FCC TEST REPORT

according to

47 CFR Part 15 Subpart B

Equipment	:	**GSM Mobile phone**
Trade Name	:	**Philips**
Model No.	:	**Philips 868**
FCC ID	:	**POT-CT8688**
Filing Type	:	**Declaration of Conformity**
Applicant	:	**Inventec Appliances Corp.** 37, Wugong 5th Rd., Wugu Shiang, Taipei, Taiwan 248

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- Certificate or Test Report must not be used by the applicant to claim the product in this test report endorsed by NVLAP or any agency of U.S. government.

SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

Table of Contents

History of this test report ii
CERTIFICATE OF COMPLIANCE 1
1. General Description of Equipment under Test 2
1.1 Applicant 2
1.2 Manufacturer 2
1.3 Basic Description of Equipment under Test 2
1.4 Feature of Equipment under Test 3
2. Test Configuration of Equipment under Test 4
2.1 Test Manner 4
2.2 Description of Test System 4
2.3 Connection Diagram of Test System 5
3. Test Software 6
4. General Information of Test 7
4.1 Test Facility 7
4.2 Test Voltage 7
4.3 Standard for Methods of Measurement 7
4.4 Test in Compliance with 7
4.5 Frequency Range Investigated 7
4.6 Test Distance 7
5. Test of Conducted Powerline 8
5.1 Major Measuring Instruments 8
5.2 Test Procedures 8
5.3 Typical Test Setup Layout of Conducted Powerline 9
5.4 Test Result of AC Powerline Conducted Emission 10
5.5 Photographs of Conducted Powerline Test Configuration 16
6. Test of Radiated Emission 19
6.1 Major Measuring Instruments 19
6.2 Test Procedures 20
6.3 Typical Test Setup Layout of Radiated Emission 21
6.4 Test Result of Radiated Emission 22
6.5 Photographs of Radiated Emission Test Configuration 32
7. List of Measuring Equipment Used 34
8. Uncertainty of Evaluation 35
9. Certificate of NVLAP Accreditation 37
Appendix A. Photographs of EUT

History of this test report

Report Issue Date: Sep. 15, 2005

Original Report Issue Date	Description

Certificate No. : FC561512

CERTIFICATE OF COMPLIANCE

according to

47 CFR Part 15 Subpart B

Equipment : GSM Mobile phone
Trade Name : Philips
Model No. : Philips 868
FCC ID : POT-CT8688
Filing Type : Declaration of Conformity
Applicant : Inventec Appliances Corp.
37, Wugong 5th Rd., Wugu Shiang, Taipei, Taiwan 248

I **HEREBY** CERTIFY THAT:

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 - 2003** and the energy emitted by this equipment was ***passed* FCC Part 15 B in** both radiated and conducted emission class B limits. Testing was carried out on Aug. 01, 2005 at **SPORTON International Inc.** LAB.

Daniel Lee

Dr. Daniel Lee
EMC / SAR Manager

SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

1. General Description of Equipment under Test

1.1 Applicant

Inventec Appliances Corp.
37, Wugong 5th Rd., Wugu Shiang, Taipei, Taiwan 248

1.2 Manufacturer

Inventec Appliances Corp.
37, Wugong 5th Rd., Wugu Shiang, Taipei, Taiwan 248

1.3 Basic Description of Equipment under Test

Equipment	:	GSM Mobile phone
Trade Name	:	Philips
Model No.	:	Philips 868
FCC ID	:	POT-CT8688
Power Supply Type	:	Switching
AC Power Cord	:	AC 120V, Non-Shielded, Wall-mount, 1.8 meter, 2 pin
Earpiece	:	MINAMI, ME-826B
Battery	:	PHILIPS, 868
Adapter	:	PI ELECTRONICS / PHILIPS, KWT05A19JN38L / KWT05C19JN38L

1.4 Feature of Equipment under Test

Product Feature & Specification	
1. DUT Type :	GSM Mobile phone
2. Trade Name :	Philips
3. Model Name :	Philips 868
4. FCC ID :	POT-CT8688
6. Tx Frequency :	1850-1910MHz (PCS)
7. Rx Frequency :	1930-1990MHz (PCS)
8. Antenna Type :	Fixed Internal
9. Type of Antenna Connector :	N/A
10. HW Version :	DVT2
11. SW Version :	V1.00.26
12. Power Rating (DC/AC Voltage) :	3.5V/300mA
13. Type of Modulation :	GMSK

2. Test Configuration of Equipment under Test

2.1 Test Manner

a. The EUT has been setup pursuant to ANSI C63.4-2003 and configuration operated in a manner which tended to maximize its emission characteristics in a typical application.

b. The complete test system included EUT for EMI test.

c. The following test modes were tested for conduction test:

Mode 1: PCS Idle Mode + MPEG4

Mode 2: PCS Idle Mode + Camera

Mode 3: PCS Idle Mode + USB Link

d. The following test modes were tested for radiation test:

Mode 1: PCS Idle Mode + MPEG4

Mode 2: PCS Idle Mode + Camera

Mode 3: PCS Idle Mode + USB Link

e. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 9000MHz.

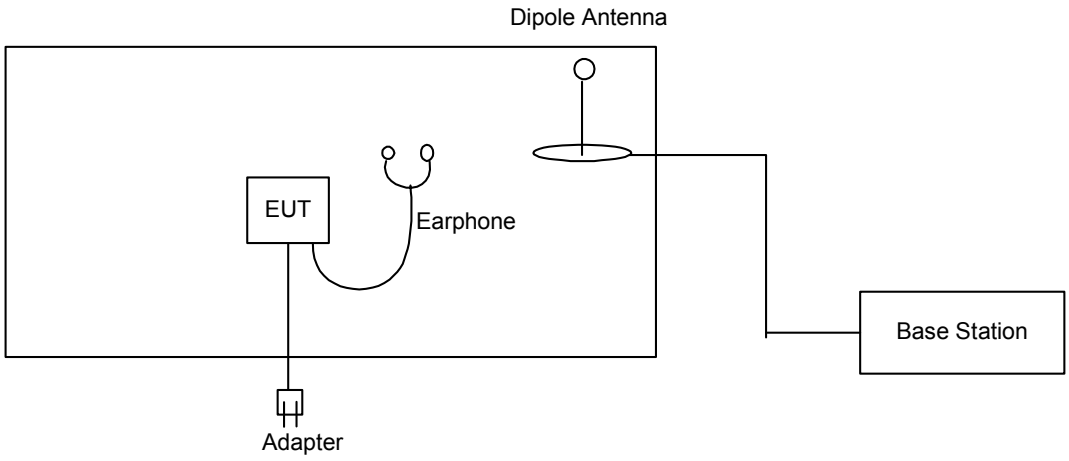
Remark: The worst case for radiated emission is mode 1, only the test data of mode 1 were reported.

2.2 Description of Test System

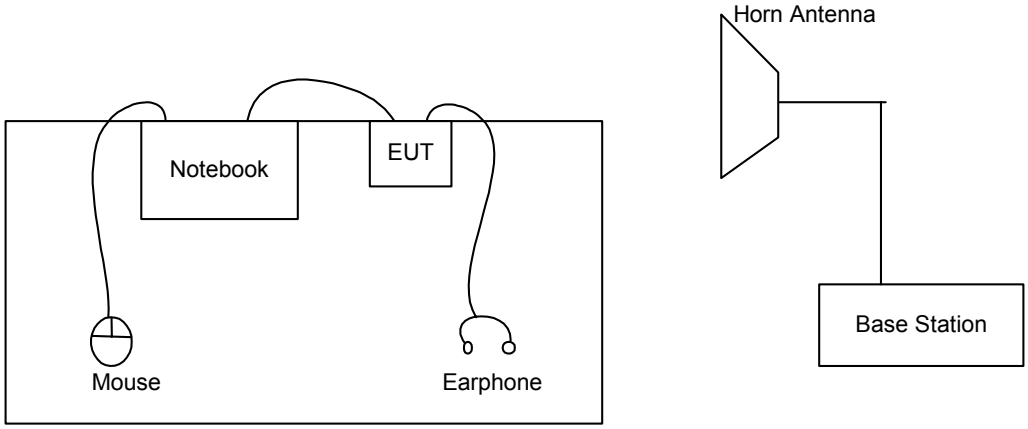
Item	Asset	Model Name	Power Cord
1.	Base Station	CMU200	N/A
2.	Notebook (DELL)	PP05L	N/A
3.	(USB)MOUSE (Microsoft)	B75-00093	N/A

2.3 Connection Diagram of Test System

Mode 1~2



Mode 3



3. Test Software

The EUT is in GSM 1900 Idle mode controlled by Base Station Simulator.

4. General Information of Test

4.1 Test Facility

Test Site Location	:	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-318-0055
Test Site No.	:	CO01-HY, 03CH06-HY

4.2 Test Voltage

120V/60Hz

4.3 Standard for Methods of Measurement

ANSI C63.4-2003

4.4 Test in Compliance with

FCC Part 15 Subpart B

4.5 Frequency Range Investigated

a. Conduction: from 150 kHz to 30 MHz
b. Radiation: from 30 MHz to 9000MHz

4.6 Test Distance

The test distance of radiated emission from antenna to EUT is 3m.

5. Test of Conducted Powerline

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 kHz and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 5.3. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

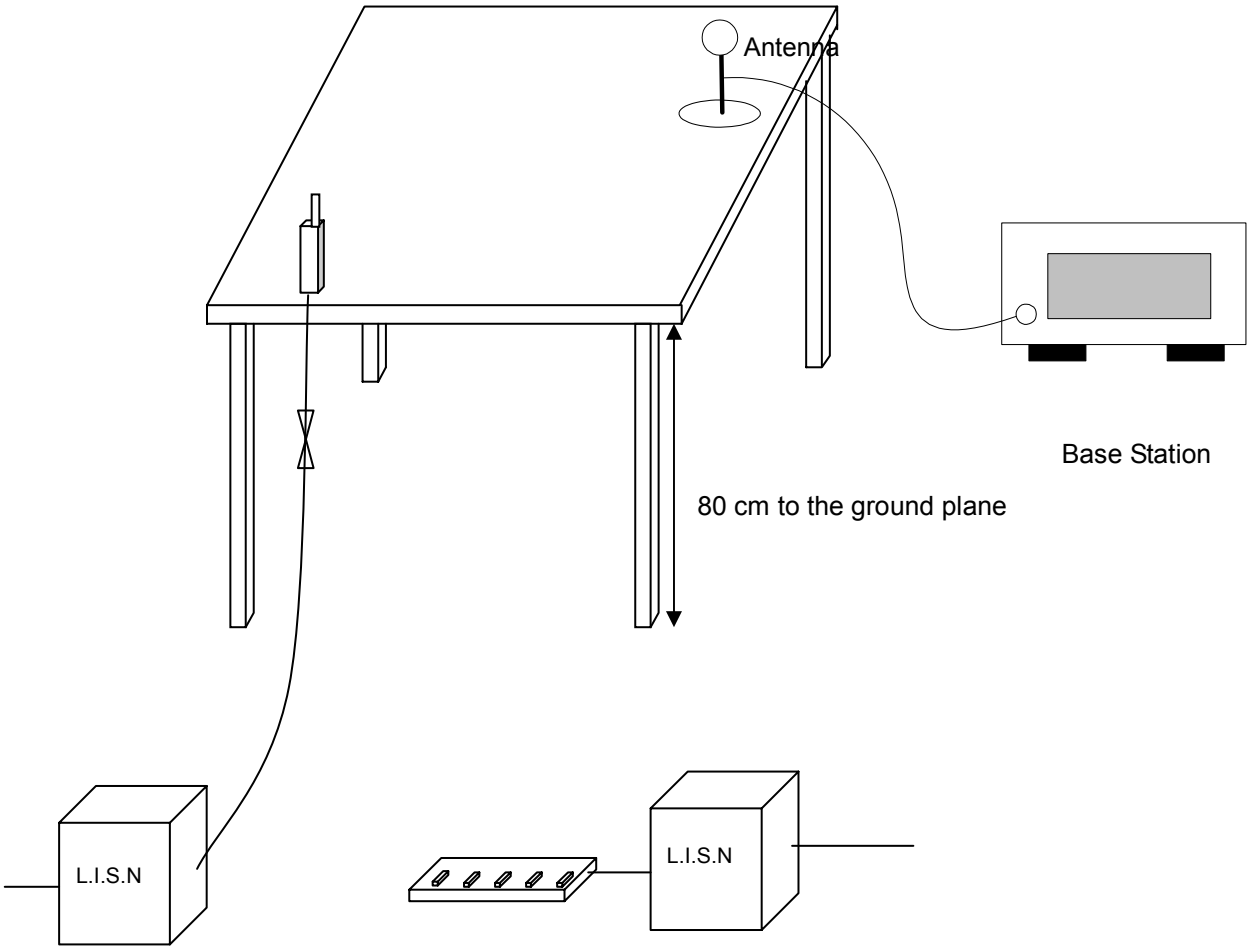
5.1 Major Measuring Instruments

As described in Chapter 7.

5.2 Test Procedures

a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
c. All the support units are connect to the other LISN.
d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
e. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
f. Both sides of AC line were checked for maximum conducted interference.
g. The frequency range from 150 kHz to 30 MHz was searched.
h. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

5.3 Typical Test Setup Layout of Conducted Powerline

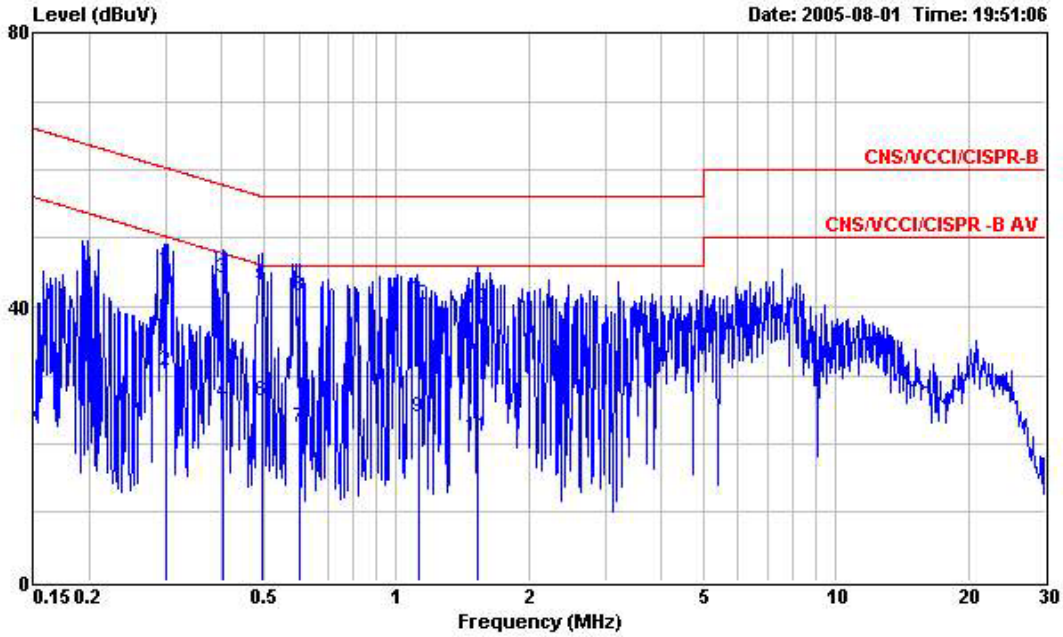


5.4 Test Result of AC Powerline Conducted Emission

5.4.1 Test Mode: Mode 1

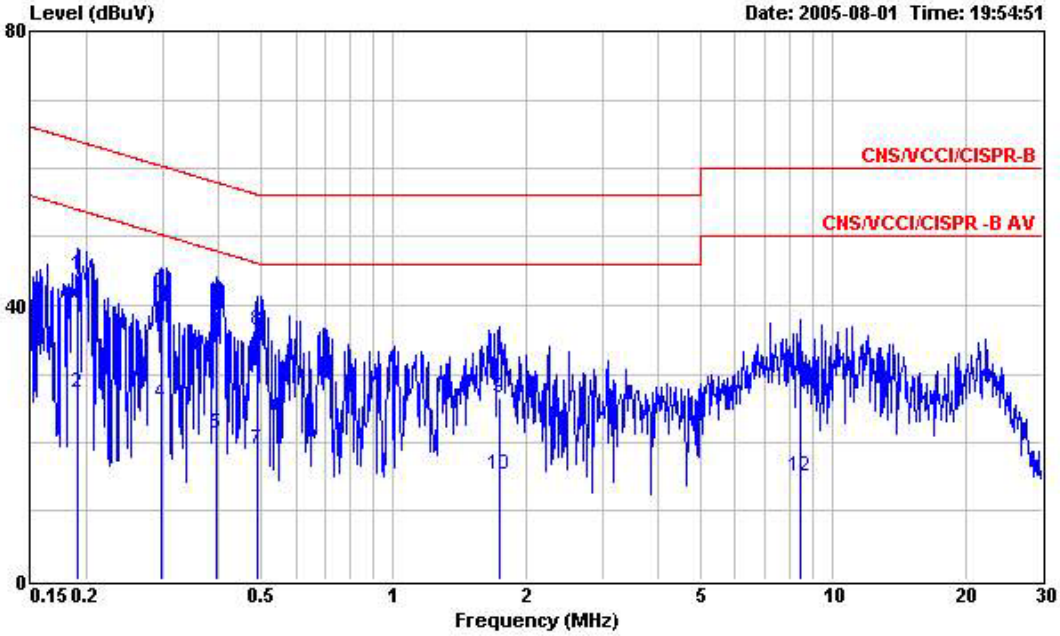
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 28°C
- Relative Humidity: 59 %
- All emissions not reported here are more than 10 dB below the prescribed limit.

The test that passed at the minimum margin was marked by a frame in the following data



Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2005 2001/008 LINE
EUT : Tri-Band GSM Mobil Phone
Power : 120V/60Hz
Model : FM303
Memo : PCS 1900 Idle MODE+MEPG4

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.299	45.52	-14.75	60.27	45.37	0.10	0.05	QP
2	0.299	30.57	-19.70	50.27	30.42	0.10	0.05	Average
3	0.402	44.21	-13.60	57.81	44.05	0.10	0.06	QP
4	0.402	25.85	-21.96	47.81	25.69	0.10	0.06	Average
5	0.494	43.10	-13.00	56.10	42.94	0.10	0.06	QP
6	0.494	26.14	-19.96	46.10	25.98	0.10	0.06	Average
7	0.601	22.35	-23.65	46.00	22.18	0.10	0.07	Average
8	0.601	41.56	-14.44	56.00	41.39	0.10	0.07	QP
9	1.120	24.02	-21.98	46.00	23.83	0.10	0.09	Average
10	1.120	40.35	-15.65	56.00	40.16	0.10	0.09	QP
11	1.530	20.96	-25.04	46.00	20.76	0.10	0.10	Average
12	1.530	39.67	-16.33	56.00	39.47	0.10	0.10	QP



Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2005 2001/008 NEUTRAL
EUT : Tri-Band GSM Mobil Phone
Power : 120V/60Hz
Model : FM303
Memo : PCS 1900 Idle MODE+MEPG4

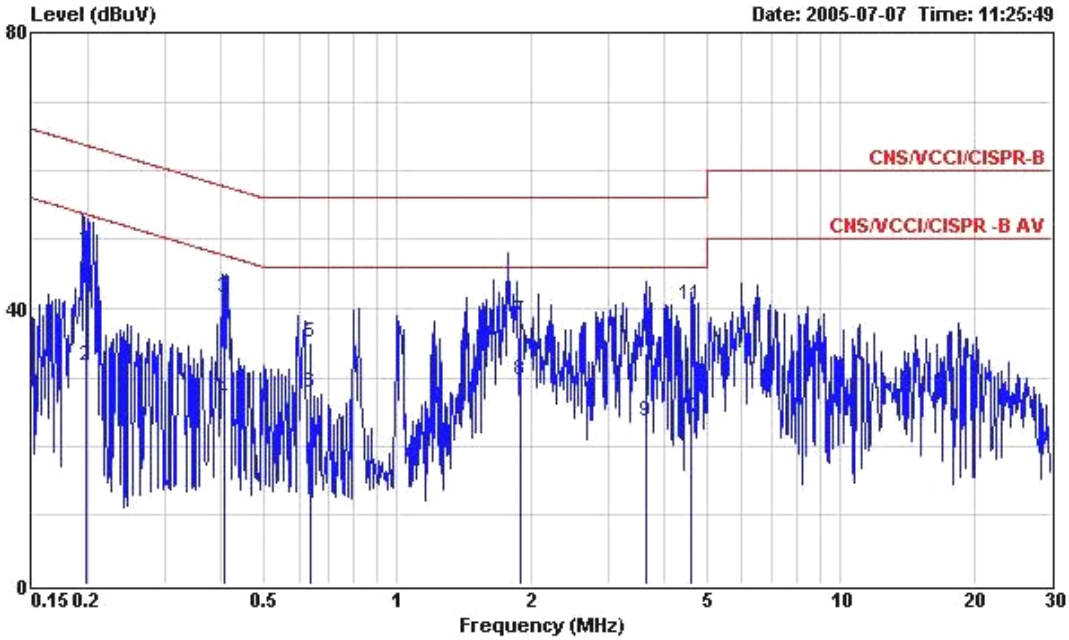
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.191	44.37	-19.62	63.99	44.24	0.10	0.03	QP
2	0.191	27.15	-26.84	53.99	27.02	0.10	0.03	Average
3	0.297	41.70	-18.63	60.33	41.55	0.10	0.05	QP
4	0.297	25.81	-24.52	50.33	25.66	0.10	0.05	Average
5	0.396	21.34	-26.60	47.94	21.18	0.10	0.06	Average
6	0.396	39.28	-18.66	57.94	39.12	0.10	0.06	QP
7	0.491	18.96	-27.19	46.15	18.80	0.10	0.06	Average
8	0.491	36.44	-19.71	56.15	36.28	0.10	0.06	QP
9	1.740	26.60	-29.40	56.00	26.39	0.10	0.11	QP
10	1.740	15.45	-30.55	46.00	15.24	0.10	0.11	Average
11	8.410	28.71	-31.29	60.00	28.24	0.28	0.19	QP
12	8.410	15.16	-34.84	50.00	14.69	0.28	0.19	Average

Test Engineer : _____
Jay

5.4.2 Test Mode: Mode 2

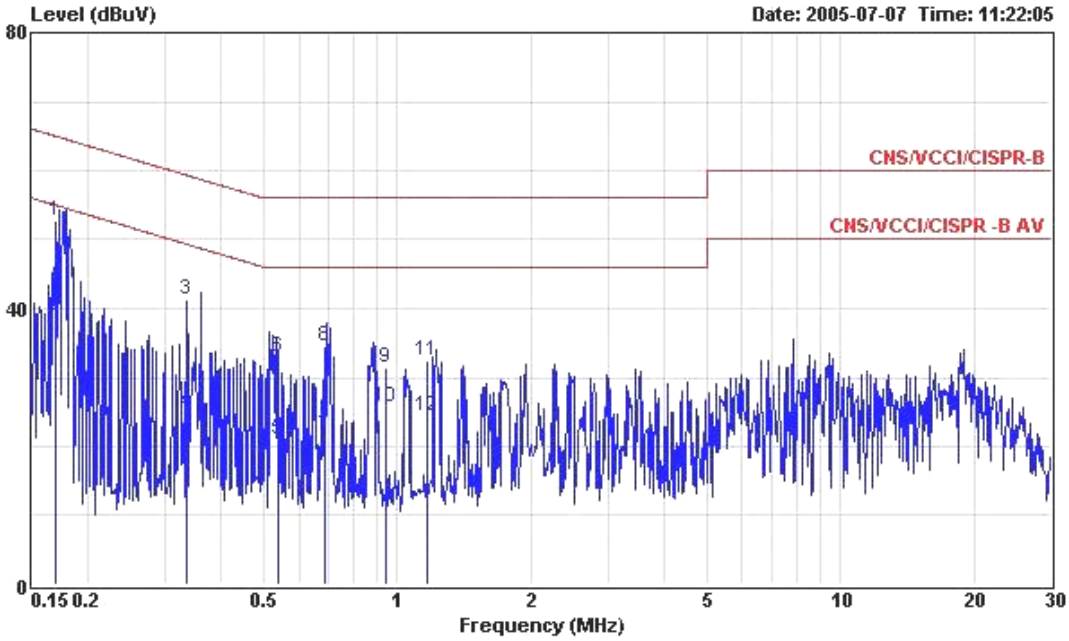
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 28°C
- Relative Humidity: 59 %
- All emissions not reported here are more than 10 dB below the prescribed limit.

The test that passed at the minimum margin was marked by a frame in the following data



Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2005 2001/008 LINE
EUT : Tri-Band GSM Mobil Phone
Power : 120Vac/ 50Hz
Model : FD561512
Memo : PCS 1900 Idle MODE+CAMERA

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.198	48.57	-15.14	63.71	48.47	0.10	0.00	QP
2	0.198	31.76	-21.95	53.71	31.66	0.10	0.00	Average
3	0.408	41.61	-16.07	57.68	41.49	0.10	0.02	QP
4	0.408	26.74	-20.94	47.68	26.62	0.10	0.02	Average
5	0.638	35.19	-20.81	56.00	35.05	0.10	0.04	QP
6	0.638	27.71	-18.29	46.00	27.57	0.10	0.04	Average
7	1.893	38.28	-17.72	56.00	38.10	0.10	0.08	QP
8	1.893	29.63	-16.37	46.00	29.45	0.10	0.08	Average
9	3.635	23.67	-22.33	46.00	23.35	0.19	0.13	Average
10	3.635	33.44	-22.56	56.00	33.12	0.19	0.13	QP
11	4.620	40.44	-15.56	56.00	40.08	0.22	0.14	QP
12	4.620	24.05	-21.95	46.00	23.69	0.22	0.14	Average



Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2005 2001/008 NEUTRAL
EUT : Tri-Band GSM Mobil Phone
Power : 120Vac/ 50Hz
Model : FD561512
Memo : PCS 1900 Idle MODE+CAMERA

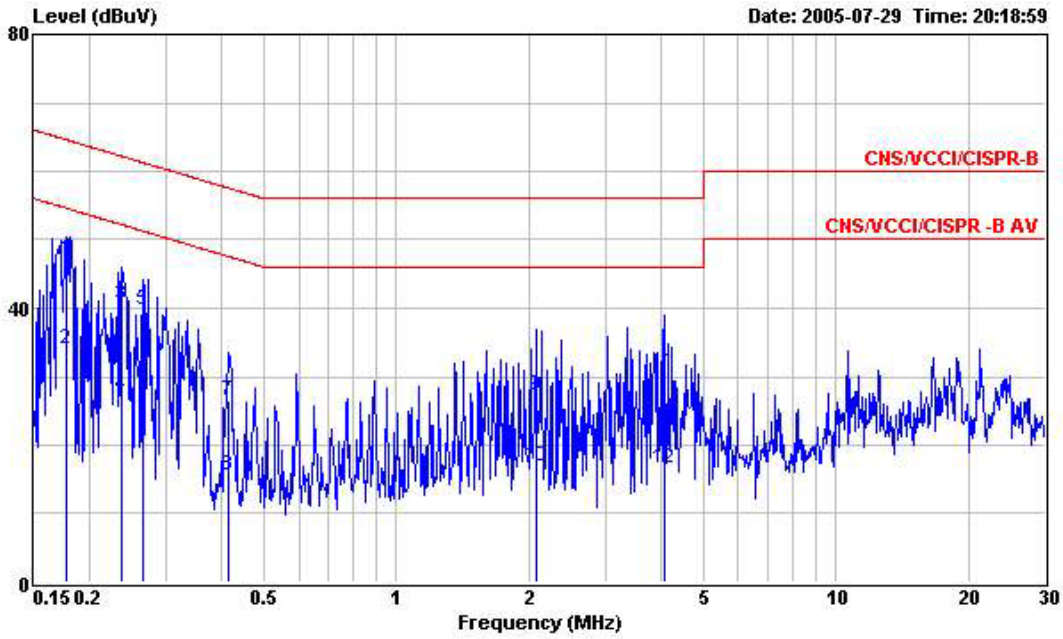
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.169	52.83	-12.19	65.02	52.71	0.10	0.02	QP
2	0.169	39.07	-15.95	55.02	38.95	0.10	0.02	Average
3	0.336	41.30	-18.01	59.31	41.19	0.10	0.01	QP
4	0.336	24.87	-24.44	49.31	24.76	0.10	0.01	Average
5	0.540	21.10	-24.90	46.00	20.97	0.10	0.03	Average
6	0.540	33.01	-22.99	56.00	32.88	0.10	0.03	QP
7	0.689	21.55	-24.45	46.00	21.41	0.10	0.04	Average
8	0.689	34.46	-21.54	56.00	34.32	0.10	0.04	QP
9	0.946	31.36	-24.64	56.00	31.20	0.10	0.06	QP
10	0.946	25.67	-20.33	46.00	25.51	0.10	0.06	Average
11	1.166	32.49	-23.51	56.00	32.33	0.10	0.06	QP
12	1.166	24.37	-21.63	46.00	24.21	0.10	0.06	Average

Test Engineer : Jay

5.4.3 Test Mode: Mode 3

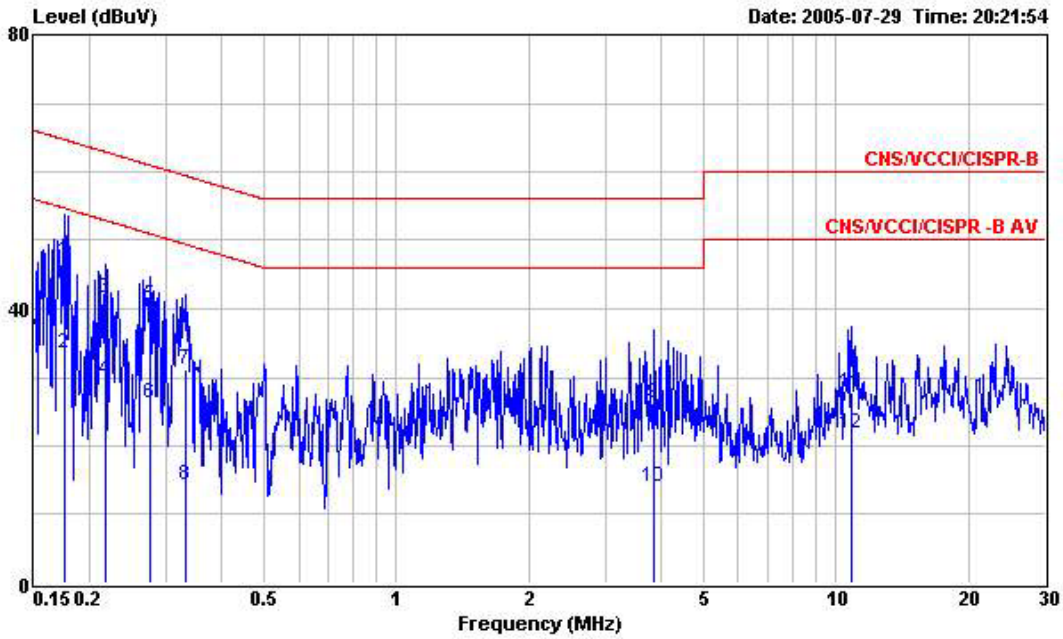
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 28°C
- Relative Humidity: 59 %
- All emissions not reported here are more than 10 dB below the prescribed limit.

The test that passed at the minimum margin was marked by a frame in the following data



Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2005 2001/008 LINE
EUT : Tri-Band GSM Mobil Phone
Power : 120V/60Hz
Model : FM303
Memo : PCS 1900 Idle MODE+USB LINK

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.177	46.99	-17.64	64.63	46.88	0.10	0.01	QP
2	0.177	33.98	-20.65	54.63	33.87	0.10	0.01	Average
3	0.238	40.54	-21.63	62.17	40.43	0.10	0.01	QP
4	0.238	27.35	-24.82	52.17	27.24	0.10	0.01	Average
5	0.266	39.80	-21.44	61.24	39.69	0.10	0.01	QP
6	0.266	28.74	-22.50	51.24	28.63	0.10	0.01	Average
7	0.415	26.55	-31.00	57.55	26.43	0.10	0.02	QP
8	0.415	15.65	-31.90	47.55	15.53	0.10	0.02	Average
9	2.080	27.25	-28.75	56.00	27.06	0.11	0.08	QP
10	2.080	16.84	-29.16	46.00	16.65	0.11	0.08	Average
11	4.070	30.61	-25.39	56.00	30.27	0.20	0.14	QP
12	4.070	16.57	-29.43	46.00	16.23	0.20	0.14	Average



Site : CO01-HY
Condition : CNS/VCCI/CISPR-B 2005 2001/008 NEUTRAL
EUT : Tri-Band GSM Mobil Phone
Power : 120Vac/ 60Hz
Model : FM303
Memo : PCS 1900 Idle MODE+USB LINK

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.176	46.93	-17.74	64.67	46.82	0.10	0.01	QP
2	0.176	33.51	-21.16	54.67	33.40	0.10	0.01	Average
3	0.217	41.64	-21.29	62.93	41.54	0.10	0.00	QP
4	0.217	29.64	-23.29	52.93	29.54	0.10	0.00	Average
5	0.274	40.55	-20.45	61.00	40.44	0.10	0.01	QP
6	0.274	26.19	-24.81	51.00	26.08	0.10	0.01	Average
7	0.330	31.22	-28.23	59.45	31.11	0.10	0.01	QP
8	0.330	14.41	-35.04	49.45	14.30	0.10	0.01	Average
9	3.860	26.20	-29.80	56.00	25.87	0.19	0.14	QP
10	3.860	13.94	-32.06	46.00	13.61	0.19	0.14	Average
11	10.850	27.70	-32.30	60.00	27.26	0.30	0.14	QP
12	10.850	21.78	-28.22	50.00	21.34	0.30	0.14	Average

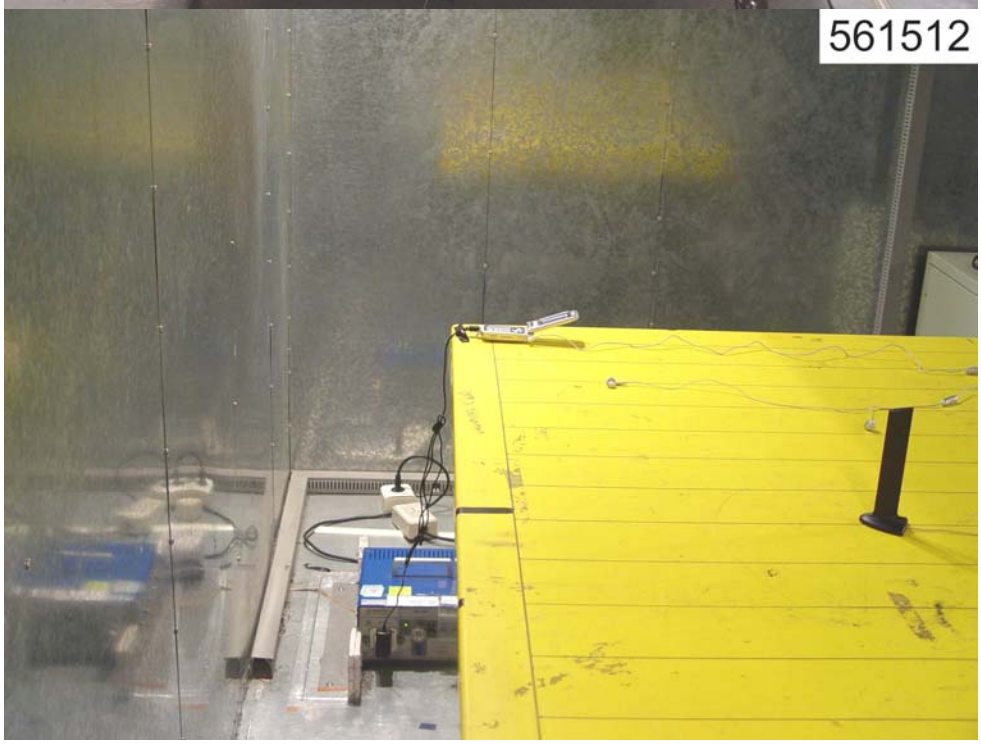
Test Engineer : Jay

5.5 Photographs of Conducted Powerline Test Configuration

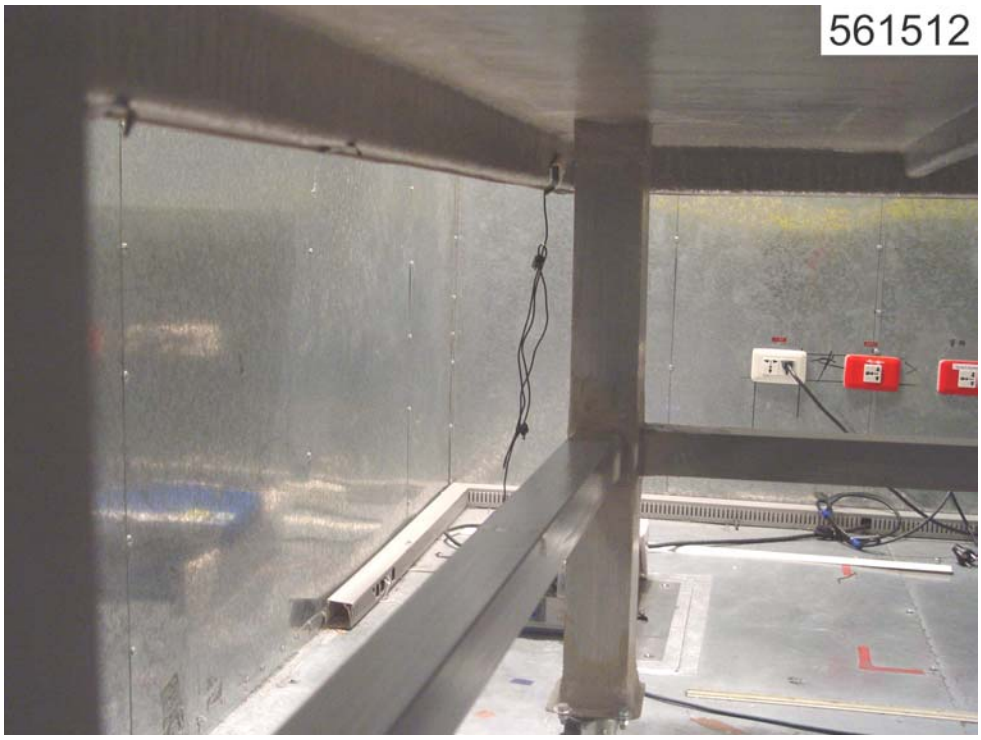
Mode 1~2

Front View

Rear View

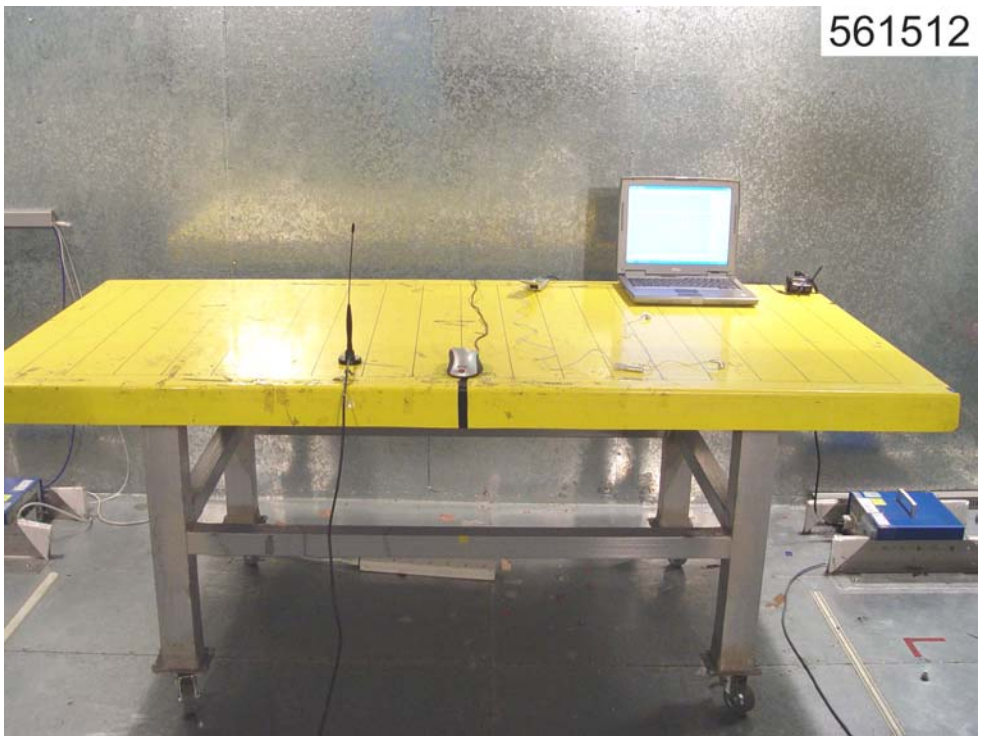


Side View

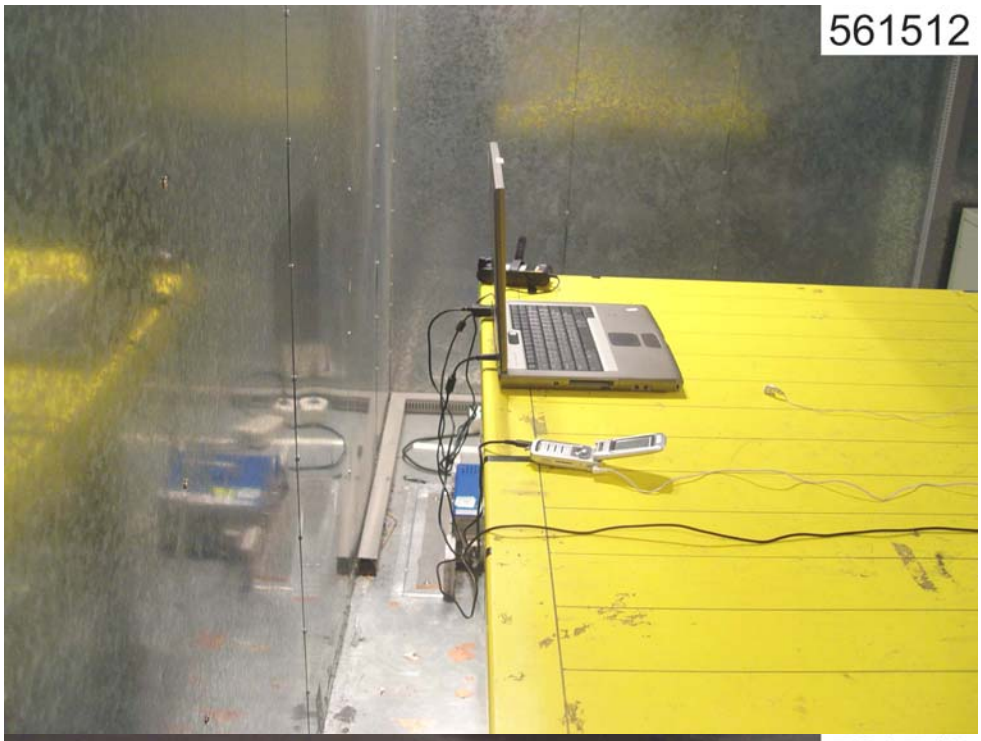


Mode 3

Front View



Rear View



Side View

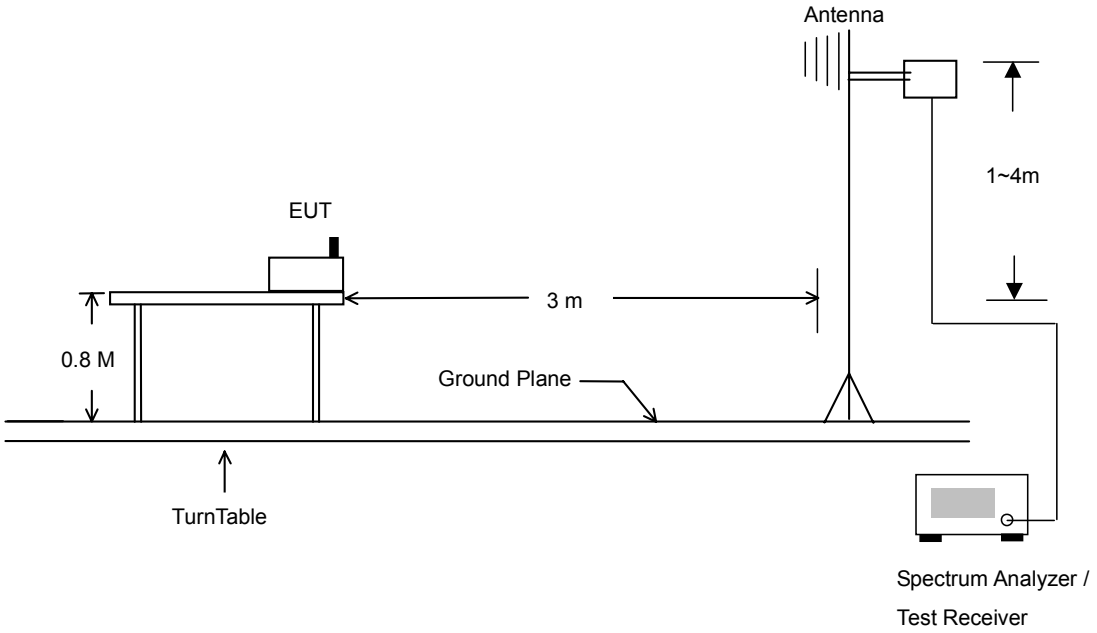
6. Test of Radiated Emission

Radiated emissions from 30 MHz to 9000 MHz were measured with a bandwidth of 120 kHz and 1MHz according to the methods defines in ANSI C63.4-2003. The EUT was placed on a nonmetallic stand, 0.8 meter above the ground plane, as shown in section 6.3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions.

6.1 Major Measuring Instruments

As described in Chapter 7.

6.2 Test Procedures

a. The EUT was placed on a rotatable table top 0.8 meter above ground.
b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
c. The table was rotated 360 degrees to determine the position of the highest radiation.
d. The antenna is a Bi-Log antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both for horizontal polarization and vertical polarization of the antenna.
e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
f. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.
g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.

6.3 Typical Test Setup Layout of Radiated Emission