ADDENDUM TEST REPORT

Test Report No. : 22IE0029-HO-2A

Applicant	:	**Nagano Japan Radio Co., Ltd.**
Type of Equipment	:	**Wireless LAN**
Model No.	:	**NJT-475**
Test standard	:	**FCCPart15 SubpartC, Section15.207 Section15.247**
FCC ID	:	**D7LNJT475**
Test Result	:	**Complied**

1. This test report shall not be reproduced in full or partial, without the written approval of A-PEX International Co., Ltd.
2. The results in this report apply only to the sample tested.
3. This equipment is in compliance with above regulation. We hereby certify that the data contain a true representation of the EMC profile.
4. The test results in this report are traceable to the national or international standards.
5. This test report does not constitute an endorsement by NIST/NVLAP or U.S. Government.

Date of test : May 9, 14 and16, 2002

Issued date : June 11, 2002

Tested by : Hiroka Umeyama

Approved by : Tetsuya Hashimoto
Site Manager of EMC Head Office Division

A-PEX International Co., Ltd. EMC Head Office Division.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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A-PEX International Co., Ltd.
EMC Head Office Division.
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Facsimile: +81 596 24 8124

SECTION 1: Client information

Company name : Nagano Japan Radio Co., Ltd.

Trade name : Nagano Japan Radio Co., Ltd.

Address : 1163 Shimogano, Inasato-machi, Nagano City, 381-2288 Japan

Telephone Number : +81-26-285-1078

Facsimile Number : +81-26-285-1037

Contact Person : Takeshi Iizuka

SECTION 2: Equipment under test (E.U.T.)

2.1 Identification of E.U.T.

Type of Equipment : Wireless LAN

Model No. : NJT-475

Serial No. : 1 and 4

Rating : AC Adaptor: AC 100-240V, 0. 36-0. 2A, 50-60Hz
Wireless LAN Unit : DC 5V

Country of Manufacture : JAPAN

Receipt Date of Sample : May 8, 2002

Condition of EUT : Engineering prototype

2.2 Product Description

Model: NJT-475 is the Wireless LAN.

They are referred to as the EUT in this report.
It is intended to be used for the wireless data transmission from/to Personal Computers.
The specification is as following
Equipment Type: Transceiver

Frequency characteristics	: from 2414MHz to 2462MHz
Number of Channel/ Channel spacing	: 11 channels/ 5MHz
Modulation	: DSSS Direct Sequence spread spectrum (IEEE 802.11b)
Antenna Type	: λ/2 Dipole
Antenna Gain	: 2.15dBi

*FCCPart15.31 (e)
The host device NJT-475 provide the LAN Module with stable power supply (DC:5.0V), and the LAN Module complies power supply regulation.
*FCCPart15.203 Antenna requirement
Wireless LAN Module and its antenna comply with this requirement since they are built in host device NJT-475 when they are put up for sale and they are used with a particular antenna connector.

SECTION 3: Test specification, procedures and results

3.1 Test Specification

Test Specification : FCC Part 15 Subpart C
Title : FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators
Section 15.207 Conducted Emissions
Section 15.247 Operation within the Band 902-928MHz, 2400-2483.5MHz and 5725-5850MHz

3.2 Procedures and results

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin	Results
1	Conducted emission	ANSI C63.4:2000	Section 15.207	-	N/A	2.9dB 19.999MHz,N	Complied
2	6dB Bandwidth	ANSI C63.4:2000	Section 15.247(a)(2)	Conducted	N/A	-	Complied
3	Maximum Peak Output Power	ANSI C63.4:2000	Section 15.247(b)(1)	Conducted/ Radiated	N/A	-	Complied
4	Out of Band Emission	ANSI C63.4:2000	Section 15.247 (c)	Conducted/ Radiated	N/A	7.4dB 119.98MHz, Vertical	Complied
5	Restricted Band Edges	ANSI C63.4:2000	Section 15.247 (c)	Radiated	N/A	0.5dB 2390MHz	Complied
6	Power Density	ANSI C63.4:2000	Section 15.247 (d)	Conducted	N/A	19.1dB 2437MHz	Complied

3.3 Additions to Standards

No addition, deviation or exclusion has been made from standards.

3.4 Confirmation

A-PEX INTERNATIONAL hereby confirms that E.U.T., in the configuration tested, complies with the specifications FCC Part 15 Subpart C Section 15.207 and 247.

3.5 Uncertainty

Conducted Emission Test
The measurement uncertainty (with a 95% confidence level) for this test was ±1.3dB.
☐The data listed in this test report may exceed the test limit because it does not have enough margin.
■The data listed in this test report has enough margin, more than the site margin.

Maximum Peak Output power, Out of Band Emission and Restricted Band Edges(Radiated) Test
The measurement uncertainty (with a 95% confidence level) for this test using Loop antenna is ±1.9dB.
The measurement uncertainty (with a 95% confidence level) for this test using Biconical antenna is ±4.5dB.
The measurement uncertainty (with a 95% confidence level) for this test using Logperiodic antenna is ±5.2dB.
The measurement uncertainty (with a 95% confidence level) for this test using Horn antenna is ±6.6dB.
■The data listed in this test report may exceed the test limit because it does not have enough margin.
□The data listed in this test report has enough margin.

6dB Bandwidth , Maximum Peak Output power, Out of Band Emission and Power Density (Conducted) Test
The measurement uncertainty (with a 95% confidence level) for this test was ±3.0dB.
□The data listed in this test report may exceed the test limit because it does not have enough margin.
■The data listed in this test report has enough margin.

3.6 Test Location

A-PEX International Co., Ltd. EMC Head Office Division. No.1 semi Anechoic Chamber,
and No.3 Measurement room.
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN
Telephone: +81 596 24 8116 Facsimile: +81 596 24 8124
This site has been fully described in a report submitted to FCC office, and listed on February, 2002 (Registration number: 313583).
*NVLAP Lab. code: 200572-0

3.7 Photographs of test setup

Refer to APPENDIX 1.

3.8 Test instruments

Refer to APPENDIX 2.

3.9 Data of EMI Test

Refer to APPENDIX 3.

SECTION 4: Operation of E.U.T. during testing

4.1 Operating Modes

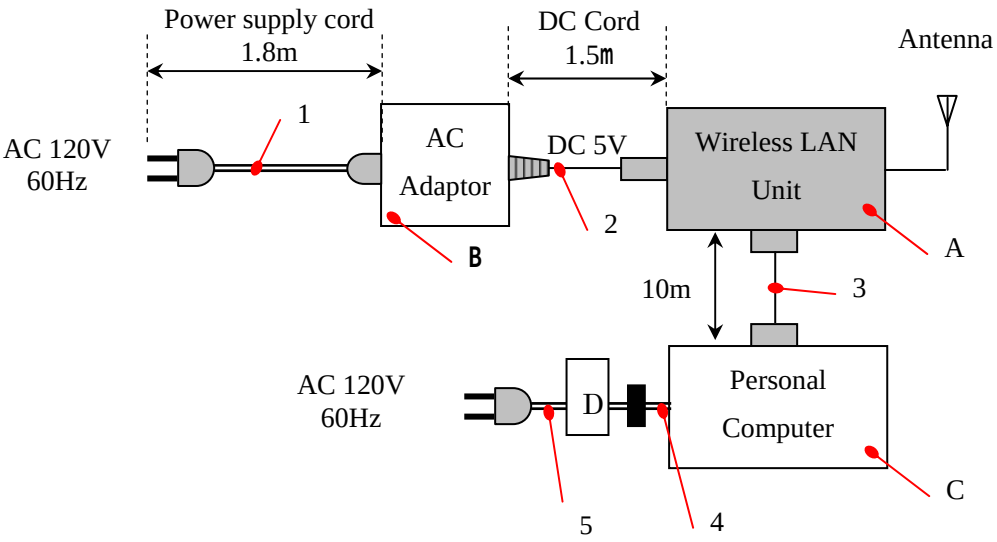
The EUT exercise program used during radiated and conducted testing was designed to exercise the various system components in a manner similar to typical use.

The operating mode/system was as follows:

Operation mode : 1. Transmitting mode (ch 1: 2412MHz)
2. Transmitting mode (ch 6: 2437MHz)
3. Transmitting mode (ch 11: 2462MHz)
4. Receiving mode (ch 6 : 2437MHz)

Justification: The system was configured in typical fashion (as a customer would normally use it) for testing.

4.2 Configuration and peripherals



▮ : Ferrite core

Description of EUT

No.	Item	Model number	Serial number	Manufacturer	FCC ID/DOC/others
A	Wireless LAN Unit	NJT-475	1 and 4	Nagano Japan Radio Co., Ltd	D7LNJT475

Support equipment

No.	Item	Model number	Serial number	Manufacturer	FCC ID
B	AC Adaptor	SQS15W5P-00	0204A0000001P and 0204A0000004P	Nagano Japan Radio Co., Ltd.	N/A
C	Personal Computer	PPO1L	TW-04E641-128 00-1AP-3747	DELL	DOC
D	AC Adaptor	ADP-70EB	TH-09364U-17971-1AK-E2WK	DELL	N/A

List of cables used

No.	Name	Length (m)	Shield	Remark
1	Power Supply Cord Set	1.8	N	Polyvinyl chloride
2	DC Cord (part of AC Adapter)	1.5	N	Polyvinyl chloride
3	LAN Cable	10	N	Polyvinyl chloride
4	DC Cord	1.5	N	Polyvinyl chloride
5	AC Power supply cord	1.5	N	Polyvinyl chloride

SECTION 5: Conducted Emission

Test Procedure

EUT was placed on a platform of nominal size, 1m by 1.5m, raised 80cm above the conducting ground plane. The rear of tabletop was located 40cm to the vertical conducting plane. The rear of EUT, including peripherals aligned and flushed with rear of tabletop. All other surfaces of tabletop were at least 80cm from any other grounded conducting surface. I/O cables and AC cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 30cm to 40cm long and were hanged at a 40cm height to the ground plane. Each EUT current-carrying power lead, except the ground (safety) lead, was individually connected through a LISN to the input power source. All unused 50Ω connectors of the LISN were resistively terminated in 50Ω when not connected to the measuring equipment.
The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT on a reference ground plane 7.0 x 6.0m in a No.1 semi Anechoic Chamber.
The EUT was connected to a Line Impedance Stabilization Network (LISN).
An overview sweep with peak detection has been performed.
The measurements have been performed with a CISPR quasi-peak detector (IF BW 9kHz).
Measurement range:0.45-30MHz

Test data : APPENDIX 3
Test result : Pass
Test instruments : MTR-01, MCC-03, MLS-02

SECTION 6: 6dB Bandwidth , Section 15.247(a)(2)

Test Procedure

The minimum 6dB bandwidth was measured with a spectrum analyzer connected to the antenna port.

Test data : APPENDIX 3
Test result : Pass
Test instruments : MTR-01, MCC-04

SECTION 7: Maximum Peak Output Power, Section 15.247(b)(1)

[Conducted]

Test Procedure
The Maximum Peak Output Power was measured with a spectrum analyzer connected to the antenna port.

Test data : APPENDIX 3
Test result : Pass
Test instruments : MTR-01, MCC-04

[Radiated]

Test Procedure
EUT was placed on a platform of nominal size, 1m by 1.5m, raised 80cm above the conducting ground plane.
Test was made with the antenna positioned in both the horizontal and vertical planes of polarization.
The Radiated Electric Field Strength intensity has been measured at the semi anechoic chamber(19.2x11.2x7.7m) with a ground plane and at a distance of 3m.
The measuring antenna height was varied between 1 to 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.
The measurements were performed for both vertical and horizontal antenna polarization.

Test data : APPENDIX 3
Test result : Pass
Test instruments : MTR-01, MCC-04, MCC-06, MHA-06, MPA-01

SECTION 8: Out of Band Emission, Section 15.247 (c)

[Conducted]

Test Procedure
The Out of Band Emission (Conducted) was measured with a spectrum analyzer connected to the antenna port.

Test data : **APPENDIX 3**
Test result : **Pass**
Test instruments : **MTR-01, MCC-04**

[Radiated]

Test Procedure
EUT was placed on a platform of nominal size, 1m by 1.5m, raised 80cm above the conducting ground plane.
Test was made with the antenna positioned in both the horizontal and vertical planes of polarization.
The Radiated Electric Field Strength intensity has been measured in the semi anechoic chamber (19.2x11.2x7.7m) with a ground plane and at a distance of 3m.
The measuring antenna height was varied between 1 to 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.
The measurements were performed for both vertical and horizontal antenna polarization.
In any 100kHz bandwidth outside the frewuency band in which the spread spectrum intentional radiator is operating, the rafdio frequency power that is produced by the intentional radiator confirmed 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on a radiated measurement.

Test data : **APPENDIX 3**
Test result : **Pass**
Test instruments : **MTR-01, MCC-01, MCC-04, MCC-06,MHA-06, MPA-01**
MBA-01, MLA-01, MPA-02, MAT-06, MCC-01
MBF-01, MBF-02, MBF-03, MHA-02

SECTION9: Restricted Band Edge, Section 15.247(c)

Test Procedure
EUT was placed on a platform of nominal size, 1m by 1.5m, raised 80cm above the conducting ground plane.
Test was made with the antenna positioned in both the horizontal and vertical planes of polarization.
The Radiated Electric Field Strength intensity has been measured in the semi anechoic chamber(19.2x11.2x7.7m) with a ground plane and at a distance of 3m.
The measuring antenna height was varied between 1 to 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.
The measurements were performed for both vertical and horizontal antenna polarization.
In any 100kHz bandwidth outside the frewuency band in which the spread spectrum intentional radiator is operating, the rafdio frequency power that is produced by the intentional radiator confirmed 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on a radiated measurement.

Test data : **APPENDIX 3**
Test result : **Pass**
Test instruments : **MTR-01, MCC-01, MCC-04, MCC-06,MHA-06**

SECTION10: Power Density, Section 15.247(d)

Test Procedure
The Power density was measured with a spectrum analyzer connected to the antenna port.
Test data : APPENDIX 3
Test result : Pass
Test instruments : MTR-01, MCC-04

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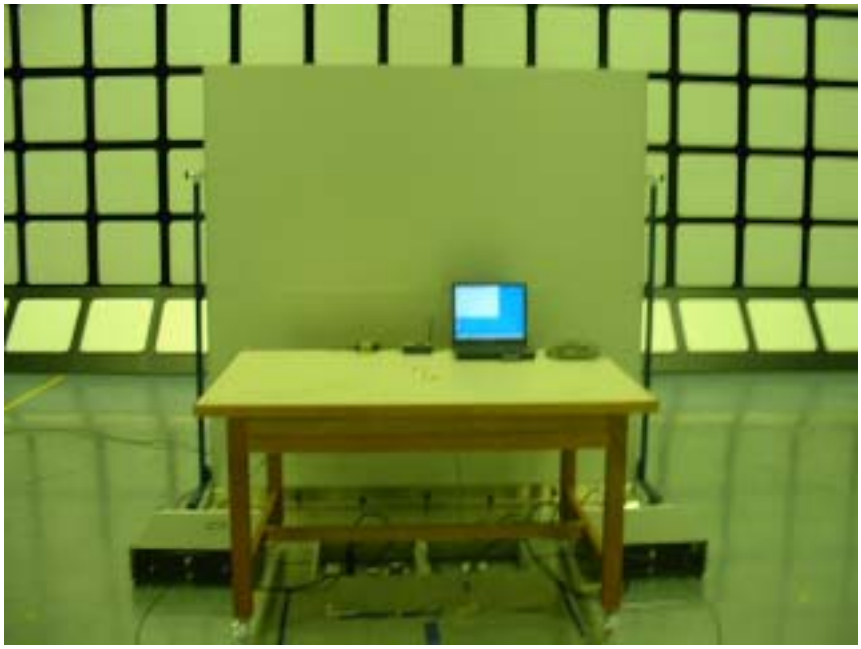
APPENDIX 1: Photographs of test setup

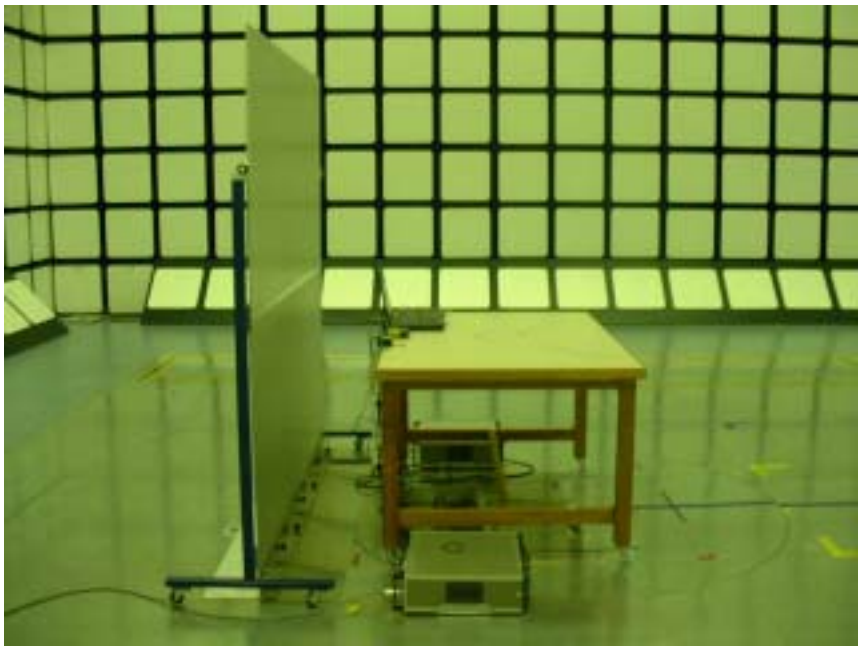
APPENDIX 2: Test instruments

APPENDIX 3: Data of EMI test

APPENDIX 1: Photographs of test setup

Conducted emission





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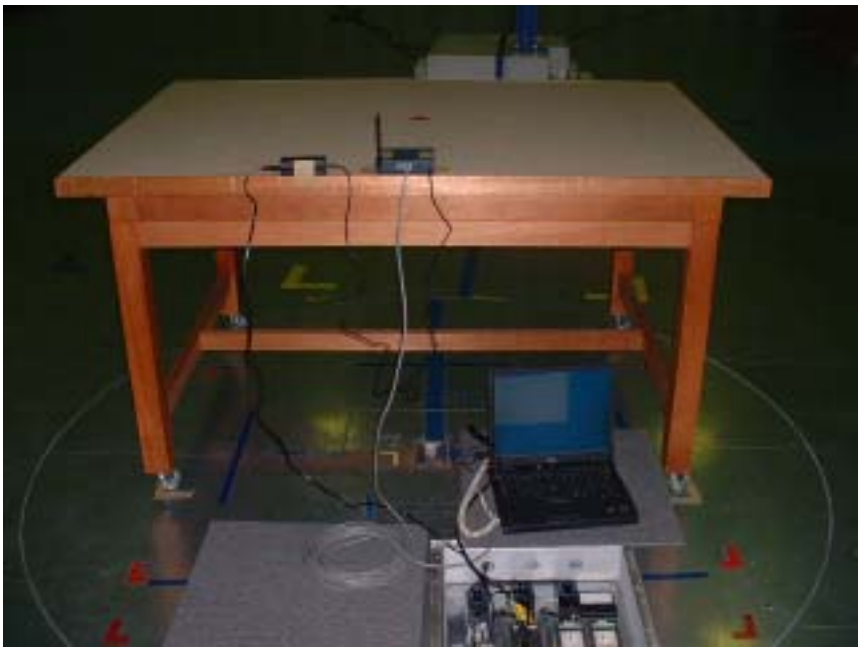
Radiated emission



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Test Report No :22IE0029-HO-2

APPENDIX 2
Test Instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MTR-01	EMI TEST RECEIVER	Rohde & Schwarz	ESI40	RE / CE	2001/11/13 * 12
MCC-04	Microwave Cable	Storm	421-011	RE	2002/01/14 * 12
MCC-03	Coaxial Cable	Fujikura/Suhner/Agilent	5D-2W-20m,3D-2W-7.5m,8765C,RG400/U-1.5m	CE	2001/12/27 * 12
MCC-06	Microwave Cable	Storm	421-011	RE	2002/01/14 * 12
MAEC-01	Anechoic Chamber	TDK	Semi Anechioc Chamber 10m	RE / CE	2001/12/29 * 12
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2002/01/13 * 12
MPA-01	Pre Amplifier	Agilent	8449B	RE	2002/02/09 * 12
MBA-01	Biconical Antenna	Schwarzbeck	BBA9106	RE	2001/12/01 * 12
MLA-01	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2001/12/01 * 12
MPA-02	Pre Amplifier	Agilent	87405A	RE	2001/12/27 * 12
MAT-06	Attenuator(6dB)	Weinschel Corp	2	RE	2001/12/27 * 12
MCC-01	Coaxial Cable	Suhner/storm/Agilent	421-014-10m,421-014-16m,421-014-7.5m,SFM86PE-15cm,8765C,SFM141-15cm,SFM141-15cm,8765C,SFM141-10cm,8765C,421-010-1m	RE	2001/12/27 * 12
MCC-11	Microwave coaxial cable	Suhner	SUCOFLEX 104	RE	2002/03/27 * 12
MBF-01	SHF Bandpass Filter	M-City	5GHz BPF	RE	2002/04/30 * 12
MBF-02	SHF Bandpass Filter	M-City	8GHz BPF	RE	2002/04/30 * 12
MBF-03	SHF Bandpass Filter	M-City	13GHz BPF	RE	2002/04/30 * 12
MHA-02	Horn Antenna	EMCO	3160-09	RE	2002/01/13 * 12
MLS-02	LISN	Schwarzbeck	NSLK8127	CE	2002/01/08 * 12
	Coaxial Cable	Fujikura/Suhner/Agilent	5D-2W-20m,3D-2W-7.5m,8765C,RG400/U-1.5m		

All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

Test Item:

CE: Conducted emission,
RE: Radiated emission,
H/F: Harmonics and voltage fluctuation
RFI: RFI Power test,
AT: Antenna terminal disturbance voltage

2002/05/16 11:23:15

DATA OF CONDUCTED EMISSION TEST

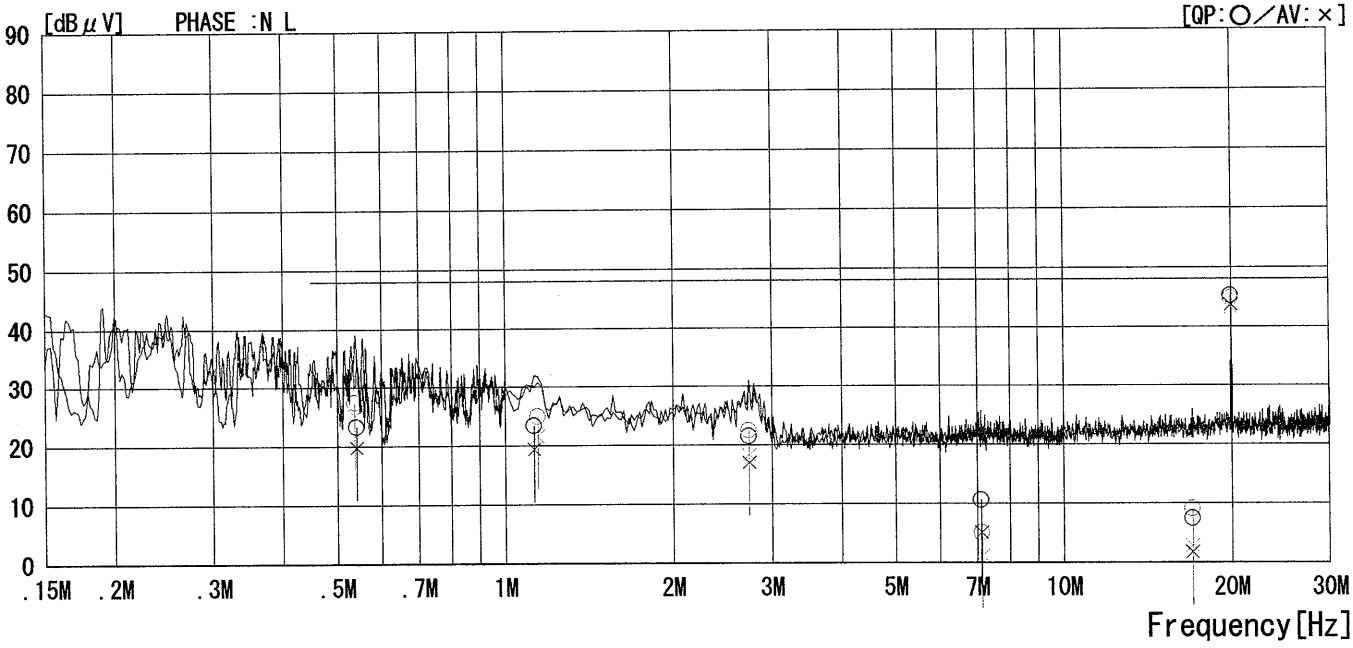
A-PEX INTERNATIONAL CO.,LTD. EMC HEAD OFFICE DIVISION
Date : 2002/05/16 11:17:39

Applicant : Nagano Japan Redio Co.,Ltd.
Kind of EUT : Wireless LAN
Model No. : NJT-475
Serial No. : 4

Report No. : 22IE0029-H0
Power : AC120V / 60Hz
Temp℃/Humi% : 21 / 69
Operator : HIROKA UMEYAMA

Mode / Remarks : Transmitting(ch6:2437MHz)

LIMIT : FCC15C §15.207



NO	FREQ	READING QP	READING AV	C.F	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	19.9990	43.1	41.6	2.0	45.1	43.6	48.0	----	2.9	----	N
2	0.5420	23.1	19.6	0.2	23.3	19.8	48.0	----	24.7	----	N
3	1.1260	23.1	19.1	0.3	23.4	19.4	48.0	----	24.6	----	N
4	2.7310	20.8	16.4	0.6	21.4	17.0	48.0	----	26.6	----	N
5	7.1140	9.4	4.0	1.1	10.5	5.1	48.0	----	37.5	----	N
6	16.9740	5.7	0.1	1.7	7.4	1.8	48.0	----	40.6	----	N
7	19.9900	42.7	41.2	2.0	44.7	43.2	48.0	----	3.3	----	L
8	0.5380	27.2	24.9	0.2	27.4	25.1	48.0	----	20.6	----	L
9	1.1440	24.6	21.3	0.3	24.9	21.6	48.0	----	23.1	----	L
10	2.7310	21.8	17.7	0.6	22.4	18.3	48.0	----	25.6	----	L
11	7.1320	4.0	0.1	1.1	5.1	1.2	48.0	----	42.9	----	L
12	16.9740	7.3	1.2	1.7	9.0	2.9	48.0	----	39.0	----	L

CHART : WITHOUT FACTOR , CALCURATION : RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adeauate margin data below the limits.

2002/05/16 11:20:49

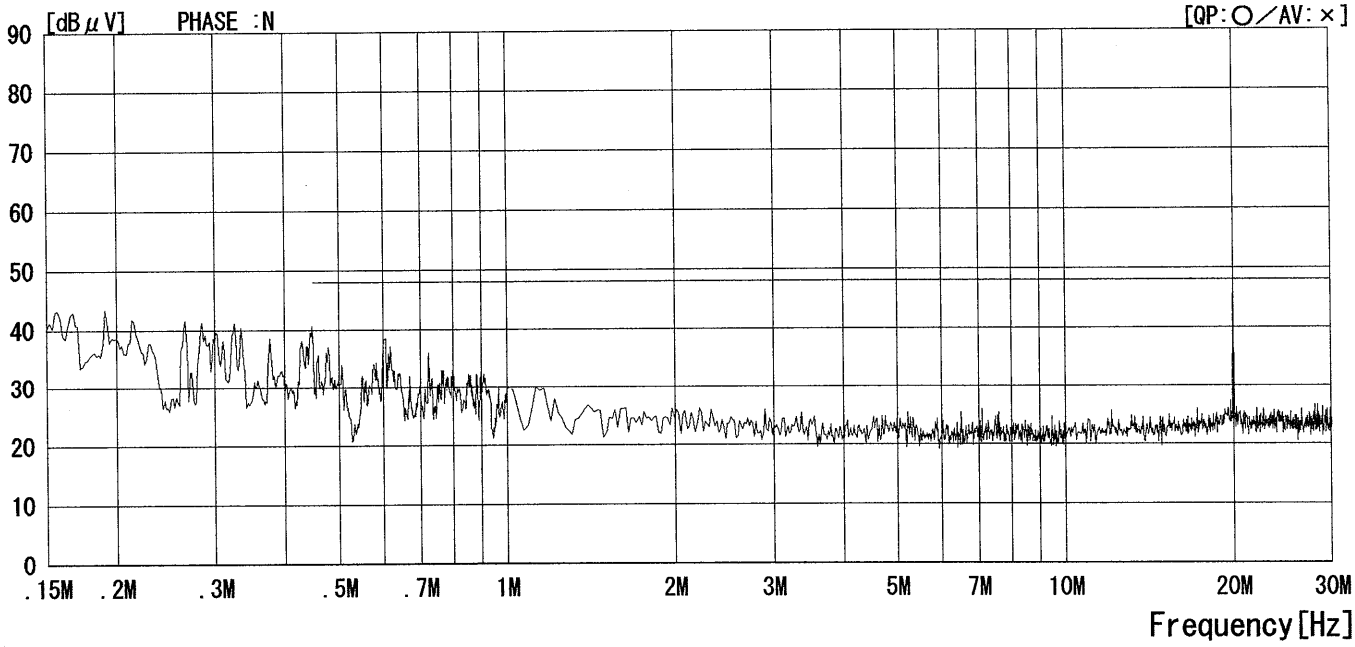
DATA OF CONDUCTED EMISSION TEST

A-PEX INTERNATIONAL CO.,LTD. EMC HEAD OFFICE DIVISION
Date : 2002/05/16 10:22:54

Applicant	: Nagano Japan Redio Co.,Ltd.	Report No.	: 22IE0029-HO
Kind of EUT	: Wireless LAN	Power	: AC120V / 60Hz
Model No.	: NJT-475	Temp℃/Humi%	: 21 / 69
Serial No.	: 4	Operator	: HIROKA UMEYAMA

Mode / Remarks : Transmitting(ch1:2412MHz)

LIMIT : FCC15C §15.207



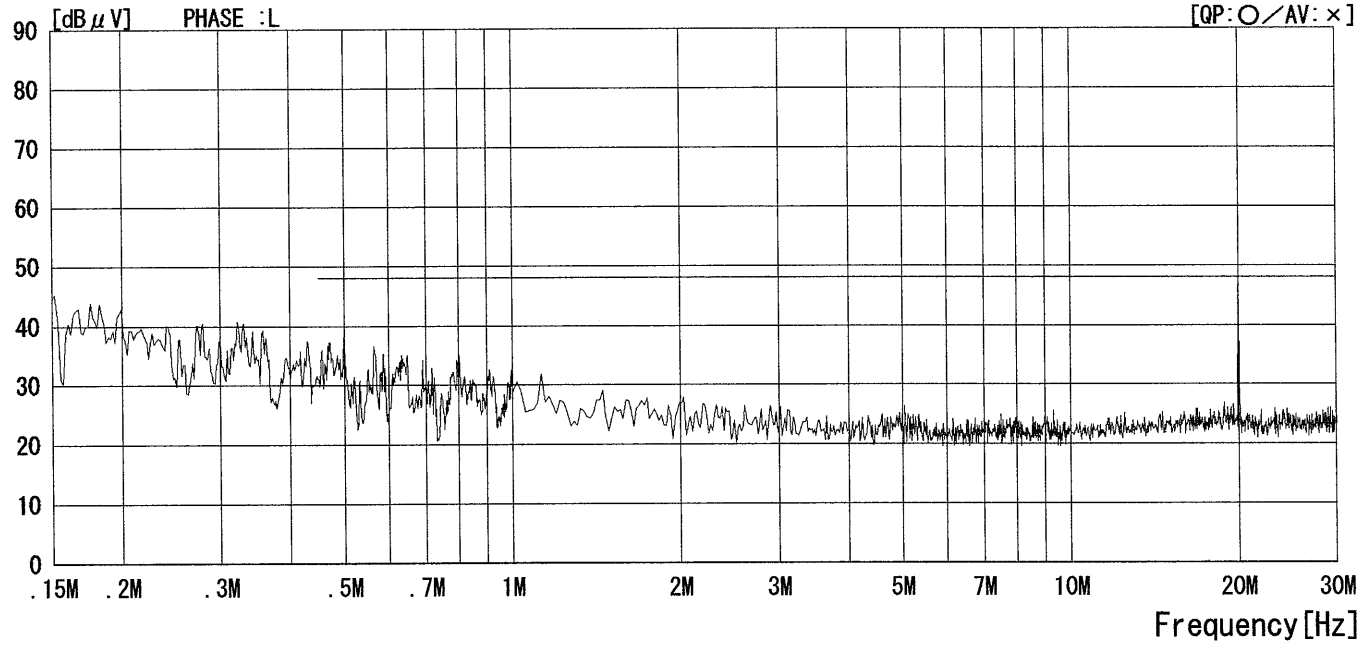


CHART : WITHOUT FACTOR , CALCURATION : RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adeauate margin data below the limits.

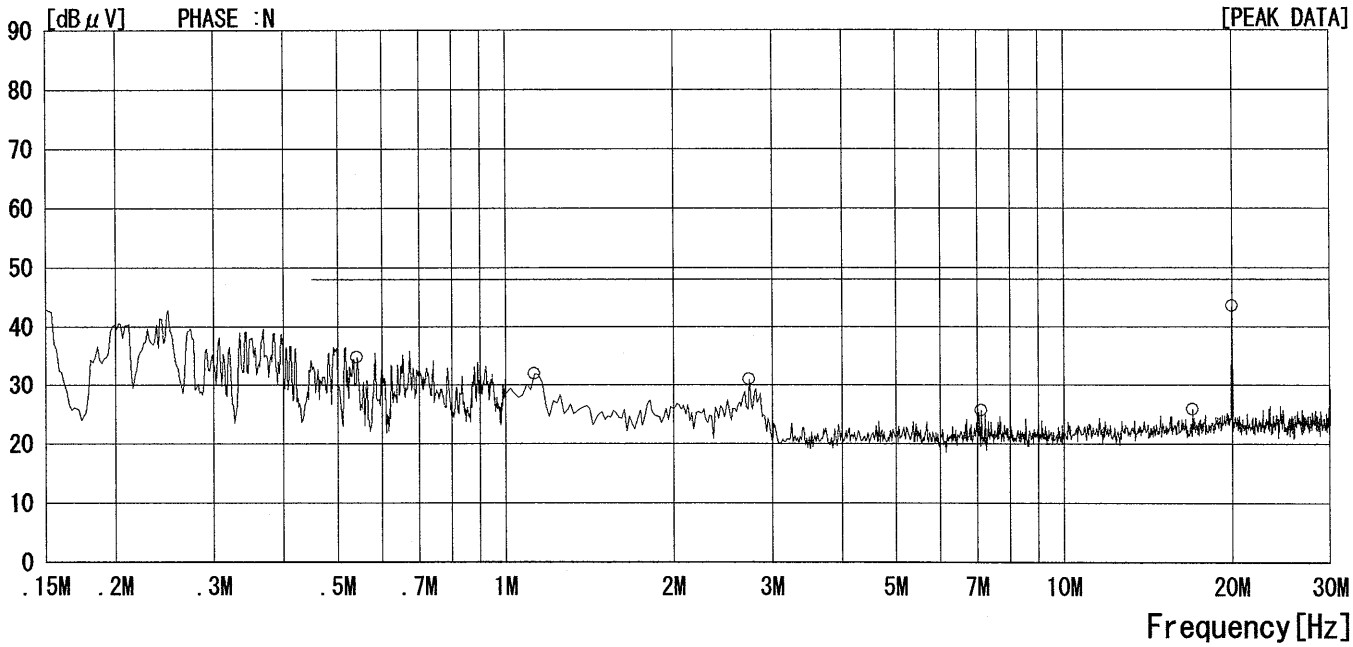
DATA OF CONDUCTED EMISSION TEST

A-PEX INTERNATIONAL CO.,LTD. EMC HEAD OFFICE DIVISION
Date : 2002/05/16 11:17:39

Applicant	: Nagano Japan Redio Co.,Ltd.	Report No.	: 22IE0029-H0
Kind of EUT	: Wireless LAN	Power	: AC120V / 60Hz
Model No.	: NJT-475	Temp℃/Humi%	: 21 / 69
Serial No.	: 4	Operator	: HIROKA UMEYAMA

Mode / Remarks : Transmitting(ch6:2437MHz)

LIMIT : FCC15C §15.207



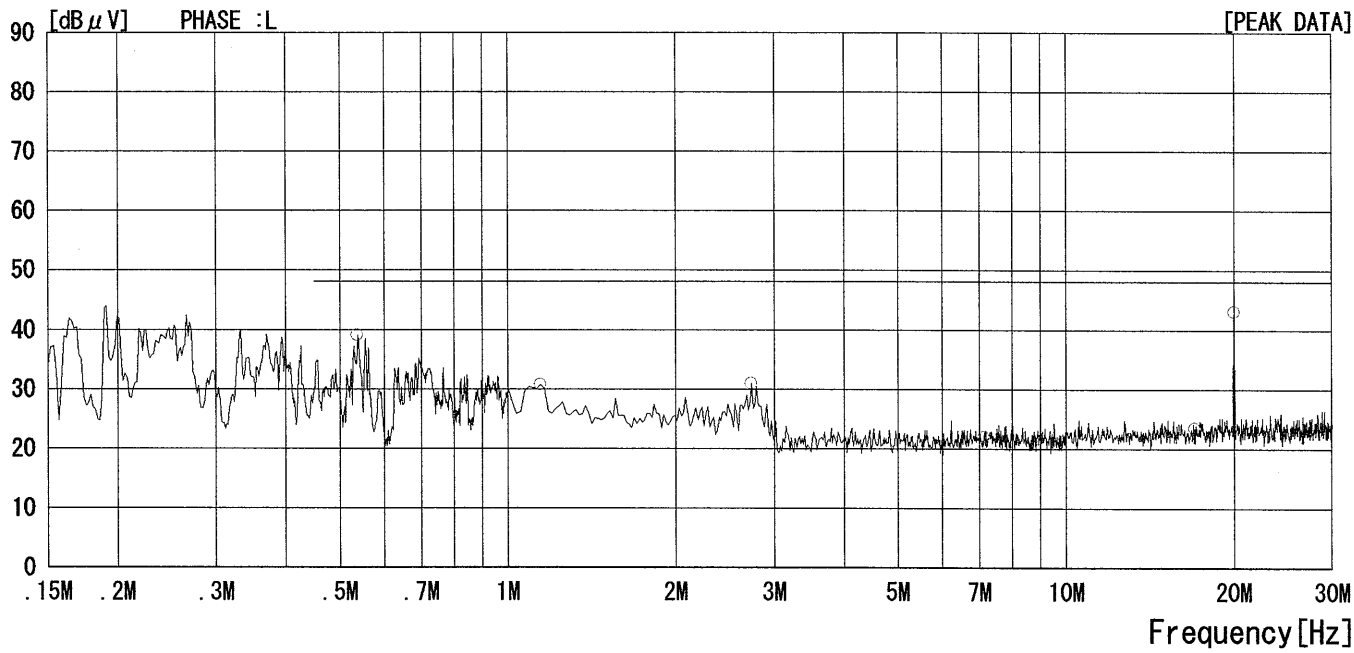


CHART : WITHOUT FACTOR , CALCURATION : RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adeauate margin data below the limits.

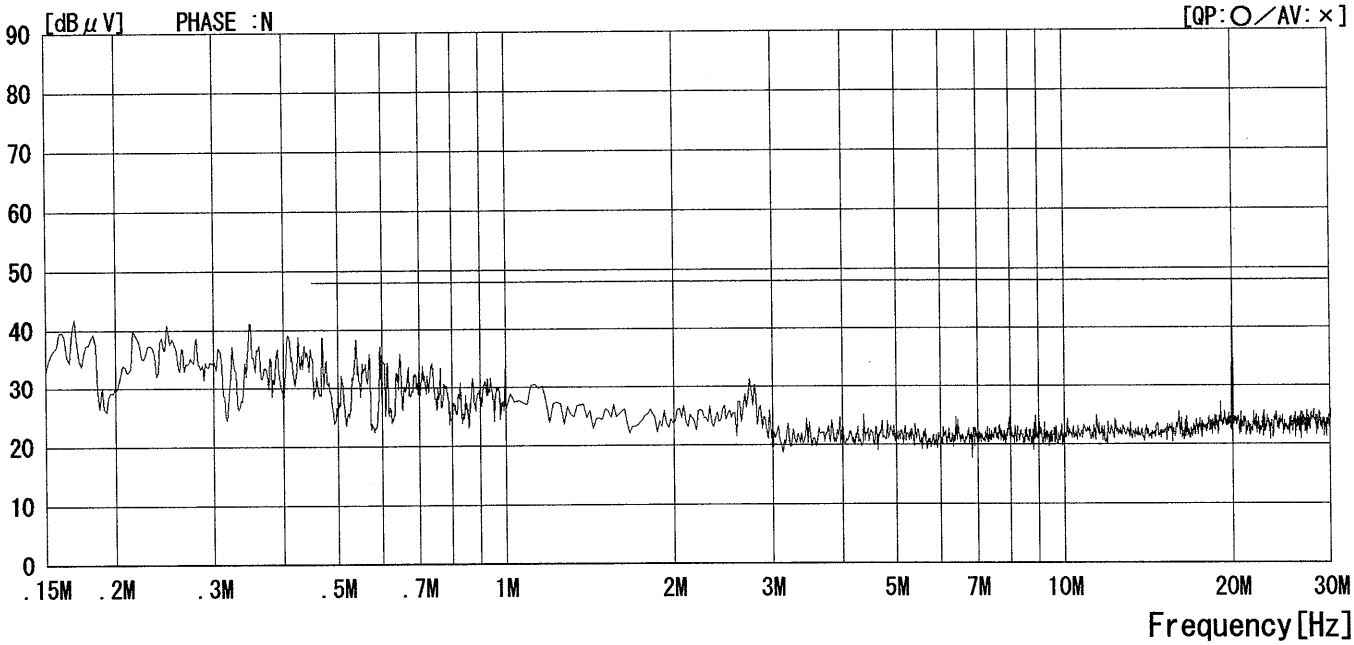
DATA OF CONDUCTED EMISSION TEST

A-PEX INTERNATIONAL CO.,LTD. EMC HEAD OFFICE DIVISION
Date : 2002/05/16 11:21:29

Applicant	: Nagano Japan Redio Co.,Ltd.	Report No.	: 22IE0029-H0
Kind of EUT	: Wireless LAN	Power	: AC120V / 60Hz
Model No.	: NJT-475	Temp℃/Humi%	: 21 / 69
Serial No.	: 4	Operator	: HIROKA UMEYAMA

Mode / Remarks : Transmitting(ch11:2462MHz)

LIMIT : FCC15C §15.207



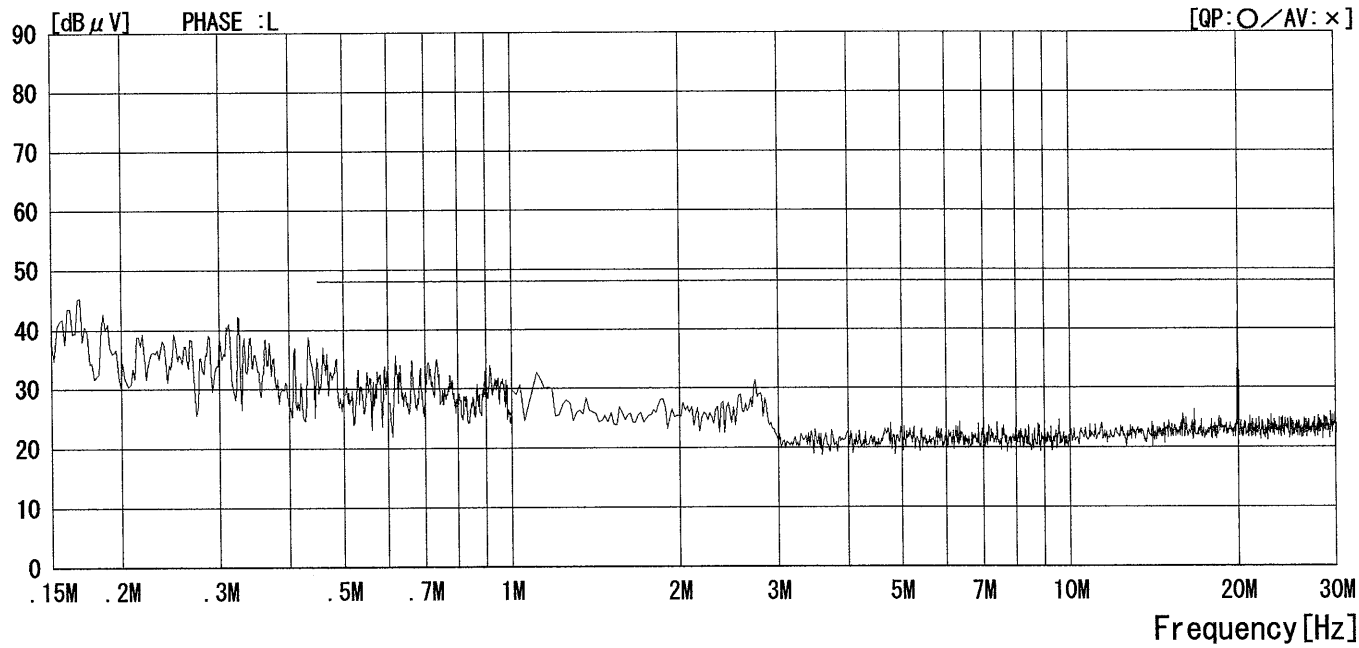


CHART : WITHOUT FACTOR , CALCURATION : RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adeauate margin data below the limits.

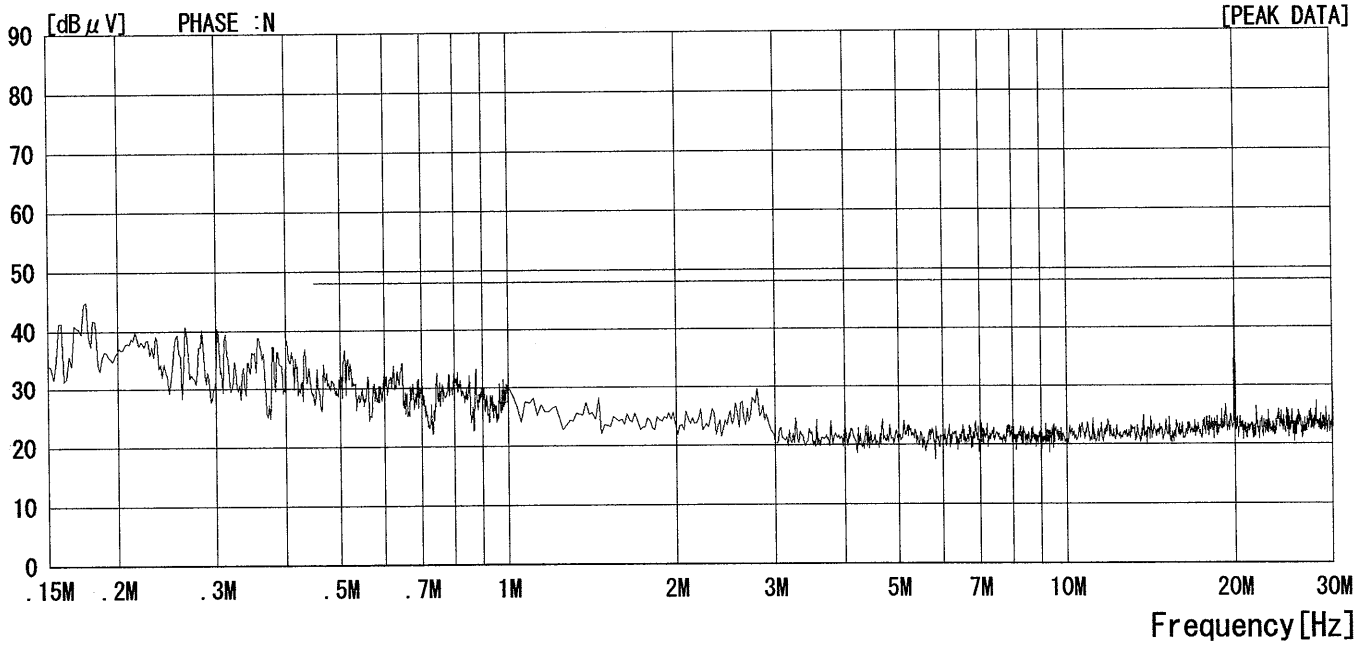
DATA OF CONDUCTED EMISSION TEST

A-PEX INTERNATIONAL CO.,LTD. EMC HEAD OFFICE DIVISION
Date : 2002/05/16 10:29:49

Applicant	: Nagano Japan Redio Co.,Ltd.	Report No.	: 22IE0029-H0
Kind of EUT	: Wireless LAN	Power	: AC120V / 60Hz
Model No.	: NJT-475	Temp℃/Humi%	: 21 / 69
Serial No.	: 4	Operator	: HIROKA UMEYAMA

Mode / Remarks : Receiving(ch6:2437MHz)

LIMIT : FCC15C §15.207



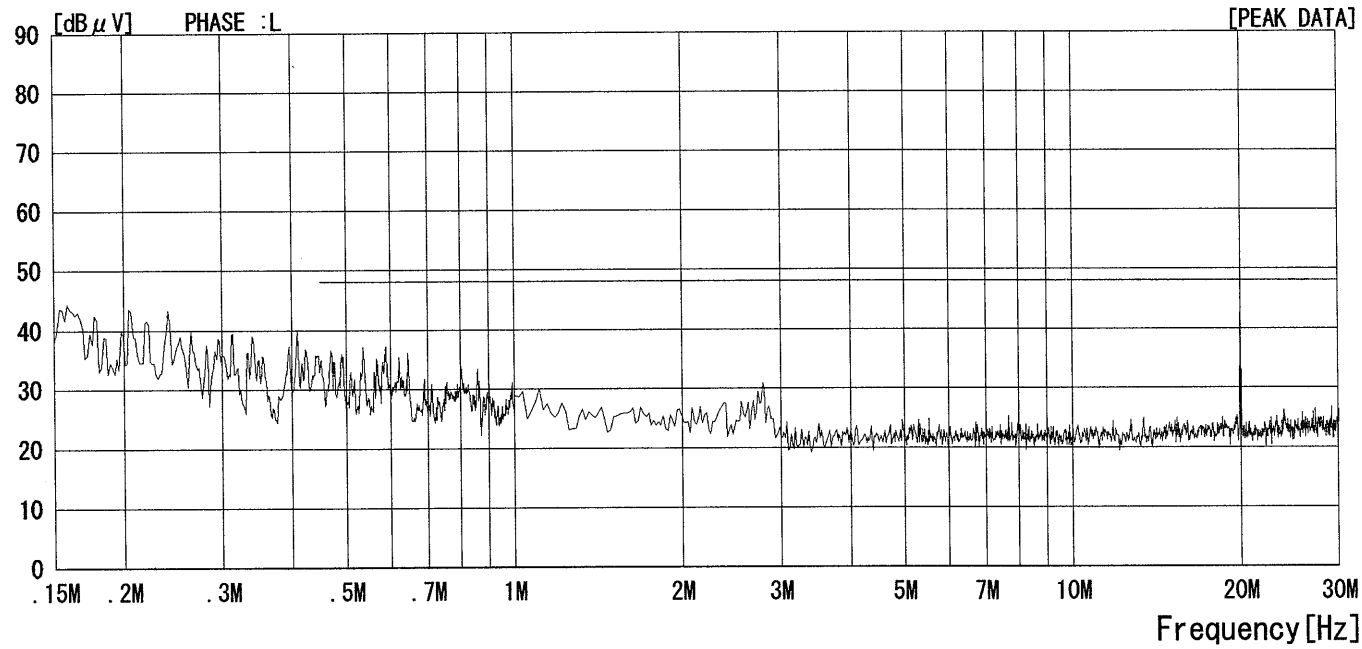


CHART : WITHOUT FACTOR , CALCURATION : RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adeauate margin data below the limits.

DATA OF 6dB BANDWIDTH

A-PEX INTERNATIONAL CO., LTD.
EMC HEAD OFFICE DIVISON No.1 SEMI ANECHOIC CHAMBER

COMPANY : Nagano Japan Radio Co., Ltd.
EQUIPMENT : Wireless LAN
MODEL : NJT-475
S/N : 4
FCC ID : D7LNJT-475
POWER : DC5V
MODE : Tx

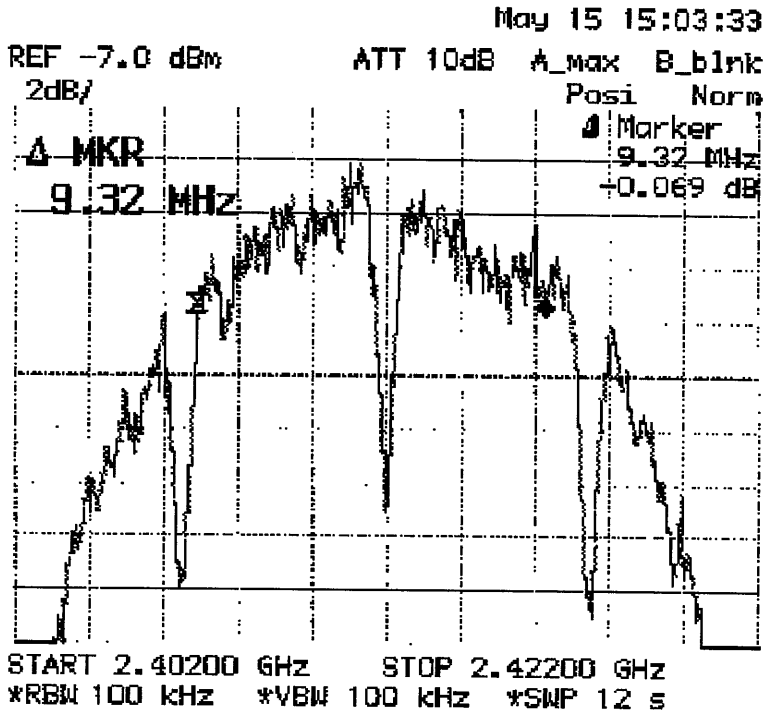
REPORT NO : 22IE0029-HO
REGULATION : Fcc Part15SubpartC 247(a)(2)
TEST DISTANCE : -
DATE : 2002/5/15
Temperature : 21℃
Humidity : 60%

ENGINEER : Hiroka Umeyama

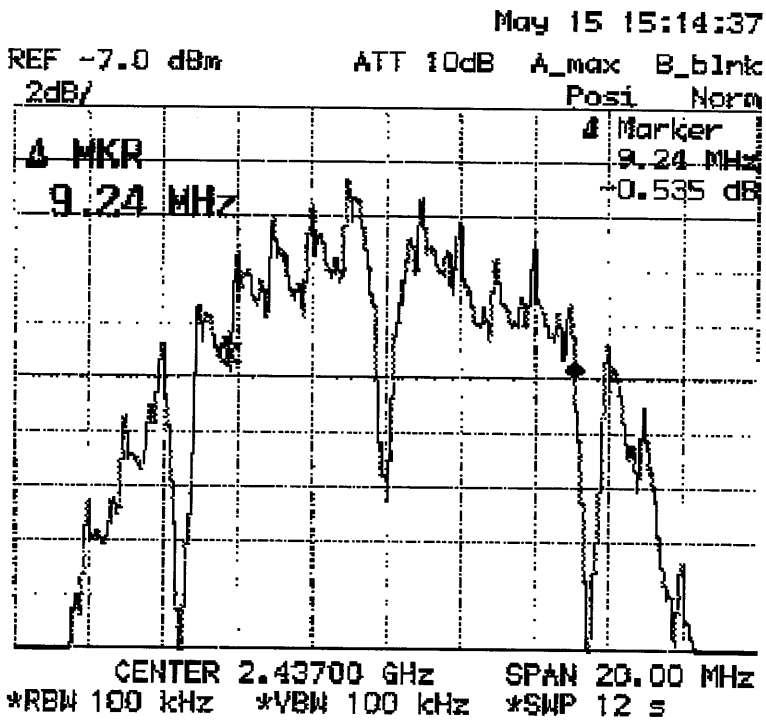
PK DETECT(RBW 100kHz ,VBW 100kHz)

CH	FREQ [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2412.0	9.320	500.0
Mid	2437.0	9.240	500.0
High	2462.0	9.320	500.0

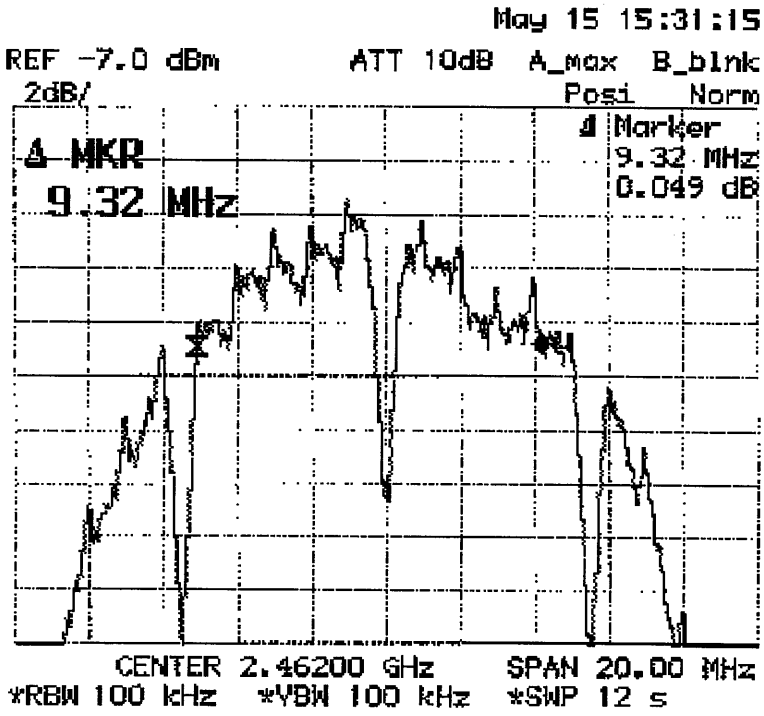
6dB Bandwidth:Tx(ch1:2412MHz)



6dB Bandwidth:Tx(ch6:2437MHz)



6dB Bandwidth:Tx(ch11:2462MHz)



DATA OF PEAK OUTPUT POWER(CONDUCTED)

A-PEX INTERNATIONAL CO., LTD.
EMC HEAD OFFICE DIVISON No.1 SEMI ANECHOIC CHAMBER

COMPANY : Nagano Japan Radio Co., Ltd.
EQUIPMENT : Wireless LAN
MODEL : NJT-475
S/N : 4
FCC ID : D7LNJT-475
POWER : DC5V
MODE : Tx

REPORT NO : 22IE0029-HO
REGULATION : Fcc Part15SubpartC 247(b)(1)
TEST DISTANCE : -
DATE : 2002/5/15
Temperature : 21℃
Humidity : 60%

ENGINEER : Hiroka Umeyama

CH	FREQ [MHz]	Result P/M Reading [dBm]	Limit (1W) [dBm]
Low	2412.0	0.16	30.0
Mid	2437.0	0.14	30.0
High	2462.0	-0.22	30.0

DATA OF PEAK OUTPUT POWER (RADIATED)

A-PEX INTERNATIONAL CO., LTD.
EMC HEAD OFFICE DIVISON No.1 SEMI ANECHOIC CHAMBER

COMPANY : Nagano Japan Radio Co., Ltd.
EQUIPMENT : Wireless LAN
MODEL : NJT-475
S/N : 4
FCC ID : D7LNJT-475
POWER : DC5V
MODE : Tx

REPORT NO : 22IE0029-HO
REGULATION : Fcc Part15SubpartC 247(b)(1)
TEST DISTANCE : 3m
DATE : 2002/5/16
Temperature : 21℃
Humidity : 69%

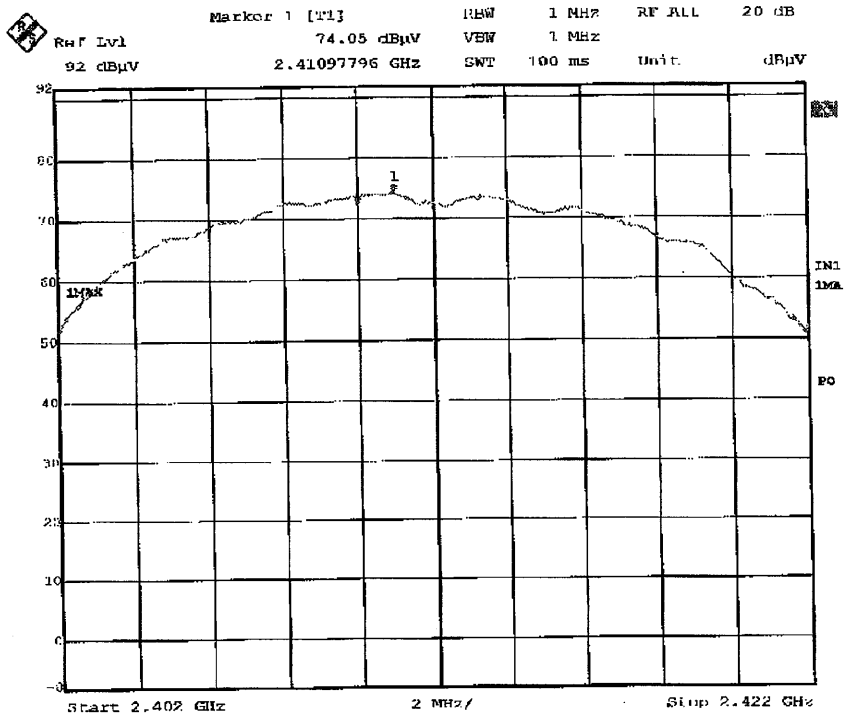
ENGINEER : Hiroka Umeyama

PK DETECT

CH	FREQ	T/R READING		All	E1		E		Limit	Result		Result	
		HOR	VER	Factor	HOR	VER	HOR	VER	1W	HOR	VER	HOR	VER
	[MHz]	[dBuV]		[dB]	[dBuV/m]		[V/m]		[mW]	[mW]		[dBm]	
Low	2412.0	70.4	73.6	30.8	101.2	104.4	0.1148	0.1660	1000.0	2.4	5.0	3.8	7.0
Mid	2437.0	73.5	62.6	30.8	104.3	93.4	0.1641	0.0468	1000.0	4.9	0.4	6.9	-4.0
High	2462.0	73.6	71.0	31.0	104.6	102.0	0.1698	0.1259	1000.0	5.3	2.9	7.2	4.6

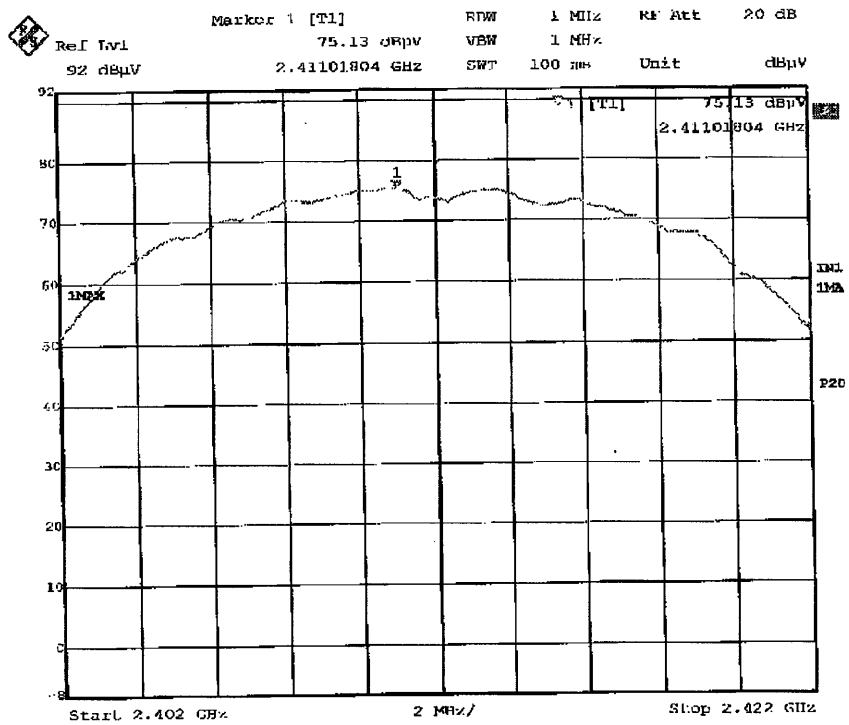
Sample Calculation :
All Factor = ANT Factor + Cable Loss
Low (2412MHz): ANT Factor (27.5dB) + Cable Loss(3.3dB)
Mid (2437MHz): ANT Factor (27.5dB) + Cable Loss(3.3dB)
High (2462MHz): ANT Factor (27.6dB) + Cable Loss(3.4dB)
Result = $(E*d)^2/(30*G)$
E1 : S/A Reading + All Factor
E : Converted to V/m
d : Test distance(3.0m)
G : Numeric Antenna Gain (1.64)

Peak Output Power(Radiated):Tx(2412MHz)HOR



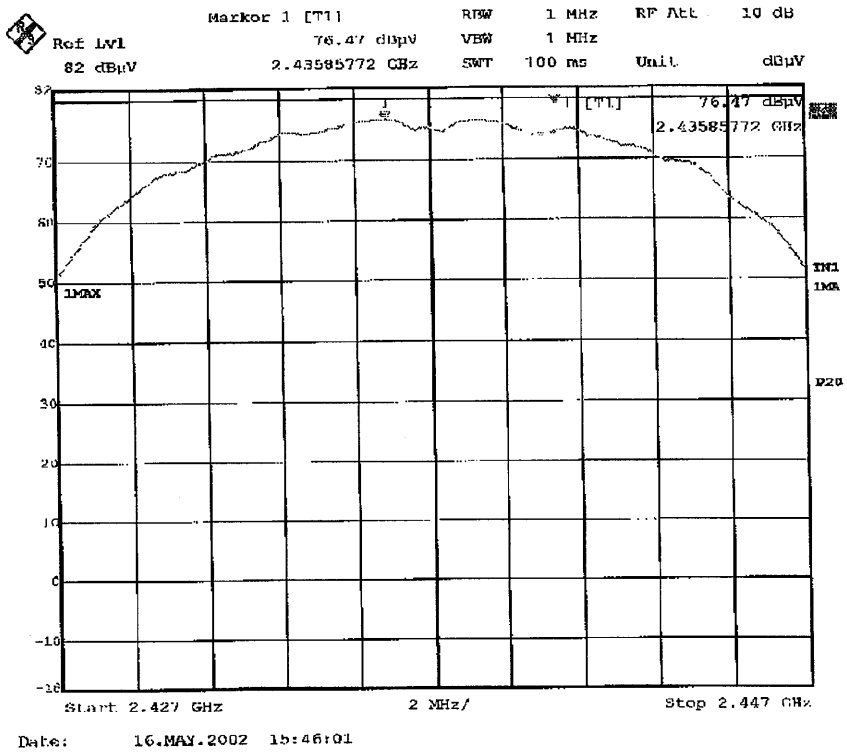
Date: 16.MAY.2002 14:57:01

Peak Output Power(Radiated):Tx(2412MHz)VER

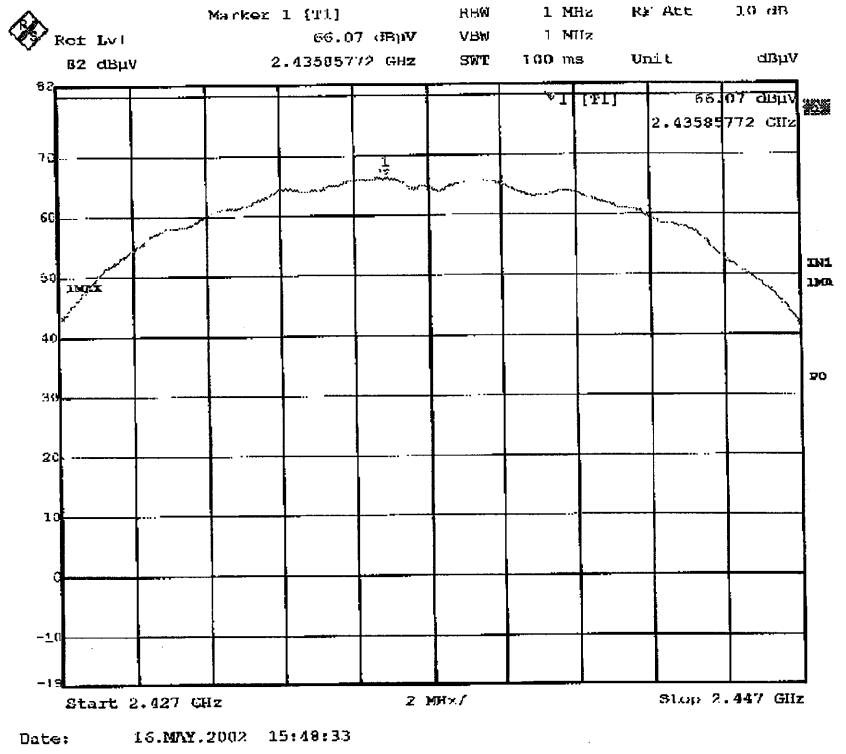


Date: 16.MAY.2002 14:27:41

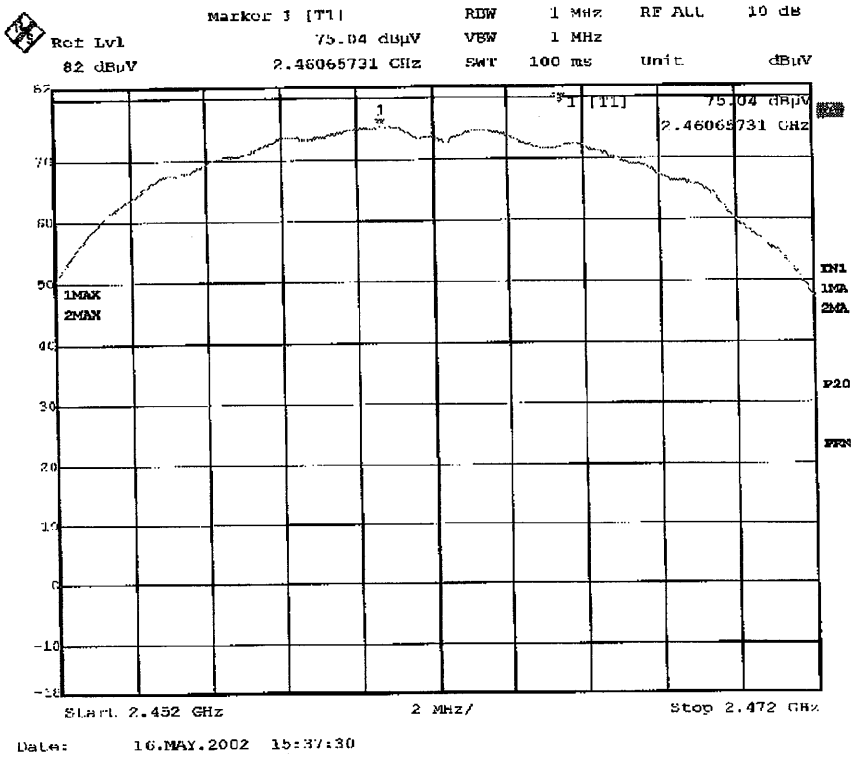
Peak Output Power(Radiated):Tx(2437MHz)HOR



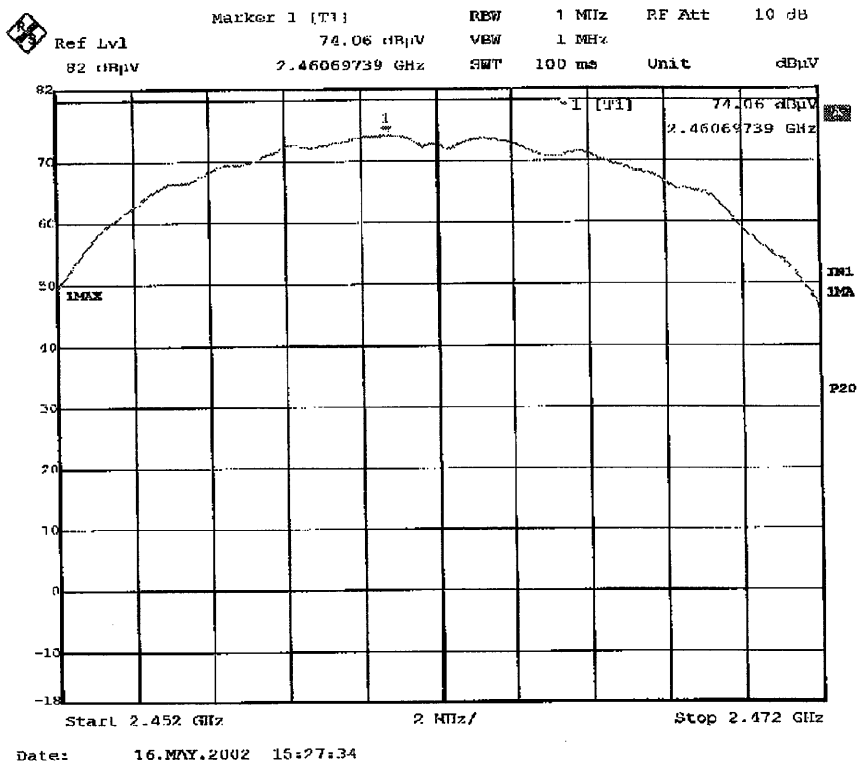
Peak Output Power(Radiated):Tx(2437MHz)VER



Peak Output Power(Radiated):Tx(2462MHz)HOR



Peak Output Power(Radiated):Tx(2462MHz)VER



DATA OF RADIATED EMISSION TEST

A-PEX INTERNATIONAL EMC HEAD OFFICE DIVISION No.1 SEMI ANECHOIC CHAMBER
Date : 2002/05/09 11:24:53

Applicant : Nagano Japan Redio Co.,Ltd
Kind of EUT : Wireless LAN
Model No. : NJT-475
Serial No. : 1

Report No. : 22IE0029-H0
Power : AC 120V / 60Hz
Temp℃/Humi% : 21 / 60
Operator : HIROKA UMEYAMA

Mode / Remarks : Transmitting(ch1:2412MHz)

LIMIT : FCC15C §15.247(c)
Except for the above table : adeauate margin data below the limits. The limit values at frequencies excepting restricted bands indicated in 15.205 are values 20dB below lower peak output powers at each channel.

No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	220.000	44.2	16.1	9.2	23.9	45.6	73.4	27.8	100	100
----- Vertical ------										
2	60.000	45.2	7.4	7.4	24.1	35.9	73.4	37.5	100	270
3	79.990	40.4	6.9	7.7	24.0	31.0	73.4	42.4	100	36
4	220.000	47.4	16.1	9.2	23.9	48.8	73.4	24.6	100	83

CHART:WITHOUT FACTOR ANT TYPE : -30MHz LOOP,30-300MHz BICONICAL,300MHz- HORN
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP.GAIN

DATA OF RADIATED EMISSION TEST

A-PEX INTERNATIONAL EMC HEAD OFFICE DIVISION No.1 SEMI ANECHOIC CHAMBER
Date : 2002/05/09 11:58:20

Applicant : Nagano Japan Redio Co.,Ltd
Kind of EUT : Wireless LAN
Model No. : NJT-475
Serial No. : 1

Report No. : 22IE0029-HO
Power : AC 120V / 60Hz
Temp℃/Humi% : 21 / 60
Operator : HIROKA UMEYAMA

Mode / Remarks : Transmitting(ch1:2412MHz)

LIMIT : FCC15C §15.247(c)
Except for the above table : adeauate margin data below the limits. The limit values at frequencies excepting restricted bands indicated in 15.205 are values 20dB below lower peak output powers at each channel.

No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	499.970	42.6	17.9	10.8	23.9	47.4	73.4	26.0	179	178
2	339.975	40.6	15.7	9.9	23.8	42.4	73.4	31.0	100	73
3	359.971	42.9	16.4	9.9	23.8	45.4	73.4	28.0	100	215
4	459.969	39.3	17.9	10.7	23.9	44.0	73.4	29.4	100	209
5	499.969	43.9	17.9	10.8	23.9	48.7	73.4	24.7	179	137
6	539.968	45.3	18.4	11.1	24.0	50.8	73.4	22.6	168	218
7	719.954	33.9	20.6	12.0	24.1	42.4	73.4	31.0	141	221
----- Vertical ------										
8	499.968	41.4	17.9	10.8	23.9	46.2	73.4	27.2	100	186
9	379.974	40.5	17.1	10.1	23.8	43.9	73.4	29.5	100	6
10	454.780	39.0	17.9	10.7	23.9	43.7	73.4	29.7	100	330
11	499.973	42.4	17.9	10.8	23.9	47.2	73.4	26.2	100	271
12	539.966	36.5	18.4	11.1	24.0	42.0	73.4	31.4	136	0

CHART:WITHOUT FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz- HORN
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP.GAIN

DATA OF RADIATED EMISSION TEST

A-PEX INTERNATIONAL EMC HEAD OFFICE DIVISION No.1 SEMI ANECHOIC CHAMBER
Date : 2002/05/14 10:06:34

Applicant : Nagano Japan Redio Co.,Ltd
Kind of EUT : Wireless LAN
Model No. : NJT-475
Serial No. : 4

Report No. : 22IE0029-HO
Power : AC 120V / 60Hz
Temp℃/Humi% : 21 / 55
Operator : HIROKA UMEYAMA

Mode / Remarks : Transmitting(ch6 2437MHz)

LIMIT : FCC15C §15.247(c)
Except for the above table : adeauate margin data below the limits. The limit values at frequencies excepting restricted bands indicated in 15.205 are values 20dB below lower peak output powers at each channel.

No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	59.990	32.6	7.4	7.4	24.1	23.3	73.4	50.1	360	0
2	79.980	33.6	6.9	7.7	24.0	24.2	73.4	49.2	284	347
3	119.980	29.2	13.2	8.3	24.0	26.7	43.5	16.8	179	137
----- Vertical -----										
4	59.990	48.3	7.4	7.4	24.1	39.0	73.4	34.4	100	260
5	79.980	44.0	6.9	7.7	24.0	34.6	73.4	38.8	100	108
6	119.980	38.6	13.2	8.3	24.0	36.1	43.5	7.4	100	244

CHART:WITHOUT FACTOR ANT TYPE : -30MHz LOOP,30-300MHz BICONICAL,300MHz- HORN
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP.GAIN

DATA OF RADIATED EMISSION TEST

A-PEX INTERNATIONAL EMC HEAD OFFICE DIVISION No.1 SEMI ANECHOIC CHAMBER
Date : 2002/05/14 10:07:49

Applicant : Nagano Japan Redio Co.,Ltd
Kind of EUT : Wireless LAN
Model No. : NJT-475
Serial No. : 4

Report No. : 22IE0029-HO
Power : AC 120V / 60Hz
Temp℃/Humi% : 21 / 55
Operator : HIROKA UMEYAMA

Mode / Remarks : Transmitting(ch6 2437MHz)

LIMIT : FCC15C §15.247(c)
Except for the above table : adeauate margin data below the limits. The limit values at frequencies excepting restricted bands indicated in 15.205 are values 20dB below lower peak output powers at each channel.

No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	339.960	42.0	15.7	9.9	23.8	43.8	73.4	29.6	100	164
2	459.960	42.1	17.9	10.7	23.9	46.8	73.4	26.6	182	178
3	499.950	42.3	17.9	10.8	23.9	47.1	73.4	26.3	202	194
4	539.950	40.9	18.4	11.1	24.0	46.4	73.4	27.0	169	125
----- Vertical -----										
5	339.960	40.5	15.7	9.9	23.8	42.3	73.4	31.1	117	33
6	459.962	39.1	17.9	10.7	23.9	43.8	73.4	29.6	100	213
7	499.950	39.9	17.9	10.8	23.9	44.7	73.4	28.7	207	95
8	539.950	40.2	18.4	11.1	24.0	45.7	73.4	27.7	185	85

CHART:WITHOUT FACTOR ANT TYPE : -30MHz LOOP,30-300MHz BICONICAL,300MHz- HORN
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP.GAIN

DATA OF RADIATED EMISSION TEST

A-PEX INTERNATIONAL EMC HEAD OFFICE DIVISION No.1 SEMI ANECHOIC CHAMBER
Date : 2002/05/14 10:08:04

Applicant : Nagano Japan Redio Co.,Ltd
Kind of EUT : Wireless LAN
Model No. : NJT-475
Serial No. : 4

Report No. : 22IE0029-HO
Power : AC 120V / 60Hz
Temp℃/Humi% : 21 / 55
Operator : HIROKA UMEYAMA

Mode / Remarks : Transmitting(ch11 2462MHz)

LIMIT : FCC15C §15.247(c)
Except for the above table : adeauate margin data below the limits. The limit values at frequencies excepting restricted bands indicated in 15.205 are values 20dB below lower peak output powers at each channel.

No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	59.990	32.9	7.4	7.4	24.1	23.6	73.4	49.8	100	174
2	79.980	33.3	6.9	7.7	24.0	23.9	73.4	49.5	400	166
3	119.980	28.2	13.2	8.3	24.0	25.7	43.5	17.8	166	137
4	179.980	30.6	15.3	8.8	23.9	30.8	73.4	42.6	100	266
------ Vertical ------										
5	59.990	48.6	7.4	7.4	24.1	39.3	73.4	34.1	100	268
6	79.980	42.5	6.9	7.7	24.0	33.1	73.4	40.3	100	121
7	119.980	38.3	13.2	8.3	24.0	35.8	43.5	7.7	100	350
8	179.980	37.0	15.3	8.8	23.9	37.2	73.4	36.2	100	333

CHART:WITHOUT FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz- HORN
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP.GAIN

DATA OF RADIATED EMISSION TEST

A-PEX INTERNATIONAL EMC HEAD OFFICE DIVISION No.1 SEMI ANECHOIC CHAMBER
Date : 2002/05/14 10:06:56

Applicant : Nagano Japan Redio Co.,Ltd
Kind of EUT : Wireless LAN
Model No. : NJT-475
Serial No. : 4

Report No. : 22IE0029-HO
Power : AC 120V / 60Hz
Temp℃/Humi% : 21 / 55
Operator : HIROKA UMEYAMA S

Mode / Remarks : Transmitting(ch11 2462MHz)

LIMIT : FCC15C §15.247(c)
Except for the above table : adeauate margin data below the limits. The limit values at frequencies excepting restricted bands indicated in 15.205 are values 20dB below lower peak output powers at each channel.

No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	459.960	41.4	17.9	10.7	23.9	46.1	73.4	27.3	100	72
2	499.950	42.5	17.9	10.8	23.9	47.3	73.4	26.1	100	12
3	559.980	39.5	18.6	11.1	24.0	45.2	73.4	28.2	186	272
4	579.950	36.5	18.9	11.3	24.0	42.7	73.4	30.7	100	329
----- Vertical ------										
5	459.960	41.2	17.9	10.7	23.9	45.9	73.4	27.5	100	196
6	499.950	42.8	17.9	10.8	23.9	47.6	73.4	25.8	100	274
7	559.980	39.8	18.6	11.1	24.0	45.5	73.4	27.9	100	181
8	579.950	40.5	18.9	11.3	24.0	46.7	73.4	26.7	100	274

CHART:WITHOUT FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz- HORN
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP. GAIN

DATA OF RADIATED EMISSION TEST

A-PEX INTERNATIONAL EMC HEAD OFFICE DIVISION No.1 SEMI ANECHOIC CHAMBER
Date : 2002/05/14 10:47:47

Applicant : Nagano Japan Redio Co.,Ltd
Kind of EUT : Wireless LAN
Model No. : NJT-475
Serial No. : 4

Report No. : 22IE0029-H0
Power : AC 120V / 60Hz
Temp℃/Humi% : 21 / 59
Operator : HIROKA UMEYAMA

Mode / Remarks : Receiving(ch6:2437MHz)

LIMIT : FCC15C §15.247(c)
Except for the above table : adeauate margin data below the limits. The limit values at frequencies excepting restricted bands indicated in 15.205 are values 20dB below lower peak output powers at each channel.

No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	39.990	20.7	14.5	7.2	24.3	18.1	73.4	55.3	400	359
2	59.990	33.1	7.4	7.4	24.1	23.8	73.4	49.6	291	166
3	79.980	31.9	6.9	7.7	24.0	22.5	73.4	50.9	400	182
----- Vertical -----										
4	39.990	33.1	14.5	7.2	24.3	30.5	73.4	42.9	100	359
5	59.990	50.2	7.4	7.4	24.1	40.9	73.4	32.5	100	273
6	79.980	40.5	6.9	7.7	24.0	31.1	73.4	42.3	100	100

CHART:WITHOUT FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz- HORN
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP. GAIN

DATA OF RADIATED EMISSION TEST

A-PEX INTERNATIONAL EMC HEAD OFFICE DIVISION No.1 SEMI ANECHOIC CHAMBER
Date : 2002/05/14 10:05:38

Applicant : Nagano Japan Redio Co.,Ltd
Kind of EUT : Wireless LAN
Model No. : NJT-475
Serial No. : 4

Report No. : 22IE0029-HO
Power : AC 120V / 60Hz
Temp℃/Humi% : 21 / 59
Operator : HIROKA UMEYAMA

Mode / Remarks : Receiving(ch6:2437MHz)

LIMIT : FCC15C §15.247(c)
Except for the above table : adeauate margin data below the limits. The limit values at frequencies excepting restricted bands indicated in 15.205 are values 20dB below lower peak output powers at each channel.

No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	339.970	41.7	15.7	9.9	23.8	43.5	73.4	29.9	100	140
2	379.960	36.0	17.1	10.1	23.8	39.4	73.4	34.0	100	353
3	499.960	43.0	17.9	10.8	23.9	47.8	73.4	25.6	100	71
4	579.950	39.4	18.9	11.3	24.0	45.6	73.4	27.8	100	33
----- Vertical ------										
5	339.970	40.8	15.7	9.9	23.8	42.6	73.4	30.8	100	55
6	379.960	38.9	17.1	10.1	23.8	42.3	73.4	31.1	148	72
7	499.960	43.0	17.9	10.8	23.9	47.8	73.4	25.6	100	187
8	579.950	39.1	18.9	11.3	24.0	45.3	73.4	28.1	100	31

CHART:WITHOUT FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz- HORN
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP. GAIN

DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)

A-PEX INTERNATIONAL CO., LTD.
EMC HEAD OFFICE DIVISON No.1 SEMI ANECHOIC CHAMBER

COMPANY : Nagano Japan Radio Co., Ltd.
EQUIPMENT : Wireless LAN
MODEL : NJT-475
S/N : 1
FCC ID : D7LNJT-475
POWER : DC5V
MODE : Tx (Ch1:2412MHz)

REPORT NO : 22IE0029-HO
REGULATION : Fcc Part15SubpartC 247(c)
TEST DISTANCE : -
DATE : 2002/5/28
Temperature : 25℃
Humidity : 42%

ENGINEER : Hiroka Umeyama

PK DETECT

No.	FREQ [MHz]	T/R READING HOR [dBuV/m]	T/R READING VER [dBuV/m]	ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	ATTEN [dB]	RESULT HOR [dBuV/m]	RESULT VER [dBuV/m]	Limit PK dBuV/m	MARGIN HOR [dB]	MARGIN VER [dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (Band Pass or ATTEN).													
1	2130.3	57.9	55.6	26.8	36.8	4.5	0.0	0.0	52.4	50.1	74.0	21.6	23.9
2	2695.3	42.5	44.0	27.9	36.8	5.3	0.0	0.0	38.9	40.4	74.0	35.1	33.6
3	4823.8	47.3	51.0	31.1	36.4	7.3	0.3	0.0	49.6	53.3	74.0	24.4	20.7
4	7236.0	43.5	43.2	35.3	36.5	9.4	0.2	0.0	51.9	51.6	74.0	22.1	22.4
5	9648.0	45.1	46.2	38.0	37.0	11.1	0.2	0.0	57.4	58.5	74.0	16.6	15.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac)													
6	12060.0	43.6	43.2	38.9	35.9	12.5	0.3	0.0	49.9	49.5	74.0	24.1	24.5
7	14472.0	43.0	43.0	40.6	35.9	13.6	0.3	0.0	52.1	52.1	74.0	21.9	21.9
8	16884.0	42.5	42.9	39.3	37.2	13.7	2.6	0.0	51.4	51.8	74.0	22.6	22.2
9	19296.0	42.8	42.9	40.7	35.9	15.4	0.0	0.0	53.5	53.6	74.0	20.5	20.4
10	21708.0	44.2	43.8	40.3	36.9	18.0	0.0	0.0	56.1	55.7	74.0	17.9	18.3
11	24120.0	44.2	44.0	39.9	35.7	17.2	0.0	0.0	56.1	55.9	74.0	17.9	18.1

AV DETECT

No.	FREQ [MHz]	T/R READING HOR [dBuV/m]	T/R READING VER [dBuV/m]	ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	ATTEN [dB]	RESULT HOR [dBuV/m]	RESULT VER [dBuV/m]	Limit AV dBuV/m	MARGIN HOR [dB]	MARGIN VER [dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (Band Pass or ATTEN).													
1	2130.3	56.2	52.9	26.8	36.8	4.5	0.0	0.0	50.7	47.4	54.0	3.3	6.6
2	2695.3	31.3	31.6	27.9	36.8	5.3	0.0	0.0	27.7	28	54.0	26.3	26.0
3	4824.0	38.7	45.6	31.1	36.4	7.3	0.3	0.0	41.0	47.9	54.0	13.0	6.1
4	7236.0	30.5	30.6	35.3	36.5	9.4	0.2	0.0	38.9	39.0	54.0	15.1	15.0
5	9648.0	34.3	37.2	38.0	37.0	11.1	0.2	0.0	46.6	49.5	54.0	7.4	4.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac)													
6	12060.0	31.2	30.8	38.9	35.9	12.5	0.3	0.0	37.5	37.1	54.0	16.5	16.9
7	14472.0	30.2	30.2	40.6	35.9	13.6	0.3	0.0	39.3	39.3	54.0	14.7	14.7
8	16884.0	30.4	30.4	39.3	37.2	13.7	2.6	0.0	39.3	39.3	54.0	14.7	14.7
9	19296.0	30.0	30.1	40.7	35.9	15.4	0.0	0.0	40.7	40.8	54.0	13.3	13.2
10	21708.0	31.8	31.6	40.3	36.9	18.0	0.0	0.0	43.7	43.5	54.0	10.3	10.5
11	24120.0	31.8	31.8	39.9	35.7	17.2	0.0	0.0	43.7	43.7	54.0	10.3	10.3

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5 dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.

DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)

A-PEX INTERNATIONAL CO., LTD.
EMC HEAD OFFICE DIVISON No.1 SEMI ANECHOIC CHAMBER

COMPANY : Nagano Japan Radio Co., Ltd.
EQUIPMENT : Wireless LAN
MODEL : NJT-475
S/N : 1
FCC ID : D7LNJT-475
POWER : DC5V
MODE : Tx (Ch6:2437MHz)

REPORT NO : 22IE0029-HO
REGULATION : Fcc Part15SubpartC 247(c)
TEST DISTANCE : -
DATE : 2002/5/28
Temperature : 25℃
Humidity : 42%

ENGINEER : ~~Hiroka~~ Umeyama

PK DETECT

No.	FREQ	T/R READING HOR	VER	ANT Factor	AMP GAIN	CABLE LOSS	Band-Pass Filter	ATTEN	RESULT HOR	VER	Limit PK	MARGIN HOR	VER
	[MHz]	[dBuV/m]		[dB]	[dB]	[dB]	[dB]	[dB]	[dBuV/m]		dBuV/m	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (Band Pass or ATTEN).													
1	2158.3	56.7	53.0	26.9	36.8	4.5	0.0	0.0	51.3	47.6	74.0	22.7	26.4
2	2695.3	43.6	43.5	27.9	36.8	5.3	0.0	0.0	40.0	39.9	74.0	34.0	34.1
3	4874.0	47.9	52.3	31.2	36.4	7.3	0.4	0.0	50.4	54.8	74.0	23.6	19.2
4	7311.0	43.3	43.3	35.4	36.6	9.4	0.2	0.0	51.7	51.7	74.0	22.3	22.3
5	9748.0	43.6	45.4	38.1	37.0	11.1	0.2	0.0	56.0	57.8	74.0	18.0	16.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac)													
6	12185.0	43.5	43.4	38.8	36.0	12.5	0.2	0.0	49.5	49.4	74.0	24.5	24.6
7	14622.0	43.0	43.1	40.6	36.0	13.8	0.3	0.0	52.2	52.3	74.0	21.8	21.7
8	17059.0	43.1	42.5	39.6	37.0	13.7	3.3	0.0	53.2	52.6	74.0	20.8	21.4
9	19496.0	42.8	42.6	40.4	36.1	15.6	0.0	0.0	53.2	53.0	74.0	20.8	21.0
10	21933.0	45.1	45.7	40.5	36.7	18.6	0.0	0.0	58.0	58.6	74.0	16.0	15.4
11	24370.0	44.0	43.9	40.2	36.3	17.7	0.0	0.0	56.1	56.0	74.0	17.9	18.0

AV DETECT

No.	FREQ	T/R READING HOR	VER	ANT Factor	AMP GAIN	CABLE LOSS	Band-Pass Filter	ATTEN	RESULT HOR	VER	Limit AV	MARGIN HOR	VER
	[MHz]	[dBuV/m]		[dB]	[dB]	[dB]	[dB]	[dB]	[dBuV/m]		dBuV/m	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (Band Pass or ATTEN).													
1	2158.3	54.7	49.7	26.9	36.8	4.5	0.0	0.0	49.3	44.3	54	4.7	9.7
2	2695.3	31.4	31.4	27.9	36.8	5.3	0.0	0.0	27.8	27.8	54.0	26.2	26.2
3	4874.0	38.3	45.1	31.2	36.4	7.3	0.4	0.0	40.8	47.6	54.0	13.2	6.4
4	7311.0	30.7	30.7	35.4	36.6	9.4	0.2	0.0	39.1	39.1	54.0	14.9	14.9
5	9748.0	31.9	36.0	38.1	37.0	11.1	0.2	0.0	44.3	48.4	54.0	9.7	5.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac)													
6	12185.0	31.1	31.0	38.8	36.0	12.5	0.2	0.0	37.1	37.0	54.0	16.9	17.0
7	14622.0	30.7	30.7	40.6	36.0	13.8	0.3	0.0	39.9	39.9	54.0	14.1	14.1
8	17059.0	30.4	30.4	39.6	37.0	13.7	3.3	0.0	40.5	40.5	54.0	13.5	13.5
9	19496.0	30.2	30.2	40.4	36.1	15.6	0.0	0.0	40.6	40.6	54.0	13.4	13.4
10	21933.0	32.9	32.9	40.5	36.7	18.6	0.0	0.0	45.8	45.8	54.0	8.2	8.2
11	24370.0	31.6	31.6	40.2	36.3	17.7	0.0	0.0	43.7	43.7	54.0	10.3	10.3

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5 dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.

DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)

A-PEX INTERNATIONAL CO., LTD.
EMC HEAD OFFICE DIVISON No.1 SEMI ANECHOIC CHAMBER

COMPANY : Nagano Japan Radio Co., Ltd.
EQUIPMENT : Wireless LAN
MODEL : NJT-475
S/N : 1
FCC ID : D7LNJT-475
POWER : DC5V
MODE : Tx (Ch11:2462MHz)

REPORT NO : 22IE0029-HO
REGULATION : Fcc Part15SubpartC 247(c)
TEST DISTANCE : -
DATE : 2002/5/28
Temperature : 25℃
Humidity : 42%

ENGINEER : Hiroka Umeyama

PK DETECT

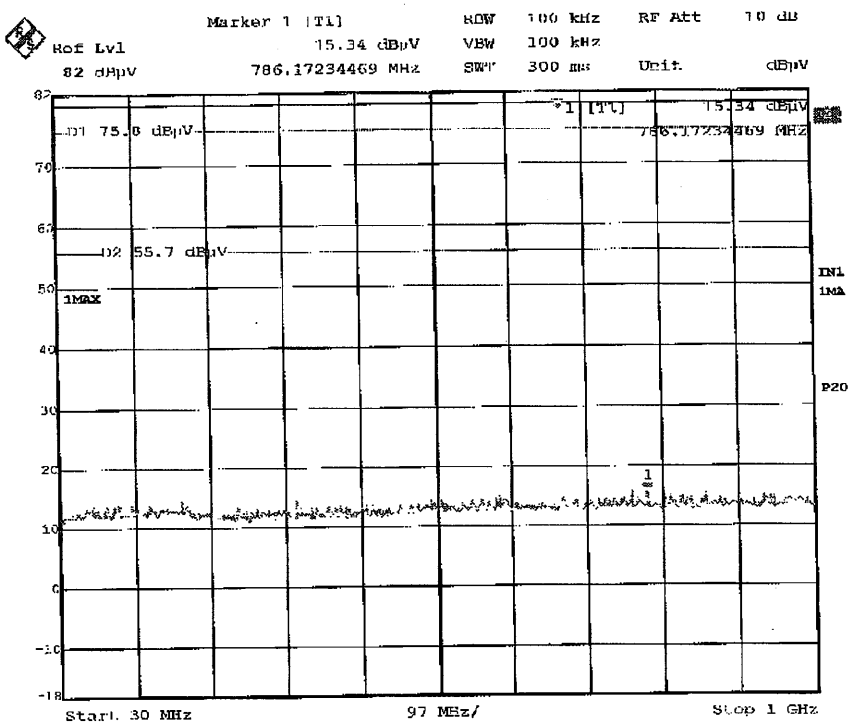
No.	FREQ	T/R READING HOR	T/R READING VER	ANT Factor	AMP GAIN	CABLE LOSS	Band-Pass Filter	ATTEN	RESULT HOR	RESULT VER	Limit PK	MARGIN HOR	MARGIN VER
	[MHz]	[dBuV/m]		[dB]	[dB]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (Band Pass or ATTEN).													
1	2182.3	55.9	52.1	26.9	36.8	4.6	0.0	0.0	50.6	46.8	74.0	23.4	27.2
2	2695.3	43.1	43.2	27.9	36.8	5.3	0.0	0.0	39.5	39.6	74.0	34.5	34.4
3	4924.0	46.7	49.5	31.3	36.4	7.3	0.5	0.0	49.4	52.2	74.0	24.6	21.8
4	7386.0	43.3	43.5	35.5	36.6	9.4	0.2	0.0	51.8	52.0	74.0	22.2	22.0
5	9848.0	45.5	46.4	38.2	37.0	11.2	0.3	0.0	58.2	59.1	74.0	15.9	15.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac)													
6	12310.0	43.1	43.4	38.8	36.0	12.5	0.2	0.0	49.1	49.4	74.0	24.9	24.6
7	14772.0	42.8	42.8	40.5	36.3	13.9	0.3	0.0	51.7	51.7	74.0	22.4	22.4
8	17234.0	42.8	42.3	40.1	36.8	13.9	4.2	0.0	54.7	54.2	74.0	19.3	19.8
9	19696.0	43.0	42.5	40.6	36.2	15.9	0.0	0.0	53.8	53.3	74.0	20.2	20.7
10	22158.0	44.0	44.0	40.6	36.7	18.4	0.0	0.0	56.8	56.8	74.0	17.2	17.2
11	24620.0	44.5	44.3	40.2	36.5	18.1	0.0	0.0	56.8	56.6	74.0	17.2	17.4

AV DETECT

No.	FREQ	T/R READING HOR	T/R READING VER	ANT Factor	AMP GAIN	CABLE LOSS	Band-Pass Filter	ATTEN	RESULT HOR	RESULT VER	Limit AV	MARGIN HOR	MARGIN VER
	[MHz]	[dBuV/m]		[dB]	[dB]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (Band Pass or ATTEN).													
1	2182.3	53.5	48.2	26.9	36.8	4.6	0.0	0.0	48.2	42.9	54.0	5.8	11.1
2	2695.3	31.3	31.3	27.9	36.8	5.3	0.0	0.0	27.7	27.7	54.0	26.3	26.3
3	4924.0	36.5	42.3	31.3	36.4	7.3	0.5	0.0	39.2	45.0	54.0	14.8	9.0
4	7386.0	30.7	30.7	35.5	36.6	9.4	0.2	0.0	39.2	39.2	54.0	14.8	14.8
5	9848.0	35.1	37.4	38.2	37.0	11.2	0.3	0.0	47.8	50.1	54.0	6.2	4.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac)													
6	12310.0	30.7	30.8	38.8	36.0	12.5	0.2	0.0	36.7	36.8	54.0	17.3	17.2
7	14772.0	30.5	30.3	40.5	36.3	13.9	0.3	0.0	39.4	39.2	54.0	14.7	14.9
8	17234.0	30.0	30.0	40.1	36.8	13.9	4.2	0.0	41.9	41.9	54.0	12.1	12.1
9	19696.0	30.4	30.4	40.6	36.2	15.9	0.0	0.0	41.2	41.2	54.0	12.8	12.8
10	22158.0	31.7	31.7	40.6	36.7	18.4	0.0	0.0	44.5	44.5	54.0	9.5	9.5
11	24620.0	32.2	32.2	40.2	36.5	18.1	0.0	0.0	44.5	44.5	54.0	9.5	9.5

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5 dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.

Out of Band Emission(Conducted) :Tx(Ch1:2412MHz)30MHz-1GHz



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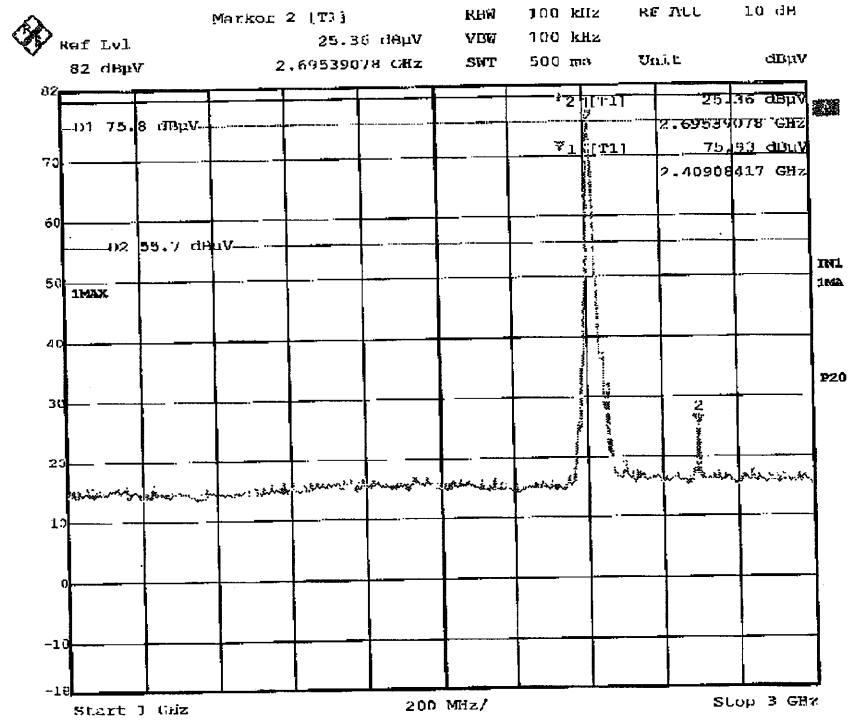
Out of Band Emission(Conducted) :Tx(Ch1:2412MHz)1GHz-3GHz



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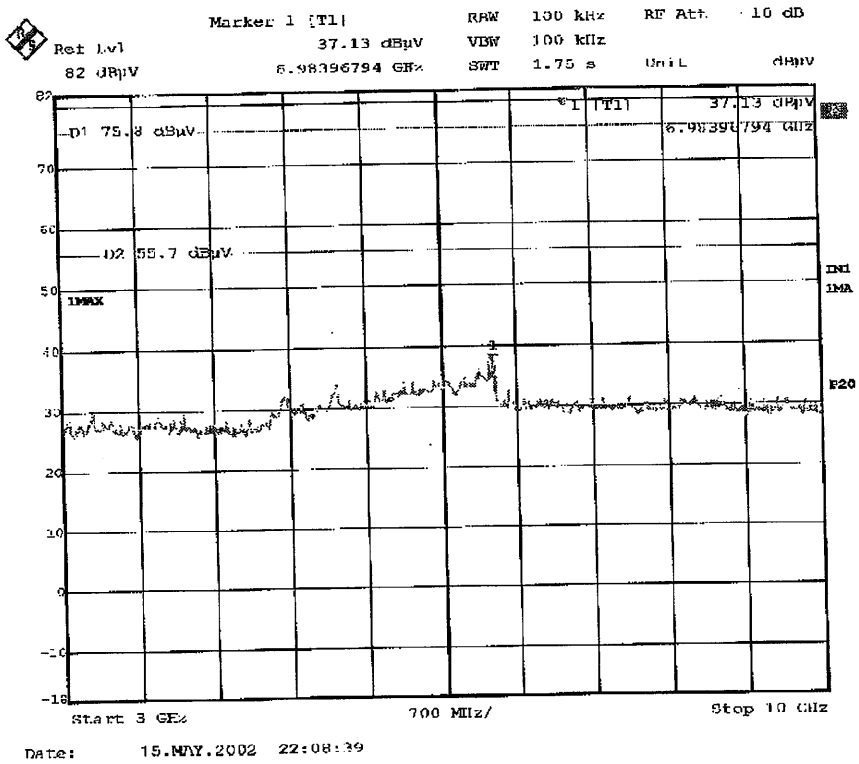
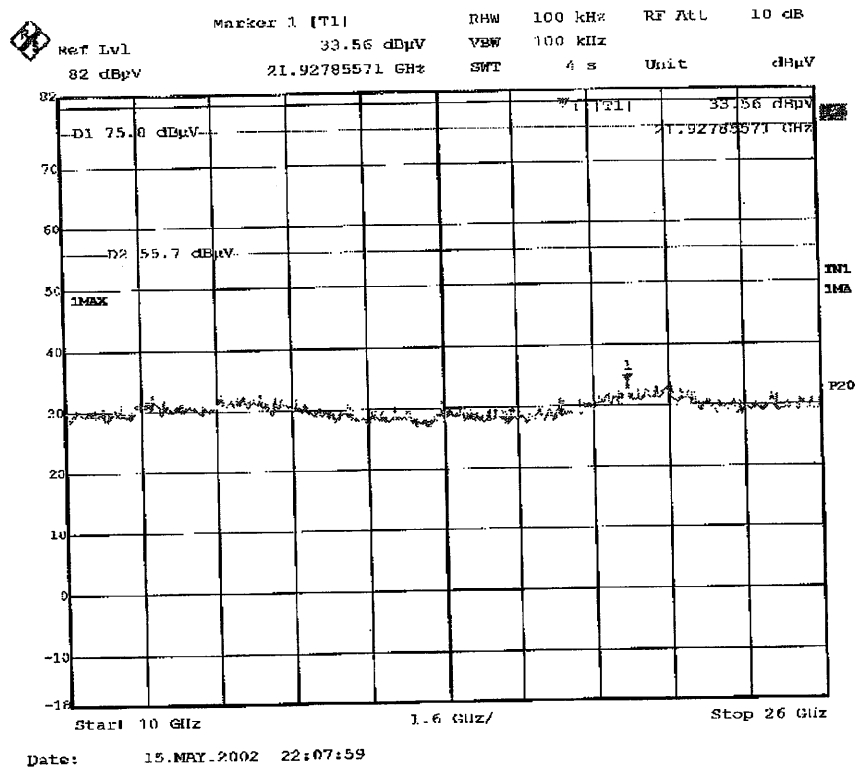
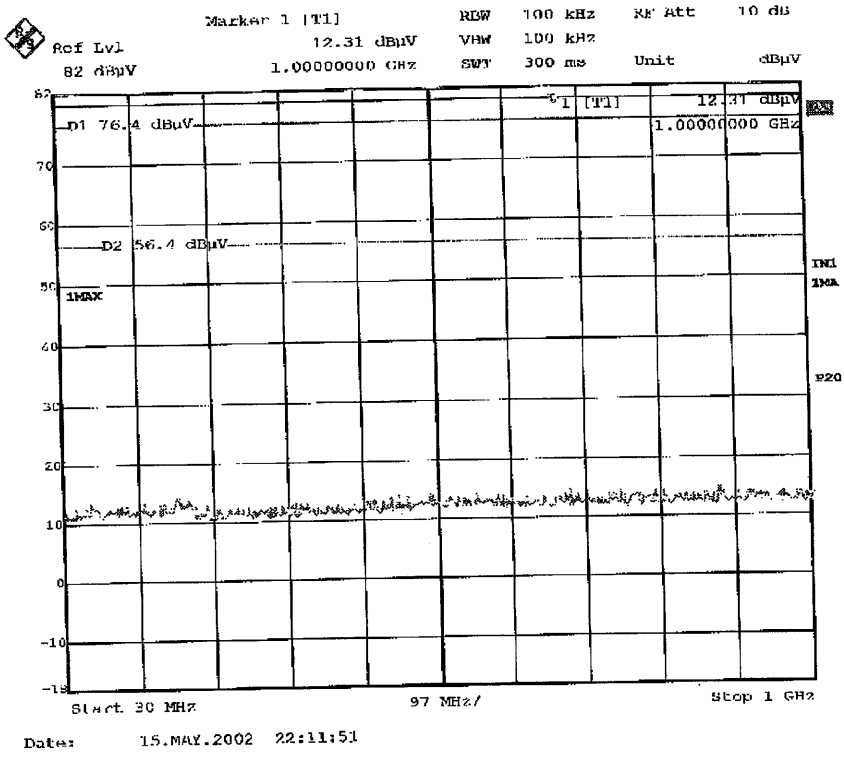
Out of Band Emission(Conducted) :Tx(Ch1:2412MHz)3GHz-10GHz



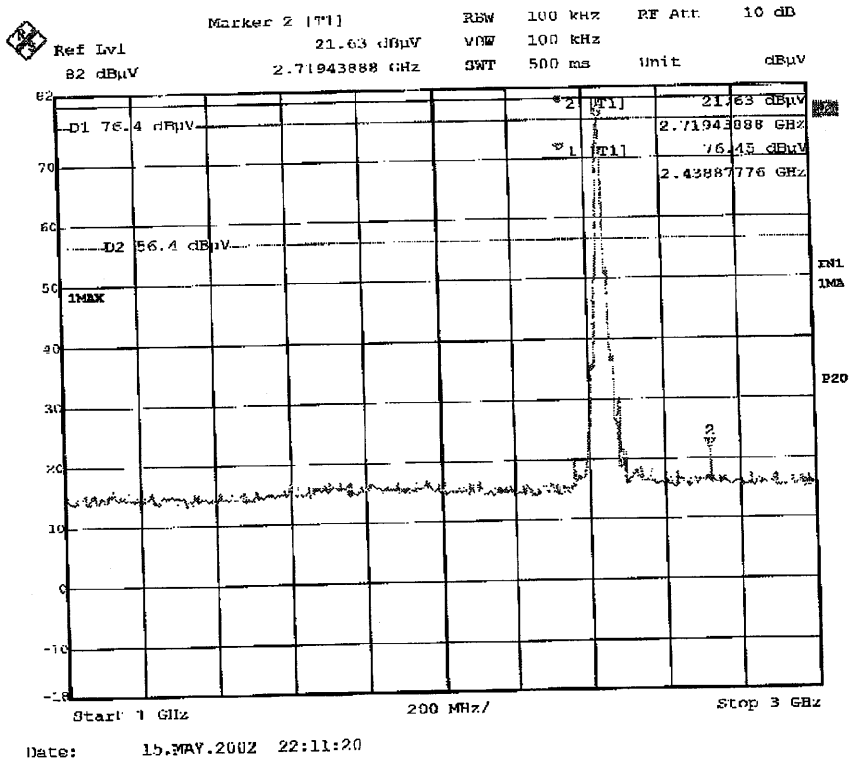
Out of Band Emission(Conducted) :Tx(Ch1:2412MHz)10GHz-26GHz



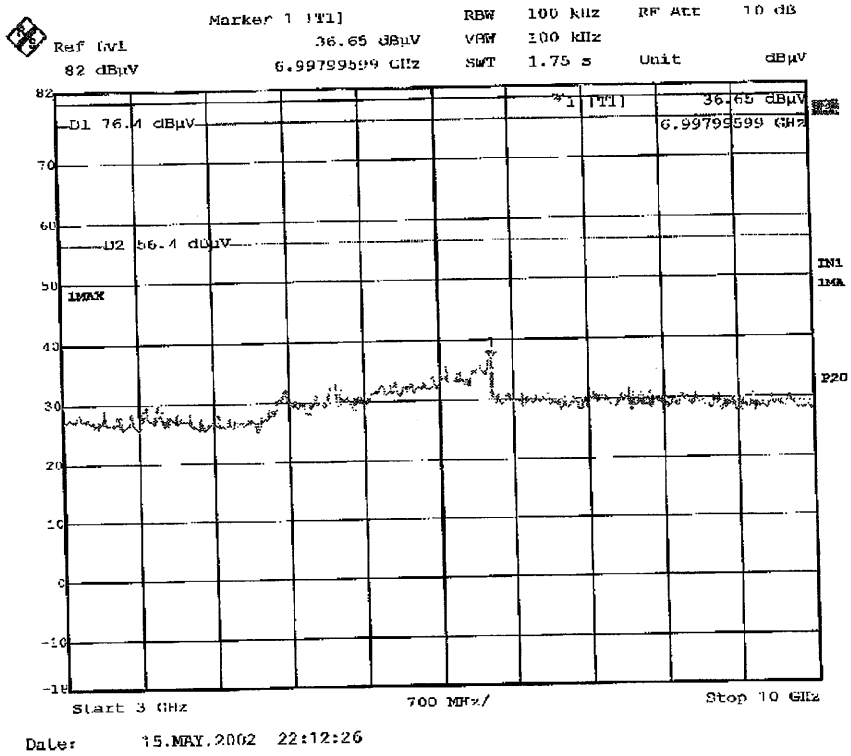
Out of Band Emission(Conducted) :Tx(Ch6:2437MHz)30MHz-1GHz



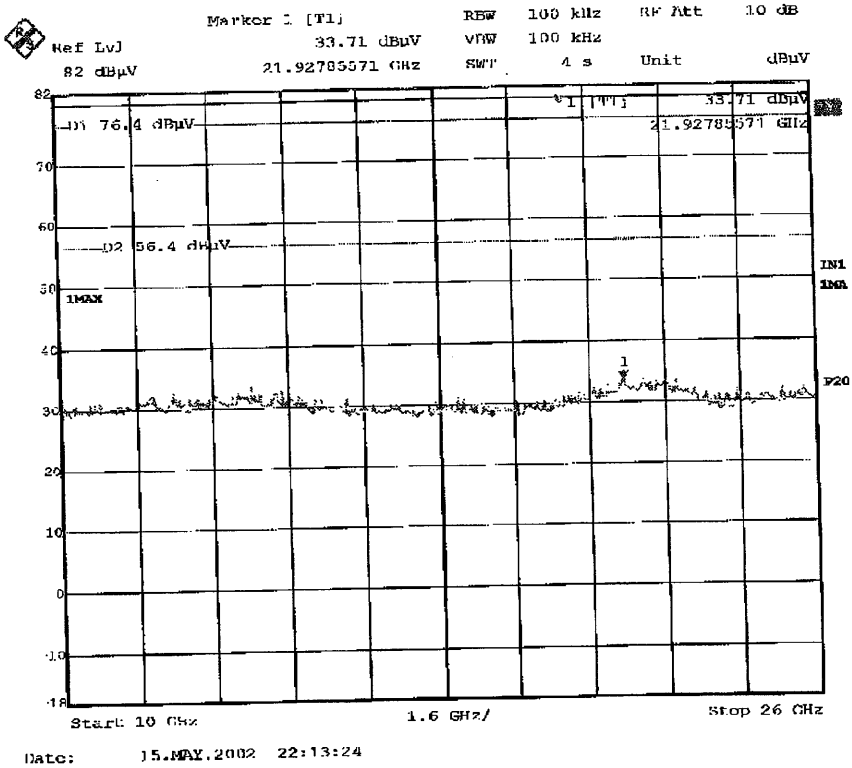
Out of Band Emission(Conducted) :Tx(Ch6:2437MHz)1GHz-3GHz



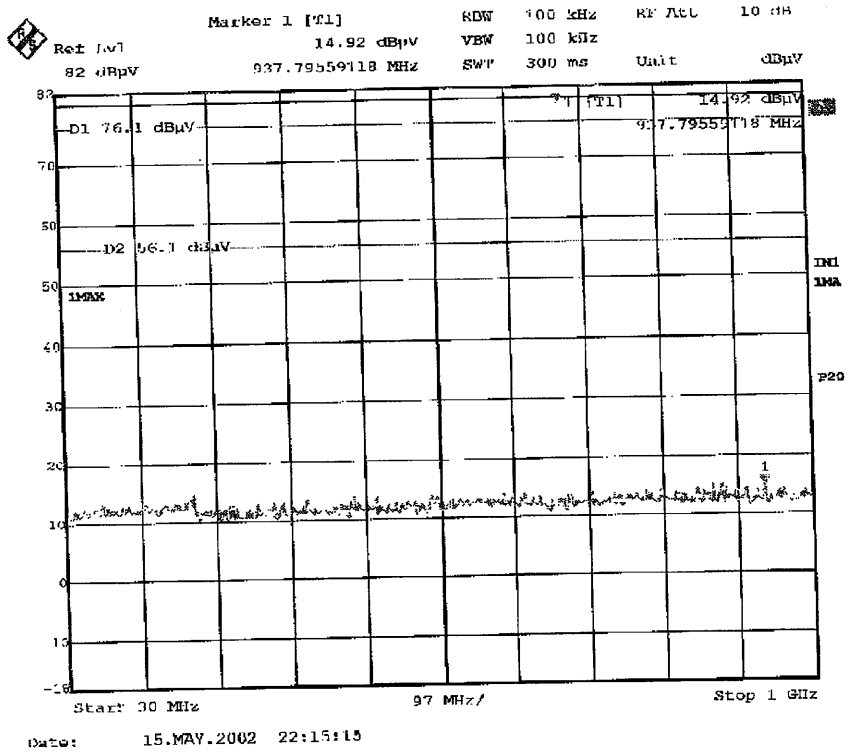
Out of Band Emission(Conducted) :Tx(Ch6:2437MHz)3GHz-10GHz



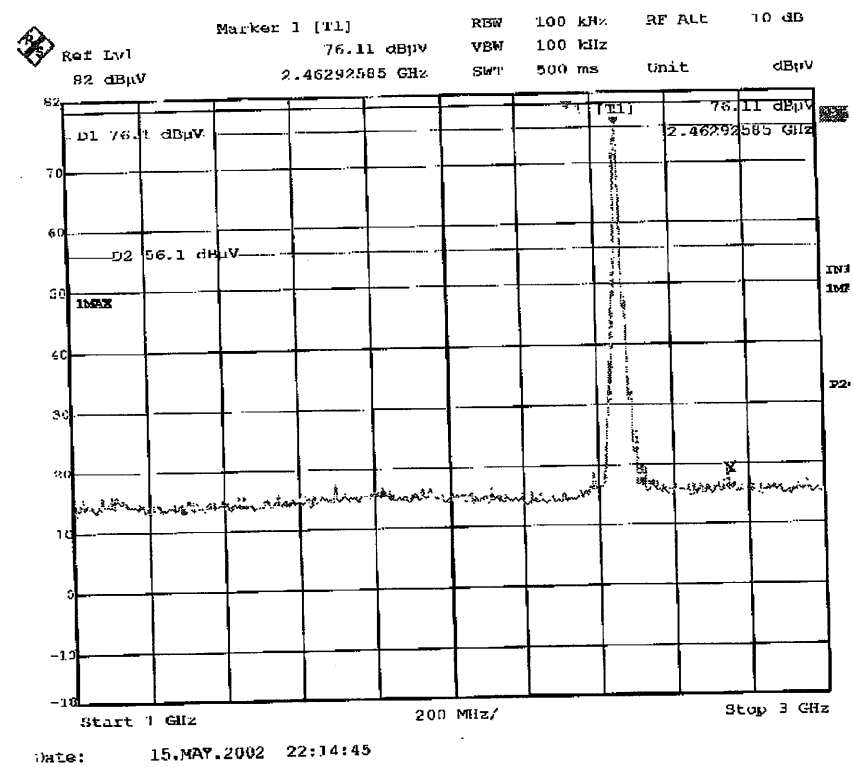
Out of Band Emission(Conducted) :Tx(Ch6:2437MHz)10GHz-26GHz



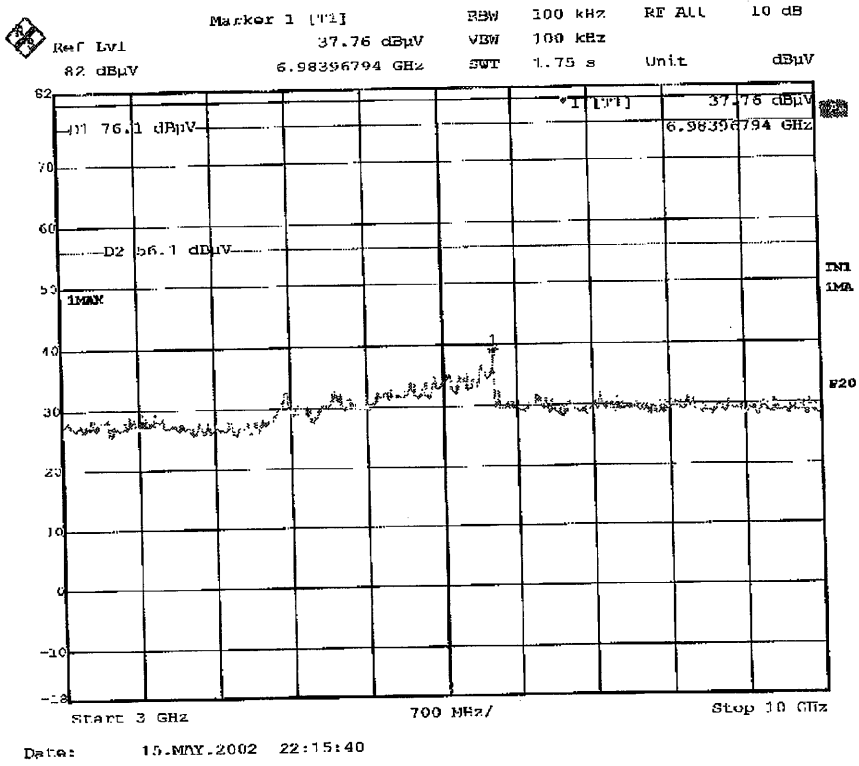
Out of Band Emission(Conducted) :Tx(Ch11:2462MHz)30MHz-1GHz



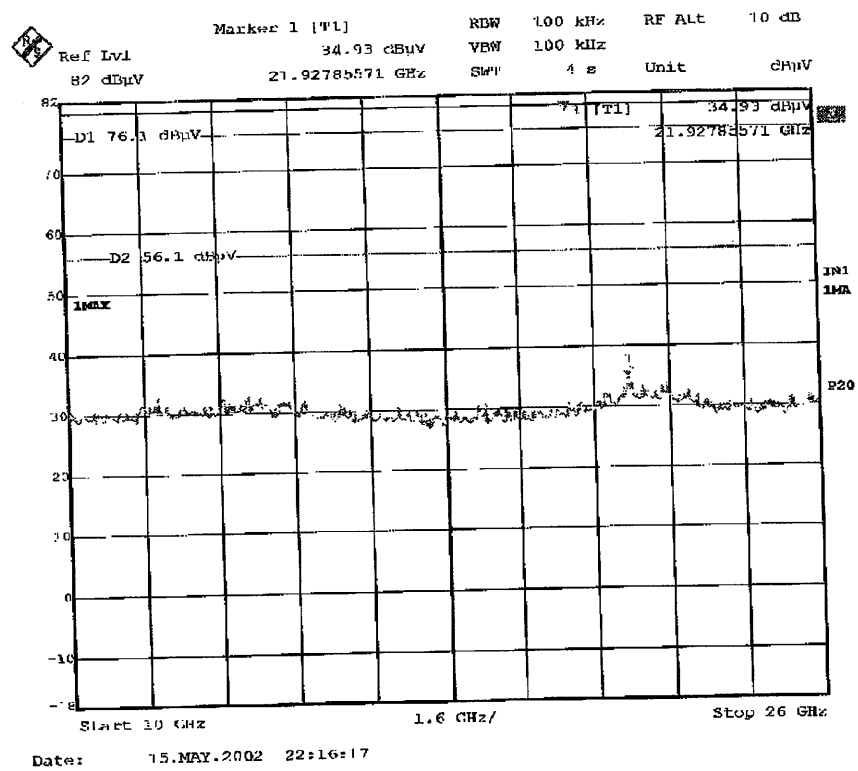
Out of Band Emission(Conducted) :Tx(Ch11:2462MHz)1GHz-3GHz



Out of Band Emission(Conducted) :Tx(Ch11:2462MHz)3GHz-10GHz



Out of Band Emission(Conducted) :Tx(Ch11:2462MHz)10GHz-26GHz



RESTRICTED BAND EDGES(RADIATED)

A-PEX INTERNATIONAL CO., LTD.
EMC HEAD OFFICE DIVISON No.1 SEMI ANECHOIC CHAMBER

COMPANY : Nagano Japan Radio Co., Ltd.
EQUIPMENT : Wireless LAN
MODEL : NJT-475
S/N : 4
FCC ID : D7LNJT-475
POWER : DC5V
MODE : Tx

REPORT NO : 22IE0029-HO
REGULATION : Fcc Part15SubpartC 247(c)
TEST DISTANCE : 3m
DATE : 2002/5/16
Temperature : 21℃
Humidity : 69%

ENGINEER : Hiroka Umeyama

PK DETECT

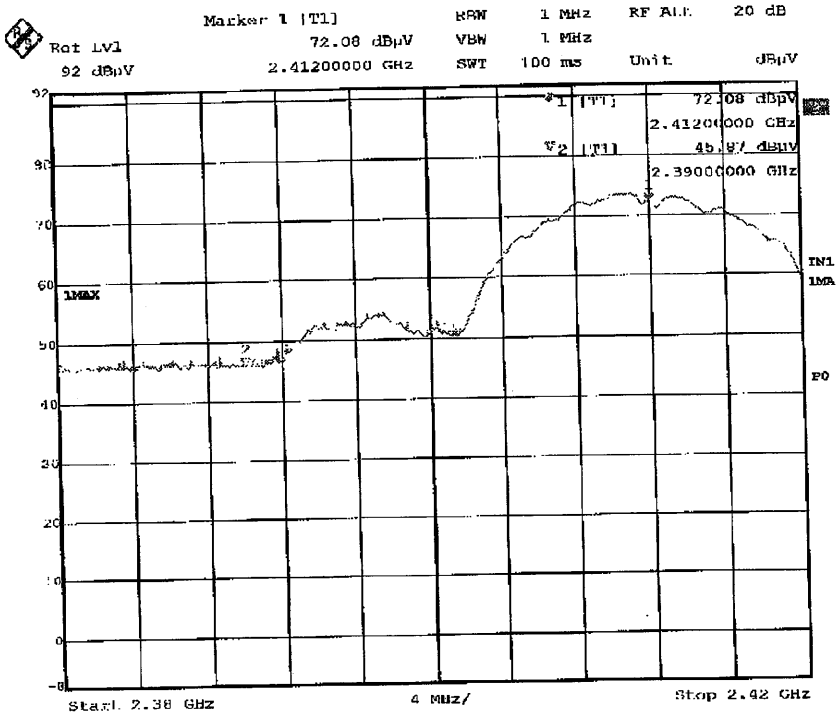
CH	FREQ	T/R Reading		ANT	AMP	Cable	ATTEN.	Result		Limit	Margin	
		HOR	VER	Factor	Gain	Loss		HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]	[dBuV]	[dB]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]
Low	2390.0	42.8	40.1	27.4	0.0	3.3	0.0	73.5	70.8	74.0	0.5	3.2
High	2483.5	29.1	28.1	27.7	0.0	3.4	0.0	60.1	59.1	74.0	13.9	14.9

AV DETECT

CH	FREQ	T/R Reading		ANT	AMP	Cable	ATTEN.	Result		Limit	Margin	
		HOR	VER	Factor	Gain	Loss		HOR	VER	AV	HOR	VER
	[GHz]	[dBuV]	[dBuV]	[dB]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]
Low	2390.0	11.6	11.6	27.4	0.0	3.3	0.0	42.3	42.3	54.0	11.7	11.7
High	2483.5	17.6	16.4	27.7	0.0	3.4	0.0	48.6	47.4	54.0	5.4	6.6

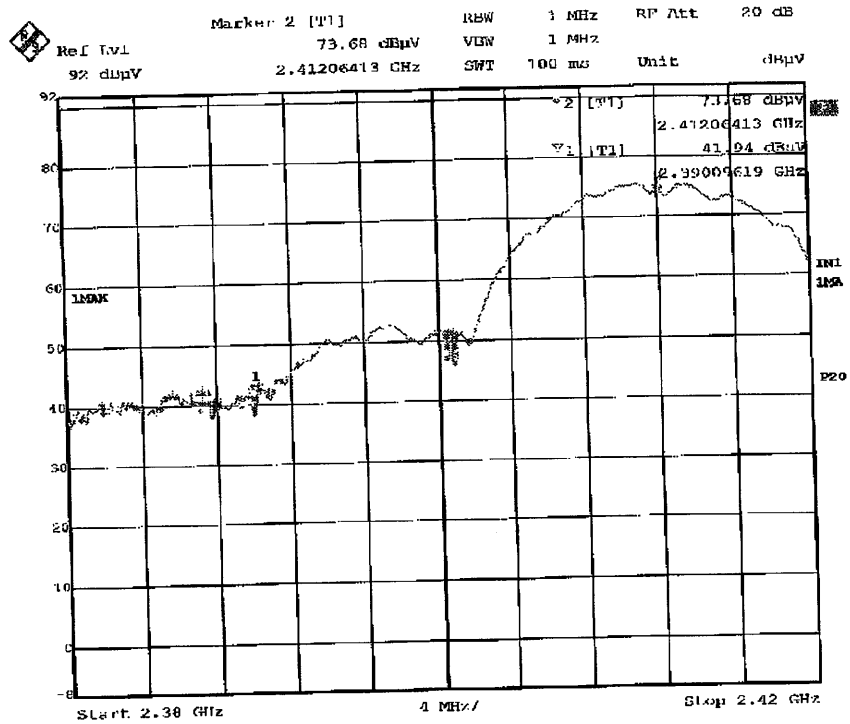
Sample Calculation:
Result=Reading + ANT Factor - Amp Gain + Cable Loss + ATTEN.

Restricted Band Edge:Tx(Ch1:2412MHz)HOR



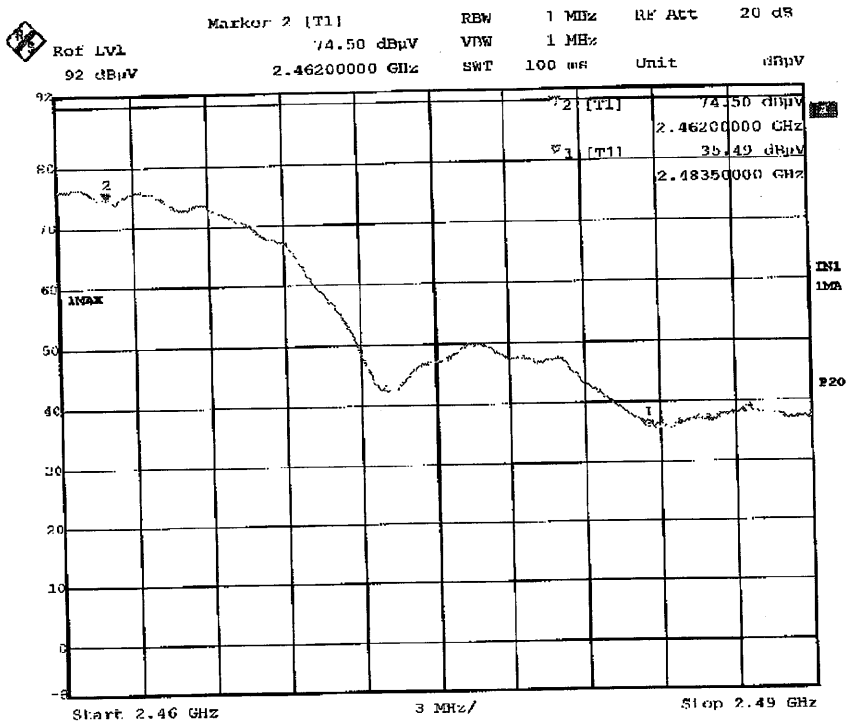
Date: 16.MAY.2002 15:03:33

Restricted Band Edge:Tx(Ch1:2412MHz)VER



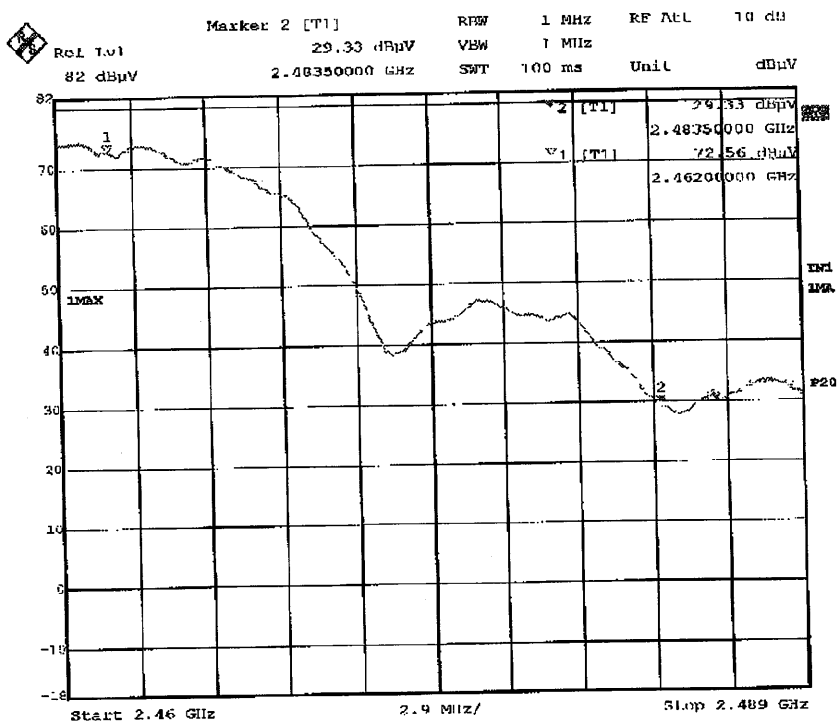
Date: 16.MAY.2002 14:33:36

Restricted Band Edge:Tx(Ch11:2462MHz)HOR



Date: 16.MAY.2002 15:19:29

Restricted Band Edge:Tx(Ch11:2462MHz)VER



Date: 16.MAY.2002 15:32:39

DATA OF POWER DENSITY(CONDUCTED)

A-PEX INTERNATIONAL CO., LTD.
EMC HEAD OFFICE DIVISON No.1 SEMI ANECHOIC CHAMBER

COMPANY : Nagano Japan Radio Co., Ltd.
EQUIPMENT : Wireless LAN
MODEL : NJT-475
S/N : 4
FCC ID : D7LNJT-475
POWER : DC5V
MODE : Tx

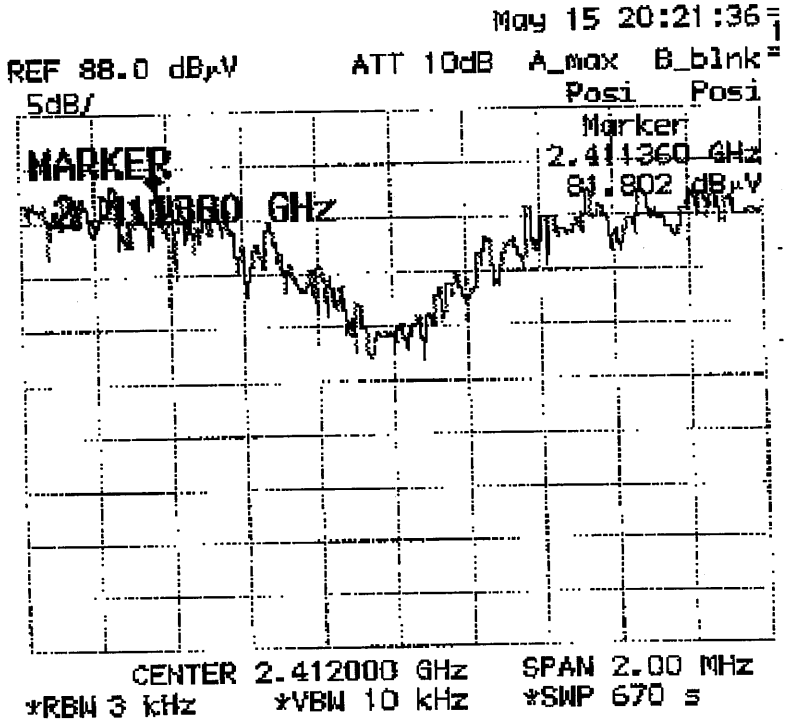
REPORT NO : 22IE0029-HO
REGULATION : Fcc Part15SubpartC 247(d)
TEST DISTANCE : -
DATE : 2002/5/15
Temperature : 21℃
Humidity : 60%

ENGINEER : Hiroka Umeyama

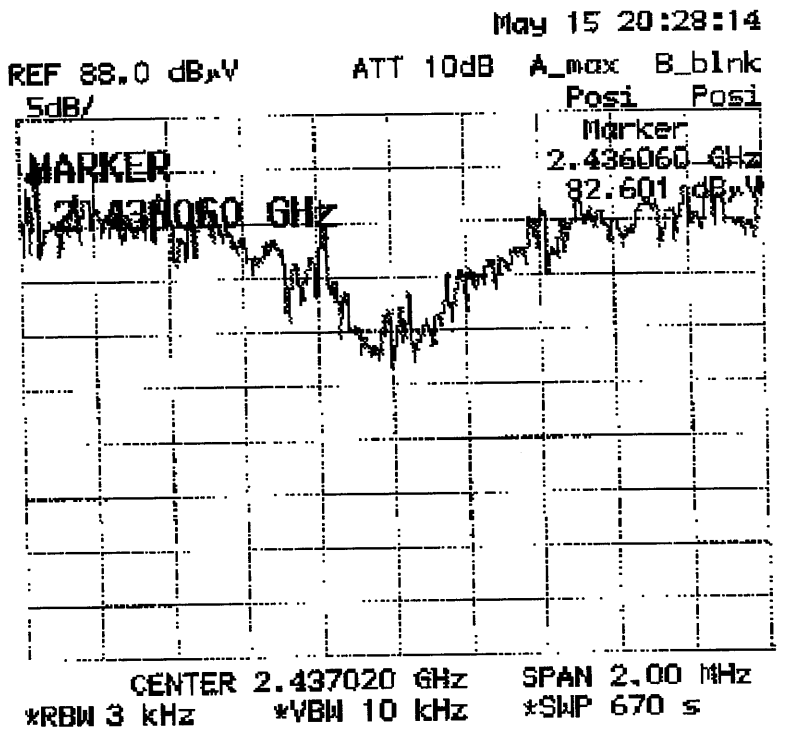
CH	FREQ [MHz]	S/A Reading [dBuV]	Cable Loss [dB]	ATTEN. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2412.0	81.8	3.3	10.0	-11.9	8.0	19.9
Mid	2437.0	82.6	3.3	10.0	-11.1	8.0	19.1
High	2462.0	80.7	3.4	10.0	-12.9	8.0	20.9

Sample Calculation:
Result=Reading(-107:Convert to dBm) + Cable Loss+ATTEN.

Power Density :Tx(Ch1:2412MHz)



Power Density :Tx(Ch6:2437MHz)



Power Density :Tx(C11:2462MHz)