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(54) Title: COMMUNICATION SYSTEMS, APPARATUSES, METHODS, AND NON-TRANSITORY COMPUTER-READABLE
STORAGE DEVICES EMPLOYING STREAM-BASED MODULATION AND CODING SYSTEM ALLOCATION FOR MULTI-
PLE-INPUT MULTIPLE-OUTPUT COMMUNICATIONS

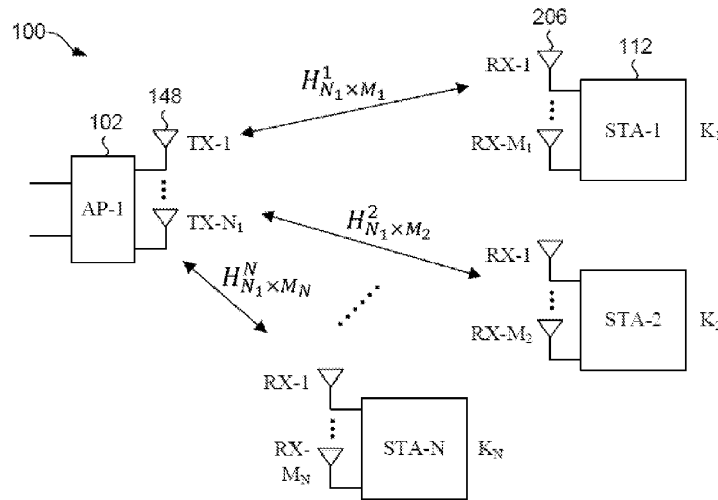


FIG. 4

(57) Abstract: A first multiple-output (MIMO) communication method has the steps of: generating a signaling for one or more devices, and transmitting the signaling to the one or more devices; for each of the one or more devices, the signaling is for indicating a plurality of streams allocated to the device and a plurality of modulation and coding system (MCS) indices each corresponding to one of the streams. Accordingly, a second MIMO communication method has the steps of receiving a signaling from a device to obtain a plurality of streams and a plurality of MCS indices corresponding to the streams, and transmitting signals to the device using the streams with parameters of each stream defined by the corresponding MCS index. In some embodiments, the signaling is carried in a trigger frame for uplink MIMO communication, or in a physical layer protocol data unit for downlink MIMO communication.

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