

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0037215 A1**

Hwang et al. (43) **Pub. Date: Feb. 26, 2004**

(54) **ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING COMMUNICATION METHOD AND APPARATUS ADAPTED TO CHANNEL CHARACTERISTICS**

Publication Classification

(51) **Int. Cl.⁷** **H04J 11/00**
(52) **U.S. Cl.** **370/203**

(75) **Inventors: Chan-Soo Hwang, Yongin-city (KR); Yung-Soo Kim, Seongnam-city (KR)**

(57) **ABSTRACT**

Correspondence Address:

Paul J. Farrell, Esq.
DILWORTH & BARRESE, LLP
333 Earle Ovington Blvd.
Uniondale, NY 11553 (US)

An orthogonal frequency division multiplexing (OFDM) communication method and apparatus adapted to channel characteristics are provided. The OFDM communication method includes changing at least one of a length of a transmission symbol, a format of a frame, and a format of the transmission symbol depending on a type of the transmission symbol and a radius of a cell, in which communication is performed. The OFDM communication apparatus includes a symbol inspector, for inspecting a type of a transmission symbol and outputting the result of the inspection as a first control signal, and a symbol and format converter, for changing at least one of a length of a transmission symbol, a format of a frame, and a format of the transmission symbol in response to the first control signal and a radius of a cell, in which communication is performed.

(73) **Assignee: SAMSUNG ELECTRONICS CO., LTD., KYUNGKI-DO (KR)**

(21) **Appl. No.: 10/606,430**

(22) **Filed: Jun. 25, 2003**

(30) **Foreign Application Priority Data**

Jul. 29, 2002 (KR) 2002-0044630

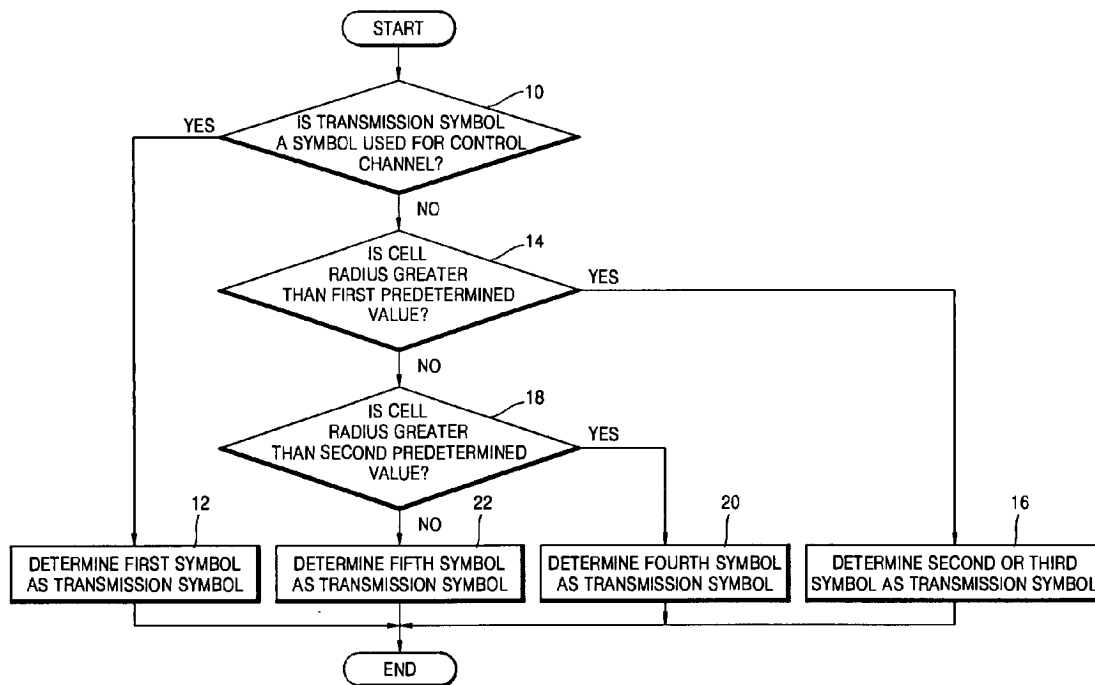


FIG. 1

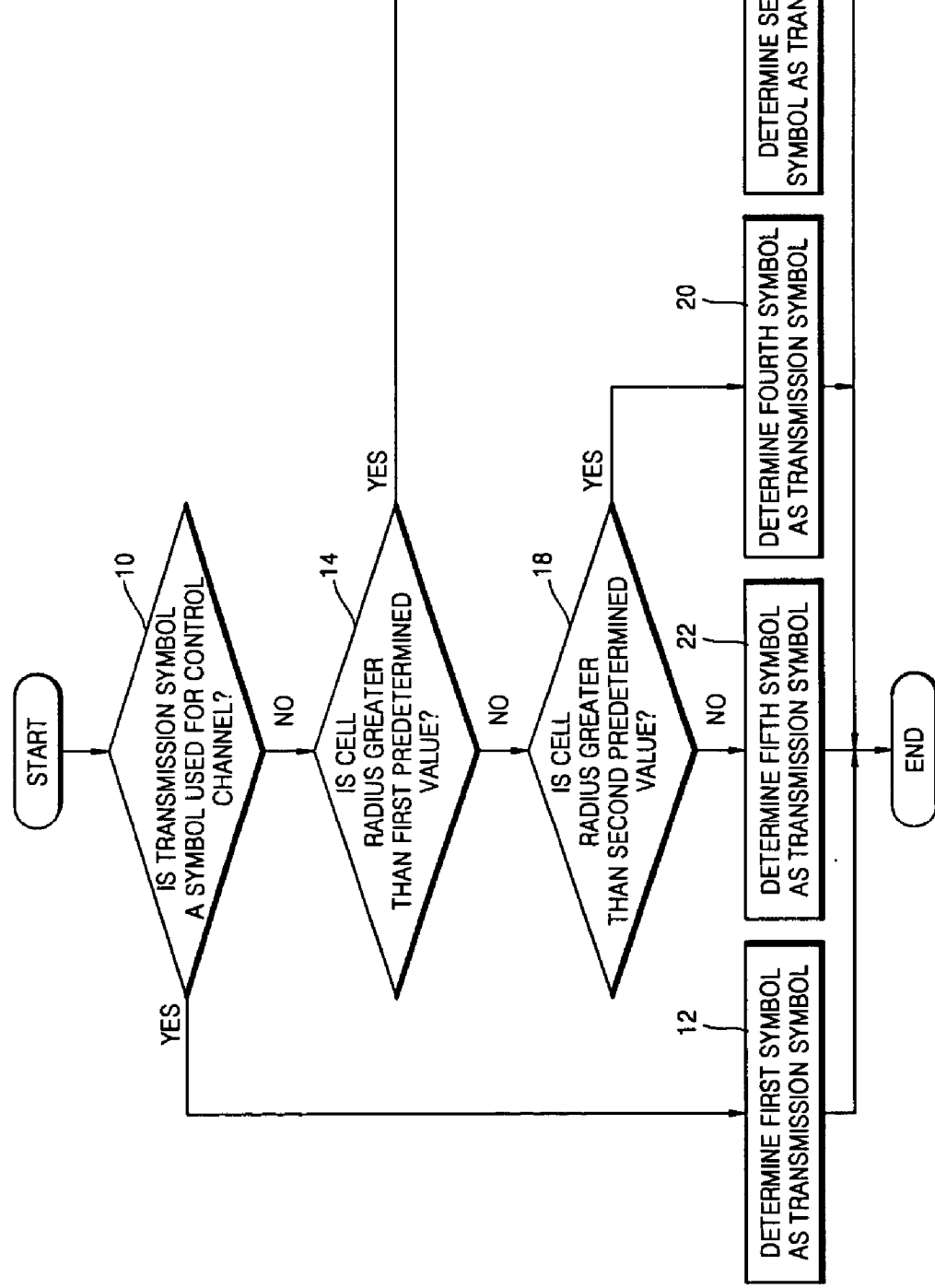


FIG. 2

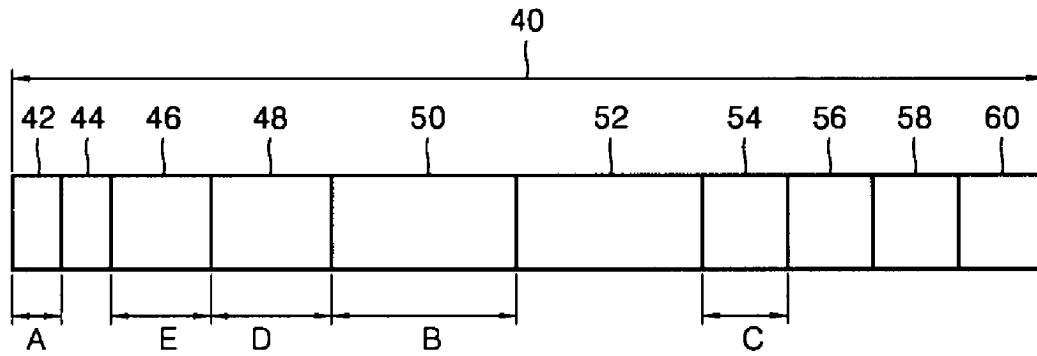


FIG. 3

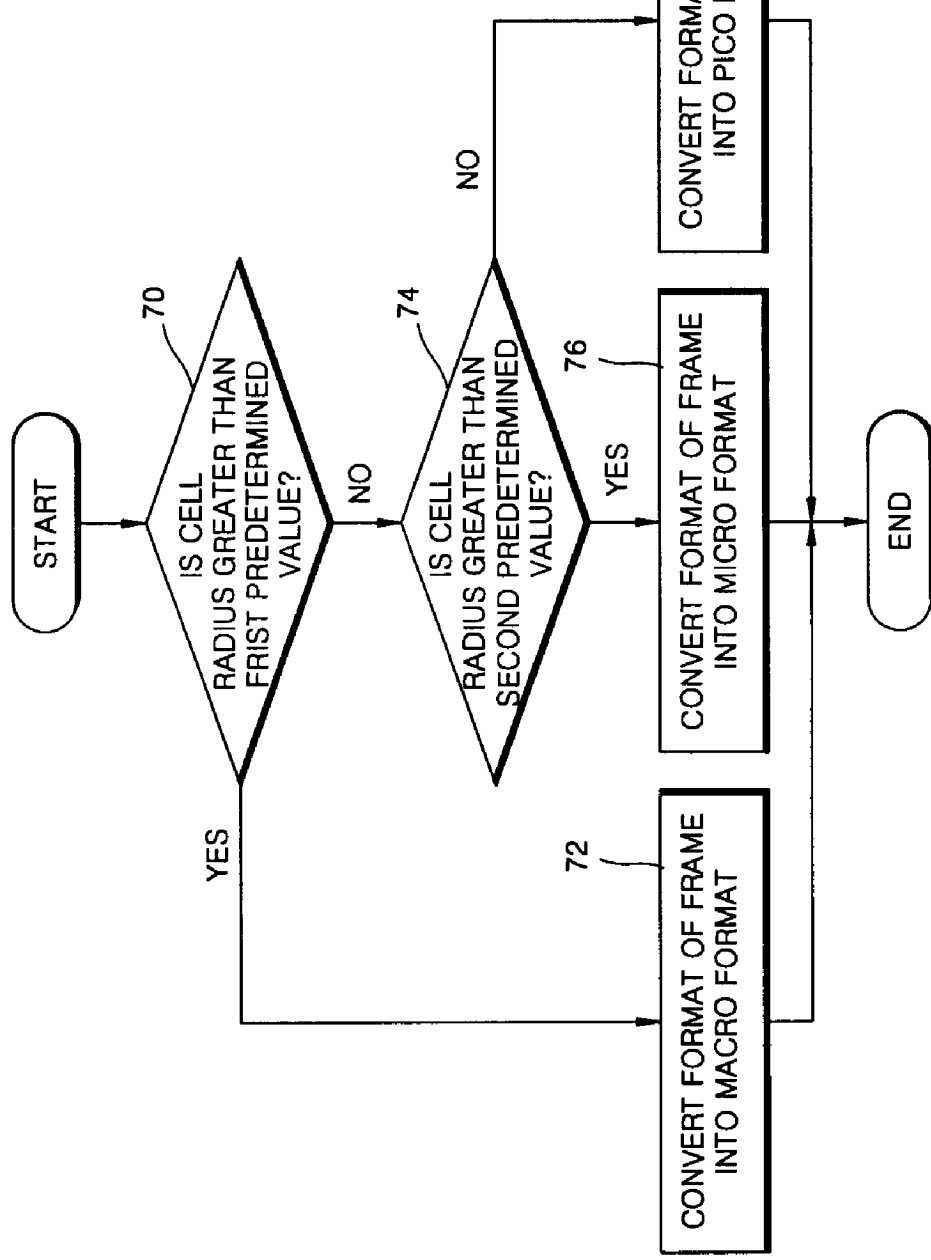


FIG. 4

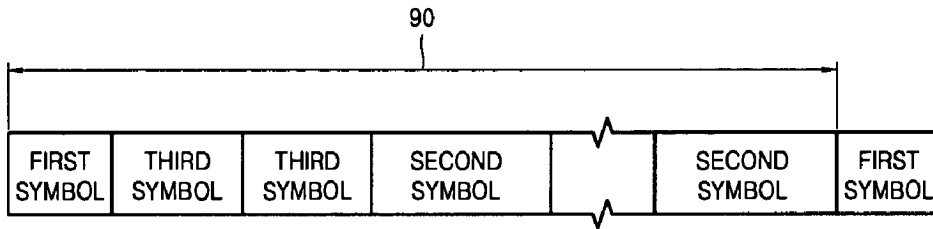


FIG. 5

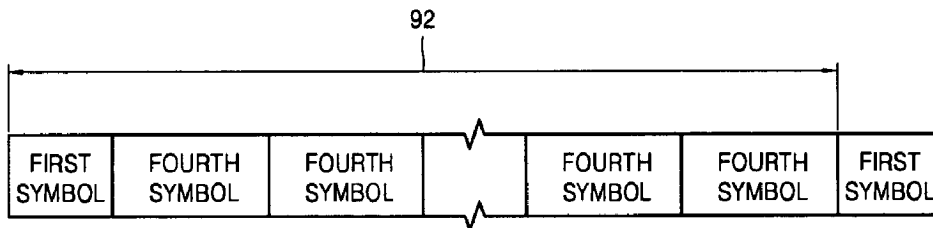
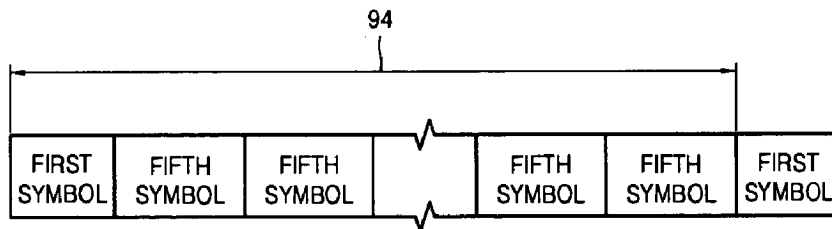


FIG. 6



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.