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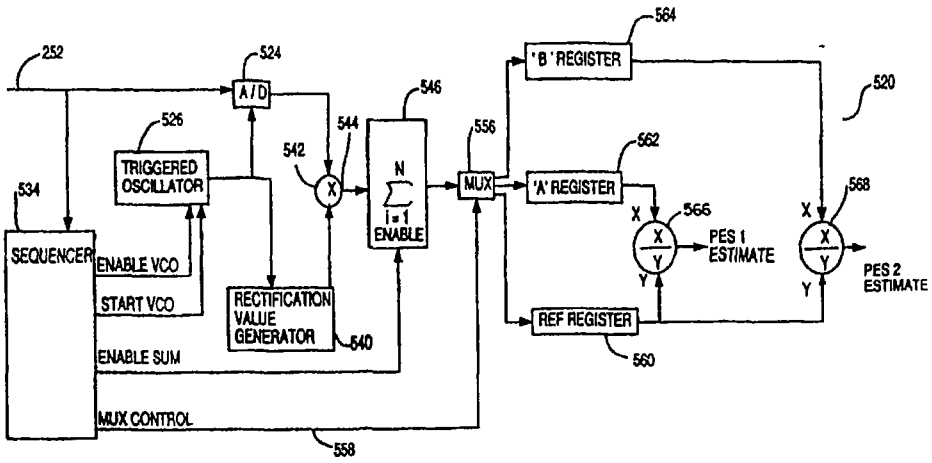


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(54) Title: METHOD AND APPARATUS UTILIZING FIELD RATIOING DEMODULATION TECHNIQUES FOR A NULL-TYPE SERVO PATTERN



(57) Abstract

A method of generating a position error estimate generates a phase field signal (470) and a position error field signal (472, 474). A set of operations (524, 542, 546, 712, 716) is performed on the phase field signal (470) and the same set of operations is performed on the position error field signal (472, 474). The result obtained by performing the set of operations on the position error field signal is divided by the results obtained by performing the set of operations on the phase field signal. The result of the division is the position error estimate. In addition, a demodulation circuit is provided that utilizes field ratioing.