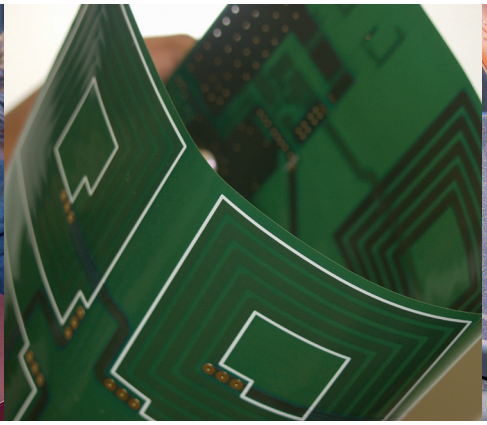
SMART UNIVERSAL POWER ANTENNAS FOR WIRELESS ENERGY TRANSMISSION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The WiTech GmbH brings the SUPA technology into the market as the WiTech system. | www.witech-power.com

Photo acknowledgments: Fraunhofer ENAS

The WiTech system is an infrastructure solution for wireless power and data transmission for mobile devices and based on a technology which was developed in the SUPA project. The technology consists of a transceiver system (transmitter and receiver units). The transmitter unit is invisibly integrated within or below the surfaces, and transmits both power and data via an antenna component. The transmitting antenna is not limited by area, as many power and data-transmitting antennas allow interconnection to equip, for instance, whole tables or table systems as a transmitter antenna. The user has the advantage of placing his/her device anywhere on the table where it is directly supplied with electricity only at this point. Since the antenna also serves as data antenna, different devices can be networked using the technology. The transmission power for data and current is limited above the antennas. This keeps the exposure to radiation very low. The antenna component is designed in such a manner that the data and current flows are transmitted specifically to the receiving antennas, i.e. only the part of the antenna on which a device is actually positioned is activated.

Principle and Integration

- Based on the principle of electric induction
- System consists of transmitter and receiver unit
- Invisible integration in interior
- Antennas are panelized to cover the whole surface size as one transmitter antenna array
- Receiver device can be positioned at any place on the interior surface
- Working range for transference is minimized to keep the radiation level low and to optimize safety of interception of data networks
- Electric modules are fabricated on up to 125 µm thin substrate material

Technical Data

- Efficiency of 70 per cent and higher
- Working range up to 5 cm
- Power transmission up to 40 W (aim at 70 W)

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