

DIFFERENTIAL YOKE TYPE READ HEAD

ABSTRACT

A read head is disclosed that has an air bearing surface (ABS) and a yoke (202) that has first and second legs (204, 206) interconnected at a location within the head. A first sensor (218) has a first pinned layer structure (226) and a second sensor (220) has a second pinned layer structure (244). The first and second pinned layer structures have first and second magnetic moments (232, 254), respectively, that are antiparallel with respect to each other. Changes in resistance of the sensors (218, 220) due to field signals cause resistances of the sensors (218, 220) to combine to increase the signal of the head and reduce noise by common mode rejection. The remote location of the sensors (218, 220) from the ABS reduces the risk of shorting of the layers of the head when the head is lapped to the ABS.

Fig. 11