New AgileSwitch Gate Driver Core Optimized for SiC MOSFET Modules

Software configurable Vgs, Patented Augmented Turn-Off™ switching technique, robust high-noise-immunity design, advanced monitoring and fault reporting in a compact form factor facilitate conversion from IGBTs to SiC MOSFET power modules

Philadelphia, PA—May 30,2018 —AgileSwitch, LLC, innovator of intelligent IGBT and SiC MOSFET gate drivers, introduces the ASC1 (AgileSwitch Software Configurable Core 1) SiC MOSFET gate driver core. A family of tested reference adapter boards will provide compatibility with most SiC MOSFET modules. Applications including heavy-duty traction vehicles, auxiliary power units in trains, buses and trolleys, induction heating systems and other high-power industrial systems are rapidly moving from IGBTs to SiC power devices. The ASC1 driver core is designed specifically to facilitate this conversion.

The ASC1 driver core features configurable gate voltage and incorporates AgileSwitch's patented, software configurable Augmented Turn-Off (ATOff™) technology. ATOff addresses two significant impediments to the successful implementation of Silicon Carbide modules in high-power applications. By reducing turn-off spikes and ringing, both under normal operation as well as short-circuit (DSAT) conditions, SiC MOSFET modules can be safely operated in the higher frequencies that enable dramatic increases in power conversion density. This allows SiC MOSFET modules to be operated closer to their rated specifications, resulting in size, cost and performance improvements. The ASC1 gate driver core is designed for harsh, high-noise environments, with optional conformal coating. It is equipped with powerful diagnostic and troubleshooting tools and it continuously monitors critical parameters, such as temperature and DC link voltage.

"Designers want the benefits of switching at higher speeds using smaller, lighter, less expensive system components. But, today, this can only be achieved by reducing the switching efficiency, which effectively negates much of the benefits," said Rob Weber, AgileSwitch CEO. "The ASC1 Driver Core enables them to have both higher switching frequencies and high efficiency by dramatically reducing the typical secondary effects of high switching frequency: voltage overshoots, ringing and false short circuit reporting."

A whitepaper describing the performance improvements attained using ATOff is available for download.

Price:	$75 (OEM quantities)
Delivery:	2 Weeks, ARO

About AgileSwitch
AgileSwitch, LLC produces plug-and-play, programmable Silicon IGBT and Silicon Carbide MOSFET gate drive assemblies designed from the ground up to address the demands for higher performance and functionality at ever higher voltages and currents. AgileSwitch drivers can be fully customized to meet the needs and demands of virtually any customer application. With an ongoing product development commitment, AgileSwitch is continuously expanding its product line of gate drivers.

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