


ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

*FCC PART 15, SUBPART C
TEST REPORT*

for

the

HDMI REMOTE

MODEL: REV. E5

Prepared for

ALWAYS INNOVATING, INC.
1245 BRODERICK STREET
SAN FRANCISCO, CALIFORNIA 94115

Prepared by: 
GEORGE HSU

Approved by: 
KEVIN BOTHMANN

ELECTRO MAGNETIC TEST, INC.
1547 PLYMOUTH STREET
MOUNTAIN VIEW, CALIFORNIA 94043
(650) 965-4000

DATE: MARCH 5, 2013

	REPORT BODY	APPENDICES					TOTAL
		<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	
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A	Radiated and Conduction Data Sheets <ul style="list-style-type: none">• Radiated Emissions Test Data• Occupied Bandwidth Test Data• Periodic Operation Requirement
B	Photographs
C	Test Setup Diagrams
D	Modifications To The EUT
E	Additional Models Covered Under This Report

LIST OF FIGURES

FIGURE	TITLE
1	Conducted Emissions Test Setup
2	Plot Map And Layout of Test Site
3	Layout of 5 Meter Semi-Anechoic Chamber


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GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Electro Magnetic Test, Inc., which is an independent testing and consulting firm. The test report is based on testing performed Electro Magnetic Test, Inc. personnel according to the measurement procedure described in the test specification 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 in any form 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 U.S. Federal Government.

The measurement data and conclusions contained in this test report are deemed satisfactory evidence of compliance with Industry Canada Interference-Causing Equipment Standard ICES-003, Issue 5, August 2012.

Electro Magnetic Test, Inc. is recognized by the following agencies for performing EMI/EMC testing:

COUNTRY	AGENCY	IDENTIFYING #
USA	Federal Communications Commission (FCC) (EMT's test site is recognized by the FCC)	Registration Number: 90576
USA, Canada, Taiwan, Australia/New Zealand, European Community	National Voluntary Lab Accreditation Program (NVLAP) (EMT is accredited by NVLAP. A copy of the NVLAP Scope Of Accreditation is available upon request.)	Lab Code: 200147-0
Canada	Industry Canada	File No.: IC 2804
Japan	Voluntary Control Council For Interference (VCCI)	A-0018
	Open Field Test Site "A"	-
	Mains Conducted Emissions Test Site "A"	-
	Telecom Conducted Emissions Test Site "A"	-
	3 Meter Semi-Anechoic Chamber Site "E"	-
	3 Meter Semi-Anechoic Chamber Site "E" (1GHz – 6GHz)	-
	Mains Conducted Emissions Test Site "E"	-
	Telecom Conducted Emissions Test Site "E"	-
Korea	Ministry of Information and Communication's Radio Research Laboratory (RRL) under the Asia Pacific Economic Cooperation (APEC) Mutual Recognition Arrangement (A copy of the Scope Of Accreditation is available upon request)	US0036
Taiwan	Bureau Of Standards, Metrology and Inspection (BSMI)	Reference Number: SL2-IN-E-1024
Australia / New Zealand	Australian Communications Authority (AUSTEL)	*

*These agencies do not issue an identifying number to test labs.

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GENERAL REPORT SUMMARY (CONTINUED)

Device Tested: HDMI Remote
Model: Rev. E5
S/N: N/A

Product Description: The EUT is a remote control used with the HDMI Dongle. The remote control is specific to the Dongle and won't work with any other device. It features 7 buttons.

Modifications: The EUT was modified in order to meet the specifications listed in Appendix D.

Manufacturer: Always Innovating, Inc.
1245 Broderick Street
San Francisco, California 94115

Test Date(s): February 26, 2013

Test Specifications: EMI requirements
Limits: FCC Title 47, Part 15 Subpart C
Test Procedure: ANSI C63.4: 2009

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

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	REMARKS	RESULTS
7.1	Radiated Emissions	Radiated	PASS
7.2	Occupied Bandwidth	Conducted	PASS
7.3	Periodic Operation Requirement	Conducted	PASS
7.4	Antenna Requirement	N/A	PASS


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TECHNICAL DESCRIPTION OF THE EUT

Manufacturer:	Always Innovating, Inc.		
Manufacturer Address:	1245 Broderick Street, San Francisco, CA, 94115		
EUT Name:	HDMI Remote		
Model No:	Rev. E5		
Operation frequency:	916 MHz		
Channel Number:	1		
Modulation Technology:	FSK		
Antenna Type:	Internal Antenna		
Antenna Gain:			
Serial No:	N/A		
Power Supply Range:	3.0V DC		
Power Supply:	3.0V DC from Battery (HDMI Remote)		
Description of Channel:			
Channel	Frequency (MHz)		
1	916		

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1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the HDMI Remote, Model: Rev. E5. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 2009. 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 specification limits defined in FCC Title 47, Part 15, Subpart C.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Electro Magnetic Test, Inc., 1547 Plymouth Street, Mountain View, California, 94043.

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 measurement results in this report and the calibration of the test equipment are traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Always Innovating, Inc.

Gregoire Gentil Founder

Electro Magnetic Test, Inc.

George Hsu	Test Technician
Joe Vang	Test Technician
Mario Garcia	Test Technician
Kevin Bothmann	Lab Manager

2.4 Date Test Sample was Received

The test sample was received on January 15, 2013.

2.5 Disposition of the Test Sample

The test sample has not yet been returned to Always Innovating, Inc.

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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
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network
CISPR	International Special Committee On Radio Interference
FCC	Federal Communications Commission

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3. APPLICABLE DOCUMENTS

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

SPEC	TITLE
FCC Title 47, Part 15, Subpart C	FCC Rules - Radio frequency devices (including digital devices).
ANSI C63.4 2009	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz.



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4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration – EMI

The remote was continuously transmitting for radiated and bandwidth tests.

It was determined that the emissions were at their highest level when the EUT was operating in the above configuration. The cables were moved to maximize the emissions. The final conducted as well as radiated data was taken in this mode of operation. All initial investigations were performed with the EMI receiver in manual mode scanning the frequency range continuously. The cables were bundled and routed as shown in the photographs in Appendix B.



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4.1.1 Cable Construction and Termination

This unit has no cables

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

EQUIPMENT TYPE	MANUFACTURER	MODEL	SERIAL NUMBER	FCC ID
HDMI REMOTE (EUT)	ALWAYS INNOVATING, INC.	REV E5	N/A	N/A


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5.2 EMI Test Equipment

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
Spectrum Analyzer	Hewlett Packard	8566B	3013A07296	July 31, 2012	1 Year
RF Preselector	Hewlett Packard	85685A	3010A01157	July 31, 2012	1 Year
Quasi-Peak Adapter	Hewlett Packard	85650	2521A00584	July 31, 2012	1 Year
Radiated EMI Software	Sector Design	N/A	Ver.1.4.6	N/A	N/A
Conducted EMI Software	Hewlett Packard	85869PC	Ver. A.02.03	N/A	N/A
Preamplifier	Com Power	PA-102	1482	March 2, 2013	1 Year
RF Attenuator	Mini-Circuits	CAT-10	Asset #1000	December 7, 2012	1 Year
LISN	Com Power	LI-200	12012	September 21, 2012	1 Year
LISN	Com Power	LI-200	12214	September 21, 2012	1 Year
LISN	Com Power	LI-200	1767	September 21, 2012	1 Year
LISN	Com Power	LI-200	1768	September 21, 2012	1 Year
Biconical Antenna	Com Power	AB-100	01557	June 16, 2012	1 Year
Log Periodic Antenna	Com Power	AL-100	16001	June 3, 2012	1 Year
Horn Antenna	Com Power	AHA-118	711054	N/A	N/A
Antenna Mast	Com Power	AM-400	N/A	N/A	N/A
Turntable	Com Power	TT-100	N/A	N/A	N/A
Computer	Dell, Inc.	DHS	DNSV641	N/A	N/A
Printer	Hewlett Packard	C8124A	CN39B2234T	N/A	N/A
Plotter	Hewlett Packard	7470A	2308A96499	N/A	N/A


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5.2 EMI Test Equipment (Continued)

EQUIPMENT TYPE	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
EMI Receiver	Rohde & Schwarz	ESU40	100127	December 22, 2012	1 Year
EMI Test Software	Rohde & Schwarz	EMC32	V8.40.0	N/A	N/A
Passive Loop Antenna (9 KHz – 30 MHz)	ETS-Lindgren	6512	00128210	October 28, 2011	2 Year
BiConiLog Antenna (30 MHz – 1 GHz)	ETS-Lindgren	3142D	00102183	June 21, 2012	1 Year
Horn Antenna (1 GHz – 18 GHz)	ETS-Lindgren	3117	00109294	June 16, 2012	1 Year
Preamplifier (1 GHz – 18 GHz)	Rohde & Schwarz	TS-PR18	100056	October 31, 2012	1 Year
Horn Antenna (18 GHz – 26.5 GHz)	ETS-Lindgren	3160-09	102646	June 20, 2012	1 Year
Preamplifier (18 GHz – 26.5 GHz)	Rohde & Schwarz	TS-PR26	100034	June 20, 2012	1 Year
Horn Antenna (26.5 GHz – 40 GHz)	ETS-Lindgren	3160-10	109153	June 21, 2012	1 Year
Preamplifier (26.5 GHz – 40 GHz)	Rohde & Schwarz	TS-PR40	100030	June 20, 2012	1 Year
Antenna Mast	ETS-Lindgren	2175	00095727	N/A	N/A
Turntable	ETS-Lindgren	2187-3.0	00118231	N/A	N/A
Computer	Acer	Aspire 8930	85100050123	N/A	N/A
Multi-Function Controller	ETS-Lindgren	2090	00102270	N/A	N/A

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6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to the table below and section 7 of this report for the details of which sites were used for testing. All sites are located at 1547 Plymouth Street, Mountain View, California 94043.

Site Used For Test	Site Description
	Open Field Test Site "A"
X	Mains Conducted Emissions Test Site "A"
	Telecom Conducted Emissions Test Site "A"
X	3 Meter Semi-Anechoic Chamber Site "E"
	Mains Conducted Emissions Test Site "E"
	Telecom Conducted Emissions Test Site "E"

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.

6.3 Facility Environmental Characteristics

All tests were performed in a climate controlled building. The temperature was 22° C, humidity 45%, and barometric pressure 102.6 kPa.


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7. TEST PROCEDURES

7.1 Radiated Emissions Test – Semi-Anechoic Chamber

7.1.2 Limit (FCC PART 15 Section 15.231(b)(1))

Fundamental of Frequency (MHz)	Field Strength of Fundamental (microvolts/meter)	Field Strength of Spurious Emissions (microvolts/meter)
Above 470	12,500 (81.938 dB μ V/m)	1250 (61.938 dB μ V/m)

7.1.3 Test Procedure

The Rohde & Schwarz ESU40 EMI receiver was used as a measuring meter while under software control by the Rohde & Schwarz EMC32 software. To increase the sensitivity of the instrument, the built in preamplifier was used from 9 KHz to 1 GHz and an external preamplifier was used from 1 GHz to 10 GHz. The EMI receiver was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the EMI receiver records the highest measured reading over all the sweeps. The built in quasi-peak or average detector was used only for those readings which are marked accordingly on the data sheets. The effective measurement bandwidth used for the radiated emissions test was 100 kHz from 9 kHz to 10 GHz.

The Loop Antenna, Broadband BiConiLog and horn antennas were used as transducers during the measurement. The Loop antenna was used from 9 KHz to 30 MHz, the BiConiLog antenna was used from 30 MHz to 1000 MHz and horn antennas were used from 1GHz – 10 GHz. The frequency spans were wide (9 kHz to 150 kHz, 150 kHz to 30 MHz, 30 MHz to 88 MHz, 88 MHz to 216 MHz, 216 to 300 MHz, 300 MHz to 1 GHz, 1 GHz to 10 GHz) during preliminary investigations. The final data was taken with a frequency span of 1 MHz. Furthermore, the frequency span was reduced during the preliminary investigations as deemed necessary.

The 5 meter semi-anechoic chamber of Electro Magnetic Test, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 2009. 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. The EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength).

The presence of non EUT signals was verified by turning the EUT off. In case a non EUT 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 other signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance from 9 kHz to 10 GHz. to obtain final test data.



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Calculation Of Radiated Emission Test Data:

Amplitude - Gain + Antenna Factor + Cable Loss = Corrected Amplitude

Corrected Amplitude - Limit = Margin

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7.2 Occupied Bandwidth

7.2.1 Limit (FCC PART 15 Section 15.231(c))

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

Limit
20 dB Bandwidth \leq 4580 kHz

7.2.2 Test Procedure

Connect the antenna port of the EUT to the spectrum analyzer via an Attenuator, set the Spectrum Analyzer as below:

RBW: 100 KHz

VBW: \geq RBW

Detector: Peak

Trace Mode: Max Hold

- (1) When the trace is completed, find the trace peak value and place the spectrum analyzer marker on this peak.
- (2) Now measure the 20db bandwidth using Xdb down or use two markers on Delta mode. Use whichever method can encompass the full 20db bandwidth.

7.2.3 Test Result

The EUT meets the requirements. Please see the datasheets in Appendix A for the measurement results.

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7.3 Periodic Operation Requirement (For Remote)

7.3.1 FCC PART 15 section 15.231(a)(1))

a) The provisions of this Section are restricted to periodic operation within the band 40.66 - 40.70 MHz and above 70 MHz. Except as shown in paragraph (e) of this Section, the intentional radiator is restricted to the transmission of a control signal such as those used with alarm systems, door openers, remote switches, etc. Continuous transmissions, voice, video and the radio control of toys are not permitted. Data is permitted to be sent with a control signal. The following conditions shall be met to comply with the provisions for this periodic operation:

(1) A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

7.3.2 Test Procedure

(1) Connect the antenna port of the EUT to the spectrum analyzer via an Attenuator, set the Spectrum Analyzer as below:

RBW: 1 MHz
VBW: 1 MHz
Detector: Peak
Trace Mode: View

- (1) Set center frequency to fundamental
- (2) Set span to zero span
- (3) Set sweep time to greater than 5s
- (4) Push button on EUT

7.3.3 Test Result

The EUT meets the requirements. Please see the datasheets in Appendix A for the measurement results.

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7.4 Antenna Requirement

7.4.1 Requirement (FCC PART 15 SECTION 15.203)

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section.

7.4.2 Test Result

The antenna is integrated on the main PCB with no consideration for replacement on both the HDMI Dongle and Remote.



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8. CONCLUSIONS / COMPLIANCE STATEMENT

Based upon the results contained in this report, Electro Magnetic Test, Inc. has determined that the HDMI Remote, Model: Rev. E5 meets all of the specification limits defined in FCC Title 47, Part 15, Subpart C.



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APPENDIX A

RADIATED AND CONDUCTION DATA SHEETS

***ELECTRO MAGNETIC TEST, INC.***1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Radiated Emissions

EUT:	HDMI Remote	Model Name:	REV. E5
Test Engineer:	George Hsu	Test Date:	1/22/13
		Measurement:	9 KHz to 30 MHz

The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators were attenuated more than 20 dB below the permissible value

Radiated Emission Test Report

Tested At:
Electro Magnetic Test, Inc.
1547 Plymouth Street
Mountain View, CA 94043
Tel. 650-965-4000
Fax. 650-965-3000

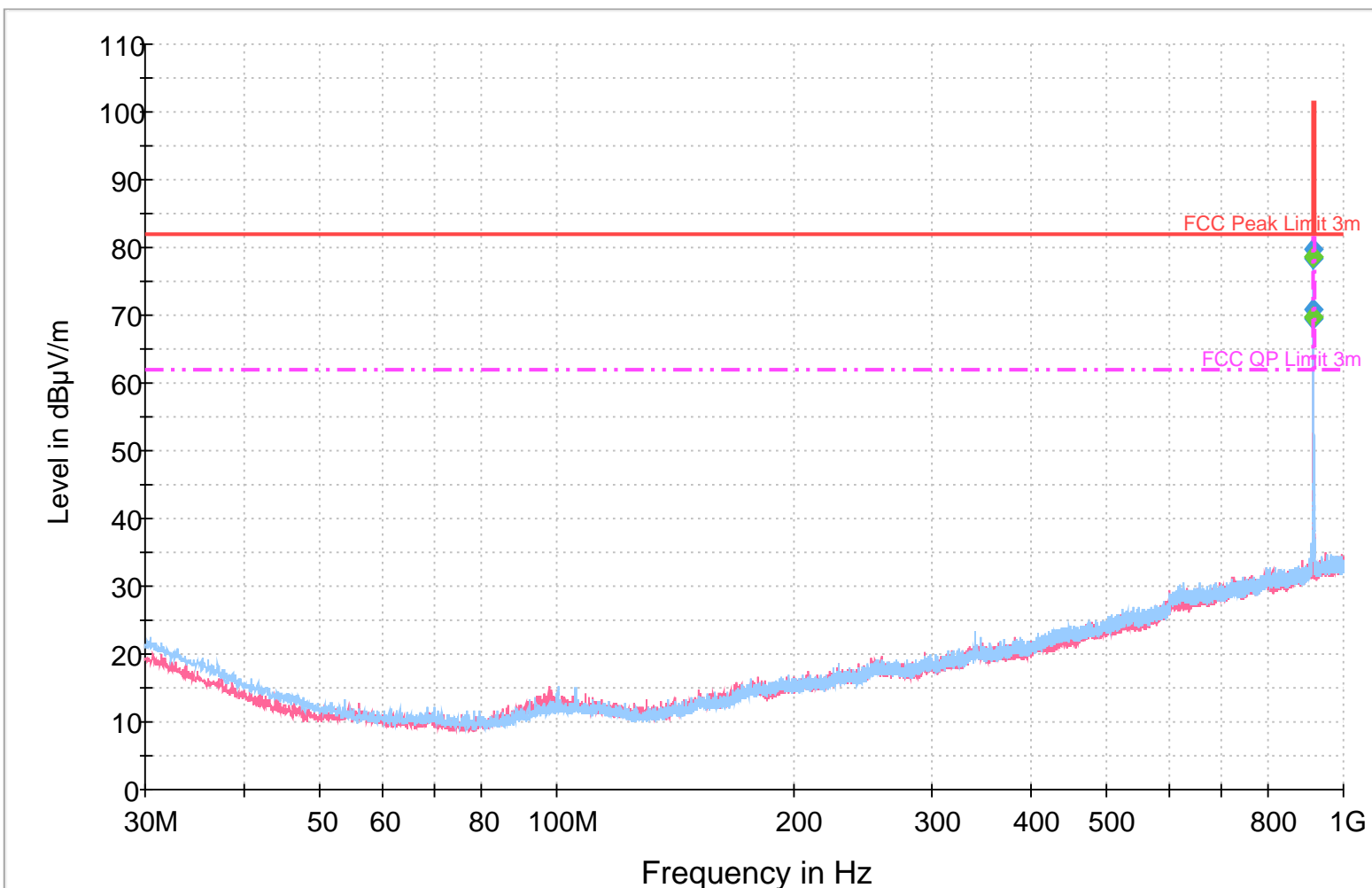
Common Information

Test Description:	FCC 15.231 Radiated Emissions
Operating Conditions:	Normal
Test Engineer:	George Hsu

EUT Information

Company Name:	Always Innovating
EUT Name	Remote
Model Number:	REV. E5
Serial Number:	N/A
Comment:	None

FCC Class B Radiated 3m PK QP



—	FCC Peak Limit 3m	—	Preview Result 1V-PK+	—	Preview Result 1H-PK+
◆	Final Result 1-PK+	◆	Final Result 2-QPK	---	FCC QP Limit 3m

Final Result 1

Frequency (MHz)	MaxPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
916.320000	69.4	151.0	V	9.0	27.5	32.04	101.44	
916.320000	78.3	100.0	H	93.0	27.6	23.14	101.44	
916.440000	71.0	155.0	V	9.0	27.5	30.44	101.44	
916.440000	79.8	100.0	H	94.0	27.6	21.64	101.44	

Final Result 2

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
916.320000	69.7	151.0	V	9.0	27.5	11.74	81.44	
916.320000	78.6	100.0	H	93.0	27.6	2.84	81.44	
916.440000	69.8	155.0	V	9.0	27.5	11.64	81.44	
916.440000	78.7	100.0	H	94.0	27.6	2.74	81.44	

Radiated Emission Test Report

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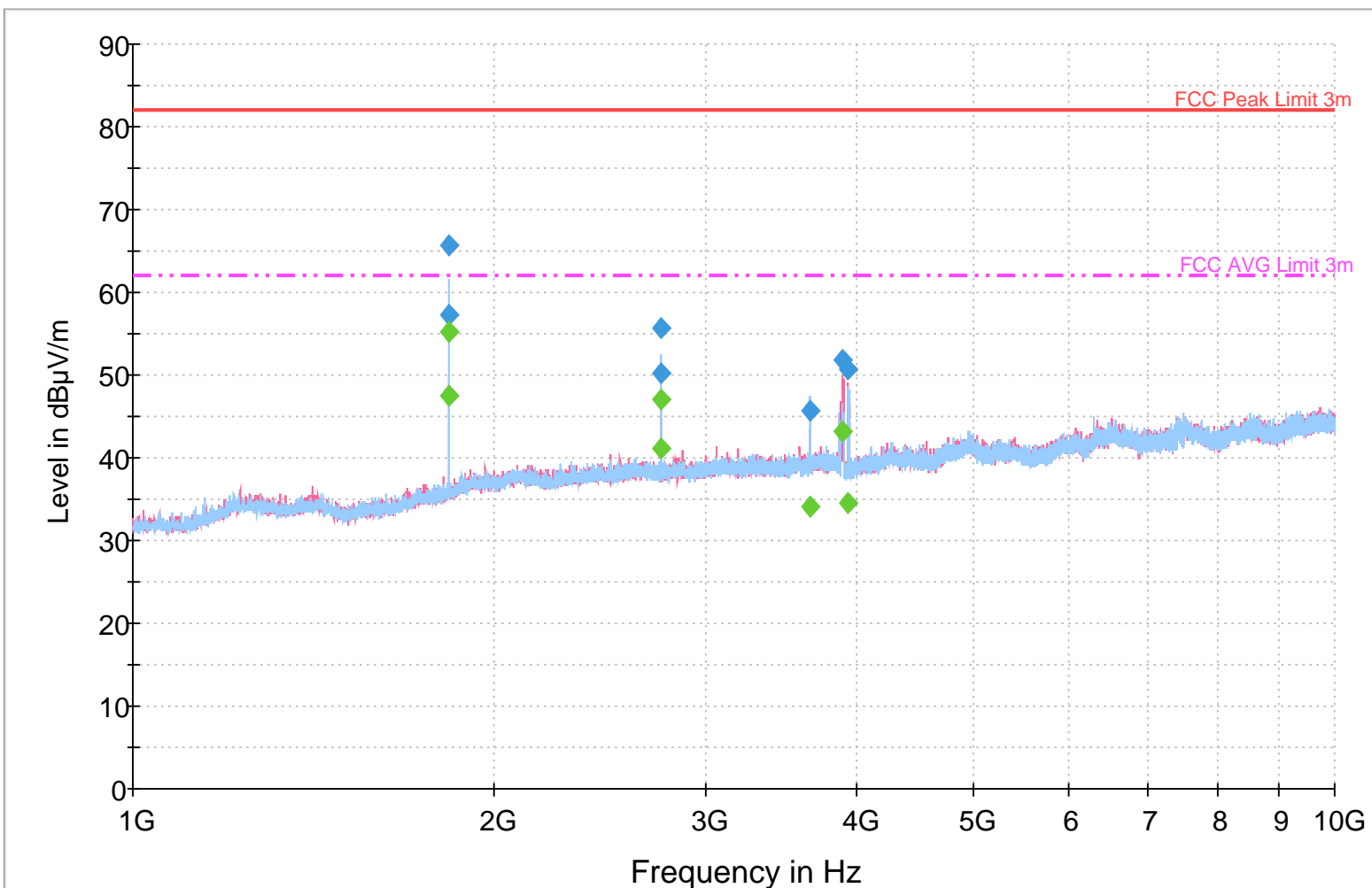
Common Information

Test Description:	FCC Class B Radiated Emissions
Operating Conditions:	Normal
Test Engineer:	George Hsu

EUT Information

Company Name:	Always Innovating
EUT Name	Remote
Model Number:	REV. E5
Serial Number:	N/A
Comment:	None

FCC Class B Radiated 1GHz-18GHz 3m PK AVG



— FCC Peak Limit 3m - - - FCC AVG Limit 3m — Preview Result 1V-PK+
— Preview Result 1H-PK+ ◆ Final Result 1-PK+ ◆ Final Result 2-AVG

Final Result 1

Frequency (MHz)	MaxPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
1832.750000	57.4	220.0	V	9.0	-0.7	24.54	81.94	
1832.750000	65.6	128.0	H	293.0	-0.7	16.34	81.94	
2749.250000	55.7	132.0	H	156.0	2.3	26.24	81.94	
2749.250000	50.3	120.0	V	326.0	2.3	31.64	81.94	
3665.750000	45.6	196.0	H	72.0	3.8	36.34	81.94	
3894.250000	51.7	100.0	V	9.0	4.2	30.24	81.94	
3935.500000	50.7	100.0	V	8.0	4.2	31.24	81.94	

Final Result 2

Frequency (MHz)	Average (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
1832.750000	47.4	220.0	V	9.0	-0.7	14.54	61.94	
1832.750000	55.3	128.0	H	293.0	-0.7	6.64	61.94	
2749.250000	47.0	132.0	H	156.0	2.3	14.94	61.94	
2749.250000	41.2	120.0	V	326.0	2.3	20.74	61.94	
3665.750000	34.1	196.0	H	72.0	3.8	27.84	61.94	
3894.250000	43.1	100.0	V	9.0	4.2	18.84	61.94	
3935.500000	34.5	100.0	V	8.0	4.2	27.44	61.94	

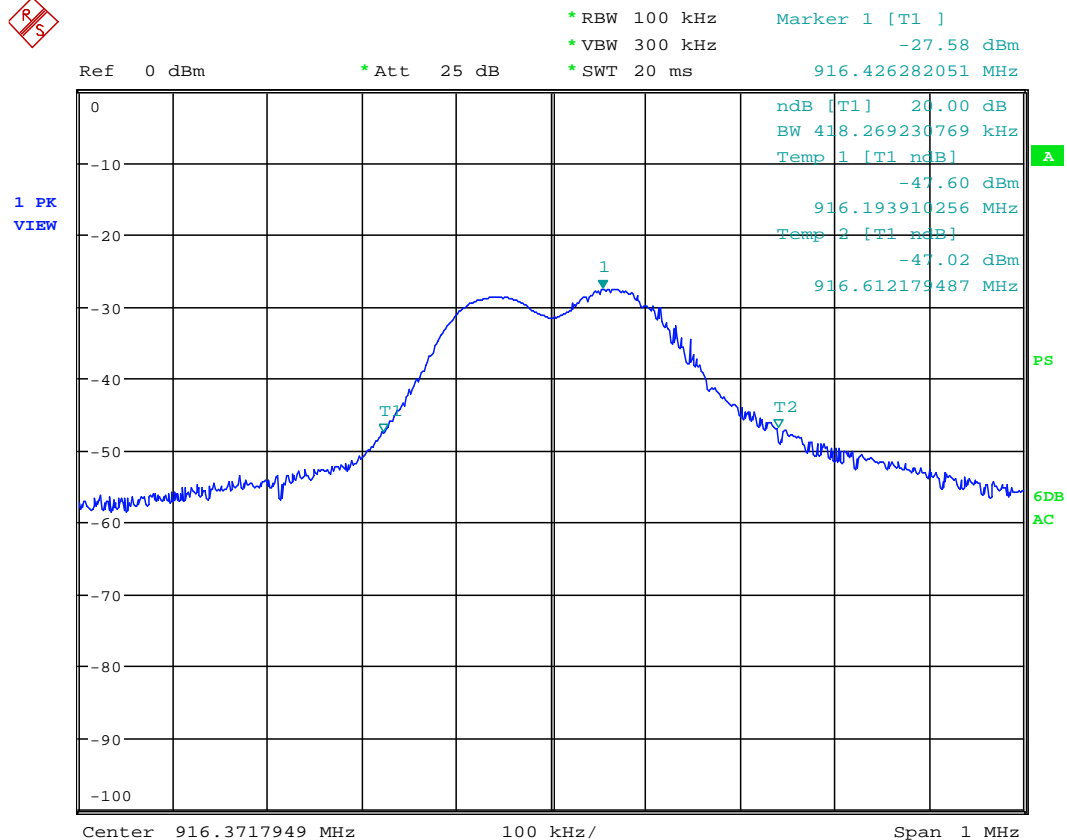


ELECTRO MAGNETIC TEST, INC.

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20db Bandwidth

Company:	Always Innovating, Inc.	Test Date	2/26/13
EUT Name	HDMI Remote	Test Engineer	George Hsu
Model:	Rev. E5		



Frequency	20db Bandwidth	Limit	Conclusion
916 MHz	418.269 KHz	≤ 4580 KHz	PASS



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Periodic Operation Requirement

Company:	Always Innovating, Inc.	Test Date	2/26/13
EUT Name	HDMI Remote	Test Engineer	George Hsu
Model:	Rev. E5	Test Result	PASS



RBW 1 MHz

Marker 1 [T1]

* VBW 1 MHz

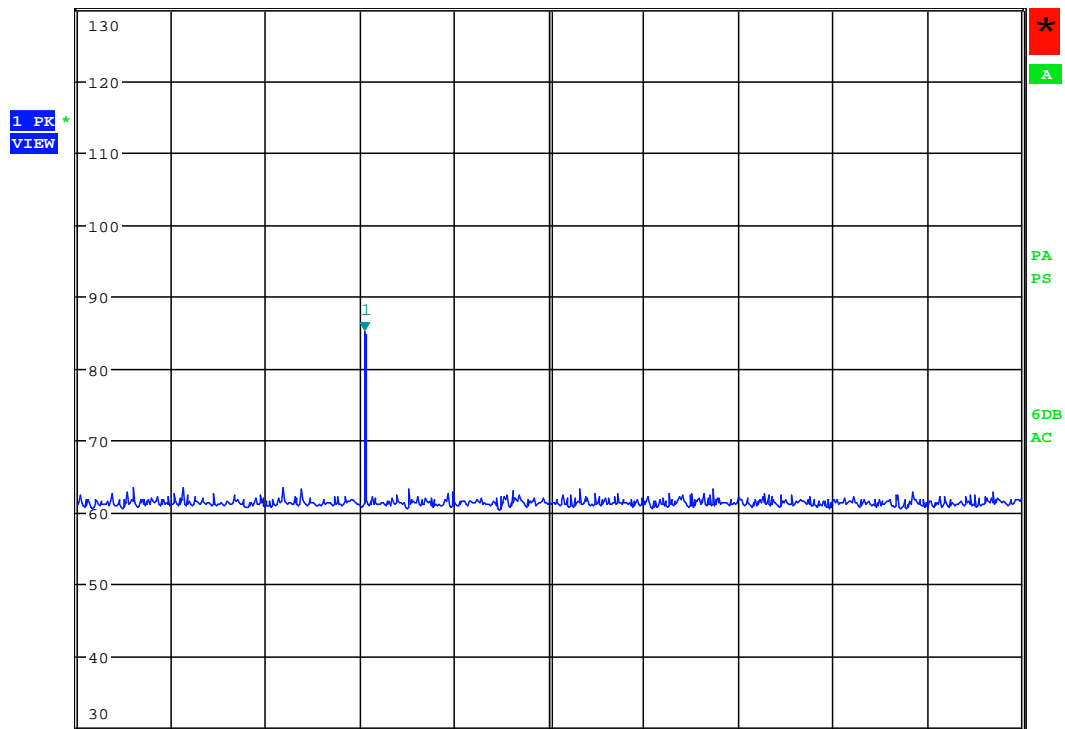
85.05 dBμV

Ref 130 dBμV

* Att 45 dB

SWT 10 s

3.044872 s



Center 916.3766026 MHz

1 s/



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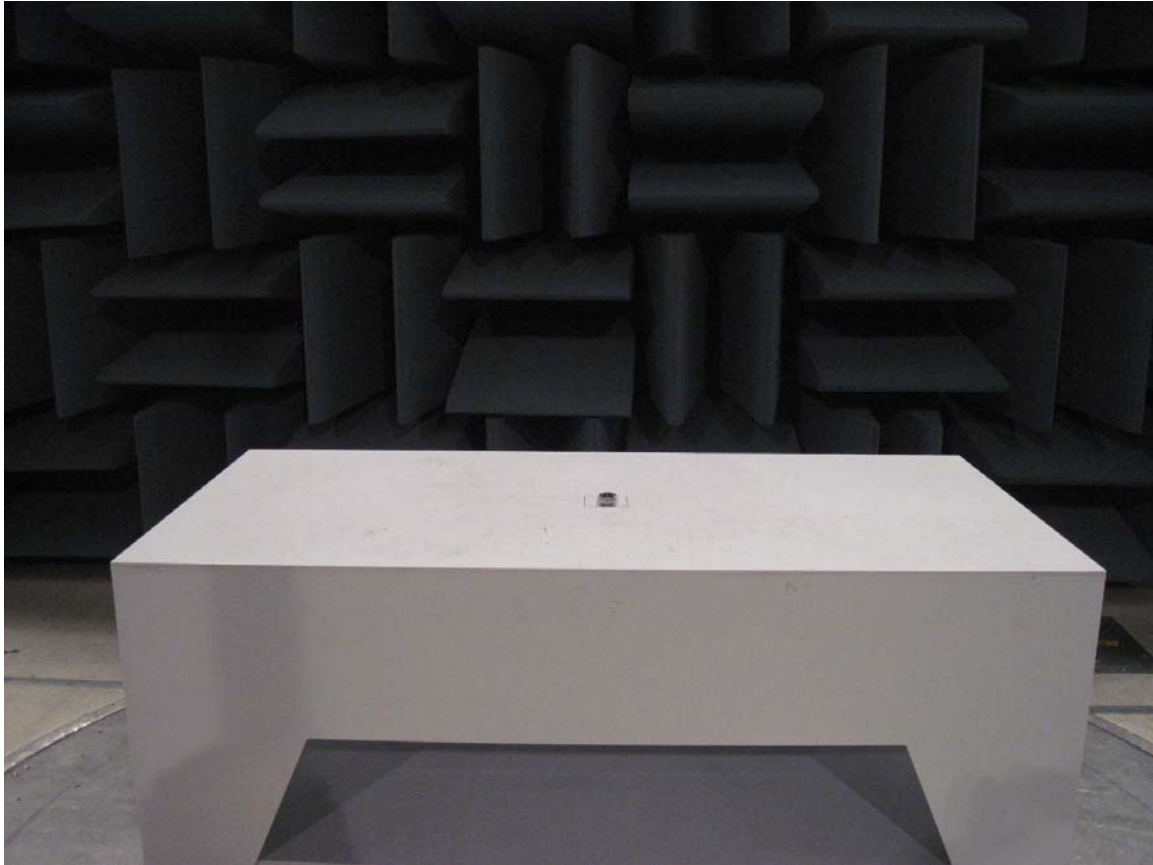
APPENDIX B

PHOTOGRAPHS



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FRONT VIEW

ALWAYS INNOVATING, INC.

HDMI REMOTE

MODEL: REV. E5

FCC PART 15 SUBPART C - RADIATED EMISSIONS

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



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REAR VIEW

ALWAYS INNOVATING, INC.

HDMI REMOTE

MODEL: REV. E5

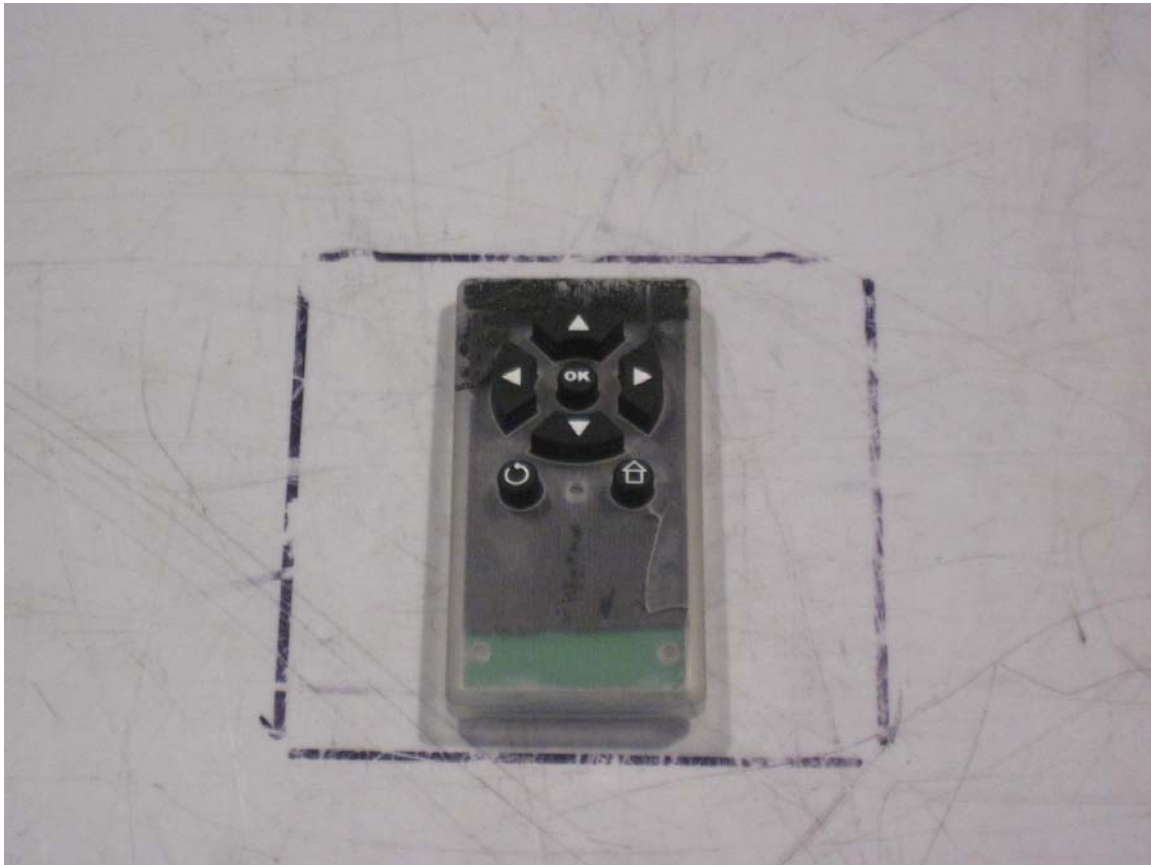
FCC PART 15 SUBPART C - RADIATED EMISSIONS

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



ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000



FRONT VIEW CLOSEUP

ALWAYS INNOVATING, INC.

HDMI REMOTE

MODEL: REV. E5

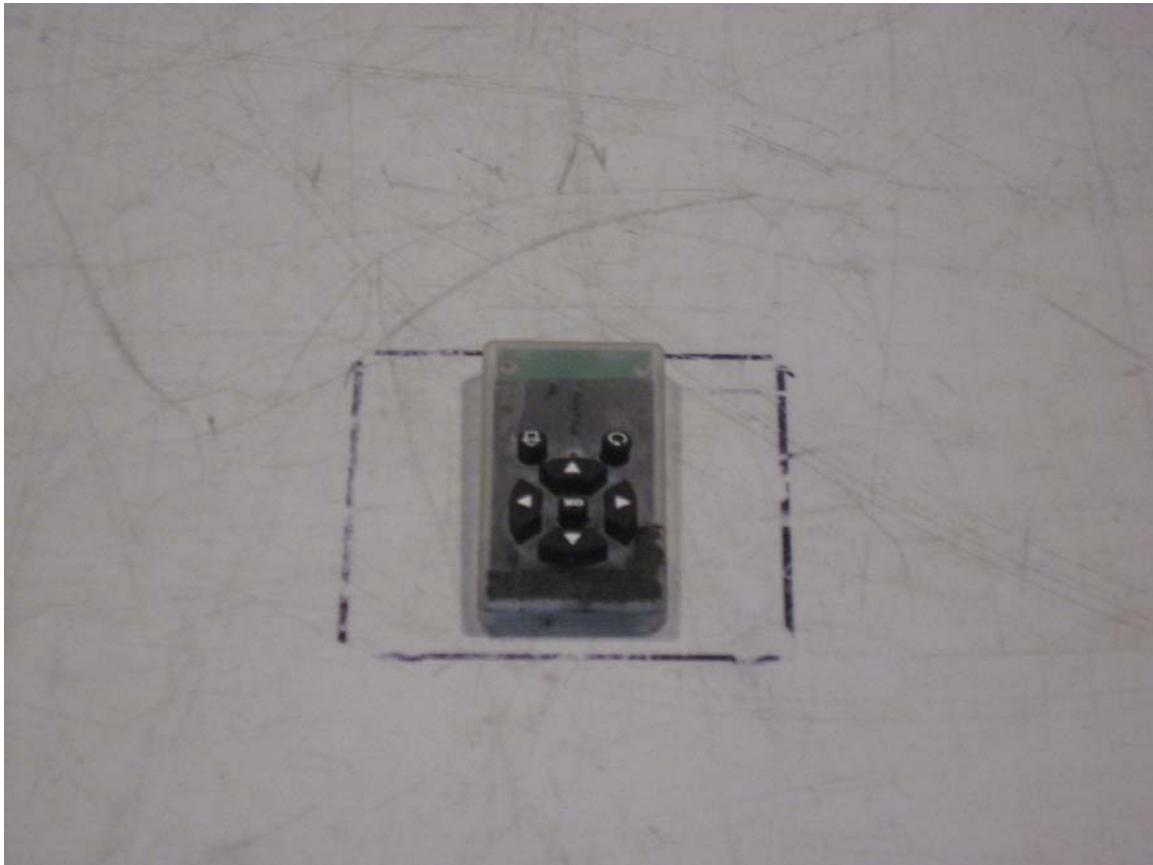
FCC PART 15 SUBPART C - RADIATED EMISSIONS

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



ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000



REAR VIEW CLOSEUP

ALWAYS INNOVATING, INC.

HDMI REMOTE

MODEL: REV. E5

FCC PART 15 SUBPART C - RADIATED EMISSIONS

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



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APPENDIX C

TEST SETUP DIAGRAMS



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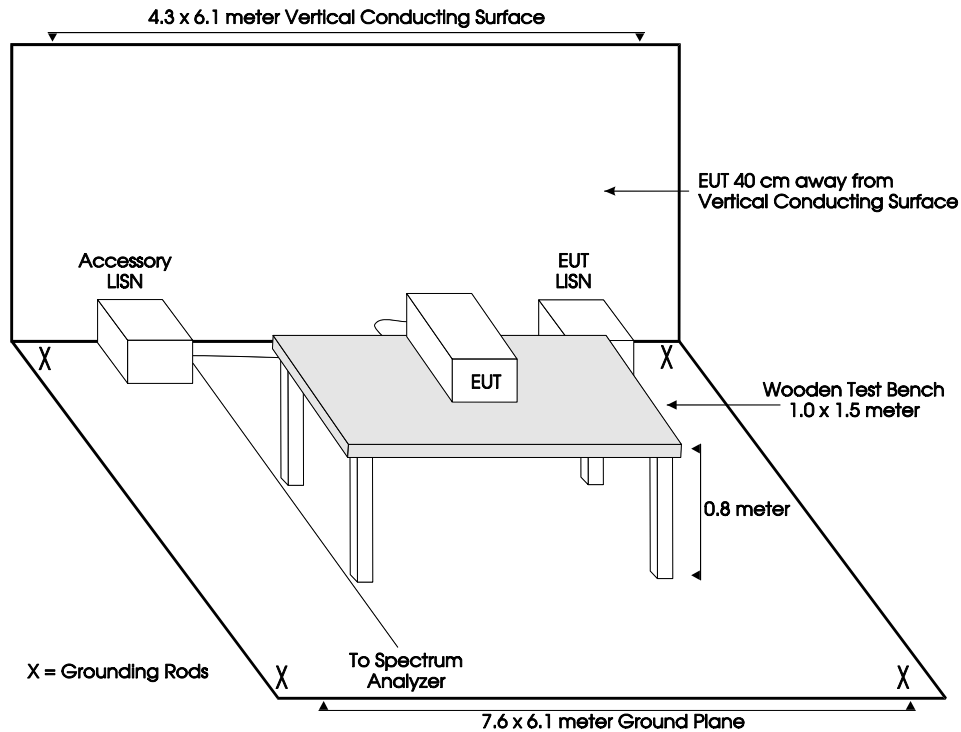


FIGURE 1 – TABLETOP CONDUCTED EMISSIONS TEST SETUP – SITE ‘A’

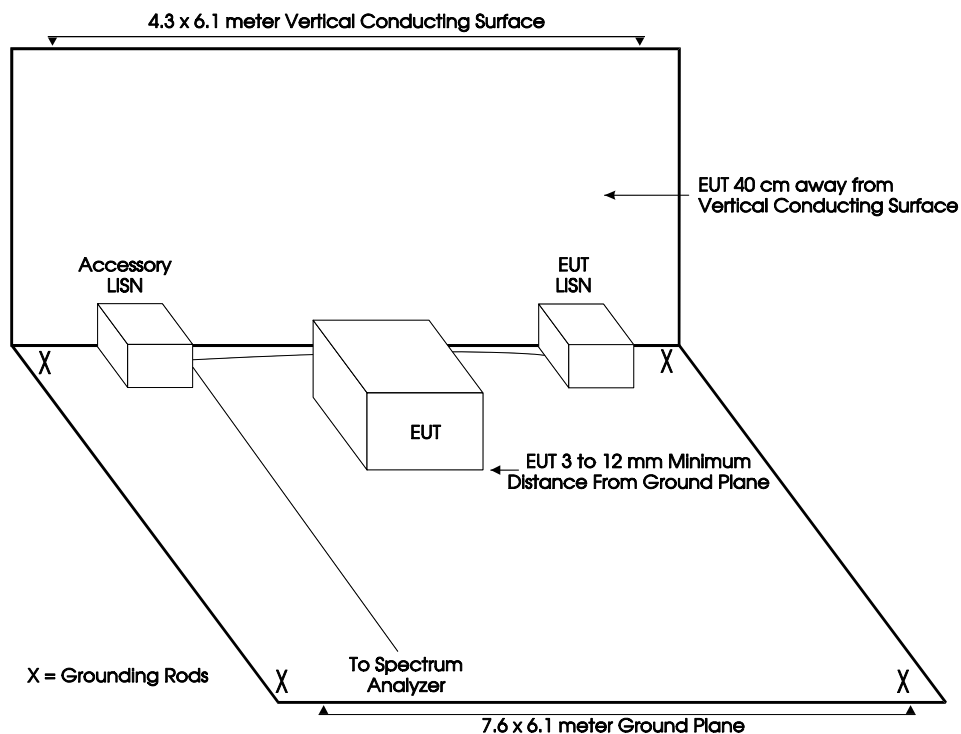
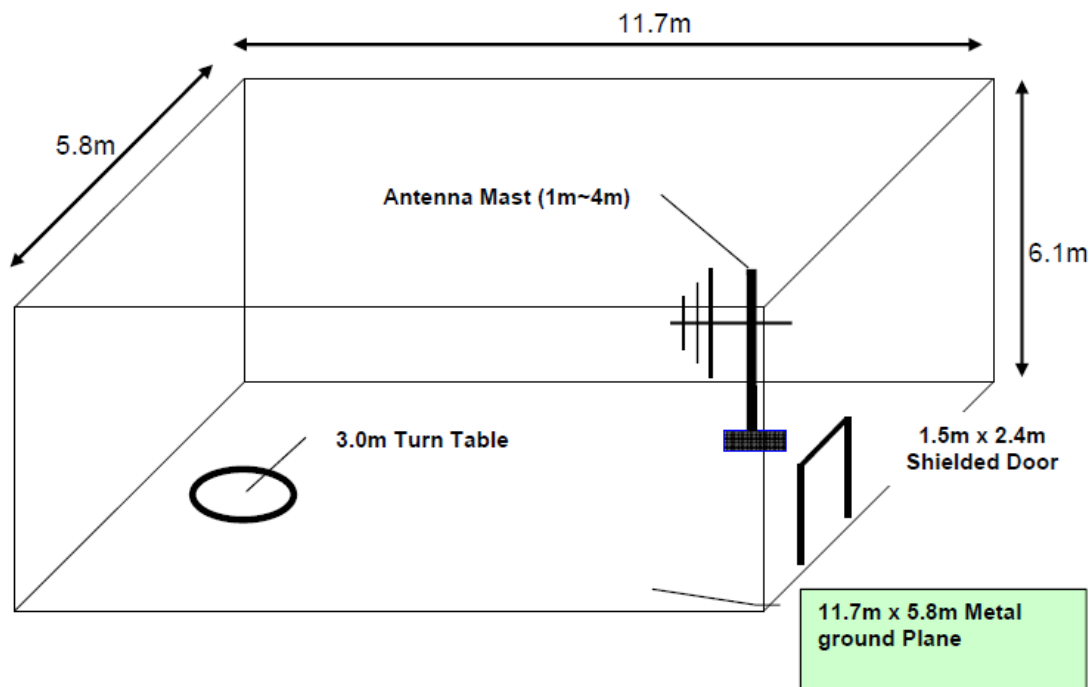


FIGURE 1a – FLOORSTANDING CONDUCTED EMISSIONS TEST SETUP – SITE ‘A’

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**FIGURE 3 - LAYOUT OF 5 METER SEMI-ANECHOIC CHAMBER**



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APPENDIX D

MODIFICATIONS TO THE EUT



ELECTRO MAGNETIC TEST, INC.

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MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC Subpart C radiated emission 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.

Modifications:

- 1) Remote was set at 70% of maximum power.



ELECTRO MAGNETIC TEST, INC.

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APPENDIX E

ADDITIONAL MODELS COVERED UNDER THIS REPORT



ELECTRO MAGNETIC TEST, INC.

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ADDITIONAL MODELS COVERED UNDER THIS REPORT

There are no additional models to be covered under this report.