

**ELECTROMAGNETIC COUPLING CHARACTERISTIC ADJUSTMENT  
METHOD IN NON-CONTACT POWER SUPPLY SYSTEM, POWER  
SUPPLY DEVICE, AND NON-CONTACT POWER SUPPLY SYSTEM**

**ABSTRACT OF THE DISCLOSURE**

An electromagnetic coupling characteristic adjustment method for adjusting an electromagnetic coupling characteristic between a reader/writer device and an IC card which are used in a non-contact communication system in which a power transmission antenna coil provided in the reader/writer device and a power receiving antenna coil provided in the IC card are electromagnetically coupled so that the reader/writer device supplies power to the IC card without contact with the IC card. The power supply device includes adjustment impedance elements respectively connected in series and in parallel with the power transmission antenna coil. Impedances of these adjustment impedance elements are determined so that the semiconductor device receives greatest power when a power supply distance, which is a distance between the power transmission antenna coil and the power receiving antenna coil, has a predetermined value not less than 0. On this account, heat generation due to the difference of received power can be reduced with a simple structure.

Figure 1