NXP Semiconductors
Release Notes

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WCT1001A/WCT1003A V4.2 Release Notes

1. Overview

WCT1001A/WCT1003A version 4.2 provides a Low Power (5W) Multicoil transmitter solution using the WCT1001A/WCT1003A chip and the A13 Automotive Reference Design board.

Contents

2. Supported hardware SoC/board

WCT1001A/WCT1003A A13 Rev3 board (A13_Rev3_SCH-28216_A1, A13_Rev3_LAY-28216_A)

3. What's new

- Improved power loss calibration robustness by confirmation of data packet receipt.
- Fixed DDM false decoding issue.
- Passed Qi 1.2.4 certification.

4. What is in this release

- Software package:
  - WCT100xA_A13_V4.2

    The package includes the application example code in source format and WCT library for WCT1001A/WCT1003A A13 solution in binary format.
- Documentation:
  - WCT1001A/WCT1003A Automotive A13 V4.2 Wireless Charging Application User's Guide (WCT100XAV42WCAUG)
  - WCT1001A/WCT1003A V4.2 Run-Time Debugging User's Guide (WCT100XAV42RTDUG)
  - WCT1001A/WCT1003A V4.2 Transmitter Library User's Guide (WCT100XAV42LIBUG)
  - WCT1001A/WCT1003A V4.2 Release Notes (WCT100XAV42RN)

5. Features

- A13 automotive wireless charging platform:
  - Full-bridge power stage
  - Voltage control (1-10 V)
  - Multicoil (maximum 10 coils)
  - Operation frequency of 105 kHz ~115 kHz (110 kHz is the default), 50 % duty cycle
- Supports digital demodulation for multiple modulation types of AC capacitor, AC resistor, and DC resistor.
- Compliant with Qi V1.2.4 specification.
- Supports bootloader for WCT1001A/WCT1003A.
- Integrated FreeMASTER GUI for parameter configuration and foreign object detection (FOD) calibration.
- Supports touch for power savings.
- Supports an LED to indicate a power transfer status.

- Supports up to 10 coils.
- Supports the PMA-compliant RXs with digital demodulation.

6. Known issues

None.

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