

# ACS-2600-RTM

- Leverages unique strengths of Keithley Series 2600 System SourceMeter® SMU instruments – including system scalability and measurement speed
- System configurations from 2 to 44 channels
- Comprehensive JEDEC-compliant test suite
- Optimized for both emerging and mature technologies
- Supports both sequential and parallel testing
- Fully automatic single-site and multi-site capability
- Compatible with all popular wafer probe stations
- Real-time plotting and wafer mapping

## APPLICATIONS

- **Device reliability**
  - HCI, NBTI, PBTI
- **Gate oxide integrity**
  - TDDB,  $V_{RAMP}$ ,  $J_{RAMP}$
- **Metal interconnect**
  - Isothermal electromigration
  - Poly heater
  - Constant current
  - ILD TDDB

## Ordering Information

ACS-2600-RTM  
Wafer Level Reliability  
Option to ACS

# Wafer Level Reliability Option to ACS



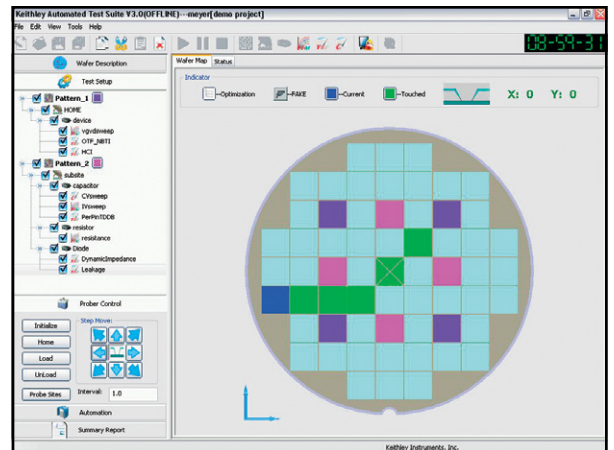
Keithley has taken the power of its Automated Characterization Suite (ACS) software and focused it on wafer level reliability (WLR) testing. ACS-2600-RTM is an option to ACS that leverages the measurement speed and system integration capabilities of Keithley's Series 2600 System SourceMeter® SMU instruments. The result—you can produce lifetime predictions from two to five times faster than you can with conventional WLR test solutions, allowing you to accelerate your technology development, process integration, and process monitoring for faster time to market.

With the ACS-2600-RTM option, ACS offers comprehensive single- and parallel-device WLR testing capability. Integrated with our innovative Series 2600 SourceMeter SMU instruments, your WLR system will provide unmatched testing speed and accuracy via an SMU-per-pin architecture. A single 2600 dual-channel source measure unit (SMU) is suitable for single-device reliability testing. Or take advantage of the TSP-Link® Technology bus on the Series 2600 SMU instruments for systems with as many as 44 SMU channels (2 for each 2600) for testing large numbers of devices in parallel and increasing overall system productivity. In

addition to precise low-level measurements, the Series 2600 SMU instruments can supply high voltage (200V) and high current (1.5A) sourcing and measurement to every test structure pad. This maximizes system flexibility, so you don't need one solution for gate oxide integrity and a different system for metal interconnect reliability. Looking for a complete system solution? Keithley offers ACS with its highly configurable S500 Integrated Test Systems and application development services.

## Extensive Software Capabilities

No coding is required to take full advantage of the source-measure capability of the Series 2600s or the tools included in the ACS software environment. The ACS-2600-RTM option provides a powerful stress/measure sequencing tool with an interactive interface for testing device reliability, gate oxide integrity, and metal interconnects (EM). Its flexible test sequencing capabilities support pre- and post-testing, as well as intra-stress testing and stress monitoring. During testing, you can log raw reliability data into the database and/or plot it in real time. This real-time plotting provides a “sneak peek” at a test's outcome to let you know whether time-consuming tests are on track to deliver meaningful results. After testing, use the easy point-and-click analysis offered by the integrated Formulator, which is populated with standard parametric extraction calculations. In addition, a variety of modeling, line fitting, and standard math functions allow custom data manipulation without programming.



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