OPTICAL SEEKING APPARATUS WITH TRACK CROSSING SIGNAL GENERATION USING A CORRECTED TRACKING ERROR SIGNAL HAVING A CONSTANT AMPLITUDE DURING PERIODS OF DATA

ABSTRACT OF THE DISCLOSURE

There is disclosed a method for moving an optical head from an initial track (10) to a target track (11) on a storage medium (1). The total number of tracks (3) to be crossed is determined, and the optical head is moved toward the target track (11). A reflectivity level of light from the storage medium (1) is measured, and a tracking error signal is derived from the reflectivity level. The tracking error signal has both true and false indicators of track crossings. A data indicator signal is derived from the reflectivity level, having indicator points corresponding to the false indicators of track crossings. A track count number is incremented for each true indicator of a track crossing, and the optical head is stopped when the track count number equals the total number of tracks (3) to be crossed. Another method is disclosed whereby a track count signal is generated from the tracking error signal and the data indicator signal. The track count signal indicates track crossings corresponding to the true track crossing indicators in the tracking error signal. An apparatus is disclosed comprising a sensor (14) for measuring the reflectivity level from a storage medium (1), a tracking error signal generator (17) for generating a tracking error signal, a preamplifier (15) for generating a data signal, a track crossing signal generator (18) responsive to the tracking error signal, and a track/hold selector (16) responsive to the data signal to direct the track crossing signal generator (18) to generate a track crossing signal without the false track crossing indicators from the tracking error signal. A second apparatus is disclosed comprising a sensor (14) for measuring the reflectivity level from a storage medium (1), a preamplifier (15) for generating a data signal, a tracking error signal generator (32) responsive to the reflectivity level for deriving a tracking error signal, a track/hold selector (31) to direct the tracking error signal generator (32) to generate a signal of constant amplitude (43) for a predetermined period of time based on the data signal, and a track crossing signal generator (33) responsive to the tracking error signal for deriving a track crossing signal indicating the crossing of an information track by the optical head.

Figure 4

This Sheet Has Been Replaced

