



## NXP Extends its Wireless MCU Family with New Devices Featuring Enhanced Bluetooth Capabilities for Automotive and Industrial Markets

May 15, 2020

**Eindhoven, Netherlands– May 15, 2020** – NXP Semiconductors N.V. (NASDAQ: NXP) today announced the availability of new devices within its KW3x family of microcontrollers (MCUs). The new [KW39/38/37](#) MCUs add Bluetooth 5.0 long-range capabilities and expanded Bluetooth advertising channels. These enhancements are made while offering seamless migration with hardware, software and tools compatibility with the previous generation of devices, KW34/35/36. The connectivity MCUs allow Bluetooth LE devices to communicate at distances of more than a mile and increase the amount of Bluetooth advertising channels and advertising data within the Bluetooth standard, the predominant IoT protocol. The new wireless MCU solutions allow developers to address emerging use cases within automotive and industrial digitization.

The KW39/38/37 wireless MCUs are designed with automotive and industry-grade hardware and software, along with robust serial communications with CAN-FD peripherals. The new devices are ideally suited for automotive applications, such as keyless entry, sensors and wireless onboard diagnostic functions. Additionally, they enable industrial applications such as building control and monitoring, fire and safety, home and institutional healthcare, asset management and monitoring and a range of other industrial use cases.

Delivering best-in-class RF performance, the KW39/38/37 family features extreme RX sensitivity to allow for the long range Bluetooth Low Energy connections. The new devices achieve -105 dBm RX sensitivity with LE-coded 125 kbit/s data rate, for example, allowing for connections in harsh environments and at extended distances. In addition, the radio conveniently supports up to 8 simultaneous secure connections in any master/slave combination, allowing multiple authorized users to communicate with the device. The MCU's innovative data stream buffer allows the capture of radio parameters without stalling processor or DMA operations, enabling high-accuracy measurements needed for distance and angle approximations.

NXP's MCUXpresso Tool Suite features a certified Bluetooth Low Energy software stack with application programming interface calls. The new KW39/38/37 MCUs extend the previous generation of devices with hardware and software compatibilities for faster design cycles. In addition, the KW38 MCU integrated FlexCAN, enables seamless integration into an industrial CAN communication network or an automobile's in-vehicles network. The FlexCAN module can support CAN's flexible data rate (CAN FD) for increased bandwidth and lower latency. In addition, the KW38 MCU integrated FlexCAN, enables seamless integration into an industrial CAN communication network or an automobile's in-vehicles network. The FlexCAN module can support CAN's flexible data rate (CAN FD) for increased bandwidth and lower latency.

### New features underscore NXP's commitment to delivering quality and performance in the market

- Integrating the long-range capability with Bluetooth Low Energy version 5.0 and generic FSK radio, the KW39/38/37 wireless MCUs feature AEC-Q100 Grade 2 and industrial qualifications for exceptional durability and performance for safety-critical applications
- RF transmit power and receive sensitivity enhancements, including: (1) -105 dBm typical Bluetooth LE sensitivity in 125 kbit/s; (2) -98 dBm typical Bluetooth LE sensitivity in 1 Mbit/s; (3) -101 dBm typical generic FSK (at 250 kbit/s) sensitivity; and (4) +5 dBm maximum Transmit output power provide an advanced link budget that helps ensure long range of communication and a high immunity to interference
- AES-128 accelerator: True random number generator for fast encryption/decryption, utilizing hardware security algorithms for network commissioning and transmissions of supported protocols
- 7 x 7 mm "vettable" flanks 48HVQFN package with up to 512 KB flash memory with ECC and 64 KB SRAM, allowing plenty of space for protocol stacks, application profiles and custom user firmware

### Product availability and support

The [KW39/38/37](#) devices are available now from NXP and its distribution partners. Learn more at [nxp.com](#).

### About NXP's Connectivity Portfolio

With one of the industry's broadest portfolios of wireless technologies, NXP is committed to accelerating our vision of a connected world that anticipates and automates. When combined with the processing power of the [EdgeVerse](#) platform, NXP is uniquely positioned to enable smart connected devices – making lives easier, safer, and more convenient. Whether it's connecting people to the Internet, joining IoT devices to the cloud, or communicating with cars in new and unexpected ways, NXP's portfolio allows customers to advance their most innovative ideas with confidence and a sense of trust. By collaborating with our partners, we are connecting our world and delivering solutions that advance society together.

### About NXP Semiconductors

NXP Semiconductors N.V. (NASDAQ: NXP) 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 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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