INTELLIGENT ENVELOPE DETECTOR AND METHOD FOR GAIN CONTROL FOR PRML DATA AND SERVO CHANNELS

Abstract

A method and apparatus are provided for gain adjustment of a signal. A plurality of comparators (22) compare the signal with a plurality of threshold values. An envelope detector (24) coupled to the comparator includes a peak capture function for detecting the amplitude of the signal and a polarity memory (60) for detecting the amplitude of the signal. A gain control function for setting a gain correction value is responsive to the peak capture function and the polarity memory. Features of the signal gain adjustment method and apparatus of the invention include an intelligent hold of the gain control over both thermal asperities and null gaps in the signal.

Figure 1