EMI TESTING REPORT

EUT : PC SYSTEM

MODEL: CM0103

FCCID: EUNCM0103

PREPARED FOR:

FIRST INTERNATIONL COMPUTER, INC.

6F., FORMOSA PLASTICS REAR BUILDING

201-24, TUNG HWA N. RD.,

TAIPEI, TAIWAN, R.O.C.

PREPARED BY:

SPECTRUM RESEARCH & TESTING
LABORATORY INC.

NO. 101-10, LING 8, SHAN-TONG LI
CHUNG-LI CITY, TAOYUAN, TAIWAN, R.O.C.

TEL:(03)4987684
FAX:(03)4986528

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1. TEST REPORT CERTIFICATION

APPLICANT : FIRST INTERNATIONAL COMPUTER, INC.

ADDRESS : 6F., FORMOSA PLASTICS REAR BUILIDING
201-24, TUNG HWA N. RD.,
TAIPEI, TAIWAN, R.O.C.

EUT DESCRIPTION : PC SYSTEM

(A) POWER SUPPLY : 115/230V

(B) MODEL : CM0103

(C) FCCID : EUNCM0103

FINAL TEST DATE : 07/31/1998

MEASUREMENT PROCEDURE USED :

PART 15 SUB PART B OF FCC RULES AND
REGULATIONS (47 CFR PART 15)
FCC / ANSI C63.4 - 1992

WE HEREBY SHOW THAT:

THE MEASUREMENTS SHOWN IN THE ATTACHMENT WERE

MADE IN ACCORDANCE WITH THE PROCEDURES INDICATED,

AND THE ENERGY EMITTED BY THE EQUIPMENT WAS

FOUND TO BE WITHIN THE LIMITS APPLICABLE.

TESTING ENGINEER : Taylor Ho DATE 7/31/98

SUPERVISOR : Jesse Ho DATE 7/31/98

APPROVED BY : Johnson Ho DATE 7/31/98

2. TEST STATEMENT

2.1 TEST STATEMENT

TO whom it may concern,

This letter is to explain the test condition of this project. The EUT be tested as the following status.

CPU: IBM MX-300: 225MHz	**CPU Clock Signal: 75 MHz**
CPU: IBM MX-300: 233MHz	**CPU Clock Signal: 66 MHz**
CPU: AMD K6/2 : 300MHz	**CPU Clock Signal: 66 MHz**
CPU: AMD K6/2 : 333MHz	**CPU Clock Signal: 66 MHz**

VGA RESOLUTION : 1024*768

The data shown in this report reflects the worst-case data for each condition as listed above.

Please disregard any other conditions that shown in this user manual.

2. TEST STATEMENT

2.2 DEPARTURE FROM DOCUMENT POLICIES, PROCEDURE OR SPECIFICATIONS

DID HAVE
ANY DEPARTURE FROM DOCUMENT POLICIES
& PROCEDURES OR FROM SPECIFICATIONS.

YES _____ , NO N/A .

IF YES, THE DESCRIPTION AS BELOW.

2.3 TEST STATEMENT

1. THE CERTIFICATE OR REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY.

2. THE REPORT MUST NOT BE USED BY THE CLIENT TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY AGENCY OF THE U.S. GOVERNMENT.

3. EUT MODIFICATIONS

THE FOLLOWING ACCESSORIES WERE ADDED TO THE EUT DURING TESTING:

NO MODIFICATION BY SRT LAB.

4. MODIFICATION LETTER

THIS SECTION CONTAINS THE FOLLOWING DOCUMENTS:

A. LETTER OF MODIFICATIONS

大衆電腦股份有限公司
FIRST INTERNATIONAL COMPUTER, INC.
台北市敦化北路201號之24 台塑大樓後棟6樓
6F., FORMOSA PLASTICS REAR BUILDING
201, TUNG HWA N. ROAD, TAIPEI, TAIWAN
TEL:(02)717-4500 (代表線)
FAX:(02)712-0231

Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046

To whom it may concern:

This is to serve as proper notice that our company agrces to make all modifications to FCCID: EUNCM0103 as listed in section 3.0 of the test report submitted by Spectrum Research andTesting Laboratory,Inc.

Respectfully,

JEFF HSUE
(Name,Surname)

(Position/Title)

DATE: 5/22/97

Effective Dates:

From 5/1/97 to 5/1/99

5. CONDUCTED POWER LINE TEST

5.1 TEST EQUIPMENT

THE FOLLOWING TEST EQUIPMENT WAS USED DURING THE CONDUCTED POWER LINE TEST :

EQUIPMENT/ FACILITIES	SPECIFICAT -IONS	MANUFACTURER	MODEL#/ SERIAL#	DATE OF CAL. & CAL.CENTER	DUE DATE
SPECTRUM ANALZER	9 KHz TO 1 GHz	HP	8590L/ 3624A01317	OCT, 1997 ETC	1Y
EMI TEST RECEIVER	9 KHz TO 30 MHz	ROHDE & SCHWARZ	ESHS30/ 893517/013	OCT, 1997 ETC	1Y
LISN	50 uH, 50 ohm	SOLAR ELECTRONICS	9252-50-R24-BNC/ 951315	AUGUST, 1997 ETC	1Y
LISN	50 uH, 50 ohm	SOLAR ELECTRONICS	9252-50-R24-BNC/ 951318	AUGUST, 1997 ETC	1Y
SIGNAL GENERATOR	9 KHz TO 1080 MHz	ROHDE & SCHWARZ	SMY01/ 841104/019	APRIL, 1998 ITRI	1Y
POWER CONVERTER	0 TO 300 VAC 47 - 500 Hz	AFC	AFC-1KW/ 850510	APRIL, 1998 SRT	1Y

5.2 CONFIGURATION OF THE EUT

THE EUT WAS CONFIGURED ACCORDING TO ANSI C63.4 - 1992. ALL INTERFACE PORTS WERE CONNECTED TO THE APPROPRIATE PERIPHERALS. ALL PERIPHERALS AND CABLES ARE LISTED BELOW.

-EUT

DEVICE	MANUFACTURER	MODEL #	FCCID
PC STSTEM	FIRST INTERNATIONAL COMPUTER, INC.	CM0103	EUNCM0103

-REMARK

-INTERNAL DEVICES

DEVICE	MANUFACTURER	MODEL #	FCCID/DoC
MAIN BOARD	FIC	CM0103	N/A
POWER SUPPLY	HIPRO	HP-Q075YF5	DoC
POWER SUPPLY	DELTA	DPS-75UB	DoC
HDD	SEAGATE	ST32111A 2.1GB	N/A
HDD	SEAGATE	ST34323A 4.3GB	N/A
HDD	SEAGATE	ST38641A 8.0GB	N/A
HDD	FUJITSU	FB11 2.1GB	N/A
HDD	JTS	C4300-3AS 4.3GB	N/A
FDD(3.5")	NEC	FD1231T	N/A
FDD(3.5")	MITSUBISHI	MF355F-3494UL	N/A
CD ROM	TRAY LOAD	CRD-8320B	BEJCRD-8320B
CD ROM	LITEON	LTN-301	DoC
CD ROM	PANASONIC	CR-588-CCQ	DoC
SDRAM	HYU	N/A	N/A
SDRAM	LGS	N/A	N/A
SDRAM	MITSUBISHI	N/A	N/A
SDRAM	NEC	N/A	N/A
RISER CARD(WITH/ NIC)	CM0103	N/A	DoC
RISER CARD(W/O NIC)	CM0103	N/A	DoC
MODEM CARD	SHETLAND	007201-003	DoC
MODEM CARD	ZEPHYR	M1-5614PM3	DoC
MODEM CARD	DIAMOND	007201-003	DoC

- PERIPHERALS

DEVICE	MANUFAC-TURER	MODEL# / SERIAL#	FCCID	CABLE
MONITOR	PHILIPS	14B1320W	A3KM064	POWER-UNS DATA -S
PRINTER	HP	2225C+	DSI6XU2225	POWER-UNS DATA -S
MODEM	SMARTEAM	103/212A	EF56A5103/212A	POWER-UNS DATA -S
KEYBOARD	CRIBBEAN	SK-2700	GYUR55SK	DATA -UNS
KEYBOARD	NMB	122741-001	AQ6-71Z15	DATA -UNS
MOUSE	LOGITECH	M-S34	DZL211029	DATA -UNS
MOUSE	PRIMAX	MUS9JN	EMJMUSJR	DATA -UNS
USB MOUSE	ABIT	97M32U	M5497M32U	DATA -S
USB MOUSE	ABIT	97M32U	M5497M32U	DATA -S
SPEAKER	J-S	J-003	N/A	DATA -S
MICROPHONE	TAKY	UDM-606	N/A	DATA -S
EARPHONE	ALWA	HP-V141	N/A	DATA -S
EARPHONE	ALWA	HP-V141	N/A	DATA -S
TELEPHONE	PANASONIC	VB-9211EX	N/A	DATA -S
JOYSTICK	CH	4620176	N/A	DATA -S

-REMARK

(1). CABLE - UNS : UNSHIELDED CABLE
S : SHIELDED CABLE

(2). CABLES - ALL 1m OR GREATER IN LENGTH-
BUNDLED ACCORDING TO ANSI C63.4 - 1992.

5.3 EUT OPERATING CONDITION

OPERATING CONDITION IS ACCORDING TO ANSI C63.4 - 1992.

1. EUT POWER ON.

2. "H" PATTERN SENT TO THE FOLLOWING PERIPHERALS:
   - PRINTER
   - MONITOR
   - MODEM
   - KEYBOARD
   - HDD
   - FDD

3. CONNECT RISER CARD (WITH NIC) TO FILE SERVE AND SENT SIGNAL BETWEEN FILE SERVE & RISER CARD (WITH NIC)

4. CD ROM PLAY MUSIC

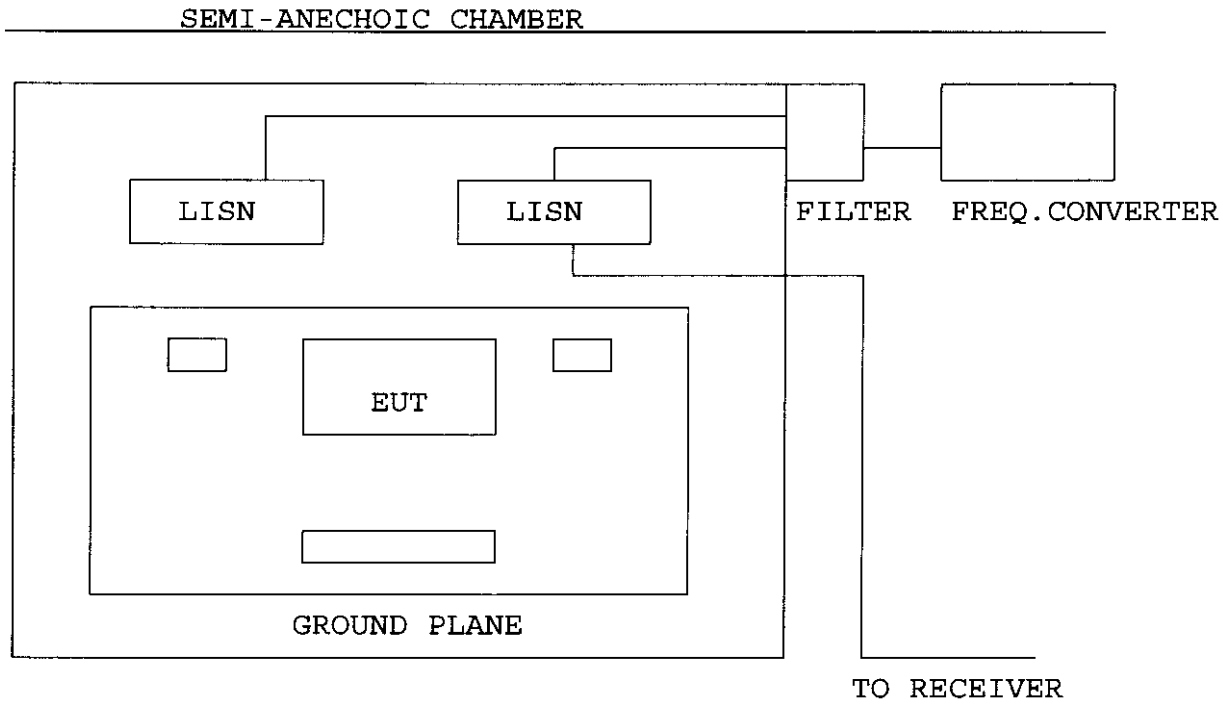
5. CPU : IBM MX-300 : 225MHz
   CLOCK CHIP : 75MHz
   CPU : IBM MX-300 : 233MHz
   CLOCK CHIP : 66MHz
   CPU : AMD K6/2 : 300MHz
   CLOCK CHIP : 66MHz
   CPU : AMD K6/2 : 333MHz
   CLOCK CHIP : 66MHz

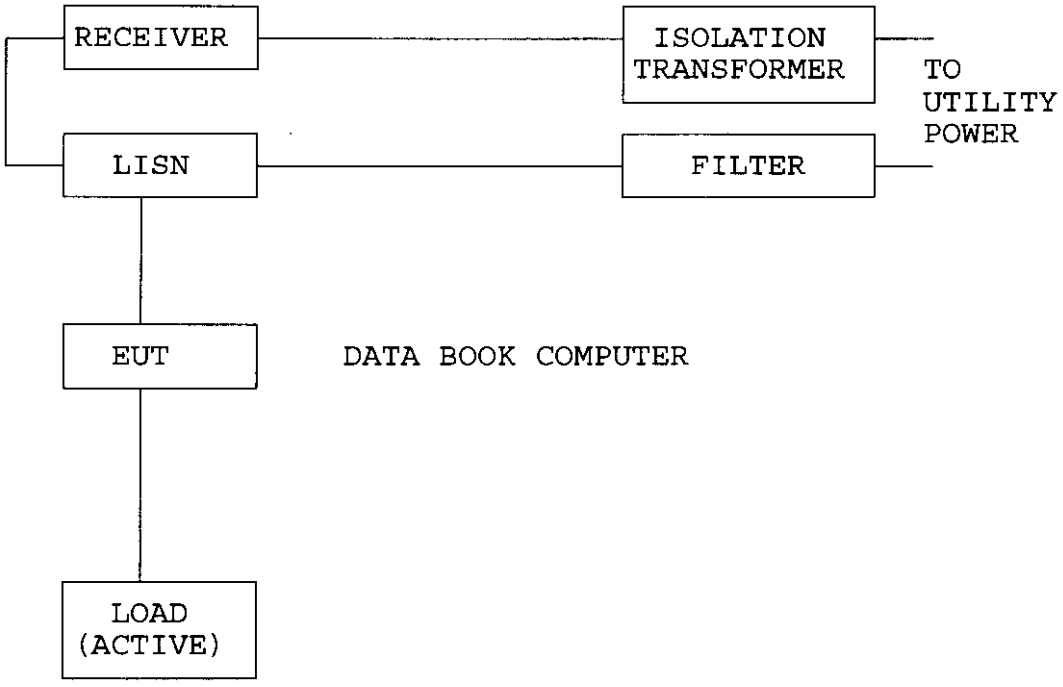
   VGA RESULOTION : 1024*768

5.4 TEST PROCEDURE

THE EUT WAS TESTED ACCORDING TO ANSI C63.4 - 1992. THE CONDUCTED TEST WAS PERFORMED ACCORDING TO ANSI C63.4 7.2 TEST PROCEDURES. THE FREQUENCY SPECTRUM FROM 0.45 MHz TO 30 MHz WAS INVESTIGATED. THE LISN USED WAS 50 ohm / 50 uHenry AS SPECIFIED BY SECTION 5.1 OF ANSI C63.4 - 1992.CABLES AND PERIPHERALS WERE MOVED TO FIND THE MAXIMUM EMISSION LEVELS FOR EACH FREQUENCY.

5.5 TEST SETUP





5.6 CONDUCTED POWER LINE EMISSION LIMIT

FREQUENCY RANGE (MHz)	CLASS A	CLASS B
0.045 - 1.705	1000 uV	250 uV
1.705 - 30	3000 uV	250 uV

NOTE : IN THE ABOVE TABLE, THE TIGHTER LIMIT APPLIES AT THE BAND EDGES.

5.7 CONDUCTED POWER LINE TEST RESULT

THE FREQUENCY SPECTRUM FROM 0.45 MHz TO 30 MHz WAS INVESTIGATED. ALL READINGS ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 9 KHZ.

TEMPERATURE : 28 C

HUMIDITY : 78 %RH

FREQUENCY(MHz)	LINE 1 (uv)	LINE 2 (uv)	LIMIT (uv)
0.69	37.58	36.73	250
0.77	37.58	39.36	250
3.58	7.240	*	250
10.0	18.20	21.88	250
26.0	38.02	38.90	250

REMARKS : (1).* = MEMENT DOES NOT APPLY FOR THIS FREQUENCY

(2).UNCERTAINTY IN CONDUCTED EMISSION MEASURED IS <+/-2dB

(3).CPU: IBM MX-300 :225MHz CLOCK CHIP : 75MHz
WITH HIPRO POWER
WITH RISER CARD W/O NIC
HDD:SEAGATE 4.3GB
FDD:MITSUBLSHI
CD ROM:LITEON
SDRAM:LGS
MODEM CARD:MIAMOND

(4).TEST CONFIGURATION PLEASE SEE 4.2

(5).TEST EQUIPMENT PLEASE SEE 4.1

(6).ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : _____

5.7 CONDUCTED POWER LINE TEST RESULT

THE FREQUENCY SPECTRUM FROM 0.45 MHz TO 30 MHz WAS INVESTIGATED. ALL READINGS ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 9 KHZ.

TEMPERATURE : 28 C

HUMIDITY : 78 %RH

FREQUENCY(MHz)	LINE 1 (uv)	LINE 2 (uv)	LIMIT (uv)
0.82	46.24	130.3	250
1.17	*	125.9	250
4.45	52.48	*	250
10.7	109.6	95.50	250
23.1	91.20	118.9	250

REMARKS : (1).* = MEMENT DOES NOT APPLY FOR THIS FREQUENCY

(2).UNCERTAINTY IN CONDUCTED EMISSION MEASURED IS <+/-2dB

(3).CPU: IBM MX-300 :225MHz CLOCK CHIP : 75MHz
WITH DOLTA POWER
WITH RISER CARD W/O NIC
HDD:SEAGATE 2.1GB
FDD:NEC
CD ROM:TRAY LOAD
SDRAM HYU
MODEM CARD:SHETLAND

(4).TEST CONFIGURATION PLEASE SEE 4.2

(5).TEST EQUIPMENT PLEASE SEE 4.1

(6).ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : _____

5.7 CONDUCTED POWER LINE TEST RESULT

THE FREQUENCY SPECTRUM FROM 0.45 MHz TO 30 MHz WAS INVESTIGATED. ALL READINGS ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 9 KHZ.

TEMPERATURE : 28 C

HUMIDITY : 78 %RH

FREQUENCY(MHz)	LINE 1 (uv)	LINE 2 (uv)	LIMIT (uv)
0.70	27.54	40.74	250
0.77	39.81	38.90	250
1.49	41.21	26.92	250
4.03	8.040	6.610	250
9.93	16.79	16.98	250
26.6	26.00	24.55	250

REMARKS : (1).* = MEMENT DOES NOT APPLY FOR THIS FREQUENCY

(2).UNCERTAINTY IN CONDUCTED EMISSION MEASURED IS <+/-2dB

(3).CPU: IBM MX-300 :233MHz CLOCK CHIP : 66MHz
WITH HIPRO POWER
WITH RISER CARD W/O NIC
HDD:SEAGATE 8GB
FDD:NEC
CD ROM:PANASONIC
SDRAM:MITSUBISHI
MODEM CARD:DIAMOND

(4).TEST CONFIGURATION PLEASE SEE 4.2

(5).TEST EQUIPMENT PLEASE SEE 4.1

(6).ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : _____

5.7 CONDUCTED POWER LINE TEST RESULT

THE FREQUENCY SPECTRUM FROM 0.45 MHz TO 30 MHz WAS INVESTIGATED. ALL READINGS ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 9 KHZ.

TEMPERATURE : 28 C

HUMIDITY : 78 %RH

FREQUENCY(MHz)	LINE 1 (uv)	LINE 2 (uv)	LIMIT (uv)
0.49	28.84	139.6	250
0.82	40.74	128.8	250
1.15	53.09	118.9	250
3.13	50.12	89.13	250
4.36	39.81	*	250

REMARKS : (1).* = MEMENT DOES NOT APPLY FOR THIS FREQUENCY

(2).UNCERTAINTY IN CONDUCTED EMISSION MEASURED IS <+/-2dB

(3).CPU: IBM MX-300 :233MHz CLOCK CHIP : 66MHz
WITH DELTA POWER
WITH RISER CARD W/O NIC
HDD:FUJITSU 2.1GB
FDD:MITSUBISHI
CD ROM:TRAY LOAD
SDRAM:NEC
MODEM CARD:SHETLAND

(4).TEST CONFIGURATION PLEASE SEE 4.2

(5).TEST EQUIPMENT PLEASE SEE 4.1

(6).ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : _____

5.7 CONDUCTED POWER LINE TEST RESULT

THE FREQUENCY SPECTRUM FROM 0.45 MHz TO 30 MHz WAS INVESTIGATED. ALL READINGS ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 9 KHZ.

TEMPERATURE : 28 C

HUMIDITY : 78 %RH

FREQUENCY(MHz)	LINE 1 (uv)	LINE 2 (uv)	LIMIT (uv)
0.52	16.60	5.880	250
1.22	19.72	*	250
2.99	3.98	5.820	250
4.14	3.590	*	250
10.4	*	41.21	250

REMARKS : (1).* = MEMENT DOES NOT APPLY FOR THIS FREQUENCY

(2).UNCERTAINTY IN CONDUCTED EMISSION MEASURED IS <+/-2dB

(3).CPU: AMD K6/2 :300MHz CLOCK CHIP : 66MHz
WITH HIPRO POWER
WITH RISER CARD WITH NIC
HDD:JTS 4.3GB
FDD:NEC
CD ROM:LITEON
SDRAM:HYU
MODEM CARD:ZEPHYR

(4).TEST CONFIGURATION PLEASE SEE 4.2

(5).TEST EQUIPMENT PLEASE SEE 4.1

(6).ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : _____

5.7 CONDUCTED POWER LINE TEST RESULT

THE FREQUENCY SPECTRUM FROM 0.45 MHz TO 30 MHz WAS INVESTIGATED. ALL READINGS ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 9 KHZ.

TEMPERATURE : 28 C

HUMIDITY : 78 %RH

FREQUENCY(MHz)	LINE 1 (uv)	LINE 2 (uv)	LIMIT (uv)
0.82	43.65	121.6	250
1.15	51.29	117.5	250
2.47	*	90.16	250
4.83	25.70	*	250
11.6	52.48	51.88	250
23.1	100.0	114.8	250

REMARKS : (1).* = MEMENT DOES NOT APPLY FOR THIS FREQUENCY

(2).UNCERTAINTY IN CONDUCTED EMISSION MEASURED IS <+/-2dB

(3).CPU: AMD K6/2 :300MHz CLOCK CHIP : 66MHz
WITH DELTA POWER
WITH RISER CARD WITH NIC
HDD:SEAGATE 2.1GB
FDD:MITSUBISHI
CD ROM:PANASONIC
SDRAM:LGS
MODEM CARD:DIAMOND

(4).TEST CONFIGURATION PLEASE SEE 4.2

(5).TEST EQUIPMENT PLEASE SEE 4.1

(6).ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : Jaylen

5.7 CONDUCTED POWER LINE TEST RESULT

THE FREQUENCY SPECTRUM FROM 0.45 MHz TO 30 MHz WAS INVESTIGATED. ALL READINGS ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 9 KHZ.

TEMPERATURE : 28 C

HUMIDITY : 78 %RH

FREQUENCY(MHz)	LINE 1 (uv)	LINE 2 (uv)	LIMIT (uv)
0.53	16.98	6.610	250
1.50	*	28.18	250
3.16	9.770	*	250
6.18	18.84	*	250
9.54	*	20.42	250

REMARKS : (1).* = MEMENT DOES NOT APPLY FOR THIS FREQUENCY

(2).UNCERTAINTY IN CONDUCTED EMISSION MEASURED IS <+/-2dB

(3).CPU: AMD K6/2 :333MHz CLOCK CHIP : 66MHz
WITH HIPRO POWER
WITH RISER CARD WITH NIC
HDD:SEAGATE 4.3GB
FDD:NEC
CD ROM:TRAY LOAD
SDRAM:MITSUBISHI
MODEM CARD:SHETLAND

(4).TEST CONFIGURATION PLEASE SEE 4.2

(5).TEST EQUIPMENT PLEASE SEE 4.1

(6).ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : Tonglen

5.7 CONDUCTED POWER LINE TEST RESULT

THE FREQUENCY SPECTRUM FROM 0.45 MHz TO 30 MHz WAS INVESTIGATED. ALL READINGS ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 9 KHZ.

TEMPERATURE : 28 C

HUMIDITY : 78 %RH

FREQUENCY(MHz)	LINE 1 (uv)	LINE 2 (uv)	LIMIT (uv)
0.47	19.50	136.5	250
0.82	44.16	123.0	250
1.15	50.70	121.6	250
3.86	*	74.99	250
8.22	11.09	*	250

REMARKS : (1).* = MEMENT DOES NOT APPLY FOR THIS FREQUENCY

(2).UNCERTAINTY IN CONDUCTED EMISSION MEASURED IS <+/-2dB

(3).CPU: AMD K6/2 :333MHz CLOCK CHIP : 66MHz
WITH DELTA POWER
WITH RISER CARD WITH NIC
HDD:SEAGATE 8GB
FDD:MITSUBISHI
CD ROM:LITEON
SDRAM:NEC
MODEM CARD:ZEPHYR

(4).TEST CONFIGURATION PLEASE SEE 4.2

(5).TEST EQUIPMENT PLEASE SEE 4.1

(6).ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : _____

6. RADIATED EMISSION TEST

6.1 TEST EQUIPMENT

THE FOLLOWING TEST EQUIPMENT WAS USED DURING THE RADIATED EMISSION TEST :

EQUIPMENT / FACILITIES	SPECIFICAT -IONS	MANUFACTUR -ER	MODEL#/ SERIAL#	DATE OF CAL. & CAL. CENTER	DUE DATE
RECEIVER	20 MHz TO 1000 MHz	R & S	ESVS 30/ 841977/003	APRIL, 1998 ITRI	1Y
SPECTRUM ANALYZER	100 Hz TO 1500 MHz	HP	8568B/ 3019A05294	OCT , 1997 ETC	1Y
SPECTRUM ANALYZER	9 KHz TO 22 GHz	HP	8593E/ 3322A00670	APRIL,1998 ITRI	1Y
SPECTRUM ANALYZER	100 Hz TO 1000 MHz	IFR	A-7550/ 2684/1248	JULY, 1998 ETC	1Y
SIGNAL GENERATOR	9 KHz TO 1080 MHz	ROHDE & SCHWARZ	SMY01/ 841104/019	APRIL,1998 ITRI	1Y
DIPOLE ANTENNA	28 MHz TO 1000 MHz	EMCO	3121C/ 9003-535	DEC, 1997 SRT	1Y
DIPOLE ANTENNA	28 MHz TO 1000 MHz	EMCO	3121C/ 9611-1239	DEC, 1997 SRT	1Y
BI-LOG ANTENNA	26 MHz TO 2000 MHz	EMCO	3142/ 96081-1073	DEC, 1997 SRT	1Y
BI-LOG ANTENNA	26 MHz TO 1100 MHz	EMCO	3143/ 9509-1152	DEC, 1997 SRT	1Y
PRE-AMPLIFIER	0.1 MHz TO 1300 MHz	HP	8447D/ 2944A08402	APRIL, 1998 ITRI	1Y
PRE-AMPLIFIER	0.1 MHz TO 1300 MHz	HP	8447D/ 2944A06412	OCT, 1997 ETC	1Y
HORN ANTENNA	1 GHz TO 18 GHz	EMCO	3115/ 9012-3619	DEC, 1997 SRT	1Y

6.2 CONFIGURATION OF THE EUT

SAME AS SECTION 5.4 OF THIS REPORT.

6.3 EUT OPERATING CONDITION

SAME AS SECTION 5.3 OF THIS REPORT.

6.4 TEST PROCEDURE

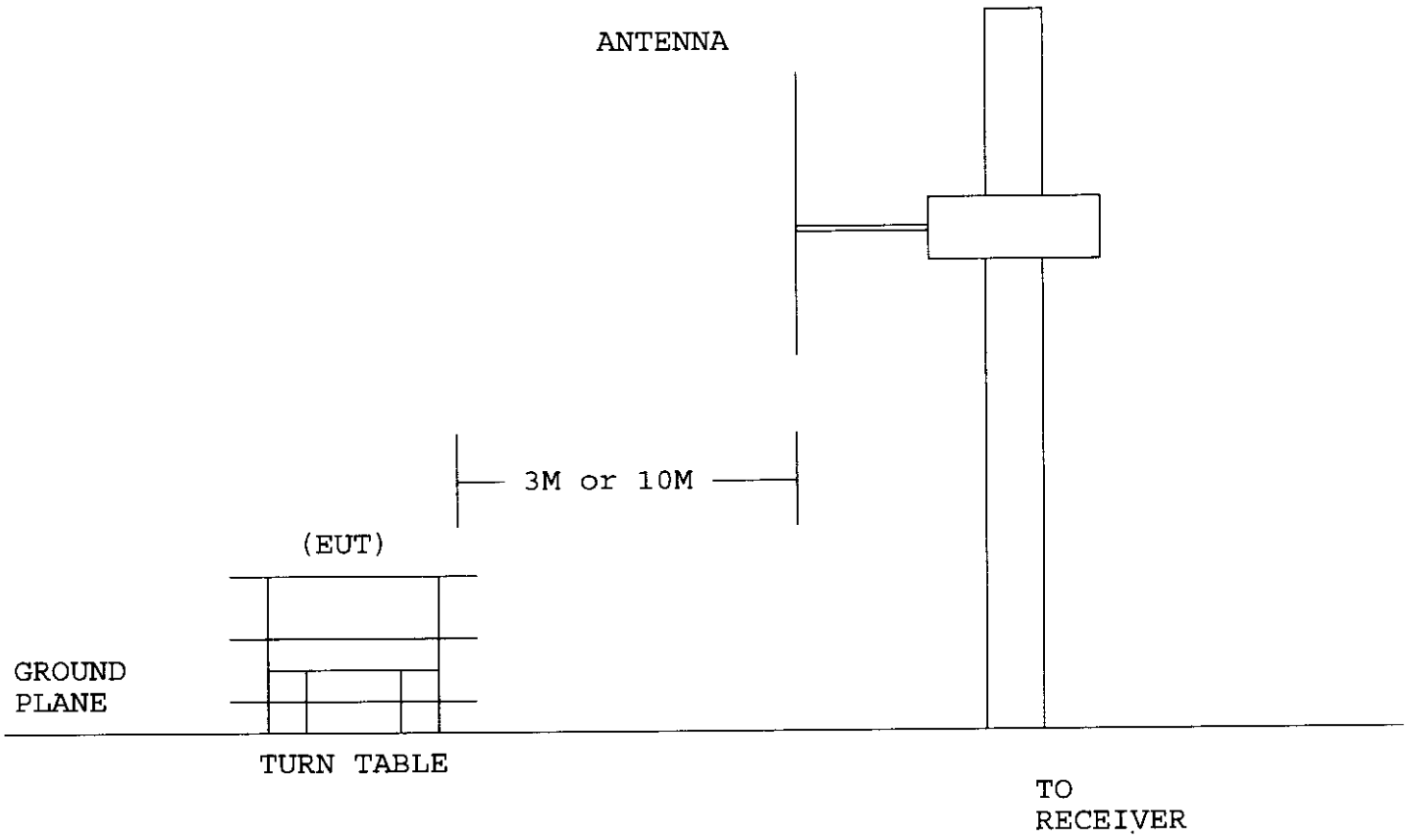
THE EUT WAS TESTED ACCORDING TO ANSI C63.4 - 1992. THE RADIATED TEST WAS PERFORMED AT SRT LAB's OPEN SITE. THIS SITE IS ON FILE WITH THE FCC LABORATORY DIVISION, REFERENCE 31040/SIT.

THE FREQUENCY SPECTRUM FROM 30 MHz TO 2 GHz WAS INVESTIGATED.MEASUREMENTS WERE MADE AT THREE METERS WITH AN ADJUSTABLE DIPOLE ANTENNA. PERIPHERALS, CABLES, EUT ORIENTATION, AND ANTENNA HEIGHT WERE VARIED TO FIND THE MAXIMUM EMISSION FOR EACH FREQUENCY.

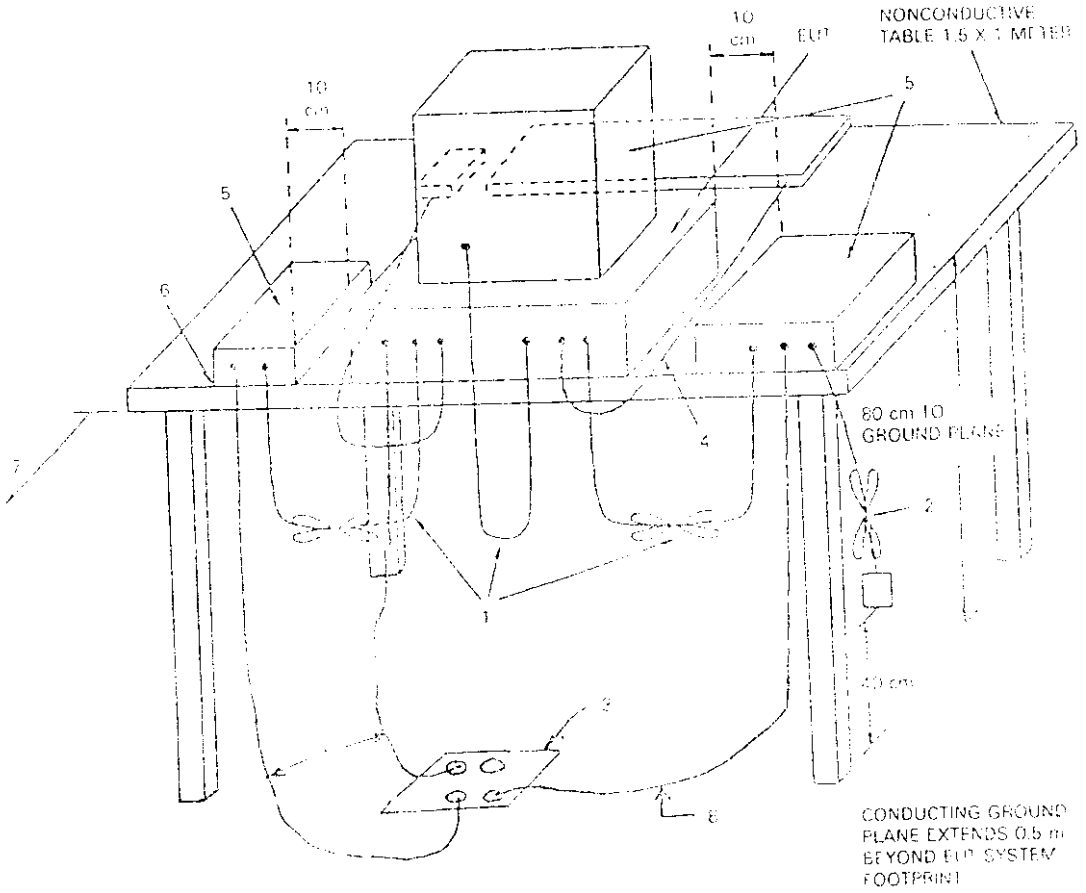
THE FREQUENCY SPECTRUM FROM 30 MHz TO 2 GHz WAS INVESTIGATED. THE MEASUREMENTS UNDER 1 GHz WITH RESOLUTION BANDWIDTH OF 120 KHz ARE QUASI-PEAK READING MADE AT THREE METERS USING AN ADJUSTABLE DIPOLE ANTENNA. PERIPHERALS, CABLES, EUT ORIENTATION, AND ANTENNA HEIGHT WERE VARIED TO FIND THE MAXTMUM EMISSION FOR EACH FREQUENCY.

THE MEASUREMENTS ABOVE 1 GHz WITH A RESOLUTION BANDWIDTH OF 1 MHz ARE PEAK READING AT A DISTANCE OF THREE METERS WITH A HORN ANTENNA.

6.5 RADIATED TEST SETUP



6.5 RADIATED TEST SETUP



LEGEND:

1. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth forming a bundle 30 to 40 cm long, hanging approximately in the middle between ground plane and table.
2. I/O cables that are connected to a peripheral shall be bundled in center. The end of the cable may be terminated if required using correct terminating impedance. The total length shall not exceed 1 m.
3. If LISNs are kept in the test setup for radiated emissions, it is preferred that they be installed under the ground plane with the receptacle flush with the ground plane.
4. Cables of hand-operated devices, such as keyboards, mouses, etc., have to be placed as close as possible to the controller.
5. Non-EUT components of EUT system being tested.
6. The rear of all components of the system under test shall be located flush with the rear of the table.
7. No vertical conducting wall used.
8. Power cords drape to the floor and are routed over to receptacle.

6.6 RADIATED EMISSION LIMIT

ALL EMISSION FROM A DIGITAL DEVICE, INCLUDING ANY NETWORK OF CONDUCTORS AND APPARATUS CONNECTED THERETO, SHALL NOT EXCEED THE LEVEL OF FIELD STRENGTH SPECIFIED BELOW :

CLASS B

FREQUENCY (MHz)	DISTANCE (m)	FIELD STRENGTH (uV/m)
30 - 88	3	100
88 - 216	3	150
216 - 960	3	200
ABOVE 960	3	500

CLASS B (OPEN CASE)

FREQUENCY (MHz)	DISTANCE (m)	FIELD STRENGTH (uV/m)
30 - 88	3	199.5
88 - 216	3	298.5
216 - 960	3	398.1

CLASS A

FREQUENCY (MHz)	DISTANCE (m)	FIELD STRENGTH (uV/m)
30 - 88	3	316.3
88 - 216	3	473.2
216 - 960	3	613.0
ABOVE 960	3	1000.0

NOTE : 1. IN THE EMISSION TABLES ABOVE, THE TIGHTER LIMIT APPLIES AT THE BAND EDGES.

2. DISTANCE REFERS TO THE DISTANCE BETWEEN MEASURING INSTRUMENT, ANTENNA, AND THE CLOSEST POINT OF ANY PART OF THE DEVICE OR SYSTEM.

6.7 RADIATED EMISSION TEST RESULT

THE FREQUENCY SPECTRUM FROM 30 MHz TO 2 GHz WAS INVESTIGATED. ALL READINGS UNDER 1 GHz ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 120 KHZ. MEASUREMENTS WERE MADE AT 3 METERS.

THE MEASUREMENTS ABOVE 1 GHz WITH A RESOLUTION BANDWIDTH OF 1 MHz ARE PEAK READING AT A DISTANCE OF 3 METERS.

TEMPERATURE : 28 C HUMIDITY : 78 %RH

FREQ. (MHz)	CABLE LOSS (dB)	ANT. FACTOR (dB)	READING(dBuV)		EMISSION(uV)		LMTS (uV)
			HORIZ	VERT	HORIZ	VERT	
185.2	1.70	9.10	24.93	21.29	61.64	40.23	150
335.6	1.20	14.7	15.81	15.51	38.50	37.20	200
523.0	3.00	17.9	14.39	15.41	58.14	65.39	200
824.4	3.60	21.2	12.72	12.22	75.16	70.96	200
971.9	4.1	22.5	*	17.05	*	152.2	500

REMARKS :
(1). MEASUREMENT DOES NOT APPLY FOR THIS FREQUENCY.
(2). THE MAXIMUM CONDITION WAS WITH THE MONITOR POWER CORD CONNECTED TO THE PERSONAL COMPUTER.
(3). CPU : IBM MX-300 : 225MHz CLOCK CHIP : 75MHz
WITH HIPRO POWER
WITH RISER CARD W/O NIC
HDD:SEAGATE 4.3GB
FDD:MITSUBISHI
CD ROM:LITEON
SDRAM:LGS
MODEM CARD:MIAMOND
(4). SAMPLE CALCULATION
20 LOG(EMISSION)uV/m = CABLE LOSS(dB)+FACTOR(dB)+READING (dBuV/m)
(5). TEST EQUIPMENT PLEASE SEE 5.1
(6). UNCERTAINTY IN RADIATED EMISSION MEASURED IS <+/-4dB
(7). ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : _____

6.7 RADIATED EMISSION TEST RESULT

THE FREQUENCY SPECTRUM FROM 30 MHz TO 2 GHz WAS INVESTIGATED. ALL READINGS UNDER 1 GHz ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 120 KHZ. MEASUREMENTS WERE MADE AT 3 METERS.

THE MEASUREMENTS ABOVE 1 GHz WITH A RESOLUTION BANDWIDTH OF 1 MHz ARE PEAK READING AT A DISTANCE OF 3 METERS.

TEMPERATURE : 28 C HUMIDITY : 78 %RH

FREQ. (MHz)	CABLE LOSS (dB)	ANT. FACTOR (dB)	READING(dBuV)		EMISSION(uV)		LMTS (uV)
			HORIZ	VERT	HORIZ	VERT	
43.58	0.80	9.80	*	24.40	*	56.23	100
186.2	1.70	9.90	24.59	21.39	64.49	44.62	150
337.5	1.20	14.7	14.32	14.42	32.43	32.81	200
522.8	3.00	17.9	16.89	15.86	77.54	68.87	200
972.8	4.1	22.5	13.16	15.65	97.27	129.6	500

REMARKS :
(1). MEASUREMENT DOES NOT APPLY FOR THIS FREQUENCY.
(2). THE MAXIMUM CONDITION WAS WITH THE MONITOR POWER CORD CONNECTED TO THE PERSONAL COMPUTER.
(3). CPU : IBM MX-300 : 225MHz CLOCK CHIP : 75MHz
WITH DOLTA POWER
WITH RISER CARD W/O NIC
HDD:SEAGATE 2.1GB
FDD:NEC
CD ROM:TRAY LOAD
SDRAM HYU
MODEM CARD:SHETLAND
(4). SAMPLE CALCULATION
20 LOG(EMISSION)uV/m = CABLE LOSS(dB)+FACTOR(dB)+READING (dBuV/m)
(5). TEST EQUIPMENT PLEASE SEE 5.1
(6). UNCERTAINTY IN RADIATED EMISSION MEASURED IS <+/-4dB
(7). ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : Taylor

6.7 RADIATED EMISSION TEST RESULT

THE FREQUENCY SPECTRUM FROM 30 MHz TO 2 GHz WAS INVESTIGATED. ALL READINGS UNDER 1 GHz ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 120 KHZ. MEASUREMENTS WERE MADE AT 3 METERS.

THE MEASUREMENTS ABOVE 1 GHz WITH A RESOLUTION BANDWIDTH OF 1 MHz ARE PEAK READING AT A DISTANCE OF 3 METERS.

TEMPERATURE : 28 C HUMIDITY : 78 %RH

FREQ. (MHz)	CABLE LOSS (dB)	ANT. FACTOR (dB)	READING(dBuV)		EMISSION(uV)		LMTS (uV)
			HORIZ	VERT	HORIZ	VERT	
66.86	1.00	7.50	23.51	*	39.86	*	100
198.8	1.70	9.90	22.49	23.77	50.64	58.68	150
299.7	2.20	14.5	14.86	19.74	37.84	66.37	200
575.1	3.00	18.8	12.36	*	51.05	*	200
686.7	3.30	20.1	*	13.53	*	70.23	200

REMARKS :
(1). MEASUREMENT DOES NOT APPLY FOR THIS FREQUENCY.
(2). THE MAXIMUM CONDITION WAS WITH THE MONITOR POWER CORD CONNECTED TO THE PERSONAL COMPUTER.
(3). CPU : IBM MX-300 : 233MHz CLOCK CHIP : 66MHz
WITH HIPRO POWER
WITH RISER CARD W/O NIC
HDD:SEAGATE 8GB
FDD:NEC
CD ROM:PANASONIC
SDRAM:MITSUBISHI
MODEM CARD:DIAMOND
(4). SAMPLE CALCULATION
20 LOG(EMISSION)uV/m = CABLE LOSS(dB)+FACTOR(dB)+READING (dBuV/m)
(5). TEST EQUIPMENT PLEASE SEE 5.1
(6). UNCERTAINTY IN RADIATED EMISSION MEASURED IS <+/-4dB
(7). ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : _____

6.7 RADIATED EMISSION TEST RESULT

THE FREQUENCY SPECTRUM FROM 30 MHz TO 2 GHz WAS INVESTIGATED. ALL READINGS UNDER 1 GHz ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 120 KHZ. MEASUREMENTS WERE MADE AT 3 METERS.

THE MEASUREMENTS ABOVE 1 GHz WITH A RESOLUTION BANDWIDTH OF 1 MHz ARE PEAK READING AT A DISTANCE OF 3 METERS.

TEMPERATURE : 28 C HUMIDITY : 78 %RH

FREQ. (MHz)	CABLE LOSS (dB)	ANT. FACTOR (dB)	READING(dBuV)		EMISSION(uV)		LMTS (uV)
			HORIZ	VERT	HORIZ	VERT	
165.8	1.60	9.30	21.25	*	40.50	*	150
233.7	1.80	10.7	21.18	16.84	48.31	29.31	200
367.6	2.20	14.9	*	11.97	*	28.41	200
466.5	2.60	17.0	13.48	*	45.08	*	200
715.8	3.40	20.5	11.97	15.23	62.16	90.47	200

REMARKS :
(1). MEASUREMENT DOES NOT APPLY FOR THIS FREQUENCY.
(2). THE MAXIMUM CONDITION WAS WITH THE MONITOR POWER CORD CONNECTED TO THE PERSONAL COMPUTER.
(3). CPU : IBM MX-300 : 233MHz CLOCK CHIP : 66MHz
WITH DELTA POWER
WITH RISER CARD W/O NIC
HDD:FUJITSU 2.1GB
FDD:MITSUBISHI
CD ROM:TRAY LOAD
SDRAM:NEC
MODEM CARD:SHETLAND
(4). SAMPLE CALCULATION
20 LOG(EMISSION)uV/m = CABLE LOSS(dB)+FACTOR(dB)+READING (dBuV/m)
(5). TEST EQUIPMENT PLEASE SEE 5.1
(6). UNCERTAINTY IN RADIATED EMISSION MEASURED IS <+/-4dB
(7). ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : _____

6.7 RADIATED EMISSION TEST RESULT

THE FREQUENCY SPECTRUM FROM 30 MHz TO 2 GHz WAS INVESTIGATED. ALL READINGS UNDER 1 GHz ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 120 KHZ. MEASUREMENTS WERE MADE AT 3 METERS.

THE MEASUREMENTS ABOVE 1 GHz WITH A RESOLUTION BANDWIDTH OF 1 MHz ARE PEAK READING AT A DISTANCE OF 3 METERS.

TEMPERATURE : 28 C HUMIDITY : 78 %RH

FREQ. (MHz)	CABLE LOSS (dB)	ANT. FACTOR (dB)	READING(dBuV)		EMISSION(uV)		LMTS (uV)
			HORIZ	VERT	HORIZ	VERT	
98.87	1.20	7.40	17.34	*	19.82	*	150
198.8	1.70	9.90	20.39	18.27	39.76	31.15	150
238.6	1.80	10.7	23.02	22.64	59.70	57.15	200
601.3	3.00	19.0	15.71	18.62	76.82	107.4	200
857.4	3.50	21.5	11.43	*	66.30	*	200

REMARKS :
(1). MEASUREMENT DOES NOT APPLY FOR THIS FREQUENCY.
(2). THE MAXIMUM CONDITION WAS WITH THE MONITOR POWER CORD CONNECTED TO THE PERSONAL COMPUTER.
(3). CPU : AMD K6/2 : 300MHz CLOCK CHIP : 66MHz
WITH HIPRO POWER
WITH RISER CARD WITH NIC
HDD:JTS 4.3GB
FDD:NEC
CD ROM:LITEON
SDRAM:HYU
MODEM CARD:ZEPHYR
(4). SAMPLE CALCULATION
20 LOG(EMISSION)uV/m = CABLE LOSS(dB)+FACTOR(dB)+READING (dBuV/m)
(5). TEST EQUIPMENT PLEASE SEE 5.1
(6). UNCERTAINTY IN RADIATED EMISSION MEASURED IS <+/-4dB
(7). ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : _____

6.7 RADIATED EMISSION TEST RESULT

THE FREQUENCY SPECTRUM FROM 30 MHz TO 2 GHz WAS INVESTIGATED. ALL READINGS UNDER 1 GHz ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 120 KHZ. MEASUREMENTS WERE MADE AT 3 METERS.

THE MEASUREMENTS ABOVE 1 GHz WITH A RESOLUTION BANDWIDTH OF 1 MHz ARE PEAK READING AT A DISTANCE OF 3 METERS.

TEMPERATURE : 28 C HUMIDITY : 78 %RH

FREQ. (MHz)	CABLE LOSS (dB)	ANT. FACTOR (dB)	READING(dBuV)		EMISSION(uV)		LMTS (uV)
			HORIZ	VERT	HORIZ	VERT	
127.0	1.40	8.10	25.66	24.15	57.28	48.14	150
333.6	1.20	14.7	14.59	15.29	33.46	36.27	200
601.3	3.00	19.0	18.71	18.29	108.5	103.4	200
699.3	3.40	20.2	15.19	14.69	87.00	82.13	200
904.0	3.90	22.6	12.08	14.00	84.92	105.9	200

REMARKS :
(1). MEASUREMENT DOES NOT APPLY FOR THIS FREQUENCY.
(2). THE MAXIMUM CONDITION WAS WITH THE MONITOR POWER CORD CONNECTED TO THE PERSONAL COMPUTER.
(3). CPU : AMD K6/2 : 300MHz CLOCK CHIP : 66MHz
WITH DELTA POWER
WITH RISER CARD WITH NIC
HDD:SEAGATE 2.1GB
FDD:MITSUBISHI
CD ROM:PANASONIC
SDRAM:LGS
MODEM CARD:DIAMOND
(4). SAMPLE CALCULATION
20 LOG(EMISSION)uV/m = CABLE LOSS(dB)+FACTOR(dB)+READING (dBuV/m)
(5). TEST EQUIPMENT PLEASE SEE 5.1
(6). UNCERTAINTY IN RADIATED EMISSION MEASURED IS <+/-4dB
(7). ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : _____

6.7 RADIATED EMISSION TEST RESULT

THE FREQUENCY SPECTRUM FROM 30 MHz TO 2 GHz WAS INVESTIGATED. ALL READINGS UNDER 1 GHz ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 120 KHZ. MEASUREMENTS WERE MADE AT 3 METERS.

THE MEASUREMENTS ABOVE 1 GHz WITH A RESOLUTION BANDWIDTH OF 1 MHz ARE PEAK READING AT A DISTANCE OF 3 METERS.

TEMPERATURE : 28 C HUMIDITY : 78 %RH

FREQ. (MHz)	CABLE LOSS (dB)	ANT. FACTOR (dB)	READING(dBuV)		EMISSION(uV)		LMTS (uV)
			HORIZ	VERT	HORIZ	VERT	
198.8	1.70	9.90	20.99	20.27	42.61	39.22	150
239.5	2.00	12.0	19.58	15.54	47.75	29.99	200
428.7	2.30	16.1	*	11.99	*	33.08	200
668.3	3.30	20.1	16.22	19.98	95.72	145.9	200
911.7	3.90	22.6	10.81	*	73.37	*	200

REMARKS :
(1). MEASUREMENT DOES NOT APPLY FOR THIS FREQUENCY.
(2). THE MAXIMUM CONDITION WAS WITH THE MONITOR POWER CORD CONNECTED TO THE PERSONAL COMPUTER.
(3). CPU : AMD K6/2 : 333MHz CLOCK CHIP : 66MHz
WITH HIPRO POWER
WITH RISER CARD WITH NIC
HDD:SEAGATE 4.3GB
FDD:NEC
CD ROM:TRAY LOAD
SDRAM:MITSUBISHI
MODEM CARD:SHETLAND
(4). SAMPLE CALCULATION
20 LOG(EMISSION)uV/m = CABLE LOSS(dB)+FACTOR(dB)+READING (dBuV/m)
(5). TEST EQUIPMENT PLEASE SEE 5.1
(6). UNCERTAINTY IN RADIATED EMISSION MEASURED IS <+/-4dB
(7). ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : Taylor

6.7 RADIATED EMISSION TEST RESULT

THE FREQUENCY SPECTRUM FROM 30 MHz TO 2 GHz WAS INVESTIGATED. ALL READINGS UNDER 1 GHz ARE QUASI-PEAK VALUES WITH A RESOLUTION BANDWIDTH OF 120 KHZ. MEASUREMENTS WERE MADE AT 3 METERS.

THE MEASUREMENTS ABOVE 1 GHz WITH A RESOLUTION BANDWIDTH OF 1 MHz ARE PEAK READING AT A DISTANCE OF 3 METERS.

TEMPERATURE : 28 C HUMIDITY : 78 %RH

FREQ. (MHz)	CABLE LOSS (dB)	ANT. FACTOR (dB)	READING(dBuV)		EMISSION(uV)		LMTS (uV)
			HORIZ	VERT	HORIZ	VERT	
42.61	0.80	9.80	20.44	26.34	35.65	70.31	100
199.8	1.70	9.90	21.07	16.97	43.00	26.82	150
238.6	2.00	10.7	22.02	17.34	54.45	31.77	200
431.6	2.30	16.1	10.76	*	28.71	*	200
668.3	3.30	20.1	17.12	18.39	106.2	122.9	200

REMARKS :
(1). MEASUREMENT DOES NOT APPLY FOR THIS FREQUENCY.
(2). THE MAXIMUM CONDITION WAS WITH THE MONITOR POWER CORD CONNECTED TO THE PERSONAL COMPUTER.
(3). CPU : AMD K6/2 : 333MHz CLOCK CHIP : 66MHz
WITH DELTA POWER
WITH RISER CARD WITH NIC
HDD:SEAGATE 8GB
FDD:MITSUBISHI
CD ROM:LITEON
SDRAM:NEC
MODEM CARD:ZEPHYR
(4). SAMPLE CALCULATION
20 LOG(EMISSION)uV/m = CABLE LOSS(dB)+FACTOR(dB)+READING (dBuV/m)
(5). TEST EQUIPMENT PLEASE SEE 5.1
(6). UNCERTAINTY IN RADIATED EMISSION MEASURED IS <+/-4dB
(7). ANY DEPARTURE FROM SPECIFICATION : N/A

SIGNED BY TESTING ENGINEER : Taylor