



# S32K324 Triple Permanent Magnet Synchronous Motor Control (PMSM) Reference Design Board

## MCTPTX1AK324

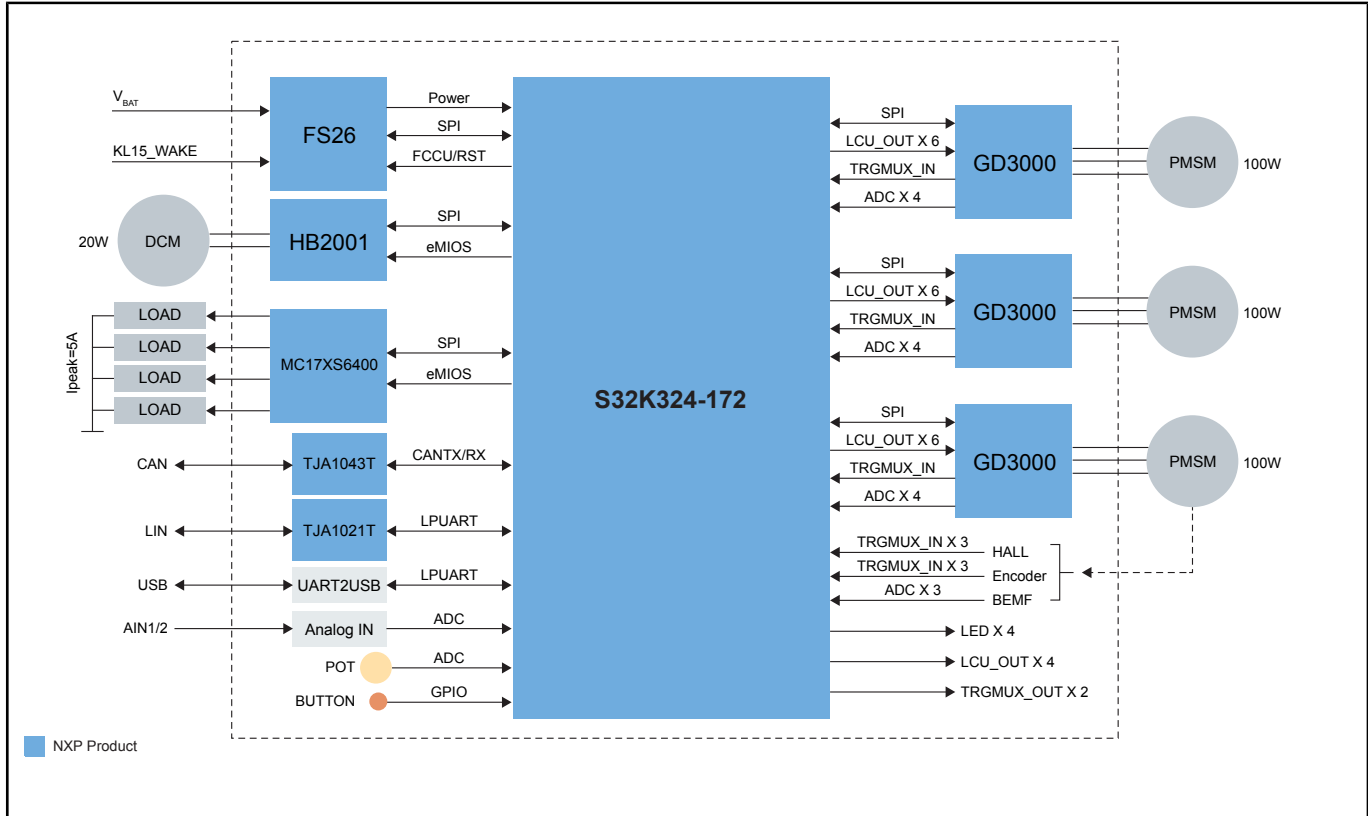
Last Updated: May 2, 2024

The MCTPTX1AK324 is a reference design board engineered for out-of-the-box automotive multi permanent magnet synchronous motor (PMSM), targeting electric pumps, electric powertrain, eTurbo or thermal management system controller applications.

Based on the 32-bit Arm® Cortex®-M7 [S32K3](#) microcontroller and the [GD3000](#) pre-driver, the MCTPTX1AK324 controls three sensorless-based PMSMs, one direct current (DC) motor and four valves under low CPU loading.

The MCTPTX1AK324 can be used directly by carmakers, suppliers and software ecosystem partners to accelerate development for a shorter time-to-market.

# MCTPTX1AK324 Reference Design Board Block Diagram



View additional information for [S32K324 Triple Permanent Magnet Synchronous Motor Control \(PMSM\) Reference Design Board](#).

**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.