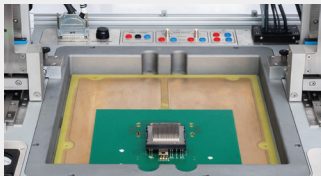


# Double Pulse Testing Systems

PE-Systems offers integrated double pulse testers built around Tektronix oscilloscopes and probes

Double pulse testing allows fast and precise evaluation of dynamic behavior of power semiconductors. Reproducibility, traceability and the reduction of process times are crucial and often contradictory in practice. PE-Systems' Double Pulse Test Setup reconciles these demands. With Tektronix instruments, you can be confident in accurate, reliable instruments and probes with global support.

## Double Pulse Test: Two Pulses, Many Applications



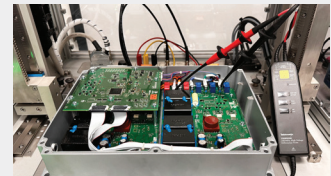
### Device Characterization

- Discretes and Power Modules
- SiC, GaN & Si
- Optimized Switching Cell
- Minimal Stray Inductance
- Fast, Reliable & Trustworthy



### Driver Optimization

- Automatic Search for Gate Parameters
- Programmable Gate Drivers
- Variable Gate Resistors
- Adaptable Gate Voltages
- Short Circuit Test



### System Verification

- Testing Close to Application
- Complete Power Stage Testing
- Flexible and Ergonomic Workbench
- Reproducible Results



≤2 kV and 3.6 kA

- 55 °C to 250 °C

Discretes and Power Modules

Si, SiC and GaN

±20 V <90 A - Flexible Gate Drivers

<30 min to start a Measurement

PE·SYSTEMS

Contact: [dpt\\_tektronix@pe-systems.de](mailto:dpt_tektronix@pe-systems.de)

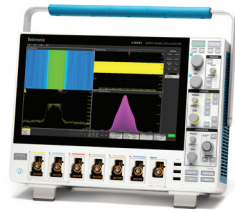
# Tektronix Equipment for Double Pulse Testing

PE-Systems offers integrated double pulse testers built around Tektronix oscilloscopes and probes

## Oscilloscopes

Analyze fast switching signals easily on a scope with up to 10 GHz bandwidth. Quickly add and configure measurements through the intuitive user interface.

- 4 Series B MSO – Bandwidths from 200 MHz to 1.5 GHz, 4 or 6 channels, 12-bit
- 5 Series B MSO – Bandwidths from 350 MHz to 2 GHz, 4,6, or 8 channels, 12-bit
- 6 Series B MSO – Bandwidths from 1 GHz to 10 GHz, 4, 6 or 8 channels, 12-bit



## Waveform Generator

The Tektronix AFG31000 Series is a high-performance AFG with built in arbitrary waveform generation, real-time waveform monitoring, and a large touchscreen. Providing advanced waveform generation and programming capabilities, the AFG31000 is an ideal choice for generating gate drive signals.



## Probes

Tektronix offers a variety of voltage and current probes to match your specific measurement and connectivity requirements.

- TIVP: Isolated voltage probes up to 1 GHz – ideal for high side  $V_{GS}$  measurements
- THDP0200: High voltage differential probe rated up to 1.5 kV for high side  $V_{DS}$  and low side  $V_{GS}$
- TPP0850 / TPP1000: Passive probes up to 1 GHz – ideal for low side  $V_{DS}$  and low side  $V_{GS}$
- TICP Isolated probe for shunt-based  $I_D$



## Power Supplies

Choose from a broad range of power supplies – from precision 4-quadrant source measure units (SMUs) to megawatt racks. Versatile low-power supplies provide power to gate drivers and control electronics. EA high-power DC supplies provide bus voltage with excellent density and accuracy.

- EA-PSI 10000 Series DC power supply
- 2657A – High voltage source meter unit
- 2260B-800-2 – programmable DC power supply
- 2230 – DC power supply for gate drive circuits



To learn more about double pulse solutions from Tektronix, visit: [www.tek.com/en/solutions/industry/power-semiconductor/double-pulse-testing](http://www.tek.com/en/solutions/industry/power-semiconductor/double-pulse-testing)

