

S12ZVM high-current BLDC/PMSM Evaluation Board

MCSXSR1CS12ZVM

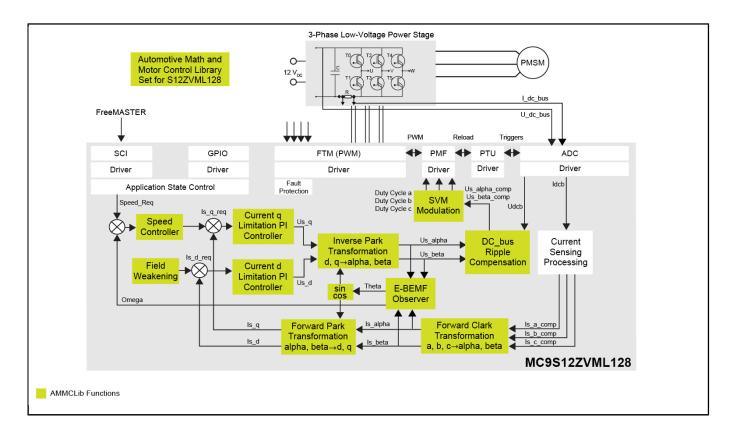
Last Updated: Jul 24, 2024

The MCSXSR1CS12ZVM is an evaluation board engineered for 3-phase brushless direct current (BLDC) and permanent magnet synchronous motor (PMSM) control in high-current applications, featuring automotive connectivity with LIN or CAN, on-board OSBDM debugger with UART-to-USB bridge and various customizable I/O pins.

Based on the 16-bit S12 MagniV[®] S12ZVM mixed-signal microcontroller, the MCSXSR1CS12ZVM offers high performance 3-phase power stage for PMSM or BLDC motor control in sensorless mode or with Hall or Resolver type of sensors together with DC-link current sensing for 3-phase current reconstruction.

The MCSXSR1CS12ZVM integrates an automotive voltage regulator, a LIN physical interface and a gate driver unit able to drive up to six external MOSFETs.

Motor Control Algorithm for MCSXSR1CS12ZVM Block Diagram



View additional information for S12ZVM high-current BLDC/PMSM Evaluation Board.

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. © 2025 NXP B.V.