

# PB6500/PB6800

probe card analyzer



## 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. Probilt's PB6800 large measurement chuck allows probe arrays as big as 300 mm in diameter to be touched down without overhanging the chuck surface.

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 300Kg of lift force, it has long been recognized as the analyzer of choice for vertical probe card manufacturers.

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. Additionally, the ProbeTracker's unique auto-locate function can be used to easily find and identify a probe tip for inspection in the most densely packed high pin-count probe arrays.

## features

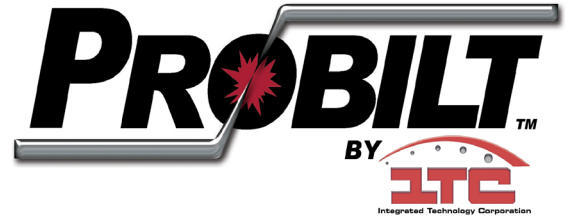
- PB6800 offers 12" dia. chuck for 300 mm arrays
- High volume production throughput
  - Fast Quad Core Processor
  - Distributed Processing
  - Overlapped Tests
  - Windows 2000 or XP Operating System
- Motherboard/MUX Interface – No Cables
  - 12,000 Channel Capability
  - Kinematic coupling for high repeatability
  - Fast motherboard and probe card change
  - Software configurable relay control
- Enhanced high performance LED lighting
  - Portable lighting recipes for all technologies
  - Tests all probe card technologies
- Closed loop stage with 0.1 $\mu$  encoders
  - 12" x 8" stage travel for largest cards
  - 300Kg 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
- Elevated Heat Levels with our Hot Chuck option
- Component Measurement for:
  - Relays
  - Capacitors
  - Resistors

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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, 5383, T2000RECT550
- Verigy – V4400, V5400, 93K, 93KPinScale, 93KDirectProbe
- Teradyne – Integra/Flex/Tiger, J996, FLEX440
- Credence – K2, MT32, MT72, Sapphire, Diamond
- PRVX2/3 Motherboard Adaptor
- Yokogawa – AL6050, 6700, MT6060
- NexTest – Maverick-HD, Magnum GV
- Schlumberger – S9000, NX, KX
- Asia/Tact – 7332, 7330
- T.I. – X1RASP, VLCT, Razorback, Square RASP

## MUX capabilities

- Double Relay MUX - 128 test or relay drive channels per card for increased system channel count up to total of 12,000
- Relay MUX - 64 Test or relay drive channels per card up to total of 6,016
  - 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 on PB6500
- 12" diameter standard chuck size on PB6800
- Entire array up to 300 mm in diameter 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 on PB6500
- Dual sapphire camera windows on PB6800
- 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

## FSA-TECHNOLOGY INC.

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