

DATA REPRODUCING APPARATUS AND METHOD
ABSTRACT OF THE DISCLOSURE

A DWDD type data reproducing apparatus which handles a magneto-optical recording medium having a magnetic three-layer film consisting at least of a displacement layer, a switching layer and a memory layer. A magnetic wall displacement in the displacement layer is generated in any region where the temperature of the magnetic film becomes higher than the Curie temperature of the switching layer, so that the effectively recorded magnetic domain is dimensionally enlarged. A reproduced signal is first equalized with regard to its waveform in an equalizer circuit and then is supplied to a magnetic wall displacement detection circuit. In this detection circuit, a detection signal representing generation of a magnetic wall displacement is produced by using a differential signal or a secondary differential signal of the reproduced signal without being harmfully affected by any sudden DC level variation caused in the reproduced signal. Subsequently a data detection circuit detects the data by the use of such detection signal and then outputs the reproduced data. In this apparatus, the data can be reproduced at a sufficiently low bit error rate despite occurrence of any sudden DC level variation caused in the reproduced signal.

Fig.1