speed USB, a 5 Msps 12-bit 12-channel ADC, CRC engine, 8 serial communication blocks (each configurable as an USART, SPI or I2C), two I2S and a single-cycle multiplier for the Cortex-M0+.

"The LPC5411x's power efficiency holds enormous potential to drive innovation in products that require more performance for the gaming, healthcare, and consumer industries," said Geoff Lees, vice president and general manager of microcontrollers at NXP Semiconductors. "The LPC54000 series is just the start of a long roadmap of industry disrupting power-efficient innovations customers can expect from the LPC portfolio."

Demonstration

NXP will demonstrate the power efficiency improvement made to its Cortex-M4 based LPC5411x family of MCUs in a display created in partnership with Malaspina Labs and Sensory. The LPC54114 audio and voice recognition kit and demonstration is part of the 2016 Smarter World Tour across Europe and highlights power efficiency and the ease of use when designing voice recognition applications. You will find the Smarter World Truck parked in the NXP booth (Hall 4A / Booth 220) at the Embedded World 2016 show in Nuremburg, Germany, February 23 - 25, 2016.

Availability

- The LPC5411x family will be available in the lead LQFP64 (10 x 10 mm) package, as well as a WLCSP49 (3.4 x 3.4 mm). Limited samples available now; with lead package production targeted for May 2016. Suggested resale starting at USD \$2.36 in 10K quantities.
- LPCXpresso54114 evaluation board (OM13089), as well as the LPC54114 Audio and Voice Recognition Development Kit (OM13090) which includes the standard evaluation board plus a digital microphone and display shield, are both available today in limited quantities.

Links

- LPC54100 Series – www.nxp.com/LPC54000
- LPCXpresso54114 Evaluation Board – www.nxp.com/OM13089
- LPC54114 Audio and Voice Recognition Development Kit – www.nxp.com/OM13090

About NXP Semiconductors

NXP Semiconductors N.V. (NASDAQ: NXPI) enables secure connections and infrastructure 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 secure connected vehicle, end-to-end security & privacy and smart connected solutions markets. Built on more than 60 years of combined experience and expertise, the company has 45,000 employees in more than 35 countries.

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