NEW SEMI TEST APPLICATIONS DEMANDING GREATER THROUGHPUT AND MAXIMUM LOW CURRENT PERFORMANCE?

Time to demand the new industry standards for high-speed switching.

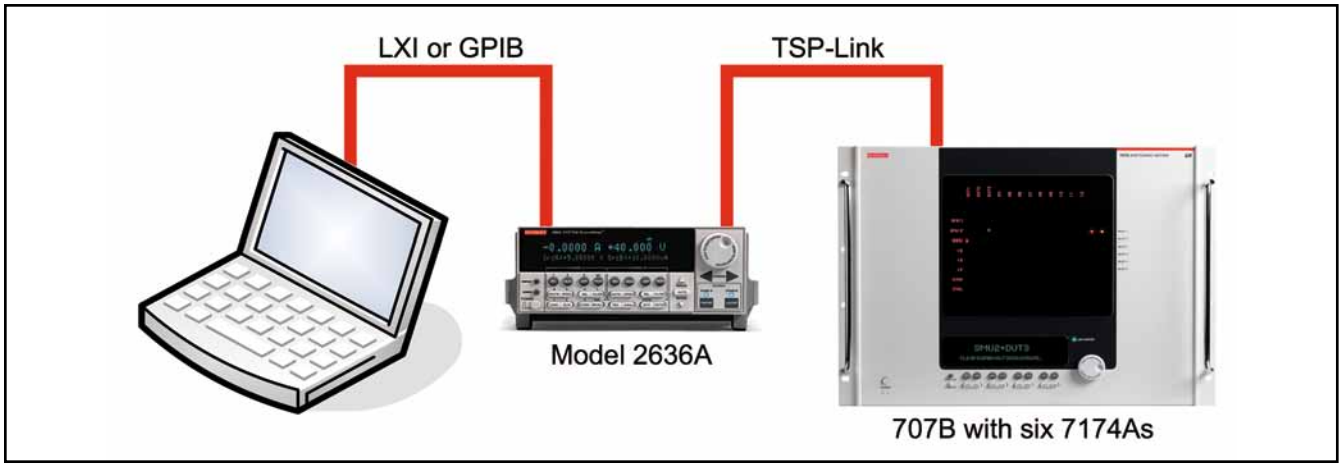
Semiconductor test applications that require higher-speed test sequences and greater overall throughput demand our newest high-speed semiconductor switch mainframes, the **six-slot Model 707B** and the **single-slot Model 708B**. They're ideal companions for Keithley's line of high-performance matrix switch cards, including our industry-standard, **ultra-low-current Model 7174A Air Matrix card** and the **Model 7072-HV High-Voltage Semiconductor Matrix Card**, which can deliver up to 1300V to any pin on the DUT or probe card.

- **Low-leakage matrix configurations with up to 576 crosspoints per mainframe**
- **Switch I-V and C-V instruments while maintaining maximum low-level performance**
- **Source and measure up to 1300V or 1A without reconfiguring cables between tests**
- **Compatible with all semiconductor parametric analyzers**
- **Replacements for Keithley's Models 707A and 708A mainframes**

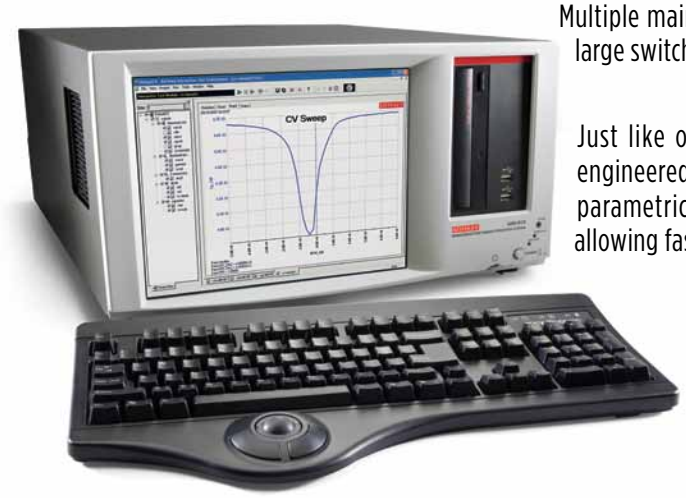
Even more important, these new switch mainframes help you test faster, more flexibly, and more cost-effectively than ever before:

- **NEW digital control platform for higher throughput:** This new platform supports dramatically faster command-to-connect speeds for higher test throughput. Even in the slowest mode, you can boost throughput by as much as 40% without any code changes.
- **NEW interfaces for greater flexibility:** Now you can communicate with or program either mainframe remotely via the LXI/Ethernet connection, USB port, GPIB, and our ultra-fast TSP-Link® inter-unit communication/triggering bus, which simplifies system scaling.
- **NEW on-board Test Script Processor (TSP®) for distributed processing and control:** You don't need a central controller to direct test system operation—just define a test script or sequence and store it in the TSP's memory, then execute it on command, for a dramatic throughput increase. Their TSP and TSP-Link architecture make the Models 707B and 708B ideal test companions for our Series 2600A System SourceMeter® instruments and ACS and S530 testers
- **NEW front panel design for easier manual operation:** Our updated front panel interface simplifies manual programming and lets you confirm switch status at a glance.

The TSP/TSP-Link connection



Series 2600A SMUs have an on-board test script processor (TSP) that executes test scripts and controls the switch matrix via the TSP-Link, which acts like a hardware backplane, connecting the two high-performance processors at full hardware speeds. This configuration provides the best possible throughput and flexibility and the tightest synchronization between the instrument and the switch matrix. Multiple mainframes can be connected using TSP-Link, so you can create very large switch configurations easily and cost-effectively.



Just like our earlier switch mainframes, the Models 707B and 708B are engineered to integrate seamlessly with the Model 4200-SCS semiconductor parametric analyzer through its existing matrix driver and GPIB interface, allowing fast access to the system's I-V and C-V measurement capabilities.

Need more ideas on configuring high-speed switch systems? Download a free copy of our new 8-page application note, Designing a High Throughput Switch System for Semiconductor Measurements, at www.keithley.com/data?asset=54245. It addresses switch system configurations for DC and AC characterization, timing considerations, coordination of source and measure instruments; it also offers a demonstration of the advantages of an optimized switch—SourceMeter configuration over a traditional GPIB configuration.


KEITHLEY
Application Note Series

Designing a High Throughput Switch System for Semiconductor Measurements with the Model 707B or 708B Semiconductor Switch Matrix Mainframe

Switch System Configuration

DC Characterization

To learn more about how Keithley's 707B and 708B switch mainframes enable test systems that are faster, more flexible, and more cost-effective than ever before, contact your local Keithley Instruments representative to arrange a consultation. Contact information is available at www.keithley.com

KEITHLEY

A GREATER MEASURE OF CONFIDENCE

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