ADT CORP.

FCC TEST REPORT

REPORT NO.: RF90042715
MODEL NO.: RF802EW
RECEIVED: April 27, 2001
TESTED: May 14, 2001

APPLICANT: Multi-Tech System, Inc.

ADDRESS: 2205 Woodale Drive Mounds View,
Minnesota U.S.A 55112

ISSUED BY: Advance Data Technology Corporation

LAB LOCATION: 47, 14th Lin, Chiapao Tsuen, Linkou,
Taipei, Taiwan, R.O.C.

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1 CERTIFICATION

PRODUCT :	Wireless Router
BRAND NAME :	Multi-Tech
MODEL NO. :	RF802EW
APPLICANT :	Multi-Tech System, Inc.
STANDARDS :	47 CFR Part 15, Subpart C (Section 15.247), ANSI C63.4-1992
SITE REGISTERATION NO. :	90422 (FCC) IC 3789-5 (Canada IC)

We, **Advance Data Technology Corporation**, hereby certify that one sample RF802EW, of the designation has been tested in our facility on May 14, 2001.

The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions herein specified.

Tested by : Gary Chang, Date: May 18, 2001
Gary Chang

Prepared by : Demi Chen, Date: May 18, 2001
Demi Chen

Approved by : , Date: May 18, 2001
Harris W. Lai

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: 47 CFR Part 15, Subpart C			
STANDARD PARAGRAPH	**TEST REQUIREMENTS**	**Compliance (Yes/No)**	**REMARK**
15.107	AC Power Conducted Emissions Spec.: 48dBuV	Yes	Minimum passing margin is –4.85dBuV at 0.79800MHz
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Spec.: min. 500Khz	Yes	10.18MHz > 500 kHz
15.247(b)	Maximum Peak Output Power Spec.: max. 30dBm	Yes	18.01dBm < 30dBm
15.247(c)	Transmitter Radiated Emissions Spec.: Table 15.209	Yes	Minimum passing margin is –2.1dBuV at 2037.8 MHz
15.247(d)	Power Spectral Density Spec.: max. 8dBm	Yes	-11.53dBm < 8 dBm
15.247(c)	Band Edge Measurement	Yes	N/A

NOTE:

The EUT is also considered as a computer peripheral, because the connection to computer is necessary for typical use. The test has been verified to comply with FCC Part 15, Subpart B, Class B – Computing Devices (FCC DoC). The engineering test report can be provided upon FCC requests.

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Wireless Router
MODEL NO.	RF802EW
POWER SUPPLY	9VDC from AC adapter
POWER CABLE	NA
I/O PORTS	RJ 45 Port
MODULATION TYPE	CCK, BPSK, QPSK
RADIO TECHNOLOGY	DSSS
TRANSFER RATE	1/2/5.5/11Mbps
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11
OUTPUT POWER	13 dBm
ANTENNA TYPE	Dual monopole antenna
ASSOCIATED DEVICES	NA

Note:The EUT was operated with following power adapter.

Brand Name :	High Power
Model No. :	HPW-1009U
Input Power :	100 - 240V, 1.0A, 50-60Hz
Output Power :	9V, 1.11A

For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

3.2 DESCRIPTION OF TEST MODES

Eleven channels are provided in this EUT.

Channel	Frequency	Channel	Frequency
1	2412 MHz	7	2442 MHz
2	2417 MHz	8	2447 MHz
3	2422 MHz	9	2452 MHz
4	2427 MHz	10	2457 MHz
5	2432 MHz	11	2462 MHz
6	2437 MHz		

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 final test.
2. Above 1 GHz, the channel 1, 6, and 11 were chosen for evaluation.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Wireless Router, according to the specifications of the manufacturers, it must comply with the requirements of the following standard:

FCC CFR 47 Part 15, Subpart C. (15.247)

All tests have been performed and recorded as per the above standard.

3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Personal Computer	IBM	2187-12W	1S218714ABNA000V	DoC
2	PRINTER	HP	2225C+	3123S97230	DSI6XU2225
3	MONITOR	ADI	SM-5514A	521S030301A	BR8SM-5514AC
4	MODEM	ACEEX	1414	980020503	IFAXDM1414
5	PS/2 KEYBOARD	FORWARD	FDA-104GA	FDKB8110117	F4ZDA-104G
6	MOUSE	LOGITECH	M-S43	LZE00703207	DZL211106
7	NOTEBOOK	IBM	TYPE 2635	97-84L54	DoC
8	LAN CARD	3COM	3CCFE575CT	6ZE1316314E	DoC

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.2m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core.
3	1.8 m braid shielded wire, terminated with VGA connector via metallic frame, w/o core.
4	1.2 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.
5	1.5 m foil shielded wire, terminated with PS/2 connector via metallic frame, w/o core.
6	1.8 m foil shielded wire, terminated with PS2 connector via drain wire, w/o core.
7	NA
8	NA

NOTE: All power cords of the above support units are non shielded (1.8m).

4 TEST PROCEDURES AND TEST RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY (MHz)	Class B (dBuV)	
	Quasi-peak	Average
0.45 – 30	48	-

Notes:

1. The lower limit shall apply at the transition frequencies.
2. All emanations from a class B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESHS30	828109/007	July 6, 2001
ROHDE & SCHWARZ Artificial Mains Network (for EUT)	ESH3-Z5	839135/006	July 9, 2001
ROHDE & SCHWARZ 4-wire ISN	ENY41	837032/016	Nov. 28, 2001
ROHDE & SCHWARZ 2-wire ISN	ENY22	837497/016	Dec. 3, 2001
EMCO-L.I.S.N. (for support units)	3825/2	9204-1964	July 9, 2001
Software	Cond-V2e	NA	NA
RF cable (JYEBAO)	RG-58A/U	Cable-C02.01	July 9, 2001
HP Terminator (For EMCO LISN)	11593A	E1-01-298	Feb. 20, 2002
HP Terminator (For EMCO LISN)	11593A	E1-01-299	Feb. 20, 2002
Shielded Room	Site 2	ADT-C02	NA
VCCI Site Registration No.	Site 2	C-240	NA

Notes:
1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

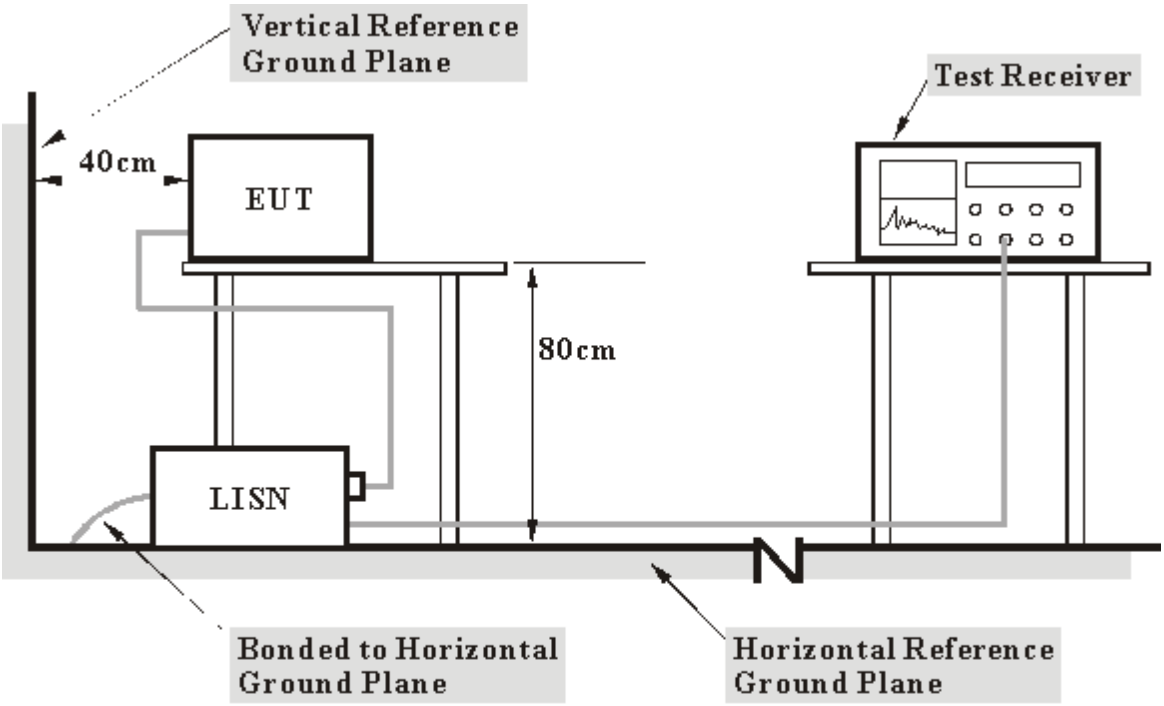
4.1.3 TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. 12 The frequency range from 150 kHz to 30 MHz was searched. Emission levels over 10dB under the prescribed limits could not be reported

4.1.4 TEST SETUP



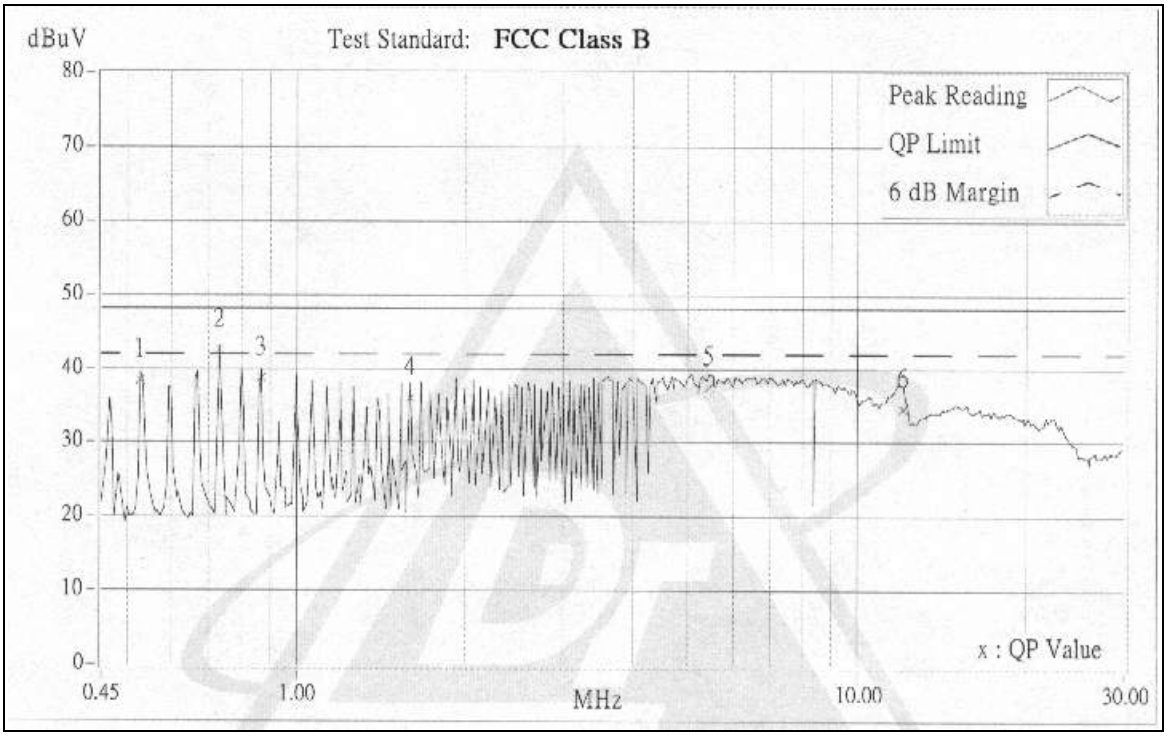
Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.1.5 TEST RESULTS

EUT	Wireless Router	**Model**	RF802EW
Channel	Channel 1	**Phase**	L
Environmental Conditions	27℃, 55%RH	**Tested By**	Gary Chang

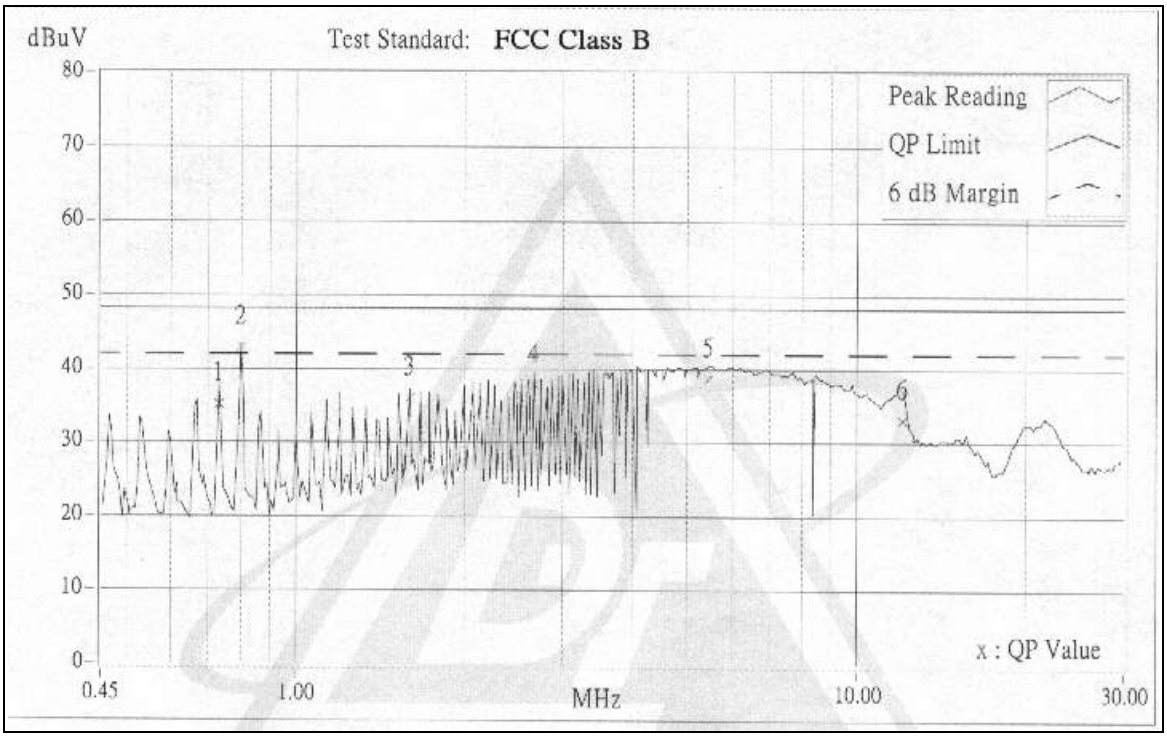
No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.53100	0.20	38.30	-	38.50	-	48.00	-	-9.50	-
2	0.73200	0.20	42.42	-	42.62	-	48.00	-	-5.38	-
3	0.86400	0.20	38.60	-	38.80	-	48.00	-	-9.20	-
4	1.59600	0.20	36.16	-	36.36	-	48.00	-	-11.64	-
5	5.46500	0.47	37.57	-	38.04	-	48.00	-	-9.96	-
6	12.12200	0.83	34.68	-	35.51	-	48.00	-	-12.49	-



Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": NA
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value
6. Emission Level = Correction Factor + Reading Value.

EUT	Wireless Router	**Model**	RF802EW
Channel	Channel 1	**Phase**	N
Environmental Conditions	27℃, 55%RH	**Tested By**	Gary Chang

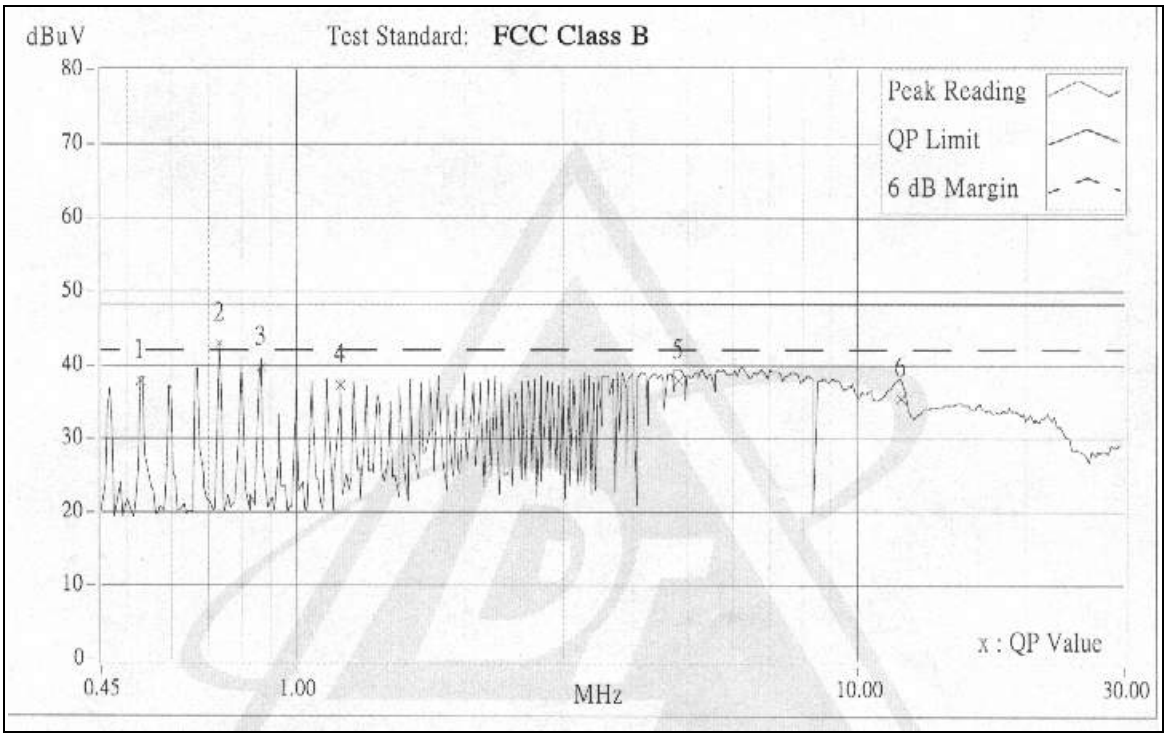
No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.72900	0.20	35.05	-	35.25	-	48.00	-	-12.75	-
2	0.79800	0.20	42.95	-	43.15	-	48.00	-	-4.85	-
3	1.59600	0.20	35.91	-	36.11	-	48.00	-	-11.89	-
4	2.66400	0.27	37.75	-	38.02	-	48.00	-	-9.98	-
5	5.46200	0.45	38.77	-	39.22	-	48.00	-	-8.78	-
6	12.12200	0.73	33.08	-	33.81	-	48.00	-	-14.19	-



Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": NA
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value
6. Emission Level = Correction Factor + Reading Value.

EUT	Wireless Router	**Model**	RF802EW
Channel	Channel 6	**Phase**	L
Environmental Conditions	27℃, 55%RH	**Tested By**	Gary Chang

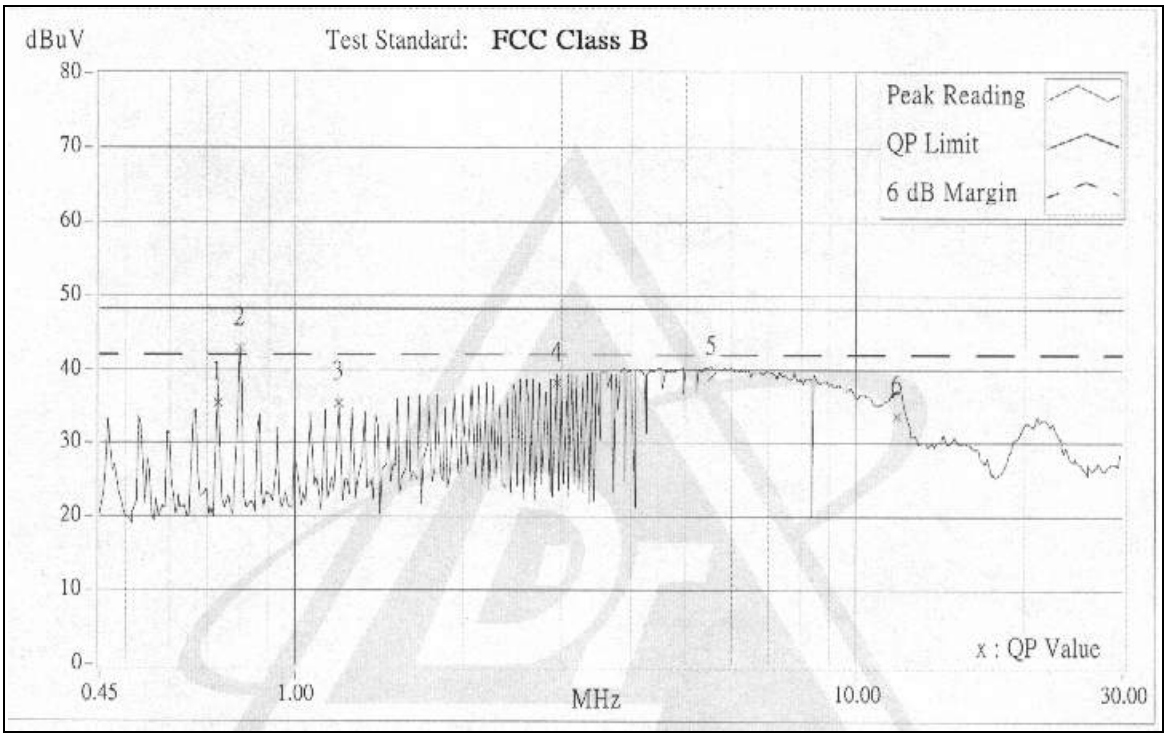
No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.53100	0.20	37.74	-	37.94	-	48.00	-	-10.06	-
2	0.73200	0.20	42.66	-	42.86	-	48.00	-	-5.14	-
3	0.86400	0.20	39.47	-	39.67	-	48.00	-	-8.33	-
4	1.19700	0.20	37.24	-	37.44	-	48.00	-	-10.56	-
5	4.79700	0.44	37.69	-	38.13	-	48.00	-	-9.87	-
6	11.98100	0.82	35.40	-	36.22	-	48.00	-	-11.78	-



Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": NA
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value
6. Emission Level = Correction Factor + Reading Value.

EUT	Wireless Router	**Model**	RF802EW
Channel	Channel 6	**Phase**	N
Environmental Conditions	27℃, 55%RH	**Tested By**	Gary Chang

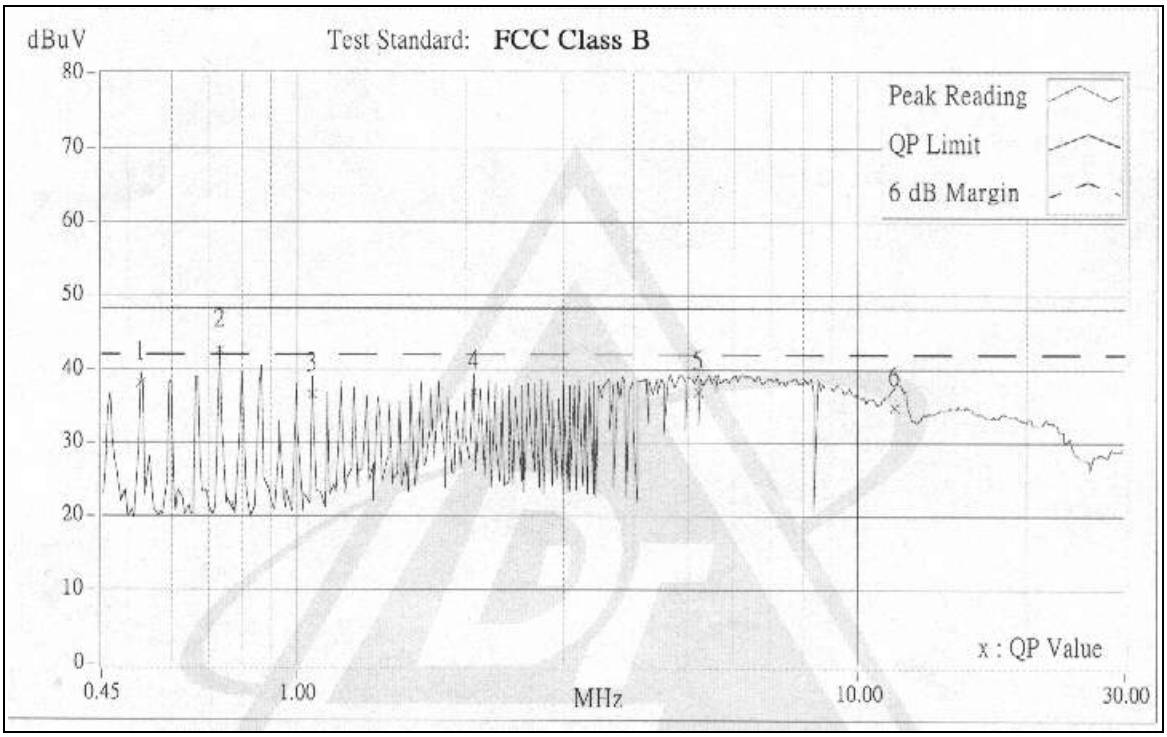
No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.72900	0.20	35.50	-	35.70	-	48.00	-	-12.30	-
2	0.79800	0.20	42.93	-	43.13	-	48.00	-	-4.87	-
3	1.19700	0.20	35.34	-	35.54	-	48.00	-	-12.46	-
4	2.92800	0.29	37.98	-	38.27	-	48.00	-	-9.73	-
5	5.52800	0.45	38.82	-	39.27	-	48.00	-	-8.73	-
6	11.85500	0.71	33.66	-	34.37	-	48.00	-	-13.63	-



Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": NA
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value
6. Emission Level = Correction Factor + Reading Value.

EUT	Wireless Router	**Model**	RF802EW
Channel	Channel 11	**Phase**	L
Environmental Conditions	23℃, 55%RH	**Tested By**	Gary Chang

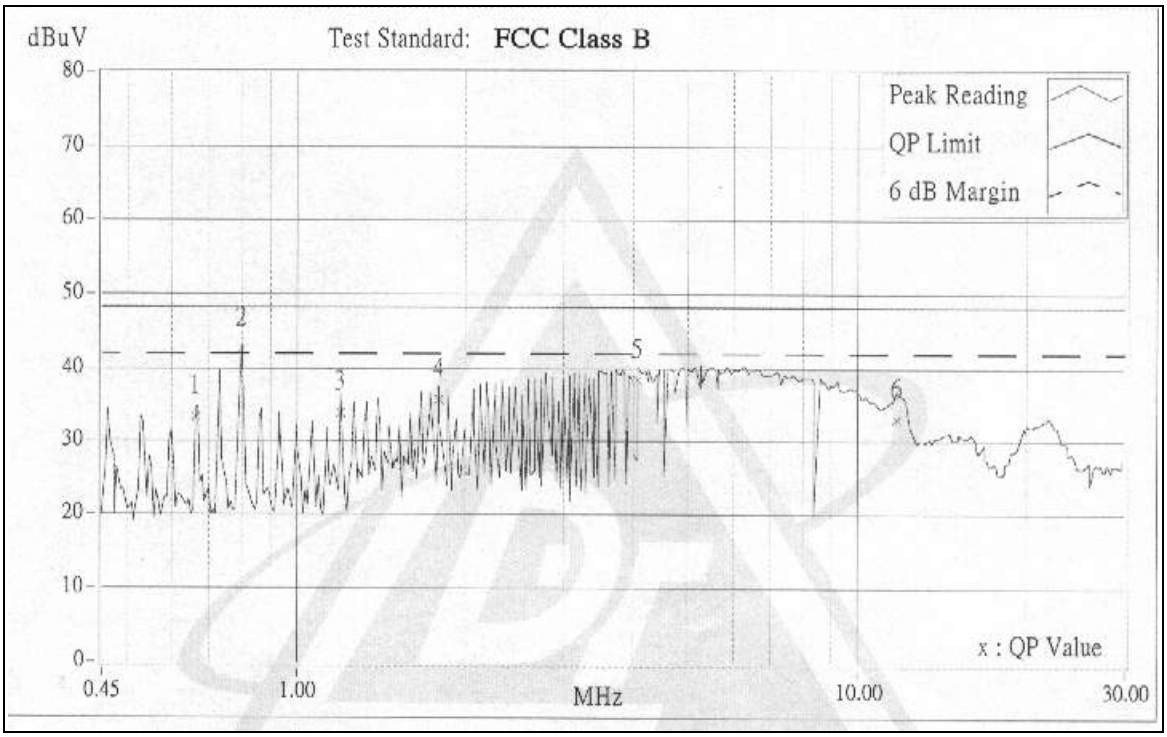
No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.53100	0.20	38.01	-	38.21	-	48.00	-	-9.79	-
2	0.73200	0.20	42.52	-	42.72	-	48.00	-	-5.28	-
3	1.06200	0.20	36.47	-	36.67	-	48.00	-	-11.33	-
4	2.06100	0.21	36.88	-	37.09	-	48.00	-	-10.91	-
5	5.19200	0.46	37.01	-	37.47	-	48.00	-	-10.53	-
6	11.71827	0.80	34.87	-	35.67	-	48.00	-	-12.33	-



Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": NA
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value
6. Emission Level = Correction Factor + Reading Value.

EUT	Wireless Router	**Model**	RF802EW
Channel	Channel 11	**Phase**	N
Environmental Conditions	27℃, 55%RH	**Tested By**	Gary Chang

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.66300	0.20	33.24	-	33.44	-	48.00	-	-14.56	-
2	0.79800	0.20	42.37	-	42.57	-	48.00	-	-5.43	-
3	1.19400	0.20	33.98	-	34.18	-	48.00	-	-13.82	-
4	1.79400	0.20	35.71	-	35.91	-	48.00	-	-12.09	-
5	4.05600	0.40	38.31	-	38.71	-	48.00	-	-9.29	-
6	11.77100	0.71	33.19	-	33.90	-	48.00	-	-14.10	-



Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": NA
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value
6. Emission Level = Correction Factor + Reading Value.

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Field strength limits are at the distance of 3 meters, emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field Strength of Fundamental	
	µV/meter	dBµV/meter
30-88	100	40.0
88-216	150	43.5
216-960	200	46.0
Above 960	500	54.0

As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

LIMIT OF RADIATED EMISSION OF FCC PART 15, SUBPART B FOR FREQUENCY ABOVE 1000 MHz

FREQUENCY (MHz)	Class B (at 3m)	
	uV/m	dBuV/m
Above 1000	500	54.0

Note: 1 The lower limit shall apply at the transition frequencies.
2 Emission level (dBuV/m) = 20 log Emission level (uV/m).
3 All emanation from a class B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
*HP Spectrum Analyzer	8590L	3544A01176	May 7, 2002
*HP Preamplifier	8447D	2944A08485	Nov. 4, 2001
* HP Preamplifier	8449B	3008A01201	Dec. 13, 2001
* ROHDE & SCHWARZ TEST RECEIVER	ESMI	839013/007 839379/002	Jan. 25, 2002
SCHWARZBECK Tunable Dipole Antenna	VHA 9103 UHA 9105	E101051 E101055	Nov. 23, 2001
* CHASE BILOG Antenna	CBL6112A	2221	Aug. 4, 2001
* EMCO Turn Table	1060	1115	NA
* SHOSHIN Tower	AP-4701	A6Y005	NA
* Software	AS61D	NA	NA
* ANRITSU RF Switches	MP59B	M35046	Aug. 4, 2001
* TIMES RF cable	LMR-600	CABLE-ST5-01	Aug. 4, 2001
* Antenna (Horn)	BBHA9120-D	D130	July 10, 2001
Open Field Test Site	Site 5	ADT-R05	July 28, 2001
VCCI Site Registration No.	Site 5	R-1039	NA

NOTE: 1.The measurement uncertainty is less than +/- 3.0dB, which is calculated as per the NAMAS document NIS81.

2.The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

3.“*” = These equipments are used for the final measurement.

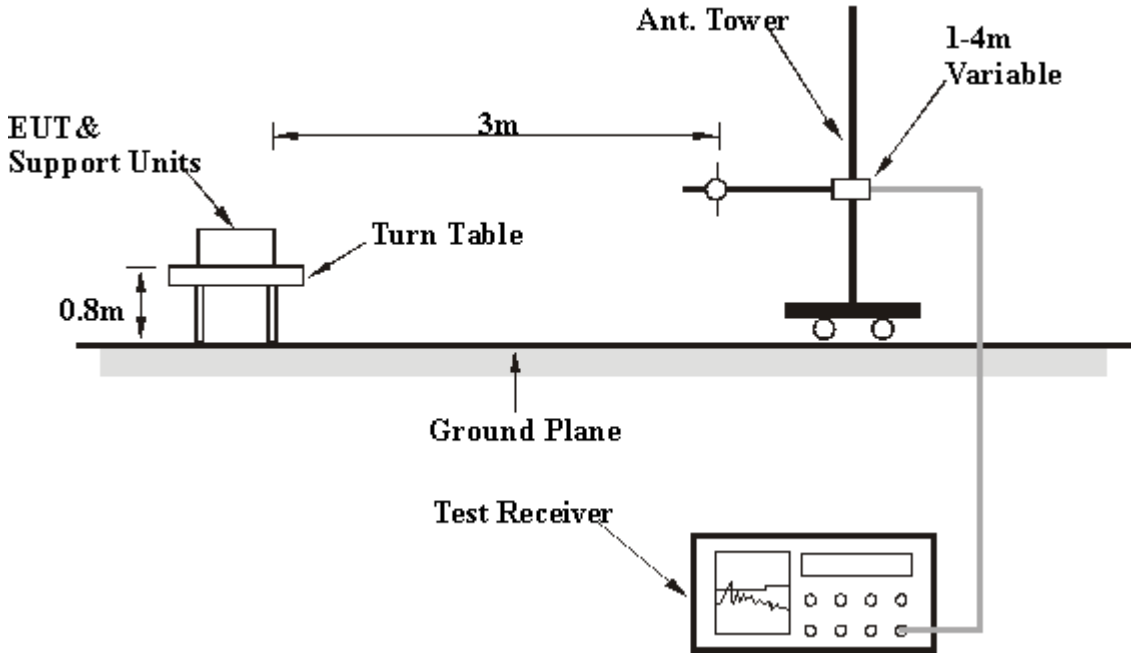
4.2.3 TEST PROCEDURES

1. The EUT was placed on the turn table 0.8 meter above ground in 3 meter open area test site.
2. Set the resolution bandwidth to 120KHz in the test receiver and select Peak function to scan the frequency below 1 GHz.
3. Shift the interference-receiving antenna located in antenna tower upwards and downwards between 1 and 4 meters above ground and find out the local peak emission on frequency domain.
4. Locate the interference-receiving antenna at the position where the local peak reach the maximum emission.
5. Rotate the turn table and stop at the angle where the measurement device has maximum reading
6. Shift the interference-receiving antenna again to detect the maximum emission of the local peak
7. If the reading of the local peak under Peak function is lower than limit by 6dB, then Quasi Peak detection is not needed and this reading should be recorded. And if it is higher than Peak limit, then the test is fail. Others, switch the receiver to Quasi Peak function, set the resolution bandwidth to 100kHz and repeat the procedures C ~ F. If the reading is lower than limit, this reading should be recorded, otherwise, the test is fail.
8. Set the resolution and video bandwidth of the spectrum analyzer to 1MHz and repeat procedures C ~ F for frequency band from 1 GHz to 10 times carrier frequency.
9. If the reading for the local peak is lower than the Average limit, no further testing is needed in this local peak and this reading should be recorded. If it is higher than Average limit but lower than Peak limit, then set the resolution bandwidth to 1MHz and video bandwidth to 300Hz. Repeat procedures C ~ F. If the maximum reading is lower than Average limit, then this reading should be recorded. If it is higher, then the test is fail.

Notes:

1. The frequency range of verification is either from 30 MHz to 1GHz or from 30 MHz up to 10 times carrier frequency of EUT (whichever is the highest frequency range).
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for frequency below 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 300 Hz for frequency above 1GHz.

4.2.4 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.2.5 TEST RESULTS

Digital Portion

EUT	Wireless Router	**Model**	RF802EW
Mode	Channel 11	**Detector Function**	Quasi-Peak
Frequency Range	30-1000 MHz	**Test Distance**	3M
Environmental Conditions	27℃, 55%RH	**Tested By**	Gary Chang

ANTENNA POLARITY: VERTICAL							
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
149.99	14.38	51.20	36.8	43.5	-6.7	104	263
249.99	12.61	48.75	36.1	46.0	-9.9	106	267
349.99	9.83	48.40	38.6	46.0	-7.4	170	44
499.99	6.36	44.44	38.1	46.0	-7.9	105	242
599.99	5.75	41.68	35.9	46.0	-10.1	134	292
699.99	4.54	40.53	36.0	46.0	-10.0	160	159
799.99	3.75	41.35	37.6	46.0	-8.4	151	168
899.99	2.62	42.34	39.7	46.0	-6.3	151	313

ANTENNA POLARITY: HORIZONTAL							
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
149.99	14.38	49.50	35.1	43.0	-8.4	173	112
274.99	11.87	52.37	40.5	46.0	-5.5	113	175
299.99	11.37	52.86	41.5	46.0	-4.5	117	189
349.99	9.83	51.54	41.7	46.0	-4.3	127	289
600.00	5.75	43.50	37.8	46.0	-8.2	112	300
649.99	5.60	42.45	36.8	46.0	-9.2	124	140
800.00	3.75	45.82	42.1	46.0	-3.9	107	141
899.99	2.62	45.53	42.9	46.0	-3.1	100	229

Notes:
1. Emission level (dBuV/m) = Reading value (dBuV) - Correction Factor (dB)
2. Correction Factor (dB) = External Preamp. Gain (dB)-Ant. Factor (dB) -Cable loss (dB)
   (External Preamp. Gain = 0, when the test receiver is used for the test.)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

RF Portion

EUT	Wireless Router	**Model**	RF802EW
Mode	Channel 1	**Detector Function**	PK, AV
Frequency Range	Above 1000 MHz	**Test Distance**	3M
Environmental Conditions	27℃, 55%RH	**Tested By**	Gary Chang

ANTENNA POLARITY: Vertical		**Detector Function : Peak Average**				**6dB Bandwidth : 1MHz**				**Frequency Range : Above 1GHz**	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)		Antenna Height (cm)	Table Angle (Degree)
		P.K.	A.V.	P.K.	A.V.	P.K.	A.V.	P.K	A.V.		
2037.8	-29.61	24.50	22.30	54.1	51.9	74.0	54.0	-19.9	-2.1	102	61
*2412.8	-31.04	72.30	65.80	103.3	96.8	-	-	-	-	100	34
4076.2	-34.79	14.20	-	49.0	-	74.0	54.0	-25.0	-	102	295
4824.1	-36.55	15.40	-	51.9	-	74.0	54.0	-22.1	-	102	-2

ANTENNA POLARITY: Horizontal		**Detector Function : Peak Average**				**6dB Bandwidth:1MHz**				**Frequency Range: Above 1GHz**	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)		Antenna Height (cm)	Table Angle (Degree)
		P.K.	A.V.	P.K.	A.V.	P.K.	A.V.	P.K	A.V.		
2037.7	-29.61	19.45	-	49.1	-	74.0	54.0	-24.9	-	101	156
*2412.5	-31.04	66.92	59.80	98.0	90.8	-	-	-	-	100	329
4075.5	-34.79	13.50	-	48.3	-	74.0	54.0	-25.7	-	101	272
4824.1	-36.55	15.26	-	51.8	-	74.0	54.0	-22.2	-	102	186

Notes:
1. Emission level (dBuV/m) = Reading value (dBuV) - Correction Factor (dB)
2. Correction Factor (dB) = External Preamp. Gain (dB)-Ant. Factor (dB) -Cable loss (dB)
   (External Preamp. Gain = 0, when the test receiver is used for the test.)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Wireless Router	**Model**	RF802EW
Mode	Channel 6	**Detector Function**	PK,AV
Frequency Range	Above 1000 MHz	**Test Distance**	3M
Environmental Conditions	27℃, 55%RH	**Tested By**	Gary Chang

ANTENNA POLARITY: Vertical		**Detector Function : Peak Average**				**6dB Bandwidth:1MHz**				**Frequency Range: Above 1GHz**	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)		Antenna Height (cm)	Table Angle (Degree)
		P.K.	A.V.	P.K.	A.V.	P.K.	A.V.	P.K	A.V.		
2062.7	-29.69	23.50	-	53.2	-	74.0	54.0	-20.8	-	101	60
*2438.4	-31.16	71.90	63.80	103.1	95.0	-	-	-	-	100	356
4126.5	-34.90	15.20	-	50.1	-	74.0	54.0	-23.9	-	101	151
4874.2	-36.69	15.10	-	51.8	-	74.0	54.0	-22.2	-	100	289

ANTENNA POLARITY: Horizontal		**Detector Function : Peak Average**				**6dB Bandwidth:1MHz.**				**Frequency Range: Above 1GHz.**	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)		Antenna Height (cm)	Table Angle (Degree)
		P.K.	A.V.	P.K.	A.V.	P.K.	A.V.	P.K	A.V.		
2062.8	-29.69	21.80	-	51.5	-	74.0	54.0	-22.5	-	101	60
*2438.4	-31.16	68.20	61.90	99.4	93.1	-	-	-	-	100	362
4126.6	-34.90	14.20	-	49.1	-	74.0	54.0	-24.9	-	101	261
4874.2	-36.69	13.89	-	50.6	-	74.0	54.0	-23.4	-	101	362

Notes:
1. Emission level (dBuV/m) = Reading value (dBuV) - Correction Factor (dB)
2. Correction Factor (dB) = External Preamp. Gain (dB)-Ant. Factor (dB) -Cable loss (dB)
   (External Preamp. Gain = 0, when the test receiver is used for the test.)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	Wireless Router	**Model**	RF802EW
Mode	Channel 11	**Detector Function**	PK,AV
Frequency Range	Above 1000 MHz	**Test Distance**	3M
Environmental Conditions	27℃, 55%RH	**Tested By**	Gary Chang

ANTENNA POLARITY: Vertical		**Detector Function : Peak Average**				**6dB Bandwidth:1MHz.**				**Frequency Range: Above 1GHz**	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)		Antenna Height (cm)	Table Angle (Degree)
		P.K.	A.V.	P.K.	A.V.	P.K.	A.V.	P.K	A.V.		
2087.8	-29.81	21.80	-	51.6	-	74.0	54.0	-22.4	-	100	166
*2461.6	-31.24	71.20	63.20	102.4	94.4	-	-	-	-	100	177
2494.4	-31.35	20.40	-	51.8	-	74.0	54.0	-22.2	-	100	333
4176.2	-35.00	14.90	-	49.9	-	74.0	54.0	-24.1	-	100	280
4924.2	-36.83	15.20	-	52.0	-	74.0	54.0	-22.0	-	100	337

ANTENNA POLARITY: Horizontal		**Detector Function : Peak Average**				**6dB Bandwidth:1MHz.**				**Frequency Range: Above 1GHz**	
Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)		Antenna Height (cm)	Table Angle (Degree)
		P.K.	A.V.	P.K.	A.V.	P.K.	A.V.	P.K	A.V.		
2087.8	-29.81	20.56	-	50.4	-	74.0	54.0	-23.6	-	100	325
*2461.5	-31.24	67.58	60.20	98.8	91.4	-	-	-	-	100	283
2494.4	-31.35	18.50	-	49.9	-	74.0	54.0	-24.1	-	120	161
4176.2	-35.00	15.20	-	50.2	-	74.0	54.0	-23.8	-	100	181
4924.0	-36.83	14.20	-	51.0	-	74.0	54.0	-23.0	-	100	6

Notes:
1. Emission level (dBuV/m) = Reading value (dBuV) - Correction Factor (dB)
2. Correction Factor (dB) = External Preamp. Gain (dB)-Ant. Factor (dB) -Cable loss (dB)
   (External Preamp. Gain = 0, when the test receiver is used for the test.)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency