



- [54] **CELLULAR COMMUNICATION SYSTEM WITH DEDICATED REPEATER CHANNELS**
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- [73] Assignee: **Cisco Systems, Inc.**, San Jose, Calif.
- [21] Appl. No.: **08/625,421**
- [22] Filed: **Mar. 29, 1996**

**Related U.S. Application Data**

- [63] Continuation-in-part of application No. 08/566,502, Dec. 4, 1995, Pat. No. 5,950,124, which is a continuation-in-part of application No. 08/523,942, Sep. 6, 1995, abandoned.
- [51] **Int. Cl.<sup>7</sup>** ..... **H04J 3/22**
- [52] **U.S. Cl.** ..... **453/11.1; 455/450**
- [58] **Field of Search** ..... 455/11.1, 450, 455/422, 63, 524, 517, 572, 561, 426, 446, 447, 448, 466; 370/335, 342, 468; 375/140, 146, 147, 141, 220

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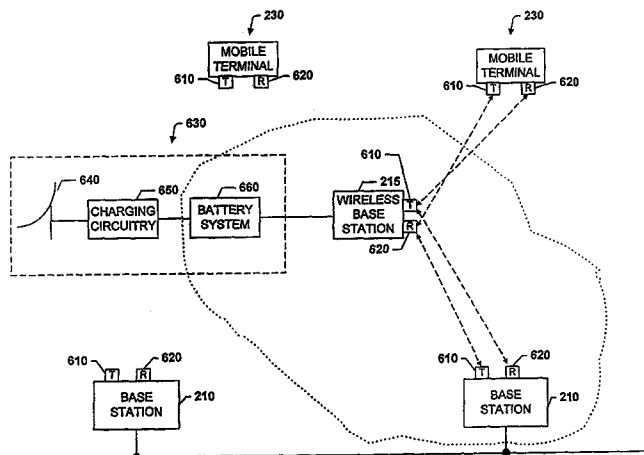
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[57] **ABSTRACT**

A cellular communication system in which dedicated repeater controller transceivers are included in base stations and wireless base stations. The repeater controller transceivers are configured to operate on a different channel as compared to communications received by or transmitted directly from mobile terminals. By utilizing a dedicated channel for communications between the base stations and wireless base stations, the contention areas formed by overlapping cell areas is effectively eliminated. The different channels may be based on differences in parameters such as frequency and/or data encoding techniques.

**26 Claims, 19 Drawing Sheets**



Qualcomm Incorporated

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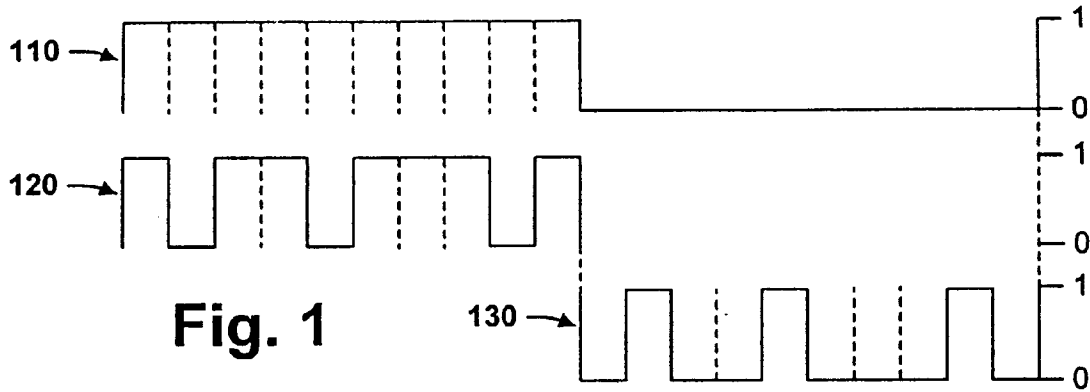


Fig. 1

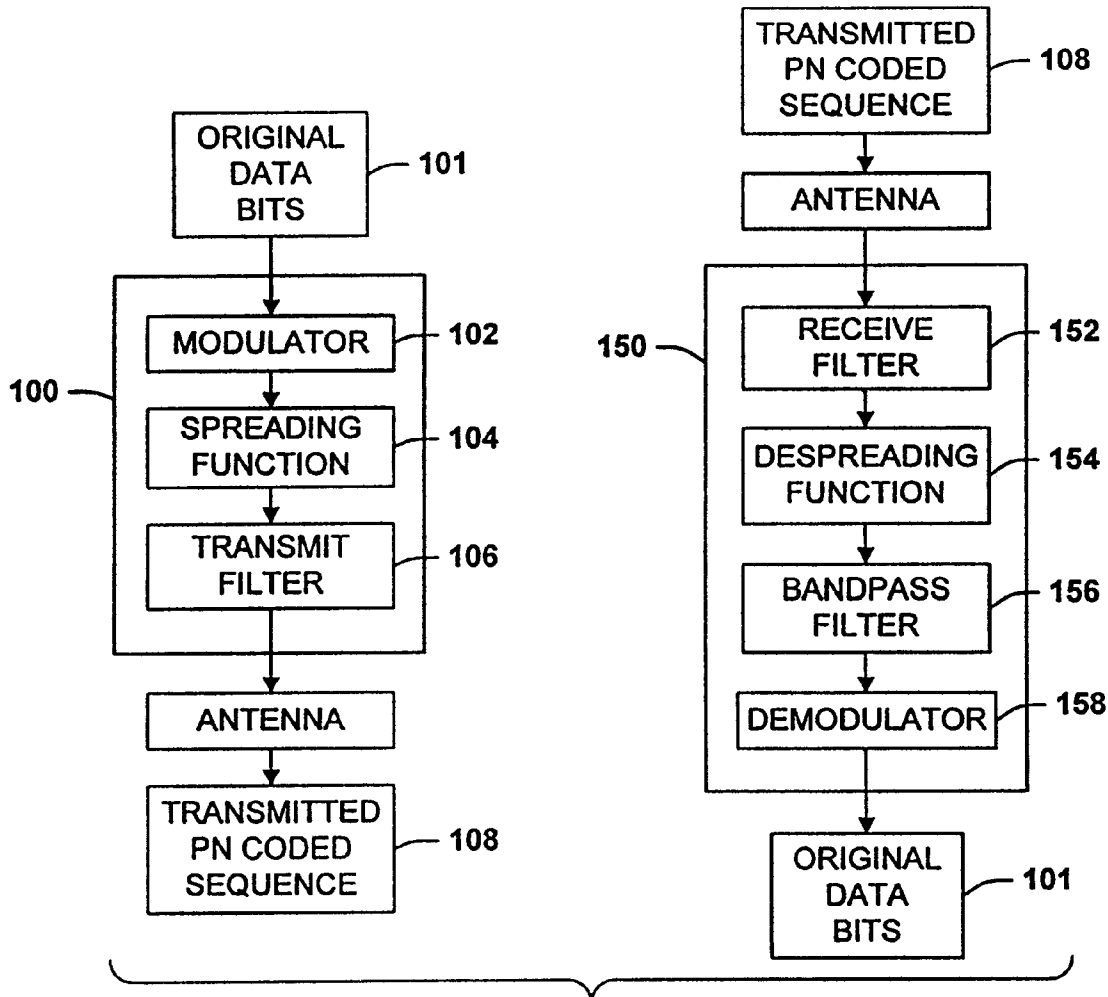


Fig. 1A

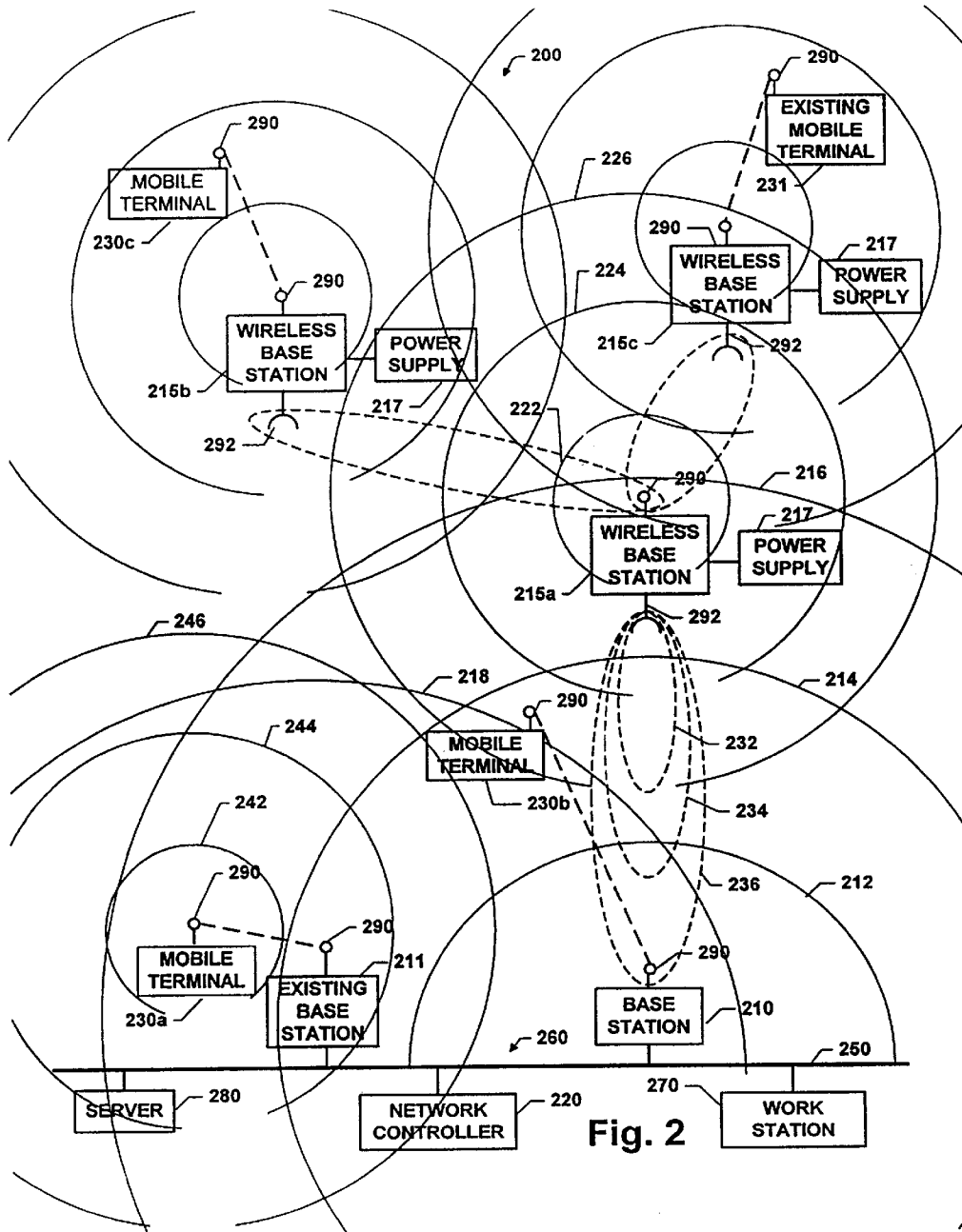


Fig. 2

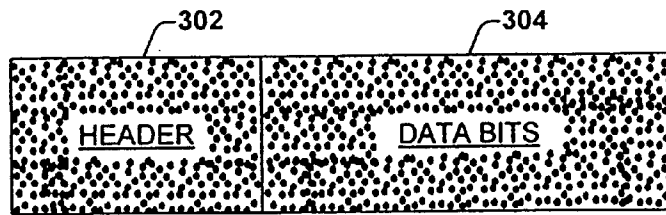


Fig. 3A

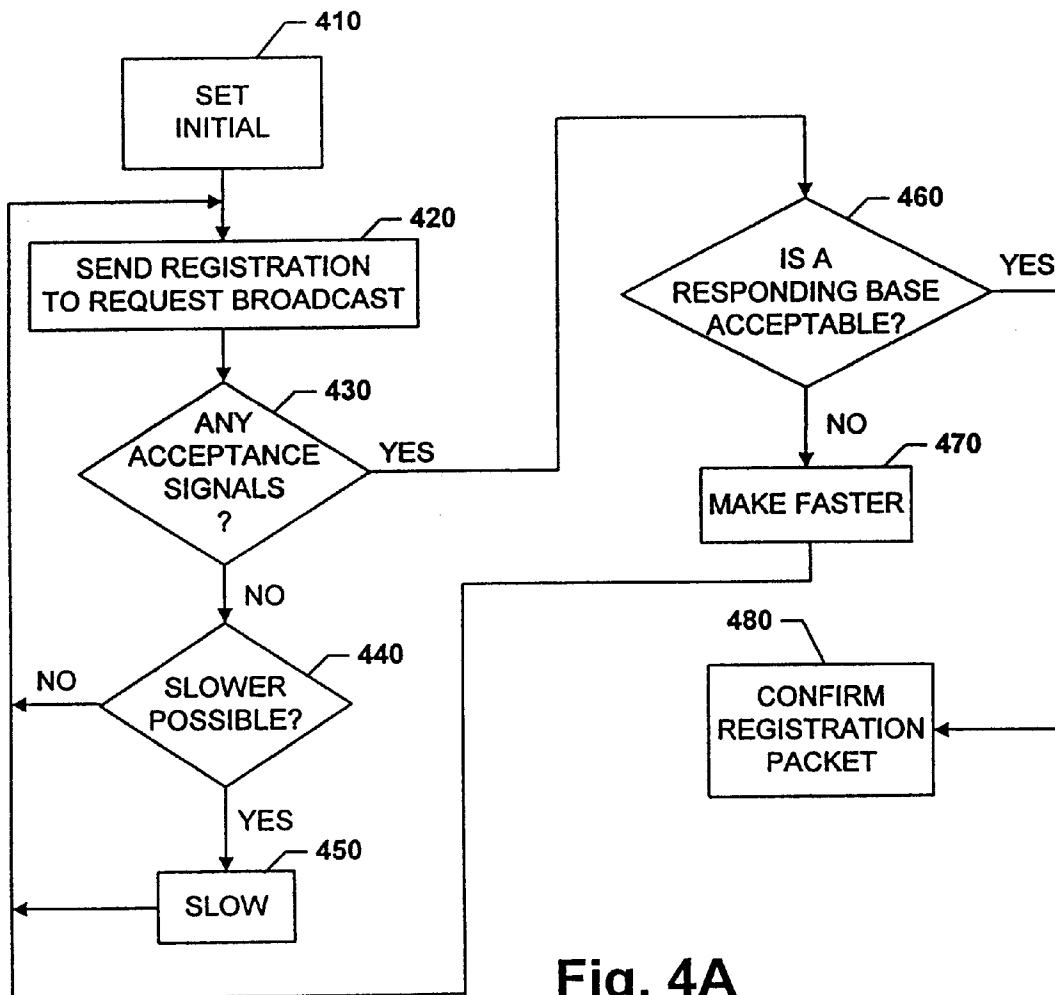


Fig. 4A

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