



US 20060153282A1

(19) **United States**

(12) **Patent Application Publication**
Jung et al.

(10) **Pub. No.: US 2006/0153282 A1**

(43) **Pub. Date: Jul. 13, 2006**

(54) **METHOD FOR TRANSMITTING AND RECEIVING PREAMBLE SEQUENCES IN AN ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING COMMUNICATION SYSTEM USING A MULTIPLE INPUT MULTIPLE OUTPUT SCHEME**

Publication Classification

(51) **Int. Cl.**
H04B 1/69 (2006.01)
H04B 1/707 (2006.01)
(52) **U.S. Cl.** 375/146

(75) **Inventors: Young-Ho Jung, Seoul (KR); Jae-Hak Chung, Seoul (KR); Seung-Hoon Nam, Seoul (KR)**

(57) **ABSTRACT**

In an orthogonal frequency division multiplexing (OFDM) communication system using multiple transmit antennas, a first base sequence with a first length is segmented into a first number of second sequences to which different time offsets are applied. Subsequences of a first preamble sequence corresponding to the number of second sequences are generated. A second base sequence with a second length is segmented into a second number of third sequences to which different time offsets are applied. Subsequences of a second preamble sequence corresponding to the number of third sequences are generated. A subsequence is selected from the subsequences of the first preamble sequence and is transmitted through a transmit antenna in a first time interval. A third preset number of subsequences are selected from the subsequences of the second preamble sequence, and are mapped and transmitted to the transmit antennas in a second time interval.

Correspondence Address:
DILWORTH & BARRESE, LLP
333 EARLE OVINGTON BLVD.
UNIONDALE, NY 11553 (US)

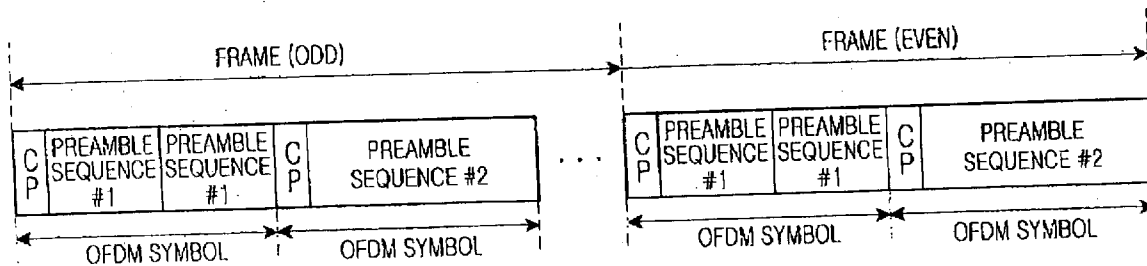
(73) **Assignee: SAMSUNG ELECTRONICS CO., LTD., Suwon-si (KR)**

(21) **Appl. No.: 11/332,531**

(22) **Filed: Jan. 13, 2006**

(30) **Foreign Application Priority Data**

Jan. 13, 2005 (KR) 3464/2005



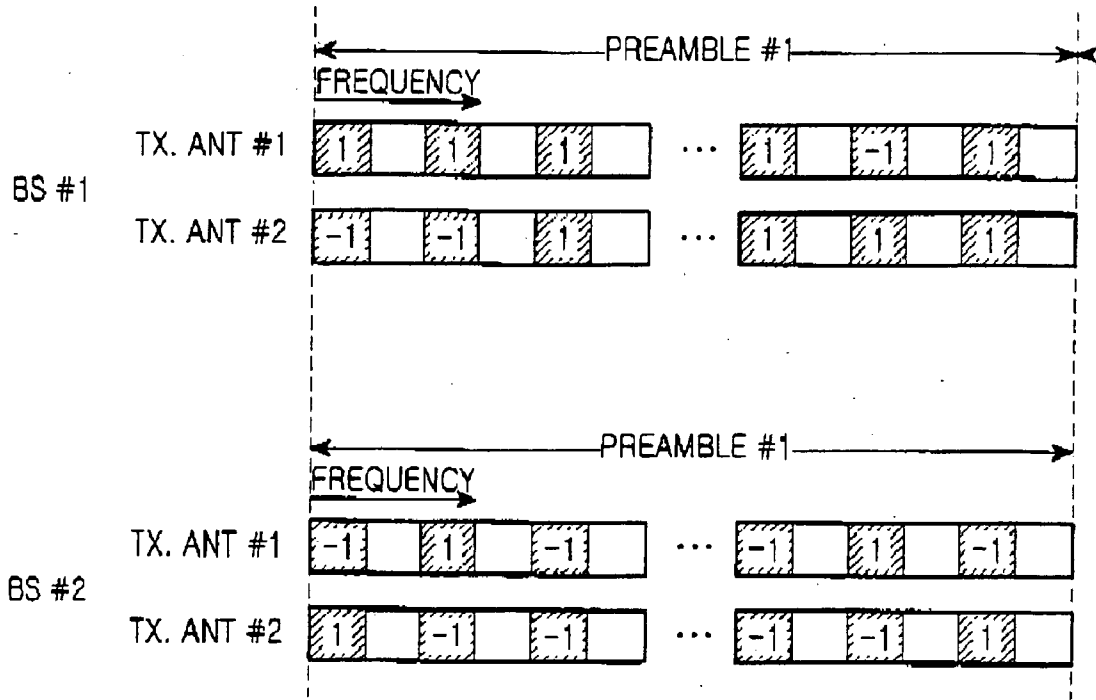


FIG. 1
(PRIOR ART)

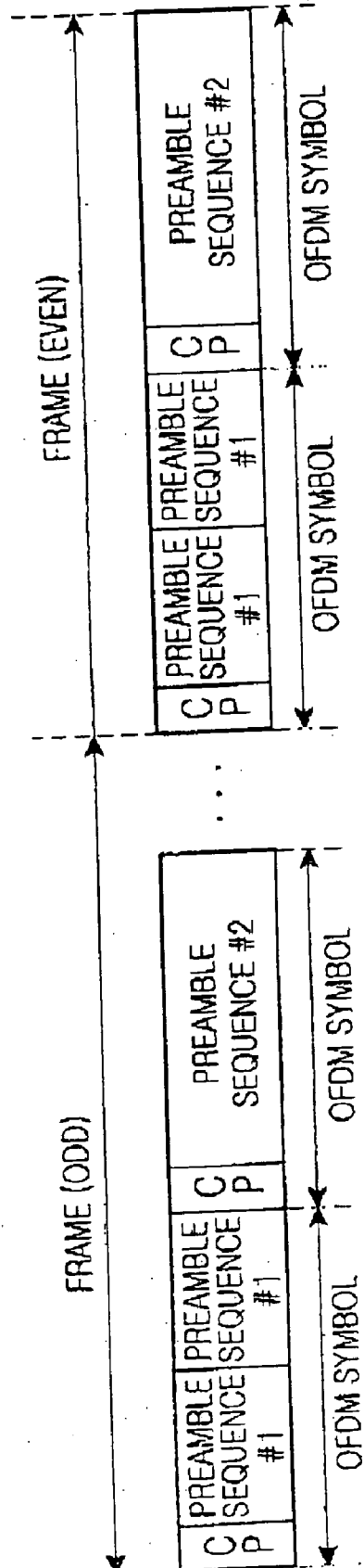


FIG. 2

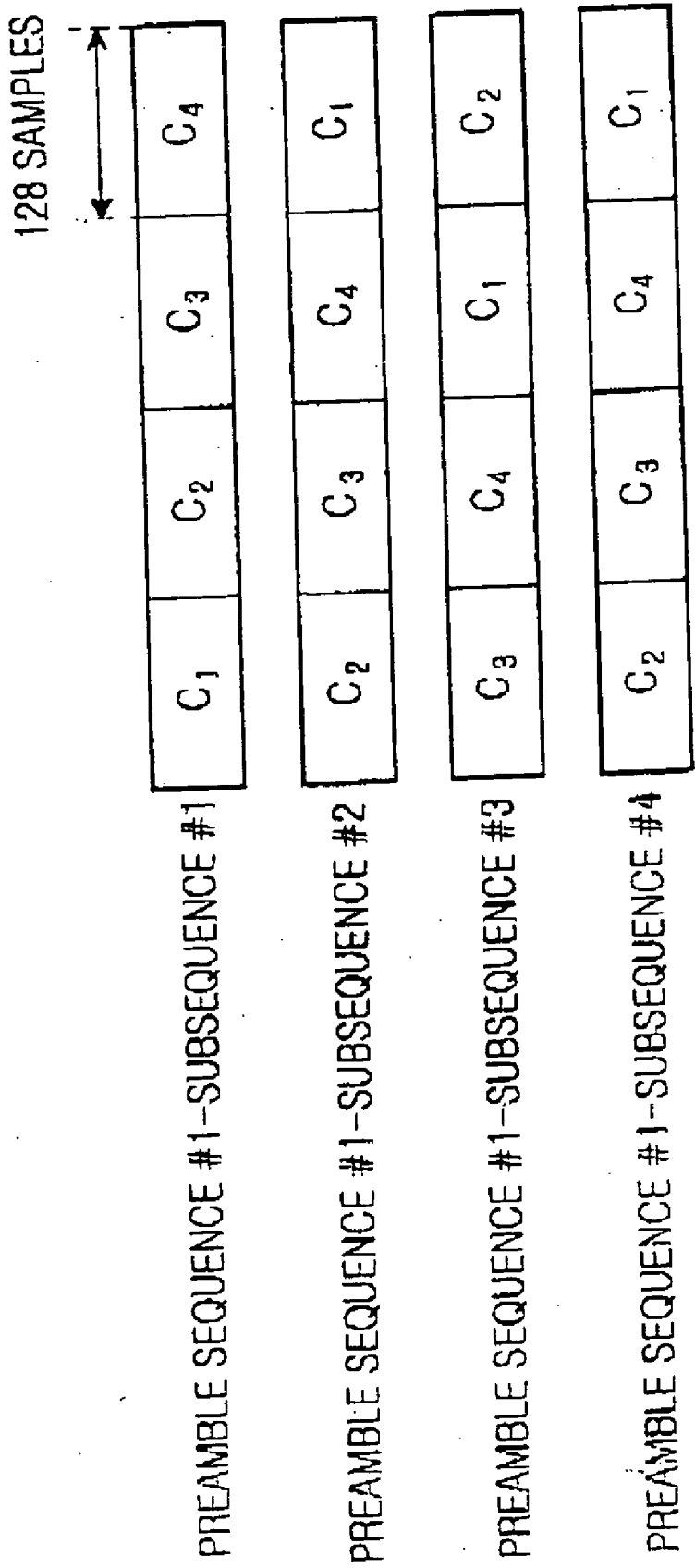


FIG. 3

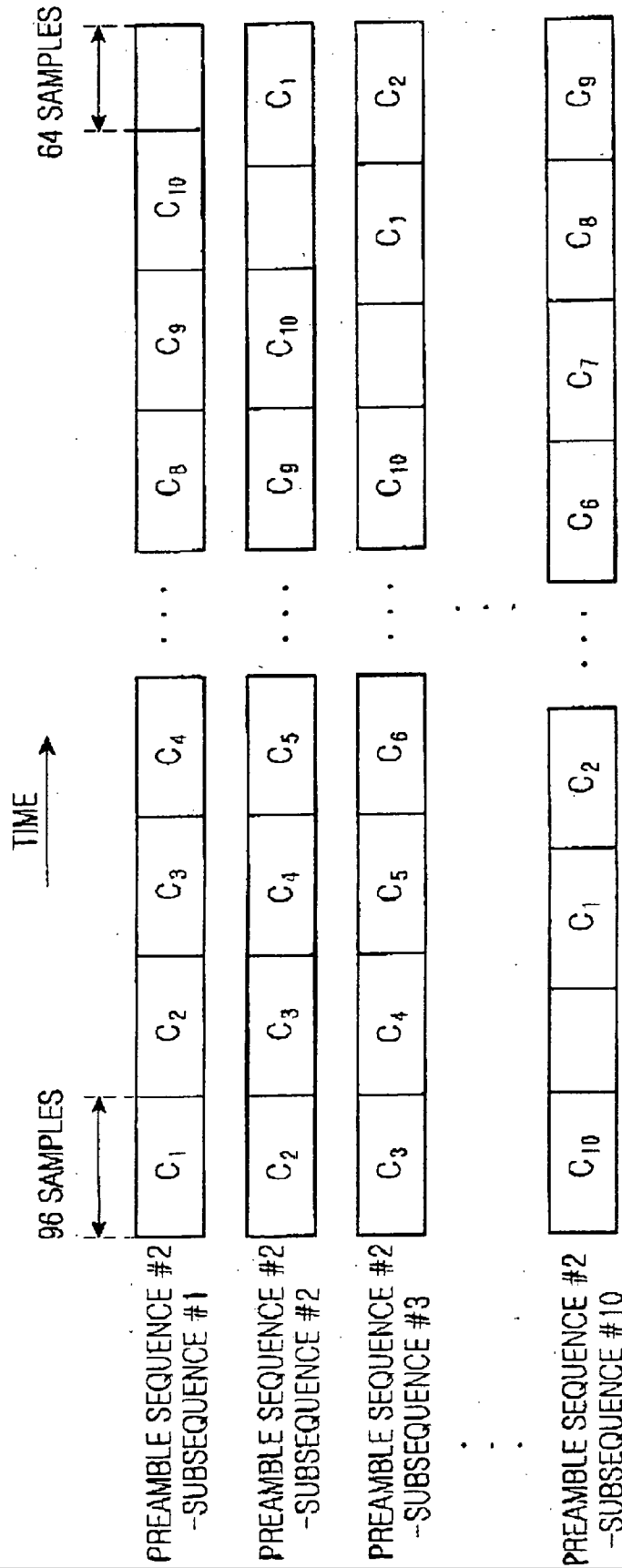


FIG.4

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.