



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Industry's First Single-Chip 12 V WPC-Compliant Transmitter for A6-type Coils

FEATURES

- Conforms with WPC Specification version 1.1
- Manages all three coils in the A6 configuration without user supervision
- Operates from 12 V ($\pm 5\%$) supplies
- Multi-mode (multi-protocol) capability with dynamic switching
- Half-Bridge DC-AC inverter integrated onboard
- Demodulates and decodes communication packets from WPC-compliant receivers
- Implements closed-loop power transfer control
- Optional 2-way communication security and encryption to 64-bit
- Master/Slave I²C interface
- Compact 6mm x 6mm 48-lead TQFN package

SAFETY FEATURES

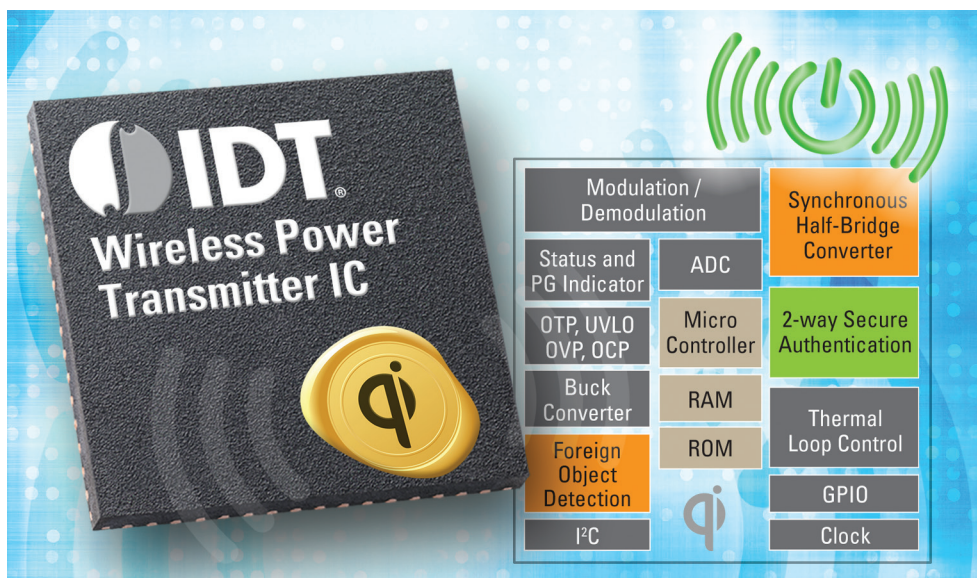
- Over-current and over-temperature protection
- Programmable Foreign Object Detection (FOD)
- Power good and fault condition detection with LED indicator outputs

TARGET WIRELESS POWER APPS

- Charging mats or pads
- Public Facilities – Shops, Libraries, Airports, Schools
- Office Furniture
- Personal Computer Docks
- Portable Instruments
- Medical Devices

VALUE ADDED BEYOND WPC “Qi”

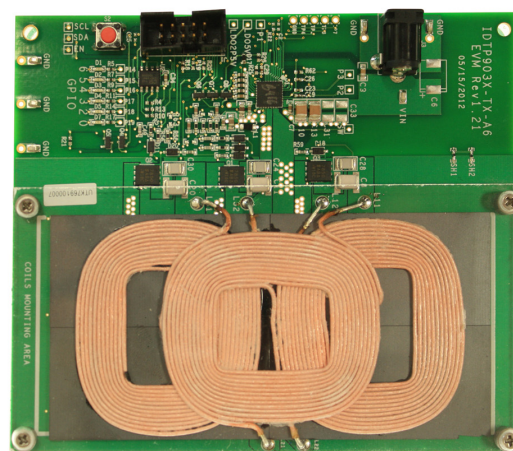
- Delivers industry-leading power to receiver (5W to WPC-compliant receivers, more when using IDTP9020 Receiver)
- Optional, proprietary Back-Channel communication provides additional levels of encryption and security
- Manages power transfer fault conditions automatically and controls status indicator LEDs



The IDTP9036 is a highly-integrated single-chip WPC1.1-compliant wireless power transmitter IC for power transmitter design A6. The device operates with a 12V ($\pm 5\%$) adaptor, and supplies an integrated half-bridge inverter for DC/AC conversion. It controls the transferred power by modulating the switching frequency of the half-bridge inverter from 115kHz to 205kHz at a fixed 50% duty cycle as specified by the WPC specification for an “A6” 3-coil transmitter. It contains logic circuits required to demodulate and decode WPC-compliant message packets sent by the mobile device to adjust the transferred power.

The IDTP9036 manages all 3 coils in the WPC TX-A6 configuration, performing detection and charging control without user supervision. It also features a proprietary back-channel communication mode compatible with other IDT Wireless Power products which provides additional secure authentication capabilities, in addition to implementing the WPC-specified device identification communication sequence and closed-loop control protocol, which constantly adjusts transmitted power.

EVALUATION BOARD



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