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(54) Title: APPARATUS AND METHOD FOR IMPLEMENTING A SCALABLE DIGITAL INFRASTRUCTURE FOR MEASURING RING OSCILLATORS

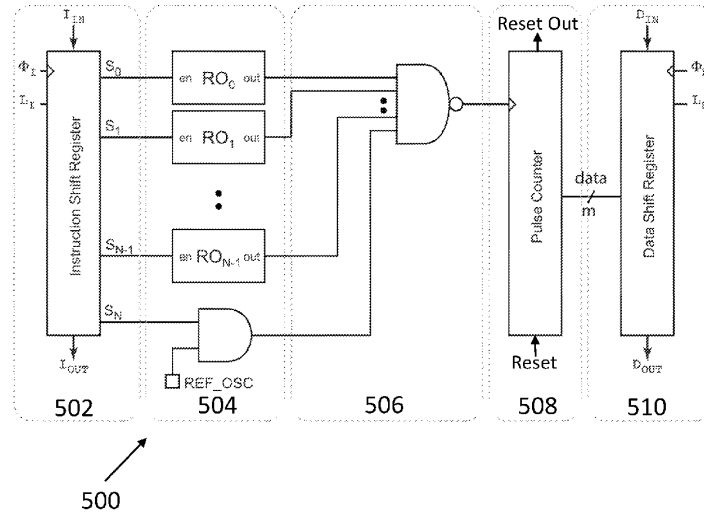


FIG. 5

(57) Abstract: An apparatus has a collection of ring oscillators. An instruction register block is configured to sequentially address and activate each ring oscillator in the collection of ring oscillators. A multiplexer with input lines is connected to each ring oscillator in the collection of ring oscillators and an output line. A pulse counter is connected to the output line of the multiplexer to count the number of oscillations of a selected ring oscillator within a selected time period to form a multiple bit frequency count output signal. A data shift register receives the multiple bit frequency count output signal and produces a serial frequency count output signal.

[Continued on next page]

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