



US 20040228270A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0228270 A1**

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(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**

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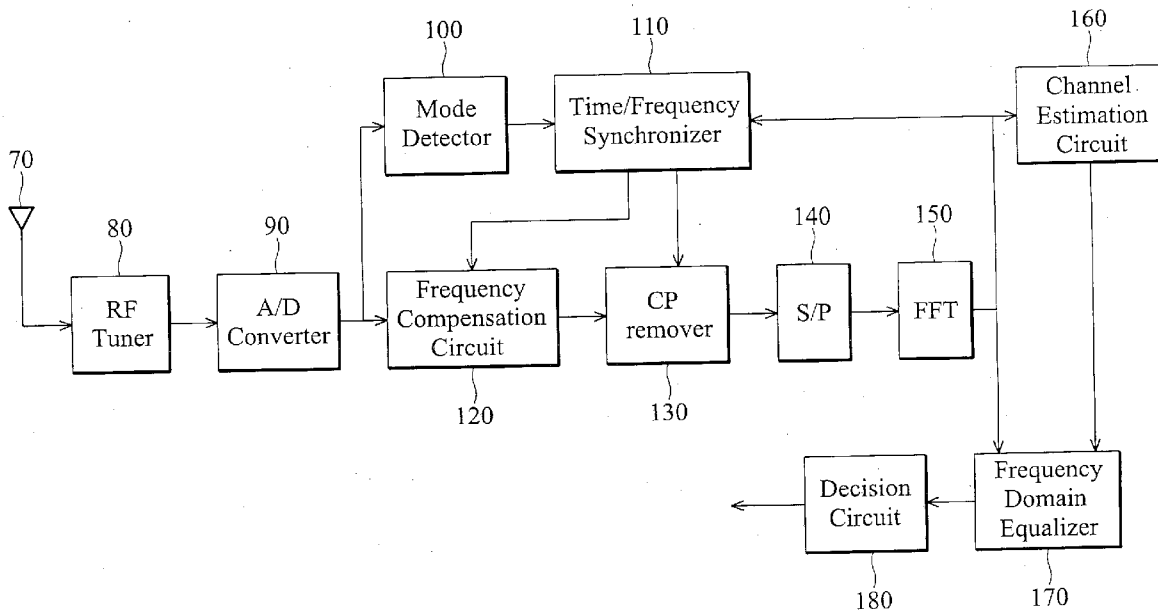
(57) **ABSTRACT**

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.

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(21) **Appl. No.: 10/436,138**

(22) **Filed: May 13, 2003**



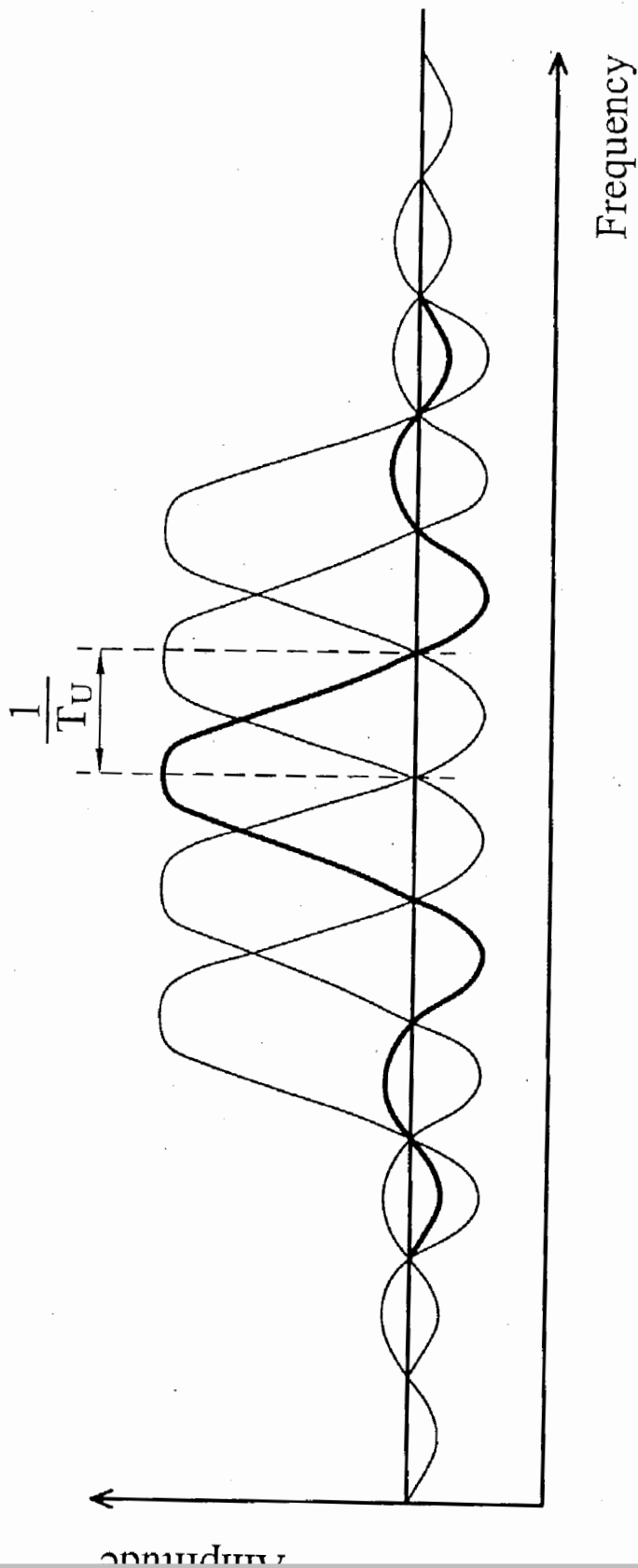


FIG. 1 (PRIOR ART)

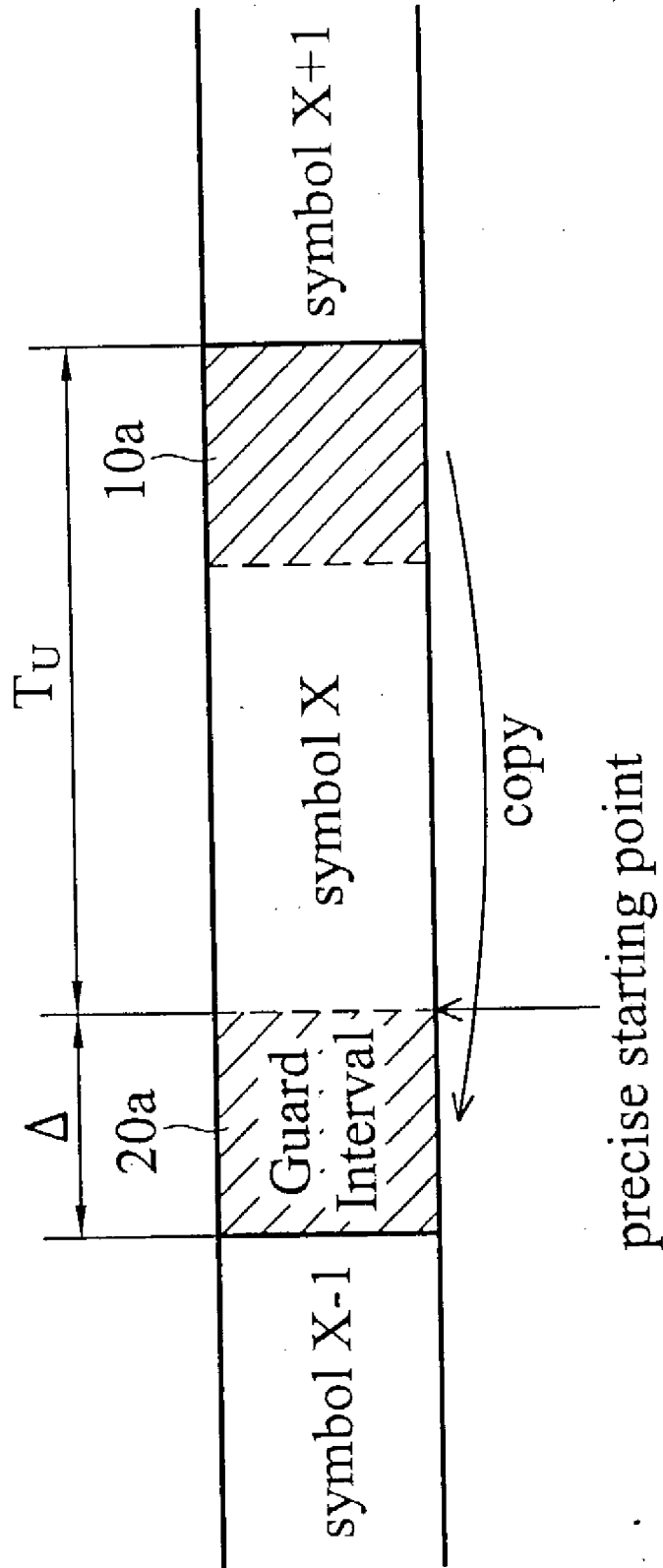


FIG. 2 (PRIOR ART)

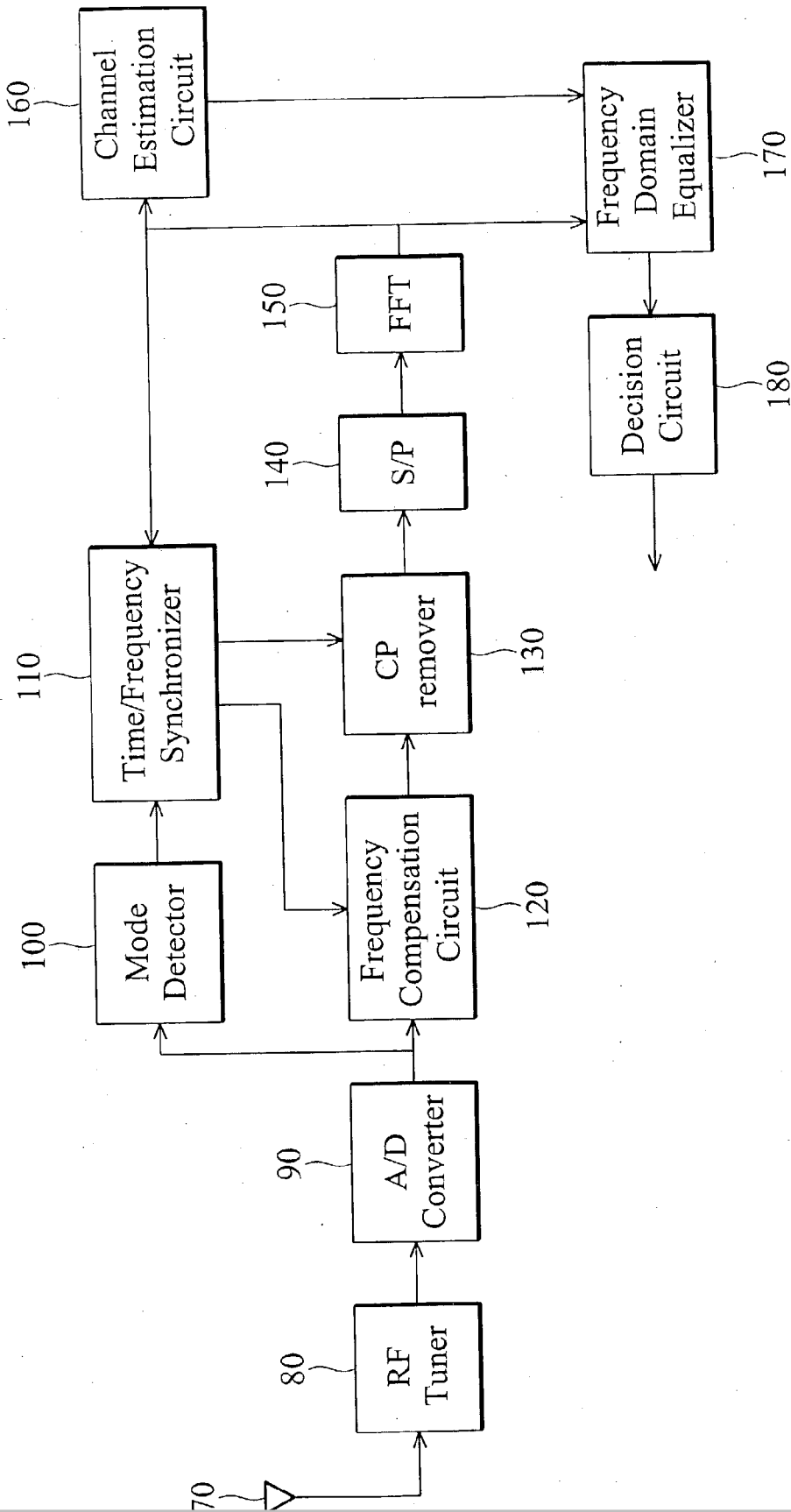


FIG. 4

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