

TDK CORPORATION
2-15-7 HIGASHI-OWADA ICHIKAWA-SHI
CHIBA 272 01 JAPAN

TDK EMC CENTER
CHIKUMAGAWA OPEN SITE
543 OTAI SAKU-CITY NAGANO JAPAN

REPORT OF MEASUREMENTS ON "CD-ROM Drive"

DATE: September 30, 1998
Issued in: Saku-city, Japan

TDK APPLICATION No.: TDC-98-0907 (1)

1. Applicant : TOSHIBA CORPORATION
Engineering Administration Dept.
Information Equipment Group
1-1, Shibaura 1-chome, Minato-ku, Tokyo,
105-8001, Japan
2. Factory : Toshiba Multi Media Devices Co., Ltd.
19, Aza-Minase, Oaza-Fukihata Goshogawara-shi,
Aomori-Ken 037-0003, Japan
3. Description of Equipment Under Test (EUT)
 - 3-1 EUT : CD-ROM Drive
 - 3-2 Category : Class B Digital Device
 - 3-3 FCC ID : CJ6AT98-037
 - 3-4 Trade Name : TOSHIBA
 - 3-5 Model No. : XM-6401B
 - 3-6 Serial No. : 2S3-001
 - 3-7 Date of Manufacture: September, 1998
 - 3-8 Power Supply : DC power for the EUT was controlled by the
personal computer
(Model: SMS, Manufacturer: DELL COMPUTER)
4. Regulation Applied : FCC Part 15 Subpart B Class B 3 m
5. Measurement Procedure Used : ANSI C63.4-1992
6. Place of Measurement : TDK EMC CENTER CHIKUMAGAWA OPEN SITE
7. Date of Measurement : September 25, 1998
8. Measurement Results : The results are as shown in the
attached sheets.
As a result, the EUT passes.


Yukio Kobayashi

Chief of TDK CHIKUMAGAWA

MEASUREMENT RESULTS OF RADIATED RADIO NOISE AT 3m

Date: September 25, 1998Temp. : 18°C Humi. : 83%

Test Receiver: Rohde & Schwarz ESVP

Operation mode: Detector function: CISPR Quasi-peak

6dB band width: 120kHz External Attenuator: none

Description of Device

EUT : CD-ROM DriveModel No.: XM 6401B

Test Condition of EUT

1) Configuration : Refer to sheet No. 3, 4 and 5.2) Ground : Grounded at the plug end of the power line cord.

3) Operating Condition:

Running with the program prepared by the applicant.1) CD-ROM Drive (EUT) : Random Data Read2) Color Computer Display: Displayed the "IF" Characters3) Printer: Printing the "IF" Characters.

Frequency (MHz)	Correction Factor (dB)	Meter Reading (dB μ V/m)		Emission Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB μ V/m)
		Hori.	Vert.			
30.010	20.0		38.9	38.9	40.0	1.1
39.940	16.0		30.3	30.3	40.0	9.7
132.950	16.3	34.7	35.8	35.8	43.5	7.7
135.120	16.4	31.7	33.4	33.4	43.5	10.1
160.000	17.7	34.4	28.6	34.4	43.5	9.1
168.890	18.1	34.2	29.0	34.2	43.5	9.3
180.000	18.7	36.4	30.8	36.4	43.5	7.1
250.000	20.8	38.3	39.6	39.6	46.0	6.4
265.920	21.5	38.2	42.7	42.7	46.0	3.3
320.000	20.3	42.1	37.4	42.1	46.0	3.9
398.870	21.9		34.7	34.7	46.0	11.3
465.340	23.4	38.4	43.0	43.0	46.0	3.0
698.030	28.3	39.6	38.7	39.6	46.0	6.4
709.410	28.4		34.6	34.6	46.0	11.4
799.600	29.3		37.0	37.0	46.0	9.0
833.140	30.3	35.5	41.4	41.4	46.0	4.6
844.510	30.6		38.2	38.2	46.0	7.8
878.520	31.8		44.8	44.8	46.0	1.2
889.590	32.2		43.5	43.5	46.0	2.5
900.690	32.5		41.0	41.0	46.0	5.0
912.040	32.7	38.3	42.0	42.0	46.0	4.0
923.360	32.9		42.7	42.7	46.0	3.3

Notes: 1) Meter Readings are corrected by all Correction Factors.

2) Emission Levels are higher levels of Hori. or Vert. of
Meter Readings.

3) Margin Limit Emission Level.



Kunihiko Ooi

Engineer of TDK EMC CENTER

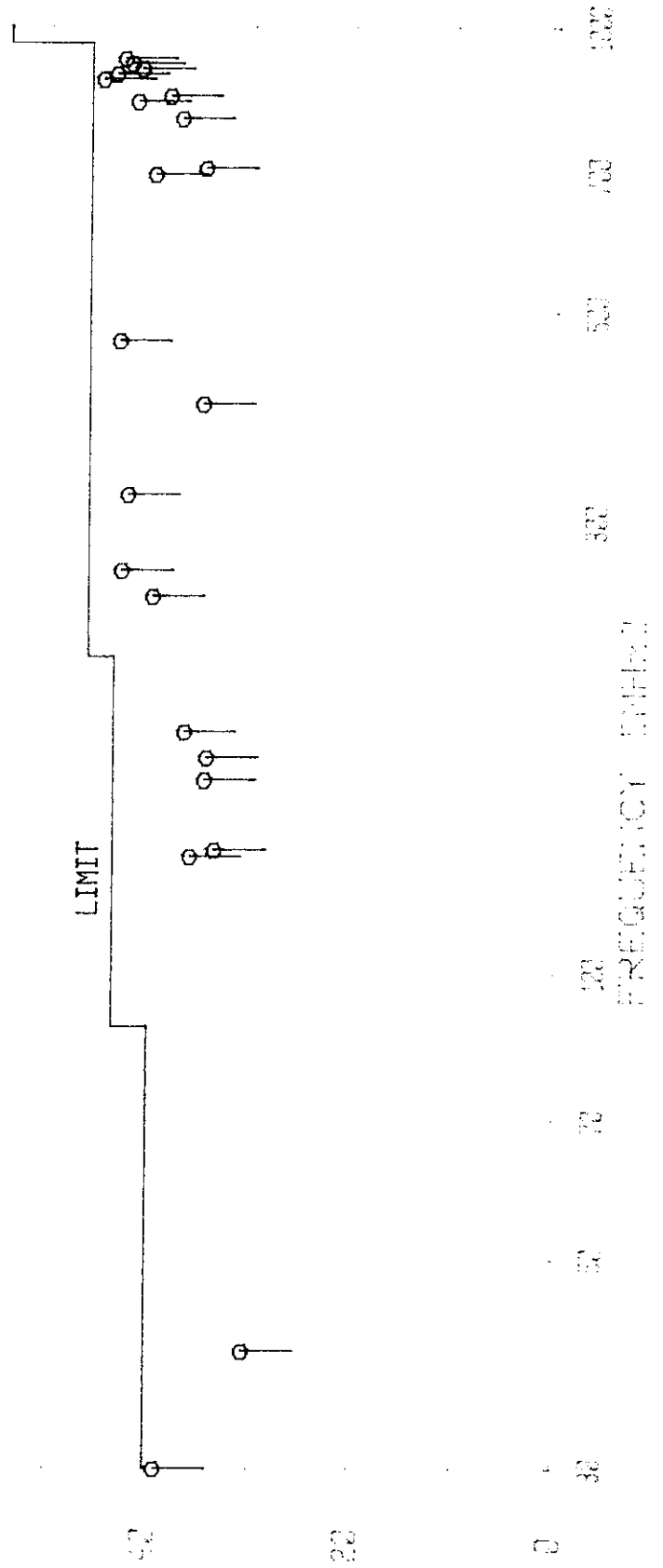
CHUKI-MAGAWA OPEN SITE

FOR EMC ORIGIN
EMISSION LEVEL 153uV/m

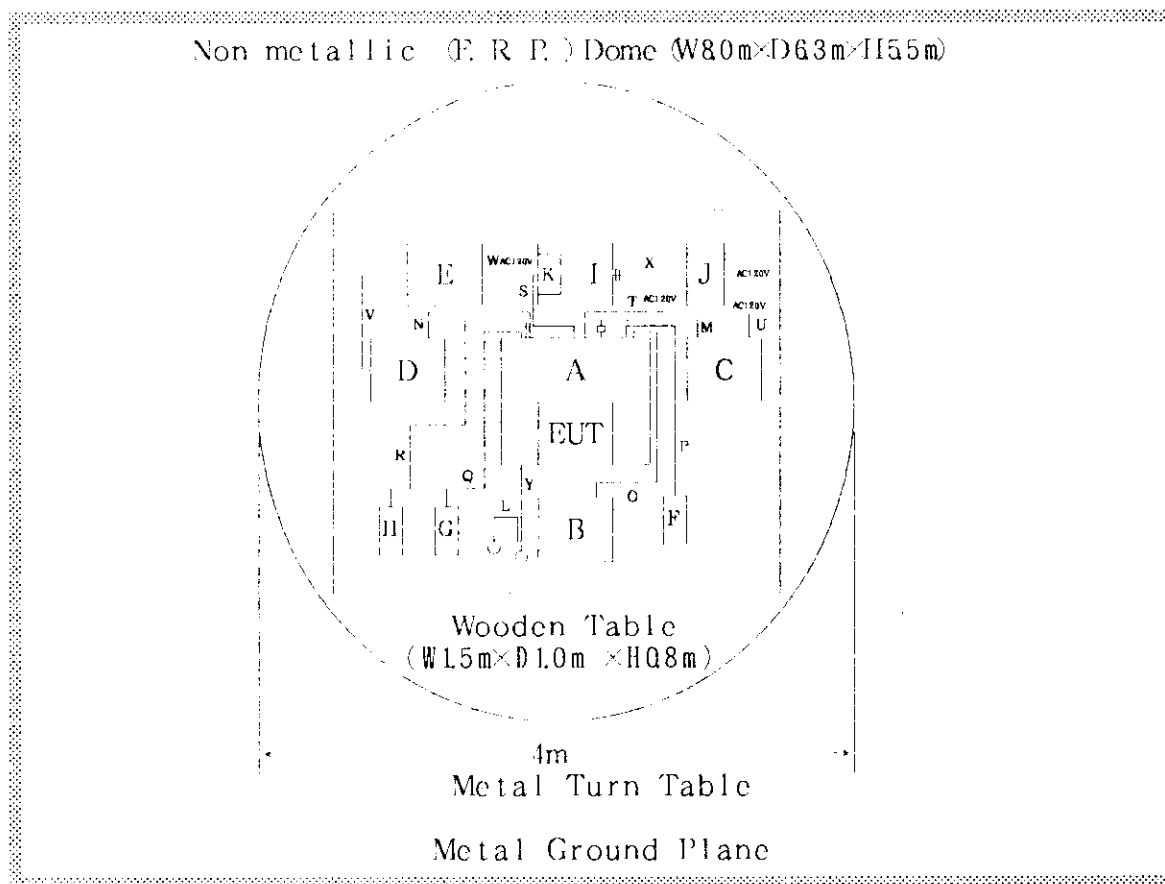
Sept. 25, 1988

100
80
60
40
20
0

FOR 15H CLASS B LIMIT: 3m
EUT: 04-647B 120V 60Hz
Frequency: 30 ~ 100MHz



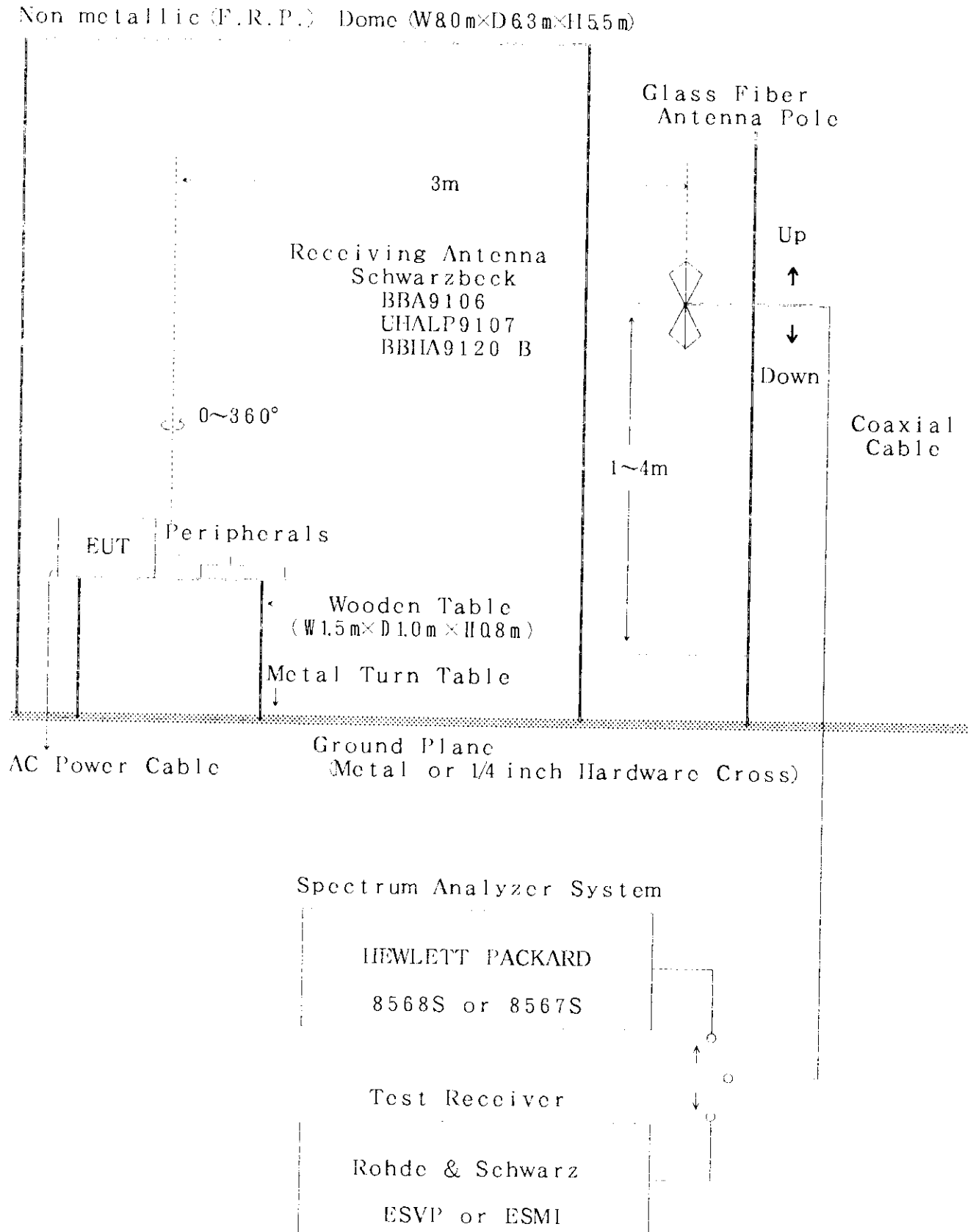
EUT'S Test Arrangement of Radiation



	Device	Model No.	FCC ID	Manufacturer
EUT	CD-ROM Drive	XM 6401B	CJ6AT98 037	TOSHIBA
A	Personal Computer	SMS	97003	DELL COMPUTER
B	Key Board	SK1000REW	GYUR36SK	DELL COMPUTER
C	CRT Display	D825HIT	L5ACPD100SF	DELL COMPUTER
D	Printer	C4608A	B94C2164X	HEWLETT PACKARD
E	AC Adapter	C2178A		HEWLETT PACKARD
F	Mouse (1)	Mouse Port Compatible Mouse 2 1A	C3KKMP3	MICROSOFT
G	Mouse (2)	M M35	DZL210365	LOGITEC
H	Mouse (3)	M CQ38	DZLM04	LOGITEC
I	Personal Computer	2431 YDW		IBM
J	AC Adapter	2431 YDW		IBM
K	LAN Adapter	LANCT 00A		TOSHIBA
L	Head Phone			TOSHIBA

Cable		Model	Cable	Special Attribute
		No.	Length	
M	CRT Cable		1.7 m	Shield Metal Connector, Core
N	Printer Cable		1.9 m	Shield Metal Connector
O	Keyboard Cable		1.9 m	Shield Metal Connector
P	Mouse (1) Cable		1.9 m	Metal Connector
Q	Mouse (2) Cable		1.9 m	
R	Mouse (3) Cable		2.1 m	Shield Metal Connector
S	LAN Cable		3.0 m	
T	Powr Cable (AC120V, 60Hz)		1.9 m	
U	Powr Cable (AC120V, 60Hz)		2.0 m	
V	Powr Cable (DC30V)		1.8 m	
W	Powr Cable (AC120V, 60Hz)		0.9 m	
X	Powr Cable (DC10.5V)		1.9 m	Core
Y	Head Phone Cable		1.5 m	

Test Arrangement of Radiation

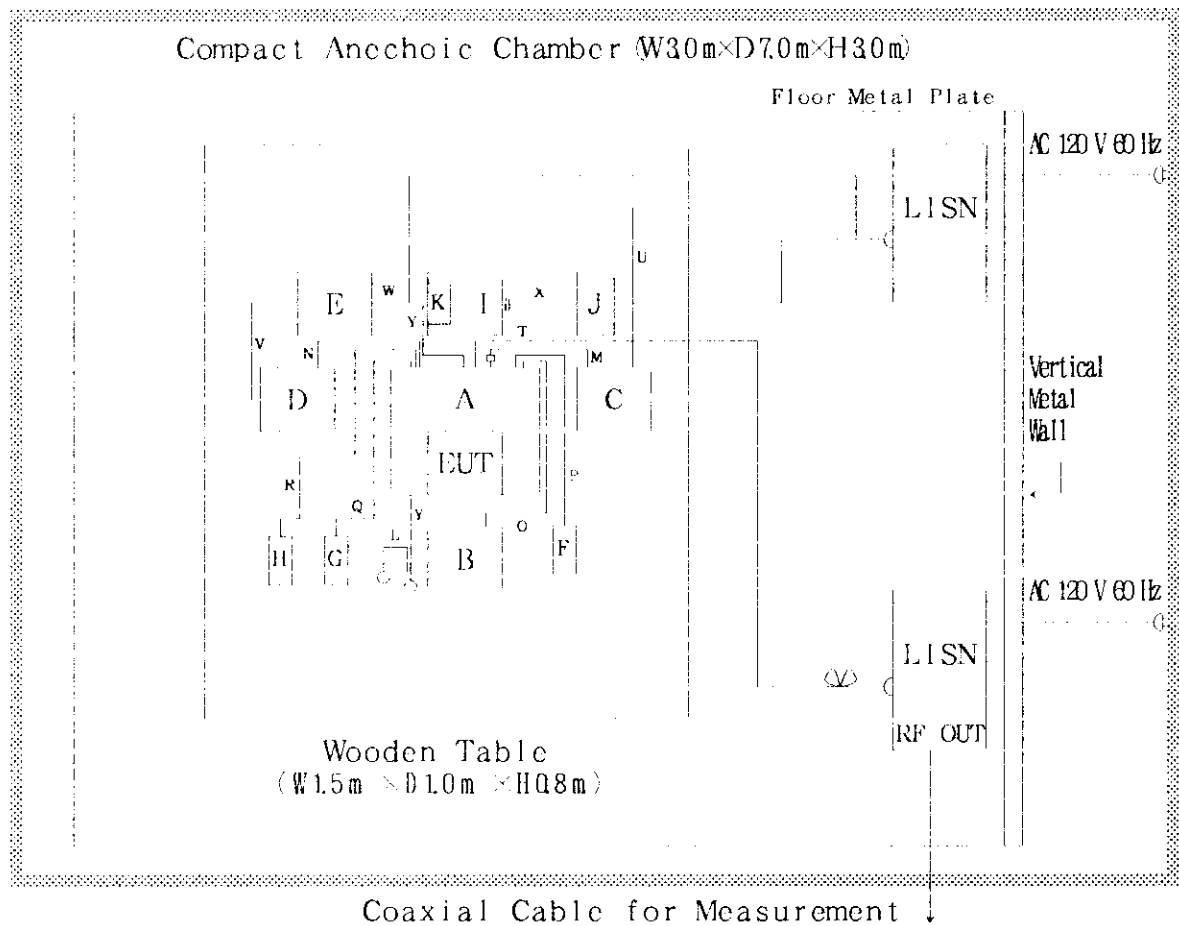


Temp. : 23°C: Humi. : 71%

3) Printer: Printing the "I" Characters.

Engineer of TDK EMC CENTER
CHIKUMAGAWA OPEN SITE

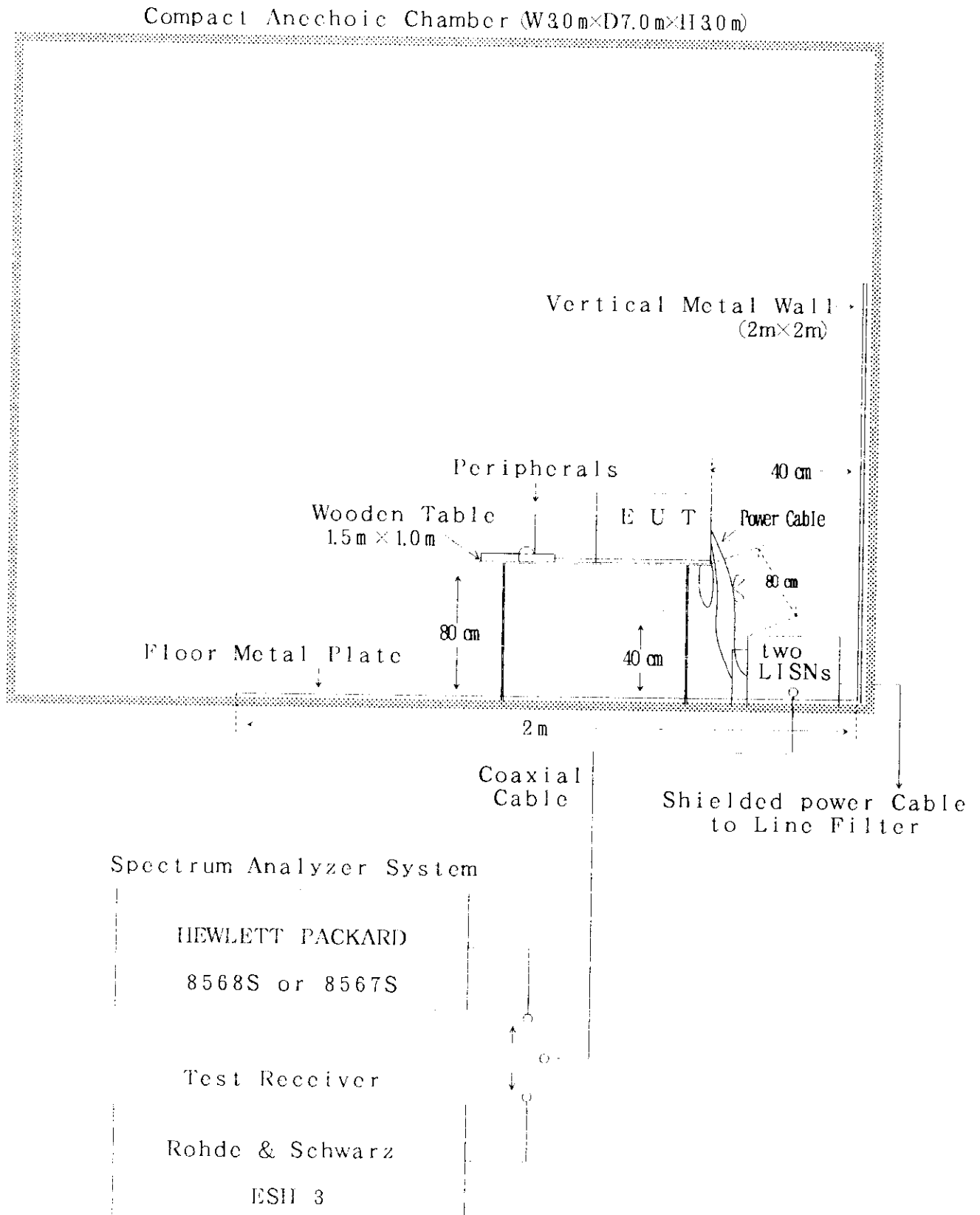
EUT'S Test Arrangement of Conduction



	Device	Model No.	FCC ID	Manufacturer
EUT	CD ROM Drive	XM 6401B	CJ6AT98 037	TOSHIBA
A	Personal Computer	SMS	97003	DELL COMPUTER
B	Key Board	SK 1000REW	GYUR36SK	DELL COMPUTER
C	CRT Display	D825IT	L5ACPD100SF	DELL COMPUTER
D	Printer	C4608A	B94C2164X	HEWLETT PACKARD
E	AC Adapter	C2178A		HEWLETT PACKARD
F	Mouse (1)	Mouse Port Compatible Mouse 2.1A	C3KKMP3	MICROSOFT
G	Mouse (2)	M M35	DZL210365	LOGITEC
H	Mouse (3)	M CQ38	DZIM04	LOGITEC
I	Personal Computer	2431 YDW		IBM
J	AC Adapter	2431 YDW		IBM
K	LAN Adapter	LANCT 00A		TOSHIBA
L	Head Phone			TOSHIBA

	Cable	Model	Cable	Special Attribute
		No.	Length	
M	CRT Cable		1.7 m	Shield Metal Connector, Core
N	Printer Cable		1.9 m	Shield Metal Connector
O	Keyboard Cable		1.9 m	Shield Metal Connector
P	Mouse (1) Cable		1.9 m	Metal Connector
Q	Mouse (2) Cable		1.9 m	
R	Mouse (3) Cable		2.1 m	Shield Metal Connector
S	LAN Cable		3.0 m	
T	Powr Cable (AC120V, 60Hz)		1.9 m	
U	Powr Cable (AC120V, 60Hz)		2.0 m	
V	Powr Cable (DC30V)		1.8 m	
W	Powr Cable (AC120V, 60Hz)		0.9 m	
X	Powr Cable (DC10.5V)		1.9 m	Core
Y	Head Phone Cable		1.5 m	

Test Arrangement of Conduction



MEASURING EQUIPMENTS USED:

Equipments	Manufacturer	Model No.	Serial No.
☒ Test Receiver	Rohde & Schwarz	ESVP	879529/016
☒ Test Receiver	Rohde & Schwarz	ESH 3	872079/020
☐ Test Receiver	Rohde & Schwarz	ESMI	61360008
☐ Artificial Mains Network (50 μ H/5 Ω /50 Ω)	Rohde & Schwarz	ESH2 Z5	881362/011
☒ Artificial Mains Network (50 Ω /50 μ H)	Kyoritsu Electrical	KNW 407	8 823 10
☒ Artificial Mains Network (50 Ω /50 μ H)	Kyoritsu Electrical	KNW 407	8 680 7
☐ Artificial Mains Network (50 Ω /50 μ H)	Kyoritsu Electrical	KNW 242	8 701 5
☐ Artificial Mains Network (50 Ω /50 μ H)	Kyoritsu Electrical	KNW 408	8 652 3
☐ T Network	Rohde & Schwarz	ESH3 Z4	860666/021
☐ Absorbing Clamp	Rohde & Schwarz	MDS21	301379/032
☐ Loop Antenna	Rohde & Schwarz	HFH2 Z2	881056/41
☐ Dipole Antenna	Schwarzbeck	VHA9103/ UHA9105	
☐ Horn Antenna	Schwarzbeck	BHA9120 B	
☒ Bi Conical Antenna	Schwarzbeck	BBA9106	
☒ Log Periodic Antenna	Schwarzbeck	UHALP9107	9107424
☐ Spectrum Analyzer System	Hewlett Packard	8567S	2727A00488
☒ Spectrum Analyzer System	Hewlett Packard	8568S	2445A00924