Semight

WLR075S

SiC Wafer burn-in System

Version 1.1

Product Description

WLR075S wafer burn-in system can be configured with 12 burn-in layers at most, each burn-in layer supports 4 & 6-inch wafers, the HTGB burn-in for a maximum of 1024 products performed for each wafer, it supports Igss and Vth tests in the system and can be widely used in the testing and research fields of power semiconductor characteristics, GaN and SiC characterization, composite materials, wafer technology, etc.

Key Features

WLR075S wafer burn-in system is suitable for product reliability screening and mass production quality monitoring

- It supports the burn-in of SiC and GaN wafer products
- It supports the parameter test Igss and Vth.
- It supports MAP data binding, and the data is traceable
- For the high precision leakage current test, the leakage current resolution can reach to 0.1nA
- It supports the nitrogen protection to prevent PAD oxidation
- The system hardware overcurrent protection and the short-circuit current transient response are provided, and the response time is less than 100ns
- The high temperature resistance design and the drawer heating-related design are resistant to 200 ℃
- The temperature uniformity can be ±1°C, the accuracy is less than 1°C, and the resolution is 0.1°C
- The software supports local data and database uploading and supports MES docking;
- It supports the online editing and testing of Recipe
- It supports the online editing and testing of SPEC;
- The software supports three-level permission management and multi-account management

Applications

Automotive-level wafer production burn-in

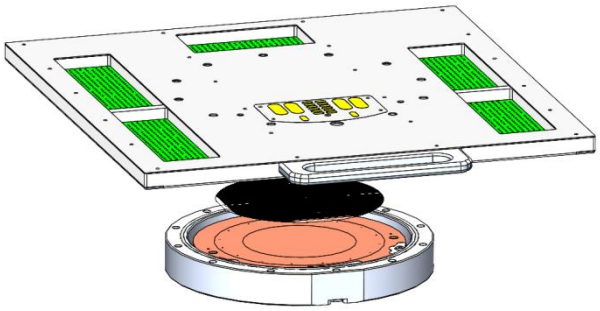
Long-term reliability verification in the laboratory

Burn-in test for research and develop

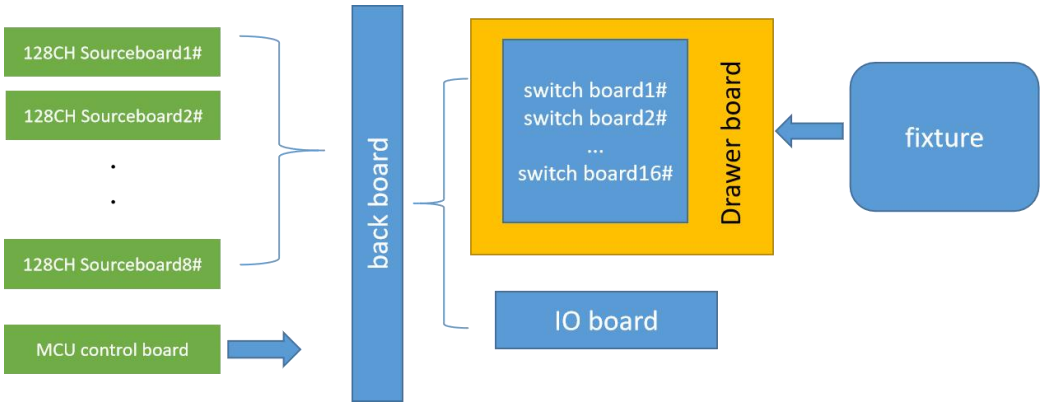
System architecture

WLR075S wafer burn-in system structure has three levels fixture, single-layer drawer and whole rack. Each layer can work independently.

Fixture design The fixture is divided into two parts: the probe card and the heat sink, and the wafers can be combined via the Aligner equipment and placed in the burn-in system for burn-in.



Single-layer drawer design **C**ircuit of Each layer can be independently controlled, different single-layer works can be implemented in different modes, and different burn-in verification can be performed by scheduling the burn-in plan.



Software functions

The following functions of the WLR075S wafer burn-in system can be implemented through software:

- It supports the HTGB wafer burn-in
- It supports the parameter test Igss and Vth
- It supports MAP data binding, and the data is traceable
- The software supports local data and database uploading and supports MES docking;
- It supports the online editing and testing of Recipe
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Technical specifications

Gate voltage source specification

Voltage programming accuracy	Range	Programming resolution	Accuracy (1 year) ±(% reading + offset)
	±75 V	10m V	0.1%+0.2 V
	±20 V	5mV	0.1%+0.1 V
Overshoot	<1% (typical value)		
Total power	100mW		
Quantity of channels	1024 (each burn-in layer)		

Gate voltmeter specification

Voltmeter display accuracy	Range	Display resolution	Accuracy (1 year) ±(% of reading + offset)
	±75V	10mV	0.1%+0.2 V
	±20V	5mV	0.1%+0.1 V
Quantity of channels	1024 (each burn-in layer)		

Gate ammeter specification

Current display accuracy	Range	Display resolution	Accuracy (1 year) ±(% of reading + offset)
	10uA	500pA	0.1% + 50 nA
	1uA	50 pA	0.1% + 5 nA
	100 nA	10 pA	0.1% + 0.5 nA
	10nA	1pA	0.1% + 0.1 nA
Quantity of channels	8 channels (128 channels for one board)		

Ordering information

WLR075S	Semight SIC wafer burn-in system
Option information	Standard option

Contact us

Mail

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About Semight Instruments

Semight Instruments is a leading provider of global high-end test & measurement instrument and equipment. The company provides products and service to R&D, manufacture of high-speed communication, optical chip and semiconductor testing fields. Semight's testing instrument includes high-speed Bit Error Ratio Tester, Network Traffic Analyzer, broadband Sampling Oscilloscope, high-precision Wavelength Meter and digital Source Measure Unit. In addition, the company delivers optoelectronic hybrid ATE, laser chip burn-in system, laser chip tester, silicon photonics wafer tester, power chip tester, wafer level burn-in system to domestic and international customers.

Semight Instruments adheres to the customer-centric, employee-based, innovation-driven, and continues to provide customer trustworthy, cost-effective and high-performance products and service.

Visit www.semight.com for more information.

*This information is subject to change without notice.