## **Tektronix**®

# **Powering New Possibilities**

IEEE Applied Power Electronics Conference, March 16-20, at the Georgia World Congress Center

APEC 2025 | Booth #1507



## **Industry Leaders in Wide Bandgap Double Pulse Test Solutions**

You'll find three Tektronix-powered double pulse testing solutions at APEC this year, including oscilloscope double pulse testing software and a turnkey double pulse test system offered by our partners, PE Systems, at Booth #1507. In addition, our valued customer, Wolfspeed, will be demonstrating how to optimize SiC designs with side-by-side benchmarking at their Booth #1811.

## See Our Demos



# Ensure Accurate, Repeatable Double Pulse Testing for SiC and GaN Designs

- Meet JEDEC and IEC standards with integrated oscilloscope software
- Make high-bandwidth gate and drain current measurements with our new isolated shunt probe
- Make isolated high-side gate voltage measurements
- Measure switching losses accurately with our patented deskew algorithm
- Measure dynamic R<sub>DS(ON)</sub> without external clamping



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#### Flexible Turnkey Double Pulse Testing System

- Modules, discrete silicon, SiC and GaN - one tester for all devices
- Fast setup times
- Test voltage up to 2 kV and current up to 3.6 kA
- Compatible with existing infrastructure





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# Factor (and 1) Recovery Recovery

**Simulated Test Results** 

# Optimize SiC Device and Gate Drive with Side-by-Side Benchmarking

- Identify gate drive levels to remain in device safe operating area
- See how Wolfspeed's Gen 4 technology minimizes switching loss
- Quantify switching losses with integrated JEDEC compliant analysis





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#### **Become a Probe Wizard!**

Visit our Probe Bar and let us help you choose the right probe for your application. Precision measurements start at the probe tip.

## **Precision Power Solutions from Pico to Mega Watts**





# Simplify Battery Testing with a Turnkey Solution

- Simplify battery testing with a turnkey solution, featuring integrated software and an intuitive touchscreen
- Achieve unmatched power density with up to 300 kW in a 42U rack, 2,400 A per rack, all in just 6.5 sq ft of space.
- Minimize down-time with a modular design and easily swappable units
- Easily reconfigure or scale testing, ensuring flexibility to meet evolving battery technology needs



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#### Expand 3-Phase Analysis with Automated Inverter and Drive Measurements

- Perform detailed electrical and mechanical measurements for analysis of 3-phase inverters and motor drives
- Get quick reliable test setups with stable triggering and phasor diagrams
- Go beyond volts and amps with efficiency, harmonics, DQO, torque and speed measurements



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#### Versatile High-power Bidirectional Triples

- Maximize performance with three isolated DC channels, each up to 10 kW, supporting up to 920 V or up to 340 A
- Consolidate multiple testing setups into one, reducing cost, equipment needs and test time
- Program and get your data faster with greater than 1 ms response time
- Deliver full power across a wide operating range with autoranging, which automatically adjusts voltage or current to handle diverse combinations with a single unit



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#### Space-saving Scalable High-Power Testing

- Get the highest bidirectional power density on the market – 60 kW in 6U
- Save space with 360 kW of power from only 6.5 sq ft of floor space
- Scale up to 3.84 MW of bidirectional power with 11 combined racks
- Deliver maximum power across wider voltage and current ranges with autoranging
- Cut costs with >96% energy recovery efficiency
- Configure high-performance systems with fewer devices



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## **Come Hear Tek Experts**

Improving Power System Performance and Power Integrity using Time Domain Reflectometry (TDR)

March 18, 2025 | 8:30-8:55 AM ET | Level Four, A404/A405

Smart Motors: Harnessing Sensor Data and Al for Predictive Maintenance

March 18, 2025 | 8:55-9:20 AM ET | Level Four, A404/A405

Key Testing Considerations for Migrating from Silicon to Silicon Carbide (SiC) in Power Designs

March 19, 2025 | 12:45-1:15 PM ET | Expo Hall Theater #4