ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART B &C REQUIREMENT

OF

Wireless A/V Receiver

MODEL No.: UTV324

Trademark: GADMEI

FCC ID: VHH-UTV324

REPORT NO: E0712623E

ISSUE DATE: Feb 13, 2008

Prepared for

GADMEI ELECTRONICS TECHNOLOGY CO., LTD.
Yin Zhan Farm, Qing Cheng District, Qing Yuan City, Guangdong Province, China

Prepared by

DONGGUAN EMTEK CO., LTD

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VERIFICATION OF COMPLIANCE

Applicant:	GADMEI ELECTRONICS TECHNOLOGY CO., LTD. Yin Zhan Farm, Qing Cheng District, Qing Yuan City, Guangdong Province, China
Product Description:	Wireless A/V Receiver
Trademark:	GADMEI
Model Number:	UTV324
File Number:	E0712623E
Date of Test:	Dec 23, 2007 to Feb 12, 2008

We hereby certify that:

The above equipment was tested by DONGGUAN EMTEK CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003) and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15.231.

The test results of this report relate only to the tested sample identified in this report.

Approved By

Nicol Lee / Q.A. Manager
DONGGUAN EMTEK CO., LTD.

Table of Contents

1. GENERAL INFORMATION

1.1 Product Description

The GADMEI ELECTRONICS TECHNOLOGY CO., LTD. Model: UTV324 (referred to as the EUT in this report) The EUT is an short range, lower power, Wireless A/V Receiver designed as an " Input Device". It is designed by way of utilizing the FM modulation achieves the system operating.

A major technical descriptions of EUT is described as following:

A). Operation Frequency:433 MHz
B). Modulation: FM
C). Number of Channel: 1
D). Antenna Designation: external
E). Power Supply: DC 5V with USB Port

1.2 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: VHH-UTV324 filing to comply with Section 15.231 of the FCC Part 15, Subpart B and Subpart C Rules, The composite system (receiver) is compliance with Subpart B is authorized under a DoC procedure.

1.3 Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4 (2003). Radiated testing was performed at an antenna to EUT distance 3 meters. The customer requested FCC tests for a Wireless A/V Receiver for all frequency TV wireless transmission and VCD,DVD signal transmission

1.4 Special Accessories

Not available for this EUT intended for grant.

1.5 Equipment Modifications

Not available for this EUT intended for grant.

1.6 Test Facility

Site Description

EMC Lab. : Accredited by CNAS, 2005.11.02
The certificate is valid until 2010.11
The Laboratory has been assessed and proved to be in compliance with CNAS/CL01:2006(identical to ISO/IEC17025:2005)
The Certificate Registration Number is L2291

Accredited by TUV Rheinland Guangzhou, 2005.1
The certificate is valid until 2008.2
The Laboratory has been assessed according to the requirements ISO/IEC 17025:1999

Accredited by FCC, Valid 10/01/2008
The Certificate Number is Q2312.

Accredited by Industry Canada, August 30, 2005
The Certificate Registration Number is 46405-4480

Name of Firm : DONGGUAN EMTEK CO., LTD.

Site Location : No.281, Guantai Road, Nancheng District,
Dongguan, Guangdong, China

2. System Test Configuration

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

The Transmitter was operated in the normal operating mode. the Tx frequency was fixed which was for the purpose of the measurements.

2.3 Test Procedure

2.3.1 Conducted Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4-2003. Conducted emissions from the EUT measured in the **frequency range between 0.15MHz and 30MHz using CISPR Quasi-Peak and average detector mode.**

2.3.2 Radiated Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter(EUT) was rotated through three orthogonal axes according to the requirements in Section 13.1.4.1 of ANSI C63.4-2003.

2.4 Limitation

(1) Conducted Emission

Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note:

1. The lower limit shall apply at the transition frequencies
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

(2)Radiated Emissions FCC Rule: 15.231(b)

FCC Part 15, Subpart C Section 15.231. The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Frequency(MHz)	Filed Strength of Fundamental (microvolts/meter)		Filed Strength of Harmonics(at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
40.66-40.70	87.0	67.0	67.0	47.0
70-130	82.0	62.0	62.0	42.0
130-174	82.0-91.5	62.0-71.5	62.0-71.5	42.0-51.5
174-260	91.5	71.5	71.5	51.5
260-470	91.5-102	71.5-82	71.5-82	51.5-62
Above 470	102	82	82	62

[Where F is the frequency in MHz, the formulas for calculating the maximum permitted fundamental field Strengths are as follows: for the band 130 -174 MHz, uV/m at 3 meters = 56.81818(F) – 6136.3636; for the band 260 – 470 MHz, uV/m at 3 meters = 41.6667(F) – 7083.3333. The maximum permitted unwanted emission level is 20dB below the maximum permitted fundamental level.]

Radiated Emissions

FCC Rule: 15.231(b)(3)

FCC Part 15, Subpart C Section 15.209 limit of radiated emission for frequency below 1000GHz. The emissions from an intentional radiator shall not exceed the field strength level specified in the following table:

Frequency (MHz)	Field strength μV/m	Distance(m)	Field strength at 3m dBμV/m
30-88	100	3	40
88-216	150	3	43.5
216-960	200	3	46
Above 960	500	3	54

Remark: 1. Emission level in dBuV/m=20 log (uV/m)
2. Measurement was performed at an antenna to the closed point of EUT distance of meters.

FCC Part 15, Section 15.35(b) limit of radiated emission for frequency above 1000MHz

Frequency(MHz)	Class A(dBμV/m)(at 3m)		Class B(dBμV/m)(at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80.0	60.0	74.0	54.0

2.5 Configuration of Tested System

Fig. 2-1 Configuration of Tested System

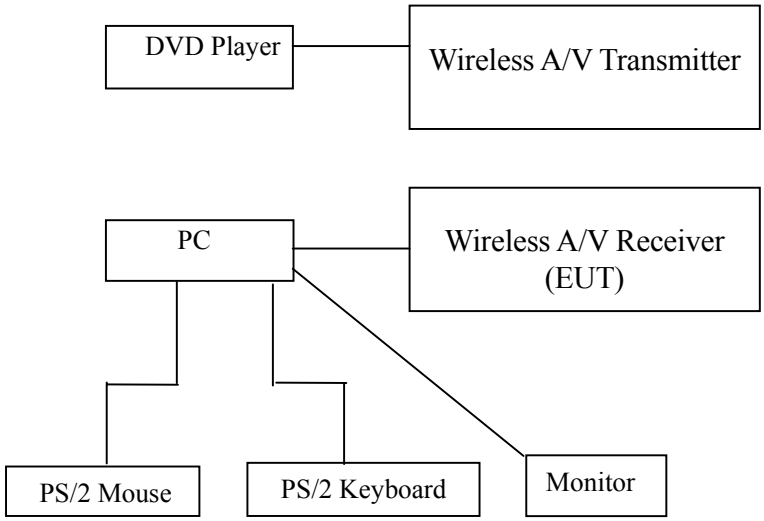


Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
1.	Wireless A/V Receiver	GADMEI	UTV324	VHH-UTV324	N/A	***EUT***
2.	Wireless A/V Transmitter	GADMEI	TXV2408	VHH- TXV2408	N/A	
3.	PC	HP	U1169c1	N/A	CNN5260R8Q	
4.	Monitor	Weiyi	775E	N/A	N/A	
5.	Keyboard	HP	5187-8432	N/A	N852301742	
6.	Mouse	HP	5188-0151	N/A	LZ51902771	
7.	DVD Player	Hena	HDVD-998	N/A	N/A	

Note:

(1) Unless otherwise denoted as EUT in『Remark』column , device(s) used in tested system is a support equipment.

3. Summary Of Test Results

FCC Rules	,Description Of Test	Result
§ 15.207	Conducted Emission	Compliant
§ 15.231 (a),(b),(c) § 15.209	Radiated Emission	Compliant
§15.203	Antenna Requirement	Compliant

4. Description of test modes

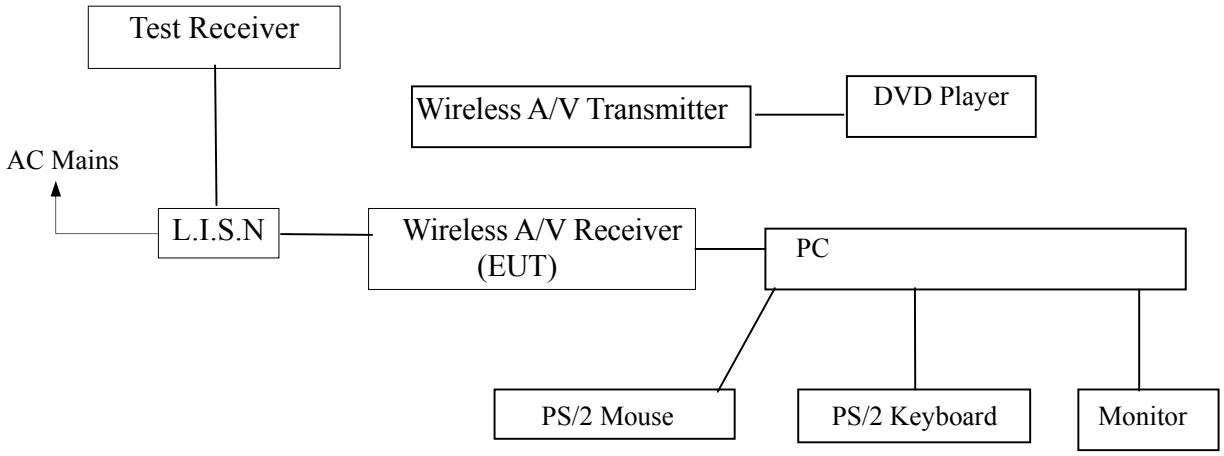
The EUT (Wireless A/V Receiver) has been tested under normal operating condition.
In this report, all the measured datum have been reported. No software used to control the EUT for staying in continuous transmitting mode for testing.

5. Conducted Emissions Test

5.1 Measurement Procedure:

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Maximum procedure was performed on the three highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

5.2 Test SET-UP (Block Diagram of Configuration)



5.3 Measurement Equipment Used:

Conducted Emission Test Site # 4					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Test Receiver	Rohde & Schwarz	ESCS30	828985/018	05/29/2007	05/29/2008
L.I.S.N	Rohde & Schwarz	ESH2-Z5	834549/005	05/29/2007	05/29/2008
L.I.S.N	Rohde & Schwarz	ESH2-Z5	834549/005	05/29/2007	05/29/2008
50ΩCoaxial Switch	Anritsu	MP59B	M20531	05/29/2007	05/29/2008

5.4 Measurement Result:

Date of Test:	Jan 11, 2007	Temperature:	22℃
Frequency Detector:	0.15~30MHz	Humidity:	50%
Test Result:	PASS	Test Mode:	On

Test Line	Frequency MHz	Emission Level QP dB(μV)	Emission Level AV dB(μV)	Limits QP dB(μV)	Limits AV dB(μV)	Margin QP dB(μV)	Margin AV dB(μV)
Neutral	**0.398**	**48.02**	**35.23**	**57.90**	**47.90**	**-9.88**	**-12.67**
	0.657	45.34	30.39	56.00	46.00	-10.66	-15.61
	0.853	45.36	35.79	56.00	46.00	-10.64	-10.21
	1.354	43.86	35.30	56.00	46.00	-12.14	-10.70
	3.825	45.23	34.28	56.00	46.00	-10.77	-11.72
	18.572	45.35	38.68	60.00	50.00	-14.65	-11.32
Line	0.210	52.14	40.52	63.21	53.21	-11.07	-12.69
	0.624	42.23	30.25	56.00	46.00	-13.77	-15.75
	0.983	42.26	34.71	56.00	46.00	-13.74	-11.29
	2.578	40.38	33.19	56.00	46.00	-15.62	-12.81
	3.587	43.24	34.20	56.00	46.00	-12.76	-11.80
	22.102	45.23	34.72	60.00	50.00	-14.77	-15.28

Remark: The worst emission is detected at **0.398MHz** with corrected **QP** signal Level of **48.02 dBμV**(Limit is 57.90 dBμV).When the Neutral of the EUT is connected to L.I.S.N

5.5 Conducted Measurement Photos:

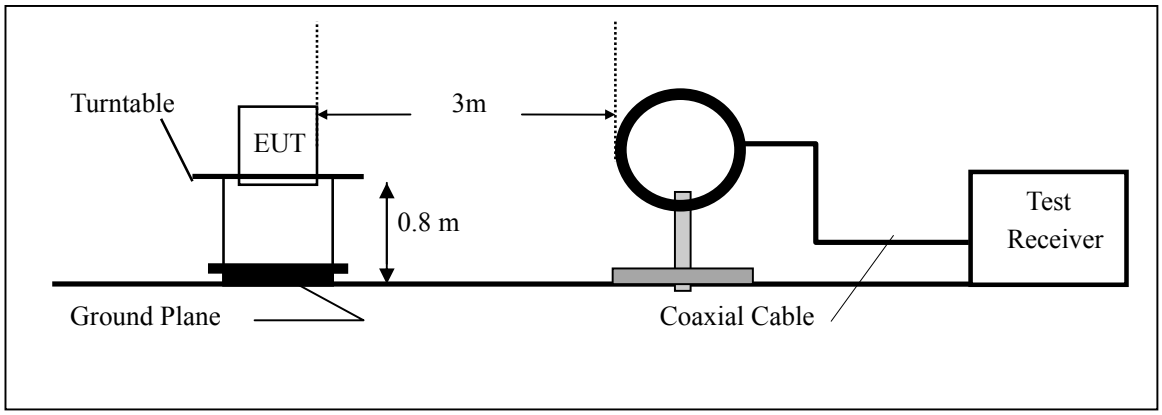
6. Radiated Emission Test

6.1 Measurement Procedure

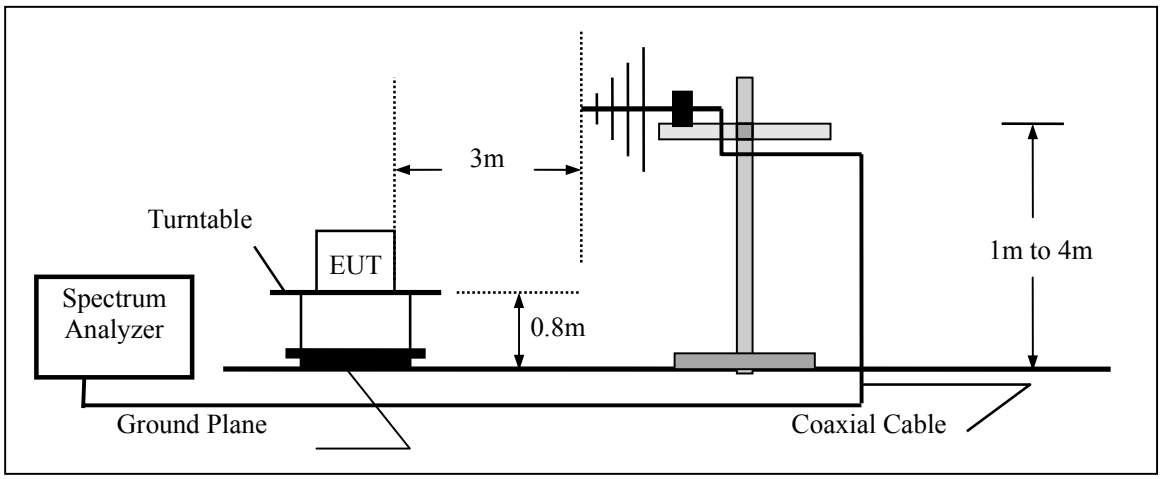
1 The EUT was placed on a turn table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measured were complete.

6.2 Test SET-UP (Block Diagram of Configuration)

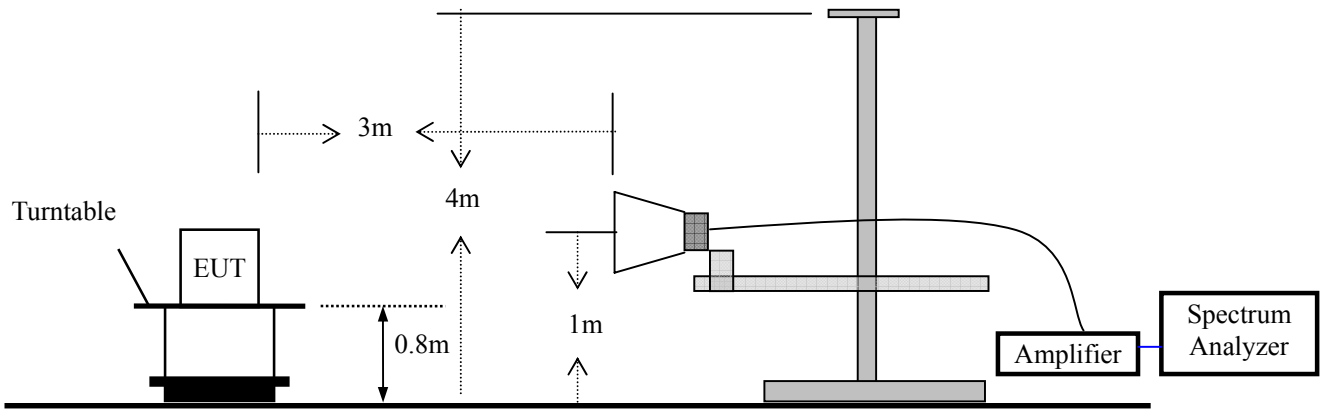
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz



6.3 Measurement Equipment Used:

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	Rohde & Schwarz	FSP7	839511/010	05/29/2007	05/29/2008
Spectrum Analyzer	HP	E4407B	839840481	05/29/2007	05/29/2008
EMI Test Receiver	Rohde & Schwarz	ESCS30	828985/018	05/29/2007	05/29/2008
Pre-Amplifier	HP	8447D	2944A07999	05/29/2007	05/29/2008
Bilog Antenna	Schwarzbeck	VULB9163	142	05/29/2007	05/29/2008
Loop Antenna	ARA	PLA-1030/B	1029	05/29/2007	05/29/2008
Horn Antenna	Electro-Metrics	EM-6961	103314	05/29/2007	05/29/2008
Horn Antenna	Schwarzbeck	BBHA 9120	D143	05/29/2007	05/29/2008

6.4 Out of Band Radiated Measurement Result

Operation Mode:	RX Mode	Test Date :	Dec 28, 2007
Frequency Range:	30~1000MHz	Temperature :	27 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Andy

Freq. (MHz)	Ant.Pol. H/V	Emission Level (dBuV)	Limit 3m (dBuV/m)	Margin (dB)	Note
52.230	V	36.25	40.00	-3.75	PK
125.360	V	38.74	43.50	-4.76	PK
256.324	V	40.23	46.00	-5.77	PK
352.130	V	39.56	46.00	-6.44	PK
526.340	V	38.26	46.00	-7.74	PK
829.267	V	38.41	46.00	-7.59	PK
48.263	H	34.21	40.00	-5.79	PK
103.421	H	39.32	43.50	-4.18	PK
254.152	H	40.25	46.00	-5.75	PK
326.590	H	39.45	46.00	-6.55	PK
423.157	H	38.52	46.00	-7.48	PK
824.260	H	40.12	46.00	-5.88	PK

Note: (1) All Readings are Peak Value.
(2) Emission Level= Reading Level+Probe Factor +Cable Loss
(3) The average measurement was not performed when the peak measured data under the limit of average detection.

No others harmonics emissions are higher than 20dB below the limits of 47 CFR Part 15.209.

Operation Mode:	RX Mode	Test Date :	Dec 28, 2007
Frequency Range:	Above 1000MHz	Temperature :	27 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Andy

Freq.	Ant.Pol.	Emission Level(dBuV)		Limit 3m(dBuV/m)		Margin(dB)	
(GHz)	H/V	PK	AV	PK	AV	PK	AV
1.253	V	64.25	42.23	74.0	54.0	-9.75	-11.77
1.758	V	62.34	43.29	74.0	54.0	-11.66	-10.71
2.123	V	60.29	41.48	74.0	54.0	-13.71	-12.52
2.346	V	60.36	40.17	74.0	54.0	-13.64	-13.83
2.523	V	58.69	38.74	74.0	54.0	-15.31	-15.26
1.364	H	65.45	43.23	74.0	54.0	-8.55	-10.77
1.598	H	62.52	43.26	74.0	54.0	-11.48	-10.74
1.786	H	64.36	45.29	74.0	54.0	-9.64	-8.71
2.265	H	63.84	42.21	74.0	54.0	-10.16	-11.79
2.687	H	62.35	42.45	74.0	54.0	-11.65	-11.55

No others harmonics emissions are higher than 20dB below the limits of 47 CFR Part 15.35(b).

Note: (1) All Readings are Peak Value and AV.
(2) Emission Level= Reading Level+Probe Factor +Cable Loss
(3) The average measurement was not performed when the peak measured data under the limit of average detection.

Operation Mode:	TX (433MHz)	Test Date :	Jan 11, 2008
Frequency Range:	30M-3GHz	Temperature :	28 ℃
Test Result:	PASS	Humidity :	65 %
Measured Distance:	3m	Test By:	Andy

Freq. (MHz)	Ant.Pol. H/V	Emission Level(dBuV) PK	Emission Level(dBuV) AV	Limit 3m(dBuV/m) PK	Limit 3m(dBuV/m) AV	Margin(dB) PK	Margin(dB) AV
433.8328(F)	V	**95.30**	**74.50**	**100.8**	**80.8**	**-5.50**	**-6.30**
867.6656	V	70.16	51.23	80.8	60.8	-10.64	-9.57
1301.4984	V	68.54	50.23	80.8	60.8	-12.26	-10.57
1735.3312	V	65.23	47.26	80.8	60.8	-15.57	-13.54
2169.1640	V	67.56	50.47	80.8	60.8	-13.24	-10.33
2602.9968	V	62.54	53.12	80.8	60.8	-18.26	-7.68
3036.8296	V	55.20	42.30	80.8	60.8	-25.60	-18.50
3470.6624	V	50.38	40.12	80.8	60.8	-30.42	-20.68
3904.4952	V	57.36	45.21	80.8	60.8	-23.44	-15.59
4338.3280	V	60.20	42.71	80.8	60.8	-20.60	-18.09
433.8328(F)	H	94.26	72.12	100.8	80.8	-6.54	-8.68
867.6656	H	68.17	47.25	80.8	60.8	-12.63	-13.55
1301.4984	H	63.29	48.14	80.8	60.8	-17.51	-12.66
1735.3312	H	65.25	45.28	80.8	60.8	-15.55	-15.52
2169.1640	H	66.28	48.74	80.8	60.8	-14.52	-12.06
2602.9968	H	60.23	45.69	80.8	60.8	-20.57	-15.11
3036.8296	H	54.48	42.12	80.8	60.8	-26.32	-18.68
3470.6624	H	56.35	44.17	80.8	60.8	-24.45	-16.63
3904.4952	H	55.28	40.68	80.8	60.8	-25.52	-20.12
4338.3280	H	52.14	38.69	80.8	60.8	-28.66	-22.11

No others harmonics emissions are higher than 20dB below the limits of 47 CFR Part 15.231.

Note: (1) All Readings are Peak Value and AV.
(2) Emission Level= Reading Level+Probe Factor +Cable Loss
(3) The average measurement was not performed when the peak measured data under the limit of average detection.

6.5 Radiated Measurement Photos:

7. ACTIVATION TESTING

7.1 Requirement

Per 15.231(a) (2), a transmitter activated automatically shall cease transmission within 5 seconds after activation.

7.2 Test SET-UP

Same as 6.2 Radiated Emission Measurements.

7.3 Measurement Equipment Used:

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EMI Test Receiver	Rohde & Schwarz	ESCS30	828985/018	05/29/2007	05/29/2008
Pre-Amplifier	HP	8447D	2944A07999	05/29/2007	05/29/2008
Broadband Antenna	Sunol Sciences	JB1	A040904-2	05/29/2007	05/29/2008

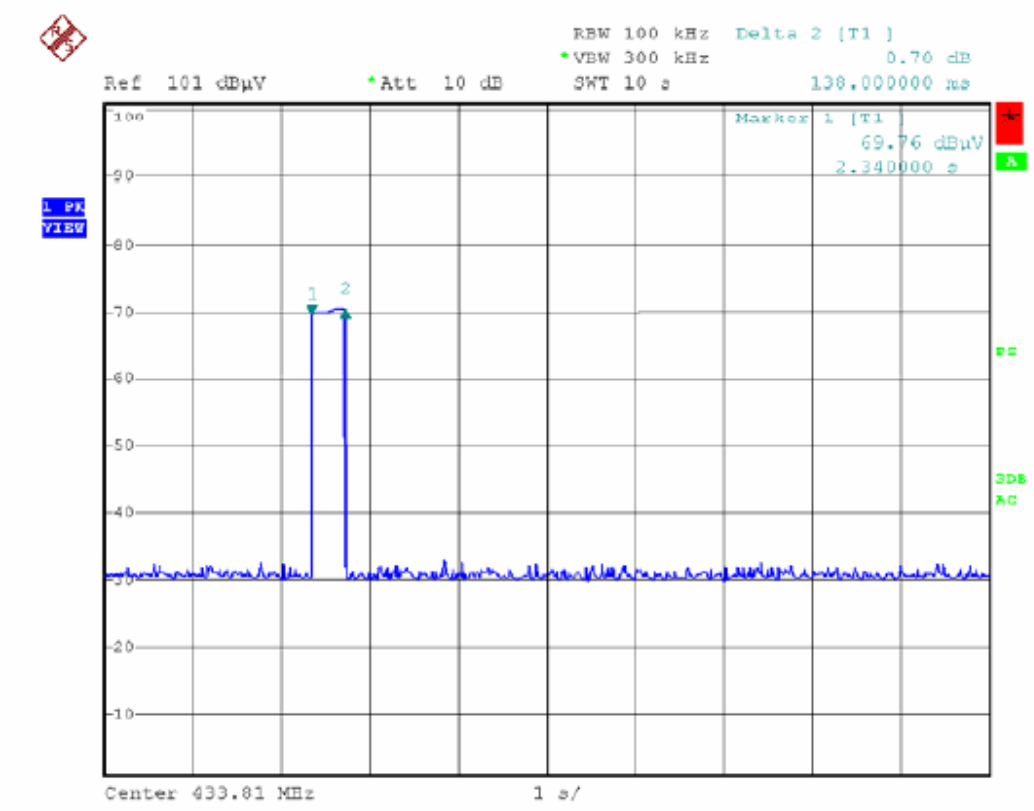
7.4 Test Procedure

1. The activation test was performed in the 3 meters chamber B test site, using the setup accordance with the ANSI C63.4 - 2003. The specification used was the FCC 15.231(a) limits.
2. Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

7.5 Measurement Results:

PASS

The following plot shows a packet transmission that concludes in less than 5 seconds.



8. Occupied Bandwidth

8.1 Measurement Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as normal operation.
3. Set SPA Center Frequency = fundamental frequency,RBW=10KHz,VBW=30KHz.
4. Set SPA Max hold. Mark peak.

8.2 Test SET-UP(Block Diagram of Configuration)

Same as 5.2 Radiated Emission Measurement.

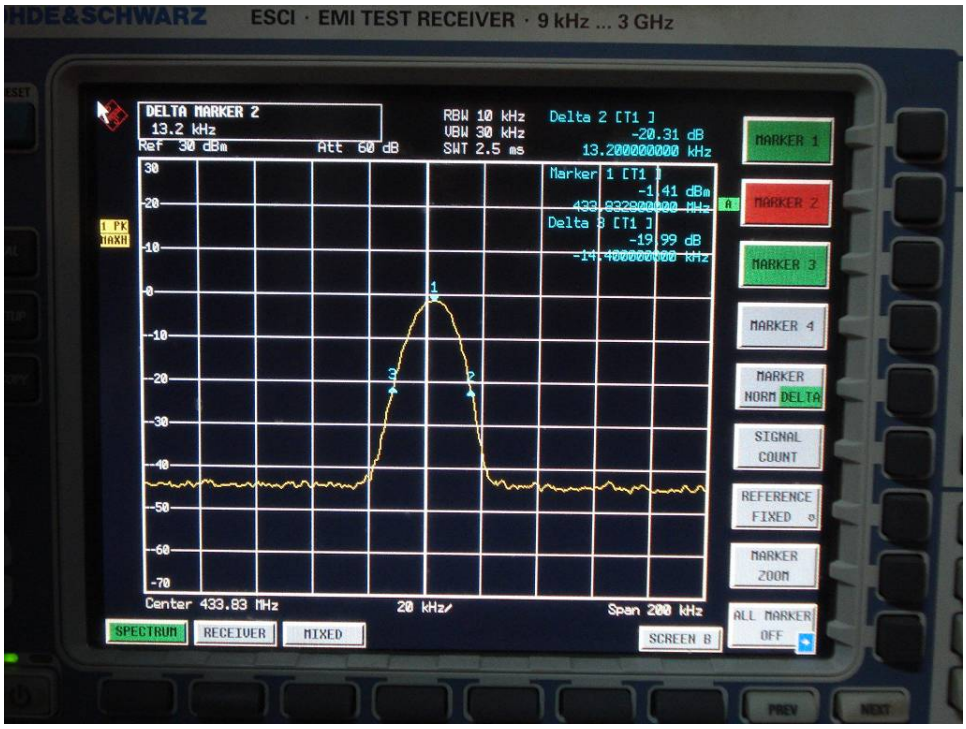
8.3 Measurement Equipment Used:

Same as 5.3 Radiated Emission Measurement.

8.4 Measurement Results:

The field strength of any emission which appear outside of this band shall not exceed the general radiated emission limits in section 15.209.
Refer to attached data chart.

Band Width Test Data:



9. Antenna Application

9.1 Antenna requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible part 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, The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

9.2 Antenna construction and directional gain

An external specify type antenna was used.