



ATiS[®]

Automatic Test Instrument
for Semiconductor

产品手册

PRODUCT CATALOGUE

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From the micro to the macro,
empower by technology to
create extraordinary value
for our clientele

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浙江杭可仪器有限公司
ZHEJIANG HANGKE INSTRUMENT CO., LTD.



Very large scale integrated circuits burn-in test system

LSIC7000

2X16 ZONE

The system adopts TDBI technology and can perform HTOL burn-in test at room temperature +10°C ~150°C. The output signal of the components are monitored in real time during the burn-in process and the vector is automatically compared.

- Real-time detection of the signal and current state of the component, automatic process vector comparison
- Select hard metric high-speed connectors to greatly improve test signal integrity
- Customized special burn-in test board according to different component packaging and power requirements
- Adopt special high-current connectors, with high reliability and stability, MTBF more than 20,000 hours

VISION
愿景

持续提供高质量的产品、服务和解决方案，成为与客户“共生-共赢”的紧密伙伴。

Always provide high-quality products, services and solutions. Build a symbiotic partnership with our clientele, and win-win.

不断追求技术突破、系统进化和体验升级，成为具备全球竞争力的卓越企业。

Never stop pursuing the evolution of technology, operating system and user experience. Try to be an extraordinary company with global competitiveness.

永远保持开放精神、创新意识和“共创-共享”的理念，成为每一个进取者的奋斗平台。

Always maintain the spirit of open, pioneering, create and share. Became an outstanding platform for every go-getter.

SENSE OF
WORTH
价值观

以客户价值为中心，以员工利益为根本
Customer-centric, employees-based.

以坚持质量为核心，以恪守诚信为根本
Taking quality as the core and integrity as the essence.

以创新开放为目标，以求真务实为根本
Taking innovation as the goal and pragmatism as the foundation.

LSIC7000 Product Features

Test temperature zone	2
Test temperature	RT +10°C~150°C
Test zone	16/32
Digital signal frequency	12.5MHz
Vector depth	16M depth
Signal channels	184 channels (including 32 bi-directional IO)
Clock groups	8
Signal period	80~20480nS
Programmable clocks	2 edges
PIN format	8
Programmable VIH	0.5~5V
IO drive current	DC≥50mA, Instantaneous current≥80mA
DPS power supply specification	0.5~6.0V/25A (10V/10A optional)
DPS power supply	2~8(can be configured according to customer requirements)
DPS output protection	OVP(Overvoltage), UVP(Undervoltage), OCP(Overcurrent)
Machine power supply	Three-phase AC380±38V
Maximum power	35KW (typical)
Total weight	1600KG (typical)
Dimensions of machine	3200mm(W)×1674mm(D)×2366.2mm(H)



Applicable standards

MIL-STD-883 MIL-STD-38510 AEC-Q101 JESD22A-108

Applicable components

For general-purpose integrated circuit memory, FPGA, ARM, DSP and other VLSI



Integrated circuits dynamic high temperature burn-in test system

GPIC2010

48 ZONE

The system adopts TDBI technology and can perform HTOL burn-in test at room temperature +10°C~200°C. The current and output signal of the components are monitored in real time during the burn-in process.

- Real-time monitoring of the current and output signal of the component
- With gold finger connector
- Customized burn-in test board according to different component packaging, power and other requirements

GPIC2010 Product Features

Test temperature zone	1
Test temperature	RT +10°C~200°C
Test zone	48
Digital signal frequency	12.5MHz (optional 20MHz)
Digital signal programming depth	16M depth
Digital signal programming step	40nS~0.5S
Digital signal channels	128 channels bi-directional (64 channels optional)
Digital signal mode	Support signal cycle, step jumping and other modes
Maximum driving current of digital signal	I _{oh} ≥ 150 mA, I _{ol} ≥ 150 mA
Analog signal output channel	4
Maximum driving current of analog signal	1A
Analog signal frequency	1Hz~5MHz
Analog signal synchronization phase	≤ 1°
Analog signal type	Arbitrary waveforms such as sine, triangle, leading-edge sawtooth, trailing-edge sawtooth, and adjustable pulse width square waveforms
Secondary power supply	4 channel, 0.5~20V/15A
Current detection	0~15A
Voltage detection	0~20V
Machine power supply	Three-phase AC380±38V
Maximum power	20KW (typical)
Total weight	1350KG (typical)
Dimensions of machine	1500mm(W)×1400mm(D)×2000mm(H)



Applicable standards

MIL-STD-883 MIL-STD-38510 AEC-Q101 JESD22A-108

Applicable components

For various analog circuits, digital circuits, digital-analog hybrid, opto-couplers, MCU, FPGA and other general-purpose integrated circuits



Integrated circuits dynamic high temperature burn-in test system

GPIC2020

16 ZONE

The system adopts TDBI technology and can perform HTOL burn-in test at room temperature +10°C~200°C. The current and output signal of the components are monitored in real time during the burn-in process.

- Real-time monitoring of the current and output signal of the component
- With gold finger connector
- Customized burn-in test board according to different component packaging, power and other requirements

GPIC2020 Product Features

Test temperature zone	1
Test temperature	RT +10°C~200°C
Test zone	16
Digital signal frequency	12.5MHz (optional 20MHz)
Digital signal programming depth	16M depth
Digital signal programming step	40nS~0.5S
Digital signal channel	128 channel bi-directional (64 channels optional)
Digital signal mode	Support signal cycle, stepjumping and other modes
Maximum driving current of digital signal	I _{oh} ≥ 150mA, I _{ol} ≥ 150mA
Analog signal output channel	4
Maximum driving current of analog signal	1A
Analog signal frequency	1Hz~5MHz
Analog signal synchronization phase	≤ 1°
Analog signal type	Arbitrary waveforms such as sine, triangle, leading-edge sawtooth, trailing-edge sawtooth, and adjustable pulse width square waveforms
Secondary power supply	4 channels 0.5~20V/15A
Current detection	0~15A
Voltage detection	0~20V
Machine power supply	Three-phase AC380V±38V
Maximum power	10KW (typical)
Total weight	750KG (typical)
Dimensions of machine	1400mm(W)×1400mm(D)×2000mm(H)



Applicable standards

GJB548B MIL-STD-883 MIL-STD-38510 AEC-Q101 JESD22A-108

Applicable components

For various analog circuits, digital circuits, digital-analog hybrid, opto-couplers, MCU, FPGA and other general-purpose integrated circuits



Integrated circuits dynamic high temperature burn-in test system

GPIC2030

32 ZONE

The system adopts TDBI technology and can perform HTOL burn-in test at room temperature +10°C~200°C. The current and output signal of the components are monitored in real time during the burn-in process.

- Real-time monitoring of the current and output signal of the component
- With gold finger connector
- Customized burn-in test board according to different component packaging, power and other requirements

GPIC2030 Product Features

Test temperature zone	1
Test temperature	RT +10°C~200°C
Test zone	32
Digital signal frequency	12.5MHz (optional 20MHz)
Digital signal programming depth	16M depth
Digital signal programming step	40nS~0.5S
Digital signal channels	128 channels bi-directional (64 channels optional)
Digital signal mode	Support signal cycle, step jumping and other modes
Maximum driving current of digital signal	I _{oh} ≥150 mA, I _{ol} ≥150 mA
Analog signal output channel	4
Maximum driving current of analog signal	1A
Analog signal frequency	1Hz~5MHz
Analog signal synchronization phase	≤1°
Analog signal type	Arbitrary waveforms such as sine, triangle, leading-edge sawtooth, trailing-edge sawtooth, and adjustable pulse width square waveforms
Secondary power supply	4 channels, 0.5~20V/15A
Current detection range	0~15A
Voltage detection range	0~20V
Machine power supply	Three-phase AC380±38V
Maximum power	15KW (typical)
Total weight	1100KG (typical)
Dimensions of machine	1500mm(W)×1400mm(D)×2000mm(H)



Applicable standards

MIL-STD-883 MIL-STD-38510 AEC-Q101 JESD22A-108

Applicable components

For various analog circuits, digital circuits, digital-analog hybrid, opto-couplers, MCU, FPGA and other general-purpose integrated circuits



Opto-couplers burn-in test system

GPIC2004

16 ZONE

The system can conduct high-temperature constant current and power burn-in test for various single optocoupler, double optocoupler and four optocoupler devices. The system is applicable to the life screening test and secondary screening test of various devices in research institutes, microcircuit device manufacturers, etc., and is applicable to the test requirements of small batch and multiple varieties.

- The function of the drive board is modularized, and different functions are realized by each module. The subsequent replacement and maintenance are convenient
- It can test opto-couplers of different channel numbers and types, with strong versatility
- There are 1024 constant current rings, which can be calibrated separately to achieve high-precision testing
- Compatible with various types of burn-in boards to achieve burn-in of different components

GPIC2004 Product Features

Test temperature zone	1
Test temperature	RT+10~200°C
Test zone	16
Load constant current control range	1~80mA
Program control accuracy	±(1.0%×RD+2LSB)
Voltage detection range	0.1V~120.0V Error ±(1.0%×RD+2LSB)
Leakage current detection range	16×64=1024
Burn-in channels	1~100mA
Leakage current detection accuracy	±(1.0%×RD+2LSB)
Burn-in mode	Two operating modes of constant current and power
Constant power detection error	±(3.0%×RD+3mW)
Power supply	0~60V/40A (8 channels optional)
Machine power supply	Three-phase AC380±38V
Maximum power	8KW (typical)
Total weight	650KG (typical)
Dimensions of machine	1400mm(W)×1400mm(D)×2000mm(H)



Applicable standards

GJB33 MIL-STD-75

Applicable components

For various single opto-couplers, dual-opto-coupler and quad-opto-coupler components; various bidirectional input type and unidirectional input type components; triode, Darlington tube, transistor, thyristor, digital circuit, etc



IGBT power cycle test system

PC1800A

3 ZONE

The system is suitable for power cycling test of various sizes of IGBT modules and uses the advanced JEDEC static test method (JESD51-1) to generate temperature changes by varying the input power of the electronic component. During the change, through transient temperature response curve of the tested chip and data processing of the test waveform to obtain the full thermal characteristics of the electronic component.

- Supports minute/second power cycling test
- Equipped with oil-cooled platform, which can and automatically calibrate the K-factor of the component quickly
- Fixture supports adjustable strength and depth for effective clamping of different packaging of modules
- With solenoid water valve, can automatically adjust the cooling water flow according to the actual situation, or manually adjust
- Through the transient temperature response curve of the test component, data processing of the test waveform to obtain the comprehensive thermal characteristics of the electronic component

PC1800A/3000A Product Features

Test temperature zone	2
Test temperature	Water cooling plate:10~80 °C, oil cooling plate:-10~150 °C
Test zone	3
Constant temperature system control accuracy	water cooling system:±0.5°C oil cooling system:±0.1°C
Junction temperature test accuracy	±2°C
Cold plate and shell temperature testing accuracy	±2°C
Heating current	600A/zone (support three zones in parallel 1800A) 1000A/zone (support three zones in parallel 3000A)
Test current	10~1000mA
Test current accuracy and resolution	±(0.3%+2mA), resolution 0.5mA
Machine power supply	Three-phase AC380±38V
Maximum power	30KW (typical)
Total weight	500KG (typical)
Dimension of machine (without water cooler)	1400mm(W)×900mm(D)×1300mm(H)



Applicable standards

JESD51 AQG324

Applicable components

For various sizes of IGBT modules and Mos modules



Dynamic power components burn-in test system

DHTOL2000

16/32 ZONE

The system can conduct dynamic burn-in and testing for MOSFET devices and the third generation SiC and GaN devices. During the burn-in process, it can monitor the peak current, working voltage and on resistance of the tested devices in real time, (record and export the burn-in test data as required).

- Aging of high-frequency dynamic burn-in voltage and current
- 60s full station data refresh of the whole machine
- Unique protection circuit, unit device breakdown will not affect burn-in process of other stations
- The independent control function of burn-in voltage in the location can be customized to eliminate burn-in overruns in a single station

DHTOL2000 Product Features

Test temperature zone	1
Test temperature	RT
Test zone	32zone(6/32 zone optional)
Stations per zone	20 (typical)
Burn-in voltage	0~650V, accuracy:±(2%+0.1V)
Current detection	0~1A, accuracy:±(2%+0.05A)
Pulse frequency	50KHz~200kHz, accuracy:1%±2LSB
Duty cycle	30%~70%, accuracy:2%
On-resistance Rds (on)	30mR~5R, accuracy:10%
Machine power supply	Three-phase AC380±38V
Maximum power	25KW (typical)
Total weight	1100KG (typical)
Dimensions of machine	2075mm(W)×1350mm(D)×2020mm(H)



Applicable standards

MIL-STD-750D AEC-Q101 AQG324 JESD22

Applicable components

For various large, medium and small power MOSFET components and third-generation SiC and GaN components



Power cycle test system

IOL6000

16 ZONE

The system can carry out power cycle burn-in test for various power components, simulate the degradation of components under different power conditions, and carry out thermal fatigue test on the packaging, channel or internal bonding wire through the control of heating and cooling process.

- Customized burn-in test boards are available for different component packaging, power requirements, etc.
- High power dissipation, small volume, large capacity
- Adequate human safety considerations for experimenters

IOL6000 Product Features

Test mode	Air-cooling
Test air duct	Unified air duct
Test zone	16
Stations per zone	56 (typical)
Maximum load	180mA
Maximum voltage	48V
Maximum test	200°C
Grid control voltage	±15V
Test current	10mA
Grounding resistance	≤1Ω
Machine power supply	Three-phase AC380±38V
Maximum power	50KW (typical)
Total weight	1200KG (typical)
Dimensions of machine	1490mm(W)×1000mm(D)×2000mm(H)



Applicable standards

MIL-STD-750 AEC-Q101 JESD51-1

Applicable components

For diode, MOSFET, IGBT, CMOS and other power components



High temperature burn-in test system for capacitors

IOL2000

8/16/20 ZONE

This system is suitable for various packages (including F-type, TO-220, TO-247, TO-254, TO-257, TO-258, TO-3P, SMD-0.5, SMD-1, SMD-2, etc.) of high-power diodes, MOS and other power devices for power cycling test and constant current power test. Each zone air duct of the system is independent, to fully avoid the impact of different test processes in different locations on the test results; During the experiment, machine can monitor the voltage and junction temperature characteristics of the component, and provide the junction temperature characteristic curve for later data analysis.

- Air cooling power cycle test
- Independent air duct in each location
- Strong wind cooling fan
- Maximum 60A current test capacity
- Support full open heating mode

IOL2000 Product Features

Test temperature zone	1(K-factor)
Test temperature	RT+10~200°C(K-factor)
Test zone	16 (8/16/20 zone optional)
Stations per zone	4 (typical)
Maximum work stations in series	8
Burn-in voltage	0~60V
Voltage detection accuracy	±(1%+2LSB)
Current detection	100mA~60A
Current detection accuracy	±(1%+100mA)
Junction temperature test current (Isense)	10~100mA
Machine power supply	Three-phase AC380±38V
Maximum power	30KW (typical)
Total weight	1200KG (typical)
Dimensions of machine	2075mm(W)×1350mm(D)×1950mm(H)



Applicable standards

MIL-STD-750D AEC-Q101

Applicable components

For MOSFET, diode, triode and other power components



Dynamic HTRB burn-in test system

DHTRB2000

32 ZONE

The system is designed to rapidly charge and discharge the component internally by applying a dynamic pulse voltage. Using a high dv/dt, it accelerates the internal failure of the component.

- nA level leakage current test
- Customized burn-in test boards are available for different component packaging, power requirements, etc

DHTRB2000 Product Features

Test temperature zone	1
Test temperature	RT+10~200°C
Test zone	32
Stations per zone	20 (typical)
Leakage current	0.01uA~50mA (HTRB)
Leakage current	1uA~100mA (HTGB)
Test voltage	0~650V (HTRB)
Test voltage	-40~+40V (HTGB)
Pulse frequency	5kHz~500kHz
Duty cycle	20%~80% (set to 100% separately)
Rising falling edge	≤100ns
Burn-in plate size	280mmx280mm
Machine power supply	Three-phase AC380±38V
Maximum power	25KW (typical)
Total weight	1200KG (typical)
Dimensions of machine	1950mm(W)x1420mm(D)x1900mm(H)



Applicable standards

AEC-Q101 AEC-Q102 AQC324 JESD22-A101

Applicable components

For diode, triode, MOSFET, Darlington transistor and silicon controlled rectifier



HTRB burn-in test system

HTRB2000

16/32/40/48 ZONE

The system can perform the high temperature reverse bias burn-in test at room temperature +10 °C~200 °C. During the burn-in process, it can monitor the leakage current status and voltage status of the test components in real time, (record and export the burn-in test data as required).

- NA level leakage current detection accuracy
- 30s full station data refresh of the machine
- Unique high-voltage suppression circuit, instantaneous of components, without affecting burn-in process of other stations
- Customized independent control function of burn-in voltage of the work station to eliminate the burn-in overrun of a single station
- Adequate human safety considerations for experimenters

HTRB2000 Product Features

Test temperature zone	1
Test temperature	RT +10~200°C
Test zone	16 (32/40/48 zone optional)
Stations per zone	80 (typical)
Burn-in voltage	0~±2000V
Voltage detection accuracy	±(1%+2LSB)
Current detection	10nA~50mA
Current detection accuracy	±(1%+10nA)
Machine power supply	Three-phase AC380±38V
Maximum power	8KW (typical)
Total weight	680KG (typical)
Dimensions of machine	1400mm(W)×1400mm(D)×2000mm(H)



Applicable standards

MIL-STD-750D AQC324

Applicable components

For MOSFET, diode, triode, IGBT module, PIM module, thyristor, etc



High temperature high humidity reverse bias burn-in test system

H3TRB2000

8/16 ZONE

The system can conduct high temperature and high humidity (double 85) burn-in test. During the burn-in process, it can monitor the leakage current status and voltage status of the test components in real time, (record and export the burn-in test data as required).

- nA level leakage current detection accuracy
- 30s full station data refresh of the machine
- Unique high-voltage suppression circuit, instantaneous breakdown of components, without affecting burn-in process of other stations
- Customizable independent control function of burn-in voltage of work station to realize single work station burn-in over limit rejection
- Adequate human safety considerations for operators

H3TRB2000 Product Features

Test temperature zone	1
Test temperature	RT +10~150°C
Test humidity	10%rh~98%rh
Test zone	16 (8/16 zone optional)
Stations per zone	80 (typical)
Burn-in voltage	0~±2000V
Voltage detection accuracy	±(1%+2LSB)
Current detection	10nA~50mA
Current detection accuracy	±(1% +10nA)
Machine power supply	Three-phase AC380±38V
Maximum power	10KW (typical)
Total weight	1000KG (typical)
Dimensions of machine	1650mm(W)×1750mm(D)×1950mm(H)



Applicable standards

MIL-STD-750D AEC-Q101 JESD22-A101

Applicable components

For MOSFET, diode, triode, IGBT module, PIM module, thyristor, etc



High temperature burn-in test system for capacitors

MKP2000

16/32/40 ZONE

The system can perform burn-in screening test for capacitors at room temperature +10°C~200°C, monitor the leakage current status and voltage status of the measured components in real time during the burn-in process, protect and reject the over-limit components, (record and export the burn-in test data as required).

- Leakage current detection accuracy of nA level
- 30s full station data refresh of the whole machine
- Unique high-voltage suppression circuit, instantaneous breakdown of components, without affecting burn-in process of other stations
- Single station burn-in rejection
- Over current protection response time is less than 100us
- Unique automatic charge-discharge circuit design
- Adequate human safety considerations for experimenters

MKP2000 Product Features

Test temperature zone	1
Test temperature	RT +10~200°C
Test zone	16 (16/32/40 zone optional)
Stations per zone	40 (typical)
Burn-in voltage	0~1200V
Voltage detection accuracy	±(1%+2LSB)
Current detection	10nA~30mA
Current detection accuracy	±(1%+10nA)
Machine power supply	Three-phase AC380±38V
Maximum power	8KW (typical)
Total weight	680KG (typical)
Dimensions of machine	1400mm(W)×1400mm(D)×2000mm(H)



Applicable standards

MIL-STD-202E

Applicable components

For MLCC, mica, film, paper media, ceramic and metallized paper media capacitors



High temperature burn-in test system for capacitors

MKP2005

16/32/40/48 ZONE

The system can carry out capacitor burn-in screening test at room temperature+10 °C~200 °C, provide burn-in voltage up to 4500V, monitor the leakage current status and voltage status of the test components in real time during burn-in process, protective rejection of over-limit components, record and export burn-in test data as required.

- Leakage current detection accuracy of nA level
- 30s full station data refresh of the whole machine
- Unique high-voltage suppression circuit, instantaneous breakdown of components, without affecting burn-in process of other stations
- Unique automatic charge-discharge circuit design
- Adequate human safety considerations for experimenters

MKP2005 Product Features

Test temperature zone	1
Test temperature	RT+10~200°C
Test zone	16 (16/32/40/48 zone optional)
Stations per zone	24 (typical)
Burn-in voltage	500~4500V
Voltage detection accuracy	±(1%+2LSB)
Current detection	10nA~1000uA
Current detection accuracy	±(1%+10nA)
Machine power supply	Three-phase AC380±38V
Maximum power	8KW (typical)
Total weight	680KG (typical)
Dimensions of machine	1400mm(W)×1400mm(D)×2000mm(H)



Applicable standards

MIL-STD-202E

Applicable components

For MLCC, mica, film, paper media, ceramic, metallized paper media capacitors, etc



High temperature high humidity burn-in test system for capacitors

H3MKP2000

8/16 ZONE

The system can conduct high temperature and high humidity (double 85) burn-in for capacitors. During the burn-in process, it can monitor the leakage current and voltage of the test components in real time, record and export the burn-in test data as required.

- Leakage current detection accuracy of nA level
- 30s full station data refresh of the whole machine
- Unique high-voltage suppression circuit, instantaneous breakdown of components, without affecting burn-in process of other stations
- Unique automatic charge-discharge circuit design
- Adequate human safety considerations for experimenters

H3MKP2000 Product Features

Test temperature zone	1
Test temperature	RT -20~180°C
Test humidity	25%rh~98%rh
Test zone	16 (8/16 zone optional)
Stations per zone	40 (typical)
Burn-in voltage	0~1200V
Voltage detection accuracy	±(1%+2LSB)
Current detection	10nA~30mA
Current detection accuracy	±(1%+10nA)
Machine power supply	Three-phase AC380V±38V
Maximum power	12KW (typical)
Total weight	1050KG (typical)
Dimensions of machine	1650mm(W)×1750mm(D)×1950mm(H)



Applicable standards

MIL-STD-202E

Applicable components

For MLCC, mica, film, paper media, ceramic and metallized paper media capacitors, etc



High temperature high resistance test system

HTIR2010

16 ZONE

The system adopts an automatic measurement system, which can measure the IR value of capacitors at room temperature+10 °C~150 °C. During measurement, Through the module Group control of the displacement of the test probe for testing to ensure that only one capacitor is connected each time. Mechanical contact replaces relay switching to improve measurement accuracy.

- Real time monitor IR value of tested component
- Keithley 6517B electrometer/megger is selected for measurement
- Special burn-in test board can be customized according to different component packaging
- When loading capacitors with impedance greater than $10^{12}\Omega$, the measured impedance shall not be less than $10^{12}\Omega$

HTIR2010 Product Features

Test temperature zone	1
Test Temperature	RT+10~150°C
Test zone	16
Stations per zone	48 (typical)
Measuring instrument	Keithley 6517B electrometer/megger
Test voltage	0~1000V
Insulation resistance	1MΩ~1TΩ
Machine power supply	One-phase AC220V±22V
Maximum power	5KW (typical)
Total weight	600KG (typical)
Dimensions of machine	1400mm(W)×1400mm(D)×2000mm(H)



Applicable standards

MIL-STD-202E

Applicable components

For chip packaging: 04/06/08/10/12/18/20/22/28/32 and other series



High temperature burn-in test system for power module

MPS2000

16/24/32 ZONE

The system provides high temperature environment and test conditions (including input power supply, load, output voltage, load current, etc.) for the test requirements of power module, and also detects various test conditions, including input voltage, test chamber temperature, component output voltage, output current, and other main parameters. The system can adapt to the life screening test and secondary screening test of various components in research institutes, microcircuit component manufacturers, etc., and is applicable to the test requirements of small batch and multiple varieties.

- Real time monitor electric stress, temperature stress and other information of the tested component, and automatic recording of process information
- The high-speed acquisition system adopts high-speed and high-precision ADC sampling

MPS2000 Product Features

Test temperature zone	1
Test temperature	RT+10~200°C
Test zone	16 (16/24/32 zone optional)
Burn-in board interface	High current pin hole connector or finger connector
Electronic loads	Single zone12/16channel, whole machine192~512
Optional primary power supply	40V/60V/100V/300V/600V
Linear dissipative 10V plus load	0.8~10VDC, 300mA~30A, 32W, constant current accuracy±(1%+50mA), can be connected in parallel
Linear dissipative 30V minus load	0.8~30VDC, 50mA~6.25A, 32W, constant current accuracy±(1%+5mA), can be connected in parallel
Linear dissipative 100V plus and minus load	±3.3~±100VDC, ±(50mA~5A), 32W, Constant current accuracy±(1%+5mA), can be connected in parallel
Shell temperature control range and accuracy (optional)	60~125°C, ±(1%+1°C)
Machine power supply	Three-phase AC380V±38V
Maximum power	12KW (typical)
Total weight	680KG (typical)
Dimensions of machine(mm)	1400mm(W)×1400mm(D)×2000mm(H)(16zone)



Applicable standards

MIL-STD-883D MIL-M-28787 AEC-Q100 JESD22A-108 GB2423

Applicable components

For DC/DC power module, LDO integrated circuit, BUCK integrated circuit, DRMOS integrated circuit



High temperature burn-in test system for high power module

MPS2020

16 ZONE

For the development of high-power power module, the system adopts technologically advanced energy recovery load. The maximum efficiency of energy recovery is greater than 75%. The system uses a test chamber with compressor, and the maximum heat dissipation in the chamber can reach 3KW (when the test chamber is set at 75°C)

- Single zone load power up to 1000W
- Efficient energy feedback
- Advanced refrigeration technology, the heat of the power module in the test chamber is taken away in time to ensure the stability of the shell temperature

MPS2020 Product Features

Temperature zone	1
Test temperature	0~200°C
Test zone	16
Burn-in board interface	High current pinhole connector
Electronic loads	single zone 4/12 channel, whole machine 64~192
Optional primary power supply	40V/60V/100V
Energy feedback type 28V plus and minus load	±3.3~±28VDC, ±(50mA+6.25A), constant current accuracy ±(1%+5mA), 50W, feedback DC terminal voltage 5~48V, can be connected in parallel, maximum energy feeding efficiency ≥75%
Energy feedback 48V plus and minus load	±3.3~±48VDC, ±(50mA~5A), Constant current accuracy ±(1%+5mA), 50W, feedback DC terminal voltage 5~48V, can be connected in parallel, maximum energy feeding efficiency ≥75%
High power energy feedback plus load	+ 3.3~ + 48VDC, + 5~ + 20A, constant current accuracy ±(1%+50mA), 250W, maximum energy feed efficiency ≥75%
Shell temperature control range and accuracy	60°C~125°C, ±(1%+1°C)
Machine power supply	Three-phase AC380±38V
Maximum power	20KW (typical)
Total weight	1900KG (typical)
Dimensions of machine	1850mm(W)×1450mm(D)×2120mm(H)



Applicable standards

MIL-STD-883D MIL-M-28787 GB2423

Applicable components

For high-power DC/DC power module



High-power transistors burn-in test system

MFS2002

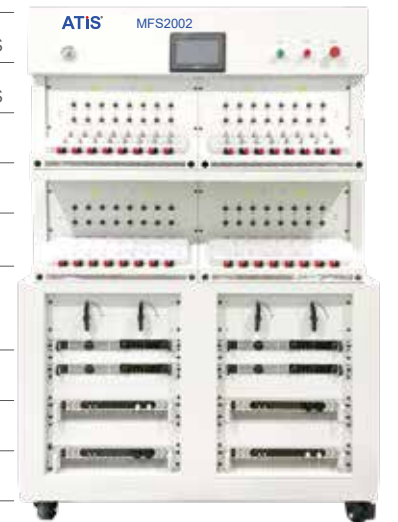
4 ZONE

This system is suitable for high power burn-in screening test of various NPN, PNP transistors (including triode and Darlington tube) and MOSFET; suitable for F-1, F-2 (compatible with thick and thin feet), TO-3P and TO-220 packaging.

- The system provides 4 test areas, each area provides 16 burn-in stations
- Each area with a set of water cooling platform
- The component is controlled by touch screen

MFS2002 Product Features

Test zone	4
Test capability	For test conditions below 75W, the overall test capacity is 64 bits For test conditions below 150W, the overall test capacity is 32 bits For test conditions below 300W, the overall test capacity is 16 bits
Cooling system	Cooling power ≥ 4KW, flow rate of each zone 16-160L/h Test current value of each test component can be tested and controlled, range: 0~5A/10A
Test parameters	Test current value of each test component can be tested and controlled, range: 0~60V The temperature of each partition can be independently detected, and the temperature detection range: 10~90°C, temperature detection accuracy: ±(1%+2LSB)
Machine power supply	Three-phase AC380V±38V
Maximum power	10KW (typical)
Total weight	800KG (typical)
Dimensions of machine	1300mm(W)×950mm(D)×2000mm(H)



Applicable standards

MIL-STD-750

Applicable components

For F0, F1, F2 (fine), F2-3 (coarse), TO-3P and other packages of transistors, triodes, MOS FET



Water cooling intermittent burn-in test system

IOL3000

12 ZONE

This system is suitable for various packages (including F-type, TO-220, TO-247, TO-254, TO-257, TO-258, TO-3P, SMD-0.5, SMD-1, SMD-2, etc.) of high-power diodes, MOS and other power devices for power cycling test and constant current power test. The system is equipped with 12 water cooling plate to fully avoid the influence of different test processes on the test results in different zones. During the experiment, the voltage and junction temperature characteristics of the device are monitored, and the junction temperature characteristic curves are provided for later data analysis

- Support full open heating mode
- Real-time detection of output power, gate voltage, leakage voltage and current.
- Fixture supports adjustable strength and depth for effective clamping of different packaging of modules
- Equipped with 12 water cooling plate, each is equipped with an electric water valve, which can automatically adjust the cooling water flow according to the actual situation

IOL3000 Product Features

Test temperature zone	12
Test temperature	5~30°C (water cooling plate)
Burn-in test zone	12
Control accuracy of constant temperature coefficient	water cooling system: ±2°C
Test accuracy of junction temperature	±2°C
Test accuracy of cooling plate and shell temperature	±2°C
Heating current	100A(per zone)
Test current	10-100mA
Test current accuracy	±(0.1%+2mA)
Test current resolution	0.5mA
Machine power supply	Three-phase AC380V±38V
Maximum power	30KW (typical)
Total weight	≤1200KG (typical)
Dimensions of machine (without water cooling system)	1850mm(W)×1650mm(D)×1200mm(H)



Applicable standards

AQG324 JESD51

Applicable components

For various packaged high power diodes, MOS, etc.



Multi functional comprehensive burn-in test system

MFS2020

16 ZONE

The system is applicable to burn-in of various medium and small power diodes, triodes, medium and small power FETs, voltage-regulator tube, various resistors, opto-coupler, 3-end voltage regulators, and F, B, TO-92, TO-126, TO-247, TO-220, TO-3P, chip and other packaging burn-in components, and is applicable to conducting steady-state screening tests for medium and small power components and intermittent life tests for high-power components.

- Automatically identify the switching polarity according to the inserted burn-in plate
- The burn-in power supply of the equipment can be set to program control mode and manual mode
- The constant current loop can be calibrated to make the current error less than (0.2%+3mA)
- The transverse forced air cooling structure is adopted to take away the heat generated in the burn-in process, so that the temperature of the test chamber tends to be uniform
- 8 sets of independent fan cooling control components are provided to independently control 2 test zones

MFS2020 Product Features

Test temperature zone	2
Test temperature	RT
Test zone	16
Test capability	The detection capacity of a single board is 80 bits, and the maximum number of the whole machine is 1280 bits
Test parameter detection	Current detection range: 0.5mA~16.0A, error±(1%+2LSB) voltage detection range: 0~100.0V, error±(1%+2LSB)
Constant current electronic load	Control scope: 20~2000mA, control accuracy:±(0.2%+3mA) Detection range: 20~2000mA (single channel) 16A(In parallel), accuracy:±(0.2%+3mA)
Machine power supply	Three-phase AC380±38V
Maximum power	10KW (typical)
Total weight	1000KG (typical)
Dimensions of machine	1500mm(W)×1350mm(D)×1800mm(H)



Applicable standards

MIL-STD-750

Applicable components

For TO-92, TO-126, TO-247, TO-220, TO-3P, chip and other packaging diodes, triodes, medium and small power FETs, voltage-regulator tube, various resistors, opto-couplers, and 3-end voltage regulators



High temperature high power burn-in test system for LED

MFS2006A

8 ZONE

The system is applicable to LED lamp beads in the form of plum blossom board surface mounted LED, aluminum substrate surface mounted LED, COB packaging, etc., for constant current power test, step current burn-in test, intermittent current burn-in test and pulse current burn-in test under high temperature water cooling environment.

- 8-way independent control water-cooling platform is configured to independently control the temperature of the six burn-in channels, so that the temperature of the light panel is more uniform
- It is equipped with 8 test zones as standard, and can burn-in 8 light-emitting power diodes with different test requirements at the same time
- Each channel provides 60 circuits of 50~1500mA constant current electronic load
- It can monitor the burn-in current of each station and independently monitor the burn-in temperature of each lamp panel

MFS2006A Product Features

Test temperature zone	1
Test Temperature	85~105°C
Test zone	8
Current control	50~1500mA
Current control accuracy	±(0.3%+0.5mA)
Voltage control	3~12V
Voltage control accuracy	±(1%+1LSB)
Voltage Detection	0~12V
Voltage detection accuracy	±(1%+1LSB)
Burn-in mode	Constant current, pulse, intermittent, step
Switch pulse parameters	≤333Hz, 3%~100% (Minimum pulse width 100us, rising and falling edge<20us)
Temperature uniformity	≤±5°C
Temperature detection accuracy	±(1%+2°C)
Power supply	0~12V/200A (8 channels Optional)
Overall machine power supply	Three-phase AC 380V±38V
Maximum power	25KW (typical)
Total weight	1000KG (typical)
Dimensions of machine	1900mm(W)×1200mm(D)×1850mm(H)



Applicable standards

AEC-Q101 AEC-Q102 JESD22-A101 JESD22-A108

Applicable components

For LED lamp beads in the form of plum blossom board surface mounted LED, aluminum substrate surface mounted LED, COB packaging, etc



Constant current burn-in test system for zener diode

MFS2003A

16 ZONE

The system is suitable for constant current power test of various packaging zener diodes and other diodes (including F type, TO-220, TO-247, TO-254, TO-257, TO-258, TO-3P, SMD-0.5, SMD-1, SMD-2).

- Provide 12-way high-precision constant current electronic loads, which can control and protect each test component separately
- The burn-in power supply of the equipment can be set to program control mode and manual mode
- The transverse forced air cooling structure is adopted to take away the heat generated in the burn-in process, so that the temperature of the test chamber tends to be uniform
- 8 sets of independent fan cooling control components are provided to independently control 2 test zones

MFS2003A Product Features

Test temperature zone	1
Test temperature	RT+10~200°C (operating temperature 5~35°C without oven)
Test zone	16
Test current	0~60A
Test voltage	0~25V
Current detection	50mA~5A
Voltage detection	0~25V
Current detection accuracy	±(1%+5mA)
Voltage detection accuracy	±(1%+0.1V)
Constant current electronic load detection	50mA~5A
Precision of constant current electronic load	±(1%+5mA)
Burn-in mode	constant current, intermittent
Power supply	0~25V/60A (16 channels Optional)
Machine power supply	Three-phase AC 380±38V
Maximum power	15KW (typical)
Total weight	700KG (typical)
Dimensions of machine	1450mm(W)×1450mm(D)×2000mm(H)



Applicable standards

MIL-STD-750

Applicable components

For voltage-regulator tube diodes and diodes of F type, TO-220, TO-247, TO-254, TO-257, TO-258, TO-3P, SMD-0.5, SMD-1, SMD-2 and other packaging zener diodes



High temperature static burn-in test system for microwave tubes

MFS2004

12 ZONE

The system is configured with 12 independent test zones, each of which has 4-way component burn-in stations, and the whole machine has 48 component burn-in stations. The 12 test zones can be independently or simultaneously controlled, monitored, recorded, and communicated through the upper computer. Each station can independently control the shell temperature of the tested component, and the detection accuracy is $1\% \pm 2^\circ\text{C}$. Real time monitoring and recording of various parameters of the component during burn-in process, and using the technologically advanced adjustable voltage stabilized high-power secondary power supply.

- Real-time monitor of the current and voltage status of the component, and automatic adjust burn-in the current of the component
- Can independently control the shell temperature of the component with an accuracy of $1\% \pm 2^\circ\text{C}$
- Can be adapted to microwave power components with different packaging and power requirements

MFS2004 Product Features

Test temperature zone	12
Test temperature	70~200°C
Test zone	12
Drain voltage control	0.01~60V
Drain voltage control accuracy	$\pm(1\%+0.1\text{V})$
Grid voltage control	-10~10V
Grid voltage control accuracy	$\pm(1\%+0.01\text{V})$
Leakage current detection	0~5A
Leakage current detection accuracy	$\pm(1\%+1\text{mA})$
Grid current detection	0~50mA
Detection accuracy of grid current	$\pm(1\%+0.01\text{mA})$
Shell temperature fluctuation	$\pm 1^\circ\text{C}$
Shell temperature detection accuracy	$\pm(1\%+2^\circ\text{C})$
Power supply	0~60V/40A (12 channels Optional)
Machine power supply	Three-phase AC380V \pm 38V
Maximum power	25KW (typical)
Total weight	1000KG(typical)
Dimensions of machine	1800mm(W) \times 1300mm(D) \times 2000mm(H)



Applicable standards

MIL-STD-750 MIL-M-19500

Applicable components

For GaN,GaAs and other microwave tubes



Automatic test system for power supply

SPATS series

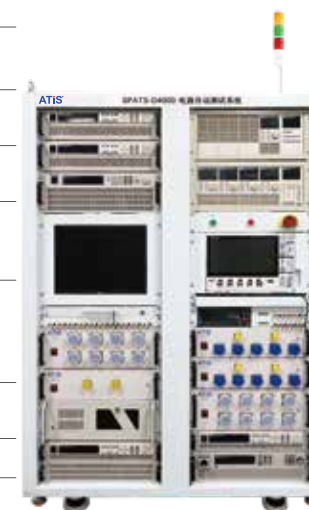
SPATS-D4000

The system can automatically export test reports, and automatically test the electrical performance indicators of power supply component facilities to meet the requirements of one-click test of electrical performance. The whole system consists of power supply, load, test and industrial control units. Meet relevant test specifications and standards, and conduct comprehensive electrical performance test on the product to verify whether the electrical performance indicators of the product meet the design indicators.

- High speed synchronous test, highly efficient data acquisition
- Flexible configuration compatible with mainstream manufacturers' instruments
- Perfect over-voltage and over-current protection functions
- Open architecture software, quick editing of test items and programs
- Perfect tooling motherboard design, only need to replace the tooling sub-board for different types of tested power supply

SPATS-D4000 Product Features

Input voltage	Specific accuracy depends on different configurations
Input current	General measurement accuracy: $0.1\% \times \text{RD} + 0.05\% \times \text{RG}$
Output voltage	Specific accuracy depends on different configurations,
Output current	General measurement accuracy: $0.05\% \times \text{RD} + 0.05\% \times \text{RG}$
Efficiency	Specific accuracy depends on different configurations, and general measurement accuracy: 0.5%
Voltage adjustment	Specific accuracy depends on different configurations,
Load regulation	and general measurement accuracy: 0.05%
Peak value of output ripple voltage	Specific accuracy depends on different configurations and bandwidth limits
Effective value of output ripple voltage	
Output response under 50% load transient	Optional storage waveform
Recovery time of 50% step load	
Startup rise time, startup over-charging	Optional storage waveform
Machine power supply	Three-phase AC 380V \pm 38V
Maximum power	12KW (typical)
Total weight	500KG(typical)
Dimensions of machine	1200mm(W) \times 850mm(D) \times 1850mm(H)(dual-cabinet)



Applicable standards

SJ20646-97 《Test methods for hybrid integrated circuit DC/DC converters》 etc

Applicable components

For single, multiple output DC/DC and AC/DC power modules with large, medium and small power and single and multiple output

