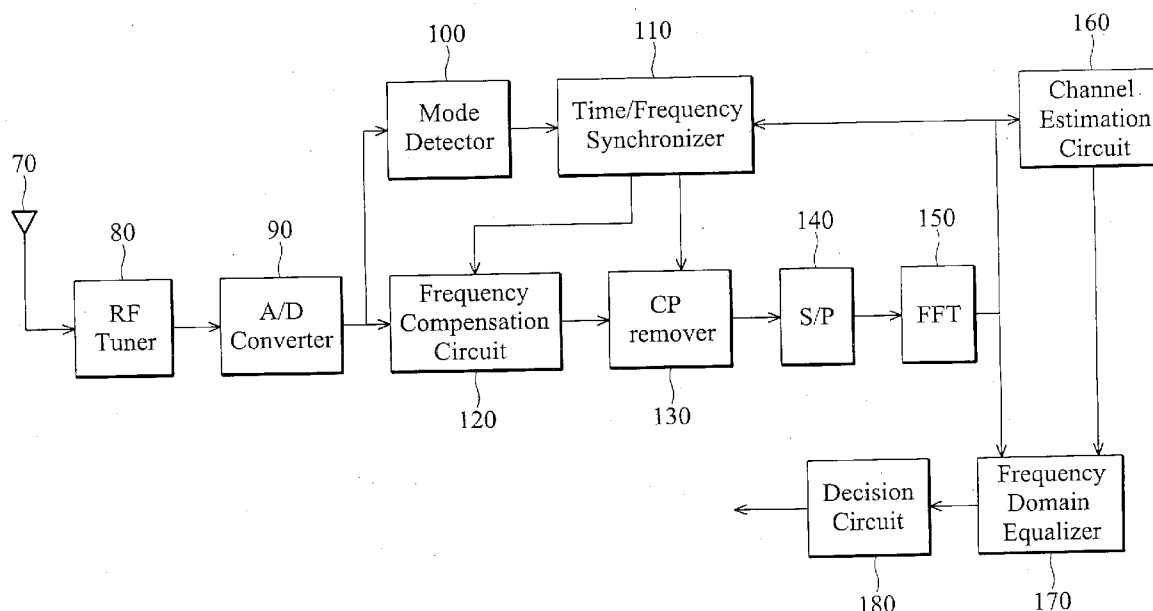


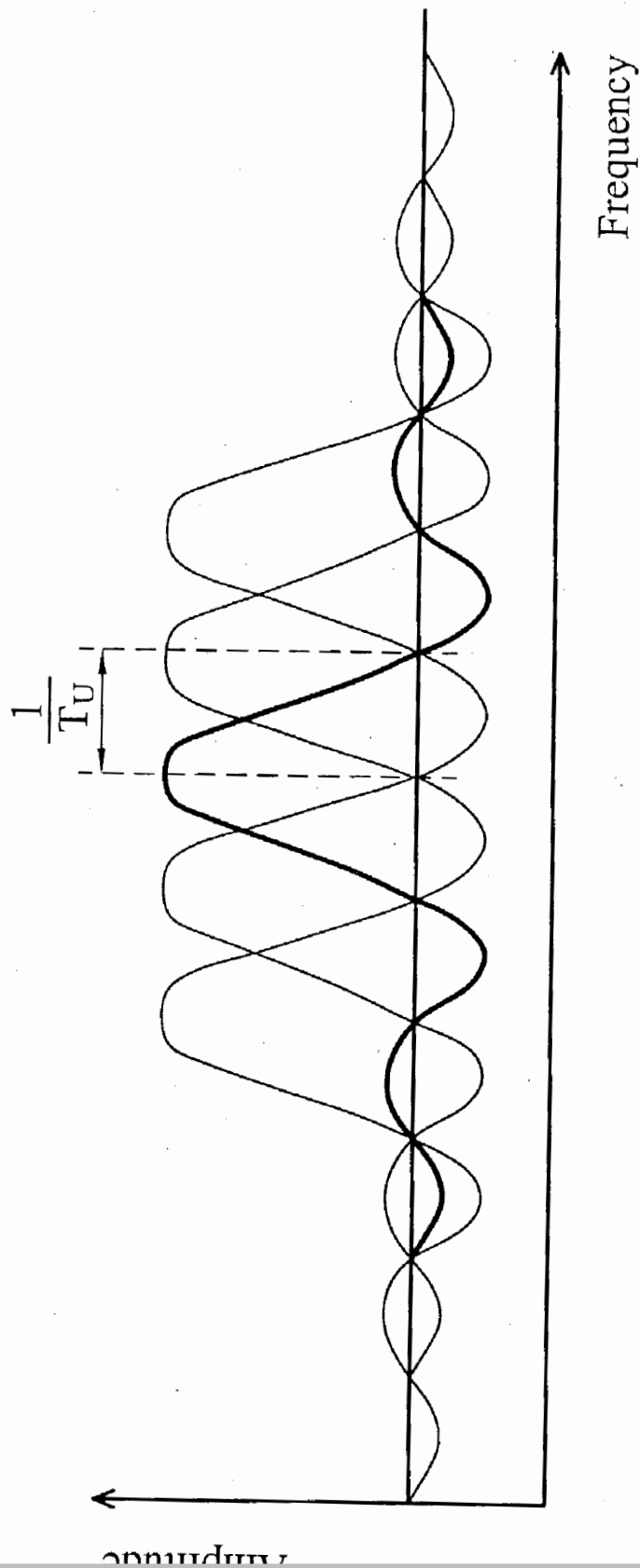


US 20040228270A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0228270 A1****Chen et al.**(43) **Pub. Date: Nov. 18, 2004**(54) **METHOD OF PROCESSING AN OFDM
SIGNAL AND OFDM RECEIVER USING THE
SAME****Publication Classification**(51) **Int. Cl.⁷ H04J 11/00**(52) **U.S. Cl. 370/210**(76) **Inventors: Hou-Shin Chen, Taipei (TW);
Wei-Hung He, Taipei (TW);
Shiou-Hung Chen, Taipei (TW)****Correspondence Address:****BIRCH STEWART KOLASCH & BIRCH
PO BOX 747****FALLS CHURCH, VA 22040-0747 (US)**(21) **Appl. No.: 10/436,138**(22) **Filed: May 13, 2003**(57) **ABSTRACT**

A method of processing an OFDM signal to determine its FFT mode or the number of carriers without regard to the pilot pattern. The OFDM receiver determines autocorrelation functions corresponding to a plurality of possible FFT modes and variation-to-average ratios of these autocorrelation functions, respectively. The correct FFT mode is determined based on the variation-to-average ratios. In addition, a novel time and frequency synchronization scheme is performed after the correct FFT mode is detected.





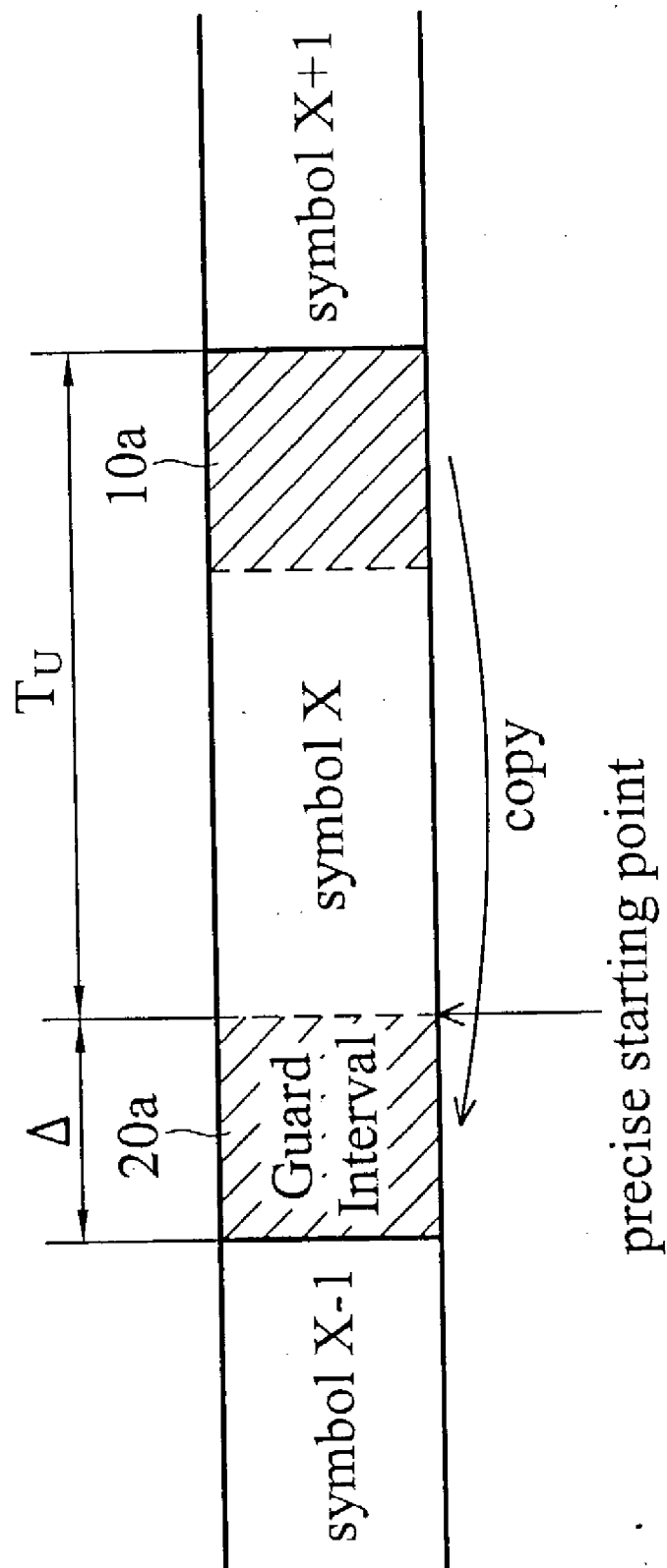


FIG. 2 (PRIOR ART)

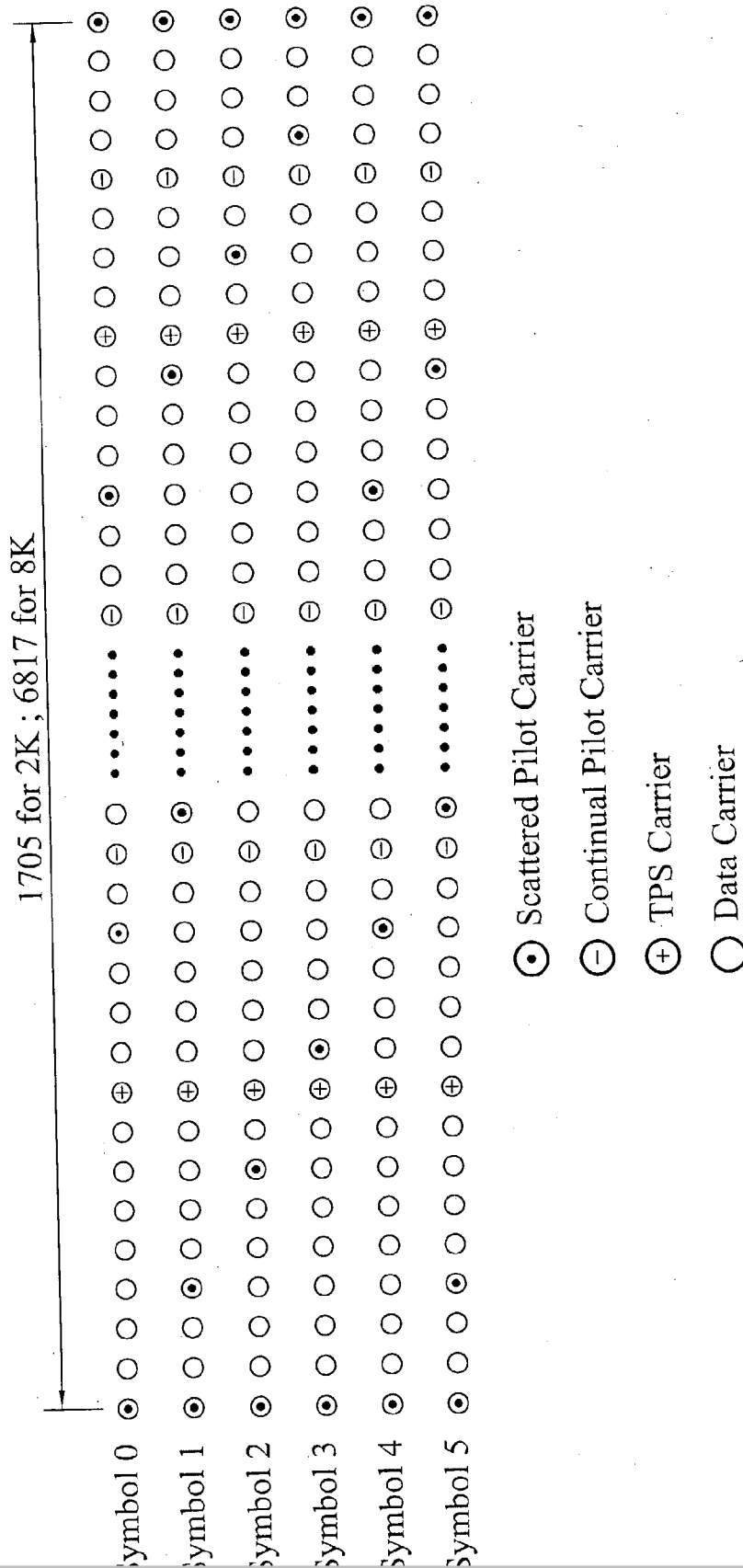


FIG. 3 (PRIOR ART)

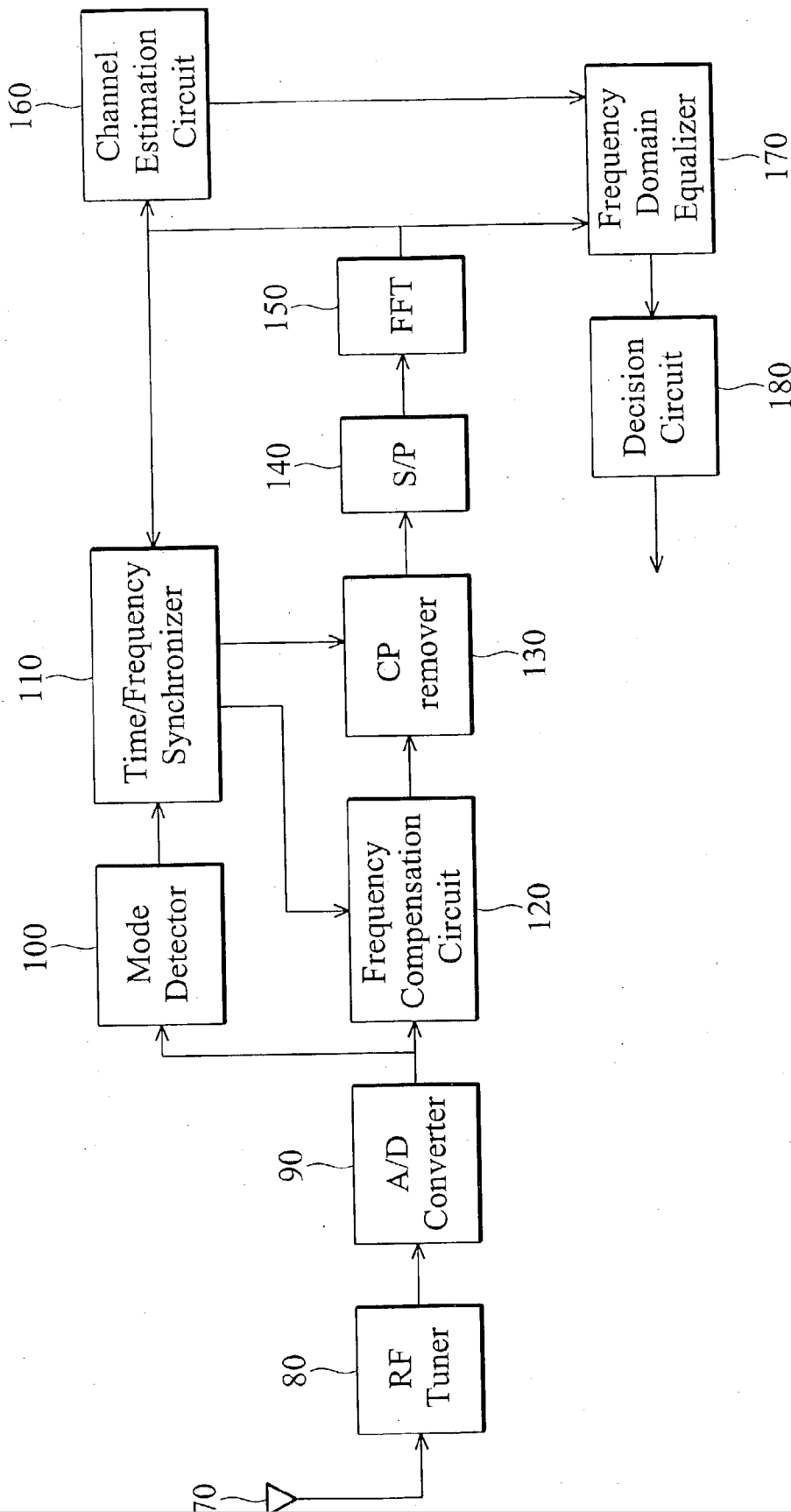


FIG. 4

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.