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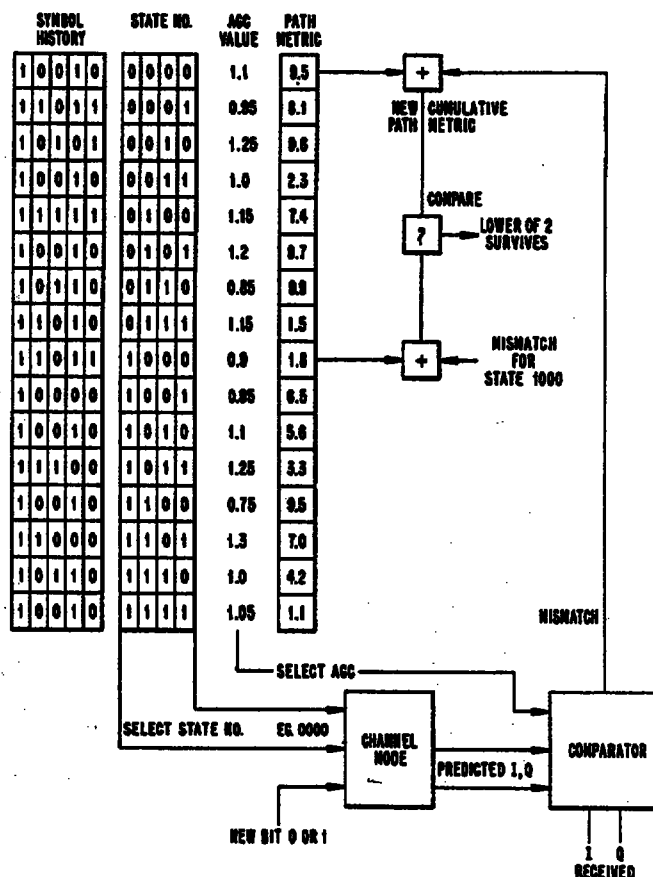
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② Replacement

(54) Title: METHOD FOR DEMODULATING DIGITALLY MODULATED DATA SIGNALS

(57) Abstract

A method for demodulating or decoding a digitally modulated data signal is disclosed wherein AGC parameters are retained and updated or discarded in parallel with deciding the data patterns most likely to have been transmitted. First, the received signals are converted from analog to digital to obtain numerical signal samples. The numerical signal samples are then compared with sample values expected for each of a number of possible symbol sequences using a scaling factor associated with each of the symbol sequences in order to determine a mismatch value for each sequence. The mismatch values are then logically self-consistent. Then, the lowest cumulative mismatch value is chosen from among all the foregoing sequences that can logically precede a new sequence to be accumulated with the mismatch value from the new sequence, wherein the selected mismatch identifies a best predecessor sequence. The scaling factor associated with the best predecessor is then chosen and the scaling factor is updated to obtain the scaling factor to be associated with the new sequence.



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