



ABSTRACT OF THE DISCLOSURE

A method and apparatus for demodulating data symbols transmitted through a fading communication channel. A plurality of first predetermined data symbols, a plurality of unknown data symbols, and a plurality of second predetermined data symbols are sequentially received. The received pluralities of data symbols are stored, and first and second sets of reference signals from the stored pluralities of first and second predetermined data symbols, respectively, are determined. The stored unknown data symbols based on the first set of reference signals are forward-demodulated, beginning with unknown symbols received nearer the first predetermined data symbols. The stored unknown data symbols based on the second set of reference signals are backward-demodulated, beginning with the unknown data symbols received nearer the second predetermined data symbols. Quality values indicative of demodulation qualities of the forward- and backward-demodulated data symbols are determined. The quality values are compared, and either the forward- or backward-demodulated data symbols are selected based on the comparison of quality values.