

Model 406A Loaded Board Test System

Low cost Manufacturing Defects Analyzer



The 406A is designed to target the highest number of assembly failures for the least amount of capital equipment cost, programming time and maintenance costs. The precision Stimulus Measurement Unit provides AC/DC analog measurements that are accurate, stable, repeatable, and reliable. Fault coverage is maximized by using unlimited power, return, and guard points during the measurements. Low cost industry standard GR2270 vacuum fixture kits interface with the ruggedized 406A receiver. Other receivers and fixturing techniques available.

In-Process Test

Maximum Fault Coverage

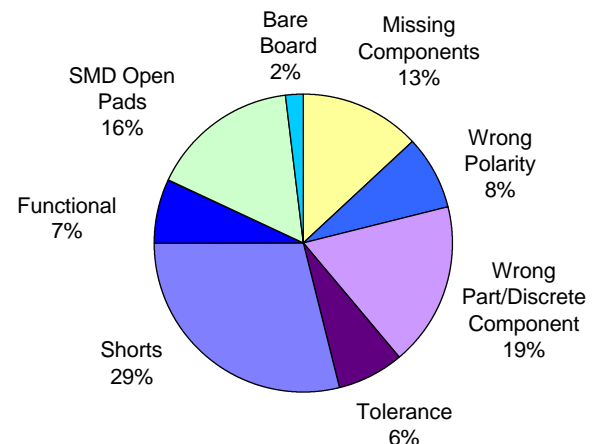
The Model 406 can find a wide variety of Manufacturing Defects including but not limited to

- Shorts
- Opens
- IC verification
- Resistors
- Diodes
- Zeners
- Capacitors
- Inductors
- Relays
- LED's
- Transistors
- SMT Opens

The **Testronics 400 Series Loaded Board Testers** are the next generation of automatic test equipment delivering high fault coverage, fast throughput, and short programming times. The new platform is an open architecture system designed with a focus on flexibility and upgradability. The 400 Series Testers provide the ability to configure the system as a low cost Manufacturing Defects Analyzer, as an Analog In-circuit tester, or as a Combinational tester

The 406A is a process control workhorse designed to be used early in the process finding manufacturing faults quickly. 85% - 93% of all loaded board failures are manufacturing faults. The 406A targets these failures for the least amount of equipment costs, least amount of programming time, and least amount of maintenance costs. Low Cost of Ownership is a Testronics philosophy. Not only is the one time system cost low, but the long term repeatable costs are low. The training at our Texas facility is free of charge, there are no software licensing fees, there are no software upgrade fees. The system can be maintained and programmed by technician level personnel.

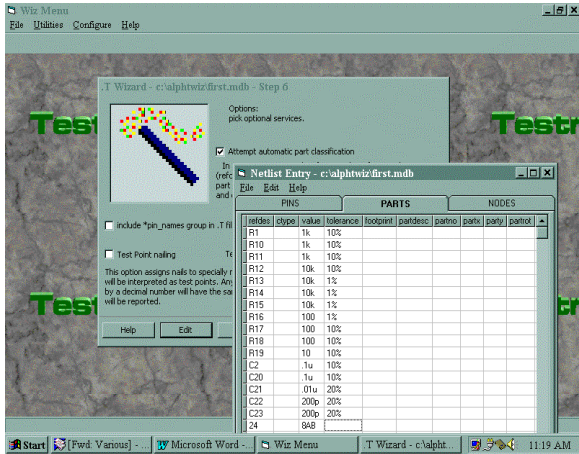
Industry Standard Fault Distribution



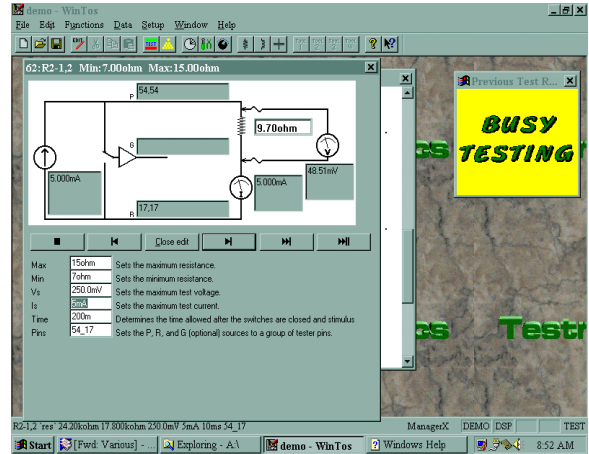
FOR MORE INFORMATION, PLEASE VISIT US AT OUR WEB SITE:

www.testronics.com

WinTos Software



Automatic CAD Translation: .T Wizard



Single Step Real-Time Debug Screen

The 406 Series testers are all controlled by standard PC's communicating through the parallel port. Windows 95/98 true 32-bit WinTOS application software makes operating and programming very user friendly. The test program wizard automatically translates 30 different types of industry CAD packages. The data is translated into a spreadsheet format for review and then automatically compiled into a test program. Real time measurement debug screens will take the technician programmer step by step through the test program allowing changes in source voltage & current, guarding, measurement polarity, test limits, etc. The graphical display will register the changes immediately and incorporate them into the test program giving the user quick access to program changes.

406A Specifications

DC Voltage & Current

	Programmable 16-bit Range	Accuracy
Voltage Source	25mV–10.0V	+/-0.5%F.S. +/-0.5% Value
Voltage Meter	2.5mV–10.0V	+/-0.5%F.S. +/-0.5% Value
Current Source	250nA–10mA	+/-0.5%F.S. +/-0.5% Value
Current Meter	250nA–10mA	+/-0.5%F.S. +/-0.5% Value
Current Source	250nA–10mA	+/-0.5%F.S. +/-0.5% Value
Current Meter	250nA–10mA	+/-0.5%F.S. +/-0.5% Value
Guard Voltage Source	25mV– 10.0V	+/-0.5%F.S. +/-0.5% Value
Guard Voltage Meter	2.5mV–10.0V	+/-0.5%F.S. +/-0.5% Value
Guard Current Source	250nA–100mA	+/-0.5%F.S. +/-0.5% Value
Guard Current Meter	250nA–100mA	+/-0.5%F.S. +/-0.5% Value

AC Voltage & Current

	Programmable 16-bit Range	Accuracy
Voltage Source	25mV–10.0V	+/-0.1%F.S. +/-0.1% Value
Voltage Meter	10mV–10.0V	+/-0.5%F.S. +/-0.5% Value
Current Source	25uA–10mA	+/-0.5%F.S. +/-0.5% Value
Current Meter	25uA–10mA	+/-0.5%F.S. +/-0.5% Value

Component Measurement Capability

	Accuracy
Resistive Range	.01Ω – 100 MΩ +/-1% F.S. +/-1% Value
Capacitance Range	10pF – 5F +/-2% F.S. +/-2% Value
Inductive Range	10uH – 10H +/-2% F.S. +/-2% Value

Base System Advanced Features

- Industry standard GR2270 style receiver for the ability to use any fixture source
- Up to 1600 fully bi-directional test points, larger pin counts available with other receivers
- Panelized board auto-programming and testing
- Unlimited guard points with true 6-wire Kelvin measurements
- Pure pin non-multiplexed matrix for simple programming
- Vectorless IC testing – Automatic IC signature learn for detection of open SMT solder joints, reversed IC's, solder bridging, and wrong IC's
- Scan pins feature speaks the test point number when external probe is used on fixture or uut.
- Custom .exe programs for advanced applications can be executed from WinTos and variables returned: pass, fail, abort, integer values, and message strings
- Automatic vacuum control for dual well fixturing
- Unlimited test steps with branching, looping, & mathematical operations on user defined variables
- Windows 98 software provides quick programming
- Multilevel Password protection
- No charge software updates, No charge training
- No Software Licensing Fees
- CAD translation software
- Continuous process control & data logging
- LCR Quadrature measurements for parallel circuits
- All pins have parallel drive and sense capability
- Automatic test program generation
- Bar code compatible
- RS232 software controllable
- Vacuum, press down, dual well, double sided access, & fine pitch fixturing

Options

- Graphical Failure Viewer
- HP Test Jet Technology
- Diagnostic & Calibration Fixture
- Turn Key Programming & Fixturing
- International Training & Service
- Spare Board Kit
- IEEE Control Card & Software
- Power-Up Relay Cards
- Functional Instrumentation Cards