

Test Report
Application for Certification
On Behalf Of
First International Computer Inc.
Notebook P.C.

Model Number: A450; StepNote SVIII; A450
Actionbook 850T; 6900DTF
Friend A450; A450;
Soliton III/f; 643T; NB3000; MD9326
Si²/A450W

FCC ID: EUNA450

Prepared for :
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1. STATEMENT OF RESULTS:

Applicant : **First International Computer Inc.**

EUT Description : Notebook P.C.
Model Number : A450; StepNote SVIII; A450
Actionbook 850T; 6900DTF
Friend A450; A450;
Si²/A450W

Serial Number : N/A
FCC ID : EUNA450
Tested Power : 110V/60Hz

MEASUREMENT PROCEDURES USED:

- ☒ **CFR 47, Part 15** Radio Frequency Device Subpart B Unintentional Radiators
ClassB: 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.



Sample Received Date : May 15, 2000

Final Test Date : May 25, 2000

In order to ensure the quality and accuracy of this document, the contents have been thoroughly reviewed by the following qualified personnel from GesTek Lab.

Documented By :

Administrative Review By:

Rita Tsai / adm. Dept. Technical Report Author

Joan Chein / adm. Dept. Supervisor

Technical Review By:

Approved By :

Allen Chen / eng. Dept. Engineer

Terry Chung / Manager

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 endorsement by NVLAP or the United States government.

2. General Information

2.1 Production Description

Description : Notebook P.C.
 Model Number : A450; StepNote SVIII; A450
 Actionbook 850T; 6900DTF
 Friend A450; A450;
 Si²/A450W
 Serial Number : N/A
 FCC ID : EUNA450
 Applicant : First International Computer Inc.
 Address : 6F.,Formosa Plastics Rear Bldg 201-24,Tun-Hwa N. Road,
 Taipei, Taiwan, R.O.C.
 Manufacturer : First International Computer Inc.
 Address : 122, Nan-Lin Rd., Taishan Hsiang, 243
 Taipei, Taiwan, R.O.C.
 Power Cord : 1.5m, 3pin, Non-Shielded, Detachable
 Adapter : 100-240Vac, 50-60Hz

2.2 Results:

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

This Class B digital apparatus complies with Canadian ICES-003.

The Worst Emission data was found as following,

	Worst Emission Frequency (MHz)	Emission Level	Limit	Height of Antenna, Angel of Turntable
Conduction Mode 3	24.18715	43.0 dB μ V Line 1, Q.P.	48.00 dB μ V	N/A
Radiation Mode 6	456.011	41.62 [dB(μ V/m)] Horizontal	46.00 [dB(μ V/m)]	1M 90°

- ☒ The EUT did not require modification during testing to achieve compliance.
- ☐ The EUT required modification during testing in order to achieve compliance. Please refer to attached section of this report for details.

Test By: _____**(Allen Chen)****(Gavin Tsai)****Note:**

1. This is an series report. Original report number is GesTek#0001028F, Additional keyparts at section 2.3.
2. The data shown in this test report reflects the worst-case data for each operation mode.
3. The EUT have many model number because of the requirement of OEM and marketing.
4. OEM and Model Name as following:

<i>OEM</i>	<i>Model Name</i>
EVEREX/USA	StepNote SVIII
MUSTEK	A450
IMC	Actionbook 850T
LEGEND	6900DTF
HYUNJU	Friend A450
LEO	A450
FIC	A450
WinBook	Si ²

Test Mode:

	Mode 1	Mode 2	Mode 3
CPU	Intel Celeron 450 MHz	Intel Celeron 550 MHz	Intel Celeron 650 MHz
LCD	ADI 12.1" M/N:AA121SJ23	ADI 12.1" M/N:AA121SJ23	CPT 14.1" M/N:CLAA141XB01
RAM	64 MB	64 MB	64 MB
H.D.D.	Fujitsu 6GB M/N:MHK2060AT	Fujitsu 6GB M/N:MHK2060AT	Fujitsu 6GB M/N:MHK2060AT
F.D.D.	Citizen 3.5" M/N:X1DE-31AA	Citizen 3.5" M/N:X1DE-31AA	Mitsumi 3.5" M/N:D353F3Z
CD R/W			KME, M/N:UJDA310L
DVD-ROM			
CD-ROM	Delta 24X M/N:OIP-SD2400A	MKE 24X M/N:CR-176-BXX	
Fax/Modem	Askey 56K M/N:1456VQL19R-1	Askey 56K M/N:1456VQL19R-1	Askey 56K M/N:1456VQL19R-1
Battery	Panasonic Li-ION 3200mA	Panasonic Li-ION 3200mA	Panasonic Li-ION 3200mA
Adaptor	Delta 3pin M/N:ADP-60DB	Delta 3pin M/N:ADP-60DB	Delta 3pin M/N:ADP-60DB
Port Bar	None	None	None

	Mode 4	Mode 5	Mode 6
CPU	Intel Pentium III 600 MHz	Intel Pentium III 700 MHz	Intel Pentium III 750 MHz
LCD	CPT 14.1" M/N:CLAA141XB01	Hannstar 14.1" M/N:HSD141PX11-A	Hannstar 14.1" M/N:HSD141PX11-A
RAM	64 MB	128 MB	128 MB
H.D.D.	Fujitsu 6GB M/N:MHK2060AT	Hitachi 12GB M/N:DK23AA-12	Hitachi 12GB M/N:DK23AA-12
F.D.D.	Mitsumi 3.5" M/N:D353F3Z	NEC 3.5" M/N:FD1238T-220	NEC 3.5" M/N:FD1238T-220
CD R/W			
DVD-ROM	Sanyo 8X M/N:DRD-U824	TEAC 5X M/N:DV-25E-93	QSI 8X M/N:SDR-081E
CD-ROM			
Fax/Modem	Askey 56K M/N:1456VQL19R-1	Askey 56K M/N:1456VQL19R-1	Askey 56K M/N:1456VQL19R-1
Battery	Panasonic Li-ION 3200mA	Panasonic Li-ION 3200mA	Panasonic Li-ION 3200mA
Adaptor	Delta 3pin M/N:ADP-60DB	Delta 3pin M/N:ADP-60DB	Delta 3pin M/N:ADP-60DB
Port Bar	None	None	FIC M/N:A435PB

2.3 Configuration of the Tested System

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

Product Name: Notebook P.C.			
No.	CATEGORY	Model No.	VENDOR
1.	CPU	Celeron 450 MHz	Intel
2.	CPU	Celeron 550 MHz	Intel
3.	CPU	Celeron 650 MHz	Intel
4.	CPU	Pentium III 600 MHz	Intel
5.	CPU	Pentium III 700 MHz	Intel
6.	CPU	Pentium III 750 MHz	Intel
7.	LCD 12.1"	AA121SJ23	ADI
8.	LCD 14.1"	CLAA141XB01	CPT
9.	LCD 14.1"	HSD141PX11-A	Hannstar
10.	CD-ROM 24X	OIP-SD2400A	Delta
11.	CD-ROM 24X	CR-176-BXX	MKE
12.	DVD-ROM 8X	DRD-U824	Sanvo
13.	DVD-ROM 5X	DV-25E-93	TEAC
14.	DVD-ROM 8X	SDR-081E	OSI
15.	CD R/W	UJDA310L	KME
16.	F.D.D. 3.5"	FD1238T-220	NEC
17.	F.D.D. 3.5"	X1DE-31AA	Citizen
18.	F.D.D. 3.5"	D353F3Z	Mitsumi
19.	Battery	3200mAh	Panasonic Li-ION
20.	Adaptor	ADP-60DB	Delta
21.	Port Bar	A435PB	FIC

☒ Monitor M01-012

Model Number : SyncMaster 700p
Manufacturer : SAMSUNG
FCC ID : A3LCGH760
BSMI ID : 3872A230
Data Cable : Shielded, Undetachable, 1.5m
Power Cord : Shielded, Detachable, 1.5m

☒ Keyboard K01-034

Model Number : KB-5923
FCC ID : E8HKB-5923
Manufacturer : TATUNG
BSMI ID : 3862A177
Data Cable : Sheiled, Undetachable, 2.0 m
Purchase Date : 8/6/1998

☒ Printer P01-008

Model Number : C2642A(DJ-400)
Serial Number : MY7951C4RP
FCC ID : B94C2642X
Manufacturer : HP
Power Cord : Non-Shielded, Detachable, 1.9m
Data Cable : Shielded, Detachable, 1.8m

☒ Modem M03-004

Model Number : 1414
FCC ID : IFAXDM1414
Manufacturer : ACEEX
Power Cord : Non-Shielded, Detachable, 1.5m
Data Cable : Shielded, Detachable, 1.2m

☒ Mouse M02-070 (PS2)

Manufacturer : TARGA
Model Number : TM5PG
FCC ID : JKGMUS2SO1
Data Cable : Shielded, Undetachable, 1.5m

☒ Mouse M02-059 (USB)

Model Number : M-BB48
Manufacturer : Logitech Inc..
Data Cable : Shielded, Undetachable, 1.5m

☒ Joystick J01-016 (USB)

Serial Number : H375101F
FCC ID : DOC
Manufacturer : CREATIVE
Data Cable : Non-Shielded, Undetachable, 1.8m
BSMI ID : 3872A903

☒ Scanner (USB) S02-001

Model Number : S-UA1
FCC ID : DZL211089
Manufacturer : Logitech
Power, Data cable : Shielded, Undetachable, 1.5m with DC 5V

☒ Headset&Microphone E01-027

Model Number : SX-M1
Manufacturer : TOKYO
Power Cord : N/A
Data Cable : Non-Shielded, Undetachable, 1.8 m
Purchase Date : 2/22/1999

☒ Cassette Player R02-014

Model Number : HS-GS162
FCC ID : N/A
Manufacturer : AIWA CO., LTD
Power Cord : N/A (Battery)
Data Cable : Non-Shielded, Detachable, 1.5m

☒ 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
Data Cable : 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	24-27
Humidity (%RH)	25-75	50-65
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 States Department of commerce

National Institute of Standards and Technology

National Voluntary Laboratory Accreditation Program

Accreditation on NVLAP effective through Sep. 30, 2000

For CISPR22, FCC Method and AS/NZS 3548 Measurement.

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. Conduction Emission Test

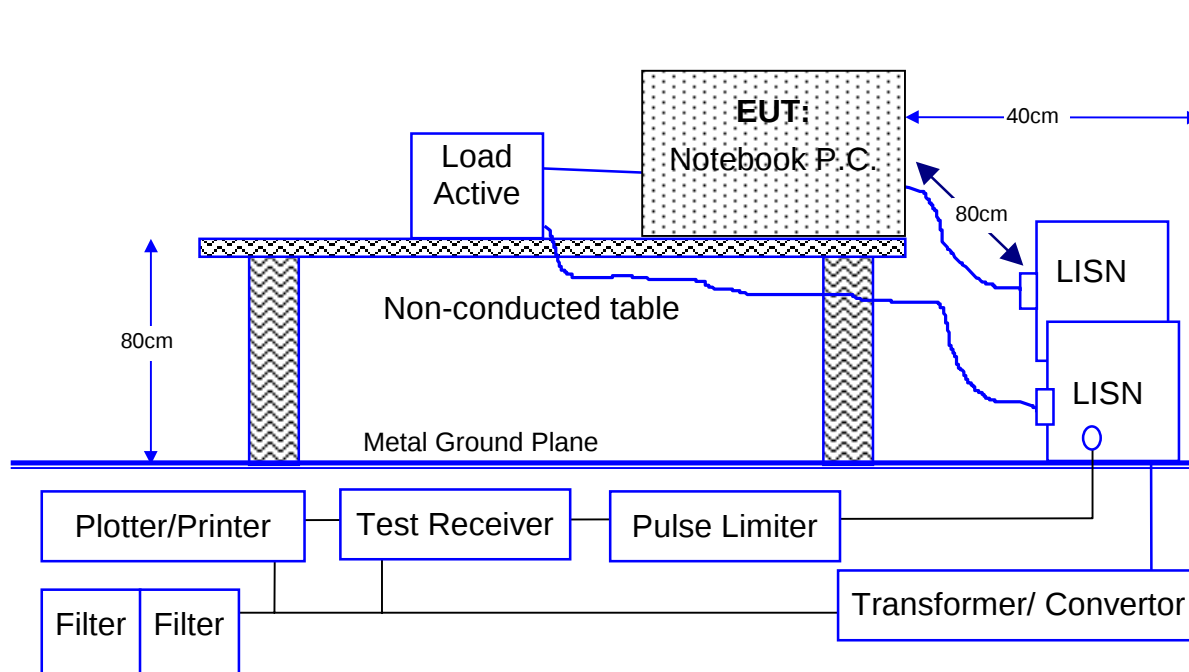
3.1 Test Equipments

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

Item	Instrument	Manufacturer	Type /Serial No.	Last Cal. Date
1	Test Receiver	Rohde & Schwarz	ESHS 30 / 828109/010	Jan. 21, 2000
2	L.I.S.N.	Kyoritsu	KNW-407	Nov. 05, 1999
3	L.I.S.N.	Schwarzbeck	NNLK 8121/8121358	May. 10, 2000
4	Pulse Limiter	Rohde & Schwarz	ESH3-Z2/357.8810.52	Sep. 05, 1999
5	RF CABLE	GesTek	GTK-RF-C07	Sep. 05, 1999
6	50 Ohm Terminator	GesTek	GTK-RF-T01	Nov. 05, 1999
7	Shielded Room	GesTek	GTK-RF-S04	Sep. 05, 1999

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 representative 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

☒ FCC Limit

Frequency	Maximum RF Line Voltage			
	Class A		Class B	
MHz	μV	$dB\mu V$	μV	$dB\mu V$
0.45 - 1.705	1000	60.0	250	48.0
1.705 - 30	3000	69.5	250	48.0

Remarks : 1. RF Line Voltage ($dB\mu V$) = $20 \log$ RF Line Voltage (μV)
 2. In the Above Table, the tighter limit applies at the band edges.

☐ CISPR Limit

Frequency	Maximum RF Line Voltage $dB(\mu V)$			
	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 equal to 80cm. Powered from one L.I.S.N. which signal output to receiver, and the other peripherals was powered from another L.I.S.N. 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:

1. Setup the EUT and simulators as shown on 3.2
2. Turn on the power of all equipments.
3. Adjust to appropriate video resolution.
4. Connected the modem and dial repeatedly.
5. The EUT exchange the information with the network via and telephone exchange.
6. Run "EMITEST.EXE" test program under Windows OS.
7. P.C. sent "H" pattern to monitor, make the "H" pattern full in the screen.
8. P.C. sent "H" pattern to printer, modem port.
9. P.C. sent "H" pattern to com port, serial port.
10. Repeat above steps.

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. The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range for all the test modes. Then the worst modes were reported the following data pages.

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 : May 22, 2000 Temperature : 25.5 °C
 EUT : Notebook P.C. Humidity : 64 %
 Test Mode : Mode 1 Display Pattern : H Pattern

FREQUENCY	READING LEVEL				LIMIT
	LINE 1		LINE 2		
	MHz	dBμV	μV	dBμV	
0.47814	37.8	77.62	36.2	64.57	250
0.54706	37.0	70.79	37.8	77.62	250
1.70746	35.2	57.54	35.7	60.95	250
12.42582	37.9	78.52	37.5	74.99	250
**14.81209	38.8	87.10	38.7	86.10	250
26.89903	32.4	41.69	30.6	33.88	250

Remarks :

1. All readings are Quasi-peak.
2. " * " means that the quasi-peak reading level is lower then the average limits, it is not necessary to measure the average level.
3. " ** " means that this data is the worse case emission level.
4. Final measurement = (Receiver reading) + (Correction factor if available)

Attached 2 individual pages of peak scan curve data sheets.

CONDUCTED EMISSION DATA

Date of Test : May 22, 2000 Temperature : 28.9 °C
 EUT : Notebook P.C. Humidity : 61 %
 Test Mode : Mode 2 Display Pattern : H Pattern

FREQUENCY	READING LEVEL				LIMIT
	LINE 1		LINE 2		
	MHz	dBμV	μV	dBμV	
0.54495	35.5	59.57	35.7	60.95	250
1.56616	34.2	51.29	34.1	50.70	250
11.98369	33.8	48.98	34.2	51.29	250
13.89205	34.2	51.29	33.6	47.86	250
**23.81050	36.8	69.18	36.5	66.83	250
27.07480	32.8	43.65	32.8	43.65	250

Remarks :

1. All readings are Quasi-peak.
2. " * " means that the quasi-peak reading level is lower then the average limits, it is not necessary to measure the average level.
3. " ** " means that this data is the worse case emission level.
4. Final measurement = (Receiver reading) + (Correction factor if available)

Attached 2 individual pages of peak scan curve data sheets.

CONDUCTED EMISSION DATA

Date of Test : May 22, 2000 Temperature : 29 °C
 EUT : Notebook P.C. Humidity : 58 %
 Test Mode : Mode 3 Display Pattern : H Pattern

FREQUENCY	READING LEVEL				LIMIT
	LINE 1		LINE 2		
	MHz	dBμV	μV	dBμV	
0.47696	38.2	81.28	39.2	91.20	250
0.68019	35.1	56.89	35.0	56.23	250
12.51284	35.5	59.57	35.1	56.89	250
20.97306	37.3	73.28	36.7	68.39	250
**24.18715	43.0	141.25	42.4	131.83	250
27.02458	34.2	51.29	34.5	53.09	250

Remarks :

1. All readings are Quasi-peak.
2. " * " means that the quasi-peak reading level is lower then the average limits, it is not necessary to measure the average level.
3. " ** " means that this data is the worse case emission level.
4. Final measurement = (Receiver reading) + (Correction factor if available)

Attached 2 individual pages of peak scan curve data sheets.

CONDUCTED EMISSION DATA

Date of Test : May 22, 2000 Temperature : 25.6 °C
 EUT : Notebook P.C. Humidity : 46 %
 Test Mode : Mode 4 Display Pattern : H Pattern

FREQUENCY	READING LEVEL				LIMIT
	LINE 1		LINE 2		
	MHz	dBμV	μV	dBμV	
**0.47641	41.6	120.23	41.4	117.49	250
0.61425	36.4	66.07	36.3	65.31	250
12.05841	36.2	64.57	35.2	57.54	250
13.76928	36.3	65.31	35.7	60.95	250
23.91094	41.2	114.82	36.2	64.57	250
27.57700	35.1	56.89	36.6	67.61	250

Remarks :

1. All readings are Quasi-peak.
2. " * " means that the quasi-peak reading level is lower then the average limits, it is not necessary to measure the average level.
3. " ** " means that this data is the worse case emission level.
4. Final measurement = (Receiver reading) + (Correction factor if available)

Attached 2 individual pages of peak scan curve data sheets.

CONDUCTED EMISSION DATA

Date of Test : May 22, 2000 Temperature : 29.1 °C
 EUT : Notebook P.C. Humidity : 59 %
 Test Mode : Mode 5 Display Pattern : H Pattern

FREQUENCY	READING LEVEL				LIMIT
	LINE 1		LINE 2		
	MHz	dBμV	μV	dBμV	
**0.47692	40.6	107.15	41.0	112.20	250
0.61247	37.1	71.61	37.3	73.28	250
11.98330	36.5	66.83	36.2	64.57	250
14.29382	37.1	71.61	35.9	62.37	250
20.89774	38.9	88.10	38.6	85.11	250
24.01138	36.0	63.10	35.3	58.21	250

Remarks :

1. All readings are Quasi-peak.
2. " * " means that the quasi-peak reading level is lower then the average limits, it is not necessary to measure the average level.
3. " ** " means that this data is the worse case emission level.
4. Final measurement = (Receiver reading) + (Correction factor if available)

Attached 2 individual pages of peak scan curve data sheets.

CONDUCTED EMISSION DATA

Date of Test : May 22, 2000 Temperature : 28.7 °C
 EUT : Notebook P.C. Humidity : 62 %
 Test Mode : Mode 6 Display Pattern : H Pattern

FREQUENCY	READING LEVEL				LIMIT
	LINE 1		LINE 2		
	MHz	dBμV	μV	dBμV	
**0.47742	41.0	112.20	41.4	117.49	250
0.61436	35.9	62.37	37.1	71.61	250
1.63579	34.4	52.48	34.0	50.12	250
2.11326	34.5	53.09	34.2	51.29	250
11.93005	37.3	73.28	35.7	60.95	250
14.99435	36.9	69.98	36.4	66.07	250

Remarks :

1. All readings are Quasi-peak.
2. " * " means that the quasi-peak reading level is lower then the average limits, it is not necessary to measure the average level.
3. " ** " means that this data is the worse case emission level.
4. Final measurement = (Receiver reading) + (Correction factor if available)

Attached 2 individual pages of peak scan curve data sheets.

4. Radiation Emission

4.1 Test Equipment

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

Radiated test was performed on : ☐Site #1 ☒Site #2 ☐Site #3 ☐Site #4

Item	Instrument	Manufacturer	Type /Serial No.	Last Cal.
1	Test Receiver	Rohde & Schwarz	ESCS 30 / 825022/003	Jun. 17,1999
2	Spectrum Analyzer	ADVANTEST	R3272 / 82420372	N/A
3	Pre-Amplifier	HP	8447D / 2944A08273	N/A
4	Pre Amplifier	HP	8347A / 3307A01401	N/A
5	Pre Amplifier	HP	8449B / 3008A01264	N/A
6	BILOG ANTENNA	Chase	CBL6112B/2416	May. 30,1999
7	Horn Antenna	Electro-Metrics	EM-6961 / 103329	May. 30, 1999
8	RF Cable	GesTek	GTK-RF-C03	Jan. 02, 2000
9	Open Site	GesTek	GTK-RF-SA2	Jan. 02, 2000
10	Test Program Software	GesTek	GTK-RF-P02	N/A

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

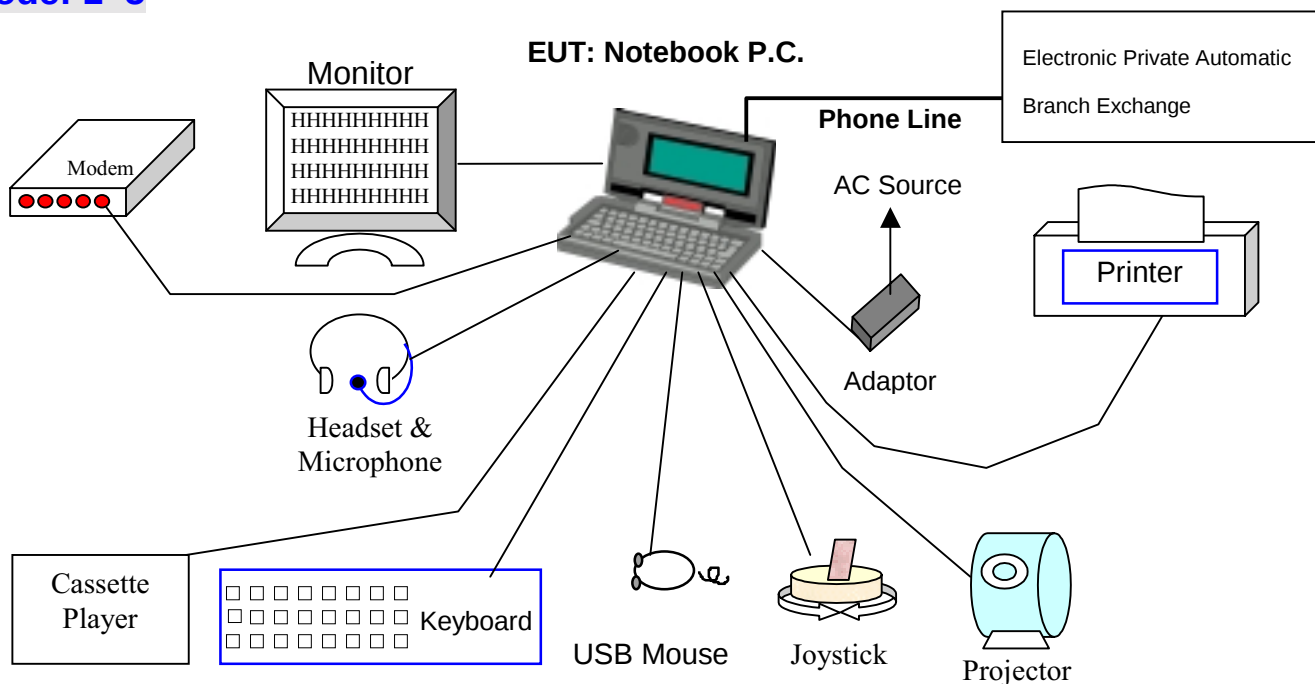
4.2 Test Setup

4.2.1 Block Diagram of Connections between EUT and simulators

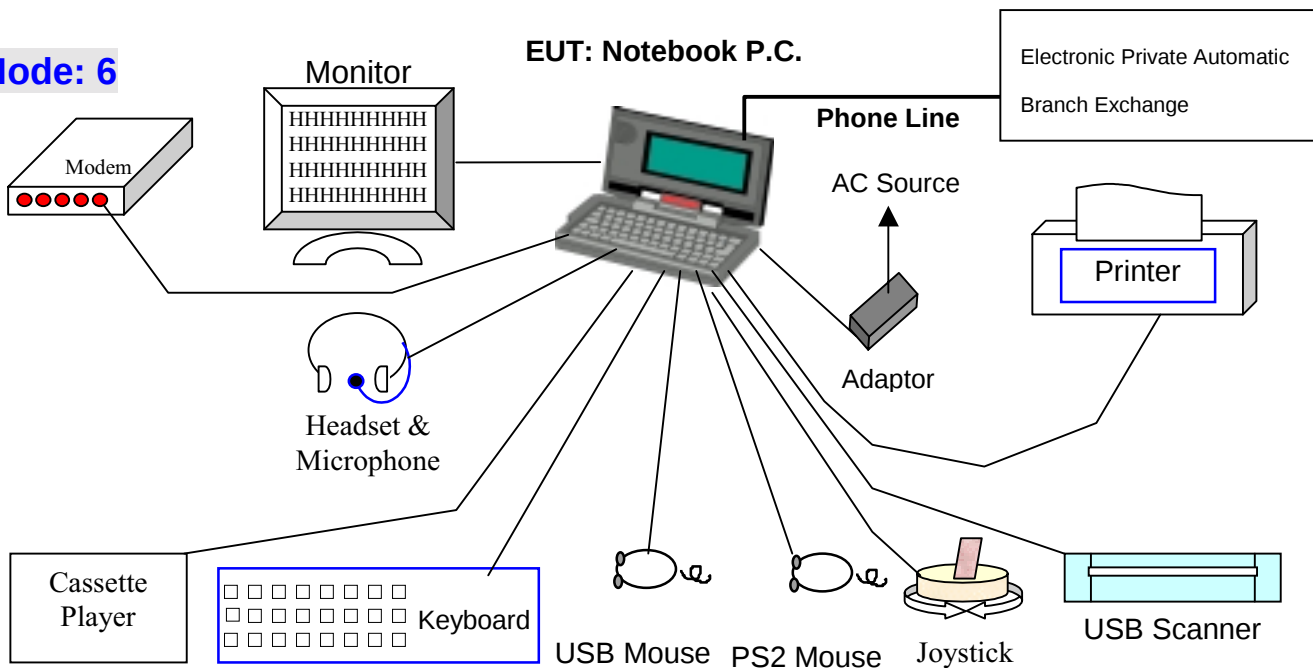
Note: This is a representative setup diagram for Table-top EUT.

For Floor-standing EUT, the table will be removed with all others setup condition remain the same.

Mode: 1~5



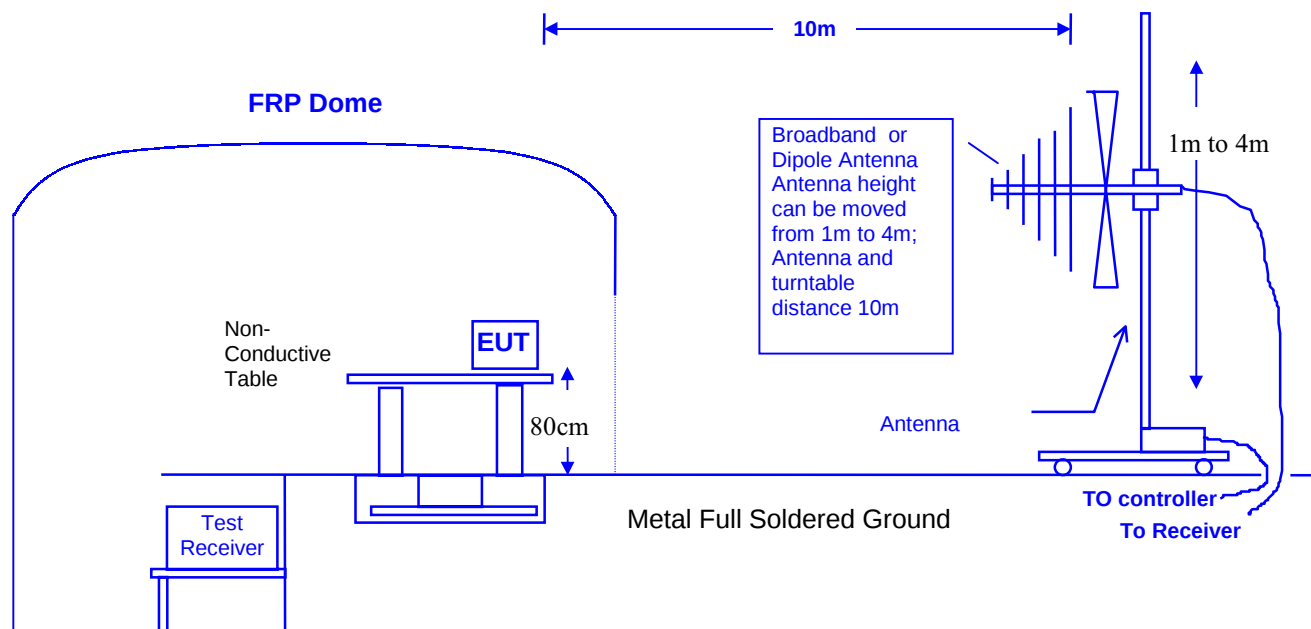
Mode: 6



4.2.2 Open Test Site Setup Diagram

Note: This is a representative 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

☒ FCC Class B Limit at 3m

Frequency	Distance	Field Strength	
MHz	Meter	$\mu\text{V}/\text{M}$	$\text{dB}\mu\text{V}/\text{M}$
30 - 88	3	100	40.0
88 - 216	3	150	43.5
216 - 960	3	200	46.0
Above 960	3	500	54.0

Note: The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit. (refer **47CFR Ch. 1 (10-1-98 Edition §15.35(b))**)

☐ FCC Class A Limit at 10m

Frequency	Distance	Field Strength	
MHz	Meter	$\mu\text{V}/\text{M}$	$\text{dB}\mu\text{V}/\text{M}$
30 - 88	10	90	39.0
88 - 216	10	150	43.5
216 - 960	10	210	46.4
Above 960	10	300	49.5

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.

☐ CISPR Class B Limit at 10m

Frequency	Distance	Field Strength
MHz	Meter	$\text{dB}(\mu\text{V}/\text{M})$
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 equipment which is listed 4.2.1 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 Emission Test which are listed in 3.5.

4.6 Radiated Emission Data

The measurement range of radiated emission, which is from [30 MHz to 5 GHz](#) was investigated. All readings are quasi-peak values with a resolution Bandwidth of 120 KHz. The initial step in collecting radiated emission data is a spectrum analyzer peak scan of the measurement range for all the test modes and then use test receiver for final measurement. Then the worst modes were reported the following data pages.

The total uncertainty for this test is as follows:

- Uncertainty in the field strength measured (3m antenna distance): $< \pm 4$ dB
- Uncertainty in the field strength measured (10m antenna distance): $< \pm 4$ 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 :05-20,2000**Temperature :25 deg/C****EUT :Notebook P.C.****Humidity :64 %RH****Working Cond.:Mode 1****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level		Limit
[MHz]	Loss	Factor	Horizontal	Horizontal	(uV/m)	(uV/m)
	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)]		
56.442	1.00	7.40	19.68	28.08	25.35	100
76.320	1.10	7.40	10.99	19.49	9.42	100
111.224	1.40	11.14	10.89	23.43	14.84	150
146.450	1.33	11.59	11.57	24.49	16.76	150
242.836	2.00	12.14	15.96	30.10	31.99	200
331.544	2.61	14.42	19.41	36.44	66.39	200
360.898	2.79	15.21	15.49	33.49	47.27	200
*441.098	3.17	16.75	16.61	36.53	67.10	200
497.792	3.40	17.28	15.84	36.52	66.95	200
746.687	4.49	20.05	8.24	32.78	43.55	200

Remarks:

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

Radiated Emission Data

Date of Test :05-20,2000**Temperature :25 deg/C****EUT :Notebook P.C.****Humidity :64 %RH****Working Cond.: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)
53.725	1.00	7.85	17.63	26.48	21.07	100
74.004	1.10	7.30	17.75	26.15	20.29	100
84.000	1.34	8.03	15.43	24.80	17.38	100
111.223	1.40	11.14	19.40	31.94	39.52	150
144.160	1.33	11.72	16.08	29.13	28.62	150
184.247	1.72	9.96	19.44	31.12	35.97	150
373.343	2.85	15.51	17.41	35.78	61.51	200
*497.791	3.40	17.28	15.17	35.85	61.98	200
746.687	4.49	20.05	11.00	35.54	59.83	200

Remarks:

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

Radiated Emission Data

Date of Test :05-20,2000**Temperature :28 deg/C****EUT :Notebook P.C.****Humidity :61 %RH****Working Cond.: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)
51.542	0.94	8.67	13.19	22.80	13.81	100
68.002	1.10	6.91	17.53	25.54	18.92	100
83.760	1.34	8.03	12.04	21.41	11.76	100
121.860	1.40	12.00	9.13	22.53	13.38	150
153.654	1.38	11.03	15.60	28.01	25.16	150
*199.706	2.00	9.80	21.82	33.62	47.97	150
240.910	2.00	12.03	18.31	32.34	41.42	200
298.751	2.40	13.54	19.44	35.38	58.75	200
331.541	2.61	14.42	18.41	35.44	59.17	200
360.896	2.79	15.21	17.45	35.45	59.24	200
441.097	3.17	16.75	16.14	36.06	63.57	200
497.791	3.40	17.28	13.34	34.02	50.21	200
746.684	4.49	20.05	11.49	36.03	63.31	200

Remarks:

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

Radiated Emission Data

Date of Test :05-20,2000**Temperature :28 deg/C****EUT :Notebook P.C.****Humidity :61 %RH****Working Cond.: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)
51.905	0.94	8.67	17.51	27.12	22.70	100
74.003	1.10	7.30	16.59	24.99	17.76	100
86.003	1.34	8.25	16.99	26.58	21.32	100
124.725	1.39	12.00	12.64	26.03	20.02	150
157.380	1.40	10.76	14.83	26.99	22.36	150
248.896	2.00	12.46	18.33	32.79	43.60	200
400.998	3.02	16.20	14.47	33.69	48.34	200
441.097	3.17	16.75	15.79	35.71	61.06	200
687.248	4.26	18.40	14.13	36.79	69.09	200
*746.686	4.49	20.05	13.15	37.69	76.64	200

Remarks:

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

Radiated Emission Data

Date of Test :05-19,2000**Temperature :29 deg/C****EUT :Notebook P.C.****Humidity :58 %RH****Working Cond.: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)
51.620	0.94	8.67	13.37	22.98	14.10	100
70.445	1.10	7.10	15.19	23.39	14.77	100
83.040	1.34	8.03	10.51	19.88	9.86	100
121.714	1.40	12.00	10.89	24.29	16.39	150
168.248	1.50	10.36	16.91	28.77	27.45	150
237.280	2.00	11.82	18.16	31.98	39.72	200
390.857	2.97	15.98	15.65	34.60	53.69	200
*456.000	3.24	16.95	16.92	37.11	71.67	200
687.253	4.26	18.40	13.97	36.63	67.83	200
746.686	4.49	20.05	10.26	34.80	54.95	200

Remarks:

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

Radiated Emission Data

Date of Test :05-19,2000**Temperature :29 deg/C****EUT :Notebook P.C.****Humidity :58 %RH****Working Cond.: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)
*51.282	0.94	9.50	21.67	32.11	40.32	100
70.760	1.10	7.20	17.40	25.70	19.27	100
118.703	1.40	11.81	13.55	26.76	21.77	150
161.293	1.40	10.60	20.74	32.74	43.35	150
241.172	2.00	12.03	16.33	30.36	32.98	200
325.714	2.55	14.27	13.52	30.34	32.88	200
390.856	2.97	15.98	14.51	33.46	47.08	200
456.002	3.24	16.95	15.19	35.38	58.73	200
720.069	4.39	19.23	7.01	30.63	33.99	200
746.684	4.49	20.05	12.97	37.51	75.07	200

Remarks:

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

Radiated Emission Data

Date of Test :05-19,2000**Temperature :25 deg/C****EUT :Notebook P.C.****Humidity :46 %RH****Working Cond.:Mode 4****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)
51.950	0.94	8.67	15.19	24.80	17.38	100
89.848	1.40	8.70	16.85	26.95	22.26	150
121.185	1.40	12.00	13.90	27.30	23.17	150
199.513	2.00	9.80	17.99	29.79	30.87	150
239.452	2.00	11.93	21.11	35.04	56.48	200
325.714	2.55	14.27	17.57	34.39	52.42	200
*390.857	2.97	15.98	20.42	39.37	92.98	200
456.001	3.24	16.95	17.73	37.92	78.67	200
527.293	3.57	17.76	12.83	34.16	51.03	200
746.688	4.49	20.05	6.99	31.53	37.71	200
995.570	5.28	21.28	8.18	34.74	54.59	500

Remarks:

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

Radiated Emission Data

Date of Test :05-19,2000**Temperature :25 deg/C****EUT :Notebook P.C.****Humidity :46 %RH****Working Cond.:Mode 4****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)
*39.166	0.84	17.04	16.29	34.17	51.10	100
48.646	0.94	11.08	21.58	33.59	47.84	100
82.256	1.16	7.82	17.25	26.23	20.48	100
89.818	1.40	8.70	18.08	28.18	25.64	150
120.940	1.40	12.00	16.92	30.32	32.81	150
242.960	2.00	12.14	14.16	28.30	26.00	200
390.859	2.97	15.98	14.45	33.40	46.76	200
662.741	4.19	18.07	6.39	28.64	27.04	200
746.683	4.49	20.05	9.97	34.51	53.14	200
880.102	4.86	21.46	5.21	31.53	37.72	200

Remarks:

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

Radiated Emission Data

Date of Test :05-17,2000**Temperature :29 deg/C****EUT :Notebook P.C.****Humidity :59 %RH****Working Cond.:Mode 5****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)
62.680	1.02	6.38	24.23	31.63	38.14	100
72.840	1.10	7.30	21.57	29.97	31.50	100
81.436	1.16	7.82	16.92	25.90	19.71	100
121.370	1.40	12.00	15.11	28.51	26.64	150
146.564	1.33	11.59	15.83	28.75	27.37	150
192.003	1.92	9.88	19.09	30.89	35.02	150
243.560	2.00	12.14	21.41	35.55	59.91	200
288.005	2.32	13.28	17.71	33.31	46.27	200
325.723	2.55	14.27	16.96	33.78	48.86	200
*398.242	3.00	16.18	19.75	38.93	88.37	200
456.011	3.24	16.95	14.62	34.81	55.00	200
537.651	3.62	17.97	8.56	30.16	32.20	200
730.630	4.43	19.55	8.60	32.57	42.52	200
796.487	4.69	20.67	7.03	32.39	41.65	200

Remarks:

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

Radiated Emission Data

Date of Test :05-17,2000

Temperature :29 deg/C

EUT :Notebook P.C.

Humidity :59 %RH

Working Cond.:Mode 5

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)
65.340	1.06	6.73	20.54	28.33	26.09	100
81.430	1.16	7.82	19.49	28.47	26.50	100
125.120	1.39	12.00	18.89	32.28	41.12	150
140.060	1.31	12.00	16.44	29.75	30.73	150
146.569	1.33	11.59	16.05	28.97	28.07	150
192.002	1.92	9.88	19.03	30.83	34.78	150
243.560	2.00	12.14	21.17	35.31	58.28	200
325.721	2.55	14.27	13.27	30.09	31.95	200
*398.240	3.00	16.18	21.21	40.39	104.54	200
438.088	3.16	16.72	16.76	36.64	67.93	200
456.011	3.24	16.95	14.13	34.32	51.98	200
497.800	3.40	17.28	14.44	35.12	56.99	200
537.650	3.62	17.97	13.79	35.39	58.81	200
696.925	4.29	18.53	8.67	31.50	37.57	200
796.487	4.69	20.67	10.41	35.77	61.46	200

Remarks:

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

Radiated Emission Data

Date of Test :05-17,2000**Temperature :28 deg/C****EUT :Notebook P.C.****Humidity :62 %RH****Working Cond.:Mode 6****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)
69.980	1.10	7.10	21.04	29.24	28.97	100
140.056	1.31	12.00	15.50	28.81	27.58	150
146.570	1.33	11.59	13.30	26.22	20.45	150
192.003	1.92	9.88	19.61	31.41	37.18	150
195.434	1.92	9.84	16.08	27.84	24.65	150
214.968	2.00	10.65	18.81	31.46	37.42	150
244.600	2.00	12.25	17.95	32.20	40.72	200
288.005	2.32	13.28	15.72	31.32	36.79	200
312.685	2.49	13.91	20.00	36.40	66.08	200
338.759	2.64	14.62	18.27	35.53	59.78	200
398.241	3.00	16.18	20.01	39.19	91.05	200
*456.011	3.24	16.95	21.43	41.62	120.46	200
497.801	3.40	17.28	13.83	34.51	53.12	200
696.957	4.29	18.53	6.73	29.56	30.05	200
796.484	4.69	20.67	9.75	35.11	56.96	200

Remarks:

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

Radiated Emission Data

Date of Test :05-17,2000**Temperature :28 deg/C****EUT :Notebook P.C.****Humidity :62 %RH****Working Cond.:Mode 6****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)
66.170	1.06	6.73	21.33	29.12	28.58	100
73.950	1.10	7.30	20.69	29.09	28.47	100
81.427	1.16	7.82	18.97	27.95	24.96	100
146.570	1.33	11.59	15.65	28.57	26.81	150
192.004	1.92	9.88	15.32	27.12	22.69	150
214.970	2.00	10.65	17.38	30.03	31.74	150
243.370	2.00	12.14	18.95	33.09	45.14	200
288.004	2.32	13.28	12.51	28.11	25.43	200
298.680	2.40	13.54	16.27	32.21	40.79	200
398.243	3.00	16.18	18.61	37.79	77.50	200
*456.010	3.24	16.95	20.11	40.30	103.47	200
497.795	3.40	17.28	11.89	32.57	42.49	200
599.332	3.98	18.80	8.05	30.83	34.81	200
696.960	4.29	18.53	5.53	28.36	26.17	200
796.494	4.69	20.67	10.20	35.56	59.99	200

Remarks:

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

Radiated Emission Data

Date of Test :05-20,2000**Temperature :25 deg/C****EUT :Notebook P.C.****Humidity :64 %RH****Working Cond.:Mode 1 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level		Limit
	Loss	Factor	Horizontal	Horizontal		
[MHz]	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)]	(uV/m)	(uV/m)
1097.034	6.00	22.78	55.50	48.73	273.21	500(PK)
1097.034	6.00	22.78	46.43	39.66	96.16	500(AV)
1294.280	6.58	23.87	51.24	46.46	210.38	500(PK)
1294.280	6.58	23.87	43.91	39.13	90.47	500(AV)
1394.280	6.88	24.55	52.26	48.62	269.77	500(PK)
1394.280	6.88	24.55	43.92	40.28	103.28	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(35.54,35.23,35.07)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test : 05-20, 2000

Temperature : 25 deg/C

EUT : Notebook P.C.

Humidity : 64 %RH

Working Cond.: Mode 1 (PK+AV)

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)
1062.086	5.77	22.25	52.78	45.19	181.76	500(PK)
1062.086	5.77	22.25	47.45	39.86	98.40	500(AV)
1097.580	6.00	22.78	57.59	50.82	347.54	500(PK)
1097.580	6.00	22.78	47.18	40.41	104.83	500(AV)
1295.086	6.60	23.87	54.26	49.49	298.19	500(PK)
1295.086	6.60	23.87	46.05	41.28	115.88	500(AV)
1637.480	7.71	25.66	47.73	46.26	205.59	500(PK)
1637.480	7.71	25.66	40.66	39.19	91.10	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(35.60, 35.54, 35.23, 34.85)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-20,2000

Temperature :28 deg/C

EUT :Notebook P.C.

Humidity :61 %RH

Working Cond.:Mode 2 (PK+AV)

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)
1094.483	5.98	22.72	52.94	46.08	201.37	500(PK)
1094.483	5.98	22.72	46.31	39.45	93.86	500(AV)
1292.486	6.58	23.86	53.44	48.65	270.71	500(PK)
1292.486	6.58	23.86	45.22	40.43	105.08	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(35.55,35.23)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-20,2000

Temperature :28 deg/C

EUT :Notebook P.C.

Humidity :61 %RH

Working Cond.:Mode 2 (PK+AV)

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)
1093.834	5.98	22.72	54.69	47.83	246.32	500(PK)
1093.834	5.98	22.72	46.69	39.83	98.06	500(AV)
1293.067	6.58	23.86	53.58	48.79	275.11	500(PK)
1293.067	6.58	23.86	45.32	40.53	106.29	500(AV)
1641.711	7.72	25.69	48.02	46.59	213.55	500(PK)
1641.711	7.72	25.69	40.58	39.15	90.68	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(35.55,35.23,34.84)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-19,2000

Temperature :29 deg/C

EUT :Notebook P.C.

Humidity :58 %RH

Working Cond.:Mode 3 (PK+AV)

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)
1096.263	5.98	22.75	55.06	48.24	258.23	500(PK)
1096.263	5.98	22.75	44.41	37.59	75.77	500(AV)
1296.105	6.60	23.88	50.80	46.05	200.68	500(PK)
1296.105	6.60	23.88	39.51	34.76	54.70	500(AV)
1395.117	6.90	24.56	51.88	48.27	259.12	500(PK)
1395.117	6.90	24.56	36.87	33.26	46.05	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(35.55,35.23,35.07)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-19,2000**Temperature :29 deg/C****EUT :Notebook P.C.****Humidity :58 %RH****Working Cond.:Mode 3 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level		Limit
	Loss	Factor	Vertical	Vertical		
[MHz]	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)]	(uV/m)	(uV/m)
1094.148	5.98	22.72	55.90	49.04	283.14	500(PK)
1094.148	5.98	22.72	43.80	36.94	70.31	500(AV)
1294.708	6.58	23.87	41.27	36.49	66.76	500(AV)
1294.708	6.58	23.87	53.46	48.68	271.64	500(PK)
1403.405	6.92	24.62	48.25	44.73	172.39	500(PK)
1403.405	6.92	24.62	36.09	32.57	42.51	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(35.55,35.23,35.06)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-19,2000**Temperature :25 deg/C****EUT :Notebook P.C.****Humidity :46 %RH****Working Cond.:Mode 4 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level		Limit
	Loss	Factor	Horizontal	Horizontal		
[MHz]	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)]	(uV/m)	(uV/m)
1095.507	5.98	22.75	42.55	35.73	61.16	500(PK)
1095.507	5.98	22.75	33.58	26.76	21.78	500(AV)
1295.060	6.60	23.87	42.72	37.95	78.98	500(PK)
1295.060	6.60	23.87	34.44	29.67	30.44	500(AV)
1645.017	7.74	25.72	32.81	31.43	37.28	500(AV)
1645.017	7.74	25.72	41.59	40.21	102.45	500(PK)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(35.55,35.23,34.84)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-19,2000**Temperature :25 deg/C****EUT :Notebook P.C.****Humidity :46 %RH****Working Cond.:Mode 4 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level	Limit
[MHz]	Loss	Factor	Vertical	Vertical	
	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)] (uV/m)	(uV/m)
1095.612	5.98	22.75	43.31	36.49 66.76	500(PK)
1095.612	5.98	22.75	37.58	30.76 34.51	500(AV)
1349.936	6.74	24.24	42.35	38.19 81.19	500(PK)
1349.936	6.74	24.24	32.33	28.17 25.62	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(35.55,35.14)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-17,2000

Temperature :29 deg/C

EUT :Notebook P.C.

Humidity :59 %RH

Working Cond.:Mode 5 (PK+AV)

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)
1096.100	5.98	22.75	46.50	37.69	76.62	500(PK)
1096.100	5.98	22.75	25.60	16.79	6.91	500(AV)
1294.880	6.58	23.87	45.80	39.04	89.54	500(PK)
1294.880	6.58	23.87	25.00	18.24	8.17	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(37.54,37.21)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-17,2000**Temperature :29 deg/C****EUT :Notebook P.C.****Humidity :59 %RH****Working Cond.:Mode 5 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level		Limit
	Loss	Factor	Vertical	Vertical		
[MHz]	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)]	(uV/m)	(uV/m)
1095.600	5.98	22.75	29.00	20.19	10.22	500(AV)
1095.600	5.98	22.75	48.10	39.29	92.12	500(PK)
1234.460	6.40	23.50	48.00	40.57	106.77	500(PK)
1234.460	6.40	23.50	26.00	18.57	8.48	500(AV)
1295.120	6.60	23.87	50.23	43.48	149.32	500(PK)
1295.120	6.60	23.87	26.80	20.05	10.06	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(37.54,37.33,37.21)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-17,2000

Temperature :28 deg/C

EUT :Notebook P.C.

Humidity :62 %RH

Working Cond.:Mode 6 (PK+AV)

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)
1095.460	5.98	22.75	43.90	35.09	56.80	500(PK)
1095.460	5.98	22.75	23.22	14.41	5.25	500(AV)
1295.190	6.60	23.87	44.50	37.75	77.20	500(PK)
1295.190	6.60	23.87	25.40	18.65	8.56	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(37.54,37.21)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-17,2000**Temperature :28 deg/C****EUT :Notebook P.C.****Humidity :62 %RH****Working Cond.:Mode 6 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level		Limit
	Loss	Factor	Vertical	Vertical		
[MHz]	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)]	(uV/m)	(uV/m)
1096.150	5.98	22.75	46.60	37.79	77.51	500(PK)
1096.150	5.98	22.75	25.90	17.09	7.15	500(AV)
1294.360	6.58	23.87	51.10	44.34	164.83	500(PK)
1294.360	6.58	23.87	28.80	22.04	12.65	500(AV)
1493.430	7.27	25.07	44.60	40.02	100.21	500(PK)
1493.430	7.27	25.07	23.40	18.82	8.73	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(37.54,37.21,36.92)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-22,2000**Temperature :25 deg/C****EUT :Notebook P.C.****Humidity :64 %RH****Working Cond.:Mode 1 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level		Limit
	Loss	Factor	Horizontal	Horizontal		
[MHz]	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)]	(uV/m)	(uV/m)
2495.400	8.88	28.30	43.50	43.98	158.20	500(PK)
2495.400	8.88	28.30	25.90	26.38	20.85	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(36.70)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-22,2000**Temperature :25 deg/C****EUT :Notebook P.C.****Humidity :64 %RH****Working Cond.:Mode 1 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level		Limit
	Loss	Factor	Vertical	Vertical		
[MHz]	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)]	(uV/m)	(uV/m)
2498.700	8.90	28.30	41.20	41.70	121.56	500(PK)
2498.700	8.90	28.30	27.67	28.17	25.60	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(36.70)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-22,2000**Temperature :28 deg/C****EUT :Notebook P.C.****Humidity :61 %RH****Working Cond.:Mode 2 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level		Limit
	Loss	Factor	Horizontal	Horizontal		
[MHz]	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)]	(uV/m)	(uV/m)
2510.300	8.92	28.36	38.50	39.08	89.96	500(PK)
2510.300	8.92	28.36	27.13	27.71	24.30	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(36.70)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-22,2000**Temperature :28 deg/C****EUT :Notebook P.C.****Humidity :61 %RH****Working Cond.:Mode 2 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level	Limit	
[MHz]	Loss	Factor	Vertical	Vertical	(uV/m)	(uV/m)
	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)]		
2489.100	8.86	28.30	40.00	40.46	105.44	500(PK)
2489.100	8.86	28.30	26.50	26.96	22.28	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(36.70)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-22,2000**Temperature :29 deg/C****EUT :Notebook P.C.****Humidity :58 %RH****Working Cond.:Mode 3 (PK+AV)****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)
2670.000	9.51	28.93	35.00	36.65	68.03	500(PK)
2670.000	9.51	28.93	24.03	25.68	19.24	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(36.79)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-22,2000**Temperature :29 deg/C****EUT :Notebook P.C.****Humidity :58 %RH****Working Cond.:Mode 3 (PK+AV)****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)
3696.400	13.68	31.51	35.20	43.51	149.75	500(PK)
3696.400	13.68	31.51	21.50	29.81	30.93	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(36.88)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-22,2000**Temperature :25 deg/C****EUT :Notebook P.C.****Humidity :46 %RH****Working Cond.:Mode 4 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level		Limit
	Loss	Factor	Horizontal	Horizontal		
[MHz]	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)]	(uV/m)	(uV/m)
2995.000	11.05	30.13	35.26	39.44	93.81	500(PK)
2995.000	11.05	30.13	23.40	27.58	23.95	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(37.00)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-22,2000**Temperature :25 deg/C****EUT :Notebook P.C.****Humidity :46 %RH****Working Cond.:Mode 4 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level	Limit
[MHz]	Loss	Factor	Vertical	Vertical	
	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)] (uV/m)	(uV/m)
2494.200	8.87	28.30	36.30	36.77 68.96	500(PK)
2494.200	8.87	28.30	25.41	25.88 19.68	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(36.70)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-17,2000

Temperature :29 deg/C

EUT :Notebook P.C.

Humidity :59 %RH

Working Cond.:Mode 5 (PK+AV)

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)
2091.400	6.95	27.63	42.50	40.38	104.44	500(PK)
2091.400	6.95	27.63	22.50	20.38	10.44	500(AV)
2160.800	7.30	27.74	41.20	39.54	94.82	500(PK)
2160.800	7.30	27.74	22.50	20.84	11.01	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(36.70)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-17,2000**Temperature :29 deg/C****EUT :Notebook P.C.****Humidity :59 %RH****Working Cond.:Mode 5 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level	Limit
[MHz]	Loss	Factor	Vertical	Vertical	
	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)] (uV/m)	(uV/m)
2094.800	6.96	27.63	42.60	40.49 105.84	500(PK)
2094.800	6.96	27.63	23.50	21.39 11.74	500(AV)
2156.800	7.28	27.74	41.50	39.82 97.98	500(PK)
2156.800	7.28	27.74	23.70	22.02 12.62	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(36.70)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-17,2000**Temperature :28 deg/C****EUT :Notebook P.C.****Humidity :62 %RH****Working Cond.:Mode 6 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level		Limit
	Loss	Factor	Horizontal	Horizontal		
[MHz]	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)]	(uV/m)	(uV/m)
2243.400	7.67	27.88	43.50	42.34	130.97	500(PK)
2243.400	7.67	27.88	21.50	20.34	10.40	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(36.70)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

Radiated Emission Data

Date of Test :05-17,2000**Temperature :28 deg/C****EUT :Notebook P.C.****Humidity :62 %RH****Working Cond.:Mode 6 (PK+AV)****Display Pattern :H Pattern**

Frequency	Cable	Antenna	Reading Level	Emission Level		Limit
	Loss	Factor	Vertical	Vertical		
[MHz]	[dB]	[dB/m]	[dB(uV)]	[dB(uV/m)]	(uV/m)	(uV/m)
2242.800	7.66	27.88	43.80	42.63	135.39	500(PK)
2242.800	7.66	27.88	23.60	22.43	13.23	500(AV)

Remarks:

- 1.All Readings are Peak and Average value.
- 2.Emission Level = Reading Level + Antenna Factor + Cable loss - Amp Factor(36.70)
- 3.Deviations from the specifications: None.
- 4.The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.