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(54) Title: MODULATION OF A SET OF BITS INTO TWO SYMBOLS AND SYMBOL TRANSMISSION OVER DIFFERENT COMMUNICATION RESOURCES

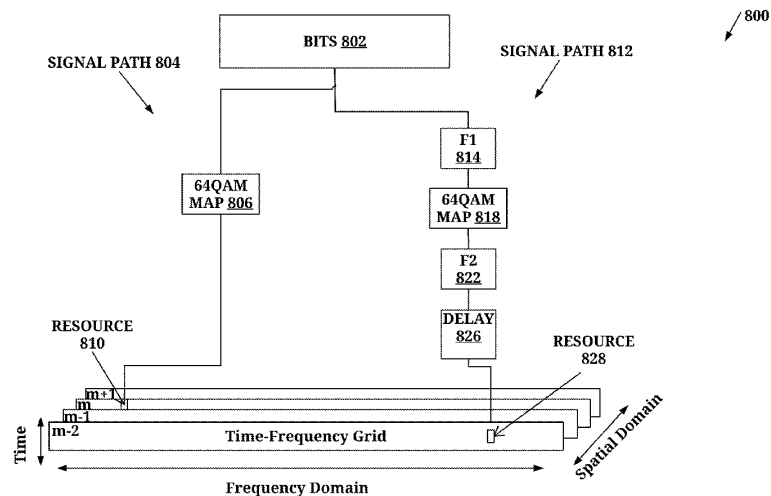


FIG. 8

(57) Abstract: Modulating millimeter waves may be embodied via a plurality of means. In at least one embodiment of the process disclosed herein, the process includes receiving, at a transmitter, a set of bits (802). The process also includes generating at least two complex-valued symbols based on the set of bits using a pipelined modulation at least in part by (i) mapping the set of bits to a first symbol using a first constellation mapping (806) and (ii) mapping the set of bits to a second symbol using a second constellation mapping (818). The process also includes selecting a first data communication resource (810) in a first single carrier channel for the first symbol and selecting a second data communication resource (828) in a second single carrier channel for the second symbol. The process also includes transmitting, via the transmitter, the first and second symbols using the respective selected data communication resources.

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