



Spectrum Research & Testing Lab., Inc.
No. 101-10, Ling 8,
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City, Taoyuan, Taiwan

TEST REPORT

Reference No.:A04092403
Report No.:FCCA04092403
Page:1 of 66
Date:Nov. 22, 2004

Product Name: Notebook
Model No.: 532
Applicant: ELITEGROUP COMPUTER SYSTEMS CO., LTD.
2F, NO. 240, Sec. 1, Nei Hu Road, Taipei,
Taiwan 114, R.O.C.
Date of Receipt: Sep. 24, 2004
Finished date of Test: Nov. 22, 2004
Applicable Standards: 47 CFR Part 15, Subpart C
ANSI C63.4:2003

We, **Spectrum Research & Testing Laboratory Inc.**, hereby certify that one sample of the above was tested in our laboratory with positive results according to the above-mentioned standards. The records in the report are an accurate account of the results. Details of the results are given in the subsequent pages of this report.

Checked By : Sunyou Chen , Date: 11/22/2004
(Sunyou Chen)

Approved By : J. Ho , Date: Nov. 22, 2004
(Johnson Ho, Director)

FCC ID:SA6G532QGXX

NVLAQ[®]

Lab Code: 200099-0



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1. DOCUMENT POLICY AND TEST STATEMENT

1.1 DOCUMENT POLICY

- The report shall not be reproduced except in full, without the written approval of SRT Lab, Inc.
- The report must not be used by the applicant to claim that the product is endorsed by NVLAP, TÜV, NEMKO and SRT.
- The NVLAP logo applies only to the applicable standards specified in this report.

1.2 TEST STATEMENT

- The test results in the report apply only to the unit tested by SRT Lab.
- There was no deviation from the requirements of test standards during the test.
- AC power source, 120 VAC/60 Hz, was used during the test.

1.3 EUT MODIFICATION

- No modification in SRT Lab.



2. DESCRIPTION OF EUT AND TEST MODE

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	NoteBook
MODEL NO.	532
POWER SUPPLY	AC100~240V, 1.5A DC 19V, 3.16A
CABLE	N/A
FREQUENCY BAND	2400 ~ 2483.5MHz
NUMBER OF CHANNEL	1~11
CHANNEL SPACING	5MHz
RATED RF OUTPUT POWER	13dBm
MODULATION TYPE	IEEE 802.11g: 64QAM IEEE 802.11b:BPSK/QPSK/CCK/OFDM
BIT RATE OF TRANSMISSION	64 & 128Bit WEP, WPA, AES
ANTENNA TYPE	PIFA
ANTENNA GAIN	0.6 dBi

NOTE : For more detailed features, please refer to the manufacturer' s specification or User' s Manual of EUT.

2.2 DESCRIPTION OF EUT INTERNAL DEVICE

DEVICE	BRAND / MAKER	MODEL #	FCC ID/DOC	REMARK
Battery	LI-ION	EM-520P3G	N/A	
Battery	LI-ION	NBP4B06	N/A	
DVD ROM	QUANTA	SBW-242B	DoC	
FAN	SUNON	GB0555AGV1-8A	N/A	
HDD	HITACHI	DK23EA-40	N/A	
LCD	TORISAN	TM150XG-02L11	N/A	
RAM	TWINMOS	M2S5J08D-ED	N/A	

NOTE :

- 1.The CPU installed on this mainboard is Intel P4 1GHz with system clock 100MHz.
- 2.Frequency range to be measured.
Radiated emission is 30MHz to 1GHz.



2.3 DESCRIPTION OF TEST MODE

11 channels are provided by EUT. The 3 channels of lower, medium and higher were chosen for test.

There are test mode for each test configuration as below:

Mode		Modulation Type	Channel	Frequency (MHz)
1	IEEE 802.11g	64QAM	CH1	2412
2			CH6	2437
3			CH11	2462
4	IEEE 802.11g	CCK	CH1	2412
5			CH6	2437
6			CH11	2462

NOTE :

1. Below 1 GHz, the channel 1, 6 and 11 were pre-tested in chamber. The channel 11, worst case one, was chosen for conducted and radiated emission test.
2. Above 1 GHz, the channel 1, 6 and 11 were tested individually

2.4 DESCRIPTION OF SUPPORT UNIT

The transmitter part of EUT was tested with a PC system and configured by the requirement of ANSI C63.4:2003. All interface ports were connected to the appropriate support units via specific cables. The support units and cables are listed below:

NO	DEVICE	BRAND	MODEL #	FCC ID/DOC	CABLE
1	MONITOR	SAMSUNG	PG17IS	DOC	1.5m unshielded power cord 1.5m shielded data cable
2	KEYBOARD	ACER	6311-TA	DOC	1.5m shielded data cable
3	MOUSE	HP	MO19UCA	DOC	1.5m shielded data cable
4	PRINTER	EPSON	STYLUS C20SX	DOC	1.5m unshielded power cord 1.2m shielded data cable
5	USB HDD	TERASYS	F12-U	DOC	1.5m unshielded power cord 1.2m shielded data cable
6	USB HDD	TERASYS	F12-U	DOC	1.8m unshielded power cord 1.5m shielded data cable
7	TV	PANASONIC	TC-14S10R2	N/A	1.5m unshielded power cable
8	EARPHONE	SHYARO CHI	MIC-4	N/A	1.8m unshielded data cable
9	TELEPHONE	U-TECH	UF-3216	N/A	1.8m unshielded data cable

NOTE: For the actual test configuration, please refer to the photos of testing.



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3. DESCRIPTION OF APPLIED STANDARDS

The EUT is a kind of wireless product and to be connected with a PC system for normal use. According to the specifications provided by the applicant, it must comply with the requirements of the following standards:

47 CFR Part 15, Subpart C
ANSI C63.4:2003

All tests have been performed and recorded as the above standards.



4. TECHNICAL CHARACTERISTICS TEST

4.1 CONDUCTED EMISSION TEST

4.1.1 LIMIT

Frequency (MHz)	Class A (dB μ V)		Class B (dB μ V)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

NOTE :

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

4.1.2 TEST EQUIPMENT

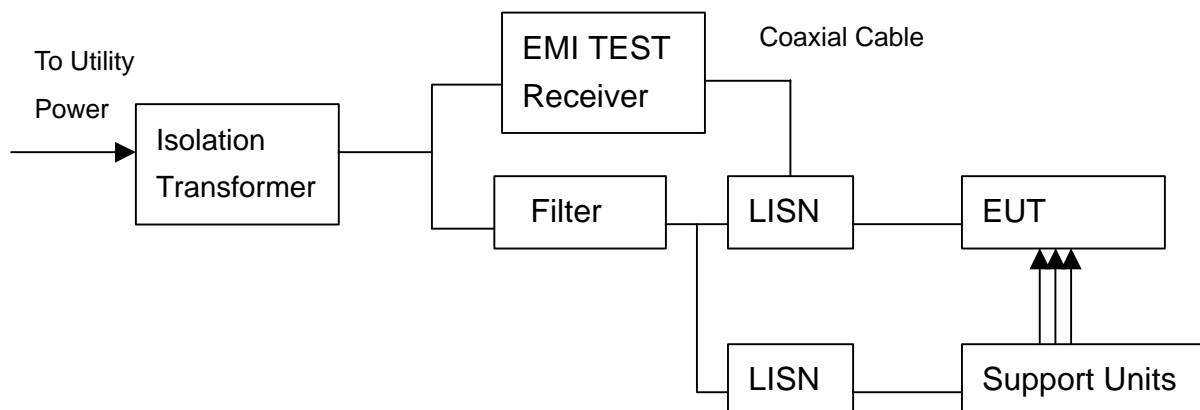
The following test equipment was used for the test:

EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DUE DATE OF CAL. & CAL. CENTER
EMI TEST RECEIVER	9 kHz TO 30 MHz	ROHDE & SCHWARZ	ESHS30/ 826003/008	AUG. 2005 ETC
LISN (for EUT)	50 μ H, 50 ohm	SOLAR ELECTRONICS	FCC-LISN-50-25-2 / 01018	NOV. 2005 ETC
LISN (for Peripheral)	50 μ H, 50 ohm	SOLAR ELECTRONICS	9252-50-R-24-BNC / 951318	JUN. 2005 ETC
50 ohm TERMINATOR	50 ohm	HP	11593A/ 2	MAR. 2005 ETC
COAXIAL CABLE	3m	SUNCITY	J400/ 3M	JUL. 2005 SRT
ISOLATION TRANSFORMER	N/A	APC	AFC-11015/ F102040016	N/A
FILTER	2 LINE, 30A	FIL.COIL	FC-943/ 771	N/A
GROUND PLANE	2.3M (H) x 2.4M (W)	SRT	N/A	N/A
GROUND PLANE	2.4M (H) x 2.4M (W)	SRT	N/A	N/A

NOTE: The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.



4.1.3 TEST SETUP



NOTE:

1. The EUT was put on a wooden table with 0.8m heights above ground plane, and 0.4m away from reference ground plane (> 2mx2m).
2. For the actual test configuration, please refer to the photos of testing.
3. The serial no. of the LISN connected to EUT is 951318.
4. The serial no. of the LISN connected to support units is 924839.

4.1.4 TEST PROCEDURE

The EUT was tested according to the requirement of ANSI C63.4:2003 and CISPR22:2003. The frequency spectrum from 0.15 MHz to 30 MHz was investigated. The LISN used was 50 ohm/50 μ H as specified. All readings were quasi-peak and average values with 10 kHz resolution bandwidth of the test receiver. The EUT system was operated in all typical methods by users. Both lines of the power mains of EUT were measured and the cables connected to EUT and support units were moved to find the maximum emission levels for each frequency. First, Find the margin or higher points at least 6 points by software, then use manual to find the maximum data. The procedure is referred on the test procedure of SRT LAB.

4.1.5 EUT OPERATING CONDITION

1. Set the EUT under normal condition continuously at the link mode.
2. The EUT used programs to control channels when it was tested for RF power and emission.



4.1.6 TEST RESULT

Temperature:	25 °C	Humidity:	58 %RH
Ferquency Range:	0.15 – 30 MHz	Tested Mode:	IEEE 802.11g
Receiver Detector:	Q.P. and AV.	Modulation Type:	64QAM
Tested By:	Nick Chen	Tested Channel:	CH1: 2412MHz
Tested Date:	Oct. 22, 2004		

Power Line Measured : Line

Freq. (MHz)	Correct. Factor (dB)	Reading Value (dBmV)		Emission Level (dBmV)		Limit (dBmV)		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.453	0.27	41.28	38.47	41.55	38.74	56.80	46.80	-15.26	-8.07
0.459	0.27	41.14	36.95	41.41	37.22	56.70	46.70	-15.29	-9.48
1.042	0.19	45.36	40.39	45.55	40.58	56.00	46.00	-10.45	-5.42
1.220	0.19	43.14	33.59	43.33	33.78	56.00	46.00	-12.67	-12.22
1.230	0.19	43.72	37.85	43.91	38.04	56.00	46.00	-12.09	-7.96
11.902	0.12	31.60	26.10	31.72	26.22	60.00	50.00	-28.28	-23.78

Power Line Measured : Neutral

Freq. (MHz)	Correct. Factor (dB)	Reading Value (dBmV)		Emission Level (dBmV)		Limit (dBmV)		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.456	0.46	41.52	39.14	41.98	39.60	56.75	46.75	-14.77	-7.15
0.459	0.27	41.38	36.67	41.65	36.94	56.70	46.70	-15.05	-9.76
1.230	0.19	44.50	38.36	44.69	38.55	56.00	46.00	-11.31	-7.45
1.240	0.19	44.32	38.13	44.51	38.32	56.00	46.00	-11.49	-7.68
10.258	0.13	32.80	27.23	32.93	27.36	60.00	50.00	-27.07	-22.64
10.319	0.13	32.30	26.73	32.43	26.86	60.00	50.00	-27.57	-23.14

NOTE :

1. Measurement uncertainty is +/-1.32dB
2. Emission level = Reading value + Correction factor
3. Correction Factor = Cable loss + Insertion loss of LISN
4. Margin value = Emission level - Limit
5. The emission of other frequencies were very low against the limit.
6. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.



Temperature:	25 °C	Humidity:	58 %RH
Ferquency Range:	0.15 – 30 MHz	Tested Mode:	IEEE 802.11g
Receiver Detector:	Q.P. and AV.	Modulation Type:	64QAM
Tested By:	Nick Chen	Tested Channel:	CH6: 2437MHz
Tested Date:	Oct. 22, 2004		

Power Line Measured : Line

Freq. (MHz)	Correct. Factor (dB)	Reading Value (dBmV)		Emission Level (dBmV)		Limit (dBmV)		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.462	0.27	40.08	35.38	40.35	35.65	56.64	46.64	-16.29	-10.99
0.465	0.27	37.90	35.28	38.17	35.55	56.59	46.59	-18.42	-11.04
1.057	0.19	45.24	39.23	45.43	39.42	56.00	46.00	-10.57	-6.58
1.250	0.19	43.56	37.39	43.75	37.58	56.00	46.00	-12.25	-8.42
1.507	0.19	42.64	35.61	42.83	35.80	56.00	46.00	-13.17	-10.20
10.298	0.13	31.76	26.24	31.89	26.37	60.00	50.00	-28.11	-23.63

Power Line Measured : Neutral

Freq. (MHz)	Correct. Factor (dB)	Reading Value (dBmV)		Emission Level (dBmV)		Limit (dBmV)		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.453	0.45	40.52	37.42	40.97	37.87	56.80	46.80	-15.83	-8.93
0.462	0.27	40.42	34.16	40.69	34.43	56.64	46.64	-15.95	-12.21
1.100	0.19	42.80	33.80	42.99	33.99	56.00	46.00	-13.01	-12.01
1.230	0.19	42.24	36.53	42.43	36.72	56.00	46.00	-13.57	-9.28
1.250	0.19	42.70	35.21	42.89	35.40	56.00	46.00	-13.11	-10.60
11.841	0.12	31.10	25.60	31.22	25.72	60.00	50.00	-28.78	-24.28

NOTE :

1. Measurement uncertainty is +/-1.32dB
2. Emission level = Reading value + Correction factor
3. Correction Factor = Cable loss + Insertion loss of LISN
4. Margin value = Emission level - Limit
5. The emission of other frequencies were very low against the limit.
6. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.



Temperature:	25 °C	Humidity:	58 %RH
Ferquency Range:	0.15 – 30 MHz	Tested Mode:	IEEE 802.11g
Receiver Detector:	Q.P. and AV.	Modulation Type:	64QAM
Tested By:	Nick Chen	Tested Channel:	CH11: 2462MHz
Tested Date:	Oct. 22, 2004		

Power Line Measured : Line

Freq. (MHz)	Correct. Factor (dB)	Reading Value (dBmV)		Emission Level (dBmV)		Limit (dBmV)		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.450	0.27	41.92	29.90	42.19	30.17	56.86	46.86	-14.67	-16.69
0.453	0.27	34.74	36.85	35.01	37.12	56.80	46.80	-21.80	-9.69
0.792	0.23	46.54	35.60	46.77	35.83	56.00	46.00	-9.23	-10.17
1.349	0.19	43.36	36.27	43.55	36.46	56.00	46.00	-12.45	-9.54
1.556	0.19	43.32	30.50	43.51	30.69	56.00	46.00	-12.49	-15.31
10.532	0.13	32.80	26.88	32.93	27.01	60.00	50.00	-27.07	-22.99

Power Line Measured : Neutral

Freq. (MHz)	Correct. Factor (dB)	Reading Value (dBmV)		Emission Level (dBmV)		Limit (dBmV)		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.447	0.45	45.24	43.59	45.69	44.04	56.92	46.92	-11.23	-2.88
0.453	0.27	44.30	35.66	44.57	35.93	56.80	46.80	-12.24	-10.88
0.788	0.23	47.84	40.29	48.07	40.52	56.00	46.00	-7.93	-5.48
1.230	0.19	43.92	38.10	44.11	38.29	56.00	46.00	-11.89	-7.71
1.556	0.19	43.72	37.33	43.91	37.52	56.00	46.00	-12.09	-8.48
10.806	0.13	33.40	27.37	33.53	27.50	60.00	50.00	-26.47	-22.50

NOTE :

1. Measurement uncertainty is +/-1.32dB
2. Emission level = Reading value + Correction factor
3. Correction Factor = Cable loss + Insertion loss of LISN
4. Margin value = Emission level - Limit
5. The emission of other frequencies were very low against the limit.
6. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.



Temperature:	25 °C	Humidity:	58 %RH
Ferquency Range:	0.15 – 30 MHz	Tested Mode:	IEEE 802.11b
Receiver Detector:	Q.P. and AV.	Modulation Type:	CCK
Tested By:	Hugo Yeh	Tested Channel:	CH1: 2412MHz
Tested Date:	Nov. 22, 2004		

Power Line Measured : Line

Freq. (MHz)	Correct. Factor (dB)	Reading Value (dBmV)		Emission Level (dBmV)		Limit (dBmV)		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.168	0.30	45.20	16.90	45.50	17.20	65.04	55.04	-19.54	-37.84
1.636	0.19	30.00	26.40	30.19	26.59	56.00	46.00	-25.81	-19.41
2.794	0.18	33.70	26.20	33.88	26.38	56.00	46.00	-22.12	-19.62
14.176	0.11	33.20	30.60	33.31	30.71	60.00	50.00	-26.69	-19.29
14.727	0.11	24.00	17.40	24.11	17.51	60.00	50.00	-35.89	-32.49
16.497	0.11	22.30	16.90	22.41	17.01	60.00	50.00	-37.59	-32.99

Power Line Measured : Neutral

Freq. (MHz)	Correct. Factor (dB)	Reading Value (dBmV)		Emission Level (dBmV)		Limit (dBmV)		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.153	0.15	48.00	21.40	48.15	21.55	65.82	55.82	-17.67	-34.27
1.566	0.19	31.80	26.60	31.99	26.79	56.00	46.00	-24.01	-19.21
2.725	0.18	34.90	27.30	35.08	27.48	56.00	46.00	-20.92	-18.52
12.600	0.12	28.60	25.10	28.72	25.22	60.00	50.00	-31.28	-24.78
14.714	0.11	25.90	19.90	26.01	20.01	60.00	50.00	-33.99	-29.99
16.691	0.11	25.50	19.20	25.61	19.31	60.00	50.00	-34.39	-30.69

NOTE :

1. Measurement uncertainty is +/-1.32dB
2. Emission level = Reading value + Correction factor
3. Correction Factor = Cable loss + Insertion loss of LISN
4. Margin value = Emission level - Limit
5. The emission of other frequencies were very low against the limit.
6. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.



Temperature:	25 °C	Humidity:	58 %RH
Ferquency Range:	0.15 – 30 MHz	Tested Mode:	IEEE 802.11g
Receiver Detector:	Q.P. and AV.	Modulation Type:	CCK
Tested By:	Hugo Yeh	Tested Channel:	CH6: 2437MHz
Tested Date:	Nov. 22, 2004		

Power Line Measured : Line

Freq. (MHz)	Correct. Factor (dB)	Reading Value (dBmV)		Emission Level (dBmV)		Limit (dBmV)		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.162	0.30	47.70	18.50	48.00	18.80	65.34	55.34	-17.34	-36.54
1.903	0.18	31.20	26.20	31.38	26.38	56.00	46.00	-24.62	-19.62
2.042	0.18	32.30	26.60	32.48	26.78	56.00	46.00	-23.52	-19.22
12.521	0.12	32.00	28.70	32.12	28.82	60.00	50.00	-27.88	-21.18
13.881	0.11	32.30	29.60	32.41	29.71	60.00	50.00	-27.59	-20.29
17.081	0.11	27.30	21.90	27.41	22.01	60.00	50.00	-32.59	-27.99

Power Line Measured : Neutral

Freq. (MHz)	Correct. Factor (dB)	Reading Value (dBmV)		Emission Level (dBmV)		Limit (dBmV)		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.156	0.16	47.94	20.53	48.10	20.69	65.66	55.66	-17.56	-34.97
1.497	0.19	31.10	26.73	31.29	26.92	56.00	46.00	-24.71	-19.08
2.447	0.18	34.10	26.40	34.28	26.58	56.00	46.00	-21.72	-19.42
14.216	0.11	32.70	29.70	32.81	29.81	60.00	50.00	-27.19	-20.19
14.419	0.11	33.60	30.60	33.71	30.71	60.00	50.00	-26.29	-19.29
15.851	0.11	26.30	19.60	26.41	19.71	60.00	50.00	-33.59	-30.29

NOTE :

1. Measurement uncertainty is +/-1.32dB
2. Emission level = Reading value + Correction factor
3. Correction Factor = Cable loss + Insertion loss of LISN
4. Margin value = Emission level - Limit
5. The emission of other frequencies were very low against the limit.
6. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.



Temperature:	25 °C	Humidity:	58 %RH
Ferquency Range:	0.15 – 30 MHz	Tested Mode:	IEEE 802.11b
Receiver Detector:	Q.P. and AV.	Modulation Type:	CCK
Tested By:	Hugo Yeh	Tested Channel:	CH11: 2462MHz
Tested Date:	Nov. 22, 2004		

Power Line Measured : Line

Freq. (MHz)	Correct. Factor (dB)	Reading Value (dBmV)		Emission Level (dBmV)		Limit (dBmV)		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.153	0.30	48.40	21.80	48.70	22.10	65.82	55.82	-17.12	-33.72
2.586	0.18	32.20	25.30	32.38	25.48	56.00	46.00	-23.62	-20.52
3.606	0.17	30.60	25.20	30.77	25.37	56.00	46.00	-25.23	-20.63
12.582	0.12	29.90	25.10	30.02	25.22	60.00	50.00	-29.98	-24.78
13.932	0.11	30.50	25.80	30.61	25.91	60.00	50.00	-29.39	-24.09
15.707	0.11	27.80	22.80	27.91	22.91	60.00	50.00	-32.09	-27.09

Power Line Measured : Neutral

Freq. (MHz)	Correct. Factor (dB)	Reading Value (dBmV)		Emission Level (dBmV)		Limit (dBmV)		Margin (dB)	
		Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
0.159	0.16	47.10	19.20	47.26	19.36	65.50	55.50	-18.24	-36.14
1.497	0.19	30.20	25.20	30.39	25.39	56.00	46.00	-25.61	-20.61
1.566	0.19	29.80	24.60	29.99	24.79	56.00	46.00	-26.01	-21.21
12.034	0.13	28.60	23.40	28.73	23.53	60.00	50.00	-31.27	-26.47
14.003	0.15	28.30	23.10	28.45	23.25	60.00	50.00	-31.55	-26.75
15.092	0.12	27.30	21.90	27.42	22.02	60.00	50.00	-32.58	-27.98

NOTE :

1. Measurement uncertainty is +/-1.32dB
2. Emission level = Reading value + Correction factor
3. Correction Factor = Cable loss + Insertion loss of LISN
4. Margin value = Emission level - Limit
5. The emission of other frequencies were very low against the limit.
6. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.



4.2 RADIATED EMISSION TEST

4.2.1 LIMIT

FCC Part15, Subpart C Section 15.209 limit of radiated emission for frequency below1000MHz. The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

FREQUENCY (MHz)	DISTANCE (m)	FIELD STRENGTH (dBmV/m)
30 - 88	3	40.0
88 - 216	3	43.5
216 - 960	3	46.0
Above 960	3	54.0

NOTE :

1. In the emission tables above , the tighter limit applies at the band edges.
2. Distance refers to the distance between measuring instrument, antenna, and the closest point of any part of the device or system.

FCC Part 15, Section15.35(b) limit of radiated emission for frequency above 1000 MHz

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



4.2.2 TEST EQUIPMENT

The following test equipment was used during the radiated emission test:

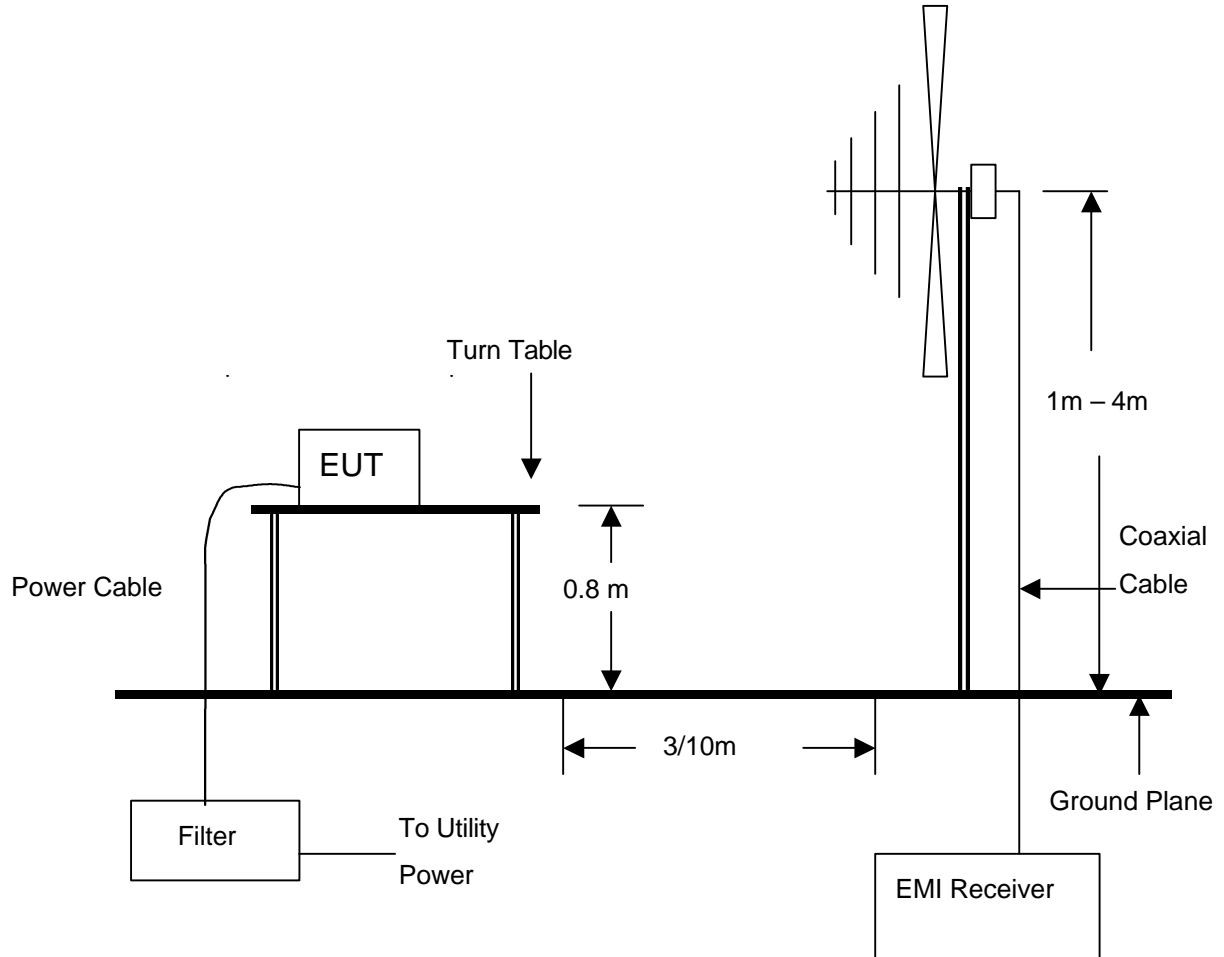
EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DUE DATE OF CAL. & CAL. CENTER
EMI TEST RECEIVER	20 kHz TO 1 GHz	ROHDE & SCHWARZ	ESVS30/ 841977/003	SEP. 2005 ETC
BI-LOG ANTENNA	25 MHz TO 2 GHz	EMCO	3142/ 9701-1124	APR. 2005 SRT
DIPOLE ANTENNA	30 MHz TO 1 GHz	EMCO	3121C/ 9611-1239	MAR. 2005 ETC
SPECTRUM ANALYZER	9 KHz TO 26.5 GHz	HP	8593E/ 3710A03220	MAY 2005 ETC
PRE-AMPLIFIER	1 GHz TO 26.5 GHz	HP	8449B/ 3008A01019	DEC. 2004 ETC
HORN ANTENNA	1 GHz TO 18 GHz	EMCO	3115/ 9602-4681	NOV. 2004 ETC
OATS	3 – 10 M MEASUREMENT	SRT	SRT-1	APR. 2005 SRT
COAXIAL CABLE	25M	SUNCITY	J400/ 25M	AUG. 2005 SRT
FILTER	2 LINE, 30A	FIL.COIL	FC-943/ 869	N/A
FREQUENCY CONVERTER	N/A	APC	AFC-2KBB/ F100030031	AUG. 2005 SRT

NOTE:

1. The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.
2. The Open Area Test Site (SRT-1) is registered by FCC with No. 90957 and VCCI with No. R-1081.
3. The Open Area Test Site (SRT-2) is registered by FCC with No. 98458 and VCCI with No. R-1168.



4.2.3 TEST SET-UP



NOTE :

1. The EUT system was put on a wooden table with 0.8m heights above a ground plane.
2. For the actual test configuration, please refer to the photos of testing.



4.2.4 TEST PROCEDURE

The EUT was tested according to the requirement of ANSI C63.4:2003 and CISPR 22:2003. The measurements were made at an open area test site with 10 meter measurement distance under 1 GHz and with 3m distance above 1GHz. The frequency spectrum measured started from 30 MHz. Under 1 GHz, all readings were quasi-peak values with 120 kHz resolution bandwidth of the test receiver. Above 1 GHz, the measurements were made at an open area test site with 3 meter measurement distance and all readings were peak or average values with 1 MHz resolution bandwidth of the test receiver. The EUT system was operated in all typical methods by users. The cables connected to EUT and support units were moved to find the maximum emission levels for each frequency.

First, find the margin or higher points at least 6 points by software, then use manual to find the maximum data. The procedure is referred on the test procedure of SRT LAB.

4.2.5 EUT OPERATING CONDITION

Same as section 4.1.5 of this report.



4.2.6 TEST RESULT

Temperature:	<u>24 °C</u>	Humidity:	<u>60 %RH</u>
Ferquency Range:	<u>30 – 1000 MHz</u>	Measured Distance:	<u>3m</u>
Receiver Detector:	<u>Q.P.</u>	Tested Mode:	<u>IEEE 802.11g-RX</u>
Tested By:	<u>Nick Chen</u>	Tested Date:	<u>Oct. 29, 2004</u>

Antenna Polarization:Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Reading Data (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	AZ(°)	EL(m)
130.0500	1.09	8.20	26.4	35.7	43.5	-7.8	343.0	4.00
332.4255	1.73	15.06	19.5	36.3	46.0	-9.7	322.0	4.00
432.5214	1.99	16.68	21.3	40.0	46.0	-6.0	301.0	4.00
520.6255	2.22	18.50	17.6	38.3	46.0	-7.7	298.0	3.66
699.8524	2.59	21.69	13.5	37.8	46.0	-8.2	14.0	1.56
960.0000	3.02	23.60	12.1	38.7	46.0	-7.3	251.0	1.00

Antenna Polarization:Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Reading Data (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	AZ(°)	EL(m)
110.5520	1.06	8.50	25.1	34.7	43.5	-8.8	288.0	1.00
130.0500	1.09	8.20	25.8	35.1	43.5	-8.4	315.0	1.00
332.0000	1.73	15.06	20.9	37.7	46.0	-8.3	293.0	1.00
432.0153	1.99	16.68	19.0	37.7	46.0	-8.3	275.0	1.00
520.1365	2.22	18.50	18.9	39.6	46.0	-6.4	290.0	1.68
960.0000	3.02	23.60	12.4	39.0	46.0	-7.0	267.0	2.88

NOTE :

1. Measurement uncertainty is +/-2dB.
2. "*": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Cable Loss.
4. The field strength of other emission frequencies were very low against the limit.



Temperature:	28 °C	Humidity:	60 %RH
Ferquency Range:	1 – 10 GHz	Measured Distance:	3m
Receiver Detector:	PK. or AV.	Tested Mode:	IEEE 802.11g
Tested By:	Nick Chen	Modulation Type:	64QAM
Tested Date:	Oct. 26, 2004	Tested Channel:	CH1: 2412MHz

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBµV)		Emission Level (dBµV/m)		Limit (dBµV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2412.00(F)	-32.18	28.02	80.0	68.8	75.9	64.6	N/A	N/A	N/A	N/A	45.0	2.40
2400.00	-32.16	28.00	45.2	*	41.0	*	74.0	54.0	-33.0	*	45.0	2.40
2354.50	-32.33	27.91	44.5	*	40.0	*	74.0	54.0	-34.0	*	47.0	2.34
2488.50	-32.18	28.18	44.4	*	40.4	*	74.0	54.0	-33.6	*	51.0	2.41
4824.00	-30.41	33.66	41.3	*	44.6	*	74.0	54.0	-29.4	*	60.0	1.31
7236.00	-28.98	36.29	42.9	*	50.2	*	74.0	54.0	-23.8	*	32.0	1.27

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBµV)		Emission Level (dBµV/m)		Limit (dBµV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2412.00(F)	-32.18	28.02	86.0	76.8	81.8	72.6	N/A	N/A	N/A	N/A	355.0	1.69
2400.00	-32.16	28.00	48.7	*	44.6	*	74.0	54.0	-29.5	*	355.0	1.69
2363.00	-32.30	27.93	45.3	*	41.0	*	74.0	54.0	-33.0	*	355.0	1.67
2484.00	-32.19	28.17	45.3	*	41.3	*	74.0	54.0	-32.7	*	357.0	1.71
4824.00	-30.41	33.66	41.4	*	44.6	*	74.0	54.0	-29.4	*	332.0	1.71
7236.00	-28.98	36.29	43.0	*	50.3	*	74.0	54.0	-23.7	*	337.0	1.67

NOTE :

1. Measurement uncertainty is +/-2dB.
2. "*": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.:Cable Loss and Pre-Amplifier Gain)
4. The field strength of other emission frequencies were very low against the limit.
5. (F):The field strength of fundamental frequency.



Temperature:	28 °C	Humidity:	60 %RH
Ferquency Range:	1 – 10 GHz	Measured Distance:	3m
Receiver Detector:	PK. or AV.	Tested Mode:	IEEE 802.11g
Tested By:	Nick Chen	Modulation Type:	64QAM
Tested Date:	Oct. 26, 2004	Tested Channel:	CH6: 2437MHz

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBµV)		Emission Level (dBµV/m)		Limit (dBµV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2437.00(F)	-32.22	28.07	82.4	72.2	78.2	68.1	N/A	N/A	N/A	N/A	233.0	2.17
2399.00	-32.16	28.00	43.9	*	39.7	*	74.0	54.0	-34.3	*	232.0	2.21
2488.50	-32.18	28.18	45.4	*	41.4	*	74.0	54.0	-32.6	*	228.0	2.15
2495.50	-32.17	28.19	44.9	*	40.9	*	74.0	54.0	-33.1	*	230.0	2.23
4874.00	-30.28	33.70	42.2	*	45.6	*	74.0	54.0	-28.4	*	201.0	2.08
7311.00	-29.07	36.35	42.3	*	49.6	*	74.0	54.0	-24.4	*	254.0	2.18

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBµV)		Emission Level (dBµV/m)		Limit (dBµV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2437.00(F)	-32.22	28.07	89.3	80.2	85.1	76.1	N/A	N/A	N/A	N/A	354.0	1.00
2399.00	-32.16	28.00	48.4	*	44.3	*	74.0	54.0	-29.7	*	351.0	1.04
2488.50	-32.18	28.18	46.7	*	42.7	*	74.0	54.0	-31.3	*	343.0	1.00
2384.00	-32.22	27.97	48.0	*	43.8	*	74.0	54.0	-30.2	*	355.0	1.08
4874.00	-30.28	33.70	42.0	*	45.4	*	74.0	54.0	-28.6	*	0.0	1.10
7311.00	-29.07	36.35	43.2	*	50.5	*	74.0	54.0	-23.5	*	0.0	1.00

NOTE :

1. Measurement uncertainty is +/-2dB.
2. "*": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.:Cable Loss and Pre-Amplifier Gain)
4. The field strength of other emission frequencies were very low against the limit.
5. (F):The field strength of fundamental frequency.



Temperature:	28 °C	Humidity:	60 %RH
Ferquency Range:	1 – 10 GHz	Measured Distance:	3m
Receiver Detector:	PK. or AV.	Tested Mode:	IEEE 802.11g
Tested By:	Nick Chen	Modulation Type:	64QAM
Tested Date:	Oct. 26, 2004	Tested Channel:	CH11: 2462MHz

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBµV)		Emission Level (dBµV/m)		Limit (dBµV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2462.00(F)	-32.22	28.12	80.5	69.0	76.4	64.9	N/A	N/A	N/A	N/A	101.0	2.20
2483.50	-32.19	28.17	44.4	*	40.4	*	74.0	54.0	-33.6	*	101.0	2.20
2400.00	-32.16	28.00	45.9	*	41.7	*	74.0	54.0	-32.3	*	100.0	2.19
2502.00	-32.15	28.21	44.2	*	40.3	*	74.0	54.0	-33.7	*	109.0	2.24
4942.00	-30.25	33.75	41.2	*	44.7	*	74.0	54.0	-29.3	*	119.0	2.04
7422.00	-28.94	36.44	42.7	*	50.2	*	74.0	54.0	-23.8	*	97.0	2.09

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBµV)		Emission Level (dBµV/m)		Limit (dBµV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2462.00(F)	-32.22	28.12	84.2	74.1	80.1	70.0	N/A	N/A	N/A	N/A	357.0	1.00
2483.50	-32.19	28.17	44.6	*	40.6	*	74.0	54.0	-33.4	*	357.0	1.00
2544.50	-31.85	28.45	45.1	*	41.7	*	74.0	54.0	-32.3	*	355.0	1.02
2399.50	-32.16	28.00	47.2	*	43.1	*	74.0	54.0	-30.9	*	356.0	1.05
4942.00	-30.25	33.75	41.2	*	44.7	*	74.0	54.0	-29.3	*	338.0	1.07
7422.00	-28.94	36.44	42.6	*	50.1	*	74.0	54.0	-23.9	*	0.0	1.00

NOTE :

1. Measurement uncertainty is +/-2dB.
2. "*": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.:Cable Loss and Pre-Amplifier Gain)
4. The field strength of other emission frequencies were very low against the limit.
5. (F):The field strength of fundamental frequency.



Temperature:	<u>24 °C</u>	Humidity:	<u>60 %RH</u>
Ferquency Range:	<u>30 – 1000 MHz</u>	Measured Distance:	<u>3m</u>
Receiver Detector:	<u>Q.P.</u>	Tested Mode:	<u>IEEE 802.11b-RX</u>
Tested By:	<u>Hugo Yeh</u>	Tested Date:	<u>Nov. 22, 2004</u>

Antenna Polarization:Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Reading Data (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	AZ(°)	EL(m)
82.0500	0.91	8.08	21.2	30.2	40.0	-9.8	343.00	3.25
232.4255	1.42	11.90	16.4	29.7	46.0	-16.3	322.00	3.16
432.5214	1.99	16.68	17.3	36.0	46.0	-10.0	301.00	3.85
520.6255	2.22	18.50	15.6	36.3	46.0	-9.7	298.00	3.66
662.8524	2.49	20.95	13.5	36.9	46.0	-9.1	14.00	2.64
722.5544	2.63	21.70	12.1	36.4	46.0	-9.6	251.00	2.52

Antenna Polarization:Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Reading Data (dBµV)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	AZ(°)	EL(m)
82.5520	0.91	8.08	20.1	29.1	40.0	-10.9	288.00	1.00
232.0500	1.42	11.90	19.8	33.1	46.0	-12.9	315.00	1.34
303.0000	1.64	14.92	16.9	33.5	46.0	-12.5	293.00	1.20
432.0153	1.99	16.68	17.0	35.7	46.0	-10.3	275.00	1.02
520.1365	2.22	18.50	16.9	37.6	46.0	-8.4	290.00	1.68
722.1440	2.63	21.70	12.2	36.5	46.0	-9.5	267.00	2.88

NOTE :

1. Measurement uncertainty is +/-2dB.
2. "**": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Cable Loss.
4. The field strength of other emission frequencies were very low against the limit.



Temperature:	28 °C	Humidity:	60 %RH
Ferquency Range:	1 – 10 GHz	Measured Distance:	3m
Receiver Detector:	PK. or AV.	Tested Mode:	IEEE 802.11b
Tested By:	Hugo Yeh	Modulation Type:	CCK
Tested Date:	Nov. 24, 2004	Tested Channel:	CH1: 2412MHz

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBµV)		Emission Level (dBµV/m)		Limit (dBµV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2412.00(F)	-32.18	28.02	76.4	54.8	72.3	50.6	N/A	N/A	N/A	N/A	45.0	3.21
2400.00	-32.16	28.00	43.5	33.5	39.3	29.3	74.0	54.0	-34.7	-24.7	45.0	2.65
2358.60	-32.32	27.92	42.5	32.6	38.1	28.2	74.0	54.0	-35.9	-25.8	47.0	2.54
2464.50	-32.22	28.13	42.4	32.2	38.3	28.1	74.0	54.0	-35.7	-25.9	51.0	2.40
4824.00	-30.41	33.66	41.3	*	44.6	*	74.0	54.0	-29.4	*	60.0	2.25
7236.00	-28.98	36.29	42.9	*	50.2	*	74.0	54.0	-23.8	*	32.0	1.80

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBµV)		Emission Level (dBµV/m)		Limit (dBµV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2412.00(F)	-32.18	28.02	75.6	52.8	71.4	48.6	N/A	N/A	N/A	N/A	355.0	1.34
2400.00	-32.16	28.00	44.6	33.8	40.4	29.6	74.0	54.0	-33.6	-24.4	355.0	1.52
2365.80	-32.29	27.93	43.3	33.1	38.9	28.7	74.0	54.0	-35.1	-25.3	355.0	1.60
2464.00	-32.22	28.13	43.2	33.0	39.1	28.9	74.0	54.0	-34.9	-25.1	357.0	1.41
4824.00	-30.41	33.66	41.4	*	44.6	*	74.0	54.0	-29.4	*	332.0	1.30
7236.00	-28.98	36.29	43.0	*	50.3	*	74.0	54.0	-23.7	*	337.0	1.45

NOTE :

1. Measurement uncertainty is +/-2dB.
2. "*": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.:Cable Loss and Pre-Amplifier Gain)
4. The field strength of other emission frequencies were very low against the limit.
5. (F):The field strength of fundamental frequency.



Temperature:	28 °C	Humidity:	60 %RH
Ferquency Range:	1 – 10 GHz	Measured Distance:	3m
Receiver Detector:	PK. or AV.	Tested Mode:	IEEE 802.11b
Tested By:	Hugo Yeh	Modulation Type:	CCK
Tested Date:	Nov. 24, 2004	Tested Channel:	CH6: 2437MHz

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBµV)		Emission Level (dBµV/m)		Limit (dBµV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2437.00(F)	-32.22	28.07	76.3	55.7	72.2	51.6	N/A	N/A	N/A	N/A	354.0	2.17
2399.00	-32.16	28.00	45.4	32.3	41.2	28.1	74.0	54.0	-32.8	-25.9	351.0	2.21
2468.50	-32.21	28.14	44.7	32.1	40.6	28.0	74.0	54.0	-33.4	-26.0	343.0	2.15
2384.00	-32.22	27.97	45.0	31.8	40.7	27.5	74.0	54.0	-33.3	-26.5	355.0	2.23
4874.00	-30.28	33.70	42.0	*	45.4	*	74.0	54.0	-28.6	*	0.0	2.08
7311.00	-29.07	36.35	43.2	*	50.5	*	74.0	54.0	-23.5	*	0.0	2.18

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBµV)		Emission Level (dBµV/m)		Limit (dBµV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2437.00(F)	-32.22	28.07	75.8	53.6	71.7	49.5	N/A	N/A	N/A	N/A	233.0	1.32
2399.00	-32.16	28.00	43.9	32.1	39.7	27.9	74.0	54.0	-34.3	-26.1	232.0	1.10
2468.50	-32.21	28.14	43.4	32.0	39.3	27.9	74.0	54.0	-34.7	-26.1	228.0	1.40
2495.50	-32.17	28.19	43.8	32.2	39.8	28.2	74.0	54.0	-34.2	-25.8	230.0	1.52
4874.00	-30.28	33.70	42.2	*	45.6	*	74.0	54.0	-28.4	*	201.0	1.04
7311.00	-29.07	36.35	42.3	*	49.6	*	74.0	54.0	-24.4	*	254.0	1.65

NOTE :

1. Measurement uncertainty is +/-2dB.
2. "*": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.:Cable Loss and Pre-Amplifier Gain)
4. The field strength of other emission frequencies were very low against the limit.
5. (F):The field strength of fundamental frequency.



Temperature:	28 °C	Humidity:	60 %RH
Ferquency Range:	1 – 10 GHz	Measured Distance:	3m
Receiver Detector:	PK. or AV.	Tested Mode:	IEEE 802.11b
Tested By:	Hugo Yeh	Modulation Type:	CCK
Tested Date:	Nov. 24, 2004	Tested Channel:	CH11: 2462MHz

Antenna Polarization : Horizontal

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBµV)		Emission Level (dBµV/m)		Limit (dBµV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2462.00(F)	-32.22	28.12	75.2	55.1	71.1	51.0	N/A	N/A	N/A	N/A	357.0	2.20
2483.50	-32.19	28.17	44.6	32.4	40.6	28.4	74.0	54.0	-33.4	-25.6	357.0	2.20
2544.50	-31.85	28.45	43.1	32.1	39.7	28.7	74.0	54.0	-34.3	-25.3	355.0	2.19
2399.50	-32.16	28.00	45.2	32.5	41.0	28.3	74.0	54.0	-33.0	-25.7	356.0	2.24
4924.00	-30.23	33.74	41.2	*	44.7	*	74.0	54.0	-29.3	*	338.0	2.04
7386.00	-28.94	36.41	42.6	*	50.1	*	74.0	54.0	-23.9	*	0.0	2.09

Antenna Polarization : Vertical

Frequency (MHz)	Correct Factor (dB)	Ant. Factor (dB/m)	Reading Data (dBµV)		Emission Level (dBµV/m)		Limit (dBµV/m)		Margin (dB)		AZ (°)	EL (m)
			PK.	AV.	PK.	AV.	PK.	AV.	PK.	AV.		
2462.00(F)	-32.22	28.12	74.5	54.5	70.4	50.4	N/A	N/A	N/A	N/A	101.0	1.00
2483.50	-32.19	28.17	44.4	32.3	40.4	28.3	74.0	54.0	-33.6	-25.7	101.0	1.00
2400.00	-32.16	28.00	45.9	32.6	41.7	28.4	74.0	54.0	-32.3	-25.6	100.0	1.02
2502.00	-32.15	28.21	44.2	32.2	40.3	28.3	74.0	54.0	-33.7	-25.7	109.0	1.05
4924.00	-30.23	33.74	41.2	*	44.7	*	74.0	54.0	-29.3	*	119.0	1.07
7386.00	-28.94	36.41	42.7	*	50.2	*	74.0	54.0	-23.8	*	97.0	1.00

NOTE :

1. Measurement uncertainty is +/-2dB.
2. "*": Measurement does not apply for this frequency.
3. Emission Level = Reading Value + Ant. Factor + Correct Factor (incl.:Cable Loss and Pre-Amplifier Gain)
4. The field strength of other emission frequencies were very low against the limit.
5. (F):The field strength of fundamental frequency.



4.3 6dBc BANDWIDTH TEST

4.3.1 LIMIT

FCC Part15, Subpart C Section 15.247(2). The minimum 6 dB bandwidth shall be at least 500 kHz.

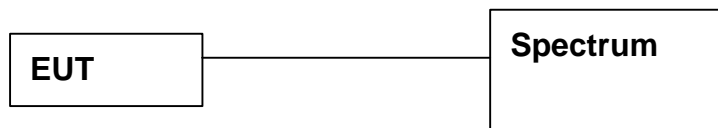
4.3.2 TEST EQUIPMENT

The following test equipment was used during the test:

EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DUE DATE OF CAL. & CAL. CENTER
SPECTRUM	9kHz-7GHz	ROHDE & SCHWARZ	FSP7/ 839511/010	MAR. 2005 ETC

NOTE: The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.

4.3.3 TEST SET-UP



The EUT was connected to a spectrum through a 50 Ω RF cable.

4.3.4 TEST PROCEDURE

The EUT was operating in the transmitter mode and could control its channels. The test result was printed by the hard copy function of the spectrum.

4.3.5 EUT OPERATING CONDITION

Same as section 4.1.5 of this report.

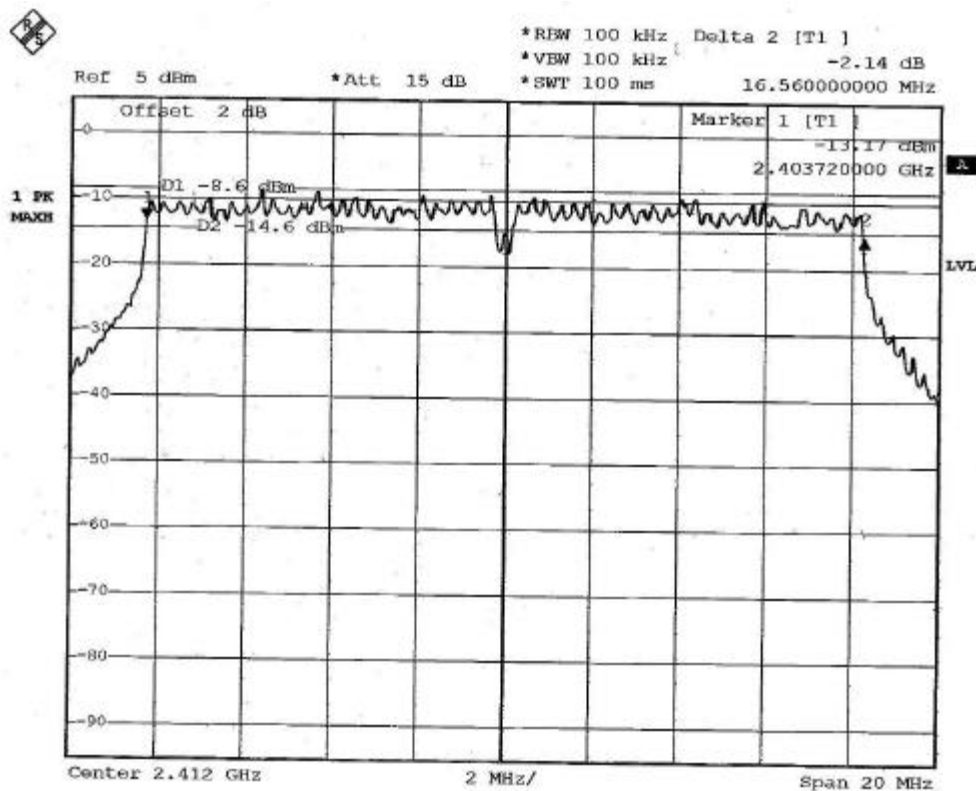


4.3.6 TEST RESULT

Temperature:	<u>25°C</u>	Humidity:	<u>50%RH</u>
Spectrum Detector:	<u>PK.</u>	Tested Mode:	<u>IEEE 802.11g</u>
Tested By:	<u>Nick Chen</u>	Modulation Type:	<u>64QAM</u>
Tested Date:	<u>Oct. 22, 2004</u>		

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	6dB DOWN BW (MHz)	MINIMUM LIMIT (MHz)
1	2412	16.56	0.5
6	2437	16.56	0.5
11	2462	16.52	0.5

CH1:

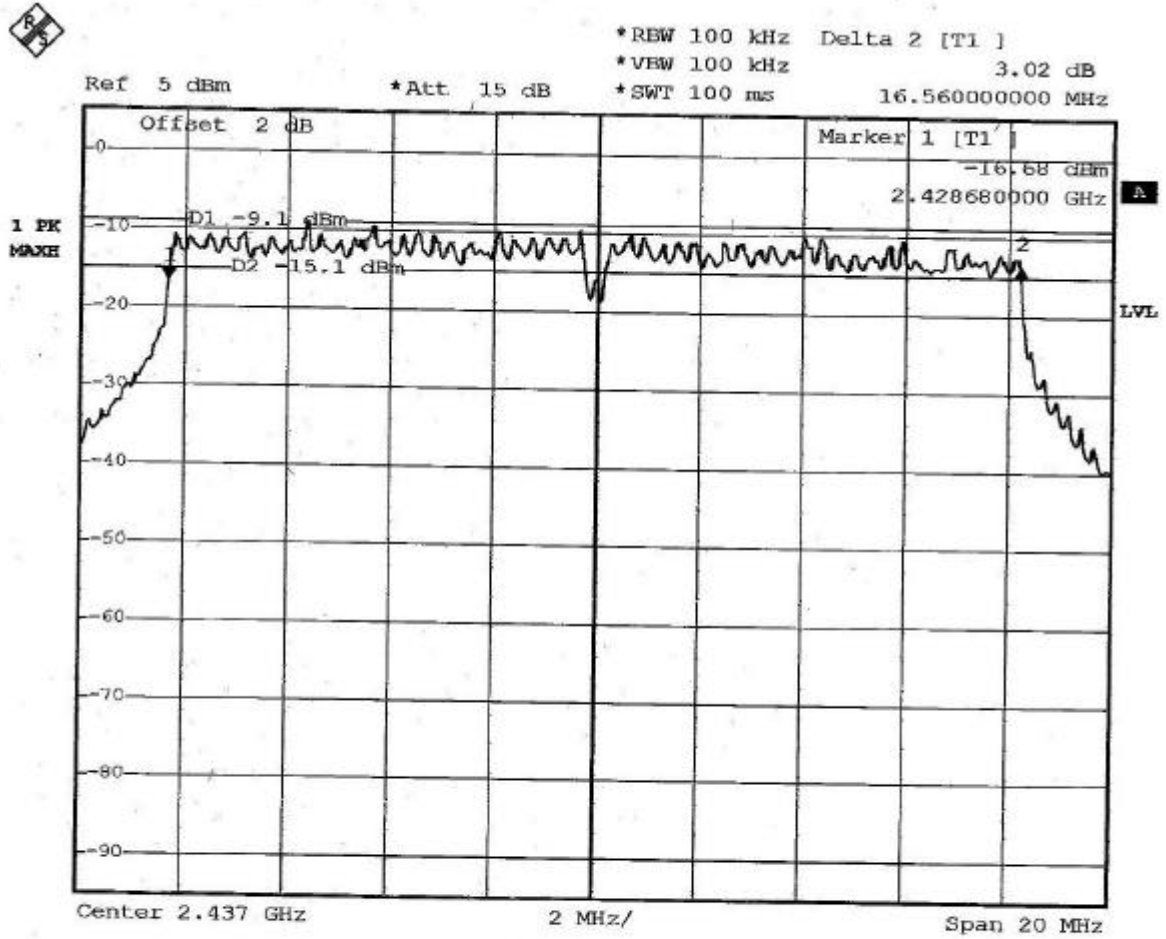


Date: 22.OCT.2004 11:31:18

11G 6dB Bandwidth CH1 Nick



CH 6:

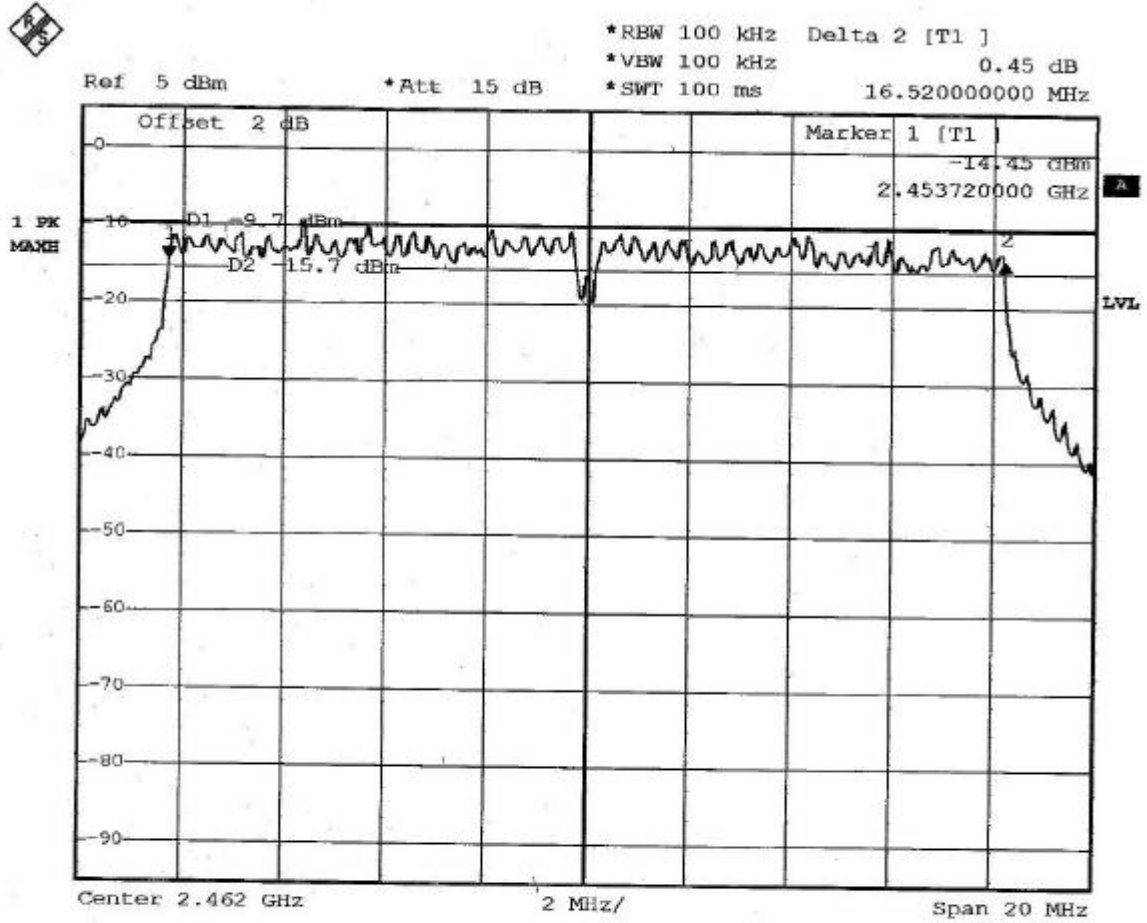


Date: 22.OCT.2004 11:32:39

11G 6dB Bandwidth CH6 Nick



CH 11:



Date: 22.OCT.2004 11:33:48

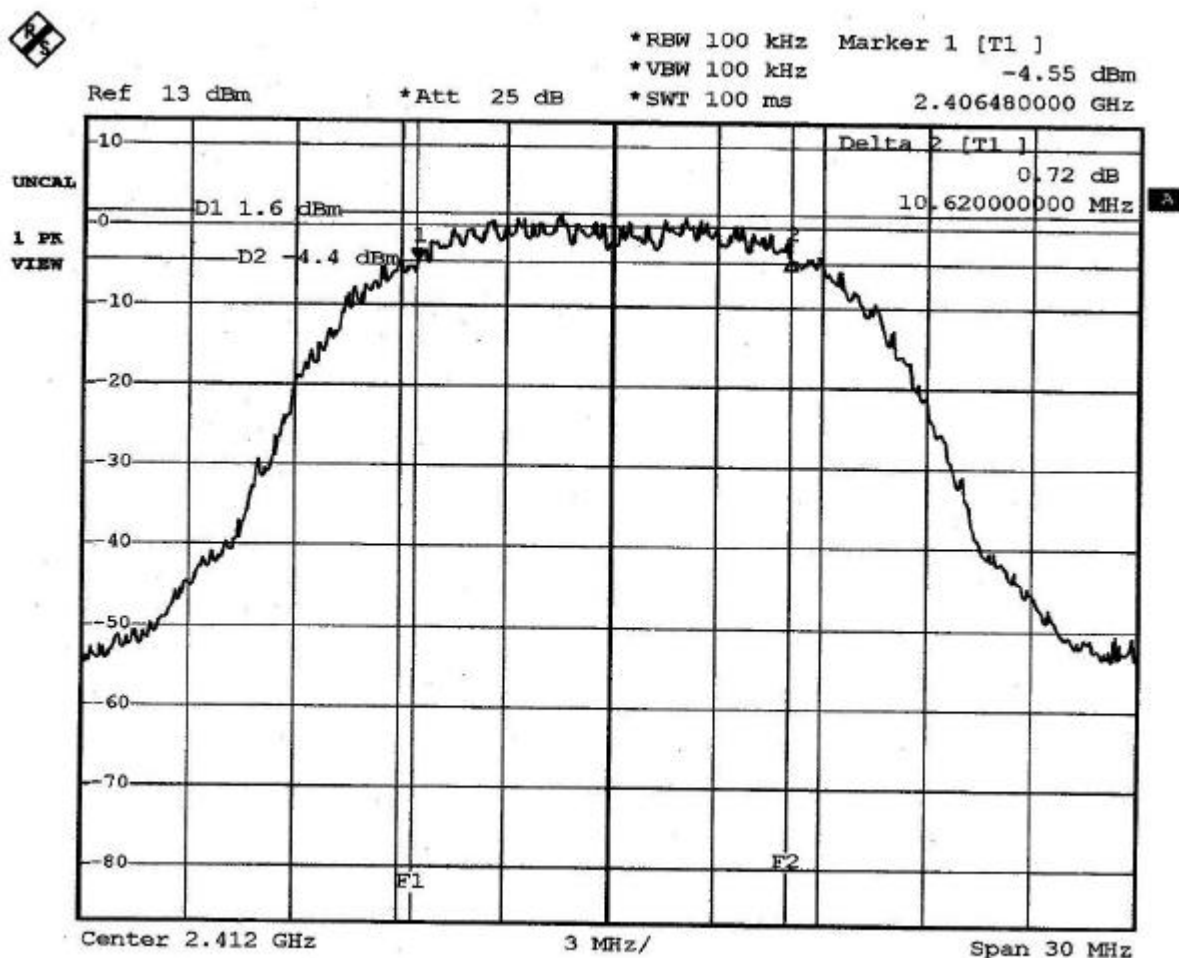
11G 6dB Bandwidth CH11 Nick



Temperature:	<u>25°C</u>	Humidity:	<u>50%RH</u>
Spectrum Detector:	<u>PK.</u>	Tested Mode:	<u>IEEE 802.11b</u>
Tested By:	<u>Hugo Yeh</u>	Modulation Type:	<u>CCK</u>
Tested Date:	<u>Nov. 23, 2004</u>		

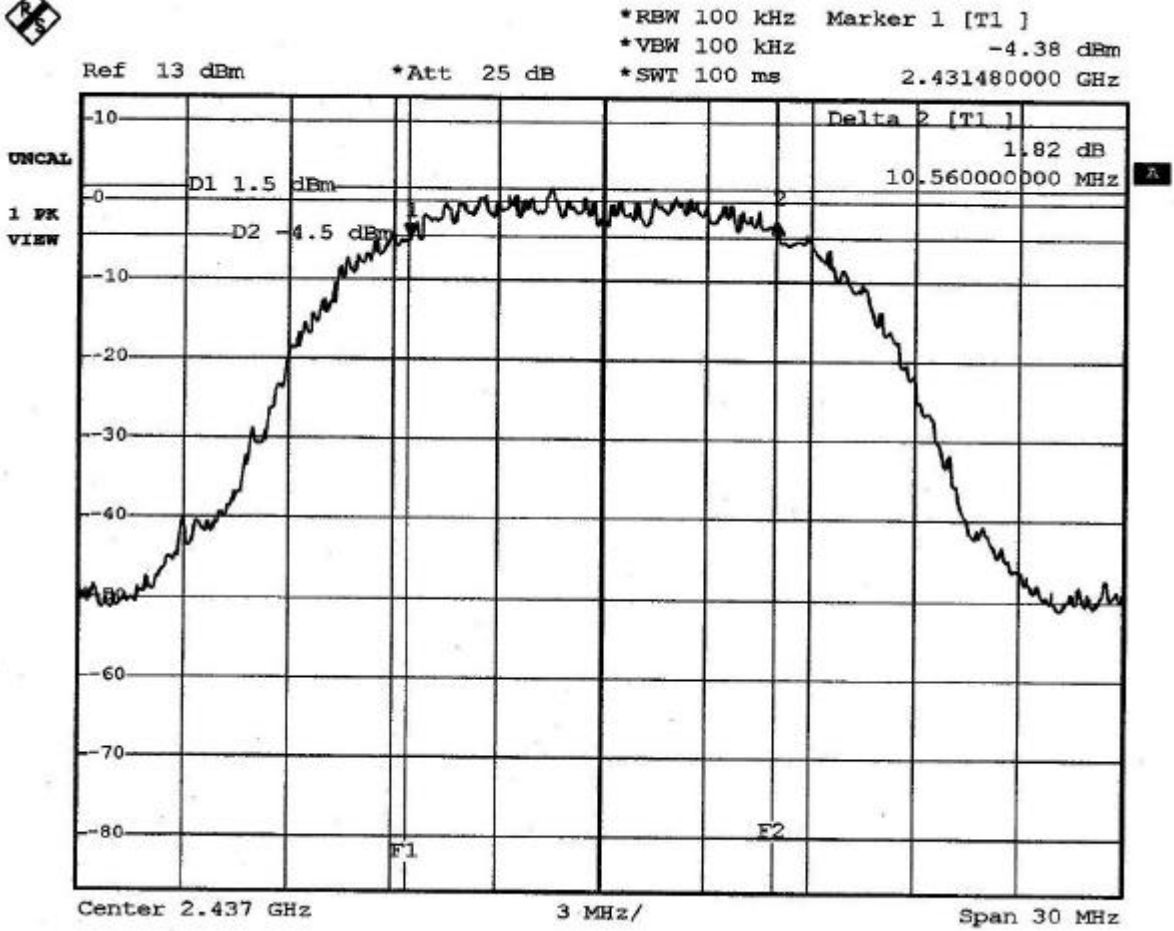
CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	6dB DOWN BW (MHz)	MINIMUM LIMIT (MHz)
1	2412	10.62	0.5
6	2437	10.56	0.5
11	2462	10.74	0.5

CH1:



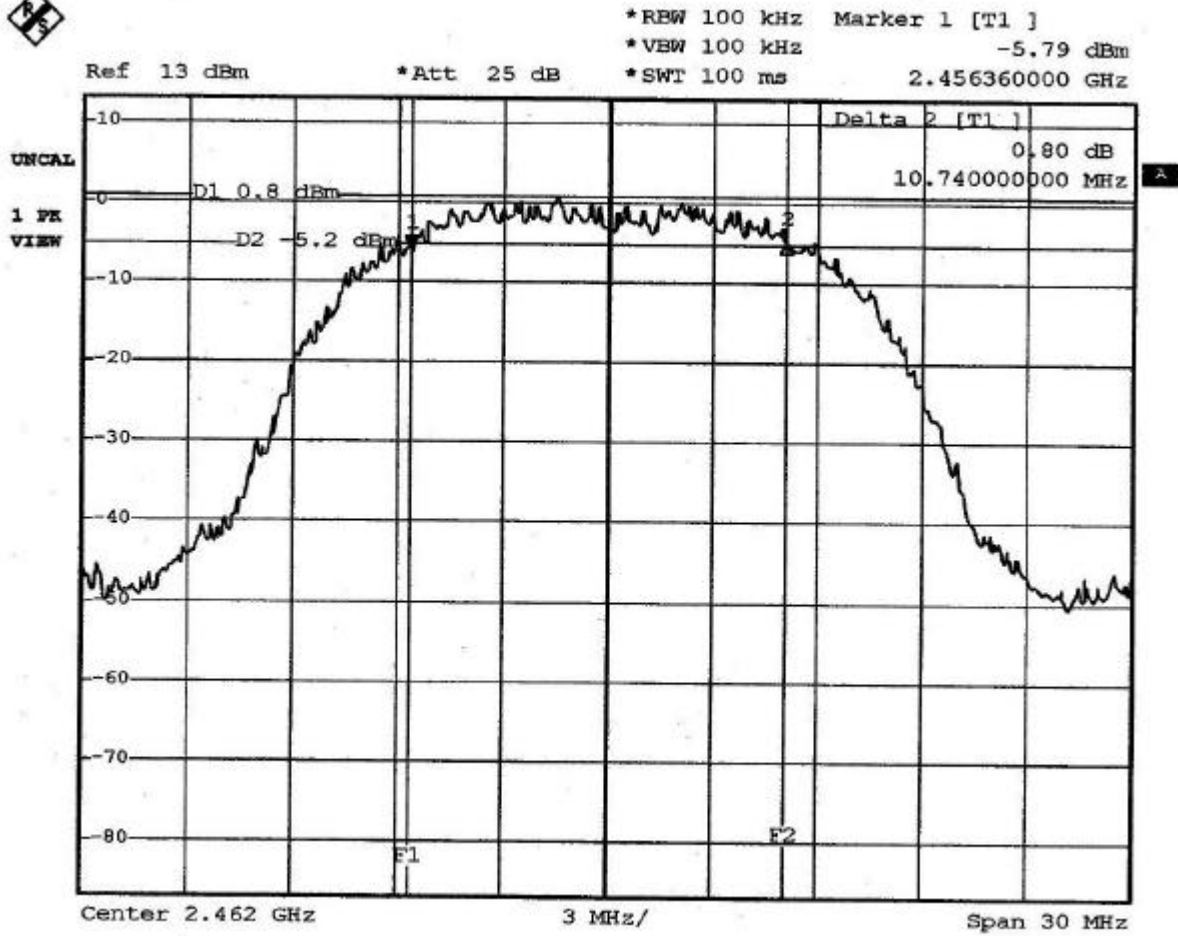


CH6:





CH11:





4.4 PEAK POWER TEST

4.4.1 LIMIT

FCC Part15, Subpart C Section 15.247

FREQUENCY RANGE (MHz)	LIMIT (W)
902 - 928	1(30dBm)
2400 - 2483.5	1(30dBm)
5725 - 5850	1(30dBm)

4.4.2 TEST EQUIPMENT

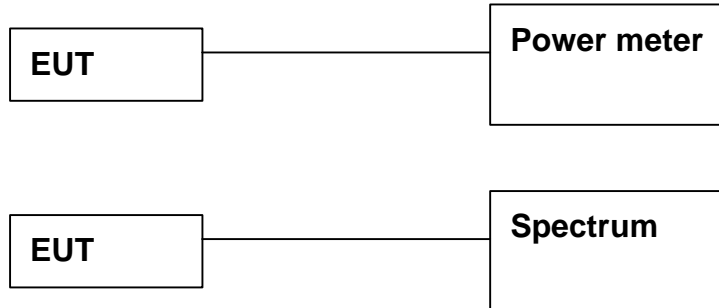
The following test equipment was used during the test:

EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DUE DATE OF CAL. & CAL. CENTER
SPECTRUM	9kHz-7GHz	ROHDE & SCHWARZ	FSP7/ 839511/010	MAR. 2005 ETC
POWER METER	N/A	BOONTON	4232A/ 29001	MAY 2005 ETC
POWER SENSOR	DC-8GHz 50	BOONTON	51011EMC/ 31181	NOV. 2005 ETC

NOTE: The calibration interval of the above test equipment is one year and the calibrations are traceable to NML/ROC and NIST/USA.



4.4.3 TEST SET-UP



The EUT was connected to a spectrum through a 50 RF cable.

4.4.4 TEST PROCEDURE

The EUT was operating in transmitter mode and could control its channel.
Printed out the test result from the spectrum by hard copy function.
Recorded the read value of the power meter.

4.4.5 EUT OPERATING CONDITION

Same as section 4.1.5 of this report.

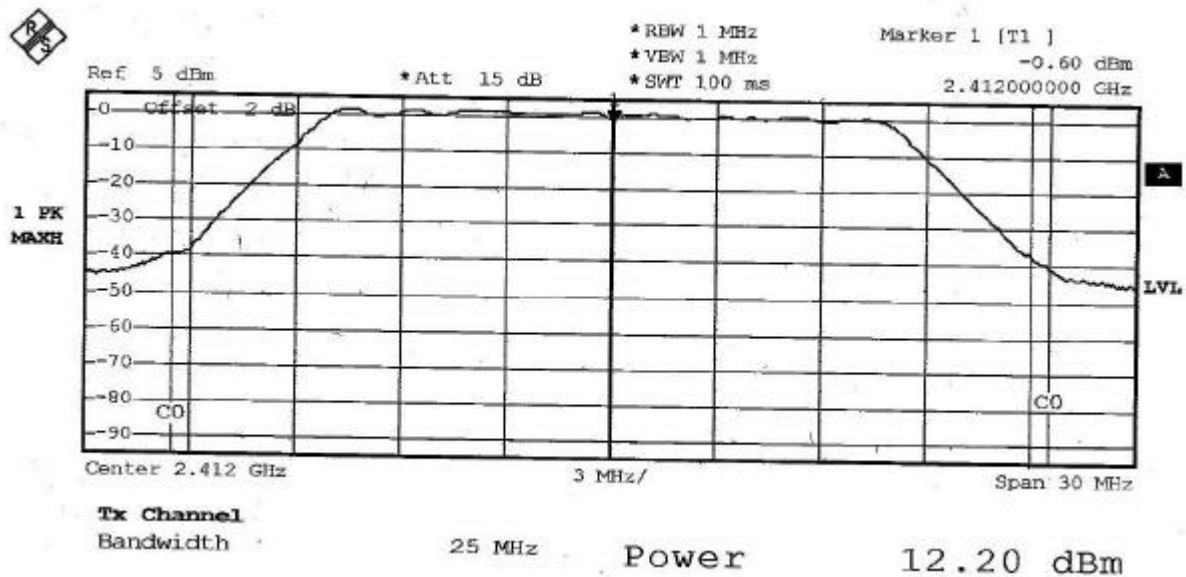


4.4.6 TEST RESULT

Temperature:	<u>26°C</u>	Humidity:	<u>50%RH</u>
Spectrum Detector:	<u>PK.</u>	Tested Mode:	<u>IEEE 802.11g</u>
Tested By:	<u>Nick Chen</u>	Modulation Type:	<u>64QAM</u>
Tested Date:	<u>Oct. 22, 2004</u>		

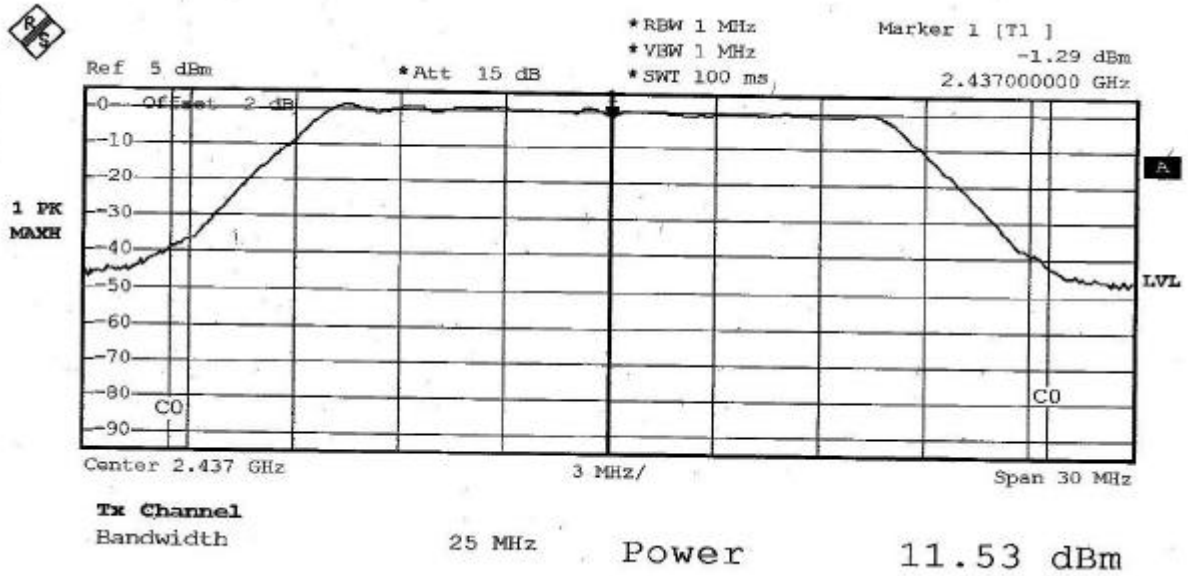
CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)
1	2412	12.20	30
6	2437	11.53	30
11	2462	10.91	30

CH 1:

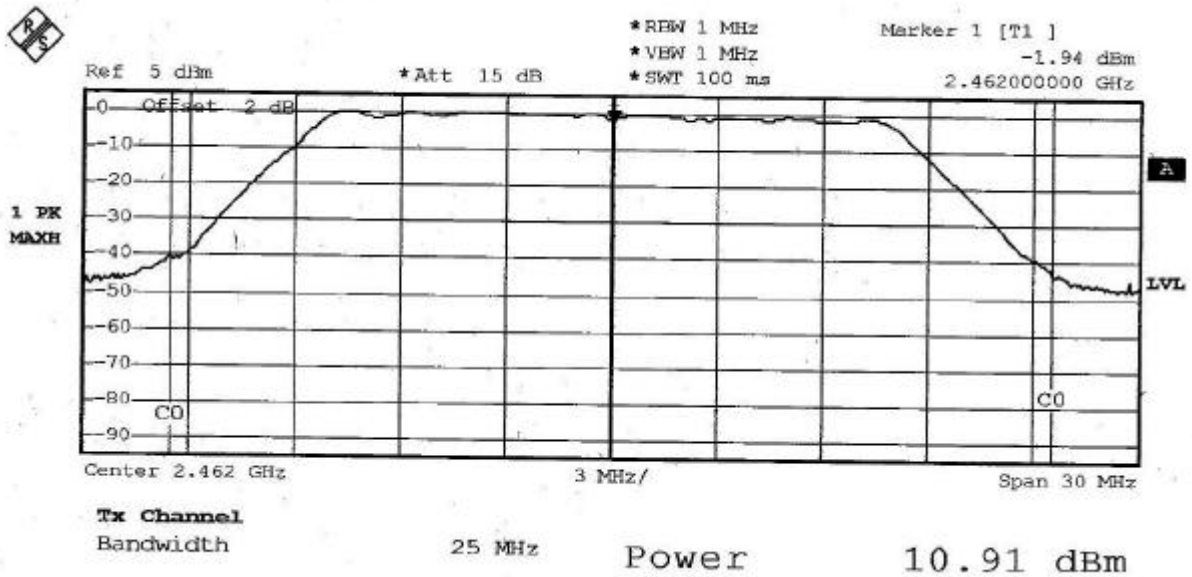




CH 6:



CH 11:

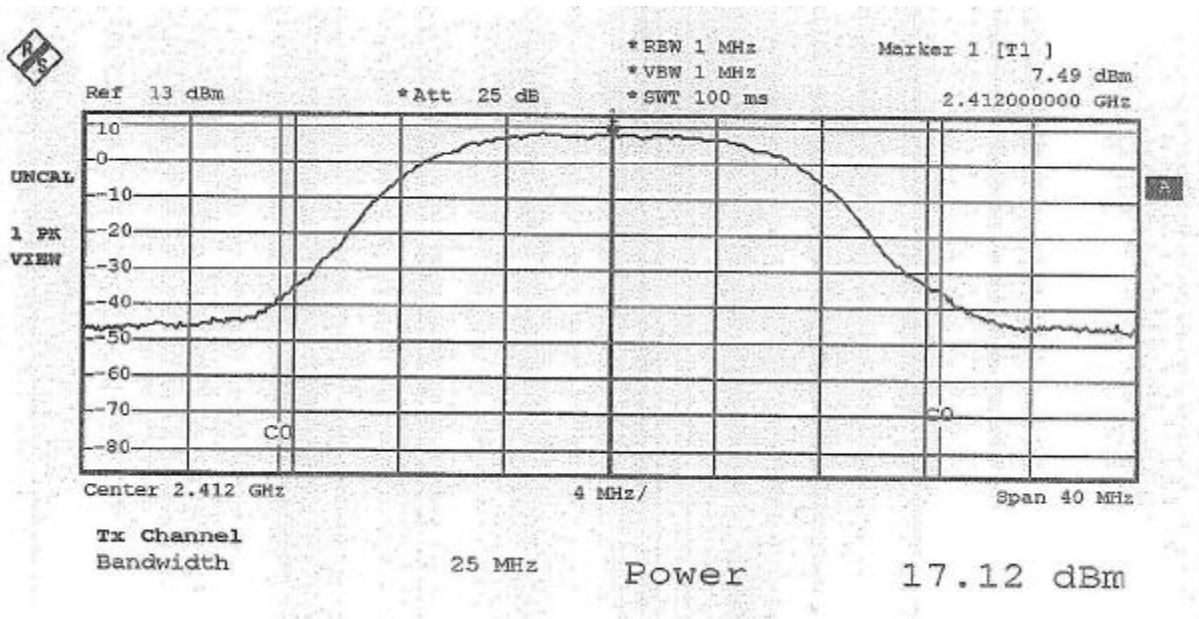




Temperature:	<u>26°C</u>	Humidity:	<u>50%RH</u>
Spectrum Detector:	<u>PK.</u>	Tested Mode:	<u>IEEE 802.11b</u>
Tested By:	<u>Hugo Yeh</u>	Modulation Type:	<u>CCK</u>
Tested Date:	<u>Nov. 22, 2004</u>		

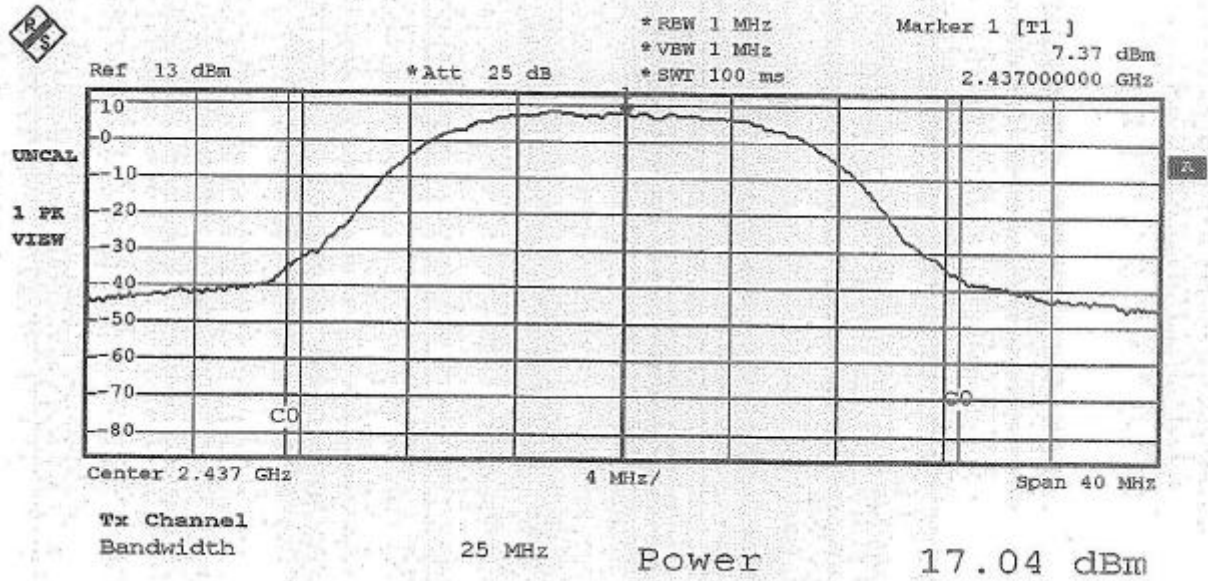
CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)
1	2412	17.12	30
6	2437	17.04	30
11	2462	17.03	30

CH 1:





CH 6:



CH 11:

