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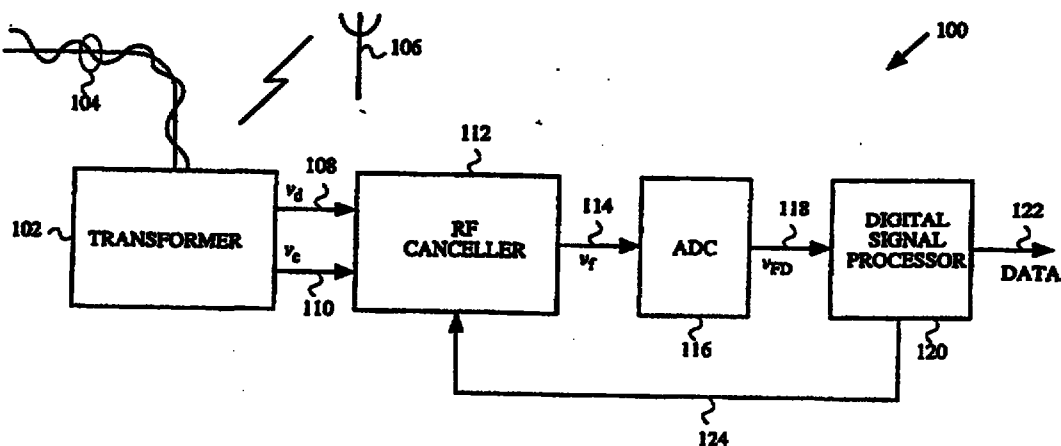
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(54) Title: RADIO FREQUENCY NOISE CANCELLER



(57) Abstract

A receiver or receiver system for high speed data communications having a radio frequency noise canceller (112) is disclosed. The radio frequency noise canceller (112) removes radio-frequency noise from received signals over a transmission medium by adaptively estimating the radio-frequency noise during data transmission. In one embodiment, the radio frequency noise canceller includes: an adaptive filter (108) for producing a noise cancellation signal by filtering a reference noise signal based on filter parameters, a subtractor (102) for subtracting the noise cancellation signal from the first signal to produce the second signal; and an update circuit (104) for enabling, at predetermined times, modification of the parameters of the adaptive filter based on the then existing second signal. A method for removing radio frequency noise is also disclosed.