DETECTION AND SUPPRESSION OF LENS VIBRATION IN RADIAL DIRECTION DURING SEEK OPERATION ON DC/DVD DISK

ABSTRACT OF THE DISCLOSURE

A circuit (55) and method for detecting a vibration of a lens of an optical pickup that is used in detecting signals along radially arranged tracks of an optical disk includes a track crossing velocity detector (60) and a radial velocity detector (62). The track crossing velocity detector (60) produces an output signal representing a velocity at which a lens of the pickup crosses the tracks, and the radial velocity detector (62) produces an output signal representing a radial velocity of the optical pickup. A radial runout velocity detector (66) produces an output signal representing a velocity of a radial runout of a track of the optical disk. A circuit (64,68) subtracts the output signal representing a radial velocity of the optical pickup and the output signal representing a velocity of a radial runout of a track of the optical disk from the output signal representing a velocity at which a lens of the pickup crosses the tracks to produce a control signal to control a radial actuator (72) to position the lens.

Figure 1