



MCX N94x and N54x MCUs with Dual Core Arm® Cortex®-M33, eIQ® Neutron NPU and EdgeLock® Secure Enclave Core Profile

MCX-N94X-N54X

Preproduction

This page contains information on a preproduction product. Specifications and information herein are subject to change without notice. For additional information [contact support](#) or your sales representative.

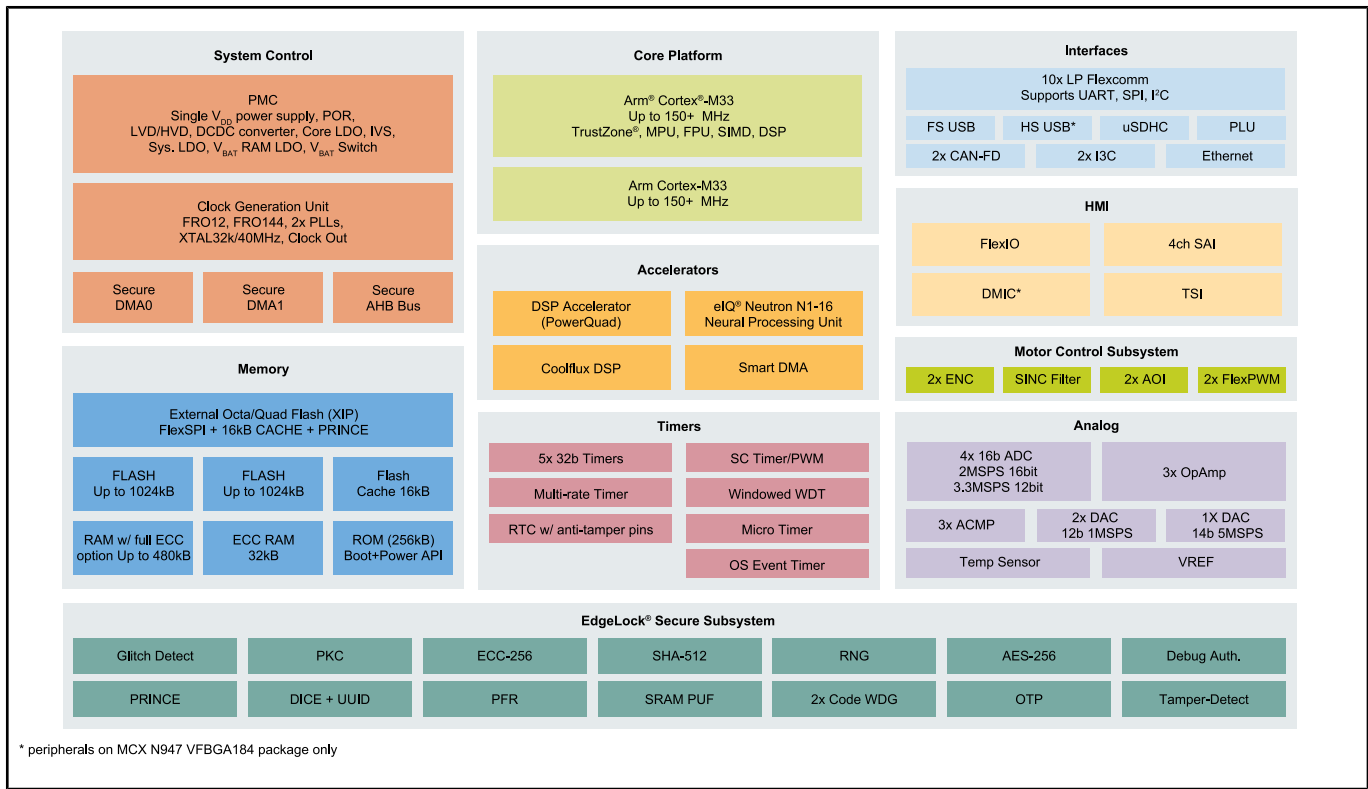
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The MCX N94x and MCX N54x are based on dual high-performance Arm® Cortex®-M33 cores running up to 150 MHz, with 2MB of Flash with optional full ECC RAM, a DSP co-processor and an integrated [eIQ Neutron NPU](#). The NPU delivers up to 30x faster machine learning (ML) throughput compared to a CPU core alone enabling it to spend less time awake and reducing overall power consumption.

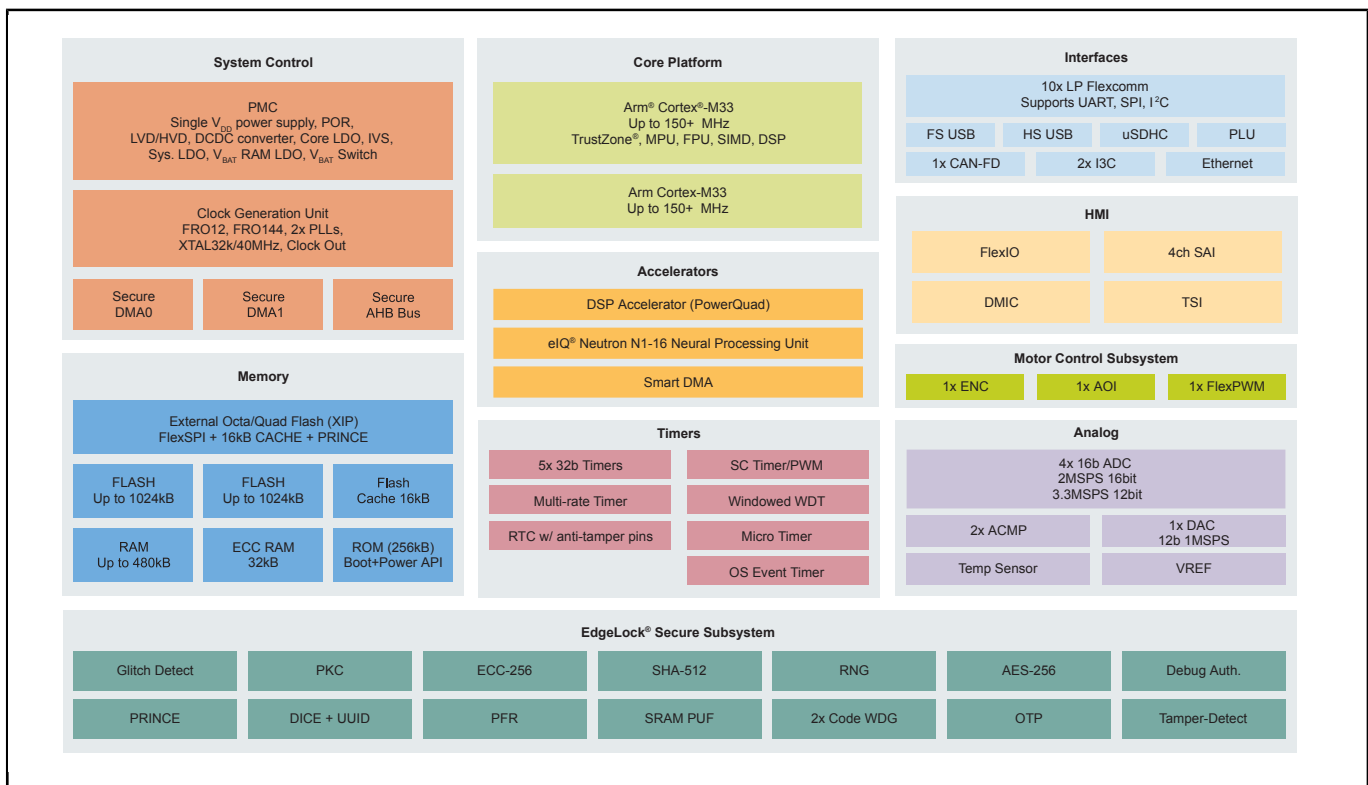
The multicore design delivers improved system performance and reduced power consumption by enabling smart, efficient distribution of workloads to the analog and digital peripherals. The devices are supported by the [MCUXpresso Developer Experience](#) to optimize, ease and help accelerate embedded system development.

The MCX N94x family is geared toward industrial applications with a wider set of analog and motor control peripherals, while the MCX N54x family targets consumer and IoT applications with peripherals ranging from high-speed USB with a PHY to secure digital (SD) and smart card interfaces.

MCX N94x MCUs Block Diagram



MCX N54x MCUs Block Diagram



View additional information for [MCX N94x and N54x MCUs with Dual Core Arm® Cortex®-M33, eIQ® Neutron NPU and EdgeLock® Secure Enclave Core Profile](#).

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