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(54) Title: SYSTEMS AND METHODS FOR POST-DETECT COMBINING OF A PLURALITY OF DOWNLINK SIGNALS REPRESENTATIVE OF A COMMUNICATION SIGNAL

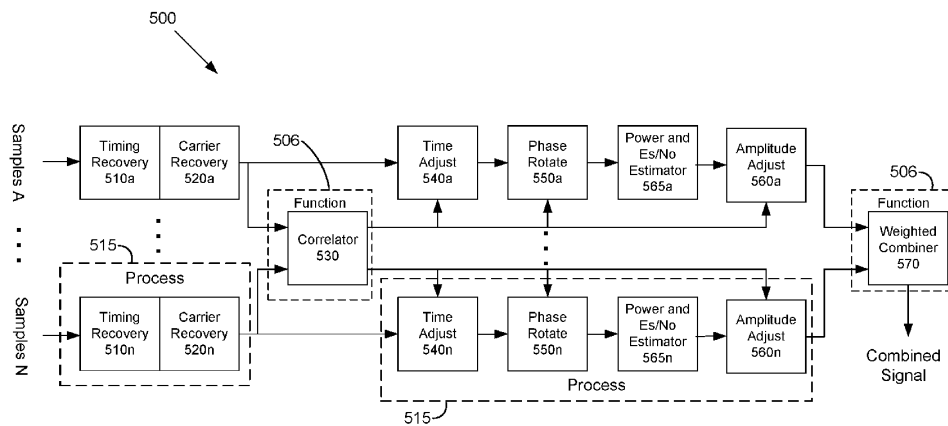


FIG. 5

(57) Abstract: Embodiments of systems and methods for combining downlink signals representative of a communication signal are provided herein. An example method comprises receiving samples of the downlink signals from multiple antenna feeds; generating first symbols for a first signal and second symbols for a second signal based on performing timing recovery operations on the first signal and the second signal, respectively; generating offset information based on performing a correlator operation on the first and second symbols; and combining the first and second signals based on performing a weighted combiner operation. At least one of the first timing recovery operation, the second timing recovery operation, the correlator operation, and the combining are performed in a plurality of processing blocks in one or more processors, wherein the first and second processing block operate in parallel.

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