

FCC TEST REPORT

for

47 CFR Part 15 Subpart C

Equipment : Wireless Base Station 11g True Turbo

Trade Name : Philips

Model No. : SNB6500

FCC ID : RAXWG4005E

Filing Type : Certification

Applicant : Arcadyan Technology Corporation
4F, No. 9, Park Avenue II, Science-based Industrial Park,
Hsinchu 300, Taiwan

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- The data shown in this test report were carried out on Apr. 11, 2005 at Sporton International Inc. LAB.



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History of this test report

Original Report Issue Date: Apr. 13, 2005

☒ No additional attachment.

☐ Additional attachment were issued as following record:

Attachment No.	Issue Date	Description



1. General Description of Equipment under Test

1.1. Applicant

Arcadyan Technology Corporation

4F, No. 9, Park Avenue II, Science-based Industrial Park, Hsinchu 300, Taiwan

1.2 Manufacturer

Arcadyan Technology Corporation

4F, No. 9, Park Avenue II, Science-based Industrial Park, Hsinchu 300, Taiwan

1.3 Basic Description of Equipment under Test

Equipment	: Wireless Base Station 11g True Turbo
Trade Name	: Philips
Model No.	: SNB6500
FCC ID	: RAXWG4005E
Power Supply Type	: Switching
AC Power Cord	: AC 120V, Non-shielded, Wall-mount, 1.8 meter, 2 pin
Charger 1	: DVE, DV-1280-3
Charger 2	: Leader, 481200O3CT

**1.4 Feature of Equipment under Test**

Product Feature & Specification				
1. Modulation Type	802.11b: DSSS(CCK/DQPSK/DBPSK) 802.11g: OFDM(64QAM/16QAM/DQPSK/DBPSK)			
2. Frequency Range	2400 MHz ~ 2483.5 MHz			
3. Number of Channels	11 Channels			
4. Carrier Frequency of each channel	$2412 + (n-1) \times 5 \text{ MHz}; n = 1 \sim 11$			
5. Channel Bandwidth	22MHz-802.11b 20MHz-802.11g 40MHz-802.11g Turbo Mode			
6. Maximum Output Power to Antenna (Normal condition)	802.11b: 16.86 dBm 802.11g: 17.86 dBm 802.11g Turbo Mode: 17.29 dBm			
7. Type of Antenna Connector	Reverse SMA / N/A			
8. Antenna Type and Gain	Fixed dipole / PCB antenna			
9. Antenna Gain	1.58 / 3.26 dBi			
10. Function Type	Transmitter		Transceiver	V
11. Power Rating (DC/AC , Voltage)	DC 12V / 1A			
12. Duty Cycle	100%			
13. Temperature / Humidity Range	0°C to 40°C 5% to 95%			



2 Test Configuration of Equipment under Test

2.1 Test Manner

- 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.
- For spurious emission below 1GHz, only one channel of each application was tested because it is not related to channel selection.
- The EUT is programmed to transmit signal continuously for all testings.
- Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

2.2 Test Mode

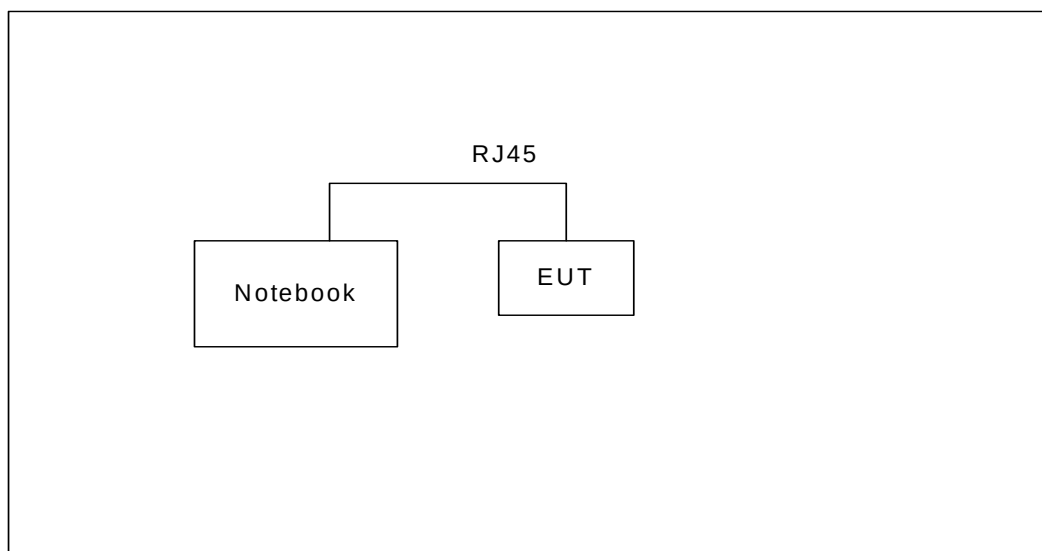
Application	802.11b	802.11g
Radiated Emission	Mode 1: Tx Ch01(2412MHz)	Mode 5: Tx Ch01(2412MHz)
	Mode 2: Tx Ch06(2437MHz)	Mode 6: Tx Ch06(2437MHz)
	Mode 3: Tx Ch06(2437 MHz) for Leader Charger	Mode 7: Tx Ch06(2437MHz) for Leader Charger
	Mode 4: Tx Ch11(2462MHz)	Mode 8: Tx Ch06(Turbo Mode)
		Mode 9: Tx Ch11(2462MHz)
Conducted Emission	Mode 1: Link Mode for DVE Charger	
	Mode 2: Link Mode for Leader	

Remark: 1. There are two chargers for this device. The second charger, Leader, was tested for radiation emission on channel 06 low frequency range (below 1GHz).

2. Fixed Dipole is the main antenna.

All the testings are for this fixed dipole and this antenna port.

2.3 Connection Diagram of Test System



2.4 Ancillary Equipment List

Item	Equipment	Model No.	Serial No.
1.	Notebook (COMPAQ)	PRESARIO 1500	N/A
2.	UTP Cable	N/A	N/A



3. RF Utility

The programmed RF Utility is either installed in EUT or Notebook to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testings.



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 : 03CH06-HY

4.1 Test Voltage

120V/ 60Hz

4.2 Standard for Methods of Measurement

ANSI C63.4-2003

4.3 Test in Compliance with

47 CFR Part 15 Subpart C

4.4 Frequency Range Investigated

- a. Conduction: from 150 kHz to 30 MHz
- b. Radiation: from 30 MHz to 25000 MHz

4.5 Test Distance

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



5. Test Data and Test Result

5.1 List of Measurements and Examinations

FCC Rule	Description of Test	Result	Section
15.247(a)(2)	6dB Bandwidth	Pass	5.2
15.247(d)	Power Spectral Density	Pass	5.3
15.247 (c)	100kHz Bandwidth of Frequency Band Edges	Pass	5.4
15.247(b)	Maximum Peak Output Power	Pass	5.5
15.207	Conducted Emission	Pass	5.6
15.209(a)	Radiated Emission	Pass	5.7
15.203 15.247(b)(4)	Antenna Requirement	Pass	5.8

5.2 6dB Bandwidth Measurement

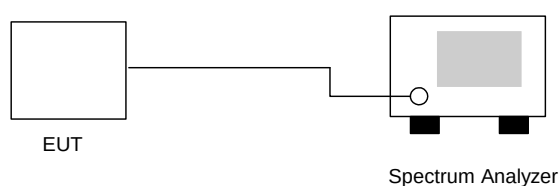
5.2.1 Measuring Instruments :

As described in chapter 6 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 :

- Application Type : 802.11b
- Temperature : 24°C
- Relative Humidity : 61%
- Test Enginner : Jay

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	12.16	0.5	Mode 1
06	2437	11.60	0.5	Mode 2
11	2462	11.20	0.5	Mode 3



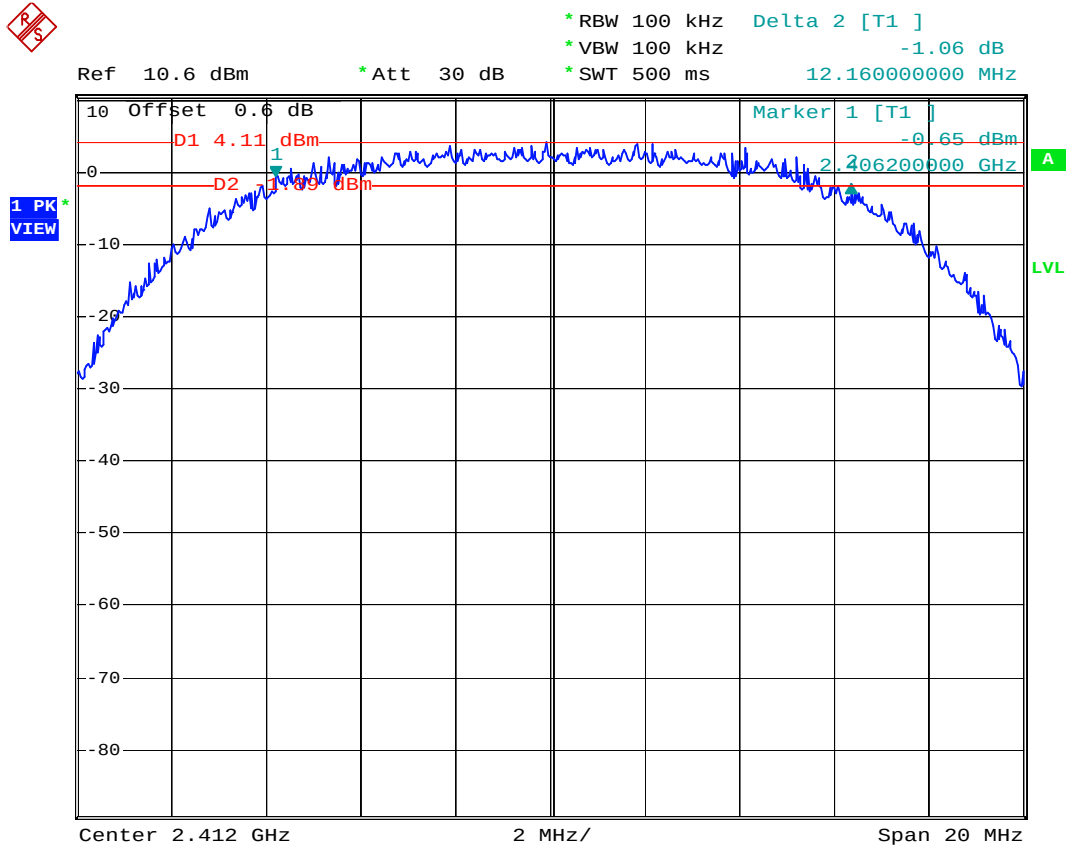
- Application Type : 802.11g and Turbo Mode
- Temperature : 24°C
- Relative Humidity : 61%
- Test Enginner : Jay

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	16.52	0.5	Mode 4
06	2437	16.52	0.5	Mode 5
06 (Turbo)	2437	32.70	0.5	Mode 6
11	2462	16.52	0.5	Mode 7



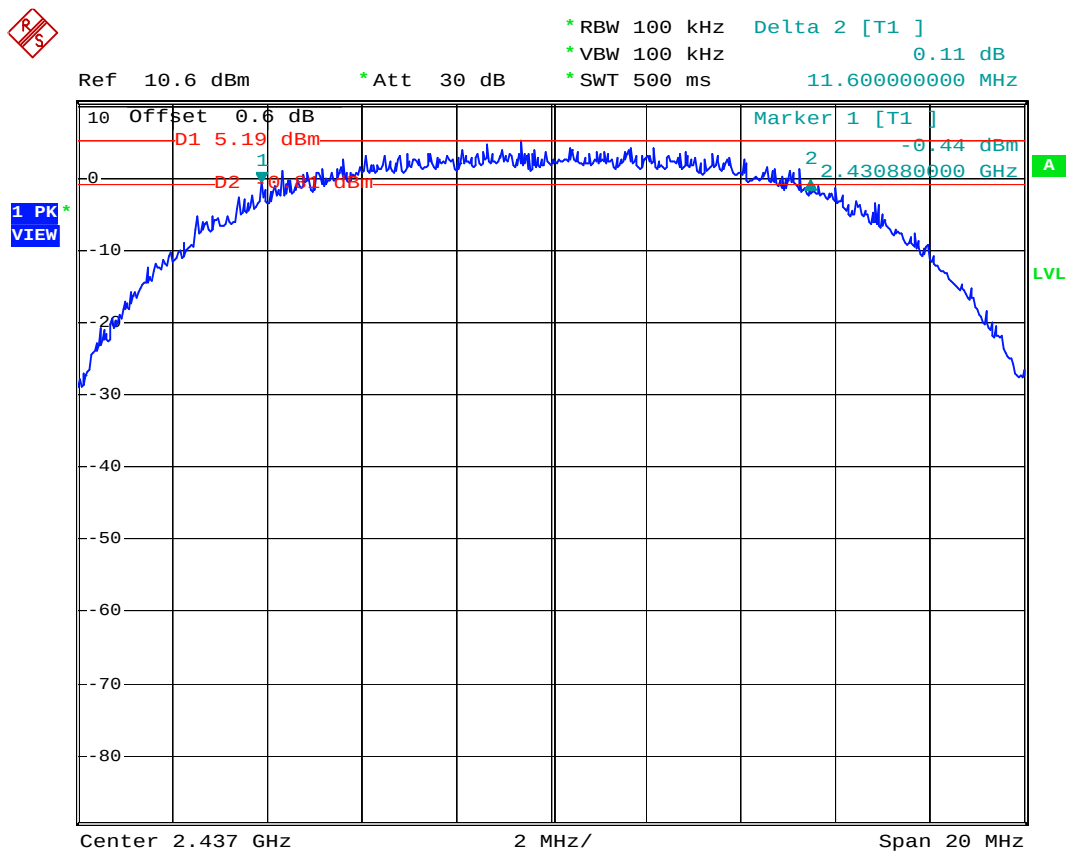
5.2.5 6dB Bandwidth

Mode 1 : 802.11b Tx CH01 (2412MHz)



Date: 11.APR.2005 21:05:45

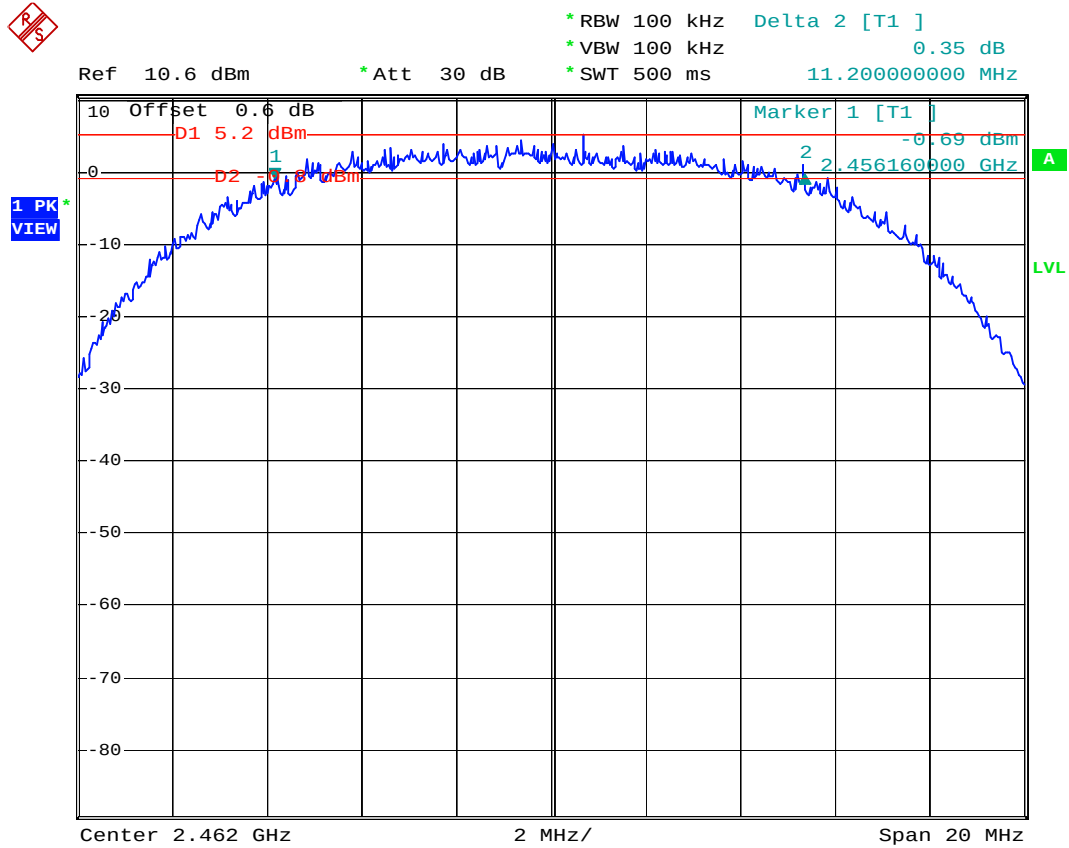
Mode 2 : 802.11b Tx CH06 (2437MHz)



Date: 11.APR.2005 21:04:45



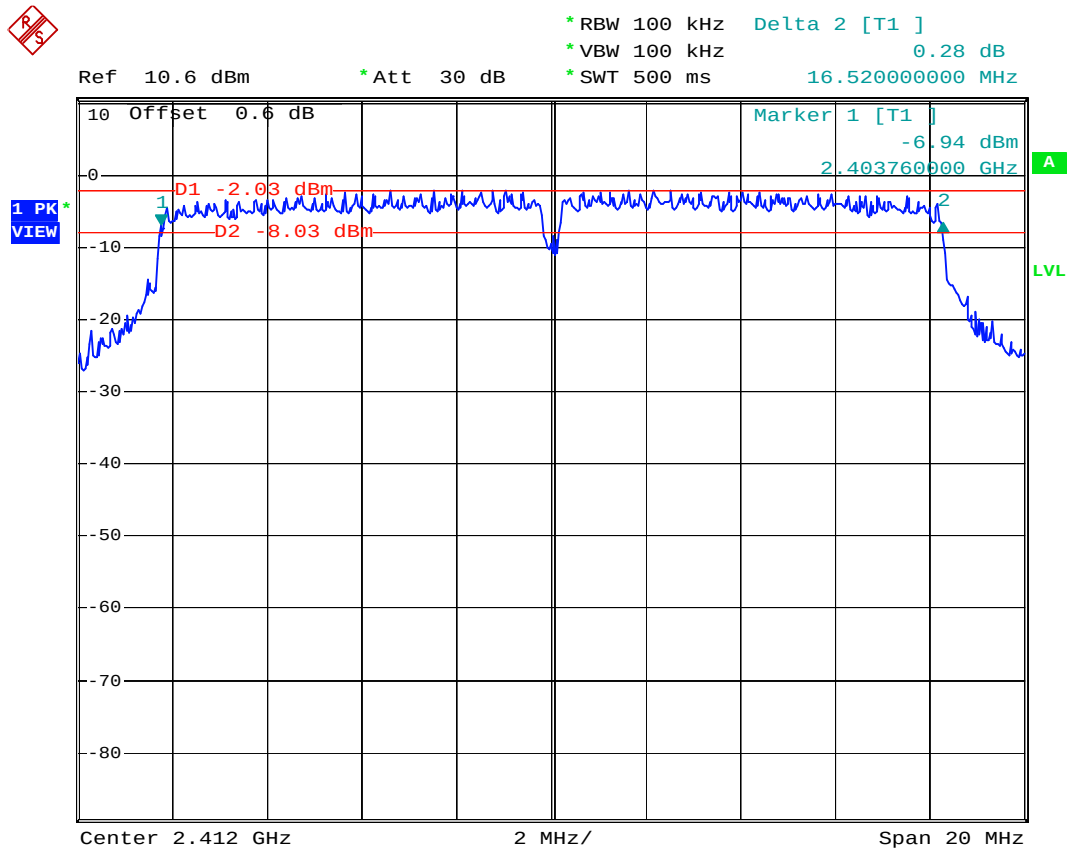
Mode 3 : 802.11b Tx CH11(2462MHz)



Date: 11.APR.2005 21:09:27



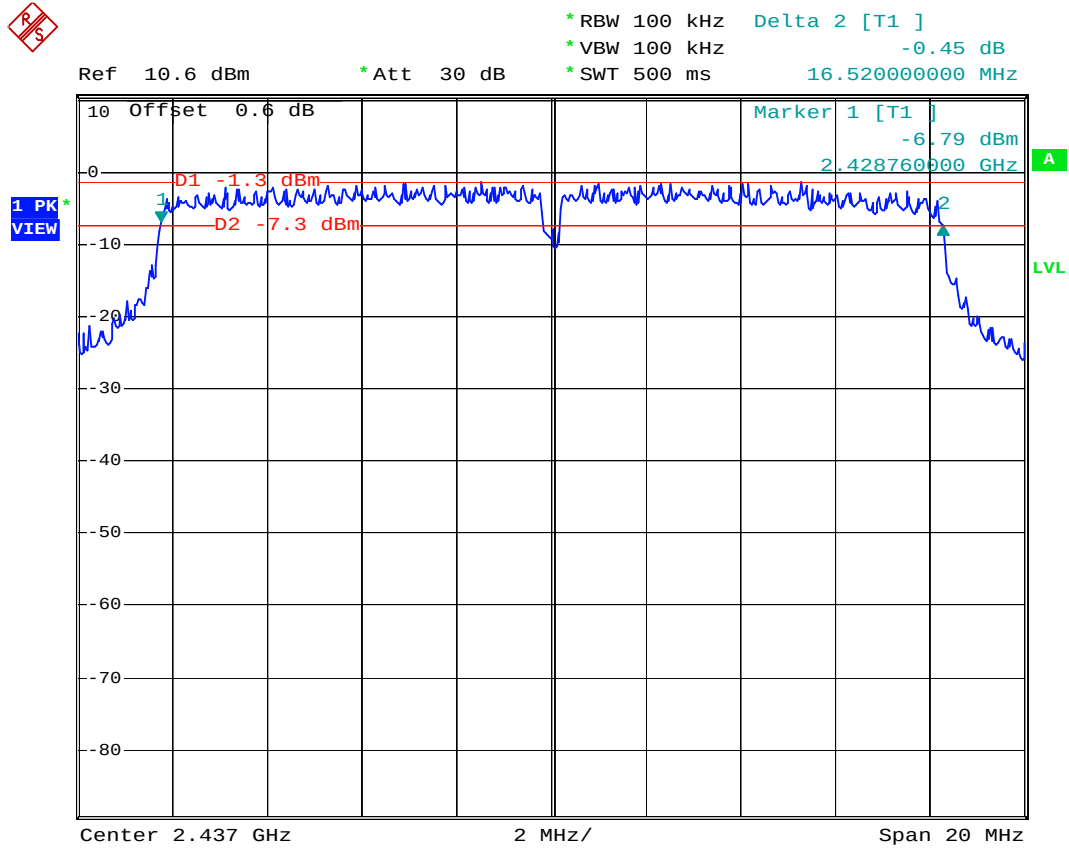
Mode 4 : 802.11g Tx CH01 (2412MHz)



Date: 11.APR.2005 20:57:49



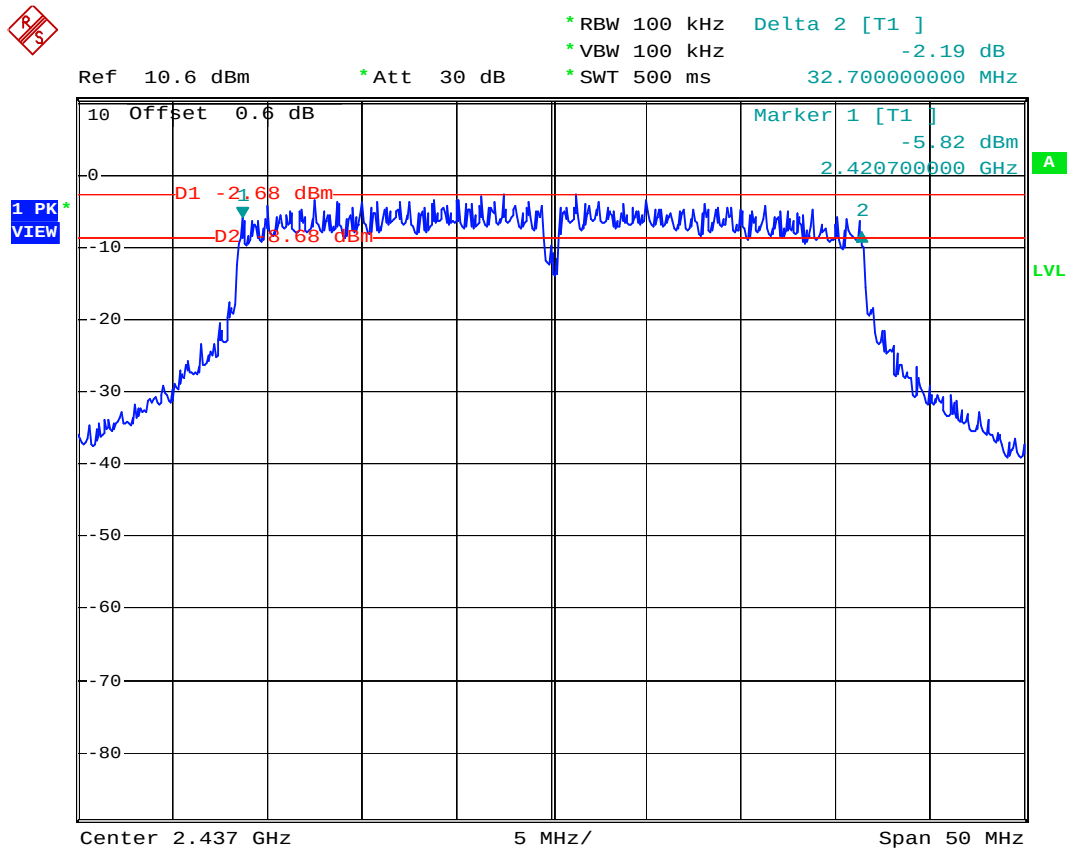
Mode 5 : 802.11g Tx CH06 (2437MHz)



Date: 11.APR.2005 20:52:37



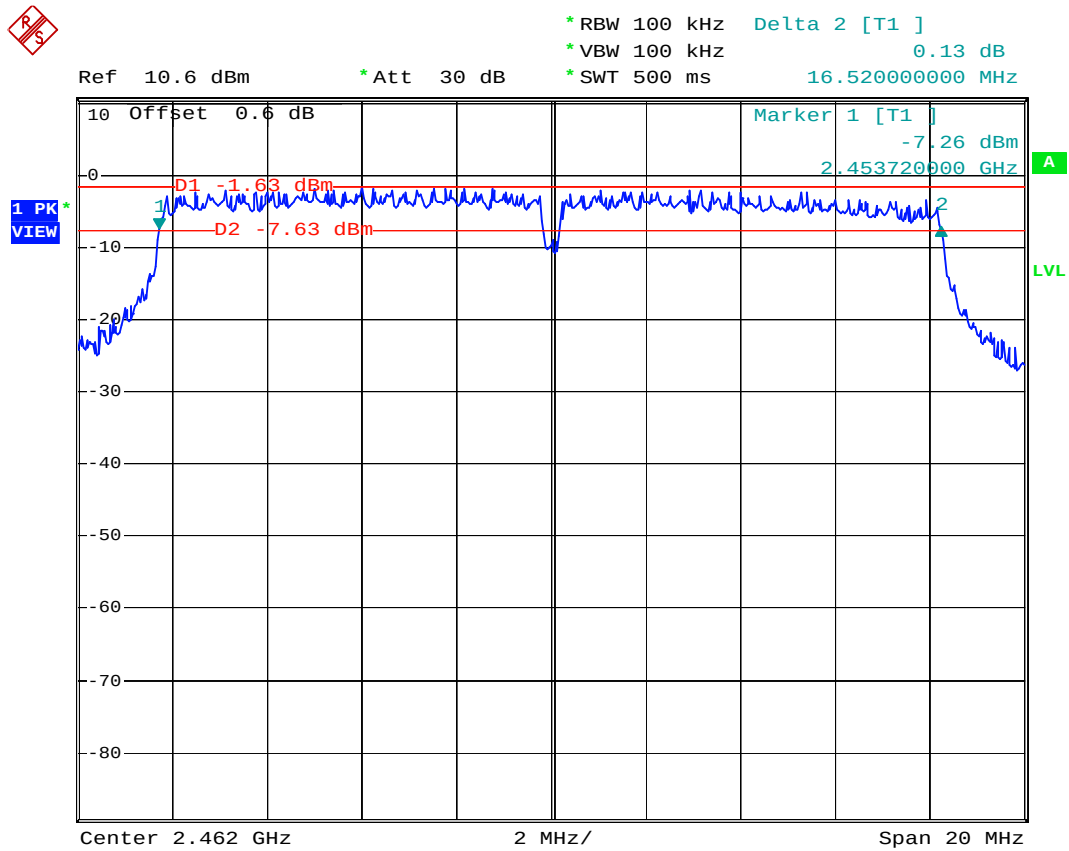
Mode 6 : 802.11g Tx CH06 (2437MHz) <Turbo mode>



Date: 11.APR.2005 20:54:58



Mode 7 : 802.11g Tx CH11 (2462MHz)



Date: 11.APR.2005 20:48:34

5.3 Power Spectral Density Measurement

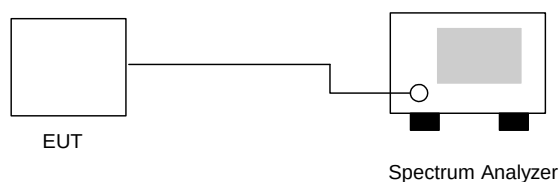
5.3.1 Measuring Instruments :

As described in chapter 6 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 :

- Application Type : 802.11b
- Temperature : 24°C
- Relative Humidity : 61%
- Test Enginner : Jay

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-9.11	8	Mode 1
06	2437	-8.44	8	Mode 2
11	2462	-9.27	8	Mode 3

**FCC TEST REPORT****Report No. : FR533106**

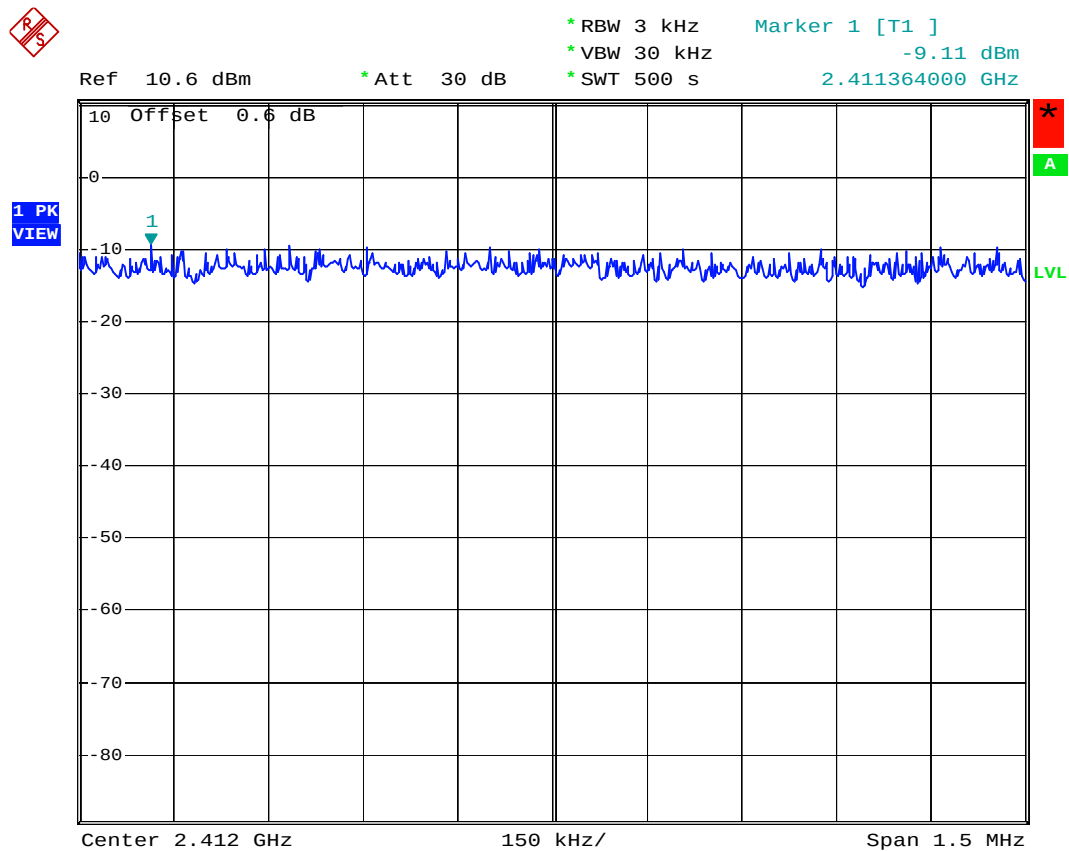
- Application Type : 802.11g and Turbo Mode
- Temperature : 24°C
- Relative Humidity : 61%
- Test Enginner : Jay

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-11.84	8	Mode 4
06	2437	-11.89	8	Mode 5
06(Turbo)	2437	-13.54	8	Mode 6
11	2462	-12.17	8	Mode 7



5.3.5 Power Spectral Density

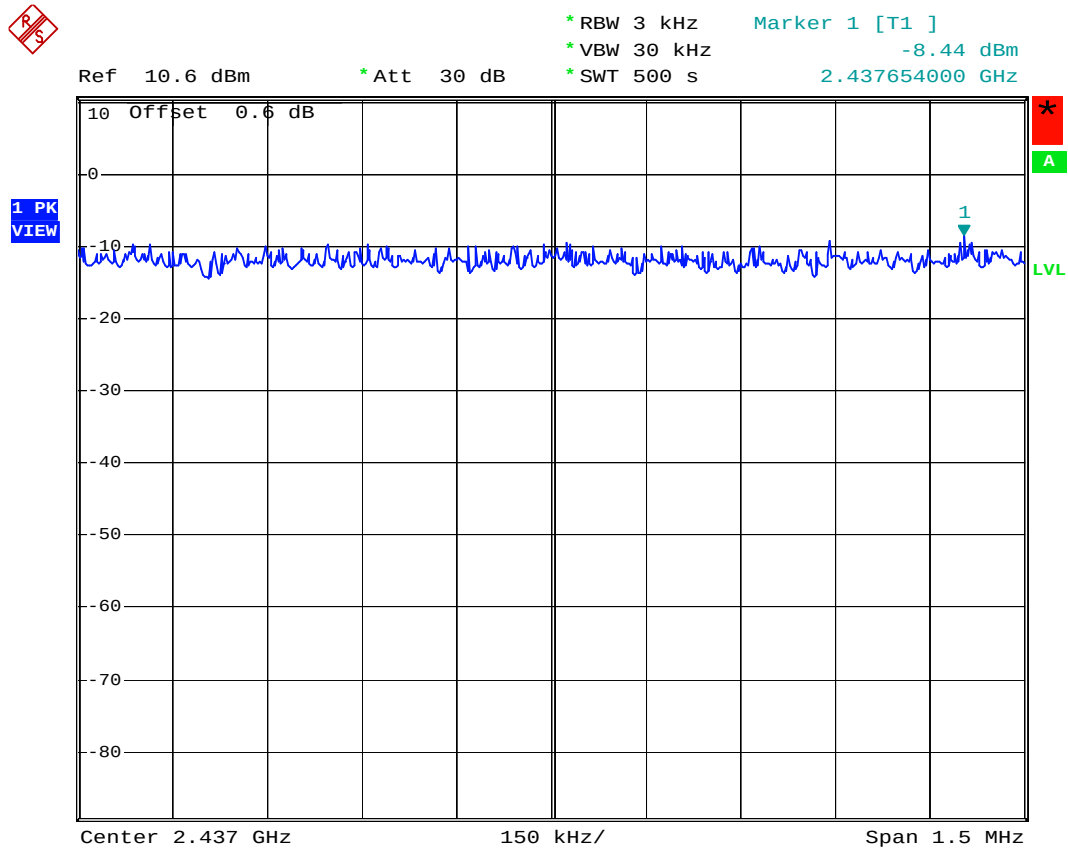
Mode 1 : 802.11b Tx CH01(2412MHz)



Date: 11.APR.2005 21:06:12



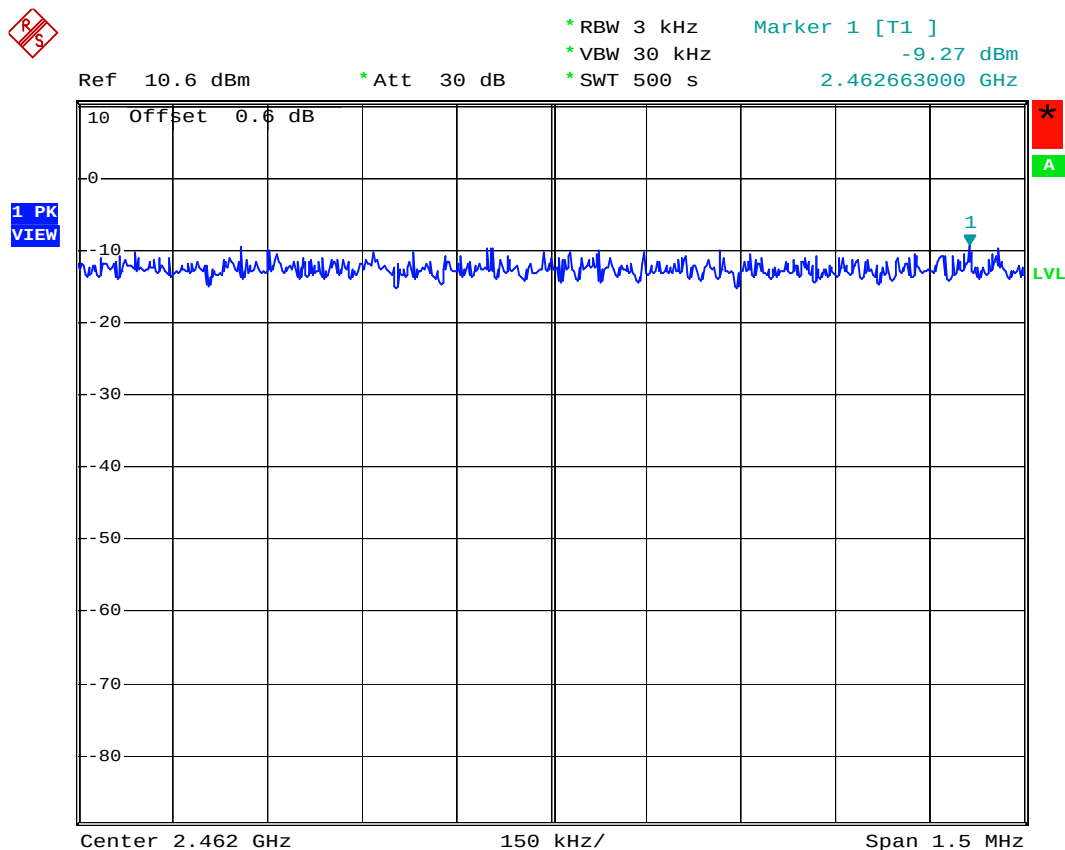
Mode 2 : 802.11b Tx CH06 (2437MHz)



Date: 11.APR.2005 21:04:00



Mode 3 : 802.11b Tx CH11 (2462MHz)



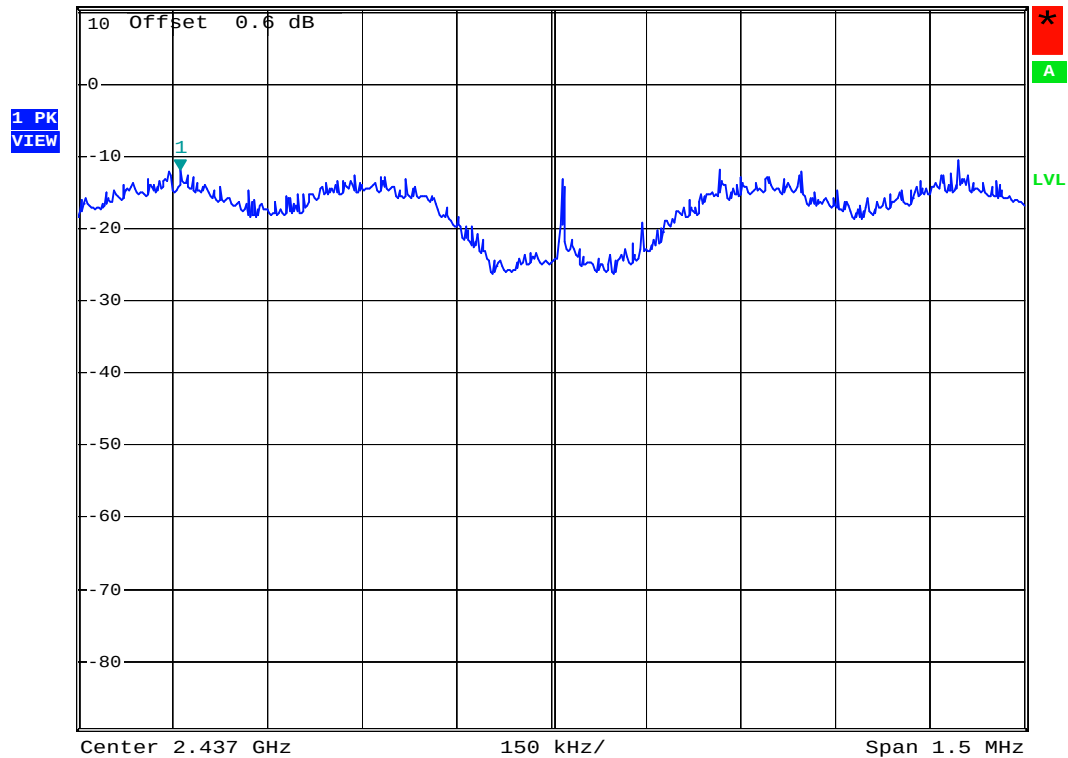
Date: 11.APR.2005 21:09:59



Mode 4 : 802.11g Tx CH01(2412MHz)



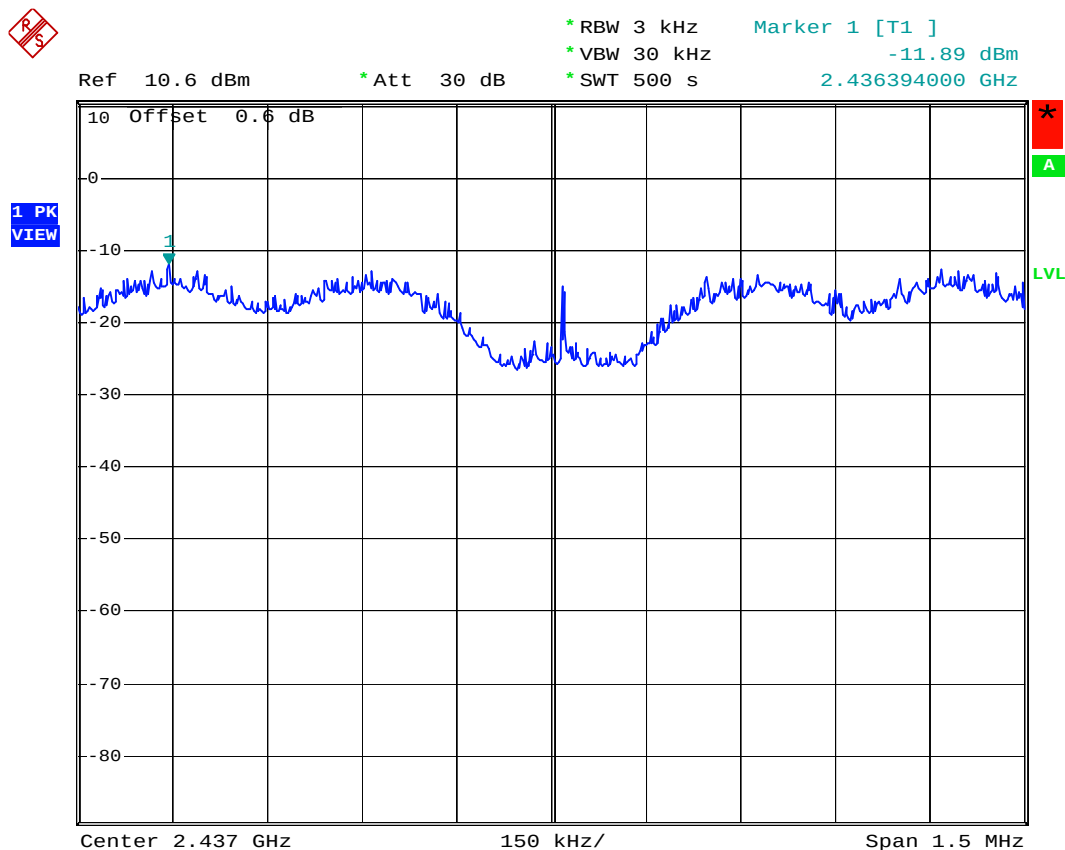
Ref 10.6 dBm * Att 30 dB * RBW 3 kHz * VBW 30 kHz * SWT 500 s Marker 1 [T1] -11.84 dBm 2.436412000 GHz



Date: 11.APR.2005 21:17:47



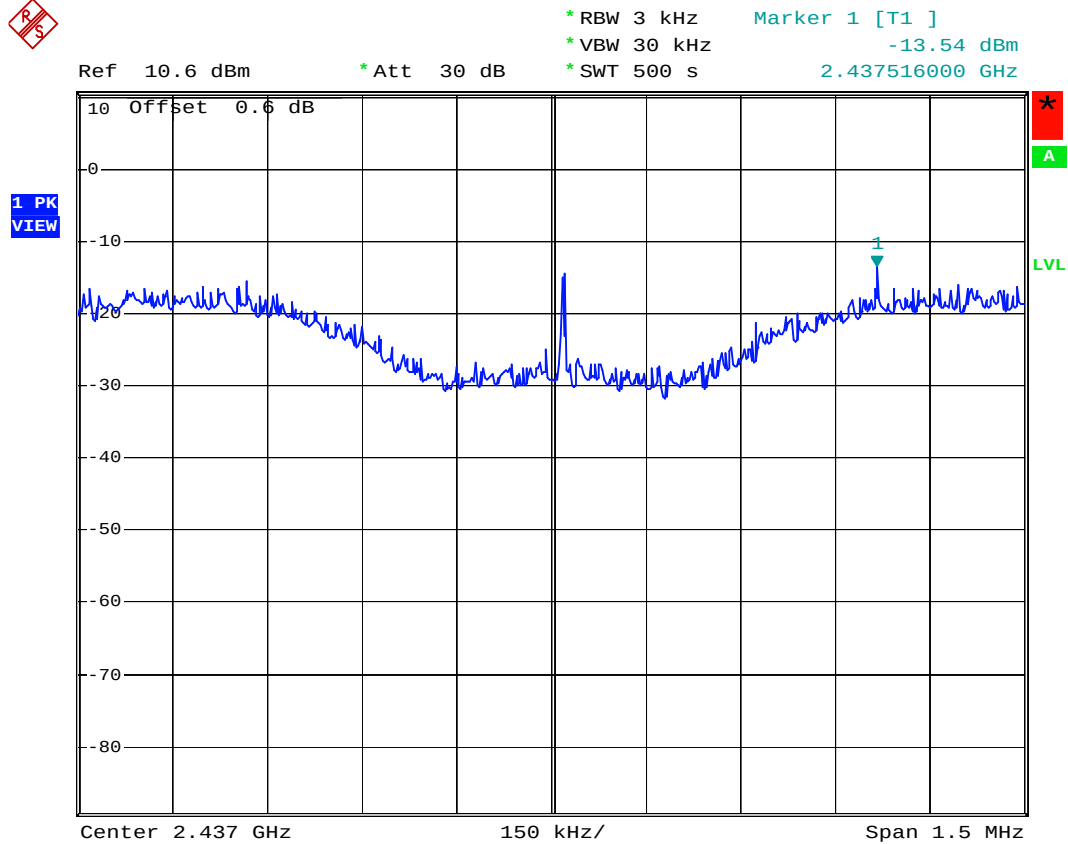
Mode 5 : 802.11g Tx CH06 (2437MHz)



Date: 11.APR.2005 20:53:17



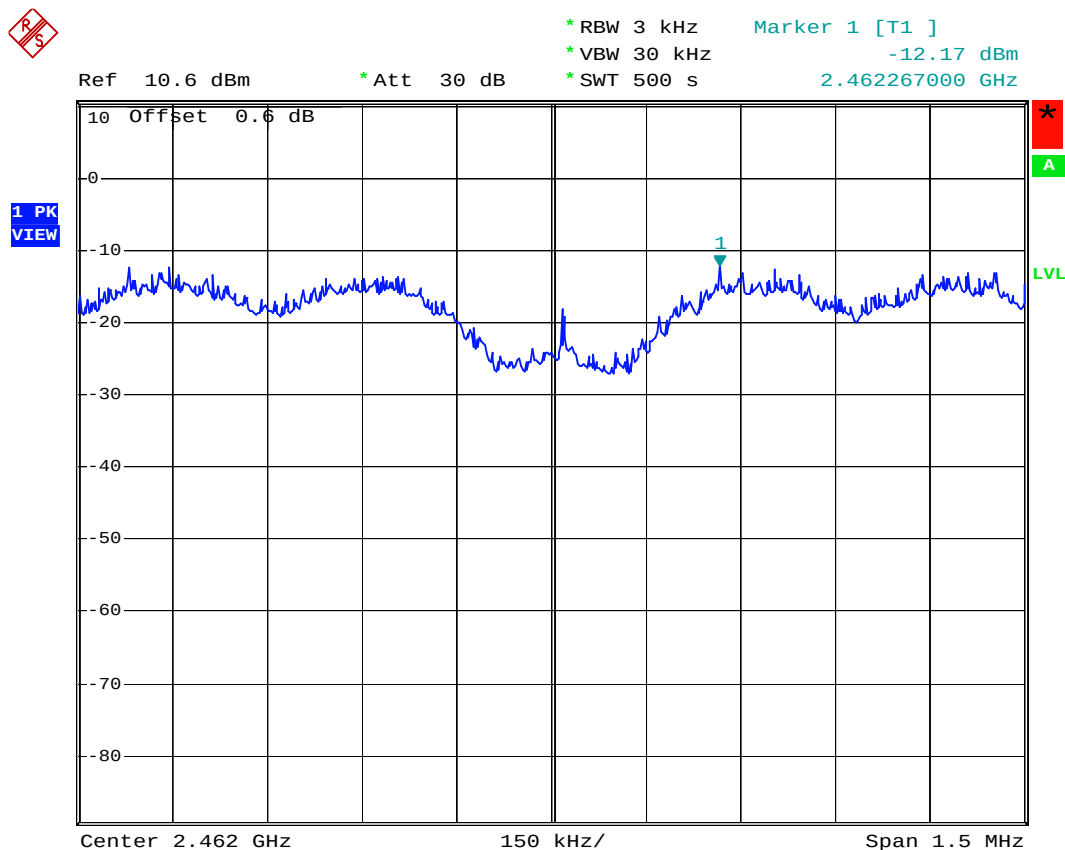
Mode 6 : 802.11g Tx CH06 (2437MHz) <Turbo mode>



Date: 11.APR.2005 20:53:52



Mode 7 : 802.11g Tx CH11 (2462MHz)



Date: 11.APR.2005 20:50:28



5.4 Band Edges Measurement

5.4.1 Measuring Instruments :

As described in chapter 6 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 :

- Application Type : 802.11b / g and turbo mode
- Temperature : 25°C,
- Relative Humidity : 60%
- Test Enginner : Jay

- Test Result in lower band (Channel 1) : PASS
- Test Result in higher band (Channel 11) : PASS
- Test Result for turbo mode (channel 06) : PASS

5.4.4 Note on Band Edge Emission

➤802.11b

CH01 (Horizontal)

Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Detect
		Limit	Line	Level	Factor	Factor	Loss	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	Mode
2390.00	60.47	-13.53	74.00	61.01	30.48	35.46	4.43	Peak
2390.00	44.10	-9.90	54.00	44.64	30.48	35.46	4.43	Average

CH01 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Detect
		Limit	Line	Level	Factor	Factor	Loss	
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	Mode
2390.00	67.97	-6.03	74.00	68.51	30.48	35.46	4.43	Peak
2390.00	50.64	-3.36	54.00	51.18	30.48	35.46	4.43	Average

**CH11 (Horizontal)**

Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Detect
(MHz)	(dBuV/m)	Limit	Line	Level	Factor	Factor	Loss	Mode
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	
2483.50	54.41	-19.59	74.00	54.98	30.41	35.51	4.52	Peak
2483.50	43.82	-10.18	54.00	44.40	30.41	35.51	4.52	Average

CH11 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Detect
(MHz)	(dBuV/m)	Limit	Line	Level	Factor	Factor	Loss	Mode
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	
2483.50	56.68	-17.32	74.00	57.25	30.41	35.51	4.52	Peak
2483.50	45.54	-8.46	54.00	46.12	30.41	35.51	4.52	Average

➤802.11g**CH01 (Horizontal)**

Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Detect
(MHz)	(dBuV/m)	Limit	Line	Level	Factor	Factor	Loss	Mode
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	
2390.00	69.97	-4.03	74.00	70.52	30.48	35.46	4.43	Peak
2390.00	48.62	-5.38	54.00	49.16	30.48	35.46	4.43	Average

CH01 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Detect
(MHz)	(dBuV/m)	Limit	Line	Level	Factor	Factor	Loss	Mode
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	
2390.00	73.05	-0.95	74.00	73.60	30.48	35.46	4.43	Peak
2390.00	53.64	-0.36	54.00	54.18	30.48	35.46	4.43	Average

**CH11 (Horizontal)**

Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Detect
(MHz)	(dBuV/m)	Limit	Line	Level	Factor	Factor	Loss	Mode
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	Mode
2483.50	60.46	-13.54	74.00	61.04	30.41	35.51	4.52	Peak
2483.50	46.78	-7.22	54.00	47.36	30.41	35.51	4.52	Average

CH11 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Detect
(MHz)	(dBuV/m)	Limit	Line	Level	Factor	Factor	Loss	Mode
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	Mode
2483.50	70.51	-3.49	74.00	71.08	30.41	35.51	4.52	Peak
2483.50	52.74	-1.26	54.00	53.32	30.41	35.51	4.52	Average

➤Turbo Mode**Turbo CH06 (Horizontal)**

Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Detect
(MHz)	(dBuV/m)	Limit	Line	Level	Factor	Factor	Loss	Mode
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	Mode
2390.00	64.16	-9.84	74.00	64.70	30.48	35.46	4.43	Peak
2390.00	46.51	-7.49	54.00	47.05	30.48	35.46	4.43	Average

Turbo CH06 (Vertical)

Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Detect
(MHz)	(dBuV/m)	Limit	Line	Level	Factor	Factor	Loss	Mode
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	Mode
2390.00	70.74	-3.26	74.00	71.28	30.48	35.46	4.43	Peak
2390.00	53.26	-0.74	54.00	53.80	30.48	35.46	4.43	Average

**Turbo CH06 (Horizontal)**

Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Detect
(MHz)	(dBuV/m)	Limit	Line	Level	Factor	Factor	Loss	Mode
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	
2483.50	58.78	-15.22	74.00	59.35	30.41	35.51	4.52	Peak
2483.50	46.12	-7.88	54.00	46.70	30.41	35.51	4.52	Average

Turbo CH06 (Vertical)

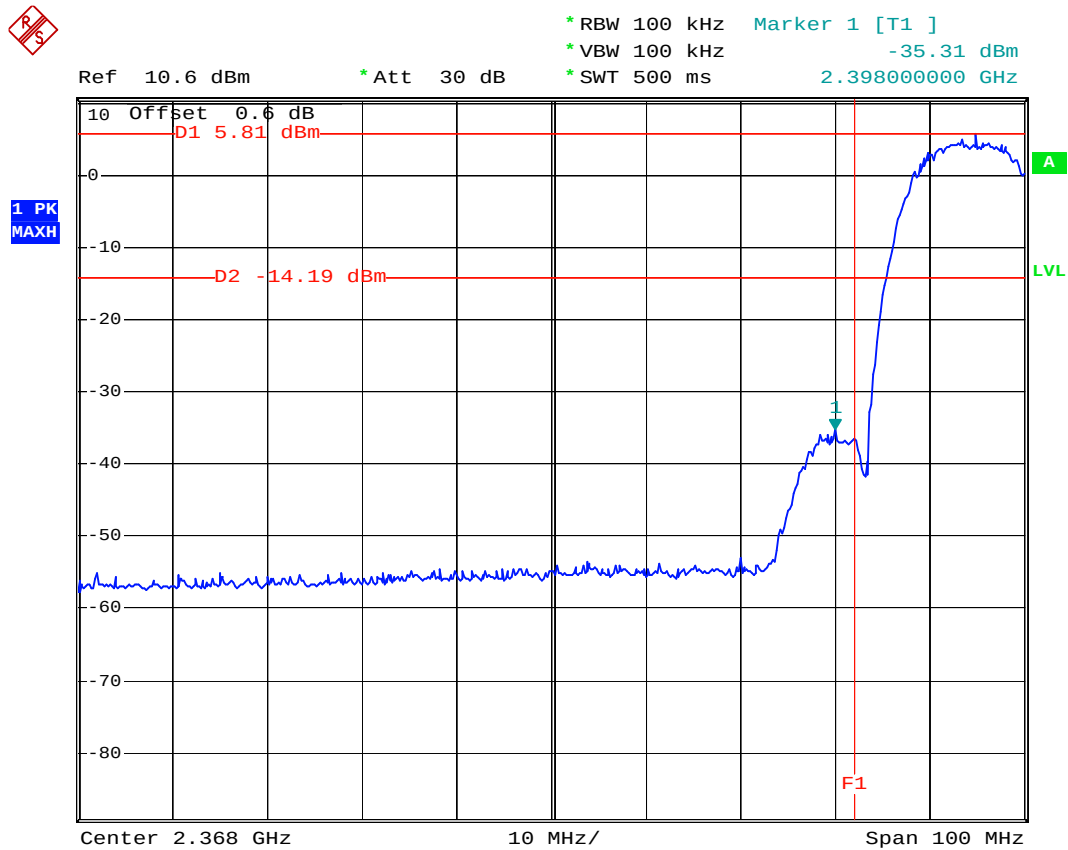
Frequency	Level	Over	Limit	Read	Antenna	Preamp	Cable	Detect
(MHz)	(dBuV/m)	Limit	Line	Level	Factor	Factor	Loss	Mode
(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV)	(dB/m)	(dB)	(dB)	
2483.50	66.96	-7.04	74.00	67.54	30.41	35.51	4.52	Peak
2483.50	52.92	-1.08	54.00	53.50	30.41	35.51	4.52	Average

*Remark: The data above can refer to radiated emission in section 5.7.



5.4.5 20dB Band Edge

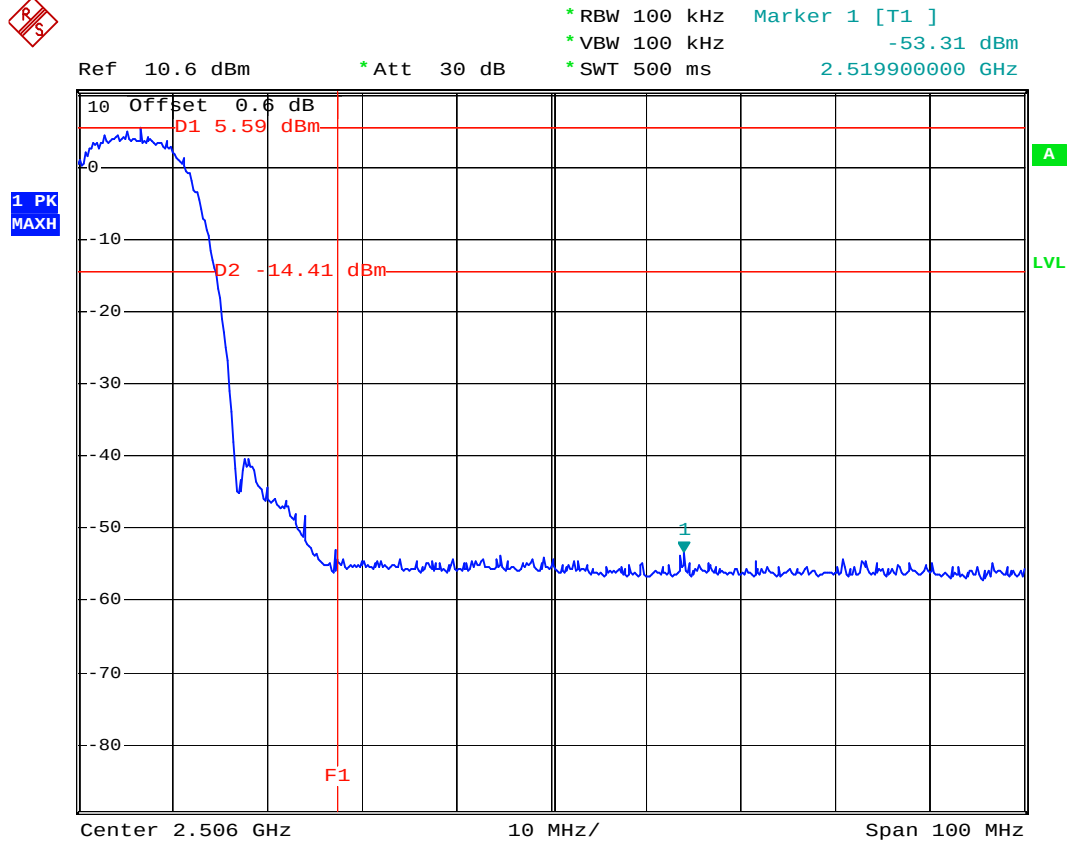
802.11b Tx CH01 (2412MHz)



Date: 11.APR.2005 21:07:37



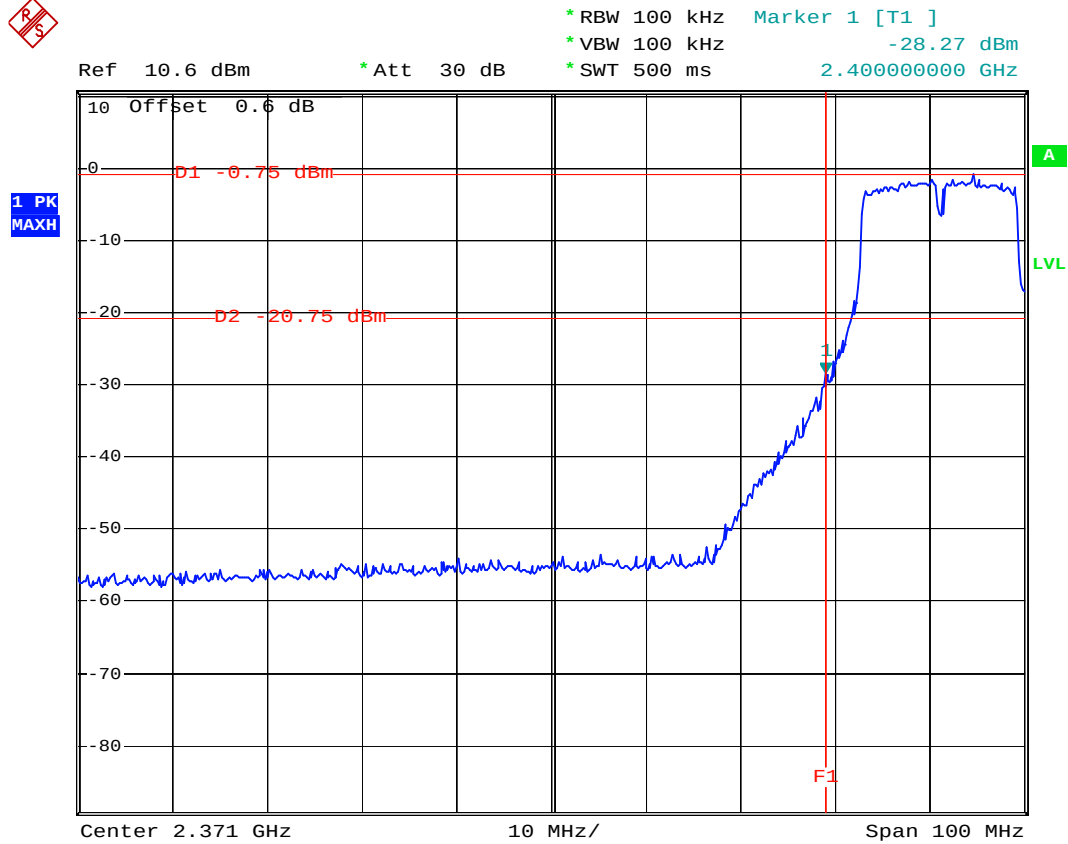
802.11b Tx CH11 (2462MHz)



Date: 11.APR.2005 21:08:42



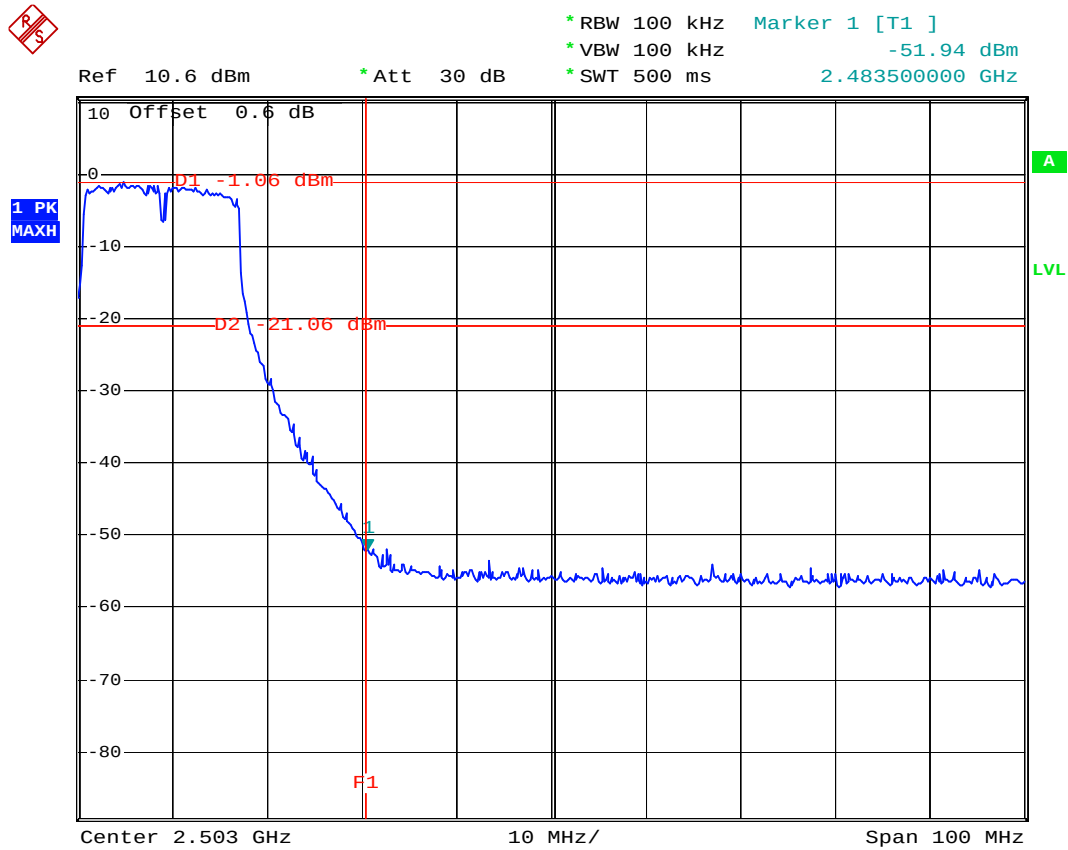
802.11g Tx CH01 (2412MHz)



Date: 11.APR.2005 20:58:41



802.11g Tx CH11 (2462MHz)



Date: 11.APR.2005 20:49:39

5.5 Peak Output Power Measurement

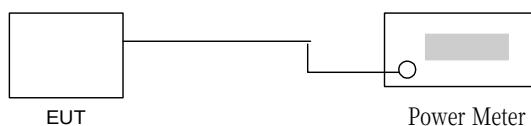
5.5.1 Measuring Instruments :

As described in chapter 6 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 :

- Application Type : 802.11b
- Temperature : 24°C
- Relative Humidity : 61 %
- Test Enginner : Jay

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	16.74	1W/30 dBm
06	2437	16.86	1W/30 dBm
11	2462	16.02	1W/30 dBm

**FCC TEST REPORT****Report No. : FR533106**

- Application Type : 802.11g
- Temperature : 24°C
- Relative Humidity : 61 %
- Test Enginner : Jay

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	17.72	1W/30 dBm
06	2437	17.56	1W/30 dBm
06 (Turbo)	2437	17.29	1W/30 dBm
11	2462	17.86	1W/30 dBm



5.6 Conducted Emission Measurement

5.6.1 Measuring Instruments

As described in chapter 6 of this test Report.

5.6.2 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 the line impedance stabilization network (LISN).
- c. All the support units are connect 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.

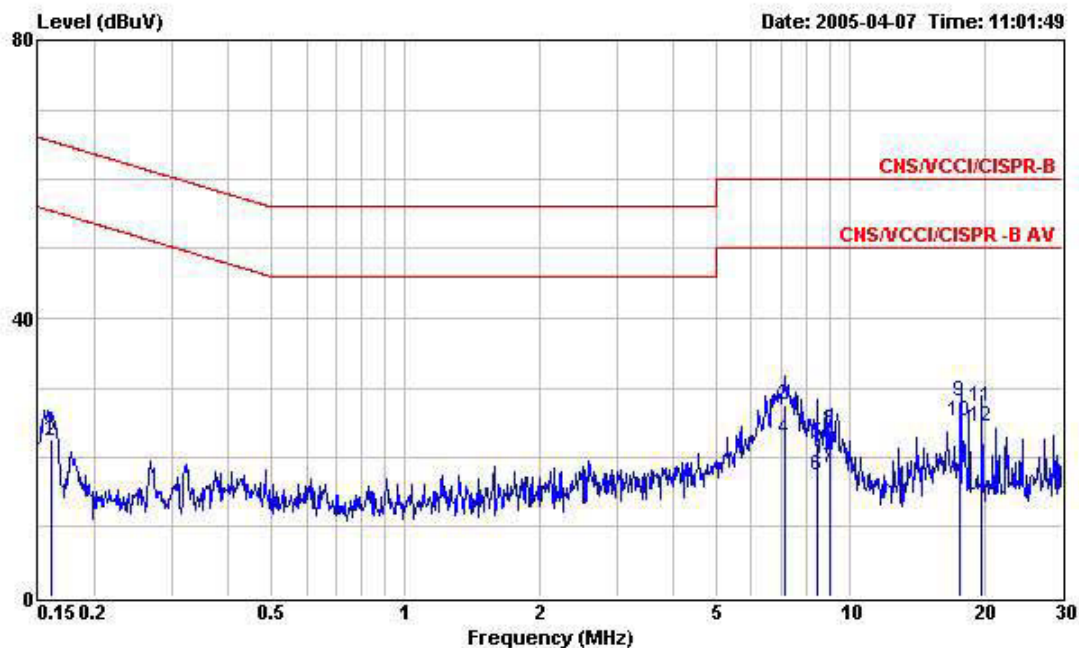


5.6.3 Test Data

5.4.1 Frequency Range of Test : 150kHz to 30 MHz

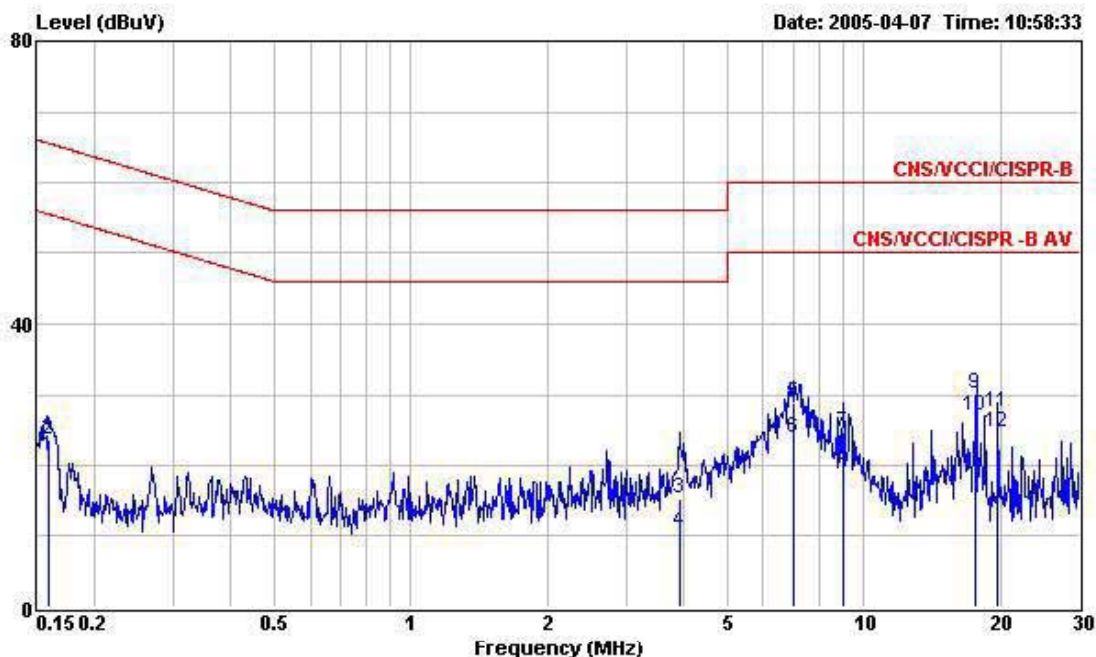
- Test Mode : Mode 1
- Temperature : 24°C
- Relative Humidity : 61%

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



Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2003 2001/008 LINE
EUT : WLAN bg Router
Power : 120Vac/60Hz
Model : 533106
Memo : PING
Adapter : DVE

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.161	22.61	-42.81	65.42	22.49	0.10	0.02	QP
2	0.161	22.25	-33.17	55.42	22.13	0.10	0.02	Average
3	7.140	27.53	-32.47	60.00	27.25	0.16	0.12	QP
4	7.140	22.66	-27.34	50.00	22.38	0.16	0.12	Average
5	8.410	22.10	-37.90	60.00	21.80	0.18	0.12	QP
6	8.410	17.37	-32.63	50.00	17.07	0.18	0.12	Average
7	9.045	18.51	-31.49	50.00	18.19	0.19	0.13	Average
8	9.045	23.90	-36.10	60.00	23.58	0.19	0.13	QP
9	17.693	28.11	-31.89	60.00	27.65	0.26	0.20	QP
10	17.693	25.11	-24.89	50.00	24.65	0.26	0.20	Average
11	19.710	27.26	-32.74	60.00	26.75	0.30	0.21	QP
12	19.710	24.45	-25.55	50.00	23.94	0.30	0.21	Average



Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2003 2001/008 NEUTRAL
EUT : WLAN bg Router
Power : 120Vac/50Hz
Model : 533106
Memo : PING
Adapter : DVE

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.158	21.36	-34.21	55.57	21.24	0.10	0.02	Average
2	0.158	23.73	-41.84	65.57	23.61	0.10	0.02	QP
3	3.920	15.22	-40.78	56.00	14.92	0.20	0.10	QP
4	3.920	10.66	-35.34	46.00	10.36	0.20	0.10	Average
5	7.020	28.84	-31.16	60.00	28.52	0.20	0.12	QP
6	7.020	23.98	-26.02	50.00	23.66	0.20	0.12	Average
7	9.010	24.70	-35.30	60.00	24.37	0.20	0.13	QP
8	9.010	19.88	-30.12	50.00	19.55	0.20	0.13	Average
9	17.694	30.00	-30.00	60.00	29.50	0.30	0.20	QP
10	17.694	27.06	-22.94	50.00	26.56	0.30	0.20	Average
11	19.709	27.57	-32.43	60.00	27.06	0.30	0.21	QP
12	19.709	24.73	-25.27	50.00	24.22	0.30	0.21	Average

Test Engineer : Jay

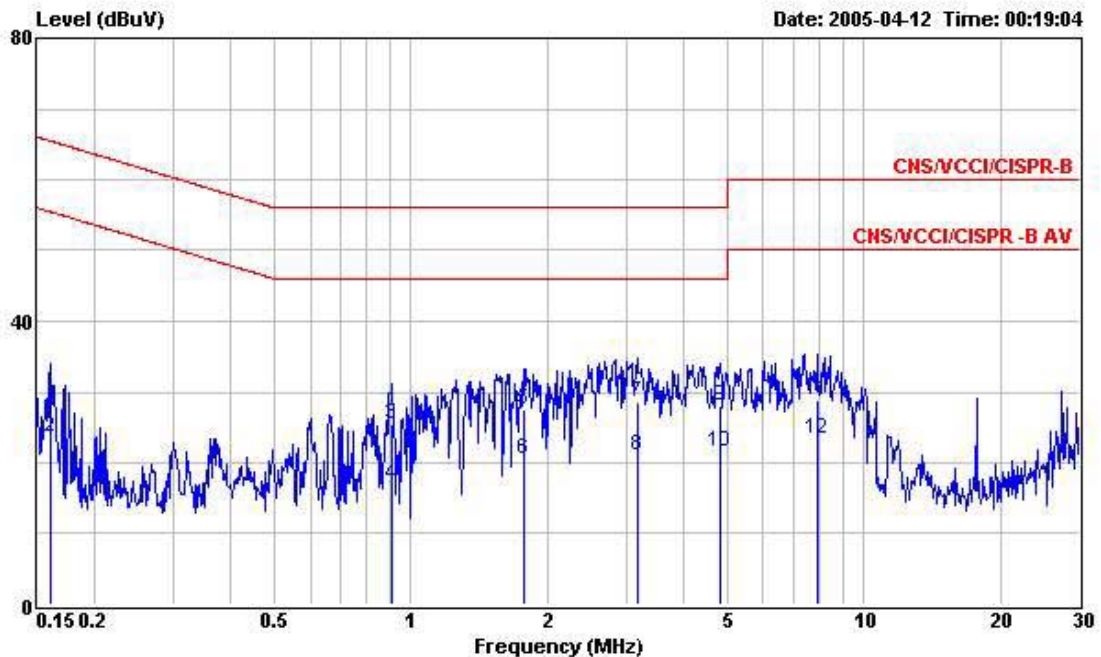
Jay



5.4.2 Frequency Range of Test : 150kHz to 30 MHz

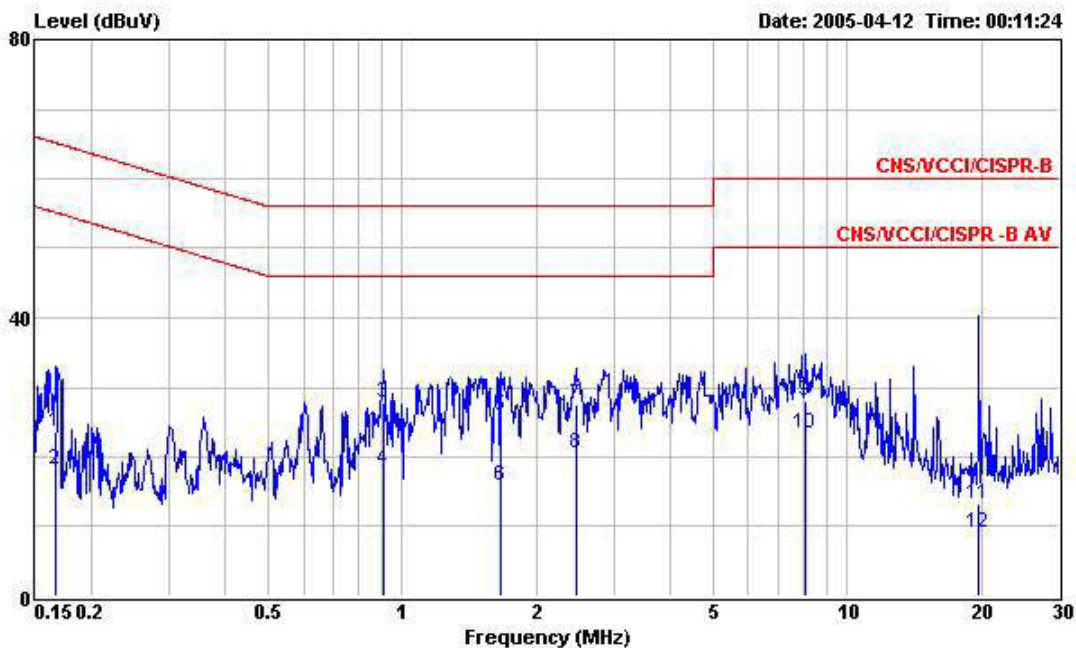
- Test Mode : Mode 2
- Temperature : 24°C
- Relative Humidity : 61%

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



Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2003 2001/008 LINE
EUT : WLAN bg Router
Power : 120Vac/60Hz
Model : 533106
Memo : PING
Adapter : Leader

	Freq	Level	Over	Limit	Read	Probe	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.160	25.69	-39.77	65.46	25.57	0.10	0.02	QP
2	0.160	23.69	-31.77	55.46	23.57	0.10	0.02	Average
3	0.909	25.47	-30.53	56.00	25.35	0.10	0.02	QP
4	0.909	16.95	-29.05	46.00	16.83	0.10	0.02	Average
5	1.780	27.47	-28.53	56.00	27.32	0.10	0.05	QP
6	1.780	20.64	-25.36	46.00	20.49	0.10	0.05	Average
7	3.160	28.52	-27.48	56.00	28.33	0.10	0.09	QP
8	3.160	21.06	-24.94	46.00	20.87	0.10	0.09	Average
9	4.820	28.14	-27.86	56.00	27.91	0.12	0.11	QP
10	4.820	21.61	-24.39	46.00	21.38	0.12	0.11	Average
11	7.890	28.82	-31.18	60.00	28.53	0.17	0.12	QP
12	7.890	23.38	-26.62	50.00	23.09	0.17	0.12	Average



Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2003 2001/008 NEUTRAL
EUT : WLAN bg Router
Power : 120Vac/60Hz
Model : 533106
Memo : PING
Adapter : Leader

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.166	23.61	-41.55	65.16	23.49	0.10	0.02	QP
2	0.166	18.09	-47.07	65.16	17.97	0.10	0.02	Average
3	0.909	27.68	-28.32	56.00	27.56	0.10	0.02	QP
4	0.909	18.30	-37.70	56.00	18.18	0.10	0.02	Average
5	1.670	26.02	-29.98	56.00	25.87	0.10	0.05	QP
6	1.670	15.83	-40.17	56.00	15.68	0.10	0.05	Average
7	2.460	27.45	-28.55	56.00	27.25	0.13	0.07	QP
8	2.460	20.50	-35.50	56.00	20.30	0.13	0.07	Average
9	8.020	28.17	-31.83	60.00	27.85	0.20	0.12	QP
10	8.020	23.40	-36.60	60.00	23.08	0.20	0.12	Average
11	19.740	13.13	-46.87	60.00	12.62	0.30	0.21	QP
12	19.740	9.19	-50.81	60.00	8.68	0.30	0.21	Average

Test Engineer : 

Jay

5.7 Radiated Emission Measurement

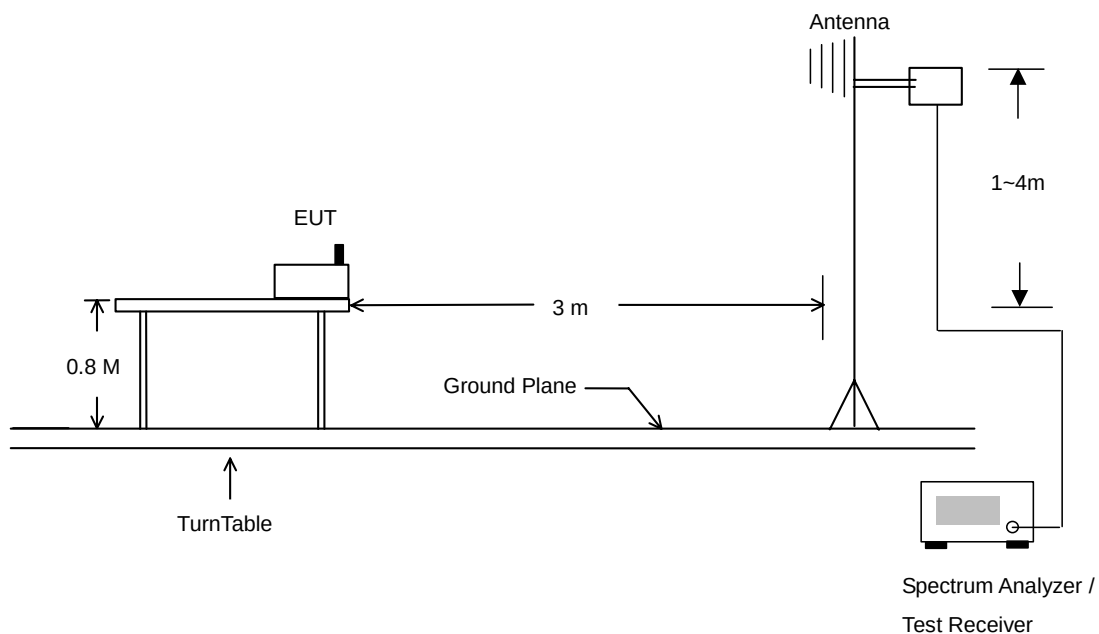
5.7.1 Measuring Instruments

As described in chapter 6 of this Report.

5.7.2 Test Procedures

1. The EUT was placed on a rotatable table top 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. 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.
5. 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.
6. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
7. 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.
8. 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.

5.7.3 Typical Test Setup Layout of Radiated Emission





5.7.4 Test Data

- Temperature : 25°C
- Relative Humidity : 60%
- Test Engineer : Jay
- Test Mode : Mode 1
- Polarization : Horizontal

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

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	2390.00	60.47	-13.53	74.00	61.01	30.48	35.46	4.43	Peak	---	---
2 @	2390.00	44.10	-9.90	54.00	44.64	30.48	35.46	4.43	Average	100	222
3 @	2414.00	103.32			103.87	30.47	35.46	4.43	Peak	---	---
4 @	2414.00	100.54			101.10	30.47	35.46	4.43	Average	100	222
5 @	2494.00	55.26	-18.74	74.00	55.84	30.40	35.53	4.55	Peak	---	---
6 @	2494.00	42.83	-11.17	54.00	43.41	30.40	35.53	4.55	Average	100	222

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	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	2390.00	67.97	-6.03	74.00	68.51	30.48	35.46	4.43	Peak	---	---
2 @	2390.00	50.64	-3.36	54.00	51.18	30.48	35.46	4.43	Average	100	232
3 @	2414.00	110.88			111.43	30.47	35.46	4.43	Peak	---	---
4 @	2414.00	108.24			108.80	30.47	35.46	4.43	Average	100	232
5 @	2494.00	54.57	-19.43	74.00	55.15	30.40	35.53	4.55	Peak	---	---
6 @	2494.00	48.77	-5.23	54.00	49.35	30.40	35.53	4.55	Average	100	232

Remark: # 3 and #4 Fundamental Signal



- Test Mode : Mode 2
- 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	Preamplifier Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	183.63	34.45	-9.05	43.50	56.50	9.22	31.27	0.00	QP	151	29
2 @	208.74	37.35	-6.15	43.50	58.96	9.75	31.36	0.00	Peak	---	---
3 @	276.24	40.52	-5.48	46.00	58.70	12.92	31.10	0.00	QP	138	247

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamplifier Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	644.40	38.27	-7.73	46.00	50.40	18.42	30.56	0.00	Peak	---	---
2 @	749.40	40.00	-6.00	46.00	50.25	20.46	30.71	0.00	Peak	---	---
3 @	827.80	39.20	-6.80	46.00	48.28	21.37	30.44	0.00	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamplifier Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	2390.00	54.75	-19.25	74.00	55.29	30.48	35.46	4.43	Peak	---	---
2 @	2390.00	42.94	-11.06	54.00	43.48	30.48	35.46	4.43	Average	100	221
3 @	2434.00	103.42			103.97	30.46	35.47	4.46	Peak	---	---
4 @	2434.00	100.54			101.10	30.46	35.47	4.46	Average	100	221
5 @	2484.00	54.96	-19.04	74.00	55.53	30.41	35.51	4.52	Peak	---	---
6 @	2484.00	42.63	-11.37	54.00	43.21	30.41	35.51	4.52	Average	100	221

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	ReadAntenna Level	Antenna Factor	Preamplifier Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	183.63	43.35	-0.15	43.50	65.40	9.22	31.27	0.00	QP	100	170
2 @	209.28	36.94	-6.56	43.50	58.57	9.73	31.36	0.00	Peak	---	---
3 @	276.24	43.02	-2.98	46.00	61.20	12.92	31.10	0.00	QP	120	98

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamplifier Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1	644.40	37.72	-8.28	46.00	49.86	18.42	30.56	0.00	Peak	---	---
2 @	749.40	39.74	-6.26	46.00	49.99	20.46	30.71	0.00	Peak	---	---
3 @	827.80	39.04	-6.96	46.00	48.11	21.37	30.44	0.00	Peak	---	---

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamplifier Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	2388.00	56.76	-17.24	74.00	57.31	30.48	35.44	4.40	Peak	---	---
2 @	2388.00	44.74	-9.26	54.00	45.29	30.48	35.44	4.40	Average	100	121
3 @	2434.00	110.52			111.08	30.46	35.47	4.46	Peak	---	---
4 @	2434.00	105.94			106.50	30.46	35.47	4.46	Average	100	121
5 @	2494.00	56.67	-17.33	74.00	57.25	30.40	35.53	4.55	Peak	---	---
6 @	2494.00	43.61	-10.39	54.00	44.19	30.40	35.53	4.55	Average	100	121

Remark: #3 and #4 Fundamental Signal