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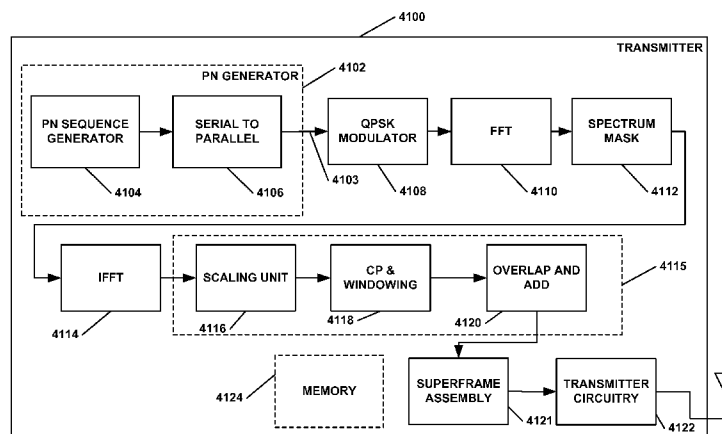
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(54) Title: METHODS AND APPARATUS FOR CONFIGURING A PILOT SYMBOL IN A WIRELESS COMMUNICATION SYSTEM



(57) Abstract: Methods and apparatus for constructing a pilot symbol for a communication frame transmitted in a wireless communication system, such as an OFDM system, are disclosed. In particular, the methods and apparatus generate at least one pseudo-random noise sequence having at least a predetermined length, where the at least one pseudo-random noise sequence represents a system configuration of a wireless system. A time domain symbol sequence is modulated with the at least one pseudo-random noise sequence to create a timing acquisition pilot symbol. The modulated acquisition pilot symbol is further masked to a prescribed frequency profile and placed in a frame for wireless transmission. Accordingly, different system configurations can be communicated from a transmitter to a receiver with the acquisition pilot symbol modulated with correspondingly different pseudo-random noise sequences, while affording low complexity required to process the acquisition pilot symbol and a minimum peak to average power ratio when using QPSK modulation.

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- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*