



US006904283B2

(12) **United States Patent**
Li et al.

(10) **Patent No.:** **US 6,904,283 B2**
(45) **Date of Patent:** **Jun. 7, 2005**

(54) **MULTI-CARRIER COMMUNICATIONS WITH GROUP-BASED SUBCARRIER ALLOCATION**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 277 days.

(21) Appl. No.: **09/837,337**

(22) Filed: **Apr. 17, 2001**

(65) **Prior Publication Data**

US 2003/0169681 A1 Sep. 11, 2003

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/738,086, filed on Dec. 15, 2000.

(51) **Int. Cl.**⁷ **H04B 7/00**; H04B 1/38; H04Q 7/20; H04M 1/00; H04J 11/00

(52) **U.S. Cl.** **455/450**; 455/69; 455/447; 455/448; 455/561; 455/550.1; 370/208

(58) **Field of Search** 375/133, 135, 375/260, 267; 370/203, 208, 210, 482, 484, 431, 319-321, 328, 329, 332, 342, 344, 345; 455/69, 434, 455, 463, 422.1, 447-450, 452.1, 452.2, 453, 42, 500, 512, 513, 102-105

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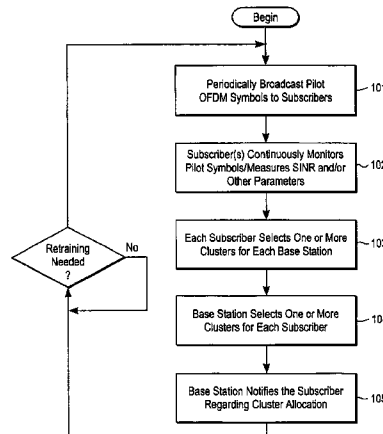
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(57) **ABSTRACT**

A method and apparatus for subcarrier selection for systems is described. In one embodiment, a method for subcarrier selection for a system employing orthogonal frequency division multiple access (OFDMA) comprises partitioning subcarriers into groups of at least one cluster of subcarriers, receiving an indication of a selection by the subscriber of one or more groups in the groups, and allocating at least one cluster in the one or more groups of clusters selected by the subcarrier for use in communication with the subscriber.

119 Claims, 7 Drawing Sheets



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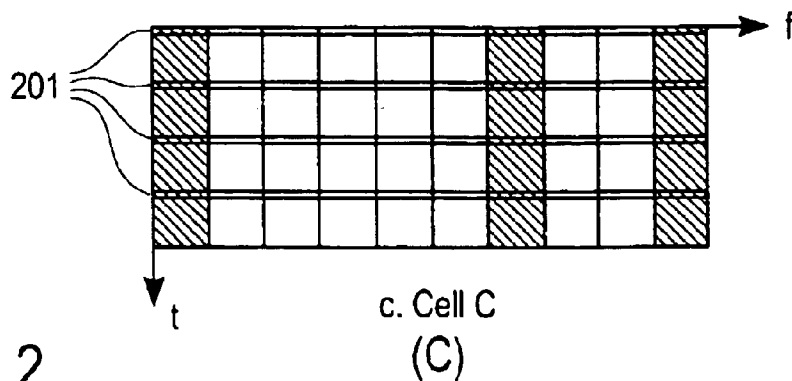
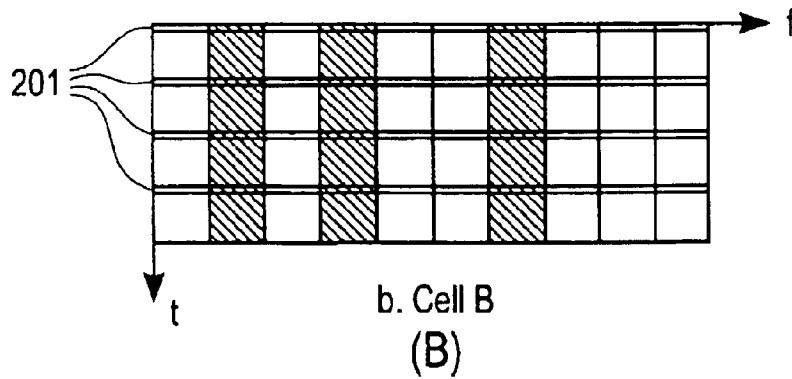
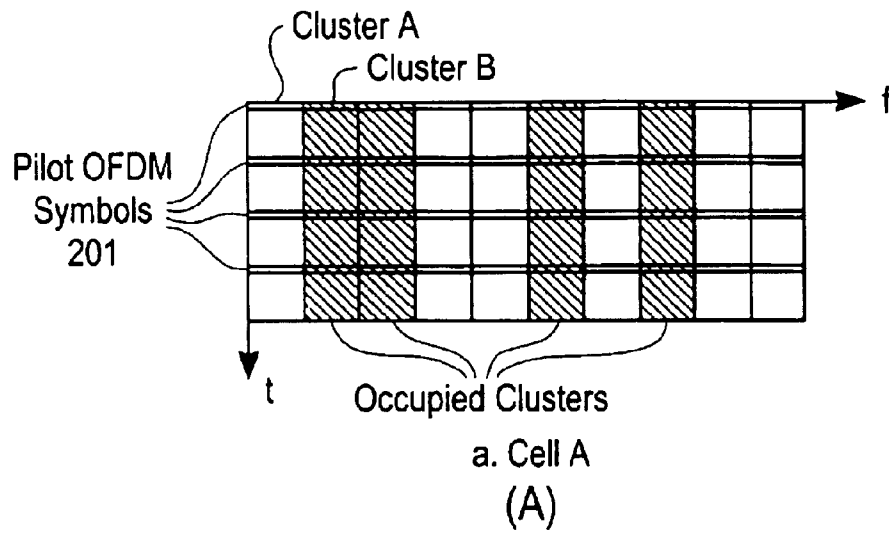
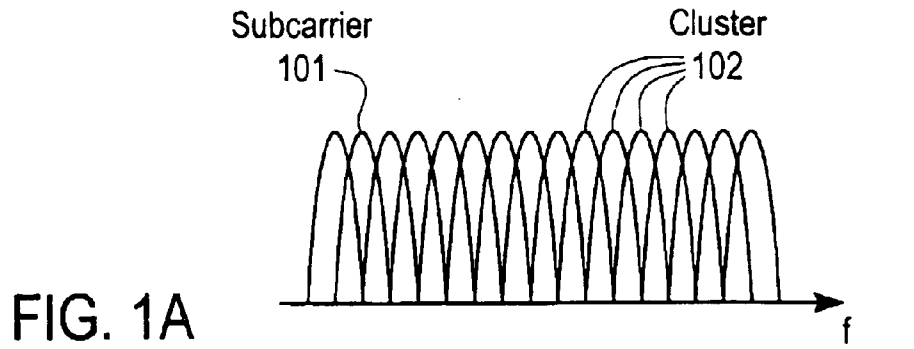


FIG. 2

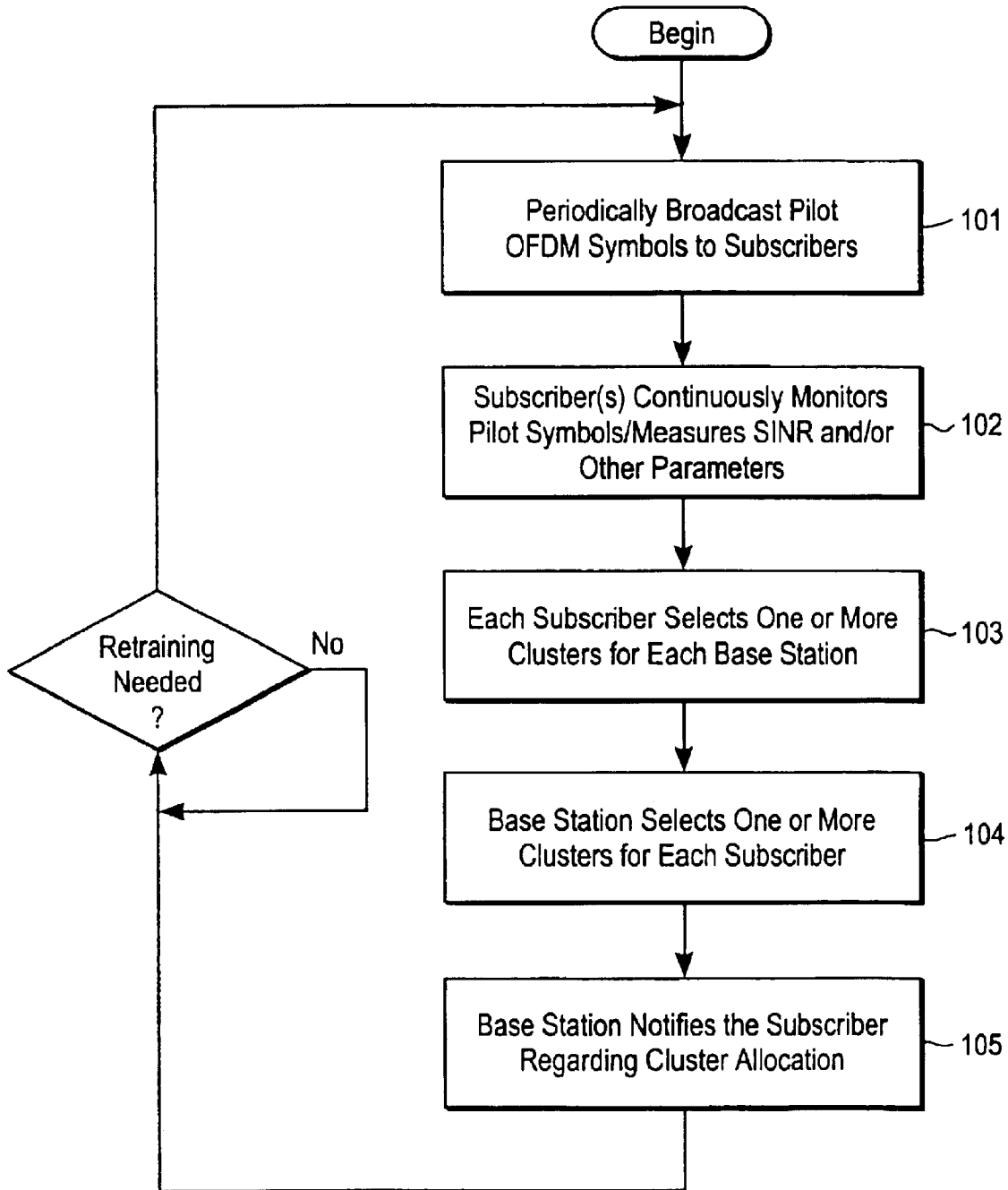


FIG. 1B

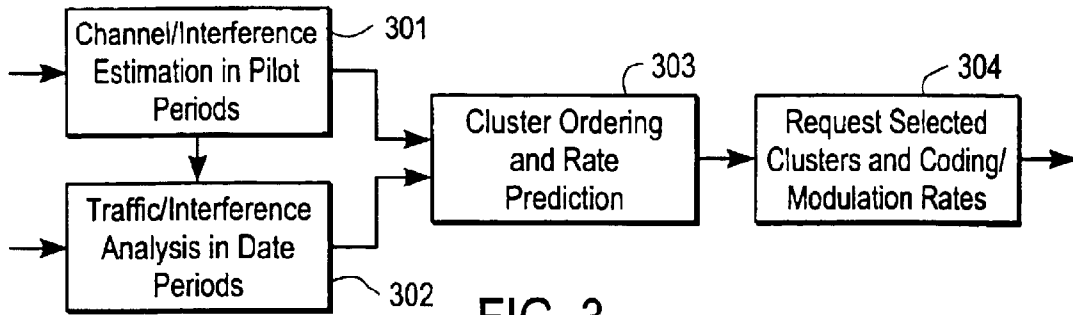


FIG. 3

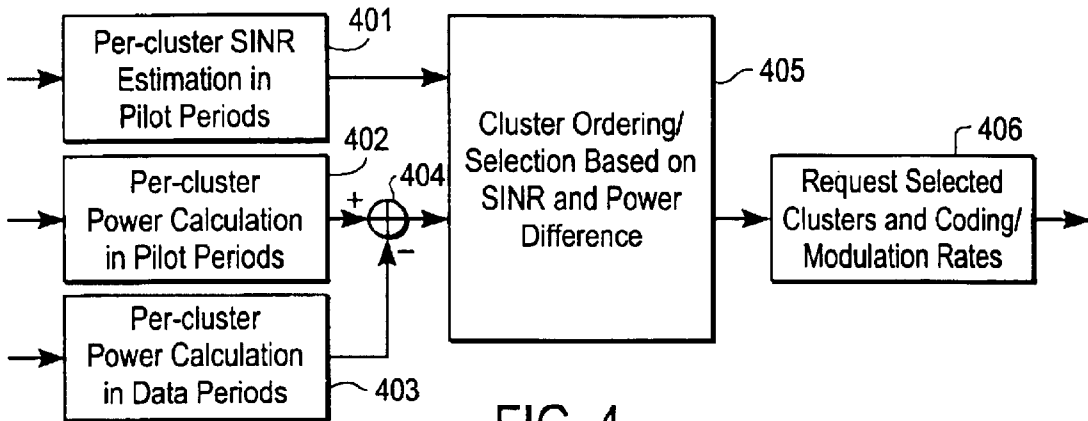


FIG. 4

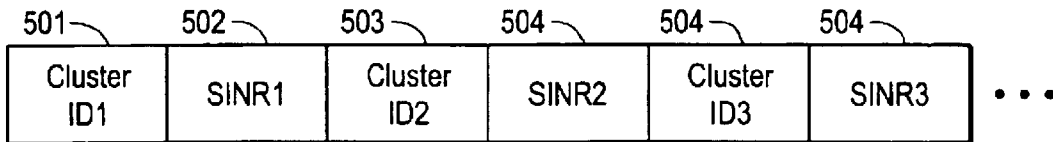


FIG. 5

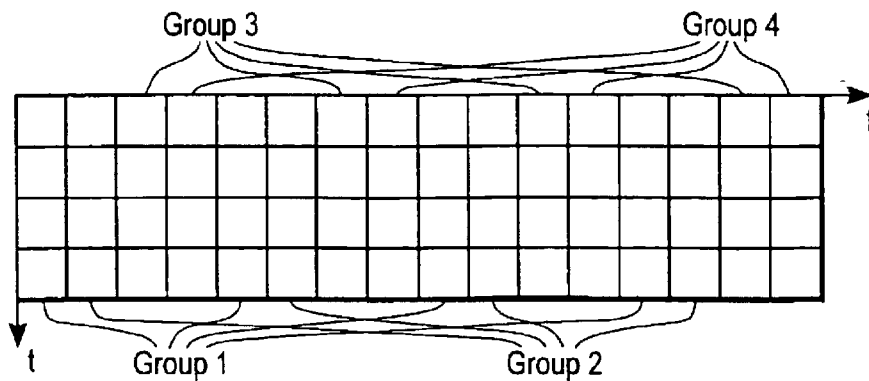


FIG. 6

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