FCC TEST REPORT

REPORT NO.: RF910118R10
MODEL NO.: MPCI3A-20/R
RECEIVED: Jan. 18, 2002
TESTED: Jan. 30 ~ Feb. 19, 2002

APPLICANT: QUANTA COMPUTER INC.
ADDRESS: 7F, No. 116, Hou Kang St., Shih Lin, Taipei, 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 :	Wireless module (MiniPCI)
BRAND NAME :	Quanta
MODEL NO. :	MPCI3A-20/R
APPLICANT :	QUANTA COMPUTER 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 Jan. 30, 2002 to Feb. 19, 2002, 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: James Lee , DATE: Feb. 22, 2002
James Lee

CHECKED BY: Demi Chen , DATE: Feb. 22, 2002
Demi Chen

APPROVED BY: Alan Lane , DATE: Feb. 22, 2002
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**
15.207	AC Power Conducted Emission Limit: 48dBuV	PASS	Meet the requirement of limit Minimum passing margin is –9.90dBuV at 0.912MHz
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)	Transmitter Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit Minimum passing margin is –1.7dBuV at 670.00MHz
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	Wireless module (MiniPCI)
MODEL NO.	MPCI3A-20/R
POWER SUPPLY	3.3VDC from notebook
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	14.22dBm
ANTENNA TYPE	Metal, Dipole, Large Printed, Small Printed Antenna
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. There are four antenna types provided in this EUT.

MODE	ANTENNA	PHOTO
1	Metal	Page 1-2
2	Dipole	Page 3
3	Large Printed	Page 4
4	Small Printed	Page 5

2. For a more detailed features description, please refer to the manufacturer's specifications or 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 1GHz, the channel 1, 6, and 11 were pre-tested in chamber. The channel 11, worst case one, was chosen for final test.
3. Above 1GHz, the channel 1, 6, and 11 were tested individually.
4. For Radiated Emission Measurement, the test result (A) is for mode 1, test result (B) is for mode 2, test result (C) is for mode 3 and test result (D) is for mode 4, mentioned on section 3.1.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Wireless module (MiniPCI). 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	838119/028	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, 2003
HP Terminator (For EMCO LISN)	11593A	E1-01-299	Feb. 20, 2003
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).

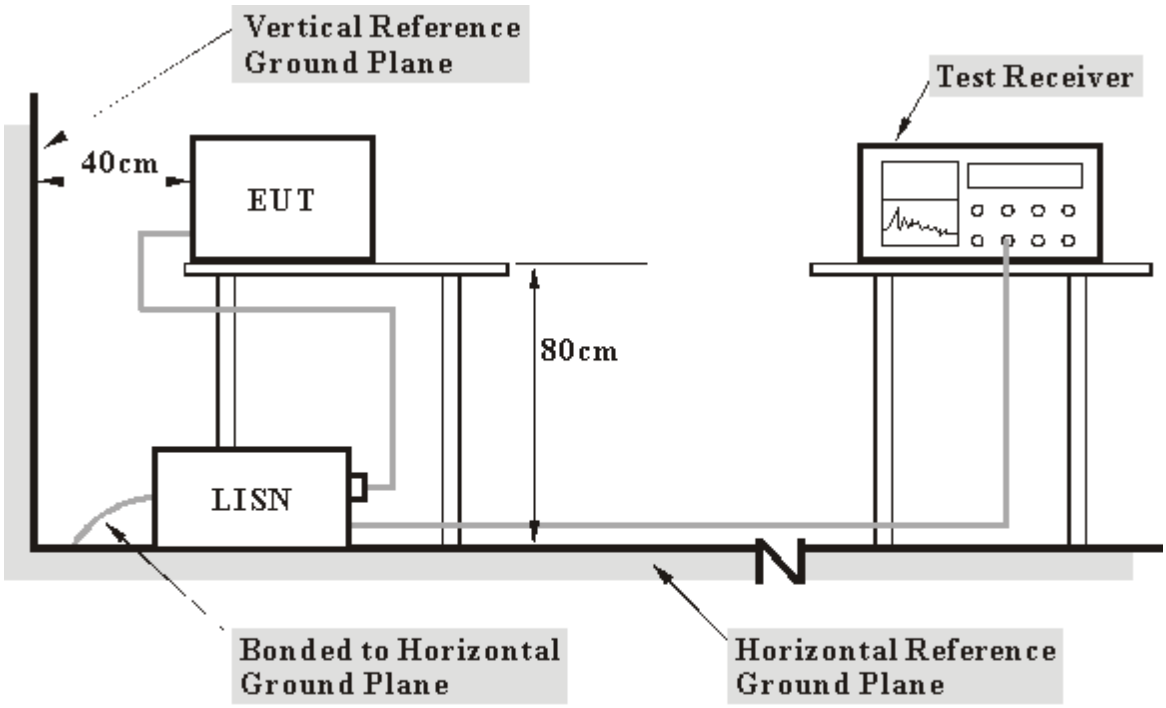
4.1.3 TEST PROCEDURES

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.

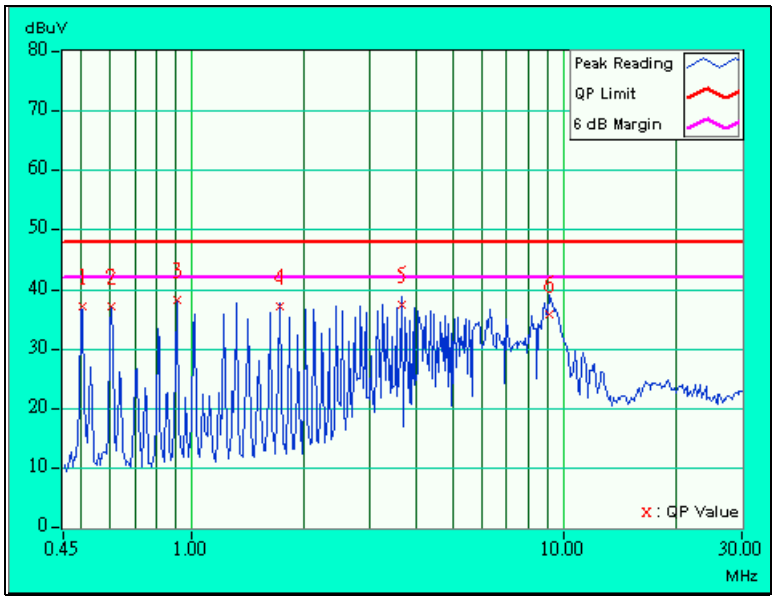
4.1.6 TEST RESULTS

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
MODE	Channel 1	**6dB BANDWIDTH**	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	20 deg. C, 70%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)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.505	0.10	36.81	-	36.91	-	48.00	-	-11.09	-
2	0.606	0.10	36.75	-	36.85	-	48.00	-	-11.15	-
3	0.911	0.10	37.88	-	37.98	-	48.00	-	-10.02	-
4	1.719	0.10	36.79	-	36.89	-	48.00	-	-11.11	-
5	3.645	0.26	36.93	-	37.19	-	48.00	-	-10.81	-
6	9.158	0.47	35.28	-	35.75	-	48.00	-	-12.25	-

NOTE:

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

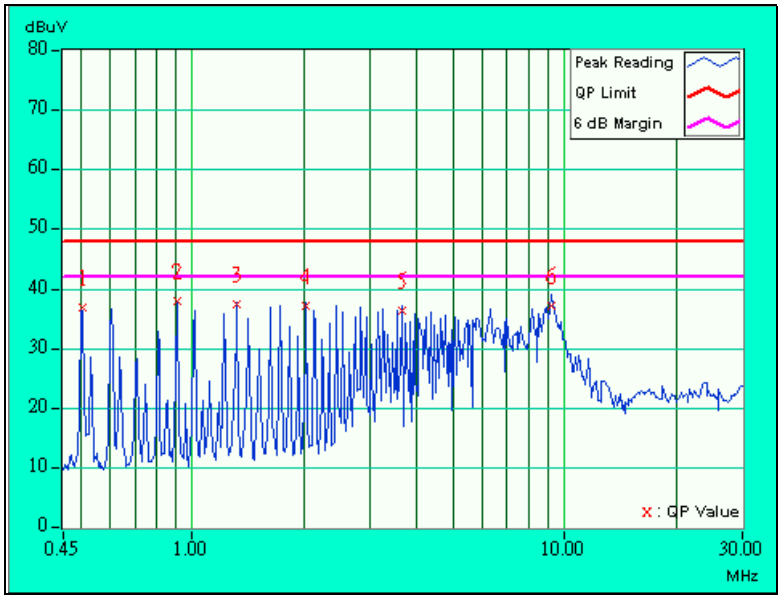


EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
MODE	Channel 1	**6dB BANDWIDTH**	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	20 deg. C, 70%RH, 1005 hPa	**TESTED BY**: James Lee	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.506	0.10	36.45	-	36.55	-	48.00	-	-11.45	-
2	0.912	0.10	37.58	-	37.68	-	48.00	-	-10.32	-
3	1.317	0.10	37.17	-	37.27	-	48.00	-	-10.73	-
4	2.025	0.10	36.86	-	36.96	-	48.00	-	-11.04	-
5	3.645	0.26	36.02	-	36.28	-	48.00	-	-11.72	-
6	9.164	0.39	36.77	-	37.16	-	48.00	-	-10.84	-

NOTE:

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

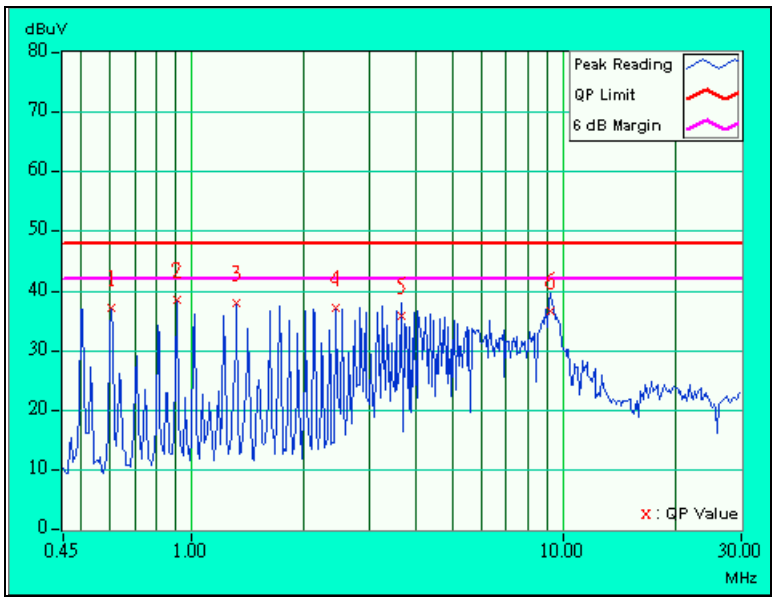


EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
MODE	Channel 6	**6dB BANDWIDTH**	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	18 deg. C, 70%RH, 1005 hPa	**TESTED BY**: James Lee	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.608	0.10	36.59	-	36.69	-	48.00	-	-11.31	-
2	0.912	0.10	37.96	-	38.06	-	48.00	-	-9.94	-
3	1.317	0.10	37.53	-	37.63	-	48.00	-	-10.37	-
4	2.430	0.14	36.75	-	36.89	-	48.00	-	-11.11	-
5	3.645	0.26	35.44	-	35.70	-	48.00	-	-12.30	-
6	9.161	0.47	36.08	-	36.55	-	48.00	-	-11.45	-

NOTE:

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

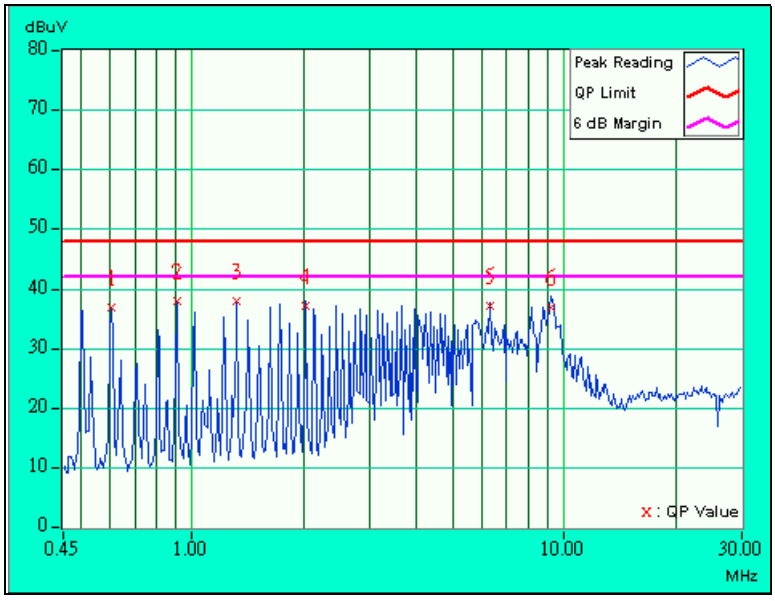


EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
MODE	Channel 6	**6dB BANDWIDTH**	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	18 deg. C, 70%RH, 1005 hPa	**TESTED BY**: James Lee	

No	Freq.	Corr. Factor	Reading Value [dB (Uv)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.608	0.10	36.49	-	36.59	-	48.00	-	-11.41	-
2	0.912	0.10	37.68	-	37.78	-	48.00	-	-10.22	-
3	1.317	0.10	37.51	-	37.61	-	48.00	-	-10.39	-
4	2.025	0.10	36.88	-	36.98	-	48.00	-	-11.02	-
5	6.281	0.34	36.66	-	37.00	-	48.00	-	-11.00	-
6	9.161	0.39	36.47	-	36.86	-	48.00	-	-11.14	-

NOTE:

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

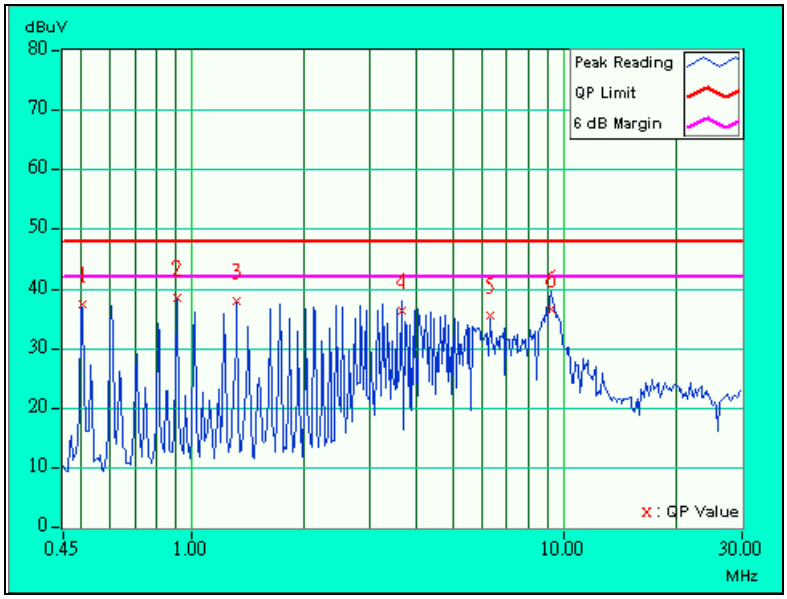


EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
MODE	Channel 11	**6dB BANDWIDTH**	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	18 deg. C, 70%RH, 1005 hPa	**TESTED BY**: James Lee	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.507	0.10	36.91	-	37.01	-	48.00	-	-10.99	-
2	0.912	0.10	38.00	-	38.10	-	48.00	-	-9.90	-
3	1.317	0.10	37.57	-	37.67	-	48.00	-	-10.33	-
4	3.650	0.26	35.76	-	36.02	-	48.00	-	-11.98	-
5	6.281	0.38	35.05	-	35.43	-	48.00	-	-12.57	-
6	9.161	0.47	36.04	-	36.51	-	48.00	-	-11.49	-

NOTE:

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

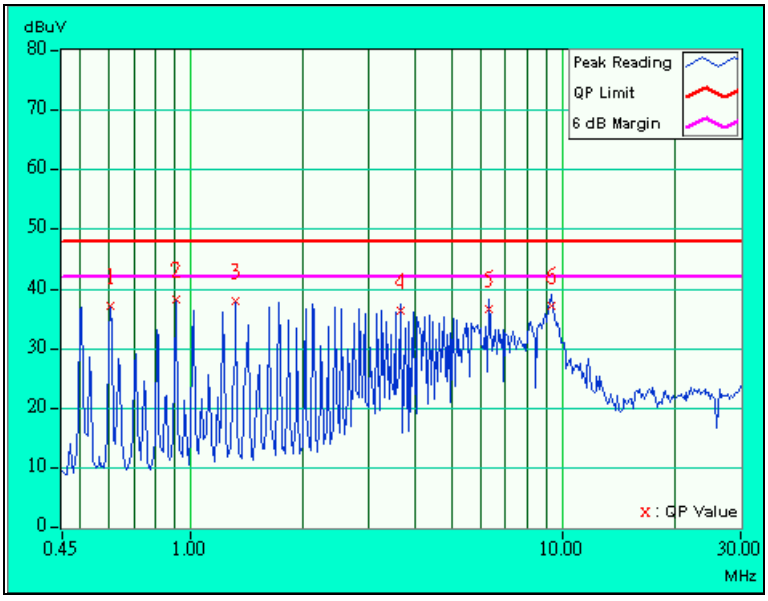


EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
MODE	Channel 11	**6dB BANDWIDTH**	10 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Netural (N)
ENVIRONMENTAL CONDITIONS	18 deg. C, 70%RH, 1005 hPa	**TESTED BY**: James Lee	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.608	0.10	36.69	-	36.79	-	48.00	-	-11.21	-
2	0.912	0.10	37.84	-	37.94	-	48.00	-	-10.06	-
3	1.317	0.10	37.65	-	37.75	-	48.00	-	-10.25	-
4	3.648	0.26	35.92	-	36.18	-	48.00	-	-11.82	-
5	6.284	0.34	36.38	-	36.72	-	48.00	-	-11.28	-
6	9.257	0.39	36.67	-	37.06	-	48.00	-	-10.94	-

NOTE:

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



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. 06, 2002
* HP Preamplifier	8449B	3008A01292	Aug. 21, 2002
* ROHDE & SCHWARZ TEST RECEIVER	ESMI	839013/007 839379/002	Jan. 27, 2003
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
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.

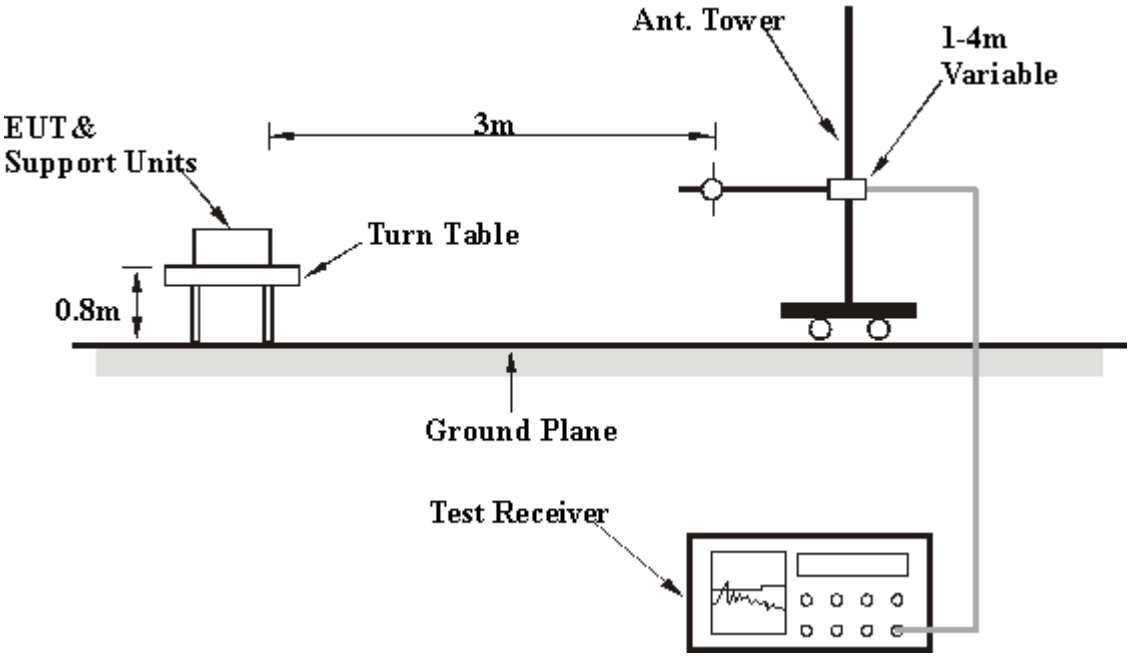
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

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 peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection 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	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	66.00	23.8 QP	40.00	-16.20	1.13H	64	17.00	5.98	0.81	0.00	-6.79
2	99.81	26.4 QP	43.50	-17.10	1.07H	0	15.00	10.40	0.96	0.00	-11.36
3	132.00	30.3 QP	43.50	-13.20	1.19H	139	18.00	11.16	1.13	0.00	-12.29
4	134.00	29.4 QP	43.50	-14.10	1.24H	200	17.20	11.06	1.14	0.00	-12.19
5	166.00	30.7 QP	43.50	-12.80	1.29H	254	20.00	9.44	1.29	0.00	-10.74
6	199.40	29.4 QP	43.50	-14.10	1.22H	325	19.00	8.98	1.42	0.00	-10.41
7	232.90	28.6 QP	46.00	-17.40	1.16H	318	16.00	10.98	1.58	0.00	-12.56
8	267.00	34.3 QP	46.00	-11.70	1.10H	276	20.00	12.61	1.71	0.00	-14.31
9	301.00	34.1 QP	46.00	-11.90	1.05H	223	19.00	13.23	1.89	0.00	-15.12
10	335.30	39.9 QP	46.00	-6.10	1.02H	153	24.00	13.92	1.99	0.00	-15.91
11	366.00	40.0 QP	46.00	-6.00	1.00H	91	23.00	14.86	2.11	0.00	-16.96
12	395.90	41.7 QP	46.00	-4.30	1.08H	43	23.50	15.96	2.22	0.00	-18.18
13	399.20	41.3 QP	46.00	-4.70	1.11H	132	23.00	16.05	2.23	0.00	-18.28
14	432.20	38.6 QP	46.00	-7.40	1.11H	216	20.00	16.28	2.35	0.00	-18.63
15	499.50	38.8 QP	46.00	-7.20	1.04H	292	19.00	17.26	2.50	0.00	-19.76
16	528.00	36.2 QP	46.00	-9.80	1.14H	204	16.00	17.62	2.60	0.00	-20.22
17	660.00	37.3 QP	46.00	-8.70	1.12H	144	15.00	19.25	3.05	0.00	-22.29
18	704.00	36.5 QP	46.00	-9.50	1.03H	95	14.00	19.38	3.16	0.00	-22.55
19	748.00	39.4 QP	46.00	-6.60	1.26H	34	16.00	20.14	3.26	0.00	-23.41
20	792.00	35.9 QP	46.00	-10.10	1.34H	32	12.00	20.60	3.31	0.00	-23.91
21	836.00	35.0 QP	46.00	-11.00	1.38H	73	11.00	20.54	3.45	0.00	-23.99
22	880.00	34.2 QP	46.00	-11.80	1.27H	130	10.00	20.68	3.55	0.00	-24.23

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	133.29	31.6 PK	43.50	-11.90	1.53V	0	46.43	11.06	1.14	27.00	14.81
2	165.03	31.8 PK	43.50	-11.70	1.76V	359	48.06	9.44	1.29	27.00	16.27
3	200.00	28.6 PK	43.50	-14.90	1.20V	46	45.22	8.98	1.42	27.00	16.61
4	232.94	38.5 PK	46.00	-7.50	1.13V	281	52.99	10.98	1.58	27.00	14.44
5	268.43	34.0 PK	46.00	-12.00	1.58V	105	46.66	12.61	1.71	27.00	12.69
6	299.51	42.4 PK	46.00	-3.60	1.08V	268	54.37	13.18	1.88	27.00	11.95
7	335.57	43.4 PK	46.00	-2.60	1.62V	53	54.47	13.92	1.99	27.00	11.09
8	365.90	39.3 PK	46.00	-6.70	2.07V	346	49.35	14.86	2.11	27.00	10.05
9	499.10	41.6 PK	46.00	-4.40	2.25V	53	48.90	17.22	2.50	27.00	7.29
10	528.24	32.4 PK	46.00	-13.60	1.27V	75	39.19	17.62	2.60	27.00	6.78
11	700.70	33.2 PK	46.00	-12.80	2.33V	358	37.73	19.34	3.15	27.00	4.52
12	704.00	38.6 PK	46.00	-7.40	1.08V	318	43.03	19.38	3.16	27.00	4.46
13	732.55	39.2 PK	46.00	-6.80	2.04V	29	43.13	19.89	3.22	27.00	3.90
14	748.00	39.4 PK	46.00	-6.60	1.25V	5	43.03	20.14	3.26	27.00	3.61
15	792.00	39.9 PK	46.00	-6.10	1.47V	310	43.02	20.60	3.31	27.00	3.09
16	835.99	39.2 PK	46.00	-6.80	1.63V	5	42.22	20.54	3.45	27.00	3.01
17	880.00	39.6 PK	46.00	-6.40	2.23V	231	42.36	20.68	3.55	27.00	2.77
18	898.45	35.3 PK	46.00	-10.70	1.60V	254	37.97	20.79	3.58	27.00	2.64
19	924.00	35.2 PK	46.00	-10.80	1.54V	121	37.55	21.00	3.68	27.00	2.32

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2437.00	103.4 PK	-	-	1.60H	8	71.00	27.33	5.08	0.00	-32.40
2	*2437.00	97.4 AV	-	-	1.60H	8	65.00	27.33	5.08	0.00	-32.40
3	4824.00	49.7 PK	74.00	-24.30	1.24H	333	45.70	31.43	7.23	34.63	-4.02

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2413.00	104.2 PK	-	-	1.19V	4	72.00	27.11	5.10	0.00	-32.21
2	*2413.00	98.6 AV	-	-	1.19V	4	66.40	27.11	5.10	0.00	-32.21
3	4824.00	50.0 PK	74.00	-24.00	1.17V	359	46.00	31.43	7.23	34.63	-4.02

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2437.00	104.4 PK	-	-	1.17H	358	72.00	27.33	5.08	0.00	-32.40
2	*2437.00	100.4 AV	-	-	1.17H	358	68.00	27.33	5.08	0.00	-32.40
3	4874.00	49.3 PK	74.00	-24.70	1.47H	357	45.20	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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2437.50	105.4 PK	-	-	1.20V	79	73.00	27.33	5.08	0.00	-32.40
2	*2437.50	97.4 AV	-	-	1.20V	79	65.00	27.33	5.08	0.00	-32.40
3	4874.00	49.1 PK	74.00	-24.90	1.23V	269	45.00	31.47	7.21	34.63	-4.05

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2463.00	102.9 PK	-	-	1.37H	94	70.50	27.33	5.08	0.00	-32.40
2	*2463.00	94.8 AV	-	-	1.37H	94	62.40	27.33	5.08	0.00	-32.40
3	2485.70	44.7 PK	74.00	-29.30	1.33H	23	47.00	27.54	5.06	34.90	2.31
4	4924.00	49.1 PK	74.00	-24.90	1.20H	27	45.00	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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2463.00	102.4 PK	-	-	1.04V	205	70.00	27.33	5.08	0.00	-32.40
2	*2463.00	95.6 AV	-	-	1.04V	205	63.20	27.33	5.08	0.00	-32.40
3	2485.00	45.7 PK	74.00	-28.30	1.00V	156	48.00	27.54	5.06	34.90	2.31
4	4924.00	50.1 PK	74.00	-23.90	1.08V	106	46.00	31.51	7.21	34.62	-4.10

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

4.2.7 TEST RESULTS(B)

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	166.00	28.7 QP	43.50	-14.80	1.86H	52	18.00	9.44	1.29	0.00	-10.73
2	264.00	32.8 QP	46.00	-13.20	1.79H	91	18.20	12.89	1.70	0.00	-14.58
3	300.00	43.5 QP	46.00	-2.50	1.74H	141	28.40	13.18	1.88	0.00	-15.06
4	335.00	43.9 QP	46.00	-2.10	1.60H	201	28.00	13.92	1.99	0.00	-15.91
5	352.00	33.4 QP	46.00	-12.60	1.49H	245	17.00	14.31	2.05	0.00	-16.36
6	368.00	41.0 QP	46.00	-5.00	1.44H	293	24.00	14.86	2.11	0.00	-16.97
7	396.00	38.2 QP	46.00	-7.80	1.41H	333	20.00	15.96	2.22	0.00	-18.19
8	400.00	43.3 QP	46.00	-2.70	1.20H	273	25.00	16.11	2.24	0.00	-18.36
9	432.00	39.6 QP	46.00	-6.40	1.17H	231	21.00	16.28	2.35	0.00	-18.64
10	440.00	33.9 QP	46.00	-12.10	1.12H	171	15.20	16.32	2.38	0.00	-18.69
11	499.50	43.8 QP	46.00	-2.20	1.19H	121	24.00	17.26	2.50	0.00	-19.77
12	528.00	35.9 QP	46.00	-10.10	1.18H	77	15.70	17.62	2.60	0.00	-20.23
13	536.00	41.4 QP	46.00	-4.60	1.15H	140	21.00	17.76	2.63	0.00	-20.40
14	660.00	38.3 QP	46.00	-7.70	1.11H	199	16.00	19.25	3.05	0.00	-22.30
15	670.00	44.3 QP	46.00	-1.70	1.14H	249	22.00	19.26	3.07	0.00	-22.34
16	704.00	40.5 QP	46.00	-5.50	1.03H	309	18.00	19.38	3.16	0.00	-22.55
17	748.00	36.9 QP	46.00	-9.10	1.09H	356	13.50	20.14	3.26	0.00	-23.41
18	792.00	37.4 QP	46.00	-8.60	1.11H	318	13.50	20.60	3.31	0.00	-23.92
19	836.00	36.4 QP	46.00	-9.60	1.11H	283	12.40	20.54	3.45	0.00	-24.00
20	880.00	35.7 QP	46.00	-10.30	1.13H	231	11.50	20.68	3.55	0.00	-24.23

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	166.00	34.7 QP	43.50	-8.80	1.00V	4	24.00	9.44	1.29	0.00	-10.73
2	200.00	29.4 QP	43.50	-14.10	1.08V	120	19.00	8.98	1.42	0.00	-10.40
3	300.00	39.1 QP	46.00	-6.90	2.18V	242	24.00	13.18	1.88	0.00	-15.06
4	335.00	38.9 QP	46.00	-7.10	1.74V	152	23.00	13.92	1.99	0.00	-15.91
5	368.00	37.0 QP	46.00	-9.00	1.98V	38	20.00	14.86	2.11	0.00	-16.96
6	396.00	37.2 QP	46.00	-8.80	1.71V	84	19.00	15.96	2.22	0.00	-18.18
7	400.00	40.3 QP	46.00	-5.70	1.79V	316	22.00	16.11	2.24	0.00	-18.35
8	500.00	37.8 QP	46.00	-8.20	1.71V	308	18.00	17.26	2.50	0.00	-19.76
9	528.00	36.2 QP	46.00	-9.80	1.61V	143	16.00	17.62	2.60	0.00	-20.22
10	568.00	39.9 QP	46.00	-6.10	1.25V	264	19.00	18.19	2.74	0.00	-20.92
11	603.00	39.5 QP	46.00	-6.50	1.86V	52	18.00	18.64	2.84	0.00	-21.48
12	660.00	38.0 QP	46.00	-8.00	1.55V	191	15.70	19.25	3.05	0.00	-22.29
13	704.00	40.5 QP	46.00	-5.50	1.77V	37	18.00	19.38	3.16	0.00	-22.55
14	748.00	37.4 QP	46.00	-8.60	2.00V	2	14.00	20.14	3.26	0.00	-23.40
15	792.00	37.9 QP	46.00	-8.10	1.52V	41	14.00	20.60	3.31	0.00	-23.92
16	836.00	36.0 QP	46.00	-10.00	1.68V	48	12.00	20.54	3.45	0.00	-23.99

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2413.00	105.3 PK	-	-	1.60H	54	73.10	27.11	5.10	0.00	-32.21
2	*2413.00	100.2 AV	-	-	1.60H	54	68.00	27.11	5.10	0.00	-32.21
3	4824.00	49.0 PK	74.00	-25.00	1.59H	131	45.00	31.43	7.23	34.63	-4.02

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2413.00	107.2 PK	-	-	1.08V	312	75.00	27.11	5.10	0.00	-32.21
2	*2413.00	100.4 AV	-	-	1.08V	312	68.20	27.11	5.10	0.00	-32.21
3	4824.00	51.0 PK	74.00	-23.00	1.08V	312	47.00	31.43	7.23	34.63	-4.02

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2437.00	107.4 PK	-	-	1.50H	64	75.00	27.33	5.08	0.00	-32.40
2	*2437.00	100.4 AV	-	-	1.50H	64	68.00	27.33	5.08	0.00	-32.40
3	4874.00	49.1 PK	74.00	-24.90	1.48H	69	45.00	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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2437.00	106.4 PK	-	-	1.31V	352	74.00	27.33	5.08	0.00	-32.40
2	*2437.00	99.2 AV	-	-	1.31V	352	66.80	27.33	5.08	0.00	-32.40
3	4874.00	49.1 PK	74.00	-24.90	1.14V	21	45.00	31.47	7.21	34.63	-4.05

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2463.00	70.7 PK	-	-	1.08H	357	73.19	27.33	5.08	34.90	2.50
2	*2463.00	63.5 AV	-	-	1.08H	357	66.00	27.33	5.08	34.90	2.50
3	2488.50	49.7 PK	74.00	-24.30	1.08H	7	52.00	27.54	5.06	34.90	2.31
4	4924.00	50.1 PK	74.00	-23.90	1.07H	312	46.00	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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2463.00	105.4 PK	-	-	1.11V	327	73.00	27.33	5.08	0.00	-32.40
2	*2463.00	99.4 AV	-	-	1.11V	327	67.00	27.33	5.08	0.00	-32.40
3	4924.00	49.3 PK	74.00	-24.70	1.20V	10	45.20	31.51	7.21	34.62	-4.10

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

4.2.8 TEST RESULTS(C)

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	264.00	32.6 QP	46.00	-13.40	1.30H	61	18.00	12.89	1.70	0.00	-14.58
2	308.00	31.3 QP	46.00	-14.70	1.08H	329	16.00	13.38	1.91	0.00	-15.29
3	333.00	39.9 QP	46.00	-6.10	1.41H	294	24.00	13.87	1.99	0.00	-15.87
4	365.00	39.9 QP	46.00	-6.10	1.39H	47	23.00	14.76	2.10	0.00	-16.87
5	396.00	37.2 QP	46.00	-8.80	1.50H	13	19.00	15.96	2.22	0.00	-18.19
6	440.00	34.1 QP	46.00	-11.90	1.08H	139	15.40	16.32	2.38	0.00	-18.69
7	500.00	36.8 QP	46.00	-9.20	1.13H	214	17.00	17.26	2.50	0.00	-19.77
8	528.00	37.2 QP	46.00	-8.80	1.34H	17	17.00	17.62	2.60	0.00	-20.23
9	568.00	36.9 QP	46.00	-9.10	2.18H	94	16.00	18.19	2.74	0.00	-20.93
10	603.00	41.5 QP	46.00	-4.50	1.64H	162	20.00	18.64	2.84	0.00	-21.49
11	634.00	39.0 QP	46.00	-7.00	2.22H	64	17.00	19.03	2.96	0.00	-22.00
12	660.00	37.3 QP	46.00	-8.70	1.62H	102	15.00	19.25	3.05	0.00	-22.30
13	748.00	36.4 QP	46.00	-9.60	1.52H	99	13.00	20.14	3.26	0.00	-23.41
14	792.00	36.3 QP	46.00	-9.70	1.21H	250	12.40	20.60	3.31	0.00	-23.92
15	880.00	35.2 QP	46.00	-10.80	1.40H	127	11.00	20.68	3.55	0.00	-24.23

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	166.00	30.7 QP	43.50	-12.80	1.63V	291	20.00	9.44	1.29	0.00	-10.73
2	264.00	34.6 QP	46.00	-11.40	1.08V	56	20.00	12.89	1.70	0.00	-14.58
3	302.00	30.1 QP	46.00	-15.90	1.04V	354	15.00	13.23	1.89	0.00	-15.12
4	332.00	31.9 QP	46.00	-14.10	1.05V	41	16.00	13.87	1.99	0.00	-15.86
5	366.00	34.0 QP	46.00	-12.00	1.86V	31	17.00	14.86	2.11	0.00	-16.96
6	396.00	35.2 QP	46.00	-10.80	2.14V	18	17.00	15.96	2.22	0.00	-18.18
7	400.00	39.3 QP	46.00	-6.70	1.92V	240	21.00	16.11	2.24	0.00	-18.35
8	440.00	32.7 QP	46.00	-13.30	1.56V	41	14.00	16.32	2.38	0.00	-18.69
9	500.00	36.5 QP	46.00	-9.50	1.67V	315	16.70	17.26	2.50	0.00	-19.76
10	528.00	35.2 QP	46.00	-10.80	1.55V	222	15.00	17.62	2.60	0.00	-20.22
11	660.00	36.8 QP	46.00	-9.20	1.19V	235	14.50	19.25	3.05	0.00	-22.29
12	704.00	34.5 QP	46.00	-11.50	1.05V	87	12.00	19.38	3.16	0.00	-22.54
13	748.00	36.4 QP	46.00	-9.60	1.78V	81	13.00	20.14	3.26	0.00	-23.40
14	792.00	36.7 QP	46.00	-9.30	1.25V	53	12.80	20.60	3.31	0.00	-23.91
15	836.00	35.0 QP	46.00	-11.00	1.25V	322	11.00	20.54	3.45	0.00	-23.99
16	880.00	35.0 QP	46.00	-11.00	1.57V	312	10.80	20.68	3.55	0.00	-24.23
17	924.00	35.7 QP	46.00	-10.30	1.31V	289	11.00	21.00	3.68	0.00	-24.69

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2413.00	95.2 AV	-	-	1.06H	253	63.00	27.11	5.10	0.00	-32.21
2	*2413.00	103.2 PK	-	-	1.06H	253	71.00	27.11	5.10	0.00	-32.21
3	4824.00	50.0 PK	74.00	-24.00	1.10H	149	46.00	31.43	7.23	34.63	-4.02

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2413.00	103.2 PK	-	-	1.51V	185	71.00	27.11	5.10	0.00	-32.21
2	*2413.00	95.7 AV	-	-	1.51V	185	63.50	27.11	5.10	0.00	-32.21
3	4824.00	49.0 PK	74.00	-25.00	1.48V	197	45.00	31.43	7.23	34.63	-4.02

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2437.00	102.9 PK	-	-	1.06H	357	70.50	27.33	5.08	0.00	-32.40
2	*2437.00	96.4 AV	-	-	1.06H	357	64.00	27.33	5.08	0.00	-32.40
3	4874.00	49.3 PK	74.00	-24.70	1.06H	168	45.20	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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2437.00	94.4 AV	-	-	1.33V	10	62.00	27.33	5.08	0.00	-32.40
2	*2437.00	101.4 PK	-	-	1.33V	10	69.00	27.33	5.08	0.00	-32.40
3	4874.00	49.5 PK	74.00	-24.50	1.15V	307	45.40	31.47	7.21	34.63	-4.05

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2463.00	102.4 PK	-	-	1.20H	297	70.00	27.33	5.08	0.00	-32.40
2	*2463.00	96.4 AV	-	-	1.20H	297	64.00	27.33	5.08	0.00	-32.40
3	4924.00	48.9 PK	74.00	-25.10	1.11H	257	44.80	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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2463.00	102.4 PK	-	-	1.24V	341	70.00	27.33	5.08	0.00	-32.40
2	*2463.00	95.9 AV	-	-	1.24V	341	63.50	27.33	5.08	0.00	-32.40
3	4924.00	49.3 PK	74.00	-24.70	1.20V	358	45.20	31.51	7.21	34.62	-4.10

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

4.2.9 TEST RESULTS(D)

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	132.00	32.3 QP	43.50	-11.20	1.54H	185	20.00	11.16	1.13	0.00	-12.29
2	308.00	33.3 QP	46.00	-12.70	1.08H	6	18.00	13.38	1.91	0.00	-15.29
3	352.00	33.4 QP	46.00	-12.60	1.29H	1	17.00	14.31	2.05	0.00	-16.36
4	396.00	36.2 QP	46.00	-9.80	1.35H	206	18.00	15.96	2.22	0.00	-18.19
5	528.00	34.2 QP	46.00	-11.80	1.18H	158	14.00	17.62	2.60	0.00	-20.22
6	660.00	37.3 QP	46.00	-8.70	1.02H	28	15.00	19.25	3.05	0.00	-22.29
7	704.00	35.5 QP	46.00	-10.50	1.50H	140	13.00	19.38	3.16	0.00	-22.54
8	748.00	36.6 QP	46.00	-9.40	1.26H	21	13.20	20.14	3.26	0.00	-23.41
9	792.00	37.9 QP	46.00	-8.10	1.50H	37	14.00	20.60	3.31	0.00	-23.91
10	836.00	37.0 QP	46.00	-9.00	1.62H	91	13.00	20.54	3.45	0.00	-24.00

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	132.00	33.3 QP	43.50	-10.20	1.24V	299	21.00	11.16	1.13	0.00	-12.29
2	396.00	34.4 QP	46.00	-11.60	1.05V	160	16.20	15.96	2.22	0.00	-18.18
3	528.00	35.2 QP	46.00	-10.80	1.37V	231	15.00	17.62	2.60	0.00	-20.22
4	660.00	35.3 QP	46.00	-10.70	1.15V	142	13.00	19.25	3.05	0.00	-22.29
5	704.00	33.7 QP	46.00	-12.30	1.31V	69	11.20	19.38	3.16	0.00	-22.55
6	748.00	35.4 QP	46.00	-10.60	1.28V	292	12.00	20.14	3.26	0.00	-23.40
7	792.00	34.9 QP	46.00	-11.10	1.63V	15	11.00	20.60	3.31	0.00	-23.91
8	836.00	34.0 QP	46.00	-12.00	1.58V	306	10.00	20.54	3.45	0.00	-23.99
9	880.00	35.2 QP	46.00	-10.80	1.60V	184	11.00	20.68	3.55	0.00	-24.23

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2412.00	96.2 PK	-	-	1.41H	45	64.00	27.11	5.10	0.00	-32.21
2	*2412.00	88.2 AV	-	-	1.41H	45	56.00	27.11	5.10	0.00	-32.21
3	4824.00	50.1 PK	74.00	-23.90	1.45H	283	46.10	31.43	7.23	34.63	-4.02

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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2413.00	62.3 PK	-	-	1.10V	327	65.00	27.11	5.10	34.90	2.69
2	*2413.00	55.9 AV	-	-	1.10V	327	58.60	27.11	5.10	34.90	2.69
3	4824.00	49.2 PK	74.00	-24.80	1.16V	67	45.20	31.43	7.23	34.63	-4.02

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2437.00	96.4 PK	-	-	1.13H	27	64.00	27.33	5.08	0.00	-32.40
2	*2437.00	90.4 AV	-	-	1.13H	27	58.00	27.33	5.08	0.00	-32.40
3	4874.00	49.1 PK	74.00	-24.90	1.20H	100	45.00	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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2437.00	97.2 PK	-	-	1.07V	12	64.80	27.33	5.08	0.00	-32.40
2	*2437.00	90.9 AV	-	-	1.07V	12	58.50	27.33	5.08	0.00	-32.40
3	4874.00	50.3 PK	74.00	-23.70	1.07V	288	46.20	31.47	7.21	34.63	-4.05

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
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, 1050 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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2463.00	98.4 PK	-	-	1.64H	59	66.00	27.33	5.08	0.00	-32.40
2	*2463.00	91.9 AV	-	-	1.64H	59	59.50	27.33	5.08	0.00	-32.40
3	2485.50	48.7 PK	74.00	-25.30	1.11H	254	51.00	27.54	5.06	34.90	2.31
4	4924.00	50.1 PK	74.00	-23.90	1.15H	320	46.00	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)	Cable Factor (dB)	Pre-Amp. Factor (dB)	Correction Factor (dB)
1	*2463.00	96.4 PK	-	-	1.00V	358	64.00	27.33	5.08	0.00	-32.40
2	*2463.00	89.4 AV	-	-	1.00V	358	57.00	27.33	5.08	0.00	-32.40
3	2485.40	47.8 PK	74.00	-26.20	1.15V	163	50.10	27.54	5.06	34.90	2.31
4	4924.00	49.3 PK	74.00	-24.70	1.21V	75	45.20	31.51	7.21	34.62	-4.10

NOTE:

1. Emission level = Raw value - Correction Factor
2. Correction Factor = Pre-Amp. Factor - Ant. Factor - Cable loss
   (Pre-Amp. Factor = 0, when a Pre-Amplifier is not used for the test.)
3. Margin value = Emission level - Limit value
4. " * " : Fundamental frequency
5. The other emission levels were very low against the limit.

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

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.

4.3.3 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

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

4.3.5 EUT OPERATING CONDITIONS

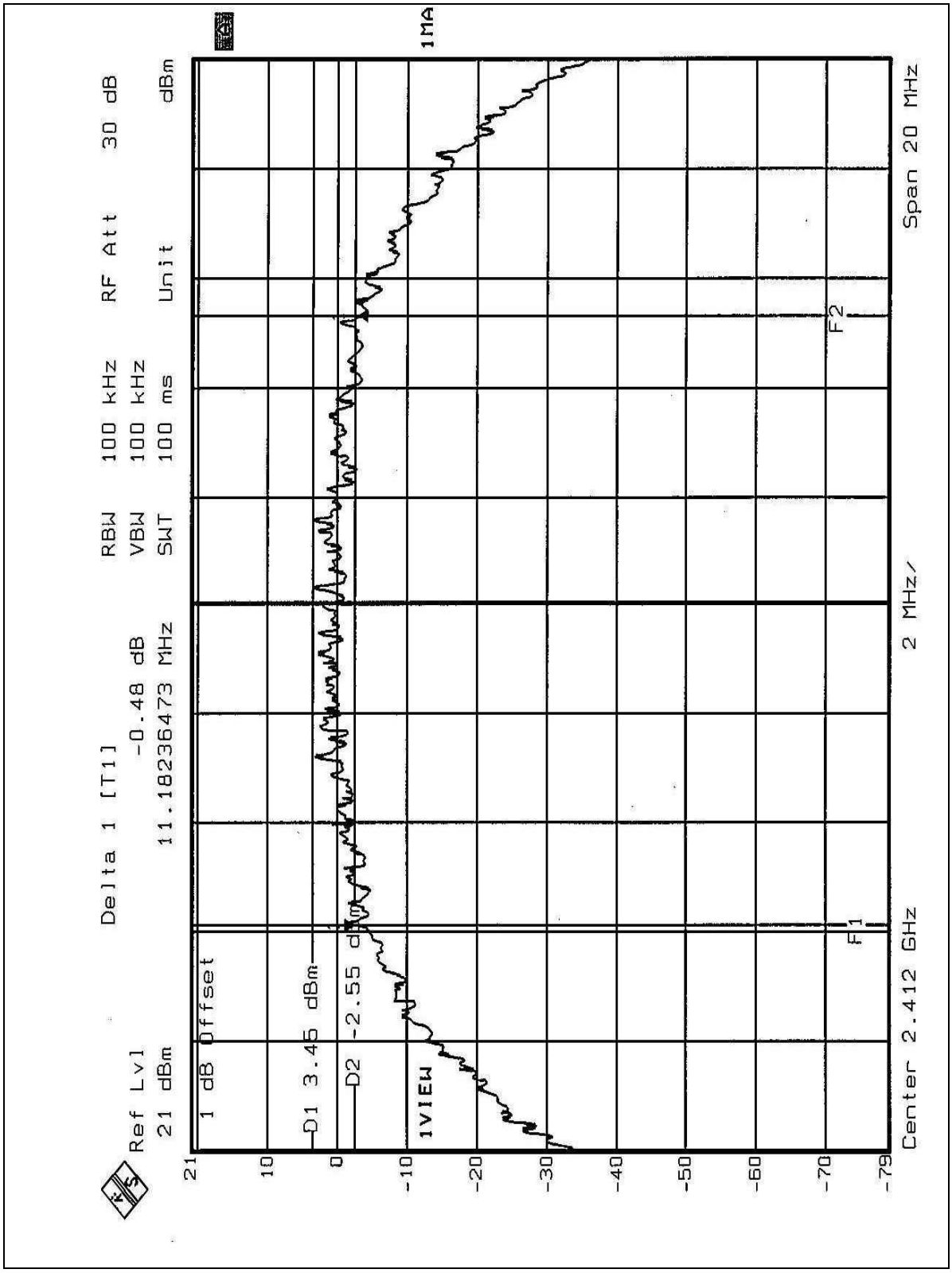
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.6 TEST RESULTS

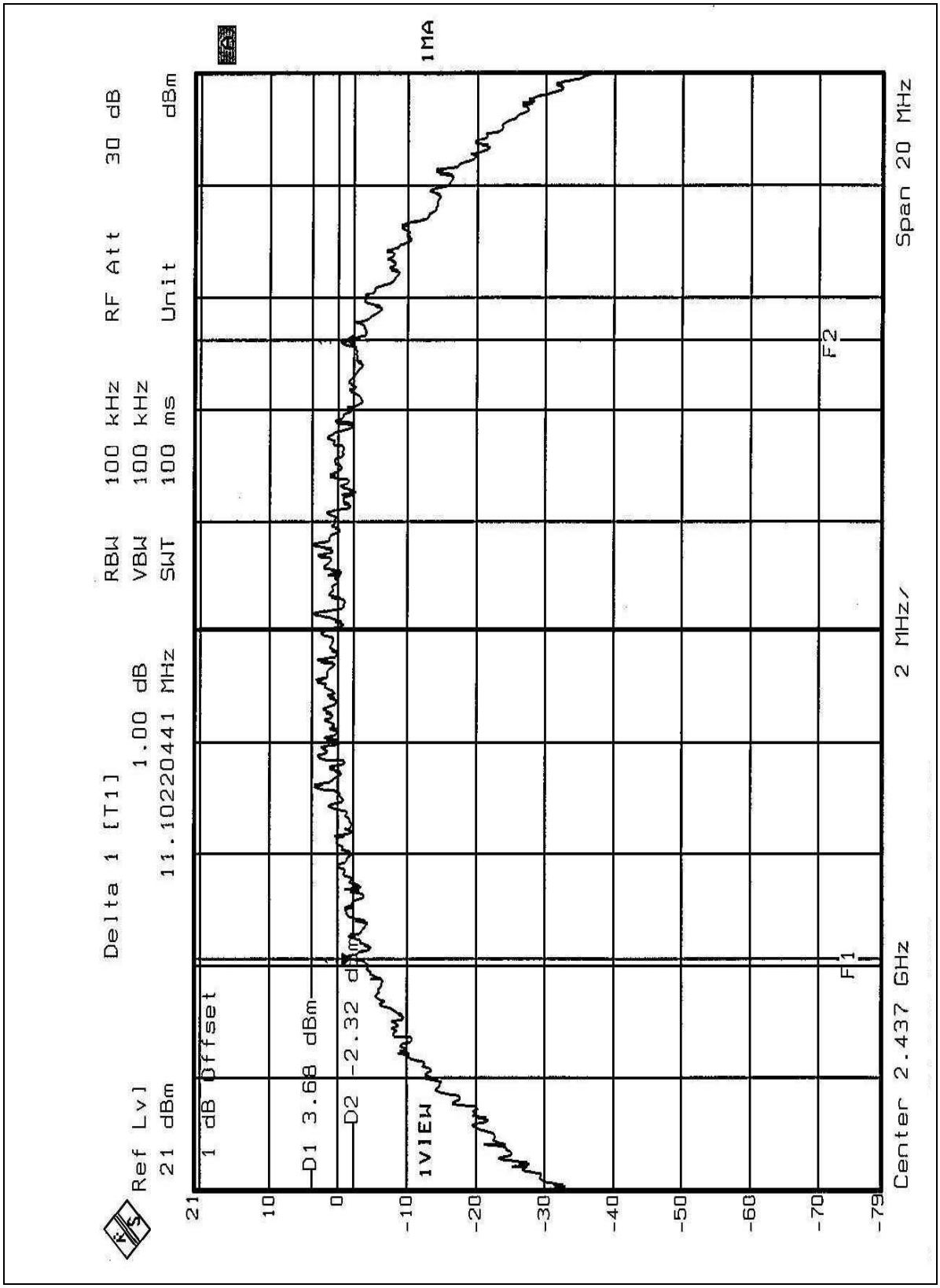
EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	18 deg. C, 67%RH, 1005 hPa
TESTED BY: Bruce Shiau			

CHANNEL	CHANNEL FREQUENCY (MHz)	6 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	11.18	0.5	PASS
6	2437	11.10	0.5	PASS
11	2462	11.10	0.5	PASS

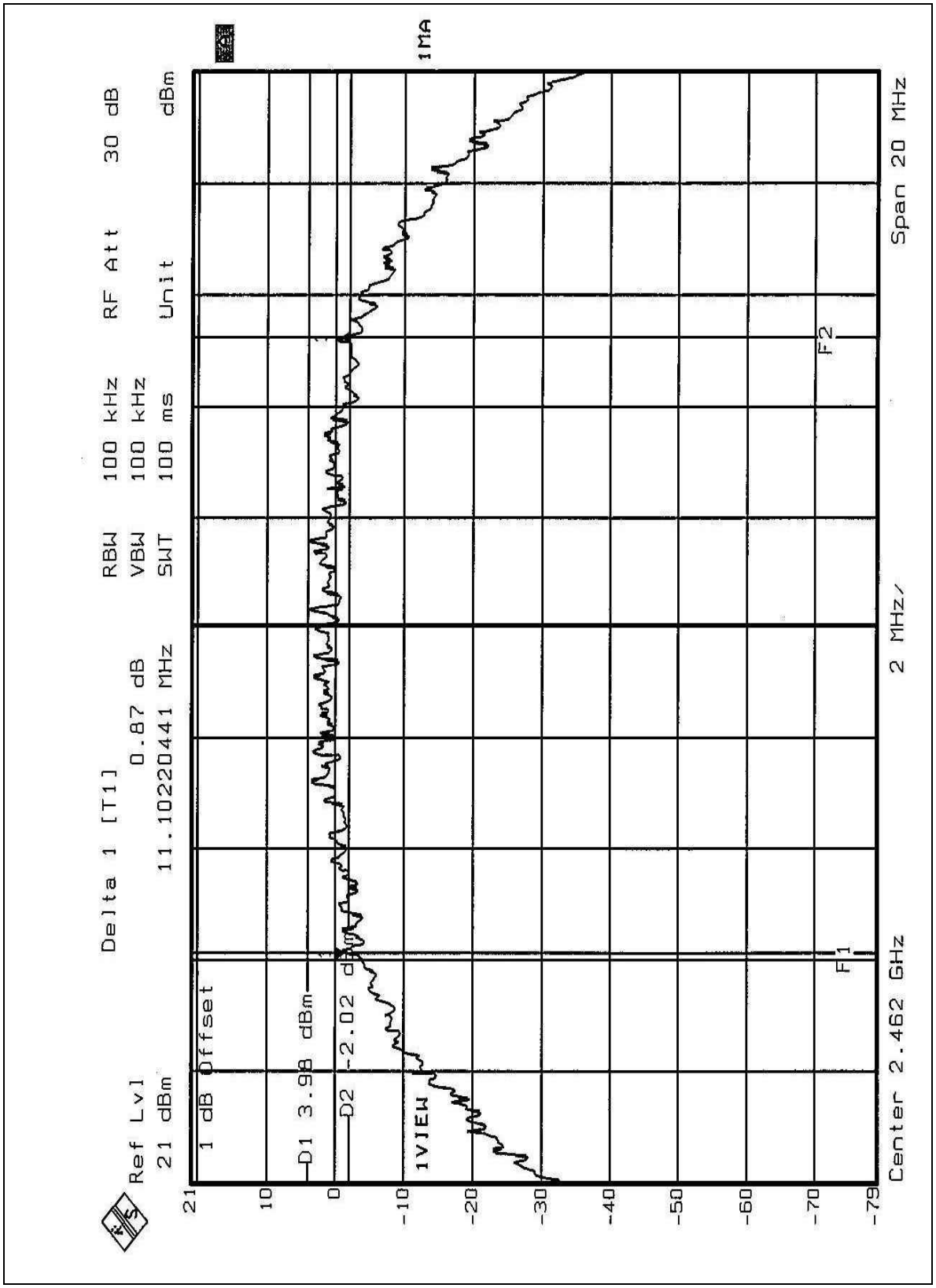
CH1


Ref Lvl
21 dBm
1 dB Offset
Delta 1 [T1]
-0.48 dB
11.18236473 MHz
RBW 100 kHz
VBW 100 kHz
SWT 100 ms
RF Att 30 dB
Unit dBm
D1 3.45 dBm
D2 -2.55 dBm
1VIEW
1MA
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]
1.00 dB
11.10220441 MHz
RBW 100 kHz
VBW 100 kHz
SWT 100 ms
RF Att 30 dB
Unit dBm
D1 3.68 dBm
D2 -2.32 dB
1VIEW
1MA
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz
21
10
0
-10
-20
-30
-40
-50
-60
-70
-79

CH11


Ref Lvl
21 dBm
1 dB Offset
Delta 1 [T1]
0.87 dB
11.10220441 MHz
D1 3.98 dBm
D2 -2.02 dBm
RBW 100 kHz
VBW 100 kHz
SWT 100 ms
RF Att 30 dB
Unit 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 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SINGLE CHANNEL POWER METER	NRVS	100026	Feb. 20, 2003
PEAK POWER SENSOR	NRV-Z32	100013	May 23,2002

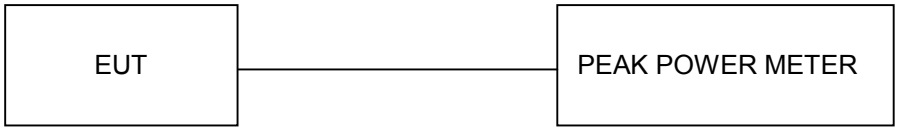
NOTE:

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 4.3.5

4.4.6 TEST RESULTS

EUT	Wireless module (MiniPCI)	**MODEL**	MPCI3A-20/R
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	18 deg. C, 67%RH, 1005 hPa
TESTED BY: Bruce Shiau			

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	13.96	30	PASS
6	2437	14.15	30	PASS
11	2462	14.22	30	PASS