

METHOD AND APPARATUS FOR TESTING MAGNETIC HEAD WITH MAGNETORESISTIVE TRANSDUCER ELEMENT

FIELD OF THE INVENTION

The present invention relates to a method and apparatus for testing a magnetic head provided with at least one magnetoresistive (MR) transducer element.

DESCRIPTION OF THE RELATED ART

Recently, a magnetic head provided with a MR transducer element has been developed as a thin film magnetic head used for reading out information from a magnetic medium such as a magnetic disk.

Since the magnetic head with the MR transducer element operates to detect its inner resistance variations due to the magnetic field variation applied thereto from the external magnetic medium, it is important to test reproducibility of the inner resistance of the MR transducer element after manufacturing.

As the MR transducer element utilizes the MR effect occurring in a thin film layer made of ferromagnetic material such as permalloy, a high reading output can be provide irrespective of relative speed between the head and the magnetic medium. However, by using the ferromagnetic material, there is a possibility that a defective MR transducer element

ABSTRACT

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MAGNETORESISTIVE TRANSDUCER ELEMENT

A method and apparatus for testing a magnetic head provided with at least one MR transducer. The method includes a step of applying a sense current varying with respect to time to the MR transducer element via input/output terminals of the MR transducer element, and a step of measuring a terminal voltage across the input/output terminals of the MR transducer element to check varying resistance characteristics of the MR transducer element with respect to the variation of the applied sense current.

(Figure 1)