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(54) **Title:** METHODS AND APPARATUSES FOR ENHANCED TPYE I CODEBOOK

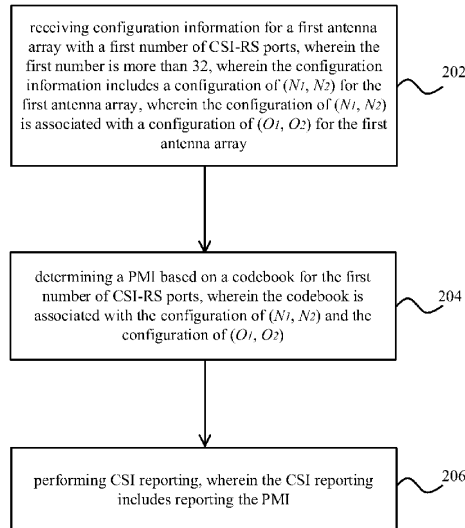


Figure 2

(57) **Abstract:** Various aspects of the present disclosure relate to methods and apparatuses for enhanced Type I codebook. According to an embodiment of the present disclosure, a user equipment can include: at least one memory; and at least one processor coupled with the at least one memory and configured to cause the UE to: receive configuration information for a first antenna array with a first number of channel state information reference signal (CSI-RS) ports, wherein the first number is more than 32, wherein the configuration information includes a configuration of (N_1, N_2) for the first antenna array, wherein the configuration of (N_1, N_2) is associated with a configuration of (O_1, O_2) for the first antenna array; determine a precoding matrix indicator (PMI) based on a codebook for the first number of CSI-RS ports, wherein the codebook is associated with the configuration of (N_1, N_2) and the configuration of (O_1, O_2) ; and perform channel state information (CSI) reporting, wherein the CSI reporting includes the PMI.

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