FCC TEST REPORT

REPORT NO.: RF901211R05
MODEL NO.: UW250
RECEIVED: Dec. 11, 2001
TESTED: Dec. 13 ~ Dec. 14, 2001

APPLICANT: BROMAX COMMUNICATIONS, INC.

ADDRESS: No.20, Kuang Fu Road, Hsin Chu Industrial Park, Hu Kou, Hsin Chu, Taiwan, R.O.C.

ISSUED BY: Advance Data Technology Corporation

LAB LOCATION: 47 14th Lin, Chiapau Tsun, Linko, Taipei, Taiwan, R.O.C.

0528
ILAC MRA

Lab Code: 200102-0

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1 CERTIFICATION

PRODUCT :	11M USB Wireless Adapter
BRAND NAME :	BroMax
MODEL NO. :	UW250
APPLICANT :	BROMAX COMMUNICATIONS, INC.
STANDARDS :	47 CFR Part 15, Subpart C (Section 15.247), ANSI C63.4-1992, Canada RSS 210, New Zealand RFS 29

We, **Advance Data Technology Corporation**, hereby certify that one sample of the designation has been tested in our facility from Dec. 13, 2001 to Dec. 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: Dec. 17, 2001
Gary Chang

CHECKED BY: Demi Chen , DATE: Dec. 17, 2001
Demi Chen

APPROVED BY: Alan Lane , DATE: Dec. 17, 2001
Dr. Alan Lane
Manager

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: 47 CFR Part 15, Subpart C			
Standard Section	**Test Type and Limit**	**Result**	**REMARK**
15.107	AC Power Conducted Emission Limit: 48dBuV	PASS	Meet the requirement of limit Minimum passing margin is –14.56dBuV at 0.450MHz
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit
15.247(c)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit Minimum passing margin is –2.20dBuV at 132.00MHz
15.247(d)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit
15.247(c)	Band Edge Measurement Limit: 20 dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	11M USB Wireless Adapter
MODEL NO.	UW250
POWER SUPPLY	5VDC from host equipment
MODULATION TYPE	BPSK, QPSK, CCK
RADIO TECHNOLOGY	DSSS
TRANSFER RATE	1/2/5.5/11Mbps
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11
OUTPUT POWER	15.81dBm
ANTENNA TYPE	Dipole Antenna
DATA CABLE	2.1m(shielded)
I/O PORTS	USB Port
ASSOCIATED DEVICES	NA

NOTE:

1. The model: UW-250 is classified as four types for different housings. There are also two arrangements on the location of USB port. For the 4 housing as well as the location of USB port, please refer to EUT PHOTO page 1 and page 8.
2. 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 tested individually.
3. Although there are two arrangements on the installation of the USB port, no RF circuit has been involved in such alternative. So, only the radiated emission has to be re-tested and the test result has been shown on section 4.2.6 and 4.2.7.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a 11M USB Wireless Adapter. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC CFR 47 Part 15, Subpart C. (15.247)
ANSI C63.4 : 1992, Canada RSS 210, New Zealand RFS 29

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

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

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	NOTEBOOK	DELL	PP01L	TW-09C748-12800-19O-B220	FCC DoC Approved
2	PRINTER	HP	2225C+	3123S97230	DSI6XU2225
3	MODEM	ACEEX	1414	980020510	IFAXDM1414

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	1.2 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.

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

4 TEST TYPES AND 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	-

NOTE:

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 4, 2002
ROHDE & SCHWARZ Artificial Mains Network (for EUT)	ESH3-Z5	839135/006	July 3, 2002
* ROHDE & SCHWARZ 4-wire ISN	ENY41	837032/016	Dec. 2, 2002
* ROHDE & SCHWARZ 2-wire ISN	ENY22	837497/016	Dec. 2, 2002
EMCO-L.I.S.N. (for peripheral)	3825/2	9204-1964	July 3, 2002
Software	Cond-V2J	NA	NA
RF cable (JYEBAO)	RG-58A/U	Cable-C02.01	July 5, 2002
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

NOTE: 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.

3. "*": These equipment are used for conducted telecom port test only (if tested).

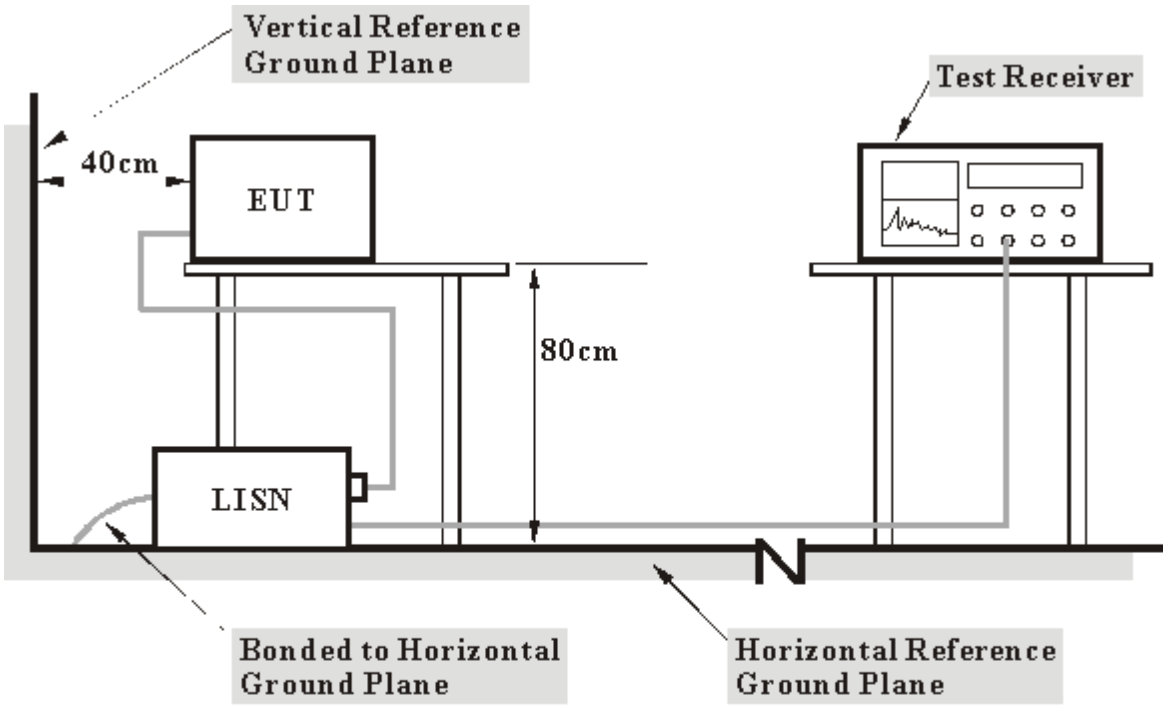
4.1.3 TEST PROCEDURES

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. The frequency range from 450 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 EUT OPERATING CONDITIONS

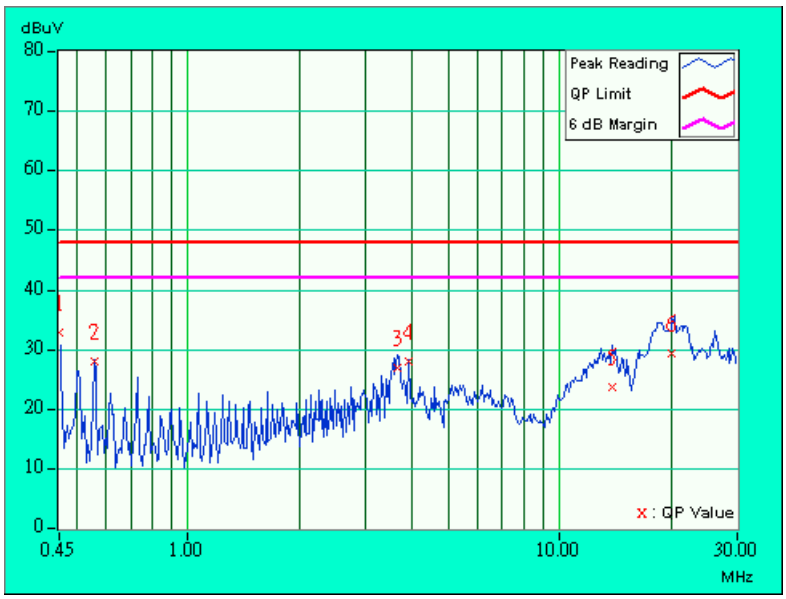
a. Connected the EUT to a computer system placed on a testing table.
b. The computer system ran a test program to enable EUT under transmission/receiving condition continuously at specific channel frequency.
c. The computer system sent "H" messages to its screen.
d. The computer system sent “H” messages to modem.
e. The computer system sent "H" messages to printer, and the printer prints them on paper.

4.1.6 TEST RESULTS

EUT	11M USB Wireless Adapter	**MODEL**	UW250
MODE	Channel 1	**6dB BANDWIDTH**	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	20 deg. C, 65%RH, 1005 hPa	**TESTED BY**: James Lee	

No	Freq. (MHz)	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			QP.	AV.	QP.	AV.	QP.	AV.	QP.	AV.
1	0.452	0.10	31.77	-	31.87	-	48.00	-	-16.13	-
2	0.561	0.10	26.92	-	27.02	-	48.00	-	-20.98	-
3	3.651	0.27	25.99	-	26.26	-	48.00	-	-21.74	-
4	3.933	0.29	26.92	-	27.21	-	48.00	-	-20.79	-
5	13.878	0.73	22.64	-	23.37	-	48.00	-	-24.63	-
6	19.949	1.00	28.37	-	29.37	-	48.00	-	-18.63	-

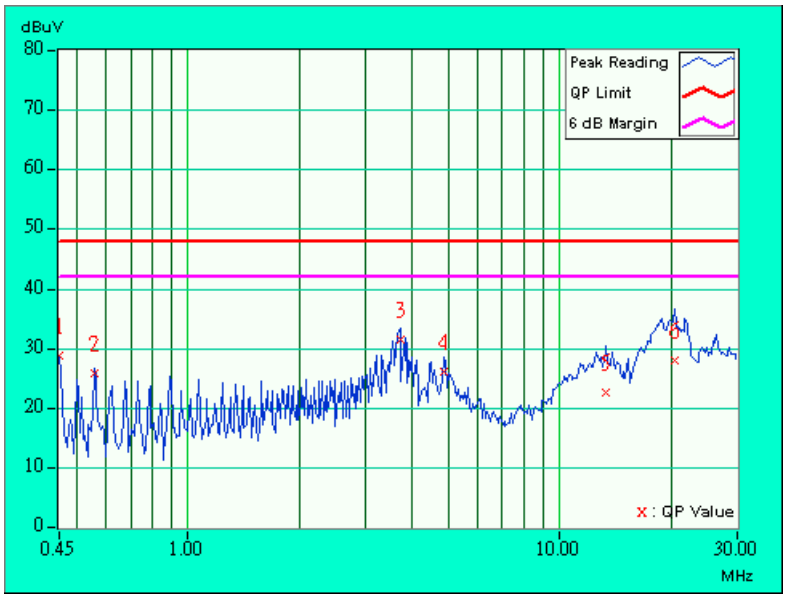
Remarks:
1. "*": Undetectable
2. QP. and AV. are abbreviations of quasi-peak and average individually.
3. "-": NA
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value
6. Emission Level = Correction Factor + Reading Value.



EUT	11M USB Wireless Adapter	**MODEL**	UW250
MODE	Channel 1	**6dB BANDWIDTH**	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	20 deg. C, 65%RH, 1005 hPa	**TESTED BY**: James Lee	

No	Freq. (MHz)	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			QP.	AV.	QP.	AV.	QP.	AV.	QP.	AV.
1	0.450	0.10	28.12	-	28.22	-	48.00	-	-19.78	-
2	0.562	0.10	25.16	-	25.26	-	48.00	-	-22.74	-
3	3.711	0.27	30.62	-	30.89	-	48.00	-	-17.11	-
4	4.890	0.31	25.25	-	25.56	-	48.00	-	-22.44	-
5	13.310	0.53	21.90	-	22.43	-	48.00	-	-25.57	-
6	20.465	0.81	27.19	-	28.00	-	48.00	-	-20.00	-

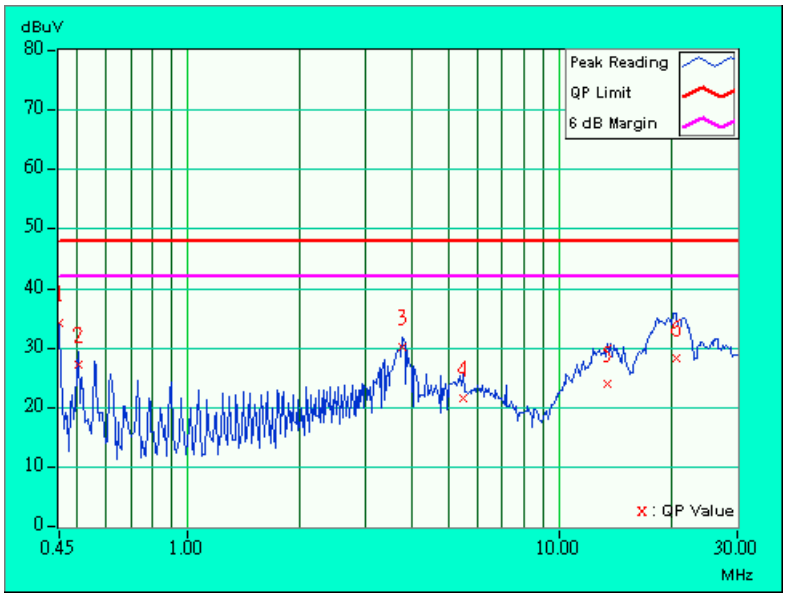
Remarks:
1. "*": Undetectable
2. QP. and AV. are abbreviations of quasi-peak and average individually.
3. "-": NA
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value
6. Emission Level = Correction Factor + Reading Value.



EUT	11M USB Wireless Adapter	**MODEL**	UW250
MODE	Channel 6	**6dB BANDWIDTH**	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	20 deg. C, 65%RH, 1005 hPa	**TESTED BY**: James Lee	

No	Freq. (MHz)	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			QP.	AV.	QP.	AV.	QP.	AV.	QP.	AV.
1	0.450	0.10	33.22	-	33.32	-	48.00	-	-14.68	-
2	0.507	0.10	26.19	-	26.29	-	48.00	-	-21.71	-
3	3.768	0.28	29.25	-	29.53	-	48.00	-	-18.47	-
4	5.514	0.35	20.57	-	20.92	-	48.00	-	-27.08	-
5	13.412	0.70	22.91	-	23.61	-	48.00	-	-24.39	-
6	20.528	1.01	27.33	-	28.34	-	48.00	-	-19.66	-

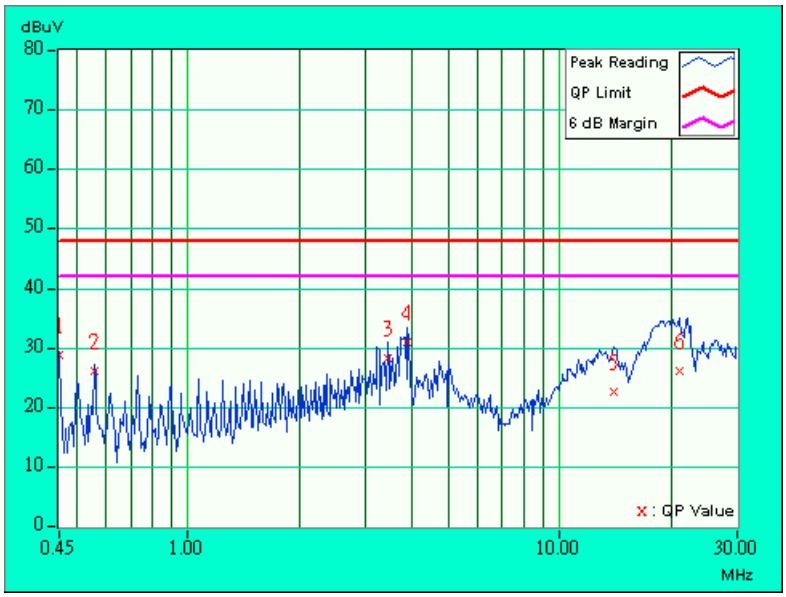
Remarks:
1. "*": Undetectable
2. QP. and AV. are abbreviations of quasi-peak and average individually.
3. "-": NA
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value
6. Emission Level = Correction Factor + Reading Value.



EUT	11M USB Wireless Adapter	**MODEL**	UW250
MODE	Channel 6	**6dB BANDWIDTH**	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	20 deg. C, 65%RH, 1005 hPa	**TESTED BY**: James Lee	

No	Freq. (MHz)	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			QP.	AV.	QP.	AV.	QP.	AV.	QP.	AV.
1	0.450	0.10	28.06	-	28.16	-	48.00	-	-19.84	-
2	0.561	0.10	25.25	-	25.35	-	48.00	-	-22.65	-
3	3.429	0.24	27.58	-	27.82	-	48.00	-	-20.18	-
4	3.882	0.29	30.10	-	30.39	-	48.00	-	-17.61	-
5	14.018	0.56	21.83	-	22.39	-	48.00	-	-25.61	-
6	21.044	0.82	25.29	-	26.11	-	48.00	-	-21.89	-

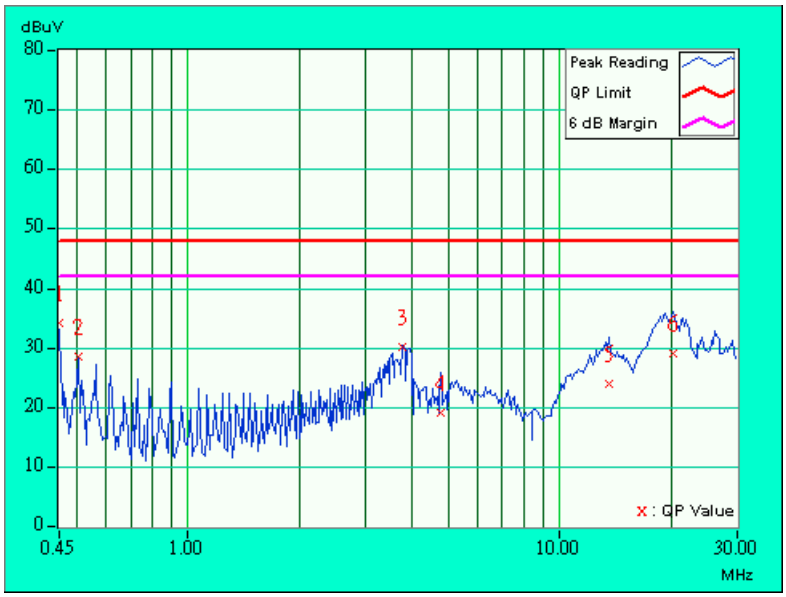
Remarks:
1. "*": Undetectable
2. QP. and AV. are abbreviations of quasi-peak and average individually.
3. "-": NA
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value
6. Emission Level = Correction Factor + Reading Value.



EUT	11M USB Wireless Adapter	MODEL	UW250
MODE	Channel 11	6dB BANDWIDTH	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	20 deg. C, 65%RH, 1005 hPa	TESTED BY: James Lee	

No	Freq. (MHz)	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			QP.	AV.	QP.	AV.	QP.	AV.	QP.	AV.
1	0.450	0.10	33.34	-	33.44	-	48.00	-	-14.56	-
2	0.507	0.10	27.49	-	27.59	-	48.00	-	-20.41	-
3	3.771	0.28	29.23	-	29.51	-	48.00	-	-18.49	-
4	4.785	0.33	18.25	-	18.58	-	48.00	-	-29.42	-
5	13.586	0.72	22.94	-	23.66	-	48.00	-	-24.34	-
6	20.162	1.00	28.17	-	29.17	-	48.00	-	-18.83	-

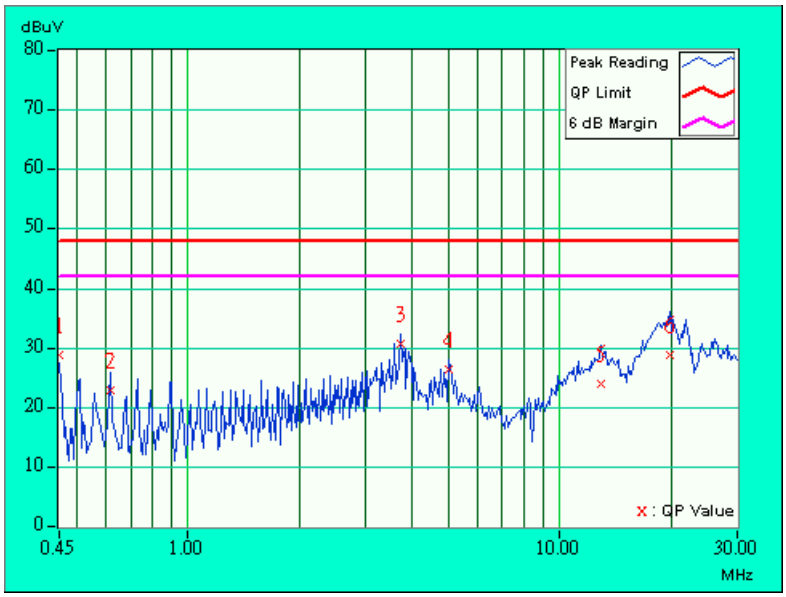
Remarks:
1. "*": Undetectable
2. QP. and AV. are abbreviations of quasi-peak and average individually.
3. "-": NA
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value
6. Emission Level = Correction Factor + Reading Value.



EUT	11M USB Wireless Adapter	**MODEL**	UW250
MODE	Channel 11	**6dB BANDWIDTH**	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	20 deg. C, 65%RH, 1005 hPa	**TESTED BY**: James Lee	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	QP.	AV.	QP.	AV.	QP.	AV.	QP.	AV.
1	0.450	0.10	28.12	-	28.22	-	48.00	-	-19.78	-
2	0.621	0.10	22.17	-	22.27	-	48.00	-	-25.73	-
3	3.717	0.27	29.83	-	30.10	-	48.00	-	-17.90	-
4	5.009	0.32	25.48	-	25.80	-	48.00	-	-22.20	-
5	12.896	0.52	23.29	-	23.81	-	48.00	-	-24.19	-
6	19.868	0.79	28.03	-	28.82	-	48.00	-	-19.18	-

Remarks:
1. "*": Undetectable
2. QP. 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	
	uV/m	dBuV/m
30-88	100	40.0
88-216	150	43.5
216-960	200	46.0
Above 960	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. 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.

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	May 7, 2002
* HP Preamplifier	8449B	3008A01201	Dec. 6, 2002
* HP Preamplifier	8449B	3008A01292	Aug. 21, 2002
* ROHDE & SCHWARZ TEST RECEIVER	ESMI	839013/007 839379/002	Jan. 25, 2002
SCHWARZBECK Tunable Dipole Antenna	VHA 9103 UHA 9105	E101051 E101055	Nov. 23, 2002
* CHASE BILOG Antenna	CBL6112A	2221	Aug. 2, 2002
* SCHWARZBECK Horn Antenna	BBHA9120-D1	D130	July 6, 2002
* EMCO Horn Antenna	3115	9312-4192	April 15, 2002
* EMCO Turn Table	1060	1115	NA
* SHOSHIN Tower	AP-4701	A6Y005	NA
* Software	AS61D4	NA	NA
* ANRITSU RF Switches	MP59B	M35046	Aug. 2, 2002
* TIMES RF cable	LMR-600	CABLE-ST5-01	Aug. 2, 2002
* Antenna (Horn)	BBHA9120-D	D130	July 10, 2002
Open Field Test Site	Site 5	ADT-R05	July 28, 2002
VCCI Site Registration No.	Site 5	R-1039	NA
Site Registration No.	FCC: 90422 Canada IC: IC 3789 VCCI : R-1039		

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 equipment are used for the final measurement.

4. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz.

4.2.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

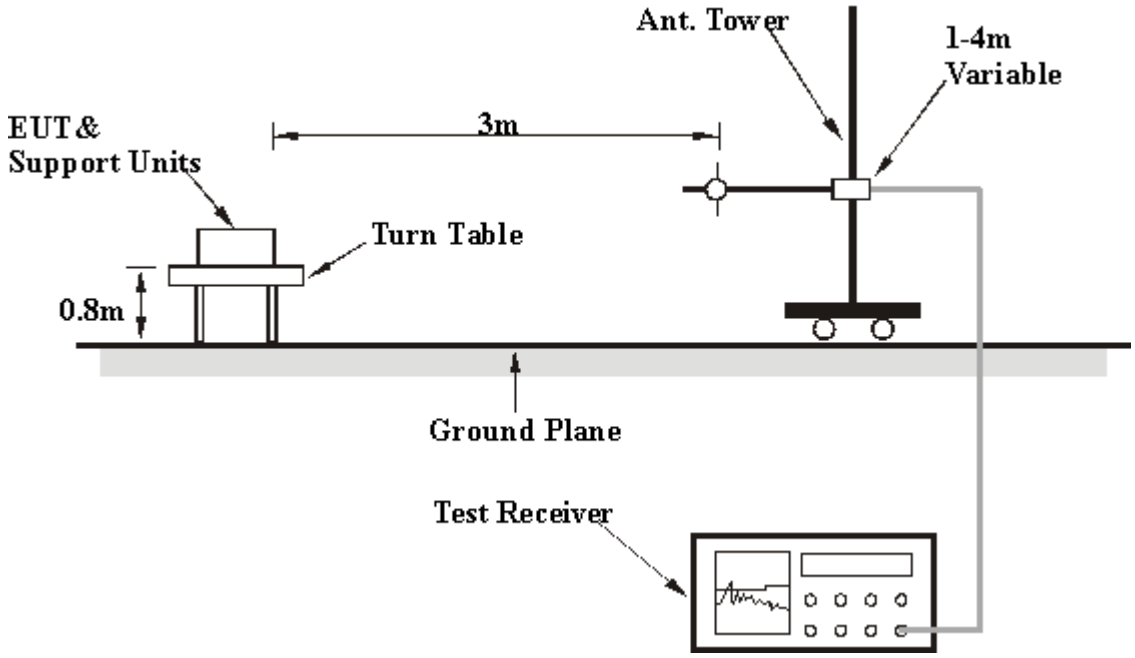
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using the quasi-peak method or average method as specified and then reported in Data sheet peak mode and QP mode.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 300 Hz for Average detection (AV) at 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 EUT OPERATING CONDITIONS

Same as 4.1.5.

4.2.6 TEST RESULTS(A)

EUT	11M USB Wireless Adapter	**MODEL**	UW250
MODE	Channel 11	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	20 deg. C, 70%RH, 1005 hPa	**TESTED BY**: Gary Chang	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	132.00	36.3 QP	43.50	-7.20	2.51H	154	24.00	11.16	1.13	0.00	-12.29
2	220.00	31.6 QP	46.00	-14.40	1.59H	276	20.00	10.12	1.51	0.00	-11.63
3	240.00	32.0 QP	46.00	-14.00	1.82H	90	19.00	11.41	1.62	0.00	-13.03
4	308.00	32.3 QP	46.00	-13.70	1.75H	180	17.00	13.38	1.91	0.00	-15.29
5	336.00	30.9 QP	46.00	-15.10	1.25H	158	15.00	13.92	1.99	0.00	-15.91
6	396.00	33.9 QP	46.00	-12.10	1.47H	253	15.70	15.96	2.22	0.00	-18.18
7	484.00	35.4 QP	46.00	-10.60	1.38H	351	16.00	16.96	2.47	0.00	-19.43
8	572.00	37.0 QP	46.00	-9.00	2.25H	282	16.00	18.25	2.75	0.00	-21.00
9	616.00	35.7 QP	46.00	-10.30	2.22H	327	14.00	18.82	2.89	0.00	-21.71
10	624.00	36.5 QP	46.00	-9.50	1.34H	275	14.70	18.91	2.92	0.00	-21.83
11	748.00	34.2 QP	46.00	-11.80	1.54H	73	10.80	20.14	3.26	0.00	-23.40
12	792.00	33.4 QP	46.00	-12.60	1.48H	7	9.50	20.60	3.31	0.00	-23.91

NOTE: 1 Emission level = Raw Value - Correction Factor
2 Correction Factor = External Preamp. Gain - Ant. Factor - Cable loss
(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

EUT	11M USB Wireless Adapter	MODEL	UW250
MODE	Channel 11	FREQUENCY RANGE	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	20 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M											
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	132.00	41.3 QP	43.50	-2.20	1.20V	350	29.00	11.16	1.13	0.00	-12.29
2	176.00	29.4 QP	43.50	-14.10	1.07V	174	19.00	9.08	1.33	0.00	-10.41
3	220.00	29.6 QP	46.00	-16.40	1.16V	309	18.00	10.12	1.51	0.00	-11.63
4	240.00	31.0 QP	46.00	-15.00	1.16V	315	18.00	11.41	1.62	0.00	-13.03
5	264.00	31.6 QP	46.00	-14.40	1.85V	185	17.00	12.89	1.70	0.00	-14.58
6	396.00	33.2 QP	46.00	-12.80	1.91V	106	15.00	15.96	2.22	0.00	-18.18
7	484.00	33.4 QP	46.00	-12.60	1.25V	204	14.00	16.96	2.47	0.00	-19.43
8	572.00	31.4 QP	46.00	-14.60	1.54V	240	10.40	18.25	2.75	0.00	-21.00
9	624.00	35.0 QP	46.00	-11.00	1.50V	224	13.20	18.91	2.92	0.00	-21.83
10	660.00	35.5 QP	46.00	-10.50	1.32V	319	13.20	19.25	3.05	0.00	-22.29
11	748.00	34.4 QP	46.00	-11.60	1.28V	359	11.00	20.14	3.26	0.00	-23.40
12	792.00	33.9 QP	46.00	-12.10	2.17V	36	10.00	20.60	3.31	0.00	-23.91

NOTE: 1 Emission level = Raw Value - Correction Factor
2 Correction Factor = External Preamp. Gain - Ant. Factor - Cable loss
(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

EUT	11M USB Wireless Adapter	MODEL	UW250
MODE	Channel 1	FREQUENCY RANGE	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	2038.0	48.2 PK	74.00	-25.80	1.49H	23	53.00	25.20	4.86	34.90	4.84
2	*2413.0	102.2 PK	-	-	1.14H	211	70.00	27.11	5.10	0.00	-32.21
3	*2413.0	96.0 AV	-	-	1.14H	211	63.80	27.11	5.10	0.00	-32.21
4	4076.0	50.6 PK	74.00	-23.40	1.80H	352	48.20	30.13	6.78	34.52	-2.39
5	4824.0	51.1 PK	74.00	-22.90	1.31H	28	47.10	31.43	7.23	34.63	-4.03

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	2038.0	49.7 PK	74.00	-24.30	1.05V	226	54.50	25.20	4.86	34.90	4.84
2	*2413.0	101.7 PK	-	-	1.32V	277	69.45	27.11	5.10	0.00	-32.21
3	*2413.0	94.2 AV	-	-	1.32V	277	62.00	27.11	5.10	0.00	-32.21
4	4075.0	54.8 PK	74.00	-19.20	1.10V	263	52.40	30.13	6.78	34.52	-2.39
5	4075.0	50.6 AV	54.00	-3.40	1.10V	263	48.25	30.13	6.78	34.52	-2.39
6	4824.0	50.1 PK	74.00	-23.90	1.17V	226	46.10	31.43	7.23	34.63	-4.02
7	8150.0	47.6 AV	54.00	-6.40	1.20V	240	36.14	36.66	9.67	34.87	-11.45
8	8150.0	56.5 PK	74.00	-17.50	1.20V	240	45.00	36.66	9.67	34.87	-11.45.

NOTE: 1. Emission level = Raw Value - Correction Factor
2. Correction Factor = External Preamp. Gain - Ant. Factor - Cable loss
(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	11M USB Wireless Adapter	**MODEL**	UW250
MODE	Channel 6	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 70%RH, 1005 hPa	**TESTED BY**: Gary Chang	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	2063.0	48.5 PK	74.00	-25.50	1.29H	281	53.00	25.41	4.96	34.90	4.53
2	*2437.0	103.4 PK	-	-	1.93H	347	71.00	27.33	5.08	0.00	-32.40
3	*2437.0	97.4 AV	-	-	1.93H	347	65.00	27.33	5.08	0.00	-32.40
4	4126.0	51.5 PK	74.00	-22.50	1.68H	356	49.00	30.32	6.70	34.56	-2.46
5	4874.0	51.1 PK	74.00	-22.90	1.43H	316	47.00	31.47	7.21	34.63	-4.05

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	2063.0	49.5 PK	74.00	-24.50	1.24V	317	54.00	25.41	4.96	34.90	4.53
2	*2437.0	101.7 PK	-	-	2.07V	59	69.33	27.33	5.08	0.00	-32.41
3	*2437.0	96.1 AV	-	-	2.07V	59	63.70	27.33	5.08	0.00	-32.41
4	4125.7	54.5 PK	74.00	-19.50	1.55V	20	52.00	30.32	6.70	34.56	-2.46
5	4125.7	51.3 AV	54.00	-2.70	1.55V	20	48.81	30.32	6.70	34.56	-2.46
6	8250.0	52.9 PK	74.00	-21.10	1.51V	7	41.00	36.71	10.00	34.85	-11.86
7	8250.0	46.9 AV	54.00	-7.10	1.51V	7	35.00	36.71	10.00	34.85	-11.86

NOTE: 1. Emission level = Raw Value - Correction Factor
2. Correction Factor = External Preamp. Gain - Ant. Factor - Cable loss
(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	11M USB Wireless Adapter	**MODEL**	UW250
MODE	Channel 11	**FREQUENCY RANGE**	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 70%RH, 1005 hPa	**TESTED BY**: Gary Chang	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	2088.0	48.0 PK	74.00	-26.00	1.77H	335	52.29	25.62	5.02	34.90	4.26
2	*2463.0	101.6 PK	-	-	1.70H	354	69.15	27.33	5.08	0.00	-32.41
3	*2463.0	95.4 AV	-	-	1.70H	354	63.00	27.33	5.08	0.00	-32.41
4	2484.7	48.1 PK	74.00	-25.90	1.29H	8	50.40	27.54	5.06	34.90	2.31
5	4175.4	54.5 PK	74.00	-19.50	2.04H	331	52.00	30.41	6.68	34.58	-2.51
6	4175.4	49.3 AV	54.00	-4.70	2.04H	331	46.80	30.41	6.68	34.58	-2.51
7	4924.0	50.6 PK	74.00	-23.40	1.49H	265	46.50	31.51	7.21	34.62	-4.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	2088.0	51.7 PK	74.00	-22.30	1.00V	20	56.00	25.62	5.02	34.90	4.26
2	*2463.0	103.4 PK	-	-	1.10V	139	71.00	27.33	5.08	0.00	-32.40
3	*2463.0	97.4 AV	-	-	1.10V	139	65.00	27.33	5.08	0.00	-32.40
4	2485.5	47.8 PK	74.00	-26.20	1.68V	317	50.10	27.54	5.06	34.90	2.31
5	4176.0	53.5 PK	74.00	-20.50	2.03V	40	51.00	30.41	6.68	34.58	-2.51
6	4176.0	48.3 AV	54.00	-5.70	2.03V	40	45.80	30.41	6.68	34.58	-2.51
7	4924.0	51.9 PK	74.00	-22.10	1.32V	315	47.80	31.51	7.21	34.62	-4.10
8	8350.0	49.9 AV	54.00	-4.10	1.18V	19	37.80	36.74	10.20	34.83	-12.11
9	8350.0	54.1 PK	74.00	-19.90	1.18V	19	42.00	36.74	10.20	34.83	-12.11.

NOTE: 1. Emission level= Raw Value - Correction Factor
2. Correction Factor = External Preamp. Gain - Ant. Factor - Cable loss
(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

4.2.7 TEST RESULTS(B)

EUT	11M USB Wireless Adapter	**MODEL**	UW250
MODE	Channel 11	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	20 deg. C, 70%RH, 1005 hPa	**TESTED BY**: Gary Chang	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	44.00	30.1 QP	40.00	-9.90	1.60H	127	20.00	9.40	0.67	0.00	-10.07
2	132.00	37.3 QP	43.50	-6.20	2.46H	297	25.00	11.16	1.13	0.00	-12.29
3	220.00	29.6 QP	46.00	-16.40	1.77H	243	18.00	10.12	1.51	0.00	-11.63
4	308.00	31.3 QP	46.00	-14.70	1.24H	8	16.00	13.38	1.91	0.00	-15.30
5	336.00	34.9 QP	46.00	-11.10	1.32H	198	19.00	13.92	1.99	0.00	-15.91
6	396.00	33.2 QP	46.00	-12.80	1.33H	357	15.00	15.96	2.22	0.00	-18.18
7	432.00	30.6 QP	46.00	-15.40	1.17H	38	12.00	16.28	2.35	0.00	-18.64
8	480.00	31.4 QP	46.00	-14.60	1.18H	329	12.00	16.92	2.47	0.00	-19.38
9	528.00	35.2 QP	46.00	-10.80	1.01H	33	15.00	17.62	2.60	0.00	-20.23
10	624.00	35.8 QP	46.00	-10.20	1.04H	100	14.00	18.91	2.92	0.00	-21.83
11	748.00	34.6 QP	46.00	-11.40	1.25H	51	11.20	20.14	3.26	0.00	-23.40
12	792.00	33.9 QP	46.00	-12.10	1.17H	96	10.00	20.60	3.31	0.00	-23.91
13	880.00	35.2 QP	46.00	-10.80	1.58H	63	11.00	20.68	3.55	0.00	-24.23

NOTE: 1 Emission level = Raw Value - Correction Factor
2 Correction Factor = External Preamp. Gain - Ant. Factor - Cable loss
(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

EUT	11M USB Wireless Adapter	MODEL	UW250
MODE	Channel 11	FREQUENCY RANGE	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	20 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M											
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	44.00	28.1 QP	40.00	-11.90	1.21V	116	18.00	9.40	0.67	0.00	-10.07
2	132.00	40.7 QP	43.50	-2.80	1.13V	205	28.40	11.16	1.13	0.00	-12.29
3	176.00	29.4 QP	43.50	-14.10	1.21V	91	19.00	9.08	1.33	0.00	-10.42
4	220.00	32.6 QP	46.00	-13.40	1.27V	90	21.00	10.12	1.51	0.00	-11.63
5	240.00	30.0 QP	46.00	-16.00	1.42V	315	17.00	11.41	1.62	0.00	-13.03
6	336.00	31.9 QP	46.00	-14.10	1.32V	42	16.00	13.92	1.99	0.00	-15.91
7	396.00	35.2 QP	46.00	-10.80	1.05V	197	17.00	15.96	2.22	0.00	-18.18
8	484.00	33.4 QP	46.00	-12.60	1.21V	260	14.00	16.96	2.47	0.00	-19.43
9	528.00	36.2 QP	46.00	-9.80	1.36V	152	16.00	17.62	2.60	0.00	-20.22
10	748.00	34.4 QP	46.00	-11.60	1.24V	211	11.00	20.14	3.26	0.00	-23.40
11	792.00	34.9 QP	46.00	-11.10	2.06V	5	11.00	20.60	3.31	0.00	-23.91
12	816.00	34.0 QP	46.00	-12.00	1.20V	25	10.00	20.62	3.38	0.00	-24.00

NOTE: 1 Emission level = Raw Value - Correction Factor
2 Correction Factor = External Preamp. Gain - Ant. Factor - Cable loss
(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

EUT	11M USB Wireless Adapter	MODEL	UW250
MODE	Channel 1	FREQUENCY RANGE	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	2038.0	46.2 PK	74.00	-27.80	1.28H	19	51.00	25.20	4.86	34.90	4.84
2	*2413.0	100.3 PK	-	-	1.53H	4	68.07	27.11	5.10	0.00	-32.22
3	*2413.0	92.2 AV	-	-	1.53H	4	60.00	27.11	5.10	0.00	-32.22
4	4076.0	49.2 PK	74.00	-24.80	1.45H	291	46.80	30.13	6.78	34.52	-2.39
5	4824.0	52.0 PK	74.00	-22.00	1.45H	59	48.00	31.43	7.23	34.63	-4.03

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	2038.0	46.2 PK	74.00	-27.80	1.42V	308	51.00	25.20	4.86	34.90	4.84
2	*2412.0	95.7 PK	-	-	1.53V	327	63.50	27.11	5.10	0.00	-32.21
3	*2412.0	90.2 AV	-	-	1.53V	327	58.00	27.11	5.10	0.00	-32.21
4	4076.0	49.9 PK	74.00	-24.10	1.35V	42	47.50	30.13	6.78	34.52	-2.39
5	4824.0	51.3 PK	74.00	-22.70	1.10V	247	47.30	31.43	7.23	34.63	-4.02
6	8152.0	54.5 PK	74.00	-19.50	1.31V	6	43.00	36.66	9.67	34.87	-11.45
7	8152.0	48.5 AV	54.00	-5.50	1.31V	6	37.00	36.66	9.67	34.87	-11.45

NOTE: 1. Emission level = Raw Value - Correction Factor
2. Correction Factor = External Preamp. Gain - Ant. Factor - Cable loss
(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	11M USB Wireless Adapter	MODEL	UW250
MODE	Channel 6	FREQUENCY RANGE	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	2063.0	47.5 PK	74.00	-26.50	2.09H	9	52.00	25.41	4.96	34.90	4.53
2	*2437.0	105.9 PK	-	-	1.00H	351	73.50	27.33	5.08	0.00	-32.40
3	*2437.0	100.4 AV	-	-	1.00H	351	68.00	27.33	5.08	0.00	-32.40
4	4126.0	50.0 PK	74.00	-24.00	1.78H	24	47.50	30.32	6.70	34.56	-2.46
5	4874.0	51.1 PK	74.00	-22.90	1.35H	225	47.00	31.47	7.21	34.63	-4.05

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	2063.0	47.6 PK	74.00	-26.40	1.66V	352	52.11	25.41	4.96	34.90	4.53
2	*2437.0	89.4 AV	-	-	1.30V	8	57.00	27.33	5.08	0.00	-32.40.
3	*2437.0	95.4 PK	-	-	1.30V	8	63.00	27.33	5.08	0.00	-32.40.
4	4126.0	50.5 PK	74.00	-23.50	1.25V	5	48.00	30.32	6.70	34.56	-2.46
5	4874.0	50.9 PK	74.00	-23.10	1.25V	347	46.80	31.47	7.21	34.63	-4.05
6	8250.0	53.9 PK	74.00	-20.10	1.08V	267	42.00	36.71	10.00	34.85	-11.86
7	8250.0	48.9 AV	54.00	-5.10	1.08V	267	37.00	36.71	10.00	34.85	-11.86

NOTE: 1. Emission level = Raw Value - Correction Factor
2. Correction Factor = External Preamp. Gain - Ant. Factor - Cable loss
(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	11M USB Wireless Adapter	MODEL	UW250
MODE	Channel 11	FREQUENCY RANGE	Above 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 70%RH, 1005 hPa	TESTED BY: Gary Chang	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	2088.0	47.7 PK	74.00	-26.30	1.38H	9	52.00	25.62	5.02	34.90	4.26
2	*2463.0	102.2 PK	-	-	1.09H	354	69.80	27.33	5.08	0.00	-32.40
3	*2463.0	94.4 AV	-	-	1.09H	354	62.00	27.33	5.08	0.00	-32.40
4	2485.7	50.1 PK	74.00	-23.90	1.18H	266	52.40	27.54	5.06	34.90	2.31
5	4176.0	50.5 PK	74.00	-23.50	1.17H	6	48.00	30.41	6.68	34.58	-2.51
6	4924.0	51.2 PK	74.00	-22.80	1.14H	65	47.10	31.51	7.21	34.62	-4.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB/m)
1	2088.0	46.7 PK	74.00	-27.30	1.00V	268	51.00	25.62	5.02	34.90	4.26
2	*2463.0	95.2 PK	-	-	1.13V	8	62.80	27.33	5.08	0.00	-32.40.
3	*2463.0	89.4 AV	-	-	1.13V	8	57.00	27.33	5.08	0.00	-32.40.
4	2488.0	47.7 PK	74.00	-26.30	1.33V	339	50.00	27.54	5.06	34.90	2.31
5	4176.0	50.5 PK	74.00	-23.50	1.22V	224	48.00	30.41	6.68	34.58	-2.51
6	4924.0	51.1 PK	74.00	-22.90	1.41V	306	47.00	31.51	7.21	34.62	-4.10
7	8351.0	50.1 AV	54.00	-3.90	1.10V	237	38.00	36.74	10.20	34.83	-12.11
8	8351.0	54.1 PK	74.00	-19.90	1.10V	237	42.00	36.74	10.20	34.83	-12.11.

NOTE: 1. Emission level= Raw Value - Correction Factor
2. Correction Factor = External Preamp. Gain - Ant. Factor - Cable loss
(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

4.3 6DB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	July 17, 2002

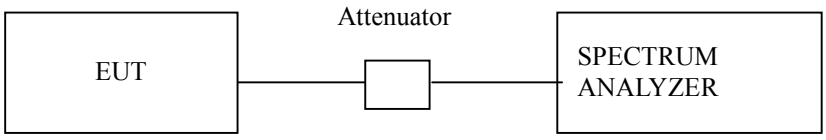
Notes:

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.

4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100 kHz RBW and 100 kHz VBW. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.

4.3.4 TEST SETUP



4.3.5 EUT OPERATING CONDITIONS

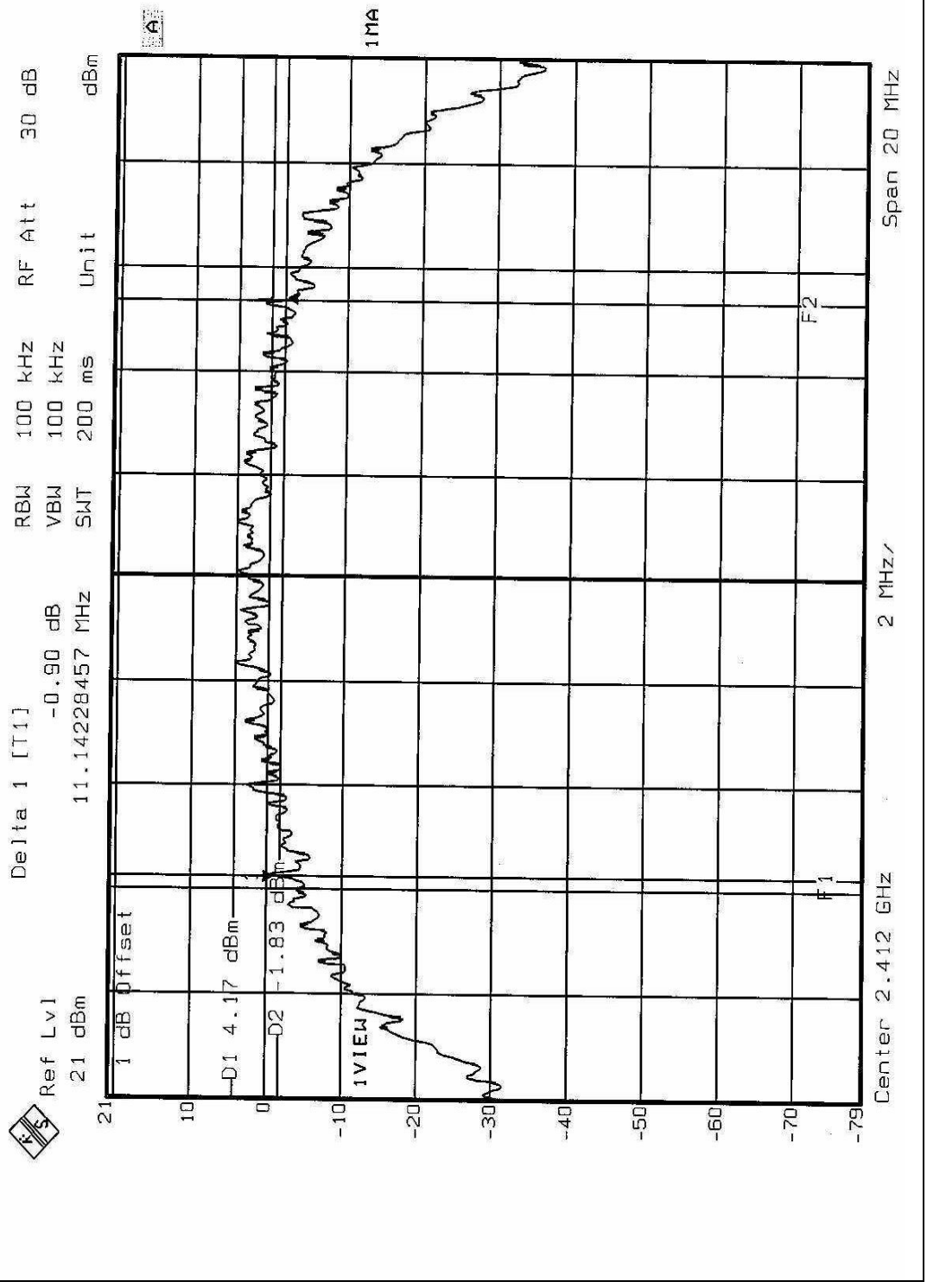
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.6 TEST RESULTS

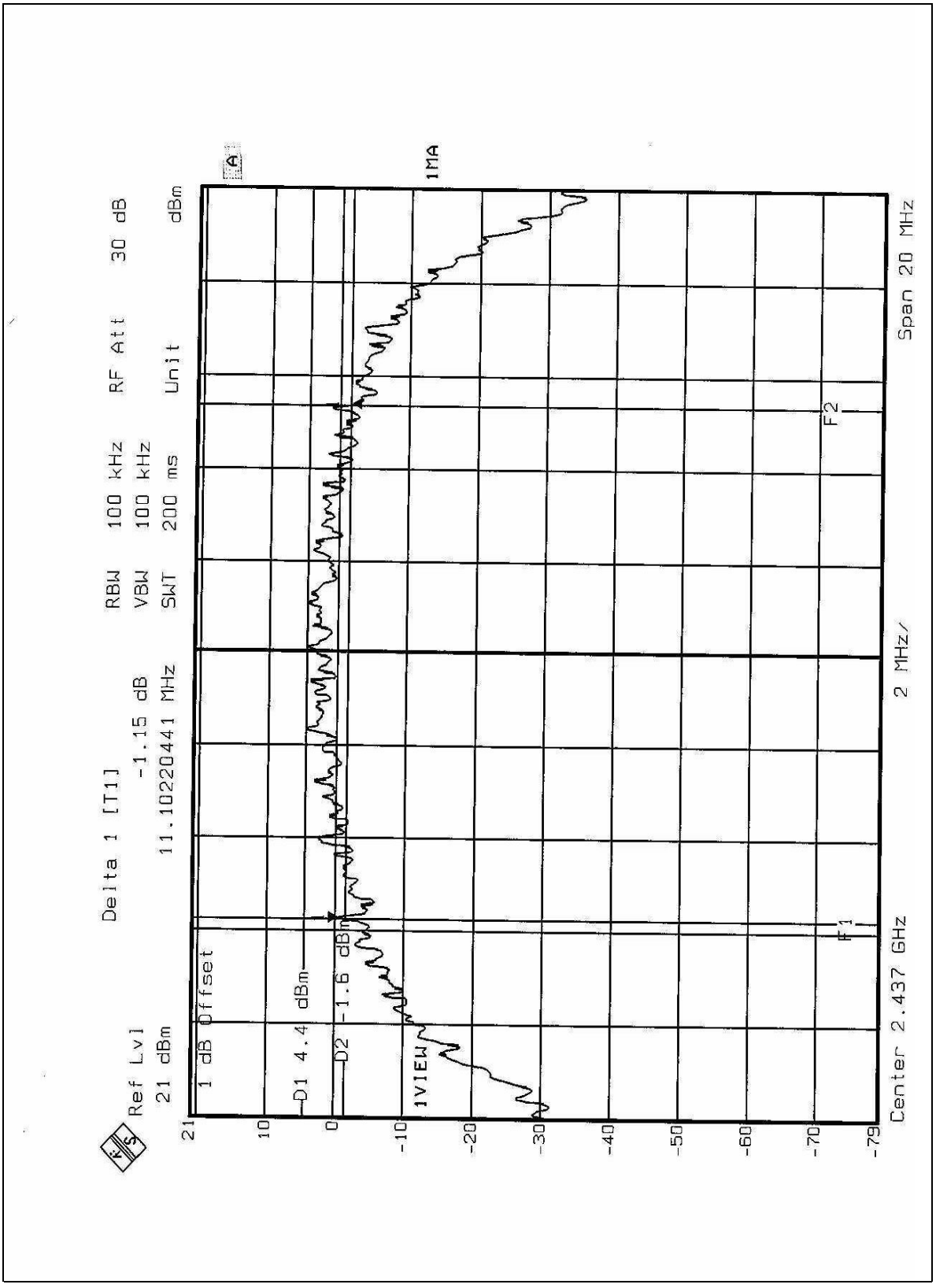
EUT	11M USB Wireless Adapter	MODEL	UW250
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	22 deg. C, 70%RH, 1005 hPa
TESTED BY: Bruce Shiau			

CHANNEL	CHANNEL FREQUENCY (MHz)	6 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	11.14	0.5	PASS
6	2437	11.10	0.5	PASS
11	2462	11.10	0.5	PASS

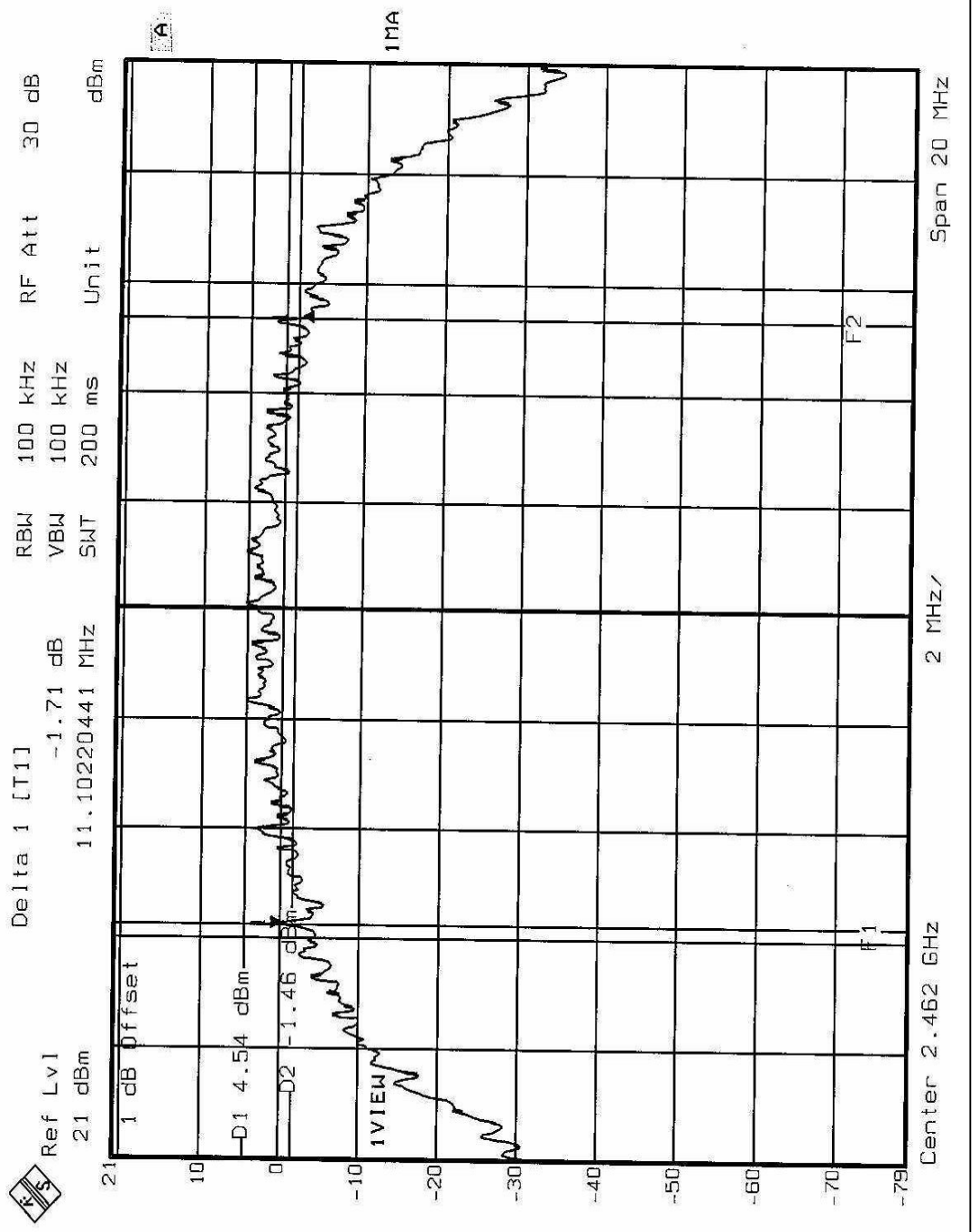
CH1


Ref Lvl
21 dBm
1 dB Offset
Delta 1 [T1]
-0.90 dB
11.14228457 MHz
RBW 100 kHz
VBW 100 kHz
SWT 200 ms
RF Att 30 dB
Unit dBm
D1 4.17 dBm
D2 -1.83 dBm
1VIEW
1MA
A
F1
F2
Center 2.412 GHz
2 MHz/
Span 20 MHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79

CH6


Ref Lvl
21 dBm
1 dB Offset
Delta 1 [T1]
-1.15 dB
11.10220441 MHz
D1 4.4 dBm
D2 -1.6 dBm
RBW 100 kHz
VBW 100 kHz
SWT 200 ms
RF Att 30 dB
Unit dBm
1MA
1VIEW
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79

CH11


Delta 1 [T1]
-1.71 dB
11.10220441 MHz
RBW 100 kHz
VBW 100 kHz
SWT 200 ms
RF Att 30 dB
Unit dBm
Ref Lvl
21 dBm
1 dB Offset
D1 4.54 dBm
D2 -1.46 dBm
1VIEW
1MA
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79

4.4 MAXIMUM PEAK OUTPUT POWER

4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

4.4.2 INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SINGLE CHANNEL POWER METER	NRVS	100026	Feb. 21, 2002
PEAK POWER SENSOR	NRV-Z32	100013	May 23, 2002

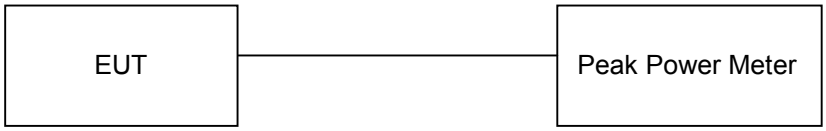
NOTE: 1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.

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

4.4.3 TEST PROCEDURES

The transmitter output was connected to the peak power meter.

4.4.4 TEST SETUP



4.4.5 EUT OPERATING CONDITIONS

Same as Item 3.4.5

4.4.6 TEST RESULTS

EUT	11M USB Wireless Adapter	**MODEL**	UW250
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	22 deg. C, 70%RH, 1005 hPa
TESTED BY: Bruce Shiau			

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	15.35	30	PASS
6	2437	15.66	30	PASS
11	2462	15.81	30	PASS