

ABSTRACT

BGA MOULD ASSEMBLY FOR ENCAPSULATING BGA SUBSTRATES OF VARYING THICKNESS

A BGA mould assembly which can facilitate high degree of control over the clamping force on BGA substrates of varying thickness. An independent drive is provided for each of the dual in-line cavity bars which clamp the BGA substrates. The drive mechanism is a wedge press which includes a servo motor, and a linear-conversion mechanism coupled to the servo motor to convert the rotation motion of the motor to a linear movement. An input wedge is coupled to the linear-conversion mechanism such that the input wedge moves correspondingly with the linear movement of the linear conversion mechanism. An output wedge is coupled to the cavity bar and positioned such that a horizontal movement by the input wedge causes the output wedge to move downwards. A roller cage is provided at the top and bottom of the input wedge to reduce friction.

FIG. 4