ABSTRACT OF THE DISCLOSURE
DIE BONDING SYSTEM INCLUDING ALIGNMENT AND BONDING ACTUATORS AND A METHOD OF USING THE SAME

A die bonding system can include a frame, a movable platform adapted to retain a die chuck, a set of bonding actuators operably coupled to the frame and the movable platform, and a set of alignment actuators operably coupled to the frame and the movable platform. In an implementation, each bonding actuator is adapted to apply a bonding force to the movable platform in a first direction parallel to a central axis, and each alignment actuator is adapted to apply an alignment force to the movable platform along an alignment force plane that is orthogonal to the central axis. In another implementation, the system further incudes a set of bonding flexures and a set of alignment flexures. Each of the flexures is coupled to its corresponding actuator and the movable platform. The die bonding system can achieve an adjustment cycle frequency of at least 50 Hz.

FIG.1