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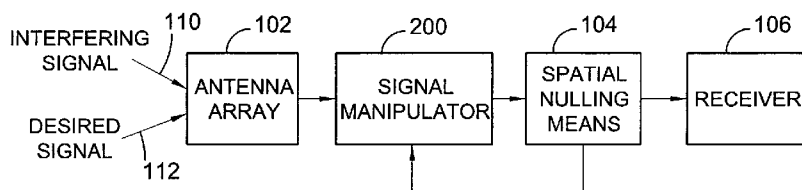


Fig. 5a

(57) Abstract: A system and methods for cancelling spatial interference associated with an original multi-carrier signal carrying at least one data transmission sent by a transmitter to an antenna array comprising a plurality of antennae and having a receiver operatively associated therewith, the system receiving a plurality of received signals respectively including interference and the original signal as received by a respective individual antenna from among the plurality of antennae, the system comprising a spatial nulling device for generating a cleaner signal by reducing at least one spatial component of the interference; and a signal manipulator operative to manipulate a derivative of the received signal so as to cause the at least one data transmission to be more concentrated in a subset of frequency bands in which the spatial nulling device is more effective and to be less concentrated in frequency bands which do not belong to the subset of frequency bands.

