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(12) United States Patent

Han et al.

(54) METHOD AND APPARATUS FOR GENERATING AND TRANSMITTING CODE SEQUENCE IN A WIRELESS **COMMUNICATION SYSTEM**

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- (73) Assignee: LG Electronics Inc., Seoul (KR)
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- Filed: Nov. 28, 2006 (22)

Prior Publication Data (65)

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(30)**Foreign Application Priority Data**

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|---------------|------|-----------------|
| Jul. 4, 2006 | (KR) | 10-2006-0062467 |
| Jul. 7, 2006 | (KR) | 10-2006-0064091 |

- (51) Int. Cl.
- H04B 1/00 (2006.01)
- (52) U.S. Cl. 375/142; 370/203; 370/208; 375/131; 375/140; 375/146; 375/148
- (58)Field of Classification Search 370/203; 375/131, 142

See application file for complete search history.

US 7,746,916 B2 (10) **Patent No.:**

(45) Date of Patent: Jun. 29, 2010

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Primary Examiner-David C Payne

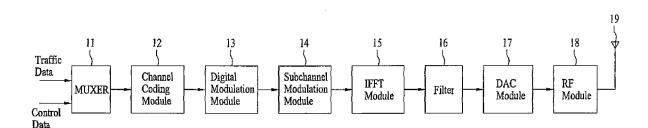
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ABSTRACT (57)

A method of generating a code sequence in a wireless communication system is disclosed. More specifically, the method includes recognizing a desired length of the code sequence, generating a code sequence having a length different from the desired length, and modifying the length of the generated code sequence to equal the desired length. Here, the step of modifying includes discarding at least one element of the generated code sequence or inserting at least one null element to the generated code sequence.

11 Claims, 18 Drawing Sheets



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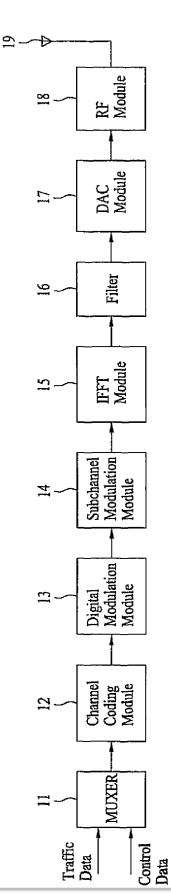


FIG.

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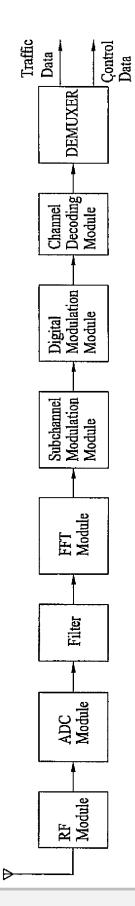


FIG. 2

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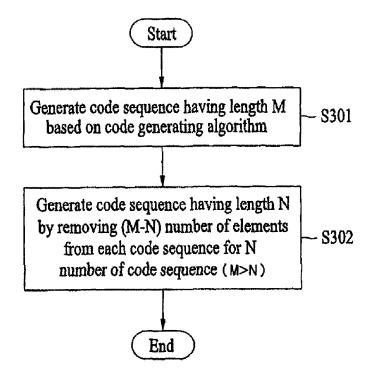
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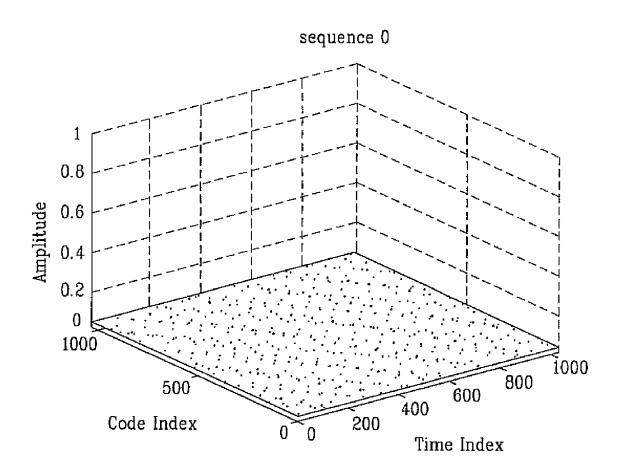
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FIG. 4



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