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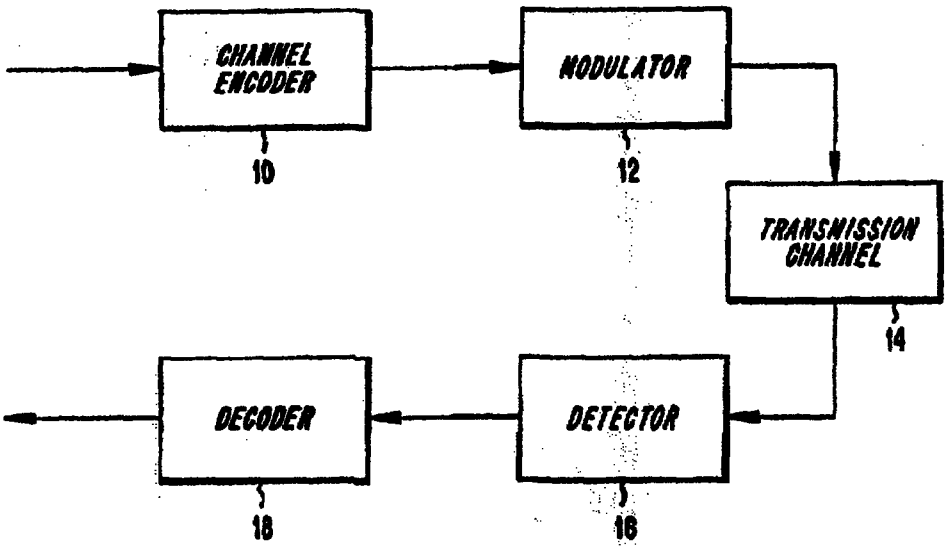
(54) Title: METHODS FOR GENERATING SIDE INFORMATION IN THE PRESENCE OF TIME-SELECTIVE FADING



(57) Abstract

A method and apparatus for decoding digitally encoded communication signals transmitted over a fading channel. According to the disclosed embodiments, a sequence of test bits are transmitted in each TDMA slots, and a mathematical distance (e.g., a Hamming or Euclidean distance) is calculated and used to determine reliability information indicative of the reliability of the bits or symbols in a received time slot. Alternatively, a concatenated coding scheme can be used to transmit digital communication signals. Reliability information can be generated using the innner code and the output of the inner decoder.