

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

FCC ID: EUNA450

Prepared for:
First International Computer Inc.
6F.,Formosa Plastics Rear Bldg 201-24,Tun-Hwa N. Road,
Taipei, Taiwan, R.O.C.



Report By : Global EMC Standard Tech. Corp.
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1. Test Report Certification

Applicant : First International Computer Inc.
Manufacturer : First International Computer Inc.
EUT Description : Notebook P.C.
(A) Model Number : A450
(B) Serial Number : N/A
(C) FCC ID : EUNA450
(D) Tested Power Supply : 110V/60Hz

MEASUREMENT PROCEDURE USED :

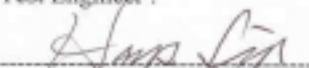
- ☒ CFR 47, Part 15 Radio Frequency Device Subpart B Unintentional Radiators ClassB :1996
☐ CISPR 22 Limits and methods of measurement of radio disturbance characteristics of information technology equipment: 1993
☒ ANSI C63.4 Methods of Measurements of Radio-Noise Emissions from Low-Voltage Electrical 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 FCC LIMITS APPLICABLE.

NVLAP®

Sample Received Date : Jan. 19, 2000
Final Test Date : Feb. 15, 2000
Documented by : Rita Tsai

Test Engineer :



HANS LIN

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 endorsement by NVLAP or the United States government.

2. General Information

2.1 Production Description

Description	: Notebook P.C.
Model Number	: A450
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	: 1.2m, 2pin, Non-Shielded, Detachable
Adapter	: 100-240Vac, 50-60Hz

2.2 Results:

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 4	21.9285	43.4 dBuV Line 2 Q.P.	48.0 dBuV	N/A
Radiation Mode 3	94.620	40.0[dB(uV/m)] Vertical	43.5 [dB(uV/m)]	1M, 170°

Test Mode :

	Mode 1	Mode 2	Mode 3	Mode 4
CPU	Intel Pentium III 450MHz	Intel Pentium III 500MHz	Intel Celeron 500MHz	Intel Pentium III 650MHz
LCD Panel	Sanyo 12.1" M/N:TM121SV-02L03A	LG 12.1" M/N:LP121S3-A	ADT 13.3" M/N:L133X1-3	LG 14.1" M/N:LP141XA-A1NA
H.D.D.	Fujitsu 6GB M/N:MHK2060AT	IBM 12GB M/N:DARA-212000	Hitachi 12GB M/N:DK23AA-12	IBM 18GB M/N:DARA-218000
F.D.D.	Mitsubishi M/N:MF355H-347MN	Mitsubishi M/N:MF355H-347MN		
LS-120			MKE M/N:LKM-FB33-5	Mitsubishi M/N:MF357H-2252MG
CD-ROM	TEAC 24X M/N:CD-224EA-92	TEAC 24X M/N:CD-224EA-92		
DVD-ROM			MKE 6X M/N:SR-8174B-XX	Toshiba M/N:SD-C2302
LAN Card			Ambit M/N:T90L020.00	Ambit M/N:T90L020.00
Fax/Modem	Askey 56K 1456VQL19R-1(INT)	Askey 56K 1456VQL19R-1(INT)		
Battery	Panasonic Ni-MH 4500mA	Panasonic Ni-MH 4500mA	Panasonic Li-ION 3000mA	Panasonic Li-ION 3000mA
AC Adapter	Delta M/N:ADP-65DB	Delta M/N:ADP-65DB	Liteon 60W M/N:AD57	Liteon 60W M/N:AD57
Resolution	800x600 H-Sync:31.5K; V-sync:60Hz		1024x768 H-Sync:48K; V-sync:60Hz	

Note :

1. The EUT is Notebook P.C. used Pentium III ~ Celeron CPU, which speed can up to 650MHz and all the components listed at section 2.3.
2. The EUT have two USB port.
3. The data shown in this test report reflects the worst-case data for each operation mode.
4. The EUT has six model number because of the requirement of OEM and marketing.
5. Model Name Designation for A450 as following:

<i>OEM</i>	<i>Model Name</i>
EVEREX/USA	StepNote SV III
MUSTEK	A450
IMC	Actionbook 850T
LEGEND	6900DTF
HYUNJU	Friend A450
LEO	A450
FIC	A450

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:

Product Name: Notebook P.C.		Model Number: A450	
No.	CATEGORY	Model No.	VENDOR
1.	12.1" TFT	TM121SV-02L03A	Sanyo
2.	12.1" TFT	LP121S3-A	LG
3.	13.3" TFT	L133X1-3	ADT
4.	14.1" TFT	LP141XA-A1NA	LG
5.	CPU	Pentium III 450MHz	Intel
6.	CPU	Pentium III 500MHz	Intel
7.	CPU	Pentium III 650MHz	Intel
8.	CPU	Celeron 500MHz	Intel
9.	H.D.D. (6GB)	MHK2060AT	Fujitsu
10.	H.D.D. (6GB)	DK23AA-60	Hitachi
11.	H.D.D. (6GB)	DARA-206000	IBM
12.	H.D.D. (12GB)	MHK2120AT	Fujitsu
13.	H.D.D. (12GB)	DK23AA-12	Hitachi
14.	H.D.D. (12GB)	DARA-212000	IBM
15.	H.D.D. (18GB)	MHJ218AT	Fujitsu
16.	H.D.D. (18GB)	DK22AA-18	Hitachi
17.	H.D.D. (18GB)	DARA-218000	IBM
18.	CD-ROM (24X)	CD-224EA-92	TEAC
19.	DVD-ROM (6X)	SR-8174-BXX	MKE
20.	DVD-ROM (6X)	SD-C2302	Toshiba
21.	F.D.D.	MF355H-347MN	Mitsubishi
22.	Glide Pad	KGDDGQ941A	ALPS
23.	Glide Pad	KGDDHQ941A	ALPS
24.	Li-ION Battery	3000mA	Panasonic
25.	Ni-MH Battery	4500mA	Panasonic
26.	LS120	MF357H-2252MG	Mitsubishi
27.	LS120	LKM-FB33-5	MKE
28.	LAN	T90L020.00	Ambit
29.	Fax/Modem	1456VQL19R-1(INT)	Askey
30.	AC Adapter 60W	ADP-65DB	DELTA
31.	AC Adapter 60W	AD57	LITEON
32.	SDRAM(64M)	PR144SD64M6-46	PAN RAM
33.	SDRAM(128M)	144SD128M6-8M16.NE.PR	PAN RAM
34.	Keyboard(US) M2-M4	980105S	JME
35.	Keyboard(US) W2,W4	K982105Q1	JME
36.	Glide Pad	TM41PDG247	Synaptics

☒ Far End Network Server

Model Number : Targa PC-2
Motherboard : Asus,P/I-P55T2P4
Serial Number : AC644101338
Manufacturer : ACTEBIS

☒ Monitor M01-010

Model Number : SyncMaster 700p
Serial Number : H3MH903296Y
Manufacturer : SAMSUNG
FCC ID : A3LCGH760
BCIQ No. : 3872A230
Data Cable : Shielded, Undetachable, 1.5m
Power Cord : Shielded, Detachable, 1.5m

☒ Keyboard K01-036

Model Number : KB-5923
Serial Number : 8060032201
FCC ID : E8HKB-5923
Manufacturer : TATUNG
BCIQ No. : 3862A177
Data Cable : Sheiled, Undetachable, 2.0 m
Purchase Date : 8/6/1998

☒ Printer P01-011

Model Number : C2642A(DJ-400)
Serial Number : MY7951C4J5
FCC ID : B94C2642X
Manufacturer : HP
Data Cable : Shielded, Detachable, 1.8m
Adaptor, Power Cord : Non-Shielded, Detachable, 1.9m

☒ Modem M03-007

Model Number : 1414
Serial Number : 960011394
FCC ID : IFAXDM1414
Manufacturer : ACEEX
Adaptor, Power Cord : Non-Shielded, Detachable, 1.5m
Data Cable : Shielded, Detachable, 1.2m

☒ Cassette Player R02-011

Model Number : HS-GS162
Serial Number : LYJ1084567
FCC ID : N/A
Manufacturer : AIWA CO., LTD
Power Cord : N/A (Battery)
Data Cable : Non-Shielded, Detachable, 1.5m

☒ LCD PROJECTOR O01-005

Model Number : CPJ-200
Serial Number : 87881
FCC ID : N/A
Manufacturer : SONY
Power Cord : Non-Shielded, Detachable, 1.8m
Data Cable : Shielded, Detachable, 1.2m*4

☒ Headset&Microphone E01-028

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

☒ Mouse M02-042 (USB)

Model Number : M-UB48
Serial Number : LZB81900215
FCC ID : DZL211137
Manufacturer : Logitech Inc..
Data Cable : Shielded, Undetachable, 1.5m
BCIQ ID : 4872A001

☒ Joystick J01-016 (USB)

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

☒ Hub H01-001

Model Number : DE-816TP (10BASE-T Ethernet Hub)
Serial Number : AN68900072
FCC ID : KA2OPCH16
Manufacturer : D-Link.
Data Cable : Non-Shielded, Detachable, 12 m
Power Cord : 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	23-26
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

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:

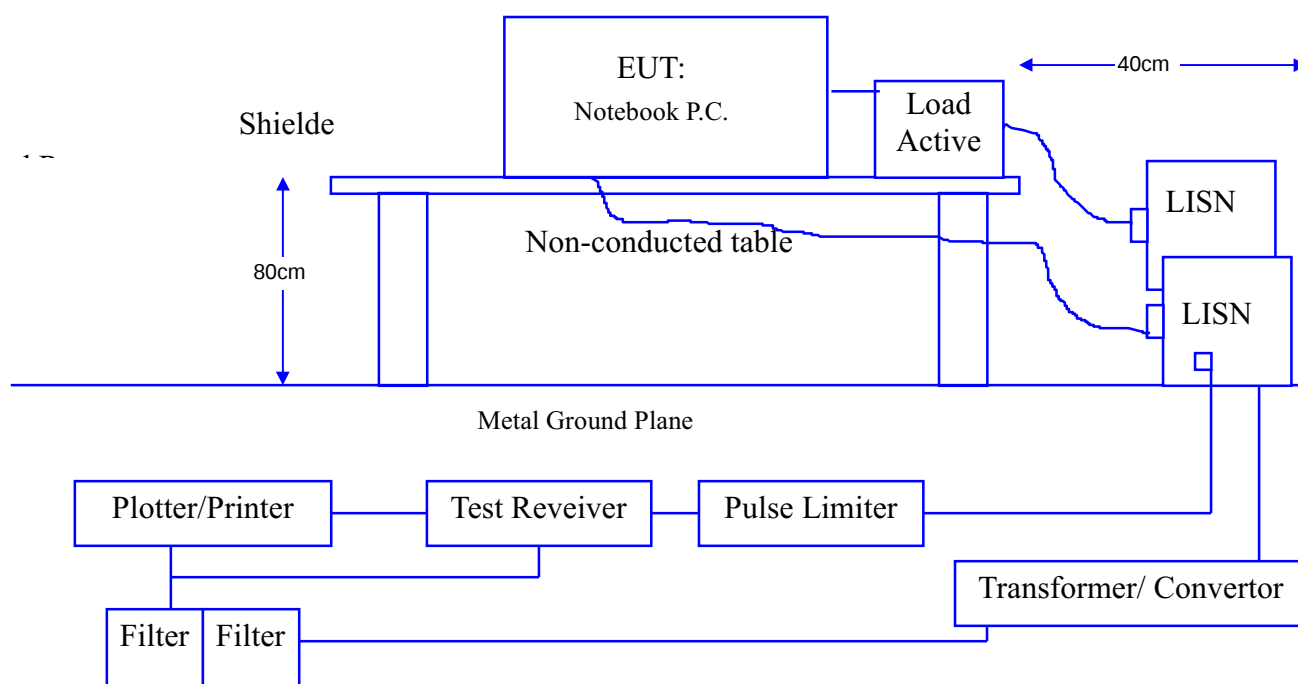
Item	Instrument	Manufacturer	Type /Serial No.	Last Cal. Date
1	Test Receiver	Rohde & Schwarz	ESHS 30 / 828109/010	Jan. 21, 2000
2	L.I.S.N.	Kyoritsu	KNW-407	Nov. 05, 1999
3	L.I.S.N.	Schwarzbeck	NNLK 8121/8121358	May. 27, 1999
4	Pulse Limiter	Rohde & Schwarz	ESH3-Z2/357.8810.52	Sep. 05, 1999
5	RF CABLE	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 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.

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 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:

- 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 Run windows 98.
- 3.5.4 Adjust to appropriate video resolution.
- 3.5.5 Running "EMITEST.EXE" test program.
- 3.5.6 Connected the modem and dial repeatedly. (Mode 1,2)
- 3.5.7 The EUT exchange the information with the the Network via an telephone exchange.(Mode 1,2)
- 3.5.8 Connect the Far End Network Server and run test program "test.bat ".(Mode 3,4)
- 3.5.9 The EUT exchange the information with the GesTek server via HUB.(Mode 3,4)
- 3.5.10 P.C. sent "H" pattern to monitor, make the H pattern full in the screen.
- 3.5.11 F.D.D. keeping data file transfer between H.D.D.
- 3.5.12 P.C. sent "H" Pattern to printer port.
- 3.5.13 P.C. sent "H" Pattern to modem port.
- 3.5.14 P.C. sent "H" Pattern to serial port.
- 3.5.15 Repeat the above procedure 3.5.5 to 3.5.14

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 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	:	Jan 20 ,2000	Temperature	:	18.3 °C
EUT	:	Notebook P.C.	Humidity	:	51 %
Test Mode	:	Mode 1	Display Pattern	:	H Pattern

FREQUENCY		READING LEVEL			LIMIT
		LINE 1		LINE 2	
MHz		dBuV	uV	dBuV	uV
0.53278		36.0	63.10	35.9	62.37
5.00450		35.1	56.89	35.4	58.88
7.68390		39.2	91.20	39.6	95.50
14.61500		38.5	84.14	38.5	84.14
**18.26960		42.8	138.04	42.0	125.89
21.92000		38.2	81.28	38.3	82.22

- Remarks :
1. All readings are Quasi-peak and average values.
 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	:	Jan 20 ,2000	Temperature	:	18 °C
EUT	:	Notebook P.C.	Humidity	:	51 %
Test Mode	:	Mode 2	Display Pattern	:	H Pattern

FREQUENCY		READING LEVEL			LIMIT
		LINE 1		LINE 2	
MHz		dBuV	uV	dBuV	uV
0.51350		32.8	43.65	32.0	39.81
3.12090		35.1	56.89	35.0	56.23
4.78240		38.4	83.18	38.6	85.11
**6.37850		41.3	116.14	42.3	130.32
10.95800		39.3	92.26	39.2	91.20
18.26226		39.8	97.72	39.4	93.33

- Remarks :
1. All readings are Quasi-peak and average values.
 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	:	Jan 20 ,2000	Temperature	:	18.1 °C
EUT	:	Notebook P.C.	Humidity	:	51 %
Test Mode	:	Mode 3	Display Pattern	:	H Pattern

FREQUENCY		READING LEVEL			LIMIT
		LINE 1		LINE 2	
MHz		dBuV	uV	dBuV	uV
3.20398		30.6	33.88	30.3	32.73
4.40596		34.0	50.12	32.3	41.21
6.87641		40.3	103.51	40.1	101.16
10.85750		36.4	66.07	36.3	65.31
18.26880		38.7	86.10	38.3	82.22
**21.91820		41.4	117.49	41.0	112.20

- Remarks :
1. All readings are Quasi-peak and average values.
 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	:	Jan 20 ,2000	Temperature	:	18 °C
EUT	:	Notebook P.C.	Humidity	:	51 %
Test Mode	:	Mode 4	Display Pattern	:	H Pattern

FREQUENCY		READING LEVEL			LIMIT
		LINE 1		LINE 2	
MHz		dBuV	uV	dBuV	uV
0.53530		36.2	64.57	35.6	60.26
1.47420		35.4	58.88	35.1	56.89
5.29566		37.0	70.79	36.0	63.10
7.74160		40.7	108.39	40.6	107.15
14.61800		37.4	74.13	37.1	71.61
**21.92850		42.8	138.04	43.4	147.91

- Remarks :
1. All readings are Quasi-peak and average values.
 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 Test

4.1 Test Equipment

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

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

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. 15,1999
7	Horn Antenna	Electro-Metrics	EM-6961 / 103329	Apr, 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.

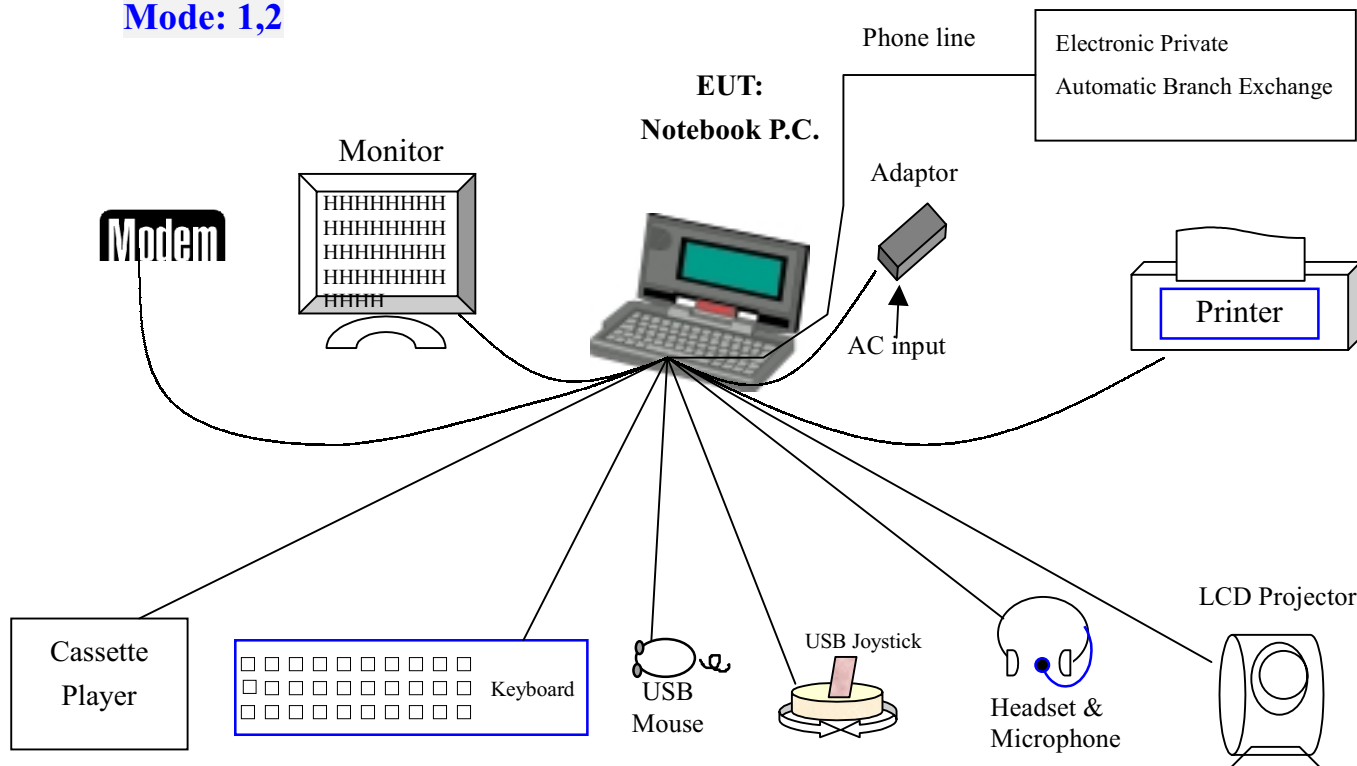
4.2 Test Setup

4.2.1 Block Diagram of Connections between EUT and simulators

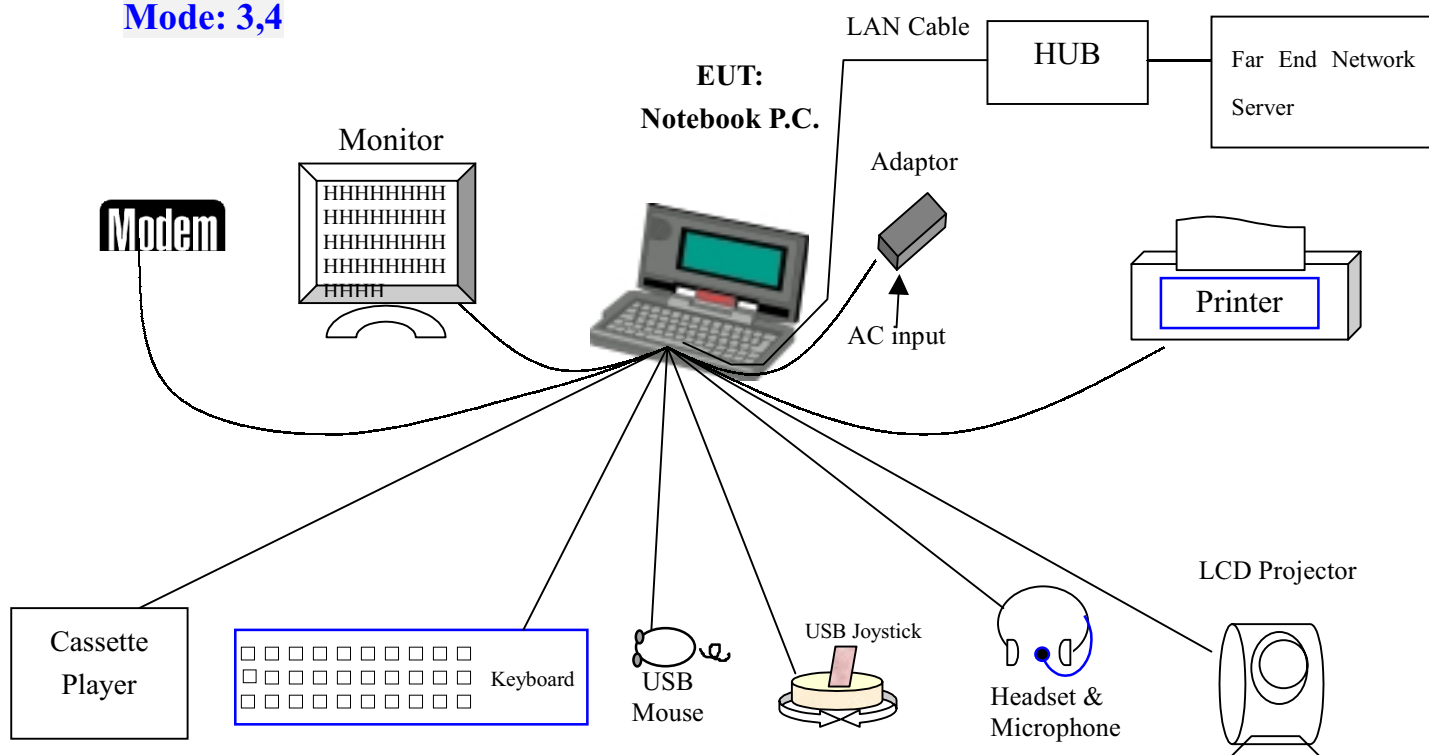
Note: This is a representative setup diagram for Table-top EUT.

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

Mode: 1,2



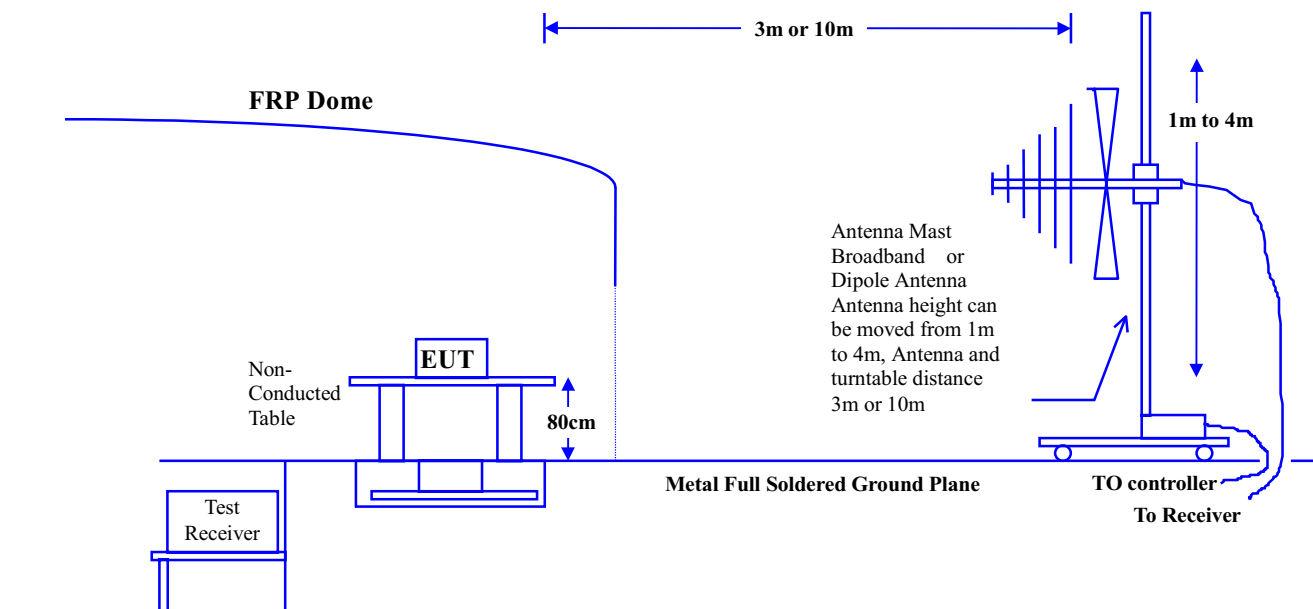
Mode: 3,4



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 Limits at 3m

Frequency	Distance	Field Strength	
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\(b\)\)](#))

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 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 heretherethercm. 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 5 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 bandwidth 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): $< \pm 4$ 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 : 01-21, 2000 Fri Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %RH
 Working Cond.: Mode 1 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)
83.650	1.34	8.03	12.62	21.99	12.57 100
133.130	1.34	12.00	10.65	23.99	15.83 150
177.050	1.56	10.13	12.06	23.74	15.39 150
200.496	2.00	9.80	18.05	29.85	31.08 150
336.026	2.61	14.52	15.32	32.45	41.95 200
373.340	2.85	15.51	13.74	32.11	40.31 200
429.200	3.12	16.59	7.00	26.70	21.64 200
*497.785	3.40	17.28	13.98	34.66	54.05 200
521.294	3.54	17.65	11.91	33.11	45.22 200
561.396	3.78	18.32	8.56	30.66	34.12 200
661.316	4.19	18.04	8.68	30.90	35.09 200
746.690	4.49	20.05	9.03	33.57	47.69 200
871.150	4.84	21.44	8.03	34.32	51.98 200
995.596	5.28	21.28	5.82	32.38	41.60 500

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 : 01-21, 2000 Fri Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %RH
 Working Cond.: Mode 1 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)
70.540	1.10	7.10	17.26	25.46	18.75 100
86.100	1.34	8.25	16.17	25.76	19.40 100
127.130	1.36	12.00	9.88	23.24	14.52 150
146.200	1.33	11.59	8.57	21.49	11.87 150
192.024	1.92	9.88	12.81	24.61	17.00 150
238.220	2.00	11.82	14.28	28.10	25.41 200
*373.338	2.85	15.51	21.45	39.82	97.93 200
401.030	3.02	16.20	15.28	34.50	53.06 200
432.033	3.13	16.64	16.47	36.25	64.90 200
481.196	3.33	17.15	11.65	32.14	40.44 200
497.790	3.40	17.28	13.44	34.12	50.79 200
521.292	3.54	17.65	14.81	36.01	63.14 200
561.393	3.78	18.32	12.77	34.87	55.40 200
622.200	4.07	18.41	8.50	30.98	35.40 200
871.125	4.84	21.44	11.17	37.46	74.62 200
995.670	5.28	21.28	8.91	35.47	59.38 501

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 : 01-21, 2000 Fri Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %RH
 Working Cond.: Mode 2 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)
56.812	1.00	7.40	19.03	27.43	23.52 100
*58.705	1.02	6.93	25.28	33.23	45.85 100
62.495	1.02	6.38	24.84	32.24	40.91 100
84.667	1.34	8.25	16.81	26.40	20.88 100
114.299	1.40	11.30	19.41	32.11	40.34 150
133.580	1.34	12.00	9.96	23.30	14.62 150
171.460	1.50	10.30	14.59	26.39	20.88 150
199.484	2.00	9.80	18.23	30.03	31.73 150
323.200	2.55	14.21	11.86	28.63	27.00 200
497.787	3.40	17.28	10.70	31.38	37.05 200
581.160	3.90	18.58	9.45	31.93	39.49 200
622.235	4.07	18.41	14.77	37.25	72.87 200
746.701	4.49	20.05	12.39	36.93	70.22 200
871.131	4.84	21.44	10.45	36.74	68.68 200
995.620	5.28	21.28	8.28	34.84	55.22 500

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 : 01-21, 2000 Fri Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %RH
 Working Cond.: Mode 2 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)
66.812	1.06	6.73	20.57	28.36	26.18 100
80.002	1.16	7.60	19.27	28.03	25.20 100
83.180	1.34	8.03	17.47	26.84	21.98 100
133.790	1.34	12.00	9.89	23.23	14.51 150
161.862	1.40	10.60	10.27	22.27	12.99 150
196.623	1.92	9.84	14.72	26.48	21.08 150
213.892	2.00	10.54	16.17	28.71	27.27 150
237.990	2.00	11.82	12.30	26.12	20.23 200
333.890	2.61	14.47	9.81	26.89	22.11 200
465.150	3.26	17.03	6.25	26.53	21.21 200
661.320	4.19	18.04	11.09	33.31	46.31 200
697.587	4.29	18.56	7.27	30.12	32.08 200
746.689	4.49	20.05	12.75	37.29	73.19 200
830.000	4.76	21.11	3.64	29.52	29.91 200
*871.128	4.84	21.44	11.05	37.34	73.59 200

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 : 01-22,2000 Sat Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %RH
 Working Cond.: Mode 3 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)
58.721	1.02	6.93	25.07	33.02	44.76
89.899	1.40	8.70	27.42	37.52	75.16
119.300	1.40	11.81	13.25	26.46	21.03
163.570	1.46	10.54	13.04	25.04	17.86
239.730	2.00	11.93	14.13	28.06	25.29
325.716	2.55	14.27	17.97	34.79	54.89
373.342	2.85	15.51	15.30	33.67	48.24
*390.859	2.97	15.98	21.27	40.22	102.54
423.400	3.09	16.50	11.78	31.38	37.06
475.534	3.32	17.10	10.58	31.00	35.49
497.790	3.40	17.28	15.86	36.54	67.11
746.650	4.49	20.05	9.90	34.44	52.72

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 : 01-22,2000 Sat Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %RH
 Working Cond.: Mode 3 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)
59.115	1.02	6.20	19.23	26.45	21.01	100
84.740	1.34	8.25	15.77	25.36	18.53	100
93.060	1.40	9.33	27.94	38.67	85.81	150
*94.620	1.40	9.33	29.27	40.00	100.00	150
119.060	1.40	11.81	23.53	36.74	68.68	150
152.340	1.38	11.17	10.57	23.12	14.32	150
168.640	1.50	10.36	11.37	23.23	14.51	150
172.636	1.56	10.25	10.72	22.52	13.37	150
195.426	1.92	9.84	15.38	27.14	22.74	150
200.114	2.00	9.80	15.63	27.43	23.52	150
222.847	2.00	10.97	17.29	30.26	32.58	200
242.070	2.00	12.03	11.78	25.81	19.53	200
325.714	2.55	14.27	15.71	32.53	42.31	200
373.344	2.85	15.51	19.40	37.77	77.34	200
390.857	2.97	15.98	22.57	41.52	119.09	200
456.003	3.24	16.95	16.44	36.63	67.82	200
475.585	3.32	17.10	15.48	35.90	62.40	200
497.790	3.40	17.28	13.16	33.84	49.18	200
521.145	3.54	17.65	19.39	40.59	106.98	200
586.288	3.92	18.63	10.36	32.91	44.21	200
746.670	4.49	20.05	11.15	35.69	60.88	200
871.070	4.84	21.44	4.02	30.31	32.76	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 : 01-21, 2000 Fri Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %RH
 Working Cond.: Mode 4 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)
63.895	1.06	6.55	21.48	29.09	28.49
63.895	1.06	6.55	21.11	28.72	27.30
*88.694	1.40	8.70	28.24	38.34	82.60
89.830	1.40	8.70	27.18	37.28	73.11
131.800	1.36	12.00	14.01	27.37	23.36
161.020	1.40	10.60	14.35	26.35	20.77
199.576	2.00	9.80	17.99	29.79	30.87
207.980	2.00	10.23	11.49	23.72	15.34
237.900	2.00	11.82	14.16	27.98	25.06
390.860	2.97	15.98	15.19	34.14	50.92
402.940	3.02	16.23	13.16	32.40	41.70
441.936	3.17	16.78	12.46	32.41	41.75
456.000	3.24	16.95	13.68	33.87	49.36
479.928	3.32	17.14	11.56	32.01	39.88
497.791	3.40	17.28	14.38	35.06	56.59
746.690	4.49	20.05	11.53	36.07	63.60

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 : 01-21, 2000 Fri Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %RH
 Working Cond.: Mode 4 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)
63.740	1.06	6.55	20.85	28.46	26.50
*86.815	1.34	8.47	22.96	32.76	43.47
89.885	1.40	8.70	23.86	33.96	49.89
114.970	1.40	11.47	17.07	29.94	31.41
134.660	1.34	12.00	20.13	33.47	47.16
151.075	1.35	11.31	17.26	29.92	31.33
195.430	1.92	9.84	15.82	27.58	23.93
199.710	2.00	9.80	15.23	27.03	22.46
239.460	2.00	11.93	22.13	36.06	63.52
325.715	2.55	14.27	13.45	30.27	32.62
336.027	2.61	14.52	15.08	32.21	40.81
373.341	2.85	15.51	12.88	31.25	36.51
390.857	2.97	15.98	14.23	33.18	45.59
403.902	3.02	16.26	10.82	30.09	31.96
410.420	3.06	16.34	9.77	29.16	28.72
459.930	3.24	16.98	14.37	34.59	53.63
479.924	3.32	17.14	13.90	34.35	52.21
497.795	3.40	17.28	8.77	29.45	29.67
746.684	4.49	20.05	11.35	35.89	62.29

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 : 01-21,2000 Fri Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %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)
1095.900	5.98	22.75	47.00	38.19	81.16	500 PK
1095.900	5.98	22.75	28.50	19.69	9.65	500 AV
1161.100	6.20	23.11	25.00	16.85	6.95	500 AV
1161.500	6.20	23.11	46.00	37.85	78.03	500 PK
1295.000	6.60	23.87	45.00	38.25	81.78	500 PK
1295.000	6.60	23.87	27.10	20.35	10.41	500 AV

Remarks:

1. All Readings are Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(37.54,37.46,37.21)
3. Deviations from the specifications: None.
4. The frequncies 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 : 01-21, 2000 Fri Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %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)
1096.900	5.98	22.75	46.00	37.19	72.33 500 PK
1096.900	5.98	22.75	28.00	19.19	9.11 500 AV
1195.500	6.28	23.27	46.80	38.98	88.95 500 PK
1195.500	6.28	23.27	27.40	19.58	9.53 500 AV
1295.500	6.60	23.87	43.20	36.45	66.47 500 PK
1295.500	6.60	23.87	25.60	18.85	8.76 500 AV

Remarks:

1. All Readings are Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(37.54,37.37,37.21)
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 : 01-22,2000 Sat Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %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)
1096.900	5.98	22.75	38.90	30.09	31.94	500 PK
1096.900	5.98	22.75	25.85	17.04	7.11	500 AV
1245.300	6.43	23.57	41.00	33.71	48.47	500 PK
1245.300	6.43	23.57	26.80	19.51	9.45	500 AV
1297.000	6.60	23.88	37.10	30.36	32.98	500 PK
1297.000	6.60	23.88	25.77	19.03	8.95	500 AV

Remarks:

1. All Readings are Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(37.54,37.29,37.21)
3. Deviations from the specifications: None.
4. The frequncies 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 : 01-22,2000 Sat Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %RH
 Working Cond.: Mode 2 (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)
1097.500	6.00	22.78	39.20	30.44	33.27 500 PK
1097.500	6.00	22.78	28.40	19.64	9.59 500 AV
1228.900	6.39	23.47	39.54	32.06	40.09 500 PK
1228.900	6.39	23.47	26.60	19.12	9.04 500 AV
1494.100	7.29	25.07	36.50	31.94	39.55 500 PK
1494.100	7.29	25.07	25.64	21.08	11.33 500 AV

Remarks:

1. All Readings are Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(37.54,37.33,36.92)
3. Deviations from the specifications: None.
4. The frequncies 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 : 01-22,2000 Sat Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %RH
 Working Cond.: Mode 3 (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)
1096.100	5.98	22.75	43.60	34.79	54.87	500 PK
1096.100	5.98	22.75	28.40	19.59	9.54	500 AV
1195.100	6.28	23.27	42.80	34.98	56.12	500 PK
1195.100	6.28	23.27	28.80	20.98	11.20	500 AV
1295.600	6.60	23.87	44.20	37.45	74.58	500 PK
1295.600	6.60	23.87	28.10	21.35	11.68	500 AV

Remarks:

1. All Readings are Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(37.54,37.37,37.21)
3. Deviations from the specifications: None.
4. The frequncies 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 : 01-22,2000 Sat Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %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)
1096.100	5.98	22.75	43.00	34.19	51.21 500 PK
1096.100	5.98	22.75	28.70	19.89	9.87 500 AV
1195.100	6.28	23.27	43.60	35.78	61.54 500 PK
1195.100	6.28	23.27	29.40	21.58	12.00 500 AV
1295.600	6.60	23.87	42.67	35.92	62.53 500 PK
1295.600	6.60	23.87	26.90	20.15	10.18 500 AV

Remarks:

1. All Readings are Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(37.54,37.37,37.21)
3. Deviations from the specifications: None.
4. The frequncies 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 : 01-22,2000 Sat Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %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)
1170.700	6.21	23.15	37.90	29.85	31.07	500 PK
1170.700	6.21	23.15	26.70	18.65	8.56	500 AV
1195.100	6.28	23.27	40.10	32.28	41.13	500 PK
1195.100	6.28	23.27	27.40	19.58	9.53	500 AV
1244.380	6.43	23.56	43.00	35.70	60.94	500 PK
1244.380	6.43	23.56	28.90	21.60	12.02	500 AV

Remarks:

1. All Readings are Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(37.41,37.37,37.29)
3. Deviations from the specifications: None.
4. The frequncies 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 : 01-22,2000 Sat Temperature : 18 deg/C
 EUT : Notebook P.C. Humidity : 51 %RH
 Working Cond.: Mode 4 (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)
1298.200	6.60	23.89	42.60	35.88	62.20	500 PK
1298.200	6.60	23.89	27.50	20.78	10.93	500 AV
1369.200	6.80	24.38	27.46	21.51	11.91	500 AV
1369.200	6.80	24.38	39.40	33.45	47.07	500 PK
1494.200	7.29	25.07	25.10	20.54	10.64	500 AV
1494.200	7.29	25.07	36.75	32.19	40.70	500 PK

Remarks:

1. All Readings are Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(37.21,37.13,36.92)
3. Deviations from the specifications: None.
4. The frequncies 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 : 01-22,2000 Sat Temperature : 18 deg/C
EUT : Notebook P.C. Humidity : 51 %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 Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(36.70)
3. Deviations from the specifications: None.
4. The frequncies 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 : 01-22,2000 Sat Temperature : 18 deg/C
EUT : Notebook P.C. Humidity : 51 %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 Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(36.70)
3. Deviations from the specifications: None.
4. The frequncies 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 : 01-22,2000 Sat Temperature : 18 deg/C
EUT : Notebook P.C. Humidity : 51 %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)
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 Quasi-Peak and Average values .
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 : 01-22,2000 Sat Temperature : 18 deg/C
EUT : Notebook P.C. Humidity : 51 %RH
Working Cond.: Mode 2 (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)
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 Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(36.88)
3. Deviations from the specifications: None.
4. The frequncies 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 : 01-22,2000 Sat Temperature : 18 deg/C
EUT : Notebook P.C. Humidity : 51 %RH
Working Cond.: Mode 3 (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)
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 Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(36.70)
3. Deviations from the specifications: None.
4. The frequncies 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 : 01-22,2000 Sat Temperature : 18 deg/C
EUT : Notebook P.C. Humidity : 51 %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)
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 Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(36.70)
3. Deviations from the specifications: None.
4. The frequncies 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 : 01-22,2000 Sat Temperature : 18 deg/C
EUT : Notebook P.C. Humidity : 51 %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 Quasi-Peak and Average values .
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 : 01-22,2000 Sat Temperature : 18 deg/C
EUT : Notebook P.C. Humidity : 51 %RH
Working Cond.: Mode 4 (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)
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 Quasi-Peak and Average values .
2. Emission Level = Reading Level + Antenna Factor + Cable loss-Amp Factor(36.70)
3. Deviations from the specifications: None.
4. The frequncies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

1. EMI Reduction Method During Compliance Testing

1. Added 1 pcs of gasket(5x3.5x10mm) between S-terminal and I/O bracket.
2. Added 1 pcs of gasket(10x6.5x15mm) on top case to touch fan of heat sink.
3. Added 1 sheet of insulation paper(10x10mm) between F.D.D. and boss of top case.
4. Added 4 sheet of aluminum foil(50x5mmx2) and(20x2mmx2) on ram cover.
5. Added 1 sheet of aluminum foil between foil between pcmcia socket and main board.
6. Added 2 pcs of gasket(4x2x40mmx1 and 4x2x12mmx1) on palm rest to touch ground plane of audio board.
7. Added 1 pcs of gasket(6x6.5x40mmx1) on palm rest to touch top case.
8. Added 3 pcs of gasket(4x0.5x40mmx1, 4x0.5x20mmx1, 4x0.5x70mmx1) on top case to touch heat sink.
9. Paste two sheet of aluminum foil(215x90x1mm, 220x50x1mm) on circuit board of LCD for ADT 13.3”.
10. The wire cable of signal for 12.1” LCD including LG and Sanyo used 2 iron ring fixed to boss of back cover for LCD.
11. Added 1 pcs of ferrite core(6x4x10mm) on wire cable of signal for 12.1” LCD.
12. Added 1 pcs of ferrite core(6x4x10mm) on wire cable of inverter for 12.1” LCD.
13. Used soft ferrite core(50x20mm) to wrap connecting between main board and audio board of wire cable.
14. Added 1 pcs of ferrite core(6x4x10mm) on wire cable of jack for LAN card.
15. Added 1 pcs of ferrite core(6x4x10mm) on wire cable of jack for Fax/Modem board.
16. Added 1 pcs of ferrite core(RH16x17.5x4.3mm) on cable of AC adapter for Delta.
17. Added 1 pcs of ferrite core(BRH15.5x28.5x7.3mm) on cable of AC adapter for Liteon.