WCT-W1COILTX: Single-Coil Wireless Charger Reference Design

The 5 watt single-coil wireless charging transmitter reference design uses Freescale’s MWCT1000 transmit controller IC to manage and perform all control functions necessary to implement a wireless charging transmitter solution. This solution is highly optimized to provide the lowest bill-of-materials cost, as well as highest performance. The design complies with the Wireless Power Consortium’s latest Qi specification and is certified as a WPC-A11 transmitter type. Among the many features of this design, the solution has been developed to provide a more general solution which operates with many different coil types.

Features
- Certified as WPC-A11 transmitter type
- Greater than 75% transfer efficiency
- Transmit IC consumes less than 30mA in active Run mode
- On-chip digital demodulation
- 30mW standby power using proximity sensing
- Robust foreign object detection algorithm
- Ultra-low Bill-of-Materials cost
- Support for current limited devices such as PCs
- Supports any 5 watt single-coil application that uses 5 volt input source

Supported Devices
- MWCT100: 5 Watt Wireless Charging ICs

Featured Documentation
- WCT5W1 COILTX/F: WCT-5W1 COILTX Wireless Charging reference design - Fact Sheet

Current Updates and Releases
- CW-MCU10: CodeWarrior for MCUs (Eclipse IDE) - ColdFire, 56800/E DSC, Kinetis, QorIQ 55x, RS03/S08, S12Z

Jump Start Your Design
- Getting started with WCT-W1COILTX
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