ABSTRACT

A METHOD AND APPARATUS FOR THE COMPENSATION OF AN ADDITIVE SIGNAL IN A DATA SIGNAL

The method and apparatus have application to the compensation of transient signals produced on reading a data storage device with a magneto-resistive head due to thermal contact with asperities on the data storage medium. Preferably, the data channel employs partial-response maximum-likelihood detection.

The method compensates for an additive signal in a data signal and comprises the steps of: detecting the contribution to said data signal by said additive signal; initially compensating the data signal by maintaining a DC offset in said data signal, the initial level of said DC offset being set in dependence on the detected contribution; and while compensating the data signal, detecting when the compensated data signal exceeds a predetermined threshold and varying the set level of said DC offset in dependence upon said detection.

(Figure 3)