

APPARATUS FOR MEASURING SKEW TIMING ERRORS

ABSTRACT

Apparatus for measuring skew in a clock signal for processing a video signal includes a cascade connection of a plurality of analog delay elements to which the clock signal is applied. The output connections of each analog delay element is coupled to a data input terminal of a respective storage element. A signal representative of the horizontal synchronizing signal is applied to the storage elements to simultaneously latch signal into the respective storage elements, thereby capturing a representative cycle of the sampling clock signal in the storage elements. Decoding circuitry is coupled to the storage elements for detecting the relative position of the e.g., leading transition of the sampling clock pulse immediately preceding the trailing transition of the horizontal pulse. A ratio is calculated indicative of the skew error, which ratio corresponds to the position of the first transition, in units of delay, divided by the duration of the sampling clock period, in units of delay. In one embodiment presented, the ratio is a measure, as a fraction of a clock period, of the time interval between a predetermined transition of the horizontal synchronizing signal and the leading transition of the first sampling clock pulse following such predetermined transition.

FIGURE 1



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