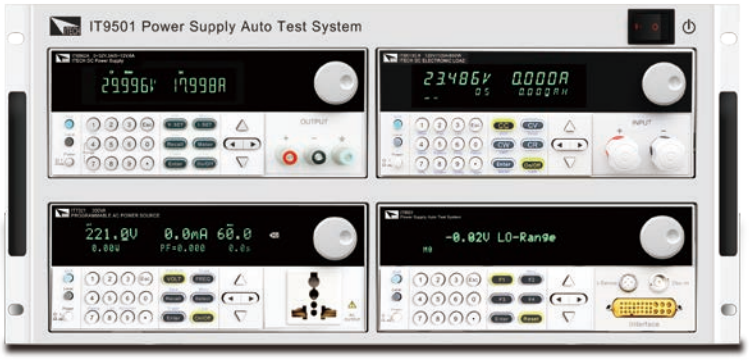
ITS9500 Power Supply Test System



Applications

Test AC and DC Power Supply, Power Adapter, Charger, Car Charger, etc.

Feature

Standard 5U unit integrates DSO, electronic loads, programmable AC power supplies, programmable DC power supplies, noise analyzers, timing analyzers, digital electric meters, oscilloscope, I/O card and other instruments, ITS9500 can be installed on the counter top or inside a standard cabinet.

- Best cost-effective unit
- Modular design for easy maintenance
- Over 20 test items
- Simultaneous operation of 8 ways at maximum
- A power supply unit which can test several single outputs at one time
- Test program management/editing function
- Statistic report output/editing function
- Multi-level authority setting function
- User authority setting
- System accesses record
- Bar Code Reader supported by the software
- Optional external fixture for achieving automation test
- Meet the ENERGY STAR measurement specification

ITS9500 Power Supply Test System is a convenient, practical and cost-efficient test system designed for switching power supply test. This system adopts a new scheme, overcoming the shortcoming of traditional test system, which is characterized by bulk size, high price, difficult to operate and maintain. Inside the 5U size, this system can provide test results superior to traditional large cabinet test system, which saving the space as well as the cost for customers.

Due to the extensive product line of ITECH, users can choose the most suitable instrument to build the ITS9500 test system based on their needs, thus providing the maximum flexibility and scalability for system configuration

ITS9500 test system can be applied for tests of products such as power supply unit, LED drive power and battery charger. The system provides over 20 test items and through the powerful automatic test software of ITS9500, users can select test items based on the characteristics of the device under test to easily complete the test process. The test software provides two types of user interface, the processional type and the simple type to easily meet varied demands of different users.

Small size and cost-efficiency

ITS9500 power supply test system integrates all necessary instruments for switching power supply test in the limited space and is compacter than other similar products.

The system, different from traditional large and expensive power supply test system, can be used in production as well as R&D.

Test items

ITS9500 power test system provides perfect test items for users, and different from traditional test system, users are not required to have program editing ability to operate the system. Users only have to choose the test items from over 20 test items provides by the system based on their needs and the system will complete the test process in sequence.

Input tests	Output tests	Protection tests
Input output test	Static test	Output OCP test
Input voltage ramp test	Dynamic test	Output OVP, UVP test
Input frequency ramp test		Short circuit protection test
Input power disturbance test		OPP test
Power-off protection test		Low voltage protection test
Input RMS current test		
Input peak current test		

Time series/dynamic tests	Stability test	Special tests
Turn on time	Power effect test	Extended measurement test
Rise time	Load effect test	Discharge test
Turn off time	Mixed effect test	Analog output control
Fall time		PWM output control
Overcharge voltage test		Can bus read/write
Surge current test		GPIB read/write
		RS232 read/write
		I2C read/write
		TTL signal control
		Relay control
		Bar code reader

Modular design for easy maintenance

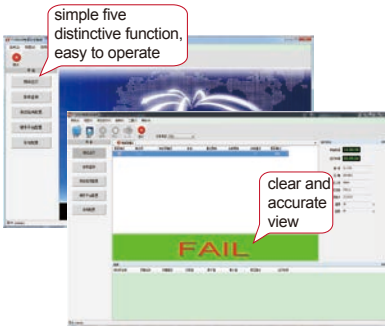
ITS9500 power supply test system adopts traditional modular design, forming an convenient and multi-functional power supply test platform. It facilitates future repair and maintenance, and reduces the influence to the production line.

Combine 8 kinds of instruments in one to meet diversified testing demands

Easy operation and clear result display

ITS9500 test software can realize functions as editing, operation, test, and data analysis of power test items.
ITS9500 test software supports Chinese and English and provides two types of user interfaces, the processional type and the simple type to easily meet varied demands of different users.

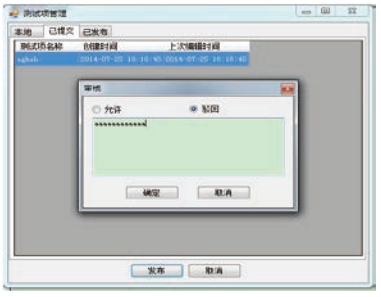
- The operation interface of the software is simple and clean with five distinctive function modules, and even users without programing ability can master the operation easily.
- The status of final test results, which is PASS or FAIL, will be highlighted on the interface to ensure a clear and accurate view for operators.



Flexible choice to meet varied demands

- Test item editing function

ITS9500 test system provides test item editing function. In addition to test items coming with the system, users can create new test items to meet test demands of all power supply units.



ITS9500 Power Supply Test System

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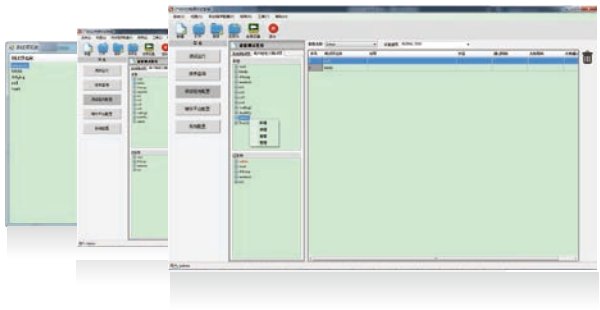
Test System

Test program editing function

ITS9500 test system enables users to connect several edited test items to form a test program. The system will carry out test in sequence, thus significantly reducing the test time.



Support simultaneous operation of several systems

One set of ITS9500 system test software can support simultaneous operation of six systems at maximum.

Comprehensive and various analysis tools

Self-defined report template

ITS9500 test system supports users to save the test data in the form of a test report and the report format can be self-defined, thus significantly reducing time.

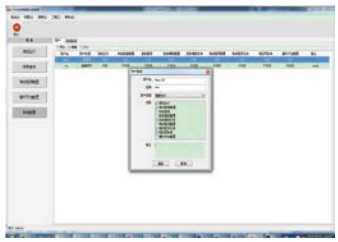
Report management

On the “Report Inquiry” interface of ITS9500 test system, user can inquiry/edit/print reports by inputting the report number or scanning the bar code.

Perfect and safe management system

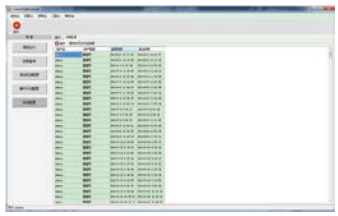
Set user authority

“User management” enables users to set authorities for different users



System log

The system log will record the login information of users, including user name, type, login/logoff time.

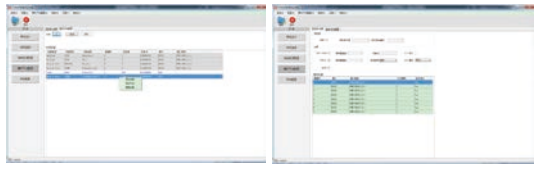


Test item/program management

User can understand the release, review and edit of test items as well as the operation of test program.

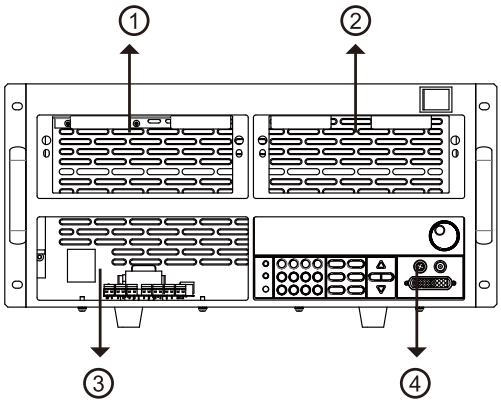
Hardware configuration

Through the “Hardware configuration” function, users can choose equipment from the instrument list to configure the system and connect bar code/fixture to realize automatic test.

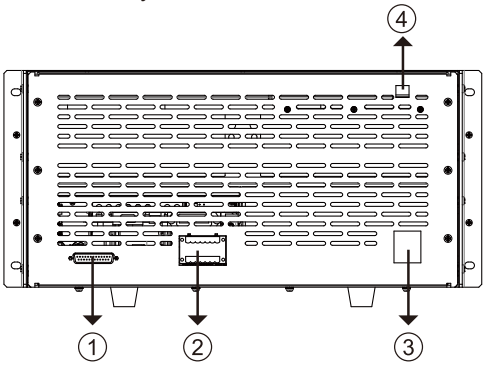


High performance hardware configuration

ITS9500 power supply test system adopts flexible hardware framework integrating necessary hardware test devices, thus facilitating input cost control and test efficiency improvement.



1,2,3 and 4 can be used for connecting OVP power, AC/DC power, electronic load, switch analyzer, etc.



1.Scalable I/O
2.Relay output (10~16 IO Pin)
3.AC power input
4. USB communication port

Programmable AC power supply

ITS9500 power supply test system's configured AC power can cover 300VA-54kVA power supply products.
With precision liner amplification technology, output of very pure AC power can be realized; distortion factor lower than 0.5%; simulate normal and abnormal AC inputs and measurement key electrical performance parameters of device under test.
Easy operation, perfect protection and self-diagnose function make it reliable product for you.

Programmable DC power supply

ITS9500 power supply test system's configured DC power can cover 100W-30kW power supply products.
Automatic gear technology, for regulating the voltage and current; high accuracy and high resolution, low ripple and low noise; LIST editing function, for application in the voltage drop test of DC-DC converter and inverter, battery charge and product life cycle test. It can be applied in the over-voltage protection test.

DC electronic load

ITS9500 power supply test system's configured electronic load can cover 150W-600kW load products.
Four operating modes (CC, CV, CR, CW), for meeting test demands of different power products; high speed and programmable dynamic load characteristics, for testing the stability of power power products; arbitrary waveform simulation function (LIST), for observing whether the device under test can be operated normally in the application field; short current test function; sense function, for ensuring accuracy of long distance measurement; and perfect protection, your priority for test.

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Switch analyzer

Switch analyzer is an important part of hardware of ITS9500 power supply test system. This product integrates the product functions of oscilloscope, data acquisition card, IO card and power meter, thus facilitating performance tests of switching power supply and reducing cost and space for customers.

Rich optional accessories

IT-E256	Extended keyboard
IT-E181	Power test system fixture Four channels synchronous test
IT-E182	Power test system fixture Four sequential test
IT-E187	Relay card
IT-E190-6A	Current sensor
IT-E190-15A	Current sensor
IT-E190-25A	Current sensor
IT-E190-40A	Current sensor
IT-E190-60A	Current sensor

IT-E181 is a fixture which can work with ITS9500 test system to realize multiple-channel test. It can connect 4 test systems and test 4 devices under test with the same specification, thus significantly improving the production efficiency and reducing production cost for custommers. IT-E181 supports test for several types of charge interface and visual display for the test result. IT-E256 extended keyboard can be used for controlling the start and stop of ITS9500 system test program, no need to click mouse. The system is compact and easy to use, thus improving test effciency.

IT-E181

IT-E256

LED drive power test

ITS9500 power supply system is the best test system for LED power as it can measure several devices under test at one time, thus significantly improving the capacity of production line.
The system is provided with test items for devices under test with performance optimization (LED drive power for lighting or backlight). Users only have to define test conditions and specifications on the standard test items for test.
Optimized test scheme covers the following 6 types of power test requirement: output characteristic test for detection of general performance of device under test; input characteristic test for detection of input parameters of power supply, protection test for testing the protection circuit which triggers the power supply; real-time and transient measurement of transient status of power supply at turn-on and turn-off, and voltage RMP time at turn-on and turn-off of measurement power; stabilty test for detection of stability of device under test during the change of input power and load; comprehensive test, providing test environment and other special functions.

Recommended configuration

Measuring range	LED model
Power	300W
Output voltage	500V

Test System

Vehicle-mounted charger test scheme

ITS9500 test system is provided with automatic gear technology to regulate voltage and current with high accuracy and resolution, low ripple and noise. LIST editing function provides input/output characteristics, efficiency and protection item test for vehicle-mounted charger, thus greatly reducing time.

Car charger

Recommended configuration

Measuring range	Low voltage model	Low voltage economy model
Power	250W	150W
Output voltage	120V	72V

DC-DC power supply test scheme

DC-DC power is widely used in military industry, communication equipment, vehicle, electronics and aerospace. ITS9500 test system is particularly suitable for high-efficient automatic test of DC-DC power. With the powerful function of ITS9500, stable and reliable test process can be realized and accurate test data can be obtained.

DO-DC module

Recommended configuration

Measuring range	Low voltage model	Low voltage economy type	High voltage model
Power	250W	150W	300W
Output voltage	120V	72V	500V

AC-DC power supply test scheme

With continuous technological development, switching power supply has more and more applications, it will generate harmonic interface on input electric power, in turn, the harmonic wave of electric power will affect the electronic product. The disturbance test of ITS9500 power supply automatic test system is for test of influence of power supply fluctuation, and is a good helper for engineers.

Switching power supply

Recommended configuration

Measuring range	Low voltage model	Low voltage economy model	High voltage model
Power	250W	150W	300W
Output voltage	120V	72V	500V