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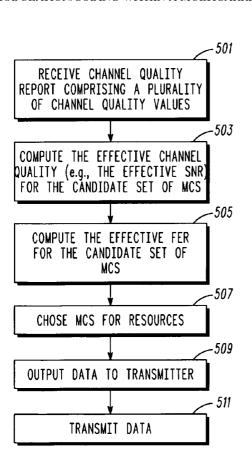
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(54) Title: METHOD AND APPARATUS FOR DETERMINING CHANNEL QUALITY AND PERFORMING ADAPTIVE MODULATION/CODING WITHIN A MULTICARRIER COMMUNICATION SYSTEM



(57) Abstract: In a multi-carrier communication system employing adaptive modulation and coding, a receiver (600) feeds back channel quality information (501) for a "binned" group of subcarriers instead of sending an individual quality report for each subcarrier. A transmitter (100) will utilize the channel quality information for the bin to determine a set of $\gamma_{\rm eff}$ values (505) corresponding to a set of modulation and coding scheme candidates (503), where $\gamma_{\rm eff}$ is an effective SNR that would yield a same FER in an AWGN channel. The transmitter utilizes the set of $\gamma_{\rm eff}$ values to aid in determining a modulation and coding scheme, and determine a single modulation and coding scheme (507) for all subcarriers within the channel.

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