

APPARATUS FOR COUPLING A TEST HEAD AND PROBE CARD IN A WAFER TESTING SYSTEM

ABSTRACT

An apparatus for coupling a test head and probe card in a wafer testing system incorporates a number of features that contribute to low impedance and reduced cross-talk, making the coupling apparatus particularly advantageous for high-speed test applications. The coupling apparatus may include, for example, an array of discrete conductor conduits that contain individual conducting elements. The conduits can be insulated, if desired, to reduce leakage. Further, the conduits can be made from metal, and terminated in dielectric interface plates for improved impedance matching. Divider elements can be provided to physically and electrically isolate adjacent rows of conductor conduits. Also, adjacent conducting elements can be connected to carry ground and signal potentials in an alternating manner such that signal carrying elements in a common row are separated from one another by ground carrying elements.

Figure 1