

# New SCALE-iDriver SiC-MOSFET Gate Driver from Power Integrations Maximizes Efficiency, Improves Safety

2/26/2019

Highest peak-output gate current; fast shut down; best isolation

SAN JOSE, Calif.--(BUSINESS WIRE)-- Power Integrations (Nasdaq: **POWI**), the leader in gate-driver technology for medium- and high-voltage inverter applications, today announced the **SIC1182K** SCALE-iDriver™, a high-efficiency, single-channel silicon carbide (SiC) MOSFET gate driver that delivers the highest peak-output gate current available without an external boost stage. Devices can be configured to support different gate-drive voltage requirements matching the range of requirements seen in SiC-MOSFETs today; key applications include UPS, photo-voltaic systems, servo drives, welding inverters and power supplies.

This press release features multimedia. View the full release here:

<https://www.businesswire.com/news/home/20190226005287/en/>

New SCALE-iDriver SiC-MOSFET Gate Driver from Power Integrations Maximizes Efficiency, Improves Safety (Photo: Business Wire)

The **SIC1182K** offers up to 8 A output at a junction temperature of 125°C allowing these devices

to support SiC-MOSFET inverter designs up to several hundred kilowatts without a booster stage. This results in high system efficiency and enables customers to produce only one design to cover their entire portfolio of differently rated power inverters. A switching frequency of up to 150 kHz supports multiple applications.

SCALE-iDriver **SIC1182K** SiC gate drivers feature Power Integrations' high-speed FluxLink™ communications technology, dramatically improving isolation capability. FluxLink is a revolution in signal transmission, replacing

optocouplers and capacitive or silicon-based solutions, significantly improving reliability and delivering reinforced isolation up to 1200 V. SCALE-iDriver devices also include system-critical protection features such as desaturation monitoring and current SENSE read out, primary and secondary undervoltage lock-out (UVLO) and Advanced Active Clamping (AAC). More, the protection circuits provide safe shutdown within five microseconds, meeting the fast protection needs of SiC devices. **SIC1182K** SiC gate drivers exhibit high external magnetic field immunity, featuring a package that provides  $\geq 9.5$  mm of creepage and clearance, using material that has the highest CTI level, CTI600, to IEC60112.

Comments Michael Hornkamp, senior director of marketing for gate-driver products at Power Integrations: "Silicon carbide MOSFET technology opens the door for decreasing size and weight as well as reduced losses in power inverter systems. The SCALE-iDriver family with FluxLink™ technology enables safe, cost-effective designs for inverters with very few external components, ensuring functional safety as well as compact packaging and maximized efficiency."

SCALE-iDriver technology minimizes the number of external components that are needed and reduces the BOM; tantalum or electrolytic capacitors are not required, and only one secondary winding is needed. A two-layer PCB can be used which increases design simplicity, cuts component count and eases supply-chain management.

Power Integrations' SCALE-iDriver SIC1182K SiC gate drivers meet IEC60664-1 isolation coordination for low-voltage equipment below 1000 V and IEC61800-5-1 electric motor drive inverter regulations. UL 1577, 5 kVAC for 1 min, is pending and VDE0884-10 is in process.

Devices are available now, priced at \$4.65 in 10,000 piece quantities. Technical information is available from the Power Integrations website at <http://www.power.com/products/scale-idriver-ic-family/sic1182k/>.

## About Power Integrations

**Power Integrations, Inc.** is a leading innovator in semiconductor technologies for high-voltage power conversion. The company's products are key building blocks in the clean-power ecosystem, enabling the generation of renewable energy as well as the efficient transmission and consumption of power in applications ranging from milliwatts to megawatts. For more information please visit [www.power.com](http://www.power.com). Power Integrations, SCALE, SCALE-iDriver and the Power Integrations logo are trademarks or registered trademarks of Power Integrations, Inc. All other trademarks are the property of their respective owner.

View source version on [businesswire.com](https://www.businesswire.com/news/home/20190226005287/en/): <https://www.businesswire.com/news/home/20190226005287/en/>

## Media Contact

Peter Rogerson  
Power Integrations, Inc.  
(408) 414-8573  
**peter.rogerson@power.com**

## Press Agency Contact

Nick Foot  
BWW Communications  
+44-1491-636 393  
**nick.foot@bwwcomms.com**

Source: Power Integrations