FCC PART 15, SUBPART B and C
TEST REPORT

for

COMCAST XR15 REMOTE 2015

MODEL: URC-4352BC0-X-R

Prepared for

UNIVERSAL ELECTRONICS INC.
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DATE: OCTOBER 12, 2016

	REPORT BODY	APPENDICES					TOTAL
		A	***B***	***C***	***D***	***E***	
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NVLAP® TESTING
NVLAP LAB CODE 200528-0

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GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., 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 certification, approval or endorsement by NVLAP, NIST or any agency of the federal government.

Device Tested:	Comcast XR15 Remote 2015 Models: URC-4352BC0-X-R S/N: N/A
Product Description:	The EUT is a voice remote control used for various Comcast cable systems.
Modifications:	The EUT was not modified in order to meet the specifications.
Customer:	Universal Electronics, Inc. 201 Sandpointe Ave, 8Th Floor Santa Ana, California 92707
Test Dates:	September 8, 9, and 10, 2016

Test Specification covered by accreditation:

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Test Specifications:	Emissions requirements CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249
Test Procedure:	ANSI C63.4: 2014 and ANSI C63.10: 2013
Test Deviations:	The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Spurious Radiated RF Emissions, 10 kHz – 25000 MHz (Transmitter, Receiver, and Digital portion)	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 15.205, 15.209 and 15.249 Highest reading in relation to spec limit: 50.51 dBuV/m @ 7275MHz (*U = 4.54 dB)

1. PURPOSE

This document is a qualification test report based on the emissions tests performed on the Comcast XR15 Remote 2015, Model: URC-4352BC0-X-R. The emissions measurements were performed according to the measurement procedure described in ANSI C63.4 and ANSI C63.10. 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; and Subpart C, sections 15.205, 15.207, 15.209, and 15.249.

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 92823.

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	Staff Engineer, Electrical

Compatible Electronics Inc.

Edgar Valencia	Lab Technician
Kyle Fujimoto	Test Engineer
James Ross	Test Engineer

2.4 Date Test Sample was Received

The test sample was received on September 8, 2016.

2.5 Disposition of the Test Sample

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

2.6 Abbreviations and Acronyms

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

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
LISN	Line Impedance Stabilization Network
N/A	Not Applicable
Tx	Transmit
Rx	Receive
SDK	Software Development Kit

3. APPLICABLE DOCUMENTS

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

SPEC	TITLE
FCC Title 47, Part 15 Subpart C	FCC Rules – Radio frequency devices (including digital devices) – Intentional Radiators
FCC Title 47, Part 15 Subpart B	FCC Rules – Radio frequency devices (including digital devices) – Unintentional Radiators
EN 50147-2: 1997	Anechoic chambers. Alternative test site suitability with respect to site attenuation
ANSI C63.4 2014	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
ANSI C63.10 2013	American National Standard for Testing Unlicensed Wireless Devices

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration – Emissions

The Comcast XR15 Remote 2015, Model: URC-4352BC0-X-R (EUT) was tested as a stand alone device. A fresh set of batteries were inserted in the EUT prior to the testing.

The EUT was tested for emissions at the low, middle, and high channels while in the X, Y and Z axis. During the testing, the EUT was continuously transmitting.

The EUT was placed in a special modulated test mode to allow for continuously transmit via the GreenPeak ZigBee 3.0 SDK. The laptop for the test software was only used to program the EUT and then was removed during the testing.

The X orientation is when the EUT is parallel to the ground. The Y orientation is when the EUT is perpendicular to the ground mounted vertically. The Z orientation is when the EUT is perpendicular to the ground mounted horizontally.

The final radiated data for the EUT was taken in the mode described above. Please see Appendix E for the data sheets.

4.1.1 Cable Construction and Termination

The EUT has no external cables.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
COMCAST XR15 REMOTE 2015	UNIVERSAL ELCTRONICS, INC.	URC-4352BC0-X-R	N/A	MG3-4352
TEST SOFTWARE FOR EUT	GREENPEAK TECHNOLOGIES	ZIGBEE 3.0 SDK	N/A	N/A
LAPTOP FOR TEST SOFTWARE	DELL	X436M A01	N/A	N/A

5.2 Emissions Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CAL. CYCLE
GENERAL TEST EQUIPMENT USED IN LAB D					
TDK TestLab	TDK RF Solutions, Inc.	9.22	700145	N/A	N/A
Computer	Hewlett Packard	p6716f	MXX1030PX0	N/A	N/A
LCD Monitor	Hewlett Packard	52031a	3CQ046N3MG	N/A	N/A
EMI Receiver, 20 Hz – 26.5 GHz	Agilent Technologies	N9038A	MY51210150	December 29, 2015	1 Year
RF RADIATED EMISSIONS TEST EQUIPMENT					
CombiLog Antenna	Com-Power	AC-220	61060	September 3, 2015	1 Year
Preamplifier	Com-Power	PAM-118A	551024	May 12, 2016	1 Year
Loop Antenna	Com-Power	AL-130	17089	February 6, 2015	2 Year
Horn Antenna	Com-Power	AH-118	071175	February 26, 2016	2 Year
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A
System Controller	Sunol Sciences Corporation	SC110V	112213-1	N/A	N/A
Turntable	Sunol Sciences Corporation	2011VS	N/A	N/A	N/A
Antenna-Mast	Sunol Sciences Corporation	TWR95-4	112213-3	N/A	N/A
Preamplifier	Com-Power	PA-840	711013	May 13, 2016	1 Year
Horn Antenna	Com-Power	AH-826	71957	N/A	N/A

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1 of this report for emissions test location.

6.2 EUT Mounting, Bonding and Grounding

For frequencies 1 GHz and below: The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

For frequencies above 1 GHz: The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 1.5 meters above the ground plane.

The EUT was not grounded.

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 EMI Receiver was used as a measuring meter. A quasi-peak and/or average reading was taken only where indicated in the data sheets. A transient limiter was used for the protection of the EMI Receiver input stage, and the offset was adjusted accordingly to read the actual data measured. The LISN output was measured using the EMI 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 63:4. 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 computer software. The final qualification data is located in Appendix E.

Test Results:

This test was not performed for the EUT is battery powered and does not connect to the AC power mains.

7.1.2 Radiated Emissions Test

The EMI Receiver was used as the measuring meter. A built-in, internal preamplifier was used to increase the sensitivity of the instrument. The EMI Receiver was initially used with the Analyzer mode feature activated. In this mode, the EMI receiver can then record the actual frequency to be measured. This final reading is then taken accurately in the EMI Receiver mode, which takes into account the cable loss, amplifier gain and antenna factors, so that a true reading is compared to the true limit. A quasi-peak reading was taken only for those readings, which are marked accordingly on the data sheets. The effective measurement bandwidth used for the radiated emissions test was according to the frequency measured (200 Hz for 10 kHz to 150 kHz, 9 kHz for 150 kHz to 30 MHz, 120 kHz for 30 MHz to 1 GHz and 1 MHz for 1 GHz to 9.3 GHz).

The EMI test chamber of Compatible Electronics, Inc. was used for radiated emissions testing. This test site is in full compliance with ANSI C63.4, EN 50147-2 and CISPR 22. 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. 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 gunsight method was used when measuring with the horn antenna in order to ensure accurate results.

The EUT was tested at a 3-meter test distance. The six highest emissions are listed in Table 2.0.

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	Loop Antenna
150 kHz to 30 MHz	9 kHz	Loop Antenna
30 MHz to 1 GHz	120 kHz	CombiLog Antenna
1 GHz to 25 GHz	1 MHz	Horn Antenna

Test Results:

The EUT 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 for radiated emissions.

7.1.3 RF Emissions Test Results

Table 1.0 RADIATED EMISSION RESULTS
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Frequency MHz	EMI Reading (dBuV/m)	Specification Limit (dBuV)	Delta (Cor. Reading – Spec. Limit) dB)
7275 (V) (Y-Axis) (Ant 1)	50.51 (AVG)	53.97	-3.46
7275 (H) (Y-Axis) (Ant 0)	49.87 (AVG)	53.97	-4.10
7275 (H) (Z-Axis) (Ant 1)	49.81 (AVG)	53.97	-4.16
4900 (V) (Z-Axis) (Ant 1)	49.71 (AVG)	53.97	-4.26
7275 (V) (X-Axis) (Ant 1)	49.64 (AVG)	53.97	-4.33
4900 (H) (Z-Axis) (Ant 0)	49.20 (AVG)	53.97	-4.77

Notes:

* The complete emissions data is given in Appendix E of this report.
(BL) Black Lead
(WL) White Lead
(V) Vertical
(H) Horizontal
(QP) Quasi-Peak
(Avg) Average

7.2 Fundamental Field Strength (Duty Cycle Calculations)

The Peak Transmit Radiated Field Strength was measured at a 3-meter test distance. The EMI Receiver was used to obtain the duty cycle. The data sheets are located in Appendix E.

Where

$$\delta(\mathrm{dB}) = 20\log\left[\sum\left(nt_1 + mt_2 + \ldots + \xi t_x\right)/T\right]$$

n is the number of pulses of duration *t*1
m is the number of pulses of duration *t*2
ξ is the number of pulses of duration *tx*
T is the period of the pulse train or 100 ms if the pulse train length is greater than 100 ms

Duty Cycle Correction Factor = -20.00 dB

The EUT was tested in both advertising and data modes. Please see Appendix E for the data sheets and more detailed explanation of how the duty cycle was derived.

8. CONCLUSIONS

The Comcast XR15 Remote 2015, Model: URC-4352BC0-X-R, as tested, meets all of the specification limits defined in FCC Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

APPENDIX A

LABORATORY ACCREDITATIONS AND RECOGNITIONS

LABORATORY ACCREDITATIONS AND RECOGNITIONS

NVLAP®
TESTING
NVLAP LAB CODE 200528-0

For US, Canada, Australia/New Zealand, Japan, Taiwan, Korea, and the European Union, Compatible Electronics is currently accredited by NVLAP to ISO/IEC 17025.

For the most up-to-date version of our scopes and certificates please visit
http://celectronics.com/quality/scope/

Quote from ISO-ILAC-IAF Communiqué on 17025:
"A laboratory's fulfilment 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

Industry Canada / Industrie Canada
Compatible Electronics IC listing can be found at:
http://www.ic.gc.ca/eic/site/ic1.nsf/eng/home

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC Subpart B and FCC 15.249 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

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R
S/N: N/A

There are no additional models covered under this report.

APPENDIX D

DIAGRAMS AND CHARTS

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP

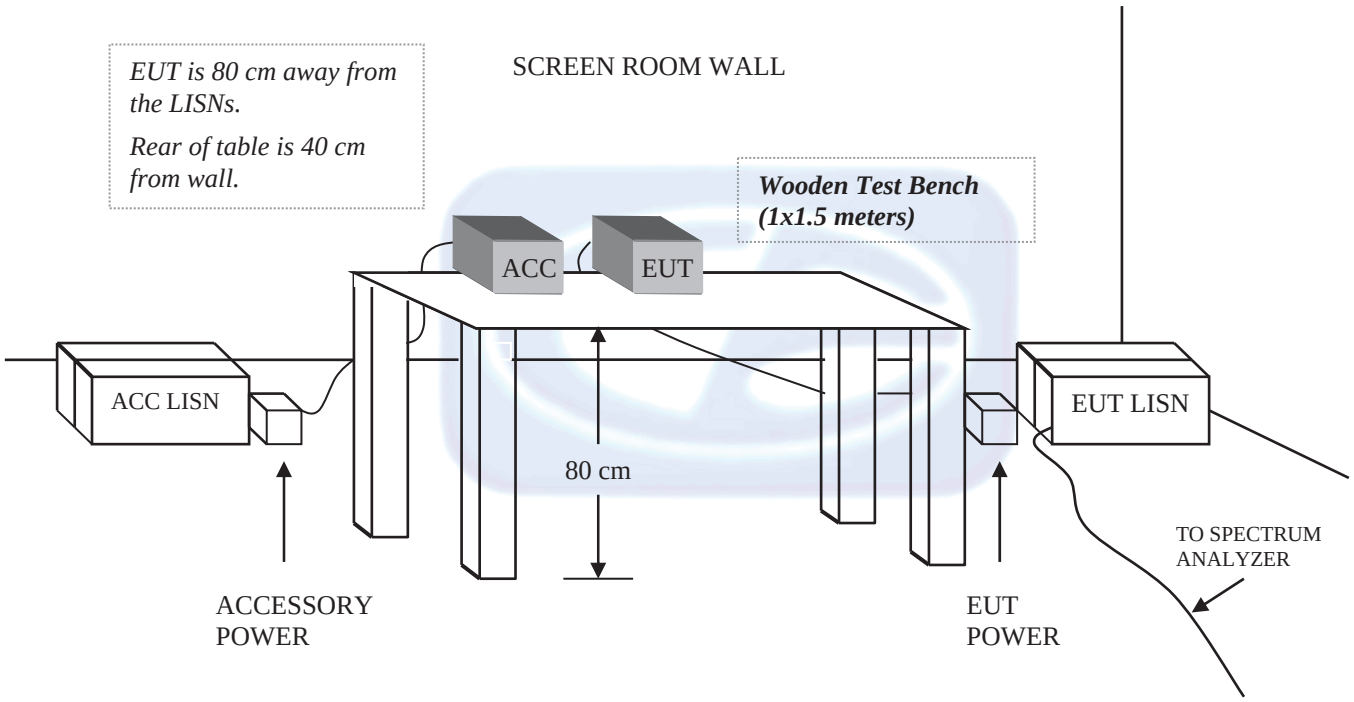
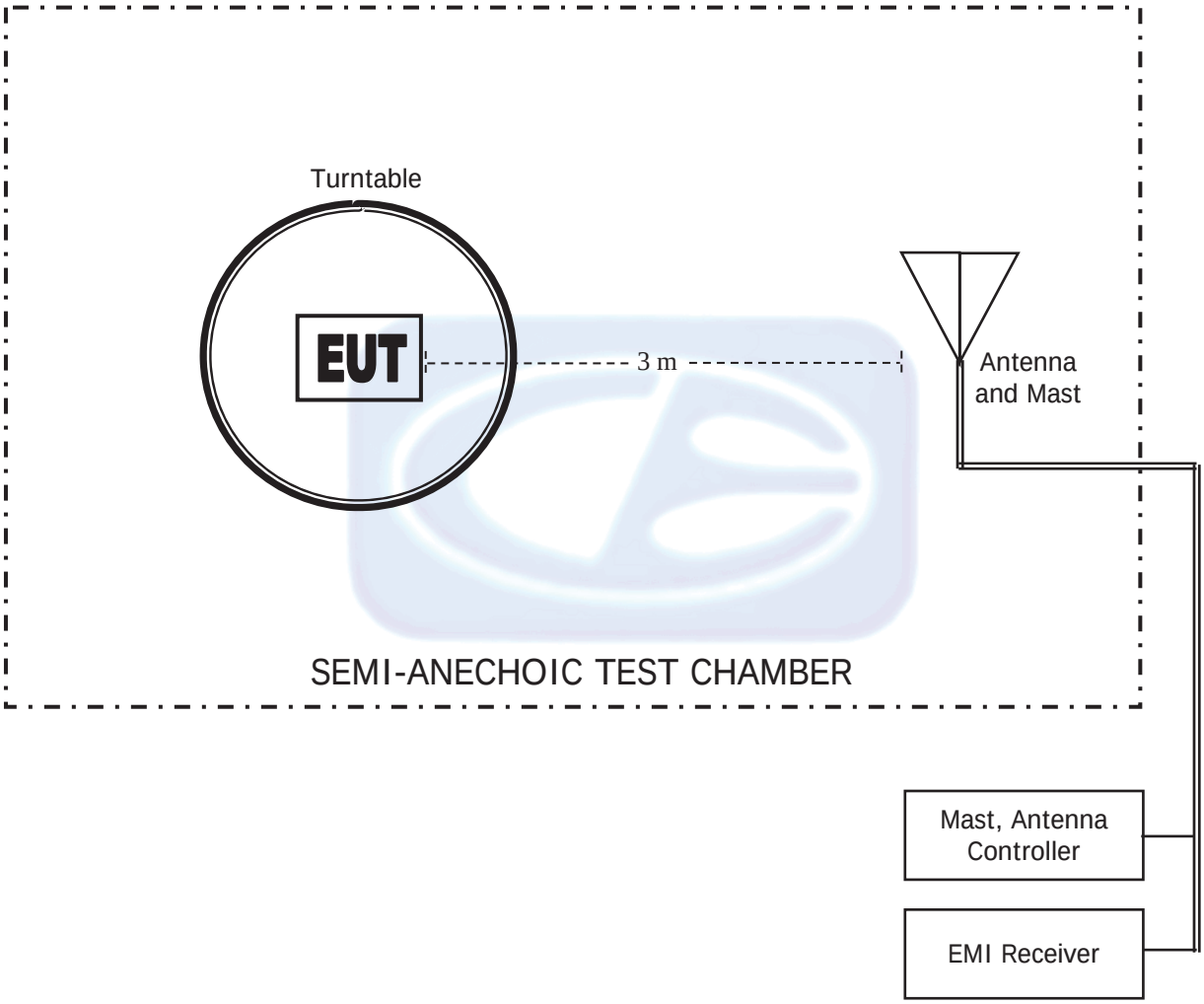


FIGURE 2: LAYOUT OF THE SEMI-ANECHOIC TEST CHAMBER



COM-POWER AL-130

LOOP ANTENNA

S/N: 17089

CALIBRATION DATE: FEBRUARY 6, 2015

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-33.18	18.32
0.01	-34.10	17.40
0.02	-38.65	12.85
0.03	-39.28	12.22
0.04	-40.09	11.41
0.05	-40.85	10.65
0.06	-40.88	10.62
0.07	-41.07	10.43
0.08	-41.04	10.46
0.09	-41.19	10.31
0.1	-41.20	10.30
0.2	-41.52	9.98
0.3	-41.53	9.97
0.4	-41.42	10.08
0.5	-41.53	9.97
0.6	-41.53	9.97
0.7	-41.43	10.07
0.8	-41.23	10.27
0.9	-41.13	10.37
1	-41.14	10.36
2	-40.80	10.70
3	-40.66	10.84
4	-40.61	10.89
5	-40.33	11.17
6	-40.53	10.97
7	-40.47	11.03
8	-40.48	11.02
9	-39.93	11.57
10	-39.81	11.69
15	-43.35	8.15
20	-39.16	12.34
25	-40.24	11.26
30	-43.18	8.32

COM-POWER AC-220

COMBILOG ANTENNA

S/N: 61060

CALIBRATION DATE: SEPTEMBER 3, 2015

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	24.00	200	13.00
35	24.30	250	15.30
40	25.40	300	18.20
45	21.50	350	17.90
50	22.50	400	18.60
60	15.40	450	19.80
70	12.70	500	21.60
80	11.10	550	22.40
90	13.40	600	23.70
100	13.80	650	24.30
120	15.40	700	24.00
125	15.40	750	24.50
140	13.10	800	24.30
150	17.20	850	26.30
160	13.20	900	26.90
175	14.20	950	26.00
180	14.30	1000	25.60

COM POWER AH-118

HORN ANTENNA

S/N: 071175

CALIBRATION DATE: FEBRUARY 26, 2016

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	23.93	10.0	39.33
1.5	25.54	10.5	39.64
2.0	28.09	11.0	41.04
2.5	30.21	11.5	44.29
3.0	30.15	12.0	41.22
3.5	30.17	12.5	41.50
4.0	31.90	13.0	41.62
4.5	33.51	13.5	40.63
5.0	33.87	14.0	39.94
5.5	35.08	14.5	41.84
6.0	34.81	15.0	42.69
6.5	34.26	15.5	39.03
7.0	36.33	16.0	39.07
7.5	37.03	16.5	41.40
8.0	37.56	17.0	43.18
8.5	40.07	17.5	47.01
9.0	38.92	18.0	46.48
9.5	38.21		

COM-POWER PA-118

PREAMPLIFIER

S/N: 551024

CALIBRATION DATE: MAY 12, 2016

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	39.84	6.0	39.05
1.1	39.40	6.5	38.94
1.2	39.58	7.0	39.25
1.3	39.68	7.5	39.09
1.4	39.91	8.0	39.01
1.5	39.78	8.5	38.60
1.6	39.50	9.0	38.64
1.7	39.81	9.5	39.67
1.8	39.89	10.0	39.30
1.9	39.94	11.0	39.15
2.0	39.57	12.0	39.24
2.5	40.39	13.0	39.49
3.0	40.63	14.0	39.44
3.5	40.80	15.0	39.94
4.0	40.86	16.0	40.09
4.5	39.94	17.0	40.06
5.0	34.47	18.0	39.76
5.5	39.32		

COM-POWER AH-826

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

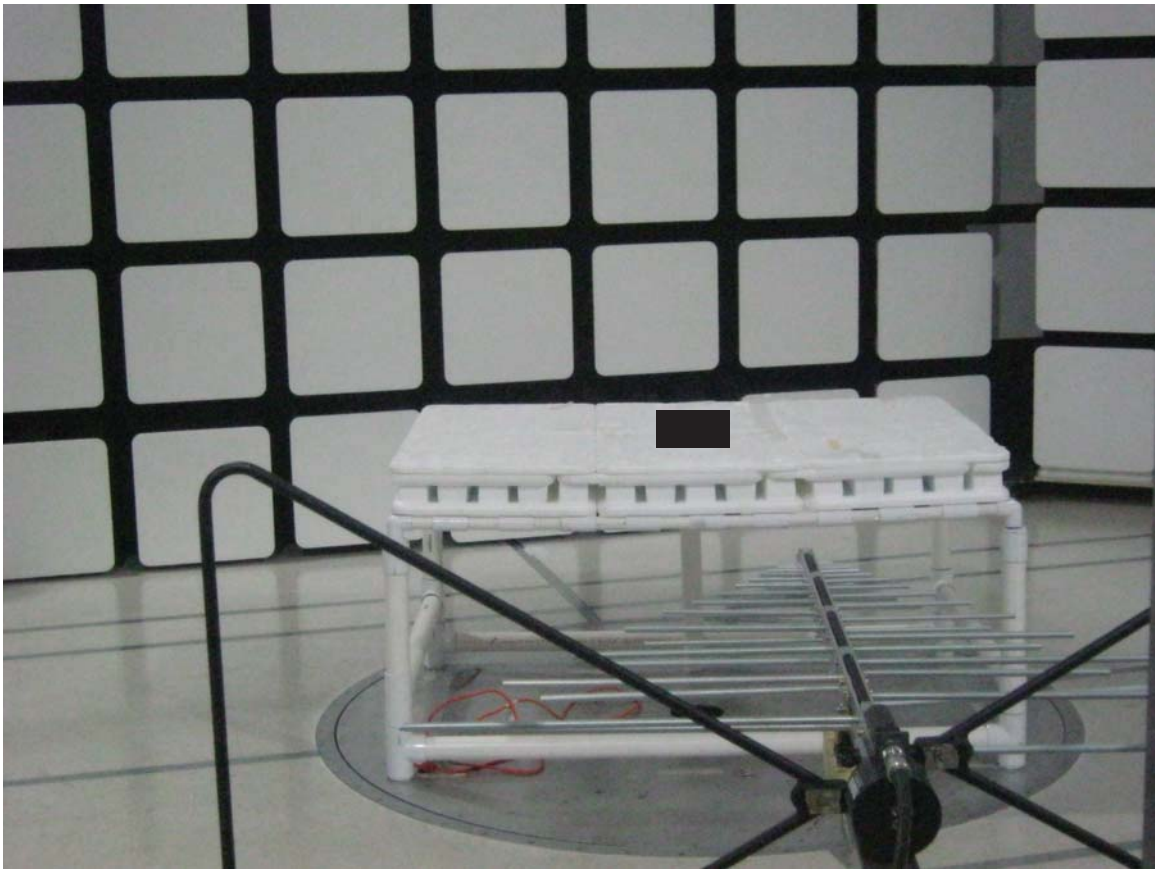
COM-POWER PA-840

MICROWAVE PREAMPLIFIER

S/N: 711013

CALIBRATION DATE: MAY 13, 2016

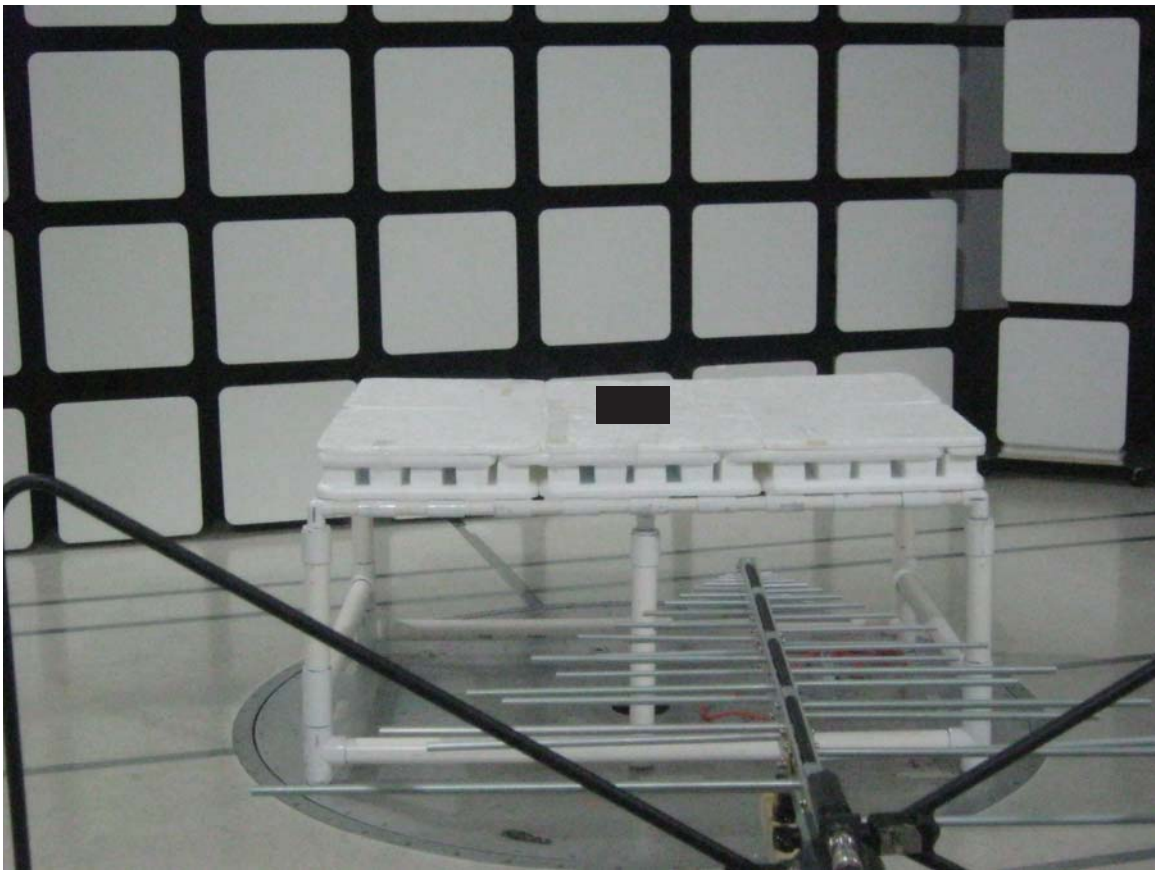
FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	25.19	31.0	25.69
19.0	24.48	31.5	25.74
20.0	24.39	32.0	26.35
21.0	24.73	32.5	26.64
22.0	23.49	33.0	25.98
23.0	24.23	33.5	24.68
24.0	24.59	34.0	24.61
25.0	25.32	34.5	23.78
26.0	25.66	35.0	24.74
26.5	25.99	35.5	24.39
27.0	26.26	36.0	23.46
27.5	25.33	36.5	23.71
28.0	24.49	37.0	26.35
28.5	24.74	37.5	23.49
29.0	25.93	38.0	25.42
29.5	26.28	38.5	24.87
30.0	26.17	39.0	22.60
30.5	26.11	39.5	20.57
		40.0	19.15



FRONT VIEW

UNIVERSAL ELECTRONICS, INC
COMCAST XR15 REMOTE 2015
MODEL: URC-4352BC0-X-R
FCC SUBPART B AND C – RADIATED EMISSIONS – BELOW 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

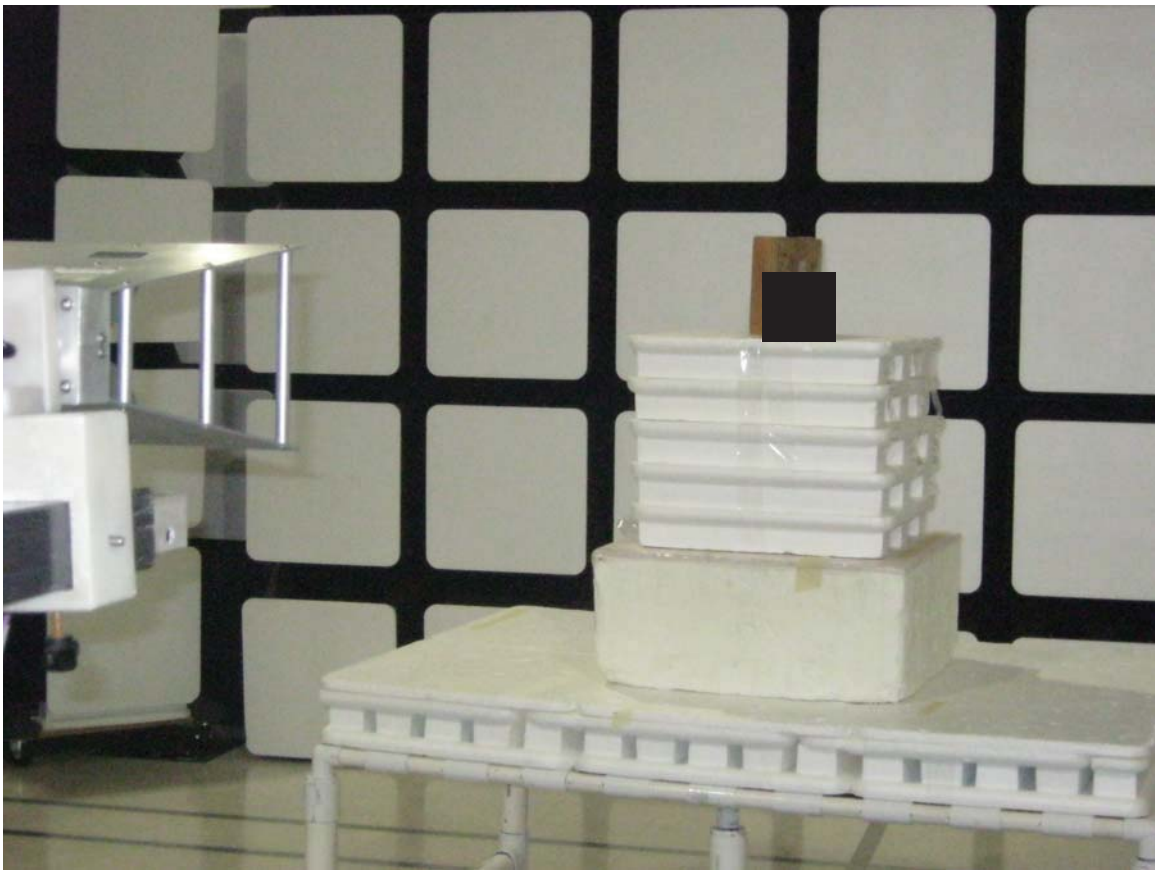
UNIVERSAL ELECTRONICS, INC
COMCAST XR15 REMOTE 2015
MODEL: URC-4352BC0-X-R
FCC SUBPART B AND C – RADIATED EMISSIONS – BELOW 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

UNIVERSAL ELECTRONICS, INC
COMCAST XR15 REMOTE 2015
MODEL: URC-4352BC0-X-R
FCC SUBPART B AND C – RADIATED EMISSIONS – ABOVE 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

UNIVERSAL ELECTRONICS, INC
COMCAST XR15 REMOTE 2015
MODEL: URC-4352BC0-X-R
FCC SUBPART B AND C – RADIATED EMISSIONS – ABOVE 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

RADIATED EMISSIONS DATA SHEETS

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: James Ross

Antenna 0
Low Channel
X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	88.28	V	113.97	-25.69	Peak	145.00	100.00	
2425	68.28	V	93.97	-25.69	Avg	145.00	100.00	
4850	65.56	V	73.97	-8.41	Peak	342.00	144.00	
4850	45.56	V	53.97	-8.41	Avg	342.00	144.00	
7275	67.27	V	73.97	-6.70	Peak	248.00	228.00	
7275	47.27	V	53.97	-6.70	Avg	248.00	228.00	
9700								**No Emission**
9700								**Detected**
12125								**No Emission**
12125								**Detected**
14550								**No Emission**
14550								**Detected**
16975								**No Emission**
16975								**Detected**
19400								**No Emission**
19400								**Detected**
21825								**No Emission**
21825								**Detected**
24250								**No Emission**
24250								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: James Ross

Antenna 0
Low Channel
X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	102.12	H	113.97	-11.85	Peak	0.00	141.40	
2425	82.12	H	93.97	-11.85	Avg	0.00	141.40	
4850	62.50	H	73.97	-11.47	Peak	130.00	100.00	
4850	42.50	H	53.97	-11.47	Avg	130.00	100.00	
7275	64.73	H	73.97	-9.24	Peak	126.00	102.00	
7275	44.73	H	53.97	-9.24	Avg	126.00	102.00	
9700								**No Emission**
9700								**Detected**
12125								**No Emission**
12125								**Detected**
14550								**No Emission**
14550								**Detected**
16975								**No Emission**
16975								**Detected**
19400								**No Emission**
19400								**Detected**
21825								**No Emission**
21825								**Detected**
24250								**No Emission**
24250								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: James Ross

Antenna 0
Low Channel
Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	88.96	V	113.97	-25.02	Peak	153.00	100.00	
2425	68.96	V	93.97	-25.02	Avg	153.00	100.00	
4850	62.44	V	73.97	-11.53	Peak	179.00	115.00	
4850	42.44	V	53.97	-11.53	Avg	179.00	115.00	
7275	69.20	V	73.97	-4.77	Peak	272.00	125.00	
7275	49.20	V	53.97	-4.77	Avg	272.00	125.00	
9700								**No Emission**
9700								**Detected**
12125								**No Emission**
12125								**Detected**
14550								**No Emission**
14550								**Detected**
16975								**No Emission**
16975								**Detected**
19400								**No Emission**
19400								**Detected**
21825								**No Emission**
21825								**Detected**
24250								**No Emission**
24250								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: James Ross

Antenna 0
Low Channel
Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	97.61	H	113.97	-16.37	Peak	180.00	122.00	
2425	77.61	H	93.97	-16.37	Avg	180.00	122.00	
4850	65.61	H	73.97	-8.36	Peak	350.00	140.00	
4850	45.61	H	53.97	-8.36	Avg	350.00	140.00	
7275	69.87	H	73.97	-4.10	Peak	139.00	100.00	
7275	49.87	H	53.97	-4.10	Avg	139.00	100.00	
9700								**No Emission**
9700								**Detected**
12125								**No Emission**
12125								**Detected**
14550								**No Emission**
14550								**Detected**
16975								**No Emission**
16975								**Detected**
19400								**No Emission**
19400								**Detected**
21825								**No Emission**
21825								**Detected**
24250								**No Emission**
24250								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: James Ross

Antenna 0
Low Channel
Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	102.39	V	113.97	-11.58	Peak	0.00	170.00	
2425	82.39	V	93.97	-11.58	Avg	0.00	170.00	
4850	66.06	V	73.97	-7.91	Peak	247.00	141.00	
4850	46.06	V	53.97	-7.91	Avg	247.00	141.00	
7275	68.87	V	73.97	-5.10	Peak	289.00	110.00	
7275	48.87	V	53.97	-5.10	Avg	289.00	110.00	
9700								**No Emission**
9700								**Detected**
12125								**No Emission**
12125								**Detected**
14550								**No Emission**
14550								**Detected**
16975								**No Emission**
16975								**Detected**
19400								**No Emission**
19400								**Detected**
21825								**No Emission**
21825								**Detected**
24250								**No Emission**
24250								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: James Ross

Antenna 0
Low Channel
Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	90.72	H	113.97	-23.25	Peak	79.50	168.00	
2425	70.72	H	93.97	-23.25	Avg	79.50	168.00	
4850	67.26	H	73.97	-6.72	Peak	167.00	155.00	
4850	47.26	H	53.97	-6.72	Avg	167.00	155.00	
7275	65.18	H	73.97	-8.79	Peak	228.50	100.00	
7275	45.18	H	53.97	-8.79	Avg	228.50	100.00	
9700								**No Emission**
9700								**Detected**
12125								**No Emission**
12125								**Detected**
14550								**No Emission**
14550								**Detected**
16975								**No Emission**
16975								**Detected**
19400								**No Emission**
19400								**Detected**
21825								**No Emission**
21825								**Detected**
24250								**No Emission**
24250								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Dates: 09/08/2016 and 09/09/2016
Lab: D
Tested By: James Ross

Antenna 0
Middle Channel
X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2450	90.13	V	113.97	-23.84	Peak	185.00	140.00	
2450	70.13	V	93.97	-23.84	Avg	185.00	140.00	
4900	67.54	V	73.97	-6.43	Peak	351.00	178.00	
4900	47.54	V	53.97	-6.43	Avg	351.00	178.00	
7350	60.26	V	73.97	-13.71	Peak	174.00	114.00	
7350	40.26	V	53.97	-13.71	Avg	174.00	114.00	
9800								**No Emission**
9800								**Detected**
12250								**No Emission**
12250								**Detected**
14700								**No Emission**
14700								**Detected**
17150								**No Emission**
17150								**Detected**
19600								**No Emission**
19600								**Detected**
22050								**No Emission**
22050								**Detected**
24500								**No Emission**
24500								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Dates: 09/08/2016 and 09/09/2016
Lab: D
Tested By: James Ross

Antenna 0
Middle Channel
X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2450	103.70	H	113.97	-10.27	Peak	194.00	145.00	
2450	83.70	H	93.97	-10.27	Avg	194.00	145.00	
4900	63.87	H	73.97	-10.10	Peak	4.00	100.00	
4900	43.87	H	53.97	-10.10	Avg	4.00	100.00	
7350	61.20	H	73.97	-12.77	Peak	196.50	100.00	
7350	41.20	H	53.97	-12.77	Avg	196.50	100.00	
9800								**No Emission**
9800								**Detected**
12250								**No Emission**
12250								**Detected**
14700								**No Emission**
14700								**Detected**
17150								**No Emission**
17150								**Detected**
19600								**No Emission**
19600								**Detected**
22050								**No Emission**
22050								**Detected**
24500								**No Emission**
24500								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Dates: 09/08/2016 and 09/09/2016
Lab: D
Tested By: James Ross

Antenna 0
Middle Channel
Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2450	90.14	V	113.97	-23.83	Peak	93.00	100.00	
2450	70.14	V	93.97	-23.83	Avg	93.00	100.00	
4900	63.60	V	73.97	-10.37	Peak	238.00	100.00	
4900	43.60	V	53.97	-10.37	Avg	238.00	100.00	
7350	64.10	V	73.97	-9.87	Peak	257.00	100.00	
7350	44.10	V	53.97	-9.87	Avg	257.00	100.00	
9800								**No Emission**
9800								**Detected**
12250								**No Emission**
12250								**Detected**
14700								**No Emission**
14700								**Detected**
17150								**No Emission**
17150								**Detected**
19600								**No Emission**
19600								**Detected**
22050								**No Emission**
22050								**Detected**
24500								**No Emission**
24500								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Dates: 09/08/2016 and 09/09/2016
Lab: D
Tested By: James Ross

Antenna 0
Middle Channel
Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2450	98.38	H	113.97	-15.59	Peak	187.00	163.00	
2450	78.38	H	93.97	-15.59	Avg	187.00	163.00	
4900	66.75	H	73.97	-7.22	Peak	10.00	120.00	
4900	46.75	H	53.97	-7.22	Avg	10.00	120.00	
7350	67.04	H	73.97	-6.94	Peak	166.00	115.00	
7350	47.04	H	53.97	-6.94	Avg	166.00	115.00	
9800								**No Emission**
9800								**Detected**
12250								**No Emission**
12250								**Detected**
14700								**No Emission**
14700								**Detected**
17150								**No Emission**
17150								**Detected**
19600								**No Emission**
19600								**Detected**
22050								**No Emission**
22050								**Detected**
24500								**No Emission**
24500								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Dates: 09/08/2016 and 09/09/2016
Lab: D
Tested By: James Ross

Antenna 0
Middle Channel
Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2450	102.58	V	113.97	-11.39	Peak	355.00	220.00	
2450	82.58	V	93.97	-11.39	Avg	355.00	220.00	
4900	67.57	V	73.97	-6.40	Peak	290.00	150.00	
4900	47.57	V	53.97	-6.40	Avg	290.00	150.00	
7350	64.90	V	73.97	-9.07	Peak	321.00	100.00	
7350	44.90	V	53.97	-9.07	Avg	321.00	100.00	
9800								**No Emission**
9800								**Detected**
12250								**No Emission**
12250								**Detected**
14700								**No Emission**
14700								**Detected**
17150								**No Emission**
17150								**Detected**
19600								**No Emission**
19600								**Detected**
22050								**No Emission**
22050								**Detected**
24500								**No Emission**
24500								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Dates: 09/08/2016 and 09/09/2016
Lab: D
Tested By: James Ross

Antenna 0
Middle Channel
Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2450	93.06	H	113.97	-20.92	Peak	285.00	209.00	
2450	73.06	H	93.97	-20.92	Avg	285.00	209.00	
4900	69.20	H	73.97	-4.77	Peak	225.00	135.00	
4900	49.20	H	53.97	-4.77	Avg	225.00	135.00	
7350	61.98	H	73.97	-11.99	Peak	277.00	160.00	
7350	41.98	H	53.97	-11.99	Avg	277.00	160.00	
9800								**No Emission**
9800								**Detected**
12250								**No Emission**
12250								**Detected**
14700								**No Emission**
14700								**Detected**
17150								**No Emission**
17150								**Detected**
19600								**No Emission**
19600								**Detected**
22050								**No Emission**
22050								**Detected**
24500								**No Emission**
24500								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: James Ross

Antenna 0
High Channel
X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2475	87.09	V	113.97	-26.88	Peak	130.00	100.00	
2475	67.09	V	93.97	-26.88	Avg	130.00	100.00	
4950	57.14	V	73.97	-16.83	Peak	160.00	165.00	
4950	37.14	V	53.97	-16.83	Avg	160.00	165.00	
7425	55.28	V	73.97	-18.69	Peak	262.00	240.00	
7425	35.28	V	53.97	-18.69	Avg	262.00	240.00	
9900								**No Emission**
9900								**Detected**
12375								**No Emission**
12375								**Detected**
14850								**No Emission**
14850								**Detected**
17325								**No Emission**
17325								**Detected**
19800								**No Emission**
19800								**Detected**
22275								**No Emission**
22275								**Detected**
24750								**No Emission**
24750								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: James Ross

Antenna 0
High Channel
X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2475	100.85	H	113.97	-13.12	Peak	10.00	100.00	
2475	80.85	H	93.97	-13.12	Avg	10.00	100.00	
4950	54.19	H	73.97	-19.78	Peak	135.00	100.00	
4950	34.19	H	53.97	-19.78	Avg	135.00	100.00	
7425	50.99	H	73.97	-22.98	Peak	192.00	100.00	
7425	30.99	H	53.97	-22.98	Avg	192.00	100.00	
9900								**No Emission**
9900								**Detected**
12375								**No Emission**
12375								**Detected**
14850								**No Emission**
14850								**Detected**
17325								**No Emission**
17325								**Detected**
19800								**No Emission**
19800								**Detected**
22275								**No Emission**
22275								**Detected**
24750								**No Emission**
24750								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: James Ross

Antenna 0
High Channel
Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2475	91.09	V	113.97	-22.88	Peak	220.00	245.00	
2475	71.09	V	93.97	-22.88	Avg	220.00	245.00	
4950	53.09	V	73.97	-20.88	Peak	305.00	250.00	
4950	33.09	V	53.97	-20.88	Avg	305.00	250.00	
7425	52.71	V	73.97	-21.26	Peak	195.00	100.00	
7425	32.71	V	53.97	-21.26	Avg	195.00	100.00	
9900								**No Emission**
9900								**Detected**
12375								**No Emission**
12375								**Detected**
14850								**No Emission**
14850								**Detected**
17325								**No Emission**
17325								**Detected**
19800								**No Emission**
19800								**Detected**
22275								**No Emission**
22275								**Detected**
24750								**No Emission**
24750								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: James Ross

Antenna 0
High Channel
Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2475	95.68	H	113.97	-18.29	Peak	190.00	180.00	
2475	75.68	H	93.97	-18.29	Avg	190.00	180.00	
4950	54.84	H	73.97	-19.13	Peak	5.00	150.00	
4950	34.84	H	53.97	-19.13	Avg	5.00	150.00	
7425	56.26	H	73.97	-17.71	Peak	138.00	125.00	
7425	36.26	H	53.97	-17.71	Avg	138.00	125.00	
9900								**No Emission**
9900								**Detected**
12375								**No Emission**
12375								**Detected**
14850								**No Emission**
14850								**Detected**
17325								**No Emission**
17325								**Detected**
19800								**No Emission**
19800								**Detected**
22275								**No Emission**
22275								**Detected**
24750								**No Emission**
24750								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: James Ross

Antenna 0
High Channel
Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2475	99.56	V	113.97	-14.41	Peak	0.00	150.00	
2475	79.56	V	93.97	-14.41	Avg	0.00	150.00	
4950	55.74	V	73.97	-18.23	Peak	238.00	182.00	
4950	35.74	V	53.97	-18.23	Avg	238.00	182.00	
7425	53.88	V	73.97	-20.09	Peak	303.00	236.00	
7425	33.88	V	53.97	-20.09	Avg	303.00	236.00	
9900								**No Emission**
9900								**Detected**
12375								**No Emission**
12375								**Detected**
14850								**No Emission**
14850								**Detected**
17325								**No Emission**
17325								**Detected**
19800								**No Emission**
19800								**Detected**
22275								**No Emission**
22275								**Detected**
24750								**No Emission**
24750								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: James Ross

Antenna 0
High Channel
Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2475	89.71	H	113.97	-24.26	Peak	278.00	182.00	
2475	69.71	H	93.97	-24.26	Avg	278.00	182.00	
4950	57.50	H	73.97	-16.47	Peak	171.00	135.00	
4950	37.50	H	53.97	-16.47	Avg	171.00	135.00	
7425	52.72	H	73.97	-21.25	Peak	299.00	100.00	
7425	32.72	H	53.97	-21.25	Avg	299.00	100.00	
9900								**No Emission**
9900								**Detected**
12375								**No Emission**
12375								**Detected**
14850								**No Emission**
14850								**Detected**
17325								**No Emission**
17325								**Detected**
19800								**No Emission**
19800								**Detected**
22275								**No Emission**
22275								**Detected**
24750								**No Emission**
24750								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D

Tested By: James Ross

Antenna 0
Digital Portion and Non-Harmonic Emissions from the Transmitter
Vertical and Horizontal Polarization

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions from the
								Digital Portion of the EUT
								from 10 kHz to 30 MHz
								No Emissions from the
								Non-Harmonic emissions
								of the TX from 10 kHz
								to 30 MHz
								No Emissions from the
								Digital Portion of the EUT
								from 1 GHz to 25 GHz
								No Emissions from the
								Non-Harmonic emissions
								of the TX from 1 GHz
								to 25 GHz
								Tested in the X-Axis,
								Y-Axis, and Z-Axis

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
Low Channel
X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	89.39	V	113.97	-24.58	Peak	0.50	110.00	
2425	69.39	V	93.97	-24.58	Avg	0.50	110.00	
4850	60.41	V	73.97	-13.56	Peak	43.50	111.55	
4850	40.41	V	53.97	-13.56	Avg	43.50	111.55	
7275	69.64	V	73.97	-4.33	Peak	310.25	127.43	
7275	49.64	V	53.97	-4.33	Avg	310.25	127.43	
9700								**No Emission**
9700								**Detected**
12125								**No Emission**
12125								**Detected**
14550								**No Emission**
14550								**Detected**
16975								**No Emission**
16975								**Detected**
19400								**No Emission**
19400								**Detected**
21825								**No Emission**
21825								**Detected**
24250								**No Emission**
24250								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
Low Channel
X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	100.34	H	113.97	-13.63	Peak	220.25	126.89	
2425	80.34	H	93.97	-13.63	Avg	220.25	126.89	
4850	66.97	H	73.97	-7.00	Peak	202.50	127.55	
4850	46.97	H	53.97	-7.00	Avg	202.50	127.55	
7275	67.63	H	73.97	-6.34	Peak	270.75	159.25	
7275	47.63	H	53.97	-6.34	Avg	270.75	159.25	
9700								**No Emission**
9700								**Detected**
12125								**No Emission**
12125								**Detected**
14550								**No Emission**
14550								**Detected**
16975								**No Emission**
16975								**Detected**
19400								**No Emission**
19400								**Detected**
21825								**No Emission**
21825								**Detected**
24250								**No Emission**
24250								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
Low Channel
Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	101.59	V	113.97	-12.38	Peak	0.00	126.77	
2425	81.59	V	93.97	-12.38	Avg	0.00	126.77	
4850	61.15	V	73.97	-12.82	Peak	87.25	111.19	
4850	41.15	V	53.97	-12.82	Avg	87.25	111.19	
7275	70.51	V	73.97	-3.46	Peak	193.00	111.49	
7275	50.51	V	53.97	-3.46	Avg	193.00	111.49	
9700								**No Emission**
9700								**Detected**
12125								**No Emission**
12125								**Detected**
14550								**No Emission**
14550								**Detected**
16975								**No Emission**
16975								**Detected**
19400								**No Emission**
19400								**Detected**
21825								**No Emission**
21825								**Detected**
24250								**No Emission**
24250								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
Low Channel
Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	91.40	H	113.97	-22.57	Peak	285.50	206.77	
2425	71.40	H	93.97	-22.57	Avg	285.50	206.77	
4850	66.89	H	73.97	-7.08	Peak	45.50	127.43	
4850	46.89	H	53.97	-7.08	Avg	45.50	127.43	
7275	64.69	H	73.97	-9.28	Peak	105.00	127.49	
7275	44.69	H	53.97	-9.28	Avg	105.00	127.49	
9700								**No Emission**
9700								**Detected**
12125								**No Emission**
12125								**Detected**
14550								**No Emission**
14550								**Detected**
16975								**No Emission**
16975								**Detected**
19400								**No Emission**
19400								**Detected**
21825								**No Emission**
21825								**Detected**
24250								**No Emission**
24250								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
Low Channel
Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	94.64	V	113.97	-19.33	Peak	297.00	126.95	
2425	74.64	V	93.97	-19.33	Avg	297.00	126.95	
4850	66.34	V	73.97	-7.63	Peak	55.25	127.37	
4850	46.34	V	53.97	-7.63	Avg	55.25	127.37	
7275	66.33	V	73.97	-7.64	Peak	305.25	111.37	
7275	46.33	V	53.97	-7.64	Avg	305.25	111.37	
9700								**No Emission**
9700								**Detected**
12125								**No Emission**
12125								**Detected**
14550								**No Emission**
14550								**Detected**
16975								**No Emission**
16975								**Detected**
19400								**No Emission**
19400								**Detected**
21825								**No Emission**
21825								**Detected**
24250								**No Emission**
24250								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
Low Channel
Z-
Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	96.91	H	113.97	-17.06	Peak	52.50	110.89	
2425	76.91	H	93.97	-17.06	Avg	52.50	110.89	
4850	66.88	H	73.97	-7.09	Peak	172.50	128.86	
4850	46.88	H	53.97	-7.09	Avg	172.50	128.86	
7275	69.81	H	73.97	-4.16	Peak	75.00	111.43	
7275	49.81	H	53.97	-4.16	Avg	75.00	111.43	
9700								**No Emission**
9700								**Detected**
12125								**No Emission**
12125								**Detected**
14550								**No Emission**
14550								**Detected**
16975								**No Emission**
16975								**Detected**
19400								**No Emission**
19400								**Detected**
21825								**No Emission**
21825								**Detected**
24250								**No Emission**
24250								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
Middle Channel
X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2450	90.70	V	113.97	-23.27	Peak	131.00	110.95	
2450	70.70	V	93.97	-23.27	Avg	131.00	110.95	
4900	57.62	V	73.97	-16.35	Peak	150.00	143.31	
4900	37.62	V	53.97	-16.35	Avg	150.00	143.31	
7350	65.56	V	73.97	-8.41	Peak	74.00	159.25	
7350	45.56	V	53.97	-8.41	Avg	74.00	159.25	
9800								**No Emission**
9800								**Detected**
12250								**No Emission**
12250								**Detected**
14700								**No Emission**
14700								**Detected**
17150								**No Emission**
17150								**Detected**
19600								**No Emission**
19600								**Detected**
22050								**No Emission**
22050								**Detected**
24500								**No Emission**
24500								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
Middle Channel
X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2450	102.35	H	113.97	-11.62	Peak	99.08	175.07	
2450	82.35	H	93.97	-11.62	Avg	99.08	175.07	
4900	65.06	H	73.97	-8.91	Peak	62.75	111.61	
4900	45.06	H	53.97	-8.91	Avg	62.75	111.61	
7350	66.68	H	73.97	-7.29	Peak	333.50	143.31	
7350	46.68	H	53.97	-7.29	Avg	333.50	143.31	
9800								**No Emission**
9800								**Detected**
12250								**No Emission**
12250								**Detected**
14700								**No Emission**
14700								**Detected**
17150								**No Emission**
17150								**Detected**
19600								**No Emission**
19600								**Detected**
22050								**No Emission**
22050								**Detected**
24500								**No Emission**
24500								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
Middle Channel
Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2450	99.42	V	113.97	-14.55	Peak	344.75	127.13	
2450	79.42	V	93.97	-14.55	Avg	344.75	127.13	
4900	59.51	V	73.97	-14.46	Peak	153.50	144.32	
4900	39.51	V	53.97	-14.46	Avg	153.50	144.32	
7350	66.73	V	73.97	-7.24	Peak	136.50	113.10	
7350	46.73	V	53.97	-7.24	Avg	136.50	113.10	
9800								**No Emission**
9800								**Detected**
12250								**No Emission**
12250								**Detected**
14700								**No Emission**
14700								**Detected**
17150								**No Emission**
17150								**Detected**
19600								**No Emission**
19600								**Detected**
22050								**No Emission**
22050								**Detected**
24500								**No Emission**
24500								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
Middle Channel
Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2450	91.49	H	113.97	-22.48	Peak	183.00	111.55	
2450	71.49	H	93.97	-22.48	Avg	183.00	111.55	
4900	66.43	H	73.97	-7.54	Peak	230.00	144.14	
4900	46.43	H	53.97	-7.54	Avg	230.00	144.14	
7350	61.70	H	73.97	-12.27	Peak	51.75	112.08	
7350	41.70	H	53.97	-12.27	Avg	51.75	112.08	
9800								**No Emission**
9800								**Detected**
12250								**No Emission**
12250								**Detected**
14700								**No Emission**
14700								**Detected**
17150								**No Emission**
17150								**Detected**
19600								**No Emission**
19600								**Detected**
22050								**No Emission**
22050								**Detected**
24500								**No Emission**
24500								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
Middle Channel
Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2450	100.93	V	113.97	-13.04	Peak	1.25	222.77	
2450	80.93	V	93.97	-13.04	Avg	1.25	222.77	
4900	69.71	V	73.97	-4.26	Peak	181.00	142.29	
4900	49.71	V	53.97	-4.26	Avg	181.00	142.29	
7350	65.96	V	73.97	-8.01	Peak	200.75	127.79	
7350	45.96	V	53.97	-8.01	Avg	200.75	127.79	
9800								**No Emission**
9800								**Detected**
12250								**No Emission**
12250								**Detected**
14700								**No Emission**
14700								**Detected**
17150								**No Emission**
17150								**Detected**
19600								**No Emission**
19600								**Detected**
22050								**No Emission**
22050								**Detected**
24500								**No Emission**
24500								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
Middle Channel
Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2450	98.46	H	113.97	-15.51	Peak	330.25	110.77	
2450	78.46	H	93.97	-15.51	Avg	330.25	110.77	
4900	66.94	H	73.97	-7.03	Peak	216.25	128.50	
4900	46.94	H	53.97	-7.03	Avg	216.25	128.50	
7350	62.89	H	73.97	-11.08	Peak	69.00	112.74	
7350	42.89	H	53.97	-11.08	Avg	69.00	112.74	
9800								**No Emission**
9800								**Detected**
12250								**No Emission**
12250								**Detected**
14700								**No Emission**
14700								**Detected**
17150								**No Emission**
17150								**Detected**
19600								**No Emission**
19600								**Detected**
22050								**No Emission**
22050								**Detected**
24500								**No Emission**
24500								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
High Channel
X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2475	92.61	V	113.97	-21.36	Peak	215.25	110.71	
2475	72.61	V	93.97	-21.36	Avg	215.25	110.71	
4950	56.08	V	73.97	-17.89	Peak	257.00	143.19	
4950	36.08	V	53.97	-17.89	Avg	257.00	143.19	
7425	66.36	V	73.97	-7.61	Peak	180.75	111.49	
7425	46.36	V	53.97	-7.61	Avg	180.75	111.49	
9900								**No Emission**
9900								**Detected**
12375								**No Emission**
12375								**Detected**
14850								**No Emission**
14850								**Detected**
17325								**No Emission**
17325								**Detected**
19800								**No Emission**
19800								**Detected**
22275								**No Emission**
22275								**Detected**
24750								**No Emission**
24750								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
High Channel
X-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2475	101.42	H	113.97	-12.55	Peak	153.25	110.77	
2475	81.42	H	93.97	-12.55	Avg	153.25	110.77	
4950	68.86	H	73.97	-5.11	Peak	179.50	127.25	
4950	48.86	H	53.97	-5.11	Avg	179.50	127.25	
7425	67.48	H	73.97	-6.49	Peak	131.25	143.19	
7425	47.48	H	53.97	-6.49	Avg	131.25	143.19	
9900								**No Emission**
9900								**Detected**
12375								**No Emission**
12375								**Detected**
14850								**No Emission**
14850								**Detected**
17325								**No Emission**
17325								**Detected**
19800								**No Emission**
19800								**Detected**
22275								**No Emission**
22275								**Detected**
24750								**No Emission**
24750								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
High Channel
Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2475	97.76	V	113.97	-16.21	Peak	59.25	126.95	
2475	77.76	V	93.97	-16.21	Avg	59.25	126.95	
4950	67.11	V	73.97	-6.86	Peak	127.50	111.13	
4950	47.11	V	53.97	-6.86	Avg	127.50	111.13	
7425	65.38	V	73.97	-8.59	Peak	116.50	142.59	
7425	45.38	V	53.97	-8.59	Avg	116.50	142.59	
9900								**No Emission**
9900								**Detected**
12375								**No Emission**
12375								**Detected**
14850								**No Emission**
14850								**Detected**
17325								**No Emission**
17325								**Detected**
19800								**No Emission**
19800								**Detected**
22275								**No Emission**
22275								**Detected**
24750								**No Emission**
24750								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
High Channel
Y-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2475	87.32	H	113.97	-26.65	Peak	329.75	126.77	
2475	67.32	H	93.97	-26.65	Avg	329.75	126.77	
4950	68.60	H	73.97	-5.37	Peak	347.75	142.41	
4950	48.60	H	53.97	-5.37	Avg	347.75	142.41	
7425	61.62	H	73.97	-12.35	Peak	24.50	111.13	
7425	41.62	H	53.97	-12.35	Avg	24.50	111.13	
9900								**No Emission**
9900								**Detected**
12375								**No Emission**
12375								**Detected**
14850								**No Emission**
14850								**Detected**
17325								**No Emission**
17325								**Detected**
19800								**No Emission**
19800								**Detected**
22275								**No Emission**
22275								**Detected**
24750								**No Emission**
24750								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
High Channel
Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2475	94.78	V	113.97	-19.19	Peak	359.75	175.43	
2475	74.78	V	93.97	-19.19	Avg	359.75	175.43	
4950	68.97	V	73.97	-5.00	Peak	4.25	111.19	
4950	48.97	V	53.97	-5.00	Avg	4.25	111.19	
7425	65.07	V	73.97	-8.90	Peak	133.50	111.25	
7425	45.07	V	53.97	-8.90	Avg	133.50	111.25	
9900								**No Emission**
9900								**Detected**
12375								**No Emission**
12375								**Detected**
14850								**No Emission**
14850								**Detected**
17325								**No Emission**
17325								**Detected**
19800								**No Emission**
19800								**Detected**
22275								**No Emission**
22275								**Detected**
24750								**No Emission**
24750								**Detected**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
High Channel
Z-Axis

Freq. (MHz)	Level (dBuV/m)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2475	98.86	H	113.97	-15.11	Peak	50.25	126.95	
2475	78.86	H	93.97	-15.11	Avg	50.25	126.95	
4950	69.02	H	73.97	-4.95	Peak	245.25	144.62	
4950	49.02	H	53.97	-4.95	Avg	245.25	144.62	
7425	66.89	H	73.97	-7.08	Peak	340.75	112.14	
7425	46.89	H	53.97	-7.08	Avg	340.75	112.14	
9900								**No Emission**
9900								**Detected**
12375								**No Emission**
12375								**Detected**
14850								**No Emission**
14850								**Detected**
17325								**No Emission**
17325								**Detected**
19800								**No Emission**
19800								**Detected**
22275								**No Emission**
22275								**Detected**
24750								**No Emission**
24750								**Detected**

FCC 15.249

Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/08/2016
Lab: D

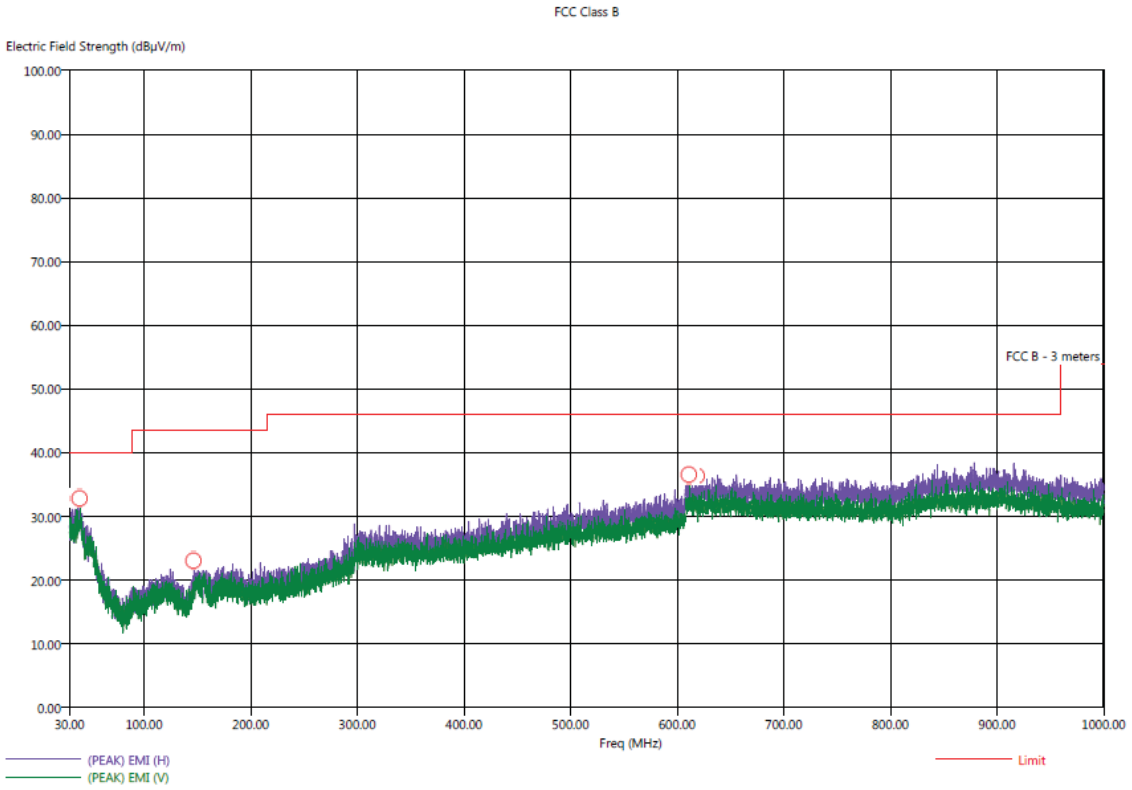
Tested By: Kyle Fujimoto

Antenna 1
Digital Portion and Non-Harmonic Emissions from the Transmitter
Vertical and Horizontal Polarization

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissions from the
								Digital Portion of the EUT
								from 10 kHz to 30 MHz
								No Emissions from the
								Non-Harmonic emissions
								of the TX from 10 kHz
								to 30 MHz
								No Emissions from the
								Digital Portion of the EUT
								from 1 GHz to 25 GHz
								No Emissions from the
								Non-Harmonic emissions
								of the TX from 1 GHz
								to 25 GHz
								Tested in the X-Axis,
								Y-Axis, and Z-Axis

Title: Pre-Scan - FCC Class B
File: Agilent - Ant 0 - Pre-Scan - FCC Class B - 30 MHz to 1000 MHz - X-Axis.set
Operator: Kyle Fujimoto
EUT Type: Comcast XR15 Remote 2015
EUT Condition: The EUT is continuously transmitting at the low channel on Antenna 0 - X-axis
Comments: Company: Universal Electronics, Inc.
Model: URC-4352BC0-R
The Y-axis was the worst case

9/9/2016 4:31:44 PM
Sequence: Preliminary Scan



Title: Radiated Final - FCC Class B
File: Agilent - Ant 0 - Final Scan - FCC Class B - 30 MHz to 1000 MHz - X-Axis.set
Operator: Kyle Fujimoto
EUT Type: Comcast XR15 Remote 2015
EUT Condition: The EUT is continuously transmitting at the low channel on Antenna 0 - X-Axis
Comments: Company: Universal Electronics, Inc.
Model: URC-4352BC0-R
The X-Axis is the worst case

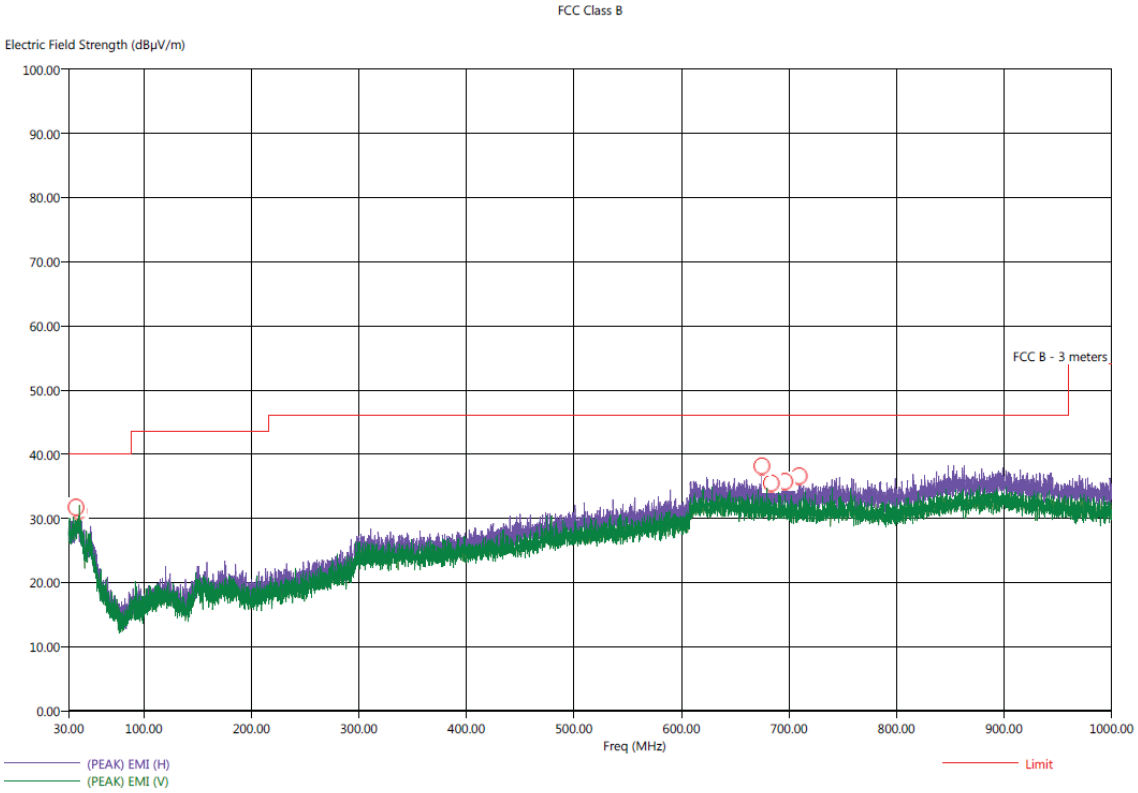
9/9/2016 4:45:10 PM
Sequence: Final Measurements

FCC Class B

Freq (MHz)	Pol	(PEAK) EMI (dBµV/m)	(QP) EMI (dBµV/m)	(PEAK) Margin (dB)	(QP) Margin (dB)	Limit (dBµV/m)	Transducer (dB)	Cable (dB)	Ttbl Agl (deg)	Twr Ht (cm)
39.70	H	33.52	27.55	-6.48	-12.45	40.00	25.33	0.39	170.25	143.49
146.70	H	21.92	16.89	-21.58	-26.61	43.50	15.91	0.89	169.00	399.85
611.60	H	36.72	31.25	-9.28	-14.75	46.00	23.84	2.00	263.25	207.73
618.40	H	36.03	31.36	-9.97	-14.64	46.00	23.92	2.02	166.75	368.38
618.40	V	37.02	32.36	-8.77	-13.64	46.00	23.92	2.02	177.50	351.76
709.70	V	34.51	29.76	-11.49	-16.24	46.00	24.10	2.18	153.25	206.97

Title: Pre-Scan - FCC Class B
File: Agilent - Ant 1 - Pre-Scan - FCC Class B - 30 MHz to 1000 MHz - X-Axis.set
Operator: Kyle Fujimoto
EUT Type: Comcast XR15 Remote 2015
EUT Condition: The EUT is continuously transmitting at the low channel on Antenna 1 - X-axis
Comments: Company: Universal Electronics, Inc.
Model: URC-4352BC0-R
The X-axis was the worst case

9/9/2016 3:26:01 PM
Sequence: Preliminary Scan



Title: Radiated Final - FCC Class B
File: Agilent - Ant 1 - Final Scan - FCC Class B - 30 MHz to 1000 MHz - X-Axis.set
Operator: Kyle Fujimoto
EUT Type: Comcast XR15 Remote 2015
EUT Condition: The EUT is continuously transmitting at the low channel on Antenna 1 - X-Axis
Comments: Company: Universal Electronics, Inc.
Model: URC-4352BC0-R
The X-Axis is the worst case

9/9/2016 3:55:48 PM
Sequence: Final Measurements

FCC Class B

Freq (MHz)	Pol	(PEAK) EMI (dBµV/m)	(QP) EMI (dBµV/m)	(PEAK) Margin (dB)	(QP) Margin (dB)	Limit (dBµV/m)	Transducer (dB)	Cable (dB)	Ttbl Aql (deg)	Twr Ht (cm)
37.00	H	32.71	27.04	-7.29	-12.96	40.00	24.79	0.38	72.75	384.26
39.40	H	32.86	27.60	-7.14	-12.40	40.00	25.31	0.39	354.50	352.26
674.90	H	36.87	31.17	-9.13	-14.83	46.00	24.15	2.12	160.25	159.31
683.60	H	36.14	30.91	-9.86	-15.09	46.00	24.10	2.12	118.25	319.97
696.30	H	36.24	30.89	-9.76	-15.11	46.00	24.02	2.13	181.50	399.79
709.70	H	35.51	30.76	-10.49	-15.24	46.00	24.10	2.18	128.50	239.79

BAND EDGES DATA SHEETS

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

Date: 09/09/2016
Lab: D
Tested By: James Ross

Antenna 0
Band Edges
Worst Case Axis

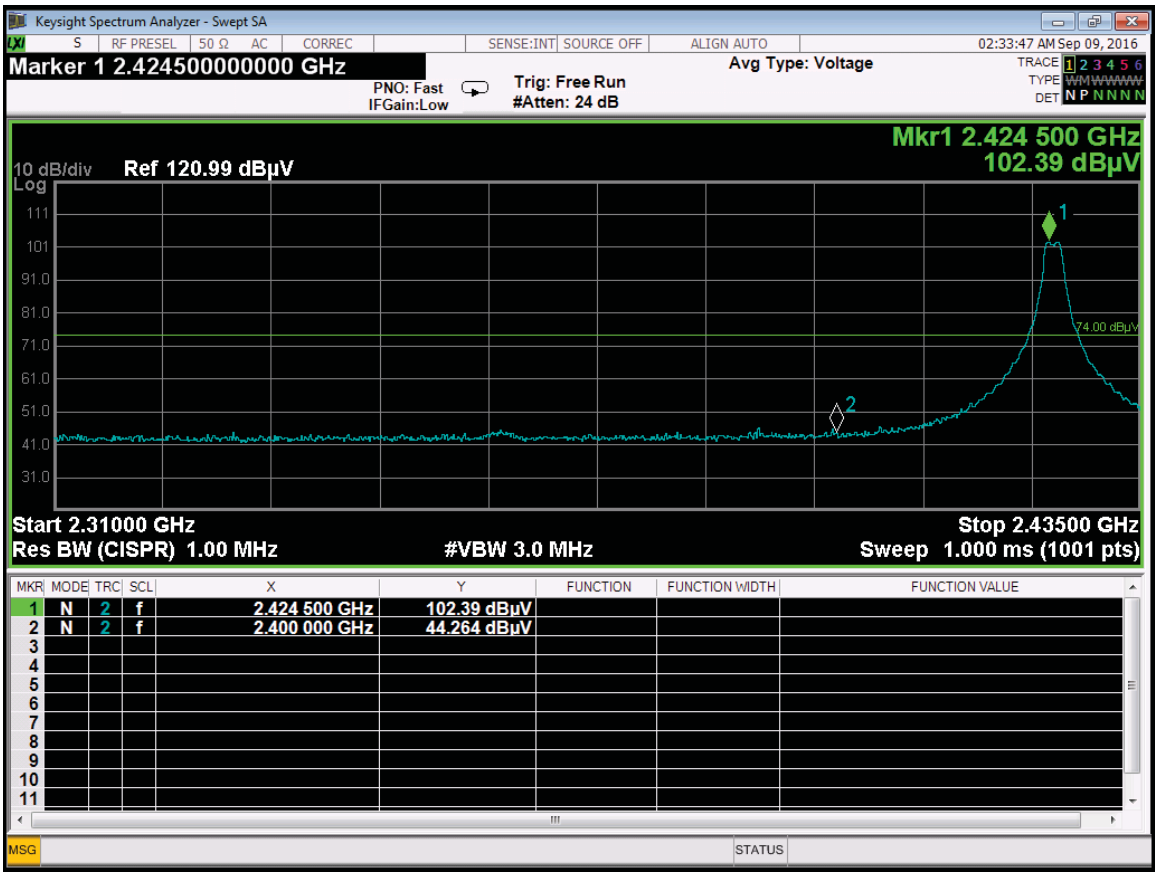
Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	102.39	V	113.97	-11.58	Peak	0.00	170.00	**Fundamental**
2425	83.39	V	93.97	-11.58	Avg	0.00	170.00	**Low Channel - Z-Axis**
2400	44.26	V	73.97	-29.71	Peak	0.00	170.00	**Band Edge**
2400	24.26	V	53.97	-29.71	Avg	0.00	170.00	**Low Channel - Z-Axis**
2425	102.12	H	113.97	-11.85	Peak	0.00	141.40	**Fundamental**
2425	82.12	H	93.97	-11.85	Avg	0.00	141.40	**Low Channel - X-Axis**
2400	43.85	H	73.97	-30.12	Peak	0.00	141.40	**Band Edge**
2400	23.85	H	53.97	-30.12	Avg	0.00	141.40	**Low Channel - X-Axis**
2475	99.56	V	113.97	-14.41	Peak	0.00	150.00	**Fundamental**
2475	79.56	V	93.97	-14.41	Avg	0.00	150.00	**High Channel - Z-Axis**
2483.5	51.67	V	73.97	-22.30	Peak	0.00	150.00	**Band Edge**
2483.5	31.67	V	53.97	-22.30	Avg	0.00	150.00	**High Channel - Z-Axis**
2475	100.85	H	113.97	-13.12	Peak	10.00	100.00	**Fundamental**
2475	80.85	H	93.97	-13.12	Avg	10.00	100.00	**High Channel - X-Axis**
2483.5	52.82	H	73.97	-21.15	Peak	10.00	100.00	**Band Edge**
2483.5	32.82	H	53.97	-21.15	Avg	10.00	100.00	**High Channel - X-Axis**

FCC 15.249
Universal Electronics, Inc.
Comcast XR15 Remote 2015
Model: URC-4352BC0-X-R

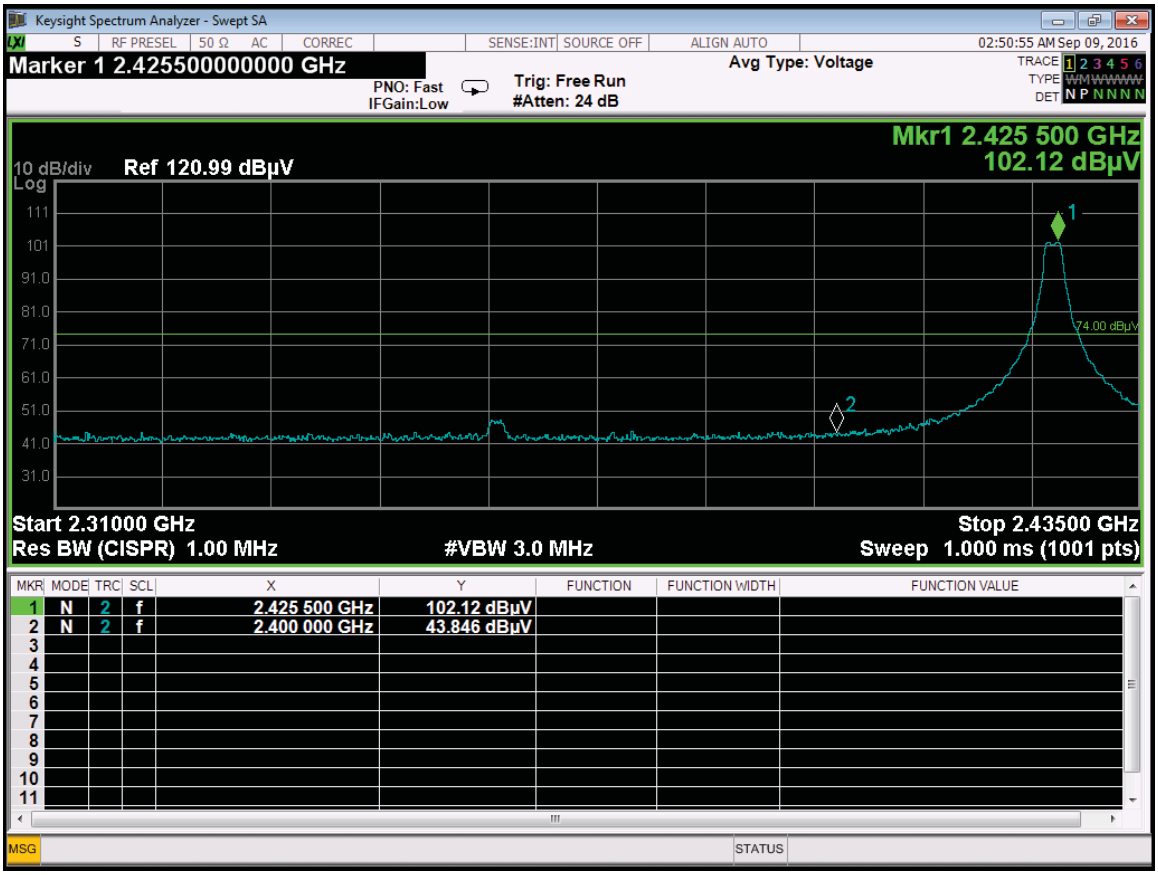
Date: 09/10/2016
Lab: D
Tested By: Kyle Fujimoto

Antenna 1
Band Edges
Worst Case Axis

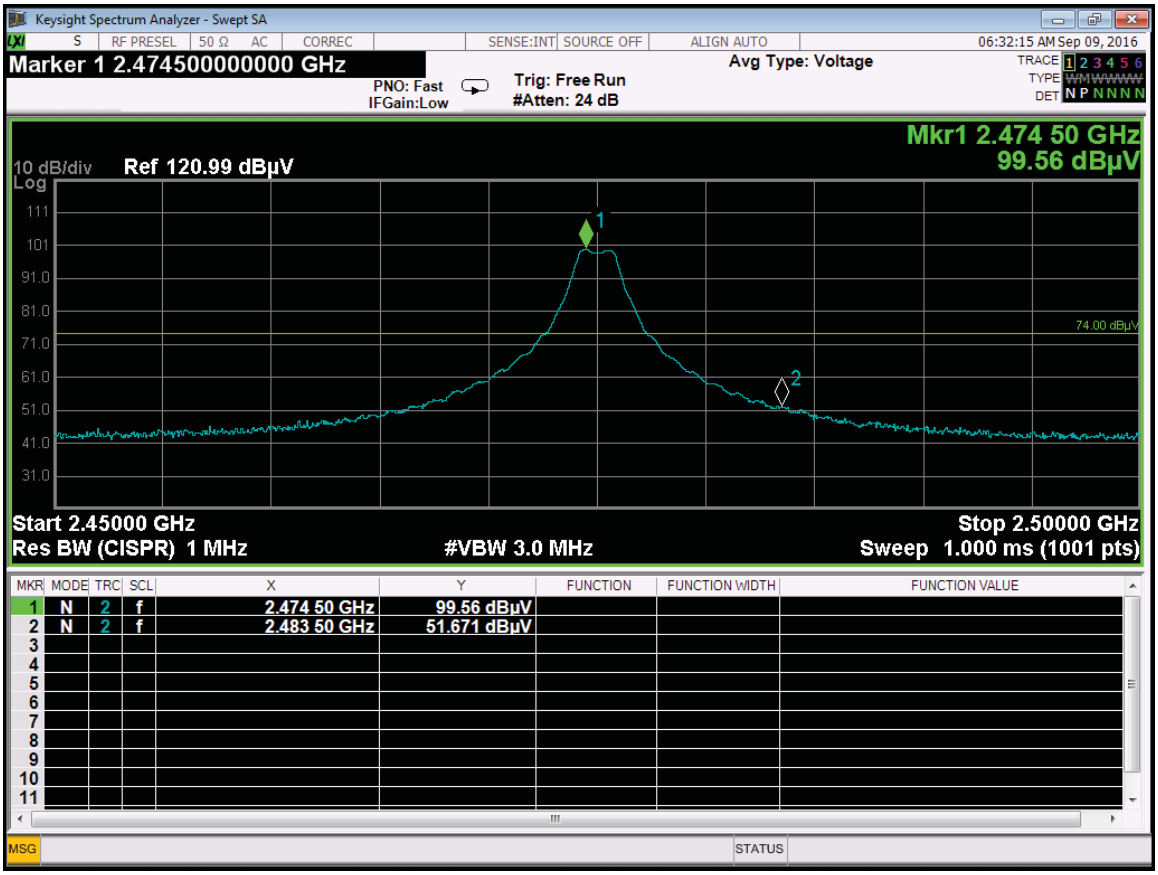
Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Table Angle (deg)	Ant. Height (cm)	Comments
2425	101.59	V	113.97	-12.38	Peak	0.00	126.77	**Fundamental**
2425	81.59	V	93.97	-12.38	Avg	0.00	126.77	**Low Channel - Y-Axis**
2400	42.41	V	73.97	-31.56	Peak	0.00	126.77	**Band Edge**
2400	22.41	V	53.97	-31.56	Avg	0.00	126.77	**Low Channel - Y-Axis**
2425	100.34	H	113.97	-13.63	Peak	220.25	126.89	**Fundamental**
2425	80.34	H	93.97	-13.63	Avg	220.25	126.89	**Low Channel - X-Axis**
2400	42.47	H	73.97	-31.50	Peak	220.25	126.89	**Band Edge**
2400	22.47	H	53.97	-31.50	Avg	220.25	126.89	**Low Channel - X-Axis**
2475	97.76	V	113.97	-16.21	Peak	59.25	126.95	**Fundamental**
2475	77.76	V	93.97	-16.21	Avg	59.25	126.95	**High Channel - Y-Axis**
2483.5	50.34	V	73.97	-23.63	Peak	59.25	126.95	**Band Edge**
2483.5	30.34	V	53.97	-23.63	Avg	59.25	126.95	**High Channel - Y-Axis**
2475	101.42	H	113.97	-12.55	Peak	153.25	110.77	**Fundamental**
2475	81.42	H	93.97	-12.55	Avg	153.25	110.77	**High Channel - X-Axis**
2483.5	53.39	H	73.97	-20.58	Peak	153.25	110.77	**Band Edge**
2483.5	33.39	H	53.97	-20.58	Avg	153.25	110.77	**High Channel - X-Axis**



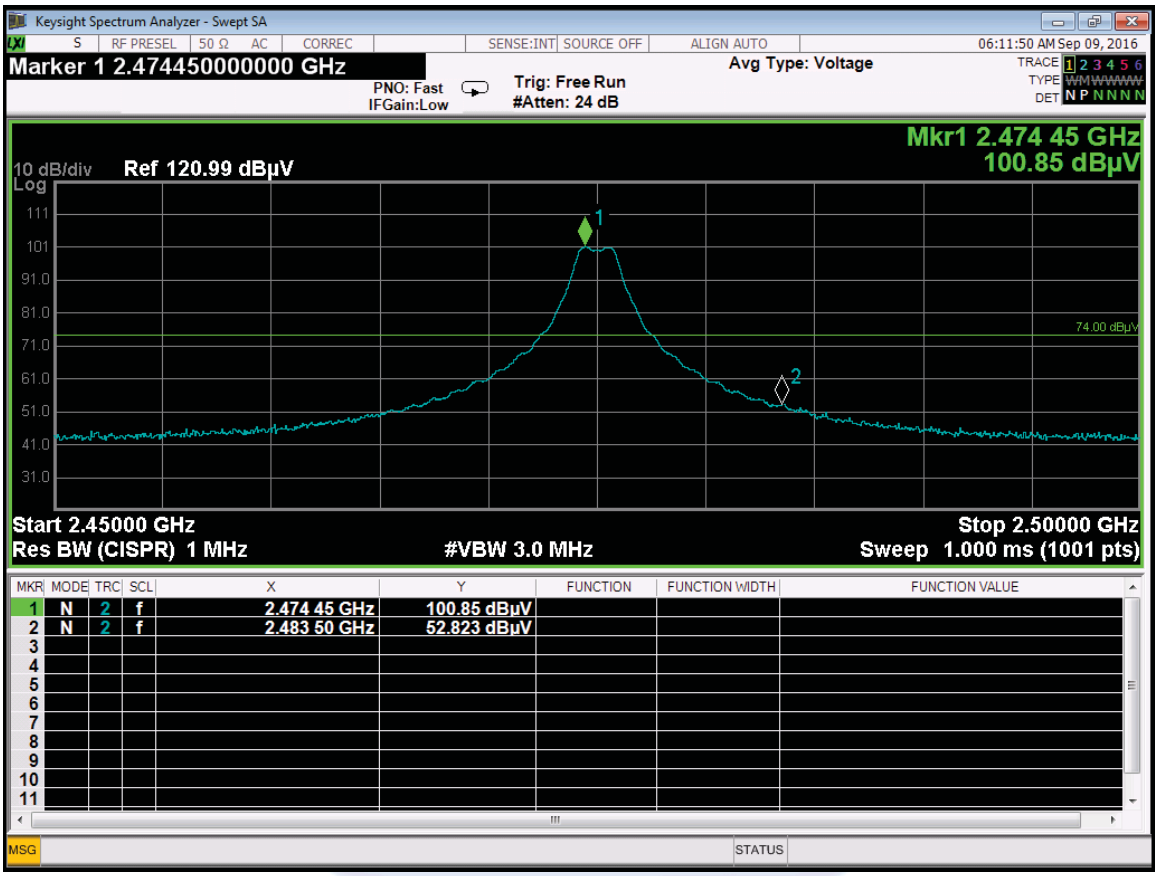
Band Edge – Vertical Polarization – Low Channel – Model: URC-4352BC0-X-R – Z-Axis Worst Case – Antenna 0



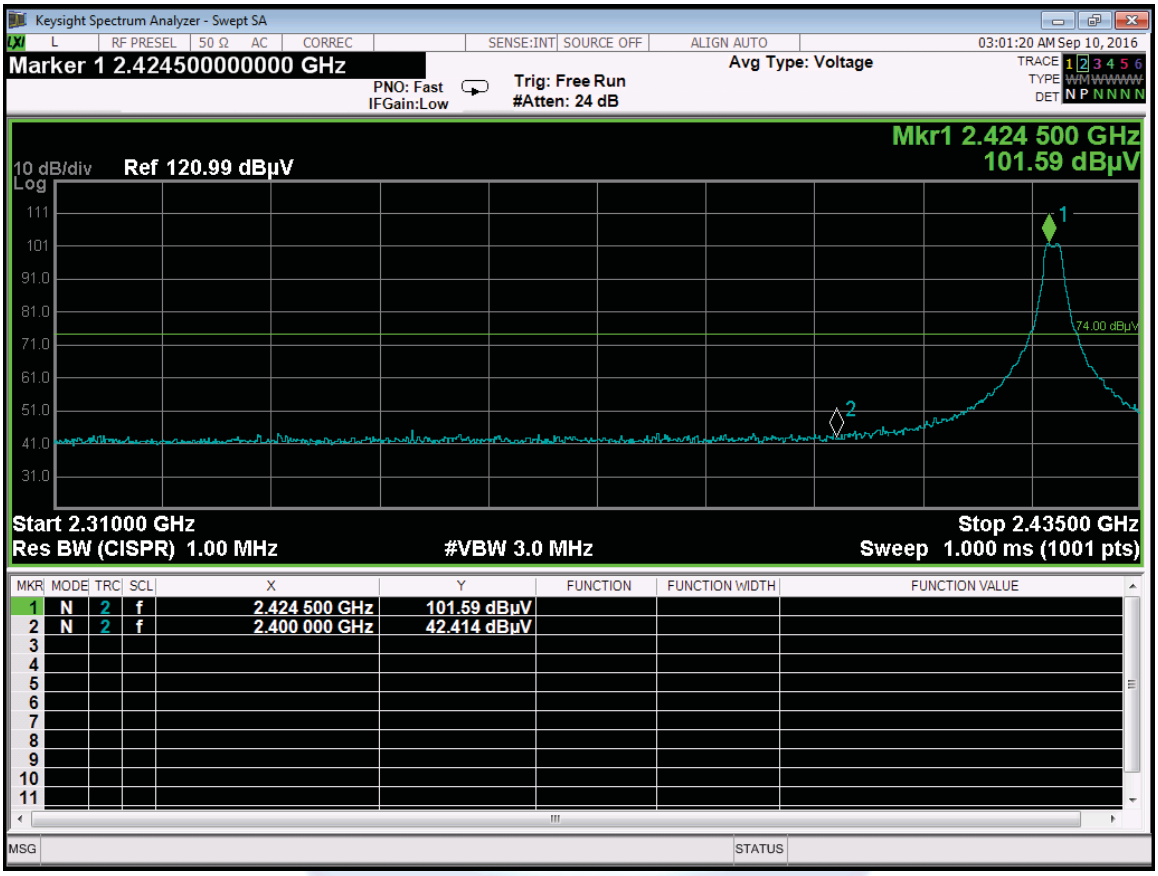
Band Edge – Horizontal Polarization – Low Channel – Model: URC-4352BC0-X-R – X-Axis Worst Case – Antenna 0



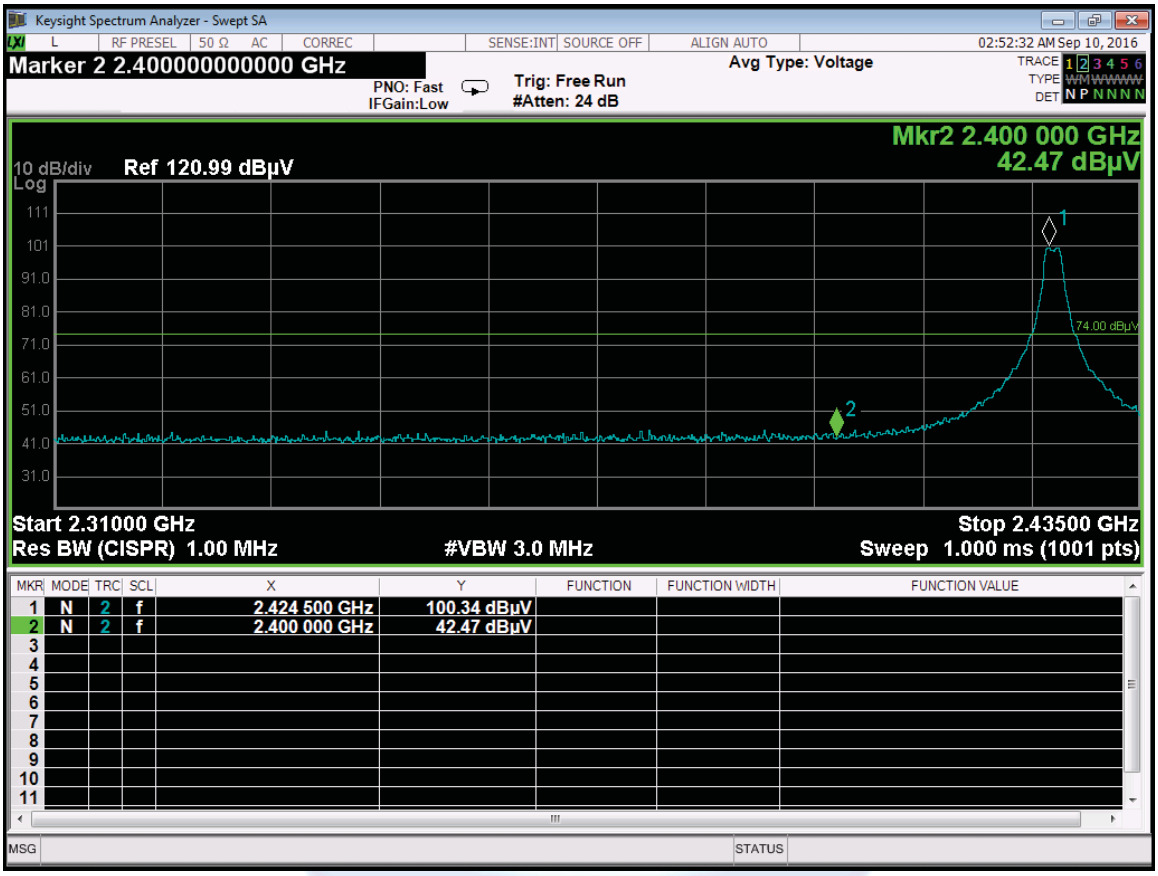
Band Edge – Vertical Polarization – Low Channel – Model: URC-4352BC0-X-R – Z-Axis Worst Case – Antenna 0



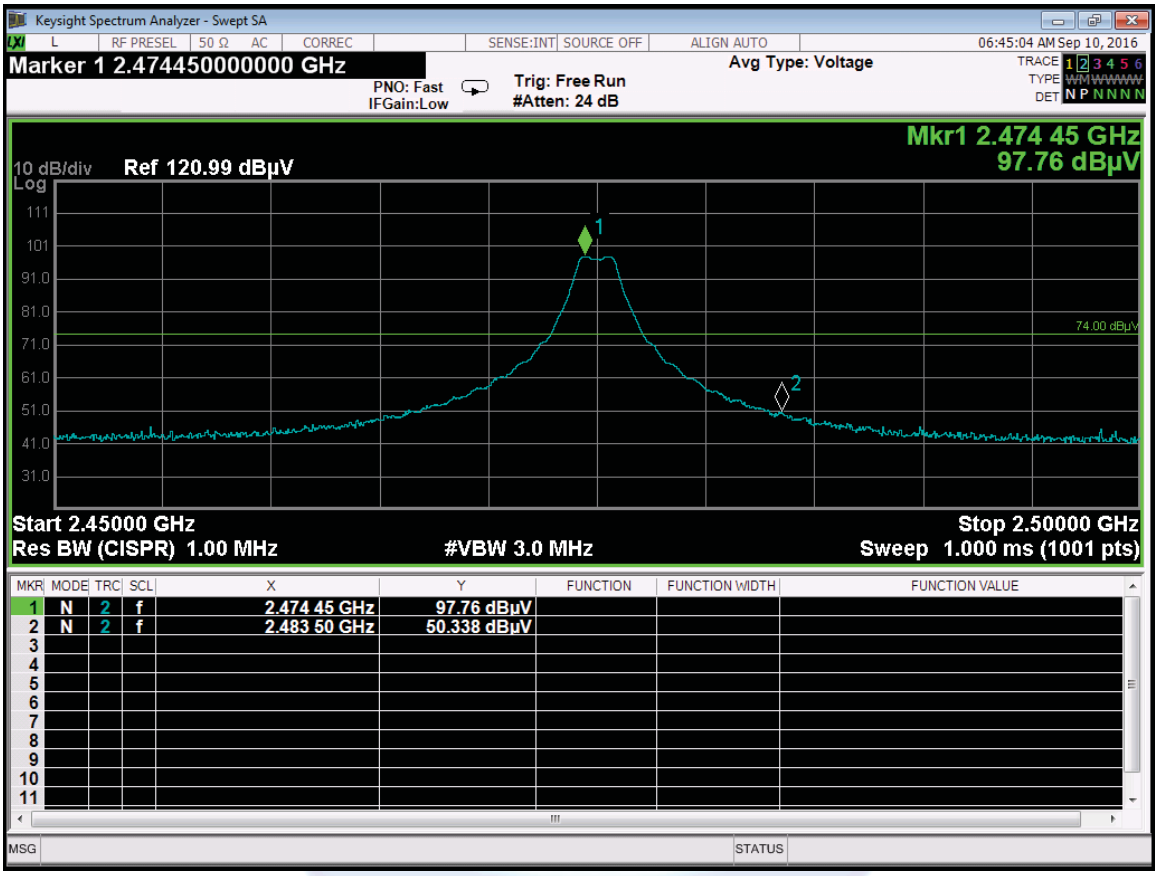
Band Edge – Horizontal Polarization – High Channel – Model: URC-4352BC0-X-R – X-Axis Worst Case – Antenna 0



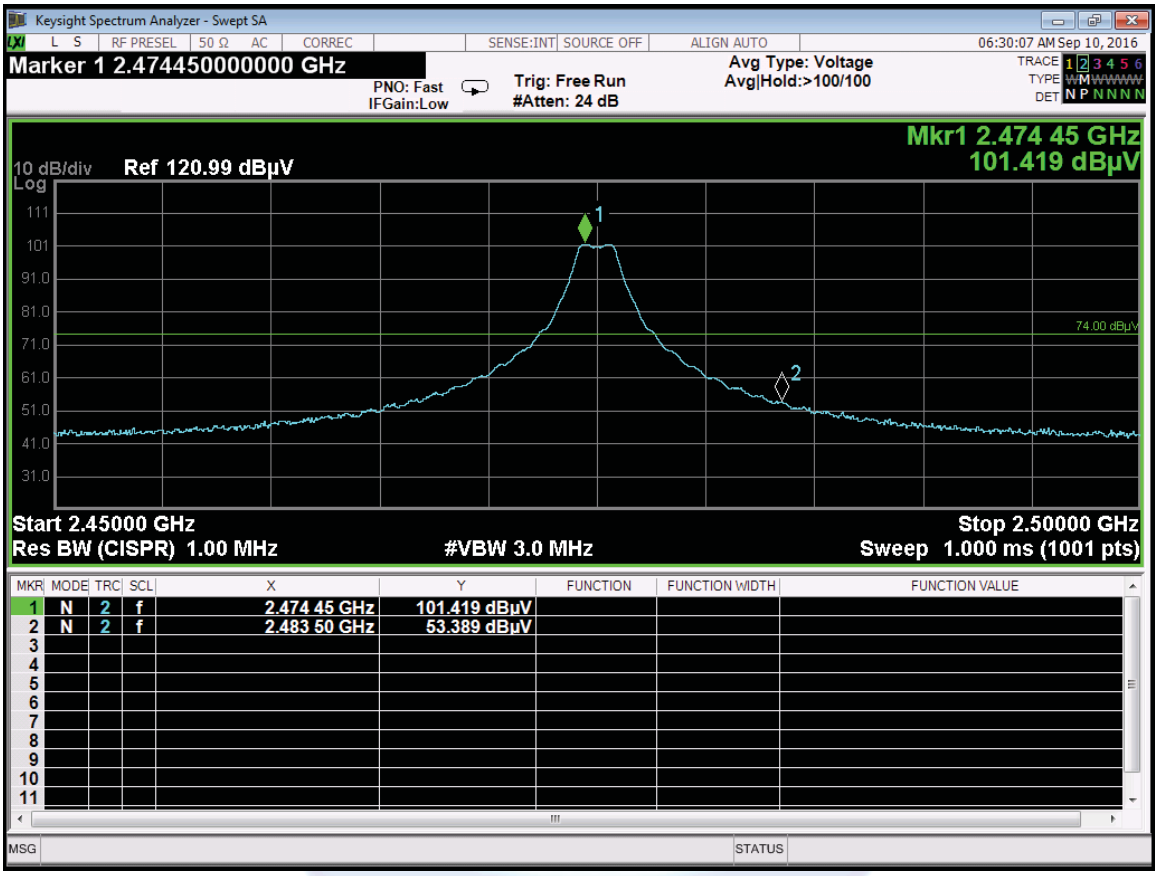
Band Edge – Vertical Polarization – Low Channel – Model: URC-4352BC0-X-R – Y-Axis Worst Case – Antenna 1



Band Edge – Horizontal Polarization – Low Channel – Model: URC-4352BC0-X-R –X-Axis Worst Case – Antenna 1

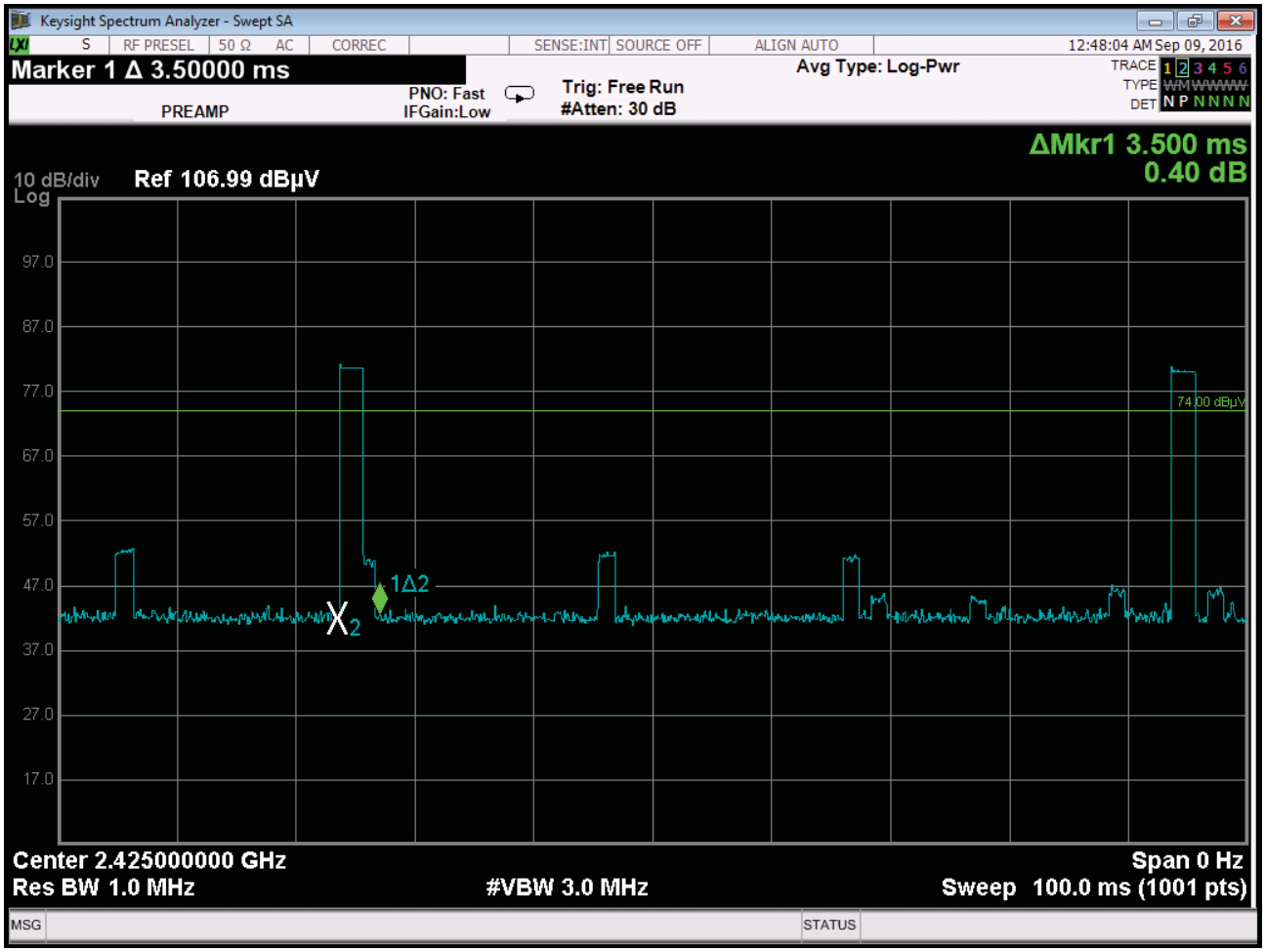


Band Edge – Vertical Polarization – High Channel – Model: URC-4352BC0-X-R – Y-Axis Worst Case – Antenna 1

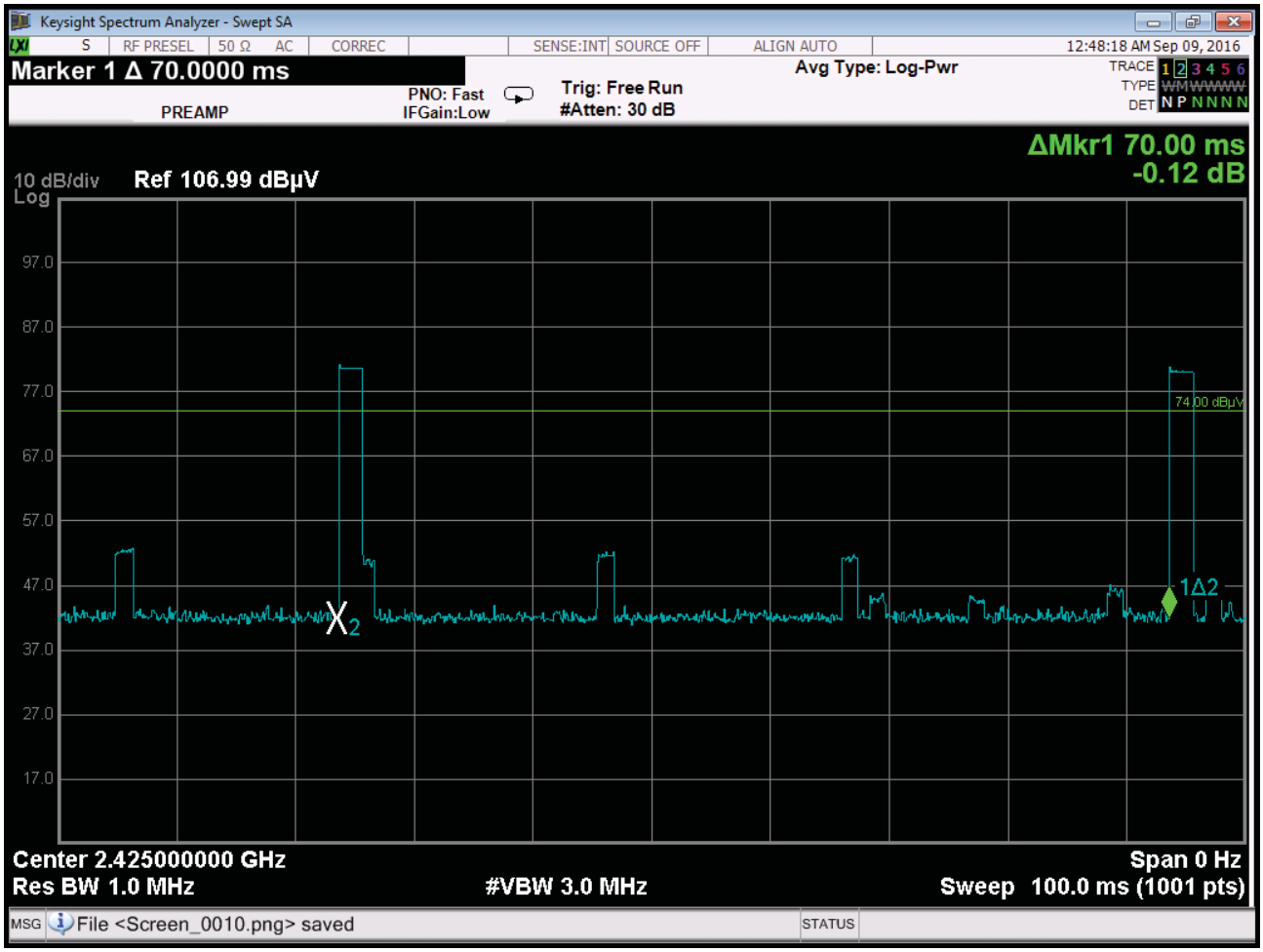


Band Edge – Horizontal Polarization – High Channel – Model: URC-4352BC0-X-R – X-Axis Worst Case – Antenna 1

DUTY CYCLE DATA SHEETS



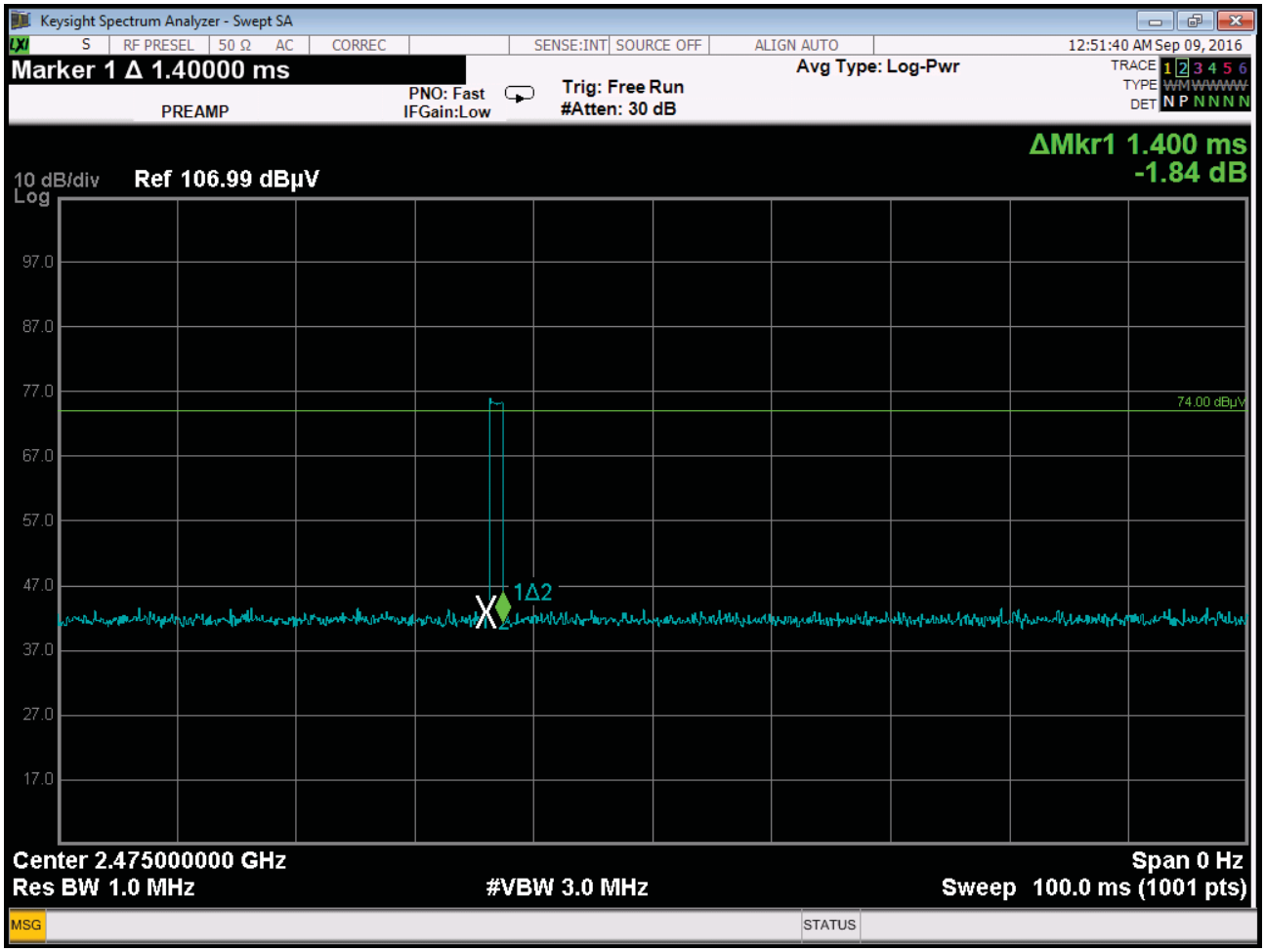
Time of One Pulse – 3.5 ms – Advertising Mode



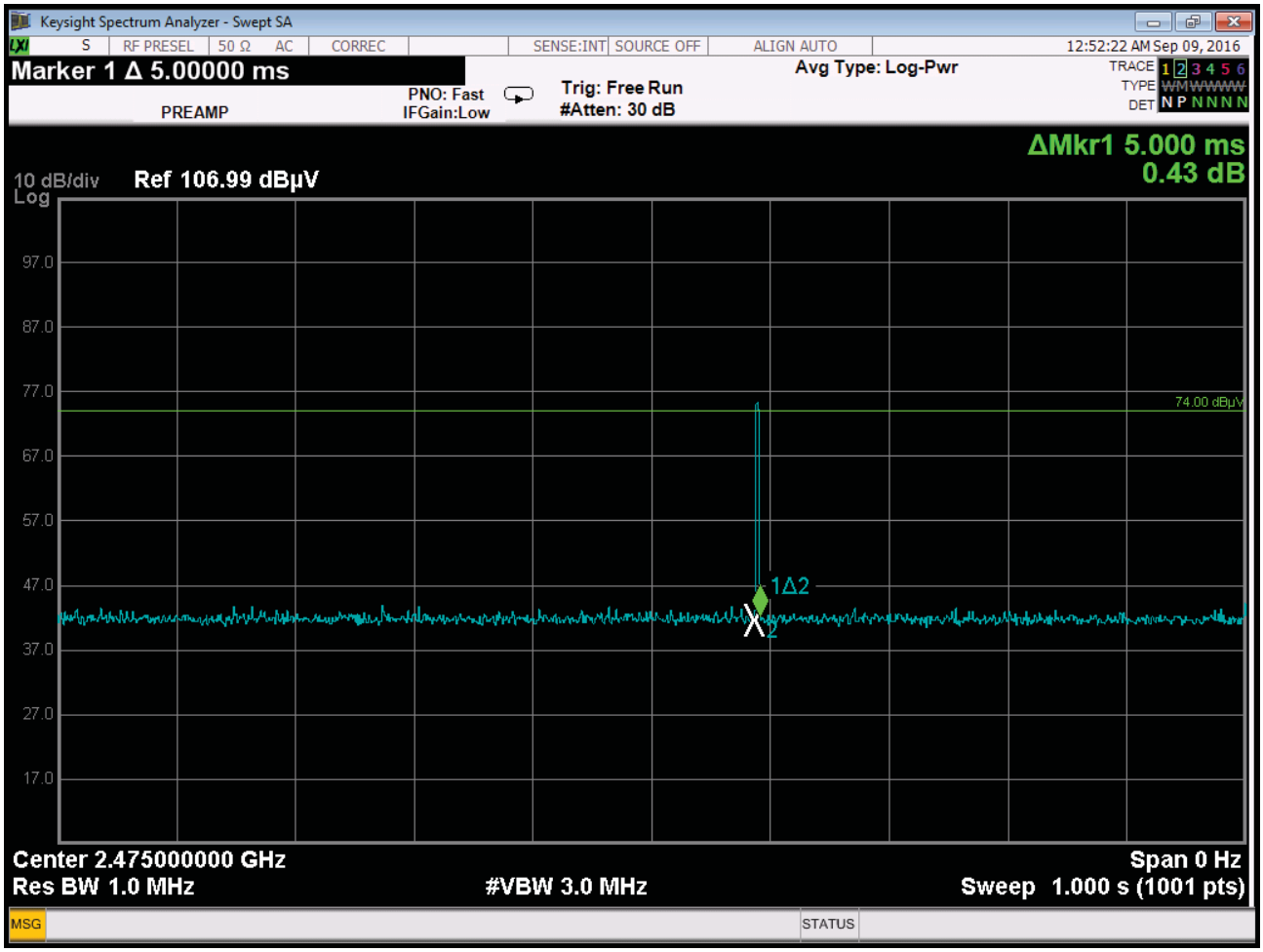
Time between Pulses worst case is 70 ms – Advertising Mode

Duty Cycle = 5.00% (3.5 ms / 70 ms)

The maximum of -20 dB Peak to Average ratio can be utilized



Time of One Pulse – 1.4 ms – Pairing Mode



Number of Pulses in worst case 100 ms is 1. – Pairing Mode

Duty Cycle = 1.40% (1.40 ms / 100 ms)

The maximum of -20 dB Peak to Average ratio can be utilized