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NEWS RELEASE

Power Integrations Launches SCALE EV: Automotive-Qualified IGBT/SiC Module Driver Family; Targets Bus, Truck and Con-Ag EVs

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Compact driver board features reinforced isolation, ASIL B/C certification

NUREMBERG, Germany--(BUSINESS WIRE)-- PCIM Europe – **Power Integrations** (NASDAQ: **POWI**), the leader in gate driver technology for medium- and high-voltage inverter applications, today announced the **SCALETM EV** family of gate-driver boards for Infineon EconoDUALTM modules. Suitable for original, clone and new SiC variants, the driver targets high-power automotive and traction inverters for EV, hybrid and fuel-cell vehicles including buses and trucks as well as construction, mining and agricultural equipment.

Power Integrations launches SCALE EV: automotive-qualified IGBT/SiC module driver family; targets bus, truck and con-ag EVs. (Graphic: Business Wire)

SCALE EV board-level gate drivers incorporate two reinforced gate-drive channels, associated power supplies and monitoring telemetry. The new boards are automotive-qualified and ASIL B certified, enabling implementation of ASIL C traction inverter designs. The first SCALE EV family member to be released is the 2SP0215F2Q0C, designed for the EconoDUAL 900 A 1200-volt IGBT half-bridge module.

Peter Vaughan, director of automotive business development at Power Integrations, said: "Gate-driver design is critical to both the performance and reliability of electric vehicles. By offering a product where the development, testing and qualification plus ASIL certification have already been done, we are dramatically reducing development time and cost."

The high level of integration provided by innovative new driver ICs enables the entire driver board, including gate

power, to fit onto the outline of the power module, while still providing the spacing necessary for reinforced isolation according to the IEC 60664 standard. The ASIC package provides 11.4 mm of creepage and clearance, specifically designed to meet the requirements for 800-volt vehicle system voltages. Input and output lines to the system microcontroller are connected via two independent on-board connectors to meet functional safety requirements. A single 5 V supply per channel is required, with other isolated voltages being generated on the board itself.

The **SCALE EV** gate-driver family is rated at 1200 V for 400-volt and 800-volt systems and supports both silicon carbide (SiC) MOSFETs and silicon IGBTs. The design carries a 5500-meter altitude rating and is optionally available with conformal coating for technical cleanliness requirements. The design includes a wide range of protection provisions, including active short-circuit, active discharge of connected DC-link capacitor, overvoltage limitation via active gate control, diagnostic function such as gate monitoring, signal transmission monitoring and on-chip temperature monitoring, and short-circuit and over-current response of less than one microsecond for SiC MOSFETs and less than three microseconds for IGBTs.

Availability & Resources

Support materials for **SCALE EV** include the data sheet, pressFIT tool CAD design, the RDHP-2250Q adaptor breakout board and PC-based software. Power Integrations offers design services to tune switching performance for specific IGBT or SiC die, and to customize the layout for novel module form-factors. Samples of the 2SP02152FQ are available now, with full production release in the fourth quarter of 2022. Pricing starts at $200 each for 100-piece quantities.

For further information, contact a Power Integrations sales representative. For a brief **video** overview of SCALE EV, visit us at **www.power.com/products/scale-ev**.

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**.

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