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**(54) Title (EN):** ARRAY ANTENNA FOR SUPPORTING MULTIPLE WIRELESS POWER TRANSMISSIONS, AND WIRELESS POWER TRANSMISSION DEVICE USING SAME

**(54) Title (FR):** ANTENNE RÉSEAU PERMETTANT UNE PRISE EN CHARGE DE MULTIPLES TRANSMISSIONS D'ÉNERGIE SANS FIL, ET DISPOSITIF D'ÉMISSION D'ÉNERGIE SANS FIL L'UTILISANT

**(54) Title (KO):** 다중 무선전력전송 지원 배열 안테나 및 이를 이용한 무선전력전송 장치

**(57) Abstract:**

**(EN):** The present invention relates to an array antenna for supporting multiple wireless power transmissions so as to simultaneously support wireless power transmissions of a magnetic induction method and a magnetic resonance method, and a wireless power transmission device using the same. According to the present invention, the array antenna for supporting multiple wireless power transmissions comprises: a magnetic resonance element unit for transmitting a wireless power signal to the outside by a magnetic resonance method; and a magnetic induction element unit arranged in the vicinity of the magnetic resonance element unit by being spaced from the magnetic resonance element unit, and transmitting a wireless power signal to the outside by a magnetic induction method, thereby simultaneously supporting wireless power transmissions of the magnetic resonance method and the magnetic induction method.

**(FR):** La présente invention concerne une antenne réseau pour prise en charge de multiples transmissions d'énergie sans fil permettant de prendre en charge simultanément des transmissions d'énergie sans fil selon un procédé d'induction magnétique et un procédé de résonance magnétique, et un dispositif d'émission d'énergie sans fil l'utilisant. Selon la présente invention, l'antenne réseau pour prise en charge de multiples transmissions d'énergie sans fil comprend : une unité d'élément de résonance magnétique pour émettre un signal d'énergie sans fil à l'extérieur au moyen d'un procédé de résonance magnétique; et une unité d'élément d'induction magnétique disposée dans le voisinage de l'unité d'élément de résonance magnétique en étant espacée de l'unité d'élément de résonance magnétique, et émettant un signal d'énergie sans fil à l'extérieur au moyen d'un procédé d'induction

magnétique, ce qui permet de prendre en charge simultanément des transmissions d'énergie sans fil selon le procédé de résonance magnétique et le procédé d'induction magnétique.

**(KO):** 본 발명은 자기 유도 방식과, 자기 공진 방식의 무선 전력 전송을 동시에 지원하기 위한 다중 무선전력전송 지원 배열 안테나 및 이를 이용한 무선전력전송 장치에 관한 것이다. 본 발명에 따른 다중 무선전력전송 지원 배열 안테나는 무선 전력 신호를 자기 공진 방식에 의해 외부로 전송하는 자기 공진 소자부, 자기 공진 소자부의 인근에 자기 공진 소자부와 이격되어 배치되고, 무선 전력 신호를 자기 유도 방식에 의해 상기 외부로 전송하는 자기 유도 소자부를 포함하여 자기 공진 방식과 자기 유도 방식의 무선전력전송을 동시에 지원할 수 있다.

### **International search report:**

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