

# B i b t e s t 5 5 X L

Burn-in Board Test System



## Product Highlights

### Key Features

#### Technology

- 256 basic channels
- Expandable to 2048 Channels
- 4 wire Kelvin measurements
- Windows based software

#### Program

- Edge, pin and leakage netlists
- Zoned board programming
- Learn of known good board
- Universal edge adapter
- Windows editing commands

#### Testing

- Board Map or scroll test option
- Autotest or manual test modes
- Socket pass/fail indication
- History of pass/fail data
- Built in database for BIB log
- Integrated faultfinding tools

#### ■ Overview

The Bibtest55XL is the market leading burn-in board test system. The system is extremely accurate and is designed to electrically test any style or configuration of burn-in board. Using 4-wire technology the system will fully test a burn-in circuit, including resistance, capacitance, diodes, transistors, shorts, opens and leakage paths.

#### ■ Operating Principle

The basic system has 256 channels, which can easily be expanded to a maximum of 2048 channels, using 'plug and play' expansion modules. Each channel which can be programmed on the fly as force, sense, leakage, stimulus or driven guard. The test system includes a control PC and features a windows based operating software with an on-line database.

#### ■ Utilities

Bibtest55XL also features built-in enhancements including Autocalibration module, Tone Ohm fault diagnostic tool, Integrated DMM and Self test utilities.

#### ■ Enhanced Features

Increased test speeds—up to 100 parts/sec. Active stimulus for transistors / FETs. Socket latching to display pass/fail pins. SPC data gathering for BIB life expectancy. Enhanced leakage measurements. New board programming menus. Compliant with all MIL and automotive requirements for BIB testing.

### 2048 Channel Test System



## Summary System Specifications

### Resistance Measurement

Range	Accuracy	Resolution
100uR - 24R	0.01%	1.0uR
24R - 240R	0.01%	10uR
240R - 2.4K	0.01%	100uR
2.4K - 24K	0.01%	1.0mR
24K - 240K	0.01%	10mR
240K - 2.4M	0.02%	100mR
2.4M - 24M	0.12%	100R
24M - 240M	0.80%	1.0K
240M - 10G	0.40%	1.0M

### Capacitance Measurement

Range	Accuracy	Resolution
10pf - 12nf	5.00%	1.0pf
12nf - 120nf	1.00%	100pf
120nf - 12uf	1.00%	1.0nf
12uf - 120uf	1.00%	10nf
120uf - 1.2mf	1.20%	100nf
1.2mf - 12mf	2.00%	1.0uf

### Personality Modules



### Leakage Measurement

Range	Accuracy	Resolution
0.1pA - 240nA	0.15%	0.1pA
240nA - 2.4nA	0.10%	1.0pA
2.4nA - 24uA	0.12%	10pA

### Diode Measurement (Standard and Zener)

Range	Accuracy	Resolution
0-19 volts	0.005%	1.0uV

### User Defined Part (UDP)

Range	Accuracy	Resolution
0-9 volts	0.1-5%	± 0.1 v

### Stimulus Voltage

Range	Accuracy	Resolution
0-8 volts	1.0%	1mV

### Tone Ohm

Range	Accuracy	Resolution
0.2R-20k	1.0%	1.0%

### Measurement Limits

Range	Accuracy
Short Circuits	0 - 50 R
Open Circuits	1K - 10G
Lower Cap	10pf - 50nf

### Hardware Features

#### Channel Configuration

256 basic channels on entry level system  
128 block channel 'plug and play' upgrades  
Maximum number of channels 2048

#### Programming

Edge to Pin for standard testing  
Edge to Edge for edge verification  
Pin to Pin for internal connections  
Pin to Edge for bi-directional testing  
Leakage test for open circuit verification

#### Utilities

4-wire Kelvin measurements  
Test speed up to 100 components per second

### Software Features

#### Programming

Window based spreadsheet programming  
5 net-list options for comprehensive testing  
Each channel can be programmed force or sense  
Driven guard on every channel  
Each channel can be a stimulus voltage  
Look up table for edge and pin labelling  
Autolearn of known good circuit or board  
Up to 5000 netlist entries

#### Testing

Board map or scroll test options  
1st socket test for common components  
Zone board testing capability  
Database for test result storage  
Tone Ohm BIB fault diagnostic tool

### System Configuration

#### Measurement Currents

10mA, 1mA, 0.1mA, 0.01mA and 0.50uA

#### Control PC

2.5Ghz processor, 10Gb HD,  
17" LCD display, Windows 7

#### Power Requirements

110/220 volts, 50/60Hz, single phase, 5amps.



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