ABSTRACT

SUSPENSION WITH MULTI-LAYERED INTEGRATED CONDUCTOR TRACE ARRAY FOR OPTIMIZED ELECTRICAL PARAMETERS

A head suspension has an integrated multi-layer trace conductor array for supporting and electrically interconnecting a read/write head to electronic circuitry in a disk drive. The electrical micro strip transmission line characteristics of the conductor array is controlled by the selective placement and connection of the trace paths within the multiple layers in order to control and balance electrical parameters including array inductance, inter-trace capacitance, and trace capacitance to a ground plane. The ground plane may further comprise a solid sheet of material or an arrangement of grounded traces disposed in proximity to signal-carrying traces of the micro strip transmission line in order to control and obtain desired electrical characteristics.

FIGURE 1