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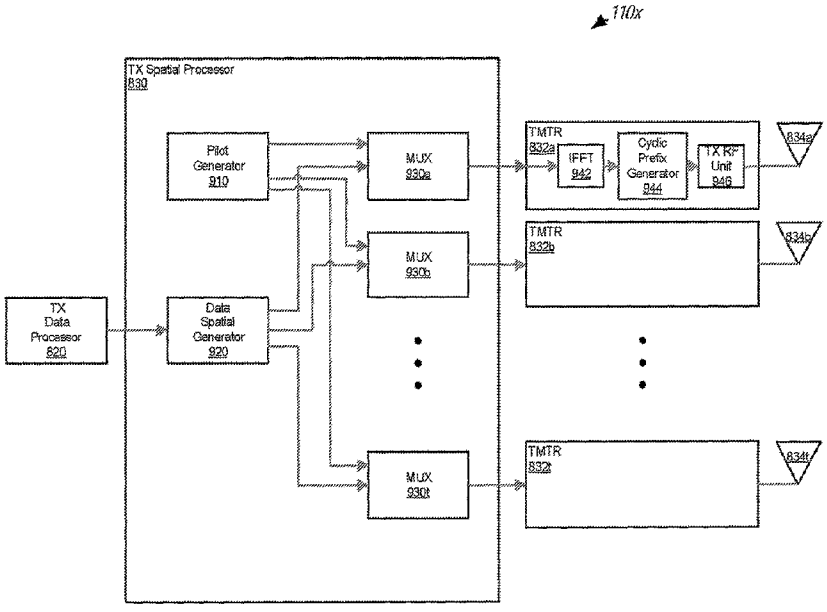
(54) Title: SPATIAL PILOT STRUCTURE FOR MULTI-ANTENNA WIRELESS COMMUNICATION




(57) Abstract: Spatial pilot to support MIMO receivers in a multi-antenna and multi-layer transmission communication system. A first layer pilot for a single layer transmission is repeated across subbands in a first OFDM symbol and the first layer pilot is also repeated offset from the first OFDM symbol in an adjacent second OFDM symbol. Additional transmission layers may also be transmitted each include a separate pilot generated and repeated in the first symbol and repeated offset form the separate pilot in an adjacent second symbol. The first and second OFDM symbols are then transmitted and received to characterize the receive channels.

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**Declarations under Rule 4.17:**

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— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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