FCC / IC TEST REPORT

for

47 CFR Part 15 Subpart C and RSS-210

Equipment : 802.11a/b/g WLAN Radio Port-220

Trade Name : HP (Hewlett Packard) ProCurve

Model No. : RSVLC-0505

FCC ID : B94RSVLC-0505

IC ID : 466F-RSVLC505

Filing Type : Certification

Applicant : Hewlett-Packard ProCurve Networking
8000 Foothills Boulevard Roseville, CA 95747-5502
USA

- The test result refers exclusively to the test presented test model / sample.
- Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.
- **Certificate or Test Report must not be used by the applicant to claim the product in this test report endorsement by NVLAP or any agency of U.S. government.**
- The data shown in this test report were carried out on Nov. 18, 2005 at **Sporton International Inc. LAB.**
- Report No.: FR621618C, Report Version: Rev. 01.

Dr. Daniel Lee
SAR / EMC Director

SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

Table of Contents

History of this test report ..... **ii**
1. General Description of Equipment under Test **1**
1.1. Applicant 1
1.2 Manufacturer 1
1.3 Basic Description of Equipment under Test 1
1.4 Feature of Equipment under Test 2
1.5 Antenna List 2
1.6 Power Table 2
2 Test Configuration of Equipment under Test **3**
2.1 Test Manner 3
2.2 Description of Test System 3
2.3 Connection Diagram of Test System 4
3 Operation of Equipment under Test **5**
4 General Information of Test **6**
4.1 Test Voltage 6
4.2 Standard for Methods of Measurement 6
4.3 Test in Compliance with 6
4.4 Frequency Range Investigated 6
4.5 Test Distance 6
5 Report of Measurements and Examinations **7**
5.1 List of Measurements and Examinations 7
5.2 6dB Bandwidth 8
5.3 Power Spectral Density 14
5.4 Band Edges Measurement 21
5.5 Peak Output Power 25
6. Test of Conducted Emission **26**
6.1. Test Procedures 26
6.2. Test Data 27
7. Test of Radiated Emission **29**
7.1. Test Procedures 29
7.2. Typical Test Setup Layout of Radiated Emission 29
7.3. Test Data 30
8. Antenna Requirements **42**
8.1. Standard Applicable 42
8.2. Antenna Connected Construction 42
8.3. Antenna Gain 42
9. List of Measuring Equipments Used **43**
10. Uncertainty Measurement **44**
Appendix A. Photographs of EUT External
Appendix B. Photographs of EUT Internal
Appendix C. Photographs of Setup

History of this test report

Report Issue Date: Feb. 20, 2006

Report No.	Description

1. General Description of Equipment under Test

1.1. Applicant

Hewlett-Packard ProCurve Networking
8000 Foothills Boulevard Roseville, CA 95747-5502 USA

1.2 Manufacturer

Universal Scientific Industrial Co., Ltd.
140, Lane 351, Taiping Road, Sec. 1, Tsao, Tuen, Nan_Tou, Taiwan

1.3 Basic Description of Equipment under Test

Equipment	: 802.11a/b/g WLAN Radio Port-220
Trade Name	: HP (Hewlett Packard) ProCurve
Model No.	: RSVLC-0505
FCC ID	: B94RSVLC-0505
IC ID	: 466F-RSVLC505
Power Supply Type	: PoE

1.4 Feature of Equipment under Test

Product Feature & Specification				
1. Host/Radio Interface	802.11a/b/g WLAN Radio Port-220			
2. Housing Type	Metallic housing for RSLVC-0505			
3. Modulation Type/Data Rate	OFDM:54/48/36/24/18/12/9/6Mbps CCK:11/5Mbps DQPSK:2Mbps DBPSK:1Mbps			
4. Freq.Range/Carrier Freqs.	2400~2483.5MHz; 5725~5850MHz (Band III)			
5. Number o f Channels	802.11g/b: 11 Ch 802.11a: 5Ch(5725~5850MHz)			
6. Carrier Frequency of each channel	802.11g/b: 2412+ (m-1)*5, m=1~11 802.11a: 5000+n*5 MHz, n=149,153,157,161,165			
7. Channel Spacing	802.11g/b: 5MHz 802.11a: 20MHz			
8. Maximum Output Power to Antenna (Normal condition)	Refer to power table 1.6			
9. Type of Antenna Connector	Refer to Antenna list 1.5			
10. Antenna Type				
11. Antenna Gain				
12. Function Type	Transmitter		Transceiver	V
13. Power Rating (DC/AC , Voltage)	Power Over Ethernet (48V)			
14. Duty Cycle	100%			

1.5 Antenna List

Antenna Type	Model Name	Net Gain (dBi)	Frequency Range (GHz)	Application	Housing Type	Connector Type
Panel	J8999A	6.9 / 7.7	2.4 ~ 2.5/ 5.15 ~ 5.825	11b/g; 11 a band I/II/III	Metallic	RP-SMA MALE

1.6 Power Table

802.11b	802.11g	802.11a/band 1	802.11a/band 2	802.11a/band 3
17.63 dBm	19.76 dBm	15.08 dBm	21.67 dBm	19.01 dBm

2 Test Configuration of Equipment under Test

2.1 Test Manner

a. The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

b. The complete test system refers to section 2.2 and EUT for EMI test.

c. The following test modes were tested for conduction test:

Mode 1: Ping mode

d. Radiation test refer to Test Matrix:

Mode Ref. No.	1	2	3	4	5	6	7	8	9
Mode Name	802.11b Tx Ch1	802.11b Tx Ch6	802.11b Tx Ch11	802.11g Tx Ch1	802.11g Tx Ch6	802.11g Tx Ch11	802.11a Tx Ch149	802.11a Tx Ch157	802.11a Tx Ch165

e. Conducted test refer to Test Matrix:

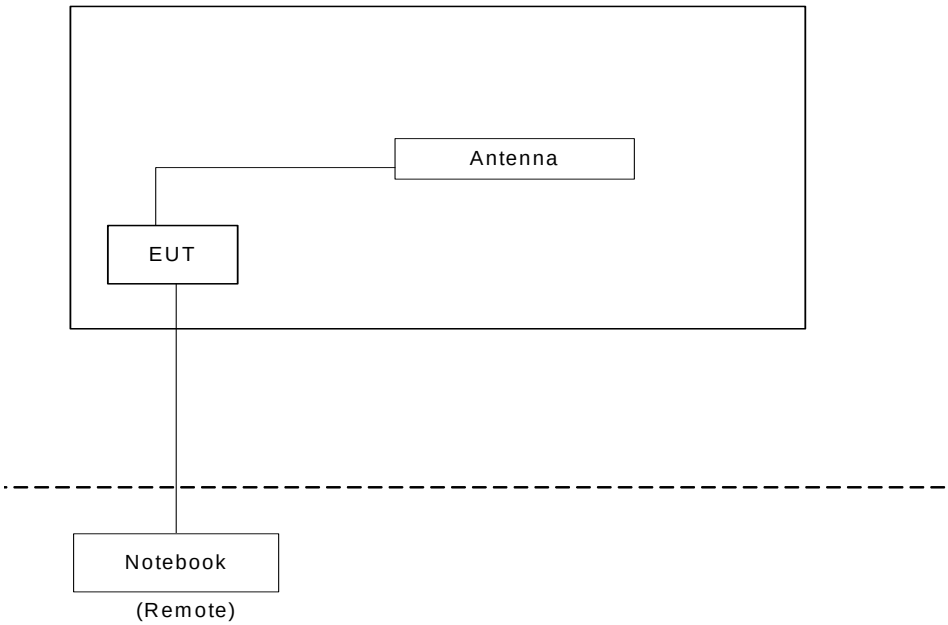
Mode Ref. No.	1	2	3	4	5	6	7	8	9
Mode Name	802.11b Tx Ch1	802.11b Tx Ch6	802.11b Tx Ch11	802.11g Tx Ch1	802.11g Tx Ch6	802.11g Tx Ch11	802.11a Tx Ch149	802.11a Tx Ch157	802.11a Tx Ch165

f. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz for 802.11b/g and 30MHz to 40GHz for 802.11a.

2.2 Description of Test System

Item	Asset	Model Name	Power Cord
1.	Notebook (DELL)	D400	N/A
2.	UTP Cable	N/A	Non-shielded, 13m

2.3 Connection Diagram of Test System



3 Operation of Equipment under Test

During the test, the following programs on WINXP were executed:
one self test program ”WinLEO Version 00.33” to keep transmitting signals.

4 General Information of Test

Test Site Location	:	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-318-0055
Test Site No	:	CO01-HY, 03CH06-HY

4.1 Test Voltage

110V/ 60Hz

4.2 Standard for Methods of Measurement

ANSI C63.4-2003

4.3 Test in Compliance with

47 CFR Part 15 Subpart C and RSS-210

4.4 Frequency Range Investigated

a. Conduction: from 150 kHz to 30 MHz
b. Radiation: from 30 MHz to 25000 MHz for 802.11b/g
c. Radiation: from 30MHz to 40000MHz for 802.11a/ band III.

4.5 Test Distance

The test distance of radiated emission from antenna to EUT is 3 m.

5 Report of Measurements and Examinations

5.1 List of Measurements and Examinations

FCC Rule	IC Rule	Description of Test	Result
15.207	6.6 & 7.4	Conducted Emission	Pass
15.247(a)(2)	Amendment 1	6dB Bandwidth	Pass
15.247(b)	6.2.2(o)(a3) & Amendment 1	Maximum Peak Output Power	Pass
15.209(a)	6.2.2 (o)(e1)	Radiated Emission	Pass
15.247 (c)	6.2.2 (o)(e1)	100kHz Bandwidth of Frequency Band Edges	Pass
15.247(d)	§ 6.2.2 (o) (b) & Amendment 1	Power Spectral Density	Pass
15.203 15.247(b)(4)	6.2.2 (o)(e2) & 6.2.2 (o)(a3)	Antenna Requirement	Pass

5.2 6dB Bandwidth

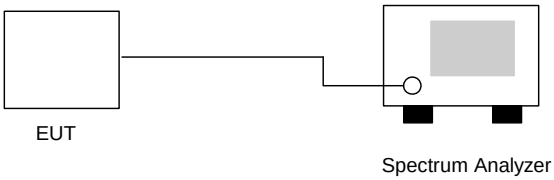
5.2.1 Measuring Instruments：

As described in chapter 9 of this test report.

5.2.2 Test Procedure：

1. The transmitter output was connected to the spectrum analyzer directly.
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The 6 dB bandwidth is defined as the frequency range where the power is higher than the peak power minus 6dB.

5.2.3 Test Setup Layout：



5.2.4 Test Result：

- Temperature : 24℃
- Relative Humidity :52%

➢ Application: 802.11b

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Mode Ref. No.
01	2412	11.52	>0.5	1
06	2437	11.52	>0.5	2
11	2462	11.52	>0.5	3

➢ Application: 802.11g

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Mode Ref. No.
01	2412	16.40	>0.5	4
06	2437	16.36	>0.5	5
11	2462	16.36	>0.5	6

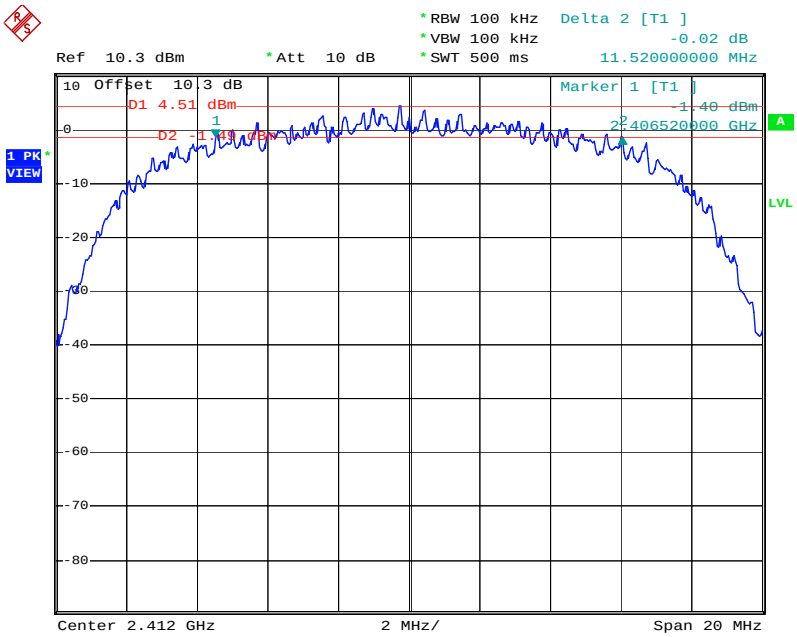
➢ Application: 802.11a

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Mode Ref. No.
149	5745	16.36	>0.5	7
157	5785	16.36	>0.5	8
165	5825	16.36	>0.5	9

5.2.5 Test Data

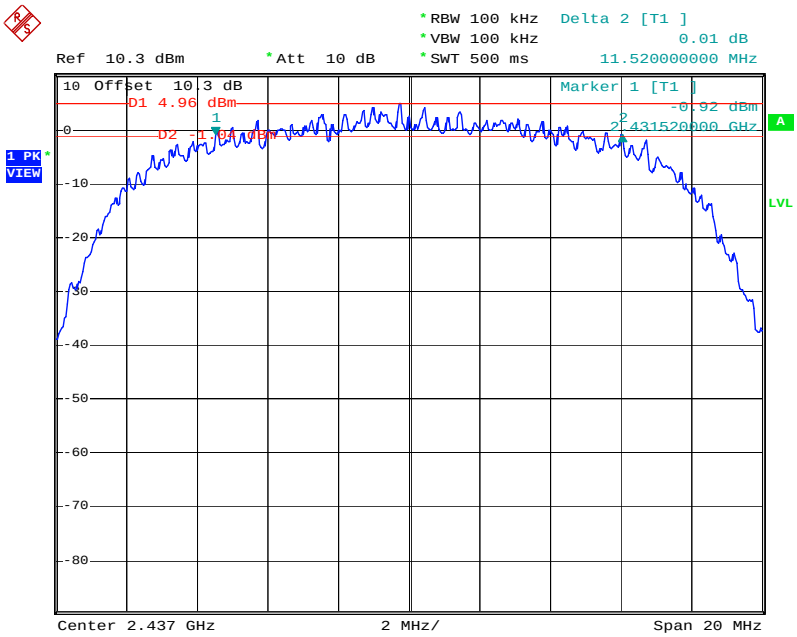
Mode Ref. No.

1



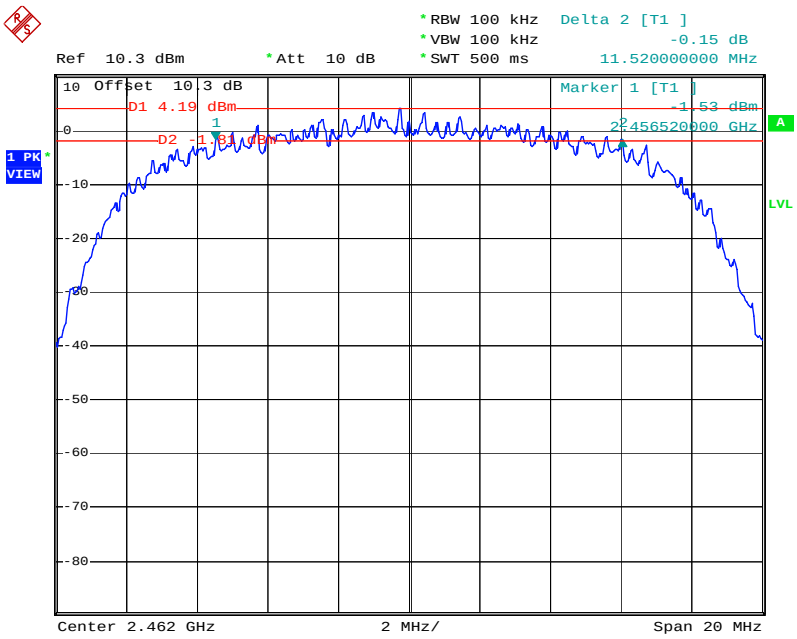
Date: 17.NOV.2005 13:20:46

2



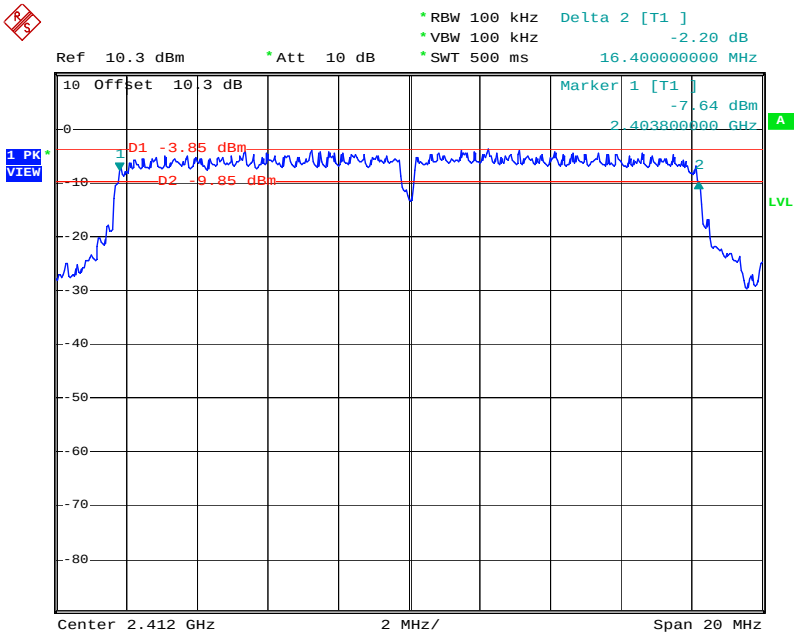
Date: 17.NOV.2005 13:18:03

3



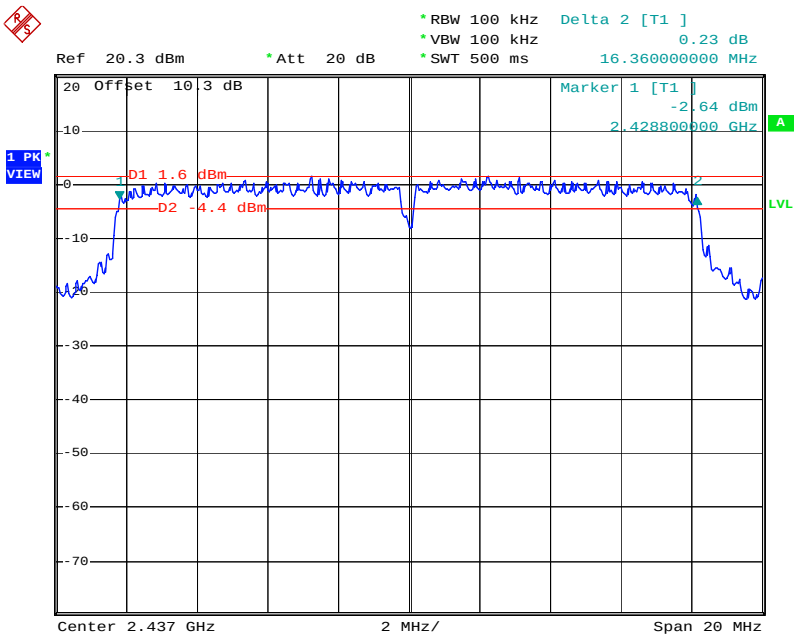
Date: 17.NOV.2005 13:16:16

4



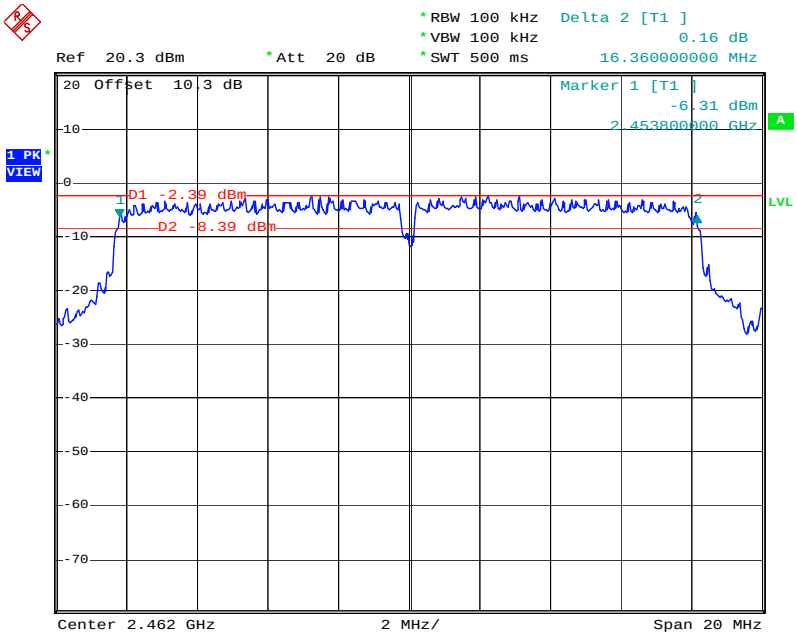
Date: 17.NOV.2005 13:10:55

5



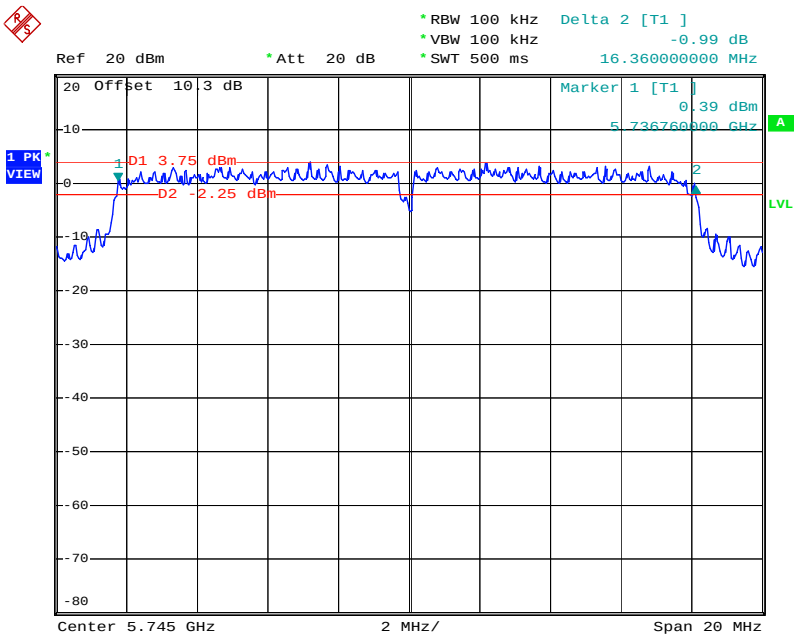
Date: 17.NOV.2005 13:12:55

6



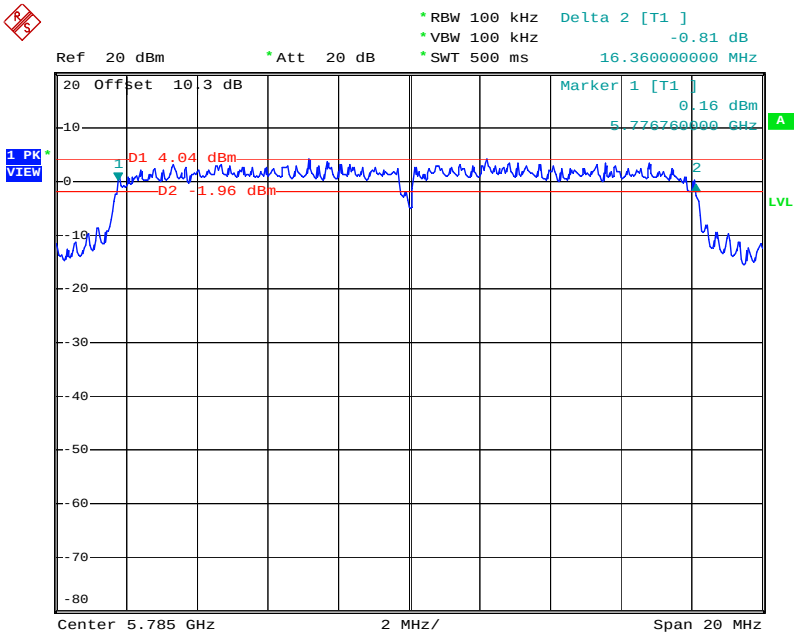
Date: 17.NOV.2005 13:13:42

7



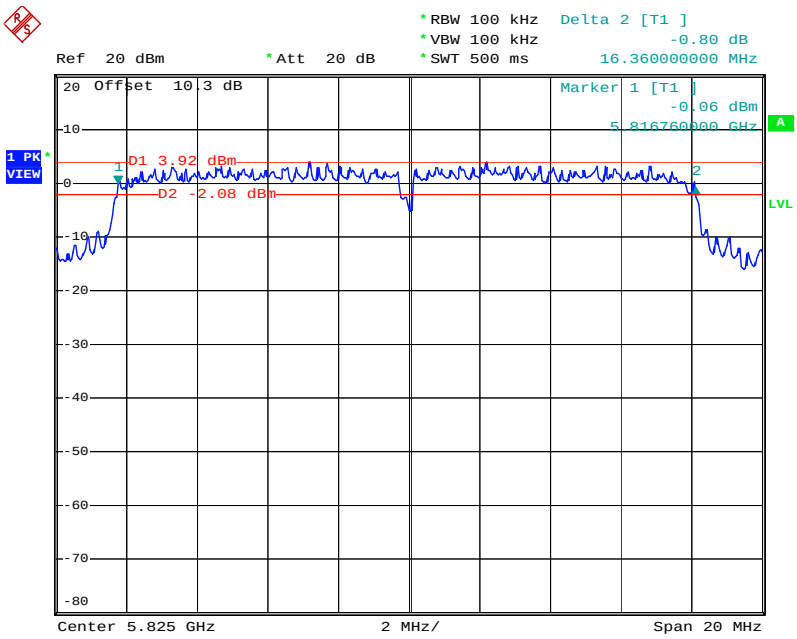
Date: 17.NOV.2005 21:38:20

8



Date: 17.NOV.2005 21:42:30

9



Date: 17.NOV.2005 21:44:24

5.3 Power Spectral Density

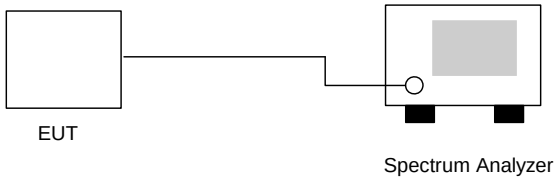
5.3.1 Measuring Instruments：

As described in chapter 9 of this test report.

5.3.2 Test Procedure：

1. The transmitter output was connected to spectrum analyzer directly.
2. The spectrum analyzer's resolution bandwidth was set at 3kHz RBW and 30kHz VBW as that of the fundamental frequency. Set the sweep time=span/3kHz.
3. The power spectral density was measured and recorded.
4. The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

5.3.3 Test Setup Layout：



5.3.4 Test Result：

- Temperature : 24℃
- Relative Humidity :52%

➢ Application: 802.11b

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Mode Ref. No.
01	2412	-9.22	8	1
06	2437	-8.86	8	2
11	2462	-9.59	8	3

➢ Application: 802.11g

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Mode Ref. No.
01	2412	-18.77	8	4
06	2437	-13.71	8	5
11	2462	-17.30	8	6

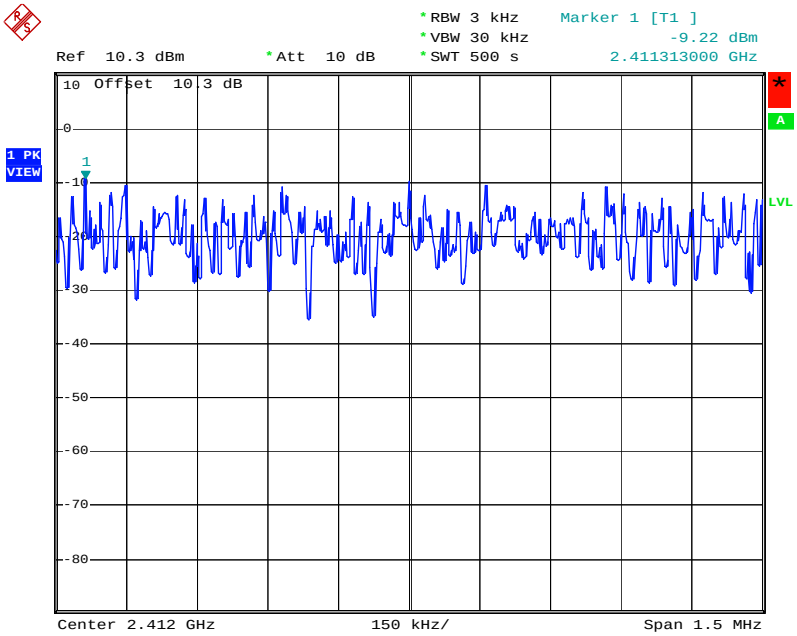
- Application: 802.11a

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Mode Ref. No.
149	5745	-11.68	8	7
157	5785	-11.55	8	8
165	5825	-11.47	8	9

5.3.5 Power Spectral Density

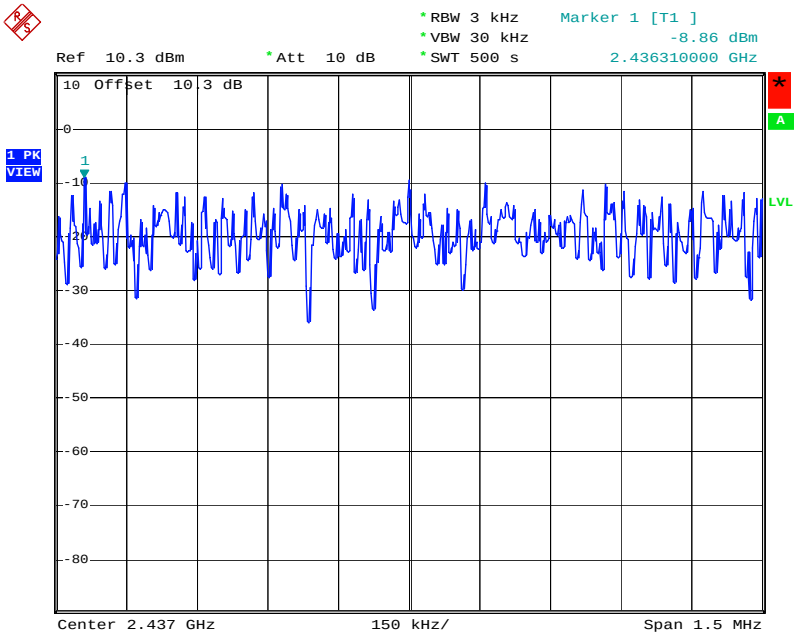
Mode Ref. No.

1



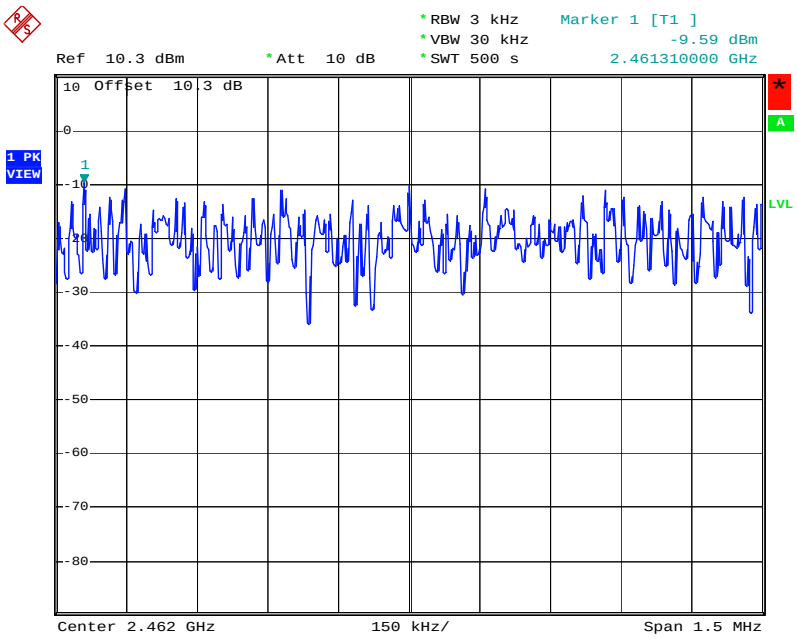
Date: 17.NOV.2005 13:19:41

2



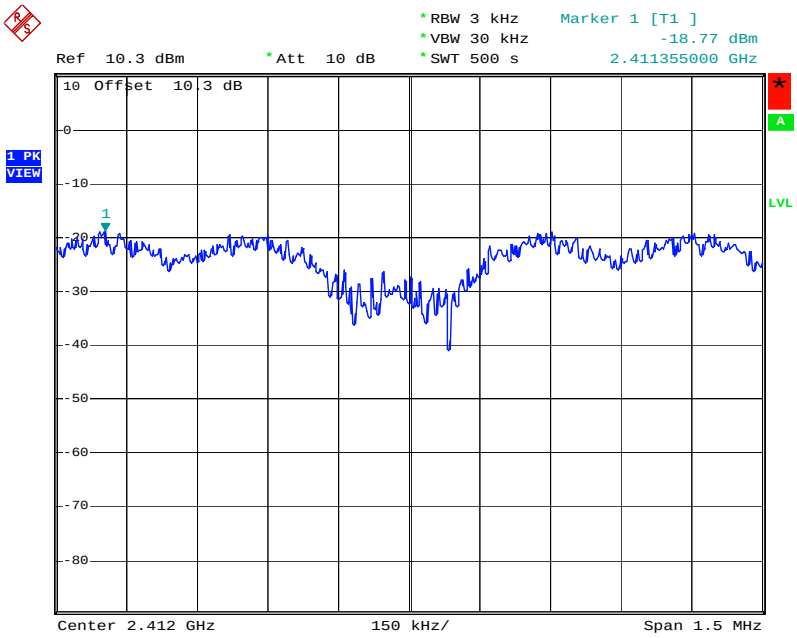
Date: 17.NOV.2005 13:18:47

3



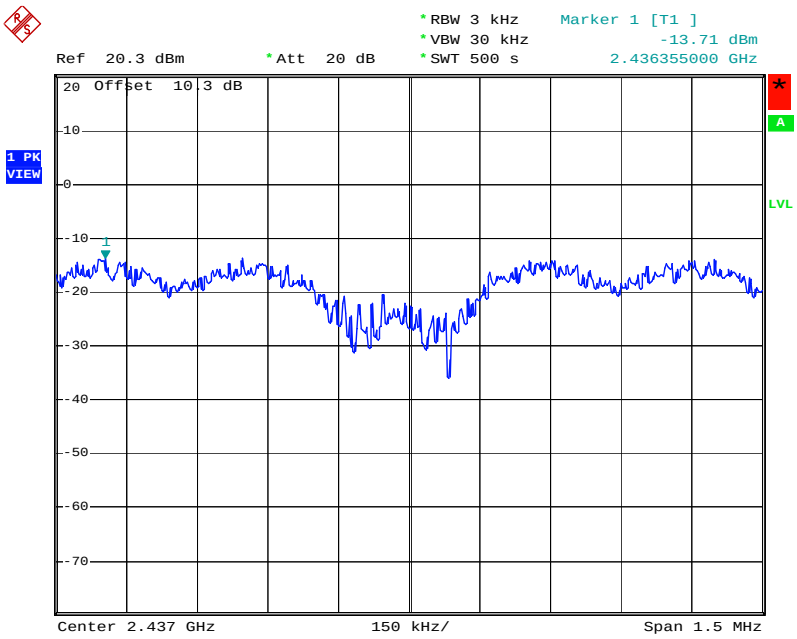
Date: 17.NOV.2005 13:15:30

4



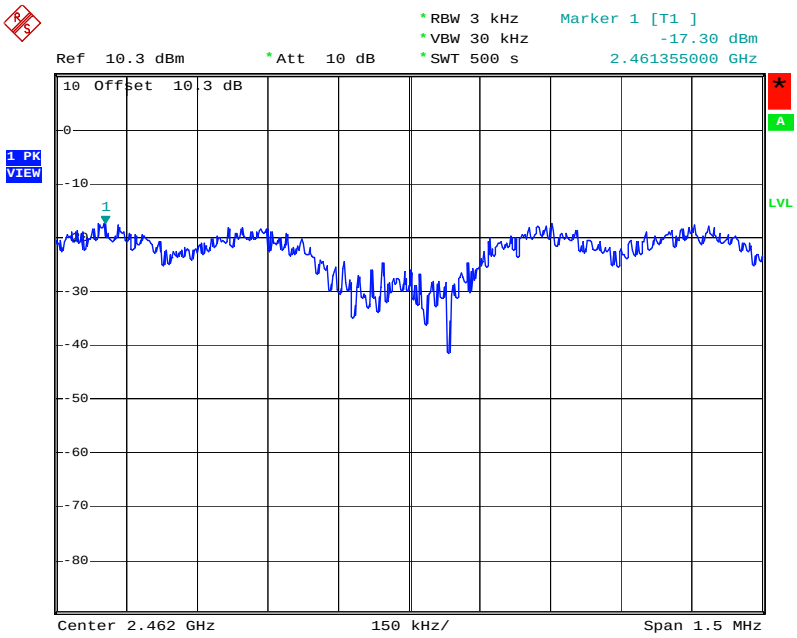
Date: 17.NOV.2005 13:11:29

5



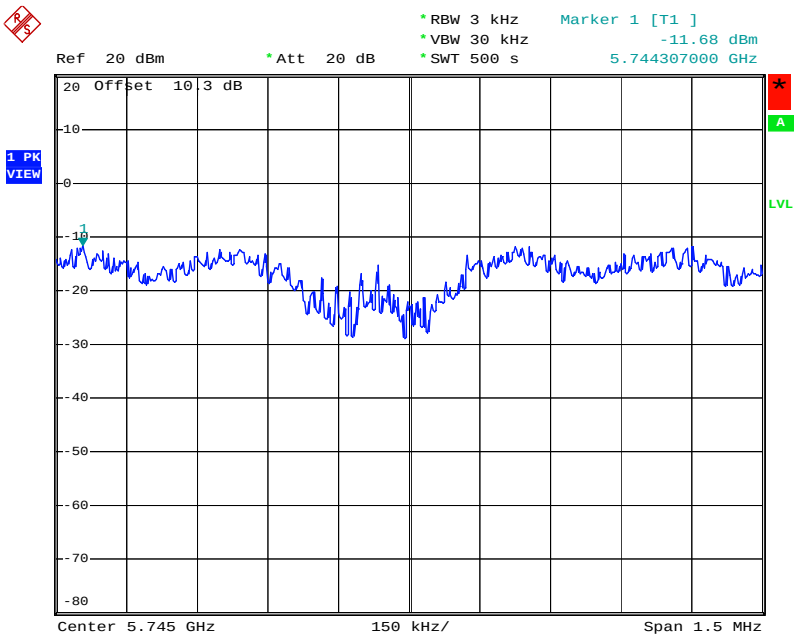
Date: 17.NOV.2005 13:12:13

6



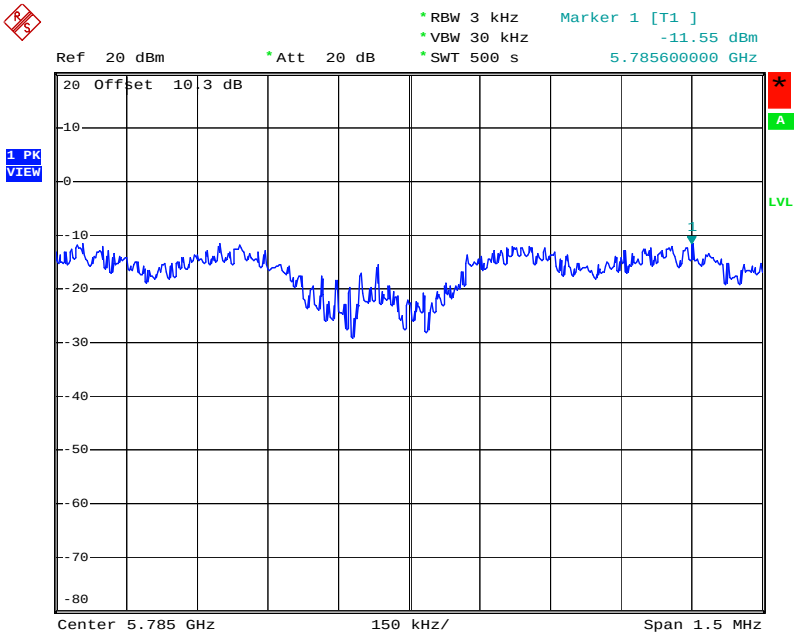
Date: 17.NOV.2005 13:14:47

7



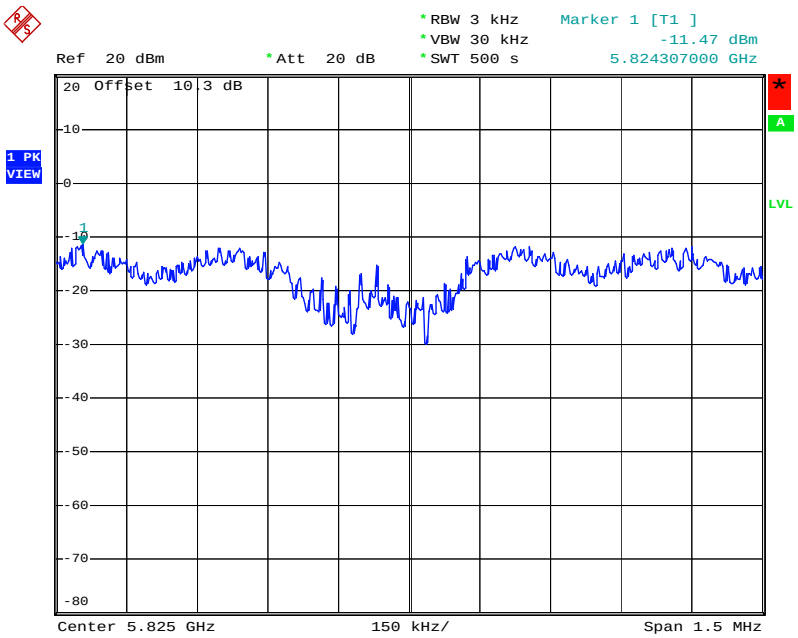
Date: 17.NOV.2005 21:40:54

8



Date: 17.NOV.2005 21:41:46

9



Date: 17.NOV.2005 21:45:32

5.4 Band Edges Measurement

5.4.1 Measuring Instruments：

As described in chapter 9 of this test report.

5.4.2 Test Procedure：

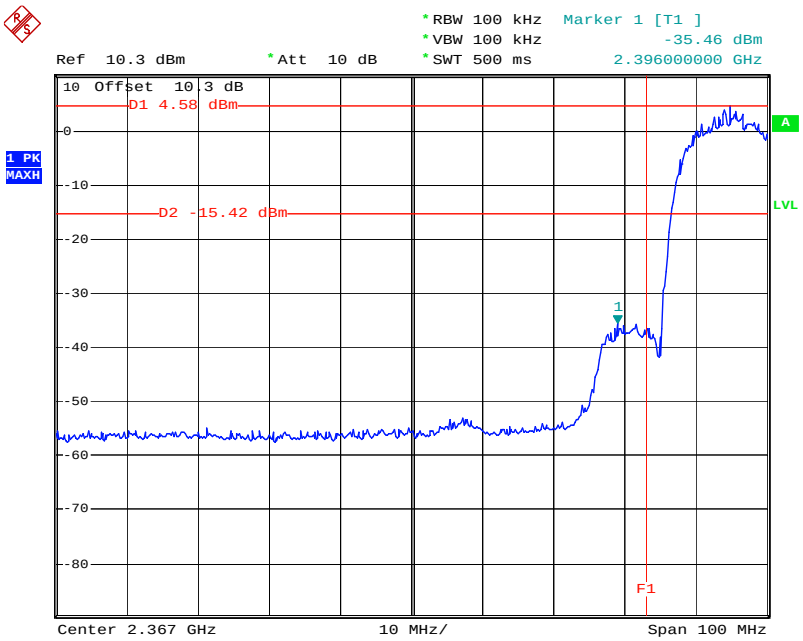
1. The transmitter output was connected to the spectrum analyzer via a low lose cable.
2. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100 kHz bandwidth from band edge.
3. The band edges was measured and recorded.

5.4.3 Test Result for Restricted Band

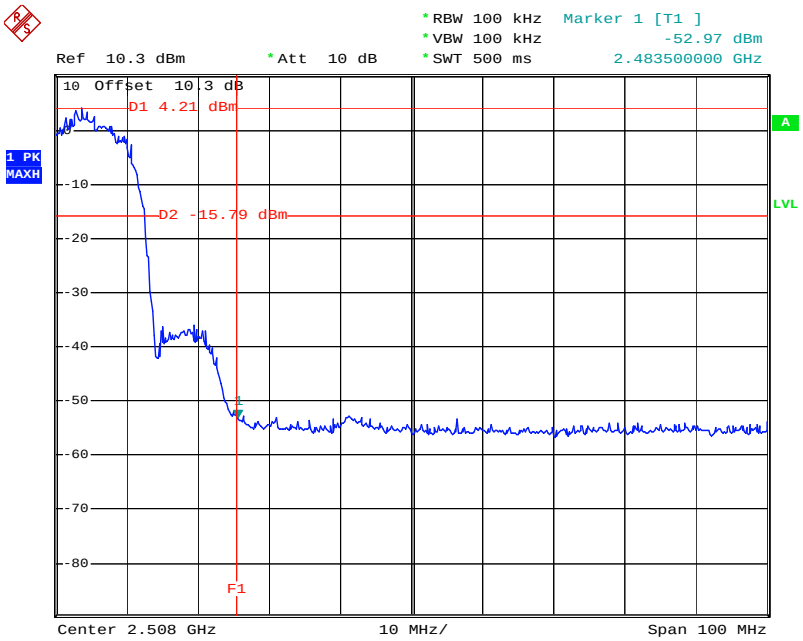
- Temperature : 24℃
- Relative Humidity :52%

Test Result Mode		Verdict
▪ Test Result in 802.11b	:	PASS
▪ Test Result in 802.11g	:	PASS
▪ Test Result in 802.11a	:	PASS

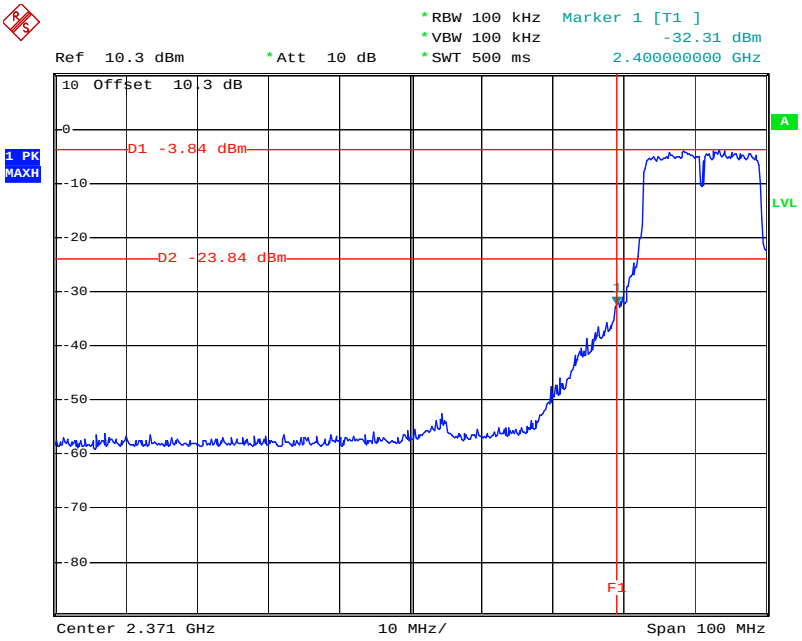
5.4.4 Test Data



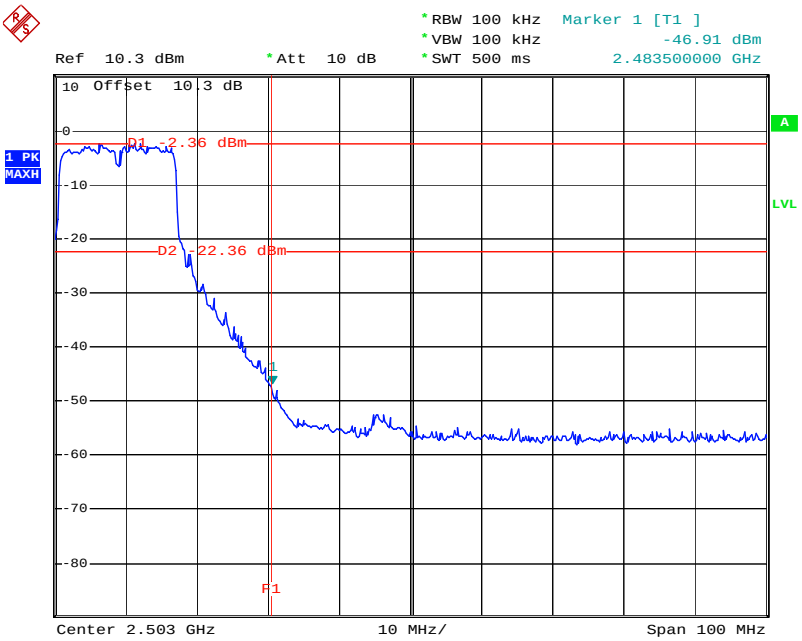
802.11b CH01



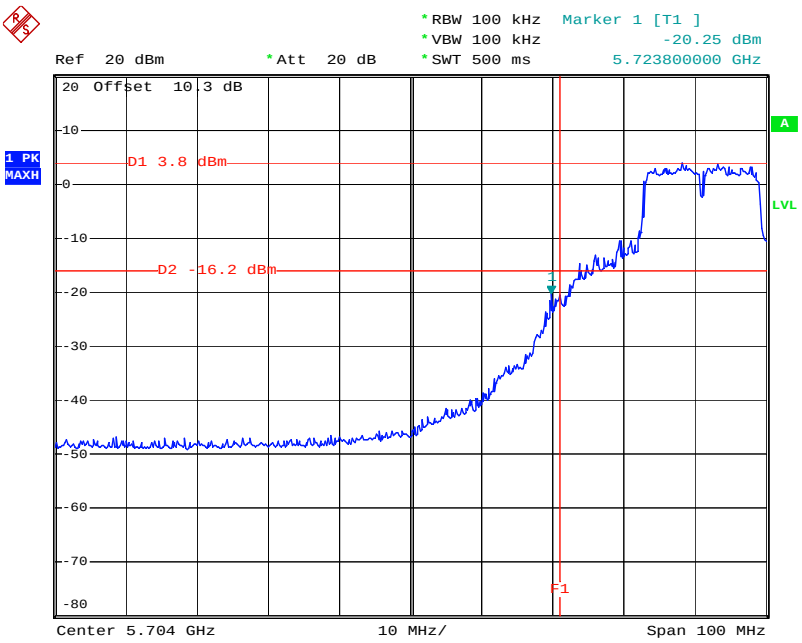
802.11b CH11



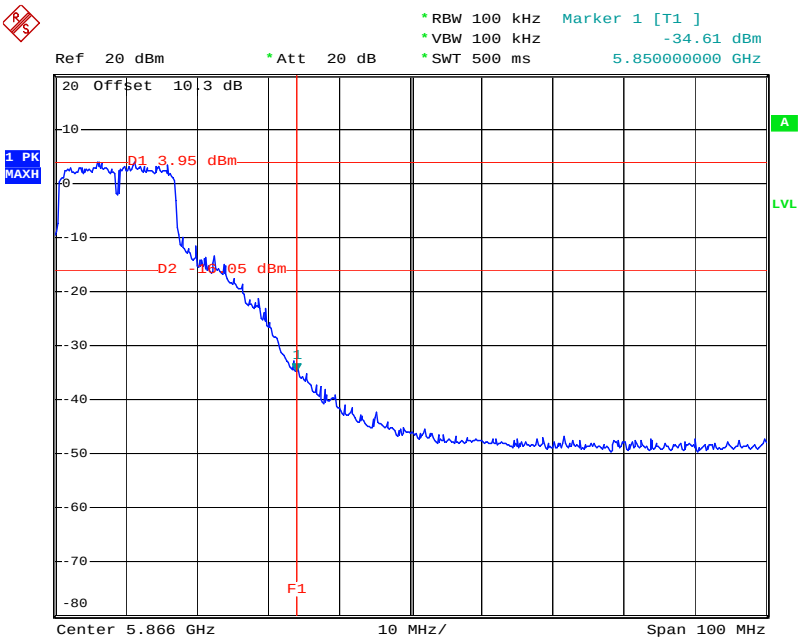
802.11g CH01



802.11g CH11



802.11a CH149



802.11a CH165

5.5 Peak Output Power

5.5.1 Measuring Instruments：

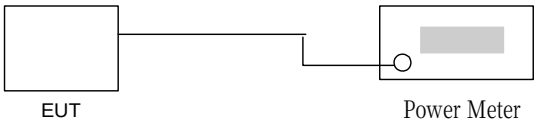
As described in chapter 9 of this test report.

5.5.2 Test Procedure：

The antenna port（RF output）of the EUT was connected to the input（RF input）of a power meter.

The power is equal to the reading level on power meter plus cable loss at the EUT antenna terminal.

5.5.3 Test Setup Layout：



5.5.4 Test Result：

- Temperature : 24℃
- Relative Humidity :52%

➢ Application: 802.11b

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (dBm)
01	2412	17.39	29.1 dBm
06	2437	17.63	29.1 dBm
11	2462	17.11	29.1 dBm

➢ Application: 802.11g

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (dBm)
01	2412	15.63	29.1 dBm
06	2437	19.76	29.1 dBm
11	2462	16.98	29.1 dBm

➢ Application: 802.11a

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (dBm)
149	5745	18.92	28.3 dBm
157	5785	19.01	28.3 dBm
165	5825	19.01	28.3 dBm

6. Test of Conducted Emission

As described in chapter 9 of this test report.

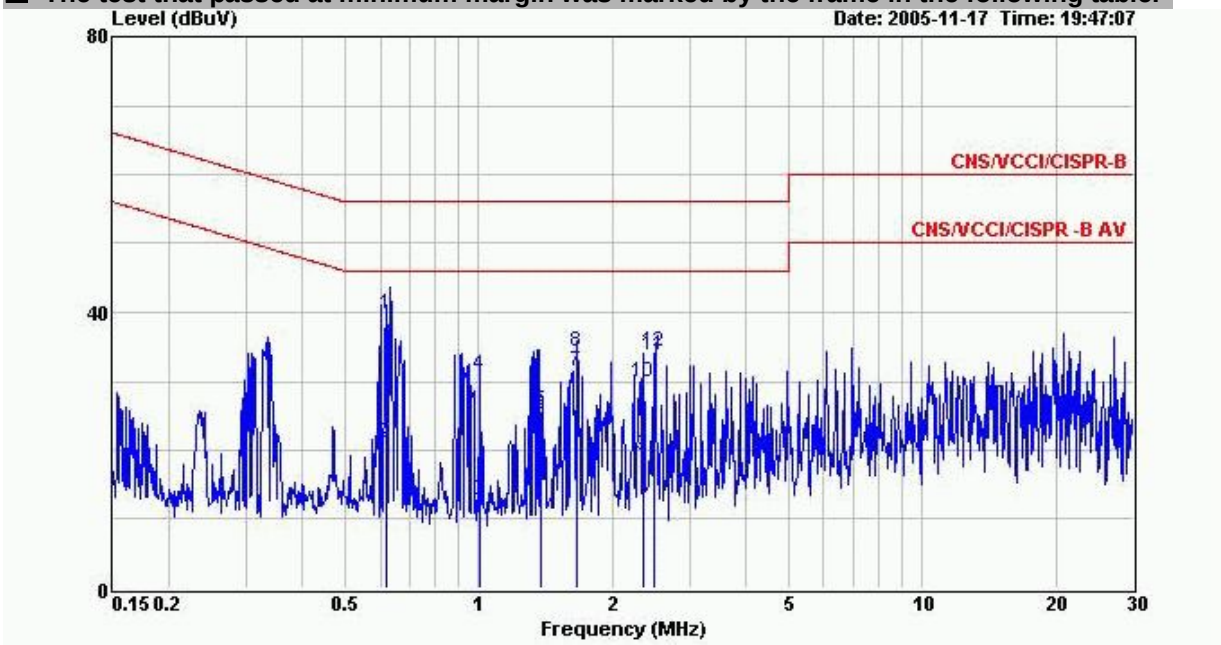
6.1. Test Procedures

a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
b. Connect EUT to the power port of a line impedance stabilization network (LISN).
c. All the support units are connected to the other LISN.
d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
e. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
f. Both sides of AC line were checked for maximum conducted interference.
g. The frequency range from 150 kHz to 30 MHz was searched.
h. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

6.2. Test Data

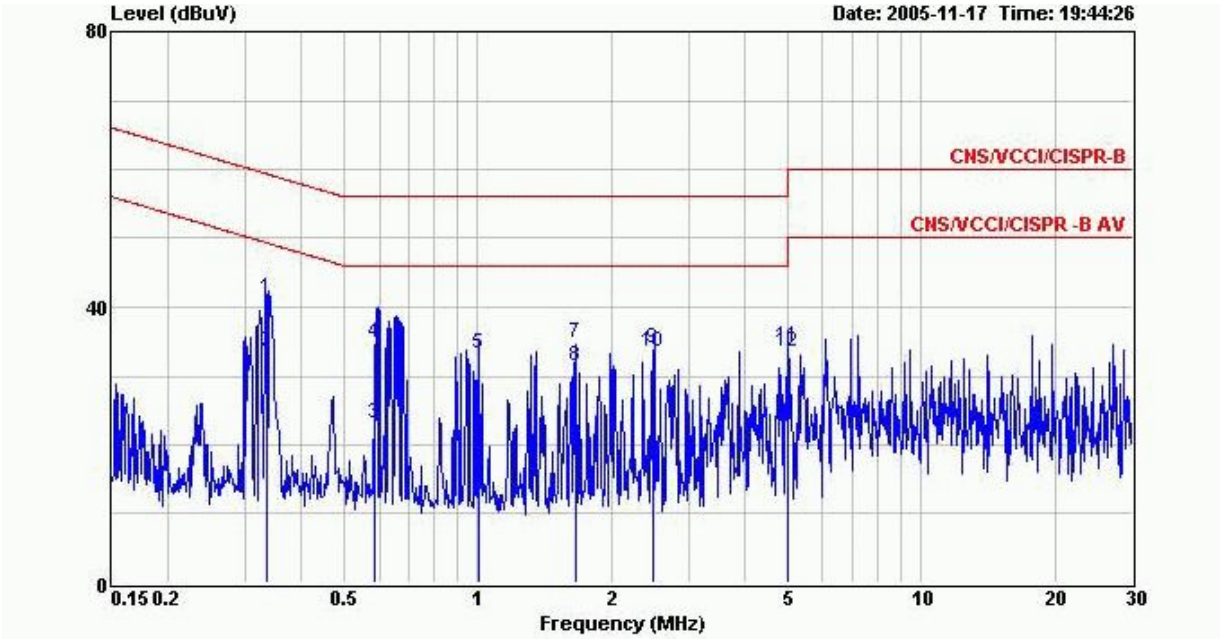
- Frequency Range of Test : 150kHz to 30 MHz
- Test Mode : Mode 1
- Temperature : 24℃
- Relative Humidity : 52%
- Test Enginner : Jay

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2001/004 200505 LINE
EUT : 802.11a/b/g WLAN Radio Port-220/230
Power : 120V/60Hz
Model : FD502016
Memo : PING MODE
Memo : RSVLC-0505
Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.617	39.84	-16.16	56.00	39.71	0.08	0.05	QP
2	0.617	21.02	-24.98	46.00	20.89	0.08	0.05	Average
3	1.010	12.64	-33.36	46.00	12.47	0.11	0.06	Average
4	1.010	30.90	-25.10	56.00	30.73	0.11	0.06	QP
5	1.386	25.64	-20.36	46.00	25.46	0.11	0.07	Average
6	1.386	25.32	-30.68	56.00	25.14	0.11	0.07	QP
7	1.661	31.33	-14.67	46.00	31.15	0.11	0.07	Average
8	1.661	34.30	-21.70	56.00	34.12	0.11	0.07	QP
9	2.350	19.28	-26.72	46.00	19.05	0.13	0.10	Average
10	2.350	29.97	-26.03	56.00	29.74	0.13	0.10	QP
11	2.494	33.75	-22.25	56.00	33.50	0.14	0.11	QP
12	2.494	34.39	-11.61	46.00	34.14	0.14	0.11	Average



Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2001/004 200505 NEUTRAL
EUT : 802.11a/b/g WLAN Radio Port-220/230
Power : 120V/60Hz
Model : FD502016
Memo : PING MODE
Memo : RSVLC-0505
Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.333	41.35	-18.02	59.37	41.20	0.11	0.04	QP
2	0.333	33.38	-15.99	49.37	33.23	0.11	0.04	Average
3	0.587	23.09	-22.91	46.00	22.88	0.16	0.05	Average
4	0.587	34.86	-21.14	56.00	34.65	0.16	0.05	QP
5	1.009	33.18	-22.82	56.00	32.89	0.23	0.06	QP
6	1.009	15.54	-30.46	46.00	15.25	0.23	0.06	Average
7	1.662	34.72	-21.28	56.00	34.42	0.23	0.07	QP
8	1.662	31.45	-14.55	46.00	31.15	0.23	0.07	Average
9	2.496	34.03	-11.97	46.00	33.69	0.23	0.11	Average
10	2.496	33.60	-22.40	56.00	33.26	0.23	0.11	QP
11	4.990	34.38	-21.62	56.00	33.95	0.25	0.18	QP
12	4.990	33.48	-12.52	46.00	33.05	0.25	0.18	Average

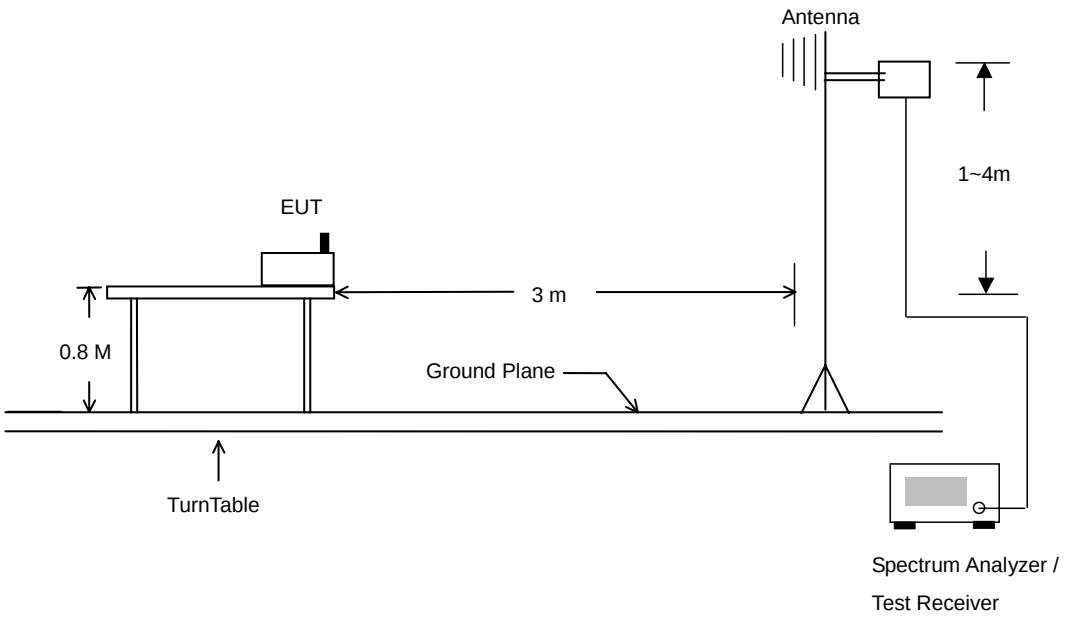
7. Test of Radiated Emission

As described in chapter 9 of this test report.

7.1. Test Procedures

a. The EUT was placed on a rotatable table top 0.8 meter above ground.
b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
c. The table was rotated 360 degrees to determine the position of the highest radiation.
d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
e. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
g. For testing below 1GHz, If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.
h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

7.2. Typical Test Setup Layout of Radiated Emission



7.3. Test Data

◆ Test Mode : Mode 1

- Temperature : 26℃
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2390.00	52.63	-1.37	54.00	53.34	30.48	4.26	35.46	166	4	Average
2 @	2390.00	71.63	-2.37	74.00	72.34	30.48	4.26	35.46	166	4	Peak
3 @	2412.00	115.40			116.12	30.47	4.26	35.46	166	4	Peak
4 @	2412.00	107.88			108.60	30.47	4.26	35.46	166	4	Average
5 @	2483.50	56.09	-17.91	74.00	56.83	30.41	4.36	35.51	166	4	Peak
6 @	2483.50	45.56	-8.44	54.00	46.30	30.41	4.36	35.51	166	4	Average

Remark: #3 and #4 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2390.00	57.81	-16.19	74.00	58.52	30.48	4.26	35.46	100	260	Peak
2 @	2390.00	45.13	-8.87	54.00	45.84	30.48	4.26	35.46	106	88	Average
3 @	2412.00	105.64			106.36	30.47	4.26	35.46	100	260	Peak
4 @	2412.00	101.58			102.30	30.47	4.26	35.46	106	88	Average
5 @	2483.50	51.55	-22.45	74.00	52.29	30.41	4.36	35.51	100	260	Peak
6 @	2483.50	42.25	-11.75	54.00	42.99	30.41	4.36	35.51	106	88	Average

Remark: #3 and #4 Fundamental Signal

◆ Test Mode : Mode 2

- Temperature : 26℃
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	143.13	28.95	-14.55	43.50	47.29	10.24	2.92	31.50	400	0	Peak
2 @	199.83	28.94	-14.56	43.50	46.84	9.93	3.51	31.34	400	0	Peak
3 @	257.88	28.51	-17.49	46.00	42.86	12.67	4.01	31.02	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	708.80	30.93	-15.07	46.00	35.19	19.29	6.96	30.51	100	0	Peak
2 @	903.40	34.01	-11.99	46.00	36.54	20.03	7.99	30.56	100	0	Peak
3 @	934.90	32.47	-13.53	46.00	33.40	21.00	8.22	30.14	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2344.00	53.44	-20.56	74.00	54.14	30.52	4.20	35.42	100	0	Peak
2 @	2344.00	41.98	-12.02	54.00	42.68	30.52	4.20	35.42	160	341	Average
3 @	2438.00	110.04			110.78	30.44	4.29	35.47	100	0	Peak
4 @	2438.00	105.36			106.10	30.44	4.29	35.47	160	341	Average
5 @	2483.50	52.83	-21.17	74.00	53.56	30.41	4.36	35.51	100	0	Peak
6 @	2483.50	44.41	-9.59	54.00	45.15	30.41	4.36	35.51	160	341	Average

Remark: #3 and #4 Fundamental Signal

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	4874.00	54.44	-19.56	74.00	50.91	33.39	6.30	36.16	200	0	Peak
2 @	4874.00	40.68	-13.32	54.00	37.15	33.39	6.30	36.16	100	359	Average

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	37.29	24.99	-15.01	40.00	39.51	15.73	1.49	31.73	400	0	Peak
2 @	98.58	26.30	-17.20	43.50	44.88	10.32	2.42	31.32	400	0	Peak
3 @	108.84	27.02	-16.48	43.50	43.96	11.48	2.53	30.94	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	509.30	31.03	-14.97	46.00	38.76	16.99	5.81	30.53	100	0	Peak
2 @	708.80	31.23	-14.77	46.00	35.49	19.29	6.96	30.51	100	0	Peak
3 @	729.80	32.68	-13.32	46.00	36.30	19.87	7.05	30.54	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2344.00	51.48	-22.52	74.00	52.17	30.52	4.20	35.42	100	356	Peak
2 @	2344.00	40.28	-13.72	54.00	40.98	30.52	4.20	35.42	100	60	Average
3 @	2437.00	106.05			106.79	30.44	4.29	35.47	100	356	Peak
4 @	2437.00	100.26			101.00	30.44	4.29	35.47	100	60	Average
5 @	2494.00	50.64	-23.36	74.00	51.38	30.40	4.39	35.53	100	356	Peak
6 @	2494.00	40.67	-13.33	54.00	41.41	30.40	4.39	35.53	100	60	Average

Remark: #3 and #4 Fundamental Signal

◆ Test Mode : Mode 3

- Temperature : 26℃
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2390.00	55.04	-18.96	74.00	55.75	30.48	4.26	35.46	163	4	Peak
2 @	2390.00	46.78	-7.22	54.00	47.49	30.48	4.26	35.46	163	4	Average
3 @	2462.00	114.47			115.20	30.43	4.33	35.49	163	4	Peak
4 @	2462.00	106.36			107.10	30.43	4.33	35.49	163	4	Average
5 @	2483.50	66.52	-7.48	74.00	67.26	30.41	4.36	35.51	163	4	Peak
6 @	2483.50	52.96	-1.04	54.00	53.70	30.41	4.36	35.51	163	4	Average

Remark: #3 and #4 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2358.00	51.03	-22.97	74.00	51.74	30.51	4.20	35.42	100	154	Peak
2 @	2358.00	40.67	-13.33	54.00	41.38	30.51	4.20	35.42	103	85	Average
3 @	2462.00	105.56			106.30	30.43	4.33	35.49	100	154	Peak
4 @	2462.00	100.96			101.70	30.43	4.33	35.49	103	85	Average
5 @	2483.50	55.72	-18.28	74.00	56.46	30.41	4.36	35.51	100	154	Peak
6 @	2483.50	44.72	-9.28	54.00	45.46	30.41	4.36	35.51	103	85	Average

Remark: #3 and #4 Fundamental Signal

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	4924.00	53.07	-20.93	74.00	49.35	33.57	6.36	36.21	200	360	Peak
2 @	4924.00	42.02	-11.98	54.00	38.30	33.57	6.36	36.21	100	69	Average

◆ Test Mode : Mode 4

- Temperature : 26℃
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2390.00	72.10	-1.90	74.00	72.81	30.48	4.26	35.46	101	4	Peak
2 @	2390.00	52.54	-1.46	54.00	53.25	30.48	4.26	35.46	101	4	Average
3 @	2412.00	108.07			108.80	30.47	4.26	35.46	101	4	Peak
4 @	2412.00	99.88			100.60	30.47	4.26	35.46	101	4	Average
5 @	2483.50	53.55	-20.45	74.00	54.29	30.41	4.36	35.51	101	4	Peak
6 @	2483.50	43.24	-10.76	54.00	43.98	30.41	4.36	35.51	101	4	Average

Remark: #3 and #4 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2390.00	60.66	-13.34	74.00	61.37	30.48	4.26	35.46	101	350	Peak
2 @	2390.00	46.69	-7.31	54.00	47.40	30.48	4.26	35.46	106	89	Average
3 @	2412.00	101.39			102.12	30.47	4.26	35.46	101	350	Peak
4 @	2412.00	96.16			96.88	30.47	4.26	35.46	106	89	Average
5 @	2483.50	50.85	-23.15	74.00	51.58	30.41	4.36	35.51	101	350	Peak
6 @	2483.50	40.84	-13.16	54.00	41.58	30.41	4.36	35.51	106	89	Average

Remark: #3 and #4 Fundamental Signal

◆ Test Mode : Mode 5

- Temperature : 26℃
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ **The test that passed at minimum margin was marked by the frame in the following table.**

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	143.13	28.87	-14.63	43.50	47.22	10.24	2.92	31.50	400	0	Peak
2 @	199.83	28.85	-14.65	43.50	46.75	9.93	3.51	31.34	400	0	Peak
3 @	257.88	28.58	-17.42	46.00	42.92	12.67	4.01	31.02	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	434.40	31.02	-14.98	46.00	40.14	16.40	5.26	30.79	100	0	Peak
2 @	708.80	30.79	-15.21	46.00	35.05	19.29	6.96	30.51	100	0	Peak
3 @	934.90	31.97	-14.03	46.00	32.89	21.00	8.22	30.14	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2334.00	51.04	-22.96	74.00	51.74	30.54	4.17	35.40	200	0	Peak
2 @	2334.00	39.57	-14.43	54.00	40.27	30.54	4.17	35.40	100	262	Average
3 @	2434.00	102.03	[illegible]	[illegible]	102.76	30.46	4.29	35.47	200	0	Peak
4 @	2434.00	94.87			95.60	30.46	4.29	35.47	100	262	Average
5 @	2484.00	50.77	-23.23	74.00	51.51	30.41	4.36	35.51	200	0	Peak
6 @	2484.00	39.85	-14.15	54.00	40.59	30.41	4.36	35.51	100	262	Average

Remark: #5 and #6 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	38.64	24.81	-15.19	40.00	39.80	15.28	1.50	31.76	400	0	Peak
2 @	106.68	27.54	-15.96	43.50	44.82	11.25	2.50	31.03	400	0	Peak
3 @	145.29	25.64	-17.86	43.50	44.33	9.85	2.94	31.49	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	479.90	30.71	-15.29	46.00	38.95	16.93	5.61	30.78	100	0	Peak
2 @	509.30	31.99	-14.01	46.00	39.71	16.99	5.81	30.53	100	0	Peak
3 @	731.90	33.70	-12.30	46.00	37.22	19.96	7.06	30.55	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2390.00	53.21	-20.79	74.00	53.92	30.48	4.26	35.46	200	0	Peak
2 @	2390.00	49.14	-4.86	54.00	49.85	30.48	4.26	35.46	100	170	Average
3 @	2434.00	112.21			112.93	30.46	4.29	35.47	200	0	Peak
4 @	2434.00	104.87			105.60	30.46	4.29	35.47	100	170	Average
5 @	2488.00	49.29	-4.71	54.00	50.04	30.40	4.36	35.51	100	170	Average
6 @	2488.00	54.05	-19.95	74.00	54.80	30.40	4.36	35.51	200	0	Peak

Remark: #3 and #4 Fundamental Signal

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	4874.00	56.24	-17.76	74.00	52.71	33.39	6.30	36.16	200	360	Peak
2 @	4874.00	44.91	-9.09	54.00	41.38	33.39	6.30	36.16	100	82	Average

◆ Test Mode : Mode 6

- Temperature : 26℃
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2358.00	53.49	-20.51	74.00	54.20	30.51	4.20	35.42	106	4	Peak
2 @	2358.00	42.30	-11.70	54.00	43.01	30.51	4.20	35.42	106	4	Average
3 @	2462.00	107.23			107.97	30.43	4.33	35.49	106	4	Peak
4 @	2462.00	99.05			99.79	30.43	4.33	35.49	106	4	Average
5 @	2483.50	70.35	-3.65	74.00	71.09	30.41	4.36	35.51	106	4	Peak
6 @	2483.50	52.74	-1.26	54.00	53.48	30.41	4.36	35.51	106	4	Average

Remark: #3 and #4 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	2374.00	50.83	-23.17	74.00	51.54	30.50	4.23	35.44	106	120	Peak
2 @	2374.00	39.87	-14.13	54.00	40.58	30.50	4.23	35.44	100	87	Average
3 @	2462.00	104.40			105.14	30.43	4.33	35.49	106	120	Peak
4 @	2462.00	96.97			97.71	30.43	4.33	35.49	100	87	Average
5 @	2483.50	64.81	-9.19	74.00	65.55	30.41	4.36	35.51	106	120	Peak
6 @	2483.50	48.02	-5.98	54.00	48.76	30.41	4.36	35.51	100	87	Average

Remark: #3 and #4 Fundamental Signal

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	4924.00	49.81	-24.19	74.00	46.09	33.57	6.36	36.21	200	360	Peak
2 @	4924.00	39.20	-14.80	54.00	35.48	33.57	6.36	36.21	100	81	Average

◆ Test Mode : Mode 7

- Temperature : 26℃
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5745.00	116.95			112.02	34.14	6.64	35.85	100	0	Peak
2 @	5745.00	109.53			104.60	34.14	6.64	35.85	158	353	Average

Remark: #1 and #2 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5745.00	105.34			100.41	34.14	6.64	35.85	200	0	Peak
2 @	5745.00	97.52			92.59	34.14	6.64	35.85	100	26	Average

Remark: #1 and #2 Fundamental Signal

◆ Test Mode : Mode 8

- Temperature : 26℃
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ **The test that passed at minimum margin was marked by the frame in the following table.**

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	143.13	30.04	-13.46	43.50	48.38	10.24	2.92	31.50	400	0	Peak
2 @	200.64	33.15	-10.35	43.50	51.07	9.91	3.51	31.34	400	0	Peak
3 @	212.79	31.16	-12.34	43.50	49.22	9.66	3.61	31.34	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	729.80	30.08	-15.92	46.00	33.70	19.87	7.05	30.54	100	0	Peak
2 @	794.90	30.98	-15.02	46.00	31.93	21.76	7.44	30.15	100	0	Peak
3 @	976.90	32.01	-21.99	54.00	31.68	22.26	8.34	30.27	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5785.00	117.49			112.46	34.19	6.64	35.81	200	0	Peak
2 @	5785.00	110.11			105.10	34.18	6.64	35.81	155	353	Average

Remark: #1 and #2 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	98.58	26.93	-16.57	43.50	45.51	10.32	2.42	31.32	400	0	Peak
2 @	106.68	28.41	-15.09	43.50	45.69	11.25	2.50	31.03	400	0	Peak
3 @	145.29	26.43	-17.07	43.50	45.11	9.85	2.94	31.49	400	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	708.80	33.54	-12.46	46.00	37.80	19.29	6.96	30.51	100	0	Peak
2 @	729.80	33.96	-12.04	46.00	37.58	19.87	7.05	30.54	100	0	Peak
3 @	787.90	32.63	-13.37	46.00	33.81	21.54	7.42	30.14	100	0	Peak

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5785.00	104.99			99.99	34.18	6.64	35.81	100	0	Peak
2 @	5785.00	97.01			92.00	34.18	6.64	35.81	109	25	Average

Remark: #1 and #2 Fundamental Signal

◆ Test Mode : Mode 9

- Temperature : 26℃
- Relative Humidity :53%
- Test Enginner : Jay
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5825.00	117.33			112.25	34.23	6.65	35.80	100	0	Peak
2 @	5825.00	109.58			104.50	34.23	6.65	35.80	156	345	Average

Remark: #1 and #2 Fundamental Signal

- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	5825.00	104.48			99.40	34.23	6.65	35.80	200	0	Peak
2 @	5825.00	95.69			90.61	34.23	6.65	35.80	109	12	Average

Remark: #1 and #2 Fundamental Signal

Remark: All the emissions except listed above are 20 dB below FCC limit.

8. Antenna Requirements

8.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no other antenna except assembled by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi.

8.2. Antenna Connected Construction

The antennas and the related connectors are listed in section 1.5. The antenna uses the unique antenna connector to meet the antenna connector reguirement.

8.3. Antenna Gain

The power limits are reduced to meet the standard as the antenna gain is over 6dBi.

9. List of Measuring Equipments Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9kHz – 2.75GHz	Oct. 19, 2005	Oct. 19, 2006	Conduction (CO01-HY)
LISN	MessTec	NNB-2/16Z	2001/009	9kHz – 30MHz	Apr. 26, 2005	Apr. 26, 2006	Conduction (CO01-HY)
LISN (Support Unit)	MessTec	NNB-2/16Z	2001/004	9kHz – 30MHz	Apr. 20, 2005	Apr. 20, 2006	Conduction (CO01-HY)
EMI Filter	LINDGREN	LRE-2060	1004	< 450Hz	N/A	N/A	Conduction (CO01-HY)
EMI Filter	LINDGREN	N6006	201052	0 – 60Hz	N/A	N/A	Conduction (CO01-HY)
RF Cable-CON	Suhner Switzerland	RG223/U	CB029	9kHz – 30MHz	Dec. 23, 2004	Dec. 23, 2005	Conduction (CO01-HY)
Spectrum analyzer	Agilent	E4408B	MY44211030	9KHz-26.5GHz	Jul. 25, 2005	Jul. 24, 2006	Radiation (03CH06-HY)
Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jun. 28, 2005	Jun. 27, 2006	Radiation (03CH06-HY)
Controller	CT	SC100	N/A	N/A	N/A	N/A	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Nov. 22, 2004	Nov. 22, 2005	Radiation (03CH06-HY)
Horn Antenna	Com-Power	AH118	071025	1G-18G	Feb. 22, 2005	Feb. 22, 2006	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-249	14G - 40G	Jul. 21, 2005	Jul. 20, 2006	Radiation (03CH06-HY)
HF Amplifier	MITEQ	AFS44	973248	0.1G - 26.5G	Dec. 17, 2004	Dec. 17, 2005	Radiation (03CH06-HY)
Amplifier	MITEQ	AMF-6F	997165	26G - 40G	Jul. 21, 2005	Jul. 20, 2006	Radiation (03CH06-HY)
Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	N/A	Radiation (03CH06-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	N/A	Radiation (03CH06-HY)

10. Uncertainty Measurement

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch	+0.34/-0.35	U-shape	0.24
combined standard uncertainty Uc(y)	**1.13**		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	**2.26**		

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch	+0.39/-0.41	U-shaped	0.28
combined standard uncertainty Uc(y)	**1.27**		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	**2.54**		

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Contribution	Uncertainty of x_i		$u(x_i)$	Ci	$Ci*u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR Γ1= 0.197 Antenna VSWR Γ2= 0.194 Uncertainty=20log(1-Γ1*Γ2*Γ3)	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty Uc(y)	**2.36**				
Measuring uncertainty for a level of confidence of 95% U=2Ue(y)	**4.72**				