SERVER HARD DISK DRIVE INTEGRATED CIRCUIT AND METHOD OF OPERATION

ABSTRACT OF THE DISCLOSURE

A server hard disk drive integrated circuit (12) is provided for controlling the operation of a server hard disk drive (10) and for processing digital data exchanged between a client (20) and a storage media. The storage media includes a spindle motor for rotating a magnetic disk and a head actuator for positioning a read/write head. The server hard disk drive integrated circuit (12) includes a RAM (30), a disk control circuitry (24), write channel (32), a read channel (34), a servo circuit (36), a motor control circuit (40), and a DSP (26). The disk control circuitry (24) receives and stores requests provided from the client (20) and exchanges digital data with the client (20) and stores the digital data in RAM (30). The write channel (32) generates a write signal during a write operation, and the read channel (34) generates a read signal and an intermediate read signal during a read operation. The servo circuit (36) generates a servo signal during a servo operation, and the motor control circuit (40) receives a motor control input signal and generates a motor control output signal to control the spindle motor and the head actuator. Finally, the digital signal processor (26) initiates the read and write operations as needed to perform the requests of the client. The digital signal processor (26) also performs file management, generates the motor control input signal, and processes the intermediate read signal to generate a read channel parameter.

Figure 1