

# WBCS3000L32 32 Channel Low Current Battery Test System



- 32 channel system
- Channel expansion is available
- Perfect for coin cell test
- ±10mA current over 4 current ranges
- Applied voltage range of ±5V
- Potentiostat/Galvanostat circuit
- High accuracy
- Sampling time of 20msec
- Plug-in channels for easy maintenance
- LAN communication

# 32 Channel Battery Charge/Discharge Test System for low current application

The 32 channel battery test system, the WBCS3000L32, is designed for low current applications and it allows multichannel operation users to set up a battery test system at an affordable price.

Coin cells are often used to test the capacities and rate capabilites of new materials in the initial stage. The WBCS3000L32 can be a perfect choice for coin cell testing and half cell testing. Not only does the WBCS3000L32 support various techniques for battery studies, but also carries out electrochemical techniques such as corrosion test techniques, electro-analytical techniques, cyclic voltammetry, chronoamperometry, and potentiometry, etc. and this feature allows user to perform general electrochemical experiments.

The WBCS3000L32 has four current control ranges of 10uA to 10mA and voltage range of -5V to +5V as standard. The accuracy for current and voltage on these channels is  $\pm 0.01\%$  FSR. The sampling time is 20msec for a 32 channel system.

The Smart Interface(SI) software is a convenient and powerful tool allowing:

- easily making schedule files by using schedule editor
- selecting pre-defined techniques
- classifying/grouping channels by user's purpose
- monitoring detailed test data
- providing general/cycle graph format
- converting the data to ASCII or excel format

The compact size WBCS3000L32 is supplied with eight cell cables and can communicate with the computer by the way of a Local Area Network(LAN).



#### Features

- Potentiostat/Galvanostat circuit: no time delay between the charge and discharge cycles.
- Supports techniques for battery studies such as CC/CV test, CC/CC test, CV test, as well GITT/PITT test for calculation of diffusion coefficient.
- High sampling rate for calculating dynamic charge/discharge capacity ratings.
- Minimum order channel is 16 channels and extra channels can be added by the unit of 16 channels.
- The various safety functions are provided to protect the cell and system from being damaged.
- The obtained data can be analyzed by IVMAN<sup>TM</sup> software without license code for further analysis.

### For Energy Test

- Charge/Discharge(CC/CV) Test
- Constant Current Charge/Discharge(CC/CC) Test
- IV Curve Test
- Electrochemical Voltage Spectroscopy(EVS) Test
- Galvanostatic Intermittent Titration Technique(GITT) Test
- Potentiostatic Intermittent Titration Technique(PITT) Test
- Cyclic Voltammetry
- Potentiostatic Experiment With Half Cell

#### Options

- Battery Jig
- Test Cell
- Dilatometer

## Specifications

Control voltage range	±5V			
Control current range	10mA, 1mA, 100uA, 10uA (4 ranges)			
LED	Run: 1ea			
Input impedance	10 <sup>12</sup> Ohm			
Cell connection	4 probe type, alligator clip cables			
No. of channels	16 (for minimum order channel) 32 (for a standard system)			
Channel expansion	up to 128 channels			
Rise time	<50usec			
Voltage accuracy	±0.01% f.s.			
Current accuracy	±0.01% f.s.			
Voltage Control/Measurement				
Full scale ranges	±5V			
Resolution(16 bits)	0.15mV			
Current Control/Measurement				
Full scale ranges	Max. 10mA@5V			
Resolution	16 bit(0.0015% f.s)			
Communication	TCP/IP			
Sampling time	20msec			
All specifications are subject to change with	out notice			

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