

MCX MCUs for the next era of industrial and IoT Edge computing



The MCX MCU portfolio offers several Arm® Cortex®-M based series with developer-focused software to simplify system design.

The [MCX portfolio](#) offers a comprehensive selection of general-purpose to IIoT and application-specific Arm Cortex-M based microcontrollers offering expanded scalability with breakthrough product capabilities and a simplified system design supported by the [MCUXpresso developer experience](#).

- Ultimate scalability up to 4 MB Flash and 1 MB SRAM
- Extra flexibility with a comprehensive peripheral offering
- Extensive on-chip security options

Target

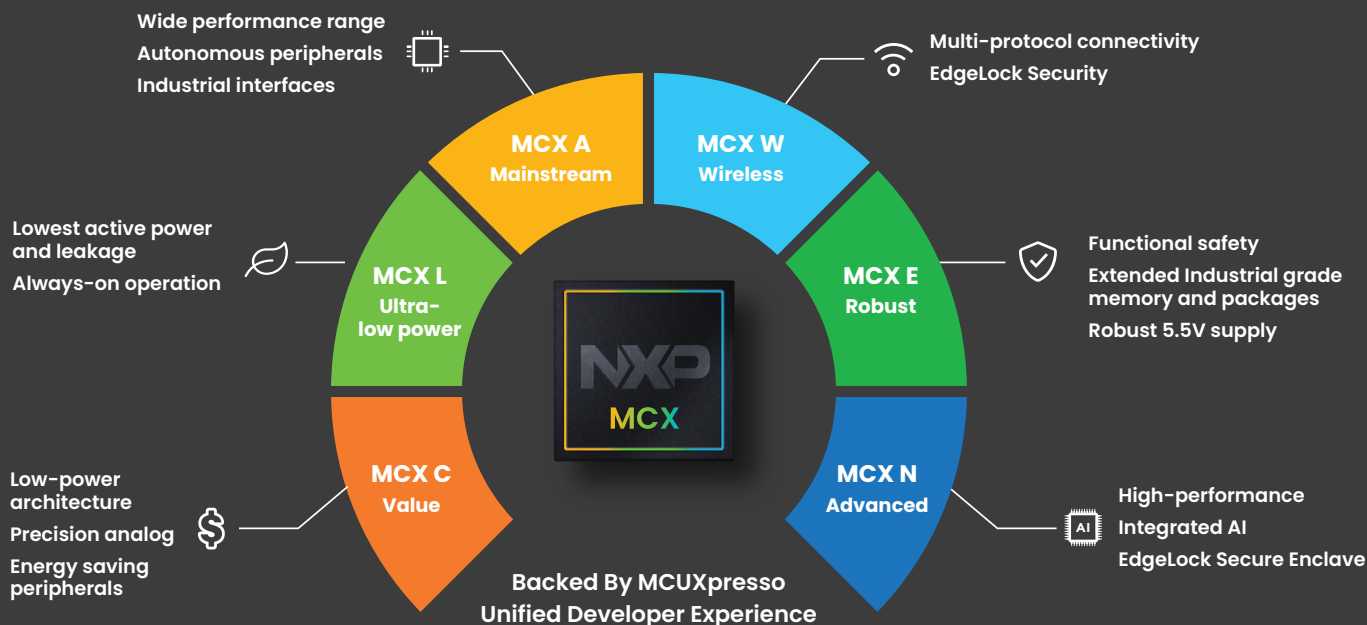
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|-------------------------|-----------------------------|
| • Industrial IoT | • TinyML |
| • Smart home | • Battery operated devices |
| • Smart building | • Voice-enabled IoT devices |
| • Industrial automation | • General embedded |
| • Consumer electronics | |
| • Wireless devices | |

The MCX MCU portfolio

Combining product architecture enhancements and strategic integration enables you to accelerate product development using various MCX application domains across the scalable platform. The MCX portfolio continues to grow—both in the number of product families and in the breadth of part numbers—while maintaining pin-to-pin compatibility within families to ensure seamless scalability and design reuse. Application domains support key features that take your end application even closer to the edge with thoughtful integration for use cases such as wireless connectivity, motor control, machine learning, security, functional safety and low-power operation.

For quick prototyping platforms, we offer both low-cost, compact and scalable [FRDM development boards](#) and full-featured EVKs. Developers have easy access to additional tools like our [Expansion board hub](#) for add-on boards and the [Application code hub](#) for software examples through the MCUXpresso Developer Experience.

MCX MCUs – one portfolio, addressing numerous application needs



Designed with you in mind



Wireless

Add wireless connectivity to your next design with the MCX W Series offering a unified range of pin-compatible multiprotocol wireless MCUs for Matter, Thread, Bluetooth Low Energy and Zigbee.



Machine learning

Implement advanced AI/ML with the MCX N Series that features an integrated **elQ® Neutron Neural Processing Unit**. Compared to CPU cores alone, the elQ Neutron NPU delivers up to 42x faster ML inference performance.



Motor control and analog

Spin your motor using key features of the MCX portfolio to support a wide range of motor control applications, with capabilities such as driving multiple ACM and PMSM with FOC. Reduce system BOM cost by leveraging on-chip features such as high-performance ADCs, comparators, DACs and instrumentation-class op amps.



Developer experience

The MCX portfolio is supported by the [MCUXpresso Developer Experience](#) to optimize, ease and help accelerate embedded system development. The MCUXpresso suite includes tools for simple device configuration and secure programming. Developers can choose from multiple IDEs including MCUXpresso for VS Code, MCUXpresso IDE, IAR or Keil.

In addition, developers benefit from our Application Code Hub (ACH) and Expansion Board Hub (EBH), which provide rapid access to software examples and hardware add-ons. MCX also leads in Zephyr RTOS support, with upstream contributions and robust integration across the portfolio.

www.nxp.com/MCX

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Product Longevity