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(54) **METHOD OF PROCESSING AN OFDM SIGNAL AND OFDM RECEIVER USING THE SAME**

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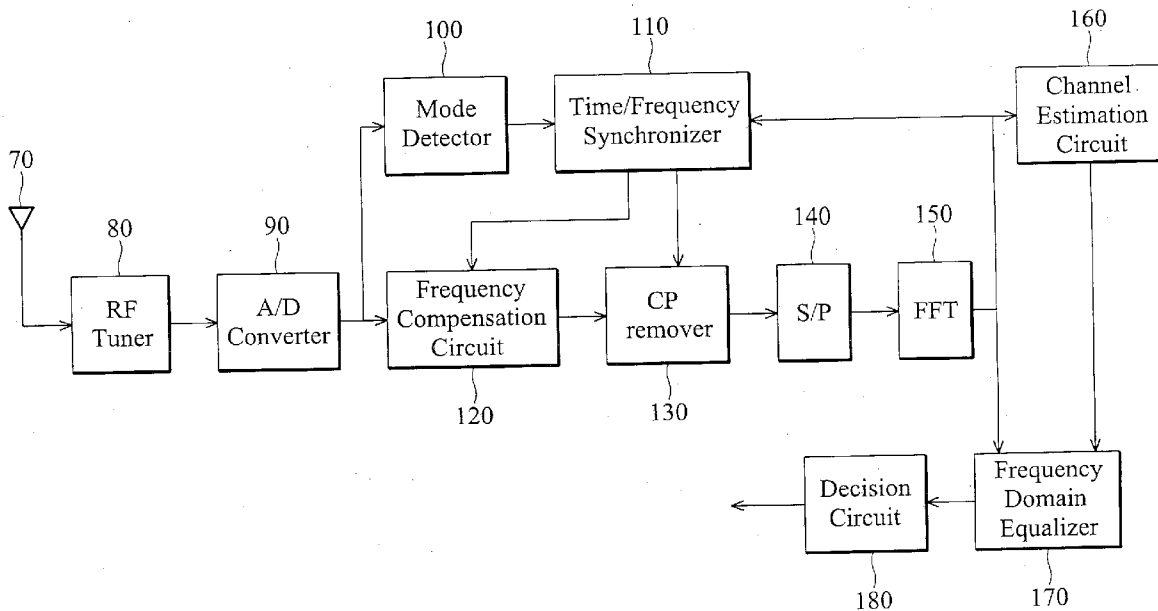
(57) **ABSTRACT**

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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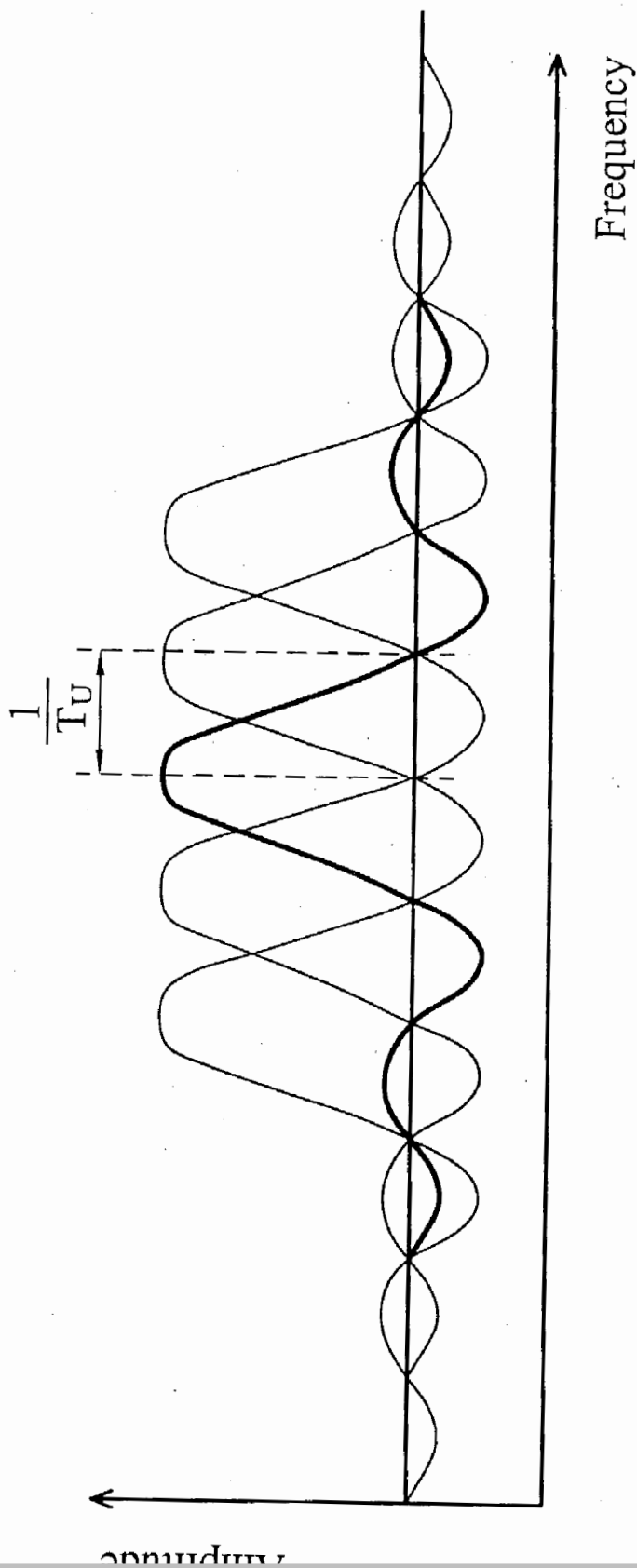


FIG. 1 (PRIOR ART)

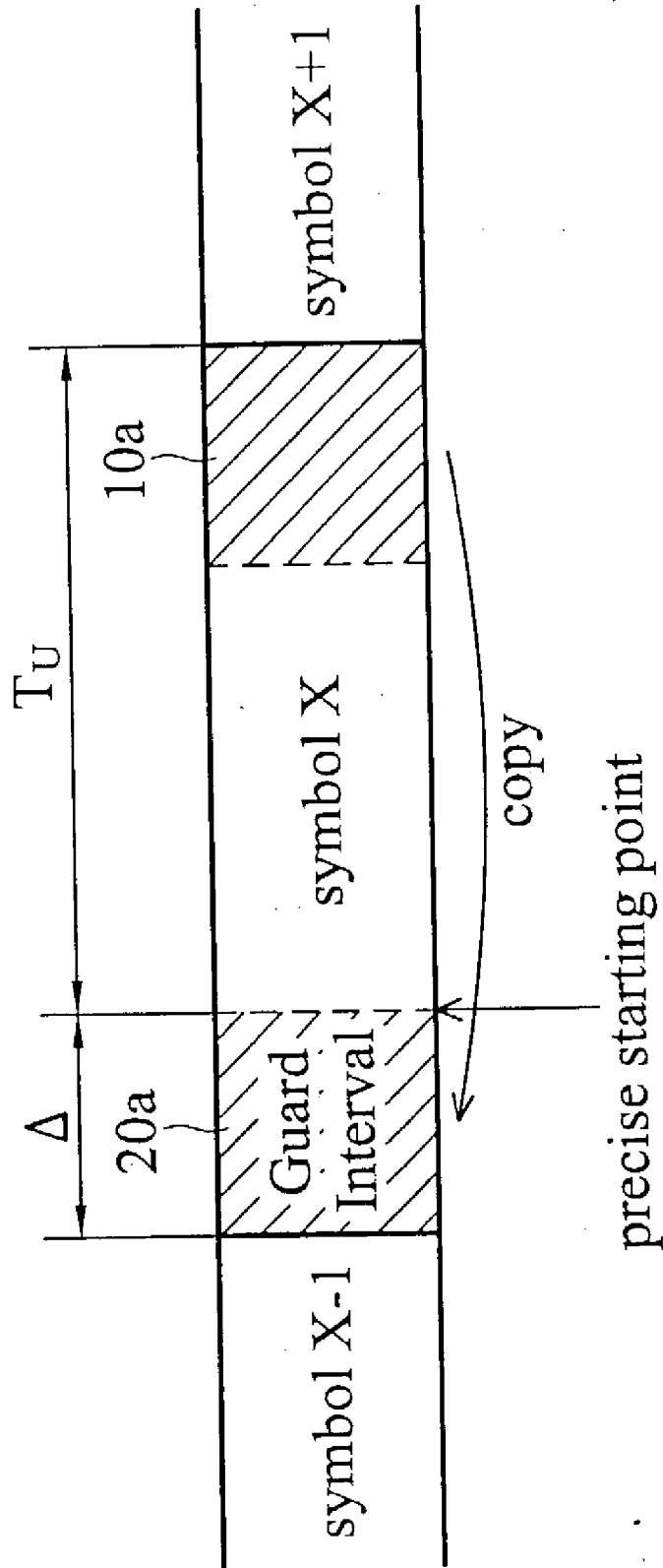


FIG. 2 (PRIOR ART)

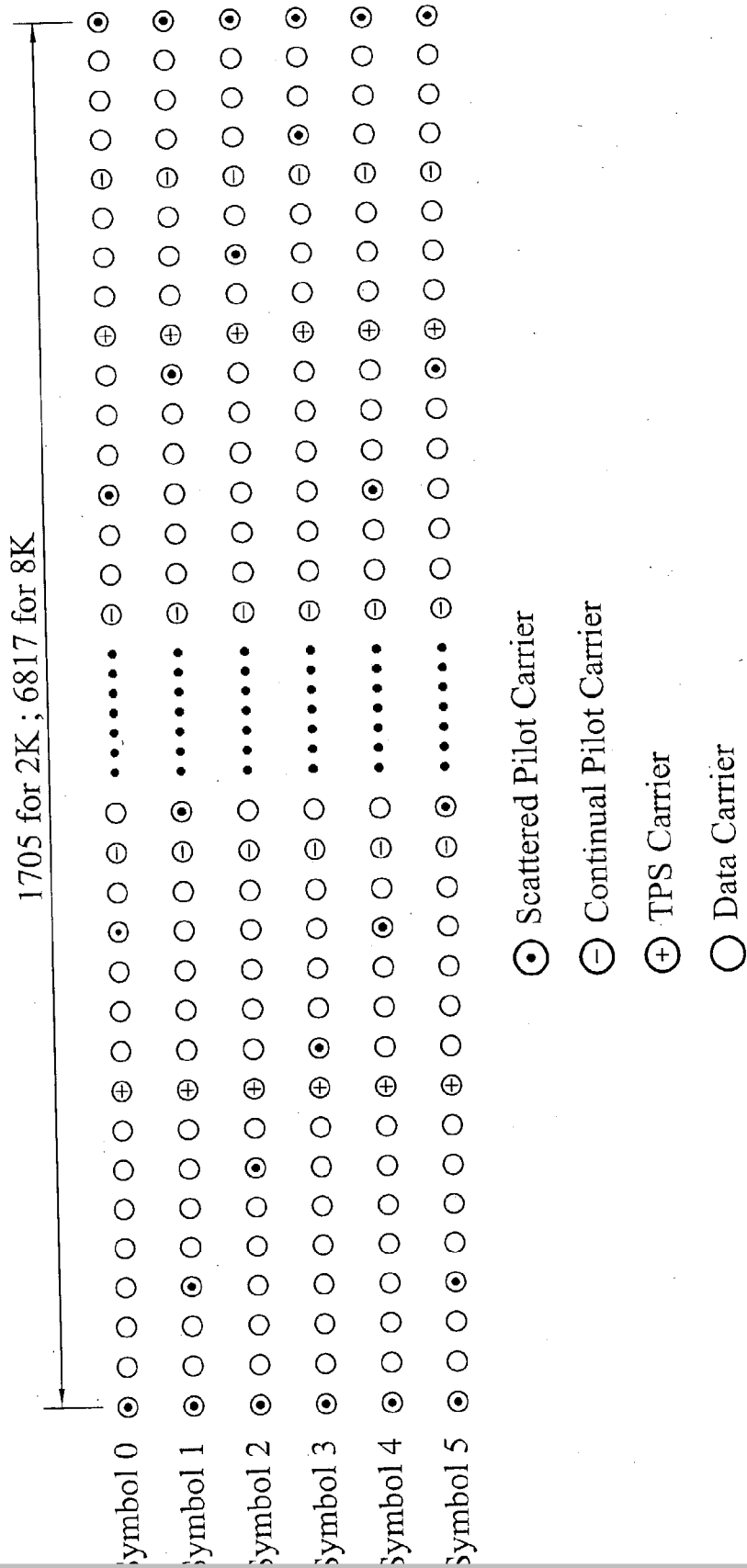


FIG. 3 (PRIOR ART)

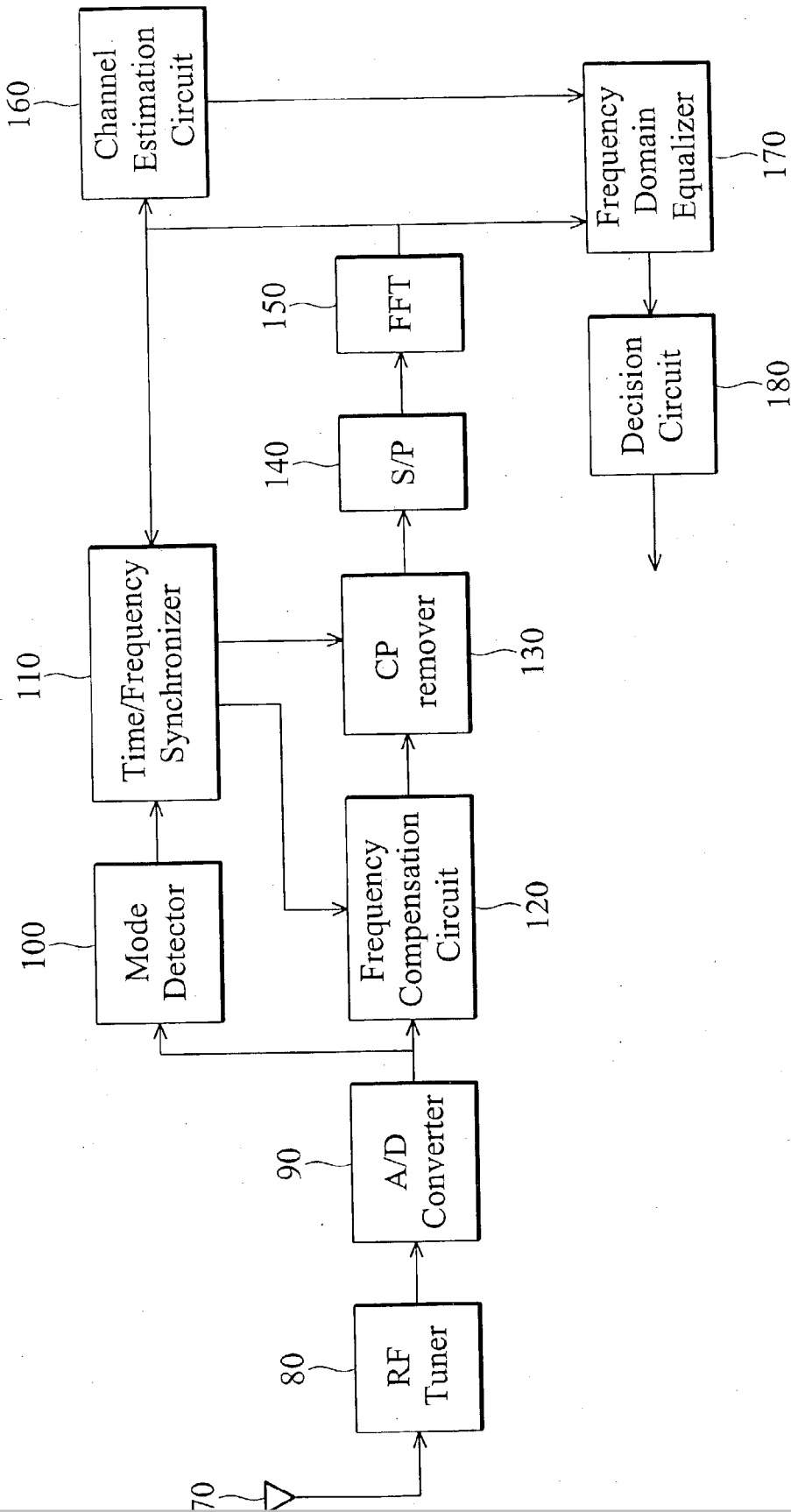


FIG. 4

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