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(54) **Title:** METHOD AND APPARATUS FOR COMMUNICATIONS

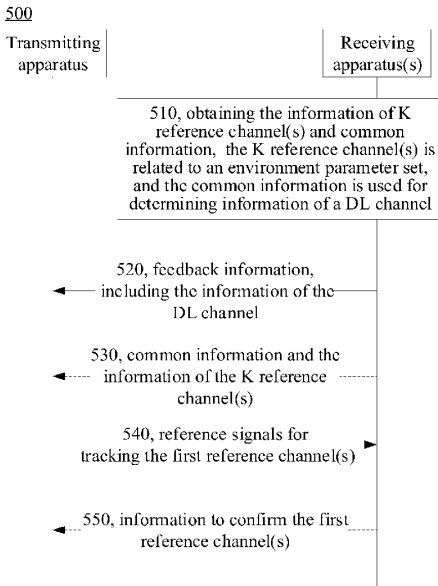


FIG. 5

(57) **Abstract:** Embodiments of the present application provide a method and an apparatus for communications. In the present application, a new concept of "reference channel" is proposed. A receiving apparatus obtains common information and information of K reference channel (s). The common information is used for determining information of a down-link (DL) channel between a transmitting apparatus and the receiving apparatus, and the K reference channel (s) is related to an environment parameter set. The receiving apparatus transmits feedback information based on the common information and the information of the K reference channel (s), and the feedback information includes the information of the DL channel. In this way, channel estimation of a DL channel may not be an absolute estimation but a relative estimation, and the receiving apparatus may report relative estimation information instead of absolute estimation information of the DL channel. The relative estimation and feedback of the relative estimation information make the receiving apparatus estimate and report information of the DL channel with a reasonable overhead in a MIMO system.

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