

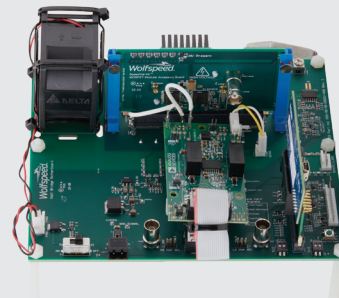
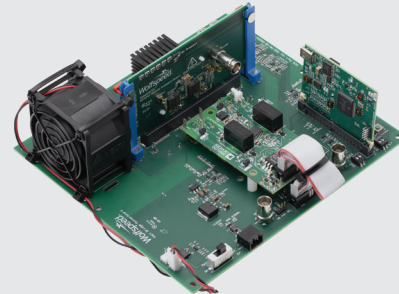


# SPEEDVAL KIT™ MODULAR EVALUATION PLATFORM

## STARTING POINT FOR ALL SILICON CARBIDE DESIGNS

The industry's most versatile Silicon Carbide evaluation platform provides customers with a flexible set of building blocks for in-circuit evaluation of Silicon Carbide system performance. Evaluate and optimize the high-speed dynamic switching performance of Wolfspeed® Silicon Carbide MOSFETs paired with your choice of compatible gate drivers, optional control cards and accessories from other industry-leading partners.

Accelerating the transition to a final design with confidence, this evaluation platform supports a range of voltages, package types and power topologies for almost any power application. The base motherboard can be configured with a range of gate driver cards, control cards and accessories to support the entire design. Each functional block is proven and tested for customers to use as an effective starting point for their Silicon Carbide designs.



### FEATURES

Multiple configurations

Quickly swap devices for testing

Verified compatible components

Can run the half-bridge board in buck or boost mode up to 15kW



### BENEFITS

Comprehensive design kit

Functional blocks as design starting points

Flexible platform for quick evaluation of multiple device choices



### USES

Switching loss measurement

Gate driver evaluation

Thermal testing

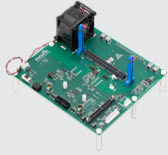
Buck/Boost operation

TO LEARN MORE, VISIT US AT [WOLFSPEED.COM/SPEEDVALKIT](https://www.wolfspeed.com/speedvalkit)

# Explore the options

The platform consists of a motherboard, power daughter cards, partner gate driver cards, and optional control cards and accessories.

## HALF-BRIDGE MOTHERBOARD



SKU	Description	Working Voltage	Current Rating
MOD-MB-0900V-40A	Half-Bridge Modular Evaluation Motherboard	900V	40A

## GATE DRIVER CARDS



SKU	Compatibility	Designed By	Gate Driver
CGD1700HB2M-UNA	SpeedVal Kit, FM3, GM3	Wolfspeed	UCC21710 (TI)
EVAL-ADUM4146WHB1Z	SpeedVal Kit, FM3, GM3	Analog Devices	ADuM4146
Si823H-ACWA-KIT	SpeedVal Kit, FM3, GM3	Skyworks	Si823Hx
UCC 21750*	SpeedVal Kit, FM3, GM3	Texas Instruments	UCC21750
UCC 21710*	SpeedVal Kit, FM3, GM3	Texas Instruments	UCC21710

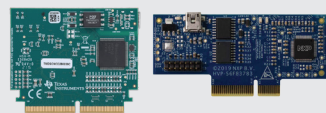
\* coming soon

## POWER DAUGHTER CARDS



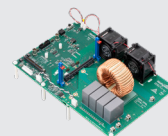
SKU	Blocking Voltage	R <sub>DS(on)</sub> @ 25°C	Package
MOD-PWR-MM-C3M0045065L	650V	45mΩ	TOLL
MOD-PWR-MM-C3M0060065L	650V	60mΩ	TOLL
MOD-PWR-MM-C3M0045065K	650V	45mΩ	TO-247-4
MOD-PWR-MM-C3M0032120K	1200V	32mΩ	TO-247-4
MOD-PWR-MM-C3M0075120K	1200V	75mΩ	TO-247-4
MOD-PWR-MM-C3M0040120K	1200V	40mΩ	TO-247-4
MOD-PWR-MM-C3M0060065K	650V	60mΩ	TO-247-4
MOD-PWR-MM-C3M0032120J1	1200V	32mΩ	TO-263-7
MOD-PWR-MM-C3M0040120J1	1200V	40mΩ	TO-263-7
MOD-PWR-MM-C3M0075120J	1200V	75mΩ	TO-263-7
MOD-PWR-MM-C3M0025065J1	650V	25mΩ	TO-263-7
MOD-PWR-MM-C3M0045065J1	650V	45mΩ	TO-263-7
MOD-PWR-MM-C3M0060065J	650V	60mΩ	TO-263-7

## CONTROL CARDS (OPTIONAL)



SKU	Designed By
TMDSCNCD280039C	Texas Instruments
HVP-56F83783	NXP

## ACCESSORY BOARDS (OPTIONAL)



SKU	Current Rating (A)	Inductance at No Load (μH)	Inductance at Rated Current (μH)	Output Capacitance (μF)
MOD-ACC-BUCKBOOST-190μH	40	398	190	48
MOD-ACC-BUCKBOOST-400μH	25	693	400	48



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[MOD-ACC-BUCKBOOST-190uH](#) [MOD-ACC-BUCKBOOST-400uH](#) [MOD-MB-HB-0900V-40A](#) [MOD-PWR-MM-C3M0025065J1](#) [MOD-PWR-MM-C3M0032120J1](#) [MOD-PWR-MM-C3M0032120K](#) [MOD-PWR-MM-C3M0040120J1](#) [MOD-PWR-MM-C3M0040120K](#) [MOD-PWR-MM-C3M0045065J1](#) [MOD-PWR-MM-C3M0045065K](#) [MOD-PWR-MM-C3M0045065L](#) [MOD-PWR-MM-C3M0060065J](#) [MOD-PWR-MM-C3M0060065K](#) [MOD-PWR-MM-C3M0060065L](#) [MOD-PWR-MM-C3M0075120J](#) [MOD-PWR-MM-C3M0075120K](#)