



# S32M2 Integrated Solution for 12V Motor Control

## S32M2

Last Updated: Nov 5, 2025

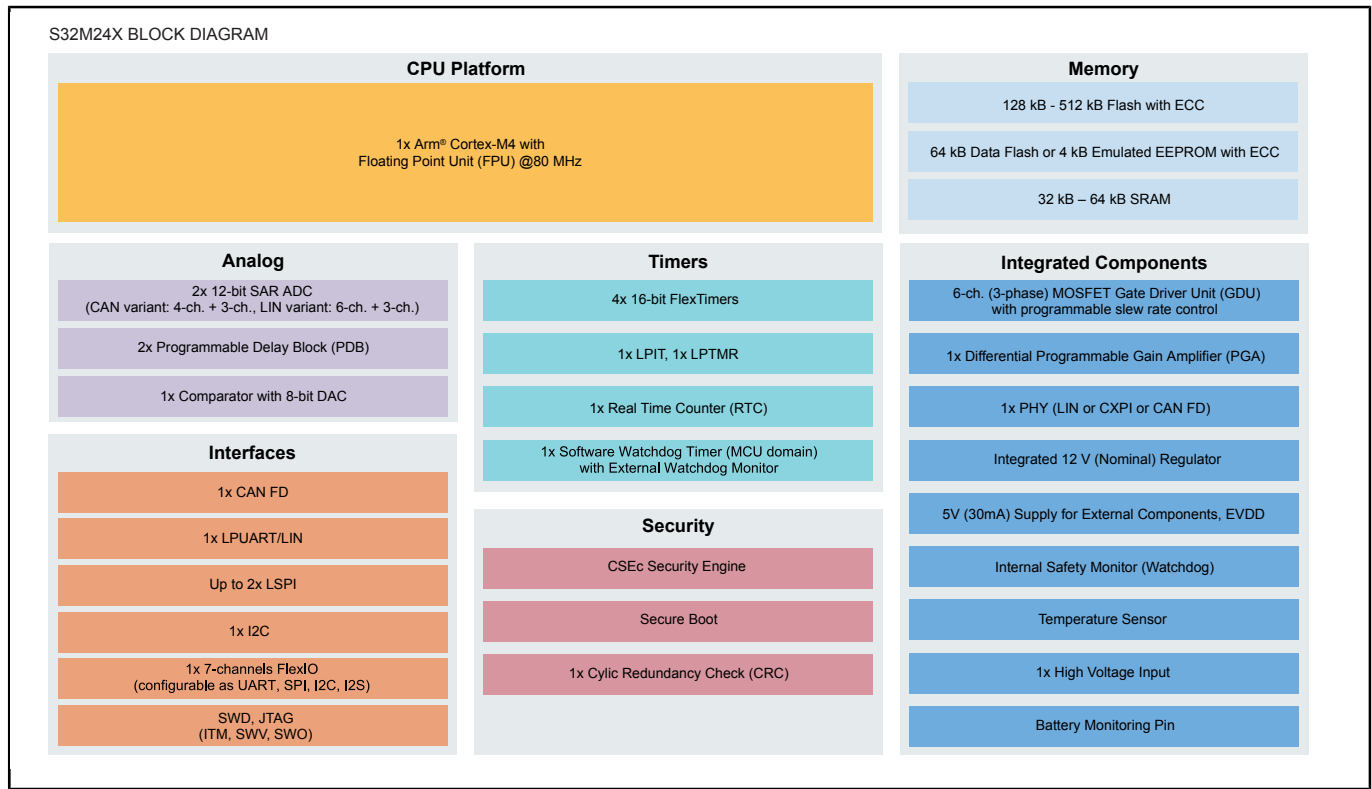
Designed for 12V motor control applications, the S32M2 family, based on system-in-package (SiP) design, integrates high-voltage analog functionalities (MOSFET gate pre-drivers, physical communication interfaces - LIN/CAN FD, and voltage regulators) with a robust embedded MCU Core ([S32K Arm® Cortex®-M4/M7 series core](#)), ensuring high-performance and functional safety compliance with ISO 26262 up to ASIL B.

Key features include platform-based design of motor control edge nodes enabling faster time to market, advanced data analysis capabilities, inverter and motor diagnostic capabilities and advanced algorithms to minimize in-cabin noise.

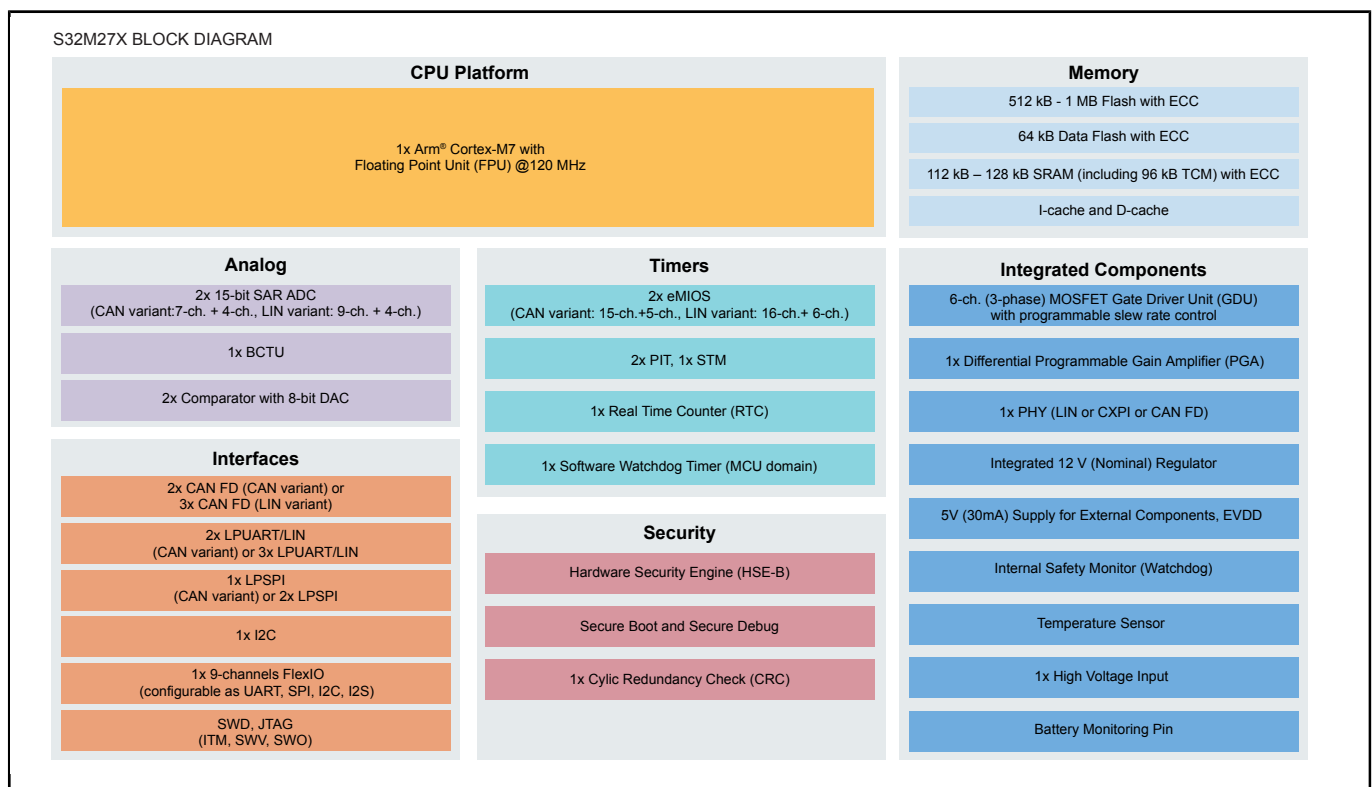
Through compatibility with the [NXP S32 Automotive Platform](#), the S32M2 Family enables seamless firmware over-the-air (FOTA) updates, software reuse and flexibility.

With attention to cost at the system level, S32M2 integrates voltage regulators, pulse-width modulators, analog to digital converters, timers and non-volatile memory to reduce overall component count and reduce board space in a 64-pin LQFP-EP package.

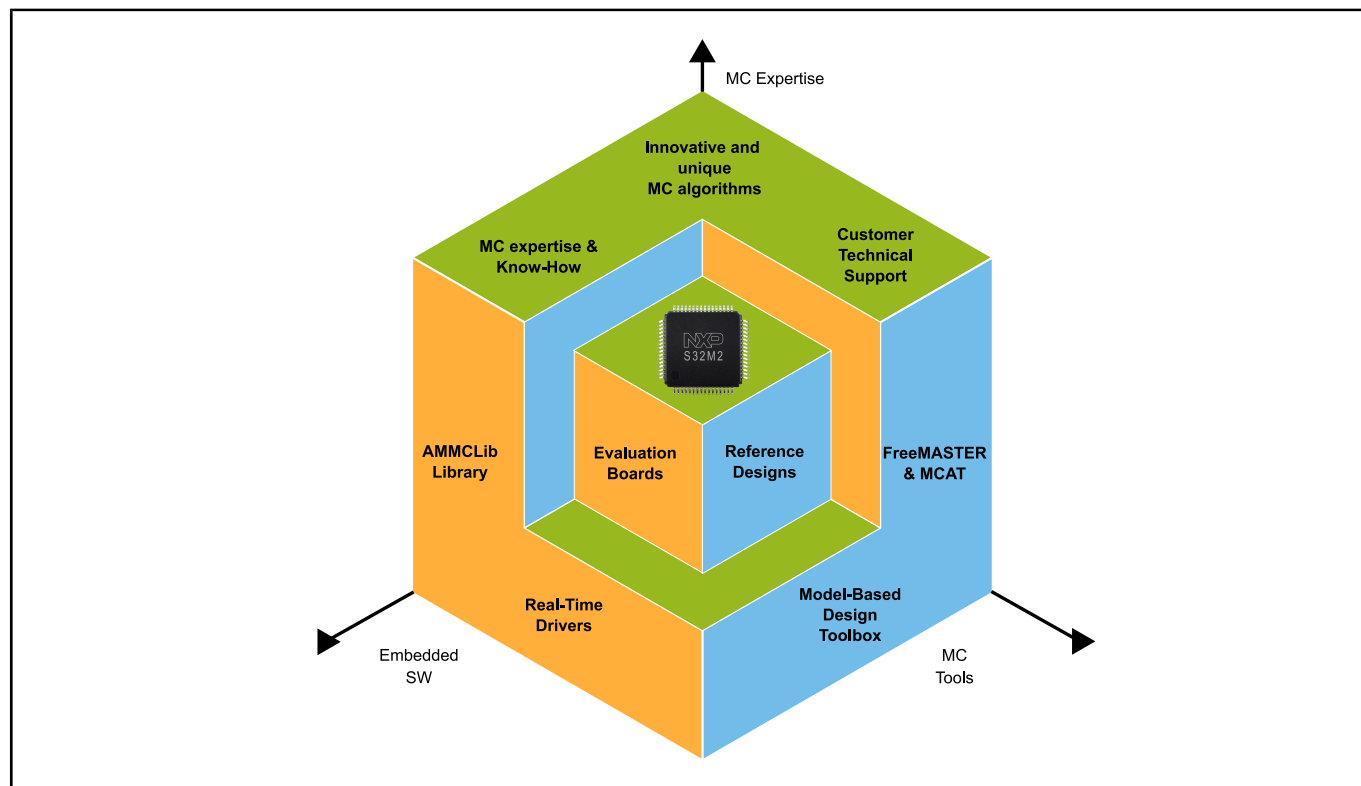
## S32M24x Family Specs Block Diagram



## S32M27x Family Specs Block Diagram



## S32M2 Motor Control Solution Diagram Block Diagram



View additional information for [S32M2 Integrated Solution for 12V Motor Control](#).

**Note:** The information on this document is subject to change without notice.

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