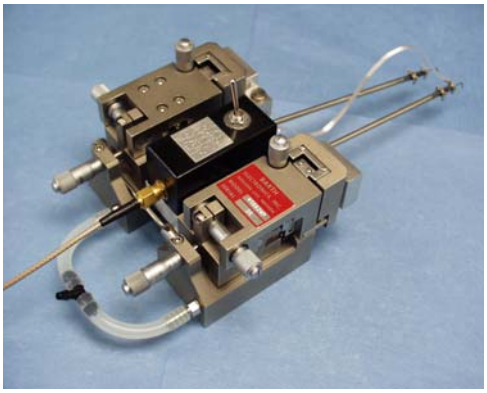
TLP WAFER PROBE
MODEL 45002WP



The Barth Model 45002WP TLP wafer probe is designed to be used with the Barth Model 4002 TLP (Transmission Line Pulse) Pulse Curve Tracer Test System for pulse testing of the ESD protection circuit I/V characteristics at the wafer level. It has two separate needles and isolated probe connections that can be independently positioned with no interaction between them.

The Barth TLP wafer probe has been specially designed to provide the same accuracy as when testing packaged devices in a socket. Testing the TLP characteristics of the device on wafer and later when it is packaged, can provide significantly more information than is available with pass or fail testing with human body model or machine model. Either manner of connecting to the DUT allows very repeatable measurements at high pulse currents.

without in-line resistors

To minimize the mechanical problems of crossed needles in connecting to the pads to be tested, a specially designed constant impedance-reversing switch allows easy selection of the TLP pulse polarity at the pads. A user selectable magnetic or vacuum base allows this TLP probe to be easily moved while maintaining a secure position on the table.

A controlled 50-ohm impedance throughout the complete measurement chain of our test system minimizes the measurement errors associated with the usual 500-ohm resistor connections for ordinary TLP testers. Making measurements at 50-ohm impedance minimizes the effects of parasitics.

with in-line resistors

Just as the Barth TLP Test System connections to the packaged device sockets are constructed with a controlled 50-ohm impedance, the Barth TLP wafer probe also has a controlled 50-ohm impedance throughout its connections to the two needle contacts at any two pads.

Testing the DUT directly from an inherently low 50-ohm source impedance provides inherently higher pulse currents from a clean test pulse with no ringing or overshoot. A perfect sub nanosecond risetime pulse generator combined with low distortion measurement probes and controlled impedance connections allows the Barth Pulsed Curve tracer test system to gather accurate TLP data either on wafer or on packages.

"High Z" option: Dual in-line matched series resistors are available as an option. These resistors are located at the needles and are designed to increase the effective source impedance to 150, 250, or 450 ohms (see photos).

Visit our WEBSITE for further information, e-mail or call.

BARTH ELECTRONICS, INC. BOULDER CITY, NEVADA
Phone: (702) 293-1576 FAX: (702) 293-7024
beisales@BarthElectronics.com www.barthelectronics.com