

Application for FCC Certification
On behalf of

Freescale Semiconductor, Inc.

Product Name: Qi medium power wireless charger

Model No.: WCT-15W1COILTX

FCC ID: RUNWCT-15W1COILTX

(RF Exposure Report)

Prepared For : Freescale Semiconductor, Inc.
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Prepared By : Audix Technology (Shanghai) Co., Ltd.
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Report No. : ACI-F15016
Date of Test : Jan 14, 2015
Date of Report : Jan 15, 2015

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TEST REPORT FOR HUMAN EXPOSURE

Applicant : Freescale Semiconductor, Inc.
Manufacturer : Freescale Semiconductor (China) Limited Suzhou Branch
Factory : Trivo (Taicang) Technologies Co., Ltd.

EUT Description : Qi medium power wireless charger
(A) Model No. : WCT-15W1COILTX
(B) Power Supply : DC 12V
(C) Test Voltage : AC 120V/60Hz(with adaptor)

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 1 SECTION 1.1310 and
KDB 680106 D01 v02*

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the RF Exposure levels emanating from the device. The RF Exposure levels are compared to the FCC Part 1.1310.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report also shows that the EUT (M/N: WCT-15W1COILTX), which was tested on Jan 14, 2015 is technically compliance with the FCC limits.

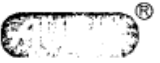
This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Jan 14, 2015 Date of Report : Jan 15, 2015

Producer : Alan He
ALAN HE / Assistant

Review : Sammy Chen
SAMMY CHEN / Deputy Manager

 For and on behalf of
Audix Technology (Shanghai) Co., Ltd.

Signatory : Byron Kwo
Authorized Signature EMC BYRON KWO/Assistant General Manager

1 SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

| Description of Test Item | Standard | Limits | Results |
|--------------------------|---|--------|---------|
| RF Exposure | FCC RULES AND REGULATIONS PART 1.1310 AND KDB 680106 D01 V02 | 1.1310 | Pass |

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description : Qi medium power wireless charger

Model Number : WCT-15W1COILTX

Type of EUT : ☒ Production ☐ Pre-product ☐ Pro-type

Charge Freq. : 110-205 kHz

Applicant : Freescale Semiconductor, Inc.
Corporate Headquarters, 6501 William Cannon
Drive West Austin, Texas 78735 USA

Manufacturer : Freescale Semiconductor (China) Limited
Suzhou Branch
No. 288 Zhuyuan Road, Suzhou New District

Factory : Trivo (Taicang) Technologies Co., Ltd.
Building A10, Taicang Foreign Industry Park,
No.105 East Shanghai Road, Taicang, Jiangsu,
P.R.China.

2.2 Peripherals

2.2.1 Adapter

Manufacturer : SCEPTRE POWER

Model Number : PS-12030APL05

Input : 100-240V~, 47-63Hz 1.0A

Output : 12.0V $\overline{\text{---}}$ 3.0A

Output Cable : Unshielded, Undetachable, 0.9m, with one core
(Core: TC5B, 17*7*30mm,
Three Core Electronics Co., Ltd.)

2.2.2 Qi Receiver Simulator (board with resistance)

Manufacturer : AVID Technologies, Inc.

Model Number : 102-03(501)

2.3 Description of Test Facility

| | |
|---|---|
| Site Description (Semi-Anechoic Chamber) | : Sept. 17, 1998 file on Mar 16, 2012 Renewed Federal Communications Commission FCC Engineering Laboratory 7435 Oakland Mills Road Columbia, MD 21046, USA |
| Name of Firm | : Audix Technology (Shanghai) Co., Ltd. |
| Site Location | : 3 F 34 Bldg 680 Guiping Rd., Caohejing Hi-Tech Park, Shanghai 200233, China |
| FCC registration Number | : 91789 |
| Accredited by NVLAP, Lab Code | : 200371-0 |

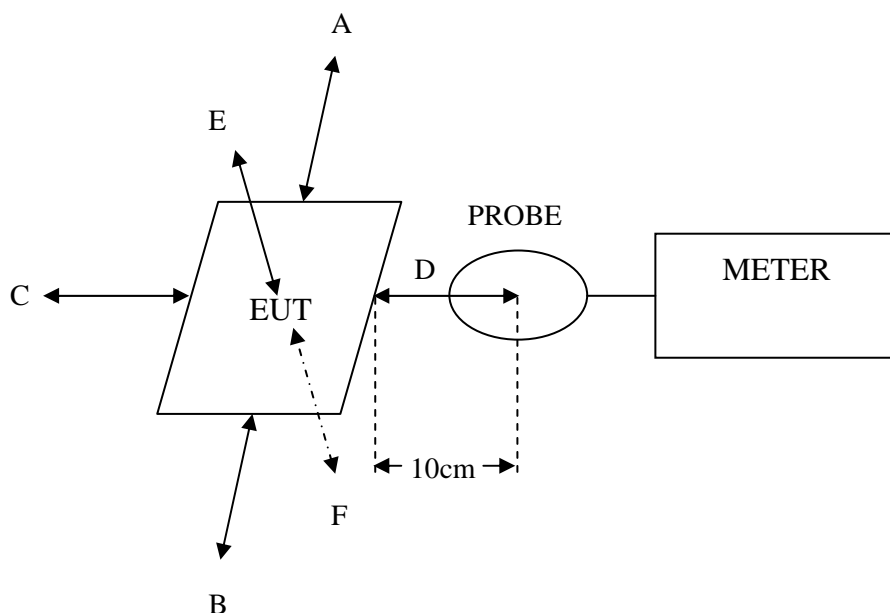
3 SUMMARY OF STANDARDS AND RESULTS

3.1 Test Equipment

The following test equipments are used during the conducted emission test in a shielded room:

| Item | Type | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|------|-----------------------|--------------|-----------|------------|--------------|--------------|
| 1. | Field Monitor | AR | FM2000 | 19221 | NCR | NCR |
| 2. | Field Probe | AR | FP2000 | 19233 | May 22, 2014 | May 21, 2015 |
| 3. | Magnetic Field Tester | HIOKI | FT3470-50 | 130503486 | May 27, 2014 | May 26, 2015 |

3.2 Test Setup



3.3 Applicable Standard

FCC Part 1.1310 & KDB 680106 D01 v02 3(3)

3.4 Specification Limits

Limits for General Population/Uncontrolled Exposure

| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm ²) | Averaging Time E ² , H ² or S (minutes) |
|-----------------------|-----------------------------------|-----------------------------------|---|---|
| 0.3-1.34 | 614 | 1.63 | (100)* | 30 |
| 1.34-30 | 824/f | 2.19/f | (180/f ²)* | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1500 | -- | -- | f/150 | 30 |
| 1500-100,000 | -- | -- | 1.0 | 30 |

f = frequency in MHz

*Plane-wave equivalent power density

KDB 680106 D01(3)(3):

For devices designed for typical desktop applications, such as wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 10 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device. Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m.

3.5 Operating Condition of EUT

The EUT was setup on the Charging test mode and then test.

3.6 Test Result (with dummy load: full load)

3.6.1 Electric Field Strength at 10 cm from the edges surrounding the EUT

| Test Position | Test distance (cm) | Test result (v/m) | Limit (v/m) |
|---------------|--------------------|-------------------|-------------|
| A: Front | 10 | 5.52 | 614.00 |
| B: Back | 10 | 4.54 | 614.00 |
| C: Left | 10 | 5.87 | 614.00 |
| D: Right | 10 | 5.40 | 614.00 |
| E: Top | 10 | 9.32 | 614.00 |
| F: Bottom | 10 | 5.01 | 614.00 |
| Conclusion | | Pass | |

3.6.2 Magnetic Field Strength at 10 cm from the edges surrounding the EUT

| Test Position | Test distance (cm) | Test result (A/m) | Limit (A/m) |
|---------------|--------------------|-------------------|-------------|
| A: Front | 10 | 0.548 | 1.63 |
| B: Back | 10 | 0.247 | 1.63 |
| C: Left | 10 | 0.598 | 1.63 |
| D: Right | 10 | 0.628 | 1.63 |
| E: Top | 10 | 1.326 | 1.63 |
| F: Bottom | 10 | 0.397 | 1.63 |
| Conclusion | | Pass | |