SPORTON LAB.

NVLAP LAB CODE 200079-0

Certificate No: FD511807-02

CERTIFICATE OF COMPLIANCE

Authorized under Declaration of Conformity
according to
47 CFR,Part 2 and Part 15 of the FCC Rules

EQUIPMENT	:	EGSM900/GSM1800/PCS1900 GSM/GPRS mobile phone
TRADE NAME	:	NOKIA
MODEL	:	RM-139
APPLICANT	:	Nokia (China) Investment Co., Ltd. Pacific Century Place 2A, Gong Ti Bei Ku, Chaoyang District, Beijing, China

SPORTON LAB.

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 in BOTH RADIATED AND CONDUCTED EMISSIONS CLASS B LIMITS. THE TESTING WAS COMPLETED ON Oct. 04, 2005 AT SPORTON INTERNATIONAL INC. LAB.

Daniel Lee

Dr. Daniel Lee
EMC / SAR Manager

FCC TEST REPORT

according to

47 CFR Part 15 Subpart B

Equipment	:	**EGSM900/GSM1800/PCS1900 GSM/GPRS mobile phone**
Trade Name	:	**NOKIA**
Model No.	:	**RM-139**
FCC ID	:	**QTLRM-139**
Filing Type	:	**Declaration of Conformity**
Applicant	:	**Nokia (China) Investment Co., Ltd.** Pacific Century Place 2A, Gong Ti Bei Ku, Chaoyang District, Beijing, China
Reference Number	:	**NL-6000**

- The test result refers exclusively to the test presented test model / sample.
- Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.
- Certificate or Test Report must not be used by the applicant to claim the product in this test report endorsement 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

Report Issue Date: Oct. 11, 2005

Original Report Issue Date	Description

Certificate No. : FD511807-02

CERTIFICATE OF COMPLIANCE

according to

47 CFR Part 15 Subpart B

Equipment : EGSM900/GSM1800/PCS1900 GSM/GPRS mobile phone
Trade Name : NOKIA
Model No. : RM-139
FCC ID : QTLRM-139
Filing Type : Declaration of Conformity
Applicant : Nokia (China) Investment Co., Ltd.
Pacific Century Place 2A, Gong Ti Bei Ku, Chaoyang District, Beijing, China

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 Oct. 04, 2005 at SPORTON International Inc. LAB.

Dr. Daniel Lee
EMC / SAR Director

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

Nokia (China) Investment Co., Ltd.
Pacific Century Place 2A, Gong Ti Bei Ku, Chaoyang District, Beijing, China

1.2 Manufacturer

Beijing economic & technology development area
No. 5 Donghuan Zhonglu, Beijing, 100176, P.R.China

1.3 Basic Description of Equipment under Test

Equipment	:	EGSM900/GSM1800/PCS1900 GSM/GPRS mobile phone
Trade Name	:	NOKIA
Model No.	:	RM-139
FCC ID	:	QTLRM-139
Power Supply Type	:	Switching, DC 3.7V
AC Power Cord	:	AC 120V, Wall-mount, 1.8 meter, 2 pin
Earphone	:	HS-46
Adapter	:	AC-1001C
Battery	:	BP-3001L

1.4 Feature of Equipment under Test

Product Feature & Specification	
1. DUT Type :	EGSM900/GSM1800/PCS1900 GSM/GPRS mobile phone
2. Trade Name :	NOKIA
3. Model Name :	RM-139
4. FCC ID :	QTLRM-139
6. Tx Frequency :	1850-1910MHz (PCS); 2400-2483.5MHz (Bluetooth)
7. Rx Frequency :	1930-1990MHz (PCS); 2400-2483.5MHz (Bluetooth)
8. HW Version :	101A1-1
9. SW Version :	50902_CN_r1(preV3)
10. Type of Modulation :	GMSK(PCS); FHSS(Bluetooth)
11. DUT Stage :	Production Unit

2. Test Configuration of Equipment under Test

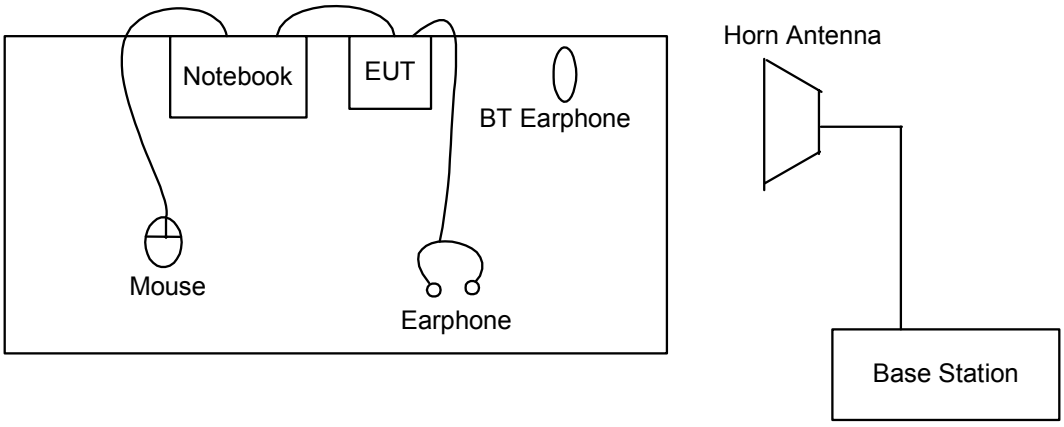
2.1 Test Manner

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 + MP3 Player + BT Link + USB Link
Mode 2: PCS Idle Mode + Camera + BT Link + USB Link
d. The following test modes were tested for radiation test:
Mode 1: PCS Idle Mode + MP3 Player + BT Link + USB Link
Mode 2: PCS Idle Mode + Camera + BT Link + USB Link
e. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 13000MHz.

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 (LOGITECH)	M-BE58	Aluminum foil-shielded, 1.7m
4.	BT Earphone (Freestyle)	JD-100	N/A

2.3 Connection Diagram of Test System



3. Test Software

The EUT is in GSM 1900 Idle mode controlled by Base Station Simulator.
At the same time, BT is linked with BT earphone.

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 13000MHz

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.

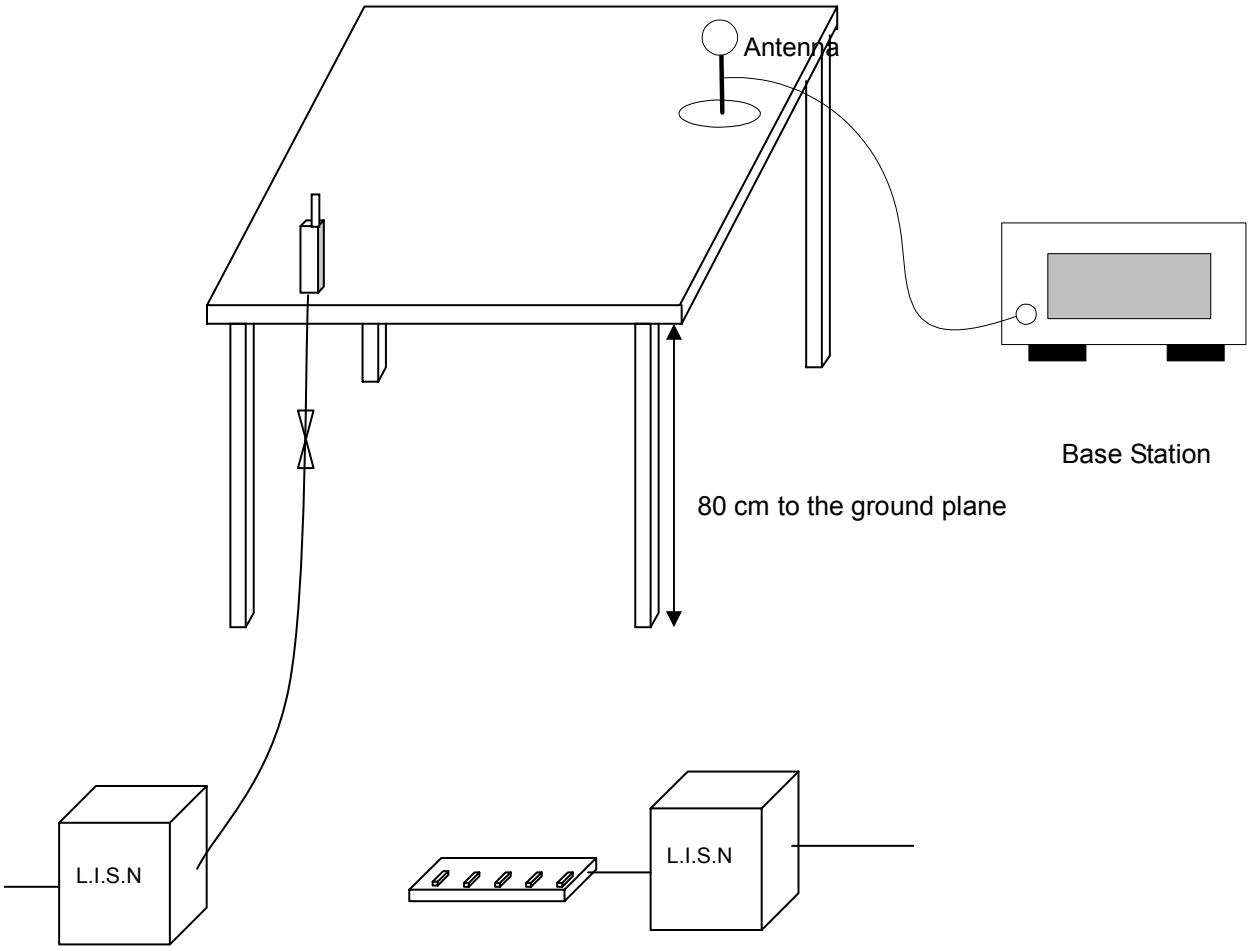
5.1 Major Measuring Instruments

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

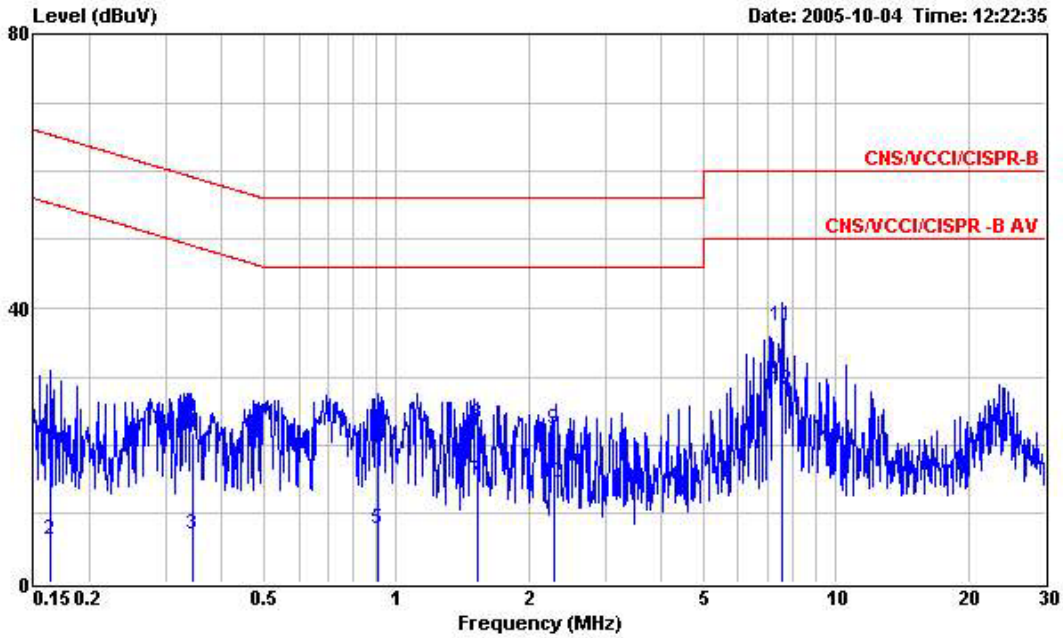


5.4 Test Result of AC Powerline Conducted Emission

5.4.1 Test Mode: Mode 1

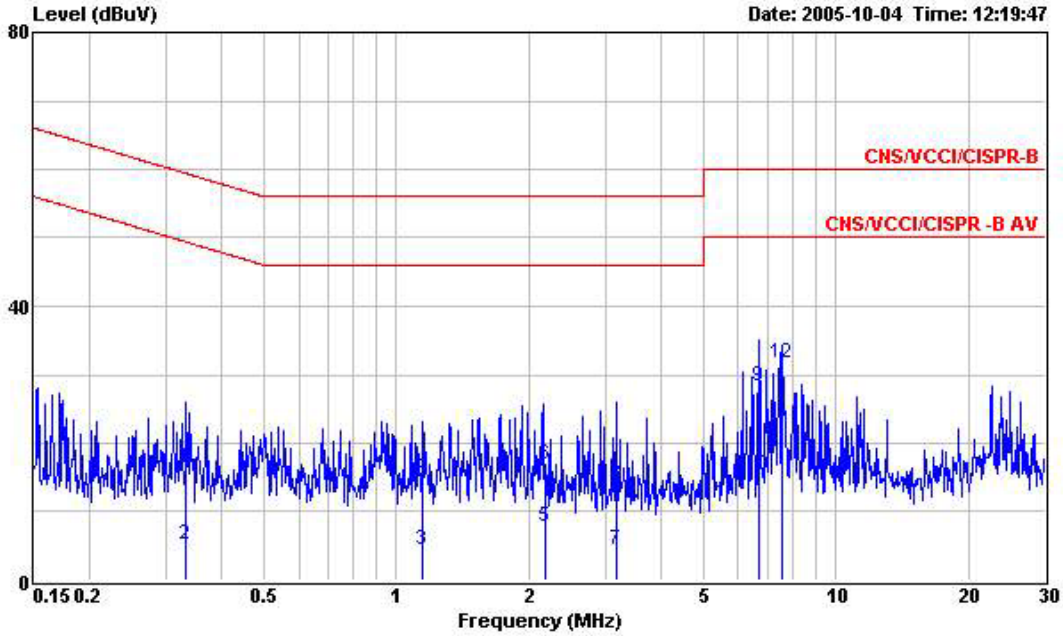
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 22°C
- Relative Humidity: 62%
- All emissions not reported here are more than 10 dB below the prescribed limit.

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



Site : site
Condition : CNS/VCCI/CISPR-B 2001/004 200505 LINE
EUT : GSM Tri Band Mobil Phone(Bluetooth)
Power : 120V/60Hz
Model : FD511807-02
Memo : PCS 1900 Idle + MP3 Player + BT Link
Memo : + USB Link
Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.163	19.58	-45.73	65.31	19.39	0.06	0.13	QP
2	0.163	6.27	-49.04	55.31	6.08	0.06	0.13	Average
3	0.344	7.14	-41.96	49.10	7.01	0.06	0.07	Average
4	0.344	21.85	-37.25	59.10	21.72	0.06	0.07	QP
5	0.910	7.71	-38.29	46.00	7.53	0.10	0.08	Average
6	0.910	21.67	-34.33	56.00	21.49	0.10	0.08	QP
7	1.528	14.72	-31.28	46.00	14.51	0.11	0.10	Average
8	1.528	23.08	-32.92	56.00	22.87	0.11	0.10	QP
9	2.295	22.23	-33.77	56.00	21.97	0.13	0.13	QP
10	2.295	14.45	-31.55	46.00	14.19	0.13	0.13	Average
11	7.530	37.42	-22.58	60.00	37.01	0.21	0.20	QP
12	7.530	28.05	-21.95	50.00	27.64	0.21	0.20	Average



Site : site
Condition : CNS/VCCI/CISPR-B 2001/004 200505 NEUTRAL
EUT : GSM Tri Band Mobil Phone(Bluetooth)
Power : 120V/60Hz
Model : FD511807-02
Memo : PCS 1900 Idle + MP3 Player + BT Link
Memo : + USB Link
Memo :

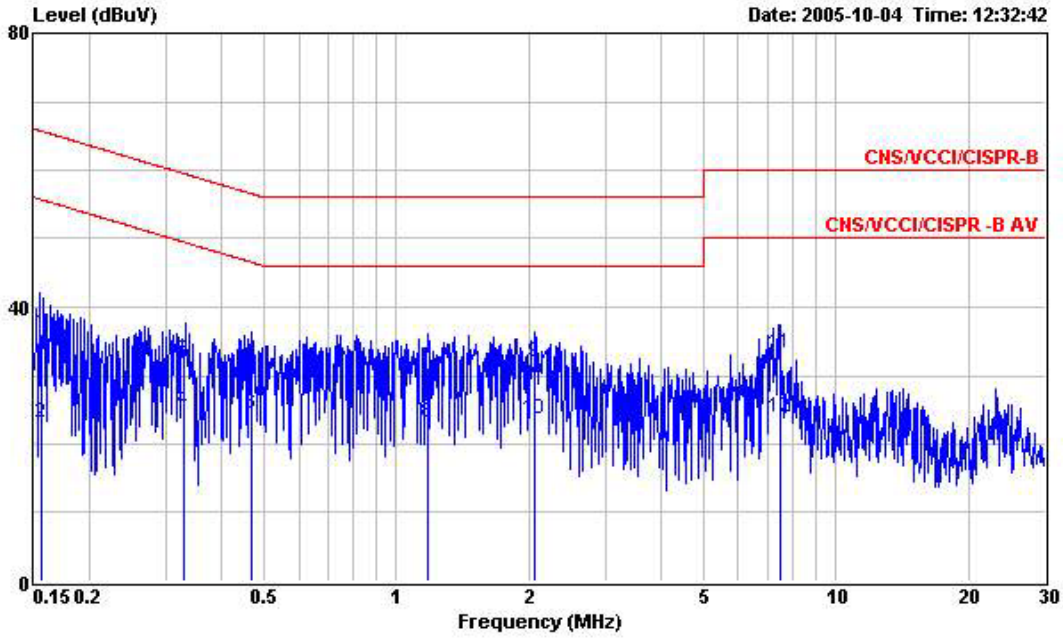
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.332	16.49	-42.91	59.40	16.31	0.11	0.07	QP
2	0.332	5.16	-44.24	49.40	4.98	0.11	0.07	Average
3	1.150	4.48	-41.52	46.00	4.16	0.23	0.09	Average
4	1.150	15.03	-40.97	56.00	14.71	0.23	0.09	QP
5	2.182	7.82	-38.18	46.00	7.46	0.23	0.13	Average
6	2.182	16.91	-39.09	56.00	16.55	0.23	0.13	QP
7	3.160	4.47	-41.53	46.00	4.09	0.23	0.15	Average
8	3.160	13.98	-42.02	56.00	13.60	0.23	0.15	QP
9	6.652	28.29	-31.71	60.00	27.81	0.29	0.19	QP
10	6.652	15.29	-34.71	50.00	14.81	0.29	0.19	Average
11	7.530	21.43	-28.57	50.00	20.93	0.30	0.20	Average
12	7.530	31.62	-28.38	60.00	31.12	0.30	0.20	QP

Test Engineer : Jay

5.4.2 Test Mode: Mode 2

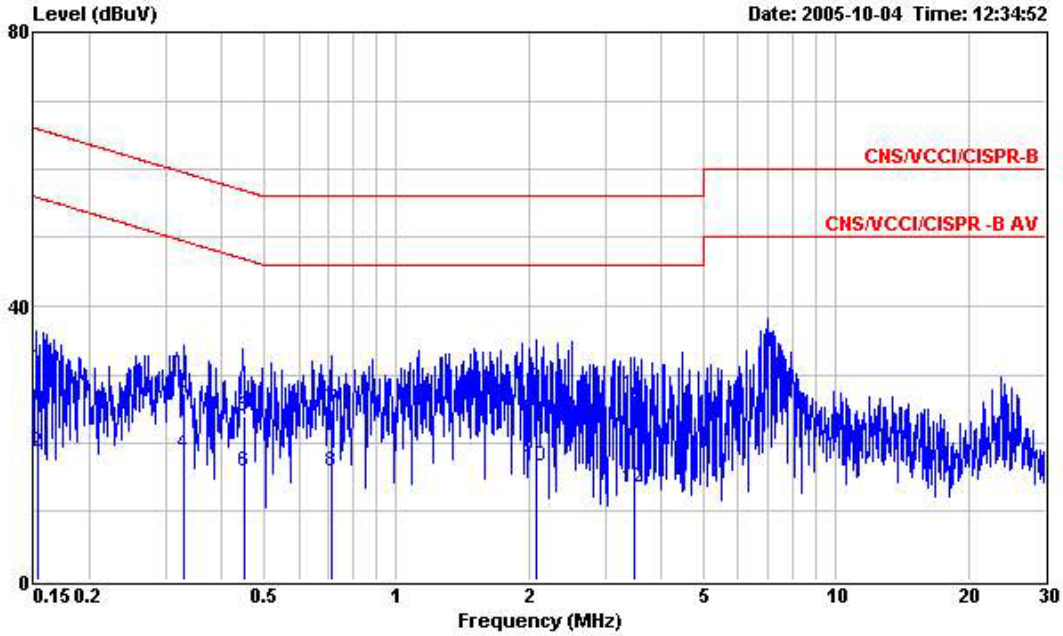
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 22°C
- Relative Humidity: 62%
- All emissions not reported here are more than 10 dB below the prescribed limit.

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



Site : site
Condition : CNS/VCCI/CISPR-B 2001/004 200505 LINE
EUT : GSM Tri Band Mobil Phone(Bluetooth)
Power : 120V/60Hz
Model : FD511807-02
Memo : PCS 1900 Idle + CAMERA + BT Link
Memo : + USB Link
Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.156	36.02	-29.64	65.66	35.84	0.06	0.12	QP
2	0.156	23.10	-32.56	55.66	22.92	0.06	0.12	Average
3	0.329	32.16	-27.33	59.49	32.03	0.06	0.07	QP
4	0.329	25.01	-24.48	49.49	24.88	0.06	0.07	Average
5	0.466	31.82	-24.76	56.58	31.70	0.07	0.05	QP
6	0.466	24.43	-22.15	46.58	24.31	0.07	0.05	Average
7	1.180	31.04	-24.96	56.00	30.84	0.11	0.09	QP
8	1.180	23.11	-22.89	46.00	22.91	0.11	0.09	Average
9	2.070	31.93	-24.07	56.00	31.70	0.11	0.12	QP
10	2.070	23.76	-22.24	46.00	23.53	0.11	0.12	Average
11	7.450	33.13	-26.87	60.00	32.72	0.21	0.20	QP
12	7.450	23.99	-26.01	50.00	23.58	0.21	0.20	Average



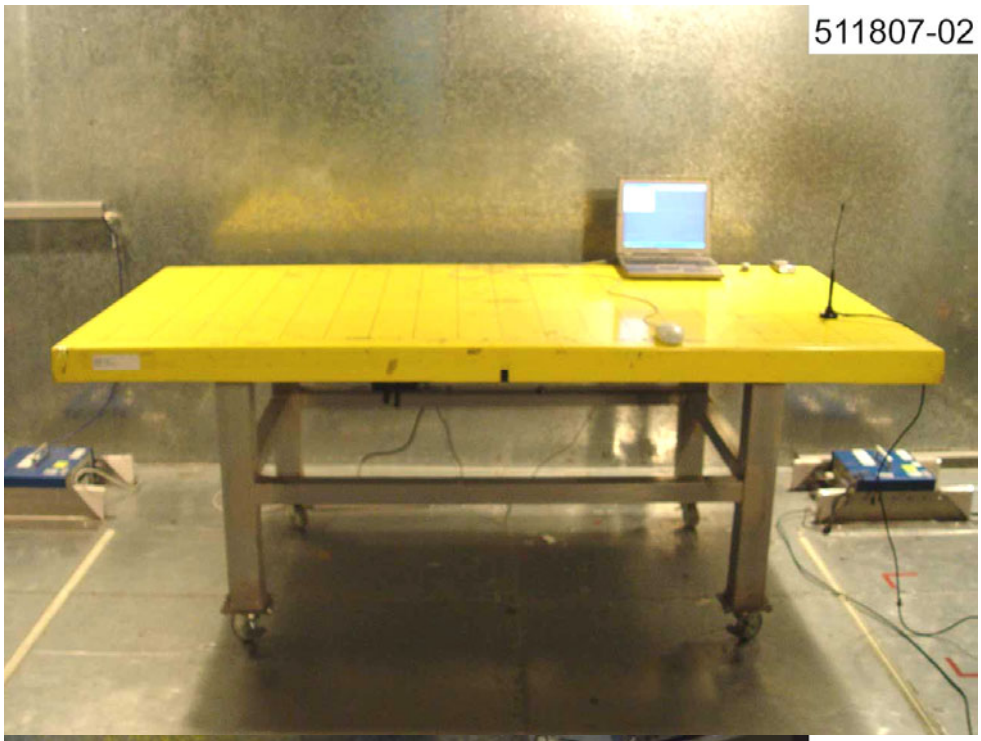
Site : site
Condition : CNS/VCCI/CISPR-B 2001/004 200505 NEUTRAL
EUT : GSM Tri Band Mobil Phone(Bluetooth)
Power : 120V/60Hz
Model : FD511807-02
Memo : PCS 1900 Idle + CAMERA + BT Link
Memo : + USB Link
Memo :

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	30.89	-34.98	65.87	30.67	0.11	0.11	QP
2	0.152	18.75	-37.12	55.87	18.53	0.11	0.11	Average
3	0.329	27.34	-32.14	59.48	27.16	0.11	0.07	QP
4	0.329	18.39	-31.09	49.48	18.21	0.11	0.07	Average
5	0.452	24.00	-32.84	56.84	23.82	0.13	0.05	QP
6	0.452	15.91	-30.93	46.84	15.73	0.13	0.05	Average
7	0.712	24.98	-31.02	56.00	24.72	0.19	0.07	QP
8	0.712	15.73	-30.27	46.00	15.47	0.19	0.07	Average
9	2.090	27.98	-28.02	56.00	27.63	0.23	0.12	QP
10	2.090	16.70	-29.30	46.00	16.35	0.23	0.12	Average
11	3.490	27.09	-28.91	56.00	26.71	0.23	0.15	QP
12	3.490	13.39	-32.61	46.00	13.01	0.23	0.15	Average

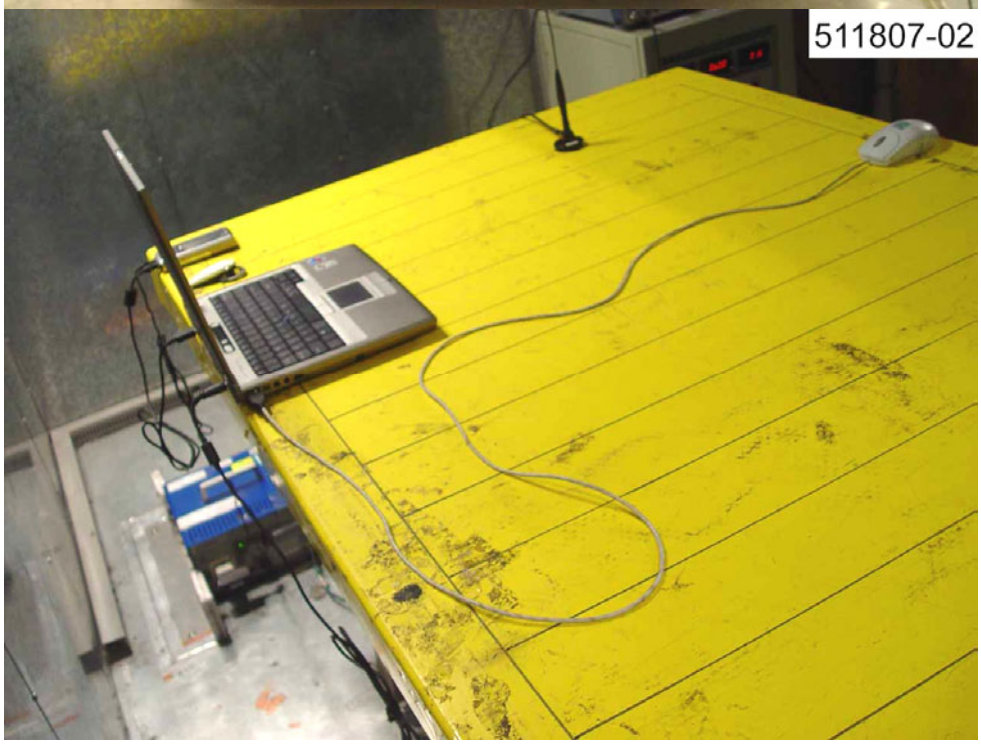
Test Engineer : Jay

5.5 Photographs of Conducted Powerline Test Configuration

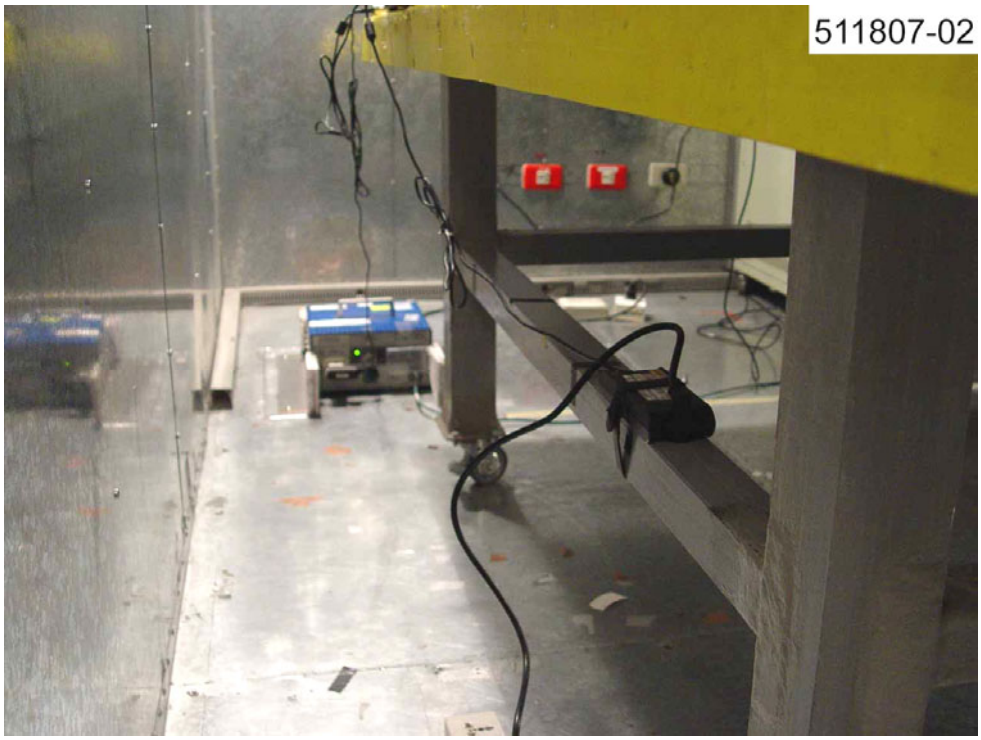
Front View



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.

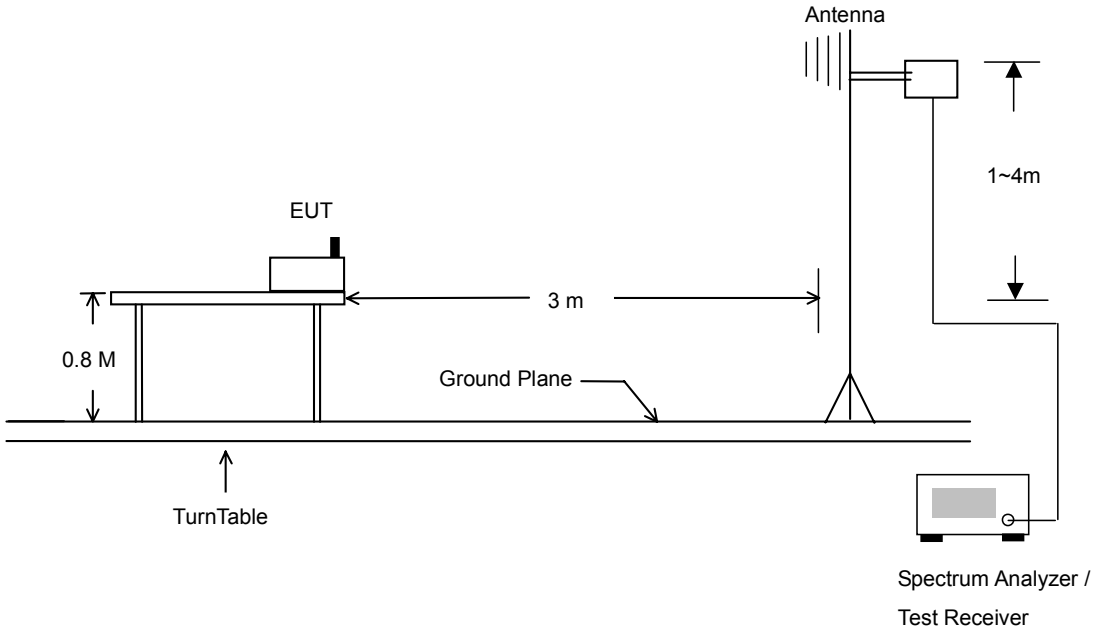
6.1 Major Measuring Instruments

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

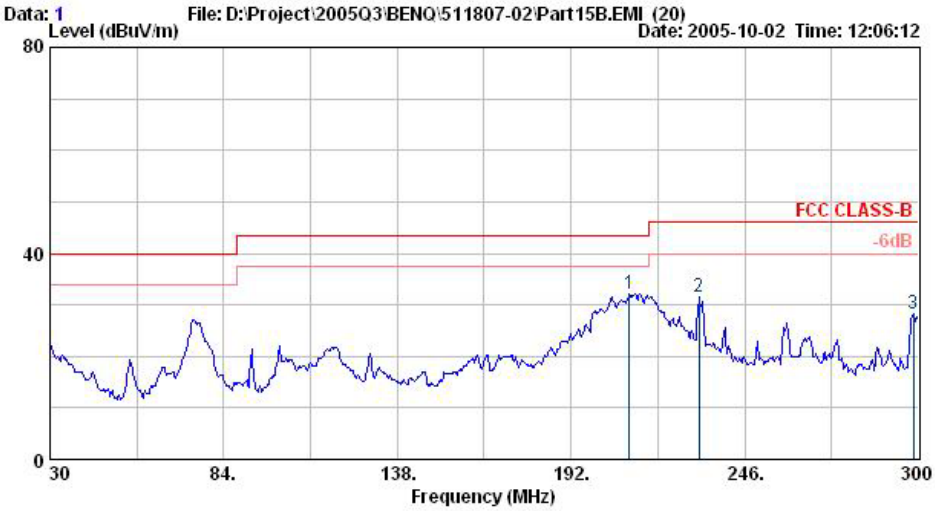


6.4 Test Result of Radiated Emission

6.4.1 Test Mode: Mode 1

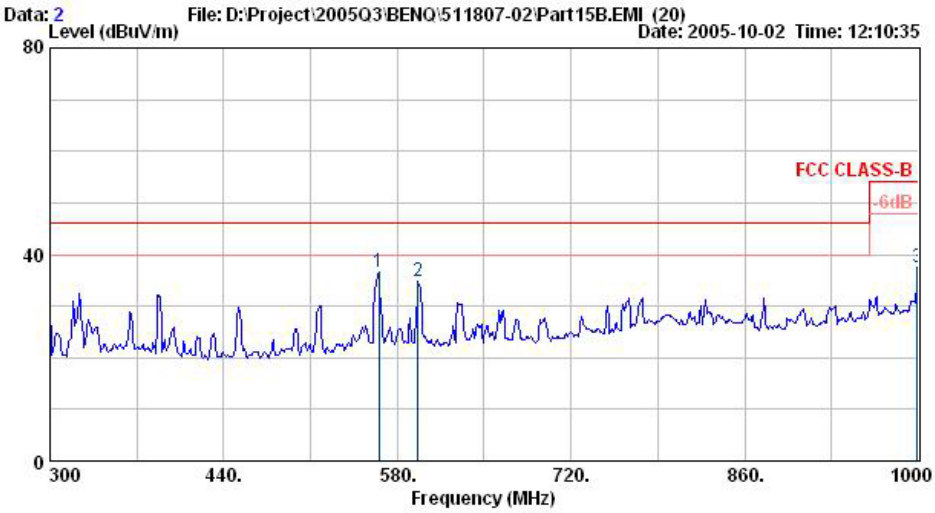
- Test Distance: 3m
- Temperature: 26°C
- Relative Humidity: 52%
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

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



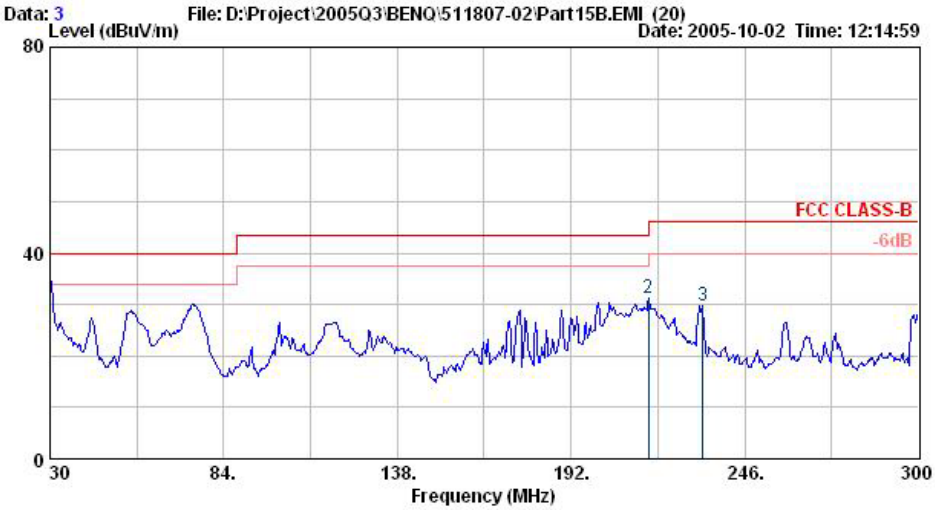
Site : 03CH06-HY
Condition : BI-LOG-2004-1122 HORIZONTAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
Memo : PCS1900 Idle Mode+MP3+BT Link
: +USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	210.09	32.25	-11.25	43.50	51.86	9.70	2.04	31.35	400	0	Peak
2 @	231.69	31.42	-14.58	46.00	50.13	10.36	2.19	31.26	400	0	Peak
3 @	298.38	28.22	-17.78	46.00	43.93	12.94	2.54	31.20	400	0	Peak



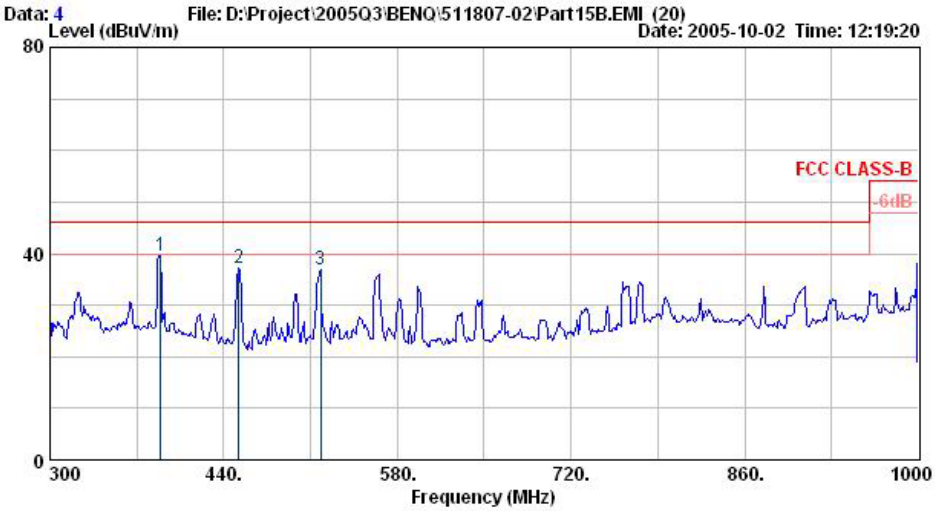
Site : 03CH06-HY
Condition : BI-LOG-2004-1122 HORIZONTAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
Memo : PCS1900 Idle Mode+MP3+BT Link
: +USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	565.30	36.58	-9.42	46.00	44.87	18.46	3.93	30.68	100	0	Peak
2 @	596.80	34.65	-11.35	46.00	43.23	18.00	4.12	30.70	100	0	Peak
3 @	999.30	37.36	-16.64	54.00	38.82	22.94	6.20	30.60	100	0	Peak



Site : 03CH06-HY
Condition : BI-LOG-2004-1122 VERTICAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
Memo : PCS1900 Idle Mode+MP3+BT Link
: +USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	30.00	35.22	-4.78	40.00	47.10	18.73	0.88	31.49	400	0	Peak
2 @	216.03	31.15	-14.85	46.00	50.76	9.58	2.09	31.28	400	0	Peak
3 @	233.04	29.82	-16.18	46.00	48.43	10.44	2.20	31.24	400	0	Peak



Site : 03CH06-HY
Condition : BI-LOG-2004-1122 VERTICAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
Memo : PCS1900 Idle Mode+MP3+BT Link
: +USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	388.90	39.70	-6.30	46.00	52.08	15.56	2.93	30.86	100	0	Peak
2 @	451.90	37.19	-8.82	46.00	48.27	16.43	3.32	30.84	100	0	Peak
3 @	518.40	36.81	-9.19	46.00	47.38	16.87	3.59	31.02	100	0	Peak

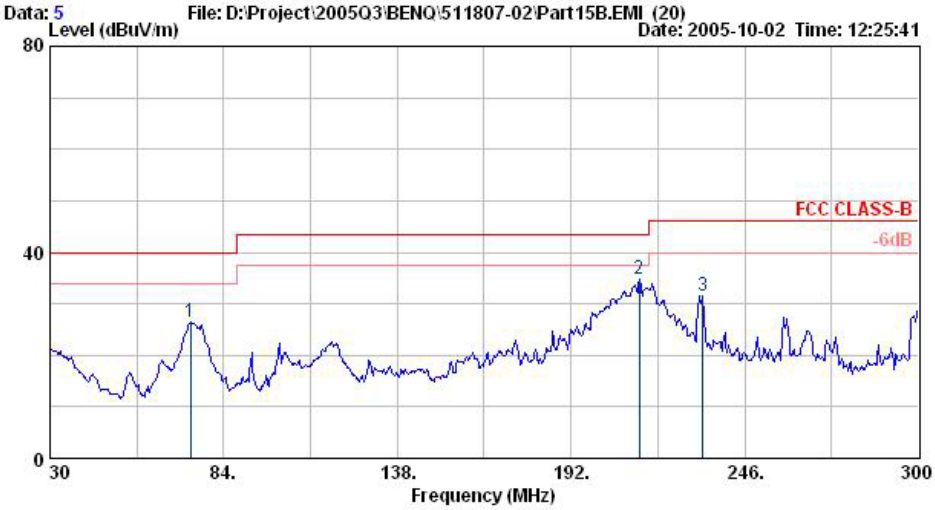
Remark: The spurious emission above 1GHz is too low to be taken.

Test Engineer : _____
Jay

6.4.2 Test Mode: Mode 2

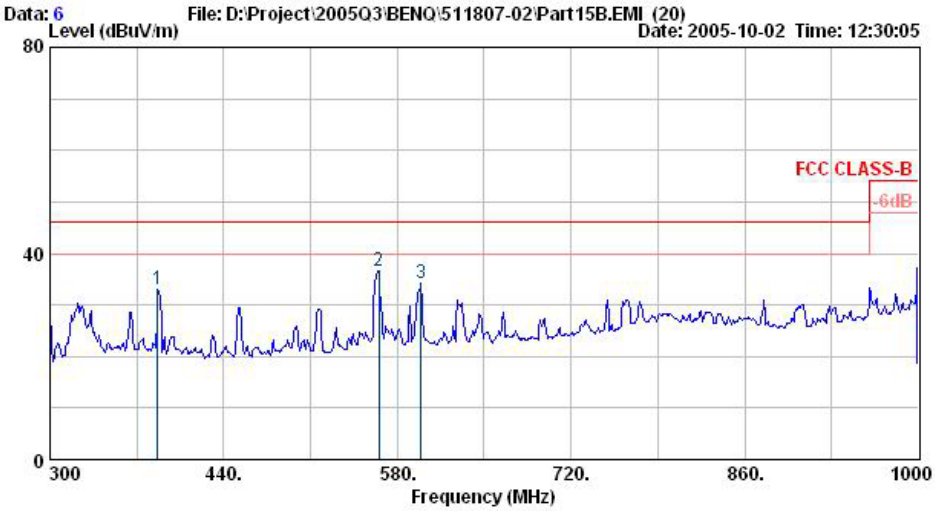
- Test Distance: 3m
- Temperature: 26°C
- Relative Humidity: 52%
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

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



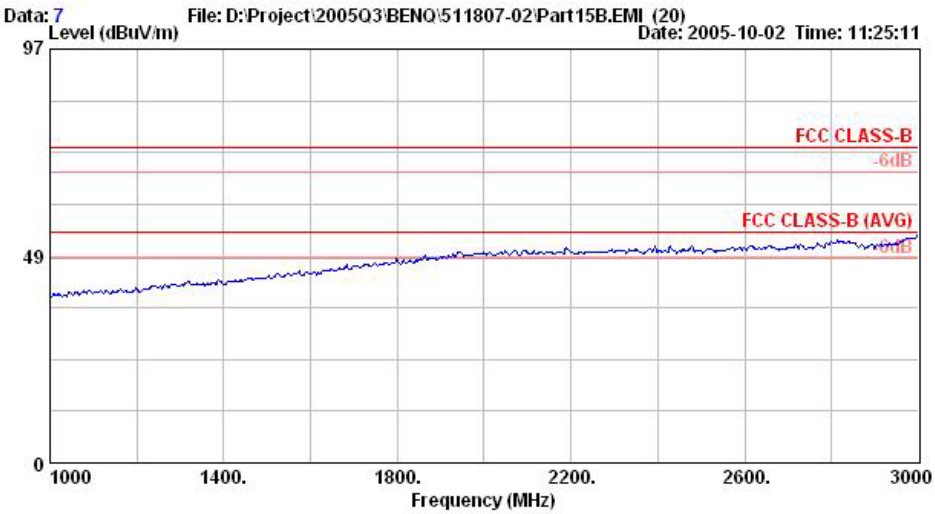
Site : 03CH06-HY
Condition : BI-LOG-2004-1122 HORIZONTAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
Memo : PCS1900 Idle Mode+Camera+BT Link
: +USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	73.74	26.34	-13.66	40.00	50.22	6.55	1.19	31.62	400	0	Peak
2 @	213.33	34.84	-8.66	43.50	54.45	9.64	2.06	31.32	400	0	Peak
3 @	233.04	31.54	-14.46	46.00	50.15	10.44	2.20	31.24	400	0	Peak

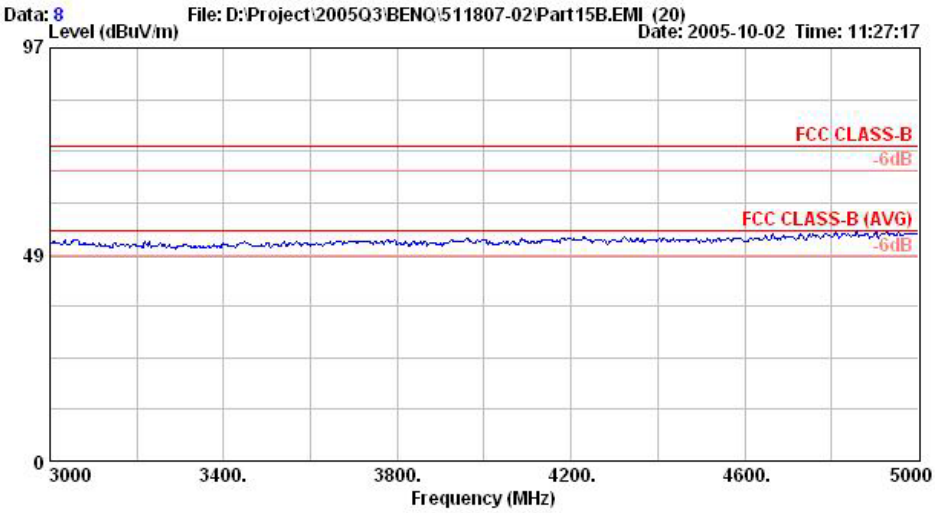


Site : 03CH06-HY
Condition : BI-LOG-2004-1122 HORIZONTAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
Memo : PCS1900 Idle Mode+Camera+BT Link
: +USB Link

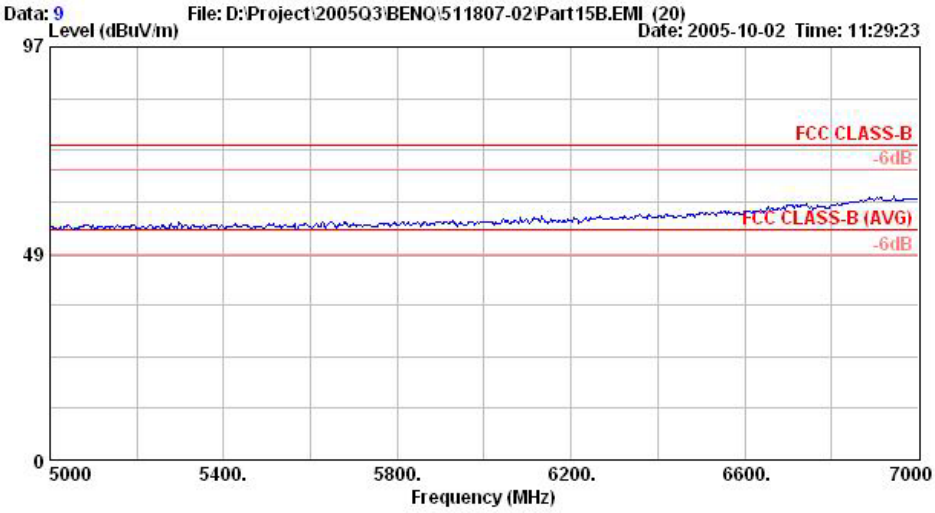
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	386.80	32.96	-13.04	46.00	45.41	15.50	2.92	30.87	100	0	Peak
2 @	565.30	36.61	-9.39	46.00	44.90	18.46	3.93	30.68	100	0	Peak
3 @	598.90	34.18	-11.82	46.00	42.72	17.97	4.13	30.65	100	0	Peak



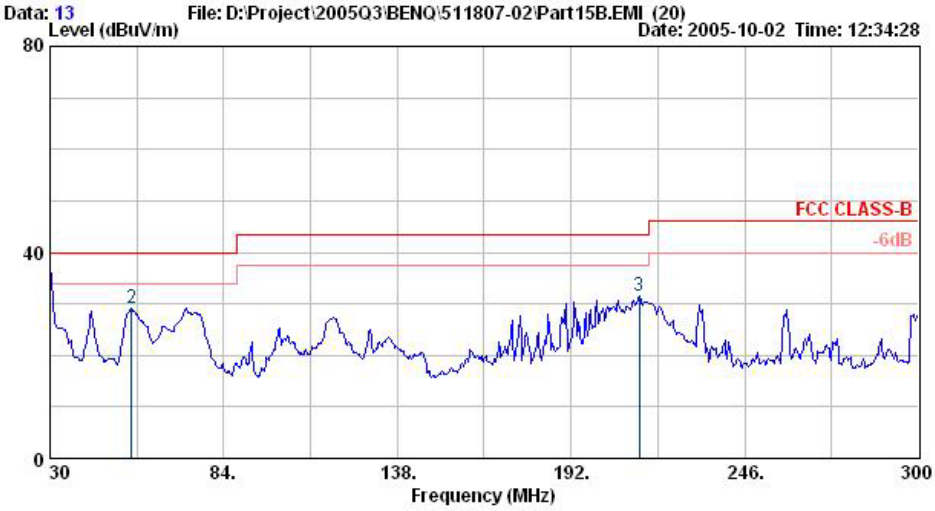
Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
Memo : PCS1900 Idle Mode+Camera+BT Link
: +USB Link



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
Memo : PCS1900 Idle Mode+Camera+BT Link
: +USB Link

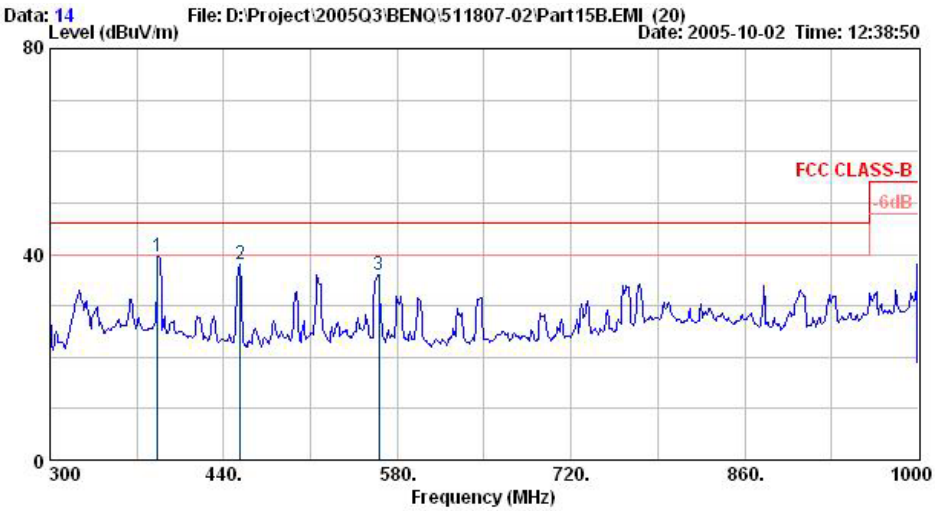


Site : 03CH06-HY
Condition : HF-ANT-071025-940201 HORIZONTAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
Memo : PCS1900 Idle Mode+Camera+BT Link
: +USB Link



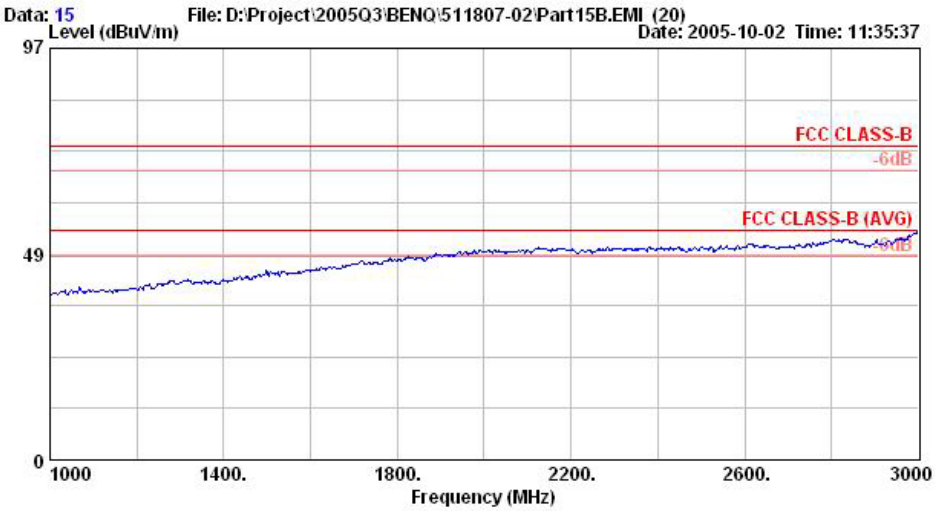
Site : 03CH06-HY
Condition : BI-LOG-2004-1122 VERTICAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
Memo : PCS1900 Idle Mode+Camera+BT Link
: +USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	30.00	36.87	-3.13	40.00	48.75	18.73	0.88	31.49	400	0	Peak
2 @	55.38	29.06	-10.94	40.00	51.30	8.18	1.02	31.44	400	0	Peak
3 @	213.33	31.53	-11.97	43.50	51.15	9.64	2.06	31.32	400	0	Peak

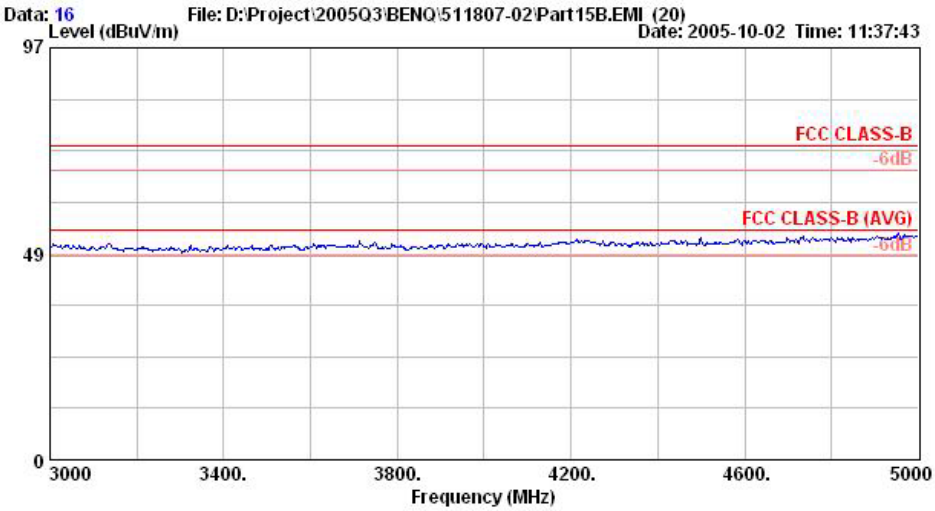


Site : 03CH06-HY
Condition : BI-LOG-2004-1122 VERTICAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
Memo : PCS1900 Idle Mode+Camera+BT Link
: +USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	386.80	39.59	-6.41	46.00	52.04	15.50	2.92	30.87	100	0	Peak
2 @	453.30	38.11	-7.89	46.00	49.16	16.45	3.32	30.83	100	0	Peak
3 @	565.30	36.04	-9.96	46.00	44.33	18.46	3.93	30.68	100	0	Peak



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
Memo : PCS1900 Idle Mode+Camera+BT Link
: +USB Link



Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
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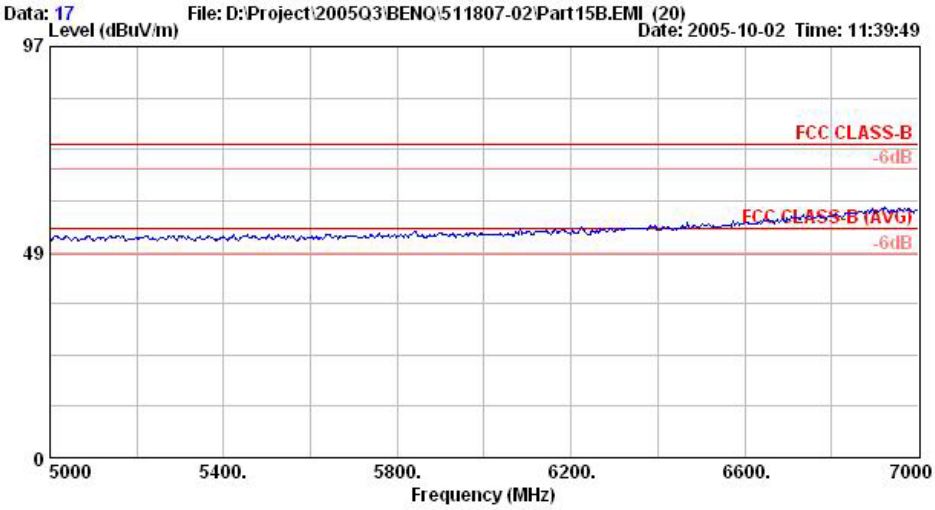
: +USB Link



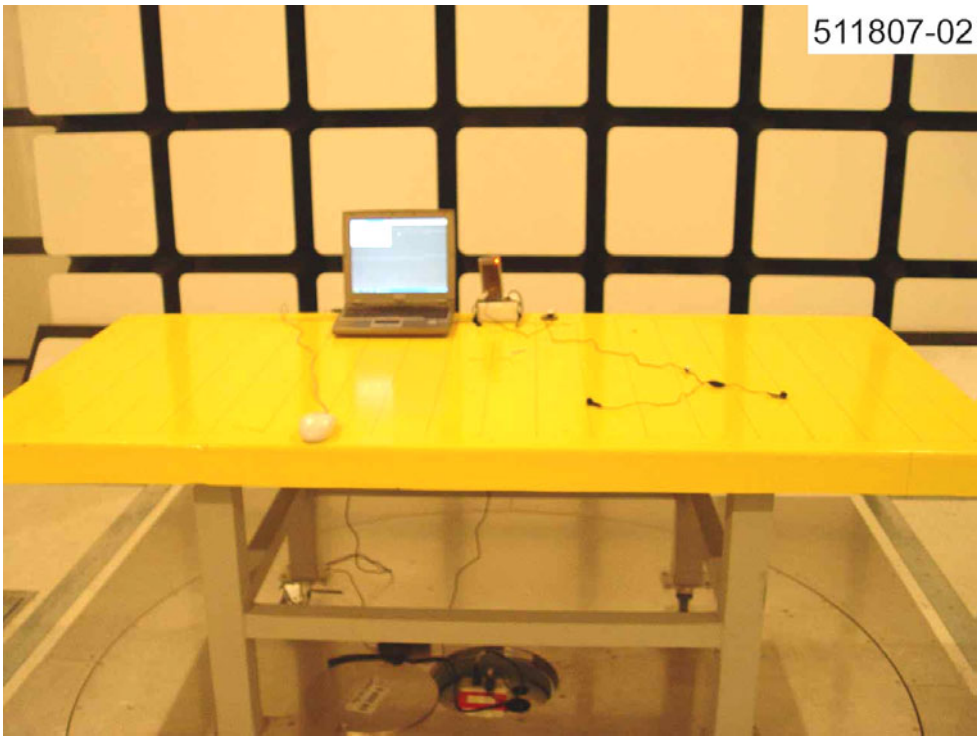
Site : 03CH06-HY
Condition : HF-ANT-071025-940201 VERTICAL
EUT : GSM Tri Band Mobile Phone(Bluetooth)
Power : 120Vac/60Hz
Model : FD511807-02
Memo : PCS1900 Idle Mode+Camera+BT Link
: +USB Link

Remark: The spurious emission above 7GHz is too low to be taken.

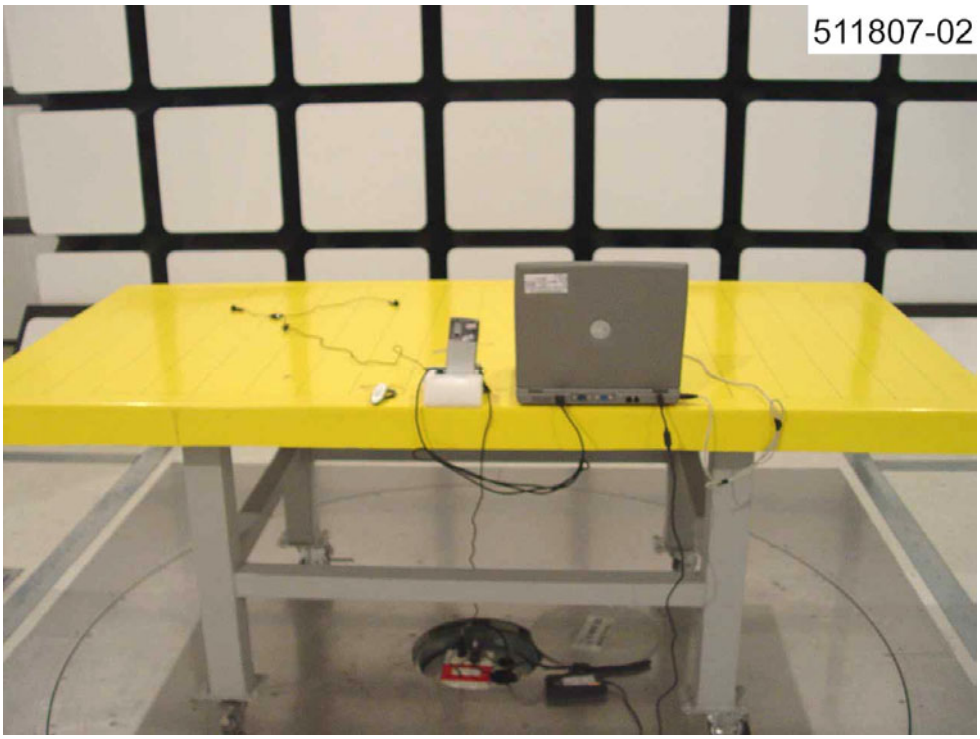
Test Engineer : Jay

6.5 Photographs of Radiated Emission Test Configuration

FRONT VIEW



REAR VIEW



7. List of Measuring Equipment Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9kHz – 2.75GHz	Feb. 19, 2005	Feb. 19, 2006	Conduction (CO01-HY)
LISN	MessTec	NNB-2/16Z	2001/009	9kHz – 30MHz	Apr. 26, 2005	Apr. 26, 2006	Conduction (CO01-HY)
LISN (Support Unit)	PIC	NNB-2/16Z	2001/008	9kHz – 30MHz	May 06, 2005	May 06, 2006	Conduction (CO01-HY)
EMI Filter	LINDGREN	LRE-2060	1004	< 450Hz	N/A	N/A	Conduction (CO01-HY)
EMI Filter	LINDGREN	N6006	201052	0 – 60Hz	N/A	N/A	Conduction (CO01-HY)
RF Cable-CON	Suhner Switzerland	RG223/U	CB029	9kHz – 30MHz	Dec. 23, 2004	Dec. 23, 2006	Conduction (CO01-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum analyzer	Agilent	E4408B	MY44211030	9KHz-26.5GHz	Jul. 25, 2005	Jul. 24, 2006	Radiation (03CH06-HY)
Receiver	R&S	ESCS30	100356	9KHz-2.75GHz	Jun. 28, 2005	Jun. 27, 2006	Radiation (03CH06-HY)
Controller	CT	SC100	N/A	N/A	N/A	N/A	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Nov. 22, 2004	Nov. 22, 2005	Radiation (03CH06-HY)
Horn Antenna	Com-Power	AH118	071025	1G-18G	Feb. 22, 2005	Feb. 22, 2006	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-249	14G - 40G	Jul. 21, 2005	Jul. 20, 2006	Radiation (03CH06-HY)
HF Amplifier	MITEQ	AFS44	973248	0.1G - 26.5G	Dec. 17, 2004	Dec. 17, 2005	Radiation (03CH06-HY)
Amplifier	MITEQ	AMF-6F	997165	26G - 40G	Jul. 21, 2005	Jul. 20, 2006	Radiation (03CH06-HY)
Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	N/A	Radiation (03CH06-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	N/A	Radiation (03CH06-HY)

8. Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch	+0.34/-0.35	U-shape	0.24
combined standard uncertainty Uc(y)	**1.13**		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	**2.26**		

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch	+0.39/-0.41	U-shaped	0.28
combined standard uncertainty Uc(y)	**1.27**		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	**2.54**		

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Contribution	Uncertainty of x_i		$u(x_i)$	Ci	$Ci*u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR Γ1= 0.197 Antenna VSWR Γ2= 0.194 Uncertainty=20log(1-Γ1*Γ2*Γ3)	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty Uc(y)	**2.36**				
Measuring uncertainty for a level of confidence of 95% U=2Ue(y)	**4.72**				

9. Certificate of NVLAP Accreditation

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

ISO/IEC 17025:1999
ISO 9002:1994

Certificate of Accreditation

DEPARTMENT OF COMMERCE ★ UNITED STATES OF AMERICA ★

SPORTON INTERNATIONAL, INC.
TAIPEI HSIEN 221
TAIWAN

is recognized by the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria set forth in NIST Handbook 150:2001, all requirements of ISO/IEC 17025:1999, and relevant requirements of ISO 9002:1994. Accreditation is awarded for specific services, listed on the Scope of Accreditation, for:

ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

December 31, 2005
Effective through

For the National Institute of Standards and Technology
NVLAP Lab Code: 200079-0

NVLAP-01C (06-01)