# **32 Channel Automatic Battery Test System** WBCS3000Lx32





- 32 channel system
- Channel expansion is available
- Max. ±1A current with 4 current ranges
- Applied voltage range of -1V to 5V
- Potentiostat/Galvanostat circuit
- High accuracy
- Sampling time of 10msec
- Plug-in channels for easy maintenance
- LAN communication



The 32 channel battery test system, the WBCS3000Lx32, is designed for max 1A single cell applications and it allows multichannel operation users to set up a battery test system at an affordable price.

High capacity coin cells are often used to test the capacities and rate capabilites of new materials in the initial stage. The WBCS3000Lx32 can be a perfect choice for coin cell, cylindrical cell, pouch cell testing and half cell testing.

The WBCS3000Lx32 has four current control ranges of 1mA to 1A(4 ranges) and voltage range of -1V to +5V. The accuracy for current and voltage on these channels is ±0.02% FSR. The sampling time is 10msec 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 WBCS3000Lx32 is supplied with eight cell cables and can communicate with the computer by the way of a Local Area Network(LAN).



# WBCS3000Lx32

#### 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.
- 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™ 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
- Pouch Cell Jig
- Test Cell
- Dilatometer

## Specifications

| Control voltage range       | -1V to +5V  |  |  |
|-----------------------------|---|--|--|
| Control current range       | 1A, 100mA, 10mA, 1mA (4 ranges)   |  |  |
| LED                         | Run: 1ea  |  |  |
| Input impedance             | 10 <sup>12</sup> Ohm  |  |  |
| Cell connection             | 4 probe type, alligator clip cables   |  |  |
| No. of channels             | 16 (minimum order channel)<br>32 (for a standard system)  |  |  |
| Max. channel No.            | 128   |  |  |
| Voltage accuracy            | ±0.02% f.s.   |  |  |
| Current accuracy            | ±0.02% f.s.   |  |  |
| Voltage Control/Measurement |   |  |  |
| Full scale ranges           | -1V to +5V  |  |  |
| Resolution(16 bits)         | 0.15mV  |  |  |
| Current Control/Measurement |   |  |  |
| Full scale ranges           | max. 1A@5V  |  |  |
| Resolution                  | 16 bit(0.0015% f.s)   |  |  |
| Communication               | TCP/IP  |  |  |
| Sampling time               | Without option - Lx32 1set (max 32 channels): 10msec - Lx32 2set (max 64 channels): 50msec - Lx32 3set (max 96 channels): 50msec - Lx32 4set (max 128 channels): 50msec With Option (Aux V and/or Temperature) - Lx32 1set (max 32 channels): 20msec - Lx32 2set (max 64 channels): 50msec - Lx32 3set (max 96 channels): 50msec - Lx32 4set (max 128 channels): 50msec |  |  |
| Size                        | W541xD502xH317.3mm  |  |  |

All specifications are subject to change without notice.



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