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Jalali

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(54) **TRANSMISSION OF SIGNALING IN AN OFDM-BASED SYSTEM**

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H04J 11/00 (2006.01)
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See application file for complete search history.

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(57) **ABSTRACT**

Techniques for efficiently transmitting various types of signaling on the forward and reverse links in an OFDM-based system are described. Instead of specifically allocating subbands to individual signaling channels, signaling data for a signaling channel on a given link is sent as "underlay" to other transmissions that may be sent on the same link. Each wireless terminal is assigned a different PN code. The signaling data for each terminal is spectrally spread over all or a portion of the system bandwidth using the assigned PN code. For the reverse link, a wireless terminal may transmit signaling on all N usable subbands and may transmit traffic data on L subbands assigned for data transmission, which may be a subset of the N usable subbands. For the forward link, a base station may transmit signaling and traffic data for all terminals on the N usable subbands.
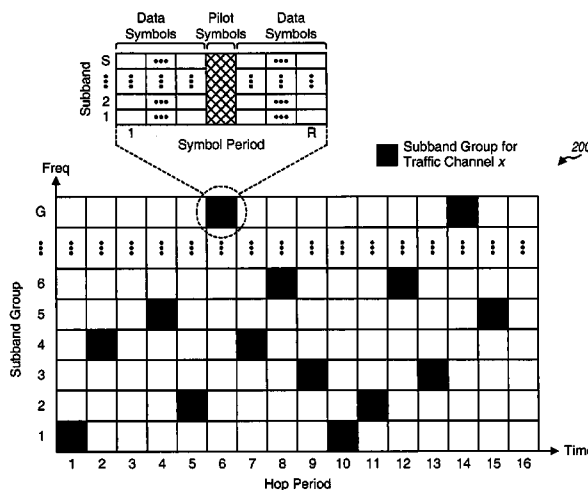
52 Claims, 10 Drawing Sheets

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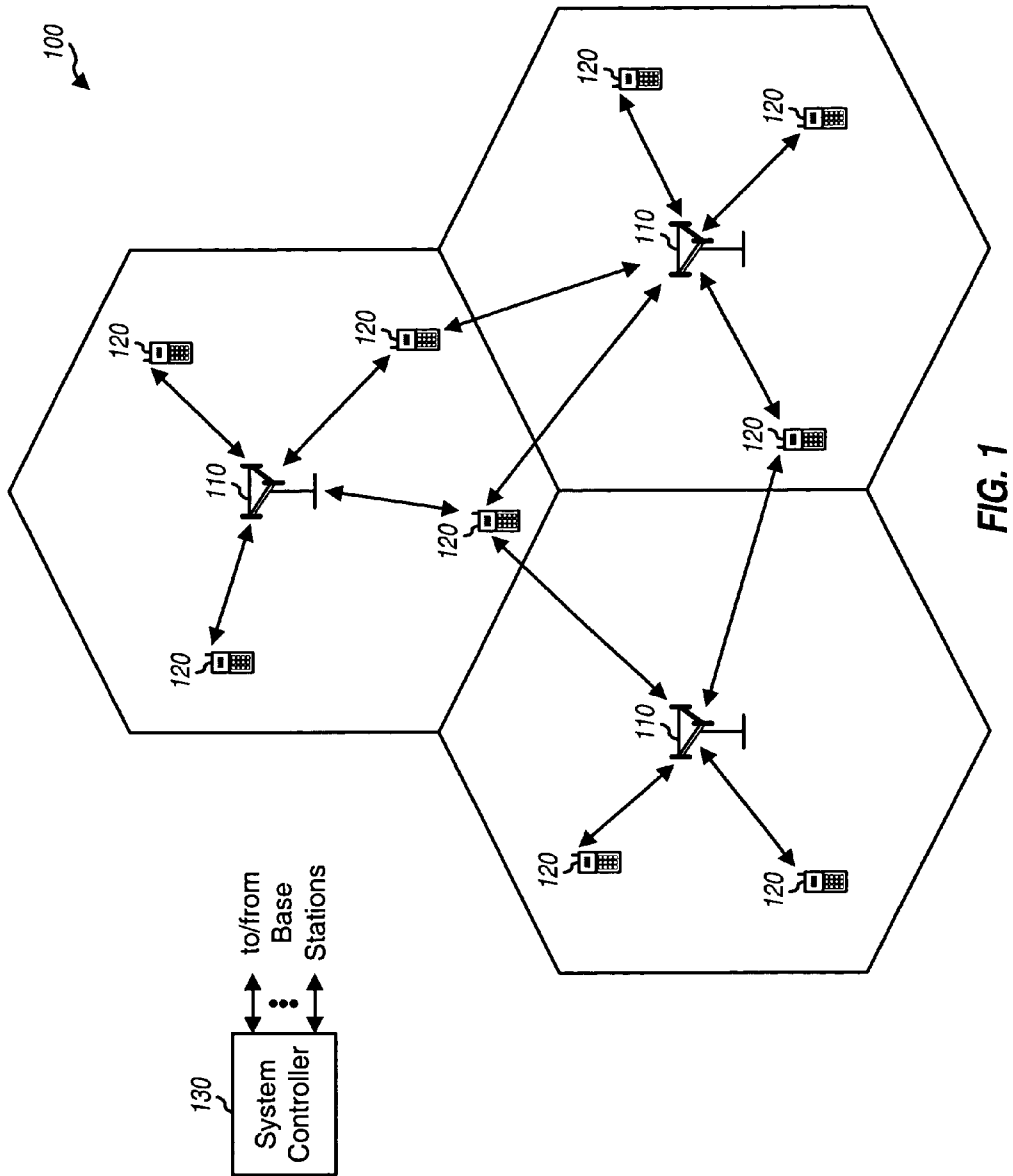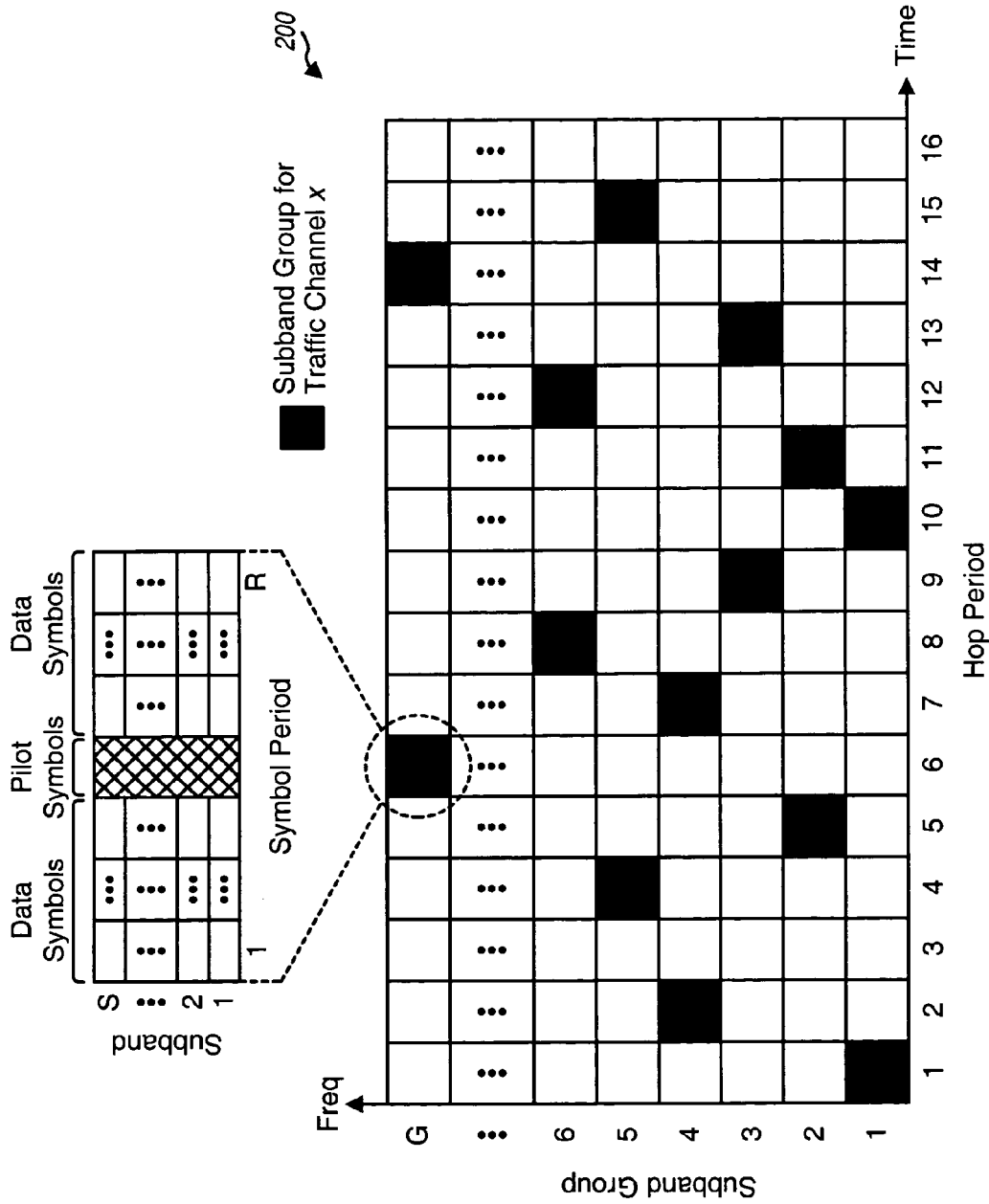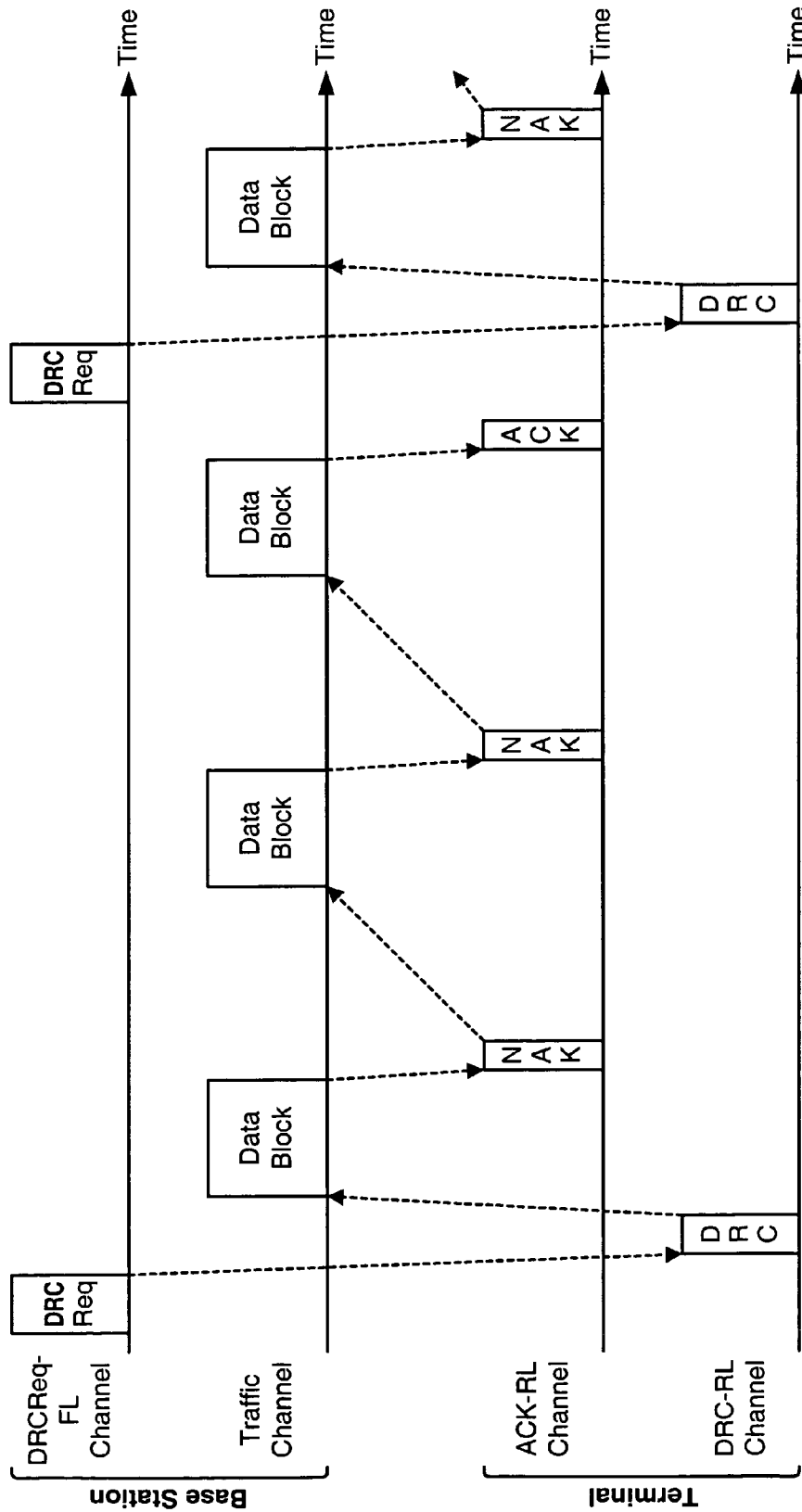
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FIG. 1

FIG. 2

FIG. 3

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