



US 20080116847A1

(19) **United States**

(12) **Patent Application Publication**

Loke et al.

(10) **Pub. No.: US 2008/0116847 A1**

(43) **Pub. Date: May 22, 2008**

(54) **SYSTEMS AND METHODS FOR WIRELESS POWER TRANSFER**

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(21) Appl. No.: **11/844,242**

(22) Filed: **Aug. 23, 2007**

Related U.S. Application Data

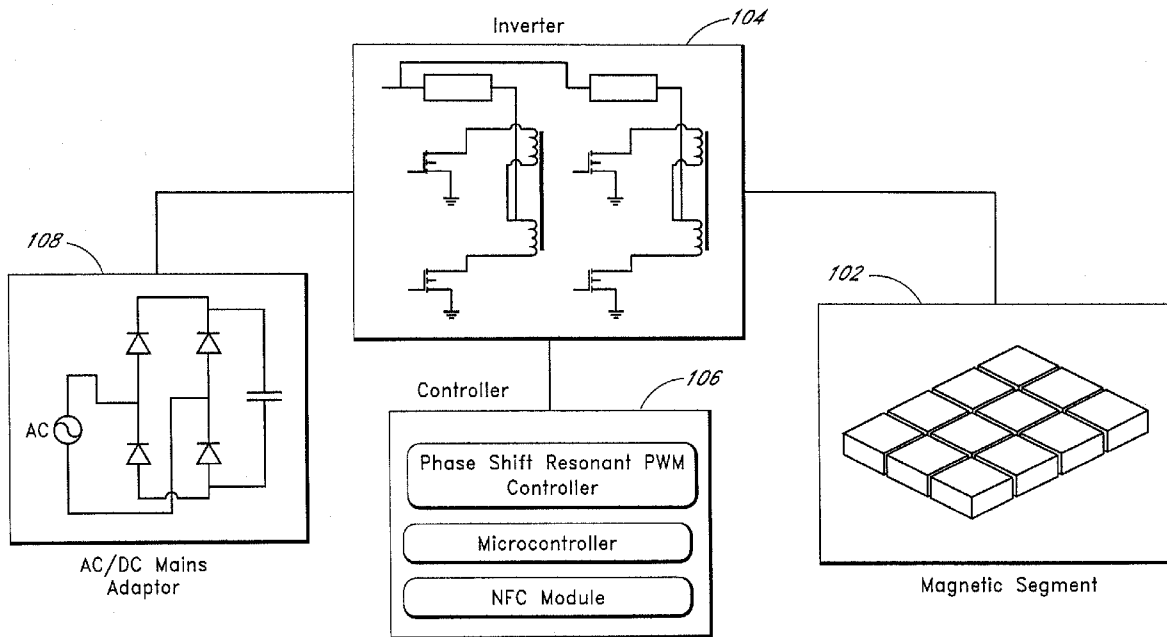
(60) Provisional application No. 60/950,192, filed on Jul. 17, 2007, provisional application No. 60/841,759, filed on Sep. 1, 2006, provisional application No. 60/894,581, filed on Mar. 13, 2007.

Publication Classification

(51) **Int. Cl.**
H02J 7/00 (2006.01)
H01F 38/00 (2006.01)
(52) **U.S. Cl.** **320/108; 307/104**

(57) **ABSTRACT**

Systems and methods for wireless power transfer are disclosed. Primary windings generate magnetic fields which are inductively coupled to secondary windings to transfer power in a wireless manner. One embodiment includes a plurality of tiles of magnetic cores and windings for the primary windings. The tiles can be arranged in a magnetic segment with windings of tiles being orthogonal with respect to windings of adjacent tiles. For example, a winding of a first tile can be horizontal, and windings of adjacent tiles can be vertical. One embodiment further groups these magnetic segments into larger entities, wherein each magnetic segment can be independently activated. One embodiment includes a magnetic amplifier or an electronic device for secondary side control of power. This permits multiple devices to be powered or charged to be able to regulate power or charging independently from one another.



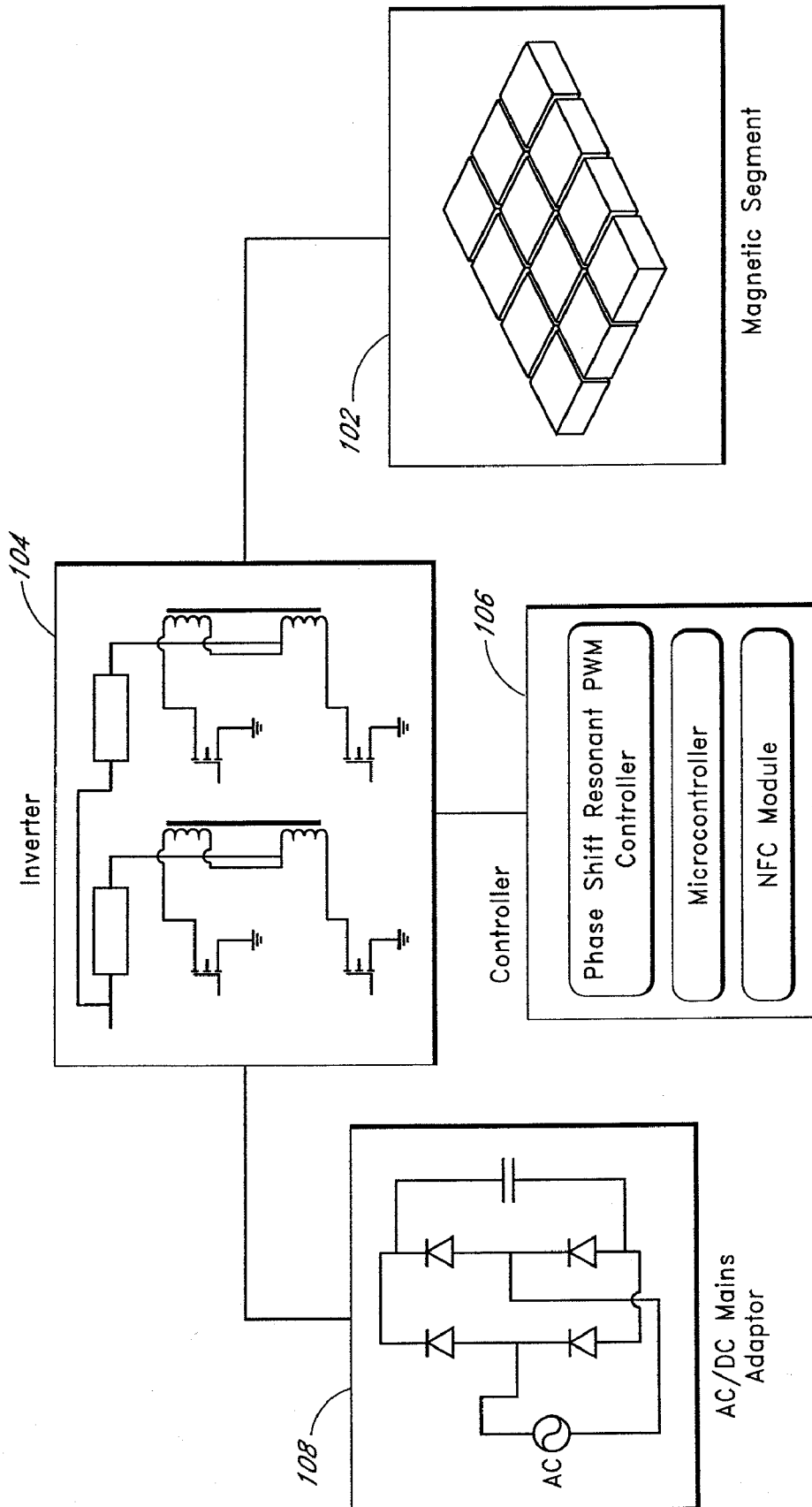


FIG. 1

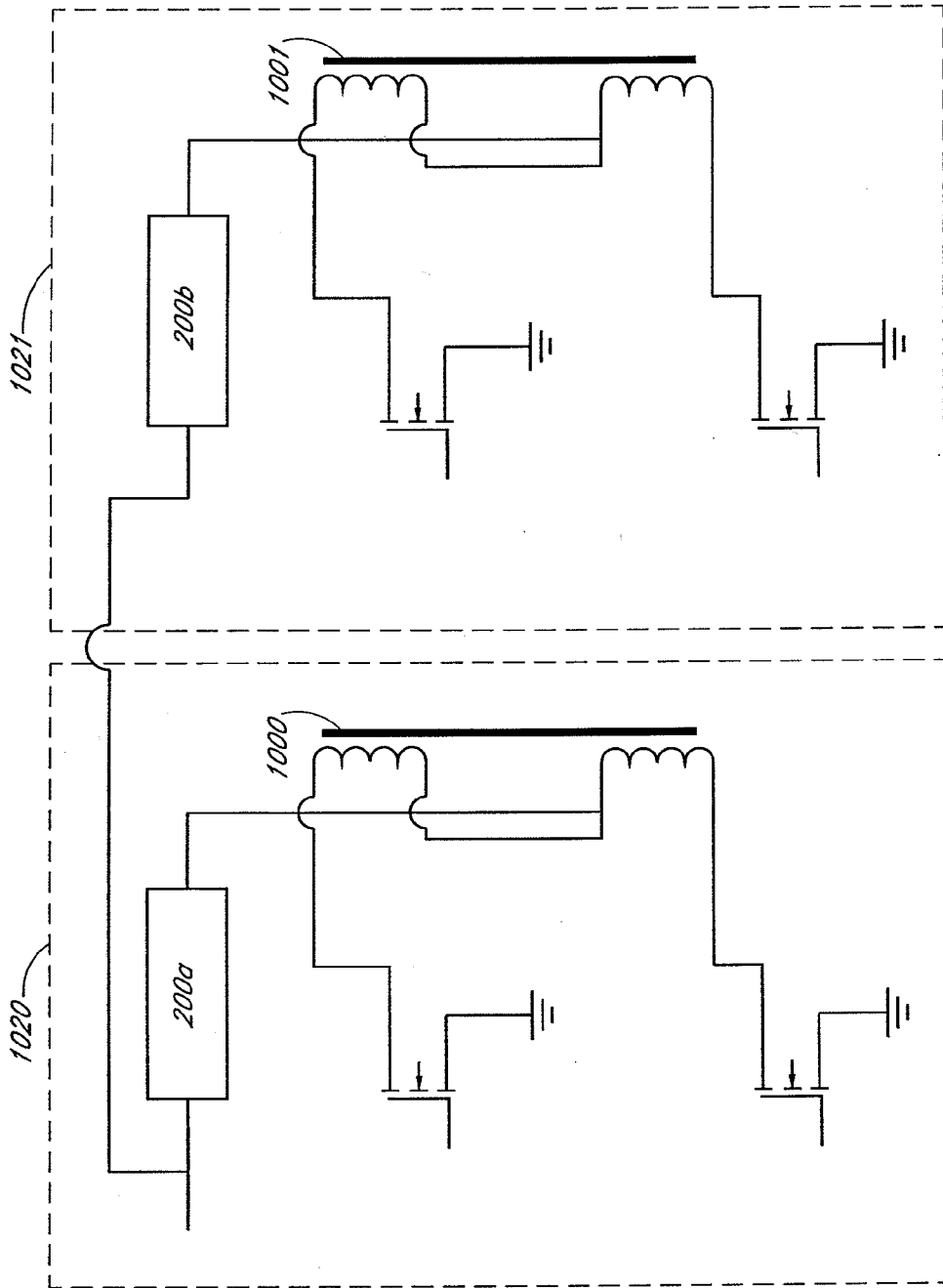


FIG. 2

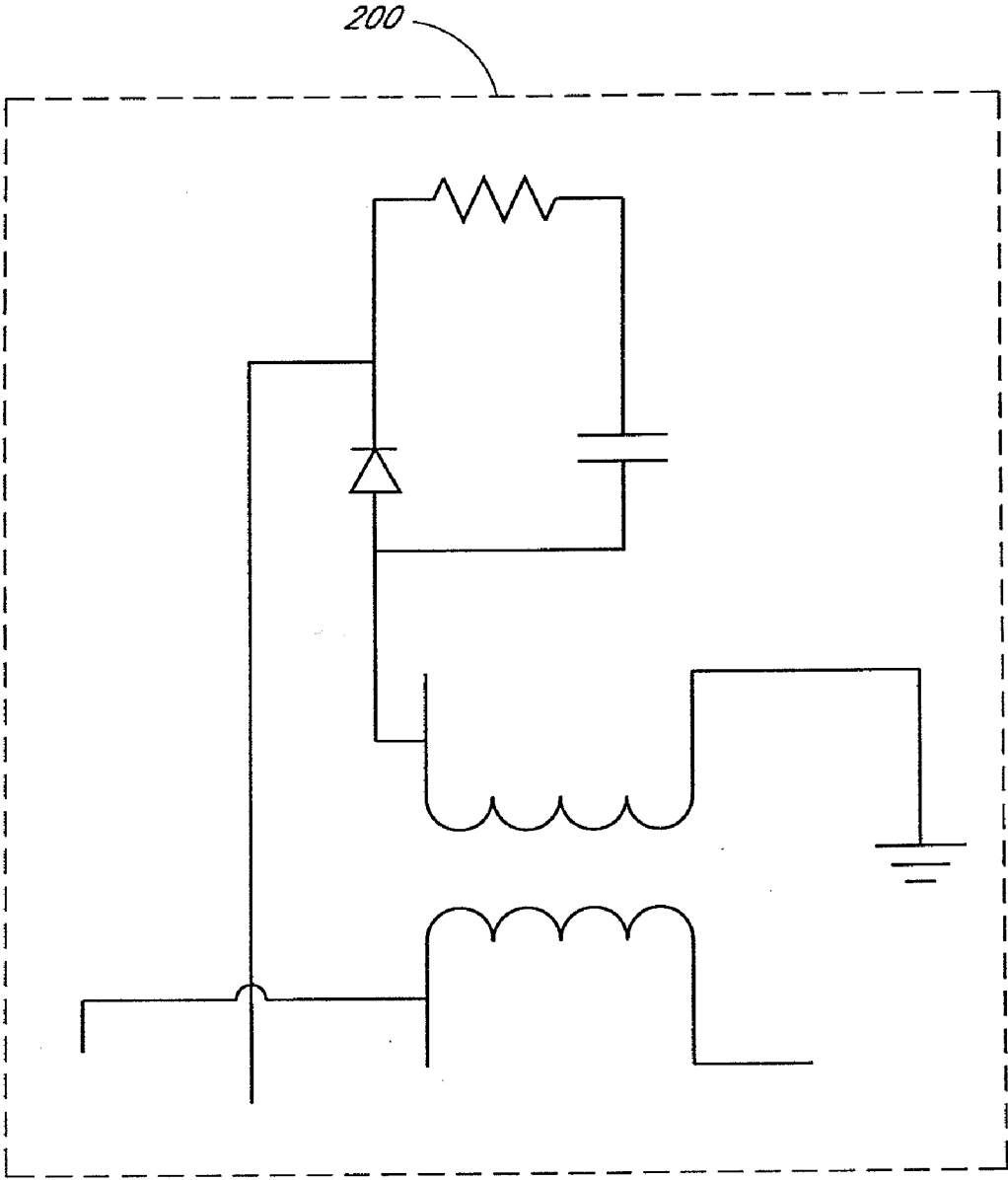


FIG. 3

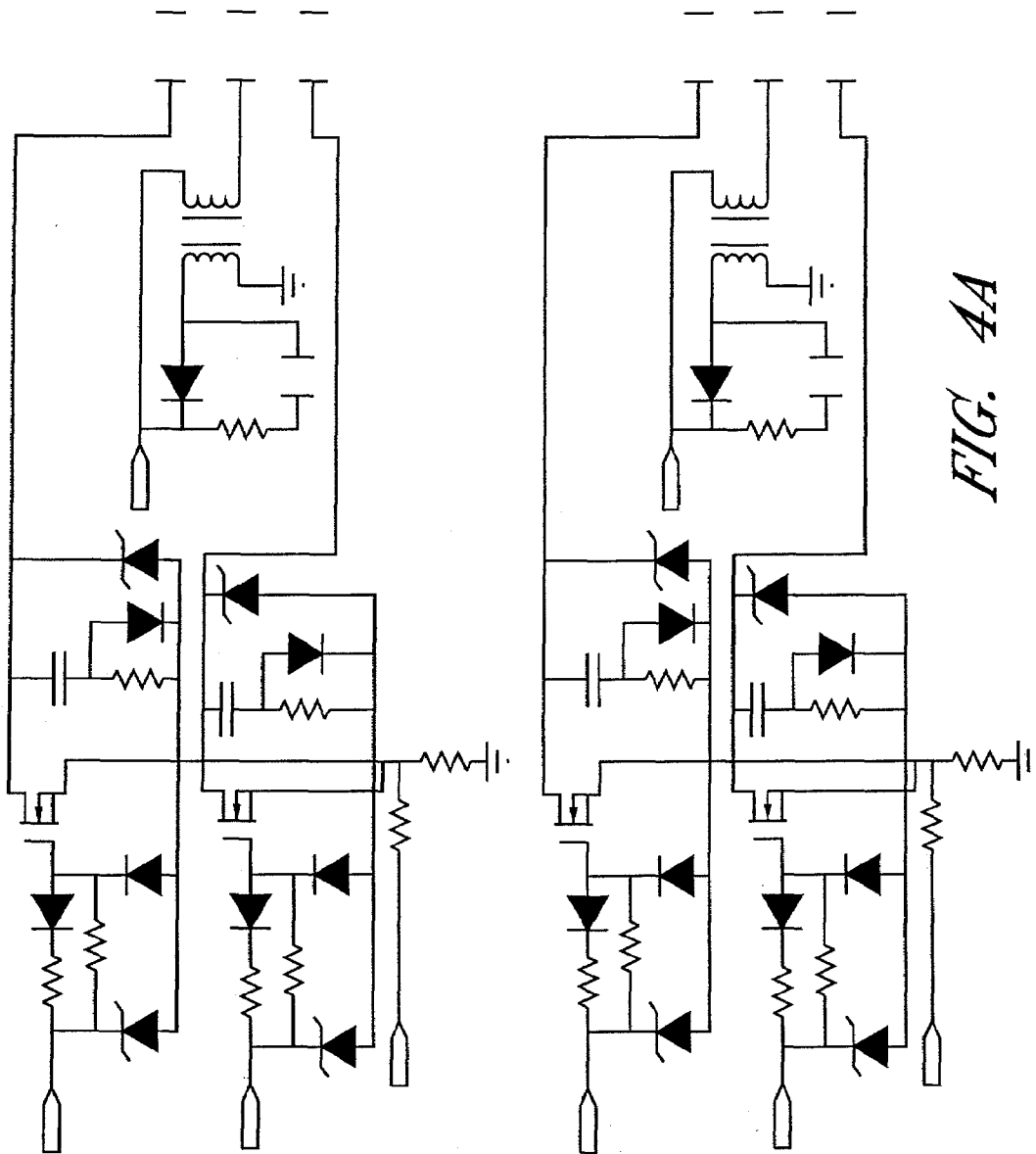


FIG. 4A

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