

MAGNETIC RECORDING TRANSDUCER WITH ELECTRONIC SHIELD

ABSTRACT

A read/write head (10) for writing information to, and reading information from, magnetic media (22). It includes a write head element (40) for writing information onto magnetic media, a read head element (48) for reading information from the magnetic media (22), and an electromagnetic field shield element (44) disposed between the write head element (40) and the read head element (48). The shield (44) shields the read head (48) from electromagnetic field energy created by the write head element (40). An enhanced second embodiment includes an electrical circuit element (204) that generates an electromagnetic field at the read head element (48) that is generally oppositely directed to the electromagnetic field generated by the write head element (40) to reduce the total electromagnetic field that the read head element (48) is exposed to during a writing operation. The method for operating the read/write head (200) in a hard disk drive includes the steps of simultaneously writing data onto, and reading data from, the hard disk.

Fig 4