

17 FEB 2004

WRITE HEAD CURRENT DAMPING WITH DYNAMIC COUPLING

ABSTRACT

A write head circuit (300) is provided having transient and steady state response. The circuit (300) includes a dynamically coupled damping circuit (12) that is coupled to the write head (10) during transient periods of a write signal to substantially reduce or eliminate overshoot generated by a write head cable. During steady state or data writing periods, the damping circuit (12) is decoupled from the write head (10) to prevent unnecessary loading of the write head (10). In preferred embodiments, the damping circuit (12) includes a resistor (R_D) in series with a capacitor (C_D), and the damping circuit (12) is coupled in parallel to the write head (10). The resistor (R_D) substantially reduces the overshoot of a write signal (V_S) supplied to the write head (10), while the capacitor (C_D) decouples the resistor (R_D) from the write head (10) during steady state or data write periods.

Fig. 4



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