

Abstract

Method of detecting wire bonding failures

Disclosed is a method of detecting a bonding failure of a wire bonder, which comprises a bonding tool operative to form an electrical connection between a semiconductor die and a substrate using a bonding wire. The method comprises the steps of: forming a first wire bond on a first surface located on the semiconductor die using the bonding tool and the bonding wire; forming a second wire bond on a second surface located on the substrate using the bonding tool and the bonding wire such that a wire loop connects the first and second wire bonds, wherein the first surface is not electrically-conductive; moving the bonding tool in a direction away from the second wire bond to break the bonding wire from the second wire bond; detecting whether the second wire bond remains bonded to the substrate; and determining an occurrence of the bonding failure if the second wire bond is no longer bonded to the substrate.

[FIG. 5]