

**FCC PART 15 SUBPART B and C
TEST REPORT***for***INTEL COPPER TRAIL REMOTE 2012
MODEL: URC-3040BC0-X-R**

Prepared for

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

Prepared by: _____

ALEX BENITEZ

Approved by: _____

KYLE FUJIMOTO

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

DATE: JANUARY 16, 2013

| | REPORT BODY | APPENDICES | | | | | TOTAL |
|-------|----------------|------------|---|---|----|----|-------|
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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: Intel Copper Trail Remote 2012
Model: URC-3040BC0-X-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 511495

Test Date(s): December 28 and 31, 2012
January 3, 2012

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

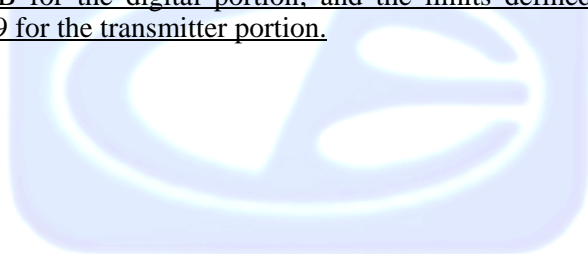
Test Deviations: The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

| TEST | DESCRIPTION | RESULTS |
|------|---|--|
| 1 | Conducted RF Emissions 150 kHz to 30 MHz | This test was not performed because the EUT operates on battery power. |
| 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 Intel Copper Trail Remote 2012, Model: URC-3040BC0-X-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, 15.209, 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.

Alex Benitez Test Technician

Kyle Fujimoto Test Engineer

2.4 Date Test Sample was Received

The test sample was received prior to the initial test date of December 28, 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

The Intel Copper Trail Remote 2012, Model: URC-3040BC0-X-R (EUT) was tested as a stand alone unit. The EUT had a special test program that allowed the low, middle, or high channels, to be tested while continuously transmitting. The EUT was tested in three orthogonal axis.

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

There were no external cables connected to the EUT.

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

| EQUIPMENT | MANUFACTURER | MODEL NUMBER | SERIAL NUMBER | FCC ID |
|---|--------------------------------|---------------------|----------------------|---------------|
| INTEL COPPER TRAIL REMOTE 2012 (EUT) | UNIVERSAL ELECTRONICS, INC. | URC-3040BC0-X-R | N/A | MG3-3040 |

5.2 Emissions Test Equipment

| EQUIPMENT TYPE | MANUFACTURER | MODEL NUMBER | SERIAL NUMBER | CALIBRATION DATE | CALIBRATION DUE DATE |
|---|-----------------|--------------|---------------|-------------------|----------------------|
| GENERAL TEST EQUIPMENT USED IN LAB B | | | | | |
| Computer | Compaq | CQ5210F | CNX9360CF9 | N/A | N/A |
| Monitor | Hewlett Packard | HPs2031a | 3CQ046N3MD | N/A | N/A |
| EMI Receiver | Rohde & Schwarz | ESIB40 | 100194 | November 19, 2012 | 2 Years |
| GENERAL TEST EQUIPMENT USED IN LAB D | | | | | |
| Computer | Hewlett Packard | p6716f | MXX1030PX0 | N/A | N/A |
| Monitor | Hewlett Packard | HPs2031a | 3CQ046N3MG | N/A | N/A |
| Spectrum Analyzer – Main Section | Hewlett Packard | 8568B | 2517A01563 | May 30, 2012 | 1 Year |
| Spectrum Analyzer – Display Section | Hewlett Packard | 85662A | 2648A15285 | May 30, 2012 | 1 Year |
| Quasi-Peak Adapter | Hewlett Packard | 85650A | 2430A00424 | May 30, 2012 | 1 Year |
| RF RADIATED EMISSIONS TEST EQUIPMENT | | | | | |
| Biconical Antenna | Com Power | AB-900 | 43028 | May 24, 2012 | 1 Year |
| Log Periodic Antenna | Com Power | AL-100 | 16252 | May 24, 2012 | 1 Year |
| Preamplifier | Com-Power | CPPA-102 | 1017 | December 27, 2012 | 1 Year |
| Preamplifier | Com-Power | PA-118 | 181656 | December 27, 2012 | 1 Year |
| Preamplifier | Com-Power | PA-840 | 711013 | May 17, 2012 | 1 Year |
| Loop Antenna | Com-Power | AL-130 | 17089 | January 21, 2011 | 2 Years |
| Horn Antenna | Com-Power | AH-118 | 071175 | February 29, 2012 | 2 Years |
| Horn Antenna | Com-Power | AH-826 | 0071957 | N/A | N/A |
| Antenna Mast | Com Power | AM-100 | N/A | N/A | N/A |

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:

This test was not performed because the EUT operates on battery power.

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 ResultsTable 1.0 RADIATED EMISSION RESULTS
Intel Copper Trail Remote 2012, Model: URC-3040BC0-X-R

| Frequency MHz | Corrected Reading* dBuV | Specification Limit dBuV | Delta (Cor. Reading – Spec. Limit) dB |
|-------------------|----------------------------|-----------------------------|---|
| 4880 (H) (X-Axis) | 36.9 (A) | 54 | -17.1 |
| 4880 (V) (Y-Axis) | 36.59 (A) | 54 | -17.41 |
| 4880 (H) (Y-Axis) | 35.8 (A) | 54 | -18.2 |
| 4960 (V) (Y-Axis) | 34.91 (A) | 54 | -19.09 |
| 4884 (V) (Y-Axis) | 34.71 (A) | 54 | -19.29 |
| 4804 (V) (Y-Axis) | 34.56 (A) | 54 | -19.44 |

Notes:

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

8. CONCLUSIONS

The Intel Copper Trail Remote 2012, Model: URC-3040BC0-X-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, 15.209, 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

Intel Copper Trail Remote 2012
Model: URC-3040BC0-X-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

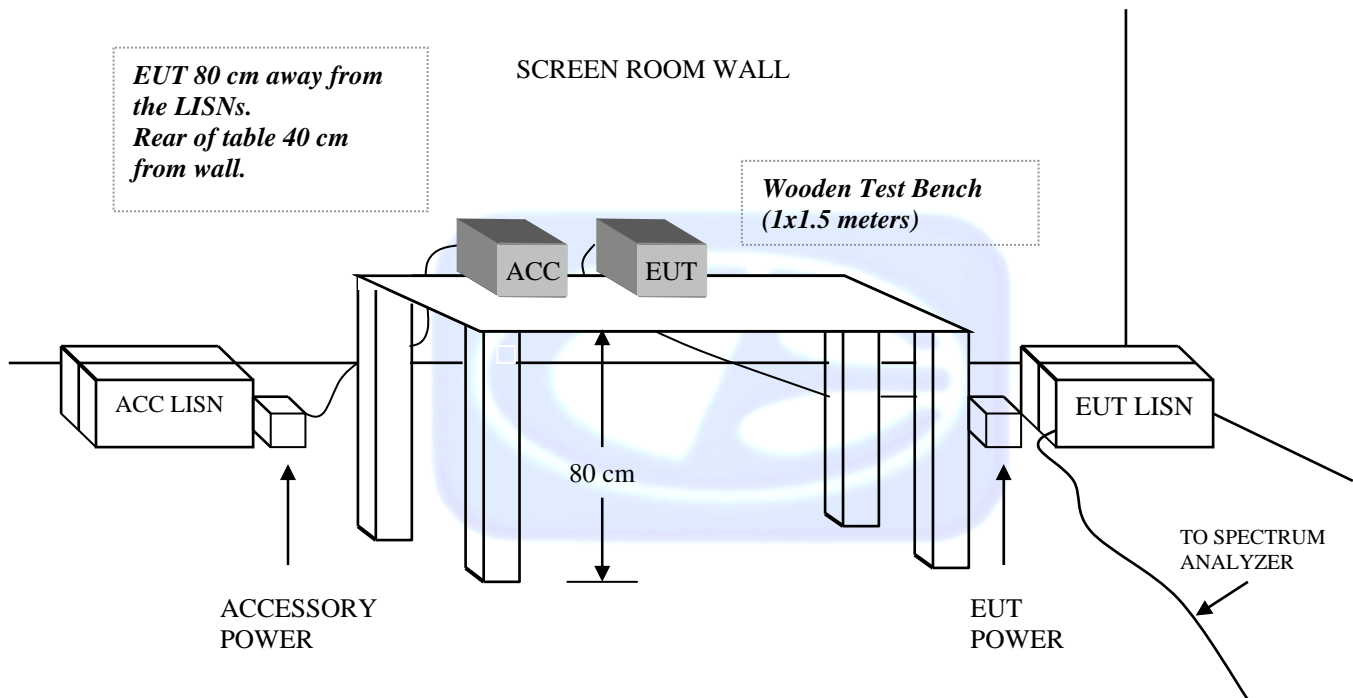
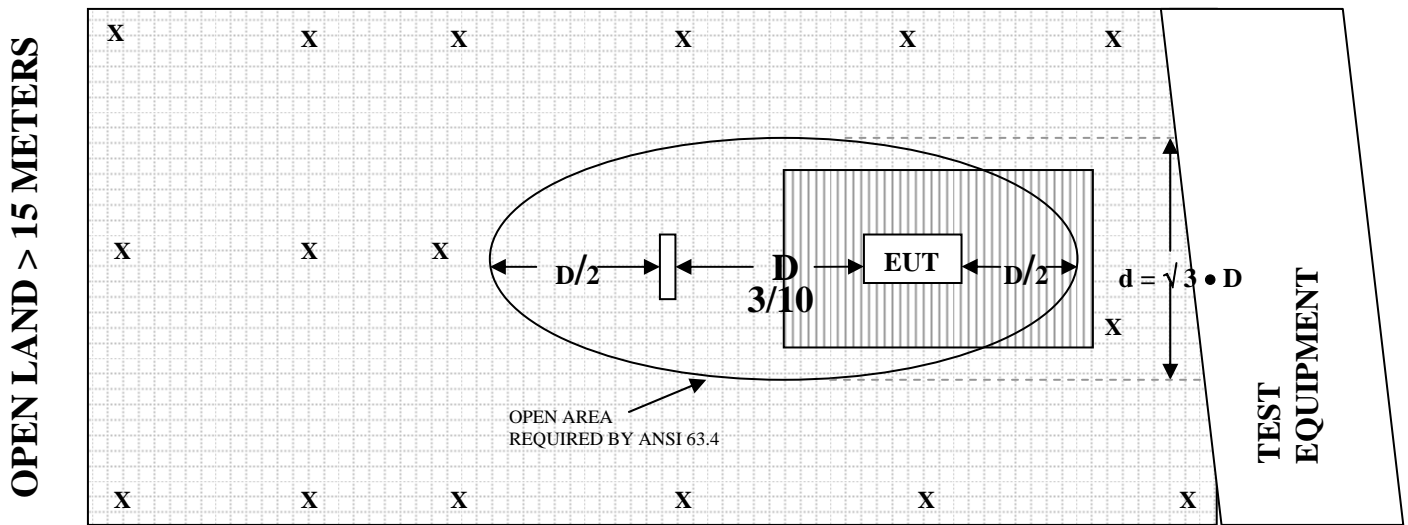


FIGURE 2: PLOT MAP AND LAYOUT OF THE RADIATED TEST SITE

OPEN LAND > 15 METERS



OPEN LAND > 15 METERS

- | | | | |
|----------|--------------------------|--|-----------------|
| X | = GROUND RODS | | = GROUND SCREEN |
| D | = TEST DISTANCE (meters) | | = WOOD COVER |

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 | 9.60 |
| 0.01 | -41.79 | 9.71 |
| 0.02 | -41.43 | 10.07 |
| 0.03 | -40.61 | 10.89 |
| 0.04 | -40.87 | 10.63 |
| 0.05 | -41.53 | 9.97 |
| 0.06 | -41.35 | 10.15 |
| 0.07 | -41.47 | 10.03 |
| 0.08 | -41.38 | 10.12 |
| 0.09 | -41.50 | 10.00 |
| 0.1 | -41.44 | 10.06 |
| 0.2 | -41.61 | 9.89 |
| 0.3 | -41.62 | 9.88 |
| 0.4 | -41.59 | 9.91 |
| 0.5 | -41.66 | 9.84 |
| 0.6 | -41.60 | 9.90 |
| 0.7 | -41.48 | 10.02 |
| 0.8 | -41.25 | 10.25 |
| 0.9 | -41.14 | 10.36 |
| 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 |
| 6 | -40.24 | 11.26 |
| 7 | -40.92 | 10.58 |
| 8 | -40.65 | 10.85 |
| 9 | -40.63 | 10.87 |
| 10 | -40.69 | 10.81 |
| 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 | 10.70 | 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 | 23.30 |
| 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 (GHz) | FACTOR (dB) | FREQUENCY (GHz) | FACTOR (dB) |
|----------------------------|------------------------|----------------------------|------------------------|
| 1.0 | 23.6 | 10.0 | 37.7 |
| 1.5 | 22.0 | 10.5 | 38.4 |
| 2.0 | 28.7 | 11.0 | 38.0 |
| 2.5 | 29.3 | 11.5 | 38.2 |
| 3.0 | 30.6 | 12.0 | 39.0 |
| 3.5 | 30.4 | 12.5 | 42.4 |
| 4.0 | 31.1 | 13.0 | 40.8 |
| 4.5 | 33.4 | 13.5 | 40.0 |
| 5.0 | 35.3 | 14.0 | 39.7 |
| 5.5 | 35.1 | 14.5 | 43.5 |
| 6.0 | 36.9 | 15.0 | 42.7 |
| 6.5 | 37.4 | 15.5 | 39.7 |
| 7.0 | 37.6 | 16.0 | 39.2 |
| 7.5 | 36.2 | 16.5 | 39.7 |
| 8.0 | 38.4 | 17.0 | 42.2 |
| 8.5 | 39.3 | 17.5 | 47.6 |
| 9.0 | 37.4 | 18.0 | 51.2 |
| 9.5 | 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 CPPA-102**PREAMPLIFIER**

S/N: 1017

CALIBRATION DATE: DECEMEBER 27, 2012

| FREQUENCY (MHz) | FACTOR (dB) | FREQUENCY (MHz) | FACTOR (dB) |
|----------------------------|------------------------|----------------------------|------------------------|
| 1 | 36.9 | 225 | 38.14 |
| 3 | 38.1 | 250 | 38.15 |
| 5 | 38.1 | 275 | 38.14 |
| 8 | 38.2 | 300 | 38.18 |
| 10 | 38.3 | 350 | 38.22 |
| 20 | 38.2 | 400 | 38.26 |
| 30 | 38.3 | 450 | 37.53 |
| 40 | 38.2 | 500 | 38.24 |
| 50 | 38.5 | 550 | 38.53 |
| 60 | 38.5 | 600 | 38.69 |
| 70 | 38.4 | 650 | 38.66 |
| 80 | 38.4 | 700 | 38.58 |
| 90 | 38.5 | 750 | 38.37 |
| 100 | 38.4 | 800 | 38.23 |
| 125 | 38.6 | 850 | 37.68 |
| 150 | 38.4 | 900 | 37.38 |
| 175 | 38.5 | 950 | 36.82 |
| 200 | 38.5 | 1000 | 36.14 |

COM-POWER PA-118**PREAMPLIFIER**

S/N: 181656

CALIBRATION DATE: DECEMBER 27, 2012

| FREQUENCY (GHz) | FACTOR (dB) | FREQUENCY (GHz) | FACTOR (dB) |
|----------------------------|------------------------|----------------------------|------------------------|
| 0.50 | 25.29 | 6.00 | 25.75 |
| 0.60 | 25.26 | 6.50 | 25.28 |
| 0.70 | 25.23 | 7.00 | 24.83 |
| 0.80 | 25.13 | 7.50 | 24.49 |
| 0.90 | 24.91 | 8.00 | 24.38 |
| 1.00 | 24.68 | 8.50 | 25.06 |
| 1.25 | 25.85 | 9.00 | 25.55 |
| 1.50 | 26.23 | 9.50 | 25.32 |
| 1.75 | 26.42 | 10.0 | 25.25 |
| 2.00 | 26.48 | 10.5 | 25.31 |
| 2.25 | 26.55 | 11.0 | 24.99 |
| 2.50 | 26.59 | 11.5 | 24.84 |
| 2.75 | 26.64 | 12.0 | 25.08 |
| 3.00 | 26.67 | 12.5 | 24.64 |
| 3.25 | 26.67 | 13.0 | 24.44 |
| 3.50 | 26.66 | 13.5 | 24.85 |
| 3.75 | 26.58 | 14.0 | 25.02 |
| 4.00 | 26.82 | 14.5 | 25.41 |
| 4.25 | 26.60 | 15.0 | 26.12 |
| 4.50 | 26.46 | 15.5 | 26.74 |
| 4.75 | 26.36 | 16.0 | 25.67 |
| 5.00 | 26.22 | 16.5 | 24.48 |
| 5.25 | 26.11 | 17.0 | 24.33 |
| 5.50 | 25.98 | 17.5 | 25.19 |
| 5.75 | 25.90 | 18.0 | 26.75 |

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

S/N: 711013

CALIBRATION DATE: MAY 17, 2012

| FREQUENCY (GHz) | FACTOR (dB) | FREQUENCY (GHz) | FACTOR (dB) |
|----------------------------|------------------------|----------------------------|------------------------|
| 18.0 | 25.81 | 31.0 | 25.77 |
| 19.0 | 24.57 | 31.5 | 25.36 |
| 20.0 | 23.46 | 32.0 | 25.15 |
| 21.0 | 22.51 | 32.5 | 25.13 |
| 22.0 | 23.85 | 33.0 | 25.52 |
| 23.0 | 23.31 | 33.5 | 25.24 |
| 24.0 | 24.44 | 34.0 | 25.08 |
| 25.0 | 25.42 | 34.5 | 25.27 |
| 26.0 | 25.71 | 35.0 | 23.99 |
| 26.5 | 25.66 | 35.5 | 24.67 |
| 27.0 | 25.84 | 36.5 | 24.80 |
| 27.5 | 25.29 | 37.0 | 26.27 |
| 28.0 | 25.46 | 37.5 | 24.86 |
| 28.5 | 25.58 | 38.0 | 24.64 |
| 29.0 | 26.16 | 38.5 | 23.46 |
| 29.5 | 26.14 | 39.0 | 21.29 |
| 30.0 | 26.01 | 39.5 | 20.83 |
| 30.5 | 25.67 | 40.0 | 19.96 |



FRONT VIEW

UNIVERSAL ELECTRONICS, INC.
INTEL COPPER TRAIL REMOTE 2012
MODEL: URC-3040BC0-X-R
FCC SUBPART B AND C – RADIATED EMISSIONS

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



REAR VIEW

UNIVERSAL ELECTRONICS, INC.
INTEL COPPER TRAIL REMOTE 2012
MODEL: URC-3040BC0-X-R
FCC SUBPART B AND C – RADIATED EMISSIONS

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



RADIATED EMISSIONS

DATA SHEETS

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

**Low Channel
 Fundamental**

| Freq. (MHz) | Level (dBuV) | Pol (v/h) | Limit | Margin | Peak / QP / Avg | Ant. Height (m) | Table Angle (deg) | Comments |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-------------------------|
| 2402 | 87.27 | V | 114 | -26.73 | Peak | 1 | 260 | X-Axis |
| 2402 | 67.27 | V | 94 | -26.73 | Avg | 1 | 260 | Vertical Polarization |
| 2402 | 91.81 | H | 114 | -22.19 | Peak | 1 | 130 | X-Axis |
| 2402 | 71.81 | H | 94 | -22.19 | Avg | 1 | 130 | Horizontal Polarization |
| 2402 | 88.2 | V | 114 | -25.8 | Peak | 1.25 | 300 | Y-Axis |
| 2402 | 68.2 | V | 94 | -25.8 | Avg | 1.25 | 300 | Vertical Polarization |
| 2402 | 91.68 | H | 114 | -22.32 | Peak | 1 | 320 | Y-Axis |
| 2402 | 71.68 | H | 94 | -22.32 | Avg | 1 | 320 | Horizontal Polarization |
| 2402 | 89.83 | V | 114 | -24.17 | Peak | 1 | 80 | Z-Axis |
| 2402 | 69.83 | V | 94 | -24.17 | Avg | 1 | 80 | Vertical Polarization |
| 2402 | 93.45 | H | 114 | -20.55 | Peak | 1 | 220 | Z-Axis |
| 2402 | 73.45 | H | 94 | -20.55 | Avg | 1 | 220 | Horizontal Polarization |
| | | | | | | | | |
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FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

**Middle Channel
 Fundamental**

| Freq. (MHz) | Level (dBuV) | Pol (v/h) | Limit | Margin | Peak / QP / Avg | Ant. Height (m) | Table Angle (deg) | Comments |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-------------------------|
| 2442 | 82.98 | V | 114 | -31.02 | Peak | 1.25 | 240 | X-Axis |
| 2442 | 62.98 | V | 94 | -31.02 | Avg | 1.25 | 240 | Vertical Polarization |
| 2442 | 90.57 | H | 114 | -23.43 | Peak | 1.6 | 310 | X-Axis |
| 2442 | 70.57 | H | 94 | -23.43 | Avg | 1.6 | 310 | Horizontal Polarization |
| 2442 | 87.47 | V | 114 | -26.53 | Peak | 1.5 | 270 | Y-Axis |
| 2442 | 67.47 | V | 94 | -26.53 | Avg | 1.5 | 270 | Vertical Polarization |
| 2442 | 89.25 | H | 114 | -24.75 | Peak | 1.5 | 320 | Y-Axis |
| 2442 | 69.25 | H | 94 | -24.75 | Avg | 1.5 | 320 | Horizontal Polarization |
| 2442 | 87.21 | V | 114 | -26.79 | Peak | 1.5 | 0 | Z-Axis |
| 2442 | 67.21 | V | 94 | -26.79 | Avg | 1.5 | 0 | Vertical Polarization |
| 2442 | 89.58 | H | 114 | -24.42 | Peak | 1.5 | 250 | Z-Axis |
| 2442 | 69.58 | H | 94 | -24.42 | Avg | 1.5 | 250 | Horizontal Polarization |
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FCC 15.249Universal Electronics, Inc.
Intel Copper Trail Remote 2012
Model: URC-3040BC0-X-RDate: 12/28/2012
Lab: B
Tested By: Alex Benitez**High Channel
Fundamental**

| Freq. (MHz) | Level (dBuV) | Pol (v/h) | Limit | Margin | Peak / QP / Avg | Ant. Height (m) | Table Angle (deg) | Comments |
|----------------|-----------------|--------------|-------|--------|-----------------------|-----------------------|-------------------------|-------------------------|
| 2480 | 79.98 | V | 114 | -34.02 | Peak | 1.75 | 240 | X-Axis |
| 2480 | 59.98 | V | 94 | -34.02 | Avg | 1.75 | 240 | Vertical Polarization |
| 2480 | 87.13 | H | 114 | -26.87 | Peak | 1.5 | 240 | X-Axis |
| 2480 | 67.13 | H | 94 | -26.87 | Avg | 1.5 | 240 | Horizontal Polarization |
| 2480 | 84.01 | V | 114 | -29.99 | Peak | 1 | 280 | Y-Axis |
| 2480 | 64.01 | V | 94 | -29.99 | Avg | 1 | 280 | Vertical Polarization |
| 2480 | 86.79 | H | 114 | -27.21 | Peak | 1.5 | 330 | Y-Axis |
| 2480 | 66.79 | H | 94 | -27.21 | Avg | 1.5 | 330 | Horizontal Polarization |
| 2480 | 85.1 | V | 114 | -28.9 | Peak | 1.5 | 130 | Z-Axis |
| 2480 | 65.1 | V | 94 | -28.9 | Avg | 1.5 | 130 | Vertical Polarization |
| 2480 | 88.06 | H | 114 | -25.94 | Peak | 1.5 | 230 | Z-Axis |
| 2480 | 68.06 | H | 94 | -25.94 | Avg | 1.5 | 230 | Horizontal Polarization |
| | | | | | | | | |
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FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

Harmonics
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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4804 | 50.97 | V | 74 | -23.03 | Peak | 1.5 | 220 | |
| 4804 | 30.97 | V | 54 | -23.03 | Avg | 1.5 | 220 | |
| 7206 | 48.81 | V | 74 | -25.19 | Peak | 2 | 180 | |
| 7206 | 28.81 | V | 54 | -25.19 | Avg | 2 | 180 | |
| 9608 | | | | | | | | No Emissions Detected |
| 9608 | | | | | | | | |
| 12010 | | | | | | | | No Emissions Detected |
| 12010 | | | | | | | | |
| 14412 | | | | | | | | No Emissions Detected |
| 14412 | | | | | | | | |
| 16814 | | | | | | | | No Emissions Detected |
| 16814 | | | | | | | | |
| 19216 | | | | | | | | No Emissions Detected |
| 19216 | | | | | | | | |
| 21618 | | | | | | | | No Emissions Detected |
| 21618 | | | | | | | | |
| 24020 | | | | | | | | No Emissions Detected |
| 24020 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

Harmonics

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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4804 | 54.56 | V | 74 | -19.44 | Peak | 1.75 | 120 | |
| 4804 | 34.56 | V | 54 | -19.44 | Avg | 1.75 | 120 | |
| 7206 | 48.08 | V | 74 | -25.92 | Peak | 1.1 | 240 | |
| 7206 | 28.08 | V | 54 | -25.92 | Avg | 1.1 | 240 | |
| 9608 | | | | | | | | No Emissions Detected |
| 9608 | | | | | | | | |
| 12010 | | | | | | | | No Emissions Detected |
| 12010 | | | | | | | | |
| 14412 | | | | | | | | No Emissions Detected |
| 14412 | | | | | | | | |
| 16814 | | | | | | | | No Emissions Detected |
| 16814 | | | | | | | | |
| 19216 | | | | | | | | No Emissions Detected |
| 19216 | | | | | | | | |
| 21618 | | | | | | | | No Emissions Detected |
| 21618 | | | | | | | | |
| 24020 | | | | | | | | No Emissions Detected |
| 24020 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

**Harmonics
 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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4804 | 53.64 | V | 74 | -20.36 | Peak | 1.6 | 130 | |
| 4804 | 33.64 | V | 54 | -20.36 | Avg | 1.6 | 130 | |
| 7206 | 49.53 | V | 74 | -24.47 | Peak | 1.6 | 230 | |
| 7206 | 29.53 | V | 54 | -24.47 | Avg | 1.6 | 230 | |
| 9608 | | | | | | | | No Emissions Detected |
| 9608 | | | | | | | | |
| 12010 | | | | | | | | No Emissions Detected |
| 12010 | | | | | | | | |
| 14412 | | | | | | | | No Emissions Detected |
| 14412 | | | | | | | | |
| 16814 | | | | | | | | No Emissions Detected |
| 16814 | | | | | | | | |
| 19216 | | | | | | | | No Emissions Detected |
| 19216 | | | | | | | | |
| 21618 | | | | | | | | No Emissions Detected |
| 21618 | | | | | | | | |
| 24020 | | | | | | | | No Emissions Detected |
| 24020 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

Harmonics

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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4804 | 54.43 | H | 74 | -19.57 | Peak | 1 | 60 | |
| 4804 | 34.43 | H | 54 | -19.57 | Avg | 1 | 60 | |
| 7206 | 48.53 | H | 74 | -25.47 | Peak | 1.1 | 60 | |
| 7206 | 28.53 | H | 54 | -25.47 | Avg | 1.1 | 60 | |
| 9608 | | | | | | | | No Emissions Detected |
| 9608 | | | | | | | | |
| 12010 | | | | | | | | No Emissions Detected |
| 12010 | | | | | | | | |
| 14412 | | | | | | | | No Emissions Detected |
| 14412 | | | | | | | | |
| 16814 | | | | | | | | No Emissions Detected |
| 16814 | | | | | | | | |
| 19216 | | | | | | | | No Emissions Detected |
| 19216 | | | | | | | | |
| 21618 | | | | | | | | No Emissions Detected |
| 21618 | | | | | | | | |
| 24020 | | | | | | | | No Emissions Detected |
| 24020 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

**Harmonics
 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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4804 | 53.86 | H | 74 | -20.14 | Peak | 1 | 80 | |
| 4804 | 33.86 | H | 54 | -20.14 | Avg | 1 | 80 | |
| 7206 | 47.66 | H | 74 | -26.34 | Peak | 1 | 60 | |
| 7206 | 27.66 | H | 54 | -26.34 | Avg | 1 | 60 | |
| 9608 | | | | | | | | No Emissions Detected |
| 9608 | | | | | | | | |
| 12010 | | | | | | | | No Emissions Detected |
| 12010 | | | | | | | | |
| 14412 | | | | | | | | No Emissions Detected |
| 14412 | | | | | | | | |
| 16814 | | | | | | | | No Emissions Detected |
| 16814 | | | | | | | | |
| 19216 | | | | | | | | No Emissions Detected |
| 19216 | | | | | | | | |
| 21618 | | | | | | | | No Emissions Detected |
| 21618 | | | | | | | | |
| 24020 | | | | | | | | No Emissions Detected |
| 24020 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012

Lab: B

Tested By: Alex Benitez

Harmonics

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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4804 | 52.4 | H | 74 | -21.6 | Peak | 1.25 | 130 | |
| 4804 | 32.4 | H | 54 | -21.6 | Avg | 1.25 | 130 | |
| 7206 | 49.33 | H | 74 | -24.67 | Peak | 1.25 | 140 | |
| 7206 | 29.33 | H | 54 | -24.67 | Avg | 1.25 | 140 | |
| 9608 | | | | | | | | No Emissions Detected |
| 9608 | | | | | | | | |
| 12010 | | | | | | | | No Emissions Detected |
| 12010 | | | | | | | | |
| 14412 | | | | | | | | No Emissions Detected |
| 14412 | | | | | | | | |
| 16814 | | | | | | | | No Emissions Detected |
| 16814 | | | | | | | | |
| 19216 | | | | | | | | No Emissions Detected |
| 19216 | | | | | | | | |
| 21618 | | | | | | | | No Emissions Detected |
| 21618 | | | | | | | | |
| 24020 | | | | | | | | No Emissions Detected |
| 24020 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

**Harmonics
 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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|--------------|
| 4884 | 50.64 | V | 74 | -23.36 | Peak | 1.5 | 190 | |
| 4884 | 30.64 | V | 54 | -23.36 | Avg | 1.5 | 190 | |
| 7326 | 49.69 | V | 74 | -24.31 | Peak | 1.65 | 180 | |
| 7326 | 29.69 | V | 54 | -24.31 | Avg | 1.65 | 180 | |
| 9768 | | | | | | | | No Emissions |
| 9768 | | | | | | | | Detected |
| 12210 | | | | | | | | No Emissions |
| 12210 | | | | | | | | Detected |
| 14652 | | | | | | | | No Emissions |
| 14652 | | | | | | | | Detected |
| 17094 | | | | | | | | No Emissions |
| 17094 | | | | | | | | Detected |
| 19536 | | | | | | | | No Emissions |
| 19536 | | | | | | | | Detected |
| 21978 | | | | | | | | No Emissions |
| 21978 | | | | | | | | Detected |
| 24420 | | | | | | | | No Emissions |
| 24420 | | | | | | | | Detected |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

Harmonics

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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4884 | 54.71 | V | 74 | -19.29 | Peak | 1.6 | 120 | |
| 4884 | 34.71 | V | 54 | -19.29 | Avg | 1.6 | 120 | |
| 7326 | 47.84 | V | 74 | -26.16 | Peak | 1.1 | 180 | |
| 7326 | 27.84 | V | 54 | -26.16 | Avg | 1.1 | 180 | |
| 9768 | | | | | | | | No Emissions Detected |
| 9768 | | | | | | | | |
| 12210 | | | | | | | | No Emissions Detected |
| 12210 | | | | | | | | |
| 14652 | | | | | | | | No Emissions Detected |
| 14652 | | | | | | | | |
| 17094 | | | | | | | | No Emissions Detected |
| 17094 | | | | | | | | |
| 19536 | | | | | | | | No Emissions Detected |
| 19536 | | | | | | | | |
| 21978 | | | | | | | | No Emissions Detected |
| 21978 | | | | | | | | |
| 24420 | | | | | | | | No Emissions Detected |
| 24420 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

Harmonics
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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4884 | 51.52 | V | 74 | -22.48 | Peak | 1.25 | 140 | |
| 4884 | 31.52 | V | 54 | -22.48 | Avg | 1.25 | 140 | |
| 7326 | 48.24 | V | 74 | -25.76 | Peak | 1.5 | 240 | |
| 7326 | 28.24 | V | 54 | -25.76 | Avg | 1.5 | 240 | |
| 9768 | | | | | | | | No Emissions Detected |
| 9768 | | | | | | | | |
| 12210 | | | | | | | | No Emissions Detected |
| 12210 | | | | | | | | |
| 14652 | | | | | | | | No Emissions Detected |
| 14652 | | | | | | | | |
| 17094 | | | | | | | | No Emissions Detected |
| 17094 | | | | | | | | |
| 19536 | | | | | | | | No Emissions Detected |
| 19536 | | | | | | | | |
| 21978 | | | | | | | | No Emissions Detected |
| 21978 | | | | | | | | |
| 24420 | | | | | | | | No Emissions Detected |
| 24420 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

Harmonics

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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4884 | 53 | H | 74 | -21 | Peak | 1.25 | 80 | |
| 4884 | 33 | H | 54 | -21 | Avg | 1.25 | 80 | |
| 7326 | 49.17 | H | 74 | -24.83 | Peak | 1.5 | 60 | |
| 7326 | 29.17 | H | 54 | -24.83 | Avg | 1.5 | 60 | |
| 9768 | | | | | | | | No Emissions Detected |
| 9768 | | | | | | | | |
| 12210 | | | | | | | | No Emissions Detected |
| 12210 | | | | | | | | |
| 14652 | | | | | | | | No Emissions Detected |
| 14652 | | | | | | | | |
| 17094 | | | | | | | | No Emissions Detected |
| 17094 | | | | | | | | |
| 19536 | | | | | | | | No Emissions Detected |
| 19536 | | | | | | | | |
| 21978 | | | | | | | | No Emissions Detected |
| 21978 | | | | | | | | |
| 24420 | | | | | | | | No Emissions Detected |
| 24420 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

Harmonics
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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4884 | 53.05 | H | 74 | -20.95 | Peak | 1.2 | 60 | |
| 4884 | 33.05 | H | 54 | -20.95 | Avg | 1.2 | 60 | |
| 7326 | 49.45 | H | 74 | -24.55 | Peak | 1.5 | 60 | |
| 7326 | 29.45 | H | 54 | -24.55 | Avg | 1.5 | 60 | |
| 9768 | | | | | | | | No Emissions Detected |
| 9768 | | | | | | | | |
| 12210 | | | | | | | | No Emissions Detected |
| 12210 | | | | | | | | |
| 14652 | | | | | | | | No Emissions Detected |
| 14652 | | | | | | | | |
| 17094 | | | | | | | | No Emissions Detected |
| 17094 | | | | | | | | |
| 19536 | | | | | | | | No Emissions Detected |
| 19536 | | | | | | | | |
| 21978 | | | | | | | | No Emissions Detected |
| 21978 | | | | | | | | |
| 24420 | | | | | | | | No Emissions Detected |
| 24420 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

**Harmonics
 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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4884 | 52.14 | H | 74 | -21.86 | Peak | 1 | 130 | |
| 4884 | 32.14 | H | 54 | -21.86 | Avg | 1 | 130 | |
| 7326 | 48.48 | H | 74 | -25.52 | Peak | 1 | 210 | |
| 7326 | 28.48 | H | 54 | -25.52 | Avg | 1 | 210 | |
| 9768 | | | | | | | | No Emissions Detected |
| 9768 | | | | | | | | |
| 12210 | | | | | | | | No Emissions Detected |
| 12210 | | | | | | | | |
| 14652 | | | | | | | | No Emissions Detected |
| 14652 | | | | | | | | |
| 17094 | | | | | | | | No Emissions Detected |
| 17094 | | | | | | | | |
| 19536 | | | | | | | | No Emissions Detected |
| 19536 | | | | | | | | |
| 21978 | | | | | | | | No Emissions Detected |
| 21978 | | | | | | | | |
| 24420 | | | | | | | | No Emissions Detected |
| 24420 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

**Harmonics
 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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4960 | 50.58 | V | 74 | -23.42 | Peak | 1.75 | 110 | |
| 4960 | 30.58 | V | 54 | -23.42 | Avg | 1.75 | 110 | |
| 7440 | 48.5 | V | 74 | -25.5 | Peak | 1.6 | 180 | |
| 7440 | 28.5 | V | 54 | -25.5 | Avg | 1.6 | 180 | |
| 9920 | | | | | | | | No Emissions Detected |
| 9920 | | | | | | | | |
| 12400 | | | | | | | | No Emissions Detected |
| 12400 | | | | | | | | |
| 14880 | | | | | | | | No Emissions Detected |
| 14880 | | | | | | | | |
| 17360 | | | | | | | | No Emissions Detected |
| 17360 | | | | | | | | |
| 19840 | | | | | | | | No Emissions Detected |
| 19840 | | | | | | | | |
| 22320 | | | | | | | | No Emissions Detected |
| 22320 | | | | | | | | |
| 24800 | | | | | | | | No Emissions Detected |
| 24800 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

**Harmonics
 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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4960 | 54.91 | V | 74 | -19.09 | Peak | 1.75 | 80 | |
| 4960 | 34.91 | V | 54 | -19.09 | Avg | 1.75 | 80 | |
| 7440 | 47.45 | V | 74 | -26.55 | Peak | 1.6 | 240 | |
| 7440 | 27.45 | V | 54 | -26.55 | Avg | 1.6 | 240 | |
| 9920 | | | | | | | | No Emissions Detected |
| 12400 | | | | | | | | No Emissions Detected |
| 14880 | | | | | | | | No Emissions Detected |
| 17360 | | | | | | | | No Emissions Detected |
| 19840 | | | | | | | | No Emissions Detected |
| 22320 | | | | | | | | No Emissions Detected |
| 24800 | | | | | | | | No Emissions Detected |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

**Harmonics
 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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4960 | 50.2 | V | 74 | -23.8 | Peak | 1.6 | 130 | |
| 4960 | 30.2 | V | 54 | -23.8 | Avg | 1.6 | 130 | |
| 7440 | 47.33 | V | 74 | -26.67 | Peak | 1.6 | 240 | |
| 7440 | 27.33 | V | 54 | -26.67 | Avg | 1.6 | 240 | |
| 9920 | | | | | | | | No Emissions Detected |
| 9920 | | | | | | | | |
| 12400 | | | | | | | | No Emissions Detected |
| 12400 | | | | | | | | |
| 14880 | | | | | | | | No Emissions Detected |
| 14880 | | | | | | | | |
| 17360 | | | | | | | | No Emissions Detected |
| 17360 | | | | | | | | |
| 19840 | | | | | | | | No Emissions Detected |
| 19840 | | | | | | | | |
| 22320 | | | | | | | | No Emissions Detected |
| 22320 | | | | | | | | |
| 24800 | | | | | | | | No Emissions Detected |
| 24800 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

**Harmonics
 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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4960 | 54.11 | H | 74 | -19.89 | Peak | 1 | 90 | |
| 4960 | 34.11 | H | 54 | -19.89 | Avg | 1 | 90 | |
| 7440 | 47.19 | H | 74 | -26.81 | Peak | 1 | 50 | |
| 7440 | 27.19 | H | 54 | -26.81 | Avg | 1 | 50 | |
| 9920 | | | | | | | | No Emissions Detected |
| 12400 | | | | | | | | No Emissions Detected |
| 14880 | | | | | | | | No Emissions Detected |
| 17360 | | | | | | | | No Emissions Detected |
| 19840 | | | | | | | | No Emissions Detected |
| 22320 | | | | | | | | No Emissions Detected |
| 24800 | | | | | | | | No Emissions Detected |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

**Harmonics
 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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4960 | 51.96 | H | 74 | -22.04 | Peak | 1.25 | 160 | |
| 4960 | 31.96 | H | 54 | -22.04 | Avg | 1.25 | 160 | |
| 7440 | 48.1 | H | 74 | -25.9 | Peak | 2 | 80 | |
| 7440 | 28.1 | H | 54 | -25.9 | Avg | 2 | 80 | |
| 9920 | | | | | | | | No Emissions Detected |
| 9920 | | | | | | | | |
| 12400 | | | | | | | | No Emissions Detected |
| 12400 | | | | | | | | |
| 14880 | | | | | | | | No Emissions Detected |
| 14880 | | | | | | | | |
| 17360 | | | | | | | | No Emissions Detected |
| 17360 | | | | | | | | |
| 19840 | | | | | | | | No Emissions Detected |
| 19840 | | | | | | | | |
| 22320 | | | | | | | | No Emissions Detected |
| 22320 | | | | | | | | |
| 24800 | | | | | | | | No Emissions Detected |
| 24800 | | | | | | | | |

FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

**Harmonics
 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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-----------------------|
| 4960 | 51.73 | H | 74 | -22.27 | Peak | 1.75 | 130 | |
| 4960 | 31.73 | H | 54 | -22.27 | Avg | 1.75 | 130 | |
| 7440 | 47.84 | H | 74 | -26.16 | Peak | 1.5 | 240 | |
| 7440 | 27.84 | H | 54 | -26.16 | Avg | 1.5 | 240 | |
| 9920 | | | | | | | | No Emissions Detected |
| 9920 | | | | | | | | |
| 12400 | | | | | | | | No Emissions Detected |
| 12400 | | | | | | | | |
| 14880 | | | | | | | | No Emissions Detected |
| 14880 | | | | | | | | |
| 17360 | | | | | | | | No Emissions Detected |
| 17360 | | | | | | | | |
| 19840 | | | | | | | | No Emissions Detected |
| 19840 | | | | | | | | |
| 22320 | | | | | | | | No Emissions Detected |
| 22320 | | | | | | | | |
| 24800 | | | | | | | | No Emissions Detected |
| 24800 | | | | | | | | |

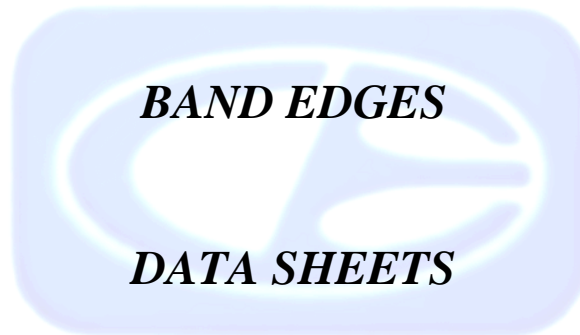
FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

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 |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|----------|
| 4880 | 53.53 | V | 74 | -20.47 | Peak | 1 | 130 | X-Axis |
| 4880 | 33.53 | V | 54 | -20.47 | Avg | 1 | 130 | X-Axis |
| 4880 | 56.9 | H | 74 | -17.1 | Peak | 1 | 70 | X-Axis |
| 4880 | 36.9 | H | 54 | -17.1 | Avg | 1 | 70 | X-Axis |
| 4880 | 56.59 | V | 74 | -17.41 | Peak | 1 | 90 | Y-Axis |
| 4880 | 36.59 | V | 54 | -17.41 | Avg | 1 | 90 | Y-Axis |
| 4880 | 55.8 | H | 74 | -18.2 | Peak | 1 | 50 | Y-Axis |
| 4880 | 35.8 | H | 54 | -18.2 | Avg | 1 | 50 | Y-Axis |
| 4880 | 54.37 | V | 74 | -19.63 | Peak | 1.6 | 130 | Z-Axis |
| 4880 | 34.37 | V | 54 | -19.63 | Avg | 1.6 | 130 | Z-Axis |
| 4880 | 54.42 | H | 74 | -19.58 | Peak | 1.75 | 90 | Z-Axis |
| 4880 | 34.42 | H | 54 | -19.58 | Avg | 1.75 | 90 | Z-Axis |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
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FCC 15.249

Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

Low Channel - 2402 MHz
Middle Channel - 2442 MHz
High Channel - 2480 MHz

Z-Axis (Worst Case) - Low Channel
Y-Axis (Worst Case) - Middle Channel
Z-Axis (Worst Case) - High Channel

| Freq. (MHz) | Level (dBuV) | Pol (v/h) | Limit | Margin | Peak / QP / Avg | Ant. Height (m) | Table Angle (deg) | Comments |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-------------------------------|
| 2402 | 89.83 | V | 114 | -24.17 | Peak | 1 | 80 | Fundamental of Low Channel |
| 2402 | 69.83 | V | 94 | -24.17 | Avg | 1 | 80 | @ 3 meters |
| 2400 | 57.69 | V | 74 | -16.31 | Peak | 1 | 80 | No Marker Delta Method |
| 2400 | 37.69 | V | 54 | -16.31 | Peak | 1 | 80 | Method Used |
| 2442 | 87.47 | V | 114 | -26.53 | Peak | 1.5 | 270 | Fundamental of Middle Channel |
| 2442 | 67.47 | V | 94 | -26.53 | Avg | 1.5 | 270 | @ 3 meters |
| 2480 | 85.1 | V | 114 | -28.9 | Peak | 1.5 | 130 | Fundamental of High Channel |
| 2480 | 65.1 | V | 94 | -28.9 | Avg | 1.5 | 130 | @ 3 meters |
| 2483.5 | 43.53 | V | 54 | -10.47 | Peak | 1.5 | 130 | No Marker Delta Method |
| | | | | | | | | Method Used |

FCC 15.249

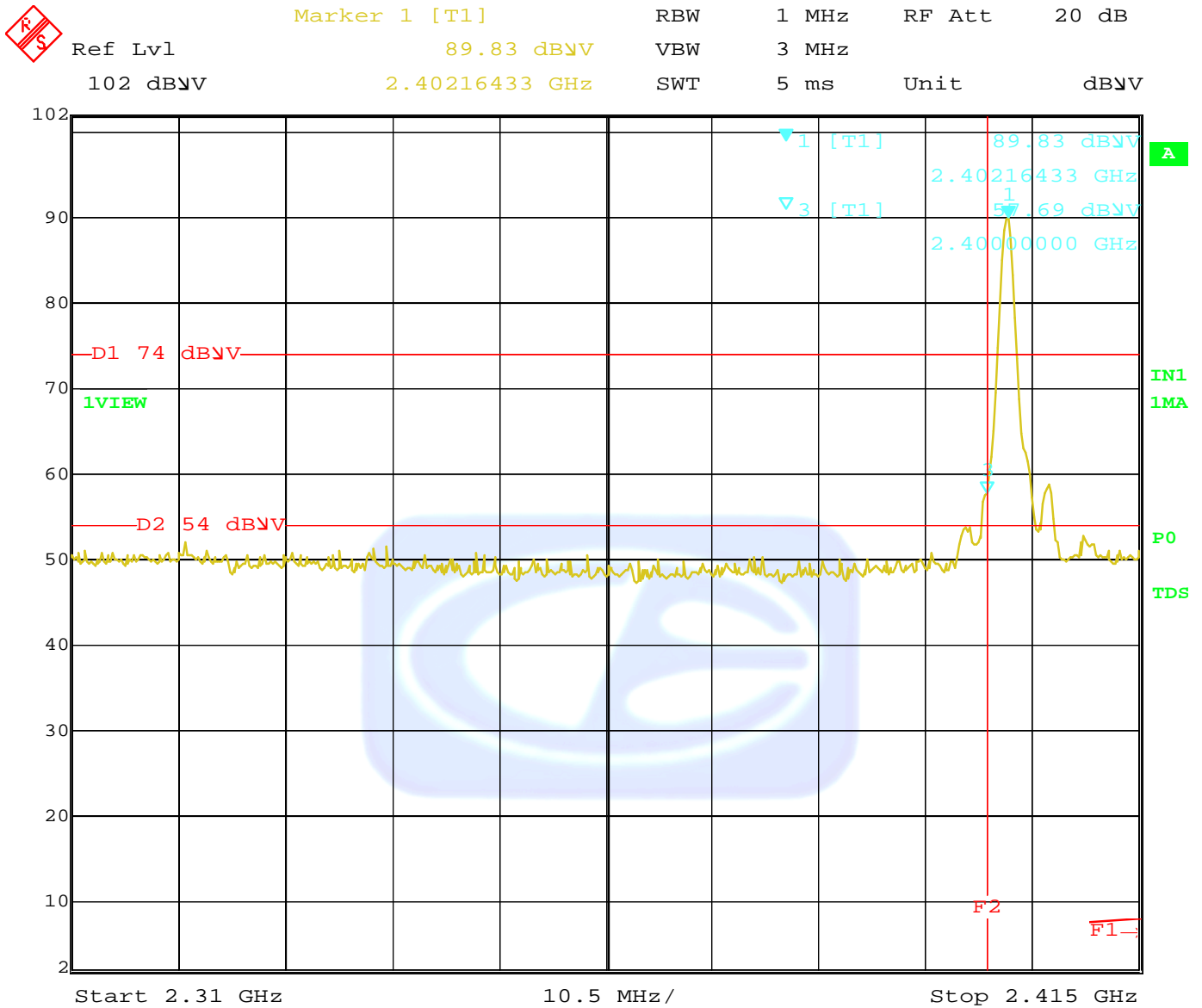
Universal Electronics, Inc.
 Intel Copper Trail Remote 2012
 Model: URC-3040BC0-X-R

Date: 12/28/2012
 Lab: B
 Tested By: Alex Benitez

Low Channel - 2402 MHz
Middle Channel - 2442 MHz
High Channel - 2480 MHz

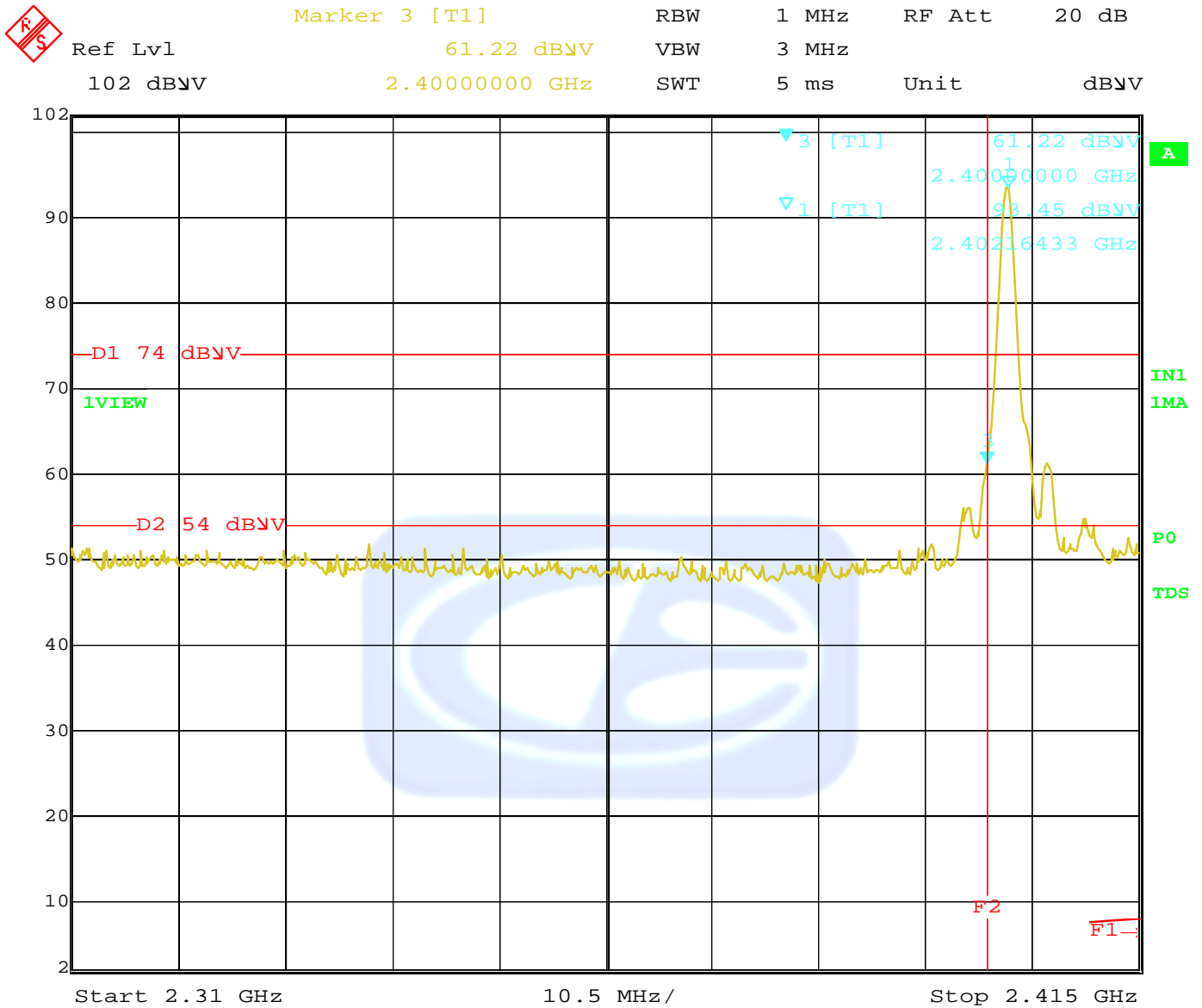
Z-Axis (Worst Case) - Low Channel
X-Axis (Worst Case) - Middle Channel
Z-Axis (Worst Case) - High Channel

| Freq. (MHz) | Level (dBuV) | Pol (v/h) | Limit | Margin | Peak / QP / Avg | Ant. Height (m) | Table Angle (deg) | Comments |
|-------------|--------------|-----------|-------|--------|-----------------|-----------------|-------------------|-------------------------------|
| 2402 | 93.45 | H | 114 | -20.55 | Peak | 1 | 220 | Fundamental of Low Channel |
| 2402 | 73.45 | H | 94 | -20.55 | Avg | 1 | 220 | @ 3 meters |
| 2400 | 61.22 | H | 74 | -12.78 | Peak | 1 | 220 | No Marker Delta Method |
| 2400 | 41.22 | H | 54 | -12.78 | Peak | 1 | 220 | Method Used |
| 2442 | 90.57 | H | 114 | -23.43 | Peak | 1.6 | 310 | Fundamental of Middle Channel |
| 2442 | 70.57 | H | 94 | -23.43 | Avg | 1.6 | 310 | @ 3 meters |
| 2480 | 88.06 | H | 114 | -25.94 | Peak | 1.5 | 230 | Fundamental of High Channel |
| 2480 | 68.06 | H | 94 | -25.94 | Avg | 1.5 | 230 | @ 3 meters |
| 2483.5 | 45.57 | H | 54 | -8.43 | Peak | 1.5 | 230 | No Marker Delta Method |
| | | | | | | | | Method Used |



Date: 3.JAN.2013 09:07:36

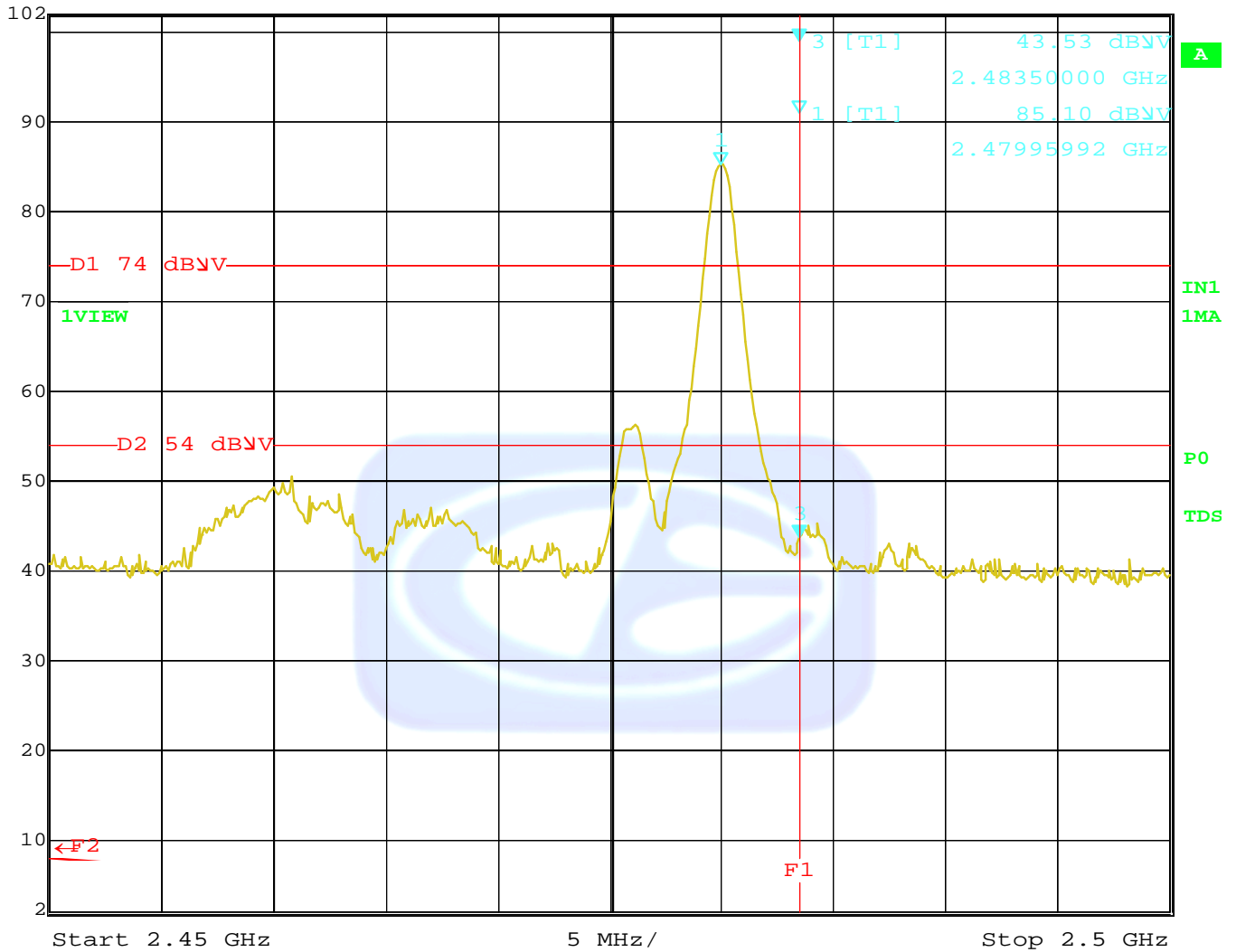
Band Edge – Low Channel – Vertical Polarization – Z-Axis Worst Case



Date: 3.JAN.2013 08:53:19

Band Edge – Low Channel – Horizontal Polarization – Z-Axis Worst Case

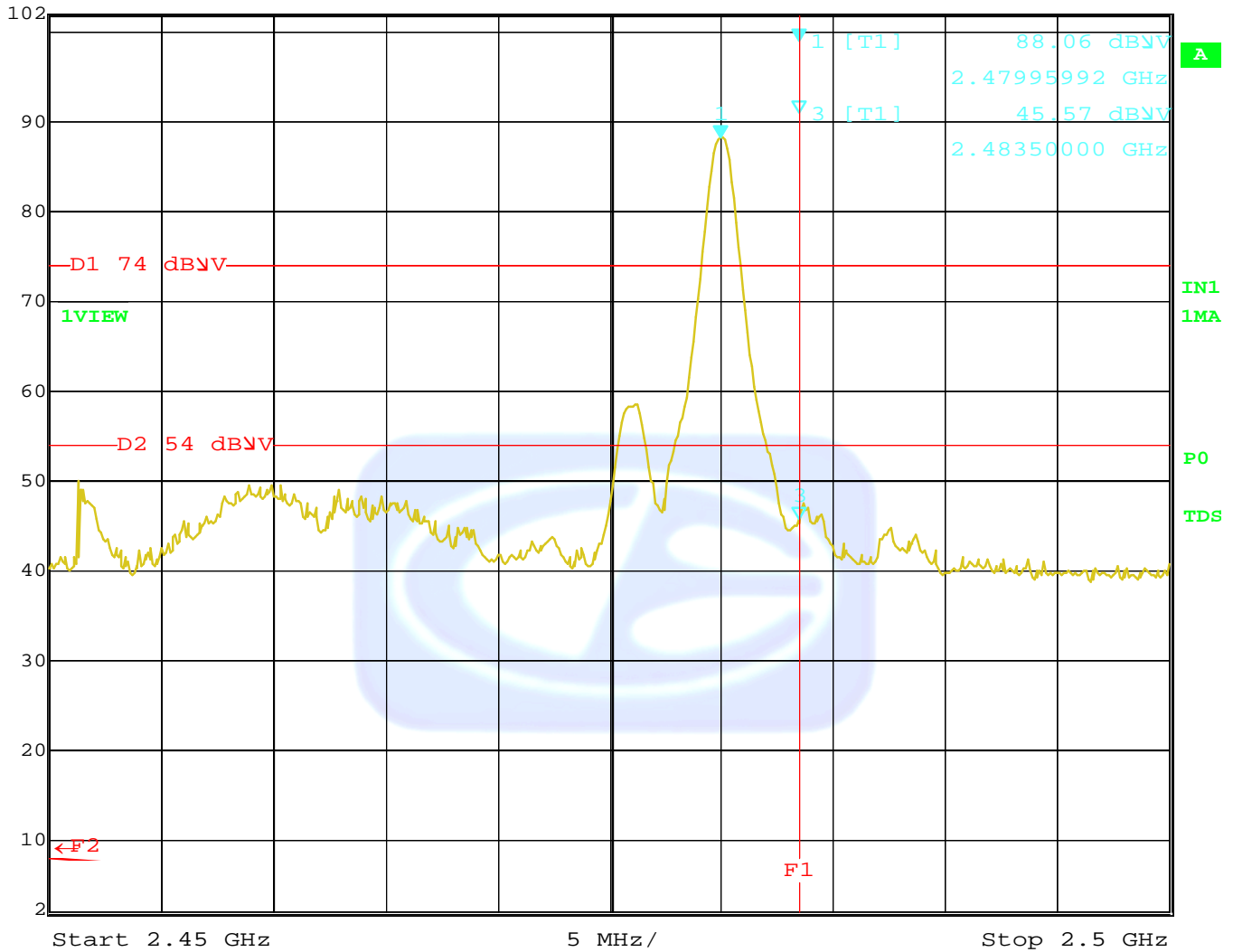
| | | | | | |
|---|---------------|----------------|-------|--------|-----------|
|  | Marker 3 [T1] | RBW | 1 MHz | RF Att | 10 dB |
| | Ref Lvl | 43.53 dBμV | VBW | 3 MHz | |
| | 102 dBμV | 2.48350000 GHz | SWT | 5 ms | Unit dBμV |



Date: 31.DEC.2012 10:58:02

Band Edge – High Channel – Vertical Polarization – Z-Axis Worst Case

| | | | | | |
|---|---------------|----------------|-------|--------|-----------|
|  | Marker 1 [T1] | RBW | 1 MHz | RF Att | 10 dB |
| | Ref Lvl | 88.06 dBμV | VBW | 3 MHz | |
| | 102 dBμV | 2.47995992 GHz | SWT | 5 ms | Unit dBμV |



Date: 31.DEC.2012 10:45:52
 Band Edge – High Channel – Horizontal Polarization – Z-Axis Worst Case