Measurement of: Bonding of Gold & Aluminium typically on thin films/devices.

Equipment: Wire Bonder

Property Measured: Bonding of Gold & Aluminium typically on thin films/devices.

Photograph (small size)

Basic Principle:

The existing wire bonding system is based on ultrasonic bonding which is done at room temperature and is performed by a combination of force and ultrasonic power.

Capabilities: Wire Bonder is useful for bonding of Gold & Aluminium from 0.0007"to 0.002" diameter typically on thin films/devices. Three-Way Convertible to Diagonal feed wedge bond, Vertical feed wedge bond, and to Ball bond methods. X-Y-Z single lever micromanipulator, all axes straight-line and orthogonal and locked pneumatically during bond. Machine operation, configuration, and bond settings are controlled by microprocessor. Unlimited deep-reach access to bond targets on substrates/packages of any X-Y dimension.

Sample Requirement:

The bond pad on substrate/sample shall be made by metallization of gold or aluminium. The bonding depends on pad thickness, cleanliness and whether the pad is well supported. A thicker gold/aluminium layer will have a favourable effect on bonding. Any kind of contamination on bond pads will degrade the bonding and reliability of wire bonds. The bond surface should be well supported during bonding.