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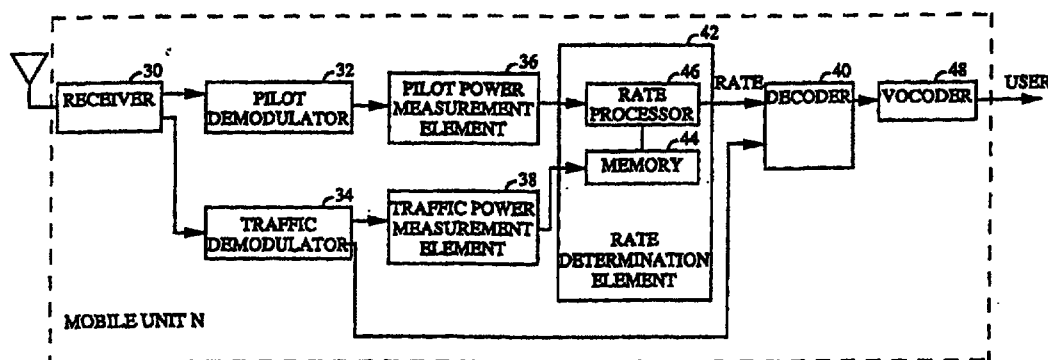
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(54) Title: METHOD AND APPARATUS FOR PERFORMING DATA RATE DETERMINATION



(57) Abstract

A system and method for determining the transmission rate of a data signal at a receiver of a variable rate communications system. A vocoder at a transmitter encodes a frame of data into symbols according to one of a set of discrete data rates. When the data rate is lower than the maximum, each symbol is repeated a number of times as required to achieve a constant number of symbols in each frame. The data signal is transmitted at a power proportional to the data rate of the frame. A reference signal is also transmitted. The reference signal is transmitted at a constant power. Further, the data signal has the same carrier frequency as a reference signal so that they exhibit the same fading characteristics as they are transmitted through the channel. At a receiver, the power of the reference signal is measured by the pilot measurement element (36) and the power of the data signal is measured by the traffic power measurement element (38). The rate processor (46) determines the ratio of the power of the data signal to the power of the reference signal, and the measured ratio is compared with a predetermined ratio of the power of a maximum rate data signal to the power of the reference signal. The result of the comparison will indicate the encoded data rate of the received frame of data. The decoder (40) then uses the rate indicated by the comparison to properly decode the frame of data. A vocoder at the receiver further processes the data for interface with the user.