

ABSTRACT OF THE DISCLOSURE

A self-adjusting quadrature modulator and modulation method improve the accuracy with which digital data is impressed on an RF carrier, which is particularly useful for systems having Viterbi, echo-integrating demodulators and for systems using subtractive CDMA techniques. The method and apparatus involve receiving one's own transmission with a suitable modulation assessment receiver and determining the modulation error relative to the theoretically perfect transmission expected by the receiver. The measured error is used to adjust the modulation to minimize the error. The modulation assessment receiver may use log-polar signal processing to measure phase and (log)amplitude instead of cartesian I and Q components, and then convert to cartesian form. In addition, correction factors determined by the modulation assessment receiver can be directly identified with certain transform components produced by the Fast Walsh Transform.

This Sheet Has Been Replaced

