

Automated Multi-Device HV IV & CV Characterization

Keysight Technologies and STAr Technologies



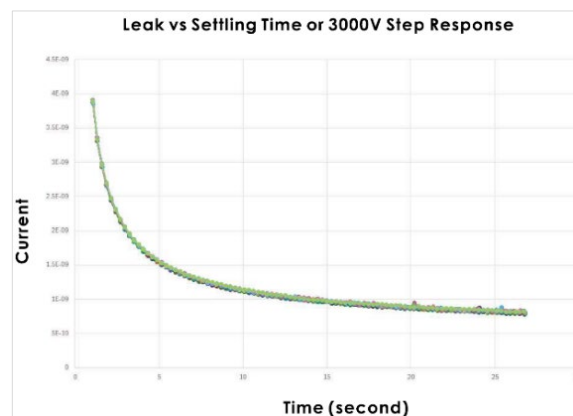
Simplifying Power Device Characterization

As SiC and GaN technologies continue to advance, engineers must characterize multiple devices, wafer-level structures, and increasingly complex test configurations. Traditional setups often require manual reconfiguration, limiting test efficiency and automation.

STAr Technologies, a Keysight Solution Partner, provides the Taurus HV Switching Matrix, a scalable switching solution for power semiconductor characterization and reliability testing. Combined with the Keysight B1505A Power Device Analyzer / Curve Tracer, it enables a flexible platform for IV, CV, breakdown voltage (BVD), and reliability measurements.

Flexible Multi-Channel HV IV & CV Measurements

The Taurus supports up to 3 kV switching voltage, a 10 x 18 HV multiplexer architecture, and less than 5 nA leakage current. It enables automated HV IV/CV and reliability measurements across multiple devices and test structures. Automatic switching eliminates manual cable reconfiguration, improving measurement efficiency and test throughput.



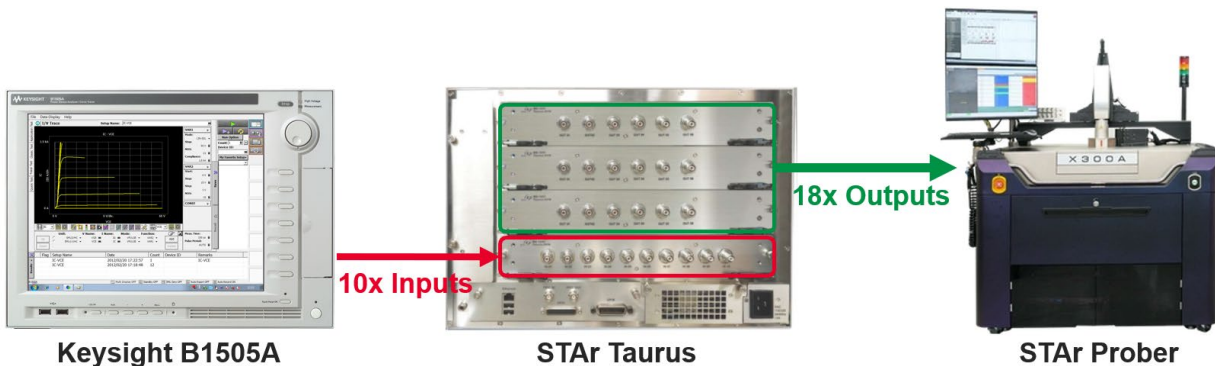
Key Specifications

Feature	Specification
Switching capability	10 x 18 HV multiplexer, up to 3 kV
Electrical performance	< 5 nA leakage at 3 kV
Applications	HV-IV, HV-CV, BVD, multi-device characterization, wafer-level testing, probe-card measurements, reliability evaluation

Comprehensive Power Device Characterization Platform

Key Benefits

- Automated multi-device testing
- Flexible allocation of B1505A measurement resources (HVSMU, MFCMU, SMUs)
- Supports HV-IV, HV-CV, and breakdown voltage measurements
- Compatible with wafer-level and probe-card based test environments
- Suitable for SiC, GaN, IGBT, and power MOSFET characterization



Additional accessories and cables are required for system integration. Please consult STAr Technologies for configuration details

Flexible Software Integration

STAr Taurus is currently controlled through STAr Sagittarius software. Integration with Keysight EasyEXPERT group+ software can also be discussed for a unified measurement workflow.

Delivering Efficient HV Characterization

Keysight B1505A and STAr Taurus provide a flexible, automated solution for high-voltage IV, CV, and breakdown voltage characterization, helping engineers accelerate next-generation power semiconductor development.

- To learn more about this solution, go to [STAr Technologies Website](#) for the Taurus and [Keysight Website](#) for the B1505A.
- Interested in becoming a Keysight Solution Partner? Submit the [form](#) to join!

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