



# S32K39/37/36 Microcontrollers for Electrification Applications

## S32K39-37

### 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.

Last Updated: Apr 25, 2024

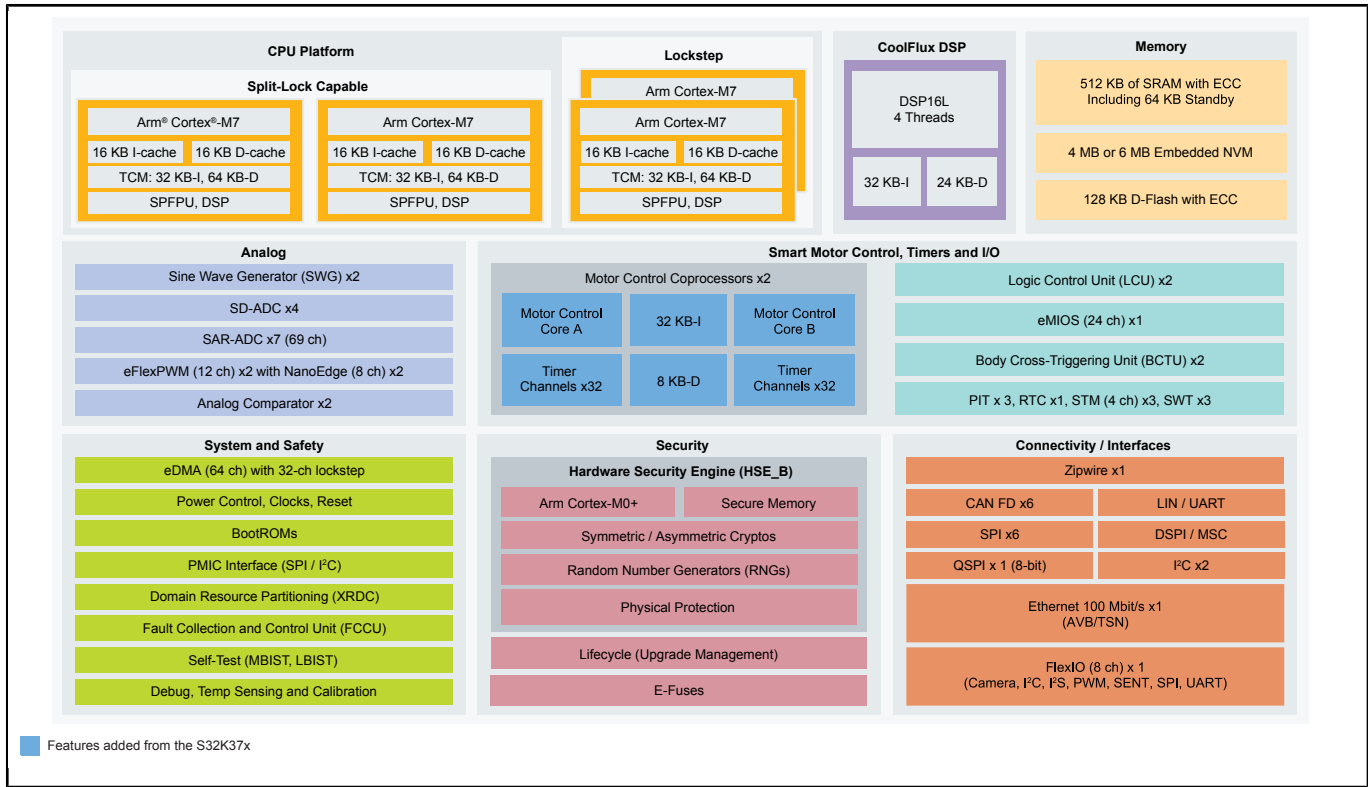
S32K39, S32K37 and S32K36 silicon and enablement (documentation, software and boards) are available for select customers (NDA required). For additional information and sample availability, [contact support](#) or your local sales representative.

S32K39 is a purpose-built device addressing the new electric vehicle (EV) traction inverter control needs with a compelling combination of performance, integration, networking, security and functional safety capabilities.

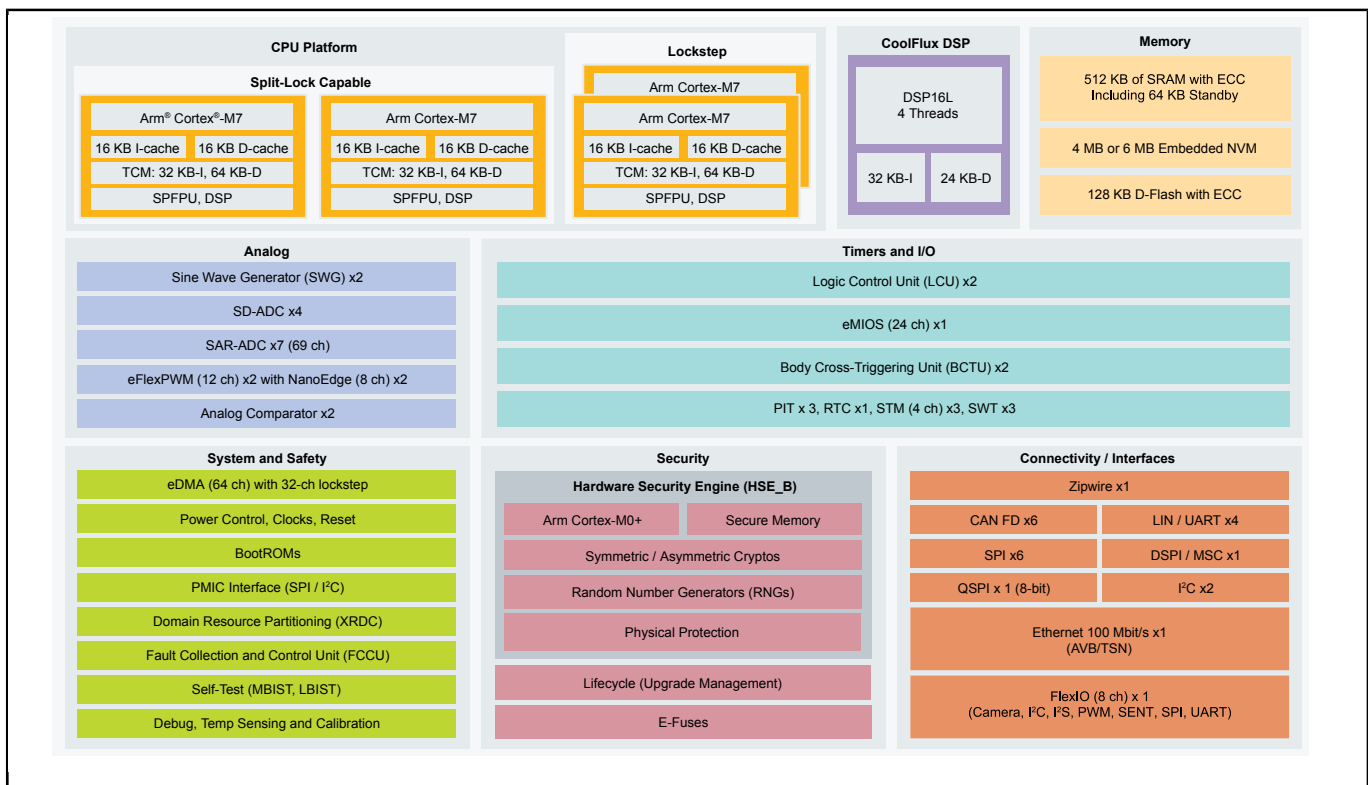
It has enough compute power to support six-phase or two three-phase motors controlled by over 200 kHz control loops, while hosting AI/ML algorithms or other monitoring applications. It supports remote smart actuation applications using Time-Sensitive Networking (TSN) Ethernet for new zonal vehicle architectures. It also reduces system cost with ASIL D software resolver and analog integration.

The S32K37 high-compute capabilities are ideal for high-end [battery management systems](#) (BMS) applications.

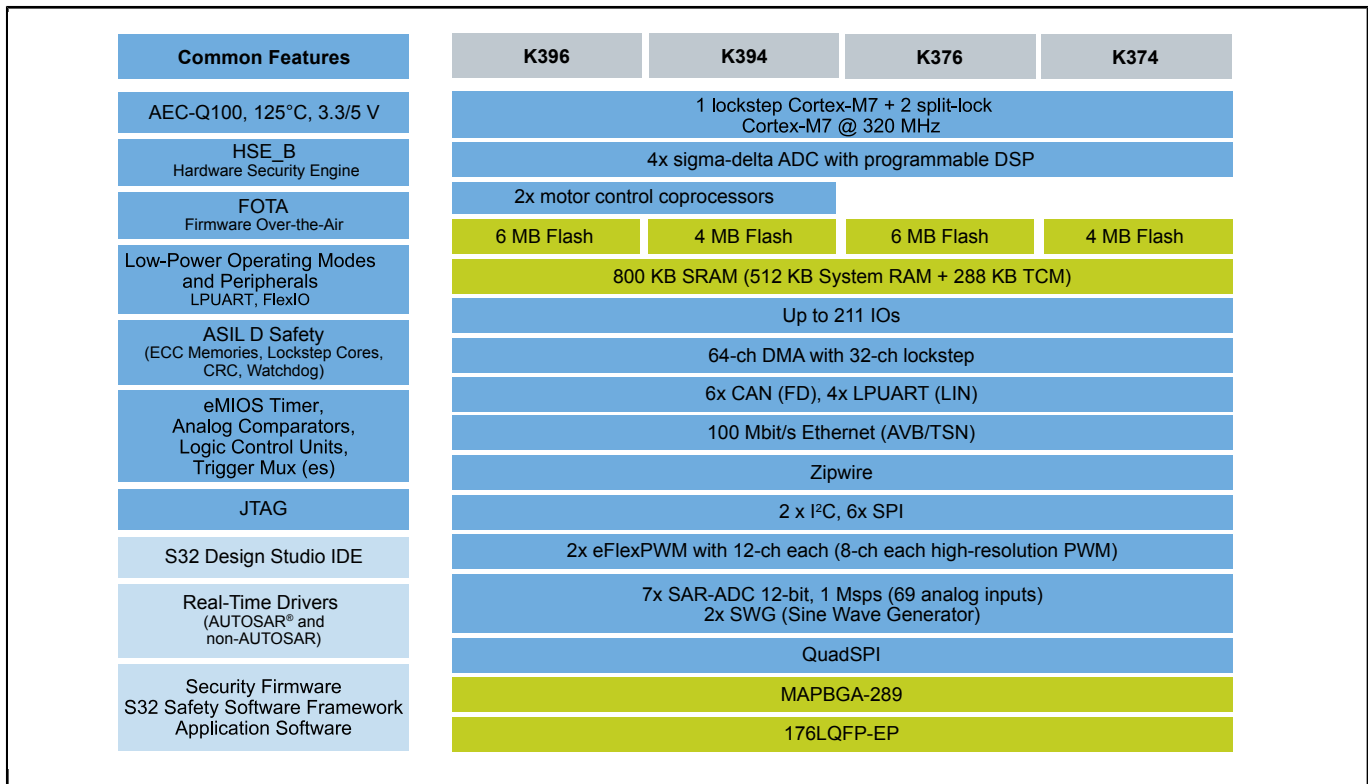
## S32K39 Microcontrollers Block Diagram



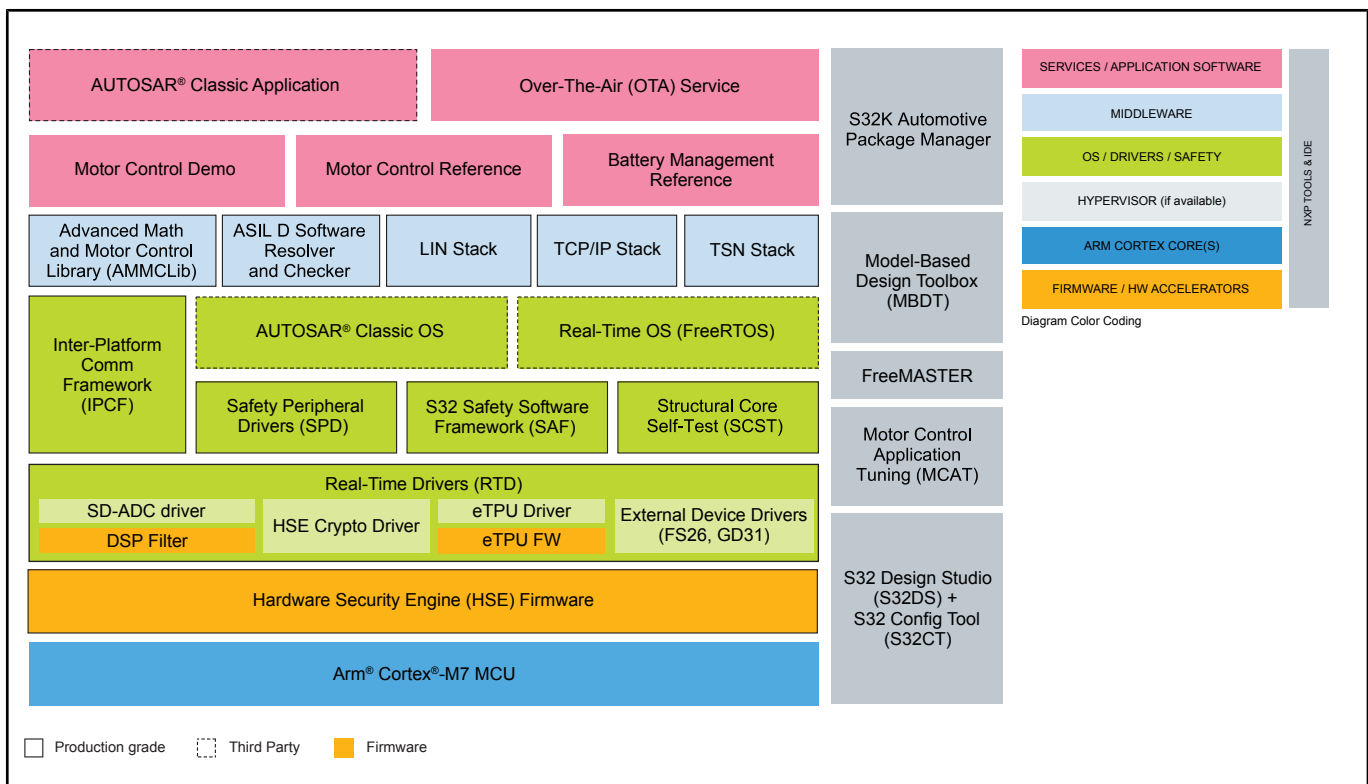
## S32K37 Microcontrollers Block Diagram



## S32K39/37 Microcontrollers Features Block Diagram



## S32K39/37 Software Enablement Block Diagram



View additional information for [S32K39/37/36 Microcontrollers for Electrification Applications](#).

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

---

**[www.nxp.com](http://www.nxp.com)**

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2024 NXP B.V.