GTK99-F002

Test Report
Application for Certification
Class II Permissive Change
On Behalf Of
First International Computer Inc.
Notebook Computer

Model: Amber 2.0
(LaVie NX/ VersaPro NX/Avanza NX NB)
(NEC Versa Note/ ZDS Versa Note/ Easy Note)
FCC ID:EUNC2

Prepared For:
First International Computer Inc.
6F., Formosa Plastics Rear Bldg 201, Tung-Hwa N. Road,
Taipei, Taiwan, R.O.C.

Report By : **Global EMC Standard Tech. Corp.**
No.3 Pau-Tou-Tsuo Valley, Chia-Pau
Tsuen, Lin Kou Hsiang, Taipei County,
Taiwan, R.O.C.
Tel : (02) 2603-5321
Fax : (02) 2603-5325

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1. Test Report Certification

Applicant : First International Computer Inc.

Manufacturer : First International Computer Inc.

EUT Description : Notebook Computer

(A) Model No. : Amber 2.0
(B) Serial No. : N/A
(C) Power : 110V/60Hz
(D) Rating DC-O/P : 19V

MEASUREMENT PROCEDURE / STANDARD USED :

☒ CFR 47, Part 15	Radio Frequency Device Subpart B Unintentional Radiators Class **B** :1996
☐ CISPR 22	Limits and methods of measurement of radio disturbance characteristics of information technology equipment: 1993
☒ ANSI C63.4	Methods of Measurements of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9kHz to 40GHz. :1992

THE MEASUREMENT SHOWN IN THE ATTACHMENT WERE MADE IN ACCORDANCE WITH THE PROCEDURES INDICATED, AND THE MAXIMUM ENERGY EMITTED BY THE EQUIPMENT WAS FOUND TO BE WITHIN THE ABOVE LIMITS APPLICABLE.

NVLAP®

Sample Received Date : January 08, 1999
Final Test Date : January 20, 1999
Documented by : Winnie Chiu

Test Engineer : Tony Tsai
TONY TSAI

Approve & Authorized Signer :
TERRY CHUNG

This test data shown below is traceable to National or international standard such as NIST/USA, etc.
The laboratory's NVLAP accreditation in no way constitutes or implies product certification, approval, or endosement by NVLAP or the United States government.

GTK99-F002

2. General Information

2.1 Production Description

Description	:	Notebook Computer
Model Number	:	Amber 2.0
Serial Number	:	N/A
Condition	:	Prototype
Applicant	:	First International Computer Inc.
Address	:	6F., Formosa Plastics Rear Bldg 201, Tung-Hwa N. Road, Taipei, Taiwan, R.O.C.
Manufacturer	:	First International Computer Inc.
Address	:	6F., Formosa Plastics Rear Bldg 201, Tung-Hwa N. Road, Taipei, Taiwan, R.O.C.
CPU	:	Dixon 266/300/333/366MHz, Celeron 266/300MHz
Power Cord	:	1.8m, Non-shielded
Power Adaptor	:	Delta, M/N:ADP-50MB, S/N:W8824000241, 1.2m bound with a Ferrite core. I/P : 100~240V 1.5A 50~60Hz, O/P: DC 19V, 2.64A

2.2 Results:

2.2.1 The EUT(s) **met** the FCC Part 15 Class B requirements.

The Worst Emission data was found as following,

	Worst Emission Frequency (MHz)	Emission Level	Limit	Height of Antenna, Angel of Turntable
Conduction Mode 1	26.67997	43.2 dBuV Line 1, QP	48.0 dBuV	N/A
Radiation Mode 3	199.176	41.54[dB(uV/m)], Horiontal	43.50 [dB(uV/m)]	4M, 100°

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2.2.2 Test Mode:

Mode 1	Item	Manufacturer	M/N & S/N
1.	CPU	Dixon	366MHz
2.	Panel 12.1" TFT	LG	NL8060BC31-13A
3.	3.2GB HDD	Fujitsu	MHD2032AT, S/N:01000192
4.	FDD	Mitsubishi	MF355H-348MN, S/N:360452
5.	CD ROM 24X	NEC	CDR-2800A, S/N:8Y03029J 111
6.	Battery	Panasonic	Ni-MH 3800mAh
7.	AC Adaptor	Delta	M/N:ADP-50MB
8.	HDD	Fujui 3.2GB	MHD2032AT
9.	VGA CARD & Sound	On Board	
10.	Keyboard & Fax/Modem	Bulit in	
Mode 2			
1.	CPU	Dixon	333MHz
2.	Panel 12.1" TFT	LG	NL8060BC31-13A
3.	3.2GB HDD	Hitachi	DK237A-32, S/N;UL01107887
4.	FDD	Mitsubishi	MF355H-348MN, S/N:360452
5.	CD ROM 24X	NEC	CDR-2800A, S/N:8Y03029J 111
6.	Battery	Panasonic	Ni-MH 3800mAh
7.	AC Adaptor	Delta	M/N:ADP-50MB
8.	HDD	Hitachi 3.2GB	DK237A-32
9.	VGA CARD & Sound	On Board	
10.	Keyboard & Fax/Modem	Bulit in	
Mode 3			
1.	CPU	Celeron	300MHz
2.	Panel 12.1" TFT	LG	NL8060BC31-13A
3.	3.2GB HDD	Toshiba	MK3205MAV, S/N:68B30154T
4.	FDD	Mitsubishi	MF355H-348MN, S/N:N360452
5.	CD ROM 24X	NEC	CDR-2800A, S/N:8Y03029J 111
6.	Battery	Panasonic	Ni-MH 3800mAh
7.	AC Adaptor	Delta	M/N:ADP-50MB
8.	HDD	Toshiba 3.2GB	MK3205MAV
9.	VGA CARD & Sound	On Bard	
10.	Keyboard & Fax/Modem	Bulit in	

2.2.3 Note:

1. This Notebook computer was apply for class II permissive change because it add six more type of CPU and three types of HDD, Each different CPU/HDD has been investigated to find the maximum emission situation, and all the component s listed at section 2.3 were investigated. During the performance of the testing, peripherals were connected to all available ports. The data shown in this test report reflects the worst-case data for each frequency/video resolution.

2.3 Tested System Details

The FCC IDs/Types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards, which have grants) are:

☒ Notebook PC (EUT)

No.	Category	Manufacturer	Model No.
1.	CPU	Dixon 266 / 300/ 333/ 366MHz; Celeron 266/300MHz	Clock:66MHz
2.	LCD	LG 12.1" TFT	NL8060BC31-13A
3.	HDD	Fujui 3.2GB	MHD2032AT
4.	HDD	Hitachi 3.2GB	DK237A-32
5.	HDD	Toshiba 3.2GB	MK3205MAV
6.	FDD	Mitsubishi	MF355H-348MN
7.	CD ROM 24X	NEC	CDR-2800
8.	VGA Card & Sound	On Board	
9.	Keyboard & Fax/Modem	Built On	
10.	AC Adaptor	Delta	ADP-50MB
11.	Battery	Panasonic	Ni-MH 3800mAh

☒ Monitor M01-011

Model Number	: SyncMaster 700p
Serial Number	: H3MH903270Y
Manufacturer	: SAMSUNG
FCC ID	: A3LCGH760
BCIQ No.	: 3872A230
Data Cable	: Shielded, Undetachable, 1.5m
Power Cord	: Shielded, Detachable, 1.5m

☒ Keyboard K01-033

Model Number	: KB-5923
Serial Number	: 8060032215
FCC ID	: E8HKB-5923
Manufacturer	: TATUNG
BCIQ ID	: 3862A177
Data Cable	: Sheiled, Undetachable, 2.0 m

☒ Printer P01-011

Model Number	: C2642A(DJ-400)
Serial Number	: MY7951C4J5
FCC ID	: B94C2642X
Manufacturer	: HP
Data Cable	: Shielded, Detachable, 1.5m
Adaptor & Power Cord	: AC 110V, 60Hz To DC 30V
	: Non-Shielded, Detachable, 1.8m

☒ Modem M03-011

Model Number	: 1414
Serial Number	: 960018041
FCC ID	: IFAXDM1414
Manufacturer	: ACEEX
Adaptor & Power Cord	: Non-Shielded, Detachable, 1.8m
Data Cable	: Shielded, Detachable, 1.5m

☒ Microphone M04-011 ~ 018

Model Number	: M02
Serial Number	: N/A
FCC ID	: N/A
Manufacturer	: GALAXY
Data Cable	: Non-Shielded, Undetachable, 1.2m

☒ Radio Receiver R02-010 ~014

Model Number	: HS-GS162
Serial Number	: LYJ1084567
FCC ID	: N/A
Manufacturer	: AIWA CO., LTD
Power Cord	: N/A (Battery)

☒ Earphone E01-007 ~ 011

Model Number	: PH-12B
Serial Number	: N/A
Manufacturer	: PRO2 International Corp.
Power Cord	: N/A
Data Cable	: Non-Shielded, Undetachable, 1.2 m

☒ Electronic Private Automatic Branch Exchange O01-003

Model Number	: EASYSWITCH PX-4
Serial Number	: 95030015
FCC ID	: N/A
Manufacturer	: VIDAR CO., LTD.
Power Cord	: Non-Shielded, Detachable, 1.5m

2.4 Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4-1992.

Radiated testing was performed at an antenna to EUT distance of 3 meters.

2.5 Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	22-26
Humidity (%RH)	25-75	50-60
Barometric pressure (mbar)	860-1060	950-1000

FCC Site Description : Aug. 10, 1995/Aug. 25, 1998 File on
Federal Communication Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
Reference 31040/SIT1300F2

NVLAP Lab Code : 200085-0
United Stated Department of commerce
National Institute of Standards and Technology
National Voluntary Laboratory Accreditation Program

Name of firm : Global EMC Standard Tech. Corp.

Site location : No. 3 Pau-Tou Valley, Chia-Pau Tsuen, Lin Kou Hsiang, Taipei County, Taiwan, R.O.C.

3. Conducted Emission

3.1 Test Equipments

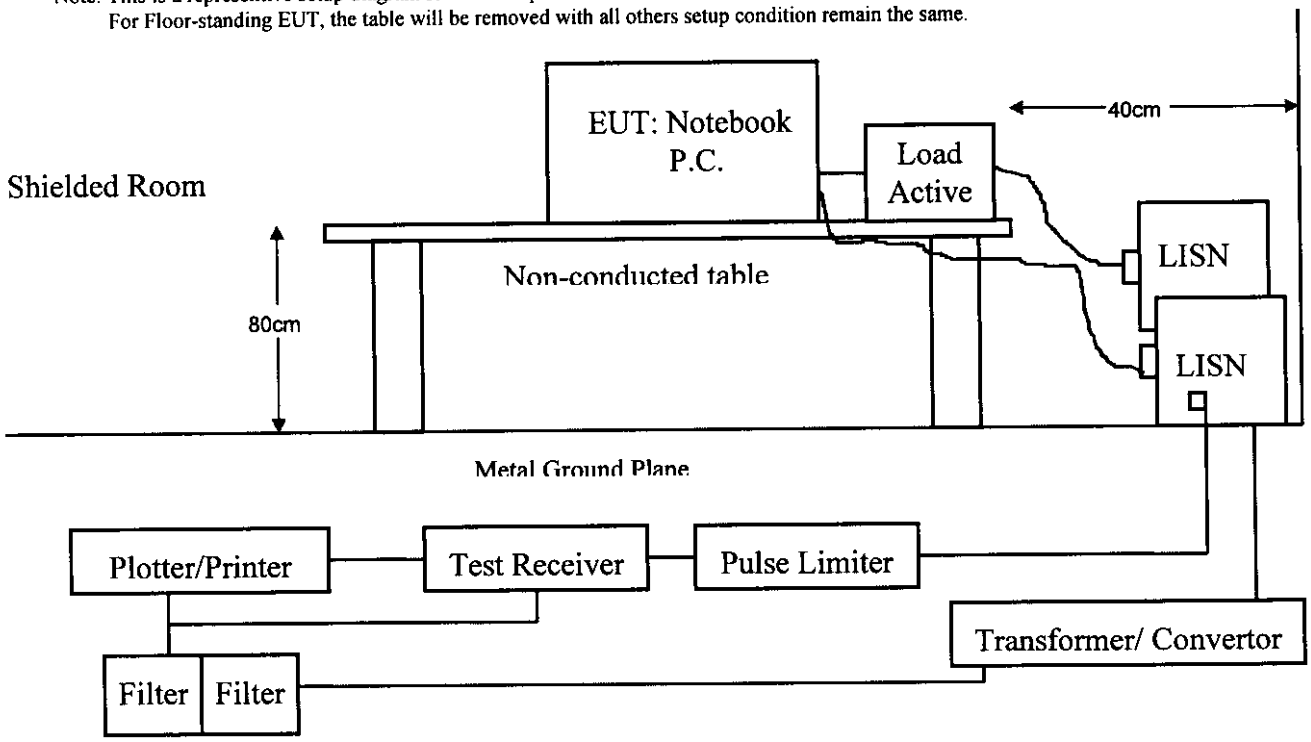
The following test equipments are used during the conducted power line tests:

Instrument	Manufacturer	Type /Serial No.	Last Calibration	Location	C.E.
Test Receiver	Rohde & Schwarz	ESHS 30 / 828109/010	Dec. 15, 1998	Shield Room #1	V
L.I.S.N.	Kyoritsu	KNW-407	Oct. 03, 1998	Shield Room #1	V
L.I.S.N.	Solar	8012-50-R24 / 90038	Jun. 02, 1998	Shield Room #1	
L.I.S.N.	Rohde & Schwarz	ESH3-Z5 / 840567/002	Oct. 02, 1998	Shield Room #1	V
L.I.S.N.	Schwarzbeck	NNLK 8121/8121358	Jun. 02, 1998	Shield Room #1	
Pulse Limiter	Rohde & Schwarz	ESH3-Z2/357.8810.52	Nov. 01, 1998	Shield Room #1	V
Shielded Room	GesTek	GTK-RF-S04	Sep. 17, 1998	Shield Room #1	V
RF CABLE	GesTek	GTK-RF-C07	Sep. 17, 1998	Shield Room #1	V
50 Ohm Terminator	GesTek	GTK-RF-T01	Oct. 03, 1998	Shield Room #1	V

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

3.2 Block Diagram of Test Setup

Note: This is a representive setup diagram for Table-top EUT.
For Floor-standing EUT, the table will be removed with all others setup condition remain the same.



3.3 Conducted Emission Limit

3.3.1 FCC Limits

Frequency	Maximum RF Line Voltage			
	Class A		Class B	
MHz	uV	dBuV	uV	dBuV
0.45 - 1.705	1000	60.0	250	48.0
1.705 - 30	3000	69.5	250	48.0

Remarks : 1. RF Line Voltage (dBuV) = 20 log RF Line Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3.3.2 CISPR Limits

Frequency	Maximum RF Line Voltage dB(uV)			
	Class A		Class B	
MHz	QUASI-PEAK	AVERAGE	QUASI-PEAK	AVERAGE
0.15 - 0.50	79	66	66-56	56-46
0.50-5.0	73	60	56	46
5.0 - 30	73	60	60	50

Remarks : In the Above Table, the tighter limit applies at the band edges.

3.4 EUT Configuration on Measurement

The equipments which is listed 3.2 are installed on Conducted Power Line Test to meet the Commission requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

The device under test, installed in a representative system as described in section 3.2, was placed on a non-conductive table whose total height equaled 80 CM. Powered from one LISN which signal output to receiver, and the other peripherials was powered from another LISN which signal output was terminated by 50Ω.

3.5 EUT Exercise Software

The EUT exercise program used during conducted testing was designed to exercise the EUT in a manner similar to a typical use. The exercise sequence is listed as below:

3.5.1 Setup the EUT and simulators as shown on 3.2.

3.5.2 Turn on the power of all equipments.

3.5.3 Boot the PC from Hard Disk and Enter to windows 98, exercise EMI.EXE test program to active all devices.

3.5.4 Play CD Disk audio in windows environment, read HDD and FDD data.

3.5.5 PC sent "H" Pattern to Both LCD Panel And Ext. Monitor.

3.5.6 PC sent "H" Pattern to Parallel (printer) port.

3.5.7 PC sent "H" Pattern to Serial port.

3.5.8 Repeat 3.5.4 to 3.5.7

3.6 Conducted Emission Data

The measurement range of conducted emission which is from **0.45 MHz to 30 MHz** was investigated. All readings are quasi-peak and average values with a resolution Bandwidth of 9 KHz, unless otherwise noted. The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range for all the test modes. The two different lines were each measured separately, and the worst modes datas were reported on the following data pages. The final measurement equal to Receiver reading plus Correction factor if available. When LISN insertion loss bigger than 0.5dB then the receiver will add correction factor to reading level automatically.

The total uncertainty for this test is as follows:
• Uncertainty in the field strength measured: $< \pm 2.0$ dB
The uncertainty is calculated in accordance with NAMAS document NIS 81, and is given as 2 standard deviations.

CONDUCTED EMISSION DATA

Date of Test	:	January 08, 1999	Temperature	:	19.8 ℃
EUT	:	Notebook PC	Humidity	:	53 %
Test Mode	:	Mode 1	Display Pattern	:	H Pattern

FREQUENCY	READING LEVEL				LIMIT
	LINE 1		LINE 2		
MHz	dBuV	uV	dBuV	uV	uV
0.50413	36.1	63.83	35.4	58.88	250
0.93493	33.5	47.32	31.8	38.90	250
2.95163	33.4	46.77	33.3	46.24	250
4.74972	37.3	73.28	38.7	86.10	250
13.67435	34.7	54.33	32.1	40.27	250
**26.67997	43.2	144.54	43.1	142.89	250

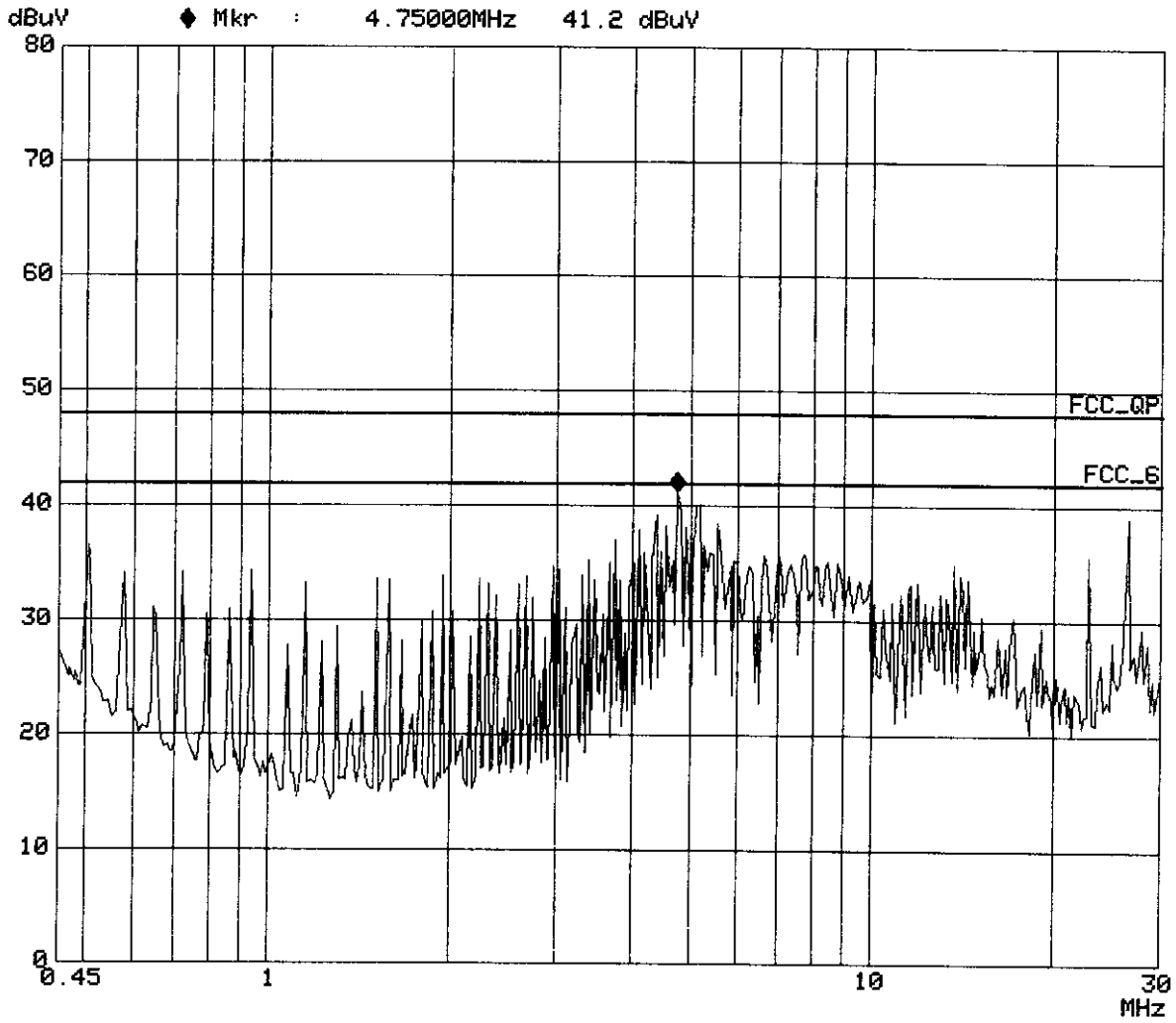
Remarks : 1. All readings are Quasi-peak.
2. " ** " means that this data is the worse case emission level.
3. Deviations from the specifications: None.
4. Final measurement = (Receiver reading) + (Correction factor if available)

Attached 2 individual pages of peak scan curve data sheets.

ROHDE & SCHWARZ ESHS 30

GesTek, PowerLine Conducted Emission

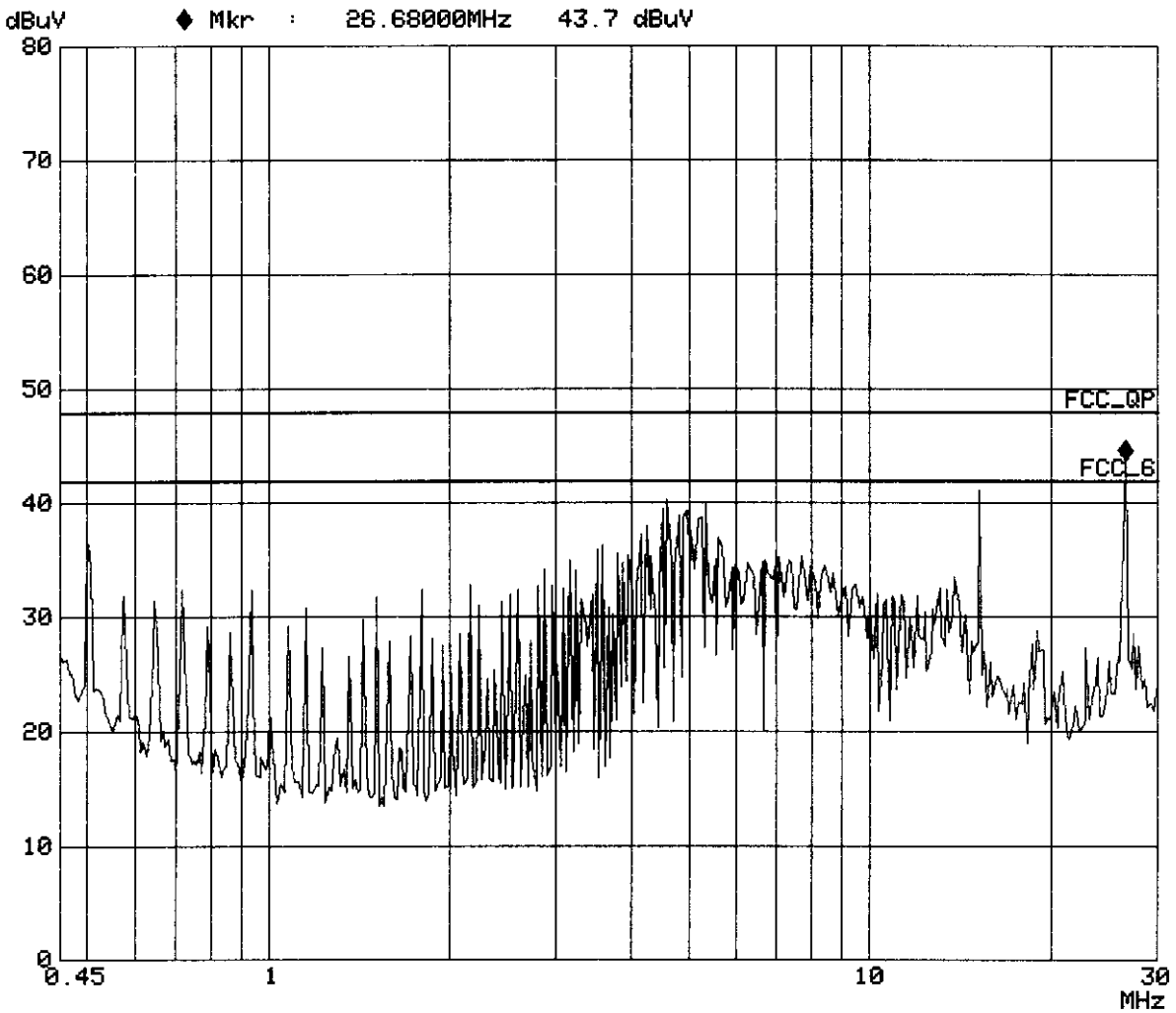
EUT:	Notebook P.C.
Manuf:	FIC Amber 2.0
Op Cond:	Mode:1
Operator:	Tony TSAI
Test Spec:	FCC CLASS B FOR ID
Comment:	Line 1
	800X600 38KHz/60Hz
Date:	09. Jan 99 01:56



ROHDE & SCHWARZ ESHS 30

GesTek, PowerLine Conducted Emission

EUT:	Notebook P.C.
Manuf:	FIC Amber 2.0
Op Cond:	Mode:1
Operator:	Tony TSAI
Test Spec:	FCC CLASS B FOR ID
Comment:	Line 2
	800X600 38KHz/60Hz
Date:	09. Jan 99 02:11



CONDUCTED EMISSION DATA

Date of Test	:	Jan. 08, 1999	Temperature	:	19.6 ℃
EUT	:	Notebook PC	Humidity	:	54 %
Test Mode	:	Mode 2	Display Pattern	:	H Pattern

FREQUENCY	READING LEVEL				LIMIT
	LINE 1		LINE 2		
MHz	dBuV	uV	dBuV	uV	uV
0.50217	38.5	84.14	35.1	56.89	250
0.71825	37.6	75.86	31.1	35.89	250
1.51034	37.6	75.86	31.5	37.58	250
**3.23969	40.6	107.15	40.8	109.65	250
4.96886	38.6	85.11	37.1	71.61	250
15.24432	37.1	71.61	37.0	70.79	250

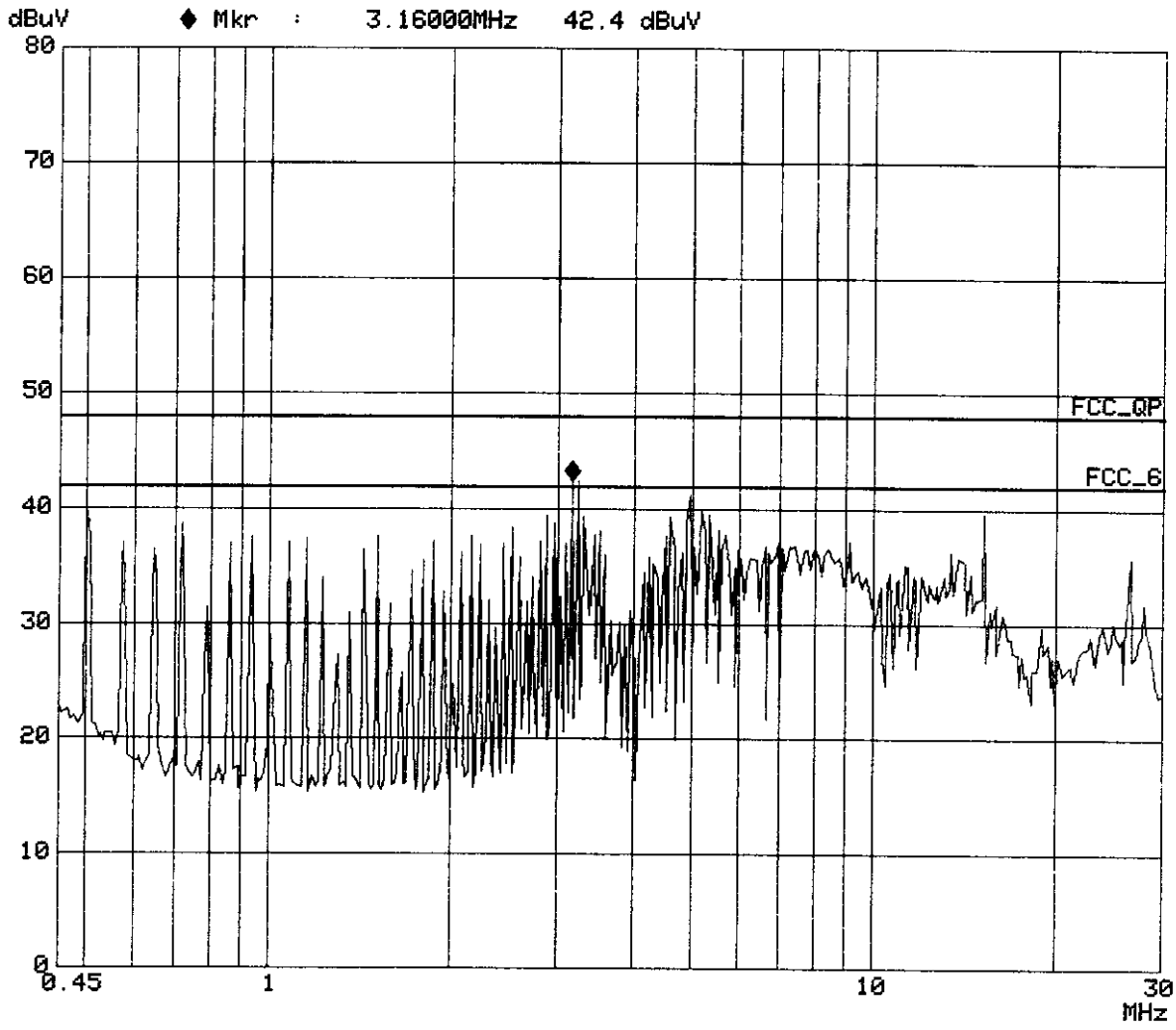
Remarks : 1. All readings are Quasi-peak.
2. " ** " means that this data is the worse case emission level.
3. Deviations from the specifications: None.
4. Final measurement = (Receiver reading) + (Correction factor if available)

Attached 2 individual pages of peak scan curve data sheets.

ROHDE & SCHWARZ ESHS 30

GesTek, PowerLine Conducted Emission

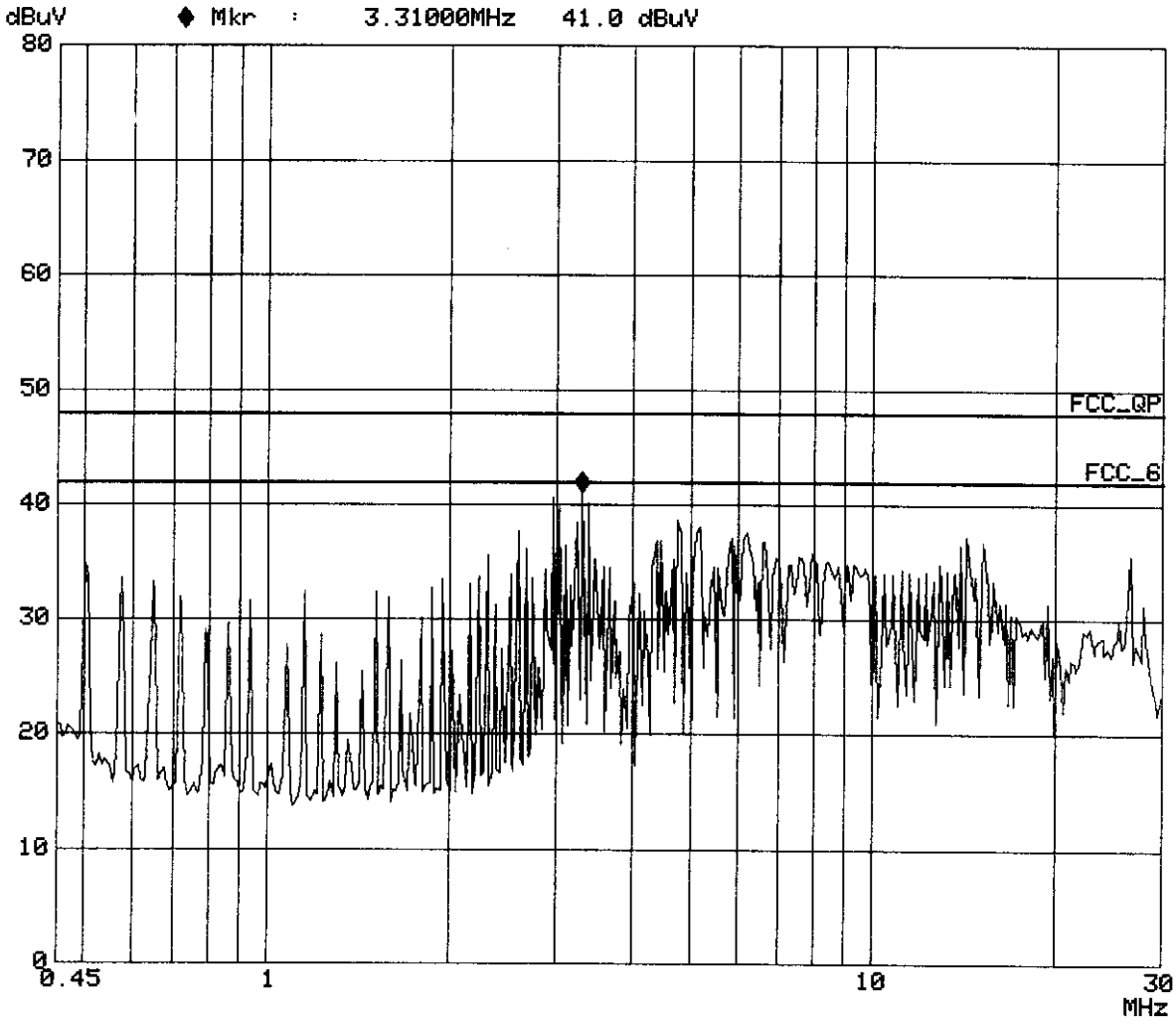
EUT:	Notebook P.C.
Manuf:	FIC Amber 2.0
Op Cond:	Mode:2
Operator:	Tony TSAI
Test Spec:	FCC CLASS B FOR ID
Comment:	Line 1
	800X600 38KHz/60Hz
Date:	08. Jan 99 20:47



ROHDE & SCHWARZ ESHS 30

GesTek, PowerLine Conducted Emission

EUT:	Notebook P.C.
Manuf:	FIC Amber 2.0
Op Cond:	Mode:2
Operator:	Tony TSAI
Test Spec:	FCC CLASS B FOR ID
Comment:	Line 2
	800X600 38KHz/60Hz
Date:	08. Jan 99 21:24



CONDUCTED EMISSION DATA

Date of Test	:	Jan. 08, 1999	Temperature	:	19.8 ℃
EUT	:	Notebook PC	Humidity	:	53 %
Test Mode	:	Mode 3	Display Pattern	:	H Pattern

FREQUENCY	READING LEVEL				LIMIT
	LINE 1		LINE 2		
MHz	dBuV	uV	dBuV	uV	uV
0.50528	38.6	85.11	36.0	63.10	250
2.66393	33.2	45.71	36.4	66.07	250
3.02370	39.0	89.13	38.0	79.43	250
**3.38253	39.2	91.20	39.8	97.72	250
4.46134	35.4	58.88	36.0	63.10	250
4.82525	37.1	71.61	36.5	66.83	250
5.18053	35.1	56.89	34.8	54.95	250

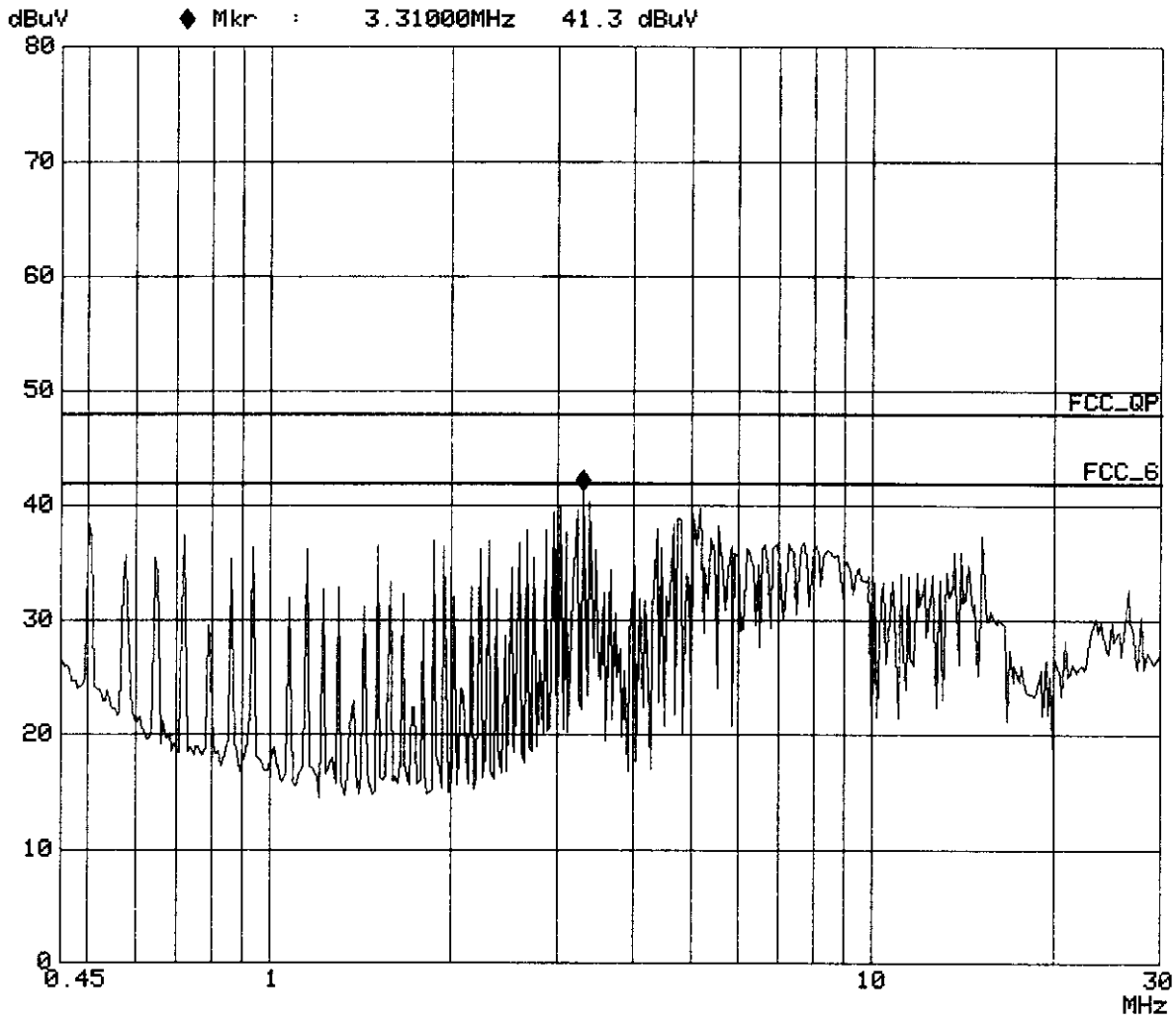
Remarks : 1. All readings are Quasi-peak.
2. " ** " means that this data is the worse case emission level.
3. Deviations from the specifications: None.
4. Final measurement = (Receiver reading) + (Correction factor if available)

Attached 2 individual pages of peak scan curve data sheets.

ROHDE & SCHWARZ ESHS 30

GesTek, PowerLine Conducted Emission

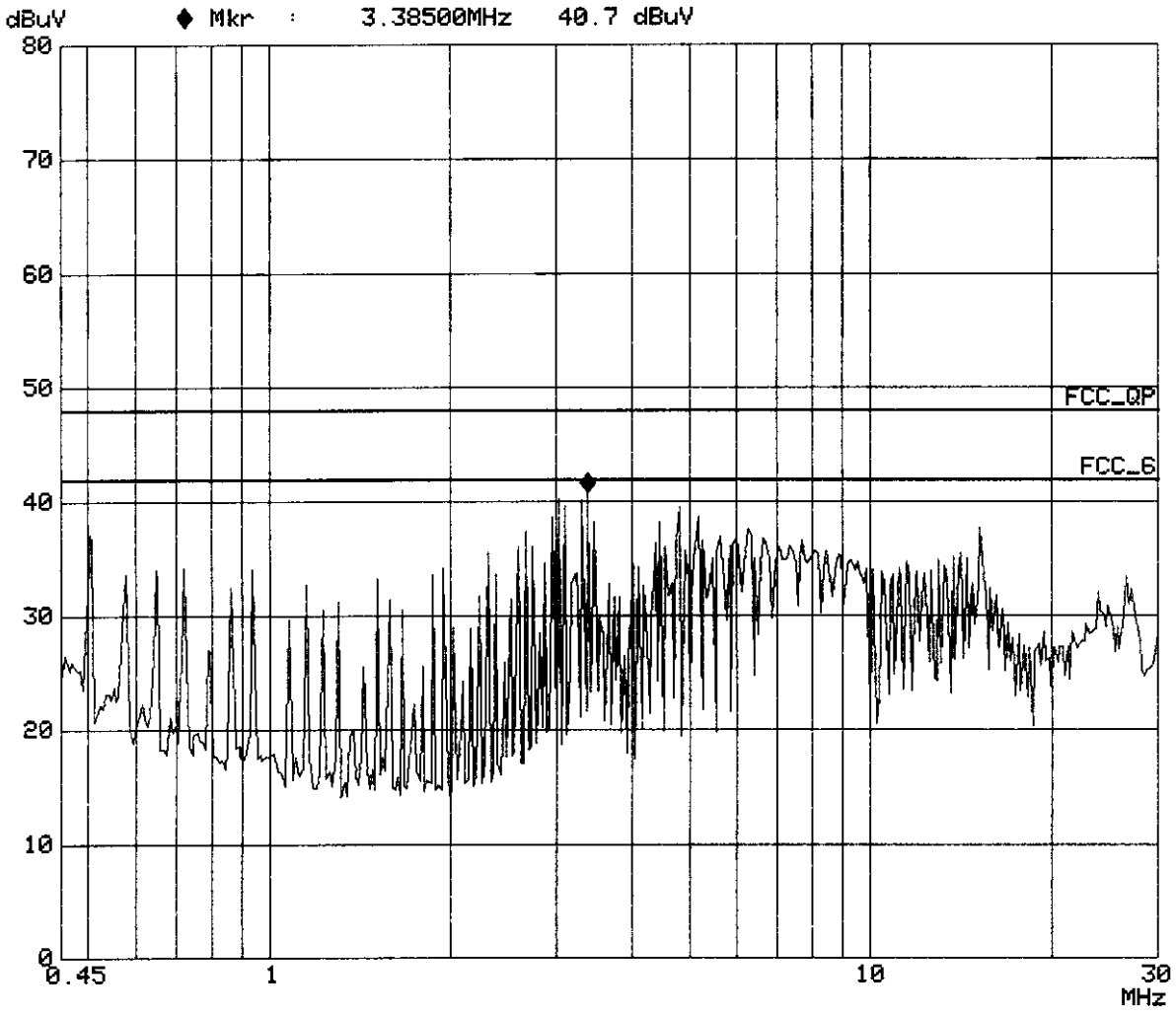
EUT:	Notebook P.C.
Manuf:	FIC Amber 2.0
Op Cond:	Mode:3
Operator:	Tony TSAI
Test Spec:	FCC CLASS B for DoC
Comment:	Line 1
	800X600 38KHz/60Hz
Date:	08. Jan 99 19:11



ROHDE & SCHWARZ ESHS 30

GesTek, PowerLine Conducted Emission

EUT:	Notebook P.C.
Manuf:	FIC Amber 2.0
Op Cond:	Mode:3
Operator:	Tony TSAI
Test Spec:	FCC CLASS B for DoC
Comment:	Line 2
	800X600 38KHz/60Hz
Date:	08. Jan 99 18:53



4. Radiation Emission Test

4.1 Test Equipment

The following test equipments are used during the radiated emission measures:

Radiated test was performed on : ☐ Site #1 ☒ Site #2

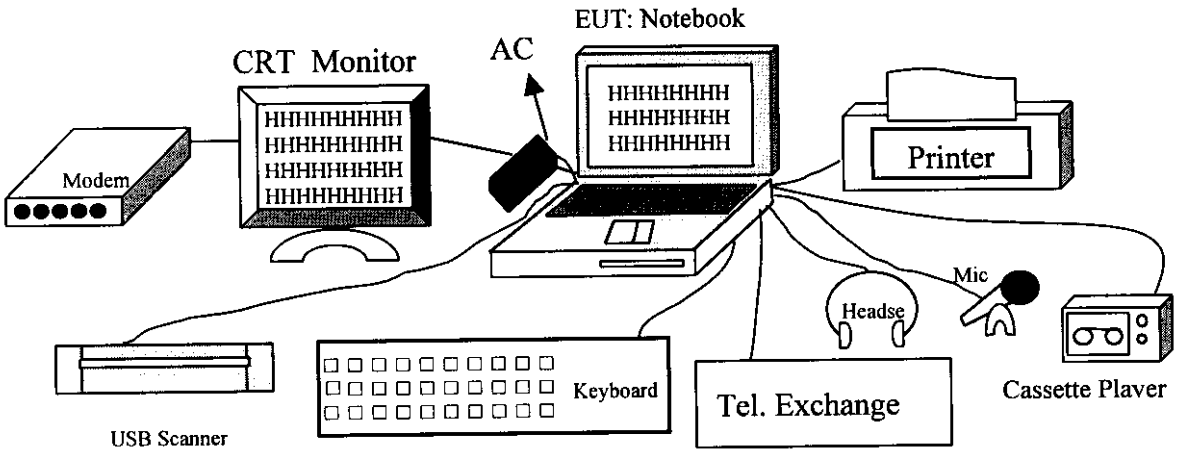
Instrument	Manufacturer	Type /Serial No.	Last Cal.	Site #1	Site #2
Test Receiver	Rohde & Schwarz	ESVS 10 / 842122/001	Dec. 16,1998	V	
Spectrum Analyzer	HP	8594E / 3543A02689	N/A	V	
Pre-Amplifier	HP	8447D / 2944A08272	N/A	V	
Test Receiver	Rohde & Schwarz	ESCS 30/825022/003	Jul. 20,1998		V
Spectrum Analyzer	HP	8591E/3543A05040	N/A		V
Pre Amplifier	HP	8447D/2944A08273	N/A		V
BILOG ANTENNA	Chase	CBL6112B/2417	May. 16,1998	V	
BILOG ANTENNA	Chase	CBL6112B/2416	May. 16,1998		V
Pre Amplifier	HP	8347A/3307A01401	N/A	V	V
Dipole Antenna	Schwarzbeck	VHAP/736,,737	May.19,1998	V	V
Dipole Antenna	Schwarzbeck	UHAP/719,,720	May.19,1998	V	V
Open Site	GesTek	GTK-RF-S01	Jul. 22, 1998	V	
Open Site	GesTek	GTK-RF-S02	Jul. 03, 1998		V
RF Cable	GesTek	GTK-RF-C01	May. 16,1998	V	
RF Cable	GesTek	GTK-RF-C02	May. 16,1998	V	
RF Cable	GesTek	GTK-RF-C03	May. 16,1998		V
RF Cable	GesTek	GTK-RF-C04	May. 16,1998		V
Test Program Software	GesTek	GTK-RF-P01	N/A	V	
Test Program Software	GesTek	GTK-RF-P02	N/A		V

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

GTE99-F002

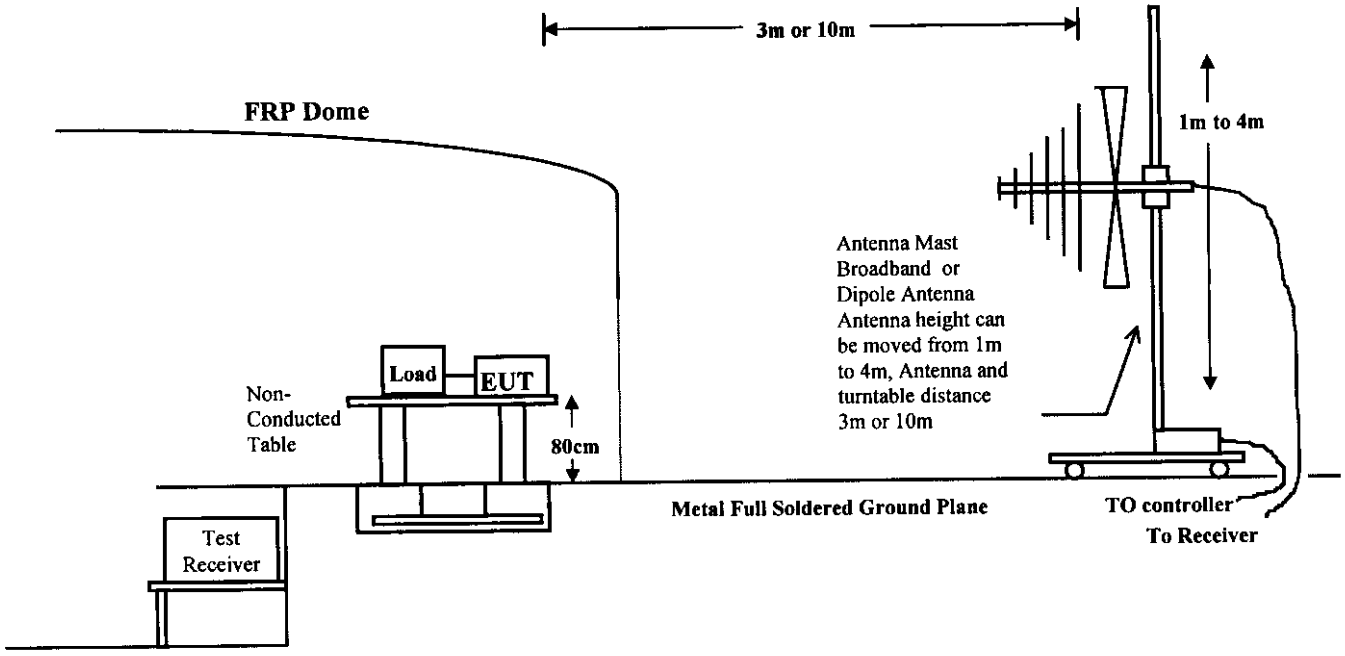
4.2 Test Setup

4.2.1 Block Diagram of Connections between EUT and simulators



4.2.2 Open Test Site Setup Diagram

Note: This is a representive setup diagram for Table-top EUT.
For Floor-standing EUT, the table will be removed with all others setup condition remain the same.



4.3 Radiated Emission Limit

4.3.1 FCC Class B Limits at 3m

Frequency	Distance	Field Strength	
MHz	Meter	uV/M	dBuV/M
30 - 88	3	100	40.0
88 - 216	3	150	43.5
216 -960	3	200	46.0
960 - 2000	3	500	54.0

4.3.2 CISPR Class B Limits at 10m

Frequency	Distance	Field Strength
MHz	Meter	dB(uV/M)
30 - 230	10	30
230 - 1000	10	37

Remark : 1. The tighter limit shall apply at the edge between two frequency bands.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.4 EUT Configuration

The equipments which is listed 2.3 are installed on Radiated Emission Test to meet the Commission requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

The device under test, installed in a representative system as described in section 4.2.2, was placed on a non-conductive table whose total height equaled 80 CM. This table can be rotated 360 degree. The measurement antenna was mounted to a non-conductive mast capable of moving the antenna vertically. Antenna height was varied from 1 meter to 4 meters and the system under test was rotated from 0 degree through 360 degrees relative to the antenna position and polarization (Horizontal and Vertical). Also the I/O cable position was investigated to find the maximum emission condition.

4.5 Operating Condition of EUT

Same as Conducted Power Line Test which is listed in 3.5.

4.6 Radiated Emission Data

Radiated emission were investigated over the frequency range of **30 MHz to 2 GHz**. All readings below 1GHz are quasi-peak values with a resolution Bandwidth of 120 KHz, unless otherwise noted. From 1-2GHz was investigated use both peak and average detector use bandwith 1MHz. The initial step in collecting radiated emission data is a spectrum analyzer peak scan of the measurement range for all the test modes. Then the worst modes reading was measured use a test receiver and reported in the following data pages.

The total uncertainty for this test is as follows:
- Uncertainty in the field strength measured (3m antenna distance): $< \pm 4.0$ dB
- Uncertainty in the field strength measured (10m antenna distance): $< \pm 4.0$ dB

The uncertainty is calculated in accordance with NAMAS document NIS 81, and is given as 2 standard deviations.

Radiated Emission Data

Date of Test :01-15,1999 Fri
EUT :NOTEBOOK P.C.
Working Cond.:Amber 2.0, MODE:1
Temperature :20 deg/C
Humidity :66 %RH
Display Pattern:H Pattern

Frequency [MHz]	Cable Loss [dB]	Antenna Factor [dB/m]	Reading Level Horizontal [dB(uV)]	Emission Level Horizontal [dB(uV/m)]	(uV/m)	Limit (uV/m)
142.550	1.84	11.16	26.76	39.77	97.34	150
184.324	2.04	9.56	24.69	36.29	65.21	150
199.050	2.20	10.20	27.52	39.92	99.08	150
221.187	2.33	11.20	24.98	38.51	84.24	200
233.476	2.40	11.74	29.06	43.20	144.61	200
258.052	2.57	12.67	24.45	39.69	96.53	200
280.602	2.74	13.15	24.20	40.09	101.05	200
300.647	2.91	13.60	25.23	41.74	122.12	200
340.734	3.15	14.34	19.56	37.05	71.24	200
360.777	3.29	15.09	20.11	38.49	84.08	200
516.105	4.00	18.56	17.30	39.86	98.36	200
*565.260	4.29	19.04	19.88	43.21	144.63	200
614.412	4.55	19.57	13.82	37.94	78.88	200
641.379	4.66	19.90	16.10	40.66	107.89	200
841.812	5.87	21.31	13.60	40.78	109.40	200
933.908	6.20	22.15	6.48	34.83	55.14	200

Remarks: 1. All Readings below 1GHz are Quasi-Peak.
2." * ", means this data is worse case emission level.
3.Emission Level = Reading Level + Antenna Factor + Cable loss
4.Deviations from the specifications: None.

Radiated Emission Data

Date of Test :01-15,1999 Fri
EUT :NOTEBOOK P.C.
Working Cond.:Amber 2.0, MODE:1
Temperature :20 deg/C
Humidity :66 %RH
Display Pattern:H Pattern

Frequency [MHz]	Cable Loss [dB]	Antenna Factor [dB/m]	Reading Level Vertical [dB(uV)]	Emission Level Vertical [dB(uV/m)]	(uV/m)	Limit (uV/m)
59.129	1.20	5.90	22.40	29.50	29.85	100
*180.389	2.00	9.40	27.12	38.52	84.36	150
192.420	2.12	9.87	20.69	32.68	43.05	150
200.430	2.20	10.20	16.62	29.02	28.25	150
220.485	2.33	11.20	19.10	32.63	42.81	200
233.478	2.40	11.74	22.19	36.33	65.57	200
258.065	2.57	12.67	14.14	29.38	29.46	200
331.781	3.09	14.17	9.34	26.60	21.38	200
340.726	3.15	14.34	12.94	30.43	33.25	200

Remarks: 1. All Readings below 1GHz are Quasi-Peak.
2." * ", means this data is worse case emission level.
3.Emission Level = Reading Level + Antenna Factor + Cable loss
4.Deviations from the specifications: None.

Radiated Emission Data

Date of Test :01-15,1999 Fri
EUT :NOTEBOOK P.C.
Working Cond.:Amber 2.0, MODE:2
Temperature :20 deg/C
Humidity :66 %RH
Display Pattern:H Pattern

Frequency [MHz]	Cable Loss [dB]	Antenna Factor [dB/m]	Reading Level Horizontal [dB(uV)]	Emission Level Horizontal [dB(uV/m)]	(uV/m)	Limit (uV/m)
65.997	1.20	6.08	18.21	25.49	18.81	100
110.595	1.46	12.09	19.91	33.46	47.08	150
180.389	2.00	9.40	25.68	37.08	71.47	150
208.900	2.26	10.65	22.80	35.71	61.03	150
233.476	2.40	11.74	23.12	37.26	72.98	200
440.949	3.76	17.32	10.11	31.19	36.26	200
516.106	4.00	18.56	18.33	40.89	110.75	200
561.208	4.26	19.00	15.60	38.86	87.73	200
*663.567	4.82	20.00	16.53	41.35	116.77	200
841.813	5.87	21.31	12.40	39.58	95.29	200

Remarks: 1. All Readings below 1GHz are Quasi-Peak.
2." * ", means this data is worse case emission level.
3.Emission Level = Reading Level + Antenna Factor + Cable loss
4.Deviations from the specifications: None.

Radiated Emission Data

Date of Test :01-15,1999 Fri
EUT :NOTEBOOK P.C
Working Cond.:Amber 2.0, MODE:2
Temperature :20 deg/C
Humidity :66 %RH
Display Pattern:H Pattern

Frequency [MHz]	Cable Loss [dB]	Antenna Factor [dB/m]	Reading Level Vertical [dB(uV)]	Emission Level Vertical [dB(uV/m)]	(uV/m)	Limit (uV/m)
66.007	1.20	6.08	19.64	26.92	22.18	100
110.594	1.46	12.09	19.87	33.42	46.86	150
191.752	2.12	9.87	27.20	39.19	91.09	150
*199.250	2.20	10.20	28.63	41.03	112.59	150
208.902	2.26	10.65	24.51	37.42	74.31	150
233.478	2.40	11.74	23.61	37.75	77.22	200
334.292	3.10	14.20	19.01	36.32	65.44	200
400.862	3.60	17.00	13.05	33.65	48.16	200
440.949	3.76	17.32	17.77	38.85	87.58	200
516.106	4.00	18.56	19.80	42.36	131.17	200
561.207	4.26	19.00	16.13	39.39	93.25	200
663.568	4.82	20.00	13.16	37.98	79.22	200
841.810	5.87	21.31	13.84	41.02	112.47	200

Remarks: 1. All Readings below 1GHz are Quasi-Peak.
2." * ", means this data is worse case emission level.
3.Emission Level = Reading Level + Antenna Factor + Cable loss
4.Deviations from the specifications: None.

Radiated Emission Data

Date of Test :01-15,1999 Fri
EUT :NOTEBOOK P.C.
Working Cond.:Amber 2.0, MODE:3
Temperature :20 deg/C
Humidity :66 %RH
Display Pattern:H Pattern

Frequency [MHz]	Cable Loss [dB]	Antenna Factor [dB/m]	Reading Level Horizontal [dB(uV)]	Emission Level Horizontal [dB(uV/m)]	(uV/m)	Limit (uV/m)
65.996	1.71	6.08	14.10	21.89	12.43	100
110.594	2.54	12.09	22.37	37.00	70.81	150
159.749	2.76	10.06	24.00	36.82	69.31	150
165.990	2.79	9.75	17.64	30.18	32.30	150
184.325	2.87	9.56	27.58	40.01	100.11	150
*199.176	2.94	10.20	28.40	41.54	119.44	150
233.480	3.09	11.74	25.59	40.42	105.01	200
258.054	3.21	12.67	20.37	36.25	64.96	200
300.650	3.40	13.60	21.97	38.97	88.82	200
360.777	3.60	15.09	19.73	38.42	83.38	200
440.949	3.86	17.32	14.46	35.63	60.50	200
516.107	4.11	18.56	17.85	40.52	106.16	200
561.209	4.25	19.00	12.20	35.45	59.24	200
663.566	4.60	20.00	16.34	40.94	111.40	200
841.812	5.18	21.31	11.32	37.81	77.75	200

Remarks: 1. All Readings below 1GHz are Quasi-Peak.
2." * ", means this data is worse case emission level.
3.Emission Level = Reading Level + Antenna Factor + Cable loss
4.Deviations from the specifications: None.

Radiated Emission Data

Date of Test :01-15,1999 Fri
EUT :NOTEBOOK P.C.
Working Cond.:Amber 2.0, MODE:3
Temperature :20 deg/C
Humidity :66 %RH
Display Pattern:H Pattern

Frequency [MHz]	Cable Loss [dB]	Antenna Factor [dB/m]	Reading Level Vertical [dB(uV)]	Emission Level Vertical [dB(uV/m)]	(uV/m)	Limit (uV/m)
66.008	1.71	6.08	18.37	26.16	20.32	100
110.595	2.54	12.09	23.06	37.69	76.67	150
159.746	2.76	10.06	24.56	37.38	73.93	150
165.989	2.79	9.75	17.64	30.18	32.30	150
184.321	2.87	9.56	21.73	34.16	51.05	150
*199.249	2.94	10.20	27.29	40.43	105.11	150
208.900	2.99	10.65	21.89	35.53	59.78	150
233.476	3.09	11.74	22.49	37.32	73.49	200
260.564	3.22	12.72	24.23	40.16	101.92	200
300.651	3.40	13.60	19.62	36.62	67.76	200
334.302	3.51	14.20	18.08	35.79	61.61	200
360.778	3.60	15.09	16.34	35.03	56.44	200
400.863	3.73	17.00	13.94	34.67	54.14	200
440.951	3.86	17.32	17.91	39.08	90.00	200
481.034	3.99	17.99	13.36	35.34	58.48	200
516.106	4.11	18.56	18.56	41.23	115.21	200
561.209	4.25	19.00	15.70	38.95	88.64	200
663.565	4.60	20.00	11.62	36.22	64.70	200
841.813	5.18	21.31	13.90	40.39	104.64	200

Remarks: 1. All Readings below 1GHz are Quasi-Peak.
2." * ", means this data is worse case emission level.
3.Emission Level = Reading Level + Antenna Factor + Cable loss
4.Deviations from the specifications: None.

Radiated Emission Data

Date of Test :01-15,1999 Fri Temperature :20 deg/C
EUT :NOTEBOOK P.C.(Peak&Average) Humidity :66 %RH
Working Cond.:Amber 2.0, MODE:1 Display Pattern:H Pattern

Frequency [MHz]	Cable Loss [dB]	Antenna Factor [dB/m]	Reading Level Horizontal [dB(uV)]	Emission Level Horizontal [dB(uV/m)]	(uV/m)	Limit (uV/m)
1107.536	6.04	22.85	48.80	42.16	128.24	500 PK
1107.536	6.04	22.85	38.94	32.30	41.21	500 AV
1204.228	6.34	23.38	44.80	39.14	90.54	500 PK
1204.228	6.34	23.38	38.87	33.21	45.75	500 AV
1400.753	6.94	24.62	46.80	43.30	146.21	500 PK
1400.753	6.94	24.62	37.89	34.39	52.42	500 AV

Remarks: 1. All Readings below 1GHz are Quasi-Peak, above are average value.
2." * ", means this data is worse case emission level.
3.Emission Level = Reading Level + Antenna Factor + Cable loss
-Amp Factor(35.53,35.37,35.06)
4.Deviations from the specifications: None.

Radiated Emission Data

Date of Test :01-15,1999 Fri Temperature :20 deg/C
EUT :NOTEBOOK P.C (Peak&Average) Humidity :66 %RH
Working Cond.:Amber 2.0, MODE:1 Display Pattern:H Pattern

Frequency [MHz]	Cable Loss [dB]	Antenna Factor [dB/m]	Reading Level Vertical [dB(uV)]	Emission Level Vertical [dB(uV/m)]	(uV/m)	Limit (uV/m)
1107.130	6.04	22.85	46.95	40.31	103.64	500 PK
1107.130	6.04	22.85	36.65	30.01	31.66	500 AV
1204.520	6.34	23.38	47.98	42.32	130.58	500 PK
1204.520	6.34	23.38	37.93	32.27	41.05	500 AV
1400.460	6.94	24.62	47.53	44.03	159.03	500 PK
1400.460	6.94	24.62	34.95	31.45	37.37	500 AV

Remarks: 1. All Readings below 1GHz are Quasi-Peak, above are average value.
2." * ", means this data is worse case emission level.
3.Emission Level = Reading Level + Antenna Factor + Cable loss -Amp Factor(35.53, 35.37, 35.06)
4.Deviations from the specifications: None.

Radiated Emission Data

Date of Test :01-15,1999 Fri Temperature :20 deg/C
EUT :NOTEBOOK P.C.(Peak&Average) Humidity :66 %RH
Working Cond.:Amber 2.0, MODE:2 Display Pattern:H Pattern

Frequency [MHz]	Cable Loss [dB]	Antenna Factor [dB/m]	Reading Level Horizontal [dB(uV)]	Emission Level Horizontal [dB(uV/m)]	(uV/m)	Limit (uV/m)
1107.380	6.04	22.85	42.69	36.05	63.44	500 PK
1107.380	6.04	22.85	36.54	29.90	31.27	500 AV
1201.847	6.32	23.33	42.88	37.16	72.07	500 PK
1201.847	6.32	23.33	37.60	31.87	39.24	500 AV
1400.856	6.94	24.62	35.90	32.40	41.69	500 AV
1400.856	6.94	24.62	38.50	35.00	56.23	500 PK

Remarks: 1. All Readings below 1GHz are Quasi-Peak, above are average value.
2." * ", means this data is worse case emission level.
3.Emission Level = Reading Level + Antenna Factor + Cable loss -Amp Factor(35.53,35.38,35.06)
4.Deviations from the specifications: None.

Radiated Emission Data

Date of Test :01-15,1999 Fri Temperature :20 deg/C
EUT :NOTEBOOK P.C.(Peak&Average) Humidity :66 %RH
Working Cond.:Amber 2.0, MODE:2 Display Pattern:H Pattern

Frequency [MHz]	Cable Loss [dB]	Antenna Factor [dB/m]	Reading Level Vertical [dB(uV)]	Emission Level Vertical [dB(uV/m)]	(uV/m)	Limit (uV/m)
1107.500	6.04	22.85	47.13	40.49	105.81	500 PK
1107.500	6.04	22.85	36.71	30.07	31.88	500 AV
1203.050	6.33	23.35	47.70	42.01	125.99	500 PK
1203.050	6.33	23.35	37.68	31.99	39.75	500 AV
1401.450	6.95	24.63	47.77	44.29	163.91	500 PK
1401.450	6.95	24.63	36.15	32.67	43.01	500 AV

Remarks: 1. All Readings below 1GHz are Quasi-Peak, above are average value.
2." * ", means this data is worse case emission level.
3.Emission Level = Reading Level + Antenna Factor + Cable loss
-Amp Factor(35.53,35.38,35.06)
4.Deviations from the specifications: None.

Radiated Emission Data

Date of Test :01-15,1999 Fri Temperature :20 deg/C
EUT :NOTEBOOK P.C (Peak&Average) Humidity :66 %RH
Working Cond.:Amber 2.0, MODE:3 Display Pattern:H Pattern

Frequency [MHz]	Cable Loss [dB]	Antenna Factor [dB/m]	Reading Level Horizontal [dB(uV)]	Emission Level Horizontal [dB(uV/m)]	(uV/m)	Limit (uV/m)
1107.110	6.04	22.85	47.30	40.66	107.90	500 PK
1107.110	6.04	22.85	35.77	29.13	28.61	500 AV
1204.520	6.34	23.38	38.06	32.40	41.67	500 PK
1204.520	6.34	23.38	47.48	41.82	123.27	500 AV
1400.750	6.94	24.62	47.27	43.77	154.34	500 PK
1400.750	6.94	24.62	37.22	33.72	48.53	500 AV

Remarks: 1. All Readings below 1GHz are Quasi-Peak, above are average value.
2." * ", means this data is worse case emission level.
3.Emission Level = Reading Level + Antenna Factor + Cable loss
-Amp Factor(35.53, 35.37, 35.06)
4.Deviations from the specifications: None.

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Radiated Emission Data

Date of Test :01-15,1999 Fri Temperature :22 deg/C
EUT :NOTEBOOK P.C.(Peak&Average) Humidity :66 %RH
Working Cond.:Amber 2.0, MODE:3 Display Pattern:H Pattern

Frequency [MHz]	Cable Loss [dB]	Antenna Factor [dB/m]	Reading Level Vertical [dB(uV)]	Emission Level Vertical [dB(uV/m)]	(uV/m)	Limit (uV/m)
1107.130	6.04	22.85	47.64	41.00	112.20	500 PK
1107.130	6.04	22.85	46.95	40.31	103.64	500 AV
1107.130	6.04	22.85	36.65	30.01	31.66	500 AV
1204.520	6.34	23.38	47.98	42.32	130.58	500 PK
1204.520	6.34	23.38	37.93	32.27	41.05	500 AV
1400.460	6.94	24.62	47.53	44.03	159.03	500 PK
1400.460	6.94	24.62	34.95	31.45	37.37	500 AV

Remarks: 1. All Readings below 1GHz are Quasi-Peak, above are average value.
2." * ", means this data is worse case emission level.
3.Emission Level = Reading Level + Antenna Factor + Cable loss
-Amp Factor(35.53, 35.37, 35.06)
4.Deviations from the specifications: None.