



Test Lab
Cert 2951.01

FCC TEST REPORT

for

Kadence Designs LLC

AudioRock 5

Model Number: R5.2.0

Prepared for : Kadence Designs LLC
Address : P.O.Box 2359, Thompson Falls, MT 59873

Prepared By : NS Technology Co., Ltd.
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Report Number : NSE-F10064932
Date of Test : May 12~May 23, 2010
Date of Report : May 26, 2010



TABLE OF CONTENTS

	Page
Test Report Declaration	Page
1. GENERAL PRODUCT INFORMATION	4
1.1. Product Function	4
1.2. Description of Device (EUT)	4
1.3. Difference between Model Numbers	4
1.4. Independent Operation Modes	4
2. TEST SITES.....	5
2.1. Test Facilities	5
2.2. List of Test and Measurement Instruments	6
3. TEST SET-UP AND OPERATION MODES	7
3.1. Principle of Configuration Selection.....	7
3.2. Block Diagram of Test Set-up.....	7
3.3. Test Operation Mode and Test Software.....	7
3.4. Special Accessories and Auxiliary Equipment	7
3.5. Countermeasures to Achieve EMC Compliance.....	7
4. TEST SUMMARY.....	8
5. EMISSION TEST RESULTS.....	9
5.1. Radiated Emission.....	9
5.2. 6dB Bandwidth	41
5.3. Power Spectral Density Test	43
5.4. Output Power Test.....	45
5.5. Band Edge	47
5.6. ANTENNA REQUIREMENT	64



NS Technology Co., Ltd.

Applicant: Kadence Designs LLC
Address: P.O.Box 2359, Thompson Falls, MT 59873

Manufacturer: Celewave Electronics(shenzhen) Co.,Ltd
Address: No 1-2 building, No 2 Industry District, Shang Heng lang Huaxing Road, Dalang Street, Baoan District, Shenzhen City, China

E.U.T: AudioRock 5

Model Number: R5.2.0

Trade Name: Lightspeaker **Operating Frequency:** 2412~2464MHz

Date of Receipt: Apr.17, 2010 **Date of Test:** May 12~May 25, 2010

Test Specification: FCC Part15C :2009
ANSI C63.4:2003

Test Result: The equipment under test was found to be compliance with the requirements of the standards applied.

Issue Date: May 26, 2010

Tested by:

Jade/ Engineer

Reviewed by:

Iceman Hu / Supervisor

Approved by:

Steven Lee / Manager

Other Aspects:

None.

Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested

This test report is based on a single evaluation of one sample of above mentioned products, It is not permitted to be duplicated in extracts without written approval of NS Technology Co., Ltd.



1. GENERAL PRODUCT INFORMATION

1.1. Product Function

Details please refer to Technical Construction Form and User Manual.

1.2. Description of Device (EUT)

E.U.T.	: AudioRock 5
Model No.	: R5.2.0
Operating Frequency	: 2412~2464MHz
Number of Channels	: 3 Channels
Type of Modulation	: DSSS(QPSK)
Antenna Type	: Integral
Antenna Gain	: 5.5dBi
System Input Voltage	: DC 11.1V
Temperature Range(Operating)	: 0 ~+ 40°C

1.3. Difference between Model Numbers

1.4. Independent Operation Modes

The basic operation modes are:

1.4.1 TX CH1 (2412MHz)

1.4.2. TX CH2 (2438MHz)

1.4.3. TX CH3 (2464MHz)



2. TEST SITES

2.1. Test Facilities

EMC Lab : Accredited by TUV Rheinland, Germany
Date of registration: July 28, 2003

Accredited by CNAS, China
Registration No.: L1744
Date of registration: November 25, 2004

Accredited by Intertek ETL SEMKO
Registration No.: TMP-013
Date of registration: June 11, 2005

Accredited by TUV/PS, Hong Kong
Date of registration: December 1, 2005

Accredited by ATCB, USA
Date of registration: August 3, 2006

Accredited by VCCI, Japan
Member No.:2115
Registration No.: R-2527, R-3012 & C-2770
Date of registration: March 23, 2007

Accredited by FCC, USA
Registration No.: 502831
Date of registration: February 9, 2009

Accredited by Industry Canada
Registration No.: 5936A
Date of registration: March 4, 2009

Accredited by American Association for Laboratory
Accreditation (A2LA), USA
Certificate No.: 2951.01
Date of registration: March 31, 2010

Name of Firm : NS Technology Co., Ltd.

Site Location : Chenwu Industrial Zone, Houjie Town, Dongguan City,
Guangdong, China



2.2. List of Test and Measurement Instruments

2.2.1. For radiated emission test (30MHz-1GHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESCS30	100340	May 31,09	May 31,10
Spectrum Analyzer	HP	8593E	3448U00806	May 31,09	May 31,10
Bilog Antenna	Teseq	CBL 6111D	25758	Oct. 27,09	Oct. 27,10
Signal Amplifier	Agilent	8447D	2944A10488	May 2,10	May 2,11
50Ω Coaxial Switch	ANRITSU	MP59B	6200530577	May 2,10	May 2,11

2.2.2. For radiated emission test(1GHz-18GHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Spectrum Analyzer	HP	8593E	3448U00806	May 31,09	May 31,10
Horn Antenna	EMCO	3117	00062558	Jan. 19,09	Jan. 19,11
Signal Amplifier	BURGEON	PEC-38-30M18G -12-SFF	NSEMC001	May 31,09	May 31,11

2.2.3. For output power Test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Spectrum Analyzer	Agilent	E7405A	MY45118807	May 30,09	May 30,10

2.2.4. For power spectral density Test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Spectrum Analyzer	Rohde&Schwarz	FSL3	101507	Jul.31,09	Jul.31,10

2.2.5. For Band edge compliance test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Spectrum Analyzer	HP	8593E	3448U00806	May 31,09	May 31,10
Horn Antenna	EMCO	3117	00062558	Jan. 19,09	Jan. 19,11
Signal Amplifier	BURGEON	PEC-38-30M18G -12-SFF	NSEMC001	May 31,09	May 31,11

2.2.6. For 6dB bandwidth test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Spectrum Analyzer	Agilent	E7405A	MY45118807	May 31,09	May 31,10



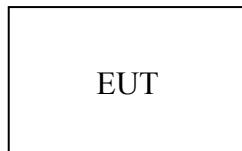
3. TEST SET-UP AND OPERATION MODES

3.1. Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its highest possible radiated level. The test modes were adapted accordingly in reference to the Operating Instructions.

3.2. Block Diagram of Test Set-up

System Diagram of Connections Between EUT and Simulators



(EUT : AudioRock 5)

3.3. Test Operation Mode and Test Software

Refer to clause 1.4

3.4. Special Accessories and Auxiliary Equipment

None.

3.5. Countermeasures to Achieve EMC Compliance

None.

4. TEST SUMMARY

Test items and result lists

No.	Item	Standard	Results
1	Conduction Emission Test	FCC Part15C: 15.207 ANSI C63.4-2003 KDB558074	N/A
2	Radiated Emission Test	FCC Part15C: 15.209 ANSI C63.4-2003 KDB558074	PASS
3	Band Edge Compliance Test	FCC Part15: 15.247 KDB558074	PASS
4	Output Power Test	FCC Part15: 15.247 KDB558074	PASS
5	6dB Bandwith Test	FCC Part15: 15.247 KDB558074	PASS
6	Power Spectral Density Test	FCC Part15: 15.247 KDB558074	PASS
8	Antenna requirement	FCC Part 15:15.203	PASS



5. EMISSION TEST RESULTS

5.1. Radiated Emission

5.1.1. Test limits

- 1) FCC PART 15C 15.209

5.1.2. Test procedure

The EUT was placed on a turn table which was 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna which was mounted on a antenna tower. At the frequency band of 30MHz to 1GHz, The measuring antenna moved up and down to find out the maximum emission level. It moved from 1 to 4 m for horizontal and vertical polarizations. The broadband antenna was used as a receiving antenna. At the frequency band of 1GHz to 25GHz, The measuring antenna moved from 1 to 4 m for horizontal and vertical polarization. The horn antenna was used as a receiving antenna.

The resolution bandwidth and video bandwidth of the test receiver was 120 kHz and 300kHz for Quasi-peak detection at frequency below 1GHz.

The resolution bandwidth and video bandwidth of the test receiver was 1MHz and 1MHz for Peak detection at frequency above 1GHz.

For Average measurement at frequency above 1GHz. The resolution bandwidth of the test receiver was 1MHz ; due to the shortest pulse width T is 116us, according the video bandwidth should not smaller than $1/T$, so the video bandwidth is 10Hz.

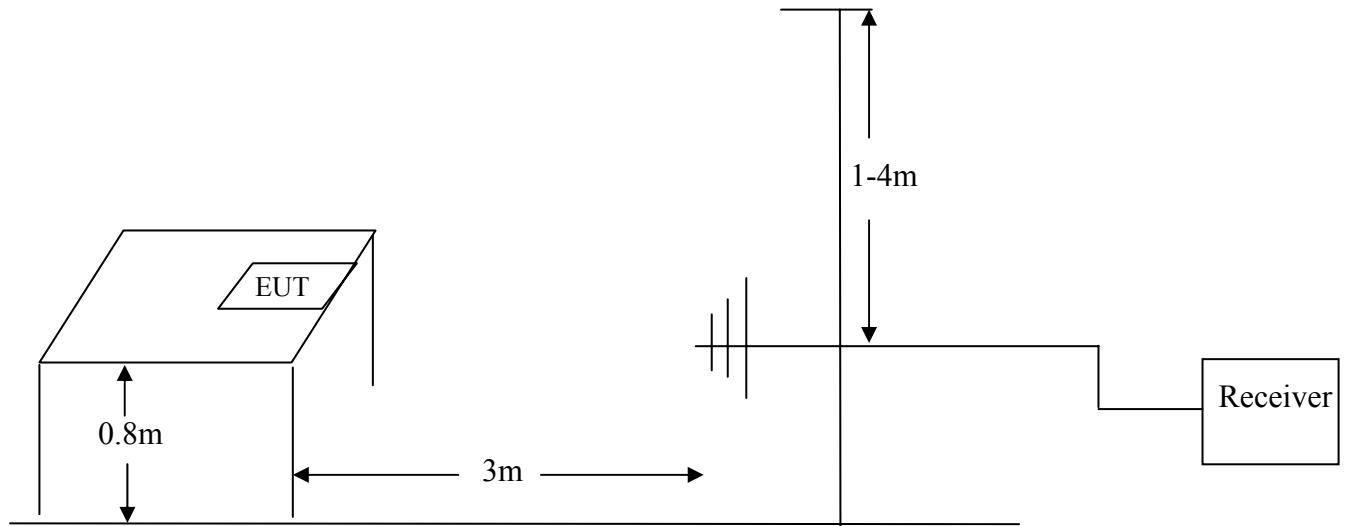
In 18GHz to 25GHz, The EUT was checked by Horn ANT . But the test result is background.

The EUT was tested in Chamber Site.

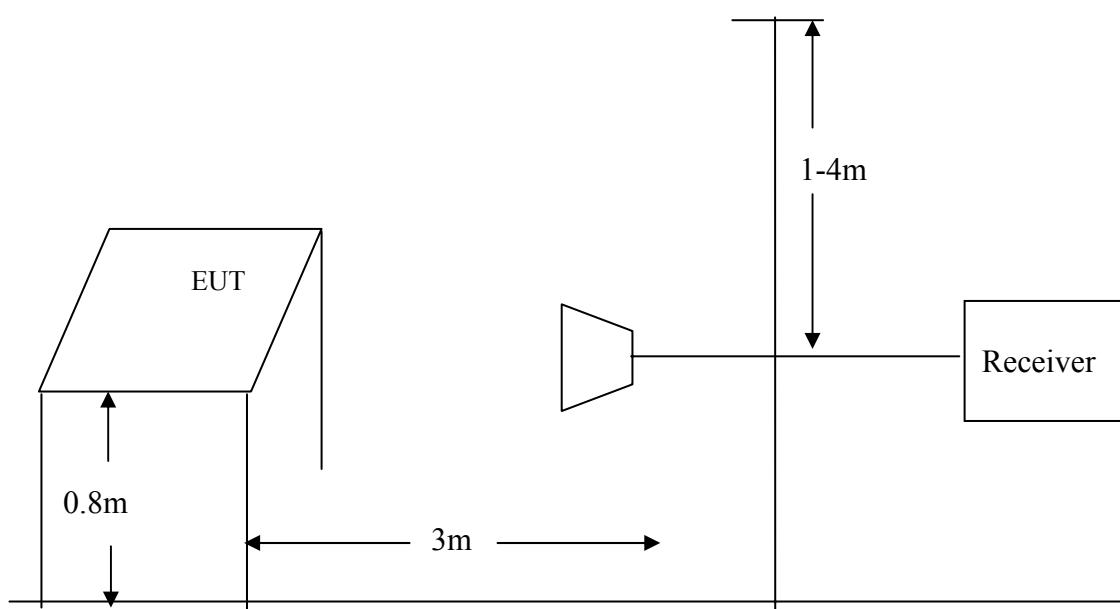
Note: Test uncertainty: $\pm 2.62\text{dB}$ at a level of confidence of 95%.:

5.1.3. Test Setup Diagram

5.1.3.1. Frequency range: 30MHz-1000MHz



5.1.3.2. Frequency range: 1 GHz -25GHz



The test plots as following:

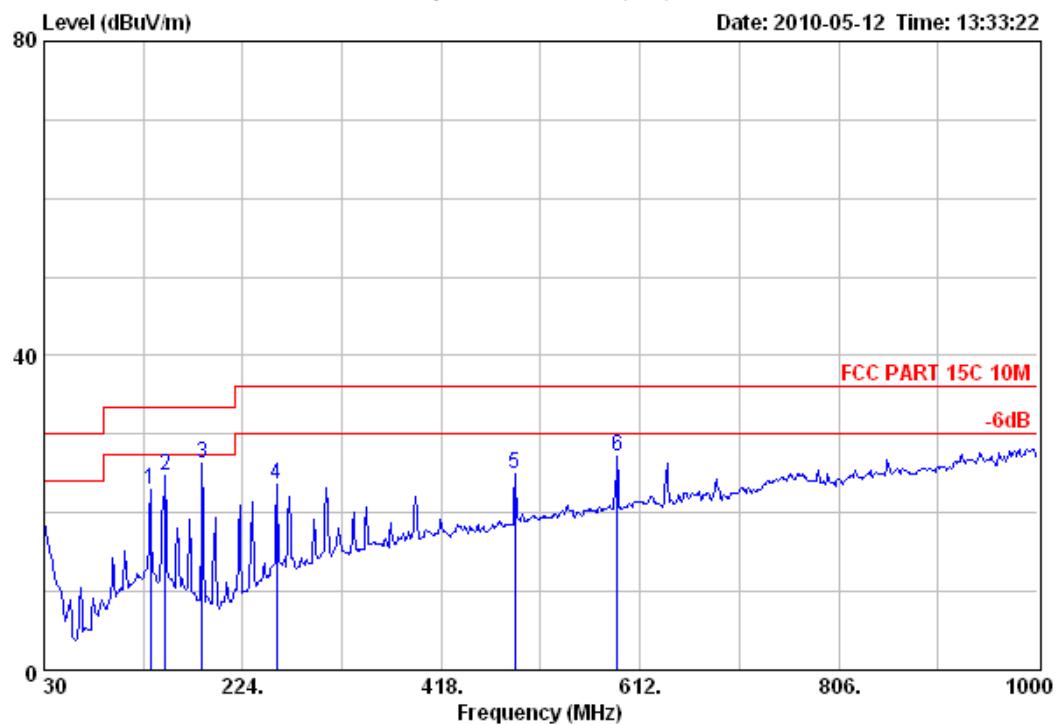
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Data: 501

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 13:33:22



Test Site : 10m Chamber
 Limit : FCC PART 15C 10M
 Dis. / Ant. : 10m 25758-10 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp:25.2'C Humi:56% Press:101.53kPa
 Test Mode : TX mode antenna 1

Freq. (MHz)	Emission			Ant. Cable				Remark
	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	(dB)	
1 133.79	22.91	500.00	477.09	9.93	11.46	1.52	QP	
2 148.34	24.63	500.00	475.37	12.42	10.60	1.61	QP	
3 184.23	26.33	500.00	473.67	16.30	8.28	1.75	QP	
4 256.98	23.62	500.00	476.38	9.39	12.20	2.03	QP	
5 489.78	24.89	500.00	475.11	4.61	17.50	2.78	QP	
6 589.69	27.25	500.00	472.75	4.99	19.20	3.06	QP	



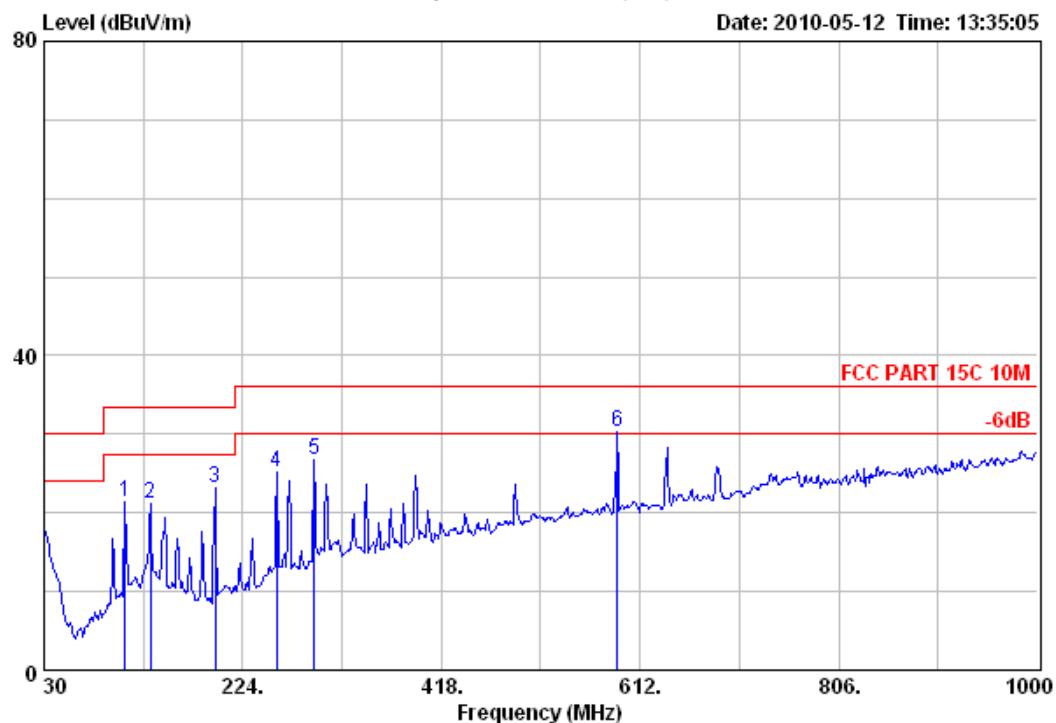
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Data: 502

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 13:35:05



Test Site : 10m Chamber
 Limit : FCC PART 15C 10M
 Dis. / Ant. : 10m 25758-10 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp:25.2'C Humi:56% Press:101.53kPa
 Test Mode : TX mode antenna 1

Freq. (MHz)	Emission			Ant. Cable				Remark
	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	(dB)	
1 109.54	21.40	500.00	478.60	9.51	10.50	1.39	QP	
2 133.79	21.11	500.00	478.89	8.13	11.46	1.52	QP	
3 196.84	23.08	500.00	476.92	13.85	7.42	1.81	QP	
4 256.98	25.11	500.00	474.89	10.88	12.20	2.03	QP	
5 293.84	26.79	500.00	473.21	12.08	12.56	2.15	QP	
6 589.69	30.31	500.00	469.69	8.05	19.20	3.06	QP	



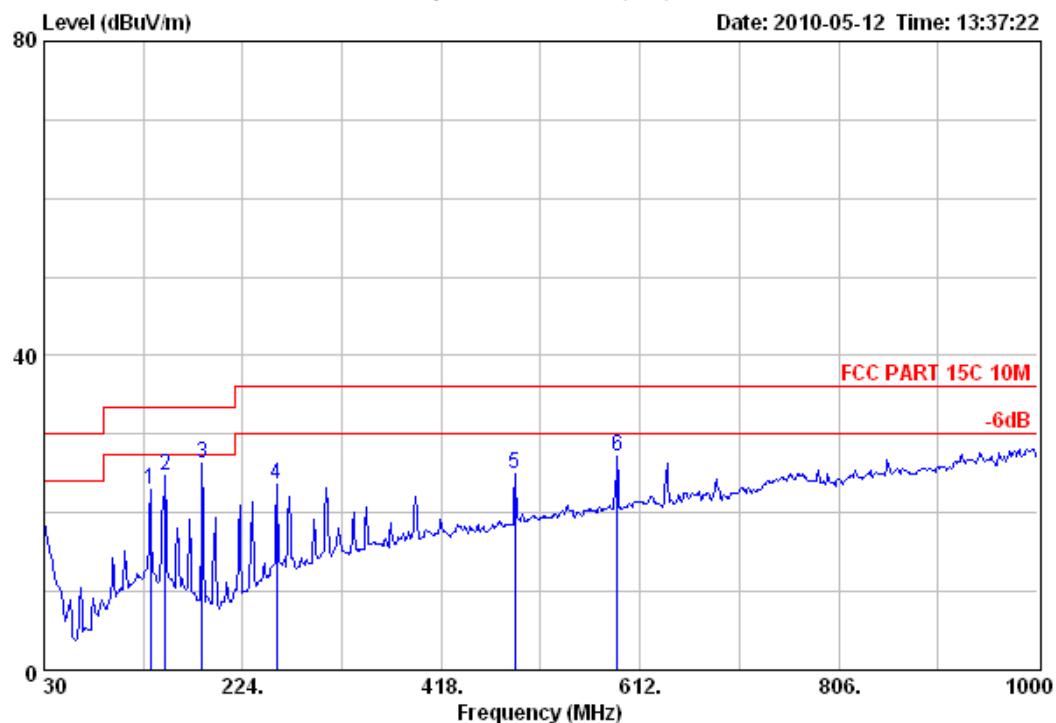
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Data: 503

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 13:37:22



Test Site : 10m Chamber
 Limit : FCC PART 15C 10M
 Dis. / Ant. : 10m 25758-10 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp:25.2'C Humi:56% Press:101.53kPa
 Test Mode : TX mode antenna 2

Freq. (MHz)	Emission			Ant. Cable				Remark
	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	(dB)	
1 133.79	22.91	500.00	477.09	9.93	11.46	1.52	QP	
2 148.34	24.63	500.00	475.37	12.42	10.60	1.61	QP	
3 184.23	26.33	500.00	473.67	16.30	8.28	1.75	QP	
4 256.98	23.62	500.00	476.38	9.39	12.20	2.03	QP	
5 489.78	24.89	500.00	475.11	4.61	17.50	2.78	QP	
6 589.69	27.25	500.00	472.75	4.99	19.20	3.06	QP	



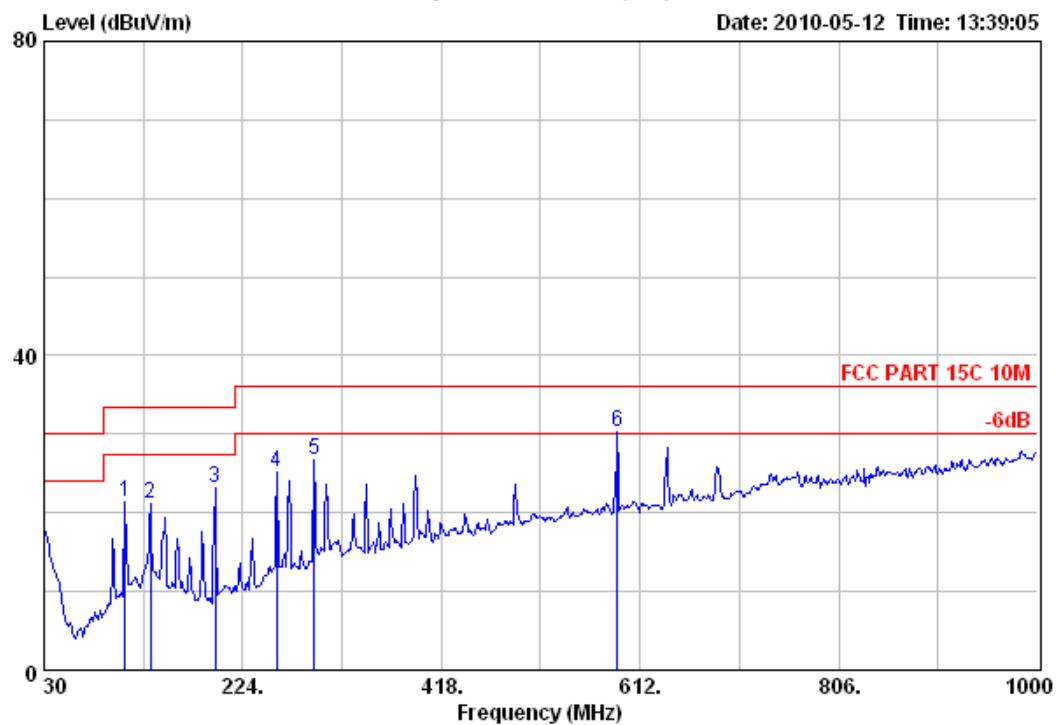
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Data: 504

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 13:39:05



Test Site : 10m Chamber
 Limit : FCC PART 15C 10M
 Dis. / Ant. : 10m 25758-10 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp:25.2'C Humi:56% Press:101.53kPa
 Test Mode : TX mode antenna 2

Freq. (MHz)	Emission			Ant. Cable				Remark
	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	(dB)	
1 109.54	21.40	500.00	478.60	9.51	10.50	1.39	QP	
2 133.79	21.11	500.00	478.89	8.13	11.46	1.52	QP	
3 196.84	23.08	500.00	476.92	13.85	7.42	1.81	QP	
4 256.98	25.11	500.00	474.89	10.88	12.20	2.03	QP	
5 293.84	26.79	500.00	473.21	12.08	12.56	2.15	QP	
6 589.69	30.31	500.00	469.69	8.05	19.20	3.06	QP	



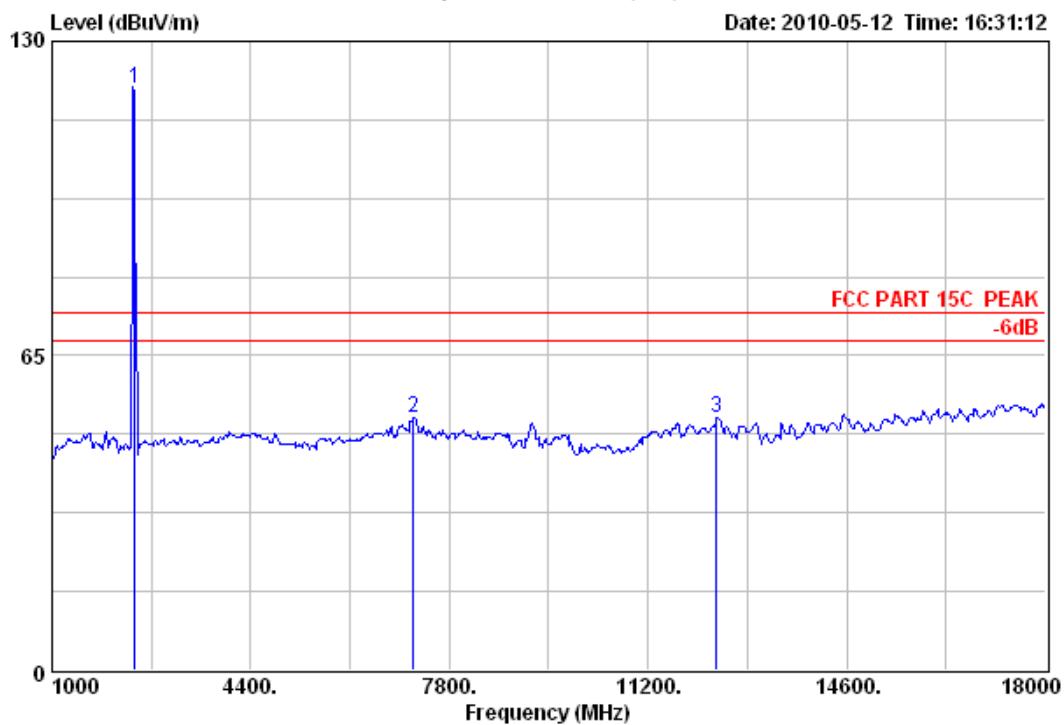
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Data: 505

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 16:31:12



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 1

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
1 2412.00	120.16	74.00	-46.16	86.43	31.50	2.23	Peak
2 7188.00	52.22	74.00	21.78	12.84	36.86	2.52	Peak
3 12373.00	52.24	74.00	21.76	9.45	39.95	2.84	Peak



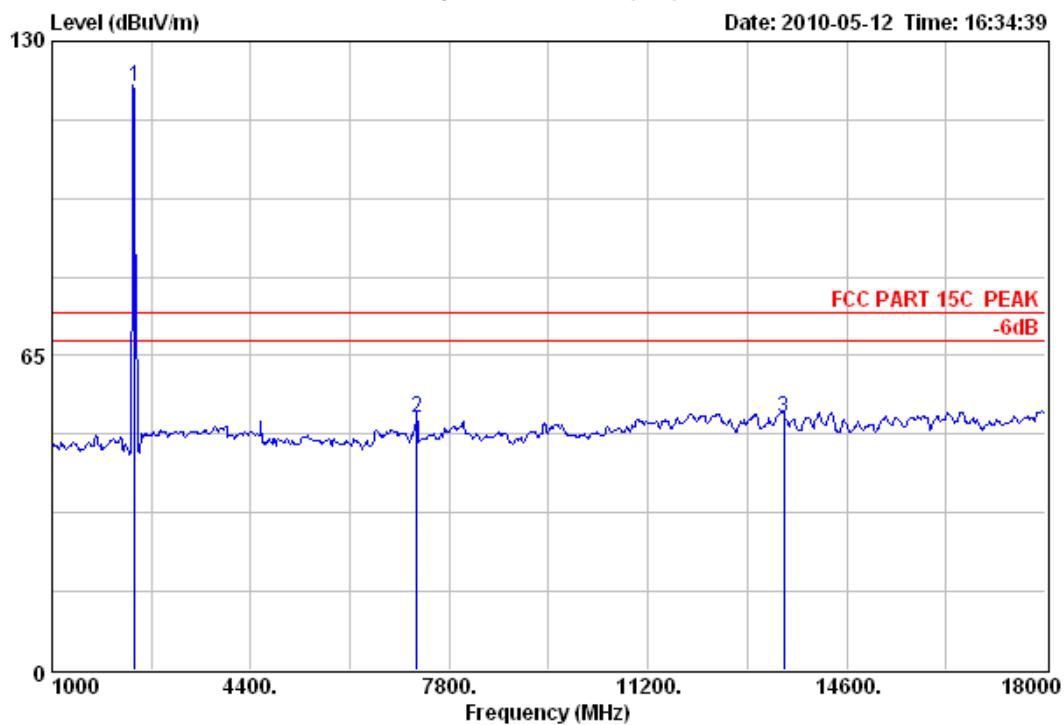
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Data: 506

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 16:34:39



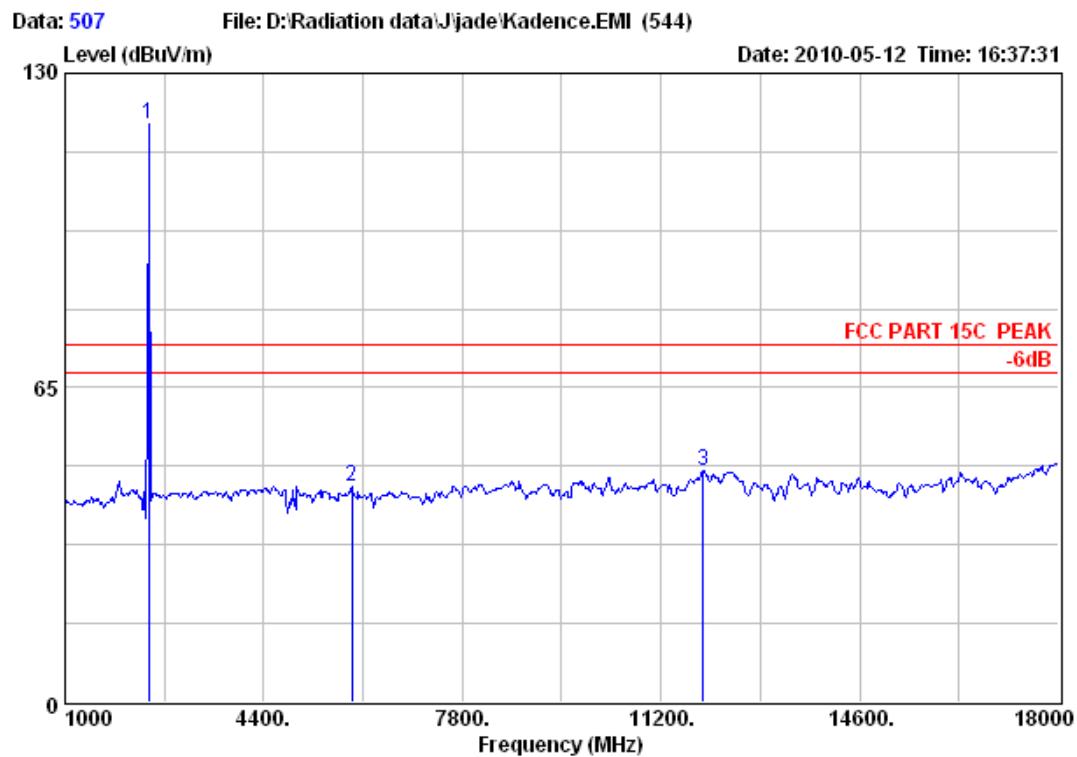
Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 1

Emission				Ant.	Cable		
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
1 2412.00	120.53	74.00	-46.53	86.80	31.50	2.23	Peak
2 7239.00	52.16	74.00	21.84	12.78	36.85	2.53	Peak
3 313529.00	52.32	74.00	21.68	9.04	40.37	2.91	Peak



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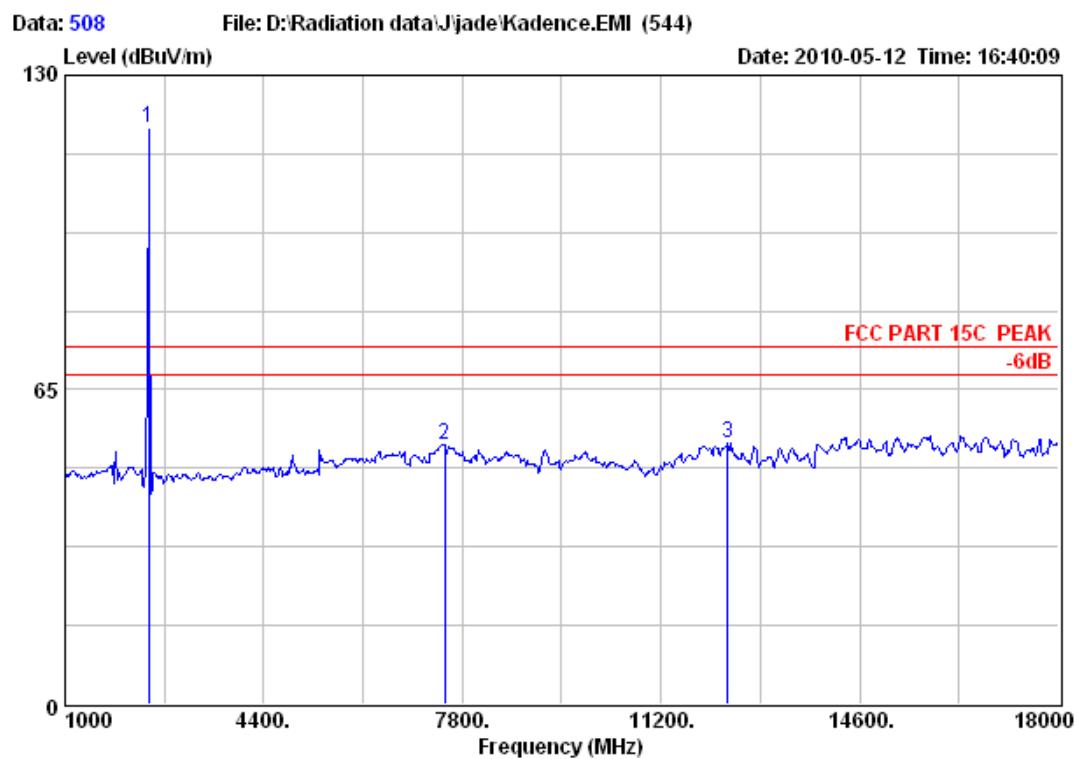
Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH2 2438MHz antenna 1

Emission				Ant.	Cable	Remark	
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dB/m)	Loss (dB)	
1 2438.00	119.63	74.00	-45.63	85.86	31.54	2.23	Peak
2 5913.00	44.51	74.00	29.49	6.07	35.99	2.45	Peak
3 11914.00	47.83	74.00	26.17	5.34	39.67	2.82	Peak



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Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH2 2438MHz antenna 1

Emission				Ant.	Cable		
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dB)	Loss (dB/m)	Remark
1 2438.00	119.26	74.00	-45.26	85.49	31.54	2.23	Peak
2 7494.00	53.67	74.00	20.33	14.33	36.80	2.54	Peak
3 123339.00	53.81	74.00	20.19	11.03	39.94	2.84	Peak



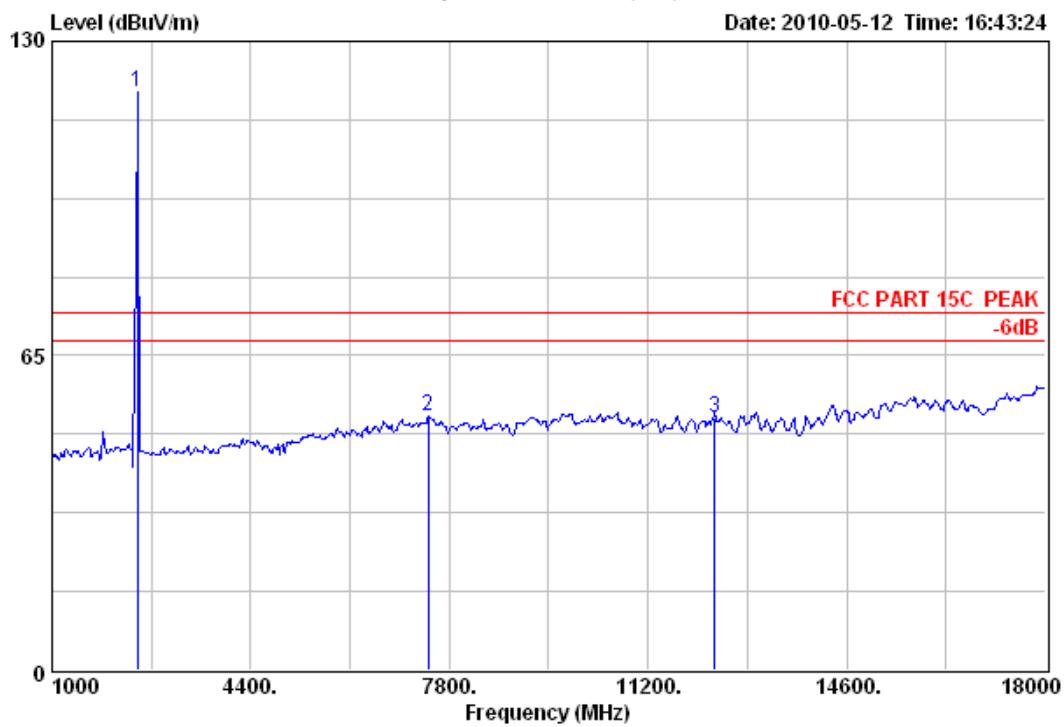
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Data: 509

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 16:43:24



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 1

Emission				Ant.	Cable		
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
1 2464.00	119.52	74.00	-45.52	85.73	31.56	2.23	Peak
2 7443.00	52.45	74.00	21.55	13.10	36.81	2.54	Peak
3 12339.00	52.30	74.00	21.70	9.52	39.94	2.84	Peak



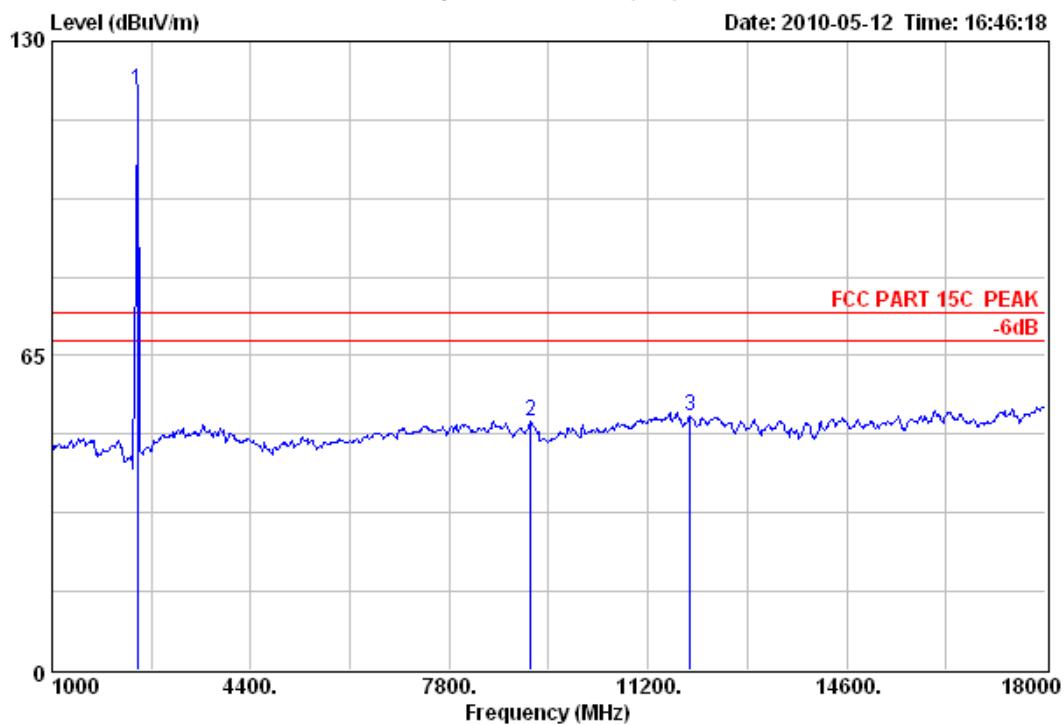
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Data: 510

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 16:46:18



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 1

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
1 2464.00	119.79	74.00	-45.79	86.00	31.56	2.23	Peak
2 9194.00	51.60	74.00	22.40	11.70	37.25	2.65	Peak
3 311914.00	52.44	74.00	21.56	9.95	39.67	2.82	Peak



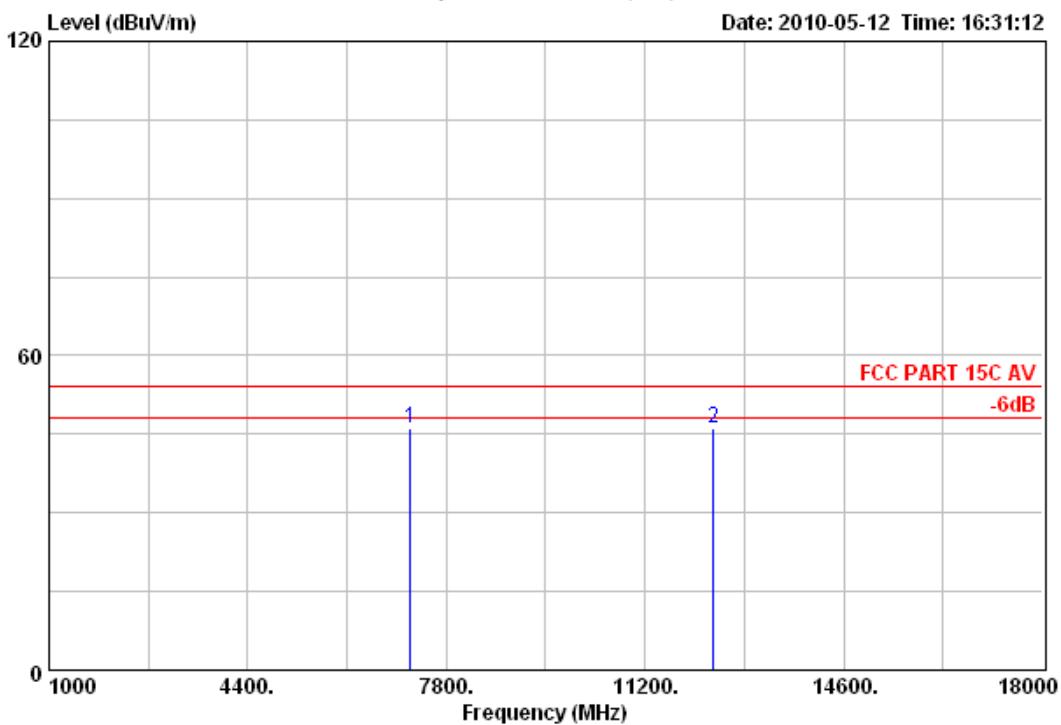
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Data: 511

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 16:31:12



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 1

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark

1 7188.00	46.22	54.00	7.78	6.84	36.86	2.52	Average
2 21237.30	46.24	54.00	7.76	3.45	39.95	2.84	Average



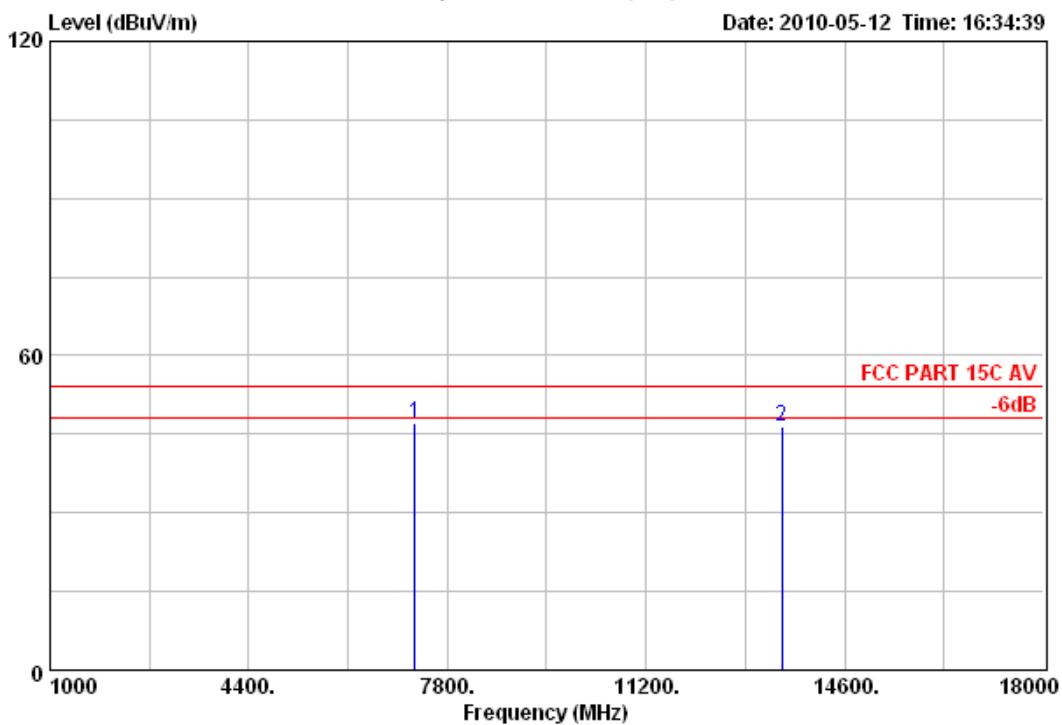
NS Technology

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Dongguan, Guangdong, China
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Data: 512

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 16:34:39



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 1

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
<hr/>							
1 7239.00	47.16	54.00	6.84	7.78	36.85	2.53	Average
213529.00	46.32	54.00	7.68	3.04	40.37	2.91	Average



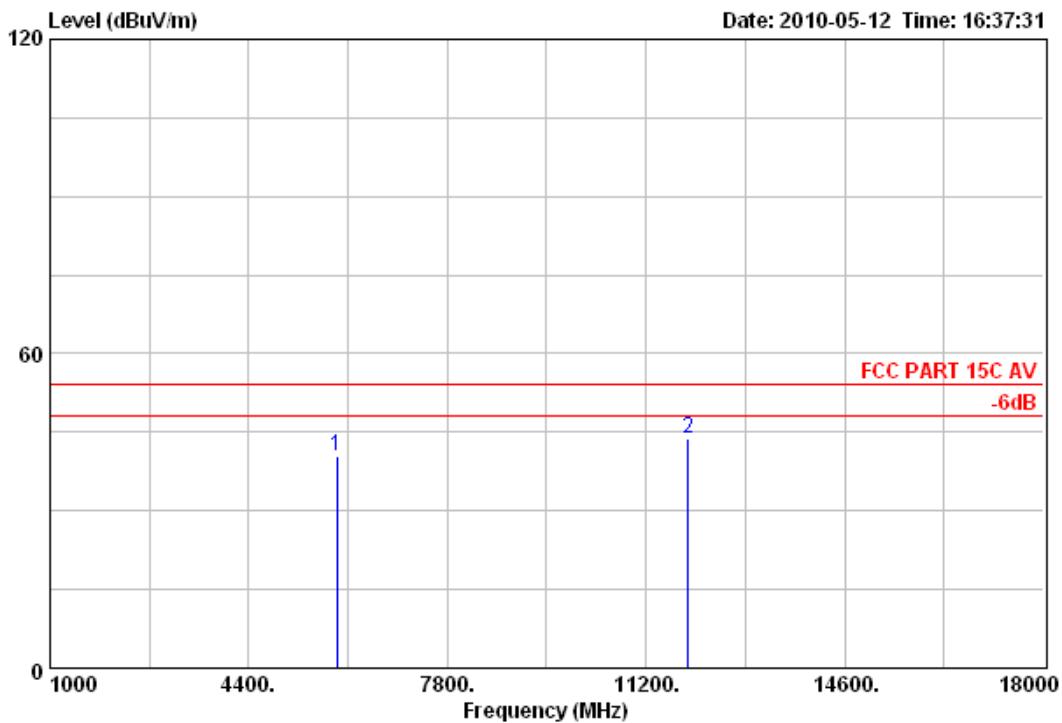
NS Technology

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Fax: +86-769-85991080

Data: 513

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 16:37:31



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH2 2438MHz antenna 1

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dBuV)	Loss (dB/m)	Remark

1 5913.00	40.51	54.00	13.49	2.07	35.99	2.45	Average
2 211914.00	43.83	54.00	10.17	1.34	39.67	2.82	Average



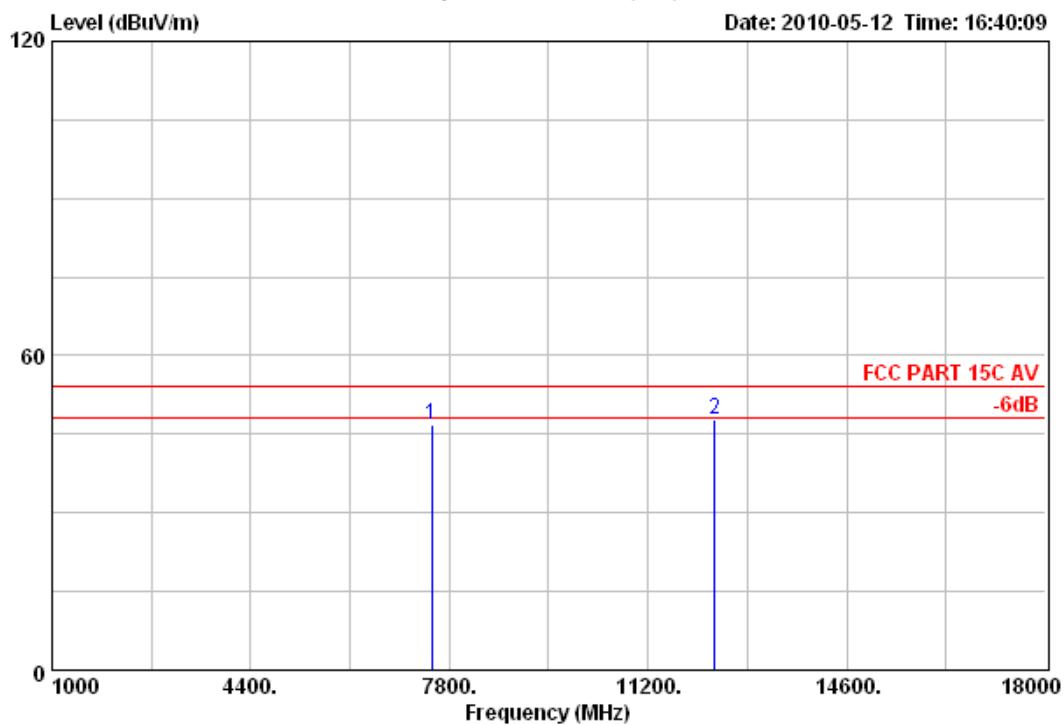
NS Technology

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Data: 514

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 16:40:09



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH2 2438MHz antenna 1

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark

1 7494.00	46.67	54.00	7.33	7.33	36.80	2.54	Average
2 12339.00	47.81	54.00	6.19	5.03	39.94	2.84	Average



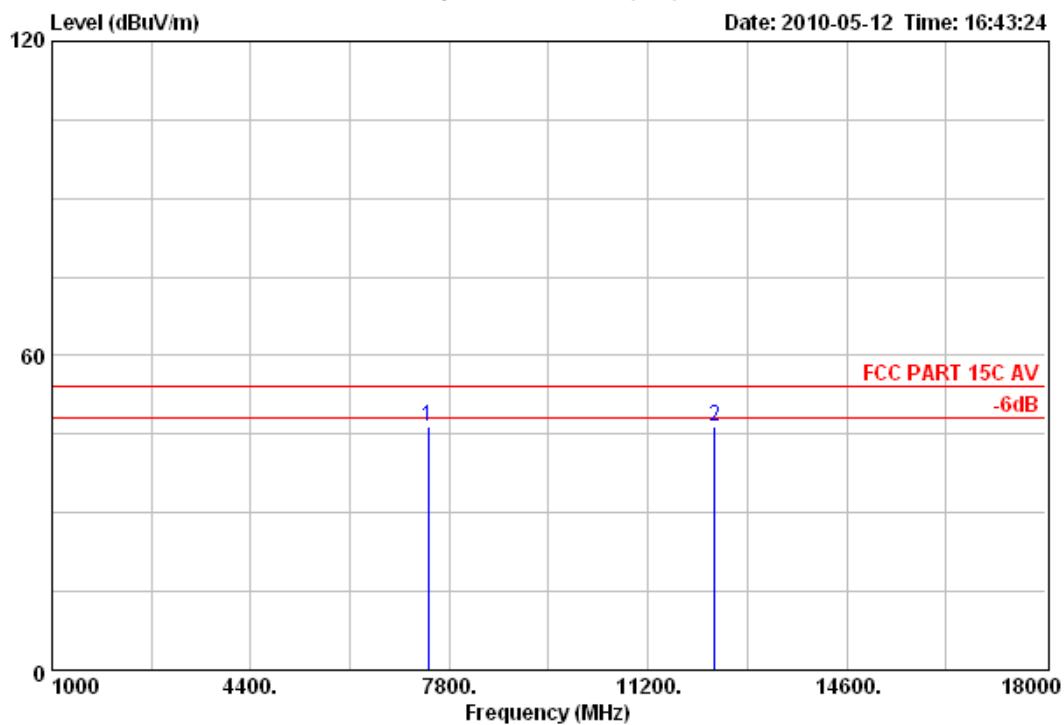
NS Technology

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Dongguan, Guangdong, China
Tel: +86-769-85935656
Fax: +86-769-85991080

Data: 515

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 16:43:24



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 1

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark

1 7443.00	46.45	54.00	7.55	7.10	36.81	2.54	Average
21233.90	46.30	54.00	7.70	3.52	39.94	2.84	Average



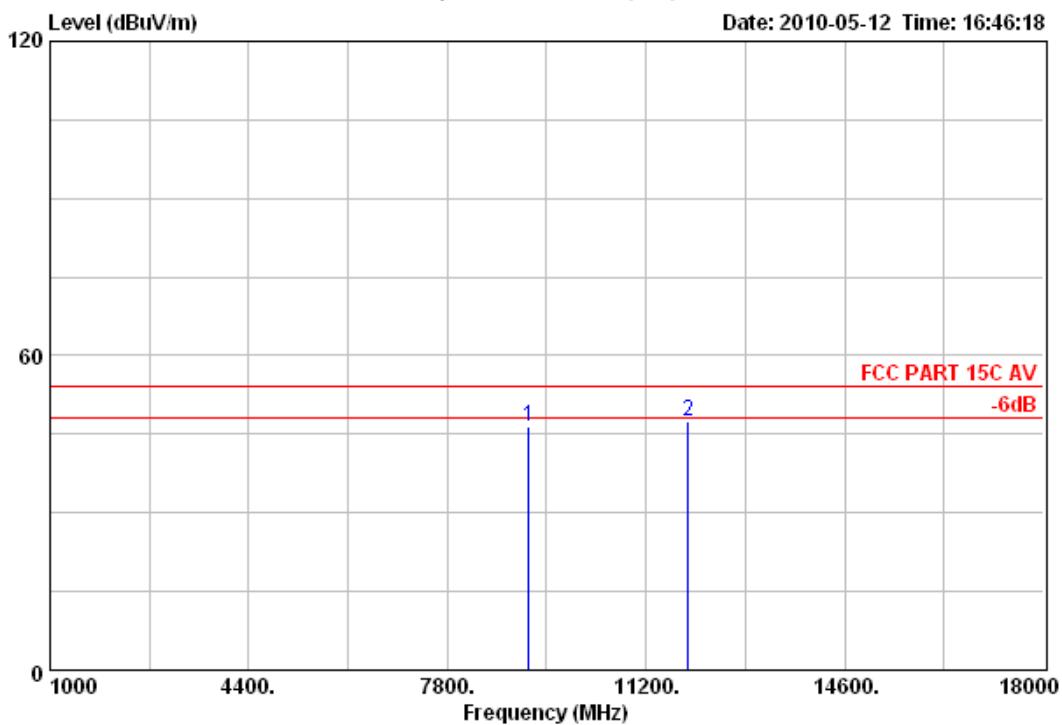
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Data: 516

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 16:46:18



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 1

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark

1 9194.00	46.60	54.00	7.40	6.70	37.25	2.65	Average
211914.00	47.44	54.00	6.56	4.95	39.67	2.82	Average



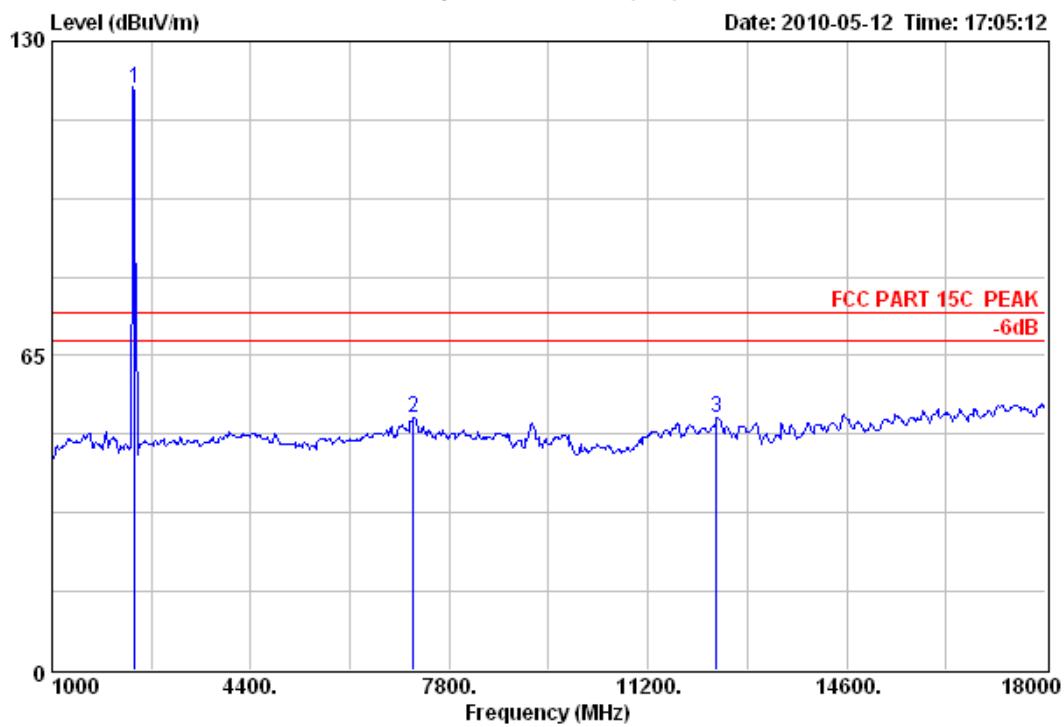
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Data: 517

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:05:12



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 2

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
1 2412.00	120.16	74.00	-46.16	86.43	31.50	2.23	Peak
2 7188.00	52.22	74.00	21.78	12.84	36.86	2.52	Peak
3 12373.00	52.24	74.00	21.76	9.45	39.95	2.84	Peak



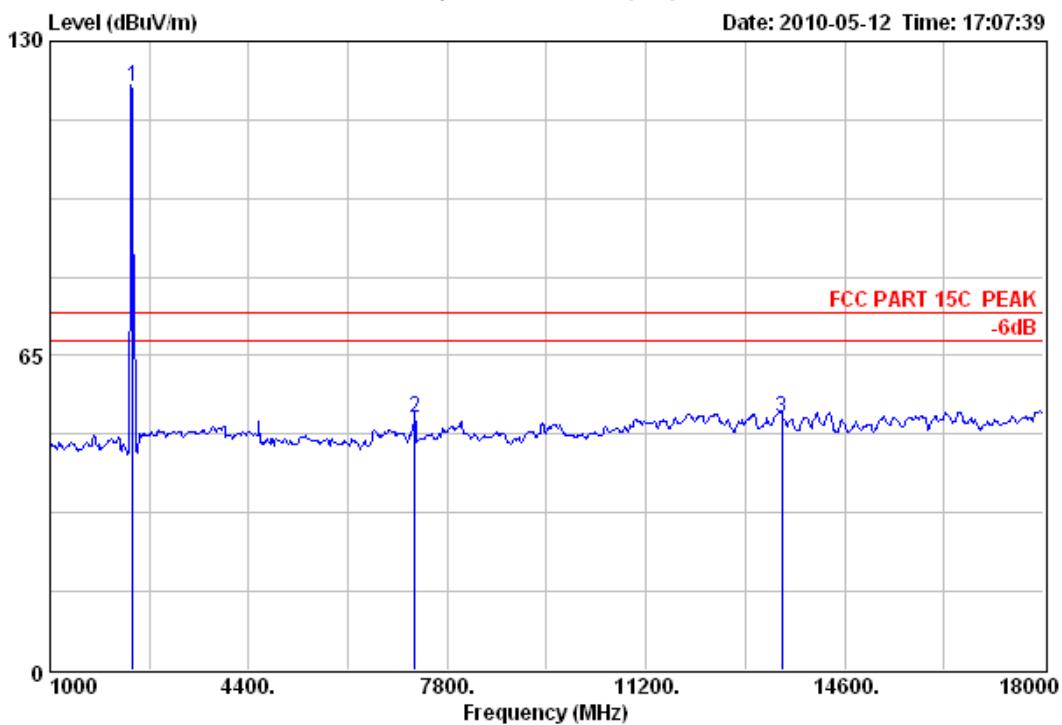
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Dongguan, Guangdong, China
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Data: 518

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:07:39



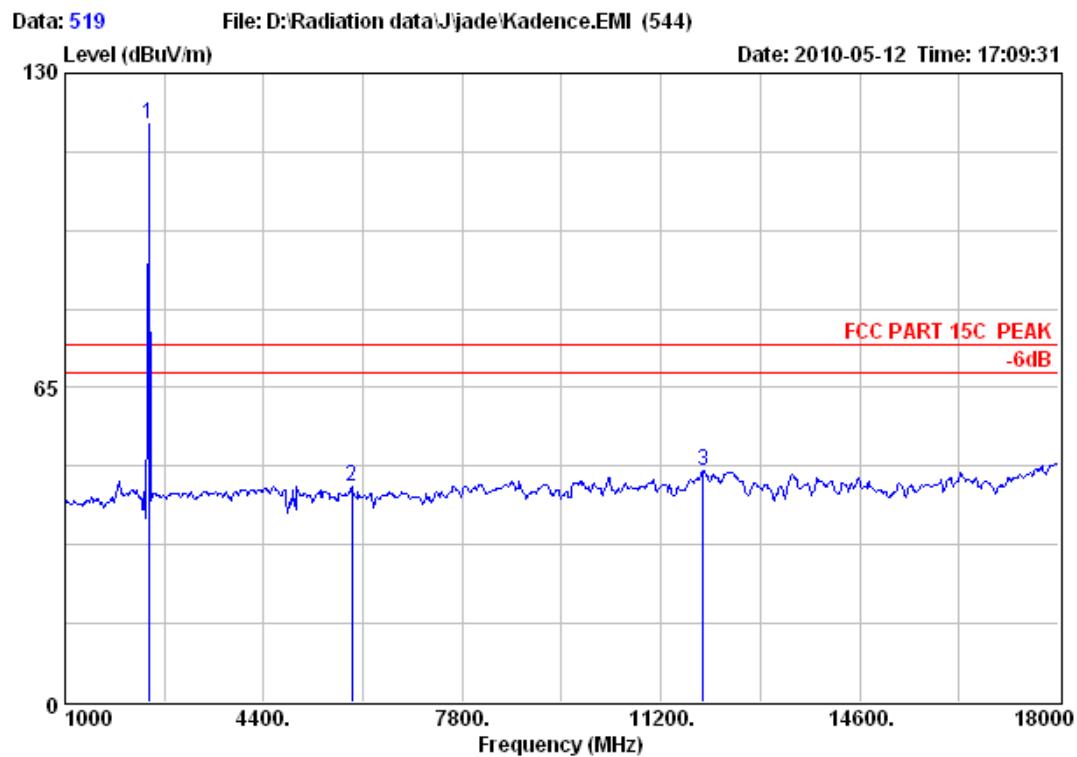
Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 2

Emission				Ant.	Cable		
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
1 2412.00	120.53	74.00	-46.53	86.80	31.50	2.23	Peak
2 7239.00	52.16	74.00	21.84	12.78	36.85	2.53	Peak
3 13529.00	52.32	74.00	21.68	9.04	40.37	2.91	Peak



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Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH2 2438MHz antenna 2

Emission				Ant.	Cable	Remark	
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dB/m)	Loss (dB)	
1 2438.00	119.63	74.00	-45.63	85.86	31.54	2.23	Peak
2 5913.00	44.51	74.00	29.49	6.07	35.99	2.45	Peak
3 11914.00	47.83	74.00	26.17	5.34	39.67	2.82	Peak



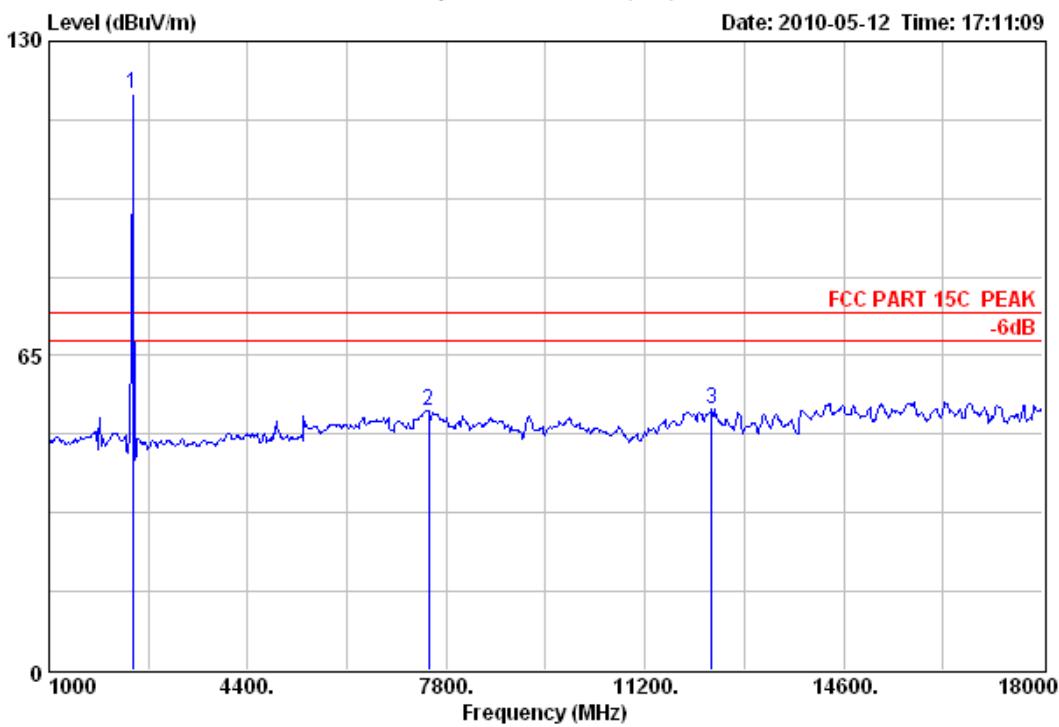
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Data: 520

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:11:09



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH2 2438MHz antenna 2

Emission			Ant. Cable				
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
1 2438.00	119.26	74.00	-45.26	85.49	31.54	2.23	Peak
2 7494.00	53.67	74.00	20.33	14.33	36.80	2.54	Peak
3 312339.00	53.81	74.00	20.19	11.03	39.94	2.84	Peak



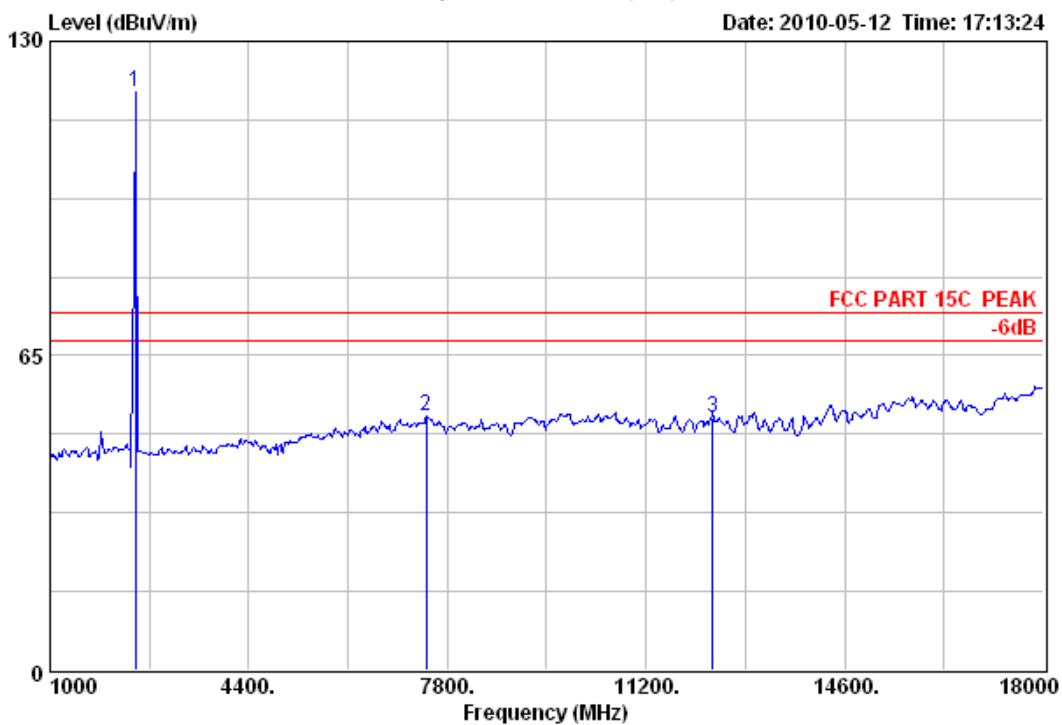
NS Technology

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Fax: +86-769-85991080

Data: 521

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:13:24



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 2

Emission				Ant.	Cable		
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
1 2464.00	119.52	74.00	-45.52	85.73	31.56	2.23	Peak
2 7443.00	52.45	74.00	21.55	13.10	36.81	2.54	Peak
3 31233.90	52.30	74.00	21.70	9.52	39.94	2.84	Peak



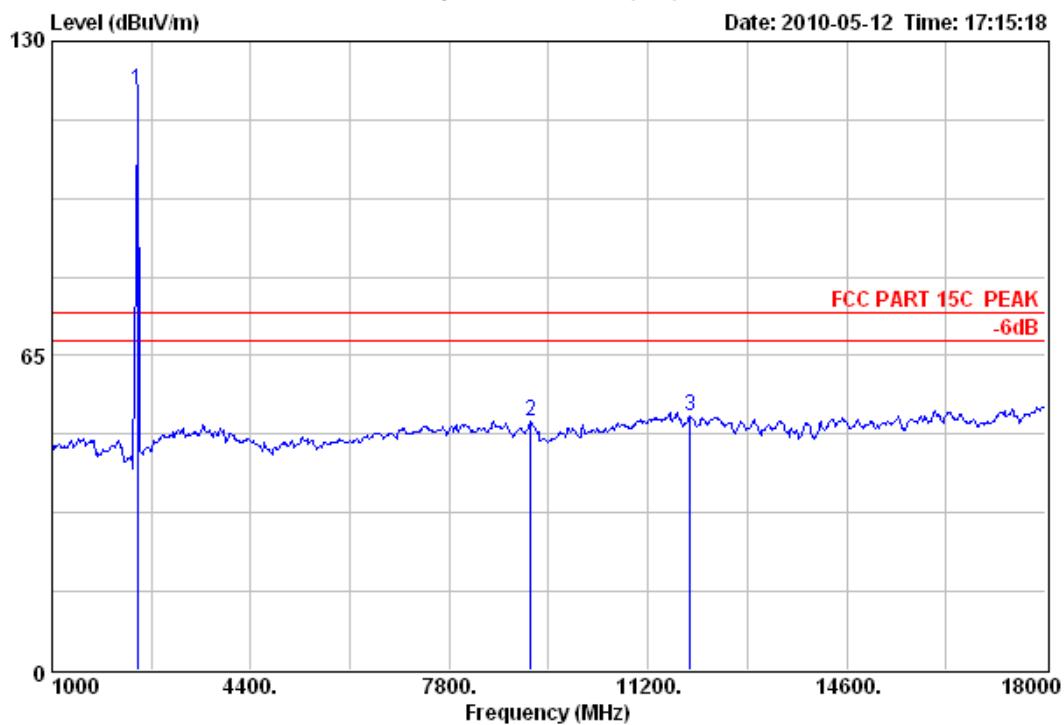
NS Technology

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Data: 522

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:15:18



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 2

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
1 2464.00	119.79	74.00	-45.79	86.00	31.56	2.23	Peak
2 9194.00	51.60	74.00	22.40	11.70	37.25	2.65	Peak
3 311914.00	52.44	74.00	21.56	9.95	39.67	2.82	Peak



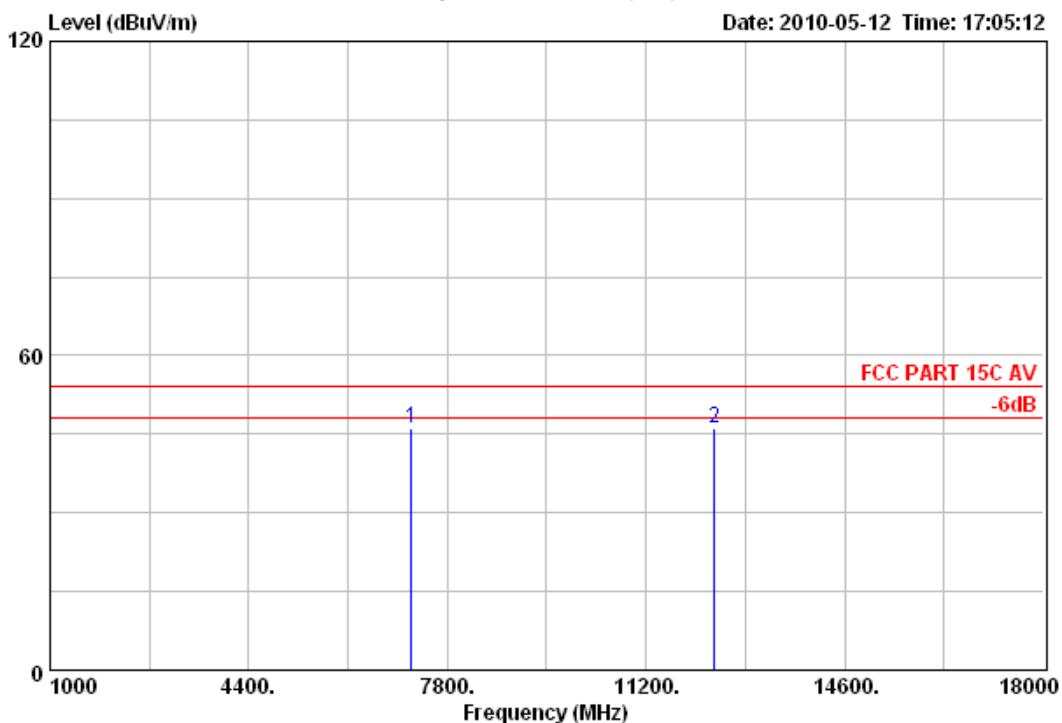
NS Technology

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Data: 523

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:05:12



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 2

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark

1 7188.00	46.22	54.00	7.78	6.84	36.86	2.52	Average
2 21237.30	46.24	54.00	7.76	3.45	39.95	2.84	Average



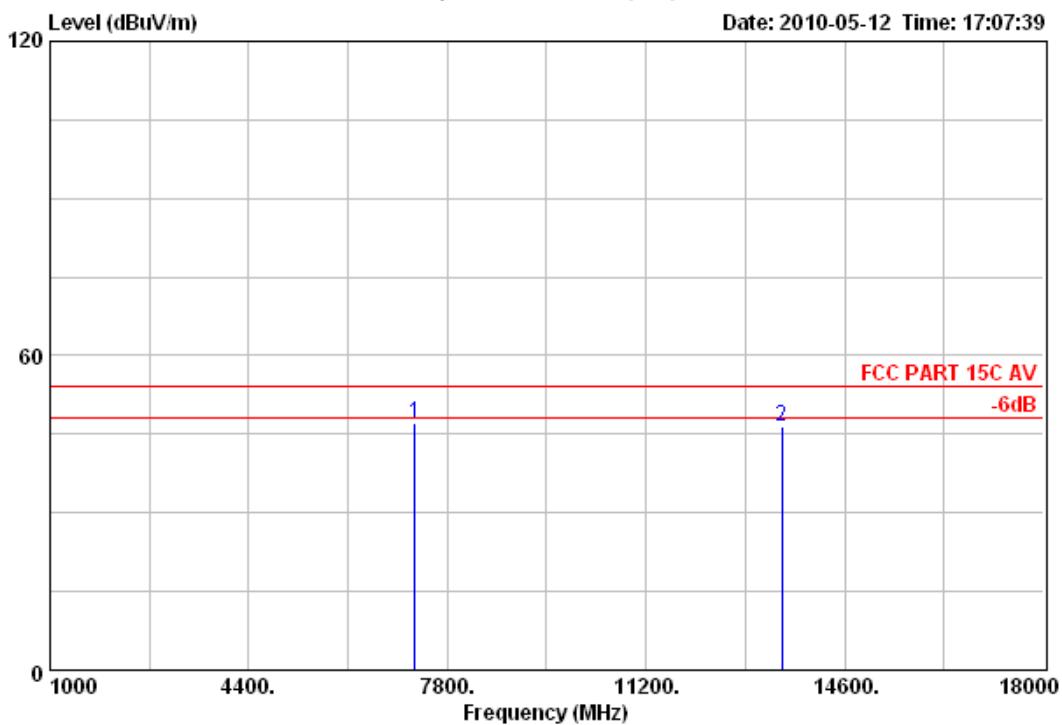
NS Technology

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Tel: +86-769-85935656
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Data: 524

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:07:39



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 2

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dBuV)	Loss (dB/m)	Remark

1 7239.00	47.16	54.00	6.84	7.78	36.85	2.53	Average
213529.00	46.32	54.00	7.68	3.04	40.37	2.91	Average



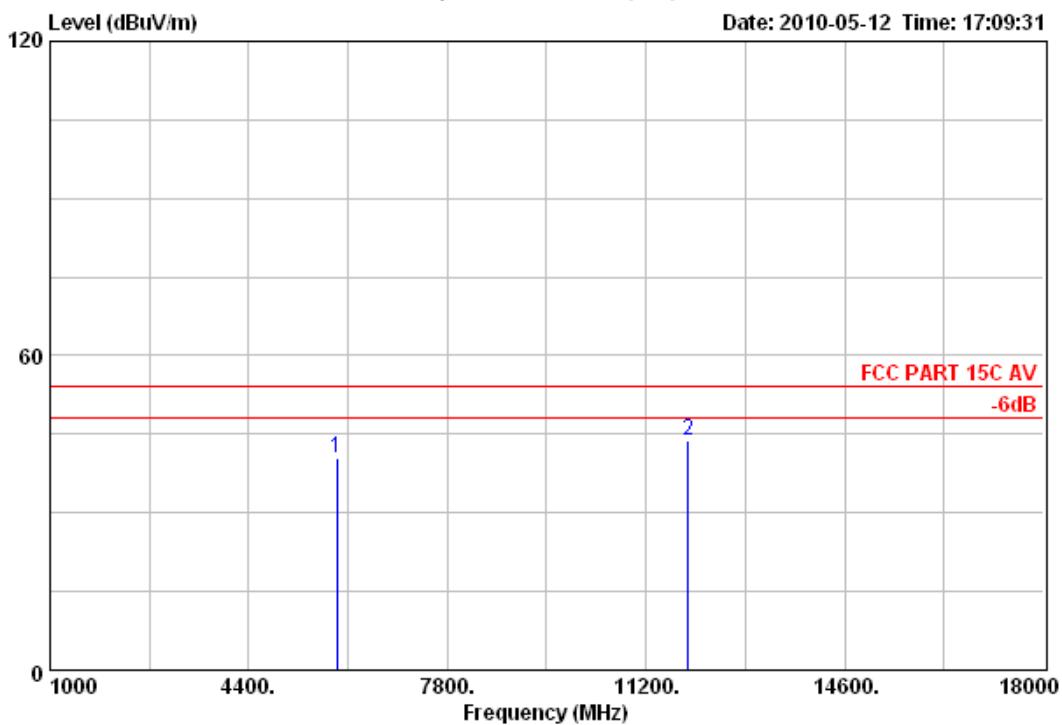
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Data: 525

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:09:31



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH2 2438MHz antenna 2

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dBuV)	Loss (dB/m)	Remark

1 5913.00	40.51	54.00	13.49	2.07	35.99	2.45	Average
211914.00	43.83	54.00	10.17	1.34	39.67	2.82	Average



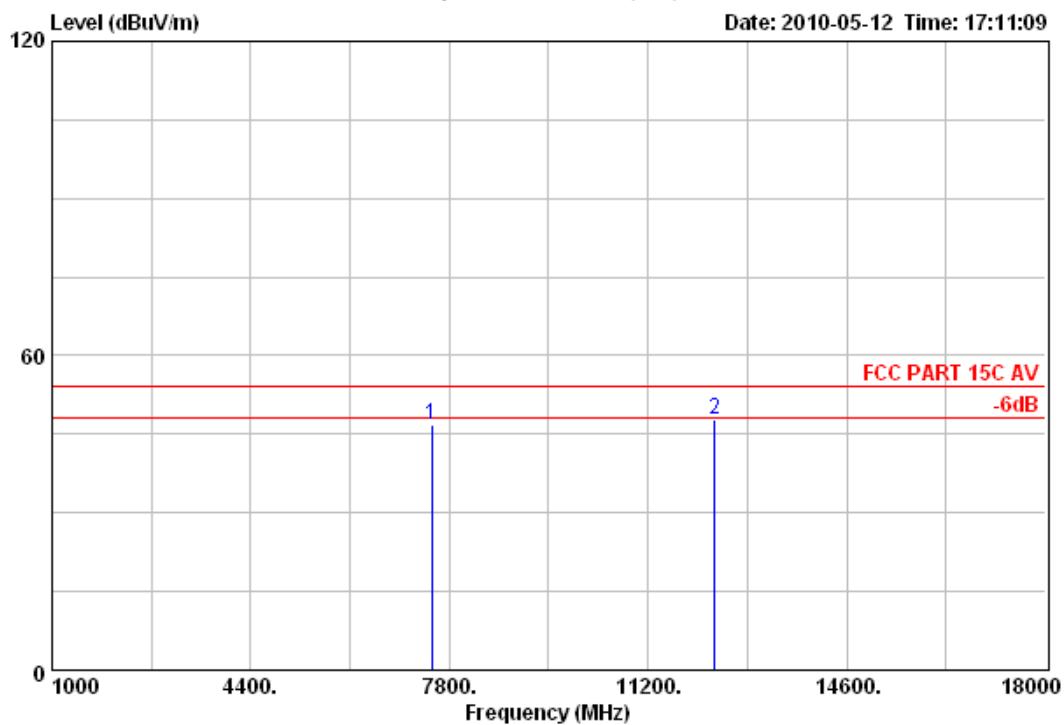
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Fax: +86-769-85991080

Data: 526

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:11:09



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH2 2438MHz antenna 2

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dBuV)	Loss (dB/m)	Remark

1 7494.00	46.67	54.00	7.33	7.33	36.80	2.54	Average
21233.90	47.81	54.00	6.19	5.03	39.94	2.84	Average



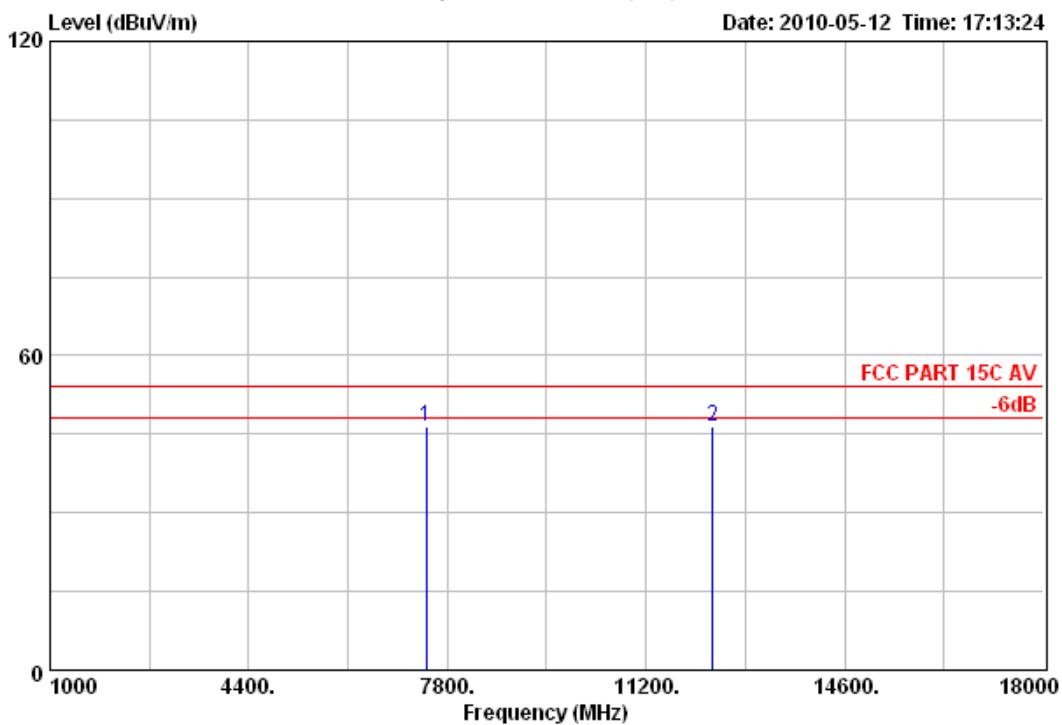
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Fax: +86-769-85991080

Data: 527

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:13:24



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 2

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark

1 7443.00	46.45	54.00	7.55	7.10	36.81	2.54	Average
21233.90	46.30	54.00	7.70	3.52	39.94	2.84	Average



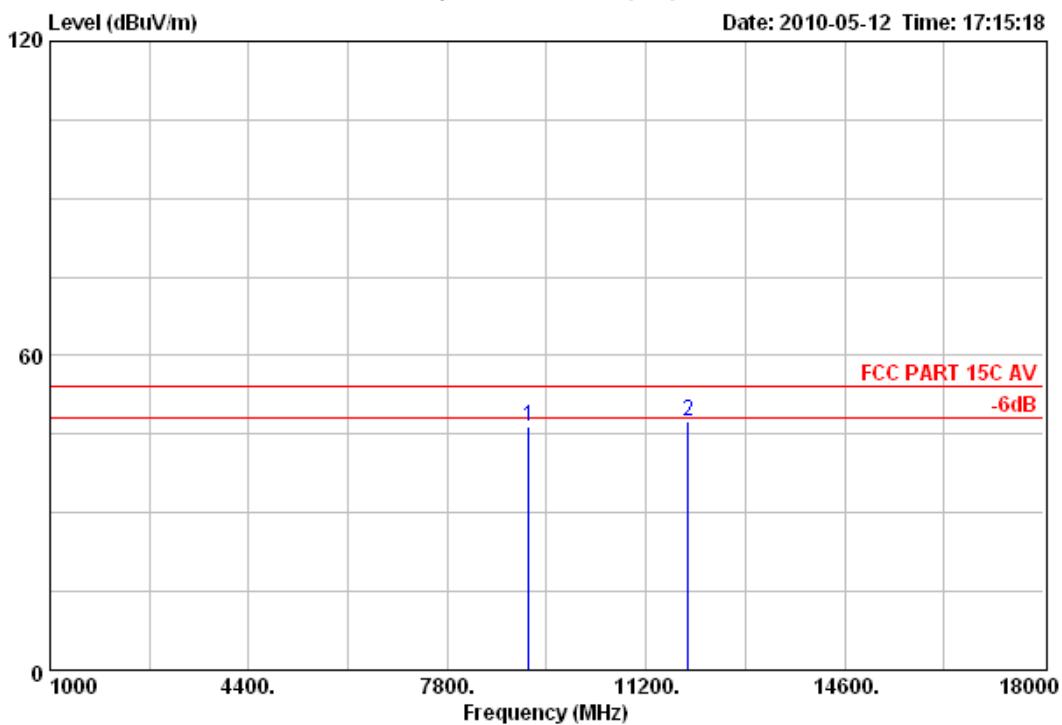
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Data: 528

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:15:18



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 2

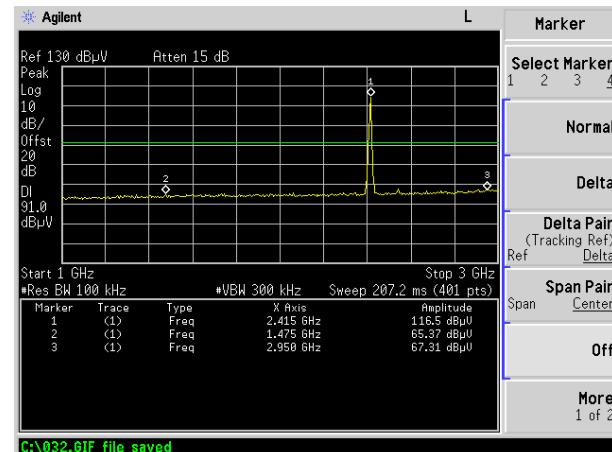
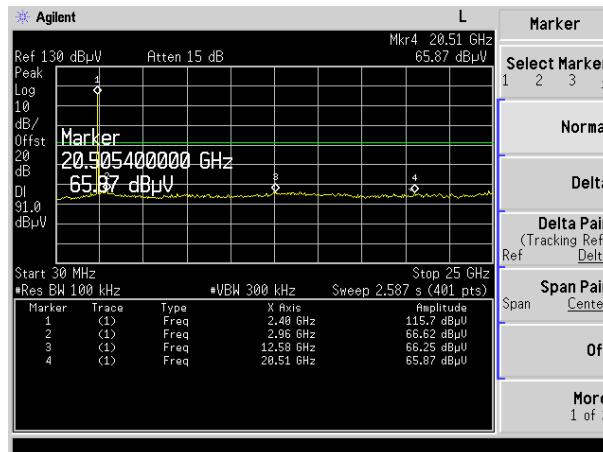
Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark

1 9194.00	46.60	54.00	7.40	6.70	37.25	2.65	Average
211914.00	47.44	54.00	6.56	4.95	39.67	2.82	Average

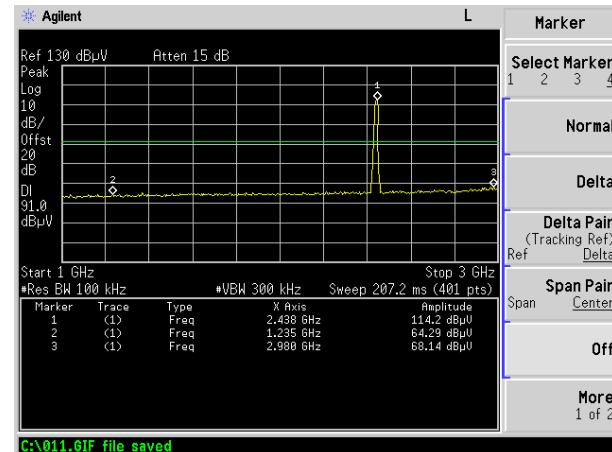
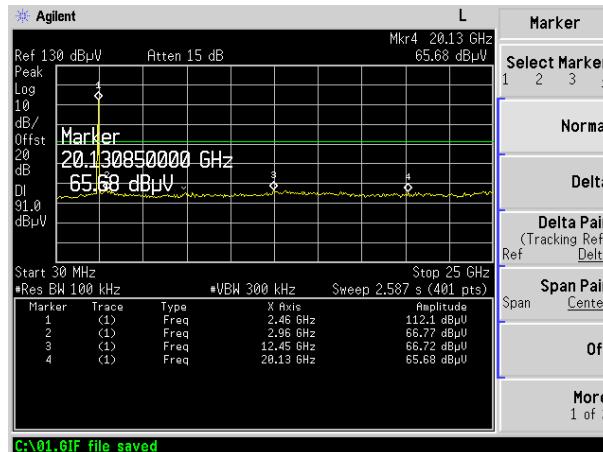


Conducted emission test data

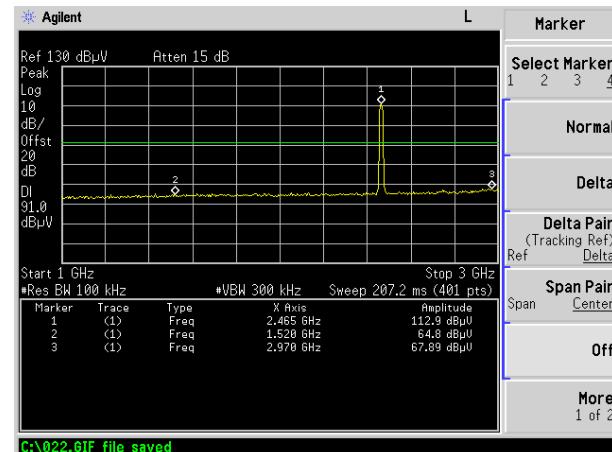
CH1 2412MHz antenna1



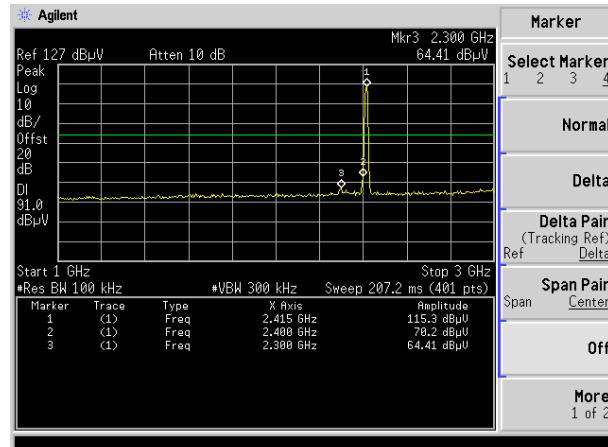
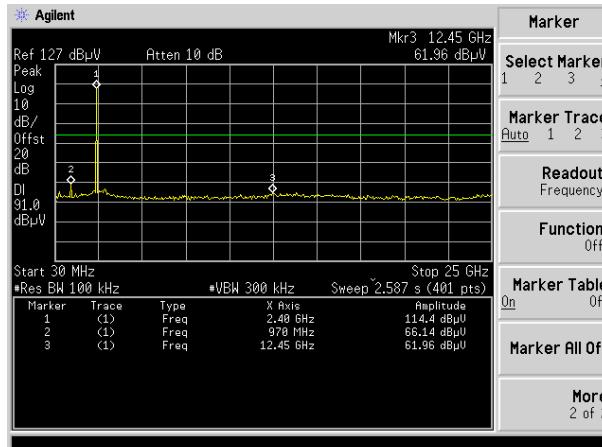
CH2 2438MHz antennal1



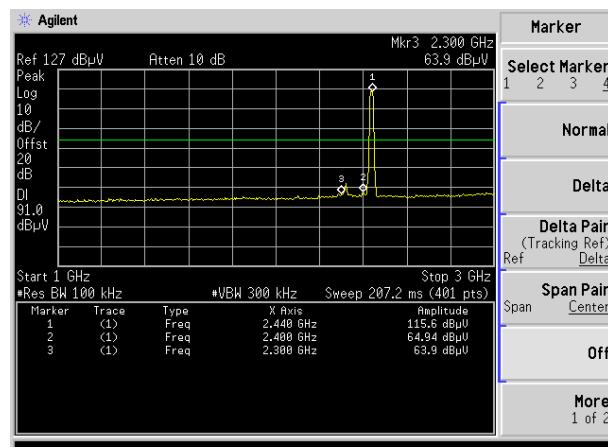
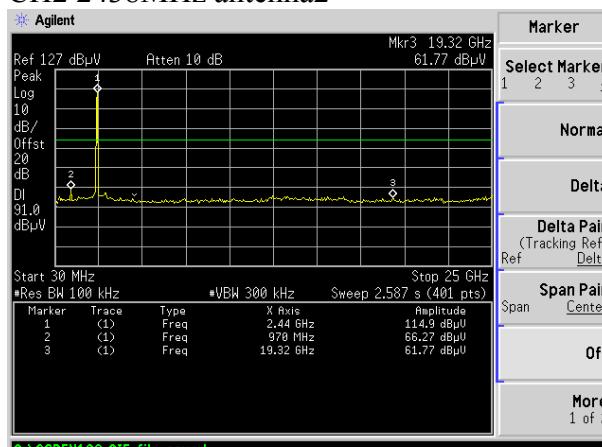
CH3 2464MHz antennal1



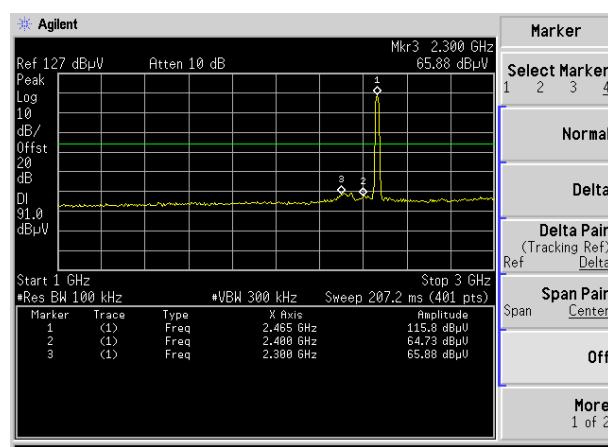
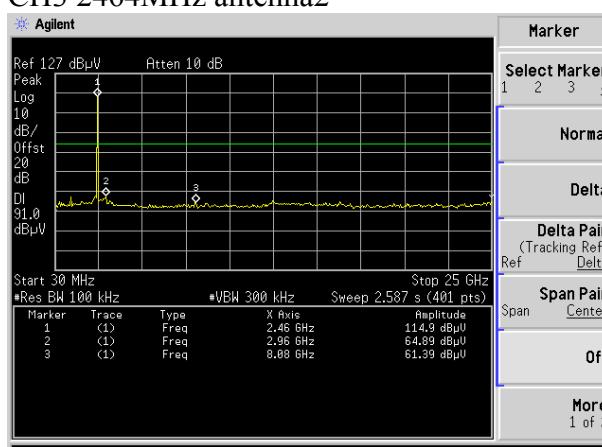
CH1 2412MHz antenna2



CH2 2438MHz antenna2



CH3 2464MHz antenna2



5.2. 6dB Bandwidth

5.2.1. Test limits

>500kHz.

5.2.2. Test procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to the spectrum analyzer through an RF attenuator.
3. Set SA trace max hold, then view.

5.2.3. Test result

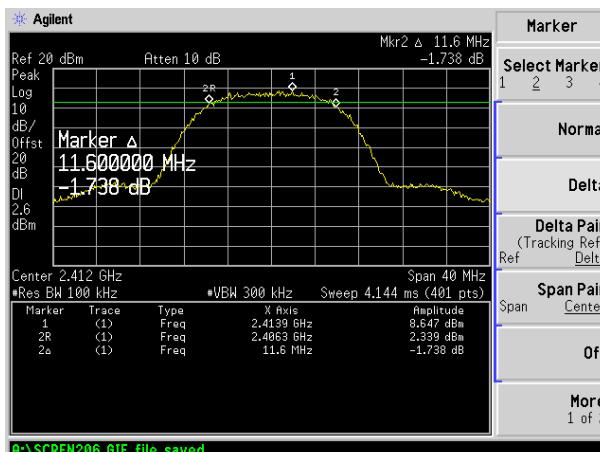
Pass

Test Channel	Frequency MHz	6dB bandwidth MHz	Conclusion
CH1(antenna1)	2412MHz	11.6	Pass
CH2 antenna1)	2438MHz	11.5	Pass
CH3 antenna1)	2464MHz	11.5	Pass
CH1(antenna2)	2412MHz	11.5	Pass
CH2 antenna2)	2438MHz	11.5	Pass
CH3 antenna2)	2464MHz	11.5	Pass

The test plots as following:

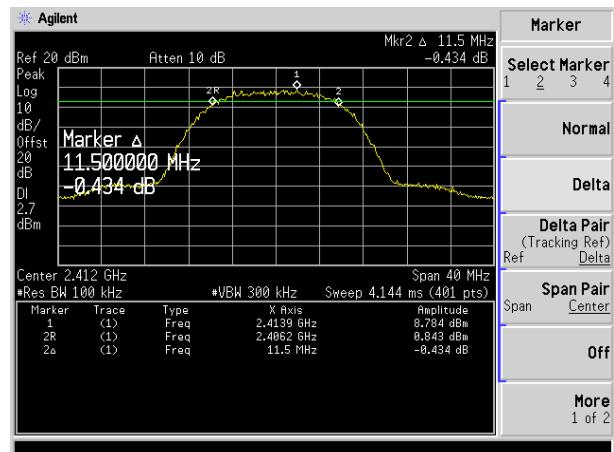


CH1 2412MHz antenna1

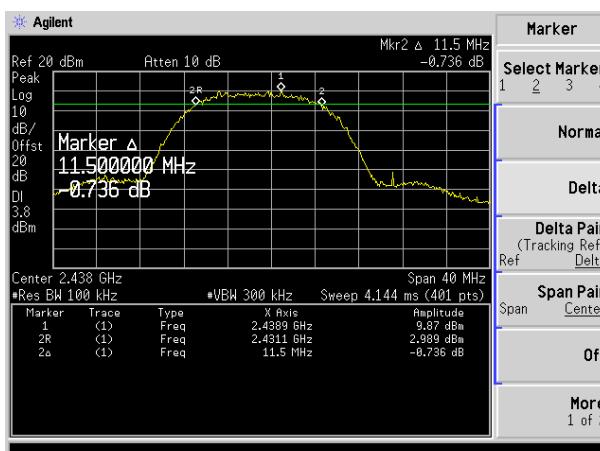


A:\SCREEN206.GIF file saved

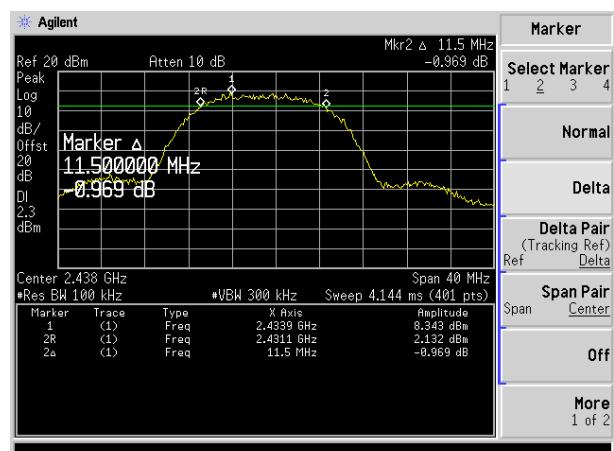
CH1 2412MHz antenna2



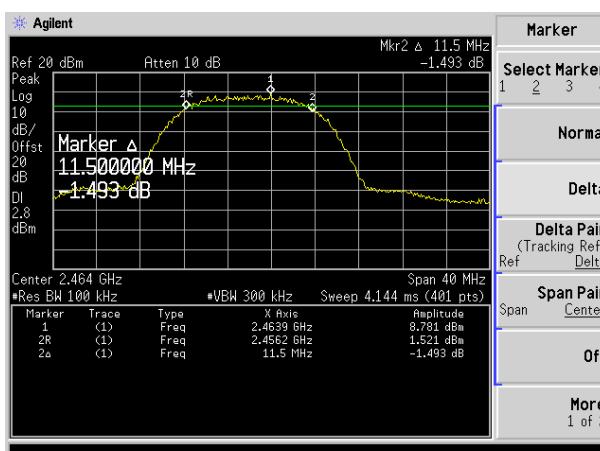
CH2 2438MHz antenna1



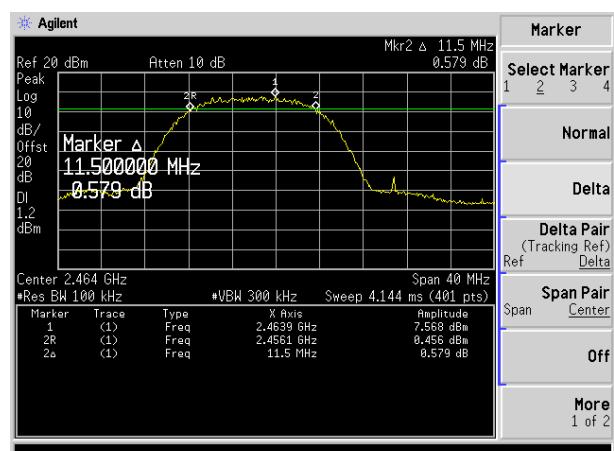
CH1 2438MHz antenna2



CH3 2464MHz antenna1



CH1 2464MHz antenna2



5.3. Power Spectral Density Test

5.3.1. Test procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to the spectrum analyzer through an RF attenuator.
3. Set SA Center Frequency = Operation frequency, RBW=3kHz, VBW=30kHz.
4. Set SA trace max hold, then view.

5.3.2. Test result

Pass

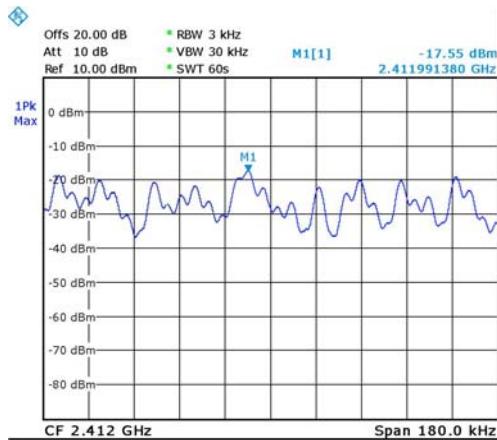
Test Channel	Frequency MHz	Read (dBm)	Factor (dB)	Result (dBm)	Limit
CH1(antenna1)	2412MHz	-17.55	7	-10.55	8.0
CH2(antenna1)	2438MHz	-19.35	7	-12.35	8.0
CH3(antenna1)	2464MHz	-21.58	7	-14.58	8.0
CH1(antenna2)	2412MHz	-18.97	7	-11.97	8.0
CH2(antenna2)	2438MHz	-20.06	7	-13.06	8.0
CH3(antenna2)	2464MHz	-21.20	7	-14.20	8.0

Note: Result=Read+Factor

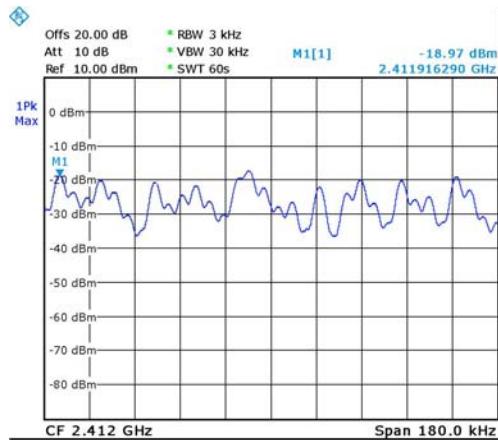
The test plots as following:



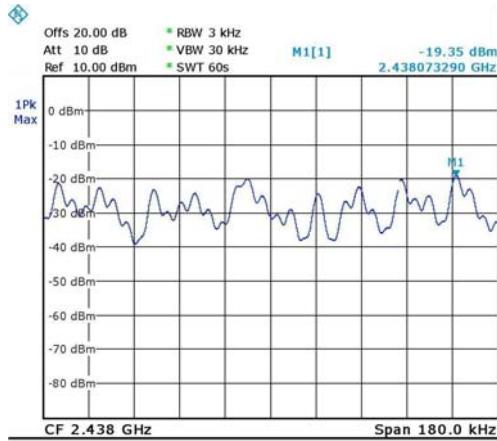
CH1 2412MHz antenna 1



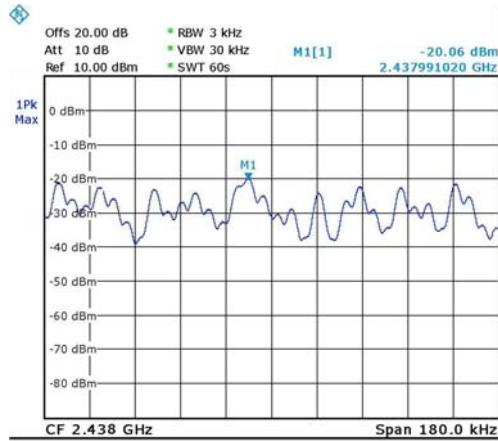
CH1 2412MHz antenna 2



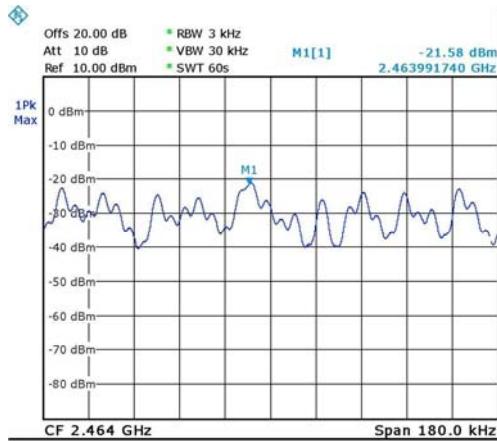
CH2 2438MHz antenna 1



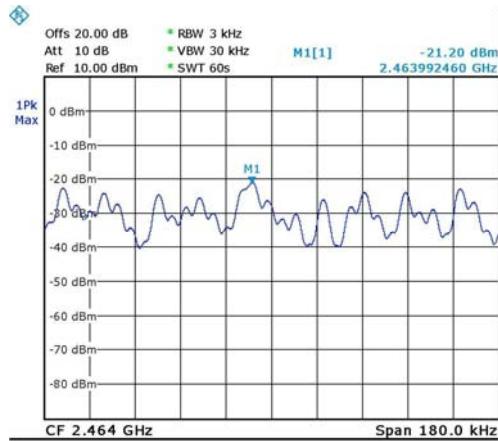
CH2 2438MHz antenna 2



CH3 2464MHz antenna 1



CH3 2464MHz antenna 2



5.4. Output Power Test

5.4.1. Test procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to the Power meter through an RF attenuator.

5.4.2. Test result

Pass

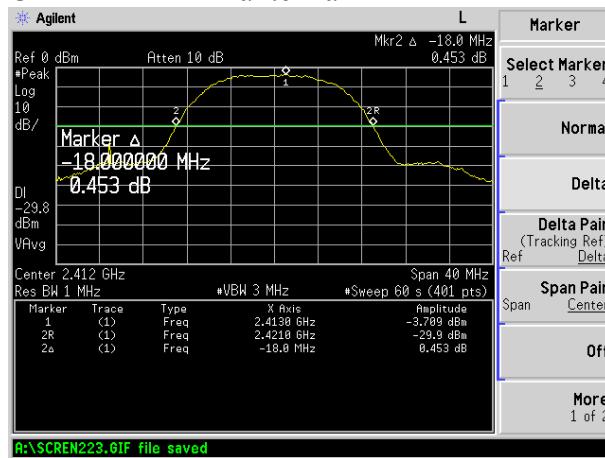
Test Channel	Frequency MHz	Read (dBm)	Factor (dB)	Cable loss (dB)	Result (dBm)	Limit
CH1(antenna1)	2412MHz	-3.71	12.55	7	15.84	30.0
CH2(antenna1)	2438MHz	-5.89	12.60	7	13.71	30.0
CH3(antenna1)	2464MHz	-5.67	12.58	7	13.91	30.0
CH1(antenna2)	2412MHz	-5.27	12.60	7	14.33	30.0
CH2(antenna2)	2438MHz	-8.23	12.58	7	11.35	30.0
CH3(antenna2)	2464MHz	-8.84	12.58	7	10.74	30.0

Note: Result=Read+Factor($10\log(-26EBW/1MHz)$)+cable loss

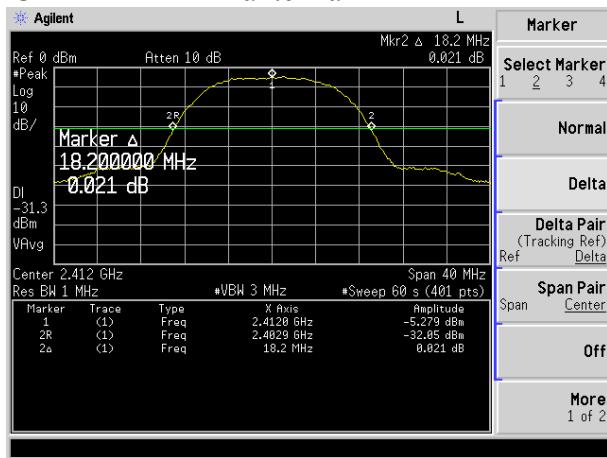
The test plots as following:



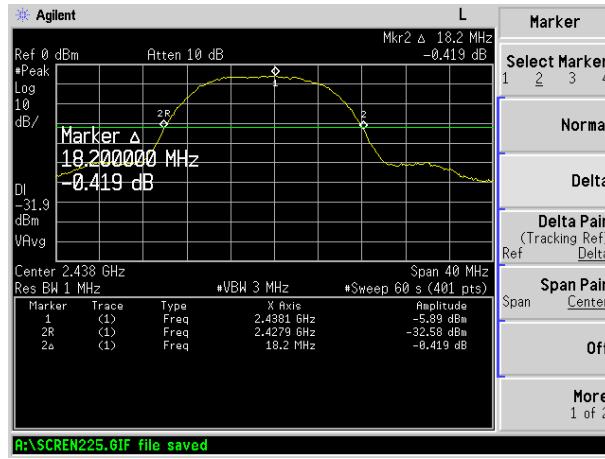
CH1 2412MHz antenna 1



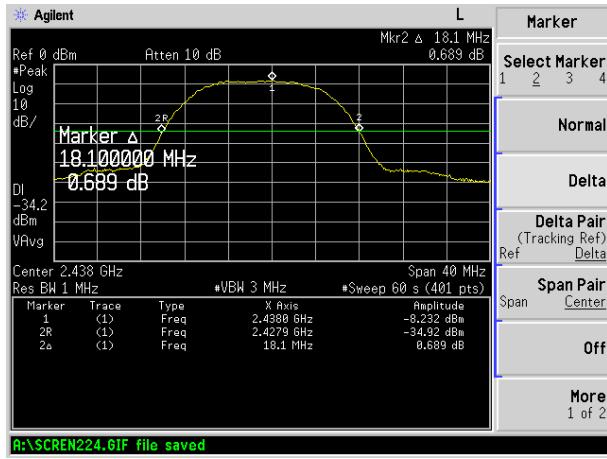
CH1 2412MHz antenna 2



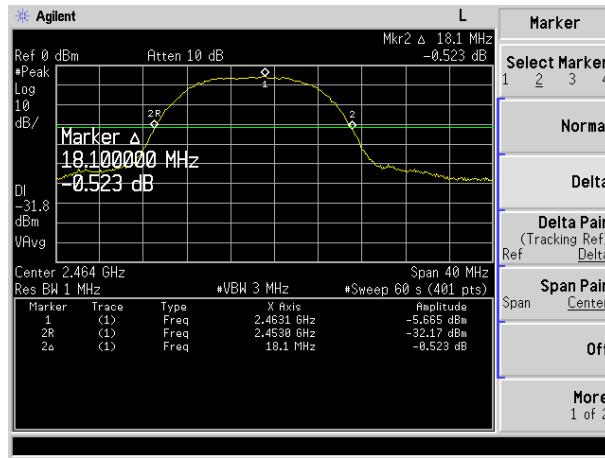
CH2 2438MHz antenna 1



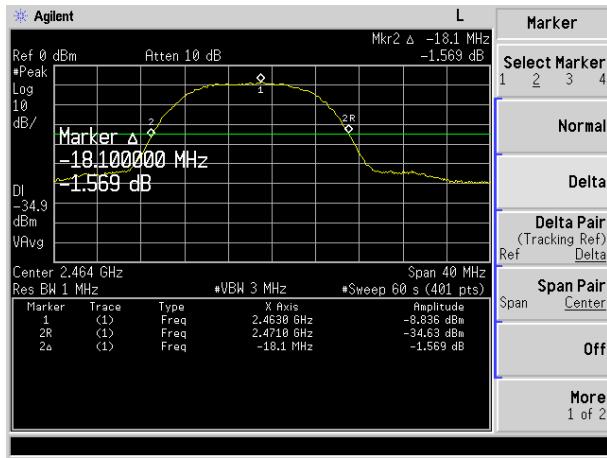
CH2 2438MHz antenna 2



CH3 2464MHz antenna 1



CH3 2464MHz antenna 2



5.5. Band Edge

5.5.1. Test limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in RSS-GEN and FCC Part 15C, whichever is the lesser attenuation.

5.5.2. Test procedure

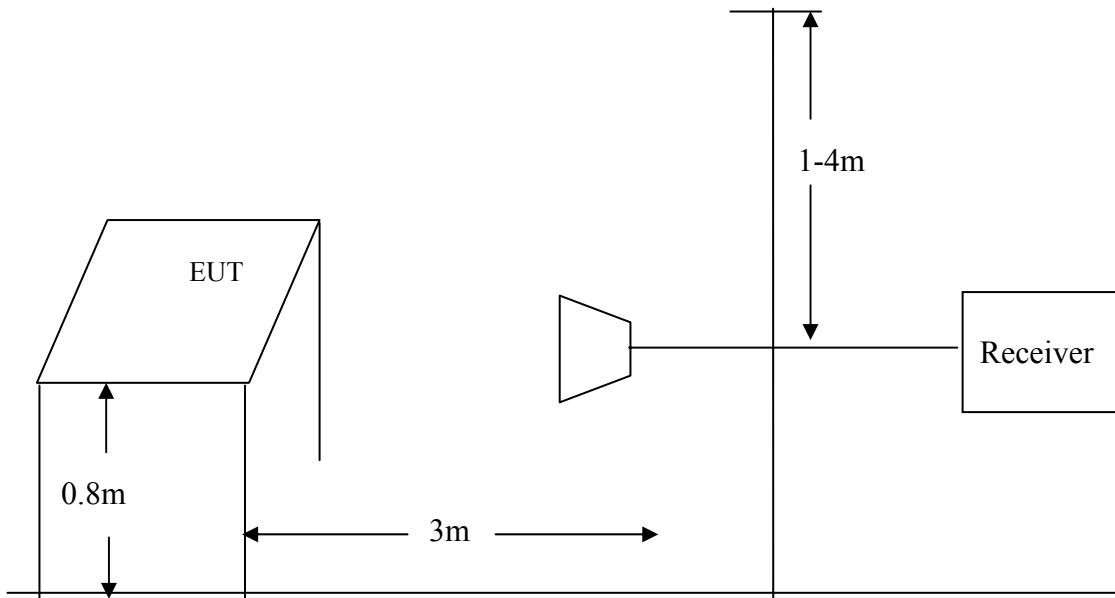
The EUT was placed on a turn table which was 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna which was mounted on a antenna tower. At the frequency band of 1G Hz to 18GHz, The measuring antenna moved from 1 to 4 m for horizontal and vertical polarization. The horn antenna was used was a receiving antenna.

The resolution bandwidth and video bandwidth of the test receiver was 1MHz and 1MHz for Peak detection at frequency above 1GHz.

The resolution bandwidth was 1MHz and video bandwidth was 10Hz of the test receiver for Average detection at frequency above 1GHz.

The EUT was tested in Chamber Site.

5.5.3. Test Setup Diagram



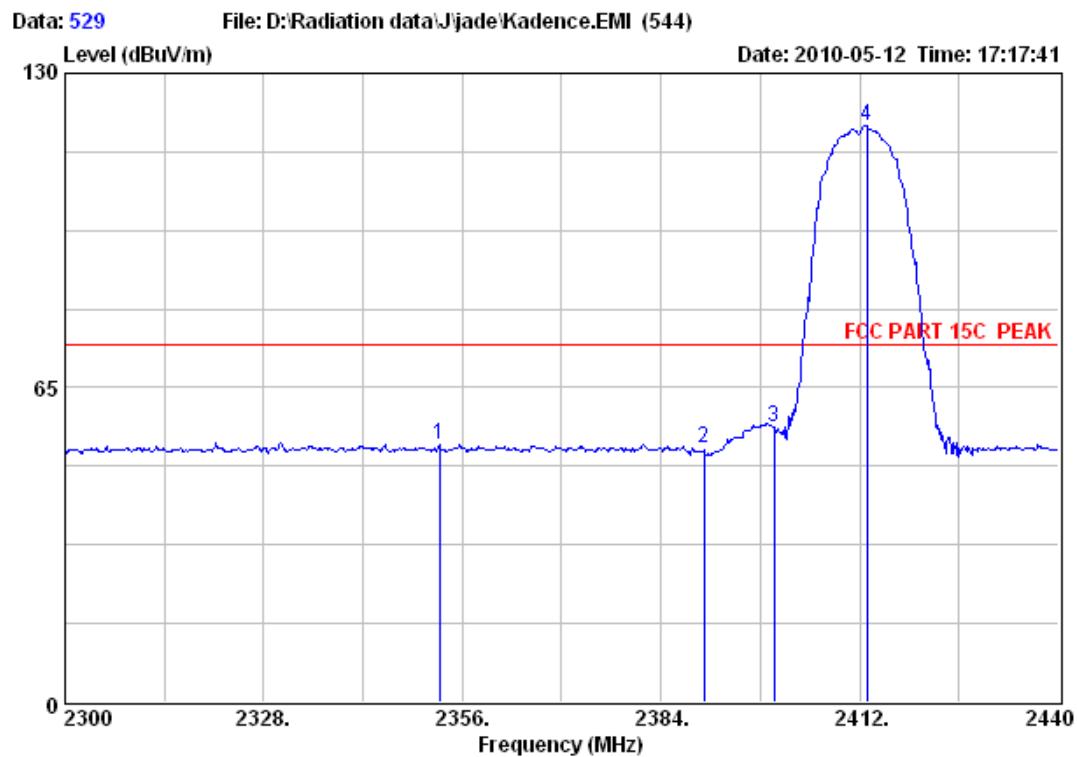
5.5.4. Test result

PASS.

The test plots as following:

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Dongguan, Guangdong, China
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Fax: +86-769-85991080



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 1

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
<hr/>							
1 2352.78	53.33	74.00	20.67	19.66	31.45	2.22	Peak
2 2390.00	52.41	74.00	21.59	18.71	31.48	2.22	Peak
3 2400.00	56.82	74.00	17.18	23.09	31.50	2.23	Peak
4 2412.98	119.18	74.00	-45.18	85.45	31.50	2.23	Peak



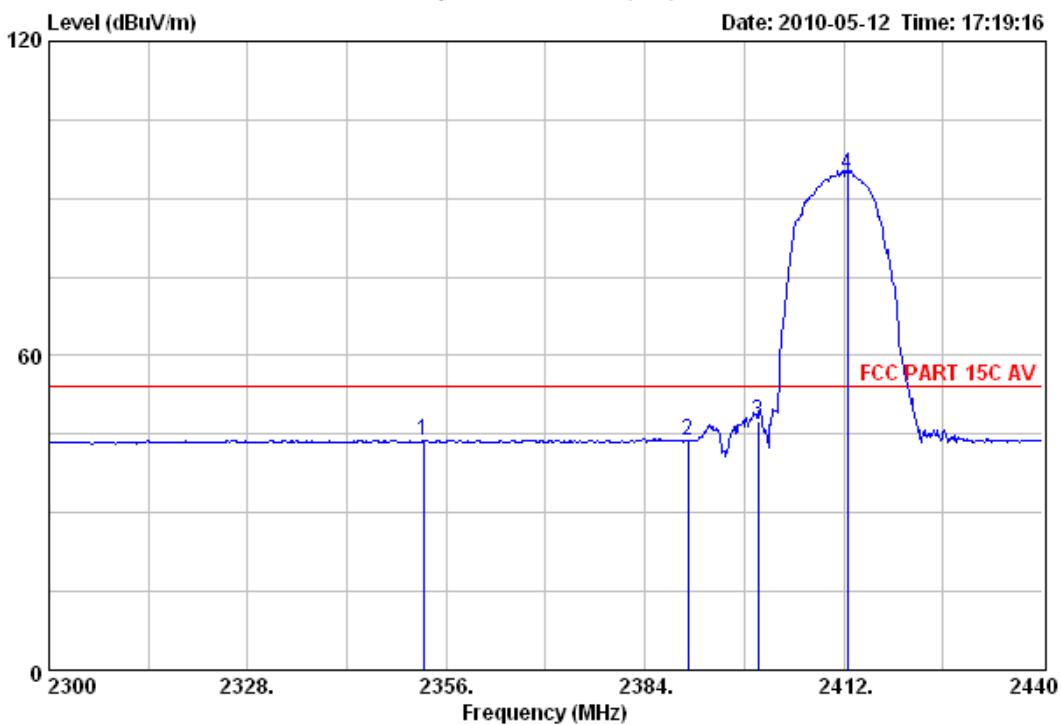
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Dongguan, Guangdong, China
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Fax: +86-769-85991080

Data: 530

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:19:16



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 1

Freq. (MHz)	Emission			Ant. Cable			
	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
1 2352.78	43.65	54.00	10.35	9.98	31.45	2.22	Average
2 2390.00	43.73	54.00	10.27	10.03	31.48	2.22	Average
3 2400.00	47.49	54.00	6.51	13.76	31.50	2.23	Average
4 2412.56	94.54	54.00	-40.54	60.81	31.50	2.23	Average



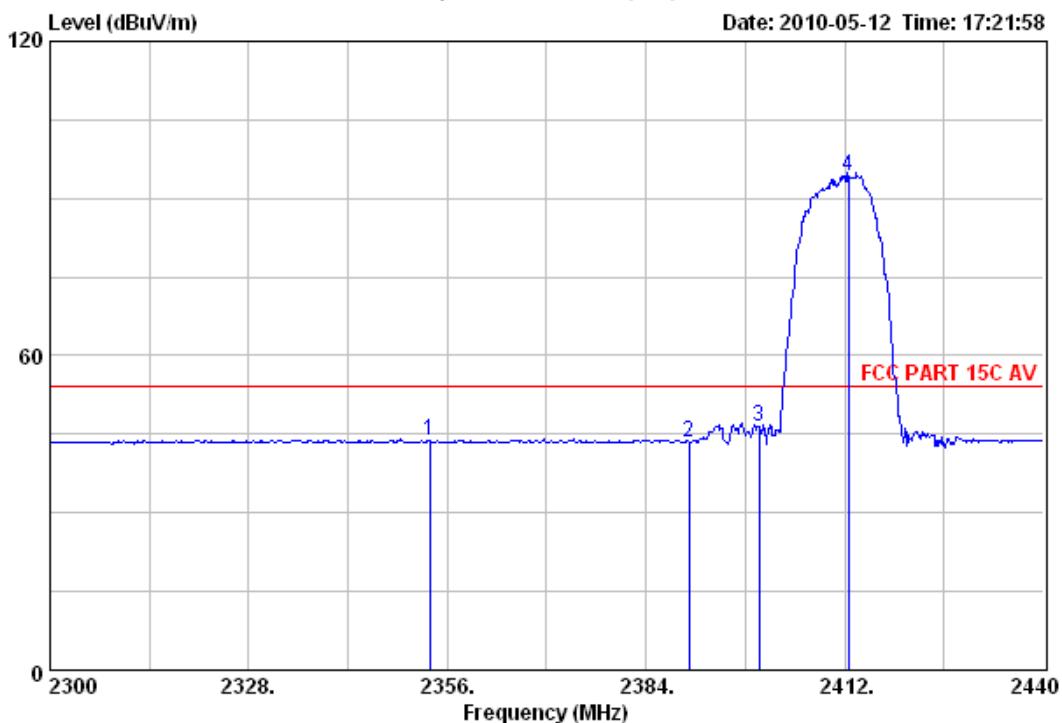
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Data: 531

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:21:58



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 1

Freq. (MHz)	Emission			Ant. Cable				Remark
	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)		
1 2353.50	43.64	54.00	10.36	9.97	31.45	2.22	Average	
2 2390.00	43.57	54.00	10.43	9.87	31.48	2.22	Average	
3 2400.00	46.30	54.00	7.70	12.57	31.50	2.23	Average	
4 2412.56	94.39	54.00	-40.39	60.66	31.50	2.23	Average	



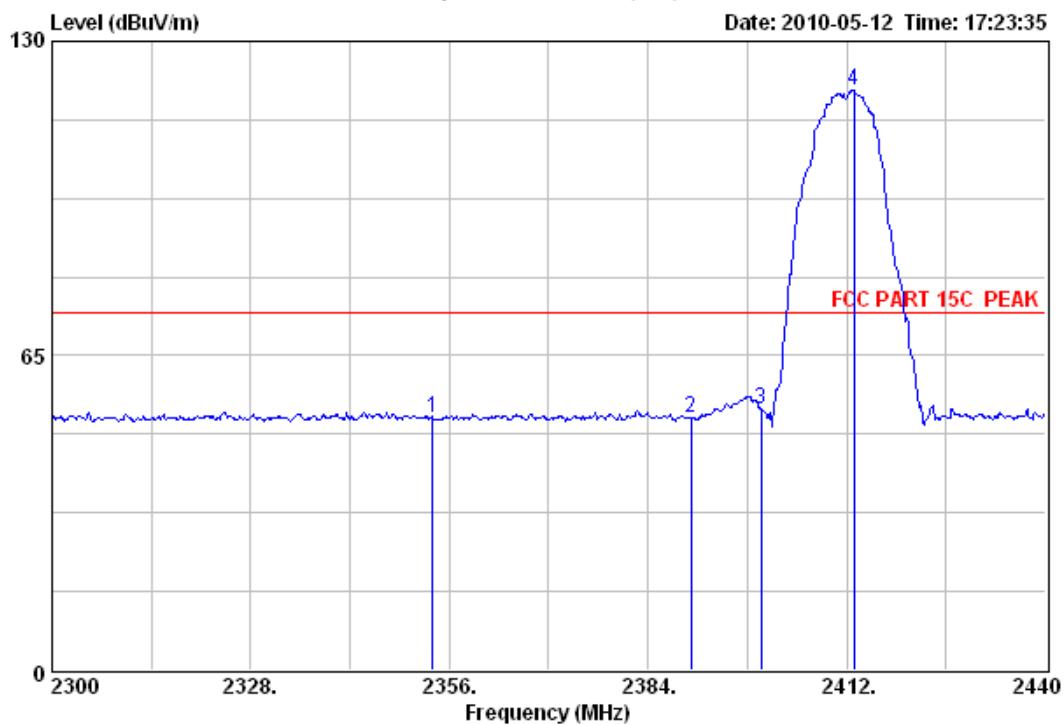
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Data: 532

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:23:35



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 1

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
<hr/>							
1 2353.62	52.10	74.00	21.90	18.43	31.45	2.22	Peak
2 2390.00	52.11	74.00	21.89	18.41	31.48	2.22	Peak
3 2400.00	54.01	74.00	19.99	20.28	31.50	2.23	Peak
4 2412.98	119.81	74.00	-45.81	86.08	31.50	2.23	Peak



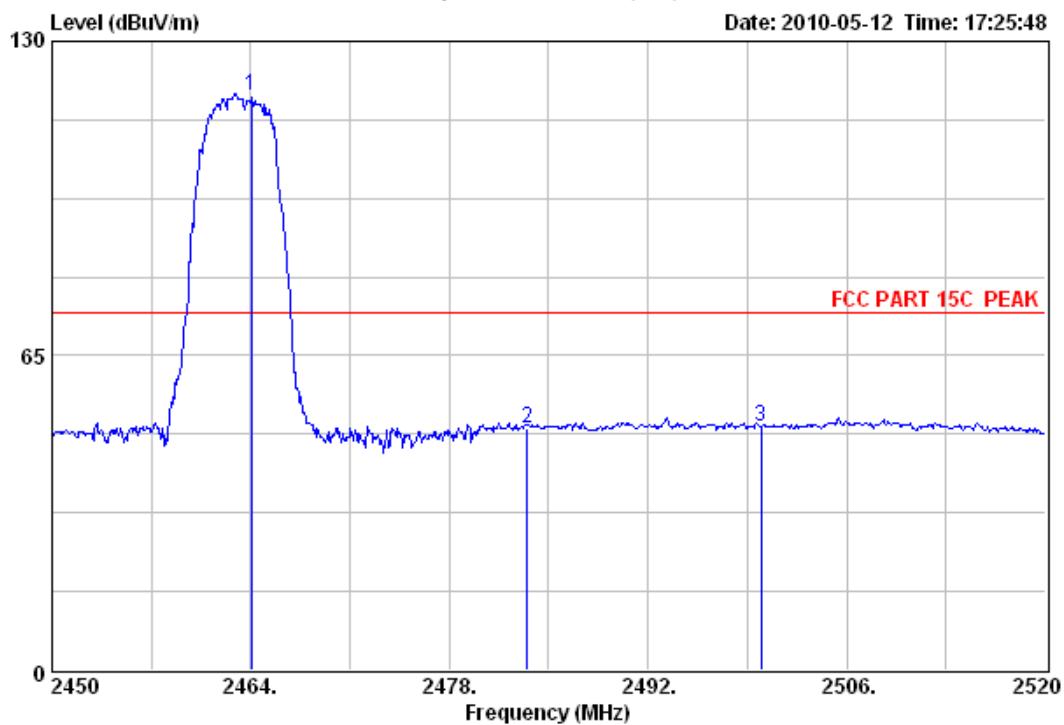
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Fax: +86-769-85991080

Data: 533

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:25:48



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 1

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
1 2464.02	118.63	74.00	-44.63	84.84	31.56	2.23	Peak
2 2483.50	49.85	74.00	24.15	16.04	31.58	2.23	Peak
3 2500.00	50.37	74.00	23.63	16.54	31.60	2.23	Peak



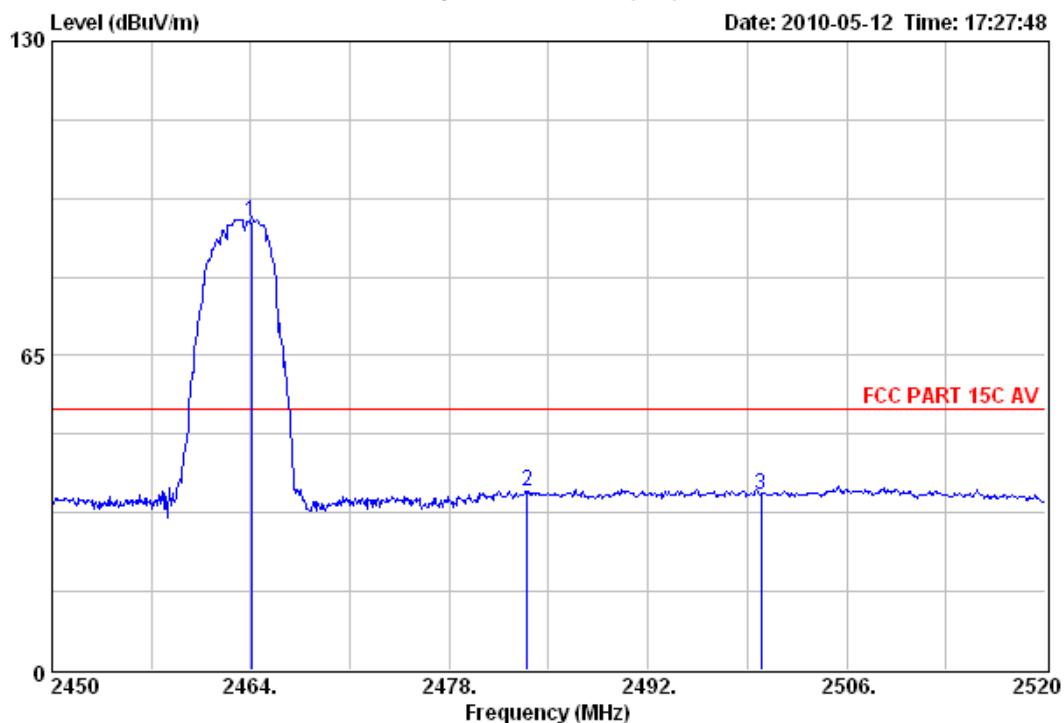
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Data: 534

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:27:48



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 1

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
<hr/>							
1 2464.02	92.57	54.00	-38.57	58.78	31.56	2.23	Average
2 2483.50	36.85	54.00	17.15	3.04	31.58	2.23	Average
3 2500.00	36.37	54.00	17.63	2.54	31.60	2.23	Average



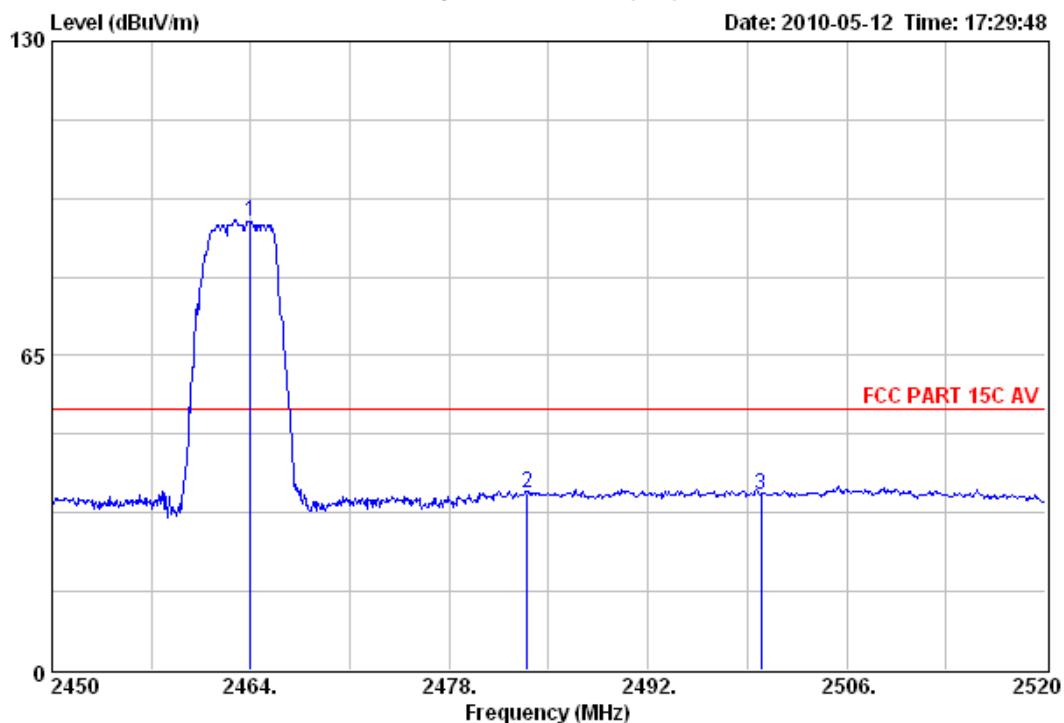
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Data: 535

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:29:48



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 1

Emission				Ant.	Cable	Remark	
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dB/m)	Loss (dB)	
1 2464.01	92.63	54.00	-38.63	58.84	31.56	2.23	Average
2 2483.50	36.71	54.00	17.29	2.90	31.58	2.23	Average
3 2500.00	36.26	54.00	17.74	2.43	31.60	2.23	Average



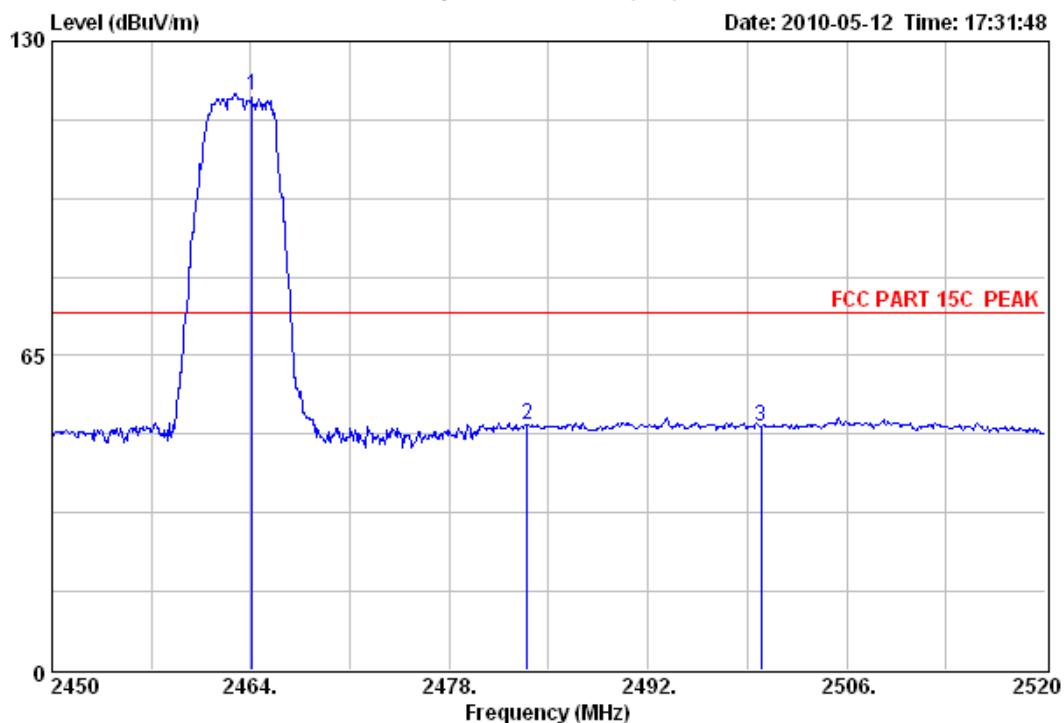
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Data: 536

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:31:48



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 1

Emission			Ant. Cable				
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dBuV)	Loss (dB/m)	Remark
1 2464.13	118.72	74.00	-44.72	84.93	31.56	2.23	Peak
2 2483.50	50.84	74.00	23.16	17.03	31.58	2.23	Peak
3 2500.00	50.21	74.00	23.79	16.38	31.60	2.23	Peak



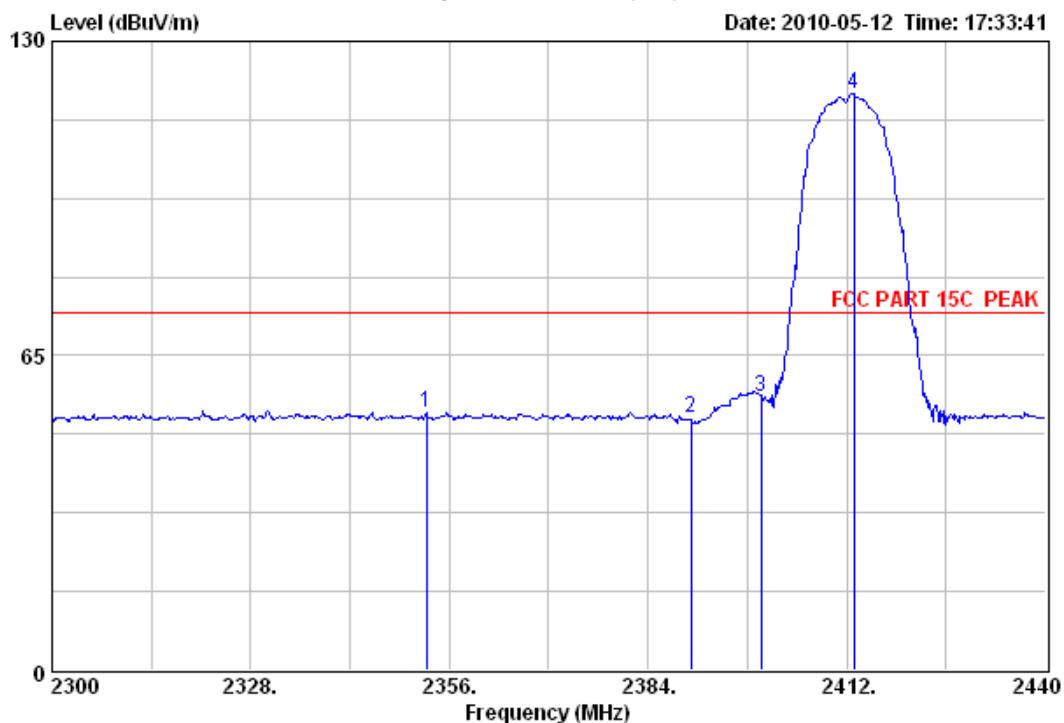
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Data: 537

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:33:41



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 2

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
1 2352.78	53.26	74.00	20.74	19.59	31.45	2.22	Peak
2 2390.00	52.26	74.00	21.74	18.56	31.48	2.22	Peak
3 2400.00	56.57	74.00	17.43	22.84	31.50	2.23	Peak
4 2412.98	119.21	74.00	-45.21	85.48	31.50	2.23	Peak



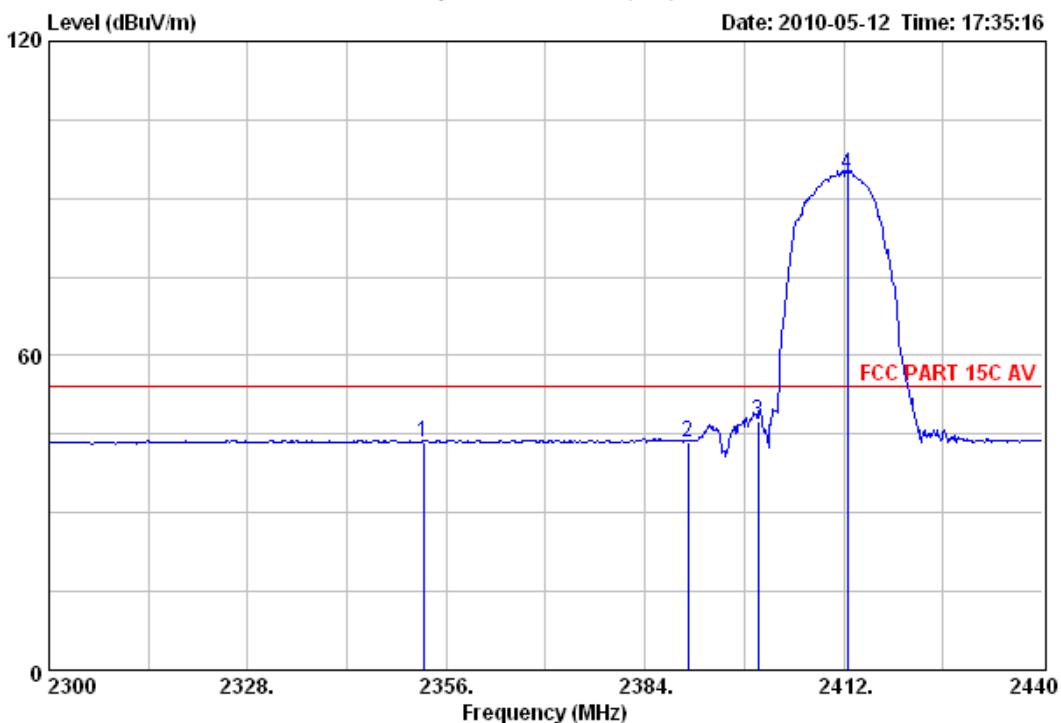
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Dongguan, Guangdong, China
Tel: +86-769-85935656
Fax: +86-769-85991080

Data: 538

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:35:16



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 2

Freq. (MHz)	Emission			Ant. Reading (dBuV)	Cable Factor (dB)	Loss (dB)	Remark
	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)				
1 2352.78	43.62	54.00	10.38	9.95	31.45	2.22	Average
2 2390.00	43.57	54.00	10.43	9.87	31.48	2.22	Average
3 2400.00	47.54	54.00	6.46	13.81	31.50	2.23	Average
4 2412.56	94.51	54.00	-40.51	60.78	31.50	2.23	Average



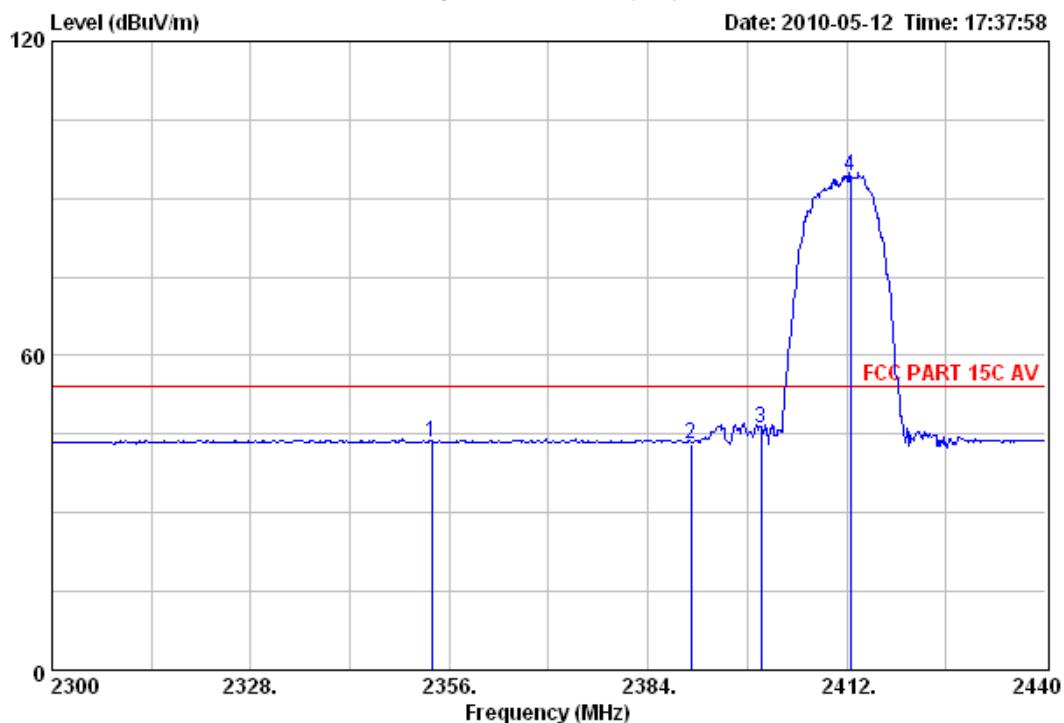
NS Technology

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Dongguan, Guangdong, China
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Fax: +86-769-85991080

Data: 539

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:37:58



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 2

Freq. (MHz)	Emission			Ant. Reading (dBuV)	Cable Factor (dB)	Loss (dB/m)	Remark
	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)				
1 2353.50	43.61	54.00	10.39	9.94	31.45	2.22	Average
2 2390.00	43.25	54.00	10.75	9.55	31.48	2.22	Average
3 2400.00	46.19	54.00	7.81	12.46	31.50	2.23	Average
4 2412.56	94.29	54.00	-40.29	60.56	31.50	2.23	Average

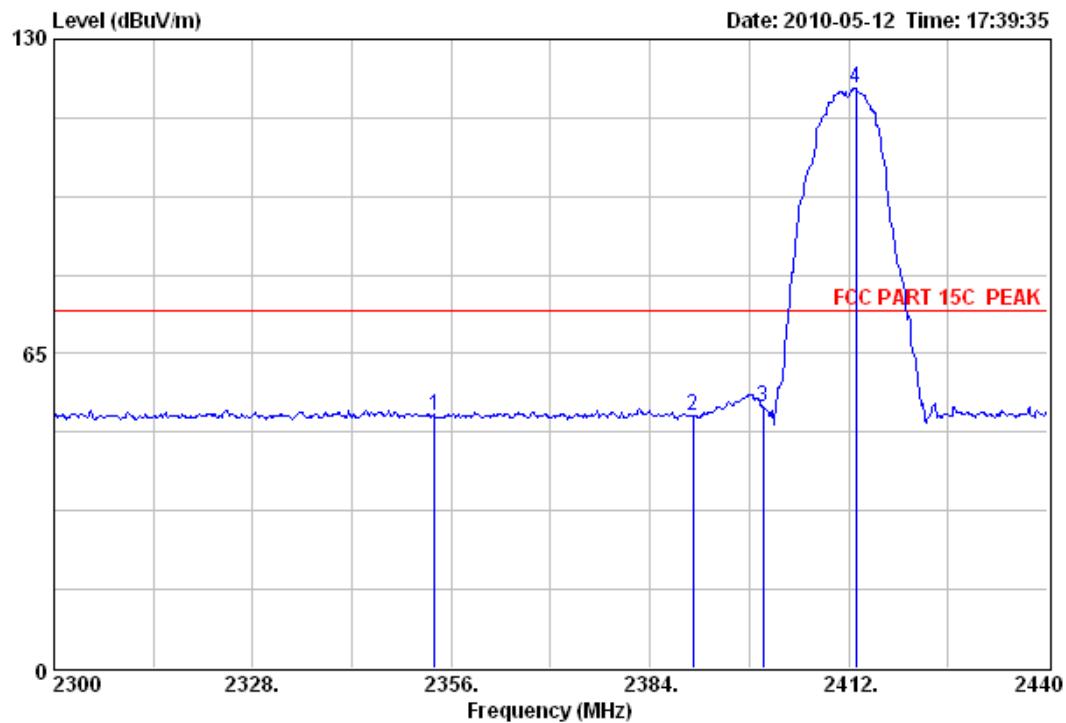


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Fax: +86-769-85991080

Data: 540

File: D:\Radiation data\Jjade\Kadence.EMI (544)



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH1 2412MHz antenna 2

Emission				Ant.	Cable	Remark
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dB)	
<hr/>						
1 2353.62	52.23	74.00	21.77	18.56	31.45	2.22 Peak
2 2390.00	52.16	74.00	21.84	18.46	31.48	2.22 Peak
3 2400.00	54.12	74.00	19.88	20.39	31.50	2.23 Peak
4 2412.98	119.69	74.00	-45.69	85.96	31.50	2.23 Peak



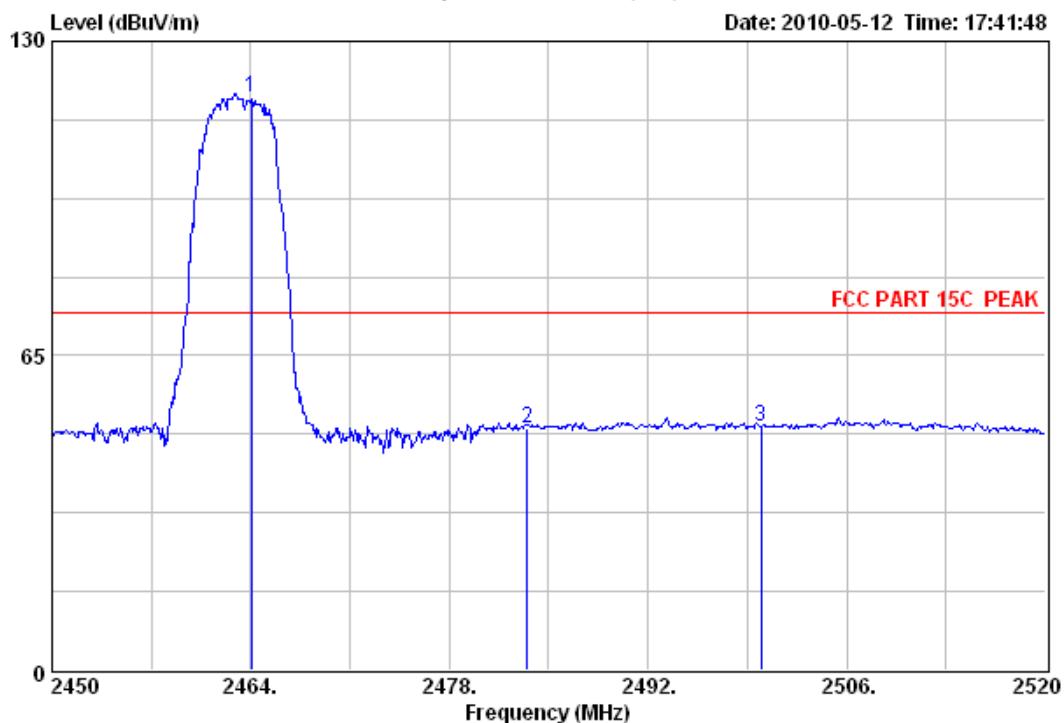
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Fax: +86-769-85991080

Data: 541

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:41:48



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 2

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dBuV)	Loss (dB/m)	Remark
1 2464.02	118.58	74.00	-44.58	84.79	31.56	2.23	Peak
2 2483.50	49.81	74.00	24.19	16.00	31.58	2.23	Peak
3 2500.00	50.28	74.00	23.72	16.45	31.60	2.23	Peak



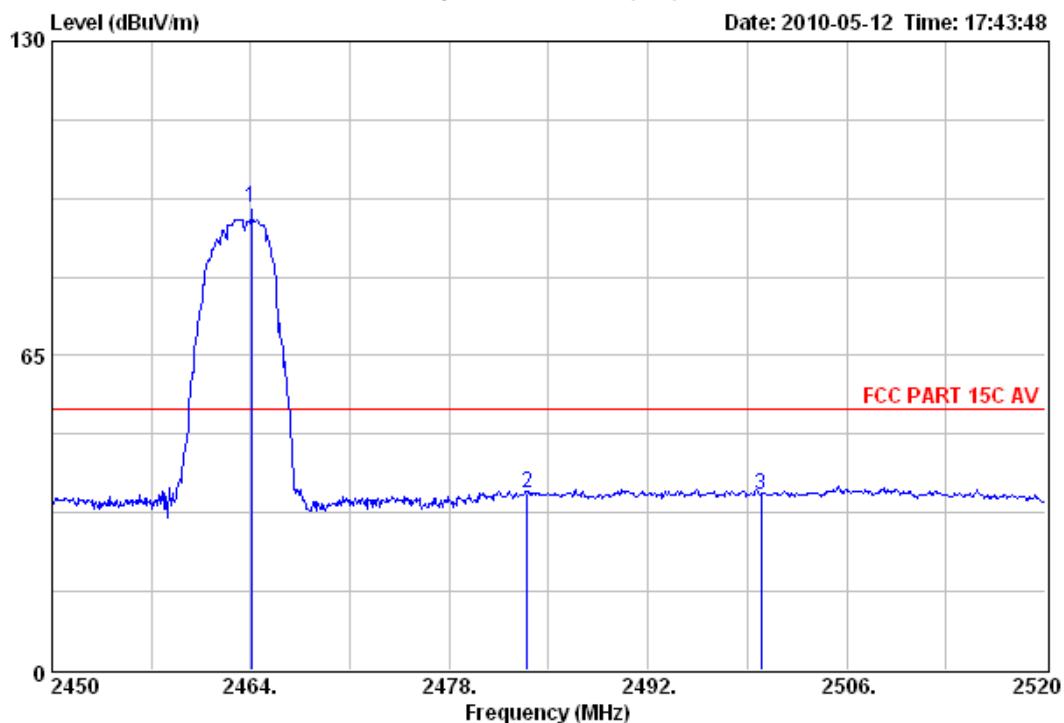
NS Technology

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Fax: +86-769-85991080

Data: 542

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:43:48



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 2

Emission				Ant. Cable			
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark

1 2464.02	95.52	54.00	-41.52	61.73	31.56	2.23	Average
2 2483.50	36.69	54.00	17.31	2.88	31.58	2.23	Average
3 2500.00	36.32	54.00	17.68	2.49	31.60	2.23	Average



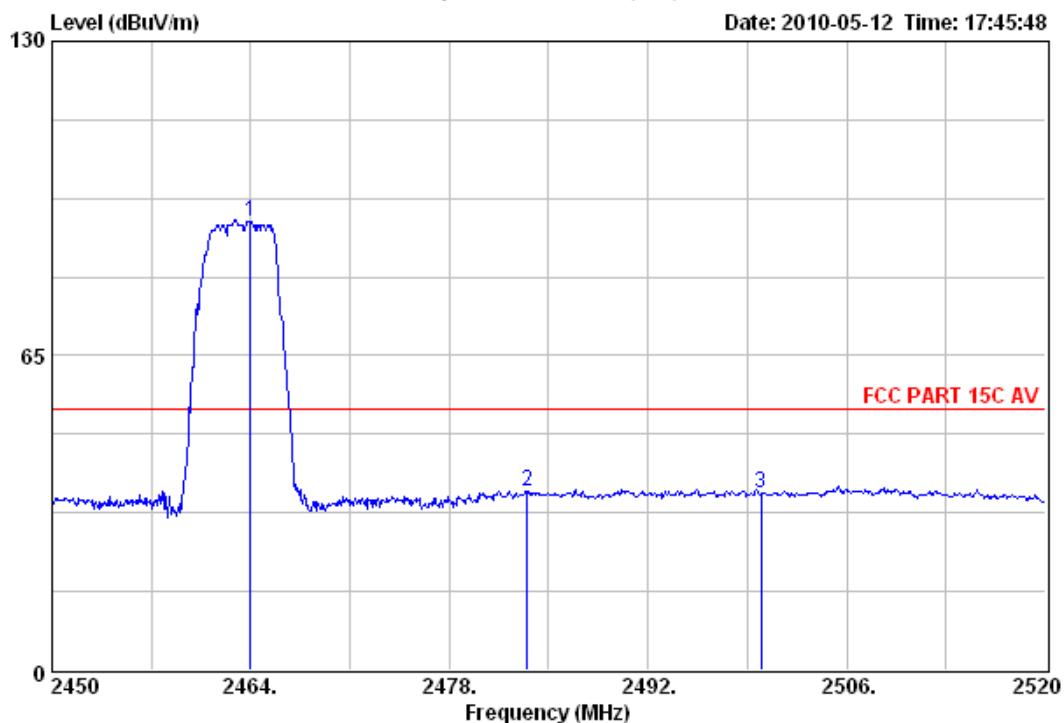
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Fax: +86-769-85991080

Data: 543

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:45:48



Test Site : 966 Chamber
 Limit : FCC PART 15C AV
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 2

Emission				Ant.	Cable		
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor	Loss (dB/m)	Remark
1 2464.01	92.67	54.00	-38.67	58.88	31.56	2.23	Average
2 2483.50	36.82	54.00	17.18	3.01	31.58	2.23	Average
3 2500.00	36.62	54.00	17.38	2.79	31.60	2.23	Average



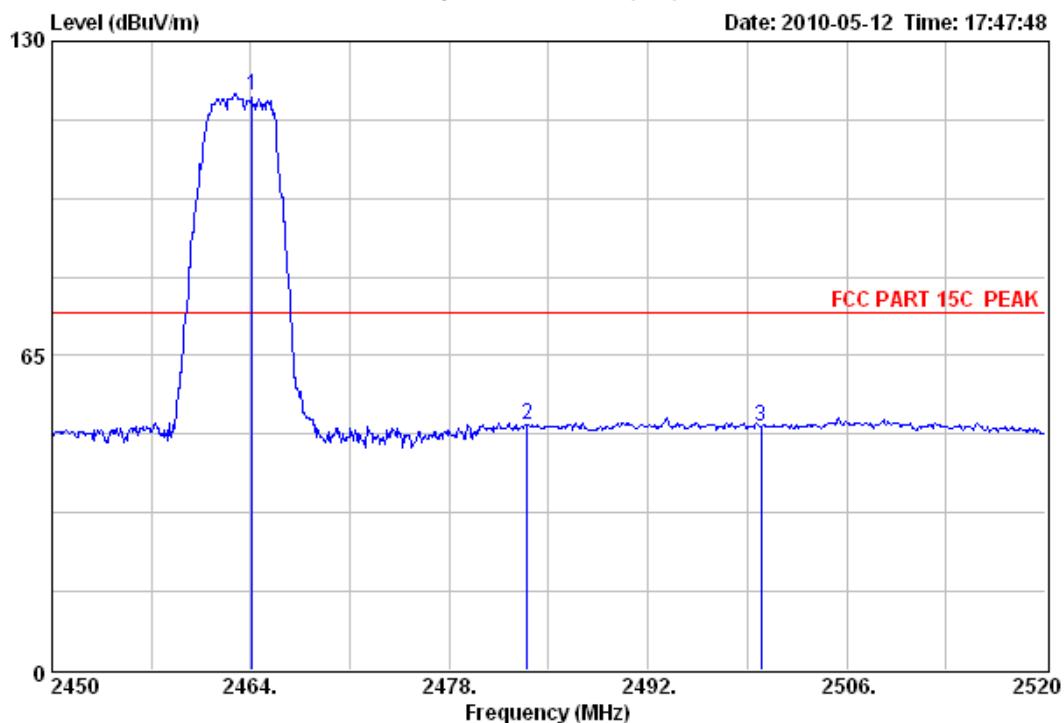
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Data: 544

File: D:\Radiation data\Jjade\Kadence.EMI (544)

Date: 2010-05-12 Time: 17:47:48



Test Site : 966 Chamber
 Limit : FCC PART 15C PEAK
 Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL
 EUT : AudioRock 5
 M/N : R5.2.0
 Power : DC 11.1V
 Test Engineer : Jade
 Comment : Temp.:25.2'C Humi.:56% Press:101.53kPa
 Test Mode : TX CH3 2464MHz antenna 2

Emission			Ant. Cable				
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Factor (dBuV)	Loss (dB/m)	Remark
1 2464.13	118.72	74.00	-44.72	84.93	31.56	2.23	Peak
2 2483.50	50.84	74.00	23.16	17.03	31.58	2.23	Peak
3 2500.00	50.21	74.00	23.79	16.38	31.60	2.23	Peak



5.6. ANTENNA REQUIREMENT

5.6.1. STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

5.6.2. ANTENNA CONNECTED CONSTRUCTION

The antenna used for this product is internal antenna (see EUT photo) that no antenna other than that furnished by the responsible party shall be used with the device, The maximum peak gain of this antenna is only 5.5dBi.

