

EXHIBIT E: MEASUREMENT REPORT

FCC Part 15 EMI TEST REPORT of

E.U.T. : Wireless LAN Card

MODEL : WL2440

FCC ID. : M4Y-WL2440

for

APPLICANT : Z-COM, INC.

ADDRESS : 7F-2, NO. 9, PROSPERITY 1ST RD., SCIENCE-
BASED INDUSTRIAL PARK, HSINCHU,
TAIWAN, R.O.C.

Test Performed by

ELECTRONICS TESTING CENTER, TAIWAN
NO. 8 LANE 29, WENMING ROAD,
LOSHAN TSUN, KWEISHAN HSIANG,
TAOYUAN, TAIWAN, R.O.C.

Tel:(03)3280026-32

Fax:(03)3280034

Report Number : ET86R-12-063

TEST REPORT CERTIFICATION

Applicant : Z-COM, INC.
7F-2, NO. 9, PROSPERITY 1ST RD., SCIENCE-BASED
INDUSTRIAL PARK, HSINCHU, TAIWAN, R.O.C.

Manufacturer : Z-COM, INC.
7F-2, NO. 9, PROSPERITY 1ST RD., SCIENCE-BASED
INDUSTRIAL PARK, HSINCHU, TAIWAN, R.O.C.

Description of EUT

- a) Type of EUT : Wireless LAN Card
- b) Trade Name : N/A
- c) Model No. : WL2440
- d) Power Supply : From PC

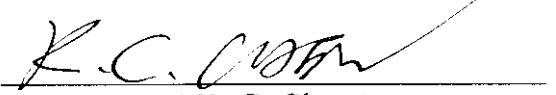
Regulation Applied : FCC Rules and Regulations Part 15 Subpart B & C (1997)

I HEREBY CERTIFY THAT: The data shown in this report were made in accordance with the procedures given in ANSI C63.4, and the energy emitted by the device was founded to be within the limits applicable. I assume full responsibility for accuracy and completeness of these data.

- Note: 1. The result of the testing report relate only to the item tested.
2. The testing report shall not be reproduced except in full, without the written approval of ETC.

Issued Date : Jan. 10, 1998

Test Engineer :


(K. C. Chen)

Approve & Authorized Signer :

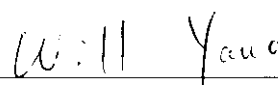

Will Yauo, Supervisor
EMI Test Site of ELECTRONICS
TESTING CENTER, TAIWAN

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1 GENERAL INFORMATION

1.1 Product Description

- a) Type of EUT : Wireless LAN Card
- b) Trade Name : N/A
- c) Model No. : WL2440
- d) Power Supply : From PC

1.2 Characteristics of Device

The Wireless LAN Card designed with a transmitting method of direct sequence spread spectrum is for local area network operation, which operates at 2.4 GHz ISM band and data rate up to 1Mbps. The working range is about 800 ft. in an open environment.

1.3 Test Methodology

For Wireless LAN Card, both conducted and radiated emissions were performed according to the procedures illustrated in ANSI C63.4(1992) and for processing gain measurement is according to FCC Public Notice. Other required measurements were illustrated in separate sections of this test report for details.

1.4 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data is located on the roof top of Building at No.34, 5 Lirn, Din Fu Tsun, Lin Kou, Taipei, Taiwan, R.O.C

This site has been fully described in a report submitted to your office, and accepted in a letter dated Feb. 10, 1997

2 PROVISIONS APPLICABLE

2.1 Definition

Unintentional radiator:

A device that intentionally generates and radio frequency energy for use within the device, or that sends radio frequency signals by conduction to associated equipment via connecting wiring, but which is not intended to emit RF energy by radiation or induction.

Class A Digital Device:

A digital device which is marketed for use in commercial or business environment; exclusive of a device which is market for use by the general public, or which is intended to be used in the home.

Class B Digital Device :

A digital device which is marketed for use in a residential environment notwithstanding use in a commercial, business or industrial environment. Example of such devices that are marketed for the general public.

Note : A manufacturer may also qualify a device intended to be marketed in a commercial, business, or industrial environment as a Class B digital device, and in fact is encouraged to do so, provided the device complies with the technical specifications for a Class B Digital Device. In the event that a particular type of device has been found to repeatedly cause harmful interference to radio communications, the Commission may classify such a digital device as a Class B Digital Device, Regardless of its intended use.

Intentional radiator:

A device that intentionally generates and emits radio frequency energy by radiation or induction

2.2 Requirement for Compliance

(1) Conducted Emission Requirement

For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following.

Frequency MHz	Emissions μ V	Emissions dB μ V
0.45 - 30.0	250	48.0

For intentional device, according to § 15.207(a) Line Conducted Emission Limits is same as above table

(2) Radiated Emission Requirement

For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency MHz	Distance Meters	Radiated dB μ V/m	Radiated μ V/m
30 - 88	3	40.0	100
88 - 216	3	43.5	150
216 - 960	3	46.0	200
above 960	3	54.0	500

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table

(3) Antenna Requirement

For intentional device, according to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device

(4) Bandwidth Requirement

For direct sequence system, according to 15.247(a)(2), the minimum 6dB bandwidth shall be at least 500 kHz.

(5) Output Power Requirement

For direct sequence system, according to 15.247(b), the maximum peak output power of the transmitter shall not exceed 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(6) 100 kHz Bandwidth of Frequency Band Edges Requirement

According to 15.247(c), if any 100 kHz bandwidth outside these frequency bands, the radio frequency power that is produced by the modulation products of the spreading sequence, the information sequence and the carrier frequency shall be either at least 20 dB below that in any 100 kHz bandwidth within the band that contains the highest level of the desired power or shall not exceed the general levels specified in § 15.209(a), whichever results in the lesser attenuation.

(7) Power Density Requirement

According to 15.247(d), for direct sequence systems, the transmitted power density averaged over any 1 second interval shall not be greater than 8 dBm in any 3 kHz bandwidth within these bands.

(8) Processing Gain Requirement

According to 15.247(e), the processing gain of a direct sequence system shall be at least 10 dB. The processing gain shall be determined from the ratio in dB of the signal to noise ratio with the system spreading code turned off to the signal to noise ratio with the system spreading code turned on, as measured at the demodulated output of the receiver.

2.3 Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below :

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42-16.423	399.9-410	4.5-5.25
0.495 - 0.505 **	16.69475 - 16.69525	608-614	5.35-5.46
2.1735 - 2.1905	16.80425 - 16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475 - 156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2655-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3360-4400	Above 38.6
13.36-13.41			

** - Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

2.4 Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device :

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

2.5 User Information

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual.

The Federal Communications Commission Radio Frequency Interference Statement includes the following paragraph.

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

3. SYSTEM TEST CONFIGURATION

3.1 Justification

For both radiated and conducted emissions below 1 GHz, the system was configured for testing in a typical fashion as a customer would normally use it. The peripherals other than EUT were connected in normally standing by situation. Measurement was performed under the condition that a computer program was exercised to simulate data communication of EUT, and the transmission rate was set to maximum allowed by EUT. Three highest emissions were verified with varying placement of the transmitting antenna connected to EUT to maximize the emission from EUT.

For conducted emissions, only measured on TX and RX operation, for the digital circuits portion also function normally whenever TX or RX is operated. For radiated emissions, whichever RF channel is operated, the digital circuits function identically. As the reason, measurement of radiated emissions from digital circuits is only performed with channel 11 by transmitting mode.

This wireless LAN card also has two kind of antenna type, one is included a cable to be connected to the card and the other is directly connected to the card connector. During the preliminary test, the worse case is the antenna with a cable, therefore data presented in this test report just shows the worse case.

Note : Due to the characteristics of EUT, the channel 11 has highest output power.

3.2 Devices for Tested System

Device	Manufacture	Model / FCC ID.	Description
Wireless LAN Card *	Z-COM, INC.	WL2440 M4Y-WL2440	Antenna Cable 1.8m Antenna
PC	Hewlett-Packard	VECTRA VE SERIES 2 HCJVECTRAVL5	1.8m AC Cord
Monitor	IBM Co.	8512-001 C5F7BF13CM14	1.5m Shielded Cable 1.8m AC Cord

Remark : "*" means equipment under test.

Devices for tested system, continued

Device	Manufacture	Model / FCC ID.	Description
Keyboard	Hewlett-Packard	C3758A #AB0 CIGE03633	1.8m Shielded Cable With ferrite core
Printer	Hewlett-Packard	2225C+ DSI6XU2225	1.2m Shielded Cable Adapter cord 1.9m
PS2 Mouse	Hewlett-Packard	M-S34 DZL211029	Shielded cable 1.8m
Modem	Team Technology	1200AT EF56A5 1200AT	Shielded cable 1.5m Adapter cord 1.9m

4 RADIATED EMISSION MEASUREMENT

4.1 Applicable Standard

For unintentional radiator, the radiated emission shall comply with § 15.109(a).

For intentional radiators, according to § 15.247 (a), operation under this provision is limited to frequency hopping and direct sequence spread spectrum, and the out band emission shall be comply with § 15.247 (c)

4.2 Measurement Procedure

1. Setup the configuration per figure 5 and 6 for frequencies measured below and above 1 GHz respectively.
2. For emission frequencies measured below 1 GHz, a pre-scan is performed in a shielded chamber to determine the accurate frequencies of higher emissions will be checked on a open test site. As the same purpose, for emission frequencies measured above 1 GHz, a pre-scan also be performed with a 1 meter measuring distance before final test
3. For emission frequencies measured below and above 1 GHz, set the spectrum analyzer on a 100 kHz and 1 MHz resolution bandwidth respectively for each frequency measured in step 2.
4. The search antenna is to be raised and lowered over a range from 1 to 4 meters in horizontally polarized orientation. Position the highness when the highest value is indicated on spectrum analyzer, then change the orientation of EUT on test table over a range from 0 ° to 360 ° with a speed as slow as possible, and keep the azimuth that highest emission is indicated on the spectrum analyzer. Vary the antenna position again and record the highest value as a final reading. A RF test receiver is also used to confirm emissions measured

Note : A band pass filter was used to avoid pre-amplifier saturated when measure TX operation mode in frequency band above 1 GHz.

5. Repeat step 4 until all frequencies need to be measured were complete.
6. Repeat step 5 with search antenna in vertical polarized orientations.
7. Check the three frequencies of highest emission with varying the placement of cables associated with EUT to obtain the worse case and record the result

Figure 1 : Frequencies measured below 1 GHz configuration

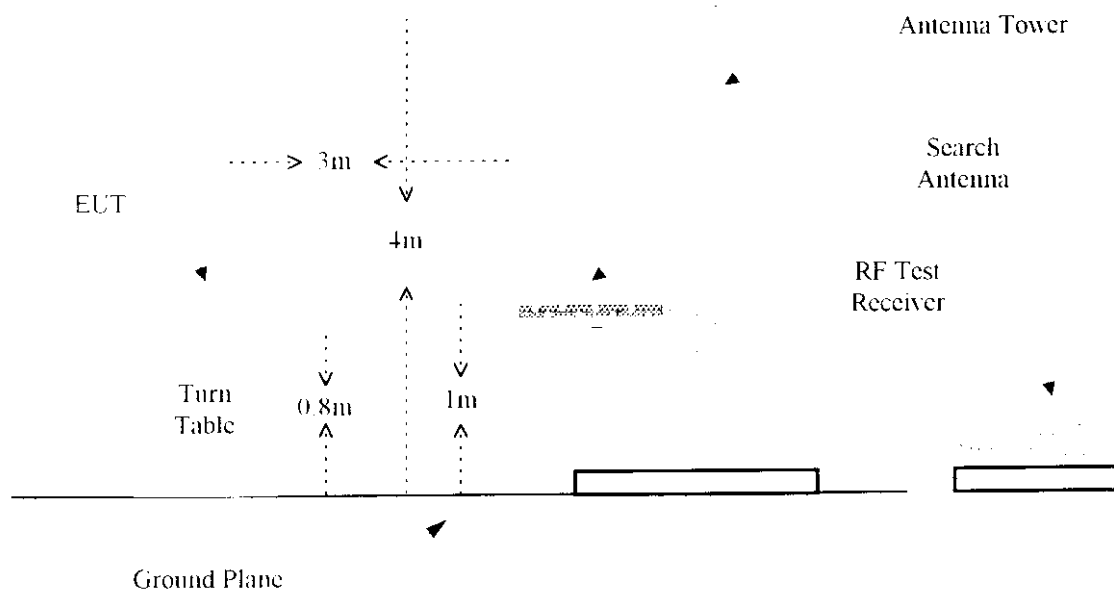
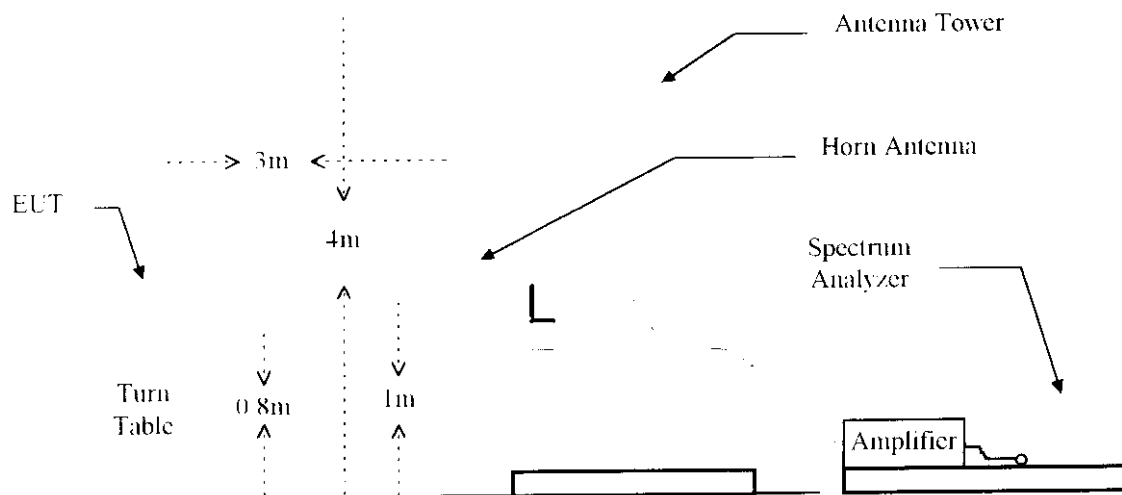


Figure 2 : Frequencies measured above 1 GHz configuration



4.3 Measuring Instrument

The following instrument are used for radiated emissions measurement :

Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Hewlett-Packard	8568B	Oct. 16, 1998
Pre-selector	Hewlett-Packard	85685A	Oct. 16, 1998
Quasi Peak Detector	Hewlett-Packard	85650A	Oct. 07, 1998
Spectrum Analyzer	Adventest	R3271	Sep. 02, 1998
RF Test Receiver	Rohde & Schwarz	ESVS 30	Dec. 19, 1998
Horn Antenna	EMCO	3115	Mar 21, 1998
Horn Antenna	EMCO	3116	May 08, 1998
Log periodic Antenna	EMCO	3146	Apr. 17, 1998
Biconical Antenna	EMCO	3110	May 22, 1998
Preamplifier	Hewlett-Packard	8449B	Mar. 23, 1998
Preamplifier	Hewlett-Packard	8447D	Apr. 16, 1998

Measuring instrument setup in measured frequency band when specified detector function is used :

Frequency Band (MHz)	Instrument	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	RF Test Receiver	Quasi-Peak	120 kHz	N/A
	Spectrum Analyzer	Peak	100 kHz	100 kHz
Above 1000	Spectrum Analyzer	Peak	1 MHz	1 MHz
	Spectrum Analyzer	Average	1 MHz	300 Hz

4.4 Radiated Emission Data

4.4.1 RF Portion

a) Channel 1

Operation Mode : Receiving /Transmitting

Fundamental Frequency : Tx 2412 MHz, Rx 2132 MHz

Test Date : Dec. 12, 1997

Temperature : 20 °C

Humidity : 65%

Frequency (MHz)	Reading Peak (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)	Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (m)
	H	V			Peak	Ave.			
*2132.000	46.3	45.2	-4.1	42.2	74.0	54.0	-11.8	180	1.30
*4264.022	44.2	44.3	2.0	46.3	74.0	54.0	-7.7	180	1.30
*6396.046	44.9	44.3	4.5	49.4	74.0	54.0	-4.6	270	1.30
*8528.070	41.9	42.5	6.8	49.3	74.0	54.0	-4.7	0	1.20
*10660.094	---	---	8.1	---	74.0	54.0	---	---	---
*12792.118	---	---	9.9	---	74.0	54.0	---	---	---
4824.016	41.5	42.7	2.6	45.3	74.0	54.0	-8.7	195	1.30
7235.893	---	---	5.8	---	74.0	54.0	---	---	---
9647.770	---	---	7.3	---	74.0	54.0	---	---	---
12059.647	---	---	9.2	---	74.0	54.0	---	---	---
14471.524	---	---	11.6	---	74.0	54.0	---	---	---
16883.401	---	---	12.1	---	74.0	54.0	---	---	---
19295.278	---	---	8.8	---	74.0	54.0	---	---	---
21707.155	---	---	9.8	---	74.0	54.0	---	---	---
24119.032	---	---	10.4	---	74.0	54.0	---	---	---

Note :

1. Remark "*" means that the emission frequency is produced from local oscillator
2. Remark "---" means that the emission level is too low to be measured (a pre-amplifier of about 35 dB is used).
3. Measuring data showed on above table was derived with peak detector function.
4. Margin is referred to average limits.

b) Channel 6

Operation Mode Receiving / Transmitting

Fundamental Frequency : Tx 2437 MHz, Rx 2157 MHz

Test Date : Dec 12, 1997

Temperature : 20 °C

Humidity : 65%

Frequency (MHz)	Reading Peak (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)	Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (m)
	H	V			Peak	Ave.			
*2157.000	45.8	45.7	-4.0	41.8	74.0	54.0	-12.2	180	1.30
*4314.008	46.4	48.3	2.0	50.3	74.0	54.0	-3.7	180	1.30
*6471.026	44.2	45.6	4.5	50.1	74.0	54.0	-3.9	270	1.30
*8628.092	43.2	41.6	6.9	50.1	74.0	54.0	-3.9	0	1.20
*10785.158	43.5	42.4	8.2	51.7	74.0	54.0	-2.3	---	---
*12942.224	---	---	10.2	---	74.0	54.0	---	---	---
4874.062	44.5	43.5	2.7	47.2	74.0	54.0	-6.8	190	1.30
7311.097	42.8	41.9	5.9	48.7	74.0	54.0	-5.3	180	1.30
9750.372	43.1	43.2	7.3	50.5	74.0	54.0	-3.5	180	1.30
12189.647	---	---	9.3	---	74.0	54.0	---	---	---
14628.922	---	---	11.6	---	74.0	54.0	---	---	---
17068.197	---	---	13.2	---	74.0	54.0	---	---	---
19507.472	---	---	8.5	---	74.0	54.0	---	---	---
21946.747	---	---	9.9	---	74.0	54.0	---	---	---
24386.022	---	---	10.7	---	74.0	54.0	---	---	---

Note :

- 1 Remark "*" means that the emission frequency is produced from local oscillator.
- 2 Remark "----" means that the emission level is too low to be measured (a pre-amplifier of about 35 dB is used).
- 3 Measuring data showed on above table was derived with peak detector function.
- 4 Margin is referred to average limits.

c) Channel 11

Operation Mode : Receiving / Transmitting

Fundamental Frequency : Tx 2462 MHz, Rx 2182 MHz

Test Date : Dec. 12, 1997

Temperature : 20 °C

Humidity : 65%

Frequency (MHz)	Reading Peak (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)	Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (m)
	H	V			Peak	Ave.			
*2182.008	46.2	46.5	-3.9	42.6	74.0	54.0	-11.4	180	1.30
*4364.012	45.2	47.8	2.0	49.8	74.0	54.0	-4.2	270	1.30
*6546.017	43.4	44.9	4.6	49.5	74.0	54.0	-4.5	270	1.30
*8728.029	41.8	43.6	6.9	50.5	74.0	54.0	-3.5	180	1.20
*10910.041	---	---	8.4	---	74.0	54.0	---	---	---
*13092.053	---	---	10.4	---	74.0	54.0	---	---	---
4924.012	44.2	42.8	2.8	47.0	74.0	54.0	-7.0	190	1.30
7386.033	41.4	41.2	6.0	47.4	74.0	54.0	-6.6	180	1.30
9848.026	40.1	39.2	7.3	47.4	74.0	54.0	-6.6	220	1.30
12310.019	---	---	9.3	---	74.0	54.0	---	---	---
14772.012	---	---	11.5	---	74.0	54.0	---	---	---
17234.005	---	---	14.3	---	74.0	54.0	---	---	---
19695.998	---	---	8.5	---	74.0	54.0	---	---	---
22157.991	---	---	10.0	---	74.0	54.0	---	---	---
24619.984	---	---	10.9	---	74.0	54.0	---	---	---

Note :

1. Remark "*" means that the emission frequency is produced from local oscillator.
2. Remark "---" means that the emission level is too low to be measured (a pre-amplifier of about 35 dB is used).
3. Measuring data showed on above table was derived with peak detector function.
4. Margin is referred to average limits.

4.4.2 Digital Portion

a) Emission frequencies below 1 GHz

Operation Mode : Transmitting / Channel 11

Digital Clock : 22 and 40 MHz

PC CPU Clock : 66.6 MHz

Test Date : Jan 02, 1997 Temperature : 25 °C Humidity : 65%

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result @3m (dBuV/m)	Limit @3m (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (m)
32.121	H	47.4	-10.2	37.2	40.0	-2.8	135	3.00
39.381	V	49.8	-11.7	38.1	40.0	-1.9	273	1.00
99.720	H	51.1	-13.9	37.2	43.5	-6.3	176	3.10
114.541	V	50.8	-11.3	39.5	43.5	-4.0	180	1.00
132.960	V	53.4	-11.3	42.1	43.5	-1.4	272	1.00
166.113	V	47.6	-9.2	38.4	43.5	-5.1	272	2.90
265.930	H	41.9	-3.7	38.2	46.0	-7.8	185	1.12
297.419	H	43.4	-1.1	42.3	46.0	-3.7	192	1.00
299.160	H	44.6	-0.9	43.7	46.0	-2.3	186	1.00
363.896	H	52.5	-7.9	44.6	46.0	-1.4	210	1.00
367.364	H	50.5	-7.3	43.2	46.0	-2.8	215	1.05
432.133	H	47.0	-5.5	41.5	46.0	-4.5	227	1.00
439.972	V	48.2	-5.6	42.6	46.0	-3.4	135	1.10
465.379	V	47.0	-4.9	42.1	46.0	-3.9	75	1.00
496.299	V	47.7	-4.4	43.3	46.0	-2.7	75	1.00

b) Emission frequencies above 1 GHz

Radiated emission frequencies above 1 GHz to 5 GHz were too low to be measured with a pre-amplifier of 25 dB.

4.3 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor, High Pass Filter Loss(if used) and Cable Loss, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

where Corrected Factor = Antenna FACTOR + Cable Loss + High Pass Filter Loss - Amplifier Gain

5 CONDUCTED EMISSION MEASUREMENT

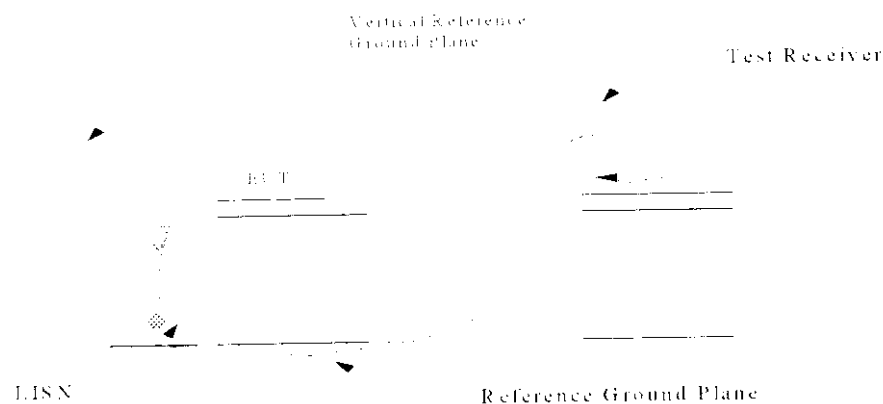
5.1 Standard Applicable

For unintentional and intentional device, Line Conducted Emission Limits are in accordance to § 15.107(a) and § 15.207(a) respectively. Both Limits are identical specification.

5.2 Measurement Procedure

1. Setup the configuration per figure 3.
2. A preliminary scan with a spectrum monitor is performed to identify the frequency of emission that has the highest amplitude relative to the limit by operating the EUT in selected modes of operation, typical cable positions, and with a typical system configuration.
3. Record the 6 or 8 highest emissions relative to the limit.
4. Measure each frequency obtained from step 3 by a test receiver set on quasi peak detector function, and then record the accuracy frequency and emission level. If all emissions measured in the specified band are attenuated more than 20 dB from the limit, this step would be ignored, and the peak detector function would be used.
5. Confirm the highest three emissions with variation of the EUT cable configuration and record the final data.
6. Repeat all above procedures on measuring each operation mode of EUT.

Figure 3 - Conducted emissions measurement configuration



5.3 Conducted Emission Data

a) Channel 1

Operation Mode : TransmittingTest Date : Jan. 07, 1998Temperature : 26 °CHumidity: 60%

Frequency (MHz)	Reading (dBuV)		Factor (dB)	Result (dBuV)		Limit (dBuV)	Margin (dB)
	Va	Vb		Va	Vb		
0.5224	26.8	27.7	0.2	27.0	27.9	48.0	-20.1
1.6363	28.3	28.0	0.3	28.6	28.3	48.0	-19.4
6.2945	32.5	31.7	0.4	32.9	32.1	48.0	-15.1
12.0526	38.8	38.4	0.6	39.4	39.0	48.0	-8.6
16.0702	34.2	33.2	0.8	35.0	34.0	48.0	-13.0
24.1053	28.6	28.0	1.0	29.6	29.0	48.0	-18.4
28.1228	31.2	30.6	1.1	32.3	31.7	48.0	-15.7

Operation Mode : ReceivingTest Date : Jan. 07, 1998Temperature : 26 °CHumidity: 60%

Frequency (MHz)	Reading (dBuV)		Factor (dB)	Result (dBuV)		Limit (dBuV)	Margin (dB)
	Va	Vb		Va	Vb		
0.5224	27.2	27.1	0.2	27.4	27.3	48.0	-20.6
1.6363	29.1	28.6	0.3	29.4	28.9	48.0	-18.6
6.2945	32.5	32.6	0.4	32.8	33.0	48.0	-15.0
12.0526	39.2	37.6	0.6	39.8	38.2	48.0	-8.2
16.0702	34.7	32.2	0.8	35.5	33.1	48.0	-12.5
24.1053	29.6	28.2	1.0	30.6	29.2	48.0	-17.4
28.1228	32.0	30.5	1.1	33.0	31.6	48.0	-15.0

b) Channel 6

Operation Mode : Transmitting

Test Date : Jan. 07, 1998

Temperature : 26 °C

Humidity: 60%

Frequency (MHz)	Reading (dBuV)		Factor (dB)	Result (dBuV)		Limit (dBuV)	Margin (dB)
	Va	Vb		Va	Vb		
0.5224	26.8	27.5	0.2	27.1	27.7	48.0	-20.3
1.6363	29.3	28.3	0.3	29.6	28.6	48.0	-18.4
6.2945	31.5	32.7	0.4	31.9	33.1	48.0	-14.9
12.0526	39.2	38.6	0.6	39.9	39.2	48.0	-8.1
16.0702	33.4	33.4	0.8	34.2	34.2	48.0	-13.8
24.1053	28.8	28.3	1.0	29.8	29.3	48.0	-18.2
28.1228	30.4	30.5	1.1	31.5	31.6	48.0	-16.4

Operation Mode : Receiving

Test Date : Jan. 07, 1998

Temperature : 26 °C

Humidity: 60%

Frequency (MHz)	Reading (dBuV)		Factor (dB)	Result (dBuV)		Limit (dBuV)	Margin (dB)
	Va	Vb		Va	Vb		
0.5224	27.4	27.3	0.2	27.6	27.5	48.0	-20.4
1.6363	29.1	28.4	0.3	29.4	28.7	48.0	-18.6
6.2945	32.4	31.0	0.4	32.7	31.4	48.0	-15.3
12.0526	38.3	37.9	0.6	38.9	38.5	48.0	-9.1
16.0702	33.9	34.1	0.8	34.7	34.9	48.0	-13.1
24.1053	29.1	27.8	1.0	30.1	28.8	48.0	-17.9
28.1228	32.2	29.7	1.1	33.3	30.8	48.0	-14.7

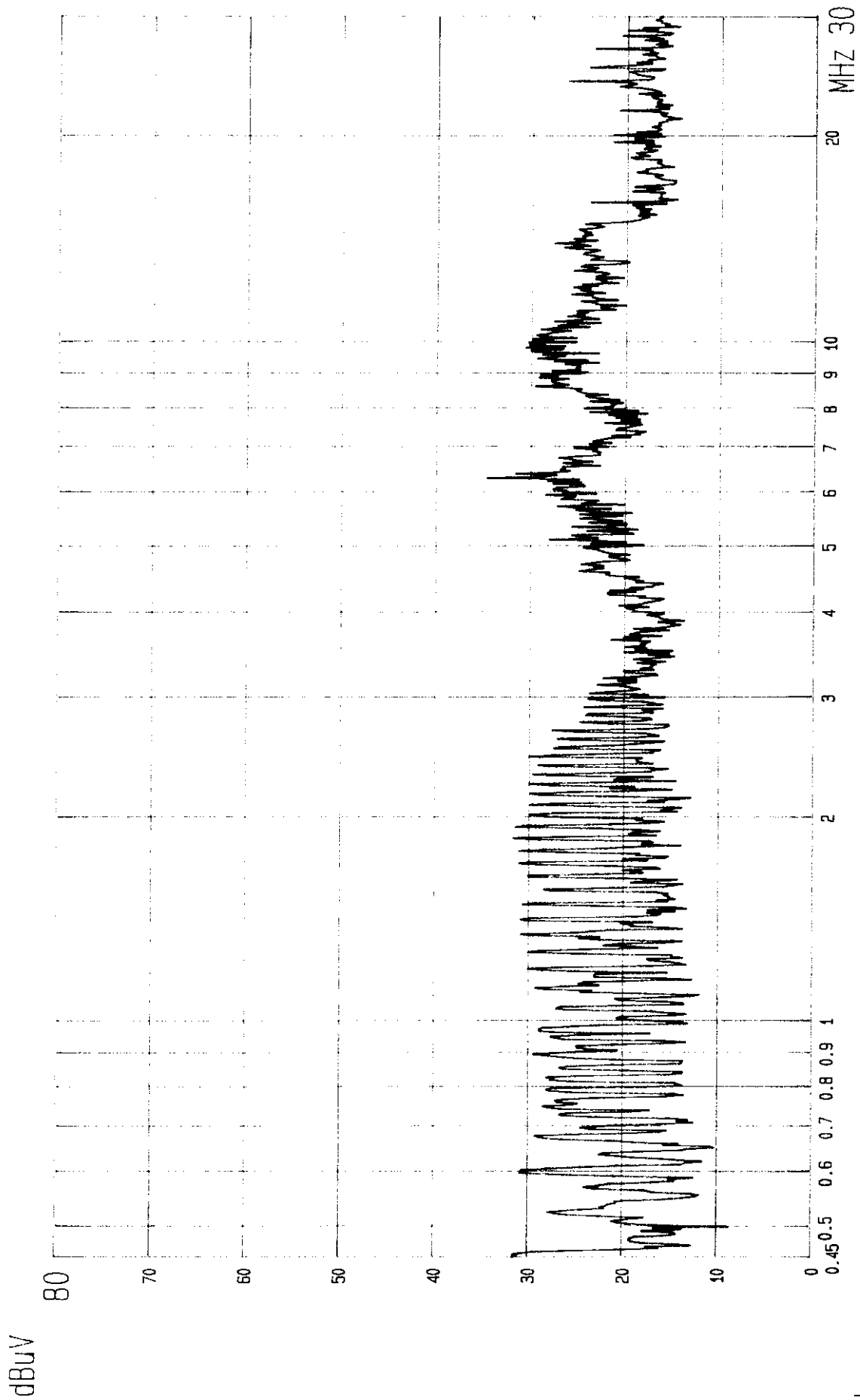
c) Channel 11

Operation Mode : TransmittingTest Date : Jan. 07, 1998Temperature : 26 °CHumidity: 60%

Frequency (MHz)	Reading (dBuV)		Factor (dB)	Result (dBuV)		Limit (dBuV)	Margin (dB)
	Va	Vb		Va	Vb		
0.5224	27.8	26.8	0.2	28.0	27.0	48.0	-20.0
1.6363	27.7	27.4	0.3	28.0	27.7	48.0	-20.0
6.2945	33.2	31.7	0.4	33.6	32.1	48.0	-14.4
12.0526	39.8	37.6	0.6	40.4	38.2	48.0	-7.6
16.0702	34.0	32.3	0.8	34.8	33.2	48.0	-13.2
24.1053	28.9	27.8	1.0	29.9	28.8	48.0	-18.1
28.1228	31.2	30.0	1.1	32.3	31.1	48.0	-15.7

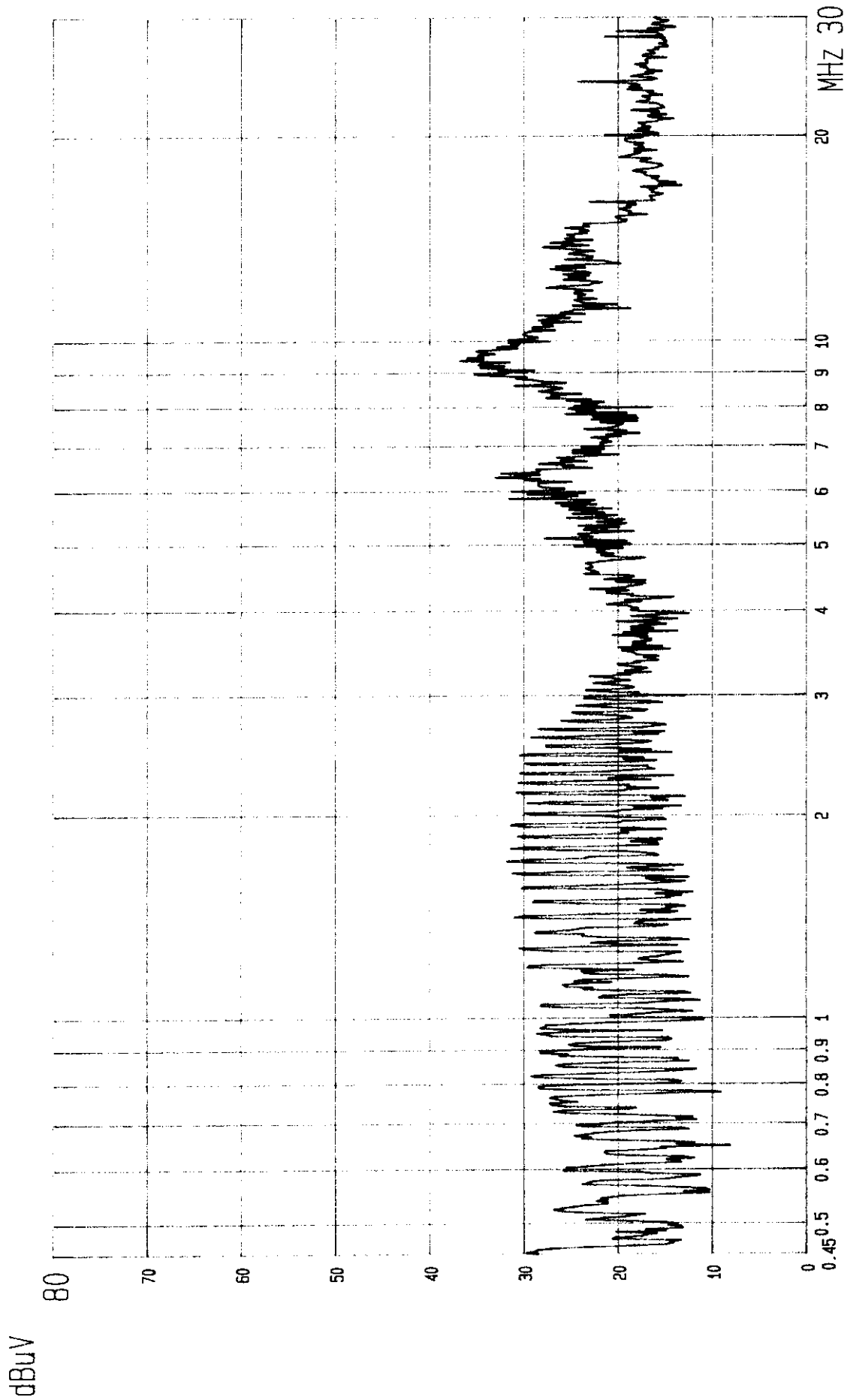
Operation Mode : ReceivingTest Date : Jan. 07, 1998Temperature : 26 °CHumidity: 60%

Frequency (MHz)	Reading (dBuV)		Factor (dB)	Result (dBuV)		Limit (dBuV)	Margin (dB)
	Va	Vb		Va	Vb		
0.5224	25.8	27.9	0.2	26.1	28.1	48.0	-19.9
1.6363	28.8	27.2	0.3	29.1	27.5	48.0	-18.9
6.2945	32.7	31.1	0.4	33.0	31.5	48.0	-15.0
12.0526	38.0	38.1	0.6	38.6	38.7	48.0	-9.3
16.0702	34.0	33.4	0.8	34.8	34.3	48.0	-13.2
24.1053	29.2	28.7	1.0	30.2	29.7	48.0	-17.8
28.1228	30.6	29.9	1.1	31.7	31.0	48.0	-16.3

CLASS B LIMIT
ETC EMC LAB.8: QP.
LISN: VaEUT: WIRELESS LAN CARD
POWER: 110V/60Hz

MODE: Tx (CH1)

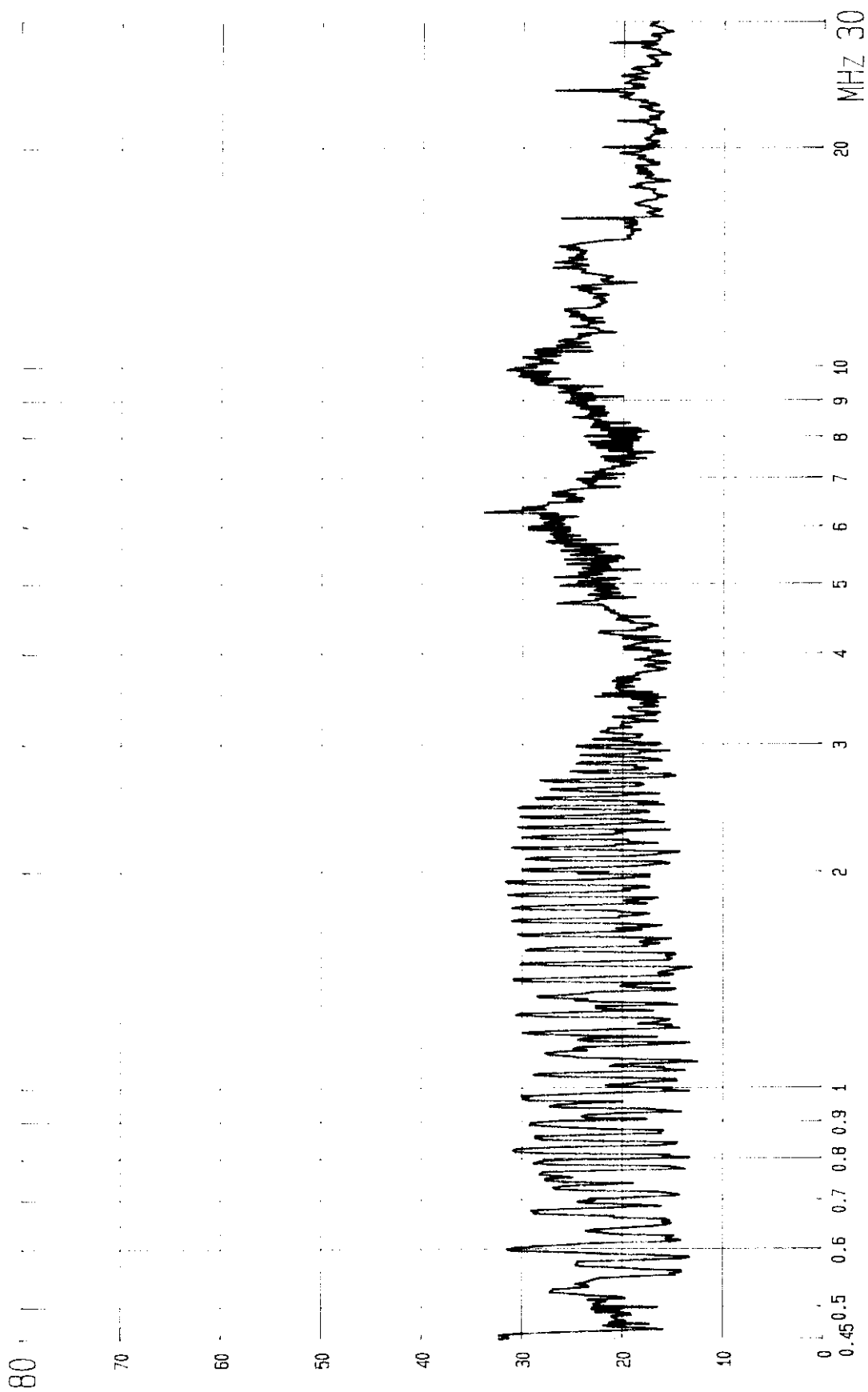
FCC CONDUCTED TEST
MODEL: WL2440

CLASS B LIMIT
ETC EMC LAB.8: QP.
LISN: VbEUT: WIRELESS LAN CARD
POWER: 110V/60HZ

MODE: Tx (CH1)

FCC CONDUCTED TEST
MODEL: WL2440

dBuV



FCC CONDUCTED TEST

EUT: WIRELESS LAN CARD

8: QP. CLASS B LIMIT

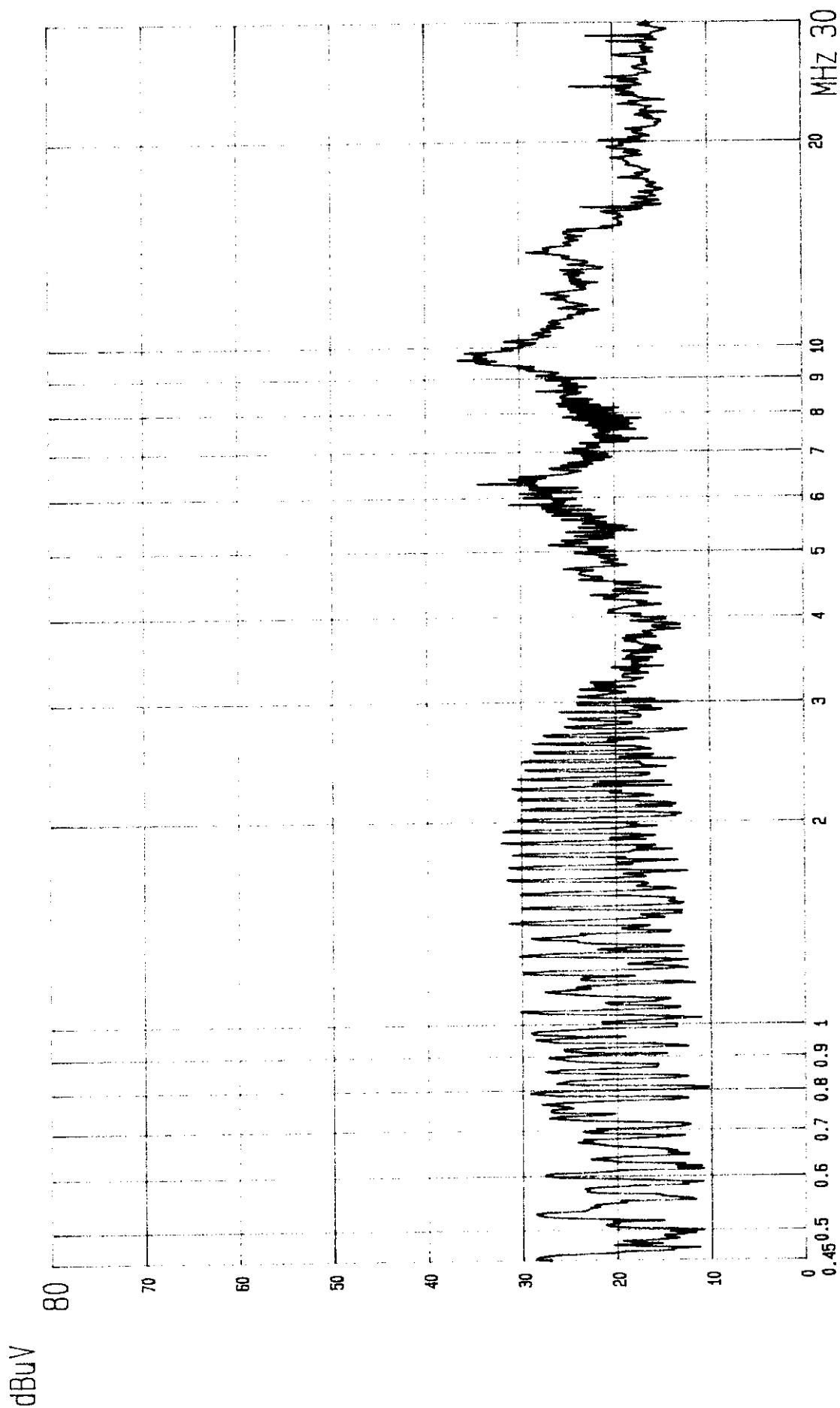
MODEL: WL2440

MODE: RX (CH1)

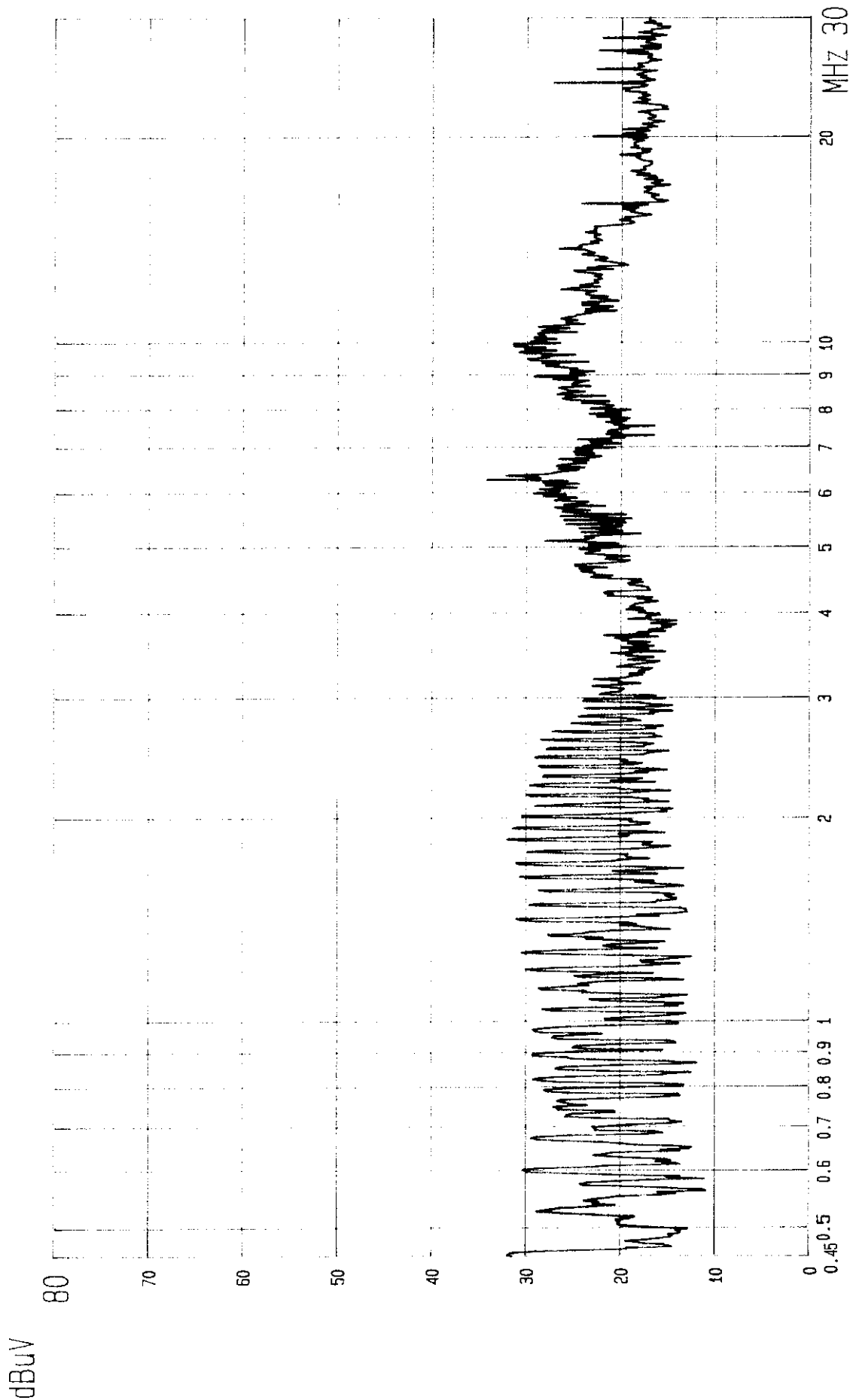
POWER: 110V/60HZ

LISN: Va

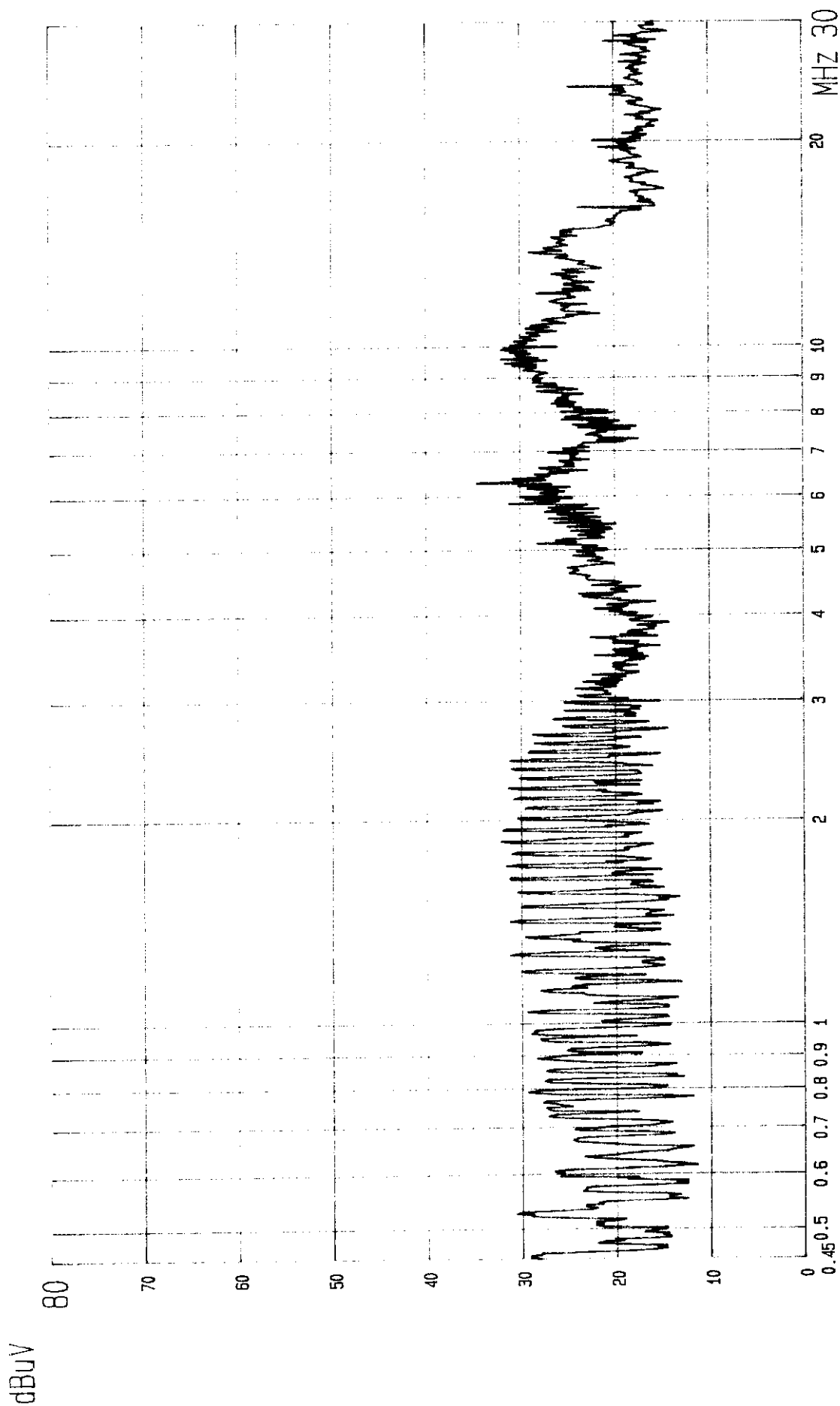
ETC EMC LAB.



 FCC CONDUCTED TEST EUT: WIRELESS LAN CARD 8:QP. CLASS B LIMIT
 MODEL: WL2440 MODE: RX (CH1) POWER: 110V/60Hz LISN: Vb ETC EMC LAB.



FCC CONDUCTED TEST EUT: WIRELESS LAN CARD 8: QP. CLASS B LIMIT
MODEL: WL2440 MODE: Tx (CH6) POWER: 110V/60HZ LISN: Va ETC EMC LAB.



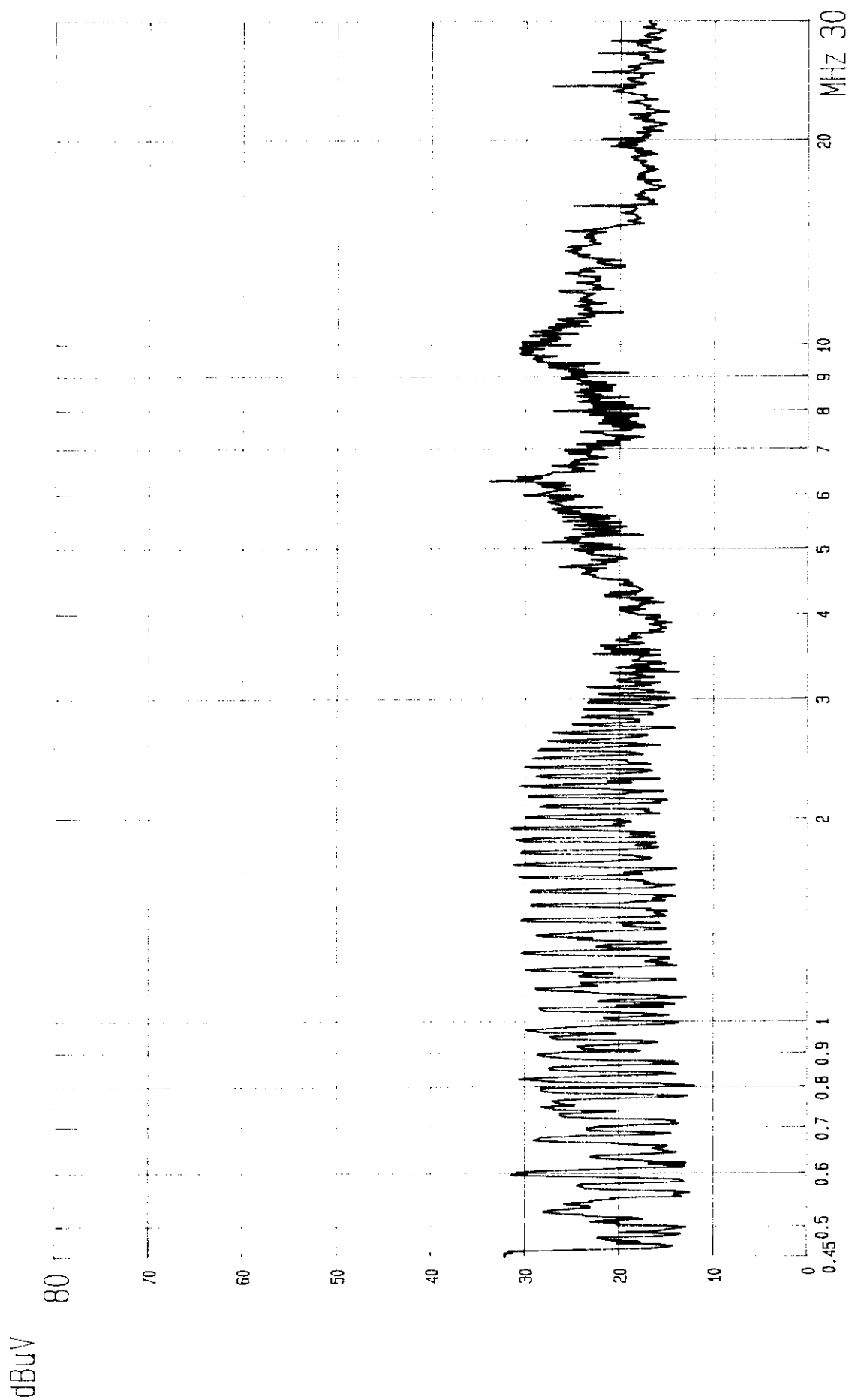
CLASS B LIMIT
ETC EMC LAB.

8:QP.
LISN: Vb

EUT: WIRELESS LAN CARD
POWER: 110V/60Hz

MODE: TX (CH6)

FCC CONDUCTED TEST
MODEL: WL2440



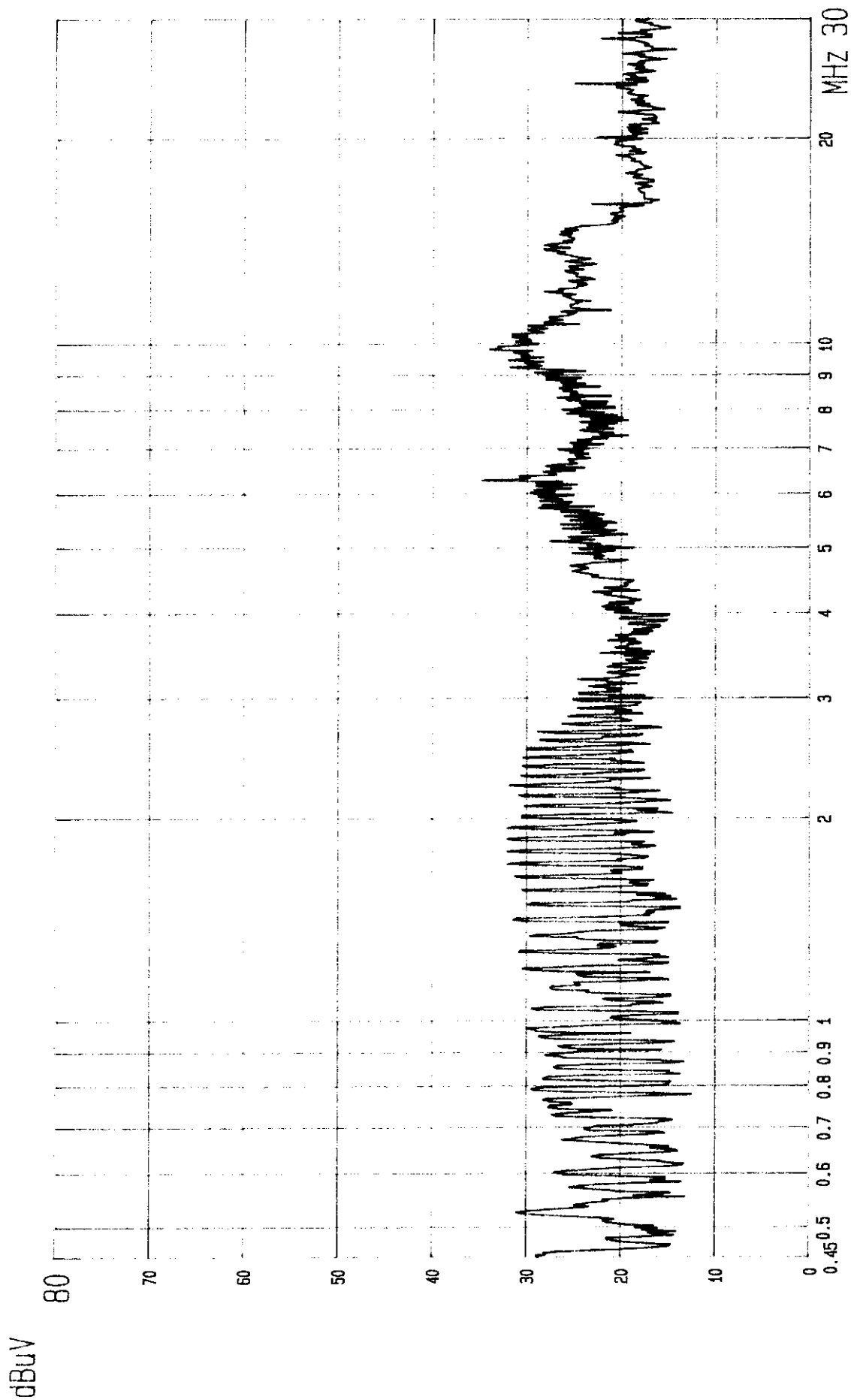
CLASS B LIMIT
ETC EMC LAB.

8: QP.
LISN: Va

POWER: 110V/60HZ

EUT: WIRELESS LAN CARD
MODE: RX (CH6)

FCC CONDUCTED TEST
MODEL: WL2440



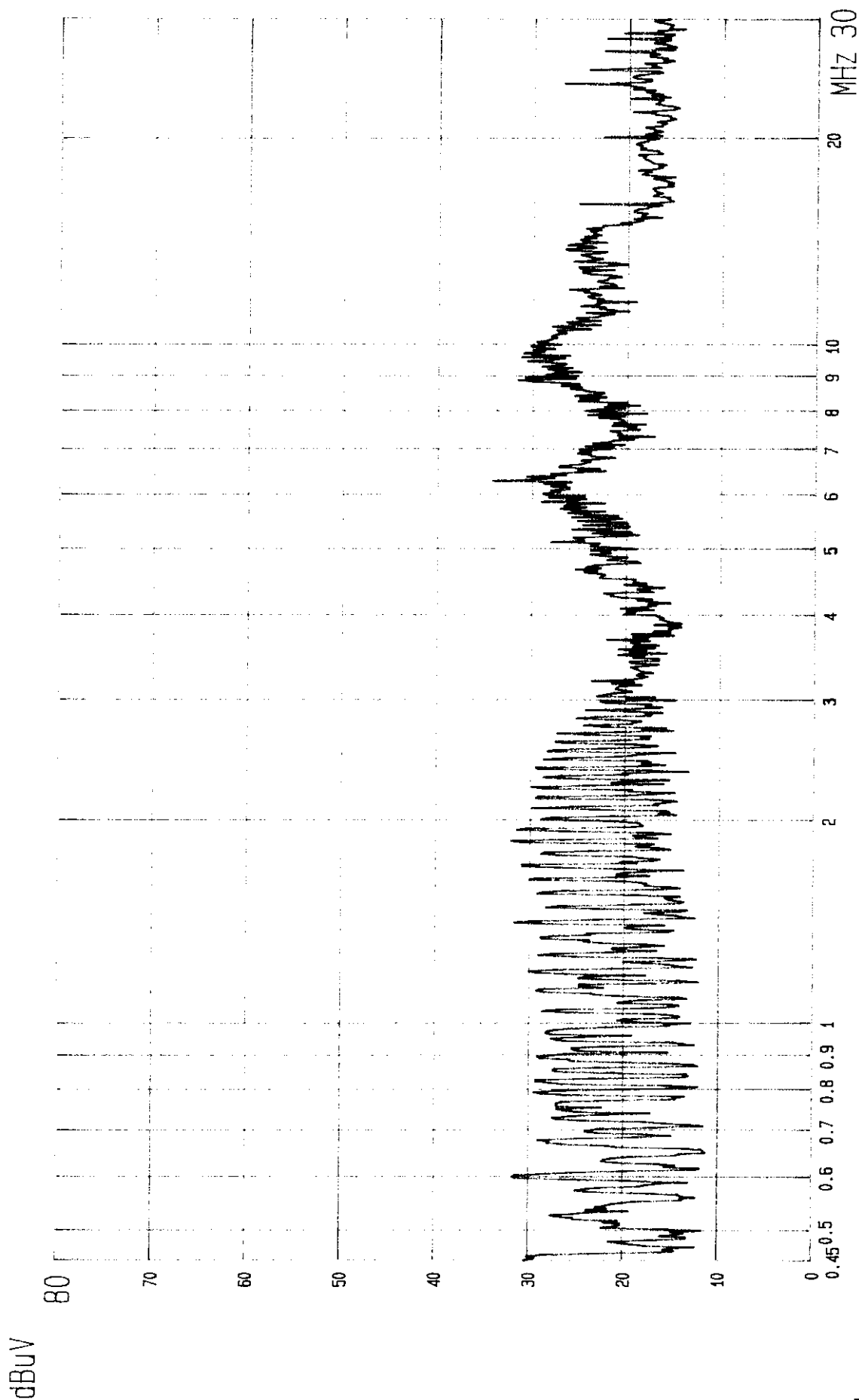
CLASS B LIMIT
ETC EMC LAB.

8:QP.
LISN: Vb

POWER: 110V/60Hz

MODE: RX (CH6)

FCC CONDUCTED TEST
MODEL: WL2440



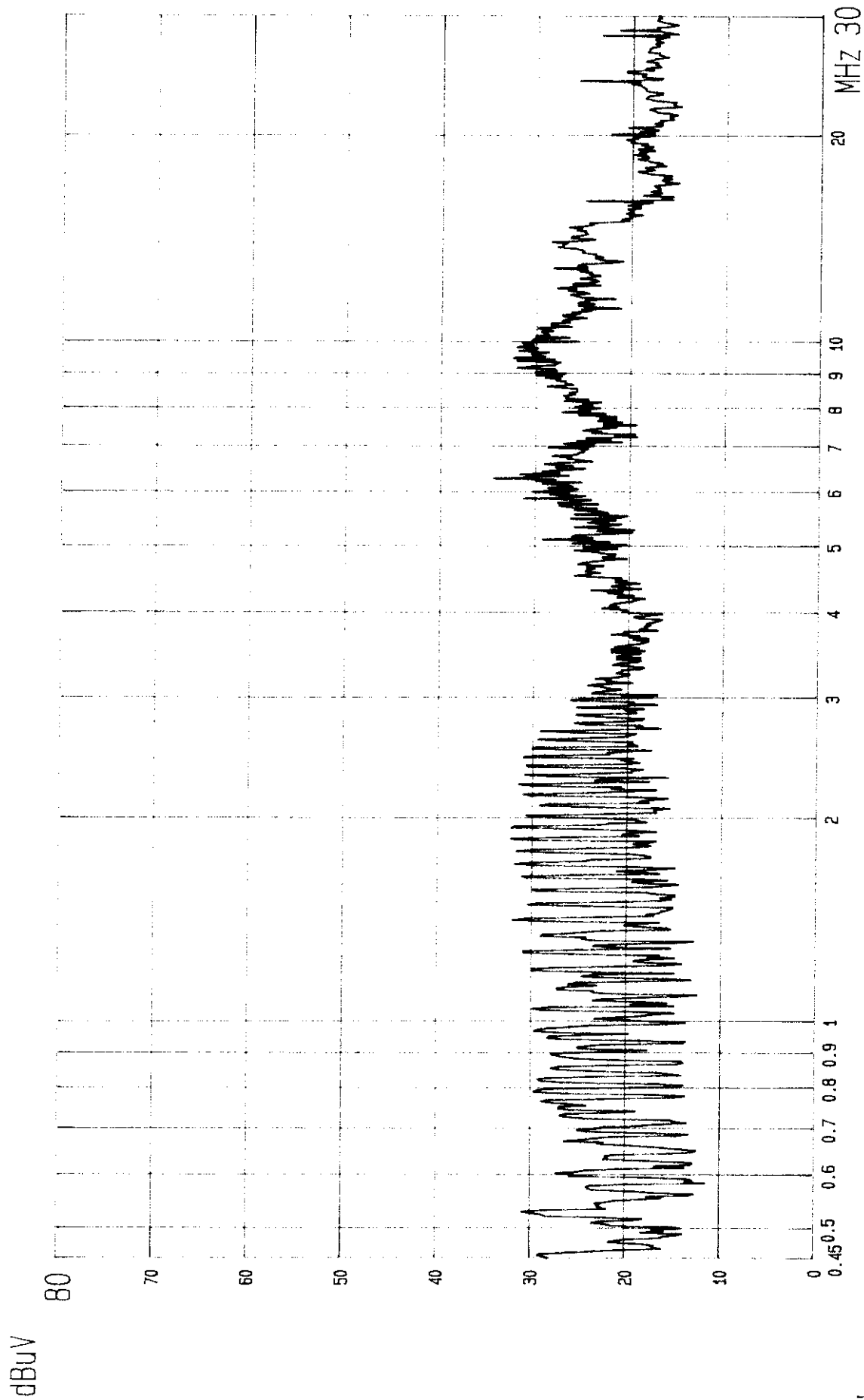
CLASS B LIMIT
ETC EMC LAB.

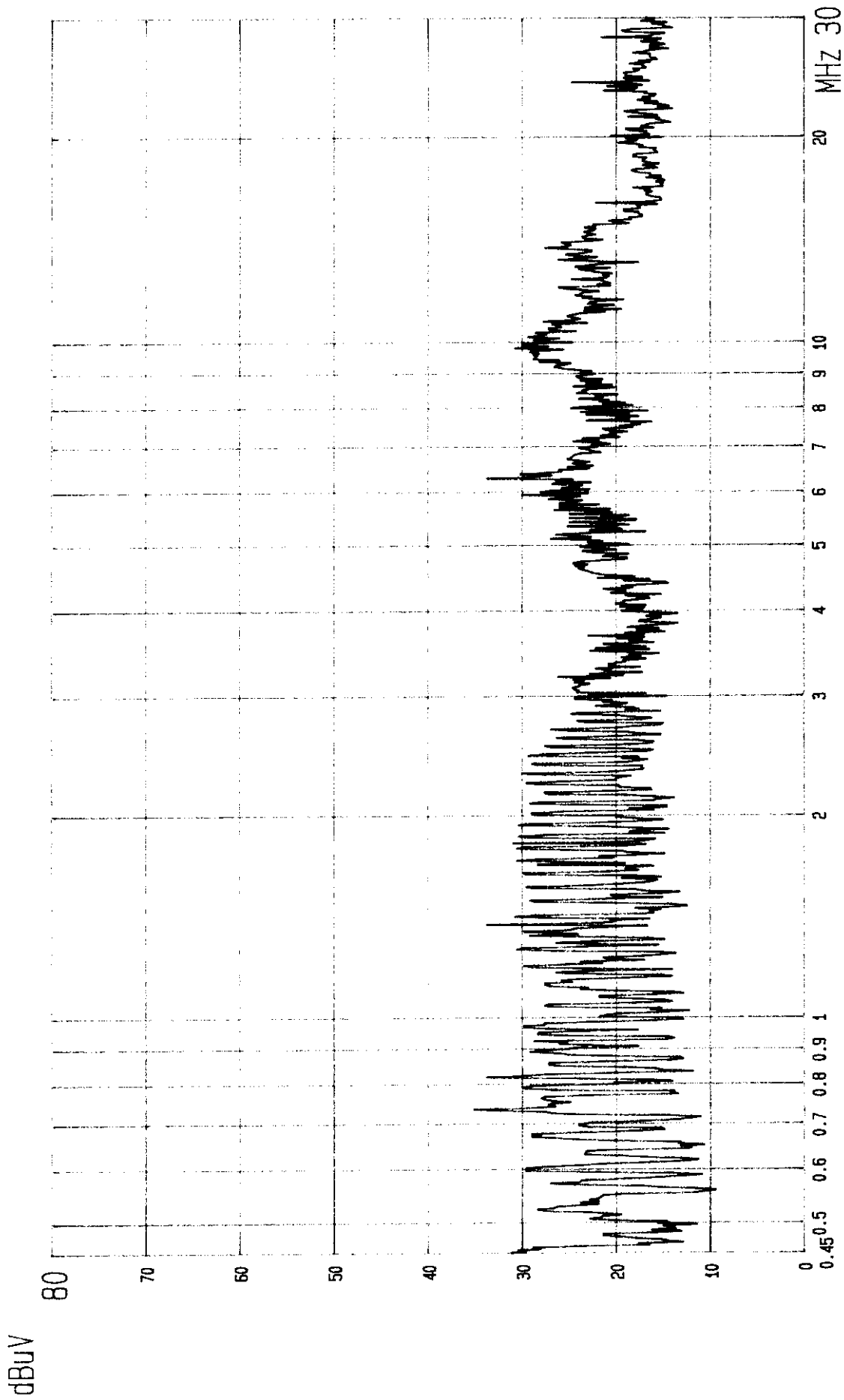
8:QP.
LISN: Va

EUT: WIRELESS LAN CARD
POWER: 110V/60Hz

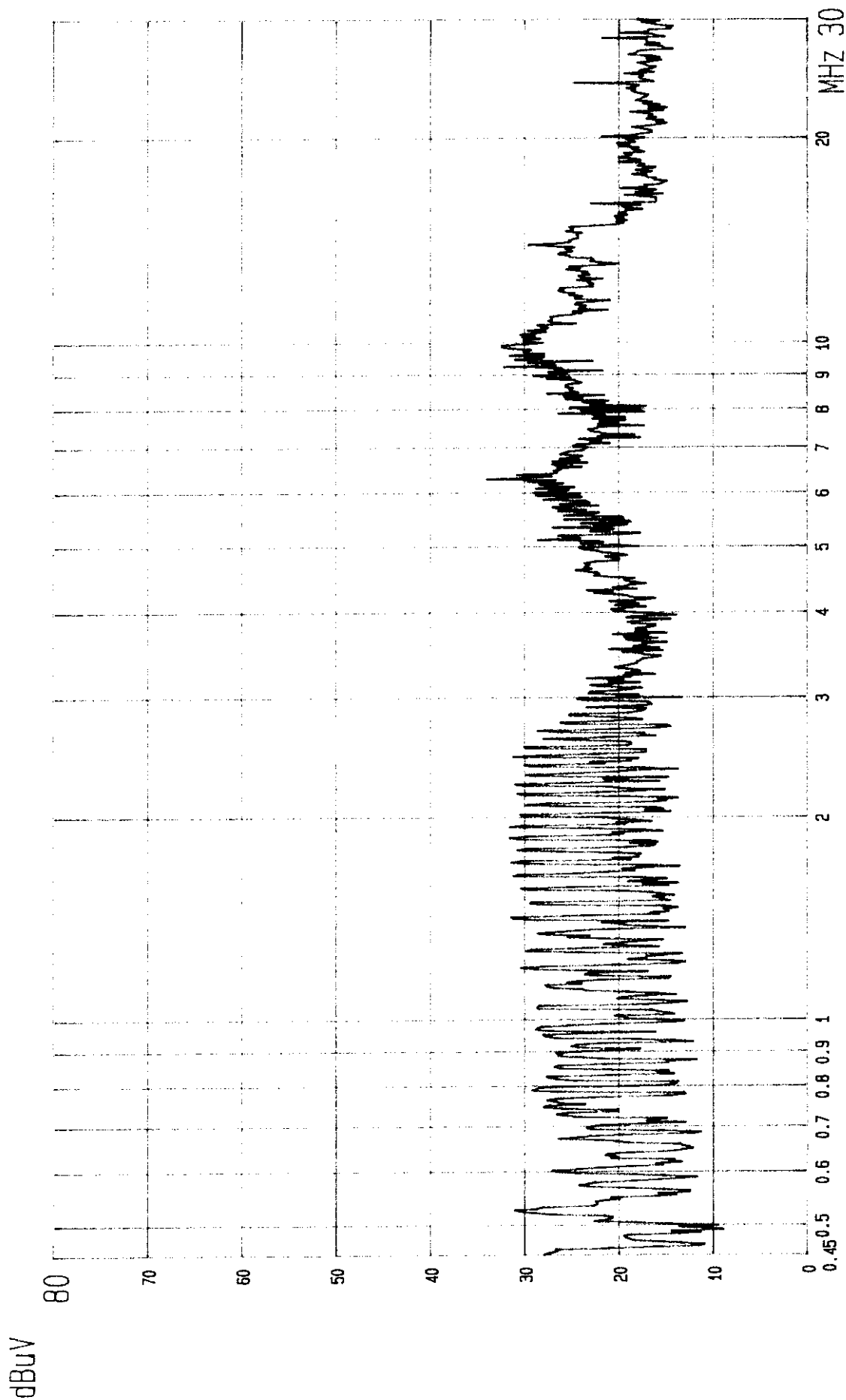
FCC CONDUCTED TEST
MODEL: WL2440

MODE: TX (CH11)

CLASS B LIMIT
ETC EMC LAB.8:QP.
LISN: VbEUT: WIRELESS LAN CARD
POWER: 110V/60HzFCC CONDUCTED TEST
MODEL: WL2440
MODE: TX (CH11)



FCC CONDUCTED TEST EUT: WIRELESS LAN CARD 8:QP. CLASS B LIMIT
MODEL: WL2440 MODE: RX (CH11) POWER: 110V/60Hz LISN: Va ETC EMC LAB.



FCC CONDUCTED TEST

EUT: WIRELESS LAN CARD

CLASS B LIMIT

MODEL: WL2440

MODE: RX

(CH11)

POWER: 110V/60HZ

LISN: Vb

ETC EMC LAB.

5.4 Result Data Calculation

The result data is calculated by adding the LISN Factor to the measured reading. The basic equation with a sample calculation is as follows:

$$\text{RESULT} = \text{READING} + \text{LISN FACTOR}$$

Assume a receiver reading of 22.5 dB μ V is obtained, and LISN Factor is 0.1 dB, then the total of disturbance voltage is 22.6 dB μ V.

$$\text{RESULT} = 22.5 + 0.1 = 22.6 \text{ dB } \mu \text{ V}$$

$$\begin{aligned} \text{Level in } \mu \text{ V} &= \text{Common Antilogarithm}[(22.6 \text{ dB } \mu \text{ V})/20] \\ &= 13.48 \mu \text{ V} \end{aligned}$$

5.5 Conducted Measurement Equipment

The following test equipment are used during the conducted test .

Equipment	Manufacturer	Model No.	Next Cal. Due
RF Test Receiver	Rohde and Schwarz	ESH3	Jan. 04, 1999
Spectrum Monitor	Rohde and Schwarz	EZM	N.C.R.
Line Impedance Stabilization network	Kyoritsu	KNW-407	Dec. 01, 1998
Plotter	Hewlett-Packard	7440A	N/A
Shielded Room	Riken		N.C.R.

6 ANTENNA REQUIREMENT

6.1 Standard Applicable

For intentional device, according to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to § 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.2 Antenna Construction

The antenna is permanently mounted on RF box, no consideration of replacement.
The directional gain of antenna used for transmitting is 2dBi, and the antenna connector is designed with a reversed SMA connector, that is, the female type has a pin and the male type has a hole. The details antenna construction please see Appendix 1.

7 EMISSION BANDWIDTH MEASUREMENT

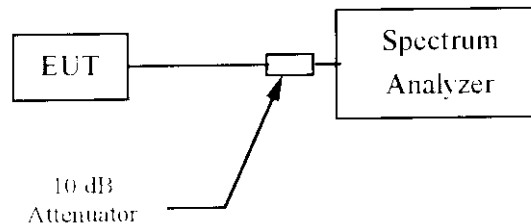
7.1 Standard Applicable

According to 15.247(a)(2), for direct sequence system, the minimum 6dB bandwidth shall be at least 500 kHz.

7.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT as shown in figure 4 without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

Figure 4 . Emission bandwidth measurement configuration.

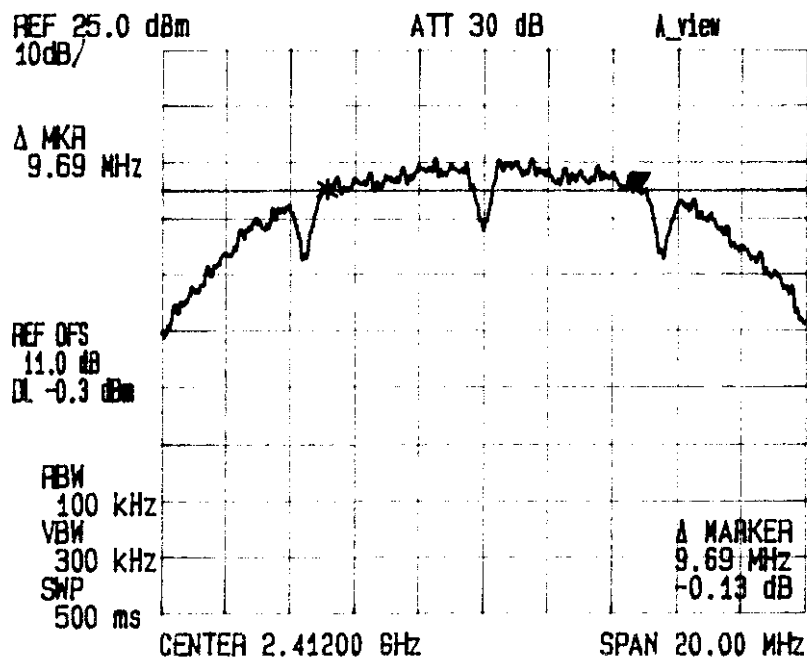
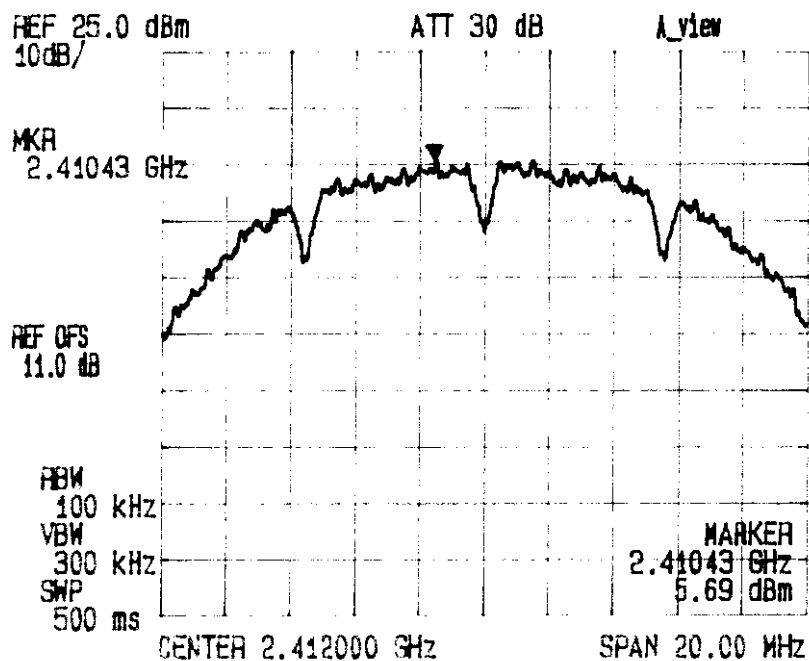


7.3 Measurement Equipment

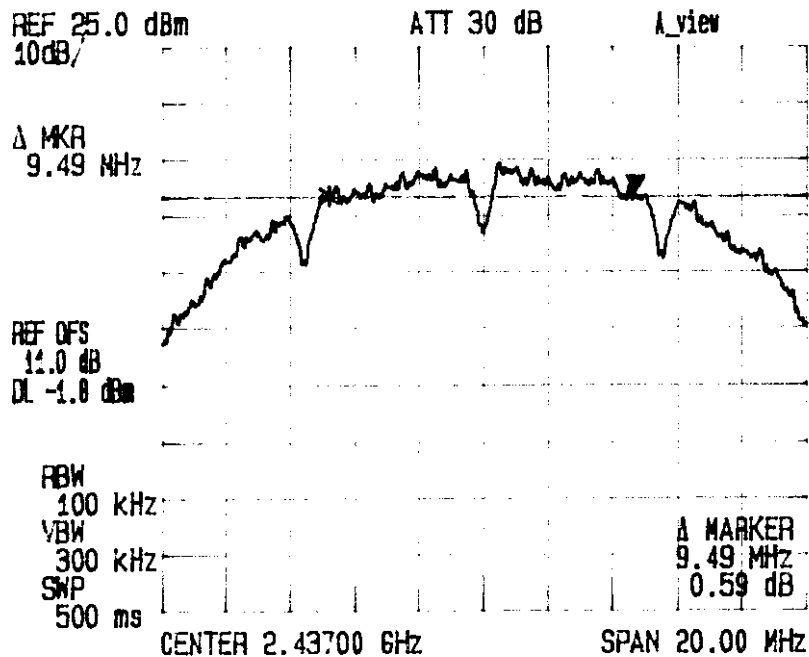
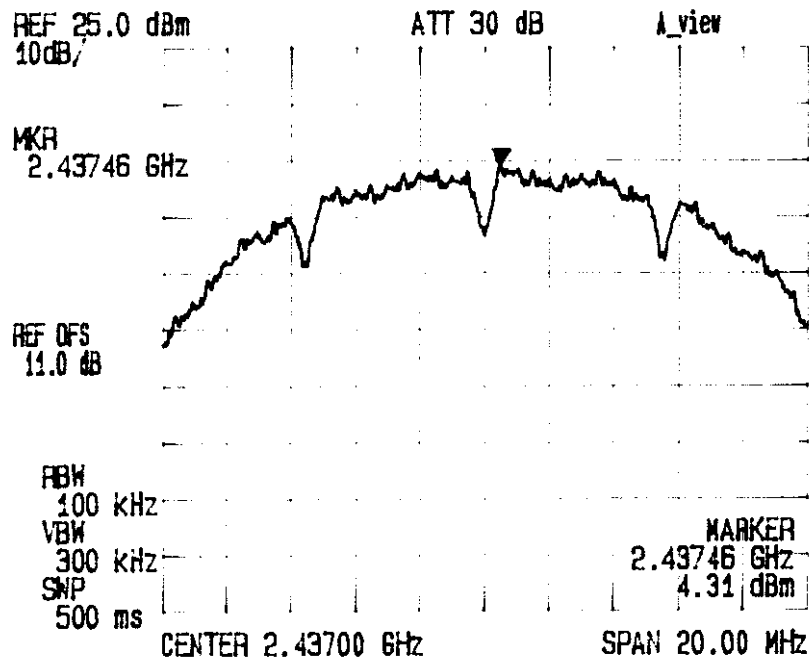
Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Adventest	R3271	Sep. 02, 1998
Plotter	Hewlett-Packard	7440A	N/A

7.4 Measurement Data

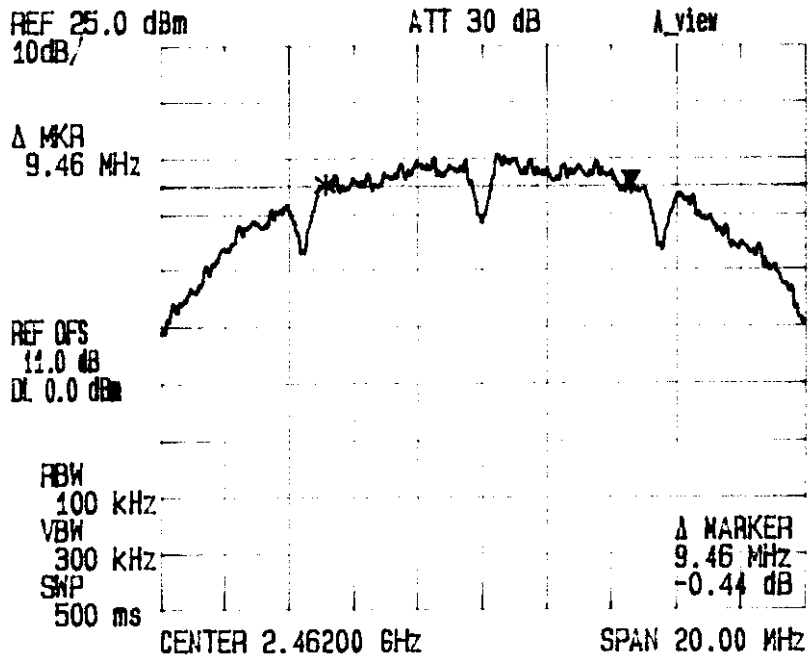
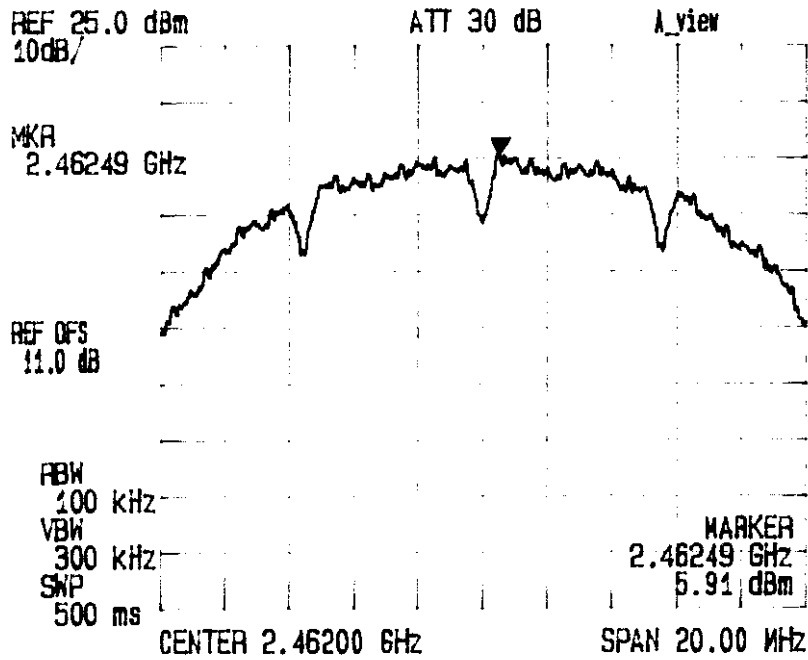
a) Channel 1 : 6dB emission bandwidth



b) Channel 6 : 6dB emission bandwidth



c) Channel 11 : 6dB emission bandwidth



8 OUTPUT POWER MEASUREMENT

8.1 Standard Applicable

For direct sequence system, according to 15.247(b), the maximum peak output power of the transmitter shall not exceed 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

8.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT as shown in figure 4 without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range and make sure the instrument is operated in its linear range.
3. Set RBW of spectrum analyzer to 3 MHz and VBW to 3 MHz.
4. Measure the highest amplitude appearing on spectral display and record the level to calculate result data.
5. Repeat above procedures until all frequencies measured were complete.

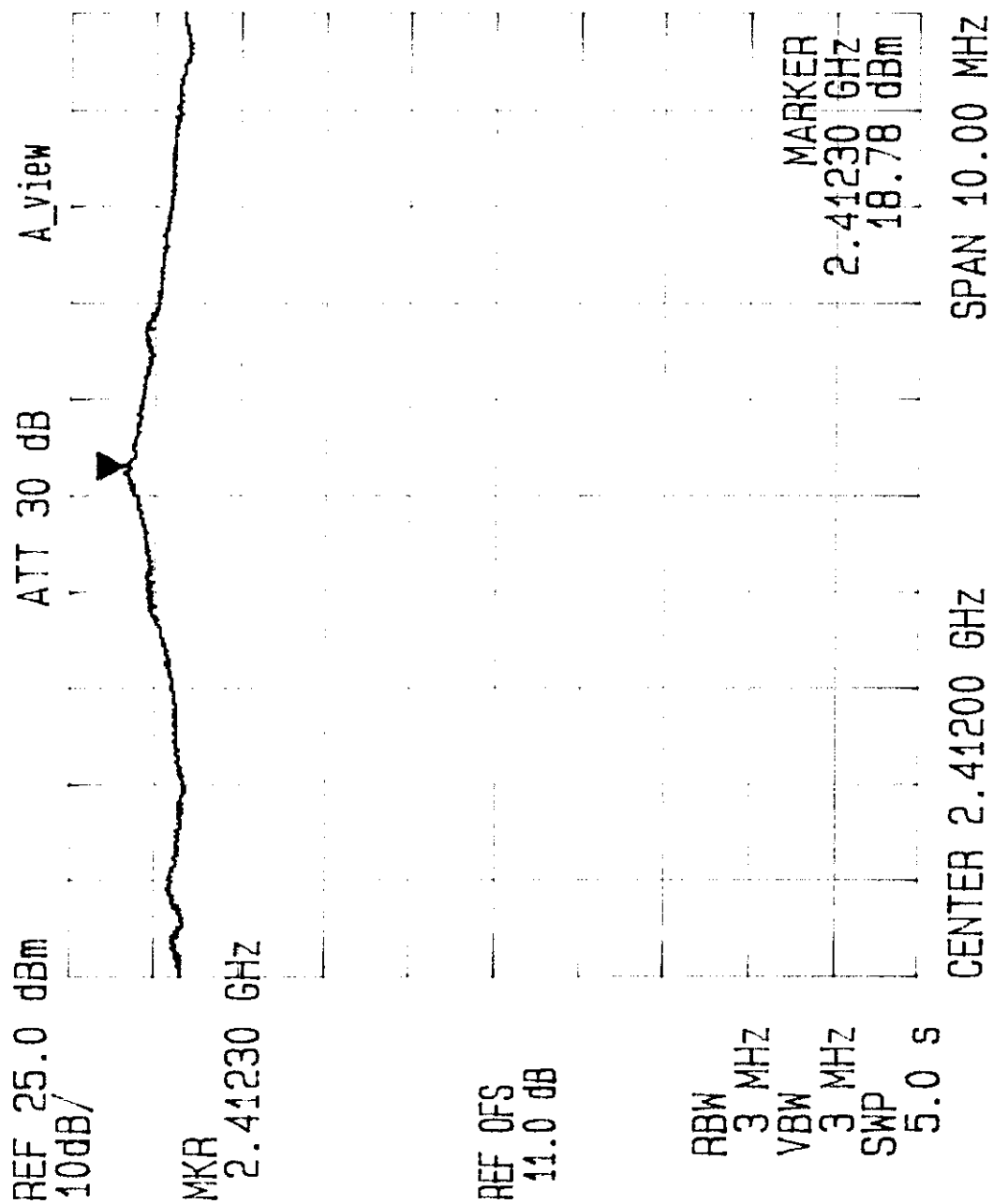
8.3 Measurement Equipment

Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Adventest	R3271	Sep. 02, 1998
Attenuator	Weinschel Engineering	1	N/A

8.4 Measurement Data

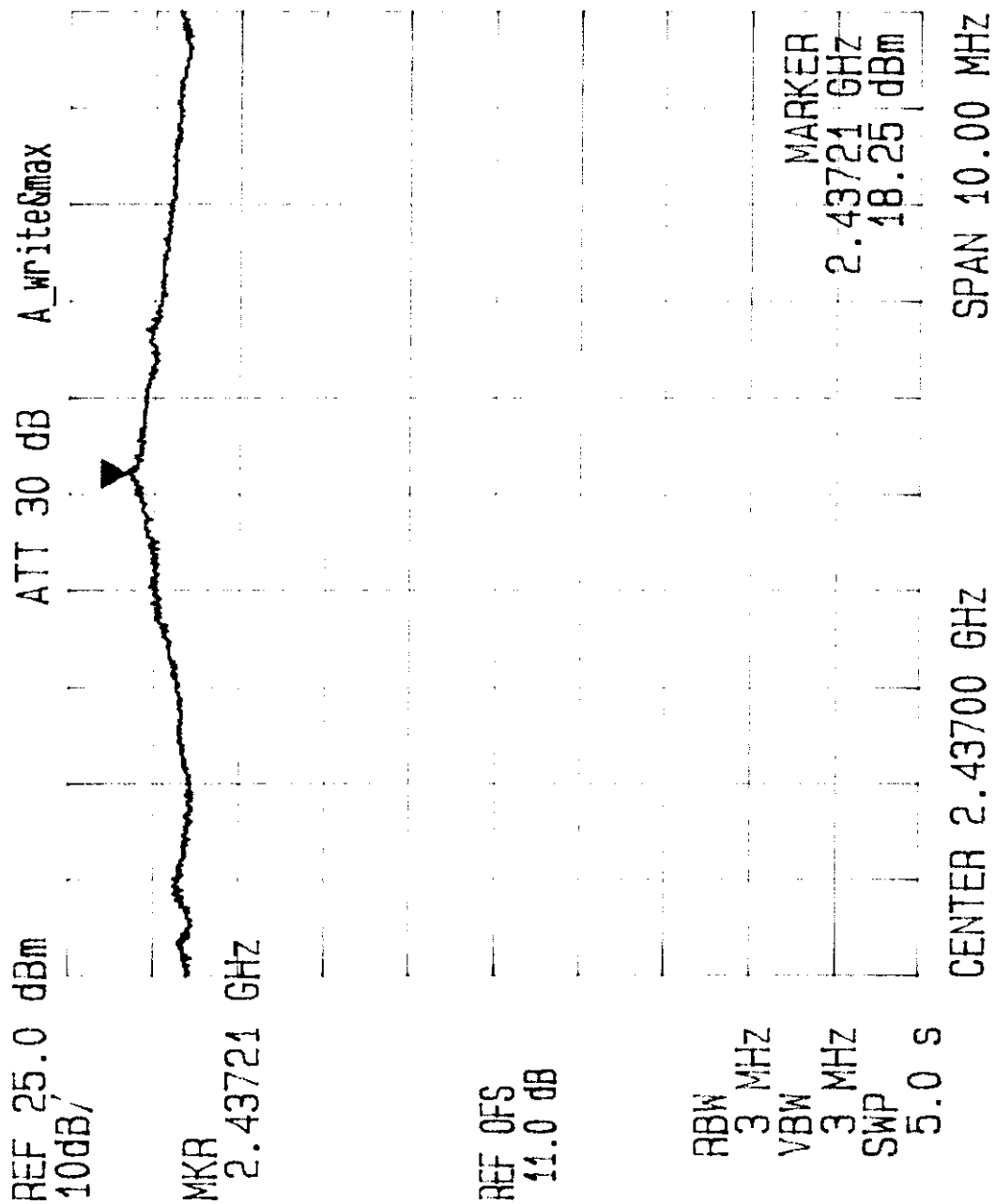
a) Channel 1, 2.412 GHz

18.78 dBm, or 75.51 mW



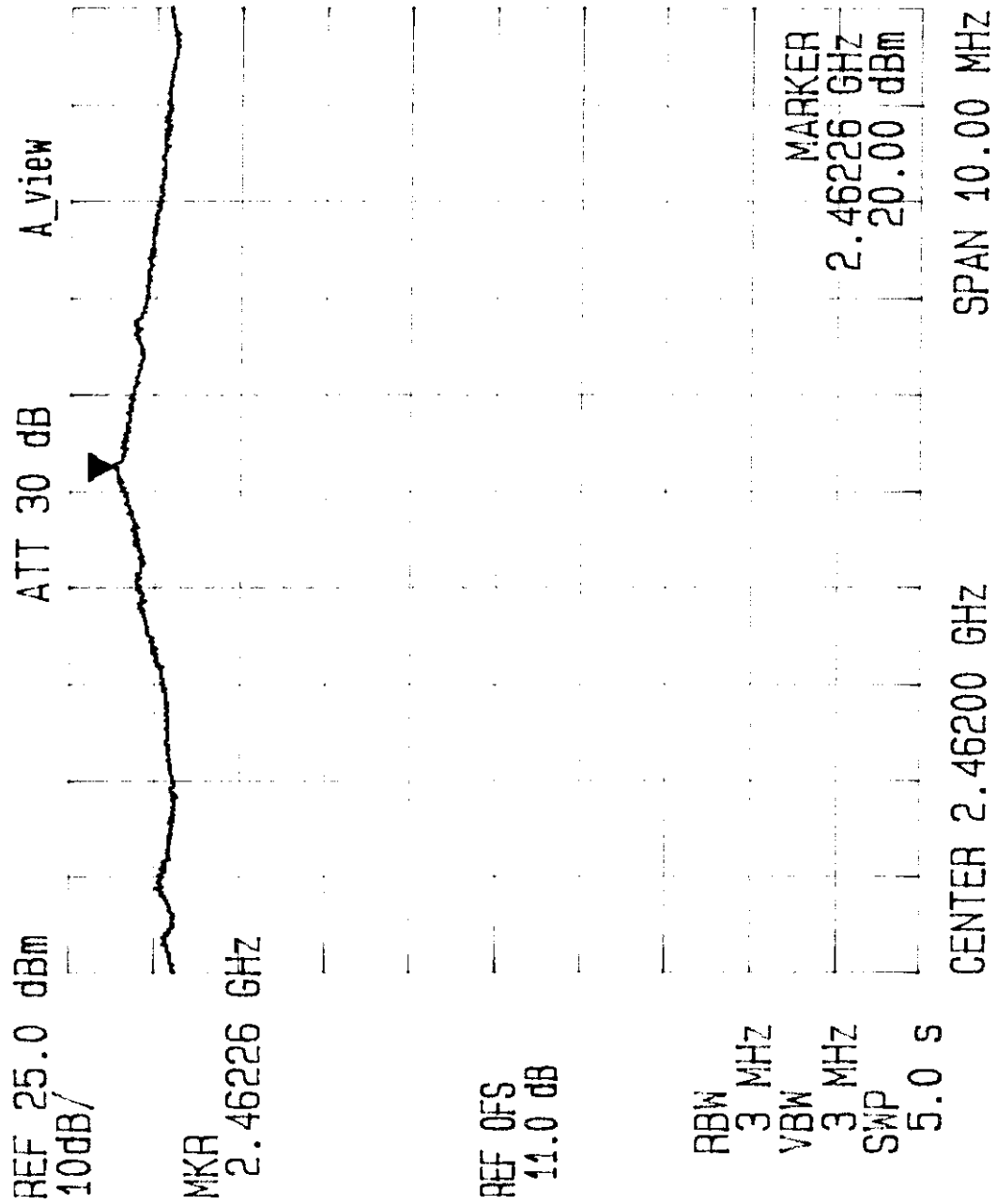
b) Channel 6, 2.437 GHz

18.25 dBm, or 66.83 mW



c) Channel 11, 2.462 GHz

20.00 dBm, or 100 mW



9 100 kHz BANDWIDTH OF BAND EDGES MEASUREMENT

9.1 Standard Applicable

According to 15.247(c), if any 100 kHz bandwidth outside these frequency bands, the radio frequency power that is produced by the modulation products of the spreading sequence, the information sequence and the carrier frequency shall be either at least 20 dB below that in any 100 kHz bandwidth within the band that contains the highest level of the desired power or shall not exceed the general levels specified in § 15.209(a), whichever results in the lesser attenuation.

9.2 Measurement Procedure

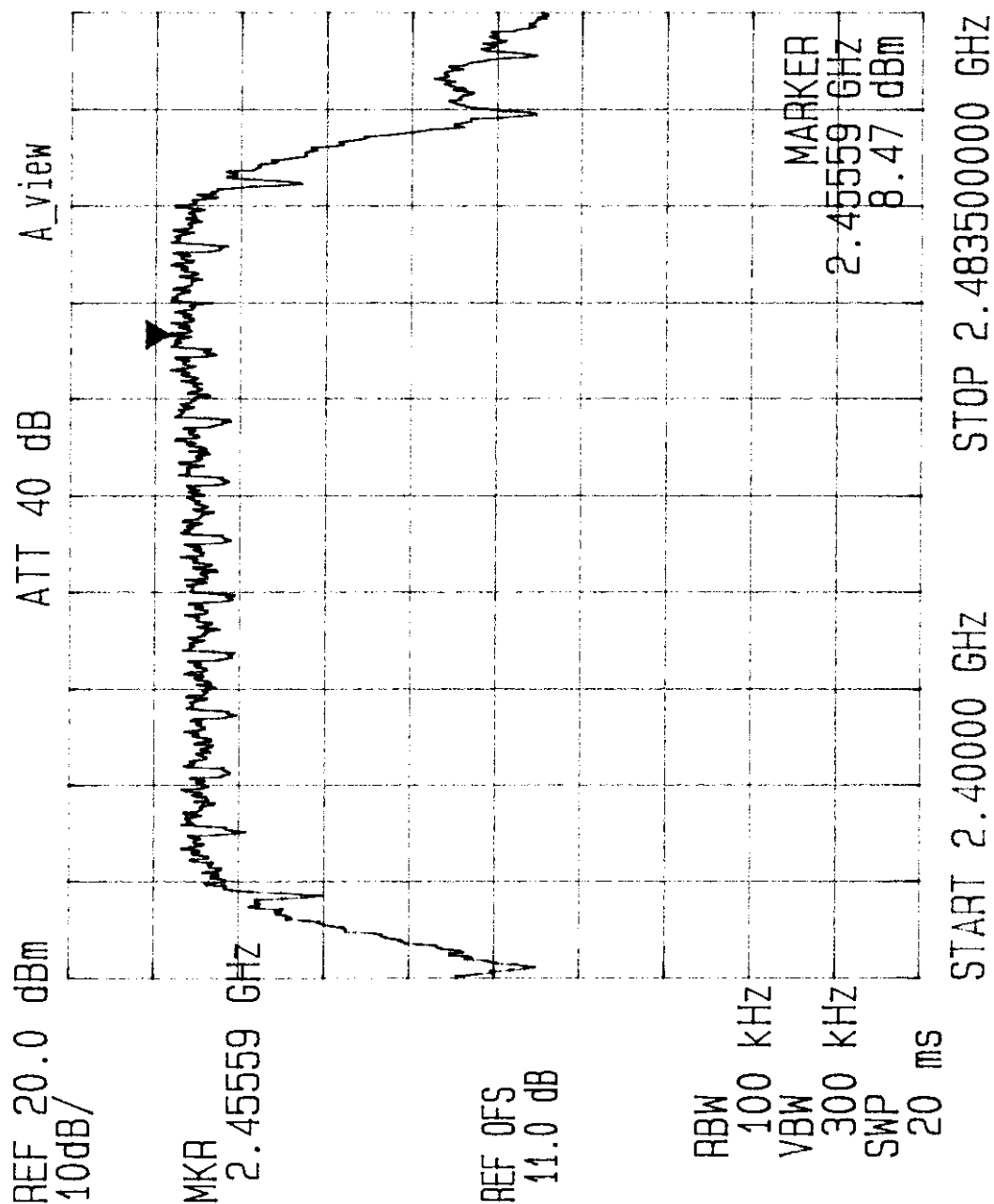
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT as shown in figure 4 without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range and make sure the instrument is operated in its linear range.
3. Set both RBW and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

9.3 Measurement Equipment

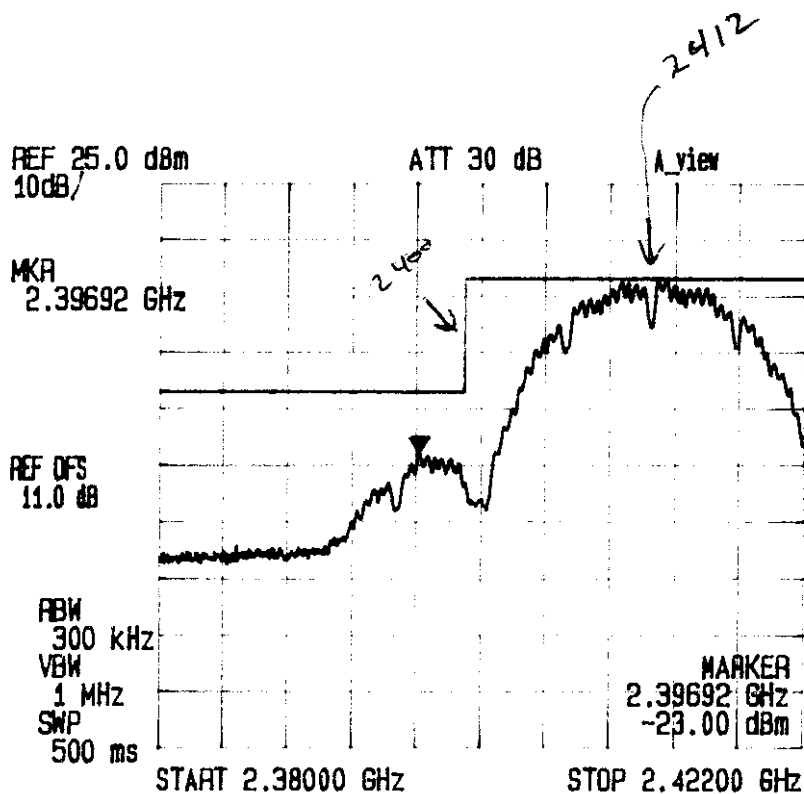
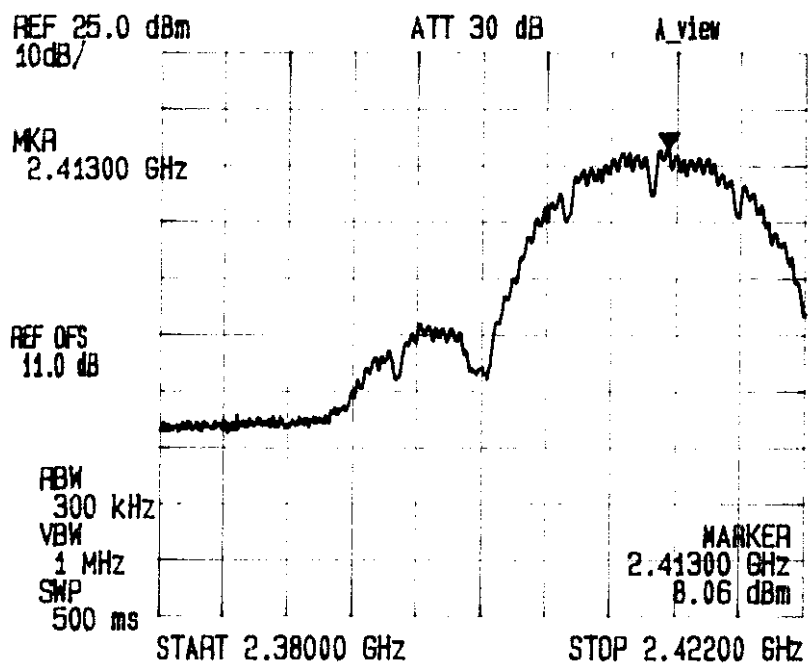
Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Adventest	R3271	Sep. 02, 1998
Attenuator	Weinschel Engineering	1	N/A
Plotter	Hewlett-Packard	7440A	N/A

9.4 Measurement Data

a) Total occupied bandwidth of all channels

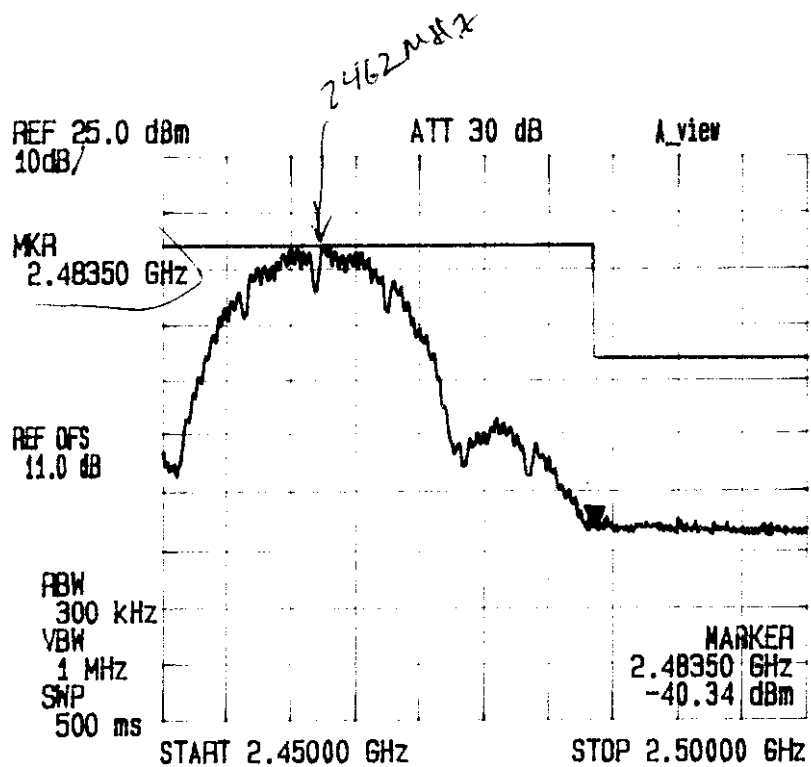
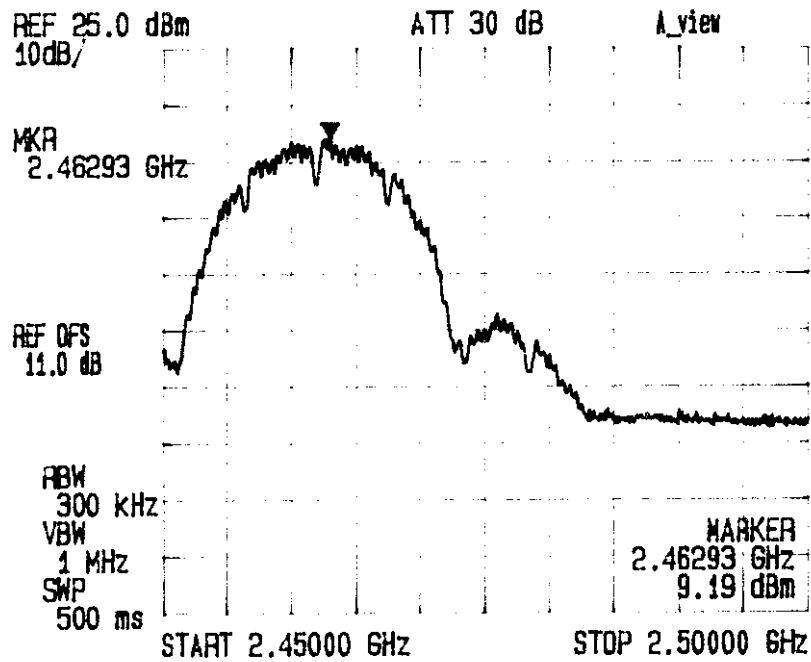


b) 100 kHz bandwidth from lower band edge



4.21 DIV

c) 100 kHz bandwidth from upper band edge



5 u/dw

10 POWER DENSITY MEASUREMENT

10.1 Standard Applicable

According to 15.247(d), for direct sequence systems, the transmitted power density averaged over any 1 second interval shall not be greater than 8 dBm in any 3 kHz bandwidth within these bands.

10.2 Measurement Procedure

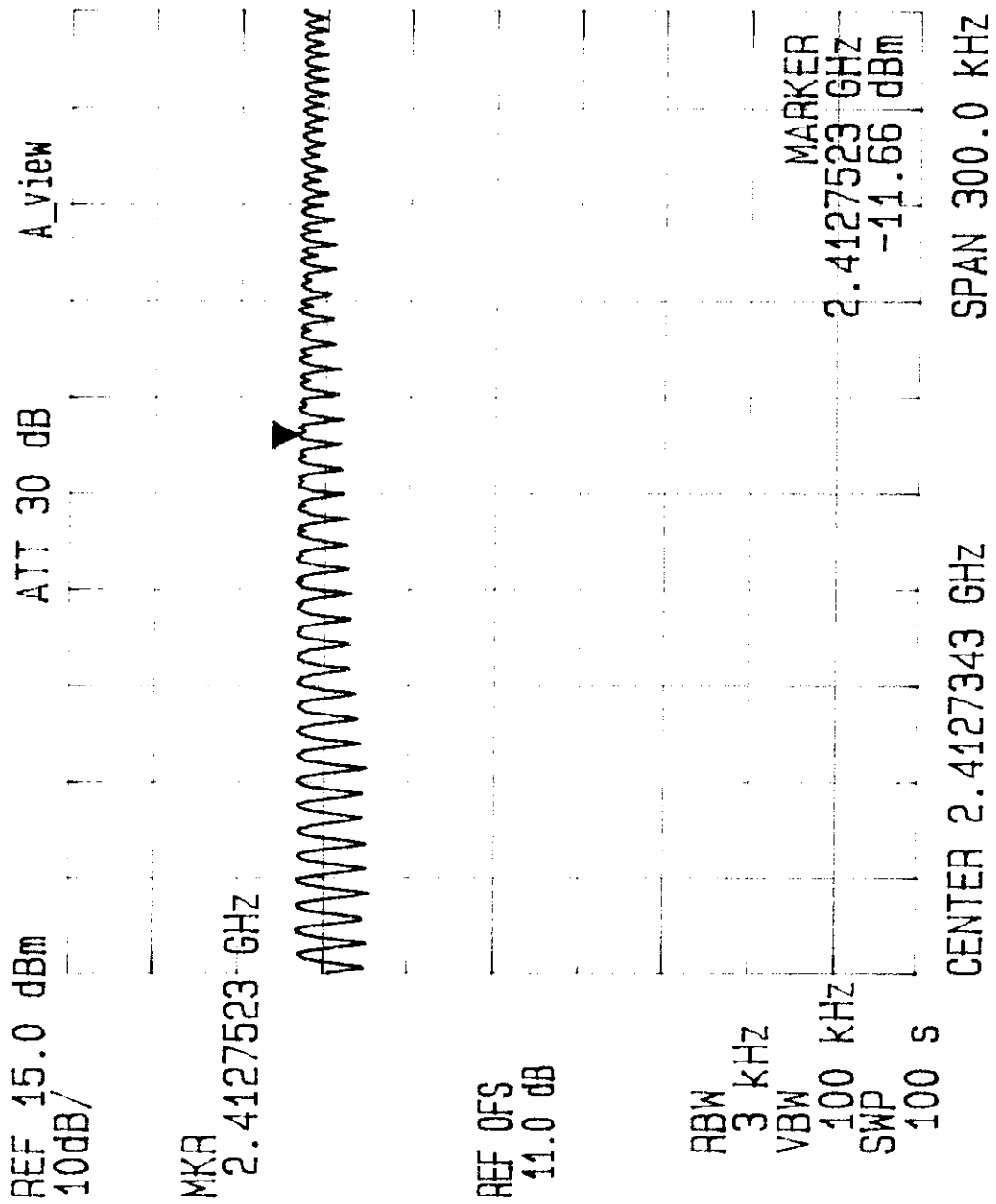
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT as shown in figure 4 without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set EUT to any one measured frequency within its operating range and make sure the instrument is operated in its linear range.
3. Adjust the center frequency of spectrum analyzer on highest level appearing on spectral display within a 300 kHz frequency span.
4. Set the spectrum analyzer on a 3 kHz resolution bandwidth and 100 kHz video bandwidth as well as max. hold function. Also turn on SA level corrected function by 20 dB and then record the measurement result.
5. Repeat above procedures until all measured frequencies were complete.

10.3 Measurement Equipment

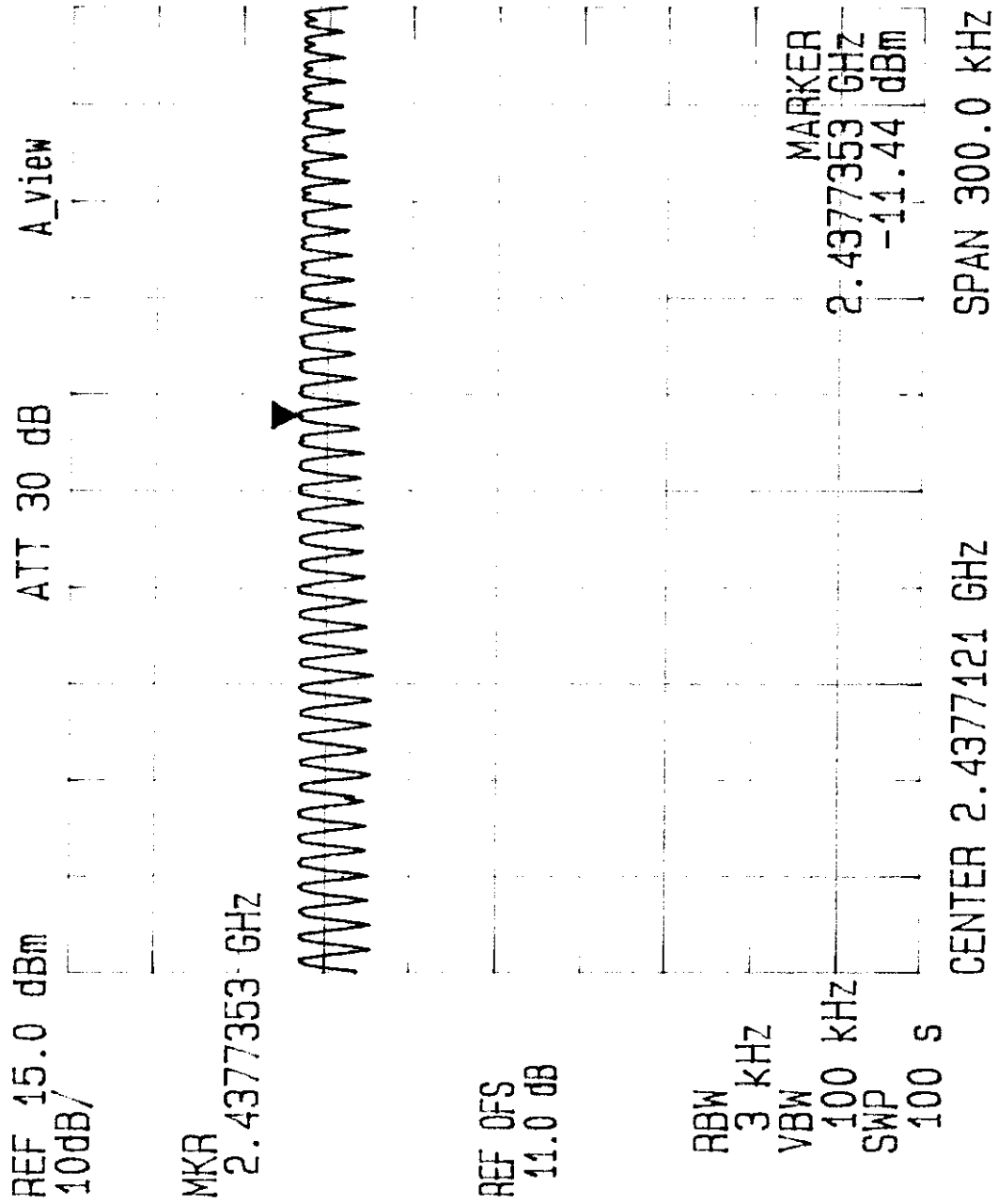
Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Adventest	R3271	Sep. 02, 1998
Attenuator	Weinschel Engineering	1	N/A
Plotter	Hewlett-Packard	7440A	N/A

10.4 Measurement Data

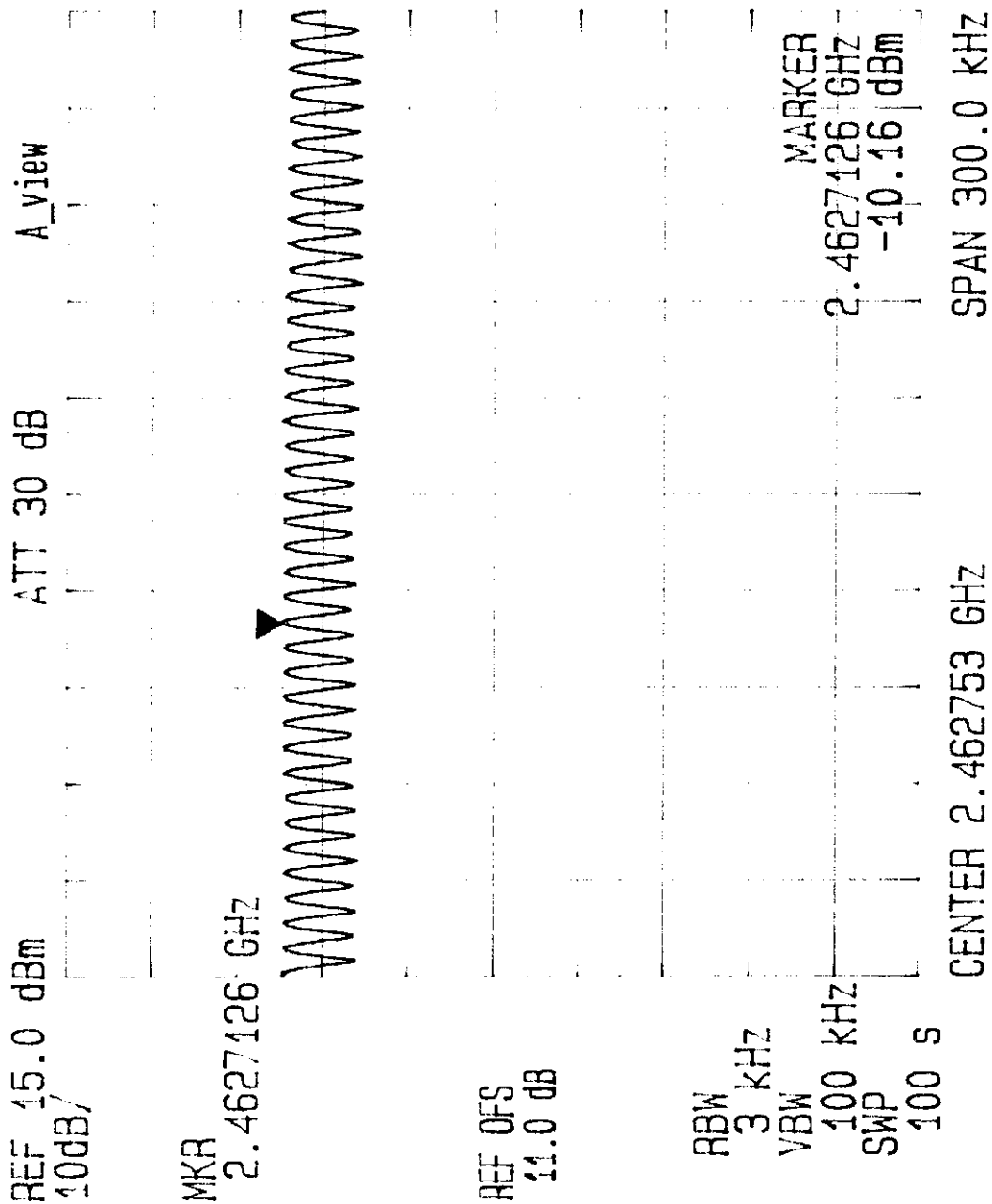
a) Channel 1 : 3 kHz bandwidth power density



b) Channel 6 : 3 kHz bandwidth power density



c) Channel 11 : 3 kHz bandwidth power density





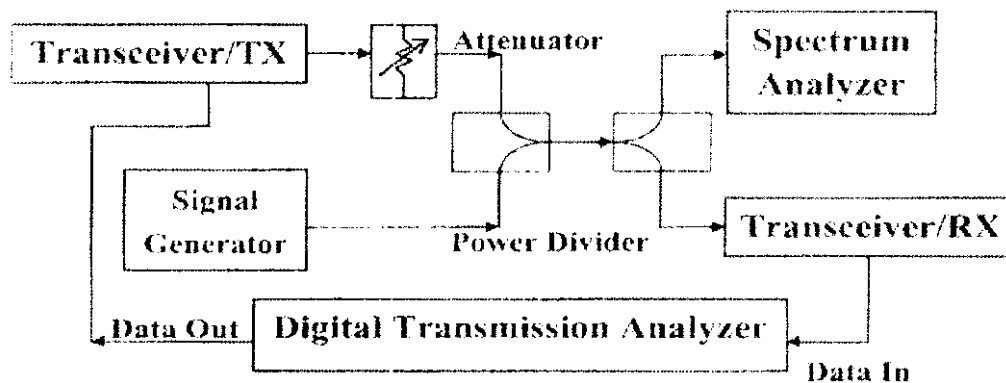
Z-Com Inc.
A Wireless Networking Company

7F-2, 9 Prosperity 1 Road
Science-Based Industrial
Park Hsinchu, Taiwan
Tel : 886-3-5777366
Fax : 886-3-5777359

Processing Gain Test

Z-Com's Products are direct sequence spread spectrum transceivers. The processing gain are measured following the concept described in the PUBLIC NOTIC (GUIDANCE ON MEASUREMENTS FOR DIRECT SEQUENCE SPREAD SPECTRUM SYSTEMS) of FCC. Ref : FCC document 54797 pages 3 July 12 1996.

The test setup is shown as Fig. 1.



Spectrum Analyzer : HP8593E

Signal Generator : R/S SME03

Digital Transmission Analyzer : HP3784A

Attenuator : HP8496B

Power Divider : HP11636B

Fig. 1 Jamming Test Setup

The attenuator is to adjust the transceiver/TX's output power to maintain the required BER, which is measured by the digital transmission analyzer. The cables connected to spectrum analyzer (SA) and transceiver/RX have the same specification. This makes sure the reading of SA is the same as transceiver/RX's. The jamming signals output by the signal generator increase the frequency in 50 KHz per step across the passband of the system.

The modulation type of Z-Com's product is coherent Binary Phase Shift Key (BPSK). The theoretical performance of coherent BPSK is given, for instance, by Peyton Z. Peebles, JR., Prentice-Hall International Inc., 1987



Z-Com Inc.
A Wireless Networking Company

7F-2, 9 Prosperity I Road
 Science Based Industrial
 Park, Hsinchu, Taiwan
 Tel : 886-3-5777364
 Fax : 886-3-5773359

page 254:

$$P_e = (1/2) \operatorname{erfc}(E/N_o)$$

and

$$S/N = 2 E/N_o$$

Where

E = energy per bit,

N_o = average noise spectral density per bandwidth,

S = average signal power,

N = average noise power.

For a given BER = 10^{-5} , the E/N_o = 9.8 dB, then S/N = 12.8 dB.

According to the PUBLIC NOTIC (GUIDANCE ON MEASUREMENTS FOR DIRECT SEQUENCE SPREAD SPECTRUM SYSTEMS, Ref : FCC document 54797 pages 3 July 12 1996.) of FCC, the processing gain is calculated from the formula:

$$G_p = (S/N)_{out} + M_j + L_{sys}$$

where

M_j = Jamming Margin = J/S,

L_{sys} = System Losses (assumed to be 2 dB)

Therefor, $G_p = 14.8 \text{ dB} + J/S$

Based on the above formula, the jamming level and signal level are measured at channel 1 (centered at 2412 MHz), channel 6 (centered at 2437 MHz) and channel 11 (centered at 2462 MHz) with 50 KHz step size, as required by the FCC message.

Processing Gain Test Data

Product Name : LANEscape WL2440 PC104 Adapter

Test Channel = #01 (centered at 2412 MHz)				Test Date: 7-Mar-98	
For coherent BPSK modulation, when BER = 10 ⁻⁵ , then (S/N) ₀ = 12.8 dB. And L _{sys} = 2 dB					
[(points < 10 dB G _p) / total] is less than 20%.					
	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	M _j =J/S (dB)	G _p =(S/N) ₀ +M _j +L _{sys}
1	2412.00	-44.12	-44.23	0.11	14.91
2	2411.95	-44.48	-44.32	-0.15	14.65
3	2411.90	-44.67	-44.18	-0.49	14.31
4	2411.85	-44.71	-44.36	-0.35	14.45
5	2411.80	-44.58	-44.20	-0.39	14.41
6	2411.75	-44.30	-44.28	-0.02	14.78
7	2411.70	-43.85	-44.41	0.56	15.36
8	2411.65	-43.24	-43.97	0.73	15.53
9	2411.60	-42.92	-44.20	1.28	16.08
10	2411.55	-42.89	-44.17	1.29	16.09
11	2411.50	-42.87	-44.17	1.30	16.10
12	2411.45	-42.89	-44.16	1.28	16.08
13	2411.40	-42.92	-44.26	1.34	16.14
14	2411.35	-42.98	-44.21	1.23	16.03
15	2411.30	-43.06	-44.09	1.03	15.83
16	2411.25	-43.16	-44.33	1.17	15.97
17	2411.20	-43.28	-44.16	0.88	15.68
18	2411.15	-49.04	-44.09	-4.95	9.85
19	2411.10	-47.48	-44.34	-3.14	11.66
20	2411.05	-46.12	-44.43	-1.69	13.11
21	2411.00	-44.93	-44.39	-0.55	14.25
22	2410.95	-43.94	-44.05	0.11	14.91
23	2410.90	-43.13	-43.97	0.84	15.64
24	2410.85	-42.51	-44.23	1.72	16.52
25	2410.80	-42.08	-44.38	2.30	17.10
26	2410.75	-41.83	-44.43	2.59	17.39
27	2410.70	-41.78	-43.97	2.20	17.00
28	2410.65	-41.90	-44.15	2.25	17.05
29	2410.60	-42.14	-44.14	2.00	16.80
30	2410.55	-42.75	-44.35	1.60	16.40
31	2410.50	-43.22	-44.00	0.78	15.58
32	2410.45	-43.55	-44.21	0.66	15.46
33	2410.40	-43.75	-44.08	0.33	15.13
34	2410.35	-43.81	-44.43	0.62	15.42
35	2410.30	-43.73	-44.27	0.54	15.34
36	2410.25	-43.51	-44.22	0.71	15.51
37	2410.20	-43.16	-44.35	1.19	15.99

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
38	2410.15	-43.90	-44.23	0.33	15.13
39	2410.10	-43.91	-44.18	0.27	15.07
40	2410.05	-43.92	-44.42	0.50	15.30
41	2410.00	-43.93	-44.36	0.42	15.22
42	2409.95	-43.95	-44.19	0.24	15.04
43	2409.90	-43.97	-44.17	0.20	15.00
44	2409.85	-43.98	-44.23	0.25	15.05
45	2409.80	-44.00	-44.35	0.35	15.15
46	2409.75	-44.02	-44.09	0.07	14.87
47	2409.70	-44.04	-44.41	0.37	15.17
48	2409.65	-44.07	-44.35	0.28	15.08
49	2409.60	-44.09	-44.24	0.15	14.95
50	2409.55	-43.99	-43.97	-0.02	14.78
51	2409.50	-43.93	-43.96	0.03	14.83
52	2409.45	-43.90	-44.34	0.44	15.24
53	2409.40	-43.92	-44.13	0.21	15.01
54	2409.35	-43.96	-44.05	0.09	14.89
55	2409.30	-44.05	-44.13	0.08	14.88
56	2409.25	-44.17	-44.27	0.10	14.90
57	2409.20	-44.33	-44.00	-0.33	14.47
58	2409.15	-42.58	-44.21	1.63	16.43
59	2409.10	-43.19	-44.10	0.91	15.71
60	2409.05	-43.66	-44.17	0.51	15.31
61	2409.00	-44.01	-44.12	0.11	14.91
62	2408.95	-44.23	-44.12	-0.11	14.69
63	2408.90	-44.31	-44.37	0.06	14.86
64	2408.85	-44.26	-44.09	-0.17	14.63
65	2408.80	-44.09	-44.07	-0.01	14.79
66	2408.75	-43.78	-44.43	0.65	15.45
67	2408.70	-43.34	-44.23	0.89	15.69
68	2408.65	-42.77	-43.95	1.18	15.98
69	2408.60	-42.55	-44.00	1.45	16.25
70	2408.55	-42.61	-44.19	1.58	16.38
71	2408.50	-42.69	-44.34	1.65	16.45
72	2408.45	-42.77	-44.25	1.48	16.28
73	2408.40	-42.86	-44.21	1.35	16.15
74	2408.35	-42.96	-44.04	1.08	15.88
75	2408.30	-43.07	-44.09	1.03	15.83
76	2408.25	-43.18	-43.99	0.81	15.61
77	2408.20	-43.21	-44.33	1.12	15.92
78	2408.15	-42.89	-44.39	1.50	16.30
79	2408.10	-42.61	-44.29	1.68	16.48
80	2408.05	-42.39	-44.28	1.88	16.68
81	2408.00	-42.23	-44.32	2.09	16.89
82	2407.95	-42.11	-43.95	1.85	16.65
83	2407.90	-42.04	-44.14	2.10	16.90

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
84	2407.85	-42.03	-44.37	2.33	17.13
85	2407.80	-42.07	-44.16	2.09	16.89
86	2407.75	-42.16	-43.95	1.79	16.59
87	2407.70	-42.30	-44.37	2.07	16.87
88	2407.65	-42.50	-43.98	1.48	16.28
89	2407.60	-42.75	-44.07	1.32	16.12
90	2407.55	-43.08	-44.40	1.31	16.11
91	2407.50	-43.39	-43.95	0.56	15.36
92	2407.45	-43.63	-44.23	0.60	15.40
93	2407.40	-43.78	-43.99	0.21	15.01
94	2407.35	-43.85	-43.97	0.12	14.92
95	2407.30	-43.84	-44.17	0.33	15.13
96	2407.25	-43.76	-44.38	0.63	15.43
97	2407.20	-43.59	-44.30	0.71	15.51
98	2407.15	-44.05	-44.38	0.33	15.13
99	2407.10	-44.03	-43.99	-0.04	14.76
100	2407.05	-43.98	-44.23	0.25	15.05
101	2407.00	-43.91	-44.09	0.18	14.98
102	2406.95	-43.82	-44.14	0.32	15.12
103	2406.90	-43.70	-44.25	0.55	15.35
104	2406.85	-43.56	-44.29	0.73	15.53
105	2406.80	-43.38	-44.03	0.64	15.44
106	2406.75	-43.19	-44.41	1.22	16.02
107	2406.70	-42.97	-44.40	1.43	16.23
108	2406.65	-42.72	-44.35	1.62	16.42
109	2406.60	-42.45	-44.40	1.95	16.75
110	2406.55	-42.43	-44.09	1.66	16.46
111	2406.50	-42.41	-44.06	1.64	16.44
112	2406.45	-42.40	-44.10	1.70	16.50
113	2406.40	-42.39	-44.16	1.77	16.57
114	2406.35	-42.39	-44.21	1.83	16.63
115	2406.30	-42.39	-44.42	2.04	16.84
116	2406.25	-42.39	-44.26	1.87	16.67
117	2406.20	-39.46	-44.44	4.98	19.78
118	2406.15	-40.44	-44.20	3.76	18.56
119	2406.10	-41.25	-44.19	2.94	17.74
120	2406.05	-41.89	-44.28	2.39	17.19
121	2406.00	-42.37	-44.10	1.73	16.53
122	2405.95	-42.68	-44.25	1.56	16.36
123	2405.90	-42.83	-44.17	1.34	16.14
124	2405.85	-42.81	-44.24	1.42	16.22
125	2405.80	-42.63	-44.04	1.41	16.21
126	2405.75	-42.28	-43.99	1.71	16.51
127	2405.70	-41.77	-44.13	2.36	17.16
128	2405.65	-41.09	-44.18	3.09	17.89
129	2405.60	-40.83	-44.07	3.24	18.04

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
130	2405.55	-40.91	-44.11	3.20	18.00
131	2405.50	-40.96	-44.24	3.28	18.08
132	2405.45	-40.98	-44.17	3.19	17.99
133	2405.40	-40.98	-43.96	2.98	17.78
134	2405.35	-40.94	-44.31	3.36	18.16
135	2405.30	-40.89	-44.16	3.28	18.08
136	2405.25	-40.80	-44.36	3.56	18.36
137	2405.20	-42.43	-44.27	1.83	16.63
138	2405.15	-41.87	-44.23	2.36	17.16
139	2405.10	-41.41	-44.17	2.76	17.56
140	2405.05	-41.06	-44.04	2.99	17.79
141	2405.00	-40.80	-44.21	3.41	18.21
142	2404.95	-40.64	-44.00	3.36	18.16
143	2404.90	-40.59	-44.41	3.82	18.62
144	2404.85	-40.64	-44.18	3.55	18.35
145	2404.80	-40.79	-44.38	3.59	18.39
146	2404.75	-41.04	-44.01	2.96	17.76
147	2404.70	-41.40	-44.06	2.67	17.47
148	2404.65	-41.85	-44.24	2.39	17.19
149	2404.60	-41.65	-44.11	2.46	17.26
150	2404.55	-41.44	-44.42	2.98	17.78
151	2404.50	-41.22	-44.43	3.20	18.00
152	2404.45	-40.99	-44.32	3.33	18.13
153	2404.40	-40.76	-44.28	3.52	18.32
154	2404.35	-40.51	-44.39	3.89	18.69
155	2404.30	-40.25	-44.30	4.06	18.86
156	2404.25	-39.98	-44.09	4.11	18.91
157	2404.20	-39.70	-44.41	4.71	19.51
158	2404.15	-40.35	-44.12	3.77	18.57
159	2404.10	-40.76	-44.22	3.46	18.26
160	2404.05	-40.92	-44.38	3.46	18.26
161	2404.00	-40.83	-44.01	3.18	17.98
162	2403.95	-40.50	-44.31	3.80	18.60
163	2403.90	-39.93	-44.44	4.52	19.32
164	2403.85	-39.11	-44.20	5.09	19.89
165	2403.80	-39.00	-44.42	5.42	20.22
166	2403.75	-39.35	-44.25	4.90	19.70
167	2403.70	-39.52	-44.39	4.86	19.66
168	2403.65	-39.52	-44.24	4.72	19.52
169	2403.60	-39.34	-44.29	4.95	19.75
170	2403.55	-38.99	-44.20	5.21	20.01
171	2403.50	-38.46	-44.00	5.55	20.35
172	2403.45	-37.75	-44.07	6.32	21.12
173	2403.40	-37.48	-44.08	6.59	21.39
174	2403.35	-37.25	-44.29	7.04	21.84
175	2403.30	-37.04	-44.09	7.04	21.84

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
176	2403.25	-36.86	-44.36	7.49	22.29
177	2403.20	-36.71	-43.98	7.27	22.07
178	2403.15	-36.59	-44.26	7.67	22.47
179	2403.10	-36.50	-44.37	7.87	22.67
180	2403.05	-36.44	-44.18	7.74	22.54
181	2403.00	-36.41	-44.41	8.00	22.80
182	2402.95	-36.51	-44.18	7.67	22.47
183	2402.90	-36.61	-44.32	7.71	22.51
184	2402.85	-36.70	-44.35	7.66	22.46
185	2402.80	-36.78	-44.07	7.29	22.09
186	2402.75	-36.85	-44.15	7.29	22.09
187	2402.70	-36.92	-44.02	7.10	21.90
188	2402.65	-36.99	-44.40	7.41	22.21
189	2402.60	-36.60	-44.21	7.61	22.41
190	2402.55	-36.03	-44.30	8.27	23.07
191	2402.50	-35.59	-44.03	8.45	23.25
192	2402.45	-35.27	-44.38	9.11	23.91
193	2402.40	-35.08	-44.33	9.25	24.05
194	2402.35	-35.02	-44.33	9.31	24.11
195	2402.30	-35.09	-44.01	8.93	23.73
196	2402.25	-35.28	-44.01	8.73	23.53
197	2402.20	-35.19	-43.98	8.80	23.60
198	2402.15	-35.08	-44.31	9.24	24.04
199	2402.10	-34.95	-44.41	9.46	24.26
200	2402.05	-34.80	-44.36	9.57	24.37
201	2402.00	-34.63	-44.28	9.65	24.45
202	2401.95	-34.44	-44.45	10.01	24.81
203	2401.90	-34.23	-43.97	9.74	24.54
204	2401.85	-34.01	-44.07	10.06	24.86
205	2401.80	-33.76	-44.12	10.36	25.16
206	2401.75	-33.68	-44.10	10.42	25.22
207	2401.70	-33.56	-44.00	10.44	25.24
208	2401.65	-33.40	-44.37	10.96	25.76
209	2401.60	-33.21	-44.34	11.13	25.93
210	2401.55	-32.98	-44.03	11.06	25.86
211	2401.50	-32.70	-44.15	11.44	26.24
212	2401.45	-32.39	-44.11	11.72	26.52
213	2401.40	-32.08	-44.15	12.06	26.86
214	2401.35	-31.79	-44.28	12.49	27.29
215	2401.30	-31.51	-44.18	12.67	27.47
216	2401.25	-31.23	-44.18	12.95	27.75
217	2401.20	-30.96	-44.37	13.41	28.21
218	2401.15	-30.70	-44.16	13.46	28.26
219	2401.10	-30.44	-44.03	13.59	28.39
220	2401.05	-30.19	-43.96	13.77	28.57
221	2401.00	-29.95	-44.42	14.48	29.28

Processing Gain Test Data

Product Name : LANEscape WL2440 PC104 Adapter

Test Channel = #01 (centered at 2412 MHz)				Test Date: 7-Mar-98	
For coherent BPSK modulation, when $BER = 10^{-5}$, then $(S/N)_0 = 12.8$ dB. And $L_{sys} = 2$ dB					
[(points < 10 dB G_p) / total] is less than 20%.					
	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
1	2412.00	-44.12	-44.04	-0.08	14.72
2	2412.05	-44.02	-44.29	0.26	15.06
3	2412.10	-43.98	-43.95	-0.03	14.77
4	2412.15	-43.98	-44.25	0.27	15.07
5	2412.20	-44.03	-44.14	0.11	14.91
6	2412.25	-44.14	-44.14	0.00	14.80
7	2412.30	-44.13	-44.18	0.05	14.85
8	2412.35	-44.18	-43.95	-0.23	14.57
9	2412.40	-44.23	-44.01	-0.22	14.58
10	2412.45	-44.30	-43.97	-0.33	14.47
11	2412.50	-44.87	-44.17	-0.70	14.10
12	2412.55	-45.22	-44.06	-1.15	13.65
13	2412.60	-45.33	-44.17	-1.17	13.63
14	2412.65	-45.22	-44.14	-1.08	13.72
15	2412.70	-44.87	-44.01	-0.86	13.94
16	2412.75	-44.30	-44.12	-0.18	14.62
17	2412.80	-43.50	-44.14	0.64	15.44
18	2412.85	-43.26	-44.03	0.78	15.58
19	2412.90	-43.93	-44.22	0.29	15.09
20	2412.95	-44.35	-44.32	-0.02	14.78
21	2413.00	-44.50	-44.23	-0.27	14.53
22	2413.05	-44.38	-43.86	-0.52	14.28
23	2413.10	-44.00	-43.77	-0.23	14.57
24	2413.15	-43.35	-44.12	0.77	15.57
25	2413.20	-42.44	-44.28	1.84	16.64
26	2413.25	-42.27	-44.18	1.91	16.71
27	2413.30	-42.13	-43.94	1.81	16.61
28	2413.35	-42.05	-44.04	1.99	16.79
29	2413.40	-42.00	-43.96	1.95	16.75
30	2413.45	-42.01	-44.18	2.18	16.98
31	2413.50	-42.05	-43.86	1.81	16.61
32	2413.55	-42.14	-44.18	2.04	16.84
33	2413.60	-42.27	-43.90	1.63	16.43
34	2413.65	-42.45	-44.28	1.83	16.63
35	2413.70	-42.86	-44.13	1.27	16.07
36	2413.75	-43.13	-44.12	0.99	15.79
37	2413.80	-43.25	-44.30	1.05	15.85

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
38	2413.85	-43.24	-44.06	0.83	15.63
39	2413.90	-43.08	-44.02	0.94	15.74
40	2413.95	-42.78	-44.19	1.41	16.21
41	2414.00	-42.34	-44.15	1.81	16.61
42	2414.05	-42.20	-43.96	1.76	16.56
43	2414.10	-42.63	-44.13	1.50	16.30
44	2414.15	-42.98	-44.13	1.15	15.95
45	2414.20	-43.25	-44.16	0.91	15.71
46	2414.25	-43.45	-43.85	0.40	15.20
47	2414.30	-43.57	-44.21	0.65	15.45
48	2414.35	-43.61	-44.19	0.58	15.38
49	2414.40	-43.58	-44.24	0.66	15.46
50	2414.45	-43.46	-43.75	0.28	15.08
51	2414.50	-43.08	-43.88	0.80	15.60
52	2414.55	-42.71	-44.23	1.52	16.32
53	2414.60	-42.82	-44.06	1.23	16.03
54	2414.65	-43.42	-43.91	0.49	15.29
55	2414.70	-44.49	-44.05	-0.44	14.36
56	2414.75	-44.71	-44.04	-0.67	14.13
57	2414.80	-44.85	-43.96	-0.89	13.91
58	2414.85	-44.90	-44.13	-0.77	14.03
59	2414.90	-44.87	-43.91	-0.96	13.84
60	2414.95	-44.75	-43.96	-0.79	14.01
61	2415.00	-44.55	-43.87	-0.68	14.12
62	2415.05	-44.26	-44.09	-0.18	14.62
63	2415.10	-43.89	-44.17	0.28	15.08
64	2415.15	-43.44	-43.86	0.42	15.22
65	2415.20	-43.19	-44.06	0.87	15.67
66	2415.25	-43.04	-44.35	1.31	16.11
67	2415.30	-43.00	-44.12	1.12	15.92
68	2415.35	-43.06	-43.87	0.81	15.61
69	2415.40	-43.22	-43.89	0.67	15.47
70	2415.45	-43.48	-44.02	0.54	15.34
71	2415.50	-43.85	-44.29	0.45	15.25
72	2415.55	-44.00	-44.22	0.22	15.02
73	2415.60	-43.73	-43.96	0.23	15.03
74	2415.65	-43.47	-43.88	0.41	15.21
75	2415.70	-43.24	-43.90	0.66	15.46
76	2415.75	-43.03	-43.89	0.86	15.66
77	2415.80	-42.84	-44.16	1.32	16.12
78	2415.85	-42.68	-44.20	1.52	16.32
79	2415.90	-42.53	-44.12	1.59	16.39
80	2415.95	-42.41	-44.12	1.71	16.51
81	2416.00	-42.30	-44.15	1.85	16.65
82	2416.05	-42.18	-43.70	1.52	16.32
83	2416.10	-42.11	-43.96	1.86	16.66

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
84	2416.15	-42.06	-44.36	2.30	17.10
85	2416.20	-42.04	-43.94	1.90	16.70
86	2416.25	-42.05	-43.73	1.68	16.48
87	2416.30	-42.10	-44.31	2.21	17.01
88	2416.35	-42.18	-43.89	1.71	16.51
89	2416.40	-42.29	-43.83	1.54	16.34
90	2416.45	-42.49	-44.34	1.85	16.65
91	2416.50	-42.72	-43.94	1.22	16.02
92	2416.55	-42.85	-44.06	1.20	16.00
93	2416.60	-42.89	-43.95	1.07	15.87
94	2416.65	-42.82	-43.83	1.01	15.81
95	2416.70	-42.66	-44.06	1.40	16.20
96	2416.75	-42.39	-44.29	1.90	16.70
97	2416.80	-42.03	-44.12	2.09	16.89
98	2416.85	-41.75	-44.33	2.58	17.38
99	2416.90	-41.59	-43.87	2.28	17.08
100	2416.95	-41.56	-44.01	2.45	17.25
101	2417.00	-41.65	-43.91	2.26	17.06
102	2417.05	-41.87	-43.90	2.03	16.83
103	2417.10	-42.22	-44.16	1.94	16.74
104	2417.15	-42.70	-44.24	1.54	16.34
105	2417.20	-42.89	-43.89	1.00	15.80
106	2417.25	-42.55	-44.26	1.70	16.50
107	2417.30	-42.29	-44.23	1.94	16.74
108	2417.35	-42.11	-44.10	1.99	16.79
109	2417.40	-41.99	-44.25	2.26	17.06
110	2417.45	-41.95	-43.89	1.94	16.74
111	2417.50	-41.98	-43.82	1.85	16.65
112	2417.55	-42.08	-43.93	1.85	16.65
113	2417.60	-42.25	-43.94	1.68	16.48
114	2417.65	-42.38	-44.15	1.77	16.57
115	2417.70	-42.35	-44.40	2.05	16.85
116	2417.75	-42.34	-44.11	1.77	16.57
117	2417.80	-42.34	-44.35	2.01	16.81
118	2417.85	-42.35	-44.15	1.80	16.60
119	2417.90	-42.37	-43.97	1.60	16.40
120	2417.95	-42.41	-44.12	1.72	16.52
121	2418.00	-42.45	-44.00	1.55	16.35
122	2418.05	-42.51	-44.12	1.61	16.41
123	2418.10	-42.76	-44.05	1.29	16.09
124	2418.15	-43.17	-44.07	0.90	15.70
125	2418.20	-43.39	-43.79	0.40	15.20
126	2418.25	-43.43	-43.96	0.53	15.33
127	2418.30	-43.28	-44.11	0.83	15.63
128	2418.35	-42.95	-44.06	1.11	15.91
129	2418.40	-42.43	-43.88	1.46	16.26

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
130	2418.45	-41.72	-44.00	2.28	17.08
131	2418.50	-41.27	-44.18	2.92	17.72
132	2418.55	-40.93	-43.98	3.05	17.85
133	2418.60	-40.71	-43.82	3.10	17.90
134	2418.65	-40.62	-44.12	3.51	18.31
135	2418.70	-40.64	-44.10	3.46	18.26
136	2418.75	-40.79	-44.24	3.45	18.25
137	2418.80	-41.05	-44.04	2.99	17.79
138	2418.85	-41.09	-44.03	2.93	17.73
139	2418.90	-40.70	-44.10	3.39	18.19
140	2418.95	-40.37	-44.17	3.80	18.60
141	2419.00	-40.10	-43.89	3.79	18.59
142	2419.05	-39.90	-44.31	4.41	19.21
143	2419.10	-39.76	-43.97	4.21	19.01
144	2419.15	-39.68	-44.28	4.60	19.40
145	2419.20	-39.66	-44.00	4.34	19.14
146	2419.25	-39.71	-43.85	4.14	18.94
147	2419.30	-39.87	-44.15	4.28	19.08
148	2419.35	-40.05	-44.04	3.99	18.79
149	2419.40	-40.16	-44.38	4.21	19.01
150	2419.45	-40.19	-44.31	4.12	18.92
151	2419.50	-40.14	-44.19	4.05	18.85
152	2419.55	-40.01	-44.13	4.11	18.91
153	2419.60	-39.81	-44.31	4.51	19.31
154	2419.65	-39.52	-44.11	4.59	19.39
155	2419.70	-39.16	-43.95	4.79	19.59
156	2419.75	-38.90	-44.26	5.36	20.16
157	2419.80	-38.94	-43.98	5.05	19.85
158	2419.85	-39.04	-43.97	4.94	19.74
159	2419.90	-39.20	-44.24	5.04	19.84
160	2419.95	-39.42	-43.98	4.56	19.36
161	2420.00	-39.71	-44.12	4.42	19.22
162	2420.05	-40.05	-44.26	4.21	19.01
163	2420.10	-40.46	-43.95	3.49	18.29
164	2420.15	-40.01	-44.20	4.19	18.99
165	2420.20	-39.68	-44.12	4.44	19.24
166	2420.25	-39.45	-44.24	4.79	19.59
167	2420.30	-39.34	-44.05	4.71	19.51
168	2420.35	-39.33	-44.10	4.77	19.57
169	2420.40	-39.43	-44.08	4.64	19.44
170	2420.45	-39.65	-43.78	4.13	18.93
171	2420.50	-39.65	-43.95	4.30	19.10
172	2420.55	-39.25	-43.95	4.70	19.50
173	2420.60	-38.93	-44.28	5.34	20.14
174	2420.65	-38.68	-43.88	5.19	19.99
175	2420.70	-38.51	-44.30	5.79	20.59

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
176	2420.75	-38.41	-43.90	5.49	20.29
177	2420.80	-38.38	-44.19	5.81	20.61
178	2420.85	-38.43	-44.27	5.84	20.64
179	2420.90	-39.08	-44.15	5.07	19.87
180	2420.95	-39.30	-44.21	4.92	19.72
181	2421.00	-39.10	-43.99	4.89	19.69
182	2421.05	-38.48	-44.24	5.76	20.56
183	2421.10	-37.77	-44.32	6.56	21.36
184	2421.15	-37.43	-43.90	6.47	21.27
185	2421.20	-37.14	-44.00	6.86	21.66
186	2421.25	-36.87	-43.96	7.09	21.89
187	2421.30	-36.64	-44.34	7.70	22.50
188	2421.35	-36.44	-44.15	7.70	22.50
189	2421.40	-36.28	-44.06	7.78	22.58
190	2421.45	-36.15	-43.87	7.72	22.52
191	2421.50	-36.06	-44.14	8.08	22.88
192	2421.55	-35.98	-44.27	8.29	23.09
193	2421.60	-35.83	-44.19	8.36	23.16
194	2421.65	-35.63	-43.99	8.36	23.16
195	2421.70	-35.38	-43.87	8.49	23.29
196	2421.75	-35.09	-43.94	8.85	23.65
197	2421.80	-34.74	-44.27	9.53	24.33
198	2421.85	-34.34	-44.29	9.95	24.75
199	2421.90	-33.89	-44.29	10.40	25.20
200	2421.95	-34.02	-44.11	10.09	24.89
201	2422.00	-34.07	-44.29	10.22	25.02
202	2422.05	-34.03	-43.74	9.71	24.51
203	2422.10	-33.91	-43.98	10.07	24.87
204	2422.15	-33.71	-43.93	10.22	25.02
205	2422.20	-33.42	-43.99	10.57	25.37
206	2422.25	-33.05	-43.83	10.78	25.58
207	2422.30	-32.90	-44.34	11.43	26.23
208	2422.35	-33.10	-44.26	11.16	25.96
209	2422.40	-33.17	-43.96	10.79	25.59
210	2422.45	-33.12	-44.04	10.92	25.72
211	2422.50	-32.94	-44.05	11.11	25.91
212	2422.55	-32.64	-44.11	11.48	26.28
213	2422.60	-32.21	-44.10	11.89	26.69
214	2422.65	-31.65	-44.01	12.36	27.16
215	2422.70	-31.54	-43.98	12.44	27.24
216	2422.75	-31.46	-44.28	12.82	27.62
217	2422.80	-31.42	-44.05	12.63	27.43
218	2422.85	-31.41	-44.02	12.61	27.41
219	2422.90	-31.43	-43.87	12.43	27.23
220	2422.95	-31.49	-44.33	12.84	27.64
221	2423.00	-31.59	-44.08	12.49	27.29

Processing Gain Test Data

Product Name : LANEscape WL2440 PC104 Adapter

Test Channel = #06 (centered at 2437 MHz)				Test Date: 7-Mar-98	
For coherent BPSK modulation, when $BER = 10^{-5}$, then $(S/N)_0 = 12.8$ dB. And $L_{sys} = 2$ dB					
[(points < 10 dB G_p) / total] is less than 20%.					
	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
1	2437.00	-47.03	-44.19	-2.84	11.96
2	2436.95	-47.21	-44.24	-2.97	11.83
3	2436.90	-46.79	-44.11	-2.69	12.11
4	2436.85	-46.12	-44.05	-2.07	12.73
5	2436.80	-45.65	-44.18	-1.48	13.32
6	2436.75	-45.38	-44.12	-1.26	13.54
7	2436.70	-45.31	-44.16	-1.15	13.65
8	2436.65	-45.44	-44.20	-1.24	13.56
9	2436.60	-45.76	-43.86	-1.90	12.90
10	2436.55	-45.67	-44.19	-1.48	13.32
11	2436.50	-45.55	-44.03	-1.52	13.28
12	2436.45	-45.45	-44.16	-1.28	13.52
13	2436.40	-45.36	-44.15	-1.21	13.59
14	2436.35	-45.29	-44.12	-1.16	13.64
15	2436.30	-45.23	-44.16	-1.07	13.73
16	2436.25	-45.20	-43.99	-1.20	13.60
17	2436.20	-45.17	-44.14	-1.03	13.77
18	2436.15	-45.17	-44.01	-1.16	13.64
19	2436.10	-45.18	-43.85	-1.33	13.47
20	2436.05	-45.20	-44.25	-0.96	13.84
21	2436.00	-44.91	-44.22	-0.70	14.10
22	2435.95	-44.50	-44.35	-0.15	14.65
23	2435.90	-44.19	-43.99	-0.20	14.60
24	2435.85	-44.01	-43.89	-0.12	14.68
25	2435.80	-43.94	-44.18	0.24	15.04
26	2435.75	-43.99	-44.30	0.31	15.11
27	2435.70	-44.15	-44.31	0.16	14.96
28	2435.65	-48.11	-43.85	-4.26	10.54
29	2435.60	-47.44	-44.12	-3.33	11.47
30	2435.55	-46.86	-44.01	-2.85	11.95
31	2435.50	-46.36	-44.14	-2.22	12.58
32	2435.45	-45.94	-43.81	-2.13	12.67
33	2435.40	-45.61	-44.14	-1.47	13.33
34	2435.35	-45.35	-43.98	-1.37	13.43
35	2435.30	-45.18	-44.41	-0.76	14.04
36	2435.25	-45.08	-44.09	-0.99	13.81
37	2435.20	-45.07	-44.08	-0.99	13.81

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
38	2435.15	-45.14	-44.16	-0.98	13.82
39	2435.10	-45.29	-44.10	-1.19	13.61
40	2435.05	-45.52	-44.01	-1.51	13.29
41	2435.00	-45.83	-44.28	-1.55	13.25
42	2434.95	-45.68	-44.34	-1.34	13.46
43	2434.90	-45.30	-44.18	-1.12	13.68
44	2434.85	-45.07	-44.09	-0.98	13.82
45	2434.80	-44.99	-44.09	-0.91	13.89
46	2434.75	-45.07	-44.12	-0.95	13.85
47	2434.70	-45.30	-43.86	-1.44	13.36
48	2434.65	-45.68	-44.21	-1.46	13.34
49	2434.60	-46.22	-44.18	-2.04	12.76
50	2434.55	-46.15	-44.07	-2.08	12.72
51	2434.50	-46.06	-43.92	-2.14	12.66
52	2434.45	-45.97	-43.72	-2.25	12.55
53	2434.40	-45.87	-44.18	-1.68	13.12
54	2434.35	-45.76	-43.91	-1.85	12.95
55	2434.30	-45.64	-43.95	-1.69	13.11
56	2434.25	-45.50	-43.96	-1.54	13.26
57	2434.20	-45.36	-44.04	-1.33	13.47
58	2434.15	-45.22	-43.94	-1.27	13.53
59	2434.10	-45.06	-44.18	-0.88	13.92
60	2434.05	-44.81	-43.97	-0.84	13.96
61	2434.00	-44.61	-43.94	-0.66	14.14
62	2433.95	-44.52	-44.09	-0.44	14.36
63	2433.90	-44.56	-44.05	-0.51	14.29
64	2433.85	-44.72	-44.13	-0.59	14.21
65	2433.80	-45.00	-43.99	-1.01	13.79
66	2433.75	-45.40	-43.89	-1.51	13.29
67	2433.70	-45.92	-44.37	-1.55	13.25
68	2433.65	-43.24	-44.18	0.93	15.73
69	2433.60	-43.67	-43.81	0.14	14.94
70	2433.55	-44.02	-43.85	-0.17	14.63
71	2433.50	-44.30	-44.02	-0.28	14.52
72	2433.45	-44.50	-44.13	-0.38	14.42
73	2433.40	-44.64	-44.15	-0.48	14.32
74	2433.35	-44.70	-43.98	-0.72	14.08
75	2433.30	-44.68	-43.93	-0.75	14.05
76	2433.25	-44.60	-43.99	-0.61	14.19
77	2433.20	-44.44	-43.87	-0.57	14.23
78	2433.15	-44.21	-44.15	-0.06	14.74
79	2433.10	-43.90	-44.19	0.29	15.09
80	2433.05	-44.63	-44.18	-0.45	14.35
81	2433.00	-45.16	-44.10	-1.07	13.73
82	2432.95	-45.50	-44.10	-1.40	13.40
83	2432.90	-45.64	-43.86	-1.78	13.02

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
84	2432.85	-45.58	-44.07	-1.51	13.29
85	2432.80	-45.33	-44.21	-1.12	13.68
86	2432.75	-44.88	-43.99	-0.89	13.91
87	2432.70	-44.59	-43.89	-0.69	14.11
88	2432.65	-44.61	-44.31	-0.30	14.50
89	2432.60	-44.63	-43.74	-0.89	13.91
90	2432.55	-44.66	-43.94	-0.71	14.09
91	2432.50	-44.68	-44.36	-0.32	14.48
92	2432.45	-44.71	-43.84	-0.87	13.93
93	2432.40	-44.75	-44.16	-0.58	14.22
94	2432.35	-44.78	-43.95	-0.83	13.97
95	2432.30	-44.82	-43.85	-0.97	13.83
96	2432.25	-44.86	-44.01	-0.85	13.95
97	2432.20	-44.90	-44.24	-0.66	14.14
98	2432.15	-45.24	-44.17	-1.07	13.73
99	2432.10	-45.51	-44.25	-1.26	13.54
100	2432.05	-45.70	-43.76	-1.94	12.86
101	2432.00	-45.82	-44.08	-1.74	13.06
102	2431.95	-45.86	-43.86	-2.01	12.79
103	2431.90	-45.83	-44.07	-1.76	13.04
104	2431.85	-45.73	-44.13	-1.60	13.20
105	2431.80	-42.81	-44.27	1.47	16.27
106	2431.75	-43.21	-43.86	0.65	15.45
107	2431.70	-43.54	-44.18	0.64	15.44
108	2431.65	-43.80	-44.16	0.36	15.16
109	2431.60	-43.99	-44.21	0.22	15.02
110	2431.55	-44.11	-44.37	0.27	15.07
111	2431.50	-44.15	-43.95	-0.20	14.60
112	2431.45	-44.12	-44.03	-0.09	14.71
113	2431.40	-44.02	-44.05	0.03	14.83
114	2431.35	-43.85	-44.04	0.20	15.00
115	2431.30	-43.60	-44.08	0.48	15.28
116	2431.25	-44.17	-44.35	0.18	14.98
117	2431.20	-44.54	-44.15	-0.39	14.41
118	2431.15	-44.71	-44.38	-0.33	14.47
119	2431.10	-44.68	-43.99	-0.69	14.11
120	2431.05	-44.45	-44.11	-0.34	14.46
121	2431.00	-44.02	-44.23	0.21	15.01
122	2430.95	-43.39	-44.08	0.69	15.49
123	2430.90	-38.92	-44.25	5.32	20.12
124	2430.85	-40.26	-43.96	3.70	18.50
125	2430.80	-41.38	-44.15	2.77	17.57
126	2430.75	-42.29	-43.91	1.63	16.43
127	2430.70	-42.98	-43.86	0.88	15.68
128	2430.65	-43.46	-44.11	0.65	15.45
129	2430.60	-43.72	-44.12	0.40	15.20

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_J = J/S$ (dB)	$G_p = (S/N)_0 + M_J + L_{sys}$
130	2430.55	-43.77	-43.89	0.12	14.92
131	2430.50	-43.60	-44.09	0.48	15.28
132	2430.45	-43.22	-44.20	0.97	15.77
133	2430.40	-42.63	-44.13	1.50	16.30
134	2430.35	-42.40	-43.86	1.46	16.26
135	2430.30	-42.24	-44.07	1.83	16.63
136	2430.25	-42.14	-44.13	1.99	16.79
137	2430.20	-42.11	-44.22	2.11	16.91
138	2430.15	-42.14	-44.18	2.04	16.84
139	2430.10	-42.23	-44.02	1.79	16.59
140	2430.05	-42.39	-44.16	1.77	16.57
141	2430.00	-42.61	-44.09	1.48	16.28
142	2429.95	-43.53	-43.96	0.43	15.23
143	2429.90	-43.12	-44.28	1.17	15.97
144	2429.85	-42.78	-44.13	1.35	16.15
145	2429.80	-42.51	-44.34	1.83	16.63
146	2429.75	-42.31	-43.96	1.64	16.44
147	2429.70	-42.19	-44.05	1.86	16.66
148	2429.65	-42.14	-44.08	1.94	16.74
149	2429.60	-42.16	-43.87	1.71	16.51
150	2429.55	-42.25	-44.41	2.16	16.96
151	2429.50	-42.42	-44.34	1.92	16.72
152	2429.45	-42.07	-44.24	2.16	16.96
153	2429.40	-41.81	-44.04	2.23	17.03
154	2429.35	-41.62	-44.35	2.72	17.52
155	2429.30	-41.52	-44.07	2.55	17.35
156	2429.25	-41.50	-44.09	2.59	17.39
157	2429.20	-41.56	-44.37	2.82	17.62
158	2429.15	-41.70	-44.08	2.38	17.18
159	2429.10	-41.92	-44.12	2.20	17.00
160	2429.05	-41.38	-44.23	2.85	17.65
161	2429.00	-41.13	-43.77	2.64	17.44
162	2428.95	-40.89	-44.17	3.28	18.08
163	2428.90	-40.67	-44.38	3.71	18.51
164	2428.85	-40.46	-44.06	3.59	18.39
165	2428.80	-40.27	-44.24	3.96	18.76
166	2428.75	-40.10	-44.13	4.03	18.83
167	2428.70	-39.94	-44.34	4.40	19.20
168	2428.65	-39.80	-44.15	4.36	19.16
169	2428.60	-39.67	-44.09	4.43	19.23
170	2428.55	-39.55	-44.15	4.60	19.40
171	2428.50	-39.43	-43.93	4.51	19.31
172	2428.45	-39.40	-43.89	4.49	19.29
173	2428.40	-39.52	-43.93	4.42	19.22
174	2428.35	-39.77	-44.10	4.33	19.13
175	2428.30	-40.17	-44.06	3.89	18.69

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
176	2428.25	-40.71	-44.16	3.45	18.25
177	2428.20	-36.43	-43.89	7.47	22.27
178	2428.15	-36.96	-44.02	7.06	21.86
179	2428.10	-37.42	-44.21	6.79	21.59
180	2428.05	-37.80	-44.17	6.37	21.17
181	2428.00	-38.10	-44.41	6.31	21.11
182	2427.95	-38.33	-44.04	5.72	20.52
183	2427.90	-38.48	-44.22	5.75	20.55
184	2427.85	-38.55	-44.13	5.58	20.38
185	2427.80	-38.55	-43.82	5.28	20.08
186	2427.75	-38.47	-44.12	5.66	20.46
187	2427.70	-38.31	-43.87	5.57	20.37
188	2427.65	-38.08	-44.22	6.15	20.95
189	2427.60	-37.85	-44.02	6.17	20.97
190	2427.55	-37.73	-44.10	6.37	21.17
191	2427.50	-37.67	-44.02	6.36	21.16
192	2427.45	-37.67	-44.37	6.70	21.50
193	2427.40	-37.74	-44.12	6.38	21.18
194	2427.35	-37.88	-44.23	6.35	21.15
195	2427.30	-38.08	-43.77	5.69	20.49
196	2427.25	-36.05	-43.99	7.94	22.74
197	2427.20	-36.44	-43.92	7.48	22.28
198	2427.15	-36.76	-44.31	7.55	22.35
199	2427.10	-36.99	-44.34	7.35	22.15
200	2427.05	-37.15	-44.25	7.10	21.90
201	2427.00	-37.22	-44.08	6.86	21.66
202	2426.95	-37.22	-44.27	7.05	21.85
203	2426.90	-37.14	-43.80	6.65	21.45
204	2426.85	-36.99	-43.97	6.98	21.78
205	2426.80	-36.75	-43.89	7.14	21.94
206	2426.75	-36.31	-43.87	7.56	22.36
207	2426.70	-35.92	-43.80	7.89	22.69
208	2426.65	-35.56	-44.16	8.60	23.40
209	2426.60	-35.24	-44.33	9.09	23.89
210	2426.55	-34.97	-43.85	8.88	23.68
211	2426.50	-34.74	-44.01	9.27	24.07
212	2426.45	-34.55	-43.99	9.44	24.24
213	2426.40	-35.52	-44.08	8.56	23.36
214	2426.35	-34.60	-44.19	9.60	24.40
215	2426.30	-33.86	-44.11	10.26	25.06
216	2426.25	-33.29	-44.03	10.74	25.54
217	2426.20	-32.90	-44.14	11.24	26.04
218	2426.15	-32.69	-44.12	11.44	26.24
219	2426.10	-32.65	-43.83	11.18	25.98
220	2426.05	-32.78	-43.76	10.98	25.78
221	2426.00	-33.10	-44.22	11.12	25.92

Processing Gain Test Data

Product Name : LANescape WL2440 PC104 Adapter

Test Channel = #06 (centered at 2437 MHz)				Test Date: 7-Mar-98	
For coherent BPSK modulation, when $BER = 10^{-5}$, then $(S/N)_0 = 12.8$ dB. And $L_{sys} = 2$ dB					
[(points < 10 dB G_p) / total] is less than 20%.					
	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
1	2437.00	-47.03	-44.03	-3.00	11.80
2	2437.05	-46.88	-44.13	-2.75	12.05
3	2437.10	-46.76	-44.05	-2.72	12.08
4	2437.15	-46.68	-44.12	-2.56	12.24
5	2437.20	-46.63	-44.14	-2.49	12.31
6	2437.25	-46.61	-44.22	-2.39	12.41
7	2437.30	-46.62	-44.38	-2.24	12.56
8	2437.35	-46.67	-43.96	-2.70	12.10
9	2437.40	-46.74	-44.05	-2.69	12.11
10	2437.45	-46.85	-43.93	-2.92	11.88
11	2437.50	-47.00	-44.06	-2.93	11.87
12	2437.55	-46.10	-43.94	-2.16	12.64
13	2437.60	-46.08	-44.07	-2.01	12.79
14	2437.65	-46.01	-43.98	-2.03	12.77
15	2437.70	-45.90	-43.97	-1.93	12.87
16	2437.75	-45.74	-44.31	-1.43	13.37
17	2437.80	-45.54	-43.97	-1.57	13.23
18	2437.85	-45.29	-44.00	-1.28	13.52
19	2437.90	-44.99	-44.29	-0.70	14.10
20	2437.95	-45.52	-44.25	-1.27	13.53
21	2438.00	-45.87	-44.16	-1.71	13.09
22	2438.05	-46.04	-43.86	-2.17	12.63
23	2438.10	-46.02	-43.73	-2.29	12.51
24	2438.15	-45.82	-44.21	-1.61	13.19
25	2438.20	-45.43	-44.35	-1.08	13.72
26	2438.25	-44.87	-44.39	-0.48	14.32
27	2438.30	-44.12	-43.77	-0.34	14.46
28	2438.35	-43.19	-43.92	0.73	15.53
29	2438.40	-42.07	-43.94	1.87	16.67
30	2438.45	-40.77	-44.28	3.51	18.31
31	2438.50	-45.18	-43.76	-1.42	13.38
32	2438.55	-44.96	-43.98	-0.97	13.83
33	2438.60	-44.81	-43.93	-0.88	13.92
34	2438.65	-44.74	-44.41	-0.33	14.47
35	2438.70	-44.75	-44.05	-0.70	14.10
36	2438.75	-44.83	-44.01	-0.82	13.98
37	2438.80	-45.00	-44.26	-0.74	14.06

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
38	2438.85	-45.24	-44.13	-1.11	13.69
39	2438.90	-45.26	-44.02	-1.25	13.55
40	2438.95	-44.93	-44.40	-0.53	14.27
41	2439.00	-44.69	-44.25	-0.44	14.36
42	2439.05	-44.54	-43.96	-0.58	14.22
43	2439.10	-44.48	-44.10	-0.38	14.42
44	2439.15	-44.50	-44.21	-0.29	14.51
45	2439.20	-44.62	-44.25	-0.36	14.44
46	2439.25	-44.82	-44.04	-0.78	14.02
47	2439.30	-45.11	-44.25	-0.86	13.94
48	2439.35	-45.49	-44.32	-1.18	13.62
49	2439.40	-45.96	-44.20	-1.76	13.04
50	2439.45	-46.52	-43.86	-2.66	12.14
51	2439.50	-46.47	-43.84	-2.63	12.17
52	2439.55	-46.20	-44.18	-2.02	12.78
53	2439.60	-46.01	-43.91	-2.10	12.70
54	2439.65	-45.91	-44.02	-1.89	12.91
55	2439.70	-45.90	-44.04	-1.86	12.94
56	2439.75	-45.97	-44.15	-1.82	12.98
57	2439.80	-46.13	-43.84	-2.30	12.50
58	2439.85	-46.38	-44.14	-2.24	12.56
59	2439.90	-46.52	-44.07	-2.45	12.35
60	2439.95	-46.63	-43.99	-2.63	12.17
61	2440.00	-46.72	-44.01	-2.71	12.09
62	2440.05	-46.78	-44.02	-2.76	12.04
63	2440.10	-46.82	-44.30	-2.53	12.27
64	2440.15	-46.84	-43.88	-2.96	11.84
65	2440.20	-46.84	-43.83	-3.00	11.80
66	2440.25	-46.81	-44.36	-2.45	12.35
67	2440.30	-46.75	-44.00	-2.75	12.05
68	2440.35	-46.67	-43.84	-2.84	11.96
69	2440.40	-46.57	-43.82	-2.75	12.05
70	2440.45	-46.45	-43.99	-2.45	12.35
71	2440.50	-46.70	-44.30	-2.40	12.40
72	2440.55	-47.24	-44.18	-3.06	11.74
73	2440.60	-47.51	-44.16	-3.35	11.45
74	2440.65	-47.52	-43.98	-3.54	11.26
75	2440.70	-47.27	-43.94	-3.33	11.47
76	2440.75	-46.75	-43.97	-2.78	12.02
77	2440.80	-45.97	-44.28	-1.68	13.12
78	2440.85	-45.60	-44.25	-1.35	13.45
79	2440.90	-46.01	-44.26	-1.75	13.05
80	2440.95	-46.19	-44.07	-2.12	12.68
81	2441.00	-46.15	-44.13	-2.01	12.79
82	2441.05	-45.87	-43.79	-2.08	12.72
83	2441.10	-45.36	-43.93	-1.44	13.36

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
84	2441.15	-44.63	-44.21	-0.43	14.37
85	2441.20	-43.67	-44.09	0.42	15.22
86	2441.25	-42.48	-43.86	1.39	16.19
87	2441.30	-44.89	-44.19	-0.70	14.10
88	2441.35	-44.77	-43.82	-0.95	13.85
89	2441.40	-44.70	-43.97	-0.72	14.08
90	2441.45	-44.66	-44.18	-0.48	14.32
91	2441.50	-44.67	-43.90	-0.77	14.03
92	2441.55	-44.72	-44.03	-0.69	14.11
93	2441.60	-44.81	-43.97	-0.84	13.96
94	2441.65	-44.95	-43.90	-1.05	13.75
95	2441.70	-45.41	-44.08	-1.33	13.47
96	2441.75	-45.77	-44.22	-1.56	13.24
97	2441.80	-46.03	-44.09	-1.94	12.86
98	2441.85	-46.18	-44.29	-1.90	12.90
99	2441.90	-46.23	-43.92	-2.31	12.49
100	2441.95	-46.18	-44.07	-2.11	12.69
101	2442.00	-46.02	-44.00	-2.02	12.78
102	2442.05	-45.76	-44.11	-1.66	13.14
103	2442.10	-45.40	-44.21	-1.19	13.61
104	2442.15	-44.93	-44.04	-0.90	13.90
105	2442.20	-45.38	-44.01	-1.38	13.42
106	2442.25	-45.02	-44.22	-0.81	13.99
107	2442.30	-44.85	-44.15	-0.70	14.10
108	2442.35	-44.86	-44.18	-0.68	14.12
109	2442.40	-45.06	-44.18	-0.88	13.92
110	2442.45	-45.44	-43.99	-1.45	13.35
111	2442.50	-46.01	-43.82	-2.20	12.60
112	2442.55	-46.77	-43.94	-2.83	11.97
113	2442.60	-46.28	-44.11	-2.17	12.63
114	2442.65	-45.90	-44.21	-1.69	13.11
115	2442.70	-45.62	-44.29	-1.34	13.46
116	2442.75	-45.45	-44.24	-1.21	13.59
117	2442.80	-45.39	-44.41	-0.98	13.82
118	2442.85	-45.43	-44.14	-1.29	13.51
119	2442.90	-45.57	-44.14	-1.43	13.37
120	2442.95	-45.82	-44.25	-1.57	13.23
121	2443.00	-46.18	-44.04	-2.14	12.66
122	2443.05	-46.64	-44.18	-2.47	12.33
123	2443.10	-47.21	-44.00	-3.21	11.59
124	2443.15	-47.88	-44.23	-3.65	11.15
125	2443.20	-45.53	-43.85	-1.69	13.11
126	2443.25	-45.19	-43.80	-1.38	13.42
127	2443.30	-44.94	-43.96	-0.98	13.82
128	2443.35	-44.79	-44.15	-0.64	14.16
129	2443.40	-44.74	-43.99	-0.75	14.05

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
130	2443.45	-44.79	-44.06	-0.73	14.07
131	2443.50	-44.94	-44.12	-0.82	13.98
132	2443.55	-44.93	-44.13	-0.80	14.00
133	2443.60	-44.60	-43.83	-0.77	14.03
134	2443.65	-44.31	-44.09	-0.22	14.58
135	2443.70	-44.07	-44.14	0.08	14.88
136	2443.75	-43.87	-44.13	0.26	15.06
137	2443.80	-43.72	-44.10	0.38	15.18
138	2443.85	-43.62	-44.03	0.42	15.22
139	2443.90	-43.56	-43.95	0.39	15.19
140	2443.95	-43.55	-44.04	0.48	15.28
141	2444.00	-43.59	-44.00	0.41	15.21
142	2444.05	-43.67	-44.36	0.69	15.49
143	2444.10	-43.81	-43.99	0.18	14.98
144	2444.15	-43.96	-44.33	0.37	15.17
145	2444.20	-44.10	-43.95	-0.15	14.65
146	2444.25	-44.13	-43.86	-0.27	14.53
147	2444.30	-44.06	-44.04	-0.02	14.78
148	2444.35	-43.88	-43.88	0.00	14.80
149	2444.40	-43.61	-44.30	0.69	15.49
150	2444.45	-43.22	-44.38	1.16	15.96
151	2444.50	-42.74	-44.32	1.58	16.38
152	2444.55	-42.84	-44.10	1.26	16.06
153	2444.60	-42.95	-44.21	1.26	16.06
154	2444.65	-43.05	-44.28	1.24	16.04
155	2444.70	-43.15	-43.90	0.75	15.55
156	2444.75	-43.25	-44.18	0.93	15.73
157	2444.80	-43.35	-44.11	0.76	15.56
158	2444.85	-43.45	-44.08	0.62	15.42
159	2444.90	-43.55	-44.27	0.72	15.52
160	2444.95	-43.65	-43.86	0.21	15.01
161	2445.00	-43.75	-44.08	0.33	15.13
162	2445.05	-43.85	-44.21	0.37	15.17
163	2445.10	-43.94	-44.00	0.06	14.86
164	2445.15	-43.77	-44.42	0.65	15.45
165	2445.20	-43.02	-44.12	1.11	15.91
166	2445.25	-42.50	-44.26	1.76	16.56
167	2445.30	-42.22	-44.21	1.99	16.79
168	2445.35	-42.18	-44.19	2.01	16.81
169	2445.40	-42.38	-44.08	1.71	16.51
170	2445.45	-42.81	-43.76	0.94	15.74
171	2445.50	-43.30	-44.01	0.71	15.51
172	2445.55	-43.48	-43.99	0.51	15.31
173	2445.60	-43.53	-44.10	0.56	15.36
174	2445.65	-43.45	-43.90	0.45	15.25
175	2445.70	-43.24	-44.12	0.88	15.68

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
176	2445.75	-42.89	-43.73	0.84	15.64
177	2445.80	-42.42	-44.14	1.72	16.52
178	2445.85	-41.81	-44.24	2.43	17.23
179	2445.90	-41.07	-44.15	3.08	17.88
180	2445.95	-40.20	-44.39	4.19	18.99
181	2446.00	-39.20	-44.17	4.98	19.78
182	2446.05	-38.06	-44.19	6.13	20.93
183	2446.10	-41.84	-44.31	2.47	17.27
184	2446.15	-41.79	-44.01	2.22	17.02
185	2446.20	-41.66	-43.92	2.26	17.06
186	2446.25	-41.44	-43.84	2.39	17.19
187	2446.30	-41.14	-44.32	3.17	17.97
188	2446.35	-40.76	-44.11	3.35	18.15
189	2446.40	-40.29	-44.16	3.87	18.67
190	2446.45	-39.74	-44.03	4.29	19.09
191	2446.50	-40.08	-44.30	4.22	19.02
192	2446.55	-40.26	-44.20	3.93	18.73
193	2446.60	-40.28	-44.27	3.99	18.79
194	2446.65	-40.13	-43.95	3.82	18.62
195	2446.70	-39.82	-43.78	3.96	18.76
196	2446.75	-39.34	-43.78	4.44	19.24
197	2446.80	-38.70	-44.10	5.40	20.20
198	2446.85	-37.90	-44.17	6.28	21.08
199	2446.90	-36.93	-44.30	7.37	22.17
200	2446.95	-35.80	-44.14	8.34	23.14
201	2447.00	-34.50	-44.44	9.94	24.74
202	2447.05	-33.04	-43.84	10.80	25.60
203	2447.10	-37.68	-43.85	6.17	20.97
204	2447.15	-37.81	-43.99	6.18	20.98
205	2447.20	-37.85	-44.09	6.24	21.04
206	2447.25	-37.80	-43.82	6.03	20.83
207	2447.30	-37.65	-44.23	6.58	21.38
208	2447.35	-37.41	-44.13	6.72	21.52
209	2447.40	-37.08	-43.99	6.91	21.71
210	2447.45	-36.66	-44.02	7.36	22.16
211	2447.50	-36.14	-43.97	7.83	22.63
212	2447.55	-35.54	-44.05	8.52	23.32
213	2447.60	-34.83	-44.26	9.42	24.22
214	2447.65	-34.04	-44.09	10.05	24.85
215	2447.70	-36.26	-43.94	7.68	22.48
216	2447.75	-36.57	-44.28	7.71	22.51
217	2447.80	-36.73	-43.92	7.19	21.99
218	2447.85	-36.75	-43.97	7.23	22.03
219	2447.90	-36.61	-43.93	7.32	22.12
220	2447.95	-36.32	-44.40	8.08	22.88
221	2448.00	-35.88	-44.09	8.21	23.01

Processing Gain Test Data

Product Name : LANEscape WL2440 PC104 Adapter

Test Channel = #11 (centered at 2462 MHz)				Test Date: 7-Mar-98	
For coherent BPSK modulation, when $BER = 10^{-5}$, then $(S/N)_0 = 12.8$ dB. And $L_{sys} = 2$ dB					
[(points < 10 dB G_p) / total] is less than 20%.					
	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
1	2462.00	-47.56	-44.09	-3.47	11.33
2	2461.95	-46.93	-44.20	-2.73	12.07
3	2461.90	-45.89	-44.03	-1.86	12.94
4	2461.85	-46.10	-44.13	-1.97	12.83
5	2461.80	-46.27	-43.95	-2.32	12.48
6	2461.75	-46.40	-44.28	-2.12	12.68
7	2461.70	-46.49	-44.23	-2.26	12.54
8	2461.65	-46.53	-43.93	-2.60	12.20
9	2461.60	-46.53	-44.09	-2.44	12.36
10	2461.55	-46.49	-44.11	-2.38	12.42
11	2461.50	-46.41	-44.13	-2.28	12.52
12	2461.45	-46.28	-43.98	-2.30	12.50
13	2461.40	-46.11	-44.11	-2.00	12.80
14	2461.35	-46.33	-44.04	-2.29	12.51
15	2461.30	-46.49	-43.93	-2.55	12.25
16	2461.25	-46.57	-44.15	-2.41	12.39
17	2461.20	-46.58	-43.93	-2.65	12.15
18	2461.15	-46.51	-44.05	-2.46	12.34
19	2461.10	-46.38	-44.13	-2.25	12.55
20	2461.05	-46.17	-44.38	-1.79	13.01
21	2461.00	-42.11	-44.35	2.24	17.04
22	2460.95	-43.16	-43.95	0.79	15.59
23	2460.90	-44.07	-43.96	-0.11	14.69
24	2460.85	-44.84	-44.19	-0.65	14.15
25	2460.80	-45.47	-44.29	-1.18	13.62
26	2460.75	-45.96	-44.24	-1.72	13.08
27	2460.70	-46.31	-43.96	-2.35	12.45
28	2460.65	-46.51	-43.90	-2.61	12.19
29	2460.60	-46.58	-44.02	-2.56	12.24
30	2460.55	-46.51	-44.17	-2.34	12.46
31	2460.50	-46.30	-43.84	-2.46	12.34
32	2460.45	-45.94	-44.15	-1.79	13.01
33	2460.40	-45.96	-43.99	-1.97	12.83
34	2460.35	-46.23	-44.43	-1.80	13.00
35	2460.30	-46.44	-44.09	-2.36	12.44
36	2460.25	-46.59	-44.22	-2.37	12.43
37	2460.20	-46.68	-44.13	-2.55	12.25

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
38	2460.15	-46.70	-44.18	-2.52	12.28
39	2460.10	-46.67	-43.99	-2.68	12.12
40	2460.05	-46.57	-44.41	-2.16	12.64
41	2460.00	-46.40	-44.31	-2.09	12.71
42	2459.95	-50.80	-44.14	-6.66	8.14
43	2459.90	-49.51	-44.08	-5.43	9.37
44	2459.85	-48.44	-44.18	-4.26	10.54
45	2459.80	-47.58	-44.20	-3.38	11.42
46	2459.75	-46.94	-43.95	-2.99	11.81
47	2459.70	-46.52	-44.37	-2.15	12.65
48	2459.65	-46.31	-44.25	-2.06	12.74
49	2459.60	-46.32	-44.01	-2.31	12.49
50	2459.55	-46.55	-43.85	-2.70	12.10
51	2459.50	-46.99	-43.71	-3.28	11.52
52	2459.45	-47.65	-44.30	-3.35	11.45
53	2459.40	-46.90	-44.10	-2.81	11.99
54	2459.35	-46.32	-43.82	-2.51	12.29
55	2459.30	-45.91	-44.02	-1.89	12.91
56	2459.25	-45.66	-44.07	-1.59	13.21
57	2459.20	-45.58	-43.98	-1.60	13.20
58	2459.15	-45.66	-44.19	-1.47	13.33
59	2459.10	-45.90	-43.99	-1.91	12.89
60	2459.05	-44.81	-44.04	-0.77	14.03
61	2459.00	-45.22	-43.93	-1.30	13.50
62	2458.95	-45.57	-43.89	-1.68	13.12
63	2458.90	-45.85	-44.15	-1.69	13.11
64	2458.85	-46.05	-44.04	-2.01	12.79
65	2458.80	-46.18	-43.97	-2.22	12.58
66	2458.75	-46.24	-44.33	-1.91	12.89
67	2458.70	-46.23	-44.05	-2.19	12.61
68	2458.65	-46.15	-43.83	-2.33	12.47
69	2458.60	-46.00	-43.92	-2.08	12.72
70	2458.55	-45.77	-44.06	-1.71	13.09
71	2458.50	-45.48	-44.24	-1.24	13.56
72	2458.45	-45.21	-44.17	-1.04	13.76
73	2458.40	-45.06	-44.16	-0.90	13.90
74	2458.35	-44.99	-43.98	-1.01	13.79
75	2458.30	-44.99	-44.07	-0.92	13.88
76	2458.25	-45.07	-43.89	-1.18	13.62
77	2458.20	-45.23	-44.11	-1.11	13.69
78	2458.15	-45.46	-44.18	-1.28	13.52
79	2458.10	-48.44	-44.22	-4.22	10.58
80	2458.05	-47.36	-44.08	-3.28	11.52
81	2458.00	-46.46	-44.08	-2.38	12.42
82	2457.95	-45.73	-43.94	-1.79	13.01
83	2457.90	-45.18	-44.09	-1.09	13.71

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
84	2457.85	-44.81	-44.33	-0.48	14.32
85	2457.80	-44.62	-44.01	-0.61	14.19
86	2457.75	-44.60	-43.90	-0.69	14.11
87	2457.70	-44.76	-44.31	-0.44	14.36
88	2457.65	-45.09	-43.89	-1.20	13.60
89	2457.60	-45.61	-44.07	-1.54	13.26
90	2457.55	-45.71	-44.32	-1.39	13.41
91	2457.50	-45.52	-43.78	-1.74	13.06
92	2457.45	-45.43	-44.18	-1.26	13.54
93	2457.40	-45.43	-43.93	-1.51	13.29
94	2457.35	-45.53	-43.93	-1.60	13.20
95	2457.30	-45.72	-43.99	-1.72	13.08
96	2457.25	-46.00	-44.36	-1.63	13.17
97	2457.20	-46.37	-44.23	-2.14	12.66
98	2457.15	-42.22	-44.23	2.01	16.81
99	2457.10	-43.22	-43.82	0.60	15.40
100	2457.05	-44.04	-43.99	-0.05	14.75
101	2457.00	-44.68	-43.95	-0.74	14.06
102	2456.95	-45.15	-43.97	-1.17	13.63
103	2456.90	-45.43	-44.23	-1.20	13.60
104	2456.85	-45.54	-44.07	-1.46	13.34
105	2456.80	-45.47	-44.01	-1.45	13.35
106	2456.75	-45.21	-44.38	-0.83	13.97
107	2456.70	-44.78	-44.16	-0.62	14.18
108	2456.65	-44.64	-44.20	-0.44	14.36
109	2456.60	-44.72	-44.20	-0.52	14.28
110	2456.55	-44.75	-43.96	-0.80	14.00
111	2456.50	-44.74	-43.94	-0.80	14.00
112	2456.45	-44.67	-43.98	-0.69	14.11
113	2456.40	-44.55	-44.05	-0.50	14.30
114	2456.35	-44.38	-44.21	-0.17	14.63
115	2456.30	-44.16	-44.36	0.20	15.00
116	2456.25	-46.03	-44.17	-1.86	12.94
117	2456.20	-45.26	-44.40	-0.86	13.94
118	2456.15	-44.60	-43.99	-0.61	14.19
119	2456.10	-44.04	-44.05	0.00	14.80
120	2456.05	-43.59	-44.18	0.58	15.38
121	2456.00	-43.25	-44.08	0.83	15.63
122	2455.95	-43.01	-44.07	1.06	15.86
123	2455.90	-42.88	-44.16	1.28	16.08
124	2455.85	-42.85	-44.05	1.20	16.00
125	2455.80	-42.93	-44.02	1.09	15.89
126	2455.75	-43.11	-43.79	0.67	15.47
127	2455.70	-43.40	-44.09	0.68	15.48
128	2455.65	-43.80	-44.08	0.28	15.08
129	2455.60	-43.58	-44.00	0.42	15.22

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
130	2455.55	-43.03	-43.88	0.84	15.64
131	2455.50	-42.64	-44.12	1.47	16.27
132	2455.45	-42.41	-43.95	1.54	16.34
133	2455.40	-42.34	-43.78	1.44	16.24
134	2455.35	-42.43	-44.21	1.78	16.58
135	2455.30	-45.89	-43.96	-1.93	12.87
136	2455.25	-45.15	-44.33	-0.83	13.97
137	2455.20	-44.50	-44.19	-0.31	14.49
138	2455.15	-43.93	-44.13	0.20	15.00
139	2455.10	-43.45	-44.13	0.68	15.48
140	2455.05	-43.05	-43.99	0.94	15.74
141	2455.00	-42.74	-43.81	1.07	15.87
142	2454.95	-42.51	-44.22	1.71	16.51
143	2454.90	-42.37	-44.07	1.70	16.50
144	2454.85	-42.31	-44.14	1.84	16.64
145	2454.80	-42.33	-43.95	1.62	16.42
146	2454.75	-42.44	-44.04	1.60	16.40
147	2454.70	-42.31	-44.19	1.88	16.68
148	2454.65	-42.03	-43.87	1.85	16.65
149	2454.60	-41.79	-44.34	2.55	17.35
150	2454.55	-41.60	-44.18	2.57	17.37
151	2454.50	-41.47	-44.27	2.80	17.60
152	2454.45	-41.39	-44.26	2.88	17.68
153	2454.40	-41.35	-44.17	2.82	17.62
154	2454.35	-41.80	-44.16	2.36	17.16
155	2454.30	-41.53	-43.85	2.32	17.12
156	2454.25	-41.28	-44.36	3.08	17.88
157	2454.20	-41.04	-44.06	3.02	17.82
158	2454.15	-40.82	-44.04	3.23	18.03
159	2454.10	-40.61	-44.22	3.61	18.41
160	2454.05	-40.41	-43.87	3.45	18.25
161	2454.00	-40.24	-44.27	4.03	18.83
162	2453.95	-40.08	-44.39	4.31	19.11
163	2453.90	-39.93	-44.18	4.25	19.05
164	2453.85	-39.80	-44.32	4.52	19.32
165	2453.80	-39.69	-44.12	4.43	19.23
166	2453.75	-39.62	-44.32	4.71	19.51
167	2453.70	-39.58	-44.04	4.47	19.27
168	2453.65	-39.58	-44.25	4.67	19.47
169	2453.60	-39.61	-43.97	4.36	19.16
170	2453.55	-39.68	-43.86	4.18	18.98
171	2453.50	-39.78	-43.98	4.20	19.00
172	2453.45	-37.02	-44.05	7.03	21.83
173	2453.40	-37.43	-44.10	6.68	21.48
174	2453.35	-37.77	-43.99	6.22	21.02
175	2453.30	-38.04	-44.28	6.24	21.04

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
176	2453.25	-38.24	-43.87	5.63	20.43
177	2453.20	-38.38	-44.13	5.75	20.55
178	2453.15	-38.44	-44.23	5.79	20.59
179	2453.10	-38.43	-43.98	5.54	20.34
180	2453.05	-38.36	-44.22	5.86	20.66
181	2453.00	-38.21	-43.94	5.73	20.53
182	2452.95	-38.00	-44.15	6.16	20.96
183	2452.90	-38.02	-44.33	6.31	21.11
184	2452.85	-38.17	-43.99	5.83	20.63
185	2452.80	-38.23	-44.00	5.76	20.56
186	2452.75	-38.22	-43.84	5.62	20.42
187	2452.70	-38.12	-44.36	6.24	21.04
188	2452.65	-37.94	-44.00	6.05	20.85
189	2452.60	-37.68	-44.08	6.40	21.20
190	2452.55	-37.34	-43.88	6.53	21.33
191	2452.50	-36.92	-44.23	7.31	22.11
192	2452.45	-34.09	-44.12	10.03	24.83
193	2452.40	-35.08	-44.12	9.04	23.84
194	2452.35	-35.89	-43.83	7.94	22.74
195	2452.30	-36.51	-43.81	7.31	22.11
196	2452.25	-36.93	-43.97	7.03	21.83
197	2452.20	-37.17	-44.12	6.95	21.75
198	2452.15	-37.21	-44.24	7.03	21.83
199	2452.10	-37.07	-44.14	7.07	21.87
200	2452.05	-36.74	-44.23	7.49	22.29
201	2452.00	-36.21	-44.39	8.17	22.97
202	2451.95	-35.50	-43.94	8.44	23.24
203	2451.90	-35.36	-43.91	8.54	23.34
204	2451.85	-35.19	-44.05	8.87	23.67
205	2451.80	-34.97	-44.10	9.13	23.93
206	2451.75	-34.72	-43.96	9.24	24.04
207	2451.70	-34.42	-44.16	9.74	24.54
208	2451.65	-33.23	-44.12	10.88	25.68
209	2451.60	-33.17	-43.85	10.67	25.47
210	2451.55	-33.08	-43.96	10.88	25.68
211	2451.50	-32.96	-44.05	11.09	25.89
212	2451.45	-32.81	-44.11	11.30	26.10
213	2451.40	-32.63	-44.08	11.45	26.25
214	2451.35	-32.42	-44.17	11.75	26.55
215	2451.30	-32.18	-44.14	11.96	26.76
216	2451.25	-31.90	-44.33	12.43	27.23
217	2451.20	-31.60	-44.13	12.53	27.33
218	2451.15	-31.27	-43.84	12.57	27.37
219	2451.10	-30.91	-43.79	12.88	27.68
220	2451.05	-30.52	-44.19	13.67	28.47
221	2451.00	-30.10	-44.07	13.67	28.47

Processing Gain Test Data

Product Name : LANEscape WL2440 PC104 Adapter

Test Channel = #11 (centered at 2462 MHz)

Test Date: 7-Mar-98

For coherent BPSK modulation, when $BER = 10^{-5}$, then $(S/N)_0 = 12.8$ dB. And $L_{sys} = 2$ dB

[(points < 10 dB G_p) / total] is less than 20%.

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j = J/S$ (dB)	$G_p = (S/N)_0 + M_j + L_{sys}$
1	2462.00	-47.56	-44.02	-3.54	11.26
2	2462.05	-48.06	-44.18	-3.87	10.93
3	2462.10	-48.42	-44.12	-4.30	10.50
4	2462.15	-48.64	-44.34	-4.30	10.50
5	2462.20	-48.73	-44.16	-4.56	10.24
6	2462.25	-48.68	-44.19	-4.49	10.31
7	2462.30	-48.50	-44.30	-4.20	10.60
8	2462.35	-48.18	-43.86	-4.31	10.49
9	2462.40	-47.72	-44.03	-3.69	11.11
10	2462.45	-47.13	-44.00	-3.13	11.67
11	2462.50	-46.40	-44.14	-2.26	12.54
12	2462.55	-45.54	-44.00	-1.54	13.26
13	2462.60	-47.42	-44.03	-3.39	11.41
14	2462.65	-48.00	-43.99	-4.01	10.79
15	2462.70	-48.38	-44.05	-4.34	10.46
16	2462.75	-48.57	-44.10	-4.47	10.33
17	2462.80	-48.56	-44.05	-4.51	10.29
18	2462.85	-48.35	-43.96	-4.39	10.41
19	2462.90	-47.94	-44.25	-3.69	11.11
20	2462.95	-47.33	-44.30	-3.03	11.77
21	2463.00	-46.52	-44.31	-2.21	12.59
22	2463.05	-46.71	-44.02	-2.68	12.12
23	2463.10	-46.62	-43.75	-2.87	11.93
24	2463.15	-46.54	-44.06	-2.48	12.32
25	2463.20	-46.49	-44.21	-2.28	12.52
26	2463.25	-46.45	-44.31	-2.15	12.65
27	2463.30	-46.44	-43.89	-2.54	12.26
28	2463.35	-46.44	-44.03	-2.41	12.39
29	2463.40	-46.46	-43.95	-2.51	12.29
30	2463.45	-46.50	-44.28	-2.22	12.58
31	2463.50	-46.56	-43.93	-2.64	12.16
32	2463.55	-46.64	-44.11	-2.54	12.26
33	2463.60	-45.75	-43.86	-1.88	12.92
34	2463.65	-45.76	-44.26	-1.50	13.30
35	2463.70	-45.84	-44.24	-1.60	13.20
36	2463.75	-45.99	-44.10	-1.90	12.90
37	2463.80	-46.21	-44.13	-2.08	12.72

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
38	2463.85	-46.50	-44.04	-2.46	12.34
39	2463.90	-46.85	-44.06	-2.79	12.01
40	2463.95	-47.27	-44.23	-3.04	11.76
41	2464.00	-47.28	-44.28	-3.00	11.80
42	2464.05	-47.29	-44.18	-3.11	11.69
43	2464.10	-47.30	-43.99	-3.31	11.49
44	2464.15	-47.31	-44.19	-3.12	11.68
45	2464.20	-47.33	-44.28	-3.05	11.75
46	2464.25	-47.34	-44.03	-3.31	11.49
47	2464.30	-47.36	-44.35	-3.01	11.79
48	2464.35	-47.37	-44.10	-3.27	11.53
49	2464.40	-47.39	-44.15	-3.24	11.56
50	2464.45	-47.41	-43.72	-3.69	11.11
51	2464.50	-47.43	-43.90	-3.53	11.27
52	2464.55	-47.45	-44.33	-3.12	11.68
53	2464.60	-47.47	-44.07	-3.40	11.40
54	2464.65	-47.10	-43.99	-3.12	11.68
55	2464.70	-47.37	-43.90	-3.47	11.33
56	2464.75	-47.59	-44.14	-3.45	11.35
57	2464.80	-47.75	-43.78	-3.96	10.84
58	2464.85	-47.85	-44.08	-3.77	11.03
59	2464.90	-47.89	-43.98	-3.91	10.89
60	2464.95	-47.88	-44.13	-3.75	11.05
61	2465.00	-47.81	-44.04	-3.77	11.03
62	2465.05	-47.96	-43.89	-4.07	10.73
63	2465.10	-48.06	-44.35	-3.71	11.09
64	2465.15	-48.11	-44.00	-4.11	10.69
65	2465.20	-48.11	-44.04	-4.07	10.73
66	2465.25	-48.06	-44.23	-3.83	10.97
67	2465.30	-47.96	-44.03	-3.93	10.87
68	2465.35	-47.81	-43.94	-3.87	10.93
69	2465.40	-47.61	-43.83	-3.78	11.02
70	2465.45	-47.36	-44.00	-3.36	11.44
71	2465.50	-47.06	-44.26	-2.80	12.00
72	2465.55	-48.35	-44.16	-4.19	10.61
73	2465.60	-48.38	-44.08	-4.31	10.49
74	2465.65	-48.38	-43.88	-4.50	10.30
75	2465.70	-48.34	-44.01	-4.33	10.47
76	2465.75	-48.26	-43.99	-4.27	10.53
77	2465.80	-48.14	-44.15	-3.99	10.81
78	2465.85	-47.99	-44.29	-3.70	11.10
79	2465.90	-47.79	-44.05	-3.74	11.06
80	2465.95	-47.61	-44.16	-3.45	11.35
81	2466.00	-47.45	-44.27	-3.18	11.62
82	2466.05	-47.32	-43.89	-3.43	11.37
83	2466.10	-47.22	-44.00	-3.22	11.58

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
84	2466.15	-47.14	-44.17	-2.97	11.83
85	2466.20	-47.09	-44.01	-3.08	11.72
86	2466.25	-47.06	-43.94	-3.13	11.67
87	2466.30	-47.06	-44.27	-2.79	12.01
88	2466.35	-47.09	-43.89	-3.20	11.60
89	2466.40	-47.14	-43.87	-3.27	11.53
90	2466.45	-47.22	-44.23	-2.98	11.82
91	2466.50	-46.41	-43.72	-2.69	12.11
92	2466.55	-46.39	-44.04	-2.35	12.45
93	2466.60	-46.40	-43.89	-2.51	12.29
94	2466.65	-46.42	-43.92	-2.51	12.29
95	2466.70	-46.47	-44.16	-2.30	12.50
96	2466.75	-46.53	-44.35	-2.17	12.63
97	2466.80	-46.61	-44.17	-2.44	12.36
98	2466.85	-46.71	-44.18	-2.53	12.27
99	2466.90	-46.81	-43.82	-2.99	11.81
100	2466.95	-46.87	-44.06	-2.81	11.99
101	2467.00	-46.92	-43.88	-3.04	11.76
102	2467.05	-46.96	-44.10	-2.85	11.95
103	2467.10	-46.98	-44.09	-2.89	11.91
104	2467.15	-46.99	-44.05	-2.95	11.85
105	2467.20	-46.99	-43.94	-3.05	11.75
106	2467.25	-46.98	-44.35	-2.62	12.18
107	2467.30	-46.95	-44.18	-2.77	12.03
108	2467.35	-46.91	-44.28	-2.63	12.17
109	2467.40	-46.86	-44.31	-2.55	12.25
110	2467.45	-46.80	-44.00	-2.80	12.00
111	2467.50	-47.56	-43.96	-3.60	11.20
112	2467.55	-47.77	-43.88	-3.89	10.91
113	2467.60	-47.90	-43.98	-3.92	10.88
114	2467.65	-47.95	-44.00	-3.95	10.85
115	2467.70	-47.92	-44.36	-3.56	11.24
116	2467.75	-47.81	-44.22	-3.59	11.21
117	2467.80	-47.62	-44.41	-3.21	11.59
118	2467.85	-47.35	-44.07	-3.28	11.52
119	2467.90	-47.45	-43.99	-3.46	11.34
120	2467.95	-47.56	-44.08	-3.48	11.32
121	2468.00	-47.68	-44.06	-3.62	11.18
122	2468.05	-47.81	-44.16	-3.65	11.15
123	2468.10	-47.95	-44.15	-3.80	11.00
124	2468.15	-48.10	-44.08	-4.01	10.79
125	2468.20	-48.25	-43.81	-4.45	10.35
126	2468.25	-48.42	-43.76	-4.66	10.14
127	2468.30	-48.60	-43.93	-4.67	10.13
128	2468.35	-48.79	-44.07	-4.71	10.09
129	2468.40	-48.99	-43.82	-5.16	9.64

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
130	2468.45	-49.19	-43.96	-5.23	9.57
131	2468.50	-49.41	-44.07	-5.34	9.46
132	2468.55	-47.15	-44.12	-3.02	11.78
133	2468.60	-47.11	-43.95	-3.15	11.65
134	2468.65	-47.13	-44.27	-2.86	11.94
135	2468.70	-47.21	-44.01	-3.20	11.60
136	2468.75	-47.35	-44.18	-3.17	11.63
137	2468.80	-47.55	-44.20	-3.35	11.45
138	2468.85	-47.50	-44.03	-3.47	11.33
139	2468.90	-47.05	-44.12	-2.92	11.88
140	2468.95	-46.64	-44.07	-2.57	12.23
141	2469.00	-46.29	-43.86	-2.42	12.38
142	2469.05	-45.99	-44.28	-1.71	13.09
143	2469.10	-45.74	-43.95	-1.79	13.01
144	2469.15	-45.55	-44.36	-1.19	13.61
145	2469.20	-45.41	-43.99	-1.42	13.38
146	2469.25	-45.32	-43.94	-1.38	13.42
147	2469.30	-45.28	-44.14	-1.14	13.66
148	2469.35	-45.30	-43.92	-1.38	13.42
149	2469.40	-45.37	-44.29	-1.08	13.72
150	2469.45	-45.08	-44.21	-0.87	13.93
151	2469.50	-45.13	-44.13	-1.00	13.80
152	2469.55	-45.15	-44.12	-1.03	13.77
153	2469.60	-45.13	-44.28	-0.85	13.95
154	2469.65	-45.08	-44.24	-0.84	13.96
155	2469.70	-45.00	-43.90	-1.10	13.70
156	2469.75	-44.88	-44.38	-0.50	14.30
157	2469.80	-44.72	-43.99	-0.73	14.07
158	2469.85	-44.54	-44.02	-0.51	14.29
159	2469.90	-44.33	-44.20	-0.13	14.67
160	2469.95	-44.22	-43.78	-0.44	14.36
161	2470.00	-44.20	-44.24	0.04	14.84
162	2470.05	-44.30	-44.43	0.13	14.93
163	2470.10	-44.50	-44.08	-0.42	14.38
164	2470.15	-44.81	-44.33	-0.47	14.33
165	2470.20	-45.22	-44.25	-0.97	13.83
166	2470.25	-45.74	-44.36	-1.38	13.42
167	2470.30	-46.37	-44.08	-2.29	12.51
168	2470.35	-47.10	-44.15	-2.95	11.85
169	2470.40	-47.94	-44.04	-3.90	10.90
170	2470.45	-44.81	-43.91	-0.91	13.89
171	2470.50	-44.60	-44.04	-0.56	14.24
172	2470.55	-44.47	-43.91	-0.56	14.24
173	2470.60	-44.43	-44.20	-0.23	14.57
174	2470.65	-44.47	-44.06	-0.40	14.40
175	2470.70	-44.59	-44.19	-0.40	14.40

	Jammer Frequency (MHz)	Jammer Level (dBm)	Signal Level (dBm)	$M_j=J/S$ (dB)	$G_p=(S/N)_0+M_j+L_{sys}$
176	2470.75	-44.80	-43.83	-0.96	13.84
177	2470.80	-44.96	-44.09	-0.87	13.93
178	2470.85	-44.93	-44.31	-0.62	14.18
179	2470.90	-44.87	-44.12	-0.76	14.04
180	2470.95	-44.80	-44.29	-0.50	14.30
181	2471.00	-44.69	-44.04	-0.65	14.15
182	2471.05	-44.56	-44.19	-0.37	14.43
183	2471.10	-44.40	-44.25	-0.15	14.65
184	2471.15	-44.22	-43.95	-0.27	14.53
185	2471.20	-44.01	-44.09	0.08	14.88
186	2471.25	-43.78	-43.79	0.01	14.81
187	2471.30	-43.52	-44.18	0.66	15.46
188	2471.35	-43.57	-44.12	0.56	15.36
189	2471.40	-43.18	-44.13	0.95	15.75
190	2471.45	-42.82	-43.80	0.99	15.79
191	2471.50	-42.49	-44.33	1.84	16.64
192	2471.55	-42.19	-44.10	1.91	16.71
193	2471.60	-41.92	-44.28	2.36	17.16
194	2471.65	-41.68	-43.82	2.14	16.94
195	2471.70	-41.47	-43.79	2.32	17.12
196	2471.75	-41.30	-43.97	2.67	17.47
197	2471.80	-41.15	-44.30	3.15	17.95
198	2471.85	-40.94	-44.38	3.44	18.24
199	2471.90	-40.77	-44.30	3.53	18.33
200	2471.95	-40.65	-44.28	3.63	18.43
201	2472.00	-40.56	-44.32	3.76	18.56
202	2472.05	-40.52	-43.75	3.23	18.03
203	2472.10	-40.52	-43.86	3.34	18.14
204	2472.15	-40.56	-44.07	3.51	18.31
205	2472.20	-40.64	-43.94	3.30	18.10
206	2472.25	-40.76	-43.83	3.06	17.86
207	2472.30	-40.93	-44.14	3.22	18.02
208	2472.35	-41.14	-44.31	3.18	17.98
209	2472.40	-41.39	-43.91	2.52	17.32
210	2472.45	-38.97	-44.01	5.04	19.84
211	2472.50	-39.05	-44.03	4.98	19.78
212	2472.55	-39.04	-44.07	5.03	19.83
213	2472.60	-38.96	-44.28	5.32	20.12
214	2472.65	-38.79	-44.11	5.33	20.13
215	2472.70	-38.54	-44.06	5.52	20.32
216	2472.75	-38.22	-44.31	6.10	20.90
217	2472.80	-37.81	-43.97	6.16	20.96
218	2472.85	-39.21	-43.80	4.59	19.39
219	2472.90	-39.18	-43.82	4.65	19.45
220	2472.95	-39.11	-44.28	5.17	19.97
221	2473.00	-39.00	-44.09	13.67	28.47