

DISK DRIVE WITH INFORMATION ENCODED IN THE POSITION ERROR SIGNAL FIELDS

ABSTRACT

There is disclosed an error correction and detection method and apparatus for retrieving predetermined data, e.g. servo data, from the position error signal (PES) fields of a disk in a data storage system. In the preferred embodiment the PES data, such as the track number, is mapped into codewords of an error correction code (ECC) which are then further divided into a set of symbols which are mapped onto a second set of bit vectors which have a constant weight. The preferred encoding method is selected to equalize the analog signal characteristics of the PES fields so that minimal, if any, change in the conventional servo detection circuitry needed to use the PES fields of the invention both as analog and digital information.

FIG.4