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(54) Title: METHOD AND APPARATUS FOR TIME TRACKING

(57) Abstract

In order to time track an incoming signal, a receiver demodulates a first instance of a signal to produce a first set of energy values corresponding to a set of possible data values of the signal (200, 270). The receiver also demodulates a second instance of the signal to produce a second set of energy values corresponding to the set of possible data values (208, 272). The receiver combines the first and the second sets of energy values to determine a combined set of energy values (210, 276). The receiver determines a first estimate of a most likely transmitted data value based upon the combined set of energy values (202, 278). The receiver discovers an early set of despread samples of the first instance using a symbol corresponding to the first estimate to produce a first early energy value. The receiver discovers a late set of despread samples of the first instance using the symbol corresponding to the first estimate to produce a first late energy value (214, 284). Finally, the receiver determines a time offset of the first instance based upon the first early and the first late energy values.

