

IT6412 DC Power Source, Dual-Channel Bipolar Battery/Charger Simulator

IT6412 unique bipolar voltage/current output can be used as a bipolar power supply or a bipolar electronic load. The battery simulating function is especially applicable for development and high speed production testing of portable, battery-operated products, such as smartphones and wireless chipsets, Bluetooth headsets, tablet computers, digital cameras, GPS receivers, RFIC power amplifiers, and intelligence wearing, etc. Ultrafast transient time less than 50us and new designed speed shift mode achieves voltage/current high speed rising waveform without overshoot. Meanwhile, the user may have experience of Oscilloscope with our waveform display function, more easy and effective usage.

Feature

- Dual Channel, Bipolar, Dual Range output
- Accurate Battery Simulation
- Oscilloscope waveform display (DSO)
- Dual-channel display on high performance colorful LCD screen
- Ultrafast transient response < 50us
- Ultrafast Voltage rising time up to 500us (full load)
- Current readback resolution up to 100nA
- Built-in high accuracy DVM
- Variable output impedance
- Applicable to portable battery-operated products test
- LED test no overcharged current
- Relay out function achieves electrical isolation on terminals
- List function achieves voltage/current output as programmed
- Standard interfaces LAN/USB/GPIB



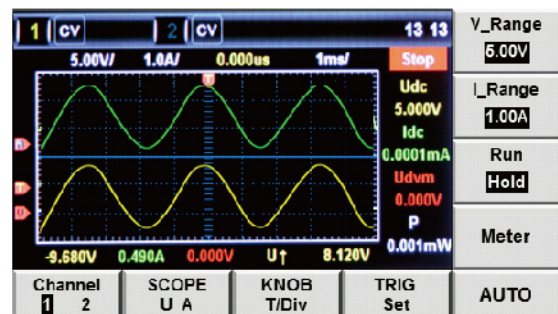
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Dual-Channel/Bipolar/Dual-Range Output

As a dual-channel bipolar high speed liner DC source, IT6412 is available for easy-shifting dual range output with each channel. With max. $\pm 15V$ voltage and $\pm 5A$ current output, IT6412 can achieve testing for mobile and charger independently. IT6412 is multifunctional and with high performance, makes diversified testing requests available.

Oscilloscope Waveform Display Function

IT6412 provides waveform display function based on sample data. The voltage/current waveform is visible or invisible by your option, and can be adjusted by the knob. The graphic on the newly design colorful display can be saved, achieves easy and effective oscilloscope experience.



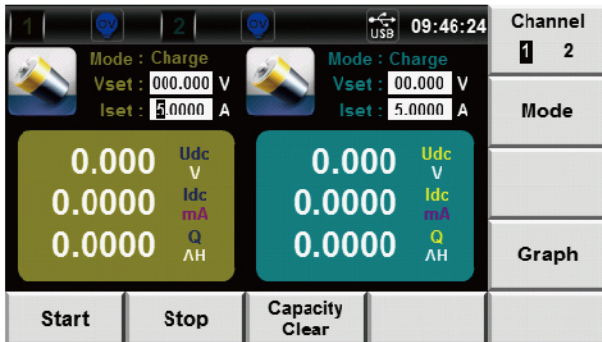
DC power supply

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Battery Simulating Function

With the unique current bipolar design and 0~1Ω variable output impedance, IT6412 is applicable to types of portable battery charge-discharge tests. Simulating the battery charge-discharge features and assist with other tests are also reliable. One equipment, diversified applications.



Screenshots Function

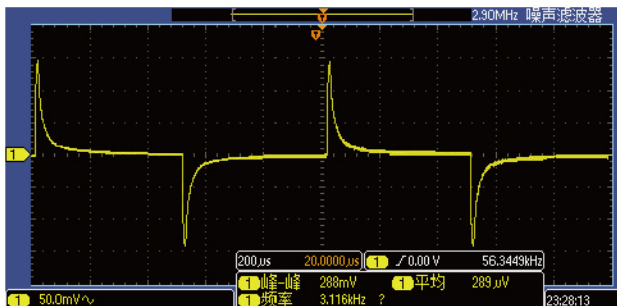
IT6412 provides screenshots function to facilitate customer data analysis. Press screenshots on the front panel, the display graphic will be saved in inserted USB storage disk, easy for your reanalysis on data and waveform. The USB interface on front panel makes the data saving on time and easily.

DVM Test Function

Abundant electrical basic measuring functions are available on IT6412. High accuracy DVM is built in each channel with readback resolution up to 1mV. The measured data will be visible on specified channel screen. The changes of voltage waveform measured by DVM can be observed by oscilloscope display function.

Ultrafast Transient Response<50us

IT6412 is with ultrafast transient response ability, the transient time for recovering to 50mV is less than 50us when 50%-100% loaded. New designed speed shift mode achieving voltage/current high speed rising waveform without overshoot, supports stable power supply, and ensures the security, especially for LED test.



Test field

- Portable battery powered product testing
- Small power solar cell test
- Battery protection board test
- Super bright LED test
- LED lamp test
- Power amplifier test
- DC/DC converter test

DC power supply



		IT6412			
		CH1		CH2	
Input Rating	Voltage	±15V	±9V	0-15V	0-9V
	Current	±3A	±5A	±3A	±5A
	Power	45W			
Load Regulation	Voltage	≤0.01%+2mV			
	Current	≤0.05%+1mA			
Line Regulation	Voltage	≤0.02%+2mV			
	Current	≤0.05%+1mA			
Setup Resolution	Voltage	1mV			
	Current	0.1mA			
OVP	Voltage	10 mV			
	Voltage	1mV			
Readback Resolution	Voltage	1mV			
	Current	5A Rang		1mA	
		5mA Rang		100nA	
Setup Accuracy	Voltage	≤0.02%+2mV			
	Current	≤0.05%+2mA			
(12-month validity, 25°C±5°C)	Voltage	0.5V			
	Current	0.5V			
Readback Accuracy	Voltage	≤0.02%+2mV			
	Current	≤0.05%+2mA			
(12-month validity, 25°C±5°C)	Voltage	0.5V			
	Current	0.5V			
Ripple(20Hz -20MHz)	Voltage	≤ 3mVp-p / 1mVrms			
	Current	≤1mA rms			
Setup Temperature	Voltage	0.01%+0.2mV			
	Current	0.01%+0.2mA			
drift coefficient	Voltage	0.1%+50 mV			
	Current	0.1%+50 mV			
(% of Output/°C +Offset)	Voltage	0.01%+0.2mV			
	Current	5A Rang		0.015%+0.1mA	
Readback Temperature	Voltage	0.01%+0.2mV			
	Current	5A Rang		0.015%+0.1mA	
drift coefficient	Voltage	0.01%+2uA			
	Current	5mA Rang		0.01%+2uA	
(% of Output/°C +Offset)	Voltage	≤500uS			
	Current	≤500uS			
Rising Time(no load)	Voltage	≤500uS			
Rising Time(full load)	Voltage	≤500uS			
Falling Time(no load)	Voltage	≤5mS			
Falling Time(full load)	Voltage	≤500uS			
Transient Time		50%-100% LOAD recover to 50 mV			
AC Input	Voltage *1	110V±10%			
	Voltage *2	220V±10%			
	Frequency	47HZ-63HZ			
Setup Stability-30min	Voltage	0.01%+1mV			
	Current	0.01%+1mA			
(% of Output +Offset)	Voltage	0.01%+1.5mV			
	Current	0.01%+1.5mA			
Setup Stability-8h	Voltage	0.01%+1.5mV			
	Current	0.01%+1.5mA			
(% of Output +Offset)	Voltage	0.01%+1mV			
	Current	0.01%+1mA			
Readback Stability-30min	Voltage	0.01%+1mV			
	Current	0.01%+1mA			
(% of Output +Offset)	Voltage	0.01%+1.5mV			
	Current	0.01%+1.5mA			
Readback Stability-8h	Voltage	0.01%+1.5mV			
	Current	0.01%+1.5mA			
Fuse Spec	Voltage *1	5A			
	Voltage *2	2.5A			
Sense Voltage		1V			
Programming Response Time(Typical)		5mS			
Power Factor		0.7 Max			
Max.Input Current		5A			
Max.Input Apparent Power		500VA			
Storage Temperature		-10°C ~70°C			
Protection Function		OVP/OCF/OTP			
Communication Interface		GPIB/USB/LAN			
withstand voltage (output to ground)		200Vdc			
Working Temperature		0~40°C			
Dimension (mm)		226mmW*88.2mmH*476.26mmD			
Weight (net weight)		9Kg			
DVM					
Measuring Range		-20V — +20V			
Readback Accuracy		0.02%+2mV			
Readback Resolution		1mV			
Readback Temperature drift coefficient		0.02%+1mV			
(% of Input/°C +Offset)		0.02%+1mV			
Readback Stability-30min(% of Output +Offset)		0.02%+1mV			
Readback Stability-8 h(% of Output +Offset)		0.02%+1 mV			
Input common-mode voltage		< 50Vdc			
Input Impedance		4.5MΩ			

Power meter