

PB3500

probe card analyzer



data sheet

overview

The ITC line of Probilt, probe card analyzers provide fast, accurate and repeatable test data for all types of probe card technologies. Simple user definable vision parameters allow even the newest and most complex probe tip geometries to be captured and accurately measured.

The Probilt has many features that make it the ideal analyzer for all probe card technologies, including the newest probe cards being used to test the largest memory arrays. Its excellent electrical measurement capability and the ability to drive relays on any channel make it the best tool for probe cards with complex circuits and relays on the pcb. With 220lb's of lift force, it has long been recognized as the analyzer of choice for vertical probe card manufacturers. Probilt's large measurement chuck allows probe arrays as big as 8"x8" to be touched down without overhanging the chuck surface.

The optional ProbeTracker, software controlled upper microscope drive, makes the Probilt the only probe card analyzer that has the capability to specifically identify failing probes and present them to the operator for repair in the tips-up orientation. Once the repair is complete each probe can be retested for alignment to verify it is correctly positioned before moving to the next failing probe. This means that even the finest pitch shelf cards can be repaired in a fast and efficient manner. Alternatively the ProbeTracker can be used to easily find and identify a probe tip for inspection in the most densely packed high pin-count probe arrays.

features

- Fast - Overall throughput 3X the competition
 - Fast Pentium P4 Processor
 - Distributed Processing
 - Overlapped Tests
 - Windows 2000 or XP Operating System
- Motherboard/MUX Interface – No Cables
 - 3072 Channel Capability, Full Kelvin
 - Kinematic coupling for high repeatability
 - Fast motherboard/card change – No calibration
 - Relay control on all channels (optional)
- Enhanced high performance LED lighting
 - Portable lighting recipes for all technologies
 - Tests all probe card technologies
- Closed loop stage with 0.1u encoders
 - 12" x 8" stage travel for largest cards
 - 100 Kg force Z stage, 0.75" travel
- Powerful, easy to use software
 - Simple test program generation
 - e-Diagnostics Service Tool
 - Built-in parameter plots
- 16 bit Precision Measurement Unit
 - Highly accurate/repeatable analog measurements
 - Polar & non-polar capacitors
 - Series/parallel resistors

test performed

- Leakage
- OD Leakage
- Capacitor Leakage
- Alignment
- Scrub Analysis
- Tip Diameter
- Planarity
- Contact Resistance
- Wire Check
- Gram Force
- Tip Depth
- Relays
- Capacitance
- Resistance
- Elevated Heat Levels with our Hot Chuck option

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motherboards

- Lightweight, easy to install
- Accurate correlation to wafer prober
- Full 4-wire Kelvin for all channels
- Fast design & delivery
 - Standard parts inventory
 - Custom layout programs

ITC designs and manufactures hundreds of motherboard types including interfaces to all major brands and types of testers, including:

- Advantest – LM4, T2000, 5377
- Agilent – V4400, V5400
- Teradyne – Integra/Flex/Tiger, J996
- Credence – K2, MT32, Sapphire
- Yokogawa – AL6050, 6700
- NexTest – Maverick, HD
- Schlumberger – S9000, NX, KX
- Asia/Tact – 7332, 7330

MUX capabilities

- Standard Mux - 64 Test Channels per card up to total of 3072 test channels per systems
- Double MUX - 128 Test Channels per card for increased system channel count
- Relay MUX - 64 Test or relay drive channels per card
 - Programmable relay control on every channel
 - Programmable relay supply voltage
 - Current capability = 100 ma/channel (10 Amps. Total)

measurement chucks

- 11" x 9.5" standard chuck size
- Entire array (8" x 8") supported on chuck during test
- Standard configurations, no extra charge – custom configurations available
- Multiple configurations and types of isolation pins available
- Single sapphire camera window in center of chuck
- Extremely long life
- Rhodium plating standard – Tungsten carbide optional

available options

- Probe Tracker
 - Integrated with Probilt software
 - Auto Locate Function
 - Pinpoints exact location of each probe
 - Ideal for "Tips-up" repairs
- Hot Chuck
- Tip Cleaning Methods and Programs
- JMP extension
- Machine Utilization Monitor

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