SERVO DEMODULATOR AND METHOD FOR SYNCHRONOUS SERVO DEMODULATION

ABSTRACT OF THE DISCLOSURE

A servo demodulator (20) is provided for generating a track identification signal (148) and a position error signal (150) from a servo wedge signal, such as a filtered servo wedge signal (112), in response to the processing of the servo wedge signal by a read channel (18). The servo demodulator (20) includes a servo clock generation circuit (90), a position error signal circuit (92), and a track identification circuit (76). The servo clock generation circuit (90) generates a synchronous servo clock signal (102) in response to receiving a servo reference clock signal (110) and the filtered servo wedge signal (112). The synchronous servo clock signal (102) is provided to the read channel (18) for use in processing the servo wedge signal. The position error signal circuit (92) generates the position error signal (150) in response to receiving the synchronous servo clock signal (102) from the servo clock generation circuit (90) and a synchronously sampled servo wedge signal (114) from the read channel (18). The read channel (18) generates the synchronously sampled servo wedge signal (114) by using the synchronous servo clock signal (102) to synchronously sample the servo wedge signal. The track identification circuit (76) generates the track identification signal (148) in response to receiving a digital servo wedge signal (116) from the read channel (18).

FIGURE 3