DISK DRIVE WITH REDUNDANT RECORDING

ABSTRACT

A magnetic disk drive includes redundant data written at a plurality of out of phase angular locations to reduce the latency and enhance performance during a read operation. The loss of recording capacity is reduced by increasing the data density to achieve the same soft error rate standard required for single recording. Dual recording also allows different recording codes to be used at the duplicated locations to thereby have the more highly stressed code words occur at different locations in the data to further reduce the possibility of an error. The redundant recording can be used in one portion of the media and normal recording used in another media portion to enable selection of the recording technique in accordance with the type of data being stored. The size of the normal and redundant recording portions can be controlled by the format operation and the user of the disk drive can intervene to designate the size of the redundant and normal media recording portions effected during the format operation.

FIG. 4