



Overhanging die shear

Testing overhanging die surfaces presents various challenges. Performing ball bond shear testing can be difficult due to the thin spacing between die and low profile wire bonding and the possible deflection of the surface during load tool landing and setting the required step back.

Step back is defined as the distance between the tip of the load tool and the surface adjacent to the bond. The complication of the possible deflection of the die surface during load tool landing and setting the required step back is overcome by the use of an oscillating load tool in combination with advanced software which controls the sequence of operations during bond testing.

One of the problems in performing ball shear on overhanging die is the possible deflection of the die surface during load tool landing and setting the required step back. In this case step back is defined as the distance between the tip of the load tool and the surface adjacent to the bond.

This complication can be overcome by the use of an oscillating load tool in combination with new test software which controls the sequence of operations during BondTesting. The tool oscillates and detects the movement of the die underneath. The tool slowly moves up until the oscillation is not detected. Then the test is performed as normal. The procedure ensures that accurate shear results are obtained even on large overhanging die.

