

ITECH Products Selection Guide

* DC Electronic Load	
IT8700 series multi-channel electronic load	
Model	Specification
IT8731	80V/40A/200W
IT8732	80V/60A/400W
IT8732B	500V/20A/300W
IT8733	80V/120A/600W
IT8733B	500V/30A/500W
IT8722	80V/20A/250W*CH1 80V/20A/250W*CH2 *1
IT8723	80V/45A/300W CH1 80V/45A/300W CH2 *1
IT8702	Mainframe for four modules
IT8703	Extended frame for four modules
*1: The total power of dual channel for IT8722 is 300W. *2: IT8731,IT8732,IT8732B,IT8733,IT8733B and IT8722 should be equipped with IT8702. *3: Main frame equips built-in RS232/USB/GPIB/Ether Net interface.	
IT8800 series multi-function input electronic load (standard RS232/USB/GPIB interface)	
Model	Specification
IT8811	120V/30A/150W
IT8812	120V/30A/250W
IT8812B	500V/15A/200W
IT8812C	120V/60A/250W
IT8813	120V/60A/750W
IT8813B	500V/30A/750W
IT8814	120V/120A/1500W
IT8814B	500V/60A/1200W
IT8816	120V/240A/3000W
IT8816B	500V/100A/2500W
IT8817	120V/360A/4500W
IT8817B	500V/120A/3600W
IT8818	120V/480A/6000W
IT8818B	500V/150A/5000W
IT8830	120V/500A/10KW
IT8830B	500V/200A/10KW
IT8830H	800V/100A/10KW
IT8831	120V/750A/15KW
IT8831B	500V/300A/15KW
IT8831H	800V/150A/15KW
IT8832	120V/1000A/20KW
IT8832B	500V/400A/20KW
IT8832H	800V/200A/20KW
IT8833	120V/1500A/25KW
IT8833B	500V/500A/25KW
IT8833H	800V/250A/25KW
IT8834B	500V/600A/30KW
IT8834H	800V/300A/30KW
IT8835B	500V/700A/35KW
IT8835H	800V/350A/35KW
IT8836B	500V/800A/40KW
IT8836H	800V/400A/40KW
IT8837B	500V/900A/45KW
IT8837H	800V/450A/45KW
IT8838B	500V/1000A/50KW
IT8838H	800V/500A/50KW
IT8839B	500V/1100A/55KW
IT8839H	800V/600A/55KW
*We receive custom design for electronic loads with higher power or special specification	
IT8500+ series upgrade single channel electronic load (optional RS232/USB/GPIB interface)	
Model	Specification
IT8511+	120V/30A/150W
IT8512+	120V/30A/300W
IT8512A+	150V/30A/300W
IT8512B+	500V/15A/300W
IT8512C+	120V/60A/300W
IT8513C+	120V/120A/600W
IT8514B+	500V/60A/1500W
IT8514C+	120V/240A/1500W
IT8516C+	120V/240A/3000W
IT8200 series economic electronic load	
Model	Specification
IT8211	60V/30A/150W

* DC Power Supply	
IT6500 series auto-range programmable DC power supply (standard RS232/USB/GPIB/RS485 interface)	
Model	Specification
IT6512 (with Dynamic test and DIN waveform)	80V/60A/1200W
IT6512A	80V/60A/1200W
IT6512D	80V/120A/1600W

IT6500 series auto-range programmable DC power supply (standard RS232/USB/GPIB/RS485 interface)	
IT6513 (with Dynamic test and DIN waveform)	150V/30A/1200W
IT6513A	150V/30A/1200W
IT6522A	80V/120A/3000W
IT6523D	160V/120A/3000W
IT6533A	160V/120A/6000W
IT6532A	80V/240A/6000W
IT6900A series multi-function programmable power supply (standard RS232/USB/GPIB interface)	
Model	Specification
IT6922A	60V/5A/100W
IT6932A	60V/10A/200W
IT6942A	60V/15A/360W
IT6952A	60V/25A/600W
IT6953A	150V/10A/600W
IT6860A series dual-range programmable power supply (standard RS232/USB interface)	
Model	Specification
IT6861A	20V/5A/100W 8V/9A/72W
IT6862A	32V/3A/96W 12V/6A/72W
IT6863A	72V/1.5A/108W 32V/3A/96W
IT6872A	35V/4A/140W 15V/7A/105W
IT6873A	75V/2A/150W 32V/4A/128W
IT6874A	150V/1.2A/180W 60V/2A/120W
IT6100 series high accuracy programmable power supply (optional RS232/USB/GPIB interface)	
Model	Specification
IT6151	5.2V/60A/312W
IT6152	20V/27A/540W
IT6153	30V/18A/540W
IT6154	60V/9A/540W
IT6162	20V/48A/960W
IT6163	30V/32A/960W
IT6164	60V/16A/960W
IT6163S	30V/40A/1200W
IT6164S	60V/20A/1200W
IT6165S	40V/30A/1200W
IT6100B series accuracy programmable power supply (standard RS232/USB/GPIB interface)	
Model	Specification
IT6121B	20V/5A/100W
IT6122B	32V/3A/96W
IT6123B	72V/1.2A/86W
IT6132B	30V/5A/150W
IT6133B	60V/2.5A/150W
IT6300B series triple-channel programmable power supply (standard RS232/USB/GPIB interface)	
Model	Specification
IT6322B	30V/3A/90W*2CH 5V/3A/15W*1CH
IT6332B	30V/6A/180W*2CH 5V/3A/15W*1CH
IT6333B	60V/3A/180W*2CH 5V/3A/15W*1CH
IT6302 triple-channel programmable power supply (application: education industry/laboratory/volume demand)	
Model	Specification
IT6302	30V/3A/90W*2CH 5V/3A/15W*1CH
IT6700 series digital control power supply	
Model	Specification
IT6720	60V/5A/100W
IT6721	60V/8A/180W
IT6700H series high voltage programmable DC power supply (standard RS232/USB/GPIB interface)	
Model	Specification
IT6723G	600V/5A/850W
IT6723B	150V/20A/850W
IT6723C	32V/110A/850W
IT6723	80V/40A/850W
IT6723H	300V/10A/850W
IT6724B	150V/20A/1500W
IT6724C	32V/110A/1500W
IT6724H	300V/10A/1500W
IT6724G	600V/5A/1500W
IT6724	80V/40A/1500W
IT6726B	160V/40A/3000W
IT6726H	300V/20A/3000W
IT6726G	600V/10A/3000W
IT6726V	1200V/5A/3000W
*AC Power Supply	
IT7300 series AC power supply (standard RS232/USB/LAN interface)	
Model	Specification
IT7321	300V/3A/300VA
IT7322	300V/6A/750VA
IT7324	300V/12A/1500VA
IT7326	300V/24A/3000VA

About ITECH

ITECH is devoted to research and development in power supply technologies in test and measurement. The company specialized over the years and it is skilled in producing high power electronic testing systems, high-performance automated testing systems, power supplies and electronic loads. Our products are widely used by enterprises in all fields. Our products are well known for high performance and quality which are exported to over twenty countries in Europe, North America and Asia.



Your Best Power Solution

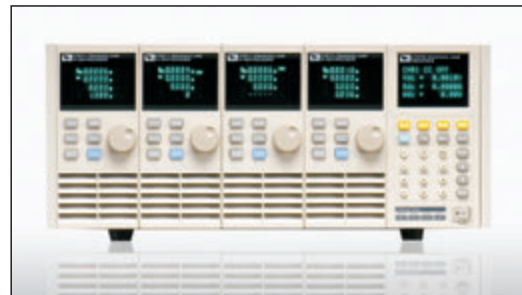
Multi-channel electronic load

IT8700 Series

Feature

- Removable modules for easy system configurability
- Dynamic power distribution function for dual channels, save your cost
- Dual-channel module displays every channel information simultaneously
- Measure short-circuit peak current value
- Up to 25KHZ transient mode and 100KHZ list mode
- Measurement resolution: 0.1mV, 0.01mA (10uA)
- Measurement speed: up to 50KHZ
- Auto-test function
- Support several electronic loads working at the same time
- Adjustable slew rate in CC mode
- Supports up to 16 channels with mainframe extension
- Output resolution up to 16 bits, voltmeter and ammeter reach 5 1/2 bits
- Constant current (CC), constant voltage (CV), constant resistance (CR) mode
- Highlight VFD display for both mainframe and modules
- Support USBTMC/SCPI communication protocol
- Output terminals on the rear panel
- Simulate the transient response and export measured values in time
- Built-in waveform generator and LIST mode
- Built-in LAN, GPIB, USB, RS232 interfaces

IT8700 multi-channel DC E-load



IT8700 series E-loads can be applied to a lot of fields, to test AC/DC power supply, DC/DC converter, battery, charger, adapter and electronic components and so on. Meanwhile, IT8700 shows its good performance in R&D, manufacture and supplied materials inspection.

IT8722 dual-channel module originates dynamic power allocation function. The max output power of each channel is 250W. User could change the power allocation ratio as long as the total power is within 300W.

IT8700 has integrated current slope adjustment circuit. User can set the rising and falling slew according to their demands. Besides, IT8700 series E-loads can be set to only turn on if the voltage is at or above a set value. Additionally, the load could choose to living or latch when voltage drops below the set value.

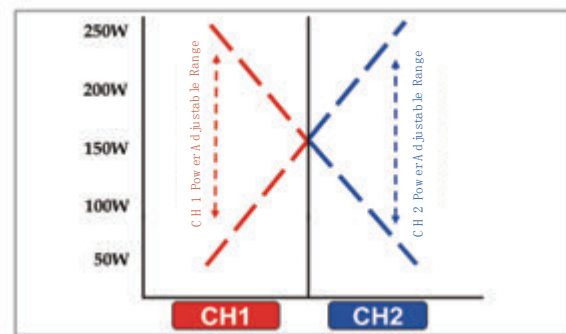
Measuring speed of voltage and current is up to 50KHZ, with high resolution up to 16bit. User can easier to accomplish the program and monitor the voltage and current values. IT8700 provides up to 100 groups memory capacity to recall later conveniently. Upgrade the testing efficiency.

IT8700 has built-in Ethernet, USB, GPIB and RS232 interface, with much higher communication speed and stability.

IT8700 is complete with OPP, OCP, OVP, OTP and reverse voltage protections to ensure the high reliability and performance of IT8700. It has a good reputation in engineering test, auto test system and many other fields.

Dynamic power allocation

IT8722 dual-channel module originates dynamic power allocation function. The max output power of each channel is 250W. While when the two channels work together, max power is limited to 300W. If one channel works at 130W, then the other channel only can output 170W. Or can be 50W-250W combination. This technology can save the cost as just one module can replace multiple units.



In the application of newest PC ATX power supply test, the output of six channels are as follows:

IT8722 module1: +12V1DC(250W)/-12VDC(50W)

IT8722 module2: +12V2DC(250W)/+5VSB(50W)

IT8722 module3: +5VDC(150W)/+3.3VDC(150W)

In the past, the user may have to purchase three different units with specification of 150W/50W/250W to meet the whole test.

But now just one IT8722 module can solve all problems with its dynamic power allocation function. It can be used as 250W and 50W, or 150W and 150W, change flexibility and save cost.

More powerful functions

Auto-test function

In auto-test mode, user can generate a sequence of tests using different modes, mode parameters and durations. This function is useful for executing a set of tests on a device, then displaying whether the tests passed or failed.

Complete models

Compared to other E-Loads, IT8700 has the best performance. With the highest resolution up to 0.1mV/0.01mA, which made the testing data more accurate. Meanwhile, the voltage and current measuring speed is up to 50KHZ, speed up the test and insure the accuracy.

Various modules could meet different requirements for customers

IT8700 modules	
IT8731	80V/40A/200W
IT8732	80V/60A/400W
IT8732B	500V/20A/300W
IT8733	80V/120A/600W
IT8733B	500V/30A/500W
IT8722	80V/20A/250W*CH1; 80V/20A/250W*CH2
IT8723	80V/45A/300W*CH1; 80V/20A/300W*CH2
IT8702	main frame includes four kinds of communication interfaces
IT8703	extended frame

*IT8722 power of each channel is between 0W to 250W, but total power is less than 300W
($50W \leq P_{CH1}/P_{CH2} \leq 250W$; $P_{CH1} + P_{CH2} \leq 300W$)

*IT8723 power of each channel is between 0W to 300W

Advantage

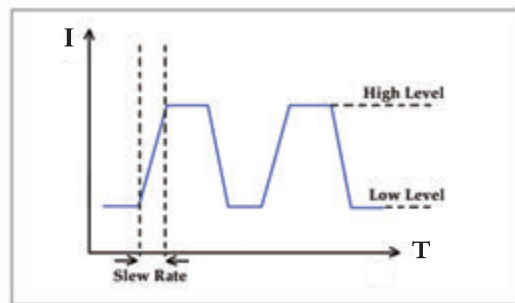
When test power supply, usually both high power and low power are needed. Choosing one IT8722 module could meet user's dual-channel test requirement. You could re-assign max power range of each channel. For example, set the max power of one channel as 250W to meet customer new test request.

How to dynamically allocate

The total power of IT8722 is 300W. If the power of power of dual-channel power supply is less than 300W, IT8722 will be a good choice. User only need to set the max power of one channel, the other channel will automatically re-allocate.

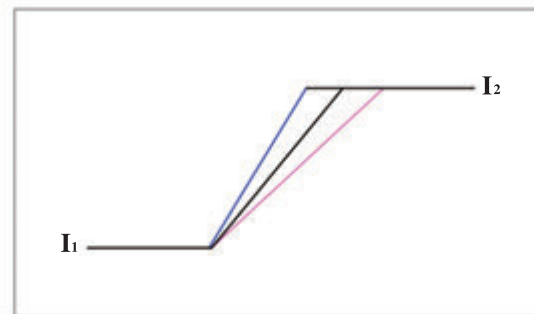
Transient mode

Electric components develop in high speed direction, so the power supply performance of transient and dynamic response is very important. Thus, IT8700 provides high speed programmable dynamic function. Parameters: high/low level of current, T1/T2 and rising/falling rate.



Adjustable slope

IT8700 has integrated current slope adjustment circuit. User can set the rising and falling slew according to their demands.



High speed of I-V test

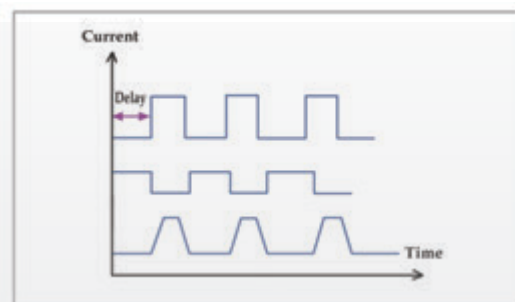
IT8700 series E-loads can output I-V curves testing up to 500 points in less than 500ms. Be able to find the maximum power operating point of the solar module (V_{maxp} , I_{maxp}), the maximum voltage (V_{maxp}) and maximum current (I_{maxp}) during measuring maximum power (P_{max}), the open circuit voltage (V_{open}) and short-circuit current (I_{short}).

IT9380 can scan once or continuously and monitor I-V curve during the test. A single software can simultaneously test multiple solar batteries.



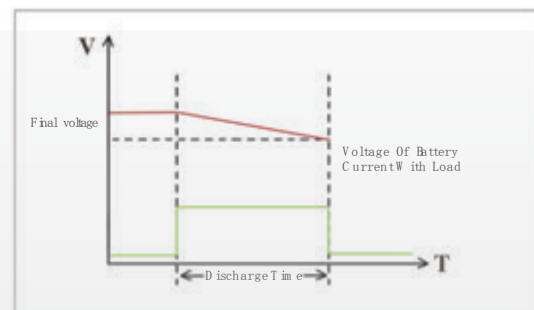
List function

List mode allows customer to generate a complex current sequence. Moreover, the mode change can be synchronized with an internal or external signal, to accomplish dynamic and precise test. Besides, in list mode, each module can be triggered to run separately or synchronously.



Timer function

IT8700 series has powerful and accurate timer function. It ranges from 0.1ms to 100000s. This function could be used in the following applications, battery discharging test, discharging time of ultracapacitor, jumping time of fuse and circuit-breaker, rising time of ATX source and D/D power supply, and so on.



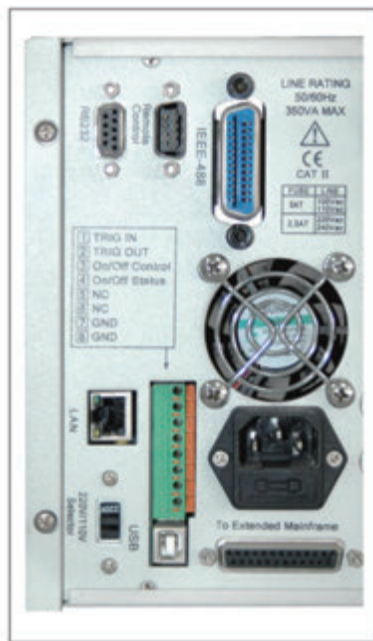
Battery discharge test

IT8700 series E-load can combine with ITECH Power supply by IT9320 software to be a powerful intelligent charge and discharge system. Users can write a suitable testing process by themselves via simple settings. Meanwhile, it supports up to 50 channels to run at the same time. During the test, the software can record V-t, I-t, P-t and C-t curves and datas (I, V, C, T...), make the data-observation more easier.



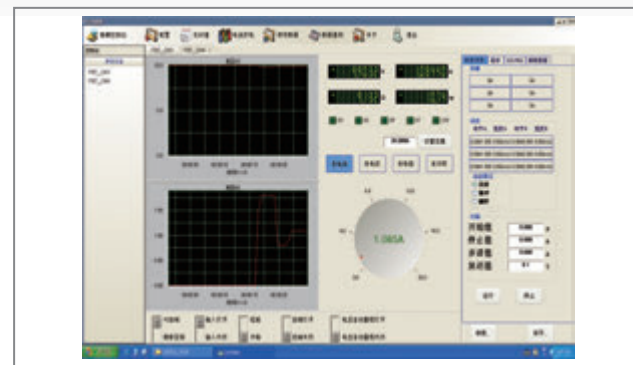
Powerful communication

IT8702 mainframe has built-in GPIB(IEEE488)/Ethernet/USB/RS232 interfaces. Support standard SCPI/VISA/USBTMC protocols. With higher communication speed and stability. IT8700 can be expanded up to 16 channels via adding expansion mainframe(IT8703), which significantly reduce the cost and the difficulties to control. It has an average of 5ms of rapid communication speed, with up to 50KHZ voltage and current measuring speed. IT8700 is superior to other products, improving test efficiency.



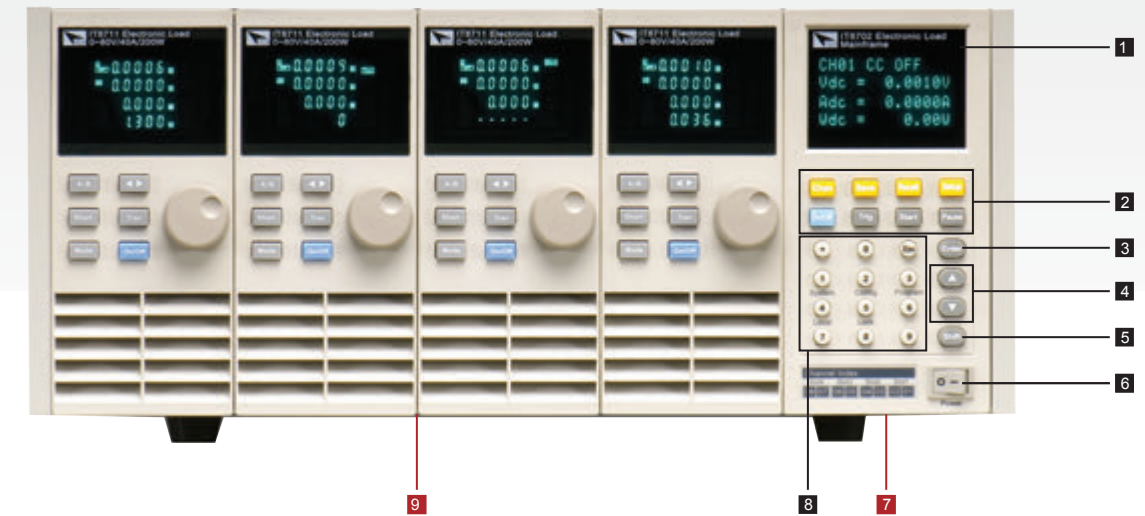
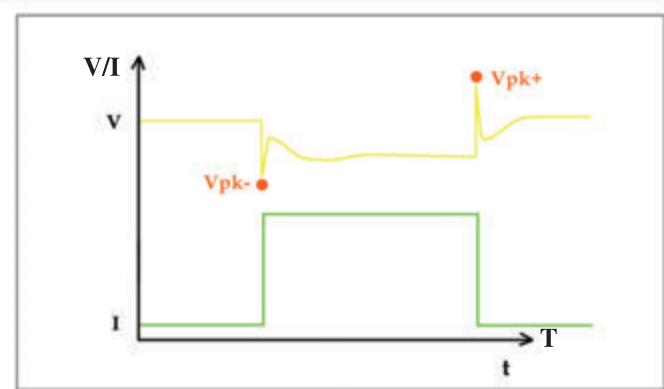
Remote monitor

ITECH provides a monitoring software IT7000 together with IT8700 series E-load. User can easily control and monitor all channels' state, observe current and voltage waveforms, and accomplish auto-test function through simply setting



Vpk measurement function

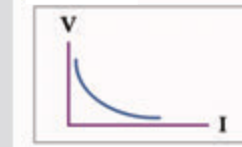
In previous, users must use the oscilloscope to grasp the instantaneous voltage and current waveforms to obtain Vpk+ and Vpk- value. While the dynamic switching power supply current testing. But our IT8700 series load module could display digital Vpk- value easily without the use of an Oscilloscope.



- 1 VFD Display
- 2 Mainframe function keyboard
- 3 Enter button
- 4 Moved up and down keys
- 5 Shift button
- 6 Power ON/OFF
- 7 Mainframe panel
- 8 Number keypad and Esc
- 9 Module combination

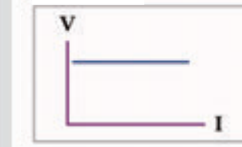
CC/CR/CV/CW operation mode

CW mode



Application of CW
 1. Source test under CW
 2. Capacity test and capacity life cycle test Application of CV
 3. Pout v.s Eff% curve test

CV mode



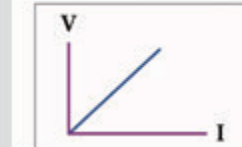
Application of CV
 1. Charger test
 2. Current limitation test of source
 3. Fuel cell test
 4. Current source test

CC mode



CC mode Application of CC
 1. Load modulation test of power supply
 2. Discharging time and life cycle test of battery
 3. Fuel cell test

CR mode



Application of CR
 1. Current limitation point test of current source
 2. Current rise/descend rate of source
 3. Low starting test of source
 4. LED driver test
 5. Load analogue of Auto temperature controller

*IT8700 has CV, CC, CR, CW modes which could satisfy various testing requirements.