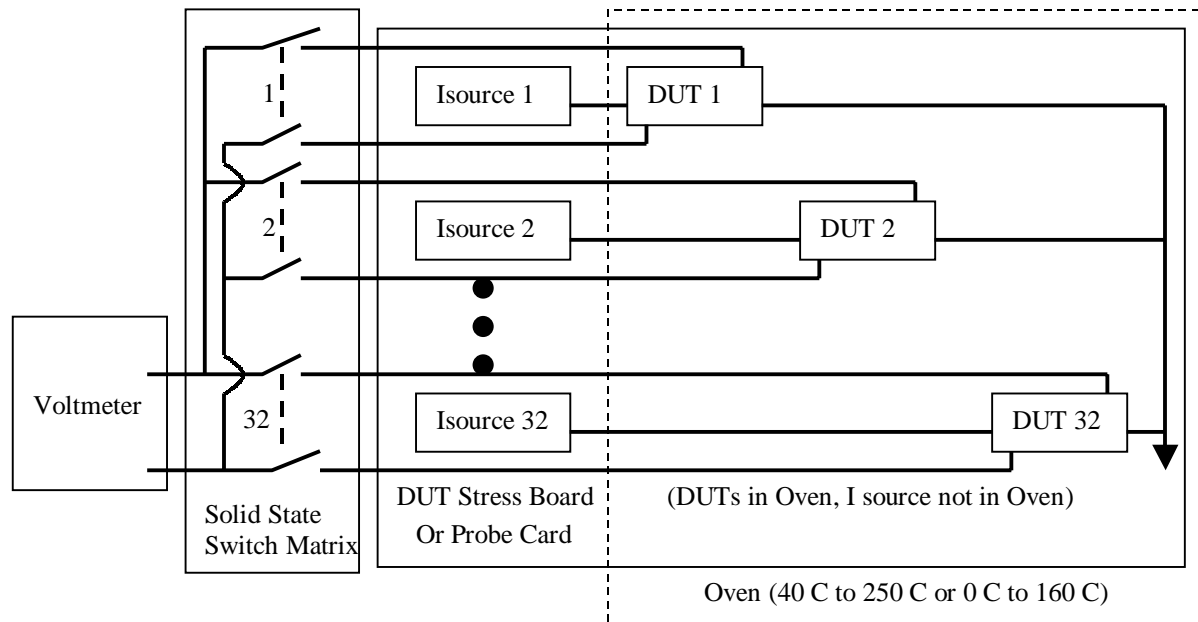




## Chiron Electromigration Tester



36 DUTs per board, 10 boards per Oven or 360 DUTs per oven. Each board has independent Power, Voltmeter and switch matrix.

Extrusion Monitoring Supported

Minimum Voltage Resolution: 1 microvolt, 1 year meter accuracy: 75 ppm

Source Range: 80 microamps to 40 miliamps or 0.8 miliamps to 400 miliamps (others also available)

Scan rates: 50 readings/second with line cycle integration (each DUT can be monitored once per second)

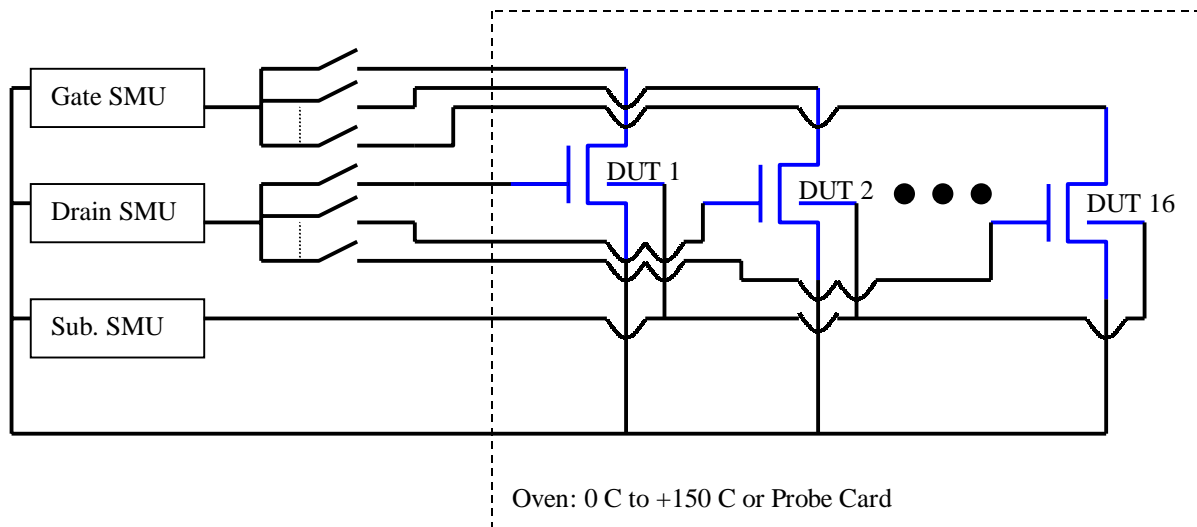
Fully programmable

Configurable Data File compatible with most Spreadsheet programs or SQL data files

Instruments can be applied to oven stress boards or to Probe Cards for Wafer Level Testing (Parallel Site Probe Cards supported)



## Chiron HCI or Vt Stability Tester



24 DUTs per Board, 10 boards/oven or 240 DUTs/Oven

High Speed Instruments: 50 point  $I_{ds}$  vs.  $V_{gs}$  scan in less than 2 seconds per DUT (with line cycle integration)

Current Resolution: 10fA (measurement), 100pA force

Current Force Capability: 1 Amp

Voltage Force: +/-1 microvolt to +/-200 volts

Fully Guarded Measurements

Local Sense for all Voltage Force (during characterization), series resistance less than 10miliohms

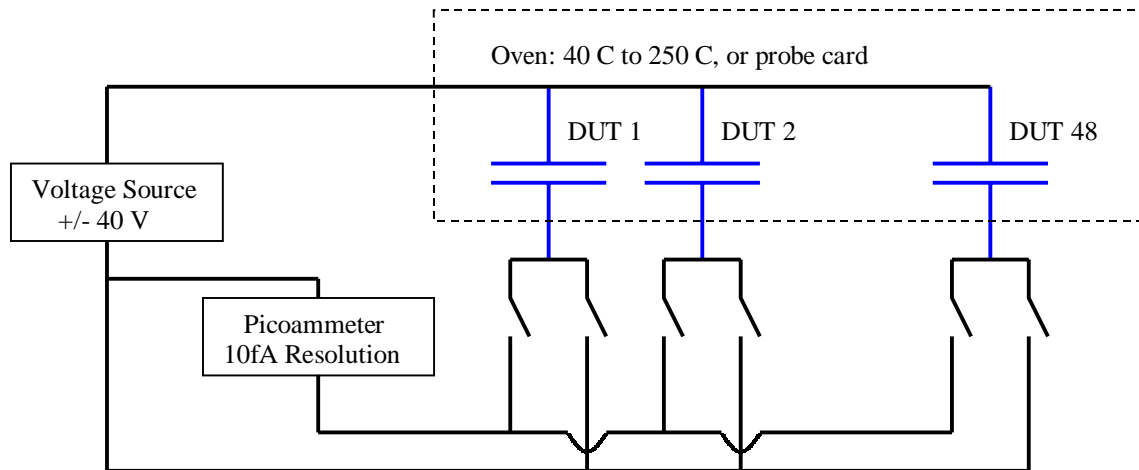
Ability to Configure Instruments with three SMUs dedicated to each DUT (no switch Matrix) to provide a 50 point scan of each DUT in about 1 second – This will allow short stresses with high time resolution. A short stress with three SMUs per DUT can be followed with longer stresses with three SMUs for every 24 DUTs for longer stresses (e.g. each board is stressed with 3 SMUs/DUT for one hour, then switched to 3 SMUs/board for a subsequent 72 hours of stress)

Instruments can be connected to a stress board in an oven, or to a probe card for wafer level testing. Parallel site probe cards are supported as is an on chip switch matrix.

Test Structure designs for high accuracy and low noise are available.



## Chiron TDDDB Tester



48 DUTs per board, 12 boards per oven or 576 DUTs per oven

Current Resolution: 10fA

Low Leakage Switch Matrix (typically 10fA/volt)

Voltage Range:  $\pm 1$ mV to 40 Volts

Fully Guarded Connections to the DUT

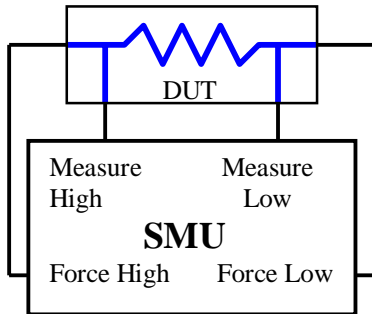
Fast Scan Rates: All 48 devices can be scanned in less than 6 seconds (line cycle integration, 20ms settling time after switch)

Devices can be individually removed from stress following failure

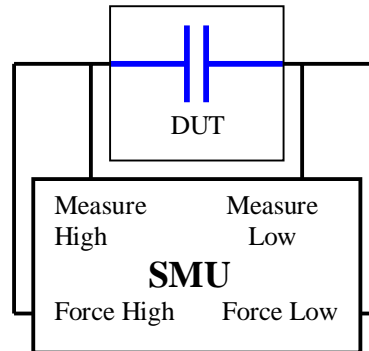
Testing of Packaged Structures or Testing at Wafer Level is supported. Instruments can be connected to a stress board in an oven or to a probe card. Parallel Site Probe Cards are supported



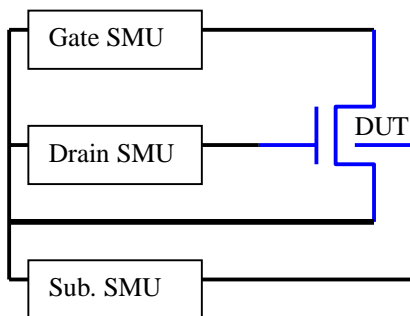
### Chiron Parallel Wafer Level Tester



Electromigration or Resistor Stability Tests  
Supports Isothermal, Sweat and Constant I

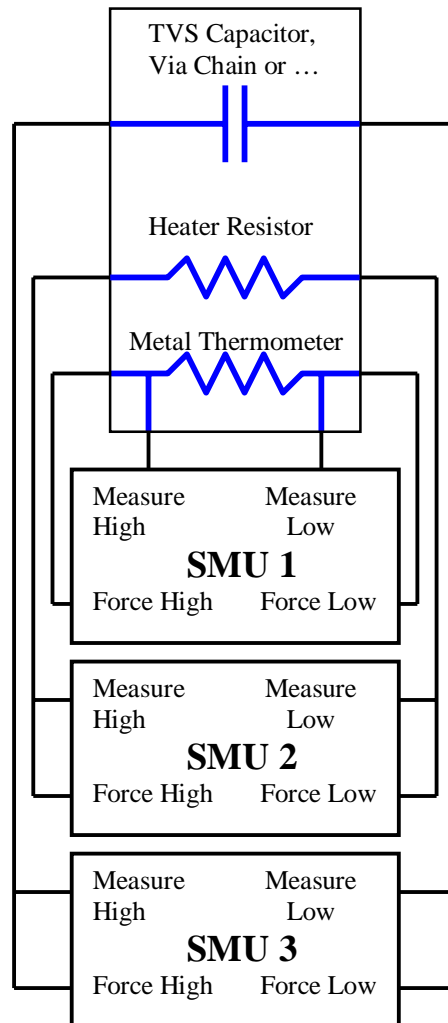


Gate Oxide or Dielectric Stability Tests  
Supports Voltage Ramp, J Ramp, Qbd and Constant V



HCI, Transistor Stability or Transistor Characterization

The Chiron Parallel Wafer Level Tester is a modular design that supports testing of most WLR tests. The Modular design allows testing of most test structures in parallel. This saves test time. Each test is executed independently with no time delay due to the other tests executed in parallel.



Self Heated Test Structures: Supports TVS, BTS, Electromigration, Stress Migration Temperature Cycling, other self heated tests