ORIGINAL

ABSTRACT

A PREAMPLIFIER CIRCUIT FOR A MAGNETO-RESISTIVE HEAD

A preamplifier circuit (30, 31) amplifies signals from a magneto-resistive element (18). The preamplifier circuit utilises a voltage regulator (52) to regulate one terminal of a magneto-resistive element at a predetermined voltage. A first feedback loop (36, 38) is used to minimise a differential DC component and a differential low frequency component of the differential output signal. A second feedback loop (46, 40, 45) is utilised to cause a common mode component of the differential output signal to track an externally supplied reference voltage (V_{REF}). The preamplifier of the present invention protects the magneto-resistive elements from short circuits of the disc medium, is powered by a single-ended power supply, and is capable of being coupled with other circuitry without physical coupling capacitors.

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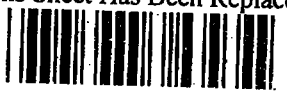


Fig. 2A