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(54) Title: SIGNALING TRANSMISSION AND RECEPTION IN WIRELESS COMMUNICATION SYSTEMS

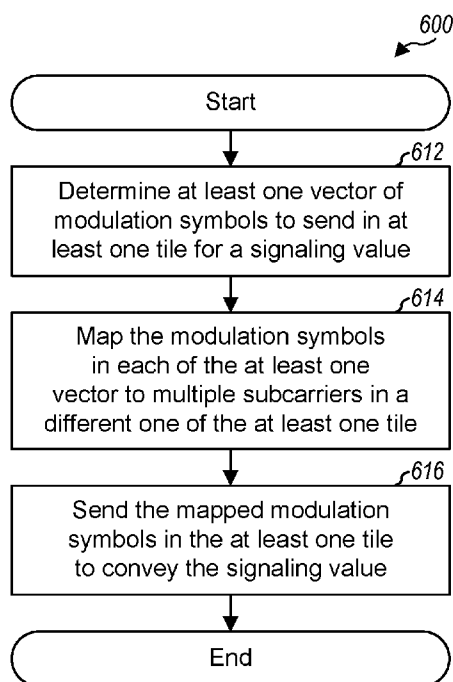


FIG. 6

(57) Abstract: Techniques for sending and receiving signaling in a wireless communication system are described. Multiple (e.g., eight) vectors of modulation symbols may be defined and may be orthogonal to one another. Multiple subscriber stations may share transmission resources and may simultaneously send different vectors of modulation symbols in the same tile. Each subscriber station may be assigned multiple sets of at least one vector of modulation symbols usable by that subscriber station to convey signaling, e.g., one set of three vectors for acknowledgement (ACK) and another set of three vectors for negative acknowledgement (NAK). Each subscriber station may send one set of at least one vector in at least one tile to convey a signaling value. Different subscriber stations may simultaneously send different sets of at least one vector in the at least one tile to convey their signaling values.

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