



# 3-Phase Reference Design for VE-Trac™ Drive SiC Module Featuring GD3160

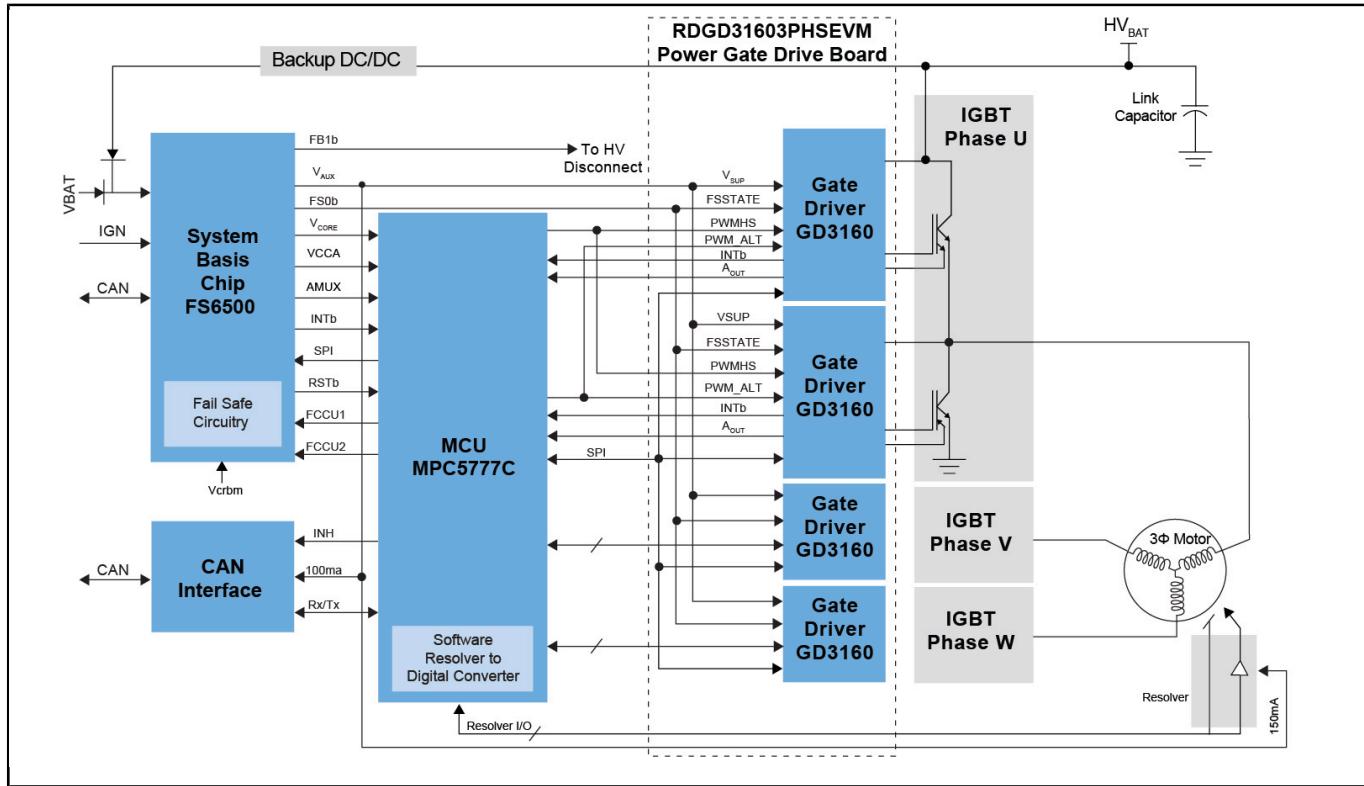
## RDGD31603PHSEVM

Last Updated: Dec 23, 2025

RDGD31603PHSEVM is a three phase reference design and evaluation kit populated with six [GD3160](#) gate drive for IGBT/SiC MOSFET devices. The kit includes the FRDM KL25Z microcontroller hardware for interfacing with a PC. The Flex GUI software needs to be installed on the PC, which communicates with the GD3160 via SPI registers, either in daisy chain or standalone configuration. This kit allows the user to configure devices without any software development and conduct SC or double pulse on a single phase.

The RDGD31603PHSEVM is also compatible with NXP MPC5775B/E-EVB (not included), allowing full motor control using our software examples. The evaluation kit is designed to connect to a compatible footprint of VE-Trac SiC OnSemi module (not included) or any other module with the same pinout.

## GD3160 Block Diagram Block Diagram



[View additional information for 3-Phase Reference Design for VE-Trac™ Drive SiC Module Featuring GD3160.](#)

**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. © 2026 NXP B.V.