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(54) **SCHEDULING APPARATUS AND METHOD IN A MULTICARRIER COMMUNICATION SYSTEM**

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See application file for complete search history.

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(57) **ABSTRACT**

In multicarrier communication system using N subcarriers, in which a transmitter communicates with K receivers, the transmitter determines a channel quality information (CQI) feedback quantity indicative of the number of subcarriers for which CQIs will be fed back among the N subcarriers, for the K receivers, and transmits the CQI feedback quantity to the K receivers. Thereafter, upon receiving CQIs corresponding to the determined CQI feedback quantity, being fed back from the K receivers, the transmitter allocates subcarriers for which there are CQIs being fed back from at least one receiver among the K receivers among the N subcarriers, to any one receiver among the receivers that have fed back CQIs according to a first scheme, thereby guaranteeing the maximum throughput and the maximum fairness.

24 Claims, 7 Drawing Sheets

