



NXP Releases first K32 L Microcontrollers to Production; Reduces power to Address Industrial IoT Sensor Nodes

September 30, 2019

Santa Clara, California – (Arm TechCon 2019) – September 30, 2019 – NXP Semiconductors today announced the global market availability of its first K32 L series MCUs – [the K32 L3 MCU family](#). This launch is followed quickly by the announcement of the second family in this series – the cost and power-optimized K32 L2 MCU family. This new MCU family, based on the Arm® Cortex®-M0+, targets power-conscious end nodes and can enable a wide range of general purpose industrial and Internet-of-Things (IoT) applications.

The K32 L2 MCUs brings a 20 percent improvement in dynamic power consumption over earlier KL families, and features high precision mixed-signal integration, including a configurable 16-bit ADC with single and differential pair input mode options, a DMA-addressable 12-bit DAC, high-accuracy internal voltage reference (1.2V), and a high-speed comparator with additional 6-bit DAC. Performance of the new family reaches up to 72 MHz max frequency, with options limited to 48 MHz for lower power operation. Numerous standby and stop modes enable developers to achieve sub-200nA leakage in stop and below 2uA standby with instantaneous wake-up to run in less than 8us.

Features common across the family include crystal-less full speed USB operation, NXP's proprietary FlexIO for flexible expansion options, and numerous power-optimized serial peripherals that can operate autonomously in low power modes. Differentiating features include a segment LCD driver, cryptographic acceleration unit supporting DES, 3DES, AES, MD5, SHA-1, and SHA-256 algorithms, a hardware accelerated true random number generator and a capacitive touch sense interface supporting up to 16 external electrodes.

The K32 L2 family is being brought to market in a scalable set of packages and memory configurations, from 64KB to 512KB flash, and backed by unmatched enablement, led by NXP's complementary suite of MCUXpresso software and tools with example projects utilizing IAR, Keil, and GCC based toolchains. Ease of development, from prototyping to production, is aided through MCUXpresso's complimentary configuration tools for clocks, pins, and peripherals, with fully integrated support for SEGGER and P&E Micro debug probes.

[Additional features and application examples of the K32 L2 family can be found in this blog.](#)

Product Availability and Support

Initial samples of K32 L2 MCU family are available today from NXP with full production and global distribution starting mid-November 2019, at a suggested resale price of \$0.85 (USD) for 10,000-unit quantities.

NXP will accompany the silicon release with a FRDM-K32L2B3 Freedom development board, the first of two development boards supporting this family, at a suggested resale price of \$25 (USD).

See live demonstrations of the K32 L series at Arm TechCon 2019, NXP Booth 731, October 8 – 10.

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