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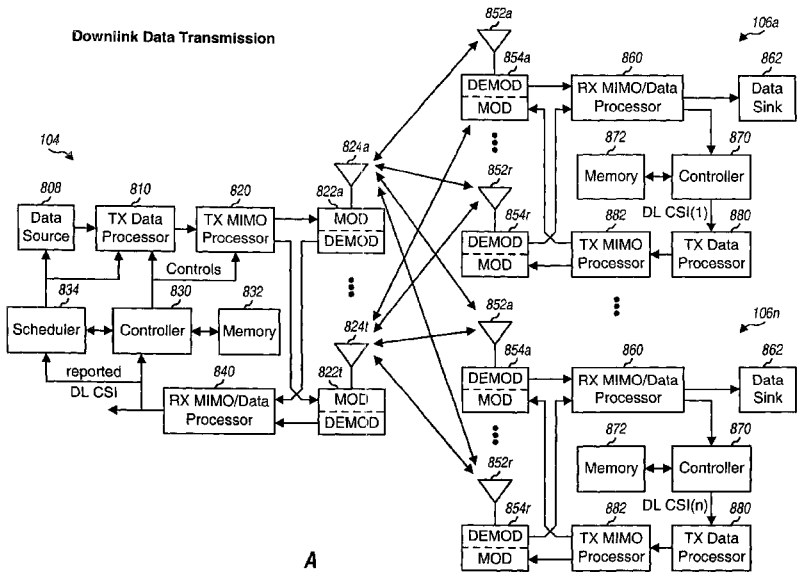
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(54) Title: METHOD AND APPARATUS FOR A MIMO-OFDM COMMUNICATION SYSTEM



(57) Abstract: Techniques to assign terminals for data transmission in a MIMO-OFDM system. A scheduler forms sets of terminals, called a hypothesis, for data transmission for each of a number of frequency bands. One or more sub-hypotheses may be further formed for each hypothesis, with each sub-hypothesis corresponding to (1) specific assignments of transmit antennas to the terminal(s) in the hypothesis, or, (2) a specific order for processing the uplink data transmissions from the terminal(s). The performance of each sub-hypothesis is then evaluated. One sub-hypothesis is then selected for each frequency band based on the evaluated performance, and, the set of terminals in each selected sub-hypothesis are then scheduled for data transmission on the corresponding frequency band.

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