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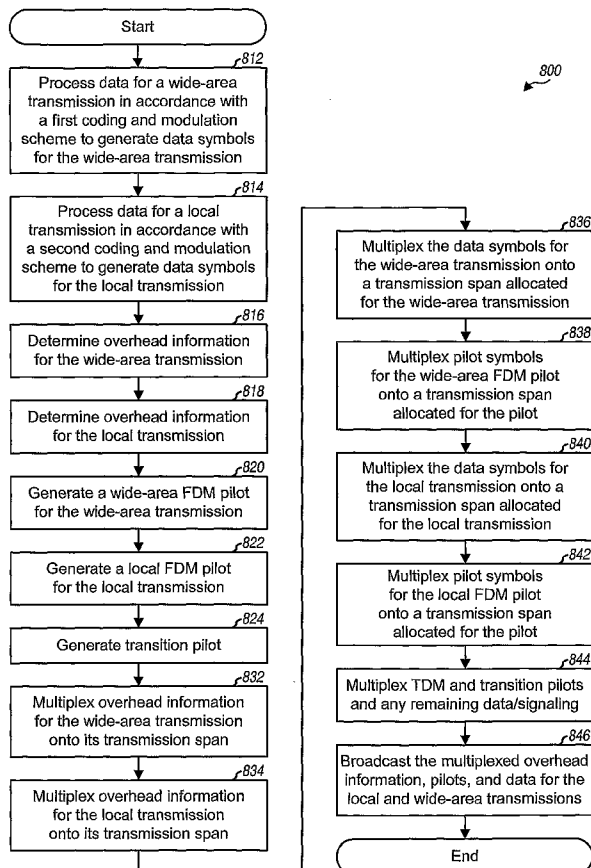
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(54) Title: LOCAL AND WIDE-AREA TRANSMISSIONS IN A WIRELESS BROADCAST NETWORK



(57) Abstract: To broadcast different types of transmission having different tiers of coverage in a wireless broadcast network, each base station processes data for a wide-area transmission in accordance with a first mode (or coding and modulation scheme) to generate data symbols for the wide-area transmission and processes data for a local transmission in accordance with a second mode to generate data symbols for the local transmission. The first and second modes are selected based on the desired coverage for wide-area and local transmissions, respectively. The base station also generates pilots and overhead information for local and wide-area transmissions. The data, pilots, and overhead information for local and wide-area transmissions are multiplexed onto their transmission spans, which may be different sets of frequency subbands, different time segments, or different groups of subbands in different time segments. More than two different types of transmission may also be multiplexed and broadcast.

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