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(54) **CONCURRENT WIRELESS POWER TRANSMISSION AND NEAR-FIELD COMMUNICATION**

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(52) **U.S. Cl.** 455/41.1

(57) **ABSTRACT**

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Exemplary embodiments are directed to wireless power transfer and Near-Field Communication (NFC) operation. An electronic device includes an antenna configured to resonate at an NFC frequency and generate an induced current. The electronic device further including rectifier circuitry and NFC circuitry each concurrently coupled to the induced current. The rectifier circuitry configured to rectify the induced current into DC power for the electronic device and the NFC circuitry configured to demodulate any data on the induced current. A method for concurrent reception of wireless power and NFC includes receiving an induced current from an antenna, rectifying the induced current into DC power for use by an electronic device, and demodulating the induced current concurrent with rectifying to determine any data for the NFC.

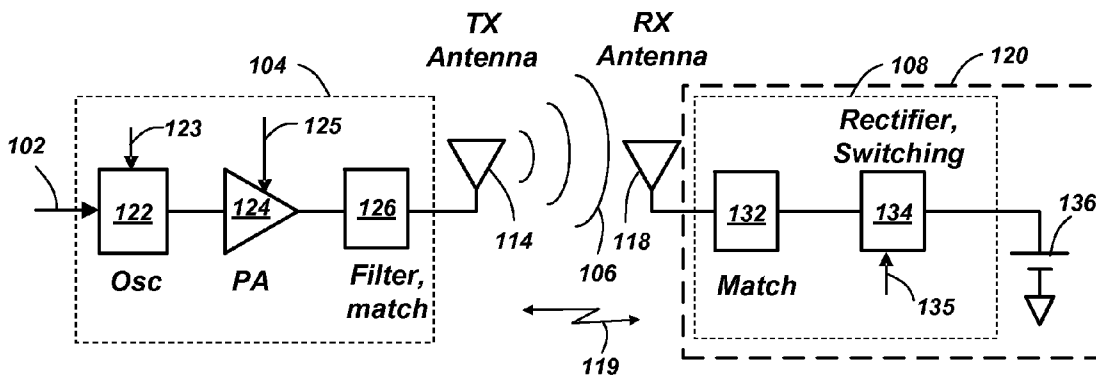
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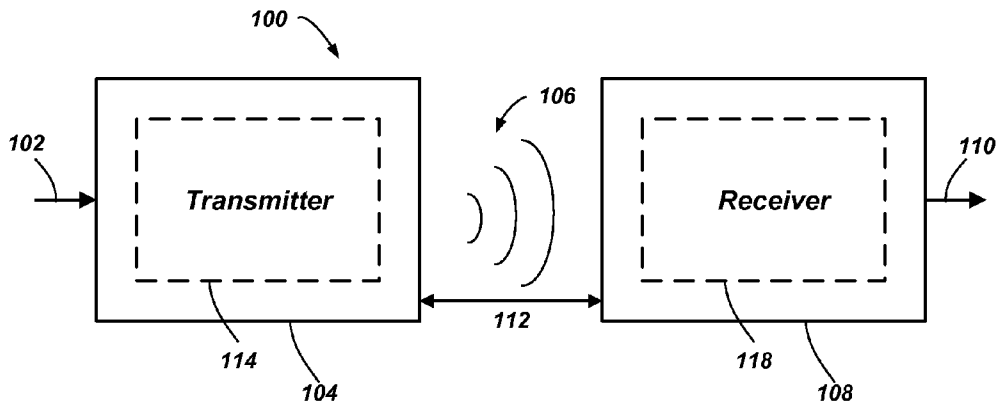


FIG. 1

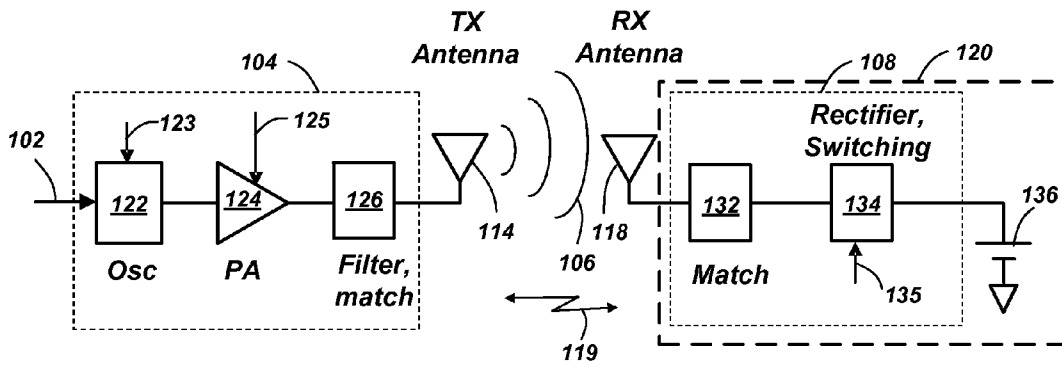


FIG. 2

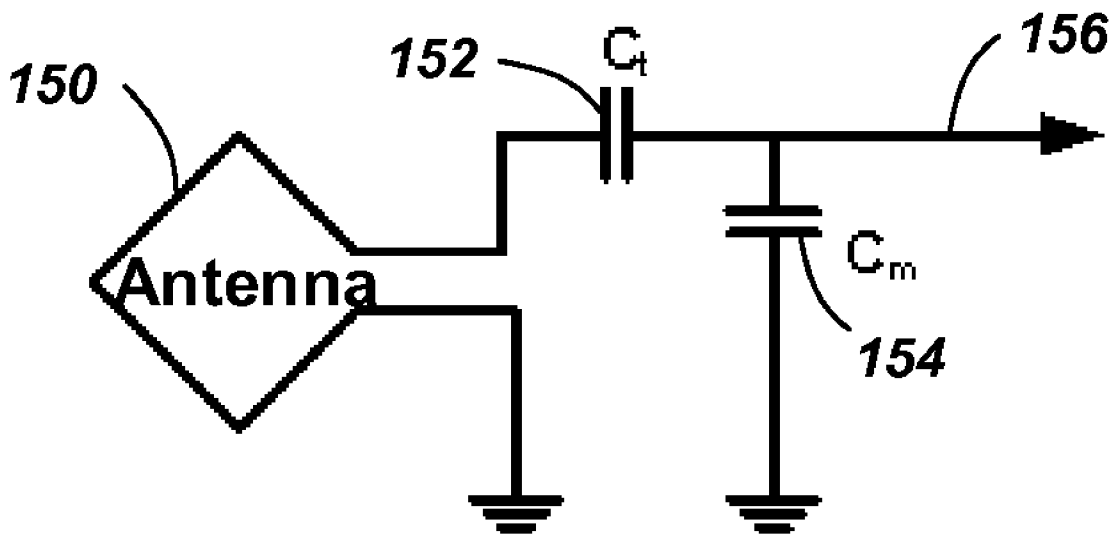


FIG. 3

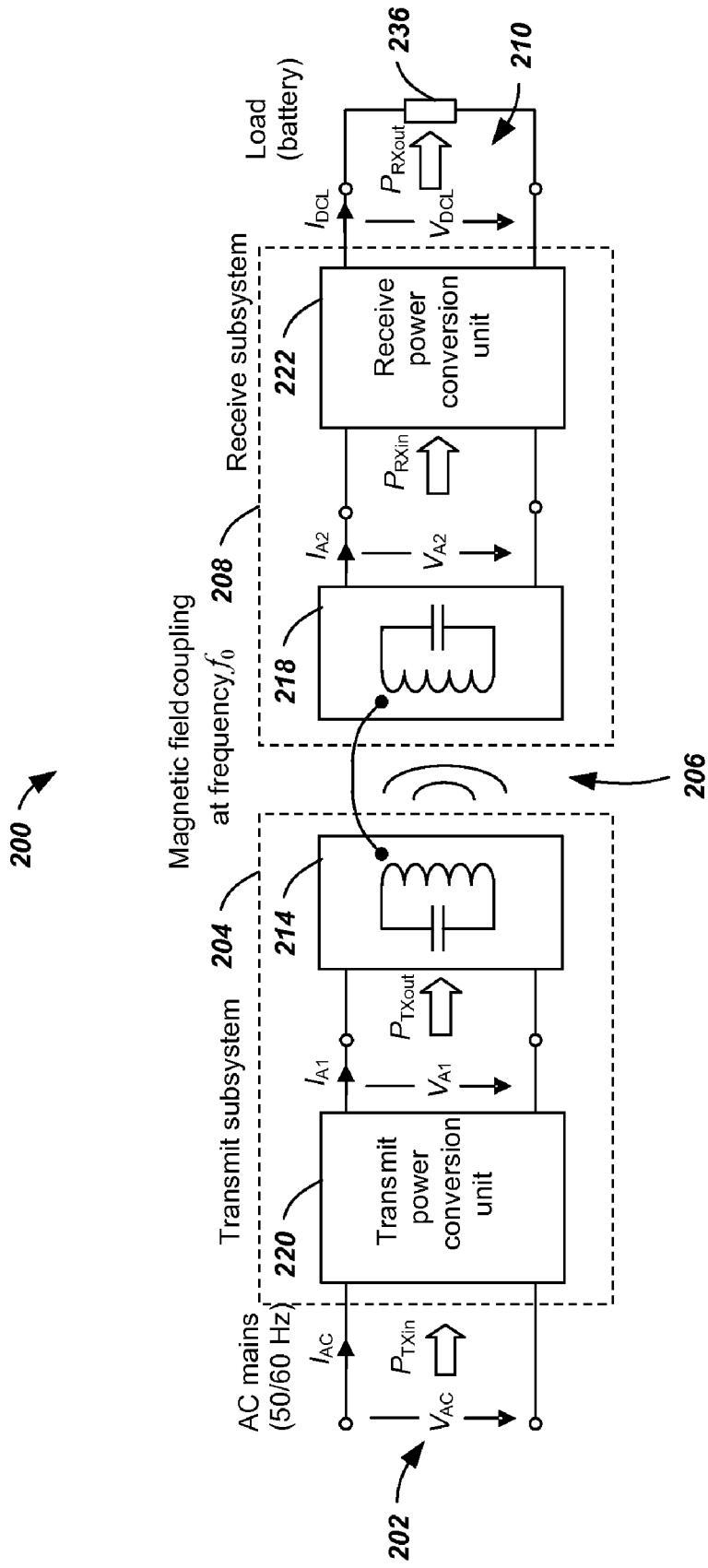


FIG. 4

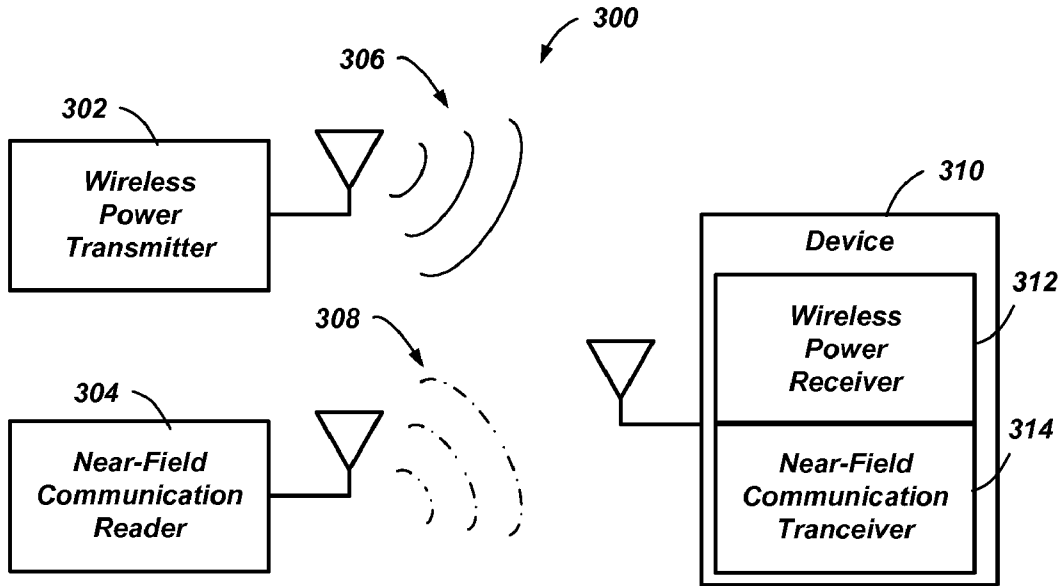


FIG. 5

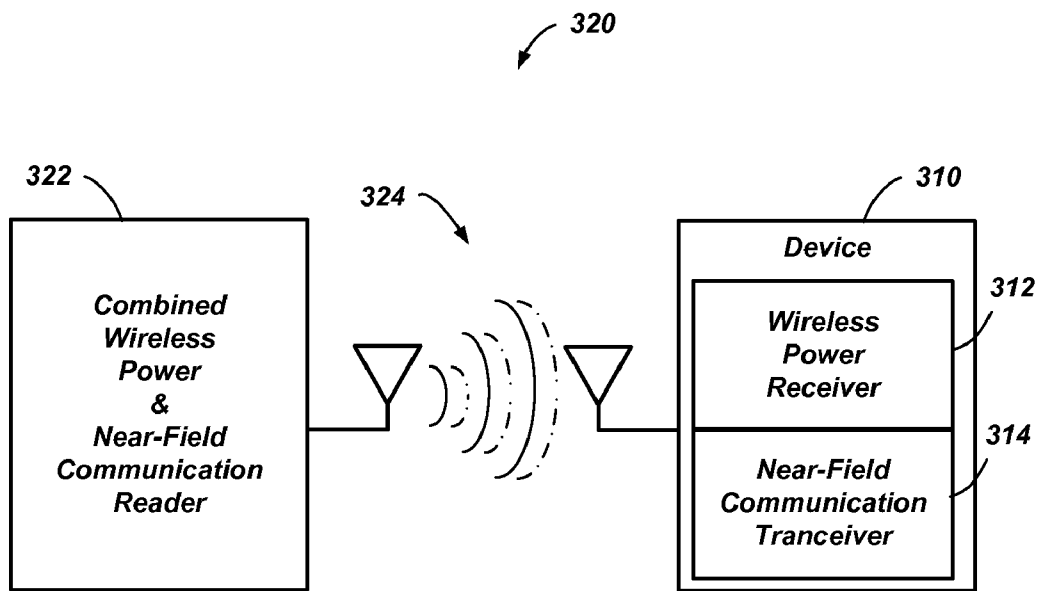


FIG. 6

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