

METHOD AND APPARATUS FOR ADAPTIVELY PROCESSING THE READBACK
SIGNAL IN A READ CHANNEL DEVICE FOR DIGITAL STORAGE

ABSTRACT

Apparatus and Methods are disclosed for adaptively optimizing an ER filter in a readback system of a storage device, such as a disk drive (404). A sample value is read from the storage device and an error measure is calculated between the sample value and an ideal value. Pole parameters and zeros of the ER filter (410) are modified to minimize the ER filter (410). The apparatus and methods disclosed can function with customer data to adaptively optimize the ER filter (410) in real time during normal operation of the storage device. Furthermore, temperature compensation circuits are disclosed to compensate for temperature dependencies in the ER filter.

Fig. 4