



# BDT1012 Test System For Primary Batteries



This product is a 24-Channel Battery Tester that is ideal for testing and evaluating batteries according to IEC60086-1/2.

The test equipment can be used in several areas, from Research & Development to production Quality Control and incoming goods inspection.

By adding more testers in a fieldbus (CAN) network, the number of channels can easily be expanded. This system is able to test simultaneously and independently more than 5.000 batteries per controller.

## Easy Test Setup

Preparing a test can be done off-line on an existing desktop PC, using a graphical user interface. The end-user can define the specific test by means of an Event Table. The PC communicates with the Battery Tester over the CAN network interface to load the test conditions and upload the measurement data.

Every unit of 24 channels works fully independently. It is microprocessor-controlled and uses a dynamic electronic load to obtain a very high accuracy, reliability and flexibility.

Each channel has its own programmable discharge-profile. This profile is a composition of several events. Every event consists of a time interval, a type of load and a value. The load is a constant or intermittent current, resistance or power. With this test system, it is possible to perform pulses of 10 msec! This means typical continuous or intermittent lifecycle and application tests can be performed (toys, pagers, pc...).

This Battery Discharge Test System is designed according to the latest standards in electronics and informatics. Data-integrity is always guaranteed during a power-failure, network or pc-controller breakdown.

## HIGHLIGHTS

24 Independent channels

Independent Microprocessor- controlled test unit

Linked with PC controller through CAN-bus

Full scalability

More than 5000 test positions per PC

High accuracy of 0.03% FSD

AUTO calibration

4 point measurement

DYNAMIC electronic load

Four automatic switched current ranges

Fully configurable load profile in current, resistance, power and voltage

Guaranteed data-integrity

FULL INTEGRATION in customer's network

National language support



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## Technical specifications

### Voltage & Current Measurements:

Input Range:	0 - 10 VDC ; 0 - 2 Adc
Accuracy:	± 0.02% FSD
Resolution:	0.305 mV
Input Impedance:	> 100 Mohm
Additional Features:	Differential input, 4 point measurement, Common plus pole
Storage Parameters:	Time-interval $\Delta t$ , Voltage-drop $\Delta V$ , End of event
Time-interval:	$\Delta t$ : 1 - 3.600 Sec
Voltage-drop :	$\Delta V$ : 0 - 1.000 mV
Storage Time-resolution:	1 sec
Storage Memory:	Min. 3.000 measurements per channel / On board, without PC intervention >> 3.000 measurements per channel / With constant data-upload to PC
End-conditions:	Time, Voltage

### Electronic Load Specifications:

Type of load:	Constant / Intermittent current, -resistance, -power (+ mixed load
Load ranges:	4 automatic switched ranges: 2mA, 20mA, 200mA, 2A (full current regulation)
Current:	0 - 2 ADc (Accuracy: ± 0.03 % FSD)
Resistance:	0.1 Ohm - 10 kOhm (Accuracy: ± 0.05% FSD)
Power:	0.6 mW - 20W (Accuracy: ± 0.05% FSD) / max. 200W total dissipation over 24 channels
Pulse- width:	10 mSec - 10.000 Hours
Pulse Time-resolution:	10 mSec

### AD-Converters:

Resolution:	full 16 bits
Maximum Samples / Sec:	100 kSPS
Integral Non-linearity:	± 1 LSB
Calibration:	AUTOMATIC integral digital calibration (based on reference voltage)
Reference Voltage:	10.000 mV, 5 ppm/°C

### Dimensions:

Width x Height x depth of Rack:	1005 x 1914 x 507 mm / 40" x 75" x 20"
Rack weight:	100 kg/220 lbs
BDT1012 Unit Weight:	18 kg/39.6 lbs

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more info

