FCC COMPLIANCE REPORT

for

Shenzhen ExcelStor Technology Ltd.

WSD

Model Number: WLSDXXXX

("WLSD" is Wire-Less Storage Device; First "X" can be "A", "B", "C", which is product generation, "A" denotes 1st. generation, "B" denotes 2nd. generation, "C" denotes 3rd. generation; Second and Third "XX" can be "NN", "04", "06", "08", "12", "16", "25", "32", "50", "75", "A0", "A5", "B0", and "NN" denotes no HDD, "04" denotes 40GB HDD, "06" denotes 60GB HDD, "08" denotes 80GB HDD, "12", denotes 120GB HDD, "16" denotes 160GB HDD, "25" denotes 250GB HDD, "32" denotes 320GB HDD, "50" denotes 500GB HDD, "75" denotes 750GB HDD, "A0" denotes

1000GB HDD, "A5" denotes 1500GB HDD, "B0" denotes 2000GB HDD; Fourth "X" is default)

Prepared for: ExcelStor Technology Ltd.

Address : 5/F, Building 8, Kaifa Industrial Complex, 7006, Caitian Road,

North, Futian District, Shenzhen, PRC 518035

Prepared By: NS Technology Co., Ltd.

Address : Chenwu Industrial Zone, Houjie Town, Dongguan City,

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Tel: +86-769-85935656 Fax: +86-769-85991080

Report Number: NSE-F09063372

Date of Test : May 25~Jul. 10, 2009

Date of Report : Jul. 10, 2009



TABLE OF CONTENTS

16	est Re	eport Declaration	Page
1.	GE	ENERAL PRODUCT INFORMATION	4
	1.1.	Product Function	4
	1.2.	Description of Device (EUT)	4
	1.3.	Different Between Model Numbers	
	1.4.	Independent Operation Modes	4
	1.5.	Test Support System	4
2.	TE	ST SITES	6
	2.1.	Test Facilities	6
	2.2.	List of Test and Measurement Instruments	7
3.	TE	ST SET-UP AND OPERATION MODES	8
	3.1.	Principle of Configuration Selection	8
	3.2.	Test Operation Mode and Test Software	8
	3.3.	Special Accessories and Auxiliary Equipment	8
	3.4.	Countermeasures to Achieve EMC Compliance	8
4.	TE	ST SUMMARY	9
	4.1.	Conducted Emission	10
	4.2.	6dB Bandwidth Test	
	4.3.	OUTPUT POWER TEST	16
	4.4.	BAND EDGE COMPLIANCE TEST	17
	4.5.	POWER SPECTRAL DENSITY TEST	36
	4.6.	MPE ESTIMATION	39
	4.7.	ANTENNA REQUIREMENT	41
	1 Q	Padiated Emission	42



NS Technology Co., Ltd.

Applicant: Shenzhen ExcelStor Technology Ltd.

Address: 5/F,Building 8,Kaifa Industrial Complex,7006,Caitian Road,

North, Futian District, Shenzhen, PRC 518035

Manufacturer: Shenzhen ExcelStor Technology Ltd.

Address: 5/F,Building 8,Kaifa Industrial Complex,7006,Caitian Road,

North, Futian District, Shenzhen, PRC 518035

E.U.T: WSD

Model Number: WLSDXXXX

("WLSD" is Wire-Less Storage Device; First "X" can be "A", "B", "C", which is product generation, "A" denotes 1st. generation, "B" denotes 2nd. generation, "C" denotes 3rd. generation; Second and Third "XX" can be "NN", "04", "06", "08", "12", "16", "25", "32", "50", "75", "A0", "A5", "B0", and "NN" denotes no HDD, "04" denotes 40GB HDD, "06" denotes 60GB HDD, "08" denotes 80GB HDD, "12", denotes 120GB HDD, "16" denotes 160GB HDD, "25" denotes 250GB HDD, "32" denotes 320GB HDD, "50" denotes 500GB HDD, "75" denotes 750GB HDD, "A0" denotes 1000GB HDD, "A5" denotes 1500GB HDD, "B0" denotes 2000GB HDD;

Fourth "X" is default)

Trade Name: ----- **Operating Frequency:** 2412MHz to 2462MHz

Date of Receipt: May 5, 2009 **Date of Test:** May 25~Jul. 10, 2009

Test Specification: FCC Part 15 Subpart C: Jul. 2008

ANSI C63.4:2003 KDB558074

Test Result: The equipment under test was found to be compliance with the requirements

of the standards applied.

Issue Date: Jul. 10, 2009

Tested by: Reviewed by: Approved by:

Jacky / Engineer Iceman Hu / Supervisor Steven Lee / Manager

Other Aspects:

Jack

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)

Description : WSD Model No. : WLSDA06

Operation frequency : 2412MHz---2462MHz

Channel Number : 11

Channel frequency : F = 2412 + 5(K-1) K=1,2,.....11

Radio Technology : IEEE 802.11b/g

Modulation Technology: DSSS(CCK,DQPSK,DBPSK) for IEEE 802.11g

OFDM for IEEE 802.11b

Antenna gain : 3dBi(Typical)

Output power : 5.17dBm(Maximum measured)

System Input Voltage : USB DC 5.0V/1A, Li-Battery 3.6~4.2V 600mAH

Work Freq. : WiFi 2.4GHz~2.5GHz

1.3. Different Between Model Numbers

Note: The products are different for the model numbers and content.

1.4. Independent Operation Modes

The tested modes are:

1.4.1.IEEE 802.11b; TX CH1 (2412MHz)

1.4.2.IEEE 802.11b; TX CH 6 (2437MHz)

1.4.3.IEEE 802.11b; TX CH11 (2462MHz)

1.4.4.IEEE 802.11g; TX CH1 (2412MHz)

1.4.5.IEEE 802.11g; TX CH 6 (2437MHz)

1.4.6.IEEE 802.11g; TX CH11 (2462MHz)

1.5. Test Support System

1.5.1.PC

Model Number : 8179 Serial Number : 99PZTL5 Manufacturer : IBM

Data Cable : Shielded, Detachable, 1.5m Power Cord : Unshielded, Detachable, 1.5m

1.5.2.Monitor

Model Number : vs17e

Serial Number : CND6270KVM

Manufacturer : HP

Data Cable : Shielded, Detachable, 1.5m Power Cord : Unshielded, Detachable, 1.5m

1.5.3.Keyboard

Model Number : KB-0225 Serial Number : 1553701 Manufacturer : IBM

Data Cable : Shielded, Detachable, 1.8m

1.5.4.Mouse

Model Number : MU29J Serial Number : 23-039797

Manufacturer : IBM

Data Cable : Shielded, Undetachable, 1.8m

2. TEST SITES

2.1. Test Facilities

EMC Lab : Certificated by TUV Rheinland, Germany.

Date of registration: July 28, 2003

Certificated by FCC, USA Registration No.: 502831

Date of registration: February 09, 2009

Certificated by VCCI, Japan

Registration No.: R-2527 & C-2770 Date of registration: March 23, 2007

Certificated by CNAL, CHINA

Registration No.: L1744

Date of registration: November 25, 2004

Certificated by Intertek ETL SEMKO

Registration No.: TMP-013

Date of registration: June 11, 2005

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

Certificated by Industry Canada

Registration No.: 5936A

Date of registration: March 4, 2009

Certificated by ATCB, America

Date of registration: August 03, 2006

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 Radiation emission test(30-1000MHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESVS10	841431/004	Jan.19, 09	Jan.19,10
Spectrum Analyzer	Agilent	E7405A	MY45118807	May 31,09	May 31,10
Amplifier	Agilent	8447D	2944A11174	Jan.19,09	Jan.19,10
Bilog Antenna	Teseq	CBL 6111D	25758	Oct. 15,08	Oct. 15,09
Coaxial Switch	Anritsu	MP59B	6200530579	May 2,09	May 2,10

2.2.2. 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

2.2.3.For Output power test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Power Meter	Agilent	E4416A	MY45100656	Jan. 19,09	Jan. 19,10
Power Sensor	Agilent	E9327A	MY44420694	Jan. 19,09	Jan. 19,10

2.2.4. For Band edge compliance test

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

2.2.5. For Power spectral density test

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

2.2.6. For Conducted emission test

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

2.2.7. For Radiation emission test(1000-18000MHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESVS10	841431/004	Jan.19, 09	Jan.19,10
Spectrum Analyzer	Agilent	E7405A	MY45118807	May 31,09	May 31,10
Horn Antenna	EMCO	3117	00062558	Jan. 19,09	Jan. 19,10
Coaxial Switch	Anritsu	MP59B	6200530579	May 2,09	May 2,10
Amplifier	BURGEON	PEC-38-30	Nsemc01	May 31,09	May 31,10
		M18G-12			
		-SFF			

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. Test Operation Mode and Test Software

Refer to clause 1.4

3.3. Special Accessories and Auxiliary Equipment None.

3.4. Countermeasures to Achieve EMC Compliance

None.

4. TEST SUMMARY

Test items and result lists

EMISSION					
Description of Test Item	Standard	Results			
Conducted Spurious Emission Test	FCC Part 15: 15.207 ANSI C63.4: 2003 KDB558074	PASS			
Radiated Spurious Emission Test	FCC Part 15: 15.209 ANSI C63.4: 2003 KDB558074	PASS			
6dB Bandwidth Test	FCC Part 15: 15.247 KDB558074	PASS			
Output Power Test	FCC Part 15: 15.247 KDB558074	PASS			
Band Edge Compliance Test	FCC Part 15: 15.247 KDB558074	PASS			
Power Spectral Density Test	FCC Part 15: 15.247 KDB558074	PASS			
MPE ESTIMATION	FCC Part 2: 2.1093	PASS			
Antenna requirement	FCC Part 15: 15.203	PASS			

Note: N/A means not applicable

4.1. Conducted Emission

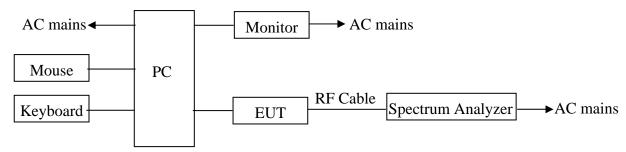
4.1.1. Test limits

intentional radiator shall be at least 20dB below that in 100kHz bandwidth within the band that contains the highest level of the desired power.

4.1.2. Test procedure

- 1. Connect EUT RF output port to the spectrum analyzer through an RF attenuator. attenuator loss=20dB.
- 2. Set the EUT work on the IEEE802.11b / g CH1, CH6, CH11 individually.
- 3. Set SPA Frequency = Operation frequency, for PK: RBW =100kHz, VBW=300KHz.
- 4. Set SPA trace max hold, then view.

4.1.3. Test setup diagram



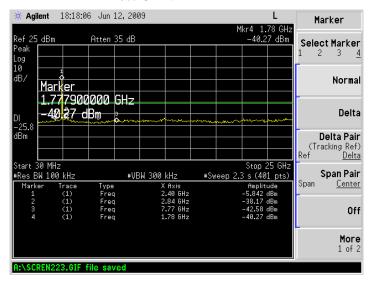
4.1.4.Test result

PASS.

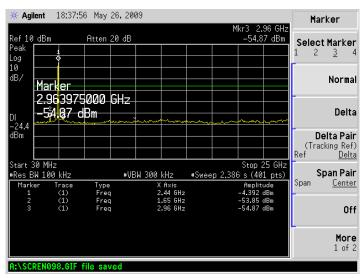
The test plots as following:

Test Mode: IEEE 802.11b TX

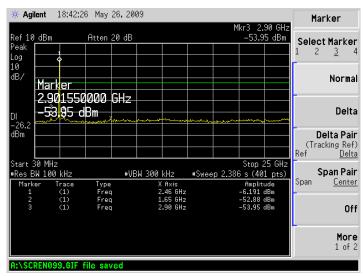
Test CH1: 2412MHz



Test CH6: 2437MHz

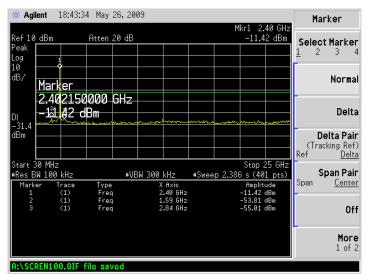


Test CH11: 2462MHz

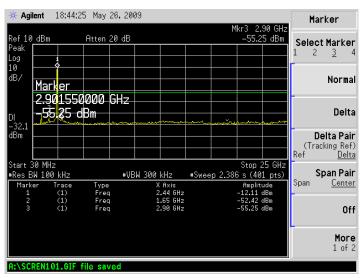


Test Mode: IEEE 802.11g TX

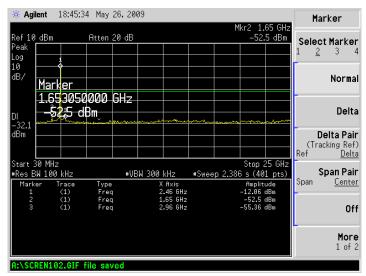
Test CH1: 2412MHz



Test CH6: 2437MHz



Test CH11: 2462MHz

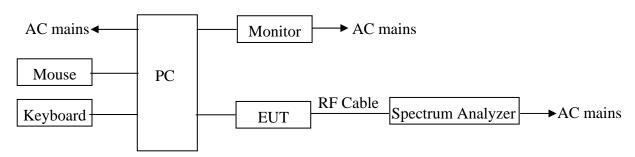


4.2. 6dB Bandwidth Test

4.2.1. Test procedure

- 1. Connect EUT RF output port to the spectrum analyzer through an RF terminal.
- 2. Set the EUT work on the IEEE802.11b / g CH1, CH6, CH11 individually.
- 3. Set SA Center Frequency = Operation frequency, RBW=100kHz, VBW=300kHz.
- 4. Set SA trace max hold, then view.
- 5. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB. The minimum 6dB bandwidth shall be at least 500KHz.

4.2.2. Test setup diagram



4.2.3. Test result

Pass

Test Mode: IEEE 802.11b TX

СН	6dB Bandwidth (MHz)	Limit	Conclusion
1	11.4	>500	PASS
6	11.4	>500	PASS
11	10.6	>500	PASS

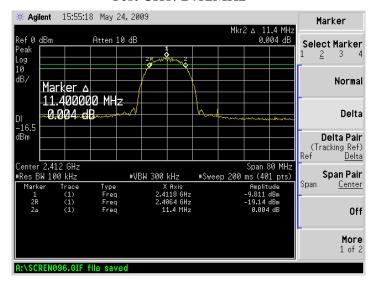
Test Mode: IEEE 802.11g TX

СН	6dB Bandwidth (MHz)	Limit	Conclusion
1	16.8	>500	PASS
6	16.8	>500	PASS
11	16.8	>500	PASS

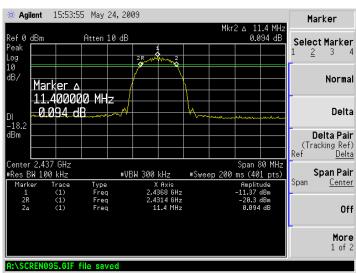
The test plots as following:

Test Mode: IEEE 802.11b TX

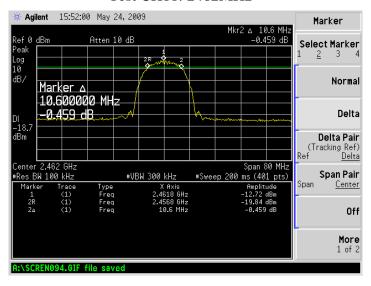
Test CH1: 2412MHz



Test CH6: 2437MHz

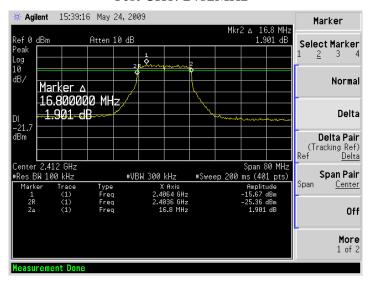


Test CH11: 2462MHz

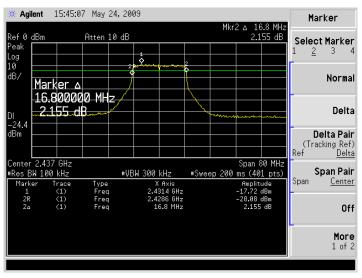


Test Mode: IEEE 802.11g TX

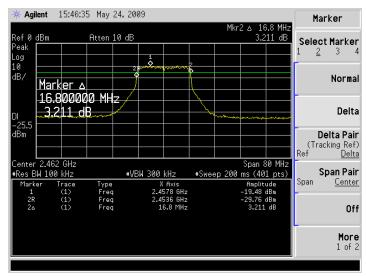
Test CH1: 2412MHz



Test CH6: 2437MHz



Test CH11: 2462MHz

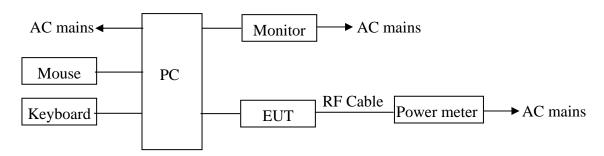


4.3. OUTPUT POWER TEST

4.3.1. Test procedure

The transmitter output was connected to a power meter, use the power meter to read out the peak output power.

4.3.2. Test setup diagram



4.3.3. Test result

Pass

Test mode: IEEE 802.11b TX

Test CH	Read(PK) (dBm)	Cable loss(dB)	Result (dBm)	Limit (dBm)	Conclusion
1	4.57	0.6	5.17	30	PASS
6	3.537	0.6	4.137	30	PASS
11	3.501	0.6	4.101	30	PASS

Test mode: IEEE 802.11g TX

Test CH	Read(PK) (dBm)	Cable loss(dB)	Result (dBm)	Limit (dBm)	Conclusion
1	-2.225	0.6	-1.625	30	PASS
6	-2.843	0.6	-2.243	30	PASS
11	-2.518	0.6	-1.918	30	PASS

Note: Result= Read + Cable loss

4.4. BAND EDGE COMPLIANCE TEST

4.4.1. Test limits

In any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produce by the intentional radiator shall be at 20dB below that in 100kHz bandwidth within the band that contains the highest level of the desired power.

4.4.2. Test procedure

- 1. The EUT was placed on a turntable which is 0.8m above ground plane.
- 2. Connect EUT RF output port to the spectrum analyzer through an RF attenuator.
- 3. Set the EUT work on the IEEE802.11b / g CH1,CH11 individually.
- 4. Set SPA Frequency = Operation frequency, for PK: RBW = 1MHz, VBW ≥ RBW
- 5. Set SPA trace max hold, then view.

4.4.3. Test result

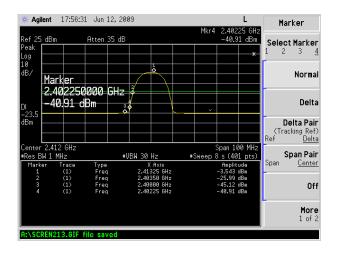
PASS.

The test plots as following:

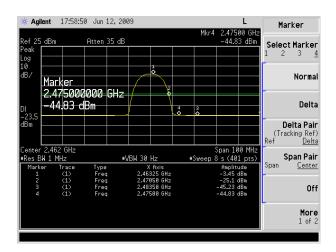
Test mode:IEEE 802.11b Tx

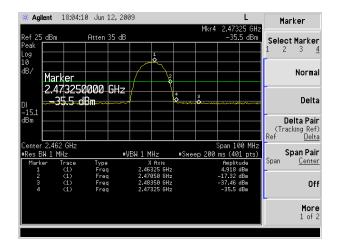
CH1:2412MHz

*** Agilent** 17:54:12 Jun 12, 2009 Marker 2.40250 GHz -30.52 dBm Atten 35 dB Select Marker Normal Marker 2.402500000 GHz -30.52 dBm Delta -14.9 **Delta Pair** (Tracking Ref) Ref <u>Delta</u> Span 100 MHz #Sweep 200 ms (401 pts) nter 2.412 GHz es BW 1 MHz Span Pair #VBW 1 MHz Span Off More 1 of 2



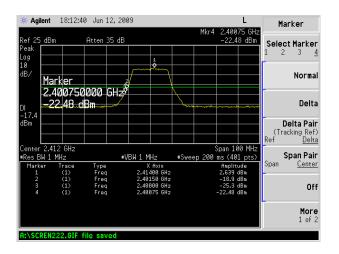
CH11:2462MHz

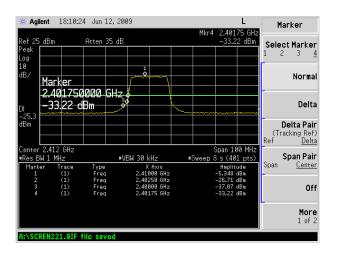




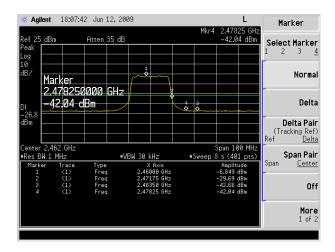
Test mode:IEEE 802.11g Tx

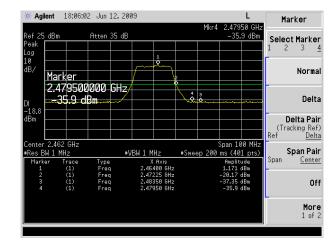
CH1:2412MHz





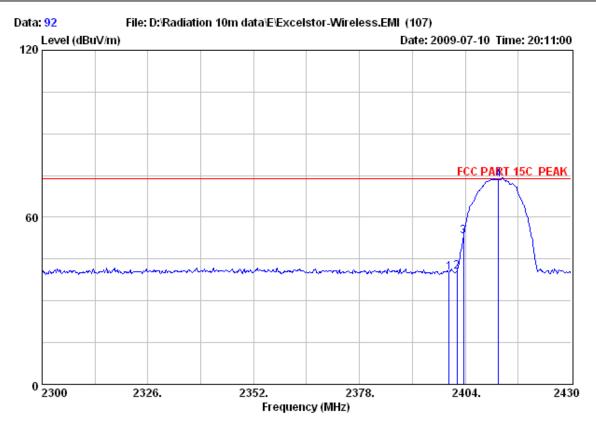
CH11:2462MHz





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Test Site : 10m Chamber

Limit : FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL

: WSD EUT M/N : WLSDAO6

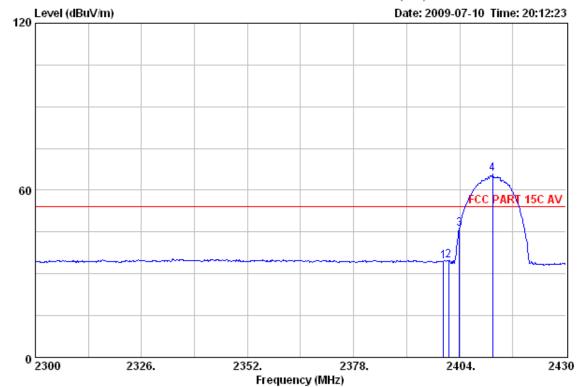
: DC 5V From PC Input AC 120V/60Hz Power

Test Engineer : Jacky

		Emission				Ant.	Cable	
	Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
1	2400.00	40.14	74.00	33.86	6.41	31.50	2.23	Peak
2	2401.92	40.61	74.00	33.39	6.88	31.50	2.23	Peak
3	2403.61	53.27	74.00	20.73	19.54	31.50	2.23	Peak
4	2412.19	73.58	74.00	0.42	39.85	31.50	2.23	Peak

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Test Site : 10m Chamber Limit : FCC PART 15C AV

Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

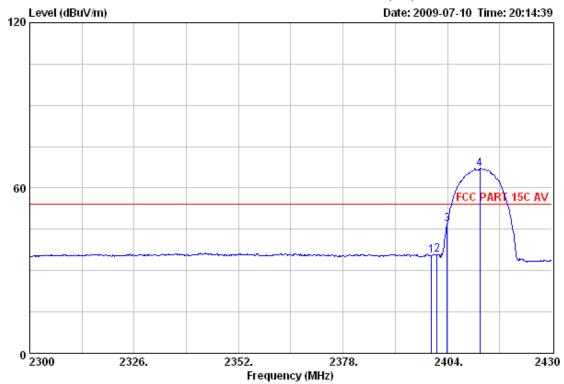
Test Engineer : Jacky

		Emission				Ant.	Cable	
	Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
1	2400.00	34.57	54.00	19.43	0.84	31.50	2.23	Average
2	2401.27	34.87	54.00	19.13	1.14	31.50	2.23	Average
3	2403.87	46.19	54.00	7.81	12.46	31.50	2.23	Average
4	2412.06	65.69	54.00	-11.69	31.96	31.50	2.23	Average

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Test Site : 10m Chamber Limit : FCC PART 15C AV

Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

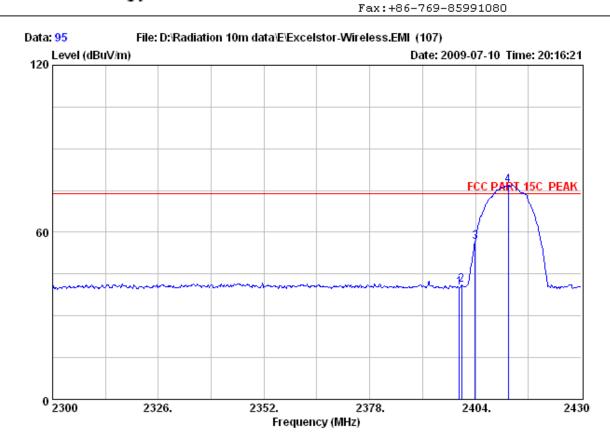
Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%

Test Mode : IEEE802.11b CH1 2412MHz Tx Mode

	Freq. (MHz)	Emission Level (dBuV/m)	Limits (dBuV/m)	_	Reading (dBuV)	Ant. Factor (dB/m)	Cable Loss (dB)	Remark
1	2400.00	35.52	54.00	18.48	1.79	31.50	2.23	Average
2	2401.40	35.82	54.00	18.18	2.09	31.50	2.23	Average
3	2403.87	46.87	54.00	7.13	13.14	31.50	2.23	Average
4	2412.06	66.93	54.00	-12.93	33.20	31.50	2.23	Average

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Test Site : 10m Chamber

: FCC PART 15C PEAK Limit

Dis. / Ant. Ant. Pol.: VERTICAL : 3m 3117

: WSD EUT M/N: WLSDAO6

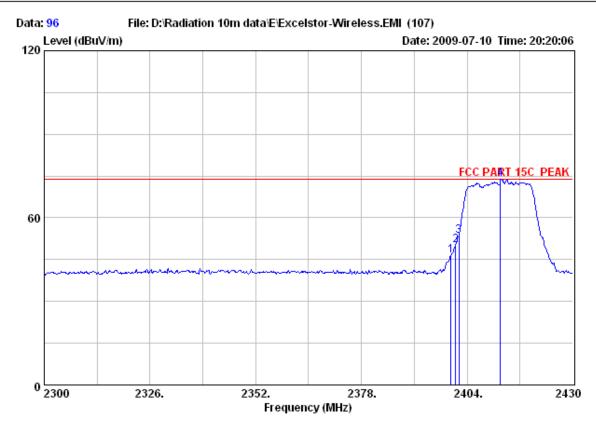
: DC 5V From PC Input AC 120V/60Hz Power

Test Engineer : Jacky

	Emissio	n			Ant.	Cable	
Freq	. Level	Limits	Margin	Reading	Factor	Loss	Remark
(MHz) (dBuV/m) (dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
1 2400.0	0 40.24	74.00	33.76	6.51	31.50	2.23	Peak
2 2400.6	2 41.15	74.00	32.85	7.42	31.50	2.23	Peak
3 2403.8	7 56.52	74.00	17.48	22.79	31.50	2.23	Peak
4 2412 0	6 76 73	74 00	-2 73	43 00	31 50	2 23	Deeb

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Tel:+86-769-85935656 Fax:+86-769-85991080



Test Site : 10m Chamber

Limit : FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

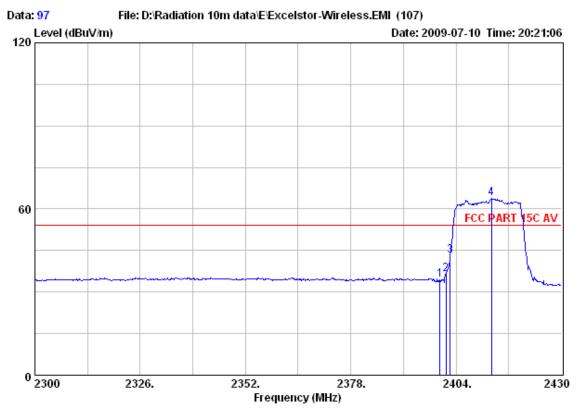
Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%
Test Mode : IEEE802.11g CH1 2412MHz Tx Mode

		Emission				Ant.	Cable	
	Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
1	2400.00	46.37	74.00	27.63	12.64	31.50	2.23	Peak
2	2401.14	50.27	74.00	23.73	16.54	31.50	2.23	Peak
3	2401.92	53.65	74.00	20.35	19.92	31.50	2.23	Peak
4	2412.19	73.94	74.00	0.06	40.21	31.50	2.23	Peak

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Fax:+86-769-85991080



Test Site : 10m Chamber : FCC PART 15C AV Limit

Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL

EUT : WSD M/N: WLSDAO6

: DC 5V From PC Input AC 120V/60Hz Power

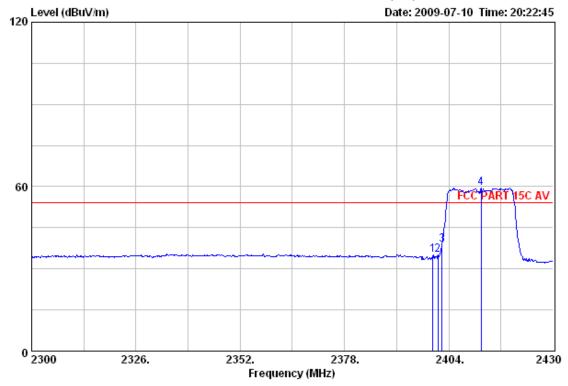
Test Engineer : Jacky

		Emission				Ant.	Cable	
	Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
1	2400.00	34.54	54.00	19.46	0.81	31.50	2.23	Average
2	2401.53	36.53	54.00	17.47	2.80	31.50	2.23	Average
3	2402.57	43.14	54.00	10.86	9.41	31.50	2.23	Average
4	2412.71	63.92	54.00	-9.92	30.19	31.50	2.23	Average

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Fax:+86-769-85991080

Data: 98 File: D:\Radiation 10m data\E\Excelstor-Wireless.EMI (107)



Test Site : 10m Chamber : FCC PART 15C AV Limit

Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL

: WSD M/N : WLSDAO6

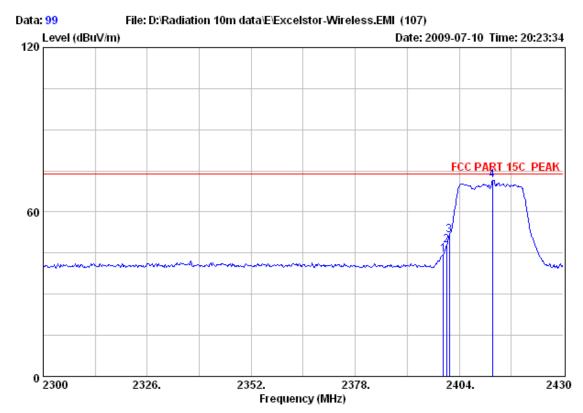
Power : DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

	Freq.	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Ant. Factor (dB/m)	Cable Loss (dB)	Remark
1	2400.00	34.95	54.00	19.05	1.22	31.50	2.23	Average
_								_
4	2401.27	35.08	54.00	18.92	1.35	31.50	2.23	Average
3	2402.31	38.66	54.00	15.34	4.93	31.50	2.23	Average
4	2412.06	59.52	54.00	-5.52	25.79	31.50	2.23	Average

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Test Site : 10m Chamber

: FCC PART 15C PEAK Limit

Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL

: WSD : WLSDAO6 M/N

Power : DC 5V From PC Input AC 120V/60Hz

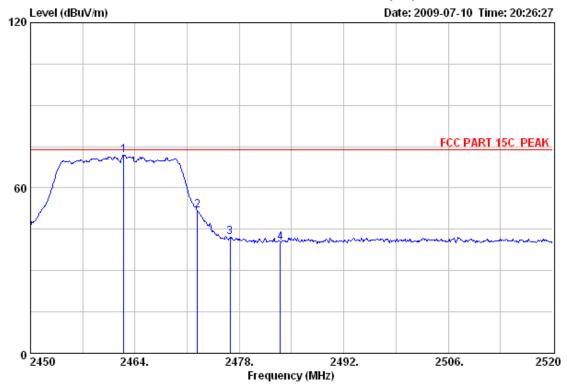
Test Engineer : Jacky

		Emission				Ant.	Cable	
	Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
1	2400.00	44.38	74.00	29.62	10.65	31.50	2.23	Peak
2	2400.88	47.85	74.00	26.15	14.12	31.50	2.23	Peak
3	2401.53	51.42	74.00	22.58	17.69	31.50	2.23	Peak
4	2412.32	71.62	74.00	2.38	37.89	31.50	2.23	Peak

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Test Site : 10m Chamber

Limit : FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL

EUT : WSD
M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

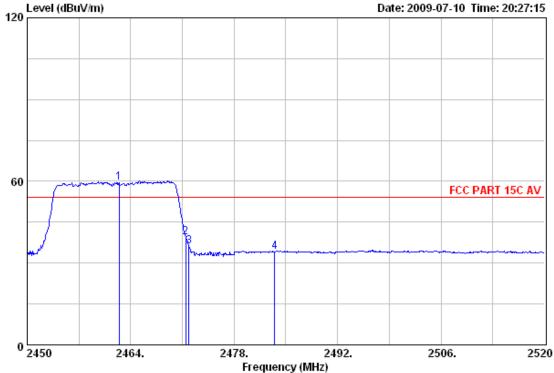
Comment : Temp.:25.2'C Humi.:56%

Test Mode : IEEE802.11g CH11 2462MHz Tx Mode

			Emission				Ant.	Cable	
		Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
		(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
-									
	1	2462.53	71.90	74.00	2.10	38.11	31.56	2.23	Peak
	2	2472.40	51.70	74.00	22.30	17.91	31.56	2.23	Peak
	3	2476.74	42.11	74.00	31.89	8.30	31.58	2.23	Peak
	4	2483.50	40.27	74.00	33.73	6.46	31.58	2.23	Peak

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Test Site : 10m Chamber Limit : FCC PART 15C AV

Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL

EUT : WSD M/N: WLSDAO6

: DC 5V From PC Input AC 120V/60Hz Power

Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%

Test Mode : IEEE802.11g CH11 2462MHz Tx Mode

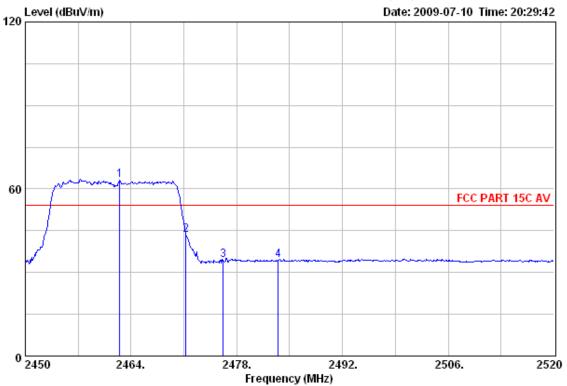
		Emission				Ant.	Cable	
	Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
1	2462.46	59.36	54.00	-5.36	25.57	31.56	2.23	Average
2	2471.42	39.43	54.00	14.57	5.64	31.56	2.23	Average
3	2471.91	36.20	54.00	17.80	2.41	31.56	2.23	Average
4	2483.50	34.15	54.00	19.85	0.34	31.58	2.23	Average

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Test Site : 10m Chamber : FCC PART 15C AV Limit

Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL

EUT : WSD : WLSDAO6 M/N

Power : DC 5V From PC Input AC 120V/60Hz

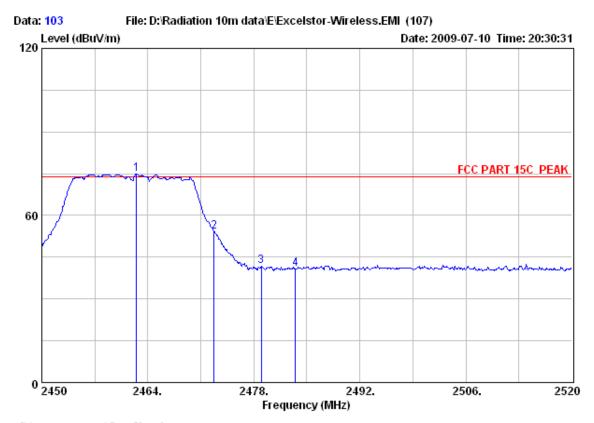
Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%
Test Mode : IEEE802.11g CH11 2462MHz Tx Mode

		Emission				Ant.	Cable	
	Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
1	2462.53	63.04	54.00	-9.04	29.25	31.56	2.23	Average
2	2471.28	43.42	54.00	10.58	9.63	31.56	2.23	Average
3	2476.18	34.33	54.00	19.67	0.52	31.58	2.23	Average
4	2483.50	34.56	54.00	19.44	0.75	31.58	2.23	Average

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Test Site : 10m Chamber

: FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL

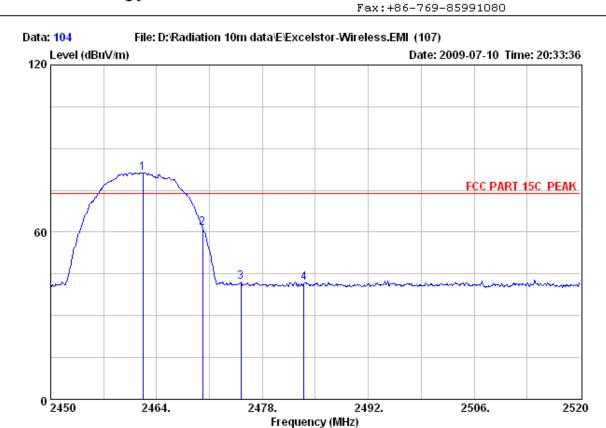
: WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

			Emission				Ant.	Cable	
		Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
		(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
-									
	1	2462.53	74.92	74.00	-0.92	41.13	31.56	2.23	Peak
	2	2472.75	54.28	74.00	19.72	20.47	31.58	2.23	Peak
	3	2478.98	41.69	74.00	32.31	7.88	31.58	2.23	Peak
	4	2483 50	40.78	74 00	33 22	6 97	31 58	2 23	Deeb

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Test Site : 10m Chamber

Limit : FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL

EUT : WSD M/N: WLSDAO6

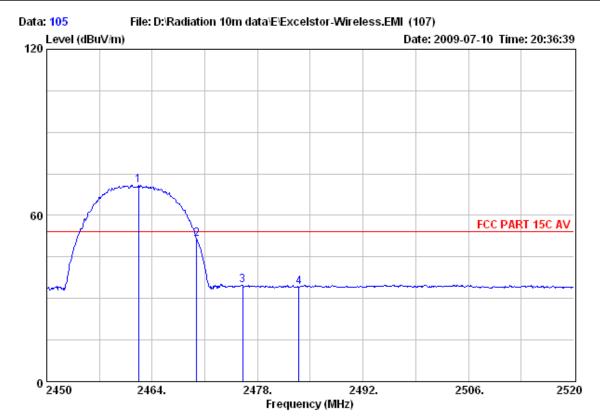
Power : DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

			Emission				Ant.	Cable	
		Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
		(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
-									
	1	2462.18	81.37	74.00	-7.37	47.58	31.56	2.23	Peak
	2	2470.09	61.52	74.00	12.48	27.73	31.56	2.23	Peak
	3	2475.13	42.25	74.00	31.75	8.44	31.58	2.23	Peak
	4	2483 50	41 66	74 00	32 34	7.85	31 58	2 23	Deak

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Fax:+86-769-85991080



Test Site : 10m Chamber : FCC PART 15C AV Limit

Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL

: WSD : WLSDAO6 M/N

Power : DC 5V From PC Input AC 120V/60Hz

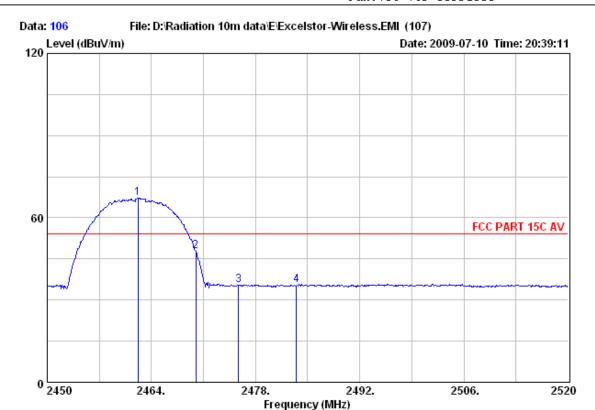
Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%
Test Mode : IEEE802.11b CH11 2462MHz Tx Mode

	Freq.	Emission Level (dBuV/m)	Limits (dBuV/m)	_	Reading (dBuV)		Cable Loss (dB)	Remark
1	2462.18	71.00	54.00	-17.00	37.21	31.56	2.23	Average
2	2469.88	51.57	54.00	2.43	17.78	31.56	2.23	Average
3	2476.04	34.81	54.00	19.19	1.00	31.58	2.23	Average
4	2483.50	34.09	54.00	19.91	0.28	31.58	2 23	Average

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Fax:+86-769-85991080



Test Site : 10m Chamber : FCC PART 15C AV Limit

Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL

: WSD EUT M/N : WLSDAO6

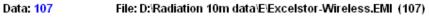
Power : DC 5V FROM PC INPUT AC 120V/60Hz

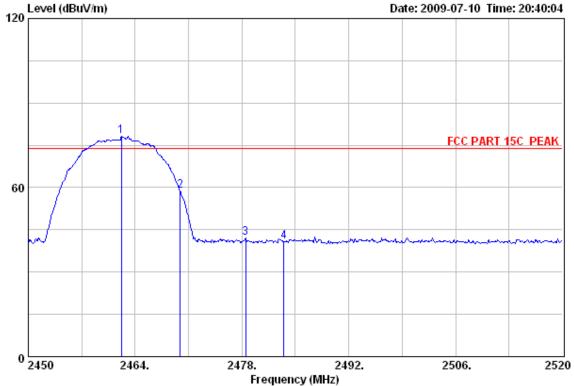
Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%
Test Mode : IEEE802.11b CH11 2462MHz Tx Mode

	Freq. (MHz)	Emission Level (dBuV/m)	Limits (dBuV/m)	_	Reading (dBuV)	Ant. Factor (dB/m)	Cable Loss (dB)	Remark
_	2462.18 2469.95	67.23 47.81	54.00 54.00	-13.23 6.19	33.44 14.02	31.56 31.56		Average Average
_	2475.69 2483.50	35.44 35.31	54.00 54.00	18.56 18.69	1.63 1.50	31.58 31.58	2.23	Average Average

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Test Site : 10m Chamber

: FCC PART 15C PEAK Limit

Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL

: WSD EUT : WLSDAO6 M/N

: DC 5V From PC Input AC 120V/60Hz Power

Test Engineer : Jacky

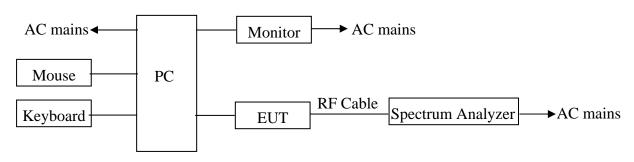
			Emission				Ant.	Cable	
		Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
		(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
-									
	1	2462.18	78.07	74.00	-4.07	44.28	31.56	2.23	Peak
	2	2469.88	58.86	74.00	15.14	25.07	31.56	2.23	Peak
	3	2478.49	42.07	74.00	31.93	8.26	31.58	2.23	Peak
	4	2483.50	40.80	74.00	33.20	6.99	31.58	2.23	Peak

4.5. POWER SPECTRAL DENSITY TEST

4.5.1. Test procedure

- 1. Connect EUT RF output port to the spectrum analyzer through an RF attenuator.
- 2. Set the EUT work on the IEEE802.11b / g CH1, CH6, CH11 individually.
- 3. The power density was measured by spectrum analyzer with 3 KHz RBW and 100KHz VBW, sweep time=100s
- 4. Set SPA trace max hold, then view.

4.5.2. Test setup diagram



4.5.3. Test result

PASS.

Test mode: IEEE 802.11b TX

Test CH	Read(PK) (dBm/ 3KHz)	Cable loss(dB)	Result (dBm/3KH z)	Limit (dBm/3K Hz)	Conclusion
1	-18.02	0.6	-17.42	8	PASS
6	-17.83	0.6	-17.23	8	PASS
11	-16.57	0.6	-15.97	8	PASS

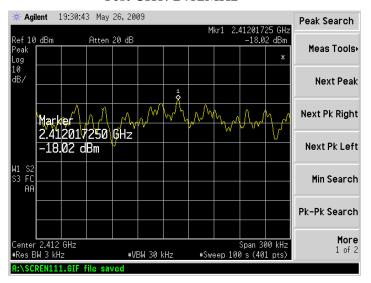
Test mode: IEEE 802.11g TX

Test CH	Read (dBm/ 3KHz)	Cable loss(dB)	Result (dBm)	Limit (dBm)	Conclusion
1	-20.48	0.6	-19.88	8	PASS
6	-19.9	0.6	-19.3	8	PASS
11	-20.01	0.6	-19.41	8	PASS

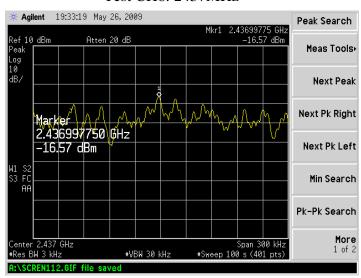
The test plots as following:

Test Mode: IEEE 802.11b TX

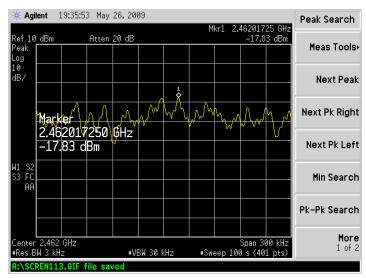
Test CH1: 2412MHz



Test CH6: 2437MHz

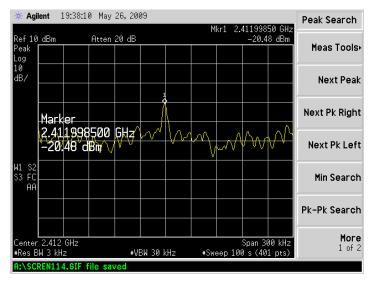


Test CH11: 2462MHz

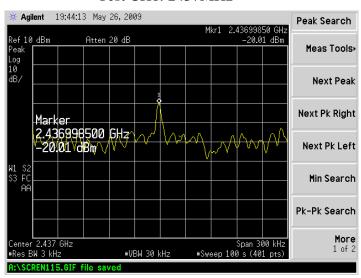


Test Mode: IEEE 802.11g TX

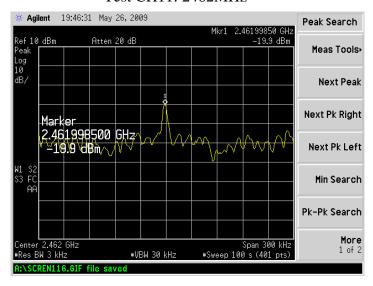
Test CH1: 2412MHz



Test CH6: 2437MHz



Test CH11: 2462MHz



4.6.MPE ESTIMATION

4.6.1. Limit for General Population / Uncontrolled Exposures

Frequency	Power density (mW/cm²)	Averaging time (minutes)
300MHz~1.5GHz	F/1500	30
1.5GHz~100GHz	1.0	30

Frequency (MHz)	Power density (mW/cm²)	Averaging time (minutes)
2412	1	30
2437	1	30
2462	1	30

Note: F = Frequency in MHz

4.6.2. Estimation Result

IEEE 802.11b Mode

Channel	Frequency(MHz)	Peak output	antenna	antenna gain
		power(dBm)	gain(dBi)	(Linear)
1	2412	5.17	3	2
6	2437	4.137	3	2
11	2462	4.101	3	2

Channel	Frequency(MHz)	Peak output power to antenna	Power density at
		(mW)	20cm(mW/ cm ₂)
1	2412	3.29	0.00131
6	2437	2.59	0.00103
11	2462	2.57	0.00102

IEEE 802.11g Mode

Channel	Frequency(MHz)	Peak output power(dBm)	antenna gain(dBi)	antenna gain (Linear)
1	2412	-1.625	3	2
6	2437	-2.243	3	2
11	2462	-1.918	3	2

Channel	Frequency(MHz)	Peak output power to antenna (mW)	Power density at 20cm(mW/ cm ²)
1	2412	0.70	0.00027
6	2437	0.60	0.00024
11	2462	0.64	0.00025

4.6.3.MPE Calculation Method

 $E(V/m)=(30*P*G)^{0.5}/d$

E=Electric Field(V/m)

P=Peak RF output Power (W)

G=EUT Antenna numeric gain (numeric)

d=Separation distance between radiator and human body (m)

4.7. ANTENNA REQUIREMENT

4.7.1. 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.

4.7.2. ANTENNA CONNECTED CONSTRUCTION

The antenna used for this product is designed 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 3dBi.

4.7.3. DEVIATION TO TEST SPECIFICATIONS

[NONE]

FCC ID: XEIWSD09A1

4.8. Radiated Emission

4.8.1. Test limits

- 1) FCC part 15C section 15.209
- 2) FCC part 15C section 15.247(d)

4.8.2. 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 (calibrated by dipole 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.

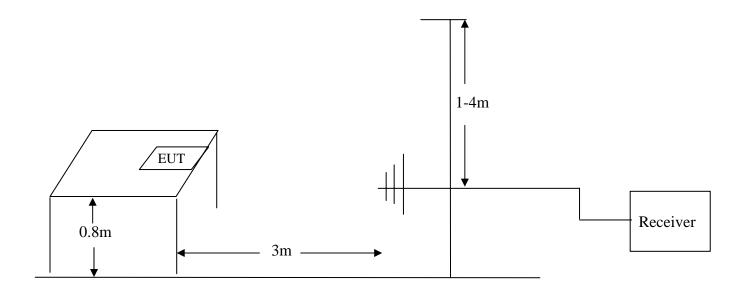
For Average measurement at frequency above 1GHz. The resolution bandwidth of the test receiver was 1MHz; due to the shortest pulse width T is 116us, according the video bandwidth should not smaller than 1/T, so the video bandwidth is 10Hz.

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

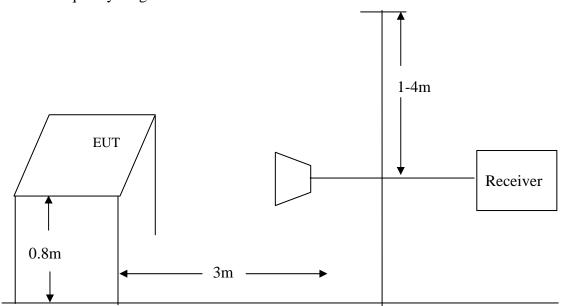
The EUT was tested in Chamber Site.

4.8.3. Test Setup Diagram

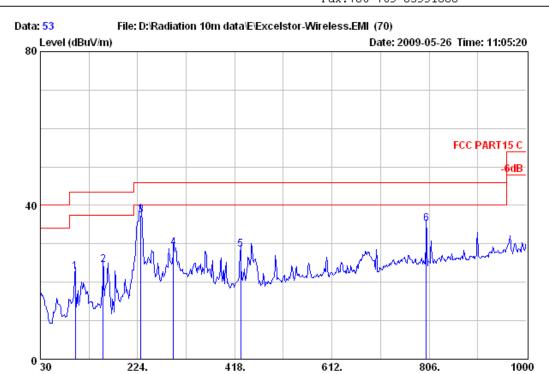
Frequency range: 30MHz-1000MHz



Frequency range: 1 GHz -18GHz



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Frequency (MHz)

Test Site : 10m Chamber Limit : FCC PART15 C

Dis. / Ant. : 3m 25758-3 Ant. Pol.: HORIZONTAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

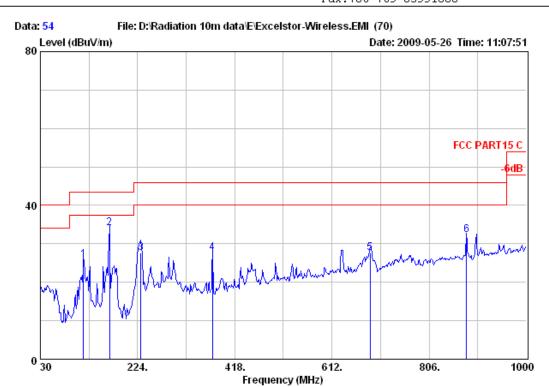
Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%

Test Mode : Tx Mode

		Emission				Ant.	Cable	
	Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
1	99.84	22.76	43.50	20.74	11.30	10.40	1.06	QP
2	155.13	24.58	43.50	18.92	12.10	11.15	1.33	QP
3	230.79	37.51	46.00	8.49	25.70	10.17	1.64	QP
4	295.78	28.89	46.00	17.11	13.60	13.42	1.87	QP
5	429.64	28.49	46.00	17.51	9.00	17.25	2.24	QP
6	800.18	35.17	46.00	10.83	9.40	22.60	3.17	QP

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Test Site : 10m Chamber Limit : FCC PART15 C

Dis. / Ant. : 3m 25758-3 Ant. Pol.: VERTICAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

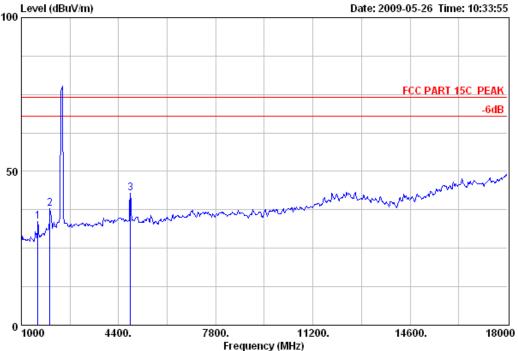
Comment : Temp.:25.2'C Humi.:56%

Test Mode : Tx Mode

		Emission				Ant.	Cable	
	Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
1	116.33	25.74	43.50	17.76	13.00	11.62	1.12	QP
2	167.74	34.18	43.50	9.32	22.70	10.08	1.40	QP
3	230.79	27.61	46.00	18.39	15.80	10.17	1.64	QP
4	373.38	27.62	46.00	18.38	9.90	15.63	2.09	QP
5	688.63	27.61	46.00	18.39	3.60	21.10	2.91	QP
6	880.69	32.23	46.00	13.77	5.30	23.61	3.32	QP

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Data: 44 File: D:\Radiation 10m data\E\Excelstor-Wireless.EMI (68)



Test Site : 10m Chamber

Limit : FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

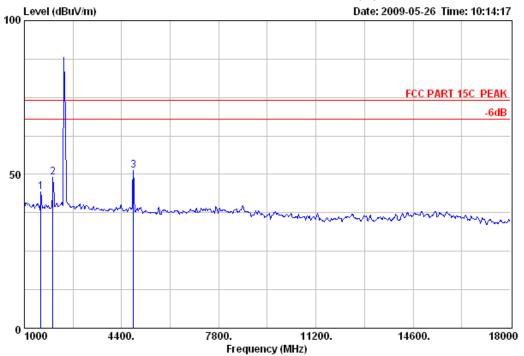
Comment : Temp.:25.2'C Humi.:56%

Test Mode : IEEE802.11g CH1 2412MHz Tx Mode

			Emission				Ant.	Cable	
		Freq.	Level (dBuV/m)	Limits (dBuV/m)	_	_		Loss (dB)	Remark
_	1	1578.00	33.78	74.00	40.22	44.56	28.20	2.16	Peak
	2	2003.00	37.91	74.00	36.09	45.33	31.10	2.20	Peak
	3	4808.00	42.98	74.00	31.02	46.82	34.58	2.38	Peak

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Data: 33 File: D:\Radiation 10m data\E\Excelstor-Wireless.EMI (68)



Test Site : 10m Chamber

Limit : FCC PART 15C PEAK Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL

: WSD EUT M/N : WLSDAO6

: DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

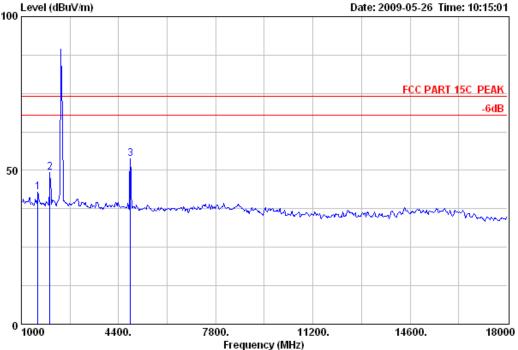
Comment : Temp.:25.2'C Humi.:56%

Test Mode : IEEE802.11b CH1 2412MHz Tx Mode

	Emission				Ant.	Cable	
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	_	_			Remark
1 1578.00	44.30	74.00	29.70	55.08	28.20	2.16	Peak
2 2003.00	49.03	74.00	24.97	56.45	31.10	2.20	Peak
3 4808.00	51.32	74.00	22.68	55.16	34.58	2.38	Peak

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Data: 34 File: D:\Radiation 10m data\E\Excelstor-Wireless.EMI (68) Level (dBuV/m)



Test Site : 10m Chamber

Ant. Pol.: HORIZONTAL

Limit : FCC PART 15C PEAK
Dis. / Ant. : 3m 3117
EUT : WSD M/N : WLSDAO6

: DC 5V From PC Input AC 120V/60Hz

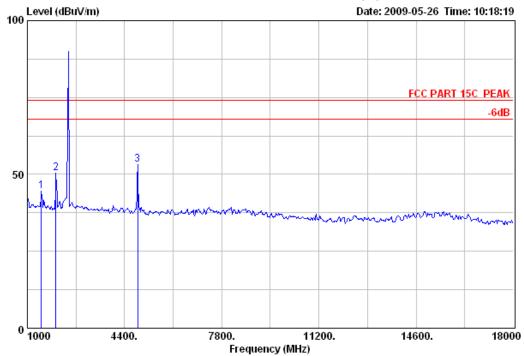
Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56% Test Mode : IEEE802.11b CH1 2412MHz Test Mode : IEEE802.11b CH1 2412MHz Tx Mode

			Emission				Ant.	Cable	
		Freq.	Level (dBuV/m)	Limits (dBuV/m)	_	_		Loss (dB)	Remark
_	1	1578.00	43.00	74.00	31.00	53.78	28.20	2.16	Peak
	2	2003.00	49.22	74.00	24.78	56.64	31.10	2.20	Peak
	3	4808.00	53 - 62	74.00	20.38	57.46	34.58	2.38	Peak

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Data: 35 File: D:\Radiation 10m data\E\Excelstor-Wireless.EMI (68)



Test Site : 10m Chamber

Ant. Pol.: HORIZONTAL

Limit : FCC PART 15C PEAK
Dis. / Ant. : 3m 3117
EUT : WSD M/N : WLSDAO6

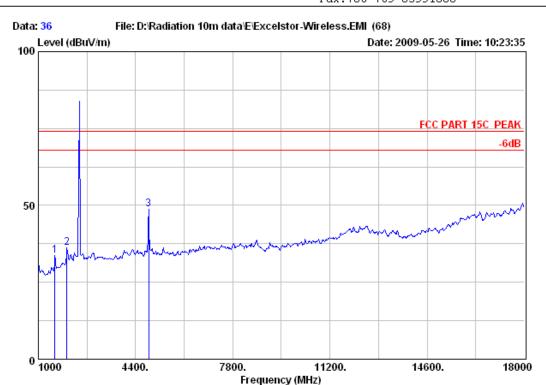
: DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56% Test Mode : IEEE802.11b CH6 2437MHz Test Mode : IEEE802.11b CH6 2437MHz Tx Mode

	Emission				Ant.	Cable	
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	_	_			Remark
1 1493.00	44.57	74.00	29.43	55.94	27.70	2.15	Peak
2 2003.00	50.29	74.00	23.71		31.10		Peak
3 4859.00	53.18	74.00	20.82	57.00	34.61	2.38	Peak

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Test Site : 10m Chamber

Limit : FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

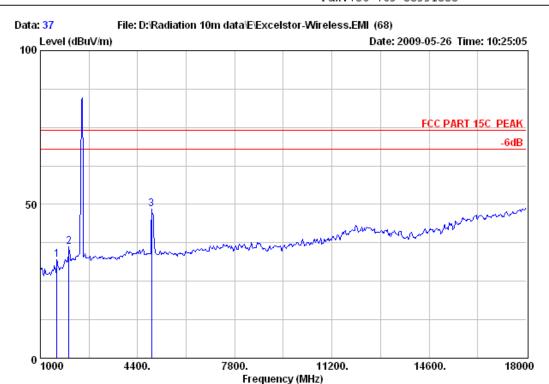
Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%

Test Mode : IEEE802.11b CH6 2437MHz Tx Mode

			Emission				Ant.	Cable	
		Freq.	Level (dBuV/m)	Limits (dBuV/m)	_	_		Loss (dB)	Remark
_	1	1578.00	33.84	74.00	40.16	44.62	28.20	2.16	Peak
	2	2003.00	36.10	74.00	37.90	43.52	31.10	2.20	Peak
	3	4859.00	48.73	74.00	25.27	52.55	34.61	2.38	Peak

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Test Site : 10m Chamber

Limit : FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

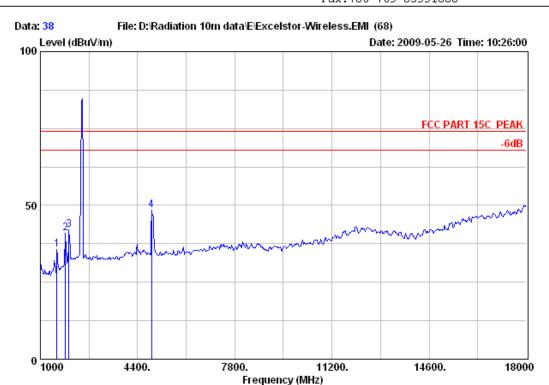
Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%

Test Mode : IEEE802.11b CH11 2462MHz Tx Mode

		Freq.	Emission Level (dBuV/m)	Limits (dBuV/m)	_	_		Cable Loss (dB)	Remark
_	_	1578.00	32.08	74.00	41.92	42.86	28.20		Peak
	_	2003.00 4893.00	36.08 48.37	74.00 74.00	37.92 25.63	43.50 52.18	31.10 34.63		Peak Peak

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Test Site : 10m Chamber

Limit : FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

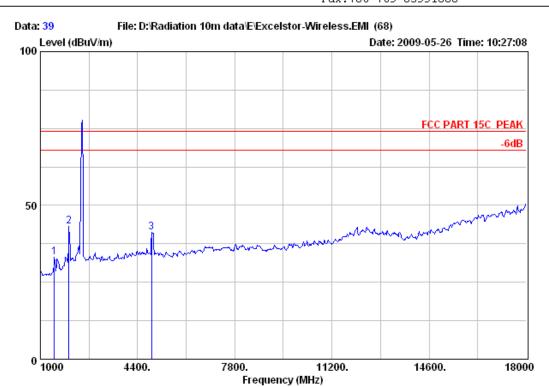
Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%

Test Mode : IEEE802.11b CH11 2462MHz Tx Mode

		Emission				Ant.	Cable	
	Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
1	1578.00	35.74	74.00	38.26	46.52	28.20	2.16	Peak
2	1884.00	40.94	74.00	33.06	49.24	30.34	2.19	Peak
3	2003.00	42.05	74.00	31.95	49.47	31.10	2.20	Peak
4	4893.00	48.37	74.00	25.63	52.18	34.63	2.38	Peak

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Test Site : 10m Chamber

Limit : FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

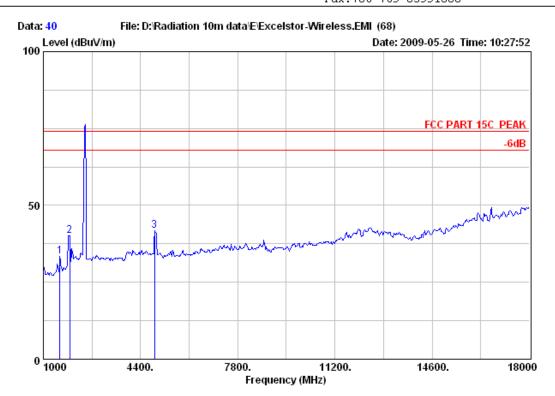
Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%

Test Mode : IEEE802.11g CH11 2462MHz Tx Mode

	Emission				Ant.	Cable	
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	_	_			Remark
1 1493.00	33.14	74.00	40.86	44.51	27.70	2.15	Peak
2 2003.00		74.00	30.73	50.69	31.10		Peak
3 4893.00	41.11	74.00	32.89	44.92	34.63	2.38	Peak

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Test Site : 10m Chamber

Limit : FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%

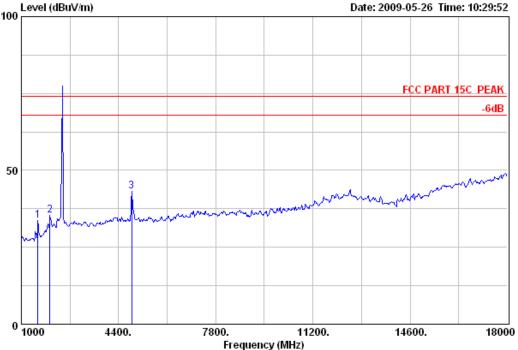
Test Mode : IEEE802.11g CH11 2462MHz Tx Mode

		Freq.	Emission Level (dBuV/m)	Limits (dBuV/m)	_	_		Cable Loss (dB)	Remark
_	_	1578.00	33.53	74.00	40.47	44.31	28.20		Peak
	_	1918.00 4893.00	40.21 41.80	74.00 74.00	33.79 32.20	48.35 45.61	30.47 34.63		Peak Peak

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Data: 41 File: D:\Radiation 10m data\E\Excelstor-Wireless.EMI (68)

Level (dBuV/m) Date:



Test Site : 10m Chamber

Limit : FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: VERTICAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

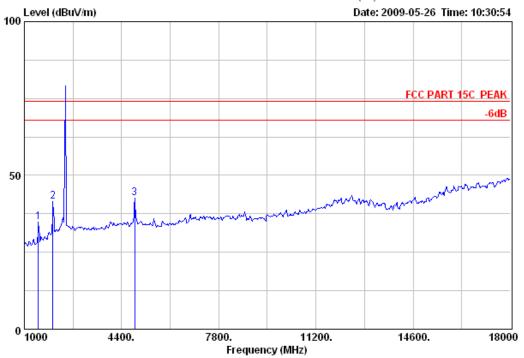
Comment : Temp.:25.2'C Humi.:56%

Test Mode : IEEE802.11g CH6 2437MHz Tx Mode

		Emissio:	n			Ant.	Cable	
Fr∈ (MH			Limits) (dBuV/m)	_	_			Remark
1 1578.	00	33.67	74.00	40.33	44.45	28.20	2.16	Peak
2 2003.	00	35.37	74.00	38.63	42.79	31.10	2.20	Peak
3 4859.	nn	43.28	74.00	30.72	47.10	34.61	2.38	Peak

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Data: 42 File: D:\Radiation 10m data\E\Excelstor-Wireless.EMI (68)



Test Site : 10m Chamber

Limit : FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

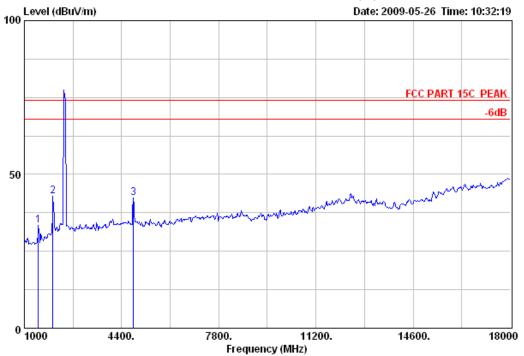
Comment : Temp.:25.2'C Humi.:56%

Test Mode : IEEE802.11g CH6 2437MHz Tx Mode

	Emission				Ant.	Cable	
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	_	_			Remark
1 1493.00	34.68	74.00	39.32	46.05	27.70	2.15	Peak
2 2003.00	41.39	74.00	32.61	48.81	31.10		Peak
3 4859.00	42.58	74.00	31.42	46.40	34.61	2.38	Peak

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Data: 43 File: D:\Radiation 10m data\E\Excelstor-Wireless.EMI (68)



Test Site : 10m Chamber

Limit : FCC PART 15C PEAK

Dis. / Ant. : 3m 3117 Ant. Pol.: HORIZONTAL

EUT : WSD M/N : WLSDAO6

Power : DC 5V From PC Input AC 120V/60Hz

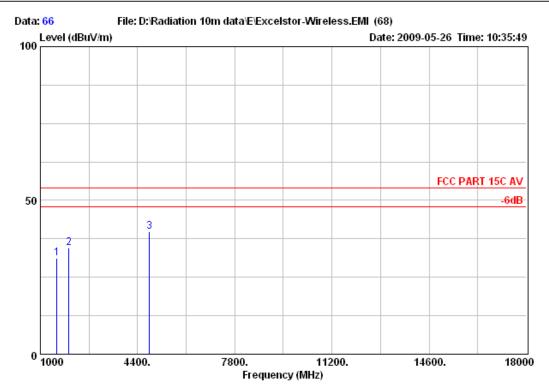
Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%

Test Mode : IEEE802.11g CH1 2412MHz Tx Mode

	Emission				Ant.	Cable	
Freq. (MHz)	Level (dBuV/m)	Limits (dBuV/m)	_	_			Remark
1 1493.00	33.44	74.00	40.56	44.81	27.70	2.15	Peak
2 2003.00	42.87	74.00	31.13	50.29	31.10		Peak
3 4808.00	42.28	74.00	31.72	46.12	34.58	2.38	Peak

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Test Site : 10m Chamber

Ant. Pol.: VERTICAL

: WLSDAO6 M/N

: DC 5V From PC Input AC 120V/60Hz

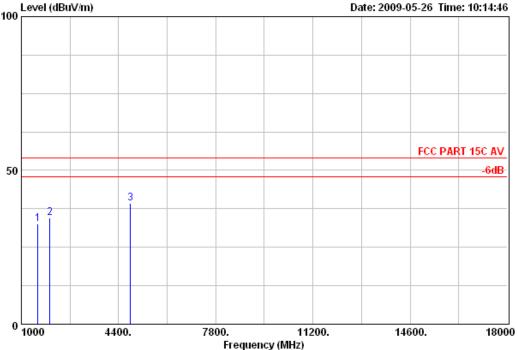
Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%
Test Mode : IEEE802.11g CH1 2412MHz : IEEE802.11g CH1 2412MHz Tx Mode Test Mode

	Cable	Ant.				${\tt Emission}$		
Remark	Loss (dB)	Factor (dB/m)	Reading (dBuV)	_		Level (dBuV/m)	Freq. (MHz)	
Average	2.16	28.20	0.70	22.94	54.00	31.06	1578.00	1
Average	2.20	31.10	1.30	19.40	54.00	34.60	2003.00	2
Average	2.38	34.58	2.99	14.05	54.00	39.95	4808.00	3

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Data: 55 File: D:\Radiation 10m data\E\Excelstor-Wireless.EMI (68) Level (dBuV/m)



Test Site : 10m Chamber

Ant. Pol.: VERTICAL

: WLSDAO6 M/N

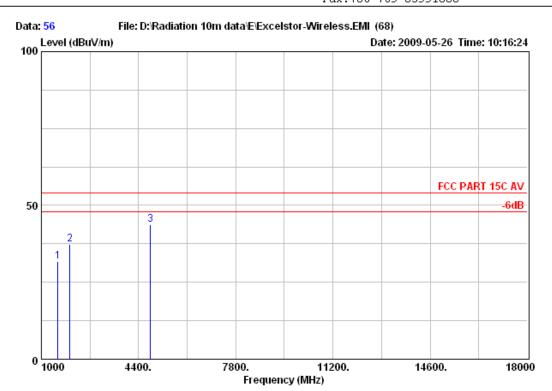
: DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56% Test Mode : IEEE802.11b CH1 2412MHz : IEEE802.11b CH1 2412MHz Tx Mode Test Mode

	Cable	Ant.				${\tt Emission}$		
Remark	Loss (dB)	Factor (dB/m)	Reading (dBuV)	_		Level (dBuV/m)	Freq. (MHz)	
	0.46						4570.00	
Average	2.16	28.20	2.30	21.34	54.00	32.66	1578.00	1
Average	2.20	31.10	1.20	19.50	54.00	34.50	2003.00	2
Average	2.38	34.58	2.39	14.65	54.00	39.35	4808.00	3

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Test Site : 10m Chamber

Ant. Pol.: HORIZONTAL

: WLSDAO6 M/N

: DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56% Test Mode : IEEE802.11b CH1 2412MHz : IEEE802.11b CH1 2412MHz Tx Mode Test Mode

	Cable	Ant.				Emission		
Remark	Loss (dB)	Factor (dB/m)	Reading (dBuV)	_		Level (dBuV/m)	Freq. (MHz)	
Average	2.16	28.20	1.40	22.24	54.00	31.76	1578.00	1
Average	2.20	31.10	3.90	16.80	54.00	37.20	2003.00	2
Average	2.38	34.58	6.69	10.35	54.00	43.65	4808.00	3

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14600.

18000



Test Site : 10m Chamber

Ant. Pol.: HORIZONTAL

7800.

Frequency (MHz)

11200.

: WLSDAO6 M/N

: DC 5V From PC Input AC 120V/60Hz

4400.

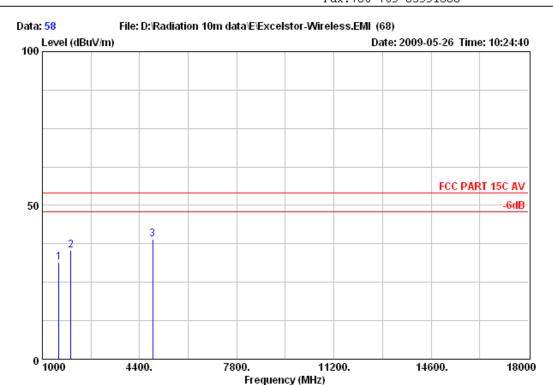
Test Engineer : Jacky

0 1000

Comment : Temp.:25.2'C Humi.:56% Test Mode : IEEE802.11b CH6 2437MHz : IEEE802.11b CH6 2437MHz Tx Mode Test Mode

			Emission				Ant.	Cable	
		Freq. (MHz)	Level (dBuV/m)		_	Reading (dBuV)	Factor (dB/m)	Loss (dB)	Remark
_									
	1	1493.00	30.95	54.00	23.05	1.10	27.70	2.15	Average
	2	2003.00	36.70	54.00	17.30	3.40	31.10	2.20	Average
	3	4859.00	38.09	54.00	15.91	1.10	34.61	2.38	Average

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Test Site : 10m Chamber

Ant. Pol.: VERTICAL

: WLSDAO6 M/N

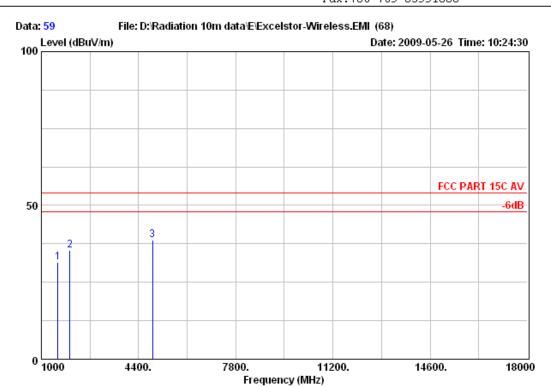
: DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56% Test Mode : IEEE802.11b CH6 2437MHz Test Mode : IEEE802.11b CH6 2437MHz Tx Mode

	Cable	Ant.				Emission		
Remark	Loss (dB)	Factor (dB/m)	Reading (dBuV)	_		Level (dBuV/m)	Freq. (MHz)	
Average	2.16	28.20	1.20	22.44	54.00	31.56	1578.00	1
Average	2.20	31.10	2.10	18.60	54.00	35.40	2003.00	2
Average	2.38	34.61	2.00	15.01	54.00	38.99	4859.00	3

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Test Site : 10m Chamber

Ant. Pol.: VERTICAL

M/N : WLSDAO6

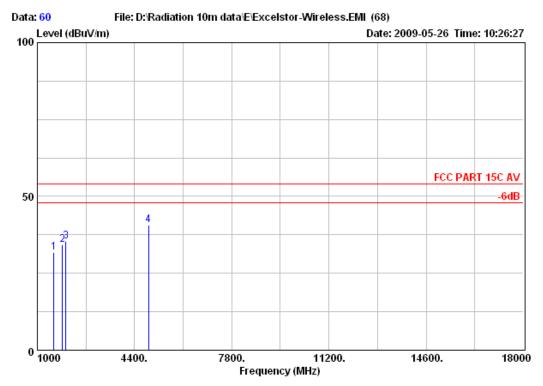
: DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%
Test Mode : IEEE802.11b CH11 2462MH: : IEEE802.11b CH11 2462MHz Tx Mode Test Mode

Freq. (MHz)	Emission Level (dBuV/m)	Limits (dBuV/m)	_	Reading (dBuV)	Ant. Factor (dB/m)	Cable Loss (dB)	Remark
1 1578.00	31.56	54.00	22.44	1.20	28.20	2.16	Average
2 2003.00	35.30	54.00	18.70	2.00	31.10	2.20	Average
3 4893.00	38.81	54.00	15.19	1.80	34.63	2.38	Average

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Test Site : 10m Chamber Limit : FCC PART 15C AV Dis. / Ant. : 3m 3117

Ant. Pol.: HORIZONTAL

: WSD EUT : WLSDAO6 M/N

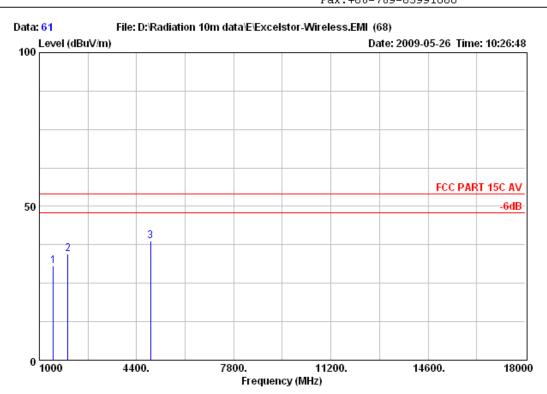
: DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%
Test Mode : IEEE802.11b CH11 2462MH: : IEEE802.11b CH11 2462MHz Tx Mode Test Mode

		Emission				Ant.	Cable	
	Freq.	Level	Limits	Margin	Reading	Factor	Loss	Remark
	(MHz)	(dBuV/m)	(dBuV/m)	(dB)	(dBuV)	(dB/m)	(dB)	
1	1578.00	31.76	54.00	22.24	1.40	28.20	2.16	Average
2	1884.00	34.23	54.00	19.77	1.70	30.34	2.19	Average
3	2003.00	35.50	54.00	18.50	2.20	31.10	2.20	Average
4	4893.00	40.61	54.00	13.39	3.60	34.63	2.38	Average

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Test Site : 10m Chamber Limit : FCC PART 15C AV
Dis. / Ant. : 3m 3117
EUT : WSD

Ant. Pol.: HORIZONTAL

: WLSDAO6 M/N

: DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%
Test Mode : IEEE802.11g CH11 2462MH: : IEEE802.11g CH11 2462MHz Tx Mode Test Mode

	Cable	Ant.				Emission		
Remark	Loss (dB)	Factor (dB/m)	Reading (dBuV)	_		Level (dBuV/m)	Freq. (MHz)	
Average	2.15	27.70	0.90	23.25	54.00	30.75	1493.00	1
Average	2.20	31.10	1.20	19.50	54.00	34.50	2003.00	2
Average	2.38	34.63	1.80	15.19	54.00	38.81	4893.00	3

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14600.

18000



Test Site : 10m Chamber Limit : FCC PART 15C AV
Dis. / Ant. : 3m 3117
EUT : WSD

Ant. Pol.: VERTICAL

7800.

Frequency (MHz)

11200.

M/N : WLSDAO6

: DC 5V From PC Input AC 120V/60Hz

4400.

Test Engineer : Jacky

0 1000

Comment : Temp.:25.2'C Humi.:56%
Test Mode : IEEE802.11g CH11 2462MH: : IEEE802.11g CH11 2462MHz Tx Mode Test Mode

Fre			_	n Reading (dBuV)		Cable Loss (dB)	Remark
1 1578 2 1918 3 4893	.00 35.0	6 54.00	22.64 18.94 14.29	1.00 2.40 2.70	28.20 30.47 34.63	2.16 2.19 2.38	Average Average Average

FCC PART 15C AV

18000

14600.

NS Technology

50

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Data: 63 File: D:\Radiation 10m data\E\Excelstor-Wireless.EMI (68) Level (dBuV/m) Date: 2009-05-26 Time: 10:30:27

Test Site : 10m Chamber Limit : FCC PART 15C AV
Dis. / Ant. : 3m 3117
EUT : WSD

Ant. Pol.: VERTICAL

7800.

Frequency (MHz)

11200.

M/N : WLSDAO6

: DC 5V From PC Input AC 120V/60Hz

4400.

3

Test Engineer : Jacky

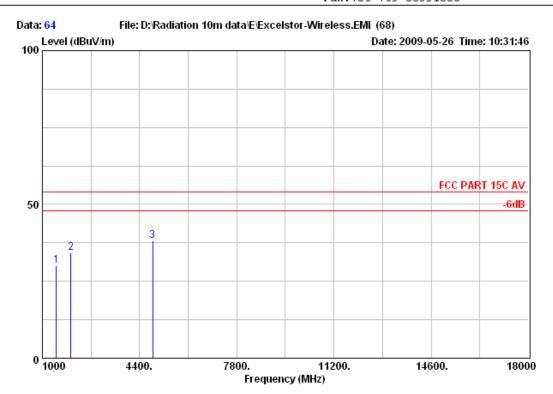
0 1000

Comment : Temp.:25.2'C Humi.:56%
Test Mode : IEEE802.11g CH6 2437MHz

: IEEE802.11g CH6 2437MHz Tx Mode Test Mode

Freq. (MHz)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reading (dBuV)	Ant. Factor (dB/m)	Cable Loss (dB)	Remark
1 1578.00	30.86	54.00	23.14	0.50	28.20	2.16	Average
2 2003.00	34.20	54.00	19.80	0.90	31.10	2.20	Average
3 4859.00	38.09	54.00	15.91	1.10	34.61	2.38	Average

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Test Site : 10m Chamber

Ant. Pol.: HORIZONTAL

: WLSDAO6 M/N

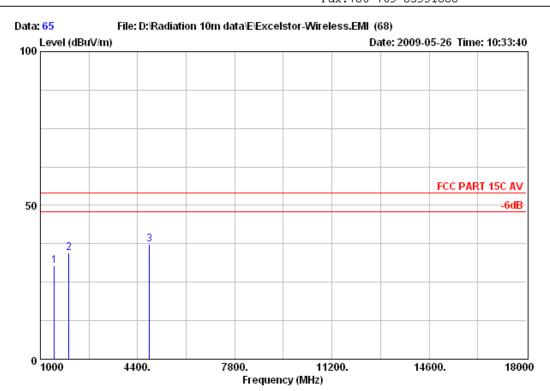
: DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%
Test Mode : IEEE802.11g CH6 2437MHz : IEEE802.11g CH6 2437MHz Tx Mode Test Mode

	Cable	Ant.				Emission		
Remark	Loss (dB)	Factor (dB/m)	Reading (dBuV)	_	Limits (dBuV/m)	Level (dBuV/m)	Freq. (MHz)	
Average	2.15	27.70	0.30	23.85	54.00	30.15	1493.00	1
Average	2.20	31.10	0.90	19.80	54.00	34.20	2003.00	2
Average	2.38	34.61	1.30	15.71	54.00	38.29	4859.00	3

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Test Site : 10m Chamber Limit : FCC PART 15C AV
Dis. / Ant. : 3m 3117
EUT : WSD

Ant. Pol.: HORIZONTAL

M/N : WLSDAO6

: DC 5V From PC Input AC 120V/60Hz

Test Engineer : Jacky

Comment : Temp.:25.2'C Humi.:56%
Test Mode : IEEE802.11g CH1 2412MHz : IEEE802.11g CH1 2412MHz Tx Mode Test Mode

			Emission				Ant.	Cable	
		Freq. (MHz)	Level (dBuV/m)		_	Reading (dBuV)	Factor (dB/m)	Loss (dB)	Remark
-									
	1	1493.00	30.35	54.00	23.65	0.50	27.70	2.15	Average
	2	2003.00	34.60	54.00	19.40	1.30	31.10	2.20	Average
	3	4808.00	37.45	54.00	16.55	0.49	34.58	2.38	Average