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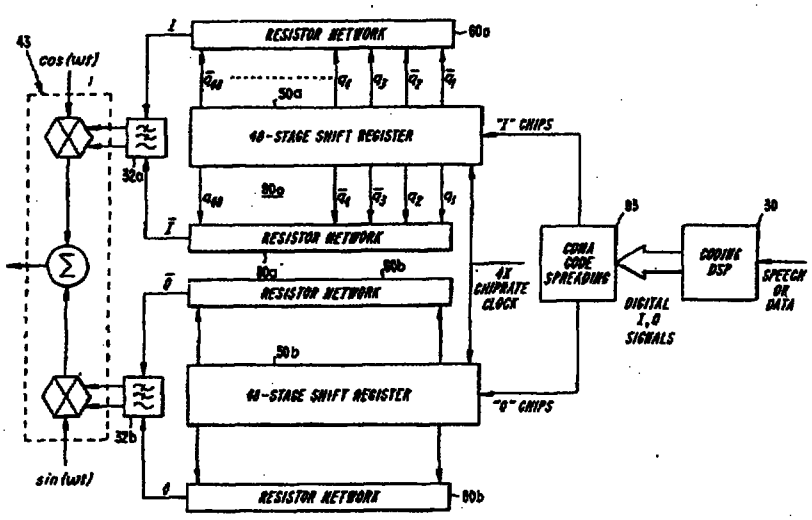
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(54) Title: BALANCED TRANSVERSAL I,Q FILTERS FOR QUADRATURE MODULATORS




(57) Abstract

Radio transmissions are spectrally contained to reduce adjacent channel interference by a method and apparatus for I,Q filtering of signals before quadrature modulation in digital cellular radio transmission systems such as communications systems following the GSM TDMA, IS-54 or IS-95 standards. The filtering is accomplished by multiple stage registers connected at their complementary outputs to identical resistor networks. The outputs of the resistor networks are summed to represent a smoothly transitioning analog representation of the digital voice or data transmission. The analog representation may be additionally low pass filtered to remove higher frequency components before quadrature modulation. Because rapid transmissions in the transmittal signal are avoided, adjacent channel interference is reduced.