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CLASS B CERTIFICATION APPLICATION
UNDER PART 15, SUBPART B

EUT:B/B SYSTEM

MODEL: BB-PS21

FCC ID: NG7BB-PS21

SRT REPORT #T9A16-1

PREPARED FOR:
ENPC TECHNOLOGY CORP.
6 FL., NO. 19, WU CHUAN 6TH RD.,
WU-KU INDUSTRIAL PARK,
TAIPEI, TAIWAN , R.O.C.

1. TEST REPORT CERTIFICATION

APPLICANT : ENPC TECHNOLOGY CORP.

ADDRESS : 4FL, NO 15-16 TING-HU,
TAKANG, KWEI-SHAN,
TAOYUAN, TAIWAN, R. O. C.

EUT DESCRIPTION : B/B SYSTEM

(A) POWER SUPPLY : 115/240V

(B) MODEL : BB-PS21

(C) FCC ID : NG7BB-PS21

FINAL TEST DATE : 01/22/1999

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 measurement 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 : _____ DATE 1.22.
Tom Chuang

SUPERVISOR : _____ DATE 1/22/99'
Jesse Ho

APPROVED BY : _____ DATE 1/22/99'
Johnson Ho

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 : AMD-K6 - 300MHz **CLOCK CHIP : 66MHz**
CPU : AMD-K6 - 300MHz **CLOCK CHIP : 100MHz**

RESOLUTION : 1600 * 1200

The data was shown in this report reflects the worst – case data for the condition as listed above.
Please disregard any other oricessir (s) speed shown in this user manual.

2 . 2 DEPARTURE FROM DOCUMENT POLICIES, PROCEDURE OR SPECIFICATIONS , THE STATEMNT

A . DID HAVE
Any departure from document policies & procedures or from specifications.
Yes _____, No ____v____ .
If yes , the description as below.

B . The certificate and report shall not be reproduced except in full , without the written approval of SRT LABORATORY.

C . The report must not be used by the client to claim product endorsement by NVLAP or any agency the government.

3. EUT MODIFICATIONS

The following accessories were added to the EUT during testing :

1). CHANGE RN25,RN26,RN27,RN28,R86,R89,R85 TO 33OHM.

2). CHANGE 32,C63,C66,C55,C54,C53,C33,C35,C34,C62,C61,C41,C68,C67,C81,C75,C83,C82,C80,C74, C59,C58,C57,C56,C60 TO CAP 20PF (CAP OF DIMM MUST NEAR REGISTOR)

3). KBMS1 AND PS2 PIN4 SERIES FERRITE BEAD FBM11-321611-151 (150OHM AT 100MHz) PARALLEL 0.1UF.

4). CHANGE BC118,BC120,BC111 TO CAP 0.01UF.

5). SIGNAL LINE OF AUDIO OUT (LINE, IN,OUT,MIC) KBMS1,PS2,COM1,COM2 PARALLEL CAP 220PF.

6). CHANGE L20,L21,L22,L23,L24,L25,L10,L11,L12 TO FERRITE BEAD FBM-11-32-1611-151 (150OHM AT 100MHz)

7). CHANGE C43,C44,C45,C48,C52 TO CAP 100PF.

8). 5V,5B5V,VGA PIN4,BAM1 PIN1,9,F15 PARALLEL CAP 0.1UF.

9). 5V PARALLEL 47UF/10V*2,1000UF/6.3V TO GROUND.

10). CHANGE C90 TO CAP 22UF/25V (TANT)

11). SHELL OF KBMS1,USB MUST CONTACT GROUND.

12). SHELL OF KBMS1,USB,COM PORT, LPT,GAME1,AUDIO PORT MUST TIGHT CONTACT CASE.

4. MODIFICATION LETTER

This section contatins the following documents :

A. Letter of modifications.

5. CONDUCTED POWER LINE TEST

5 . 1 TEST EQUIPMENT

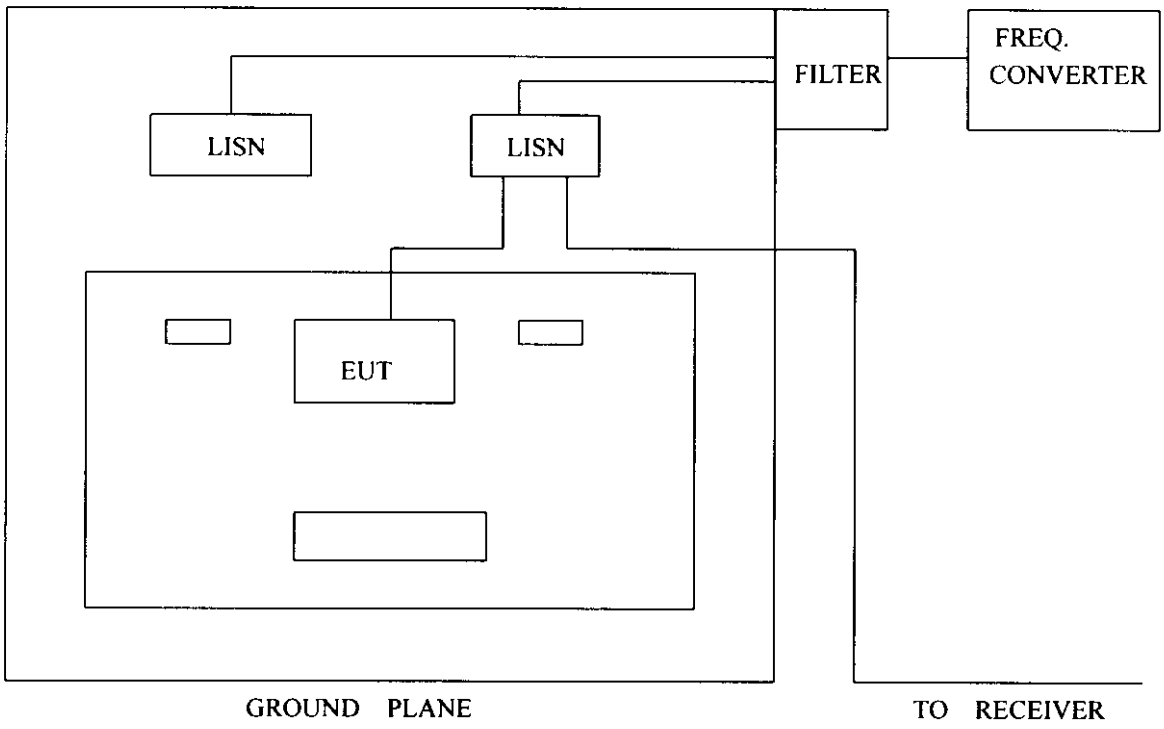
The following test equipment were used during the conducted power line test :

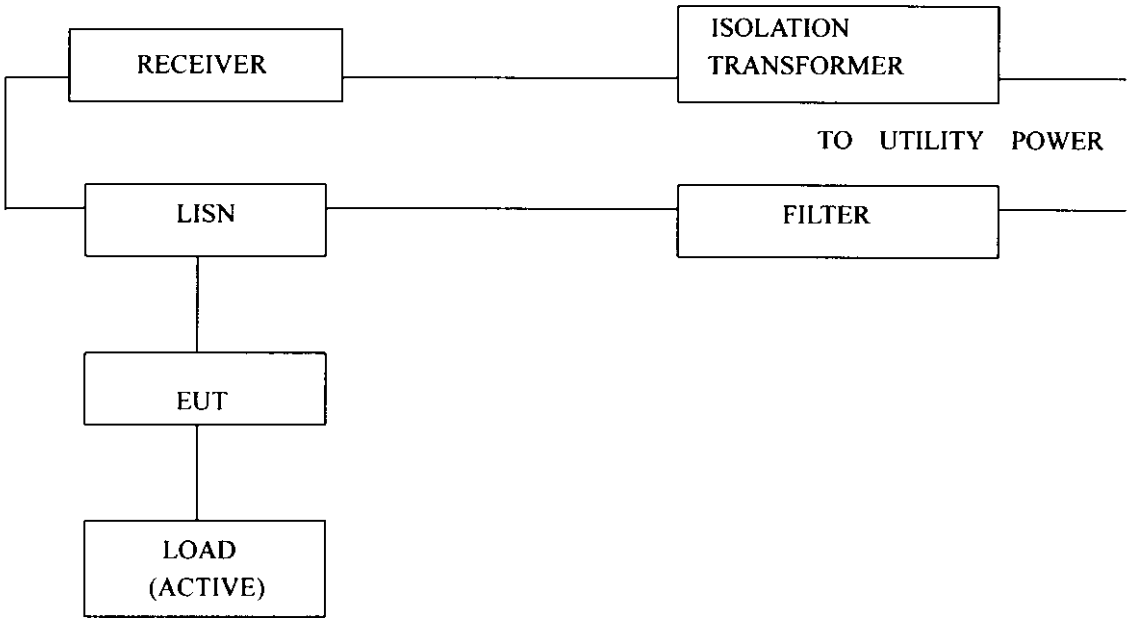
EQUIPMENT/ FACILITIES	SPECIFICATIONS	MANUFACTURER	MODEL#/ SERIAL#	DATE OF CAL. & CAL. CENTER	DUE DATE
SPECTRUM ANALYZER	9 KHz TO 1 GHz	HP	8590L/ 3624A01317	AUGUST , 1998 ETC	1Y
EMI TEST RECEIVER	9 KHz TO 30 MHz	ROHDE & SCHWARZ	ESHS30/ 826003/008	AUGUST , 1998 ETC	1Y
LISN	50 uH, 50 ohm	SOLAR ELECTRONICS	9252-50-R24-BNC/ 951315	AUGUST , 1998 ETC	1Y
LISN	50uH, 50 ohm	SOLAR ELECTRONICS	9252-50-R24-BNC/ 951315	AUGUST , 1998 ETC	1Y
SIGNAL GENERATOR	9 KHz TO 1080 MHz	ROHDE & SCHWARZ	SMY01/ 841104/019	APRIL , 1998 ITRI	1Y
POWER CONVERTER	0 TO 300 VAC VAC 47-500 Hz	AFC	AFC-1KW/ 850510	APRIL , 1998 SRT	1Y

5 . 2 TEST PROCEDURE

The EUT was tested according to ANSI C63.4 - 1992. 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.

5.3 TEST SETUP





5.4 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.

A. EUT

DEVICE	MANUFACTURER	MODEL #	FCCID / DoC
B/B SYSTEM	ENPC TECHNOLOGY CORP.	BB-PS21	NG7BB-PS21

B. INTERNAL DEVICES

DEVICE	MANUFACTURER	MODEL #	FCCID / DoC
MAIN BOARD	ENPC	PS21	DoC
POWER SUPPLY	ENLIGHT CORPORATION	S1-X145 M3	DoC
HDD	MAXTOR	90288D2	N/A
FDD(3.5")	MITSUMI	D359M3	N/A
CD ROM	MATSUSHIT	CR-585-B	IU09TB059CRB

C. PERIPHERALS

DEVICE	MANUFACTURER	MODEL # SERIAL #	FCCID / DoC	CABLE
MONITOR	VIEWSONIC	1786PS	GSS17006	POWER-UNS DATA-S
PRINTER	HP	2225C	BS46XU2225C	POWER-UNS DATA-S
MODEM	TEAM	1200AT	EF56A51200AT	POWER-UNS DATA-S
MODEM	TEAM	103/212A	EF56A5103/212A	POWER-UNS DATA-S
KEYBOARD	HP	SK-2502	GYUR41SK	DATA-UNS
MOUSE	LOGITECH	M-CQ38	DZLM04	DATA-UNS
USB MOUSE	ABIT	97M32U	MS5497M32U	DATA-S
USB MOUSE	ABIT	97M32U	MS5497M32U	DATA-S
SPEAKER	J-S	J-009	N/A	DATA-UNS
WALKMAN	ALWA	HS-T302	N/A	DATA-UNS
MICROSTAR	SP	TH-881A	N/A	DATA-UNS
JOYSTICK	CH	92069	N/A	DATA-UNS

- **REMARK** :

(1). cable - uns : unshielded
s : shielded

(2). cables - All 1m or greater in length – bundled according to ANSI C63.4 – 1992.

5.5 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 * 2
3. CPU : AMD-K6 - 300MHz CLOCK CHIP : 66MHz
   CPU: AMD-K6 - 300MHz CLOCK CHIP : 100MHz
4. RESOLUTION : 1600 * 1200

5.6 CONDUCTED POWER LINE EMISSION LIMIT

FREQUENCY RANGE (MHz)	CLASS A	CLASS B
0.45 - 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 readinges are QUASI – PEAK values with a resolution bandwidth of 9 KHz.

TEMPERATURE : 28 C HUMIDITY : 78 %RH

QUASI – PEAK

FREQUENCY (MHz)	LINE1 (uV)	LINE2 (uV)	LIMIT (uV)
0.48	29.51	71.61	250
0.80	11.35	28.18	250
1.07	7.244	16.78	250
3.41	4.315	4.365	250
6.17	12.58	12.58	250

REMARKS : (1). * = measurement does not apply for this frequency
(2).uncertainty in conducted emmission measured is <+/ -2dB
(3).any departure from specification : N/A
(4).CPU : AMD-K6 - 300MHz CLOCK CHIP : 66MHz
(5). RESOLUTION : 1600 * 1200

SIGNED BY TESTING ENGINEER : _____

5.7 CONDUCTED POWER LINE TEST RESULT

The frequency spectrum from 0.45 MHz to 30 MHz was investigated. All readinges are QUASI - PEAK values with a resolution bandwidth of 9 KHz.

TEMPERATURE : 28 C HUMIDITY : 78 %RH

QUASI - PEAK

FREQUENCY (MHz)	LINE1 (uV)	LINE2 (uV)	LIMIT (uV)
0.48	71.61	29.17	250
0.80	28.18	11.48	250
1.07	16.78	7.328	250
10.1	70.79	*	250
10.8	63.82	66.06	250

REMARKS : (1). * = measurement does not apply for this frequency
(2).uncertainty in conducted emmission measured is <+/ -2dB
(3).any departure from specification : N/A
(4).CPU : AMD-K6 - 300MHz CLOCK CHIP : 100MHz
(5). RESOLUTION : 1600 * 1200

SIGNED BY TESTING ENGINEER : _____

6. RADIATED EMISSION TEST

6.1 TEST EQUIPMENT

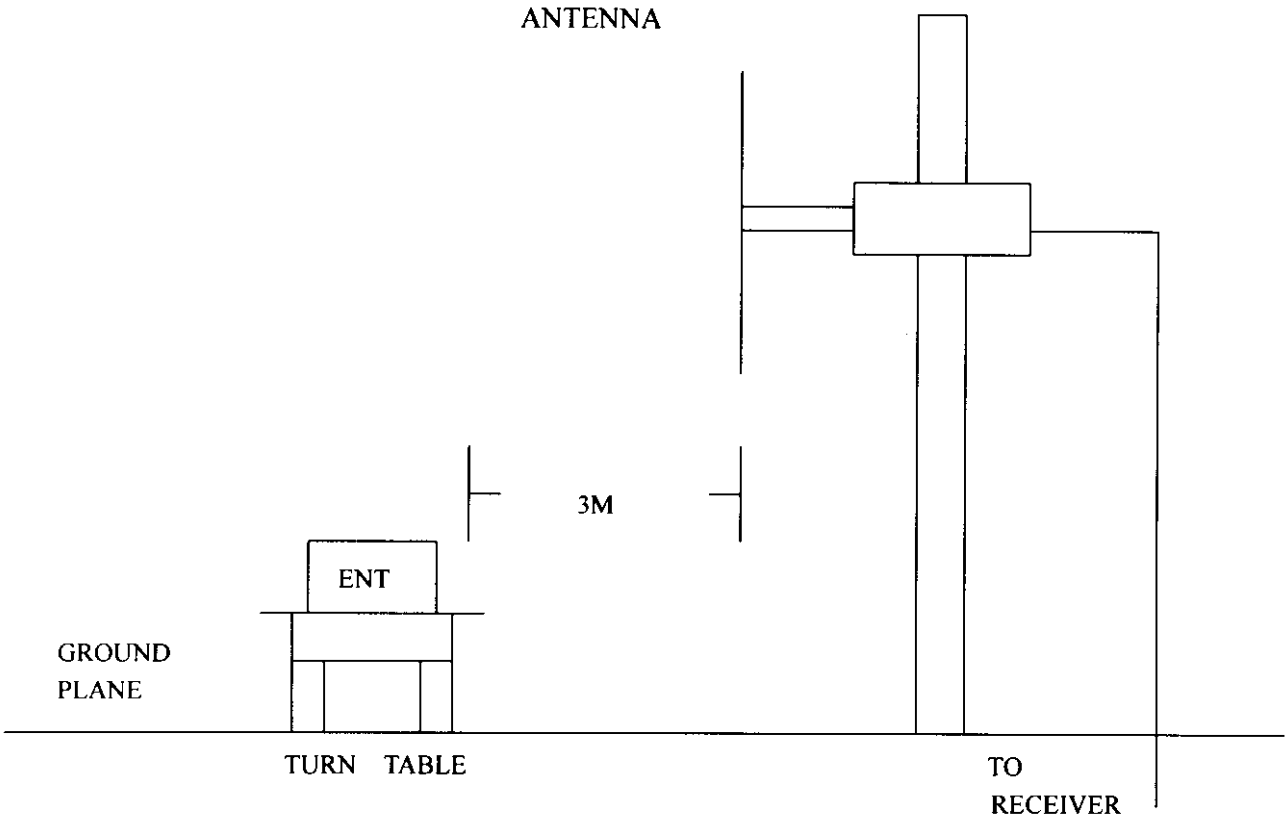
The following test equipment were used during the radiated emission test :

EQIPMENT / FACILITIES	SPECIFICAT-IONS	MANUFACTUR-ER	MODEL # / SERIAL #	DATE OF CAL. & CAL. CENTER	DUE DATE
RECEIVER	20 MHz TO 1000 MHz	R & S	ESVS30/ 841977/03	APRIL, 1998 ITRI	1Y
SPECTRUM ANALYZER	100 Hz TO 1500 MHz	HP	8568B/ 3019A05294	OCT., 1998 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	APPRIL, 1998 ITRI	1Y
DIPOLE ANTENNA	28 MHz TO 1000 MHz	EMCO	3121C/ 9003-535	SEP., 1998 SRT	1Y
DIPOLE ANTENNA	28 MHz TO 1000 MHz	EMCO	3121C/ 9611-1239	NOV., 1998 SRT	1Y
BI-LOG ANTENNA	26 MHz TO 2000 MHz	EMCO	3142/ 9608-1073	NOV., 1998 SRT	1Y
BI-LOG ANTENNA	26 MHz TO 1100 MHz	EMCO	3143/ 9509-1152	SEP., 1998 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	AUGUST, 1998 ETC	1Y
HORN ANTENNA	1 GHz TO 18 GHz	EMCO	3115/ 9612-3619	JAN., 1998 EMCO	1Y

6 . 2 TEST PROCEDURE

(1).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 / SRT.
(2).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 3 meters using an adjustable dipole antenna. Peripherals, cables, EUT orientation, and antenna height were varied to find the maximum emission for each frequency.
(3).The measurements above 1 GHz with a resolution bandwidth of 1 MHz are PEAK READING at a distance of 3 meters with a hora antenna.

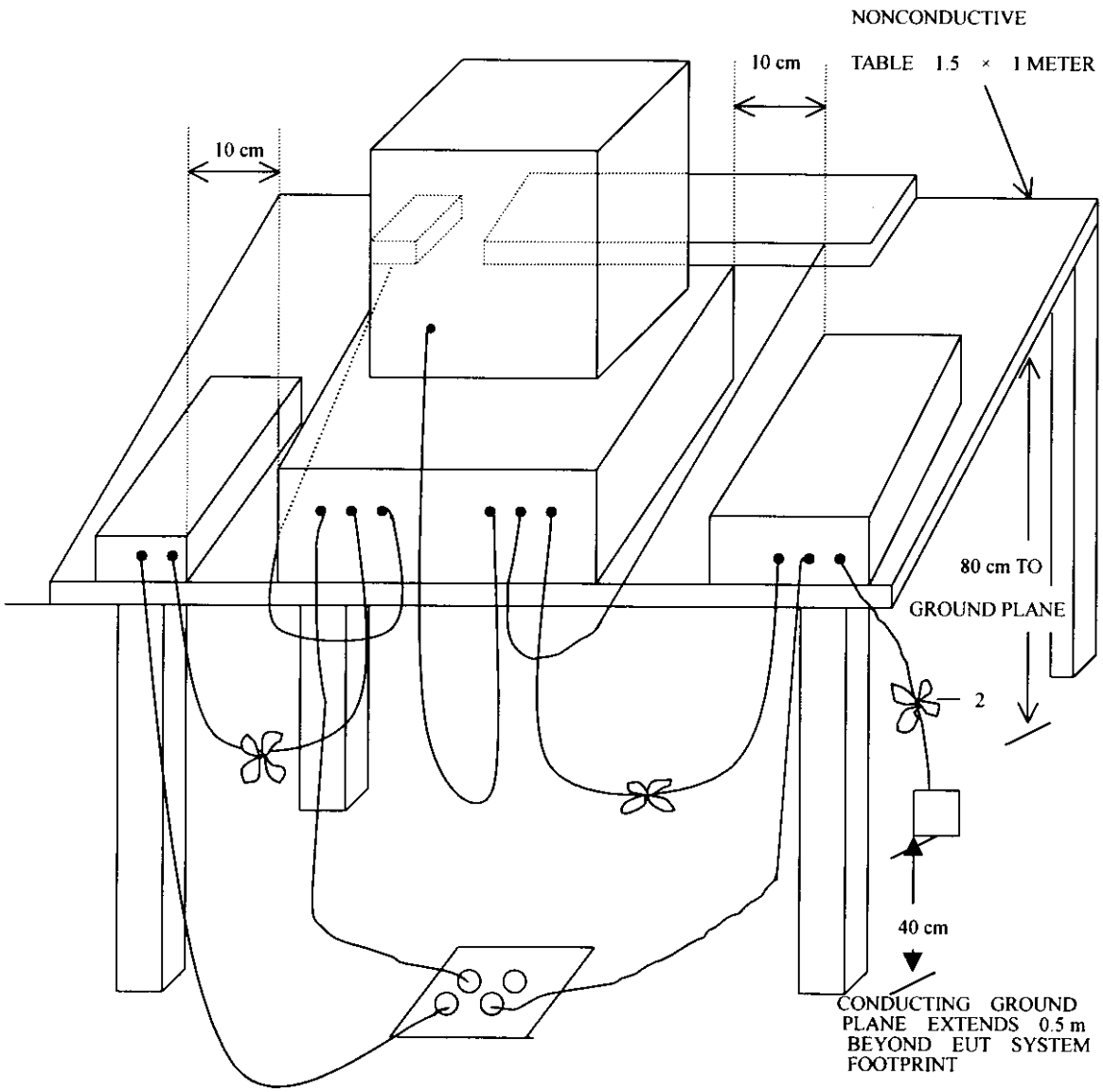
6 . 3 RADIATED TEST SET-UP



6 . 3 RADIATED TEST SET-UP

ANSI

ELECTRICAL AND ELECTRONIC EQUIIPMENT IN THE RANGE IN THE RANGE OF 9 KHz TO 40 GHz C63.4-1992



6.4 CONFIGURATION OF THE THE EUT

Same as section 4.4 of this report

6.5 EUT OPERATING CONDITION

Same as section 4.5 of this report.

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)	FIELS 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)	FIELS STRENGTH (uV/m)
30 - 88	3	199.5
88 - 216	3	298.5
216 - 960	3	398.1
ABOVE 960	3	

CLASS A

FREQUENCY (MHz)	DISTANCE (m)	FIELS 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 from 30 MHz to 1 GHz are QUASI-PEAK values with a resolution bandwidth of 120 KHz. All readings are above 1GHz, PEAK values with a resolution bandwidth of 1 MHz. Measurements were made at 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	
165.7	1.1	10.1	20.50	*	38.45	*	150
233.1	1.3	12.0	26.10	21.30	93.32	53.70	200
335.1	1.7	14.3	21.20	18.40	72.44	52.48	200
602.5	2.1	20.3	17.50	16.20	98.85	85.11	200
713.4	2.3	22.3	17.10	15.00	121.6	95.49	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).sample calculation
20 LOG(EMISSION)Uv/m = CABLE LOSS(dB)+FACTOR(dB)+READING (dBuV/m)
(4).uncertainty in radiated emission measured is <+/-4dB
(5).any departure from specification : N/A
(6). AMD-K6 – 300MHz CLOCK CHIP : 66
(7). RESOLUTION : 1600 * 1200

SIGNED BY TESTING ENGINEER : _____

6.7 RADIATED EMISSION TEST RESULT

The frequency spectrum from 30 MHz to 2 GHz was investigated. All readings from 30 MHz to 1 GHz are QUASI-PEAK values with a resolution bandwidth of 120 KHz. All readings are above 1GHz, PEAK values with a resolution bandwidth of 1 MHz. Measurements were made at 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	
98.61	0.8	6.40	25.90	20.30	45.18	23.71	150
165.7	1.1	10.1	21.40	*	42.65	*	150
233.1	1.3	12.0	19.80	20.10	45.18	40.77	200
299.4	1.6	12.9	25.30	20.70	97.72	57.54	200
499.9	1.7	18.5	18.70	17.50	88.10	76.73	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).sample calculation
20 LOG(EMISSION)Uv/m = CABLE LOSS(dB)+FACTOR(dB)+READING (dBuV/m)
(4).uncertainty in radiated emission measured is <+/-4dB
(5).any departure from specification : N/A
(6). AMD-K6 – 300MHz CLOCK CHIP : 100MHz
(7). RESOLUTION : 1600 * 1200

SIGNED BY TESTING ENGINEER : _____