


**FCC PART 15 SUBPART B and C
TEST REPORT***for***UEI RF4CE USB DONGLE 2012
MODEL: URC-5550BC0-XXX-R**

Prepared for

UNIVERSAL ELECTRONICS, INC.
201 EAST SANDPOINTE AVENUE, 8TH FLOOR
SANTA ANA, CALIFORNIA 92707Prepared by: 

KYLE FUJIMOTO

Approved by: 

JAMES ROSS

COMPATIBLE ELECTRONICS INC.
114 OLINDA DRIVE
BREA, CALIFORNIA 92823
(714) 579-0500

DATE: NOVEMBER 17, 2012

	REPORT BODY	APPENDICES					TOTAL
		A	B	C	D	E	
PAGES	16	2	2	2	19	56	97

This report shall not be reproduced except in full, without the written approval of Compatible Electronics.

TABLE OF CONTENTS

Section / Title	PAGE
GENERAL REPORT SUMMARY	4
SUMMARY OF TEST RESULTS	4
1. PURPOSE	5
2. ADMINISTRATIVE DATA	6
2.1 Location of Testing	6
2.2 Traceability Statement	6
2.3 Cognizant Personnel	6
2.4 Date Test Sample was Received	6
2.5 Disposition of the Test Sample	6
2.6 Abbreviations and Acronyms	6
3. APPLICABLE DOCUMENTS	7
4. DESCRIPTION OF TEST CONFIGURATION	8
4.1 Description of Test Configuration – Emissions	8
4.1.1 Cable Construction and Termination	8
5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT	9
5.1 EUT and Accessory List	9
5.2 Emissions Test Equipment	10
6. TEST SITE DESCRIPTION	10
6.1 Test Facility Description	11
6.2 EUT Mounting, Bonding and Grounding	11
6.3 Facility Environmental Characteristics	11
7. TEST PROCEDURES	12
7.1 RF Emissions	12
7.1.1 Conducted Emissions Test	12
7.1.2 Radiated Emissions (Spurious and Harmonics) Test	13
7.1.3 RF Emissions Test Results	15
8. CONCLUSIONS	16

LIST OF APPENDICES

APPENDIX	TITLE
A	Laboratory Accreditations and Recognitions
B	Modifications to the EUT
C	Additional Models Covered Under This Report
D	Diagram, Charts, and Photos <ul style="list-style-type: none">• Test Setup Diagram• Antenna and Amplifier Factors• Radiated Emissions Photos
E	Data Sheets

LIST OF FIGURES

FIGURE	TITLE
1	Conducted Emissions Test Setup
2	Plot Map And Layout of Radiated Test Site

GENERAL REPORT SUMMARY

Compatible Electronics Inc. generates this electromagnetic emission test report, which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced without the written permission of Compatible Electronics, unless done so in full.

This report must not be used to claim product endorsement by NVLAP, NIST or any other agency of the U.S. Government.

Device Tested: UEI RF4CE USB Dongle 2012
Model: URC-5550BC0-XXX-R
S/N: N/A

Product Description: See Expository Statement

Modifications: The EUT was not modified in order to meet the specifications.

Customer: Universal Electronics, Inc.
201 East Sandpointe Avenue, 8th Floor
Santa Ana, California 92707

Manufacturer: Gemstar Technology Company, Ltd.
Gemstar Industrial Park,
Shi Guang Road Number 45
Zhongcun Town, Panyu
Guangdong Province, China

Test Date(s): October 23 and 26, 2012

Test Specifications: Emissions requirements
CFR Title 47, Part 15, Subpart B and Subpart C, Sections 15.205, 15.207, 15.209, and 15.249

Test Procedure: ANSI C63.4

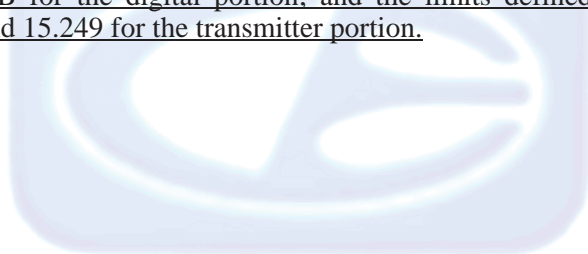
Test Deviations: The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions 150 kHz to 30 MHz	Complies with the Class B limits of CFR Title 47, Part 15, Subpart B; and Subpart C, section 15.207.
2	Radiated RF Emissions 10 kHz to 25000 MHz (Transmitter and Digital Portion)	Complies with the Class B limits of CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

1. PURPOSE

This document is a qualification test report based on the emissions tests performed on the UEI RF4CE USB Dongle 2012, Model: URC-5550BC0-XXX-R (EUT). The Emissions measurements were performed according to the measurement procedure described in ANSI C63.4. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the Class B specification limits defined by CFR Title 47, Part 15, Subpart B for the digital portion; and the limits defined in Subpart C, sections 15.205, 15.207, 15.209, and 15.249 for the transmitter portion.



2. ADMINISTRATIVE DATA

2.1 Location of Testing

The Emissions tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Universal Electronics, Inc.

Jesse Mendez Senior Electrical Core Engineer

Compatible Electronics Inc.

Kyle Fujimoto Test Engineer

James Ross Test Engineer

2.4 Date Test Sample was Received

The test sample was received October 20, 2012.

2.5 Disposition of the Test Sample

The test sample has not been returned to Universal Electronics, Inc. as of the date of the test report.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

FCC	Federal Communications Commission
RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
ITE	Information Technology Equipment
LISN	Line Impedance Stabilization Network
NVLAP	National Voluntary Laboratory Accreditation Program
CFR	Code of Federal Regulations
N/A	Not Applicable
Ltd.	Limited
Inc.	Incorporated
NCR	No Calibration Required

3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this Emissions Test Report.

SPEC	TITLE
CFR Title 47, Part 15	FCC Rules – Radio frequency devices (including digital devices)
ANSI C63.4: 2009	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration – Emissions

With USB Cable: The UEI RF4CE USB Dongle 2012, Model: URC-5550BC0-XXX-R (EUT) was connected to the laptop via a USB extender cable to the laptop's USB port. The laptop was also connected to a power supply, USB floppy drive, and modem via its power, USB, and serial ports, respectively.

No USB Cable: The UEI RF4CE USB Dongle 2012, Model: URC-5550BC0-XXX-R (EUT) was directly connected to the laptop via the laptop's USB port. The laptop was also connected to a power supply, USB floppy drive, and modem via its power, USB, and serial ports, respectively.

It was determined that the emissions were at their highest level when the EUT was operating in the above configuration. The final emissions data was taken in this mode of operation and any cables were maximized. All initial investigations were performed with the measurement receiver in manual mode scanning the frequency range continuously. Photographs of the test setup are in Appendix D of this report.

4.1.1 Cable Construction and Termination

Cable 1

This is a 2-meter braid and foil shielded cable connecting the modem to the laptop. The cable has a D-25 pin metallic connector at the modem end and a D-9 pin metallic connector at the laptop end. The cable was bundled to a length of 1-meter. The shield of the cable was grounded to the chassis via the connectors.

Cable 2

This is a 50-centimeter braid shielded cable connecting the laptop to the floppy drive. The cable has a USB type 'A' connector at the laptop end and is hard wired into the floppy drive. The shield of the cable was grounded to the chassis via the connector.

Cable 3

This is a 2-meter unshielded cable connecting the laptop to the AC Adapter. The cable has a one pin power connector at the laptop end and is hard wired to the AC Adapter. The cable was bundled to a length of 1-meter.

Cable 4

(For the EUT with USB Cable Configuration Only): This is a 2-meter braid shielded cable connecting the EUT to the laptop. The cable has a USB type 'A' connector at each end. The cable was bundled to a length of 1-meter. The shield of the cable was grounded to the chassis via the connectors.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT**5.1 EUT and Accessory List**

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
UEI RF4CE USB DONGLE 2012	UNIVERSAL ELECTRONICS, INC.	URC-5550BC0- XXX-R	N/A	MG3-5550
MODEM	HAYES	07-00038	A0115003041	BFJ9D907-00038A
AC ADAPTER	IBM	P/N: 92P1113	11S92P1113Z1Z ACW58N0J2	N/A
USB FLOPPY DRIVE	N/A	N/A	N/A	N/A

5.2 Emissions Test Equipment

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE DATE
RF RADIATED EMISSIONS TEST EQUIPMENT					
Computer	Hewlett Packard	4530	US91912319	N/A	N/A
Spectrum Analyzer – Main Section	Hewlett Packard	8568B	2517A01563	May 30, 2012	May 30, 2013
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	2648A15285	May 30, 2012	May 30, 2013
Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00424	May 30, 2012	May 30, 2013
EMI Receiver	Rohde & Schwarz	ESIB40	100194	November 19, 2010	November 19, 2012
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A
Loop Antenna	Com-Power	AL-130	17089	January 21, 2011	January 21, 2013
Biconical Antenna	Com Power	AB-900	43028	May 24, 2012	May 24, 2013
Log Periodic Antenna	Com Power	AL-100	16252	May 24, 2012	May 24, 2013
Horn Antenna	Com-Power	AH-118	071175	February 29, 2012	March 1, 2014
Horn Antenna	Com-Power	AH826	0071957	N/A	N/A
Preamplifier	Com-Power	PA-102	1017	December 28, 2011	December 28, 2012
Microwave Preamplifier	Com-Power	PA-118	181656	December 28, 2011	December 28, 2012
Microwave Preamplifier	Com-Power	PA-840	711919	March 11, 2010	March 11, 2013
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A
RF CONDUCTED EMISSIONS TEST EQUIPMENT					
Emissions Program	Compatible Electronics	2.3 (SR19)	N/A	N/A	N/A
Transient Limiter	Seaward	252A910	1	November 7, 2011	November 7, 2012
LISN	Com Power	LI-215	12078	June 20, 2011	June 20, 2013
LISN	Com Power	LI-215	12082	June 20, 2011	June 20, 2013

6. TEST SITE DESCRIPTION**6.1 Test Facility Description**

Please refer to section 2.1 and 7.1.2 of this report for Emissions test location.

6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT was not grounded.

6.3 Facility Environmental Characteristics

When applicable refer to the data sheets in Appendix E for the relative humidity, air temperature, and barometric pressure.

7. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

7.1 RF Emissions

7.1.1 Conducted Emissions Test

The measurement receiver was used as a measuring meter. The data was collected with the measurement receiver in the peak detect mode with the "Max Hold" feature activated. The quasi-peak was used only where indicated in the data sheets. A transient limiter was used for the protection of the measurement receiver's input stage, and the offset was adjusted accordingly to read the actual data measured. The LISN output was measured using the measurement receiver. The output of the second LISN was terminated by a 50-ohm termination. The effective measurement bandwidth used for this test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI C63.4. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The conducted emissions from the EUT were maximized for operating mode as well as cable placement. The final data was collected under program control by the Compatible Electronics conducted emissions software in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave. The final qualification data is located in Appendix E.

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, Section 15.207.

7.1.2 Radiated Emissions (Spurious and Harmonics) Test

The spectrum analyzer, along with the quasi-peak adapter, and EMI Receiver were used as a measuring meter. Amplifiers were used to increase the sensitivity of the instrument. The Com-Power Preamplifier Model: PA-102 was used for frequencies from 30 MHz to 1 GHz, the Com-Power Microwave Preamplifier Model: PA-118 was used for frequencies from 1 GHz to 18 GHz, and the Com-Power Microwave Preamplifier Model: PA-840 were used for frequencies above 18 GHz. The spectrum analyzer and EMI Receiver were used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer and EMI receiver records the highest measured reading over the sweeps.

The quasi-peak function was used only for those readings which are marked accordingly on the data sheets.

The frequencies above 1 GHz were adjusted by a "duty cycle correction factor", derived from $20 \log(\text{dwell time} / 100 \text{ mS})$.

The measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
10 kHz to 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 25 GHz	1 MHz	Horn Antennas

The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT by the Radiated Emission Manual Test software. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gun sight method was used when measuring with the horn antenna in order to ensure accurate results. The loop antenna was also rotated in the vertical axis in order to ensure accurate results.

Radiated Emissions (Spurious and Harmonics) Test (continued)

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a 3-meter test distance from 30 MHz to 25 GHz and at a 10-meter distance from 10 kHz to 30 MHz to obtain the final test data.

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and the limits of CFR Title 47, Part 15, Subpart C, Sections 15.209 and 15.249.



7.1.3 RF Emissions Test Results

Table 1.0 CONDUCTED EMISSION RESULTS (120V)
 UEI RF4CE USB Dongle 2012, Model: URC-5550BC0-XXX-R

Frequency MHz	Emission Level* dBuV	Specification Limit dBuV	Delta dB
0.641 (BL) (With Cable)	42.21	46.00	-3.79
4.600 (BL) (No Cable)	42.19	46.00	-3.81
0.203 (WL) (With Cable)	49.66	53.49	-3.83
0.216 (WL) (With Cable)	48.97	52.96	-3.99
4.748 (BL) (No Cable)	41.99	46.00	-4.01
0.204 (WL) (No Cable)	49.06	53.44	-4.38

Table 2.0 RADIATED EMISSION RESULTS
 UEI RF4CE USB Dongle 2012, Model: URC-5550BC0-XXX-R

Frequency MHz	Corrected Reading* dBuV	Specification Limit dBuV	Delta (Cor. Reading – Spec. Limit) dB
2425 (H) (Z-Axis) (With Cable)	87.62 (A)	94.00	-6.38
2425 (H) (Z-Axis) (No Cable)	86.51 (A)	94.00	-7.49
2425 (V) (X-Axis) (No Cable)	84.39 (A)	94.00	-9.61
2475 (H) (Z-Axis) (No Cable)	84.11 (A)	94.00	-9.89
2425 (V) (Y-Axis) (No Cable)	82.58 (A)	94.00	-11.42
2475 (V) (X-Axis) (With Cable)	82.19 (A)	94.00	-11.81

Notes:

- * The complete emissions data is given in Appendix E of this report.
- A Average Reading
- V Vertical
- H Horizontal

8. CONCLUSIONS

The UEI RF4CE USB Dongle 2012, Model: URC-5550BC0-XXX-R (EUT), as tested, meets all of the Class B specification limits defined in CFR Title 47, Part 15, Subpart B for the digital portion; and the limits defined in Subpart C, sections 15.205, 15.207, 15.209, and 15.249 for the transmitter portion.





APPENDIX A

LABORATORY ACCREDITATIONS AND RECOGNITIONS

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

Silverado Division
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

LABORATORY ACCREDITATIONS AND RECOGNITIONS

NVLAP LAB CODES 200063-0,
200528-0, 200527-0

For US, Canada, Australia/New Zealand, Japan, Taiwan, Korea, and the European Union, Compatible Electronics is currently accredited by NVLAP to ISO/IEC 17025. Please follow the link to the NIST/NVLAP site for each of our facilities' NVLAP certificate and scope of accreditation
NVLAP listing links

[Agoura Division](#) / [Brea Division](#) / [Silverado/Lake Forest Division](#)

.Quote from ISO-ILAC-IAF Communiqué on 17025:

"A laboratory's fulfillment of the requirements of ISO/IEC 17025:2005 means the laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations. The management system requirements in ISO/IEC 17025:2005 (Section 4) are written in language relevant to laboratory operations and meet the principles of ISO 9001:2008 Quality Management Systems — Requirements."



ANSI listing [CETCB](#)



Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for EMC under the US/EU Mutual Recognition Agreement (MRA).

US/EU MRA list [NIST MRA site](#)



Compatible Electronics has been nominated as a Conformity Assessment Body (CAB) for Taiwan/BSMI under the US/APEC (Asia-Pacific Economic Cooperation) Mutual Recognition Agreement (MRA).

APEC MRA list [NIST MRA site](#)

We are also listed for IT products by the following country/agency:



VCCI Support member: Please visit http://www.vcci.jp/vcci_e/



FCC Listing, from FCC OET site

[FCC test lab search](https://fjallfoss.fcc.gov/oetcf/eas/reports/TestFirmSearch.cfm) <https://fjallfoss.fcc.gov/oetcf/eas/reports/TestFirmSearch.cfm>



Compatible Electronics IC listing can be found at:

<http://www.ic.gc.ca/eic/site/ic1.nsf/eng/home>

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

Silverado Division
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC 15.249 and/or FCC **Class B** specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

No modifications were made to the EUT during the testing.





APPENDIX C

***ADDITIONAL MODELS COVERED
UNDER THIS REPORT***

Brea Division
114 Olinda Drive
Brea, CA 92823
(714) 579-0500

Agoura Division
2337 Troutdale Drive
Agoura, CA 91301
(818) 597-0600

Silverado Division
19121 El Toro Road
Silverado, CA 92676
(949) 589-0700

Lake Forest Division
20621 Pascal Way
Lake Forest, CA 92630
(949) 587-0400

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

UEI RF4CE USB Dongle 2012
Model: URC-5550BC0-XXX-R
S/N: N/A

ALSO APPROVED UNDER THIS REPORT:

There were no additional models covered under this report.



APPENDIX D

DIAGRAMS, CHARTS, AND PHOTOS

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP

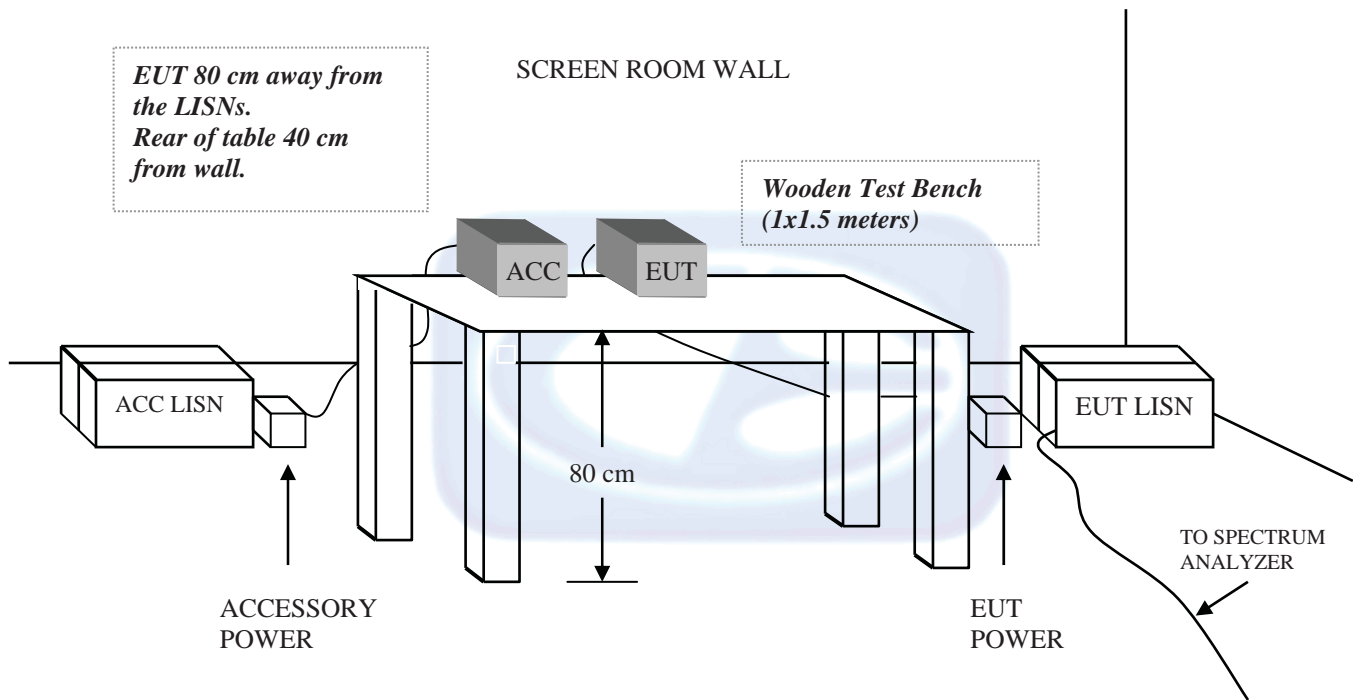
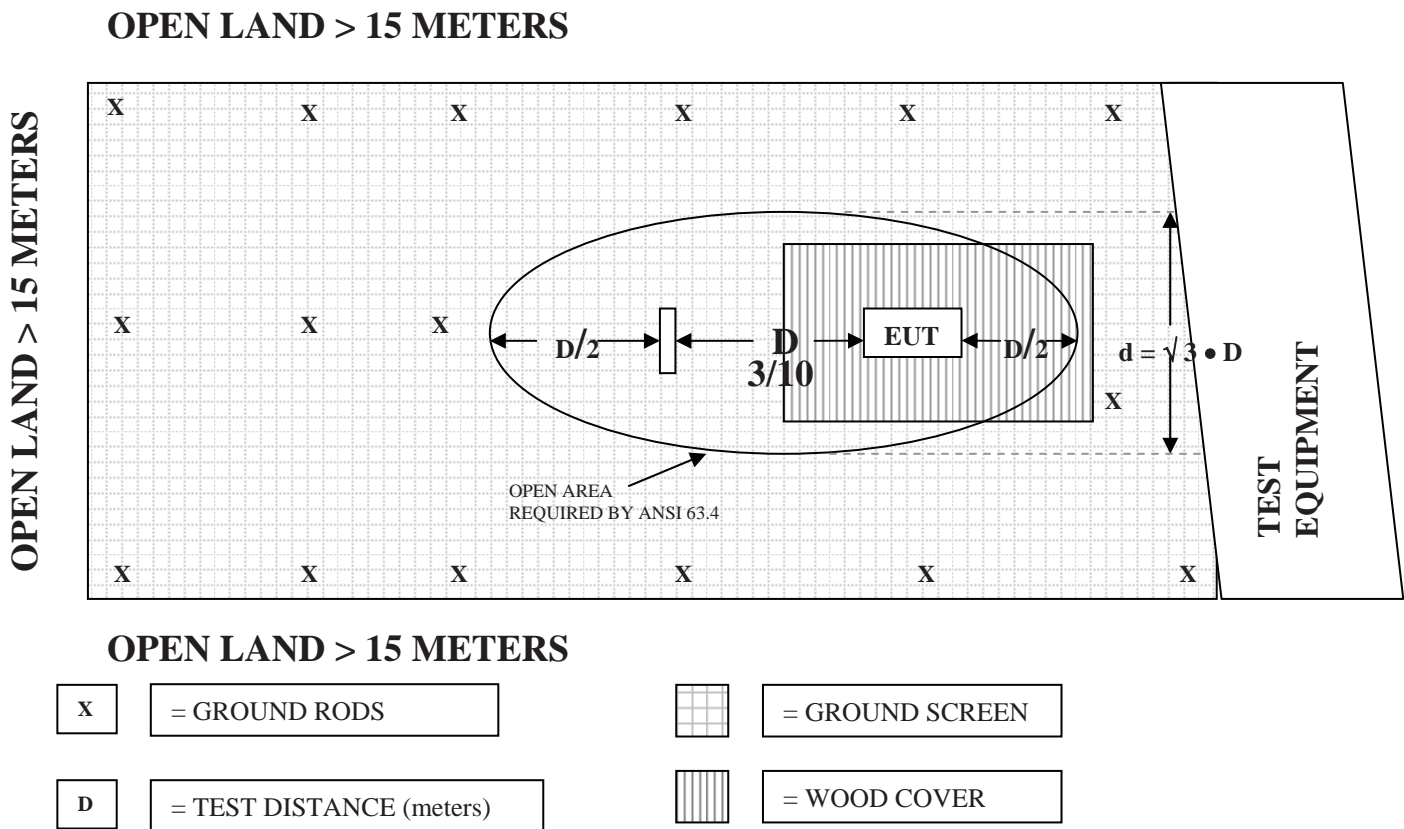


FIGURE 2: PLOT MAP AND LAYOUT OF THE RADIATED TEST SITE



COM-POWER AL-130**LOOP ANTENNA**

S/N: 17089

CALIBRATION DATE: JANUARY 21, 2011

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-41.9	9.6
0.01	-41.79	9.71
0.02	-41.43	10.07
0.05	-41.53	9.97
0.07	-41.47	10.03
0.1	-41.44	10.06
0.2	-41.61	9.89
0.3	-41.62	9.88
0.5	-41.66	9.84
0.7	-41.48	10.02
1	-41.13	10.37
2	-40.89	10.61
3	-41.00	10.50
4	-41.14	10.36
5	-41.02	10.48
10	-40.69	10.82
15	-40.41	11.09
20	-41.07	10.43
25	-42.10	9.40
30	-41.15	10.35

COM-POWER AB-900**BICONICAL ANTENNA**

S/N: 43028

CALIBRATION DATE: MAY 24, 2012

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	11.80	120	13.20
35	11.20	125	13.30
40	11.90	140	11.60
45	10.70	150	11.80
50	11.40	160	12.70
60	10.30	175	14.80
70	7.60	180	15.70
80	5.70	200	15.80
90	7.90	250	14.80
100	10.7	300	19.80

COM-POWER AL-100**LOG PERIODIC ANTENNA**

S/N: 16252

CALIBRATION DATE: MAY 24, 2012

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	13.00	700	20.30
350	13.20	750	20.80
400	14.50	800	21.00
450	15.40	850	23.70
500	15.80	900	21.70
550	16.60	950	24.20
600	18.90	1000	24.30
650	19.10		

COM POWER AH-118**HORN ANTENNA**

S/N: 071175

CALIBRATION DATE: FEBRUARY 29, 2012

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
1000	23.6	10000	37.7
1500	22.0	10500	38.4
2000	28.7	11000	38.0
2500	29.3	11500	38.2
3000	30.6	12000	39.0
3500	30.4	12500	42.4
4000	31.1	13000	40.8
4500	33.4	13500	40.0
5000	35.3	14000	39.7
5500	35.1	14500	43.5
6000	36.9	15000	42.7
6500	37.4	15500	39.7
7000	37.6	16000	39.2
7500	36.2	16500	39.7
8000	38.4	17000	42.2
8500	39.3	17500	47.6
9000	37.4	18000	51.2
9500	38.0		

COM-POWER AH826**HORN ANTENNA**

S/N: 71957

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	33.5	22.5	35.5
18.5	33.5	23.0	35.9
19.0	34.0	23.5	35.7
19.5	34.0	24.0	35.6
20.0	34.3	24.5	36.0
20.5	34.9	25.0	36.2
21.0	34.7	25.5	36.1
21.5	35.0	26.0	36.2
22.0	35.0	26.5	35.7

COM-POWER PA-102**PREAMPLIFIER**

S/N: 1017

CALIBRATION DATE: DECEMBER 28, 2011

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	38.54	300	38.45
40	38.53	350	38.47
50	38.57	400	38.36
60	38.54	450	38.07
70	38.54	500	38.31
80	38.54	550	38.37
90	38.54	600	38.28
100	38.53	650	38.19
125	38.51	700	38.24
150	38.43	750	37.88
175	38.56	800	37.94
200	38.50	850	37.65
225	38.46	900	37.50
250	38.57	950	37.47
275	38.45	1000	36.86

COM-POWER PA-118**PREAMPLIFIER**

S/N: 181656

CALIBRATION DATE: DECEMBER 28, 2011

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	23.22	10.0	24.66
1.5	26.31	10.5	25.22
2.0	27.40	11.0	25.17
2.5	26.52	11.5	24.47
3.0	27.35	12.0	25.29
3.5	29.02	12.5	26.03
4.0	28.51	13.0	24.11
4.5	26.62	13.5	24.28
5.0	27.13	14.0	25.81
5.5	27.29	14.5	25.45
6.0	26.72	15.0	25.36
6.5	25.62	15.5	26.76
7.0	25.25	16.0	28.09
7.5	24.23	16.5	23.23
8.0	23.72	17.0	26.58
8.5	24.91	17.5	27.45
9.0	25.73	18.0	27.53
9.5	24.79		

COM-POWER PA-840**MICROWAVE PREAMPLIFIER**

S/N: 711919

CALIBRATION DATE: MARCH 11, 2010

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	28.05	29.5	23.78
18.5	28.35	30.0	21.88
19.0	28.27	30.5	23.42
19.5	28.62	31.0	21.24
20.0	28.67	31.5	22.69
20.5	27.96	32.0	21.59
21.0	27.76	32.5	21.09
21.5	26.91	33.0	21.22
22.0	27.19	33.5	21.38
22.5	26.90	34.0	20.21
23.0	26.90	34.5	20.89
23.5	26.43	35.0	20.18
24.0	26.75	35.5	21.23
24.5	24.96	36.0	20.99
25.0	26.56	36.5	21.09
25.5	24.75	37.0	14.63
26.0	25.13	37.5	16.74
26.5	24.79	38.0	22.62
27.0	24.54	38.5	24.14
27.5	23.72	39.0	25.97
28.0	24.34	39.5	27.40
28.5	24.01	40.0	22.69
29.0	24.96		



FRONT VIEW

UNIVERSAL ELECTRONICS, INC.
UEI RF4CE USB DONGLE 2012
MODEL: URC-5550BC0-XXX-R
FCC SUBPART B AND C – RADIATED EMISSIONS – EUT WITH USB CABLE

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



REAR VIEW

UNIVERSAL ELECTRONICS, INC.
UEI RF4CE USB DONGLE 2012
MODEL: URC-5550BC0-XXX-R
FCC SUBPART B AND C – RADIATED EMISSIONS – EUT WITH USB CABLE

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



FRONT VIEW

UNIVERSAL ELECTRONICS, INC.
UEI RF4CE USB DONGLE 2012
MODEL: URC-5550BC0-XXX-R
FCC SUBPART B AND C – RADIATED EMISSIONS – EUT DIRECT TO THE LAPTOP

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



REAR VIEW

UNIVERSAL ELECTRONICS, INC.
UEI RF4CE USB DONGLE 2012
MODEL: URC-5550BC0-XXX-R
FCC SUBPART B AND C – RADIATED EMISSIONS – EUT DIRECT TO THE LAPTOP

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



FRONT VIEW

UNIVERSAL ELECTRONICS, INC.
UEI RF4CE USB DONGLE 2012
MODEL: URC-5550BC0-XXX-R
FCC SUBPART B AND C – CONDUCTED EMISSIONS – EUT WITH USB CABLE

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



REAR VIEW

UNIVERSAL ELECTRONICS, INC.
UEI RF4CE USB DONGLE 2012
MODEL: URC-5550BC0-XXX-R
FCC SUBPART B AND C – CONDUCTED EMISSIONS – EUT WITH USB CABLE

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



FRONT VIEW

UNIVERSAL ELECTRONICS, INC.
UEI RF4CE USB DONGLE 2012
MODEL: URC-5550BC0-XXX-R

FCC SUBPART B AND C – CONDUCTED EMISSIONS – EUT DIRECT TO THE LAPTOP

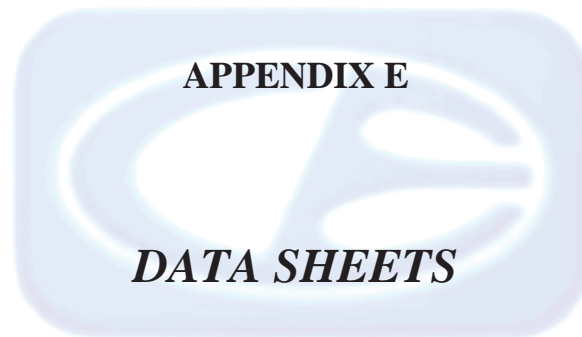
**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



REAR VIEW

UNIVERSAL ELECTRONICS, INC.
UEI RF4CE USB DONGLE 2012
MODEL: URC-5550BC0-XXX-R
FCC SUBPART B AND C – CONDUCTED EMISSIONS – EUT DIRECT TO THE LAPTOP

**PHOTOGRAPH SHOWING THE EUT CONFIGURATION
FOR MAXIMUM EMISSIONS**



RADIATED EMISSIONS

DATA SHEETS

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

Low Channel
EUT with USB Cable

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2425	101.06	V	114	-12.94	Peak	1	125	X-Axis
2425	81.06	V	94	-12.94	Avg	1	125	Vertical Polarization
2425	99.66	H	114	-14.34	Peak	1.25	165	X-Axis
2425	79.66	H	94	-14.34	Avg	1.25	165	Horizontal Polarization
2425	97.35	V	114	-16.65	Peak	1.25	155	Y-Axis
2425	77.35	V	94	-16.65	Avg	1.25	155	Vertical Polarization
2425	94.31	H	114	-19.69	Peak	1.25	155	Y-Axis
2425	74.31	H	94	-19.69	Avg	1.25	155	Horizontal Polarization
2425	100.058	V	114	-13.942	Peak	1.25	165	Z-Axis
2425	80.058	V	94	-13.942	Avg	1.25	165	Vertical Polarization
2425	107.62	H	114	-6.38	Peak	1.25	155	Z-Axis
2425	87.62	H	94	-6.38	Avg	1.25	155	Horizontal Polarization

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

**Middle Channel
 EUT with USB Cable**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2450	101.27	V	114	-12.73	Peak	2.5	345	X-Axis
2450	81.27	V	94	-12.73	Avg	2.5	345	Vertical Polarization
2450	100	H	114	-14	Peak	1.6	345	X-Axis
2450	80	H	94	-14	Avg	1.6	345	Horizontal Polarization
2450	97.36	V	114	-16.64	Peak	2.3	255	Y-Axis
2450	77.36	V	94	-16.64	Avg	2.3	255	Vertical Polarization
2450	97.68	H	114	-16.32	Peak	1.8	350	Y-Axis
2450	77.68	H	94	-16.32	Avg	1.8	350	Horizontal Polarization
2450	97.33	V	114	-16.67	Peak	1.5	90	Z-Axis
2450	77.33	V	94	-16.67	Avg	1.5	90	Vertical Polarization
2450	101.68	H	114	-12.32	Peak	1.6	30	Z-Axis
2450	81.68	H	94	-12.32	Avg	1.6	30	Horizontal Polarization

FCC 15.249

 Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

 Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

**High Channel
EUT with USB Cable**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2475	102.19	V	114	-11.81	Peak	2	350	X-Axis
2475	82.19	V	94	-11.81	Avg	2	350	Vertical Polarization
2475	99.94	H	114	-14.06	Peak	1.6	340	X-Axis
2475	79.94	H	94	-14.06	Avg	1.6	340	Horizontal Polarization
2475	98.71	V	114	-15.29	Peak	1.8	270	Y-Axis
2475	78.71	V	94	-15.29	Avg	1.8	270	Vertical Polarization
2475	95.33	H	114	-18.67	Peak	1.4	350	Y-Axis
2475	75.33	H	94	-18.67	Avg	1.4	350	Horizontal Polarization
2475	98.27	V	114	-15.73	Peak	2.2	350	Z-Axis
2475	78.27	V	94	-15.73	Avg	2.2	350	Vertical Polarization
2475	97.61	H	114	-16.39	Peak	1.4	45	Z-Axis
2475	77.61	H	94	-16.39	Avg	1.4	45	Horizontal Polarization

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
Low Channel
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4850	53.79	V	74	-20.21	Peak	1.25	155	
4850	33.79	V	54	-20.21	Avg	1.25	155	
7275	47.99	V	74	-26.01	Peak	1.25	165	
7275	27.99	V	54	-26.01	Avg	1.25	165	
9700								No Emissions Detected
9700								
12125								No Emissions Detected
12125								
14550								No Emissions Detected
14550								
16975								No Emissions Detected
16975								
19400								No Emissions Detected
19400								
21825								No Emissions Detected
21825								
24250								No Emissions Detected
24250								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable

Low Channel

Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4850	47.93	V	74	-26.07	Peak	1.25	145	
4850	27.93	V	54	-26.07	Avg	1.25	145	
7275	56.79	V	74	-17.21	Peak	1.35	165	
7275	36.79	V	54	-17.21	Avg	1.35	165	
9700								No Emissions Detected
9700								
12125								No Emissions Detected
12125								
14550								No Emissions Detected
14550								
16975								No Emissions Detected
16975								
19400								No Emissions Detected
19400								
21825								No Emissions Detected
21825								
24250								No Emissions Detected
24250								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
Low Channel
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4850	51.66	V	74	-22.34	Peak	1.25	155	
4850	31.66	V	54	-22.34	Avg	1.25	155	
7275	48.11	V	74	-25.89	Peak	1.35	185	
7275	28.11	V	54	-25.89	Avg	1.35	185	
9700								No Emissions Detected
9700								
12125								No Emissions Detected
12125								
14550								No Emissions Detected
14550								
16975								No Emissions Detected
16975								
19400								No Emissions Detected
19400								
21825								No Emissions Detected
21825								
24250								No Emissions Detected
24250								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
Low Channel
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4850	52.92	H	74	-21.08	Peak	1.45	165	
4850	32.92	H	54	-21.08	Avg	1.45	165	
7275	56.49	H	74	-17.51	Peak	1.35	185	
7275	36.49	H	54	-17.51	Avg	1.35	185	
9700								No Emissions Detected
9700								
12125								No Emissions Detected
12125								
14550								No Emissions Detected
14550								
16975								No Emissions Detected
16975								
19400								No Emissions Detected
19400								
21825								No Emissions Detected
21825								
24250								No Emissions Detected
24250								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable

Low Channel

Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4850	47.92	H	74	-26.08	Peak	1.25	155	
4850	27.92	H	54	-26.08	Avg	1.25	155	
7275	53.87	H	74	-20.13	Peak	1.35	165	
7275	33.87	H	54	-20.13	Avg	1.35	165	
9700								No Emissions Detected
9700								
12125								No Emissions Detected
12125								
14550								No Emissions Detected
14550								
16975								No Emissions Detected
16975								
19400								No Emissions Detected
19400								
21825								No Emissions Detected
21825								
24250								No Emissions Detected
24250								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
Low Channel
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4850	54.31	H	74	-19.69	Peak	1.25	165	
4850	34.31	H	54	-19.69	Avg	1.25	165	
7275	56.81	H	74	-17.19	Peak	1.35	185	
7275	36.81	H	54	-17.19	Avg	1.35	185	
9700								No Emissions Detected
12125								No Emissions Detected
14550								No Emissions Detected
16975								No Emissions Detected
19400								No Emissions Detected
21825								No Emissions Detected
24250								No Emissions Detected

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
Middle Channel
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4900	53.78	V	74	-20.22	Peak	1.25	155	
4900	33.78	V	54	-20.22	Avg	1.25	155	
7350	56.91	V	74	-17.09	Peak	1.55	165	
7350	36.91	V	54	-17.09	Avg	1.55	165	
9800								No Emissions Detected
9800								
12250								No Emissions Detected
12250								
14700								No Emissions Detected
14700								
17150								No Emissions Detected
17150								
19600								No Emissions Detected
19600								
22050								No Emissions Detected
22050								
24500								No Emissions Detected
24500								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
Middle Channel
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4900	49.36	V	74	-24.64	Peak	1.25	155	
4900	29.36	V	54	-24.64	Avg	1.25	155	
7350	55.78	V	74	-18.22	Peak	1.35	145	
7350	35.78	V	54	-18.22	Avg	1.35	145	
9800								No Emissions Detected
9800								
12250								No Emissions Detected
12250								
14700								No Emissions Detected
14700								
17150								No Emissions Detected
17150								
19600								No Emissions Detected
19600								
22050								No Emissions Detected
22050								
24500								No Emissions Detected
24500								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
Middle Channel
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4900	47.48	V	74	-26.52	Peak	1.25	165	
4900	27.48	V	54	-26.52	Avg	1.25	165	
7350	56.15	V	74	-17.85	Peak	1.25	175	
7350	36.15	V	54	-17.85	Avg	1.25	175	
9800								No Emissions
9800								Detected
12250								No Emissions
12250								Detected
14700								No Emissions
14700								Detected
17150								No Emissions
17150								Detected
19600								No Emissions
19600								Detected
22050								No Emissions
22050								Detected
24500								No Emissions
24500								Detected

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
Middle Channel
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4900	53.54	H	74	-20.46	Peak	1.25	155	
4900	33.54	H	54	-20.46	Avg	1.25	155	
7350	47.75	H	74	-26.25	Peak	1.55	175	
7350	27.75	H	54	-26.25	Avg	1.55	175	
9800								No Emissions Detected
9800								Detected
12250								No Emissions Detected
12250								Detected
14700								No Emissions Detected
14700								Detected
17150								No Emissions Detected
17150								Detected
19600								No Emissions Detected
19600								Detected
22050								No Emissions Detected
22050								Detected
24500								No Emissions Detected
24500								Detected

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
Middle Channel
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4900	52.45	H	74	-21.55	Peak	1.25	180	
4900	32.45	H	54	-21.55	Avg	1.25	180	
7350	46.85	H	74	-27.15	Peak	1.25	180	
7350	26.85	H	54	-27.15	Avg	1.25	180	
9800								No Emissions Detected
9800								
12250								No Emissions Detected
12250								
14700								No Emissions Detected
14700								
17150								No Emissions Detected
17150								
19600								No Emissions Detected
19600								
22050								No Emissions Detected
22050								
24500								No Emissions Detected
24500								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
Middle Channel
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4900	52.63	H	74	-21.37	Peak	1.25	155	
4900	32.63	H	54	-21.37	Avg	1.25	155	
7350	54.83	H	74	-19.17	Peak	1.35	165	
7350	34.83	H	54	-19.17	Avg	1.35	165	
9800								No Emissions Detected
9800								
12250								No Emissions Detected
12250								
14700								No Emissions Detected
14700								
17150								No Emissions Detected
17150								
19600								No Emissions Detected
19600								
22050								No Emissions Detected
22050								
24500								No Emissions Detected
24500								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
High Channel
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4950	47.54	V	74	-26.46	Peak	1.35	145	
4950	27.54	V	54	-26.46	Avg	1.35	145	
7425	58.77	V	74	-15.23	Peak	1.25	165	
7425	38.77	V	54	-15.23	Avg	1.25	165	
9900								No Emissions Detected
9900								
12375								No Emissions Detected
12375								
14850								No Emissions Detected
14850								
17325								No Emissions Detected
17325								
19800								No Emissions Detected
19800								
22275								No Emissions Detected
22275								
24750								No Emissions Detected
24750								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
High Channel
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4950	49.42	V	74	-24.58	Peak	1.25	165	
4950	29.42	V	54	-24.58	Avg	1.25	165	
7425	57.28	V	74	-16.72	Peak	1.35	175	
7425	37.28	V	54	-16.72	Avg	1.35	175	
9900								No Emissions Detected
12375								No Emissions Detected
14850								No Emissions Detected
17325								No Emissions Detected
19800								No Emissions Detected
22275								No Emissions Detected
24750								No Emissions Detected

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
High Channel
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4950	50.82	V	74	-23.18	Peak	1.25	155	
4950	30.82	V	54	-23.18	Avg	1.25	155	
7425	47.23	V	74	-26.77	Peak	1.35	165	
7425	27.23	V	54	-26.77	Avg	1.35	165	
9900								No Emissions Detected
9900								
12375								No Emissions Detected
12375								
14850								No Emissions Detected
14850								
17325								No Emissions Detected
17325								
19800								No Emissions Detected
19800								
22275								No Emissions Detected
22275								
24750								No Emissions Detected
24750								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
High Channel
Transmit Mode - X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4950	53.14	H	74	-20.86	Peak	1.25	155	
4950	33.14	H	54	-20.86	Avg	1.25	155	
7425	56.96	H	74	-17.04	Peak	1.35	145	
7425	36.96	H	54	-17.04	Avg	1.35	145	
9900								No Emissions Detected
12375								No Emissions Detected
14850								No Emissions Detected
17325								No Emissions Detected
19800								No Emissions Detected
22275								No Emissions Detected
24750								No Emissions Detected

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
High Channel
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4950	48.96	H	74	-25.04	Peak	1.25	165	
4950	28.96	H	54	-25.04	Avg	1.25	165	
7425	49.47	H	74	-24.53	Peak	1.35	175	
7425	29.47	H	54	-24.53	Avg	1.35	175	
9900								No Emissions Detected
12375								No Emissions Detected
14850								No Emissions Detected
17325								No Emissions Detected
19800								No Emissions Detected
22275								No Emissions Detected
24750								No Emissions Detected

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT with USB Cable
High Channel
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBUV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4950	50.95	H	74	-23.05	Peak	1.25	135	
4950	30.95	H	54	-23.05	Avg	1.25	135	
7425	56.81	H	74	-17.19	Peak	1.35	145	
7425	36.81	H	54	-17.19	Avg	1.35	145	
9900								No Emissions Detected
9900								
12375								No Emissions Detected
12375								
14850								No Emissions Detected
14850								
17325								No Emissions Detected
17325								
19800								No Emissions Detected
19800								
22275								No Emissions Detected
22275								
24750								No Emissions Detected
24750								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/26/2012
 Lab: B
 Tested By: Kyle Fujimoto

Non Harmonic Emissions from the Tx and Digital Portion -- 10 kHz to 25000 MHz

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions Found for the Digital Portion from 10 kHz to 25000 MHz for both Vertical and Horizontal Polarizations
								No Non Harmonic Emissions Found for the Tx Mode from 10 kHz to 25000 MHz for both Vertical and Horizontal Polarizations
								No Emissions Detected at the Band Edge at 2400 MHz when the EUT is in Low Channel
								No Emissions Detected at the Band Edge at 2483.5 MHz when the EUT is in High Channel

FCC 15.249

Universal Electronics, Inc.
UEI RF4CE USB Dongle 2012
Model: URC-5550BC0-XXX-R

Date: 10/23/2012
Lab: B
Tested By: Kyle Fujimoto

Low Channel
EUT Direct Connection to Laptop (No Cable)

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2425	104.39	V	114	-9.61	Peak	1.25	165	X-Axis
2425	84.39	V	94	-9.61	Avg	1.25	165	Vertical Polarization
2425	96.14	H	114	-17.86	Peak	1.25	155	X-Axis
2425	76.14	H	94	-17.86	Avg	1.25	155	Horizontal Polarization
2425	102.58	V	114	-11.42	Peak	1.25	165	Y-Axis
2425	82.58	V	94	-11.42	Avg	1.25	165	Vertical Polarization
2425	98.51	H	114	-15.49	Peak	1.25	155	Y-Axis
2425	78.51	H	94	-15.49	Avg	1.25	155	Horizontal Polarization
2425	101.93	V	114	-12.07	Peak	1.35	165	Z-Axis
2425	81.93	V	94	-12.07	Avg	1.35	165	Vertical Polarization
2425	106.51	H	114	-7.49	Peak	1.25	155	Z-Axis
2425	86.51	H	94	-7.49	Avg	1.25	155	Horizontal Polarization

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

**Middle Channel
 EUT Direct Connection to Laptop (No Cable)**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2450	99.77	V	114	-14.23	Peak	1.25	165	X-Axis
2450	79.77	V	94	-14.23	Avg	1.25	165	Vertical Polarization
2450	95.58	H	114	-18.42	Peak	1.35	175	X-Axis
2450	75.58	H	94	-18.42	Avg	1.35	175	Horizontal Polarization
2450	99.99	V	114	-14.01	Peak	1.25	165	Y-Axis
2450	79.99	V	94	-14.01	Avg	1.25	165	Vertical Polarization
2450	98.02	H	114	-15.98	Peak	1.25	155	Y-Axis
2450	78.02	H	94	-15.98	Avg	1.25	155	Horizontal Polarization
2450	99.29	V	114	-14.71	Peak	1.25	175	Z-Axis
2450	79.29	V	94	-14.71	Avg	1.25	175	Vertical Polarization
2450	97.25	H	114	-16.75	Peak	1.25	175	Z-Axis
2450	77.25	H	94	-16.75	Avg	1.25	175	Horizontal Polarization

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

High Channel
EUT Direct Connection to Laptop (No Cable)

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
2475	101.21	V	114	-12.79	Peak	1.25	155	X-Axis
2475	81.21	V	94	-12.79	Avg	1.25	155	Vertical Polarization
2475	95.26	H	114	-18.74	Peak	1.25	155	X-Axis
2475	75.26	H	94	-18.74	Avg	1.25	155	Horizontal Polarization
2475	98.58	V	114	-15.42	Peak	1.25	155	Y-Axis
2475	78.58	V	94	-15.42	Avg	1.25	155	Vertical Polarization
2475	98.52	H	114	-15.48	Peak	1.35	165	Y-Axis
2475	78.52	H	94	-15.48	Avg	1.35	165	Horizontal Polarization
2475	100.25	V	114	-13.75	Peak	1.35	165	Z-Axis
2475	80.25	V	94	-13.75	Avg	1.35	165	Vertical Polarization
2475	104.11	H	114	-9.89	Peak	1.45	180	Z-Axis
2475	84.11	H	94	-9.89	Avg	1.45	180	Horizontal Polarization

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT Direct Connection to Laptop (No Cable)

**Low Channel
 Transmit Mode - X-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4850	47.52	V	74	-26.48	Peak	1.25	165	
4850	27.52	V	54	-26.48	Avg	1.25	165	
7275	56.83	V	74	-17.17	Peak	1.55	175	
7275	36.83	V	54	-17.17	Avg	1.55	175	
9700								No Emissions Detected
12125								No Emissions Detected
14550								No Emissions Detected
16975								No Emissions Detected
19400								No Emissions Detected
21825								No Emissions Detected
24250								No Emissions Detected

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT Direct Connection to Laptop (No Cable)
Low Channel
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4850	53.83	V	74	-20.17	Peak	1.25	155	
4850	33.83	V	54	-20.17	Avg	1.25	155	
7275	59.39	V	74	-14.61	Peak	1.15	185	
7275	39.39	V	54	-14.61	Avg	1.15	185	
9700								No Emissions Detected
9700								
12125								No Emissions Detected
12125								
14550								No Emissions Detected
14550								
16975								No Emissions Detected
16975								
19400								No Emissions Detected
19400								
21825								No Emissions Detected
21825								
24250								No Emissions Detected
24250								

FCC 15.249

 Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012

Lab: B

Tested By: Kyle Fujimoto

**EUT Direct Connection to Laptop (No Cable)
 Low Channel
 Transmit Mode - Z-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4850	46.26	V	74	-27.74	Peak	1.35	155	
4850	26.26	V	54	-27.74	Avg	1.35	155	
7275	56.71	V	74	-17.29	Peak	1.25	155	
7275	36.71	V	54	-17.29	Avg	1.25	155	
9700								No Emissions Detected
9700								
12125								No Emissions Detected
12125								
14550								No Emissions Detected
14550								
16975								No Emissions Detected
16975								
19400								No Emissions Detected
19400								
21825								No Emissions Detected
21825								
24250								No Emissions Detected
24250								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

**EUT Direct Connection to Laptop (No Cable)
 Low Channel
 Transmit Mode - X-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4850	47.71	H	74	-26.29	Peak	1.25	165	
4850	27.71	H	54	-26.29	Avg	1.25	165	
7275	56.25	H	74	-17.75	Peak	1.35	185	
7275	36.25	H	54	-17.75	Avg	1.35	185	
9700								No Emissions Detected
9700								
12125								No Emissions Detected
12125								
14550								No Emissions Detected
14550								
16975								No Emissions Detected
16975								
19400								No Emissions Detected
19400								
21825								No Emissions Detected
21825								
24250								No Emissions Detected
24250								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT Direct Connection to Laptop (No Cable)
Low Channel
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4850	47.66	H	74	-26.34	Peak	1.25	155	
4850	27.66	H	54	-26.34	Avg	1.25	155	
7275	56.05	H	74	-17.95	Peak	1.35	185	
7275	36.05	H	54	-17.95	Avg	1.35	185	
9700								No Emissions Detected
9700								
12125								No Emissions Detected
12125								
14550								No Emissions Detected
14550								
16975								No Emissions Detected
16975								
19400								No Emissions Detected
19400								
21825								No Emissions Detected
21825								
24250								No Emissions Detected
24250								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012

Lab: B

Tested By: Kyle Fujimoto

EUT Direct Connection to Laptop (No Cable)

Low Channel

Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4850	48.69	H	74	-25.31	Peak	1.35	145	
4850	28.69	H	54	-25.31	Avg	1.35	145	
7275	56.57	H	74	-17.43	Peak	1.25	155	
7275	36.57	H	54	-17.43	Avg	1.25	155	
9700								No Emissions Detected
9700								
12125								No Emissions Detected
12125								
14550								No Emissions Detected
14550								
16975								No Emissions Detected
16975								
19400								No Emissions Detected
19400								
21825								No Emissions Detected
21825								
24250								No Emissions Detected
24250								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

**EUT Direct Connection to Laptop (No Cable)
 Middle Channel
 Transmit Mode - X-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4900	53.48	V	74	-20.52	Peak	1.25	165	
4900	33.48	V	54	-20.52	Avg	1.25	165	
7350	56.48	V	74	-17.52	Peak	1.35	185	
7350	36.48	V	54	-17.52	Avg	1.35	185	
9800								No Emissions Detected
9800								
12250								No Emissions Detected
12250								
14700								No Emissions Detected
14700								
17150								No Emissions Detected
17150								
19600								No Emissions Detected
19600								
22050								No Emissions Detected
22050								
24500								No Emissions Detected
24500								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT Direct Connection to Laptop (No Cable)
Middle Channel
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4900	52.48	V	74	-21.52	Peak	1.25	155	
4900	32.48	V	54	-21.52	Avg	1.25	155	
7350	54.28	V	74	-19.72	Peak	1.55	165	
7350	34.28	V	54	-19.72	Avg	1.55	165	
9800								No Emissions Detected
9800								
12250								No Emissions Detected
12250								
14700								No Emissions Detected
14700								
17150								No Emissions Detected
17150								
19600								No Emissions Detected
19600								
22050								No Emissions Detected
22050								
24500								No Emissions Detected
24500								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT Direct Connection to Laptop (No Cable)
Middle Channel
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4900	51.48	V	74	-22.52	Peak	1.25	155	
4900	31.48	V	54	-22.52	Avg	1.25	155	
7350	53.29	V	74	-20.71	Peak	1.65	175	
7350	33.29	V	54	-20.71	Avg	1.65	175	
9800								No Emissions Detected
9800								
12250								No Emissions Detected
12250								
14700								No Emissions Detected
14700								
17150								No Emissions Detected
17150								
19600								No Emissions Detected
19600								
22050								No Emissions Detected
22050								
24500								No Emissions Detected
24500								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

**EUT Direct Connection to Laptop (No Cable)
 Middle Channel
 Transmit Mode - X-Axis**

Freq. (MHz)	Level (dBuV)	Poi (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4900	52.68	H	74	-21.32	Peak	1.25	155	
4900	32.68	H	54	-21.32	Avg	1.25	155	
7350	52.58	H	74	-21.42	Peak	1.15	165	
7350	32.58	H	54	-21.42	Avg	1.15	165	
9800								No Emissions Detected
9800								
12250								No Emissions Detected
12250								
14700								No Emissions Detected
14700								
17150								No Emissions Detected
17150								
19600								No Emissions Detected
19600								
22050								No Emissions Detected
22050								
24500								No Emissions Detected
24500								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT Direct Connection to Laptop (No Cable)
Middle Channel
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	PoI (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4900	53.26	H	74	-20.74	Peak	1.25	115	
4900	33.26	H	54	-20.74	Avg	1.25	115	
7350	53.85	H	74	-20.15	Peak	1.65	165	
7350	33.85	H	54	-20.15	Avg	1.65	165	
9800								No Emissions Detected
9800								
12250								No Emissions Detected
12250								
14700								No Emissions Detected
14700								
17150								No Emissions Detected
17150								
19600								No Emissions Detected
19600								
22050								No Emissions Detected
22050								
24500								No Emissions Detected
24500								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT Direct Connection to Laptop (No Cable)
Middle Channel
Transmit Mode - Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4900	52.58	H	74	-21.42	Peak	1.25	155	
4900	32.58	H	54	-21.42	Avg	1.25	155	
7350	52.68	H	74	-21.32	Peak	1.25	155	
7350	32.68	H	54	-21.32	Avg	1.25	155	
9800								No Emissions Detected
12250								No Emissions Detected
14700								No Emissions Detected
17150								No Emissions Detected
19600								No Emissions Detected
22050								No Emissions Detected
24500								No Emissions Detected

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

**EUT Direct Connection to Laptop (No Cable)
 High Channel
 Transmit Mode - X-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4950	51.59	V	74	-22.41	Peak	1.25	145	
4950	31.59	V	54	-22.41	Avg	1.25	145	
7425	50.68	V	74	-23.32	Peak	1.25	155	
7425	30.68	V	54	-23.32	Avg	1.25	155	
9900								No Emissions Detected
9900								
12375								No Emissions Detected
12375								
14850								No Emissions Detected
14850								
17325								No Emissions Detected
17325								
19800								No Emissions Detected
19800								
22275								No Emissions Detected
22275								
24750								No Emissions Detected
24750								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

**EUT Direct Connection to Laptop (No Cable)
 High Channel
 Transmit Mode - Y-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4950	52.68	V	74	-21.32	Peak	1.35	155	
4950	32.68	V	54	-21.32	Avg	1.35	155	
7425	51.69	V	74	-22.31	Peak	1.45	175	
7425	31.69	V	54	-22.31	Avg	1.45	175	
9900								No Emissions Detected
9900								
12375								No Emissions Detected
12375								
14850								No Emissions Detected
14850								
17325								No Emissions Detected
17325								
19800								No Emissions Detected
19800								
22275								No Emissions Detected
22275								
24750								No Emissions Detected
24750								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

**EUT Direct Connection to Laptop (No Cable)
 High Channel
 Transmit Mode - Z-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4950	53.48	V	74	-20.52	Peak	1.25	155	
4950	33.48	V	54	-20.52	Avg	1.25	155	
7425	52.58	V	74	-21.42	Peak	1.25	165	
7425	32.58	V	54	-21.42	Avg	1.2	165	
9900								No Emissions Detected
12375								No Emissions Detected
14850								No Emissions Detected
17325								No Emissions Detected
19800								No Emissions Detected
22275								No Emissions Detected
24750								No Emissions Detected

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

**EUT Direct Connection to Laptop (No Cable)
 High Channel
 Transmit Mode - X-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4950	51.95	H	74	-22.05	Peak	1.25	155	
4950	31.95	H	54	-22.05	Avg	1.25	155	
7425	50.58	H	74	-23.42	Peak	1.25	155	
7425	30.58	H	54	-23.42	Avg	1.25	155	
9900								No Emissions Detected
9900								
12375								No Emissions Detected
12375								
14850								No Emissions Detected
14850								
17325								No Emissions Detected
17325								
19800								No Emissions Detected
19800								
22275								No Emissions Detected
22275								
24750								No Emissions Detected
24750								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

EUT Direct Connection to Laptop (No Cable)
High Channel
Transmit Mode - Y-Axis

Freq. (MHz)	Level (dBuV)	Poi (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4950	51.26	H	74	-22.74	Peak	1.45	165	
4950	31.26	H	54	-22.74	Avg	1.45	165	
7425	52.26	H	74	-21.74	Peak	1.35	155	
7425	32.26	H	54	-21.74	Avg	1.35	155	
9900								No Emissions Detected
9900								
12375								No Emissions Detected
12375								
14850								No Emissions Detected
14850								
17325								No Emissions Detected
17325								
19800								No Emissions Detected
19800								
22275								No Emissions Detected
22275								
24750								No Emissions Detected
24750								

FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B
 Tested By: Kyle Fujimoto

**EUT Direct Connection to Laptop (No Cable)
 High Channel
 Transmit Mode - Z-Axis**

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
4950	50.28	H	74	-23.72	Peak	1.25	165	
4950	30.28	H	54	-23.72	Avg	1.25	165	
7425	51.58	H	74	-22.42	Peak	1.15	175	
7425	31.58	H	54	-22.42	Avg	1.15	175	
9900								No Emissions Detected
12375								No Emissions Detected
14850								No Emissions Detected
17325								No Emissions Detected
19800								No Emissions Detected
22275								No Emissions Detected
24750								No Emissions Detected

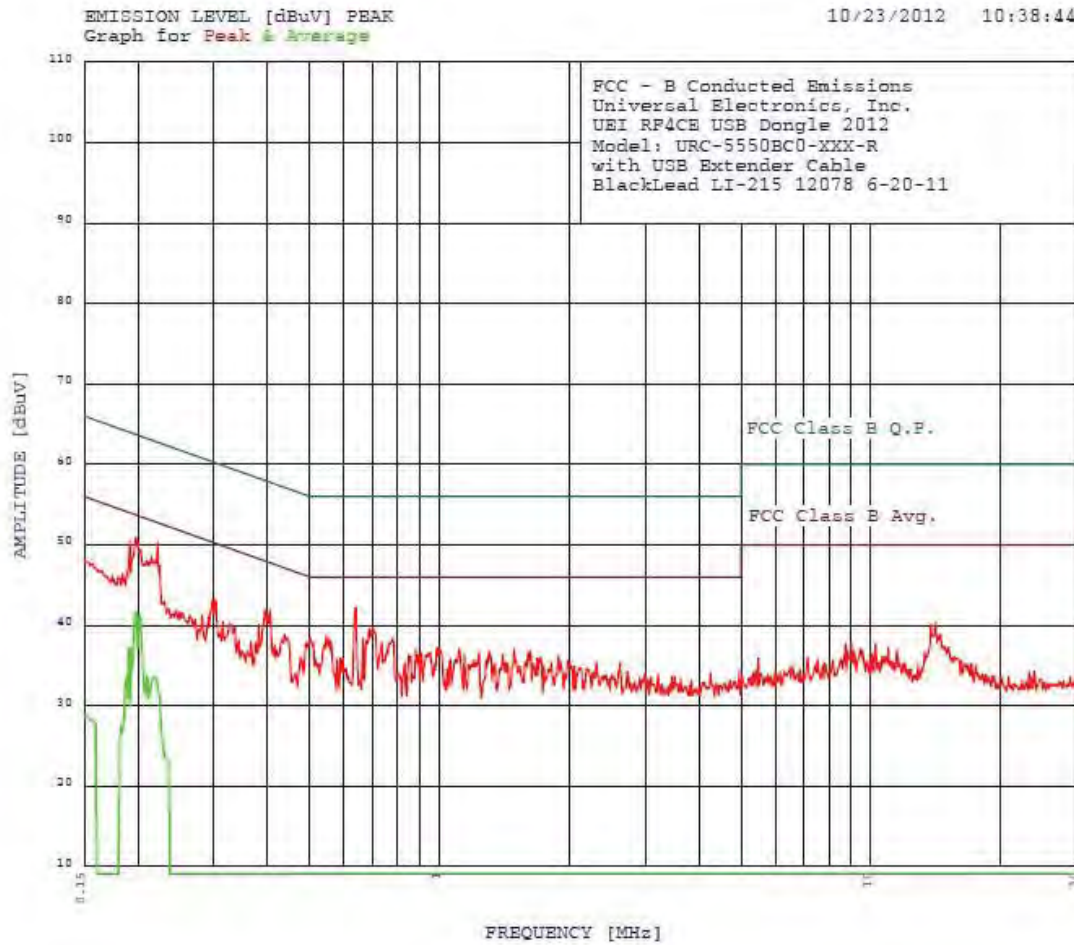
FCC 15.249

Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R

Date: 10/23/2012
 Lab: B / D
 Tested By: Kyle Fujimoto

Non Harmonic Emissions from the Tx and Digital Portion -- 10 kHz to 25000 MHz

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions Found for the Digital Portion from 10 kHz to 25000 MHz for both Vertical and Horizontal Polarizations
								No Non Harmonic Emissions Found for the Tx Mode from 10 kHz to 25000 MHz for both Vertical and Horizontal Polarizations
								No Emissions Detected at the Band Edge at 2400 MHz when the EUT is in Low Channel
								No Emissions Detected at the Band Edge at 2483.5 MHz when the EUT is in High Channel



page 1/1

10/23/2012

10:38:44

FCC - B Conducted Emissions
Universal Electronics, Inc.
UEI RF4CE USB Dongle 2012
Model: URC-5550BC0-XXX-R
with USB Extender Cable
BlackLead LI-215 12078 6-20-11
TEST ENGINEER : Kyle Fujimoto

48 highest peaks above -50.00 dB of FCC Class B Avg. limit line

Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.222	50.33	52.74	-2.41**
2	0.198	50.92	53.71	-2.79**
3	0.192	50.52	53.97	-3.45**
4	0.641	42.21	46.00	-3.79
5	0.224	47.43	52.65	-5.22**
6	0.404	42.00	47.77	-5.77
7	0.393	41.89	47.99	-6.10
8	0.701	39.70	46.00	-6.30
9	0.686	39.50	46.00	-6.50
10	0.302	43.15	50.19	-7.04
11	0.547	38.81	46.00	-7.19
12	0.297	42.95	50.32	-7.37
13	0.665	38.40	46.00	-7.60
14	0.779	38.40	46.00	-7.60
15	0.502	38.31	46.00	-7.69
16	0.184	46.42	54.28	-7.86**
17	0.561	38.01	46.00	-7.99
18	0.735	37.90	46.00	-8.10
19	0.381	40.08	48.25	-8.17
20	0.438	38.90	47.11	-8.21
21	0.995	37.30	46.00	-8.70
22	0.881	37.10	46.00	-8.90
23	1.112	37.10	46.00	-8.90
24	1.488	37.10	46.00	-8.90
25	1.620	36.80	46.00	-9.20
26	0.327	40.26	49.53	-9.27
27	1.304	36.70	46.00	-9.30
28	0.315	40.45	49.84	-9.38
29	0.948	36.60	46.00	-9.40
30	1.236	36.60	46.00	-9.40
31	0.909	36.50	46.00	-9.50
32	1.142	36.50	46.00	-9.50
33	0.282	41.25	50.76	-9.52
34	0.291	40.95	50.49	-9.55
35	14.138	40.41	50.00	-9.59
36	0.849	36.30	46.00	-9.70
37	1.404	36.30	46.00	-9.70
38	1.889	36.30	46.00	-9.70
39	13.776	40.10	50.00	-9.90
40	1.717	36.10	46.00	-9.90
41	0.415	37.50	47.55	-10.05
42	0.246	41.84	51.90	-10.07
43	0.589	35.91	46.00	-10.09
44	1.680	35.90	46.00	-10.10
45	0.250	41.64	51.77	-10.13
46	0.580	35.81	46.00	-10.19
47	0.595	35.81	46.00	-10.19
48	0.263	41.14	51.33	-10.19

**Please See the Average Readings on the Next Page and on the Plot

page 1/1

10/23/2012

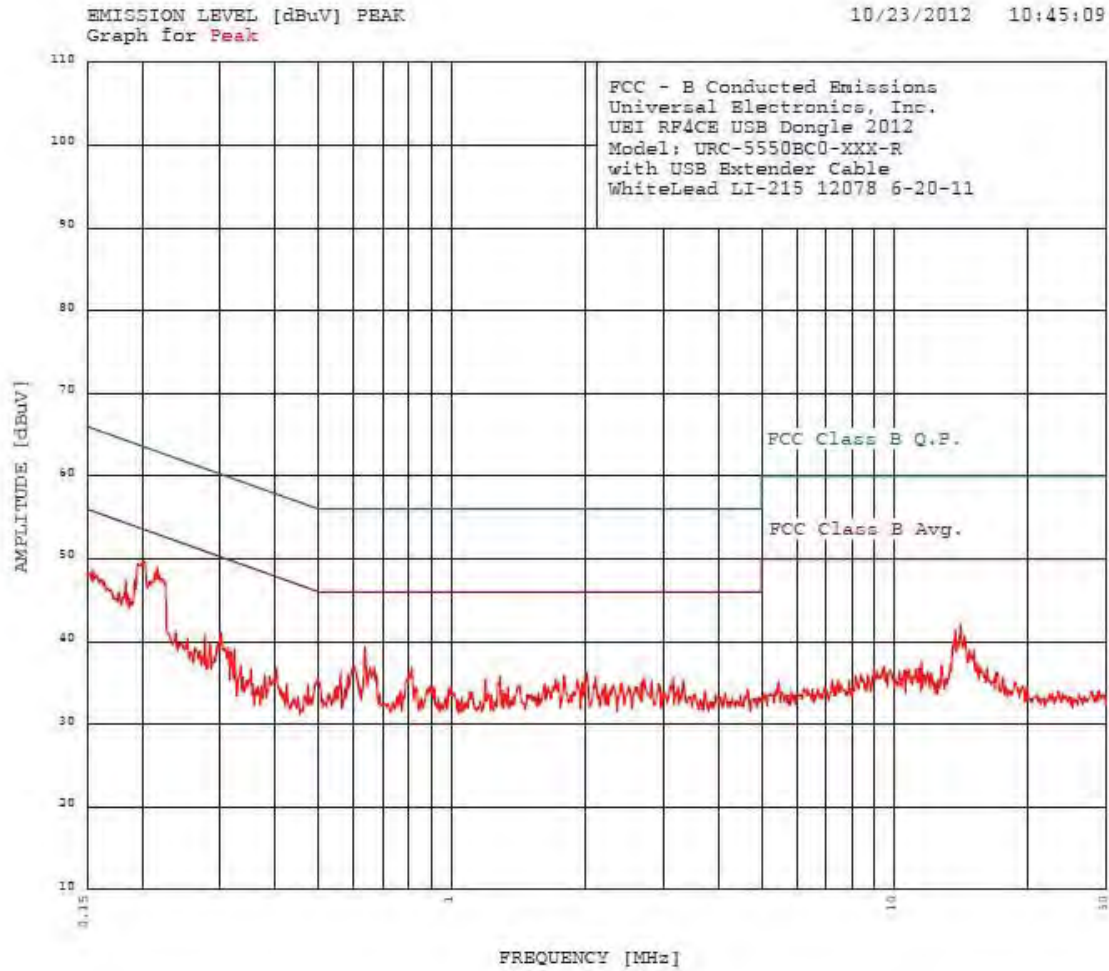
10:38:44

FCC - B Conducted Emissions
Universal Electronics, Inc.
UEI RF4CE USB Dongle 2012
Model: URC-5550BC0-XXX-R
with USB Extender Cable
BlackLead LI-215 12078 6-20-11
TEST ENGINEER : Kyle Fujimoto

9 highest peaks above -50.00 dB of FCC Class B Avg. limit line
Peak criteria : 0.00 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.198	41.59	53.71	-12.12
2	0.202	41.22	53.53	-12.32
3	0.194	37.11	53.88	-16.77
4	0.190	37.21	54.01	-16.80
5	0.219	33.59	52.87	-19.28
6	0.210	33.61	53.23	-19.62
7	0.187	33.18	54.15	-20.97
8	0.183	27.45	54.33	-26.88
9	0.234	23.28	52.30	-29.01





page 1/1

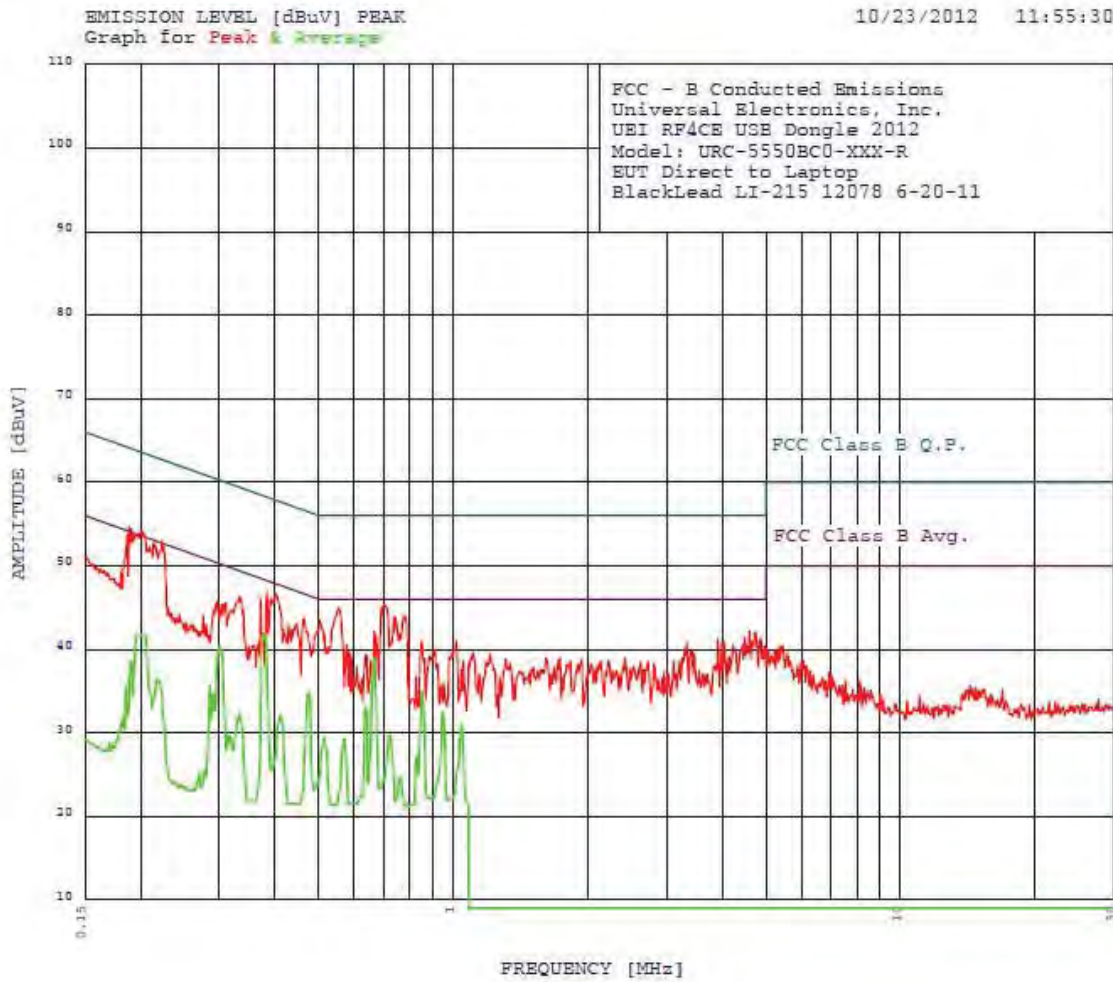
10/23/2012 10:45:09

FCC - B Conducted Emissions
Universal Electronics, Inc.
UEI RF4CE USB Dongle 2012
Model: URC-5550BC0-XXX-R
with USB Extender Cable
WhiteLead LI-215 12078 6-20-11
TEST ENGINEER : Kyle Fujimoto

48 highest peaks above -50.00 dB of FCC Class B Avg. limit line

Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.203	49.66	53.49	-3.83
2	0.216	48.97	52.96	-3.99
3	0.193	47.46	53.93	-6.47
4	0.637	39.37	46.00	-6.63
5	0.183	47.56	54.33	-6.77
6	0.154	48.61	55.78	-7.16
7	0.156	48.32	55.69	-7.37
8	14.065	42.08	50.00	-7.92
9	13.703	41.47	50.00	-8.53
10	0.177	46.06	54.63	-8.57
11	0.605	36.97	46.00	-9.03
12	0.302	41.10	50.19	-9.09
13	0.655	36.87	46.00	-9.13
14	0.669	36.87	46.00	-9.13
15	0.814	36.86	46.00	-9.14
16	14.370	40.69	50.00	-9.31
17	2.013	36.36	46.00	-9.64
18	0.561	36.34	46.00	-9.66
19	0.277	41.04	50.89	-9.85
20	0.583	35.96	46.00	-10.04
21	1.790	35.88	46.00	-10.12
22	1.283	35.79	46.00	-10.21
23	3.158	35.72	46.00	-10.28
24	2.111	35.67	46.00	-10.33
25	2.722	35.59	46.00	-10.41
26	0.324	39.11	49.62	-10.51
27	1.717	35.49	46.00	-10.51
28	1.191	35.48	46.00	-10.52
29	0.313	39.31	49.88	-10.57
30	1.918	35.37	46.00	-10.63
31	3.328	35.35	46.00	-10.65
32	0.500	35.30	46.01	-10.71
33	2.826	35.29	46.00	-10.71
34	2.679	35.19	46.00	-10.81
35	1.971	35.16	46.00	-10.84
36	0.238	41.29	52.17	-10.88
37	0.285	39.73	50.67	-10.94
38	15.068	39.02	50.00	-10.98
39	2.423	34.98	46.00	-11.02
40	0.318	38.71	49.75	-11.04
41	0.402	36.73	47.81	-11.08
42	14.758	38.91	50.00	-11.09
43	1.620	34.90	46.00	-11.10
44	2.932	34.89	46.00	-11.11
45	2.226	34.87	46.00	-11.13
46	1.419	34.80	46.00	-11.20
47	2.310	34.78	46.00	-11.22
48	0.254	40.39	51.64	-11.25



FCC - B Conducted Emissions
 Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R
 EUT Direct to Laptop
 BlackLead LI-215 12078 6-20-11
 TEST ENGINEER : Kyle Fujimoto

 48 highest peaks above -50.00 dB of FCC Class B Avg. limit line

Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.202	54.13	53.53	0.59**
2	0.188	54.62	54.10	0.52**
3	0.190	54.42	54.01	0.41**
4	0.223	53.03	52.70	0.33**
5	0.214	53.03	53.05	-0.02**
6	0.186	53.62	54.19	-0.57**
7	0.698	45.30	46.00	-0.70**
8	0.552	44.91	46.00	-1.09**
9	0.402	46.60	47.81	-1.22**
10	0.383	46.88	48.21	-1.32**
11	0.735	43.90	46.00	-2.10**
12	0.775	43.90	46.00	-2.10**
13	0.743	43.80	46.00	-2.20**
14	0.502	43.51	46.00	-2.49**
15	0.371	45.98	48.47	-2.50**
16	0.464	43.70	46.62	-2.92**
17	0.332	46.26	49.39	-3.14**
18	4.600	42.19	46.00	-3.81
19	0.665	42.10	46.00	-3.90**
20	0.447	43.00	46.93	-3.93**
21	4.748	41.99	46.00	-4.01
22	0.428	43.00	47.28	-4.28**
23	0.672	41.70	46.00	-4.30**
24	0.310	45.55	49.97	-4.41**
25	0.297	45.75	50.32	-4.57**
26	4.877	41.40	46.00	-4.60
27	4.480	41.38	46.00	-4.62
28	3.903	41.26	46.00	-4.74
29	0.304	45.35	50.14	-4.79**
30	1.016	41.00	46.00	-5.00**
31	0.849	40.90	46.00	-5.10**
32	0.417	42.40	47.50	-5.11**
33	4.029	40.87	46.00	-5.13
34	0.181	49.32	54.46	-5.14**
35	3.328	40.84	46.00	-5.16
36	3.987	40.77	46.00	-5.23
37	0.577	40.51	46.00	-5.49**
38	4.432	40.48	46.00	-5.52
39	4.227	40.47	46.00	-5.53
40	4.980	40.40	46.00	-5.60
41	0.909	40.00	46.00	-6.00**
42	3.419	39.75	46.00	-6.25
43	0.586	39.61	46.00	-6.39**
44	1.112	39.50	46.00	-6.50
45	0.375	41.88	48.38	-6.50**
46	3.456	39.45	46.00	-6.55
47	0.637	39.41	46.00	-6.59**
48	1.210	39.40	46.00	-6.60

 **Please See the Average Readings on the Next Page and on the Plot

page 1/1

11/18/2012

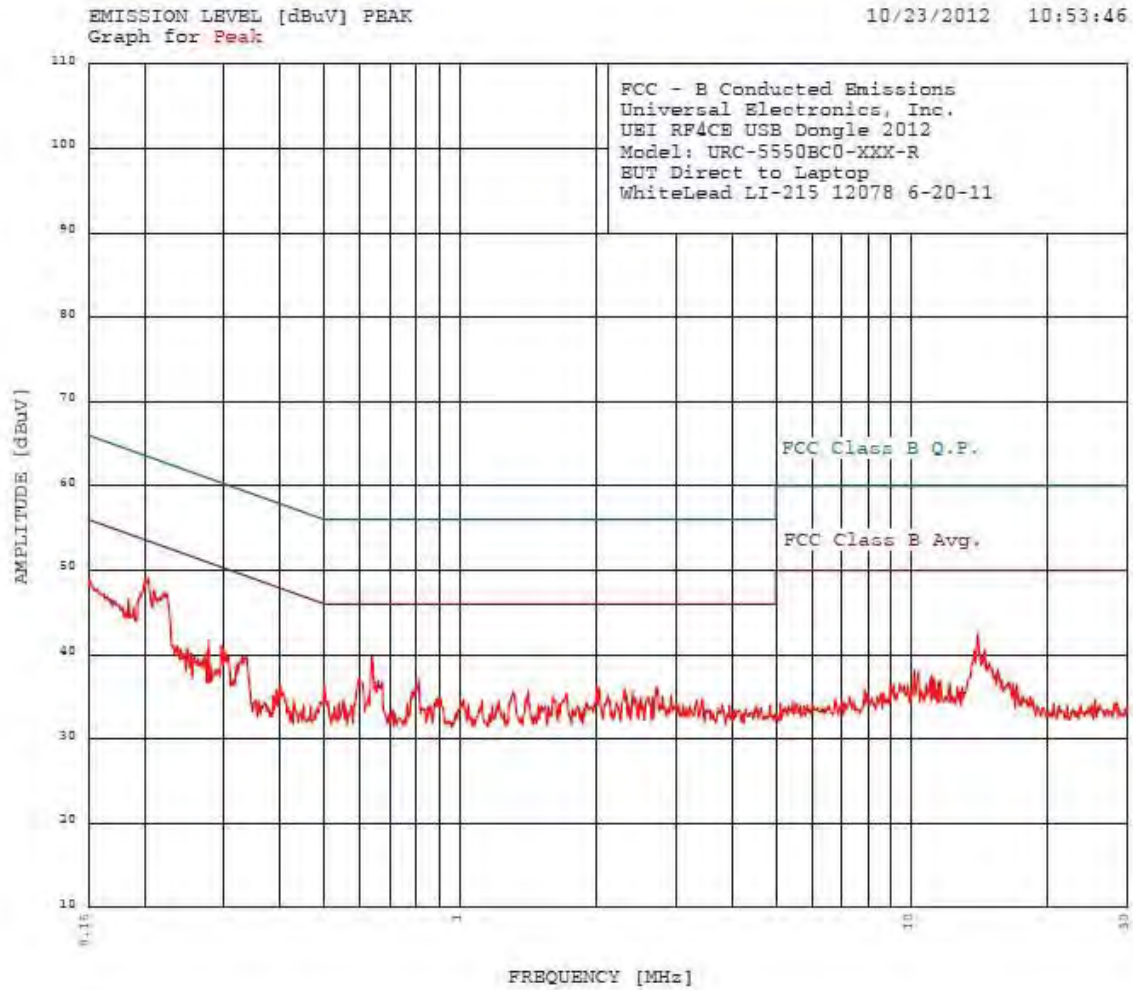
20:55:30

FCC - B Conducted Emissions
Universal Electronics, Inc.
UEI RF4CE USB Dongle 2012
Model: URC-5550BC0-XXX-R
EUT Direct to Laptop
BlackLead LI-215 12078 6-20-11
TEST ENGINEER : Kyle Fujimoto

48 highest peaks above -50.00 dB of FCC Class B Avg. limit line

Peak criteria : 0.00 dB, Curve : Average

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.375	41.68	48.38	-6.70
2	0.379	41.52	48.29	-6.77
3	0.665	38.89	46.00	-7.11
4	0.300	40.32	50.23	-9.91
5	0.853	35.03	46.00	-10.97
6	0.474	34.80	46.45	-11.65
7	0.205	41.68	53.40	-11.72
8	0.637	33.02	46.00	-12.98
9	0.948	32.53	46.00	-13.47
10	0.286	35.67	50.63	-14.96
11	1.043	30.86	46.00	-15.14
12	0.190	38.64	54.01	-15.37
13	0.411	32.18	47.63	-15.46
14	0.293	34.47	50.45	-15.98
15	0.290	34.49	50.54	-16.05
16	0.724	29.78	46.00	-16.22
17	0.217	36.44	52.91	-16.48
18	0.516	29.45	46.00	-16.55
19	0.220	36.22	52.83	-16.61
20	0.570	29.31	46.00	-16.69
21	0.332	32.22	49.39	-17.18
22	0.210	35.23	53.23	-18.00
23	0.185	35.55	54.24	-18.69
24	0.831	27.17	46.00	-18.83
25	0.315	29.70	49.84	-20.13
26	0.312	29.63	49.92	-20.29
27	0.318	29.42	49.75	-20.33
28	0.763	24.66	46.00	-21.34
29	0.183	31.76	54.33	-22.57
30	0.686	23.40	46.00	-22.60
31	0.182	31.46	54.41	-22.95
32	0.624	22.39	46.00	-23.61
33	0.881	22.22	46.00	-23.78
34	0.179	30.29	54.54	-24.25
35	0.589	21.56	46.00	-24.44
36	0.788	21.46	46.00	-24.54
37	0.809	21.37	46.00	-24.63
38	0.447	21.55	46.93	-25.38
39	0.277	25.46	50.89	-25.43
40	0.442	21.55	47.02	-25.47
41	0.428	21.64	47.28	-25.64
42	0.176	29.00	54.68	-25.68
43	0.270	25.13	51.11	-25.98
44	0.170	28.89	54.94	-26.05
45	0.173	28.47	54.81	-26.34
46	0.267	24.29	51.20	-26.91
47	0.168	28.08	55.07	-26.99
48	0.352	21.85	48.91	-27.06



FCC - B Conducted Emissions
 Universal Electronics, Inc.
 UEI RF4CE USB Dongle 2012
 Model: URC-5550BC0-XXX-R
 EUT Direct to Laptop
 WhiteLead LI-215 12078 6-20-11
 TEST ENGINEER : Kyle Fujimoto

 48 highest peaks above -50.00 dB of FCC Class B Avg. limit line

Peak criteria : 1.00 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.204	49.06	53.44	-4.38
2	0.221	47.37	52.78	-5.41
3	0.210	47.66	53.23	-5.56
4	0.637	39.77	46.00	-6.23
5	13.993	42.48	50.00	-7.52
6	0.184	46.56	54.28	-7.73
7	0.189	45.66	54.06	-8.40
8	0.598	37.07	46.00	-8.93
9	0.809	37.06	46.00	-8.94
10	0.658	36.87	46.00	-9.13
11	0.277	41.74	50.89	-9.15
12	0.296	41.01	50.36	-9.36
13	14.525	40.50	50.00	-9.50
14	0.500	36.50	46.01	-9.51
15	13.776	40.47	50.00	-9.53
16	0.300	40.60	50.23	-9.63
17	0.329	39.81	49.48	-9.67
18	2.722	36.19	46.00	-9.81
19	2.023	36.06	46.00	-9.94
20	2.310	35.98	46.00	-10.02
21	2.002	35.86	46.00	-10.14
22	1.412	35.70	46.00	-10.30
23	2.410	35.68	46.00	-10.32
24	1.311	35.59	46.00	-10.41
25	1.717	35.39	46.00	-10.61
26	0.273	40.35	51.02	-10.67
27	2.932	35.19	46.00	-10.81
28	2.123	35.17	46.00	-10.83
29	0.320	38.81	49.71	-10.90
30	1.603	35.10	46.00	-10.90
31	2.811	35.09	46.00	-10.91
32	2.610	34.99	46.00	-11.01
33	0.248	40.80	51.82	-11.02
34	2.665	34.89	46.00	-11.11
35	2.514	34.89	46.00	-11.11
36	0.895	34.84	46.00	-11.16
37	0.904	34.84	46.00	-11.16
38	3.438	34.76	46.00	-11.24
39	3.346	34.65	46.00	-11.35
40	0.552	34.64	46.00	-11.36
41	1.016	34.63	46.00	-11.37
42	1.118	34.56	46.00	-11.44
43	0.254	40.19	51.64	-11.45
44	0.240	40.59	52.08	-11.49
45	1.217	34.48	46.00	-11.52
46	0.270	39.56	51.11	-11.55
47	2.475	34.39	46.00	-11.61
48	2.214	34.37	46.00	-11.63
