

WCT-5WTXAUTO: Multi-Coil Wireless Charging Transmitter Reference Platform for Automotive Applications ☆

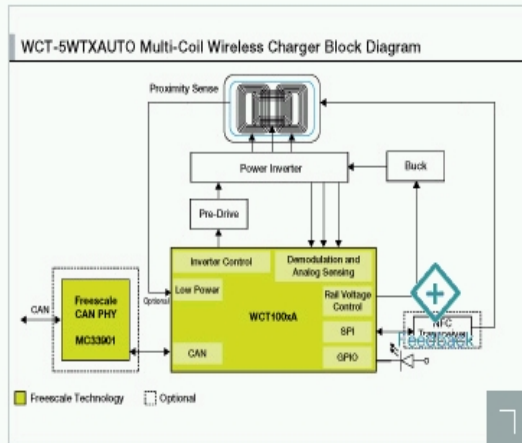
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Freescale's 5 watt multi-coil transmitter reference platform is specifically designed for automotive wireless charging applications. At the heart of the design is Freescale's MWCT1003AVLH transmit controller IC. This controller IC manages and performs all control functions necessary to implement a wireless charging transmitter solution. This solution provides a high performance wireless charging system while also taking into consideration the complex operating environment of a vehicle. The entire platform uses auto grade components and takes into consideration other vital automotive functions to ensure the system can be seamlessly integrated.

The design complies with the Wireless Power Consortium's (WPC) latest Qi specification and is certified as a WPC-A13 transmitter type. As with all of Freescale's wireless charging solution, this reference platform supports other coil types defined by the WPC.

Features

- Certified as WPC-A13 transmitter type
- Greater than 80% transfer efficiency
- Multi-coil to support any Qi-enabled smartphone
- Low active RUN power
- On-chip digital demodulation
- Low system standby power consumption (using Freescale proximity sense technology)
- Robust foreign object detection algorithm
- Addresses automotive specific issues such as EMC, key FOB and Start/Stop
- Supports additional features such as NFC, CAN and touch sense



Supported Devices

- MWCT1xxxA: 5 Watt Wireless Charging Transmitter ICs for Automotive Applications
- MC33901: High-Speed CAN Transceiver for Automotive Applications
- MC33907: Safe System Basis Chip DC/DC up to 800 mA on Vcore

Featured Documentation

- WCT5WTXAUTOFS: Freescale Wireless Charging Reference Design for Automotive Applications
- WCT100XAWCAUG: WCT1001AWCT1003A Automotive A13 Wireless Charging Application - User's Guide
- WCT100XARTDUG: WCT1001AWCT1003A Run-Time Debug - User's Guide

Current Updates and Releases

- CW-MCU10: CodeWarrior for MCUs (Eclipse IDE) - ColdFire, 56800/E DSC, Kinetis, Freescale 56xx, RS08/S08, S12Z v10.6
- FREEMASTER: FreeMASTER Run-Time Debugging Tool

Jump Start Your Design

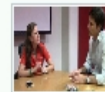
Getting started with the WCT-5WTXAUTO

Get started out of the box with the ...

Target Applications

- ⊕ Automotive
- ⊕ Consumer

Featured Video



Freescale's Programmable Wireless Charging Solutions (04:23 min)

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Cut the cords! Wireless charging is here!