MAGNETIC HEAD WITH VIALESS LEAD LAYERS FROM MR SENSOR TO PADS

ABSTRACT

A magnetic head (40) is provided that has an extremely small first shield layer (64) and first and second leads of a read head (56) that extend from a magnetoresistive (MR) sensor (58) to first and second pads (60, 62) without any vias therebetween. This is accomplished by patterning the first shield layer into its final shape before the first gap layer (216) and subsequent layers (218) are formed. An alumina mask with a recess (406) at the ABS of the size of the first shield layer (410) is formed followed by forming the first shield layer (410) in the recess (408). A very thin first gap layer (412) and an optional supplemental first gap layer (414) are then formed, the supplemental first gap layer (414) insulating any potential exposure of the first shield layer (410) at its junction with the alumina layer.

Fig. 9

This Sheet Has Been Replaced

