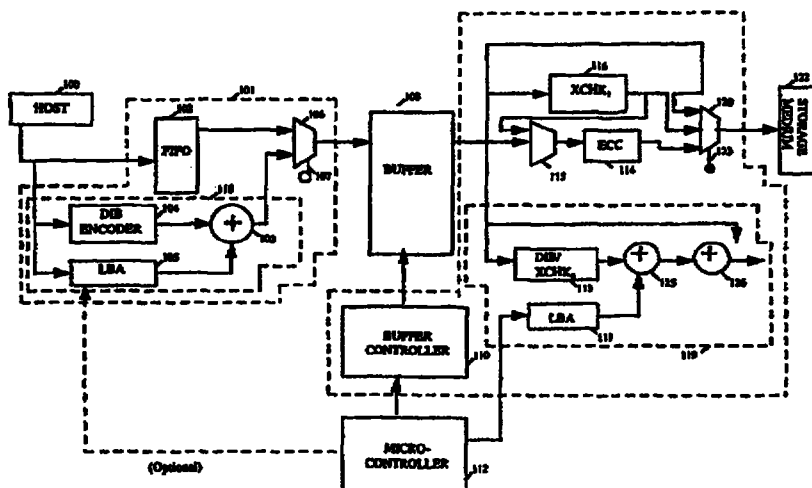


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(54) Title: DATA INTEGRITY AND CROSS-CHECK CODE WITH LOGICAL BLOCK ADDRESS**(57) Abstract**

According to the invention, a data integrity code including logical block address ("LBA") and circuit implementation are provided. The code and implementing circuitry are utilized to enable data block LBA verification during a block transfer and retrieval process. The preferred data integrity code has embedded LBA information and also serves as a cross-check code used to detect misconnection by an error correction code ("ECC"). In a preferred diskdrive embodiment, data integrity block ("DIB") (118) is provided to verify that the LBA value associated with a given data block in a host interface (101) matches the value associated with that same data block in a buffer memory and in a data sequencer. In a preferred method of use, data integrity/cross-check redundancy with LBA is appended to data blocks transmitted to a buffer memory and verified after the data block has been transferred from the buffer (102). After verification, the LBA is preferably written to the storage medium together with its associated data block to enable later LBA verification for blocks recovered from the storage medium. The LBA may also be verified when the data block is transferred back to a host (100) from the buffer memory.