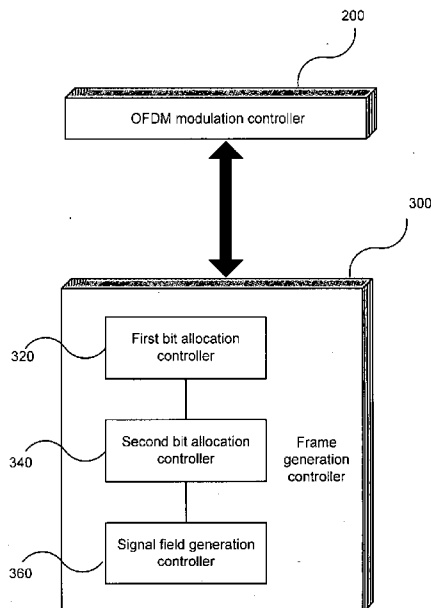




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Yu et al.(10) **Pub. No.: US 2007/0115802 A1**(43) **Pub. Date: May 24, 2007**(54) **TRANSMITTING AND RECEIVING
SYSTEMS FOR INCREASING SERVICE
COVERAGE IN ORTHOGONAL
FREQUENCY DIVISION MULTIPLEXING
WIRELESS LOCAL AREA NETWORK, AND
METHOD THEREOF****Publication Classification**(51) **Int. Cl.**
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Feb. 6, 2006 (KR) 10-2006-0049871(57) **ABSTRACT**

The present invention relates to an orthogonal frequency division multiplexing wireless local area network (LAN) transmitting/receiving system for providing expanded service coverage, and a method thereof. According to the present invention, first OFDM modulation is performed for an even-numbered time, and second OFDM modulation is performed by changing subcarrier allocation positions of first OFDM modulated symbols for an odd-numbered time. In addition, a transmitting frame including a plurality of signal fields according to the first and second OFDM modulation is transmitted. The receiving system determines a format configuration of the received frame to determine whether a signal field is repeatedly generated in the frame. When it is determined that the signal field is not repeatedly generated, corresponding demodulation is performed. When it is determined that the signal field is repeatedly performed, the signal field is demodulated by using first bit allocation information and is demodulated by using second bit allocation information having a 1/2 value of the first bit allocation information. A data field is demodulated according to the demodulated signal field.



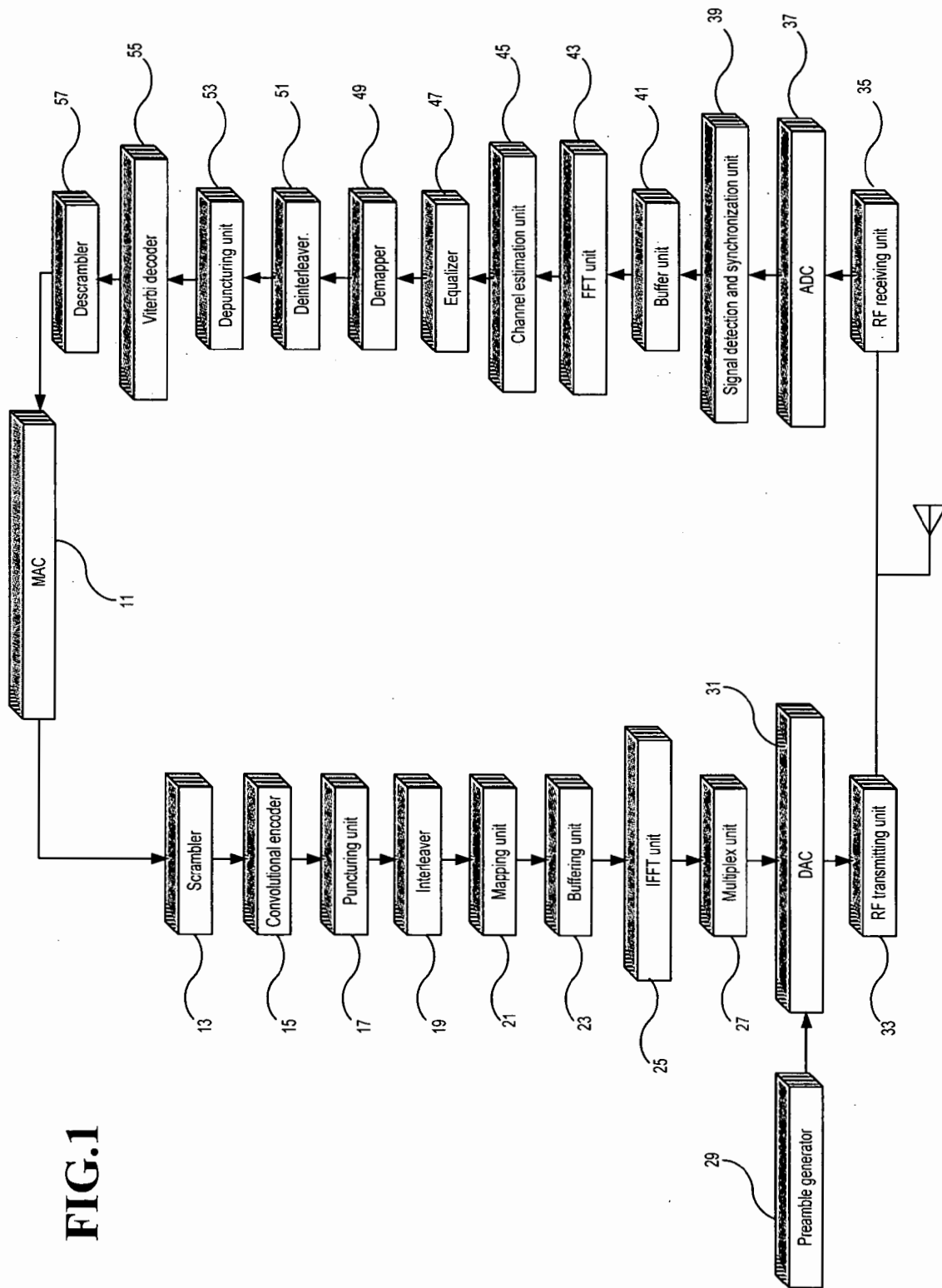


FIG.1

FIG.2

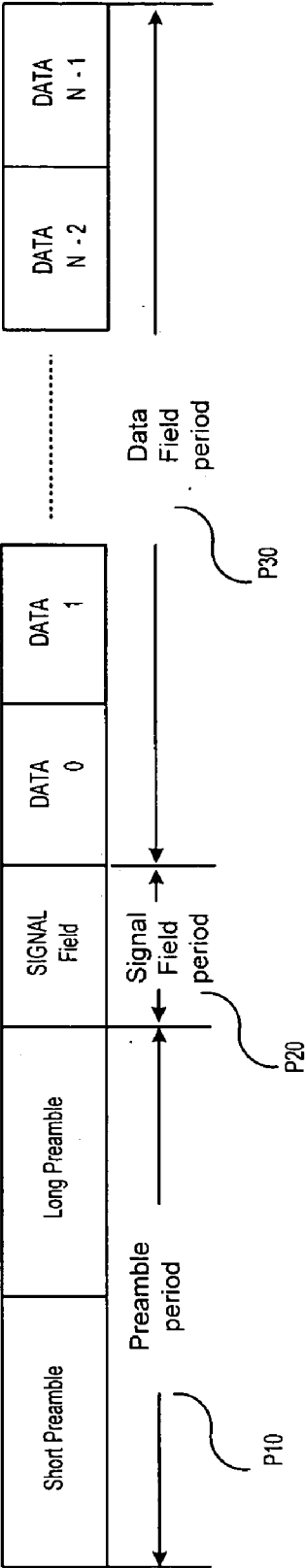
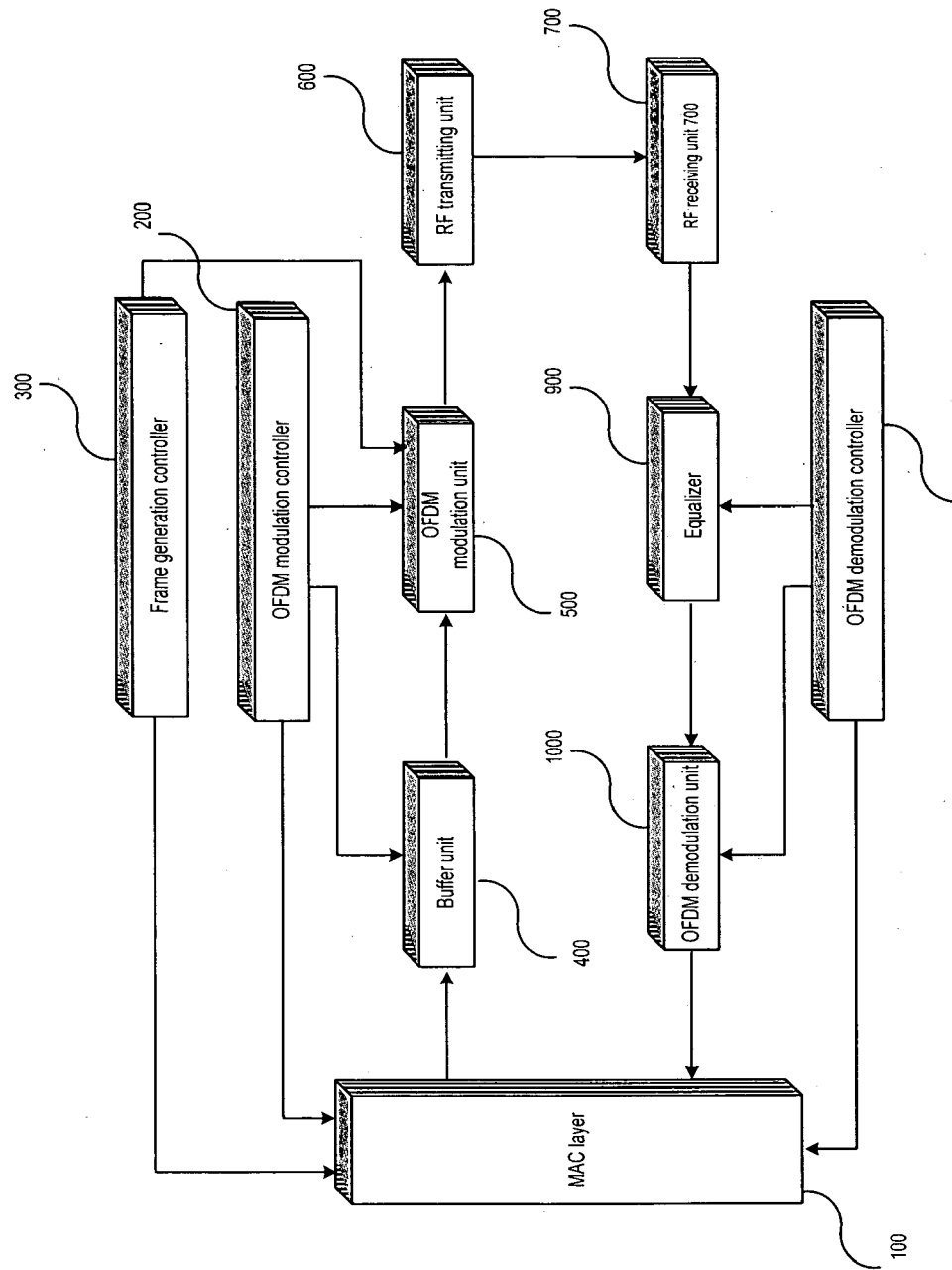


FIG. 3



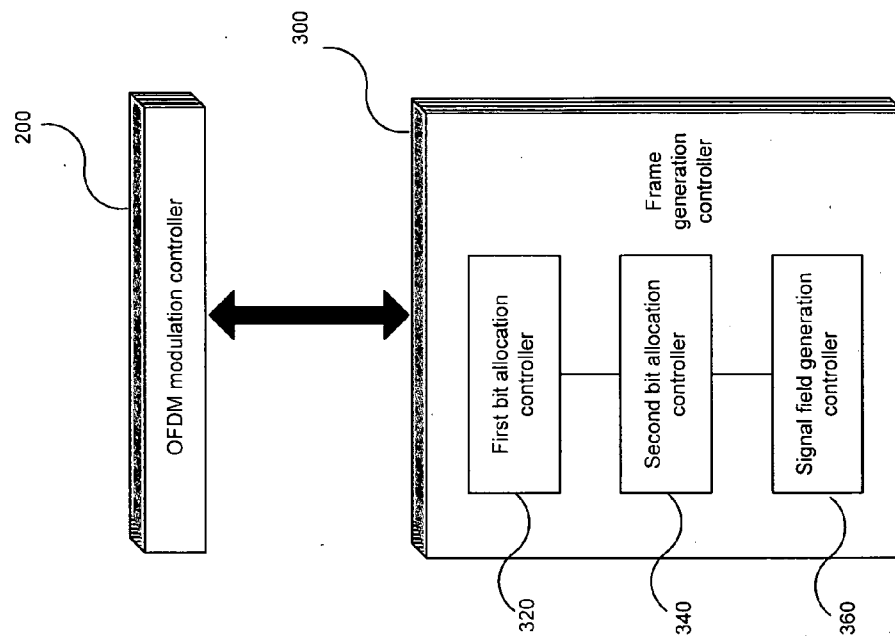


FIG.4



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