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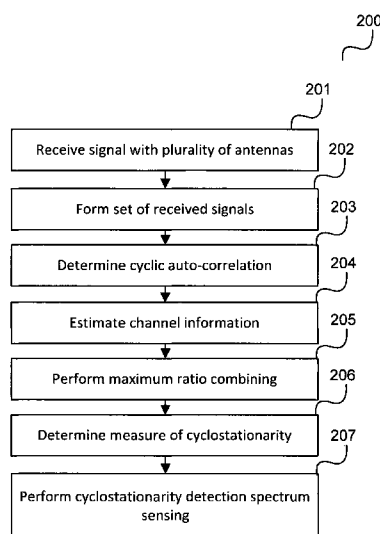
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(54) Title: METHOD FOR SPECTRUM SENSING AND COMMUNICATION DEVICE

FIG 2



(57) Abstract: A method for spectrum sensing is described comprising receiving a signal using a plurality of receive antennas; forming a set of received signals including the received signal of each antenna; determining a cyclic auto-correlation of the set of received signals; estimating, for each receive antenna, channel state information of the radio channel via which the receive antenna receives the signal based on the determined cyclic auto-correlation; performing maximum ratio combining of the received signal samples based on the estimated channel state information; determining a measure of the cyclostationarity of the received signal based on the result of the maximum ratio combining; and performing cyclostationarity detection spectrum sensing based on the determined measure of the cyclostationarity of the received signal.