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(54) **Title:** AMPLIFIER CIRCUIT, ANTENNA MODULE, AND RADIO COMMUNICATION DEVICE

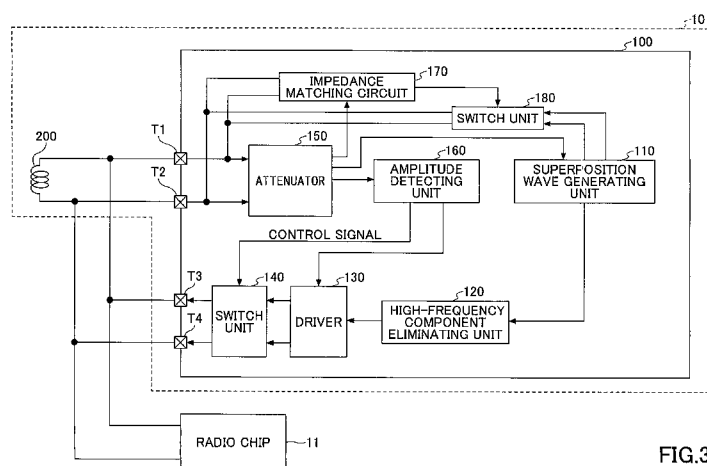


FIG.3

(57) **Abstract:** An amplifier circuit performs an amplification of a carrier signal received by a transmitting and receiving unit. The amplifier circuit includes an impedance matching circuit that performs matching of an impedance of the amplifier circuit when the transmitting and receiving unit and the amplifier circuit are connected. A superposition wave generating unit generates a superposition wave which is superimposed on the received carrier signal. A driver outputs an amplified carrier signal which is obtained by adding the superposition wave to the received carrier signal. An amplitude detecting unit detects whether the received carrier signal is a predetermined carrier signal superimposed with a predetermined communication signal, based on changes of an amplitude value of the received carrier signal. When the predetermined carrier signal is detected, the amplifier circuit outputs the amplified carrier signal.

