

ADAPTIVE SERVO GAP DETECTION FOR TIMING BASED SERVO

ABSTRACT

A method and detector for adaptively detecting servo gaps (80) in a timing based servo pattern prerecorded on a variable velocity media are disclosed. Groups of repeated pairs of non-parallel transition stripes are arranged in bursts, separated by servo gaps (80) of variable length. A sensor senses the transition stripes in the longitudinal direction of the media. A detector detects the timing interval between the same slope transition stripes of two sequential burst groups. A divider (170) divides the timing interval by a predetermined divisor to provide a gap detection threshold. A sequential stripe interval detector measures the timing interval between stripes, and a comparator (110) compares the divided timing interval and the timing interval, identifying a servo gap upon the measured timing interval at least equaling the gap threshold. The detector responds to signals indicating validity of the detected group timing interval by updating the gap threshold and continuing to identify the servo gaps.

Fig 8