

AVNET[®] SILICA

POWERING / THE SHIFT

TO SMARTER, MORE RELIABLE ENERGY

PCIM Europe

6 – 8 May 2025

Nuremberg, Germany

Hall 7 Stand 622

**REQUEST YOUR
FREE TICKET HERE**



Powering the Shift at PCIM 2025

Join Avnet Silica at PCIM as we power the shift toward smarter, cleaner energy.

Our stand brings together cutting-edge demos in wide bandgap, silicon, and system-level innovation – showcasing solutions from leading suppliers and ecosystem partners. Expect real insights, real applications, and a fresh take on the future of power.

Whether you're looking to optimise your design, accelerate time to market, or explore emerging technologies, you'll find the insight—and the people—to help you get there.

WIDE BANDGAP

Discover the **ST 11 kW bidirectional battery charger**, an all-in-one solution for high-voltage charging in both industrial and automotive applications. It features two power stages: a PFC and an isolated DC-DC stage, with the PFC utilising a three-phase full-bridge topology. This advanced technology also enables energy to be drawn from an electric vehicle's battery to power the home.



WIDE BANDGAP

onsemi's 1 kW LED/Lighting board is designed to power lighting fixtures with 50V and 20A, ensuring a peak efficiency of over 95%, minimising the need for extensive cooling. Featuring a high-density design, multimode Totem Pole PFC, and 300 kHz half-bridge LLC, it achieves 96.1% efficiency in a compact 278×92.3×50mm footprint. Ideal for high-power LED lighting, industrial systems, and telecom applications.

onsemi.



WIDE BANDGAP

A **4.2 kW SiC-based server power supply from Navitas** demonstrating how silicon carbide (SiC) technology can significantly increase power density in switched-mode power supplies. While designed for server applications, it can be easily adapted to meet a wide range of industrial SMPS requirements.



WIDE BANDGAP

Advanced **GaN** technology from **Renesas** enabling bidirectional power conversion for 48V. Powered by a high-performance Arm® Cortex® MCU and 650V GaN FETs, it delivers up to 3.6 kW through three efficient topologies: totem-pole bridgeless PFC for AC/DC conversion, Dual Active Bridge (DAB) for DC/DC conversion, and 3-phase PFC achieving over 98.5% efficiency at 3.6 kW.

RENESAS



SILICON

Explore **onsemi's** latest generation of **silicon and silicon carbide hybrid Power Integrated Modules (PIMs)** in the F5BP package, which boost power output for utility-scale solar inverters and energy storage systems. Offering higher efficiency and power density in the same footprint, they raise inverter capacity from 300 kW to 350 kW. This enables a 1 GW solar farm to save nearly 2 MW per hour—enough to power over 700 homes annually—while reducing component costs by over 25% due to fewer modules needed.

onsemi.



SILICON

Explore the robust portfolio of high-efficiency **DC-DC converters from Diodes Incorporated**, designed to power today's most demanding applications. With input voltages up to 60V and outputs as low as 0.6V.

You can also delve into the **IntelliFET** power switches, combining a MOSFET with built-in protection against ESD, overcurrent, overvoltage, and overheating, ensuring reliable operation in harsh environments. Ideal for automotive and industrial use, they support a wide range of loads and offer compact, flexible designs that are easy to interface with microcontrollers.

DIODES
INCORPORATED



SILICON

Nexperia's latest **low voltage MOSFET** technology offering high efficiency, low $R_{DS(on)}$, and rugged reliability into compact, thermally-optimised packages. From automotive to industrial and consumer gear, they deliver powerful performance in tight spaces—perfect for designs that demand more power and less waste.

nexperia



ECOSYSTEM PARTNERS

Discover the **Cirtem 150 kW Electrical Motor Controller**, a high-performance solution designed for permanent magnet motors, featuring a 3-phase IGBT inverter and advanced control algorithms for optimal power and efficiency. With a max input of 450 VDC and up to 200 kW peak power, it delivers up to 605 A for short bursts. Housed in an IP65-rated waterproof case with water cooling, it offers CAN2.0 communication, firmware upgrades via bootloader, and is ideal for test benches, calibration, reverse engineering, and embedded system applications.

CIRTEM⁺
POWER OPTIMISED



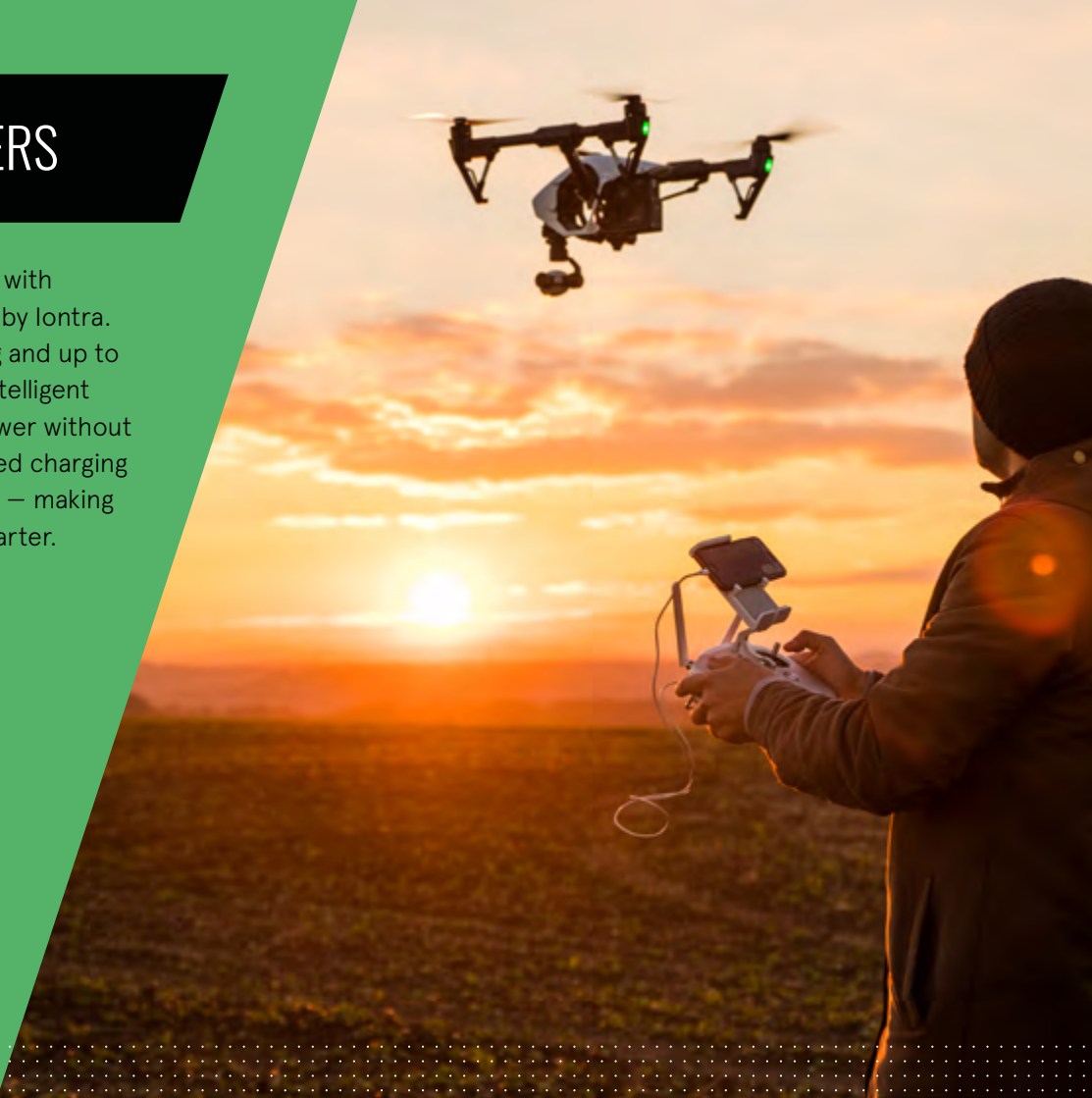
ECOSYSTEM PARTNERS

High-performance motor inverters for electric mobility applications, including 96 V solutions for light EVs and 400 V–800 V platforms for BEVs, PHEVs, and HEVs. Designed for efficiency and flexibility, these inverters from **Ideas&Motion** support a wide range of motor types and feature both WBG and IGBT technologies—balancing energy efficiency and cost. Built to meet rigorous safety standards, they deliver reliable, high-current performance for demanding traction applications.



ECOSYSTEM PARTNERS

Unlock peak battery performance with Salom's **USB-C charger**, powered by Iontra. Delivering up to 2× faster charging and up to 4× longer battery cycle life, this intelligent charger ensures rapid, reliable power without compromising safety. This advanced charging technology minimises cell damage — making every charge faster, safer, and smarter.



POWER SIMULATOR

Get hands on with the **Elite SiC Power Simulator from onsemi**, a powerful online tool for simulating system-level performance using EliteSiC devices, FS7 IGBTs, and PowerTrench® T10 MOSFETs. It supports analysis under varying conditions, including manufacturing corner cases, with adjustable parameters like gate drive impedance and cooling design. Integrated with a Self-Service PLECS Model Generator, it enables high-fidelity, application-specific simulations—accelerating design, reducing prototyping, and optimising efficiency in EVs, renewables, and industrial systems.

onsemi.



JOIN US FOR A BEER

SMART, SUSTAINABLE, AND COST-EFFECTIVE GAS CYLINDER MANAGEMENT

Revolutionising CO2 gas cylinder management with IoT-driven automation, this solution simplifies reordering, enhances customer service, optimises asset tracking, and promotes sustainability. A smarter way to manage resources and reduce costs. And for our fellow power enthusiasts, join us at this demo for a beer and let's chat about power factor correction – IYKYK.

GASVISOR
SMART GAS ORDERING SYSTEM



TABLE-TOP DEMO ZONE

Explore our table-top demo zone, where under-glass displays showcase the latest innovations and next-gen power technologies from leading providers.

DIODES
INCORPORATED

MPS

ROHM
SEMICONDUCTOR

PANJIT
SEMI
CONDUCTOR



This must be the place

We're excited to welcome you to our stand at **PCIM Europe 2025** and show you how we're powering the shift to smarter, more sustainable energy solutions. Our technical experts will be on hand to offer guidance on enhancing and future-proofing your power systems. Whether you're a familiar face or visiting us for the first time, we look forward to connecting, sharing ideas, and showcasing the latest in power technology.