Document Number: WCT100XAV42RN Release Notes

Rev. 0, 07/2019

# WCT1001A/WCT1003A V4.2 Release Notes

#### **Contents** 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.

1.	Overview	]
2.	Supported hardware SoC/board	2
	What's new	
4.	What is in this release	2
	Features	
6.	Known issues.	3



## 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.

NXP Semiconductors 3

How to Reach Us:

Home Page:

www.nxp.com

Web Support:

www.nxp.com/support

Information in this document is provided solely to enable system and software implementers to use NXP products. There are no express or implied copyright licenses granted hereunder to design or fabricate any integrated circuits based on the information in this document. NXP reserves the right to make changes without further notice to any products herein.

NXP makes no warranty, representation, or guarantee regarding the suitability of its products for any particular purpose, nor does NXP assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation consequential or incidental damages. "Typical" parameters that may be provided in NXP data sheets and/or specifications can and do vary in different applications, and actual performance may vary over time. All operating parameters, including "typicals", must be validated for each customer application by customer's technical experts. NXP does not convey any license under its patent rights nor the rights of others. NXP sells products pursuant to standard terms and conditions of sale, which can be found at the following address:

#### www.nxp.com/SalesTermsandConditions.

While NXP has implemented advanced security features, all products may be subject to unidentified vulnerabilities. Customers are responsible for the design and operation of their applications and products to reduce the effect of these vulnerabilities on customer's applications and products, and NXP accepts no liability for any vulnerability that is discovered. Customers should implement appropriate design and operating safeguards to minimize the risks associated with their applications and products.

NXP, the NXP logo, NXP SECURE CONNECTIONS FOR A SMARTER WORLD, COOLFLUX, EMBRACE, GREENCHIP, HITAG, I2C BUS, ICODE, JCOP, LIFE VIBES, MIFARE. MIFARE CLASSIC, MIFARE DESFIRE, MIFARE PLUS, MIFARE FLEX, MANTIS, MIFARE ULTRALIGHT, MIFARE4MOBILE, MIGLO, NTAG, ROADLINK, SMARTLX, SMARTMX, STARPLUG, TOPFET, TRENCHMOS, UCODE, Freescale, the Freescale logo, AltiVec, C-5, CodeTEST, CodeWarrior, ColdFire, ColdFire+, C-Ware, the Energy Efficient Solutions logo, Kinetis, Layerscape, MagniV, mobileGT, PEG, PowerQUICC, Processor Expert, QorlQ, QorlQ Qonverge, Ready Play, SafeAssure, the SafeAssure logo, StarCore, Symphony, VortiQa, Vybrid, Airfast, BeeKit, BeeStack, CoreNet, Flexis, MXC, Platform in a Package, QUICC Engine, SMARTMOS, Tower, TurboLink, and UMEMS are trademarks of NXP B.V. All other product or service names are the property of their respective owners. AMBA, Arm, Arm7, Arm7TDMI, Arm9, Arm11, Artisan, big.LITTLE, Cordio, CoreLink, CoreSight, Cortex, DesignStart, DynamIQ, Jazelle, Keil, Mali, Mbed, Mbed Enabled, NEON, POP, RealView, SecurCore, Socrates, Thumb, TrustZone, ULINK, ULINK2, ULINK-ME, ULINK-PLUS, ULINKpro, µVision, Versatile are trademarks or registered trademarks of Arm Limited (or its subsidiaries) in the US and/or elsewhere. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. Oracle and Java are registered trademarks of Oracle and/or its affiliates. The Power Architecture and Power.org word marks and the Power and Power.org logos and related marks are trademarks and service marks licensed by Power.org.

© 2019 NXP B.V.

Document Number: WCT100XAV42RN

Rev. 0 07/2019