



X-IN-1 Modular Platform Design

X-IN-1-MODULAR-PLATFORM

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: Mar 10, 2026

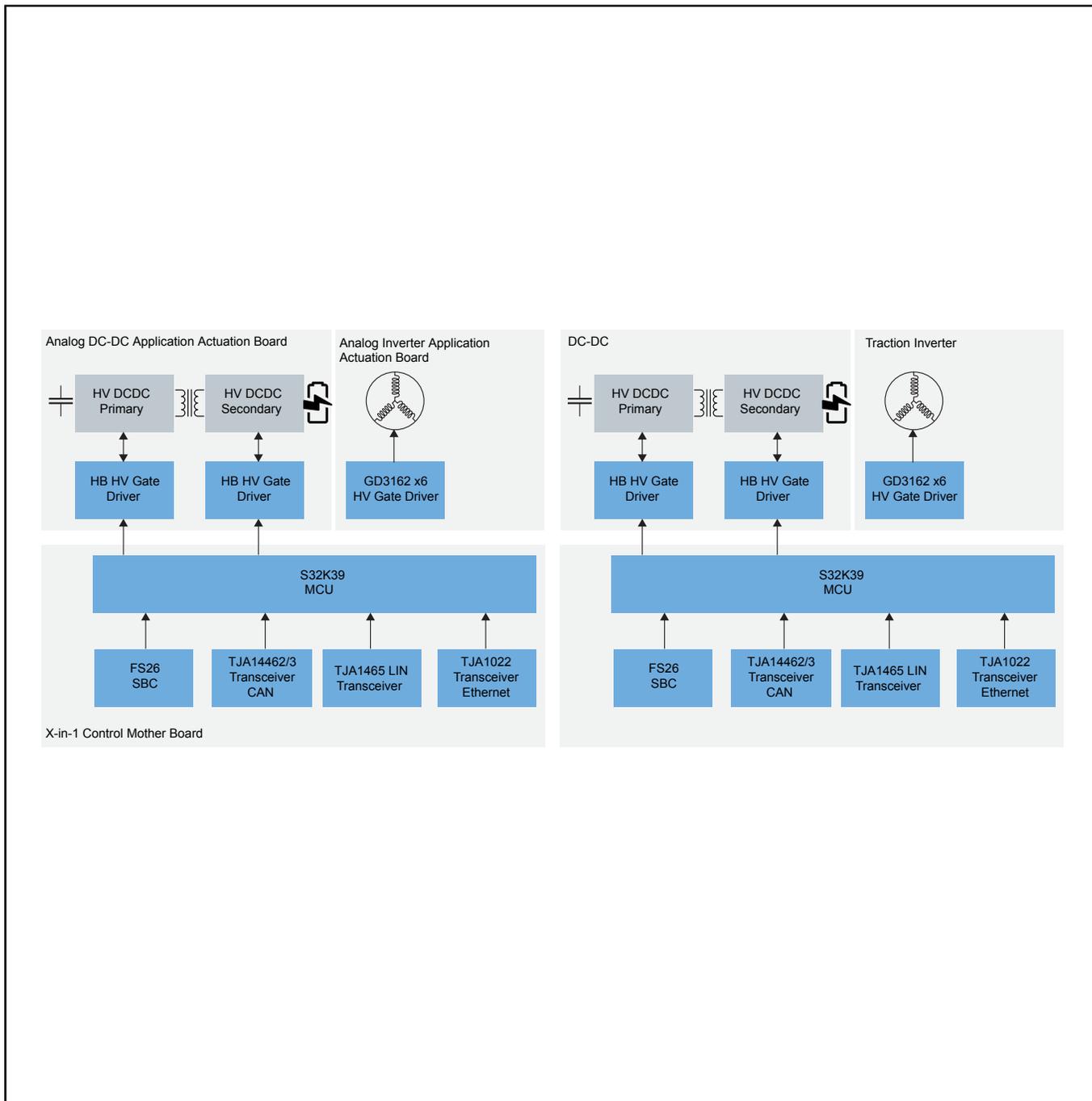
The X-IN-1 modular platform provides the hardware and software needed to integrate multiple electrification systems. It enables automakers and Tier 1 suppliers to design scalable platforms combining a power inverter with PMSM motor control and LEM current sensing, and a DC-DC converter.

The hardware includes a control system with an S32K396 Mcu-based motherboard, a power inverter with gate driver board, a standalone Hall-effect LEM sensor board, and a 48 V to 12 V automotive DC-DC converter suitable for battery charging. And the FlexFoundation software, which ensures safe, efficient coordination of applications and includes pre-integrated demos.

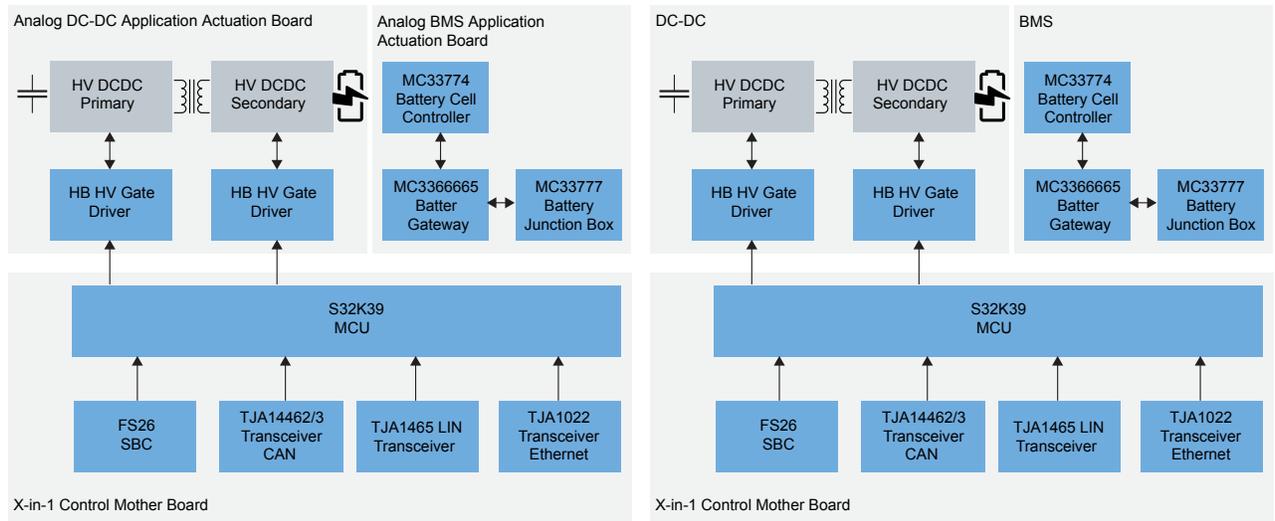
The first two use cases supported—with dedicated hardware, software, and comprehensive documentation—are:

- 2-in-1 DC-DC + Inverter Solution powered by the S32K39 MCU
- 2-in-1 DC-DC + BMS Solution powered by the S32K39 MCU

2-in-1 DC-DC + Inverter Solution Block Diagram



2-in-1 DC-DC + BMS Solution Block Diagram



View additional information for [X-IN-1 Modular Platform Design](#).

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

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. © 2026 NXP B.V.