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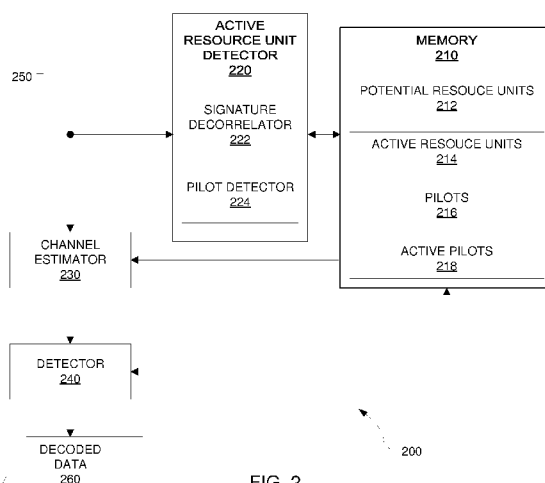


FIG. 2

(57) Abstract: Disclosed herein are an active resource unit detector and a method of use thereof. An embodiment method of detecting active resource units among a plurality of potential resource units includes receiving an aggregate signal containing active pilots transmitted over the active resource units via random access transmissions. The active pilots are then detected and respectively associated with the active resource units according to a pilot-to-resource unit mapping.