ASDAK

Augmented Switching[™] Technology Accelerated Development Kit Digital Programmable Gate Drivers

Unlock the Full Potential of SiC

Microchip's Accelerated Silicon Carbide (SiC) Development Kit includes the hardware and software elements required to rapidly optimize the performance of SiC modules and systems.

This new tool enables designers to adjust system performance through software upgrades using the AgileSwitch[®] Intelligent Configuration Tool (ICT) and a device programmer. No soldering required.

The ICT offers configuration of different drive parameters including on/off gate voltages, DC link and temperature fault levels and Augmented Switching™ technology profiles.

Small changes to the Augmented Switching technology profiles can yield dramatic improvements in switching efficiency, overshoot, ringing and short-circuit protection.



Intelligent Configuration Tool (ICT)

Optimize with a Keystroke

 Core Settings 		
Control Side Opt	ions	Gate Driver Options
Device Rating:	● 1200 V ○ 1700 V	Cate Options
Gate Driver Reset:	Auto O Controller	LO Side Select: O CHI @ CH2
DC Link Voltage Fault:	® on Ooff	Full On Gate Voltage Level (±Vgs): 15 🔍 V
Temperature Fault:	® On O Off	Full Off Gate Votage Level (-Vgs):V
Temperature Monitor:	Isolated O Non-isolated	Full of date totage teld (typ).
Fault Output Active Level:	®low OHgh	Normal Operation
Deed Time:	280 m ~	Two-Level Turn-Off: @Enabled ODisabled
Auto Reset Time Delay:	5 A ms	Two-Level Turn-Off Voltage: 3.5
DC Link Fault Level	950 🗘 V	Teo Level Turn Off Time: 400 + ns
Temperature Fault Level		100 Line (101 Con 101 Line (100 Line
temperature saun ceve:	25 °C ~	DSAT Operation
Actions		Multi Level Turn Ott @Enabled ODisabled
Load Settings		Voltage Level/Blanking Time: 3.0 V = 500 ns ~
cood seconds		First Turn-Off Voltage Level: 5
Save Settings		
Compile		First Turn-Off Time: 450 ts
Configuration Part Number		Second Turn-Off Voltage Level: 0
SOFT-05010 -v/01		Second Turn-Off Time: 800
Assembly #	Version #	
Comp	de .	Fault Detection
com		Under/Over-Votage Fault Detection: @Enabled ODisabled

Available for download at www.AgileSwitch.com/program.html

Each Kit Includes

- 3× 2ASC Series Cores
- 1× Module Adapter Board
- 1× ASBK-014 Device Programmer Kit
- 1× ICT Software

Kit Part Numbers

ASDAK-2ASC-12A1HP-62

- 3× 2ASC-12A1HP 1200V Core
- 1× 62CA1 1200V 62 mm Module Adapter

ASDAK-2ASC-17A1HP-62

- 3× 2ASC-17A1HP 1700V Core
- 1× 62CA4 1700V 62 mm Module Adapter

ASDAK-2ASC-12A1HP-SP6LI

- 3× 2ASC-12A1HP 1200V Core
- 1× SP6CA1 SP6LI Module Adapter

SiC Module not included

Most individual components may be ordered separately Programming kit may differ from shown

Compatible SiC Manufacturers



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