

Abstract

Method and apparatus for measuring a free air ball size during wire bonding

Disclosed is a method of measuring a free air ball size during a wire bonding process of a wire bonder, which comprises a position sensor and a bonding tool for forming an electrical connection between a semiconductor device and a substrate using a bonding wire. Specifically, the method comprises the steps of: forming a free air ball from a wire tail of the bonding wire; using the position sensor to determine a positional difference between a first and a second position of the bonding tool with respect to a reference position, wherein the first position of the bonding tool is a position of the bonding tool with respect to the reference position when the free air ball contacts a conductive surface; and measuring the free air ball size based on the positional difference of the bonding tool as determined by the position sensor. A wire bonder configured to perform such a method is also disclosed.

[FIG. 5]