



**SPORTON LAB.**



Certificate No: FD701101-01

# CERTIFICATE OF COMPLIANCE

Authorized under Declaration of Conformity  
according to

47 CFR, Part 2 and Part 15 of the FCC Rules

- **Equipment** : Neo 1973
- Trade Name** : FIC
- Model No.** : GTA02E
- FCC ID** : EUNGTA02E
- Applicant** : FIC (First International Computer, Inc.)

1-9F., No. 300, Yang Guang, NeiHu, Taipei, Taiwan, 114



**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 RADIATED AND CONDUCTED EMISSIONS CLASS B LIMITS. THE TESTING WAS COMPLETED ON Dec 19, 2007 AT SPORTON INTERNATIONAL INC. LAB.

Roy Wu  
Manager



# FCC Test Report

according to

**47 CFR Part 15 Subpart B**

**Equipment** : Neo 1973  
**Trade Name** : FIC  
**Model No.** : GTA02E  
**FCC ID** : EUNGTA02E  
**Filing Type** : Declaration of Conformity  
**Applicant** : **FIC (First International Computer, Inc.)**  
1-9F., No. 300, Yang Guang, NeiHu, Taipei, Taiwan, 114

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- 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.
- Report Version: Rev. 01

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

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### History of this test report

Report Issue Date: Jan. 04, 2008

Report No.	Description

## CERTIFICATE OF COMPLIANCE

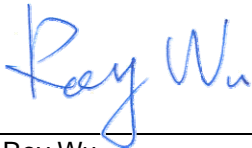
according to

### 47 CFR Part 15 Subpart B

**Equipment** : Neo 1973  
**Trade Name** : FIC  
**Model No.** : GTA02E  
**FCC ID** : EUNGTA02E  
**Filing Type** : Declaration of Conformity  
**Applicant** : FIC (First International Computer, Inc.)  
1-9F., No. 300, Yang Guang, NeiHu, Taipei, Taiwan, 114

### 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, radiated and conducted emission class B limits. Testing was carried out on Dec. 19, 2007 at SPORTON International Inc. LAB.



Roy Wu  
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

FIC (First International Computer, Inc.)  
 1-9F., No. 300, Yang Guang, NeiHu, Taipei, Taiwan, 114

## 1.2 Manufacturer

First International Computer (Suzhou) Inc.  
 No. 200 Contral Suhong Road, SuZhou Industrial Park, China

## 1.3 Basic Description of Equipment under Test

<b>Equipment</b>		Neo 1973
<b>Trade Name</b>		FIC
<b>Model Name</b>		GTA02E
<b>FCC ID :</b>		EUNGTA02E
<b>AC Adapter</b>	<b>Manufacture</b>	AKII TECHNOLOGY CO., LTD.
	<b>Brand Name</b>	AKII Technology
	<b>Model Name</b>	A10P1-05MP
	<b>Power Rating</b>	I/P:100-240 Vac, 47-63 Hz, 0.3A; O/P: 5Vdc, 2.0A
	<b>AC Power Cord Type</b>	1.49 meter non-shielded cable without ferrite core
<b>Battery</b>	<b>Manufacture</b>	WELLDONE COMPANY
	<b>Brand Name</b>	FIC
	<b>Model Name</b>	GTC-01 / GTA-01
	<b>Rating</b>	3.7Vdc, 1200mAh
	<b>Type</b>	Li-ion
<b>Earphone</b>	<b>Brand Name</b>	Xport
	<b>Model Name</b>	Ko-11-1020a
	<b>Signal line Type</b>	1.42 meter non-shielded cable without ferrite core
<b>USB Cable</b>	<b>Brand Name</b>	Golden Bridge
	<b>Model Name</b>	AS52-0607007
	<b>Signal Line Type</b>	1.29 meter non-shielded cable without ferrite core

Remark: Above EUT's information was declared by manufacturer. Please refer to the specifications of manufacturer or User's Manual for more detailed features description.

1.4 Feature of Equipment under Test

Product Feature & Specification	
DUT Type :	Neo 1973
Trade Name :	FIC
Model Name :	GTA02E
FCC ID :	EUNGTA02E
Tx Frequency :	GSM900 : 880 ~ 915MHz DCS1800 : 1710 ~ 1785 MHz PCS1900 : 1850 ~1910 MHz Bluetooth : 2400 ~ 2483.5 MHz WLAN : 2400 ~ 2483.5 MHz
Rx Frequency :	GSM900 : 925 ~ 960 MHz DCS1800 : 1805 ~ 1880 MHz PCS1900 : 1930 ~ 1990 MHz Bluetooth : 2400 ~ 2483.5 MHz WLAN : 2400 ~ 2483.5 MHz GPS : 1575.42 MHz
Number of Channels :	Bluetooth : 79 WLAN : 11
Carrier Frequency of Each Channel :	Bluetooth : 2402+n*1 MHz; n=0~78 WLAN : 2412+(n-1)*5 MHz; n=1~11
Channel Spacing	GSM : 200 KHz Bluetooth : 1 MHz WLAN : 5 MHz
Maximum Output Power to Antenna :	PCS1900 : 29.27 dBm (GSM) / 28.73 dBm(GPRS10) Bluetooth : 2.25 dBm (1Mbps) Bluetooth EDR : 2.4 dBm (2Mbps) / 2.53 dBm (3Mbps) WLAN : 14.02 dBm (802.11b) / 14.89 dBm (802.11g)
Type of Antenna Connector	N/A
Antenna Type :	GSM : Monopole Antenna GPS : Ceramic Antenna Bluetooth : Chip Antenna WLAN : Chip Antenna
Antenna Gain :	GSM : 0.07 dBi GPS :0.5 dBi Bluetooth : -4.84 dBi WLAN : -3 dBi
HW Version :	A5
SW Version :	Moko5
Power Rating (DC/AC , Voltage and Current of RF element or PA) :	DC 3.4V
GPRS / EGPRS Multislot class :	10
Type of Modulation :	GSM : GMSK Bluetooth (1Mbps) : GFSK Bluetooth EDR (2Mbps) : $\pi/4$ -DQPSK Bluetooth EDR (3Mbps) : 8-DPSK WLAN : DSSS / OFDM
DUT Stage :	Identical Prototype

## 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 refers to 2.2 for EMI test.
- c. The following test modes were tested for conduction test:
  - Mode 1: PCS1900 Idle + GPS Rx + BT Idle + Earphone + Adapter + MP3
  - Mode 2: WLAN Idle + GPS Rx + BT Idle + Earphone + Adapter + MP3
  - Mode 3: PCS1900 Idle + GPS Rx + BT Idle + Earphone + USB Link + MP3
- d. The following test modes were tested for radiation test:
  - Mode 1: PCS1900 Idle + GPS Rx + BT Idle + Earphone + Adapter + MP3
  - Mode 2: WLAN Idle + GPS Rx + BT Idle + Earphone + Adapter + MP3
  - Mode 3: PCS1900 Idle + GPS Rx + BT Idle + Earphone + USB Link + MP3
- e. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 13 GHz.

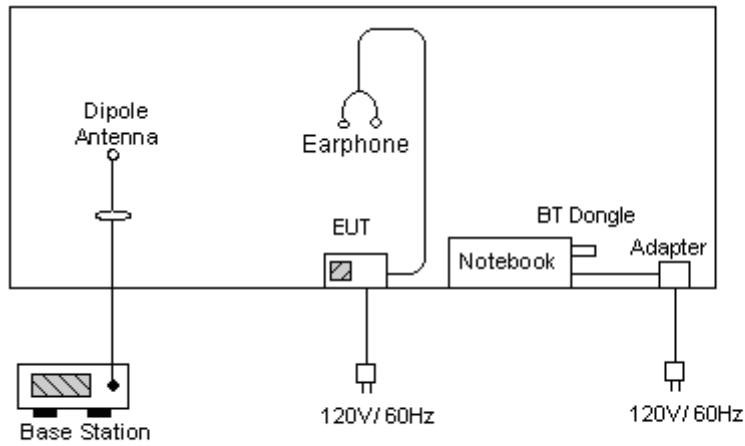
### 2.2 Description of Test System

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable / Power Cord
1.	Base Station	R&S	CMU 2000	N/A	Unshielded, 1.8 m
2.	WLAN AP	SMC	SMC-100	HEDWG4005ACC	Unshielded, 1.8 m
3.	i-pod	Apple	A1199	DoC	N/A
4.	Notebook	LEO	WB-B55	TUNMB05TW	N/A
5.	BT Dongle	Engotech	ET-BD201	PQY-4710874203662	N/A

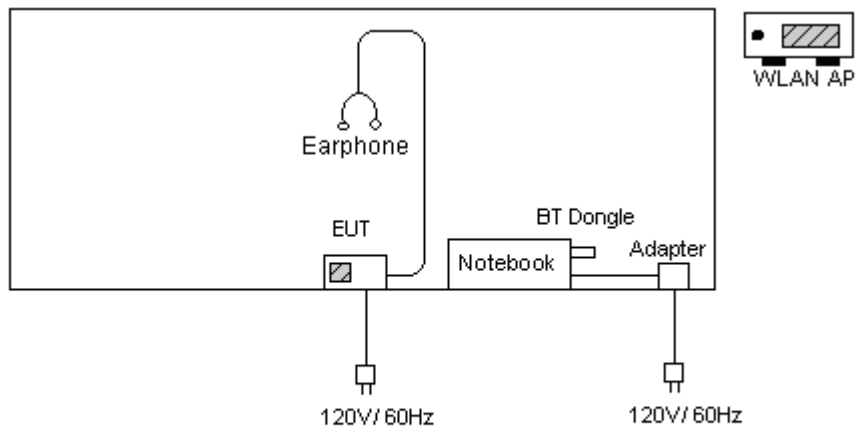


### 2.3 Connection Diagram of Test System

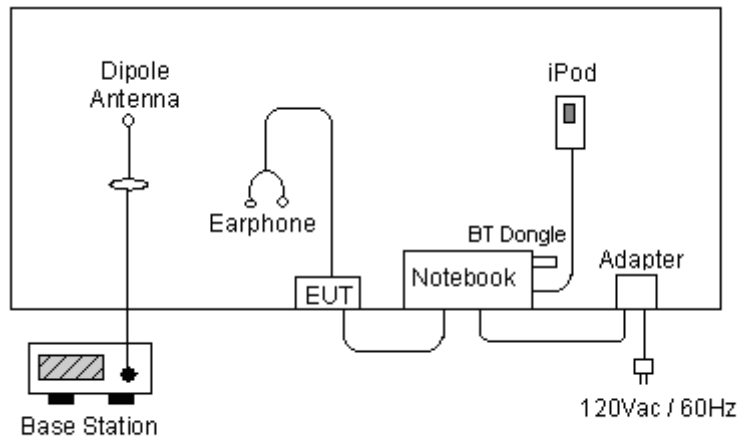
<Mode 1>



<Mode 2>



**<Mode 3>**



### 3. Test Software

The EUT is in PCS1900 idle mode controlled by base station simulator or linked with WLAN AP in idle mode.

At the same time, EUT was linked with Bluetooth Dongle in idle mode and GPS in Rx mode.

## 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 : 886-3-328-4978  
Test Site No. : CO04-HY, 03CH04-HY

### 4.2 Test Voltage

AC 120V / 60Hz

### 4.3 Standard for Methods of Measurement

ANSI C63.4-2003

### 4.4 Test Compliance

FCC Part 15 Subpart B

### 4.5 Frequency Range

- 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.

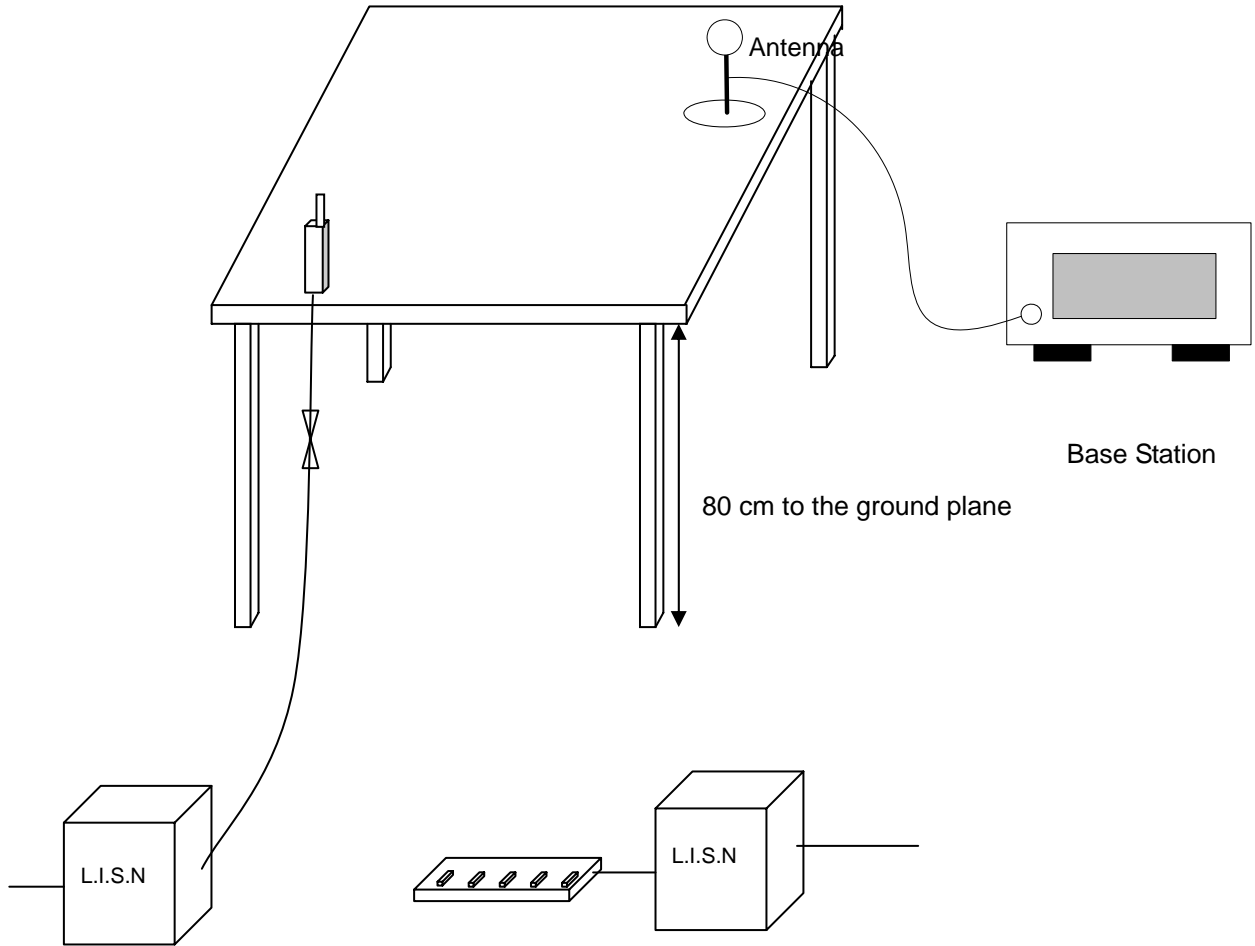
### 5.1 Major Measuring Instruments

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 connecting 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**

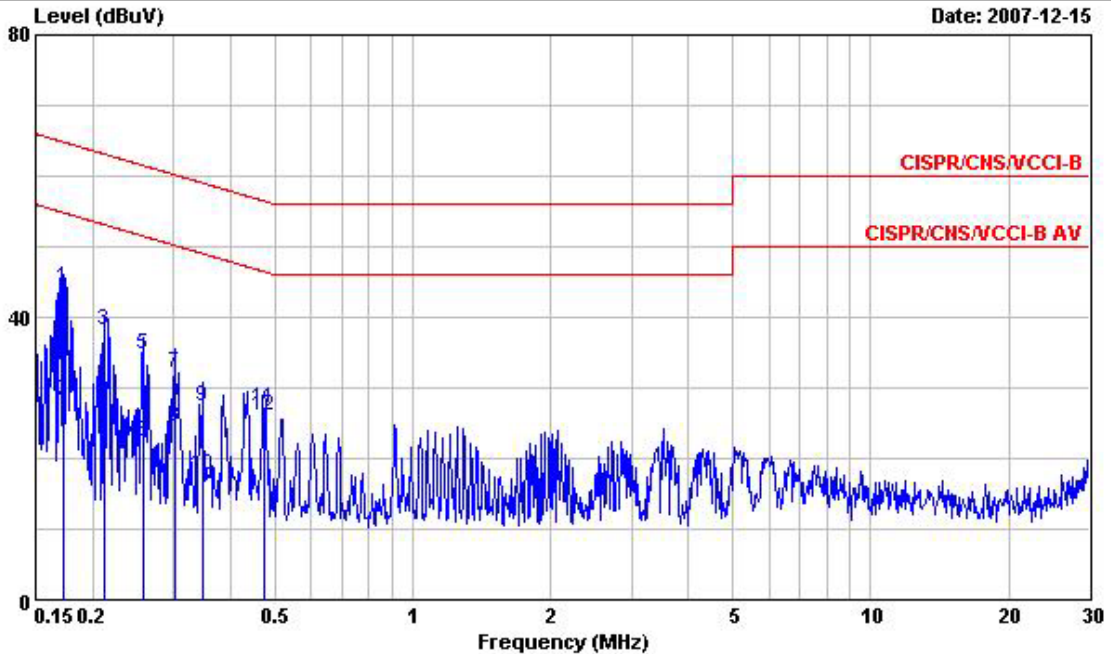


### 5.4 Test Result of AC Powerline Conducted Emission

#### 5.4.1 Test Mode: Mode 1

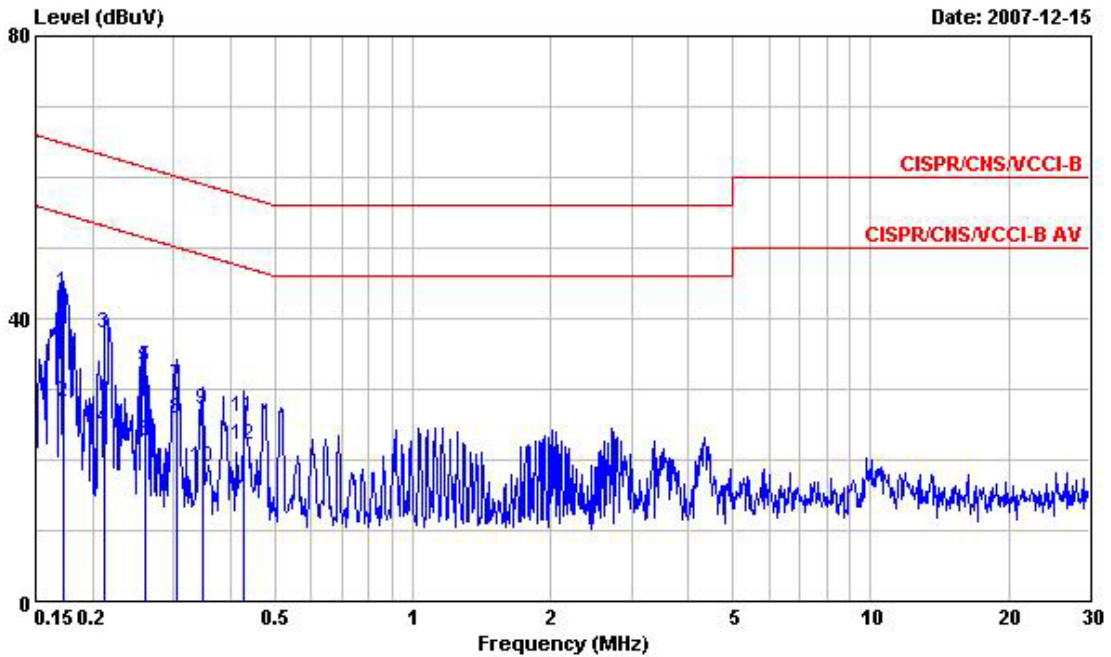
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 24~26°C
- Relative Humidity: 49~52%
- Test Engineer: Sun
- All emissions not reported here are more than 10 dB below the prescribed limit.

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



Site : CO04-HY  
 Condition : CISPR/CNS/VCCI-B LISN 200704 99041 LINE  
 EUT : Smart Phone  
 POWER: 120Vac/60Hz  
 Model : FD 701101  
 Memo : PCS1900 Idle + GPS Rx + BT Idle  
 Memo : + Earphone + Adaptor + MP3

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.1721540	44.13	-20.73	64.86	43.89	0.10	0.14	QP
2	0.1721540	28.18	-26.68	54.86	27.94	0.10	0.14	Average
3	0.2127940	38.26	-24.84	63.10	37.97	0.10	0.19	QP
4	0.2127940	23.75	-29.35	53.10	23.46	0.10	0.19	Average
5	0.2588790	34.69	-26.78	61.47	34.23	0.10	0.36	QP
6	0.2588790	22.24	-29.23	51.47	21.78	0.10	0.36	Average
7	0.3018750	32.03	-28.16	60.19	31.44	0.10	0.49	QP
8	0.3018750	24.50	-25.69	50.19	23.91	0.10	0.49	Average
9	0.3464610	27.43	-31.62	59.05	26.72	0.10	0.61	QP
10	0.3464610	17.70	-31.35	49.05	16.99	0.10	0.61	Average
11	0.4736030	27.20	-29.25	56.45	26.42	0.10	0.68	QP
12	0.4736030	26.08	-20.37	46.45	25.30	0.10	0.68	Average



Site : CO04-HY  
 Condition : CISPR/CNS/VCCI-B LISN 200704 99041 NEUTRAL  
 EUT : Smart Phone  
 POWER: 120Vac/60Hz  
 Model : FD 701101  
 Memo : PCS1900 Idle + GPS Rx + BT Idle  
 Memo : + Earphone + Adaptor + MP3

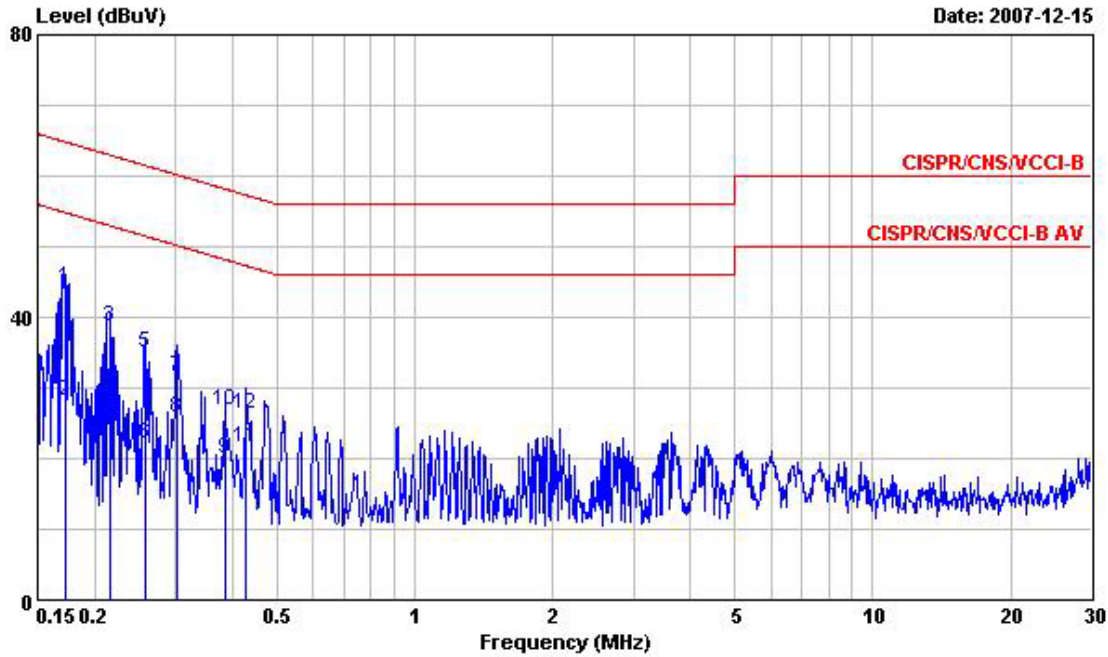
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1721540	43.75	-21.11	64.86	43.51	0.10	0.14	QP
2	0.1721540	28.04	-26.82	54.86	27.80	0.10	0.14	Average
3	0.2127940	37.86	-25.24	63.10	37.57	0.10	0.19	QP
4	0.2127940	24.48	-28.62	53.10	24.19	0.10	0.19	Average
5	0.2602550	33.17	-28.25	61.42	32.70	0.10	0.37	QP
6	0.2602550	22.69	-28.73	51.42	22.22	0.10	0.37	Average
7	0.3050910	30.43	-29.67	60.10	29.83	0.10	0.50	QP
8	0.3050910	25.91	-24.19	50.10	25.31	0.10	0.50	Average
9	0.3464610	27.21	-31.84	59.05	26.50	0.10	0.61	QP
10	0.3464610	18.89	-30.16	49.05	18.18	0.10	0.61	Average
11	0.4282480	26.11	-31.18	57.29	25.30	0.10	0.71	QP
12	0.4282480	22.21	-25.08	47.29	21.40	0.10	0.71	Average



5.4.2 Test Mode: Mode 2

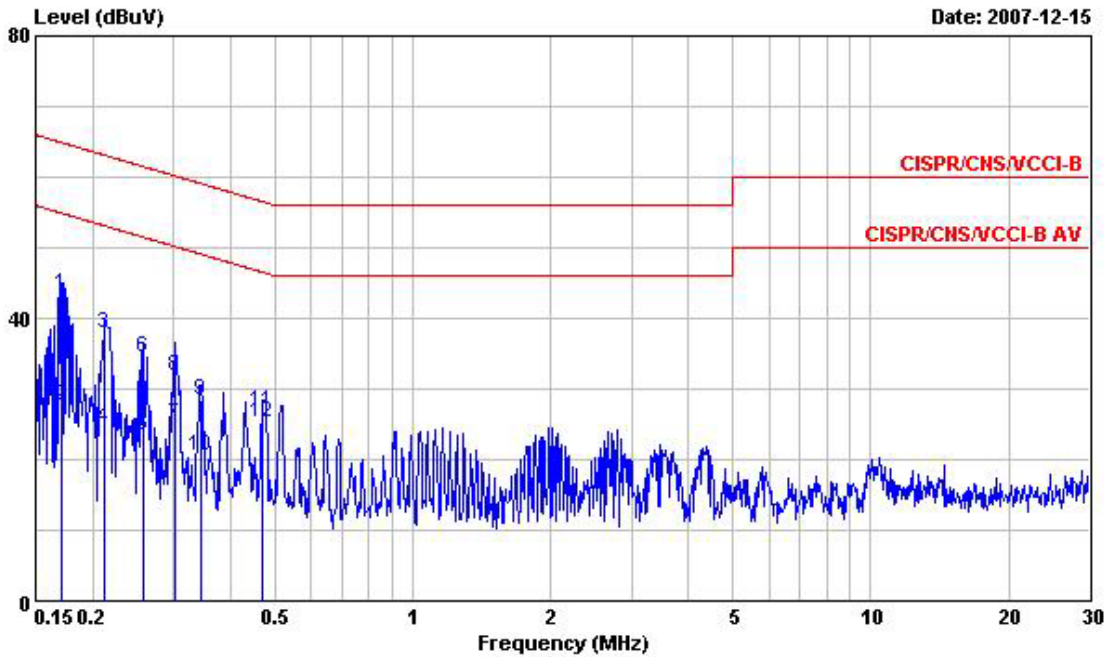
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 24~26°C
- Relative Humidity: 49~52%
- Test Engineer: Sun
- All emissions not reported here are more than 10 dB below the prescribed limit.

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



Site : CO04-HY  
 Condition : CISPR/CNS/VCCI-B LISN 200704 99041 LINE  
 EUT : Smart Phone  
 POWER: 120Vac/60Hz  
 Model : FD 701101  
 Memo : WLAN Idle + GPS Rx + BT Idle  
 Memo : + Earphone + Adaptor + MP3

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1721540	44.31	-20.55	64.86	44.07	0.10	0.14	QP
2	0.1721540	28.27	-26.59	54.86	28.03	0.10	0.14	Average
3	0.2162030	38.59	-24.37	62.96	38.28	0.10	0.21	QP
4	0.2162030	24.13	-28.83	52.96	23.82	0.10	0.21	Average
5	0.2588790	34.95	-26.52	61.47	34.49	0.10	0.36	QP
6	0.2588790	22.19	-29.28	51.47	21.73	0.10	0.36	Average
7	0.3034790	31.60	-28.55	60.15	31.00	0.10	0.50	QP
8	0.3034790	25.78	-24.37	50.15	25.18	0.10	0.50	Average
9	0.3851900	19.99	-28.18	48.17	19.19	0.10	0.70	Average
10	0.3851900	26.93	-31.24	58.17	26.13	0.10	0.70	QP
11	0.4282480	21.46	-25.83	47.29	20.65	0.10	0.71	Average
12	0.4282480	26.35	-30.94	57.29	25.54	0.10	0.71	QP



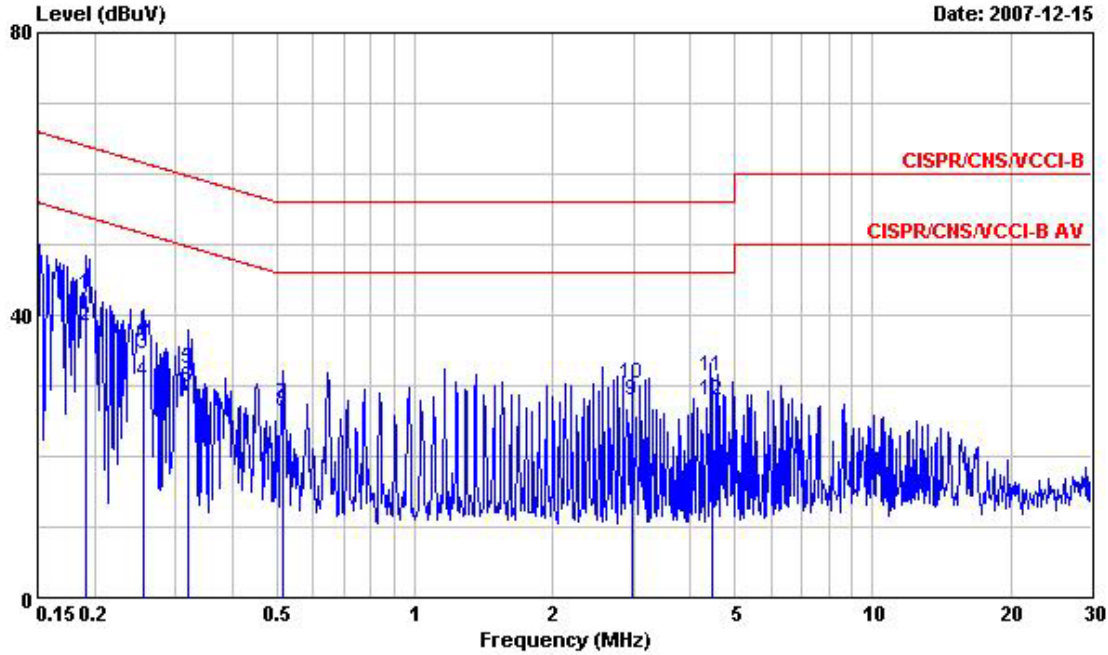
Site : CO04-HY  
 Condition : CISPR/CNS/VCCI-B LISN 200704 99041 NEUTRAL  
 EUT : Smart Phone  
 POWER: 120Vac/60Hz  
 Model : FD 7O1101  
 Memo : WLAN Idle + GPS Rx + BT Idle  
 Memo : + Earphone + Adaptor + MP3

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1703400	43.43	-21.51	64.94	43.19	0.10	0.14	QP
2	0.1703400	27.61	-27.33	54.94	27.37	0.10	0.14	Average
3	0.2127940	37.86	-25.24	63.10	37.57	0.10	0.19	QP
4	0.2127940	24.55	-28.55	53.10	24.26	0.10	0.19	Average
5	0.2588790	23.52	-27.95	51.47	23.06	0.10	0.36	Average
6	0.2588790	34.53	-26.94	61.47	34.07	0.10	0.36	QP
7	0.3018750	25.06	-25.13	50.19	24.47	0.10	0.49	Average
8	0.3018750	31.73	-28.46	60.19	31.14	0.10	0.49	QP
9	0.3446300	28.34	-30.75	59.09	27.64	0.10	0.60	QP
10	0.3446300	20.51	-28.58	49.09	19.81	0.10	0.60	Average
11	0.4711010	26.84	-29.65	56.49	26.06	0.10	0.68	QP
12	0.4711010	25.18	-21.31	46.49	24.40	0.10	0.68	Average

5.4.3 Test Mode: Mode 3

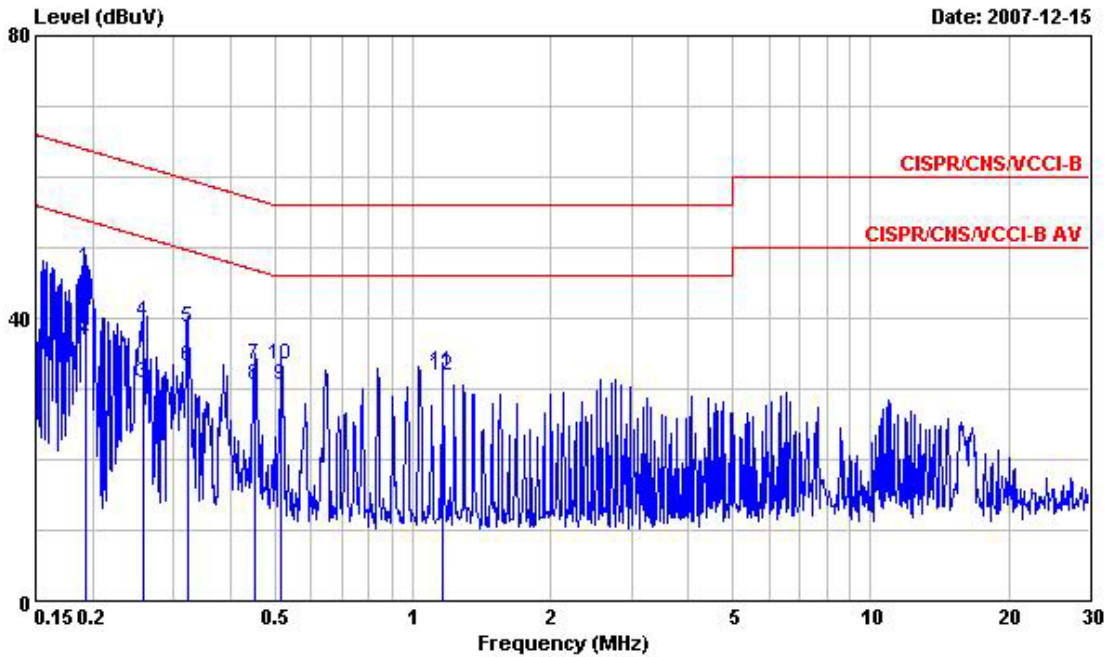
- Frequency Range of Test: from 0.15 MHz to 30 MHz
- Temperature: 24~26°C
- Relative Humidity: 49~52%
- Test Engineer: Sun
- All emissions not reported here are more than 10 dB below the prescribed limit.

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



Site : CO04-HY  
 Condition : CISPR/CNS/VCCI-B LISN 200704 99041 LINE  
 EUT : Smart Phone  
 POWER: From System  
 Model : FD 701101  
 Memo : PCS1900 Idle + GPS Rx + BT Idle  
 Memo : + Earphone + USB Link + MP3

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1913990	42.97	-21.01	63.98	42.73	0.10	0.14	QP
2	0.1913990	38.48	-15.50	53.98	38.24	0.10	0.14	Average
3	0.2547970	34.50	-27.10	61.60	34.05	0.10	0.35	QP
4	0.2547970	30.57	-21.03	51.60	30.12	0.10	0.35	Average
5	0.3199920	32.38	-27.33	59.71	31.74	0.10	0.54	QP
6	0.3199920	29.79	-19.92	49.71	29.15	0.10	0.54	Average
7	0.5155030	27.40	-28.60	56.00	26.65	0.10	0.65	QP
8	0.5155030	26.25	-19.75	46.00	25.50	0.10	0.65	Average
9	2.972	27.86	-18.14	46.00	27.39	0.10	0.37	Average
10	2.972	30.24	-25.76	56.00	29.77	0.10	0.37	QP
11	4.458	31.36	-24.64	56.00	30.94	0.11	0.31	QP
12	4.458	27.85	-18.15	46.00	27.43	0.11	0.31	Average



Site : CO04-HY  
 Condition : CISPR/CNS/VCCI-B LISN 200704 99041 NEUTRAL  
 EUT : Smart Phone  
 POWER: From System  
 Model : FD 701101  
 Memo : PCS1900 Idle + GPS Rx + BT Idle  
 Memo : + Earphone + USB Link + MP3

Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1 @0.1924150	47.21	-16.72	63.93	46.97	0.10	0.14	QP
2 @0.1924150	37.49	-16.44	53.93	37.25	0.10	0.14	Average
3 0.2575110	30.71	-20.80	51.51	30.26	0.10	0.35	Average
4 0.2575110	39.54	-21.97	61.51	39.09	0.10	0.35	QP
5 0.3216920	38.59	-21.07	59.66	37.95	0.10	0.54	QP
6 @0.3216920	33.04	-16.62	49.66	32.40	0.10	0.54	Average
7 0.4515500	33.33	-23.52	56.85	32.54	0.10	0.69	QP
8 @0.4515500	30.63	-16.22	46.85	29.84	0.10	0.69	Average
9 @0.5155030	30.53	-15.47	46.00	29.78	0.10	0.65	Average
10 0.5155030	33.35	-22.65	56.00	32.60	0.10	0.65	QP
11 1.163	32.31	-23.69	56.00	31.77	0.10	0.44	QP
12 @ 1.163	31.91	-14.09	46.00	31.37	0.10	0.44	Average

## 5.5 Photographs of Conducted Powerline Test Configuration

Please refer to Appendix B

## 6. Test of Radiated Emission

Radiated emissions from 30 MHz to 13 GHz 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.

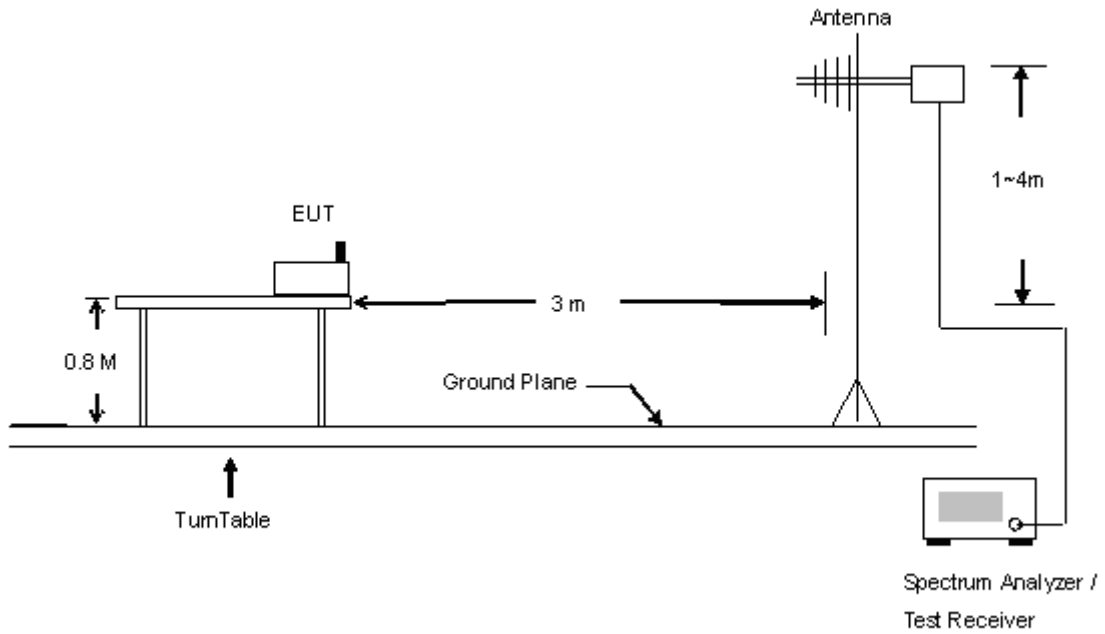
### 6.1 Major Measuring Instruments

As described in Chapter 7.

### 6.2 Test Procedures

- a. The EUT was placed on a turntable with 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

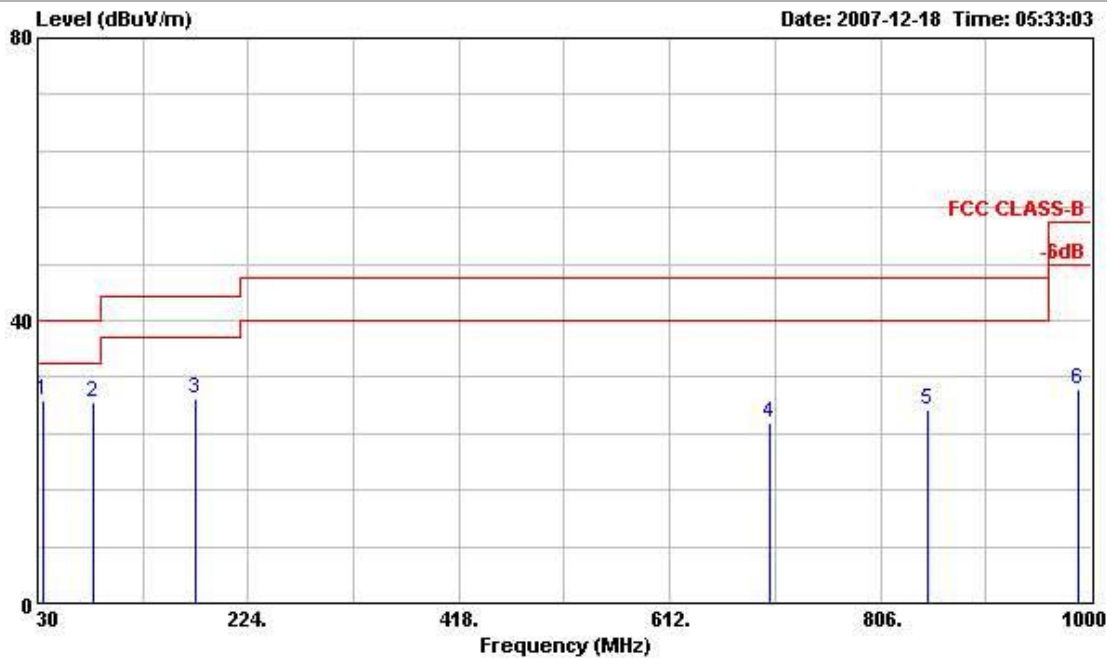


### 6.4 Test Result of Radiated Emission

#### 6.4.1 Test Mode: Mode 1

- Test Distance: 3m
- Temperature: 26~27°C
- Relative Humidity: 55~57%
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Test Engineer: Andrew
- 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**

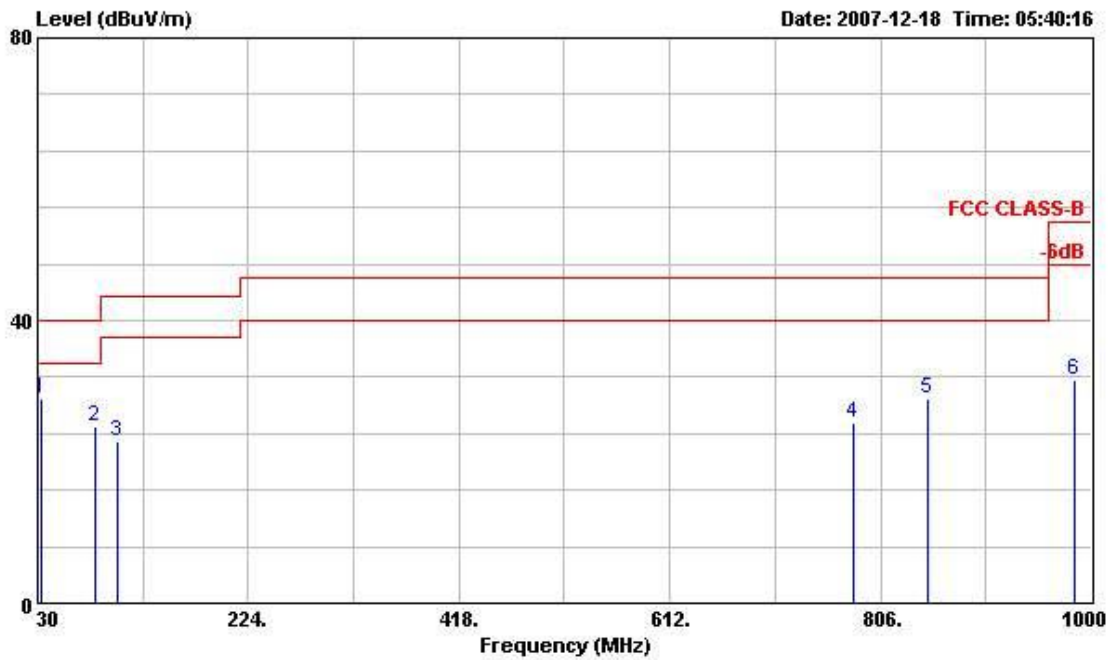


Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : Smart Phone  
 POWER : 120Vac/60Hz  
 MODEL : FD 701101  
 MEMO : PCS 1900 Idle+GPS Rx+BT Idle+Earphone+  
 MEMO : Adaptor+MP3  
 Plane : H

	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	Remark
1	34.860	28.64	-11.36	40.00	39.70	16.29	0.91	28.26	100	98 Peak
2	81.300	28.49	-11.51	40.00	48.35	7.10	1.28	28.24	---	Peak
3	175.530	28.90	-14.60	43.50	46.55	8.49	1.76	27.90	---	Peak
4	704.600	25.44	-20.56	46.00	30.90	20.13	3.50	29.09	---	Peak
5	850.200	27.47	-18.53	46.00	30.75	21.70	3.88	28.85	---	Peak
6	988.100	30.20	-23.80	54.00	29.08	25.75	3.99	28.62	---	Peak

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





Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : Smart Phone  
 POWER : 120Vac/60Hz  
 MODEL : FD 701101  
 MEMO : PCS 1900 Idle+GPS Rx+BT Idle+Earphone+  
 MEMO : Adaptor+MP3  
 Plane : H

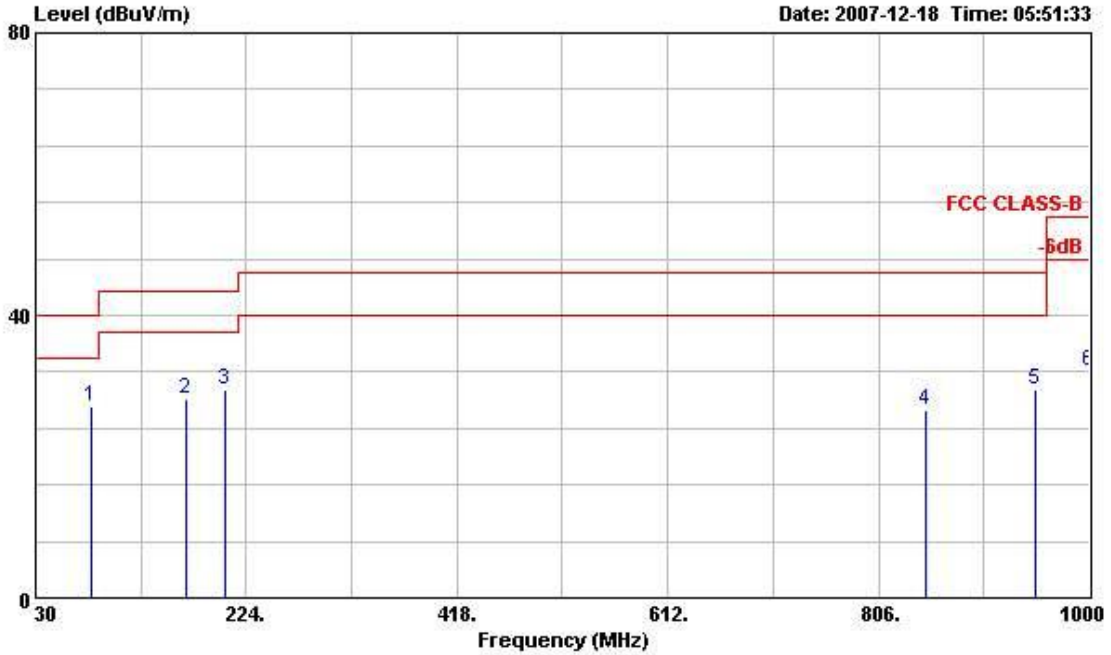
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	33.780	28.88	-11.12	40.00	39.93	16.31	0.91	28.26	100	261	Peak
2	82.380	25.09	-14.91	40.00	44.90	7.13	1.29	28.24	---	---	Peak
3	103.980	23.00	-20.50	43.50	41.31	8.48	1.40	28.18	---	---	Peak
4	780.200	25.58	-20.42	46.00	31.06	19.91	3.55	28.94	---	---	Peak
5	850.200	28.96	-17.04	46.00	32.24	21.70	3.88	28.85	---	---	Peak
6	985.300	31.54	-22.46	54.00	30.50	25.68	3.99	28.63	---	---	Peak

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

6.4.2 Test Mode: Mode 2

- Test Distance: 3m
- Temperature: 26~27°C
- Relative Humidity: 55~57%
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Test Engineer: Andrew
- Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

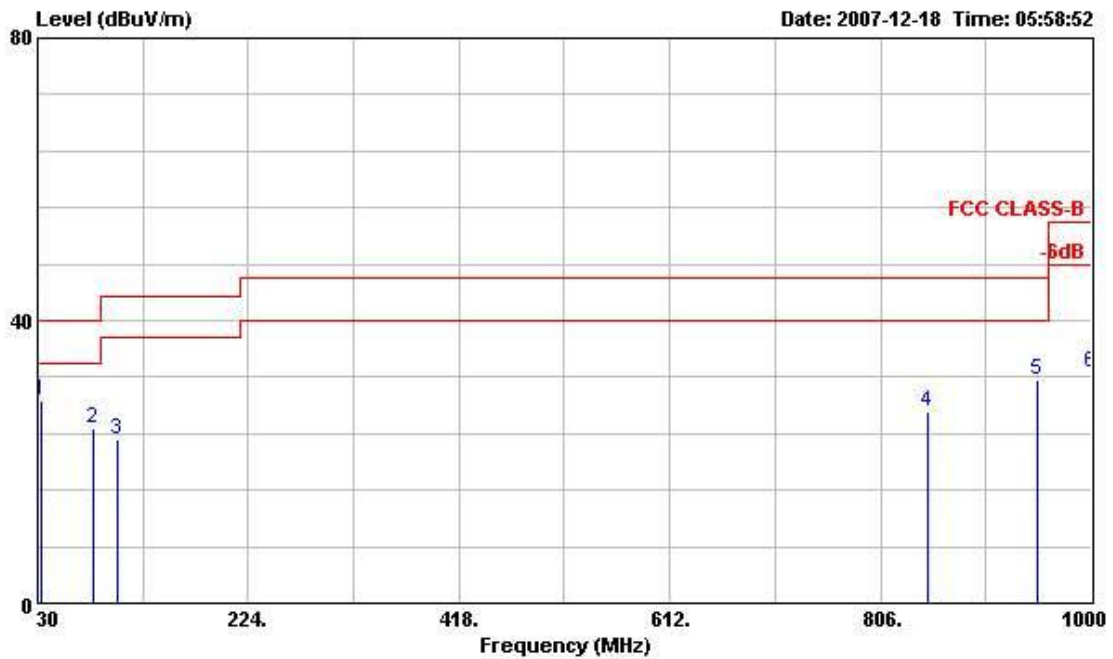
**The test that passed at the minimum margin was marked by a frame in the following data**



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : Smart Phone  
 POWER : 120Vac/60Hz  
 MODEL : FD 701101  
 MEMO : WLAN Idle+GPS Rx+BT Idle+Earphone+  
 MEMO : Adaptor+MP3  
 Plane : H

	Freq	Level	Over Limit	Limit Line	ReadAntenna 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	81.570	27.21	-12.79	40.00	47.07	7.10	1.28	28.24	100	184	Peak
2	168.780	28.15	-15.35	43.50	45.65	8.70	1.73	27.93	---	---	Peak
3	204.690	29.42	-14.08	43.50	46.22	9.09	1.90	27.79	---	---	Peak
4	850.200	26.56	-19.44	46.00	29.84	21.70	3.88	28.85	---	---	Peak
5	951.000	29.45	-16.55	46.00	29.37	24.79	3.98	28.70	---	---	Peak
6	1000.000	32.17	-21.83	54.00	30.72	26.05	4.00	28.60	---	---	Peak

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



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : Smart Phone  
 POWER : 120Vac/60Hz  
 MODEL : FD 701101  
 MEMO : WLAN Idle+GPS Rx+BT Idle+Earphone+  
 MEMO : Adaptor+MP3  
 Plane : H

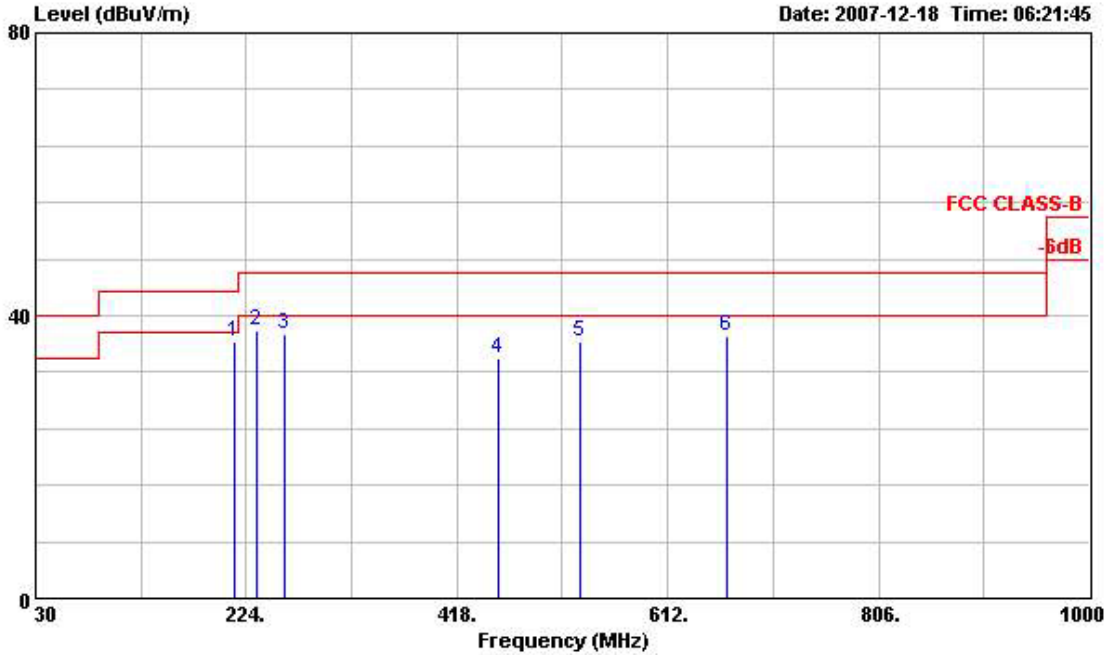
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	33.780	28.72	-11.28	40.00	39.77	16.31	0.91	28.26	100	247 Peak
2	81.570	24.81	-15.19	40.00	44.67	7.10	1.28	28.24	---	---
3	103.980	23.15	-20.35	43.50	41.46	8.48	1.40	28.18	---	---
4	850.200	27.13	-18.87	46.00	30.41	21.70	3.88	28.85	---	---
5	951.000	31.54	-14.46	46.00	31.46	24.79	3.98	28.70	---	---
6	1000.000	32.63	-21.37	54.00	31.18	26.05	4.00	28.60	---	---

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

6.4.3 Test Mode: Mode 3

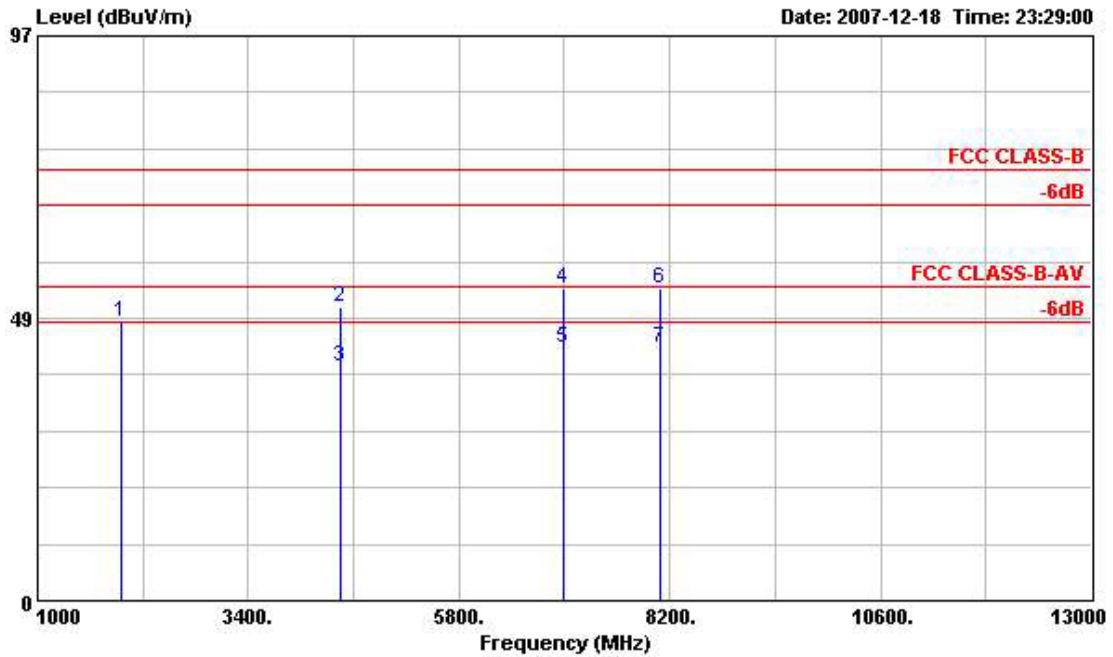
- Test Distance: 3m
- Temperature: 26~27°C
- Relative Humidity: 55~57%
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Test Engineer: Andrew
- Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

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



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : Smart Phone  
 POWER : 120Vac/60Hz  
 MODEL : FD 701101  
 MEMO : PCS 1900 Idle+GPS Rx+BT Idle+Earphone+  
 MEMO : USB Link+MP3  
 Plane : H

	Freq	Level	Over Limit	Limit	Read	Antenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	Remark
1	213.330	36.40	-7.10	43.50	52.49	9.76	1.93	27.77	100	165	Peak
2	233.580	37.99	-8.01	46.00	52.42	11.31	1.99	27.73	---	---	Peak
3	258.420	37.42	-8.58	46.00	50.49	12.53	2.08	27.68	---	---	Peak
4	455.400	33.86	-12.14	46.00	43.41	16.40	2.74	28.69	---	---	Peak
5	531.700	36.28	-9.72	46.00	44.54	17.84	2.93	29.03	---	---	Peak
6	666.100	37.22	-8.78	46.00	42.81	20.06	3.45	29.10	---	---	Peak

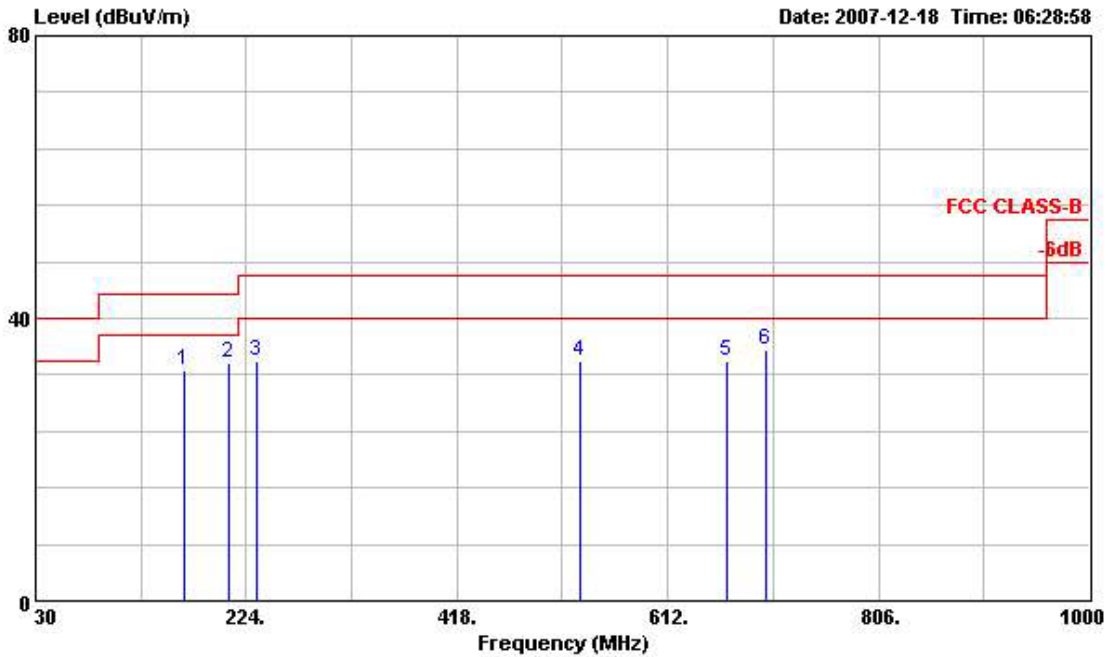


Site : 03CHO4-HY  
 Condition: FCC CLASS-B 3m HF-ANT-3117 HORIZONTAL  
 EUT : Smart Phone  
 POWER : 120Vac/60Hz  
 MODEL : FD 701101  
 MEMO : PCS 1900 Idle+GPS Rx+BT Idle+Earphone+  
 MEMO : USB Link+MP3  
 Plane : H

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1960.000	47.98			46.45	31.94	3.29	33.70	---	---	Peak
2	4446.000	50.43	-23.57	74.00	44.20	34.84	5.67	34.28	100	0	Peak
3	4446.000	40.21	-13.79	54.00	33.98	34.84	5.67	34.28	100	231	Average
4	6982.000	53.60	-20.40	74.00	43.75	36.00	6.35	32.50	100	0	Peak
5	6982.000	43.50	-10.50	54.00	33.65	36.00	6.35	32.50	100	146	Average
6	8086.000	53.46	-20.54	74.00	44.17	36.22	6.80	33.73	100	0	Peak
7	8086.000	43.39	-10.61	54.00	34.10	36.22	6.80	33.73	100	198	Average

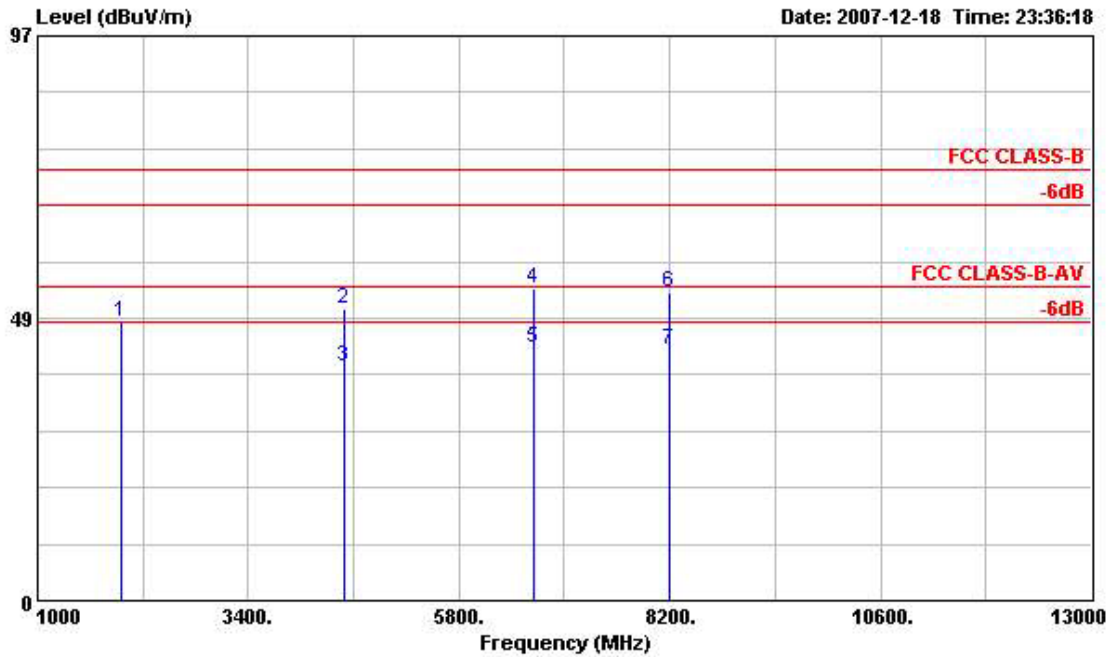
Remark:

- #1 BS BCCH Signal.



Site : 03CHO4-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : Smart Phone  
 POWER : 120Vac/60Hz  
 MODEL : FD 701101  
 MEMO : PCS 1900 Idle+GPS Rx+BT Idle+Earphone+  
 MEMO : USB Link+MP3  
 Plane : H

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamplifier	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	166.890	32.66	-10.84	43.50	50.06	8.81	1.72	27.93	---	---	Peak
2	208.740	33.72	-9.78	43.50	50.21	9.39	1.91	27.78	100	319	Peak
3	233.310	33.98	-12.02	46.00	48.41	11.31	1.99	27.73	---	---	Peak
4	531.700	33.90	-12.10	46.00	42.16	17.84	2.93	29.03	---	---	Peak
5	666.100	34.05	-11.95	46.00	39.64	20.06	3.45	29.10	---	---	Peak
6	701.800	35.49	-10.51	46.00	40.95	20.13	3.50	29.10	---	---	Peak



Site : 03CHO4-HY  
 Condition: FCC CLASS-B 3m HF-ANT-3117 VERTICAL  
 EUT : Smart Phone  
 POWER : 120Vac/60Hz  
 MODEL : FD 701101  
 MEMO : PCS 1900 Idle+GPS Rx+BT Idle+Earphone+  
 MEMO : USB Link+MP3  
 Plane : H

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table		
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark	
			dB	dBuV/m	dBuV	dB	dB	cm	deg		
1	1960.000	47.92			46.39	31.94	3.29	33.70	---	---	Peak
2	4486.000	50.19	-23.81	74.00	43.93	34.88	5.68	34.30	100	0	Peak
3	4486.000	40.20	-13.80	54.00	33.94	34.88	5.68	34.30	100	247	Average
4	6646.000	53.52	-20.48	74.00	44.07	36.00	6.24	32.79	100	0	Peak
5	6646.000	43.49	-10.51	54.00	34.04	36.00	6.24	32.79	100	258	Average
6	8188.000	53.09	-20.91	74.00	43.89	36.24	6.86	33.89	100	0	Peak
7	8188.000	43.12	-10.88	54.00	33.92	36.24	6.86	33.89	100	321	Average

Remark:

- #1 BS BCCH Signal.

## 6.5 Photographs of Radiated Emission Test Configuration

Please refer to Appendix B



## 7. List of Measuring Equipment Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
EMC Receiver	R&S	ESCS 30	100359	9kHz – 2.75GHz	Mar. 01, 2007	Feb. 29, 2008	Conduction (CO04-HY)
LISN	MessTec	NNB-2/16Z	99079	9kHz – 30MHz	Mar. 31, 2007	Mar. 30, 2008	Conduction (CO04-HY)
LISN (Support Unit)	EMCO	3810/2NM	9703-1839	9kHz – 30MHz	Mar. 22, 2007	Mar. 21, 2008	Conduction (CO04-HY)
RF Cable-CON	UTIFLEX	3102-26886-4	CB049	9kHz – 30MHz	Apr. 20, 2007	Apr. 19, 2008	Conduction (CO04-HY)
ISN	SCHAFFNER	ISN T400	21653	9kHz –30MHz	Mar. 09, 2007	Mar. 08, 2008	Conduction (CO04-HY)
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	N/A	Conduction (CO04-HY)
Isolation Transformer	Erika Fiedler OHG	D-65396 Walluf	58	45MHz-2.15GHz	N/A	N/A	Conduction (CO04-HY)
3m Semi Anechoic	TDK	SAC-3M	03CH04-HY	30 MHz - 1 GHz 3m	Oct. 29, 2007	Oct. 28, 2008	Radiation (03CH04-HY)
Amplifier	HP	87405A	3950M00135	10MHz - 3 GHz	Mar. 02, 2007	Mar. 01, 2008	Radiation (03CH04-HY)
Spectrum Analyzer	R&S	FSP30	100792	9 kHz – 30GHz	Dec. 13, 2007	Dec. 12, 2008	Radiation (03CH04-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2724	30 MHz - 1 GHz	Aug. 13, 2007	Aug. 12 2008	Radiation (03CH04-HY)
Turn Table	HD	Deis HD 2000	420/610	0 - 360 degree	N/A	N/A	Radiation (03CH04-HY)
Antenna Mast	Chaintek	3000	N/A	1 m - 4 m	N/A	N/A	Radiation (03CH04-HY)
RF Cable-R03m	Suhner Switzerland +	RG223/U +RG8/U	CB024	30 MHz - 1 GHz	Sep. 20, 2007	Sep. 19, 2008	Radiation (03CH04-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
<b>Combined standard uncertainty Uc(y)</b>	<b>1.13</b>		
<b>Measuring uncertainty for a level of confidence of 95% U=2Uc(y)</b>	<b>2.26</b>		

### 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
<b>Combined standard uncertainty Uc(y)</b>	<b>1.27</b>		
<b>Measuring uncertainty for a level of confidence of 95% U=2Uc(y)</b>	<b>2.54</b>		

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

Contribution	Uncertainty of $x_i$		$u(x_i)$	$C_i$	$C_i * u(x_i)$
	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 $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20 \log(1 - \Gamma_1 * \Gamma_2 * \Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
<b>Combined standard uncertainty <math>U_c(y)</math></b>	<b>2.36</b>				
<b>Measuring uncertainty for a level of confidence of 95% <math>U = 2U_c(y)</math></b>	<b>4.72</b>				



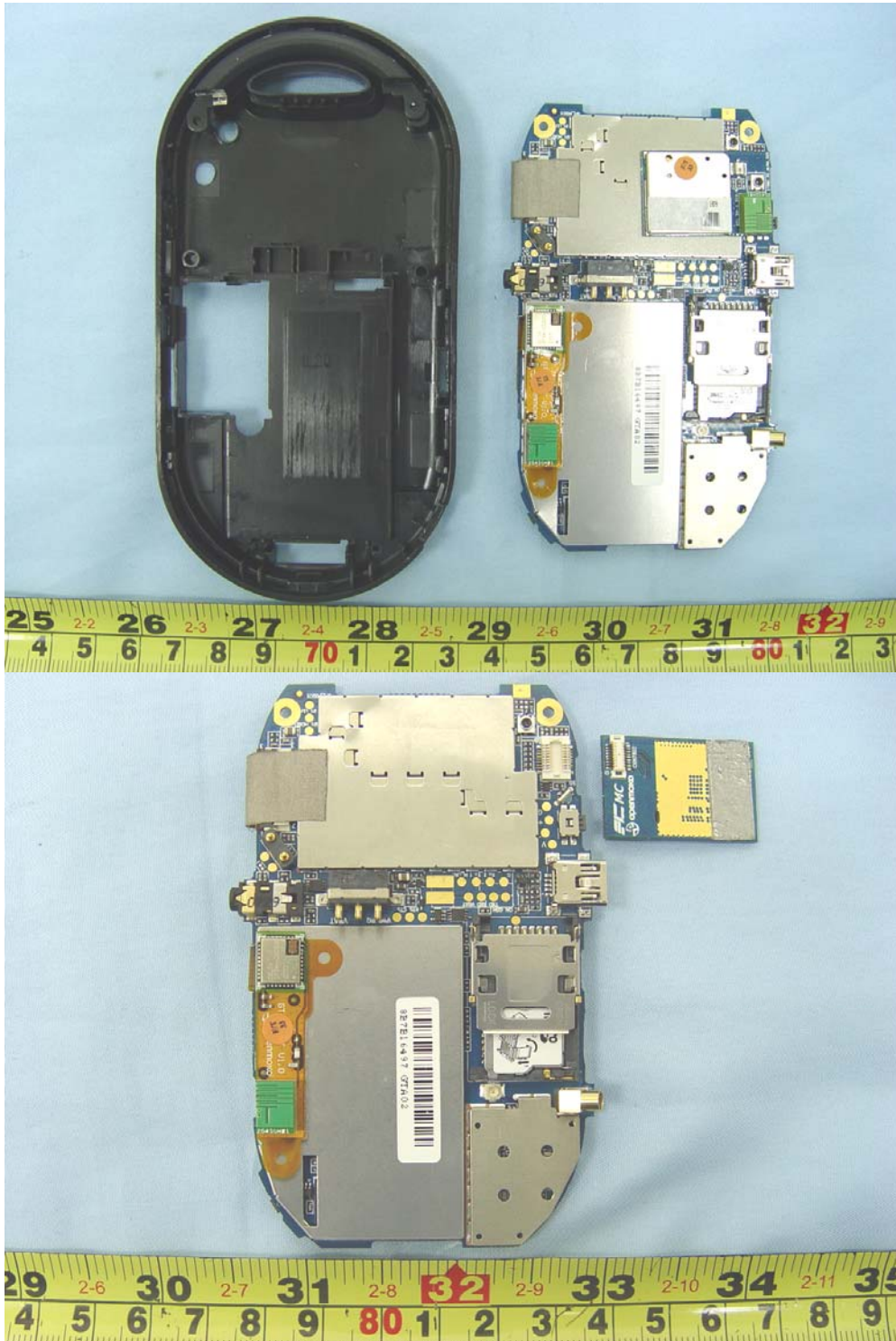


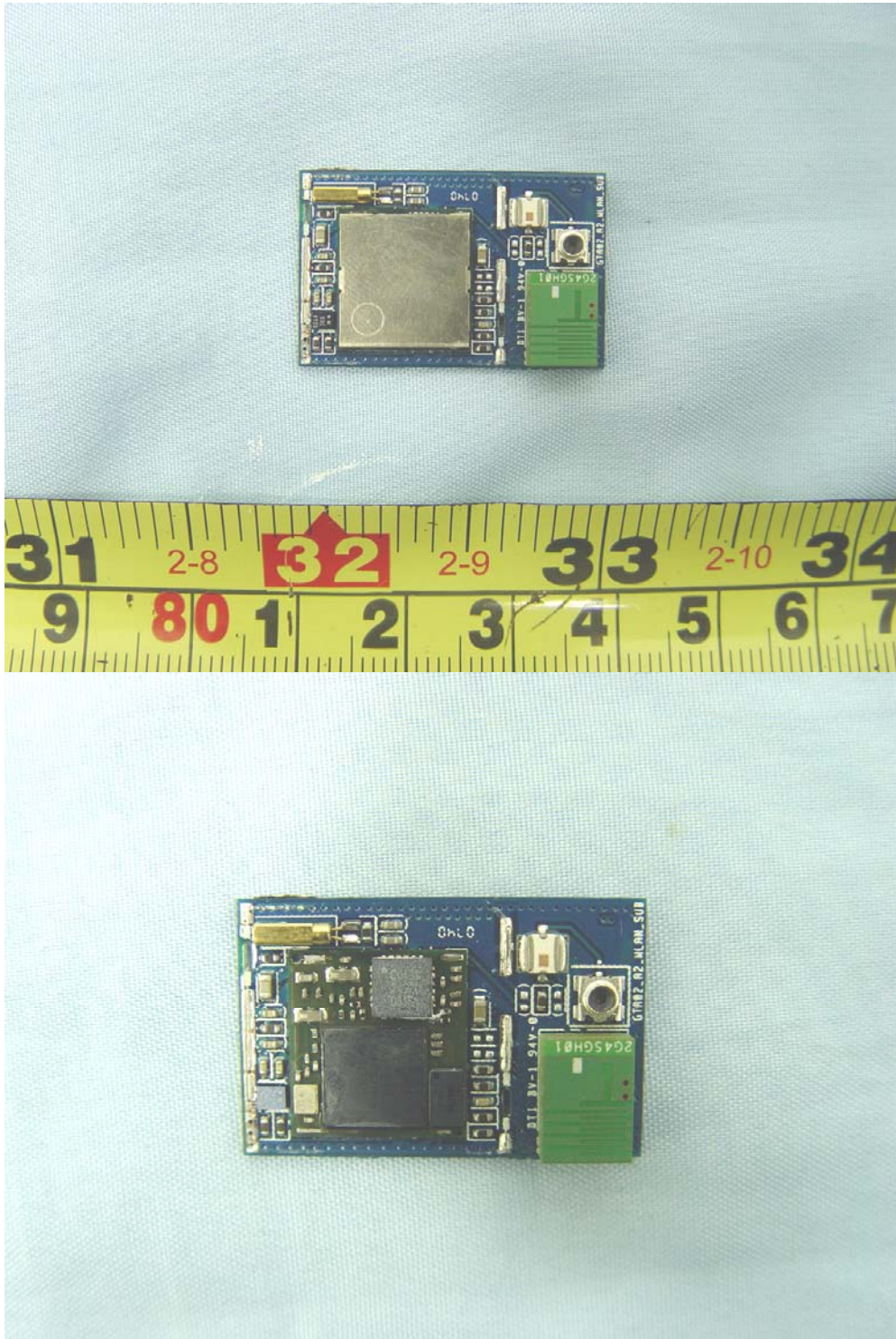


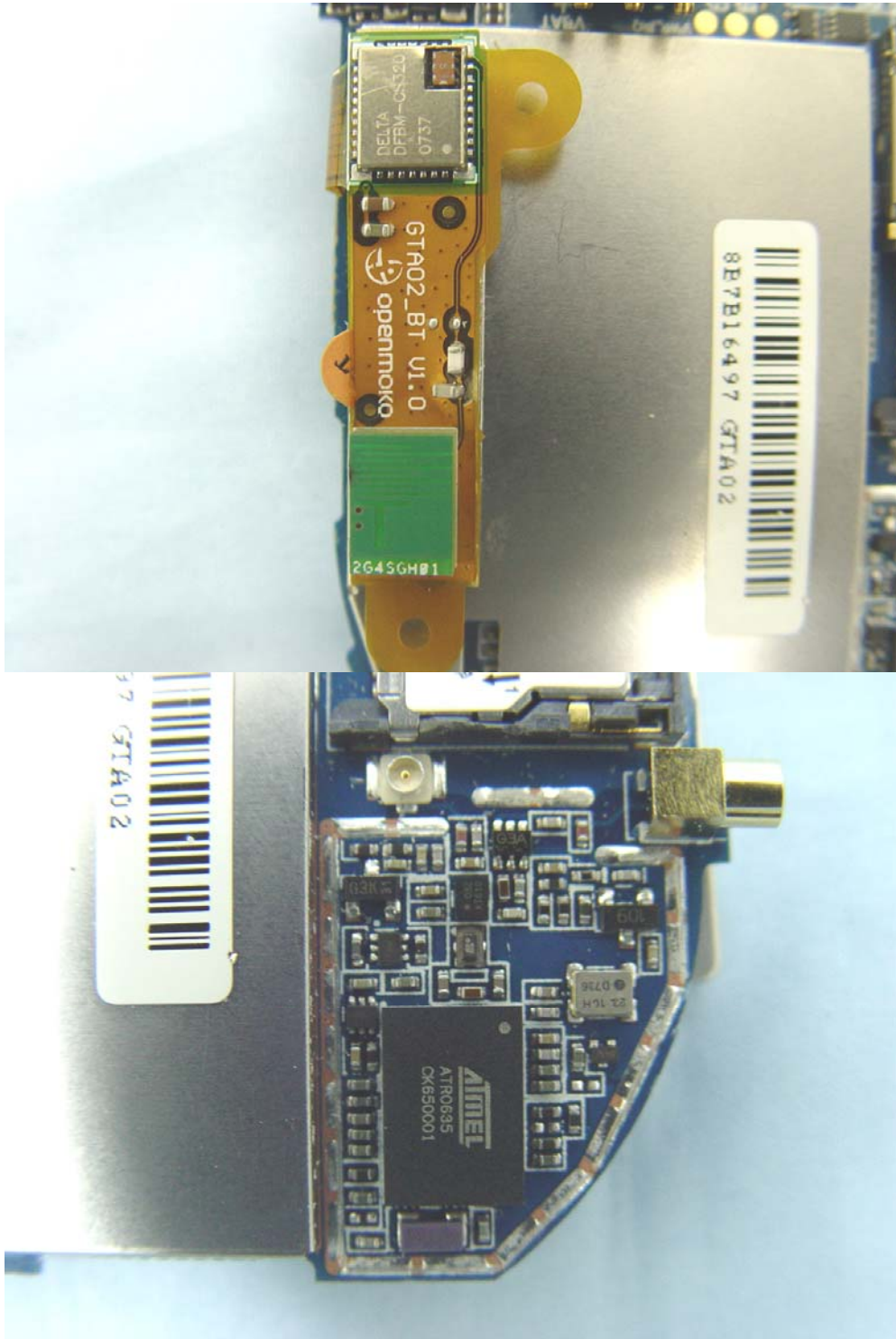


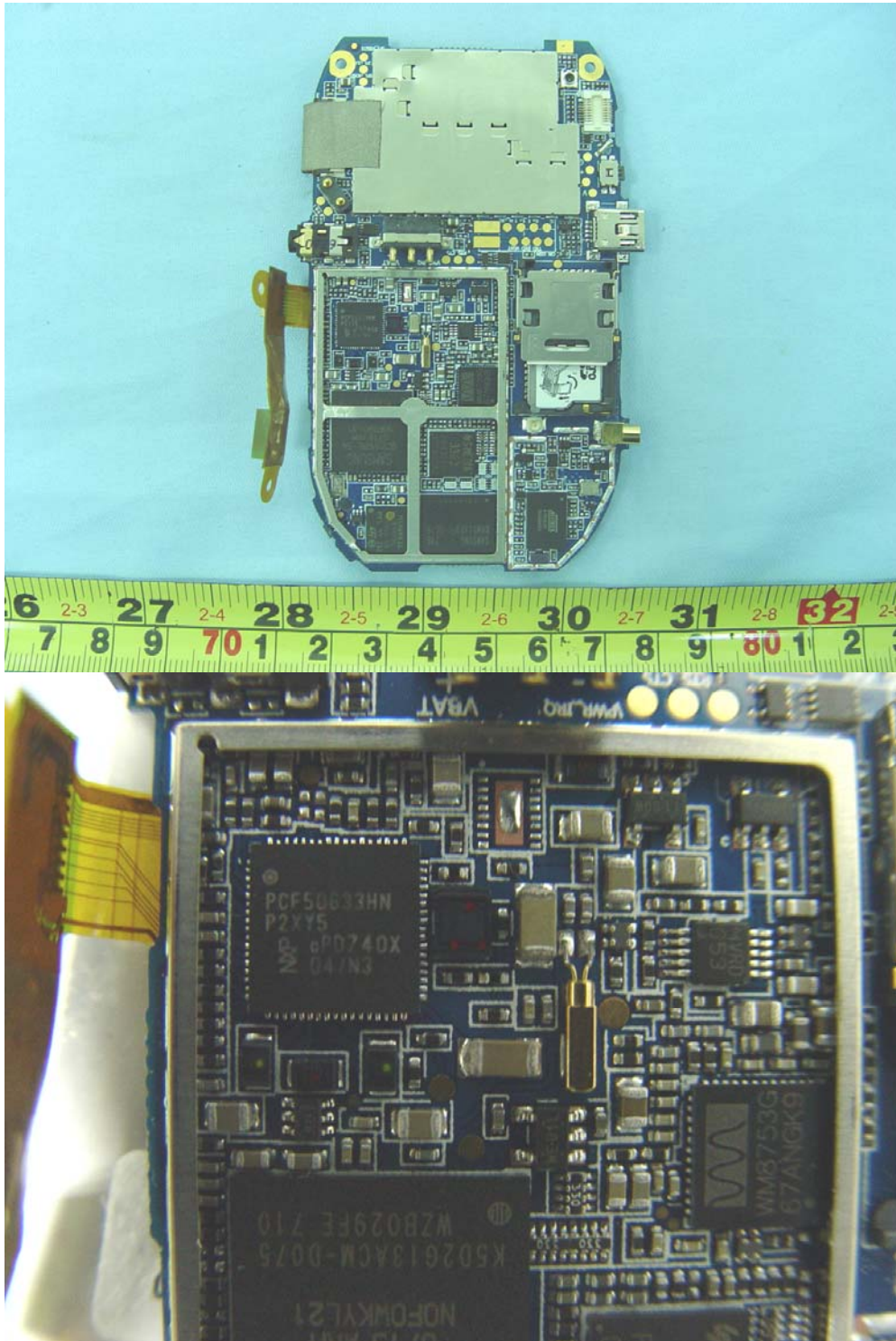


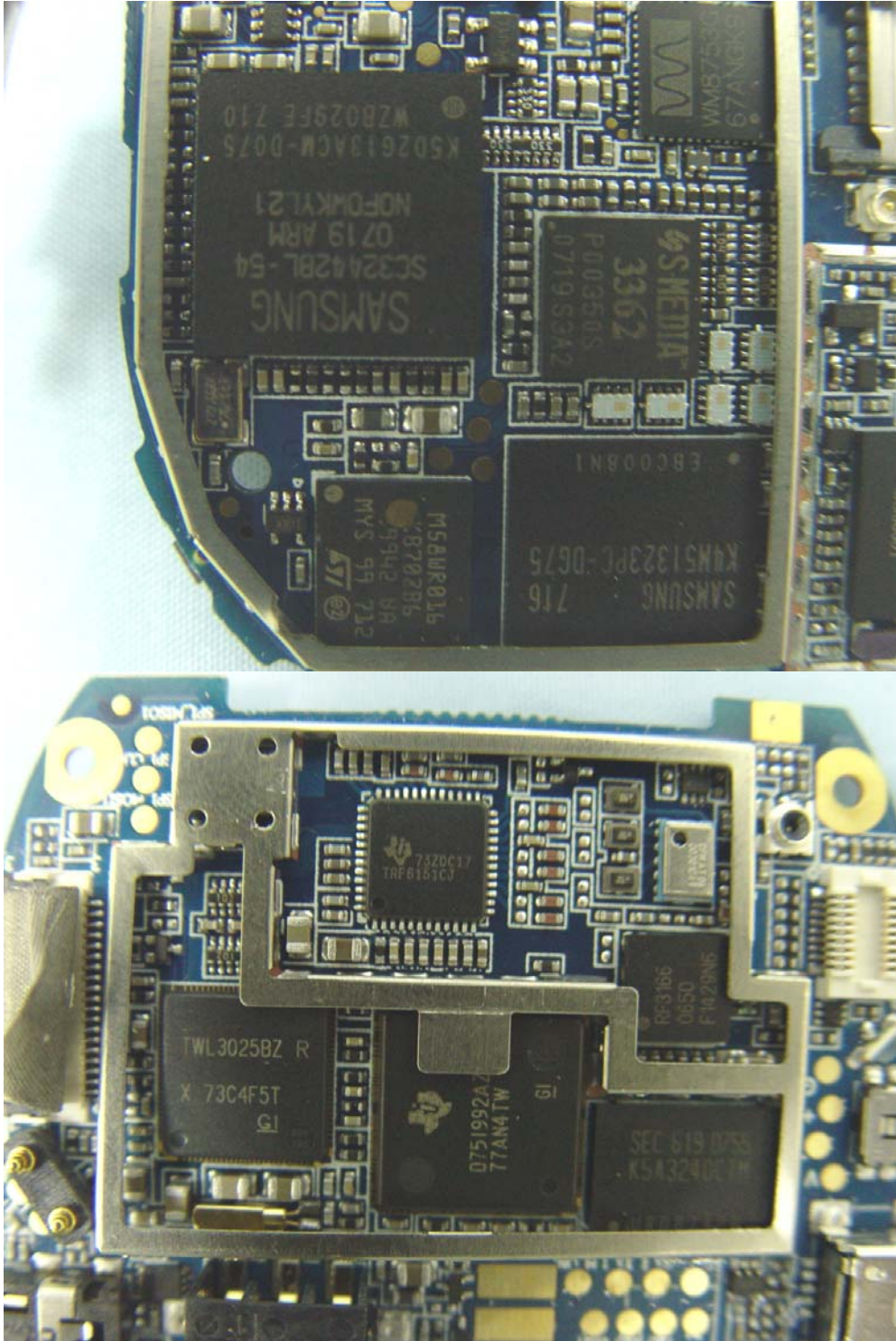


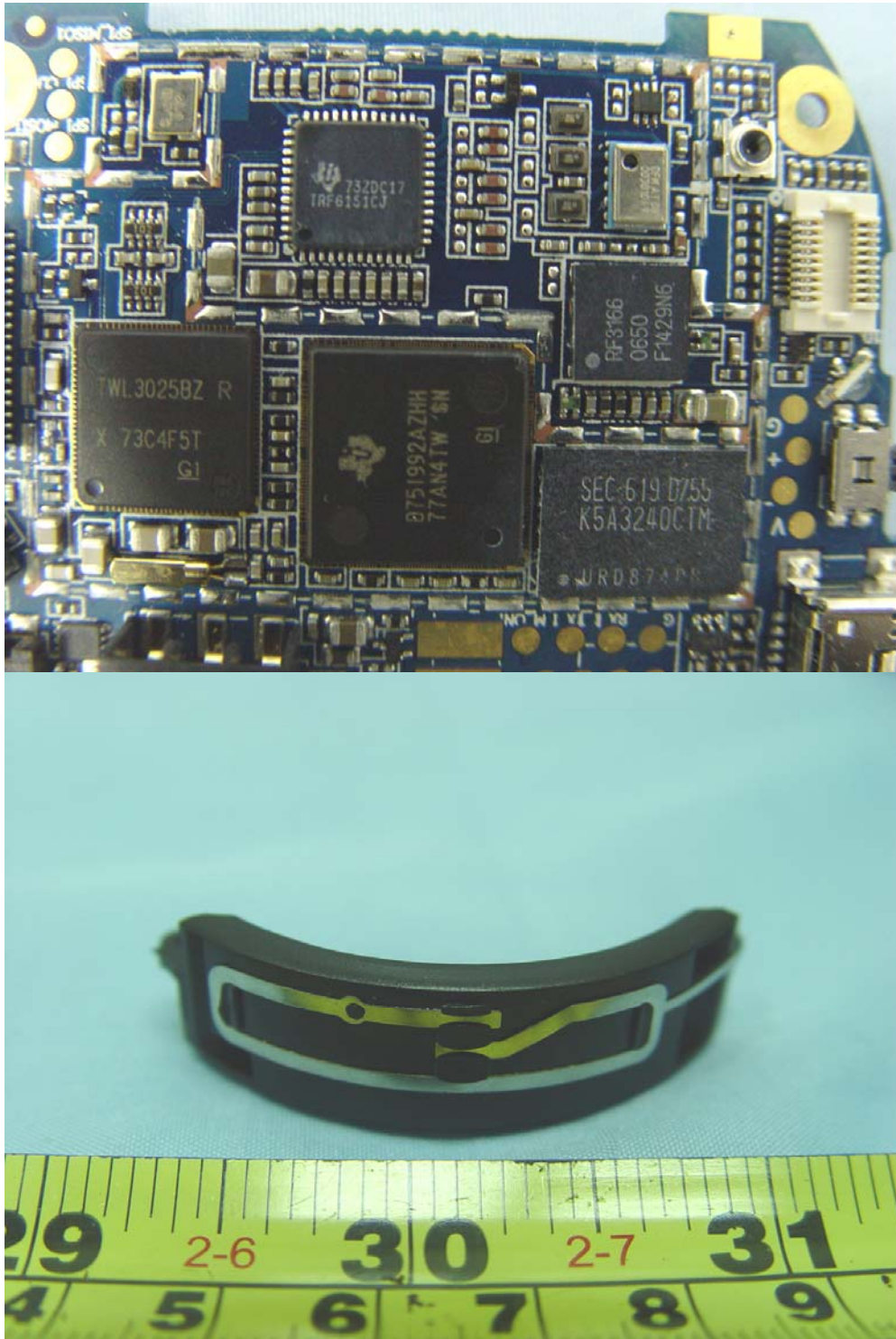


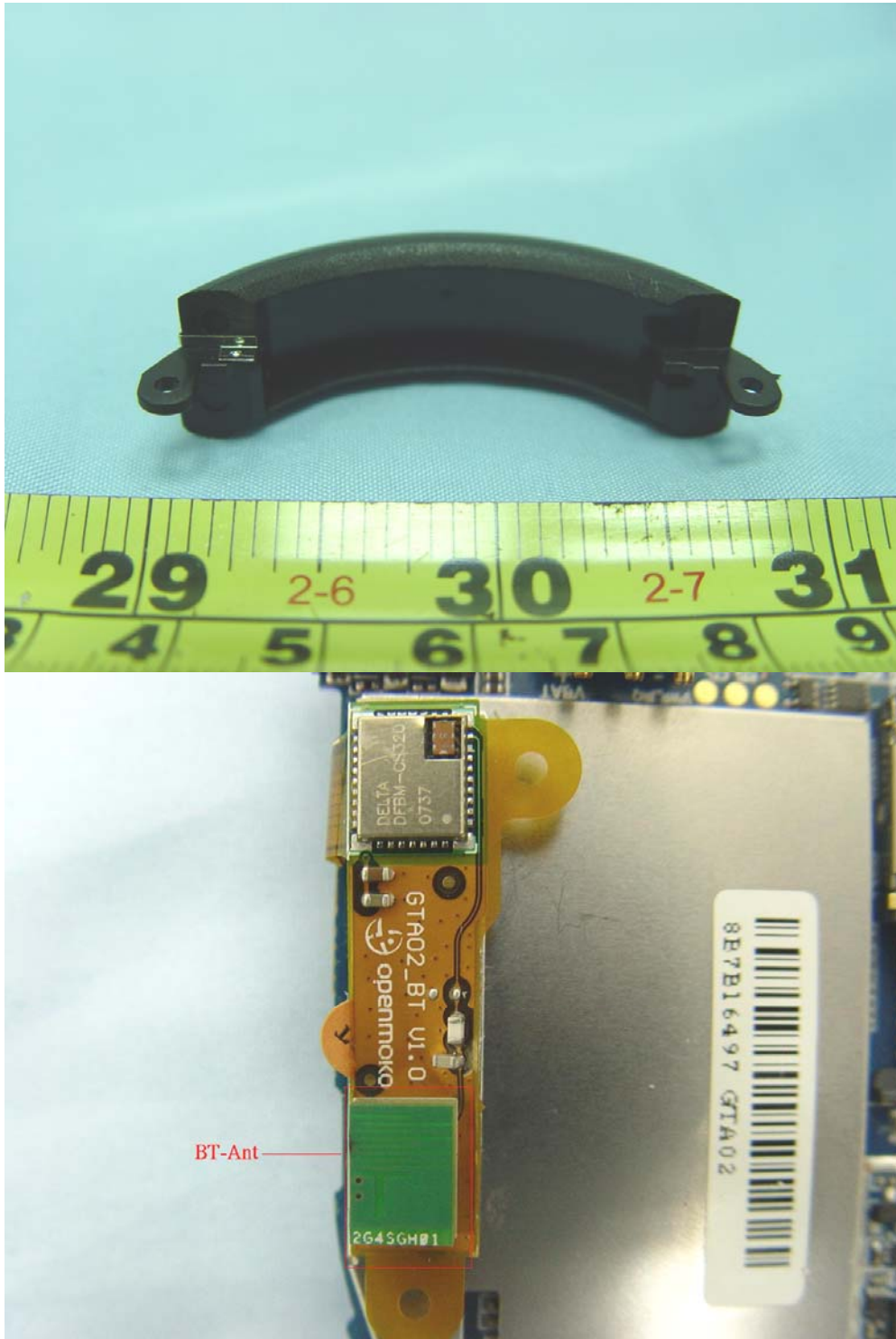


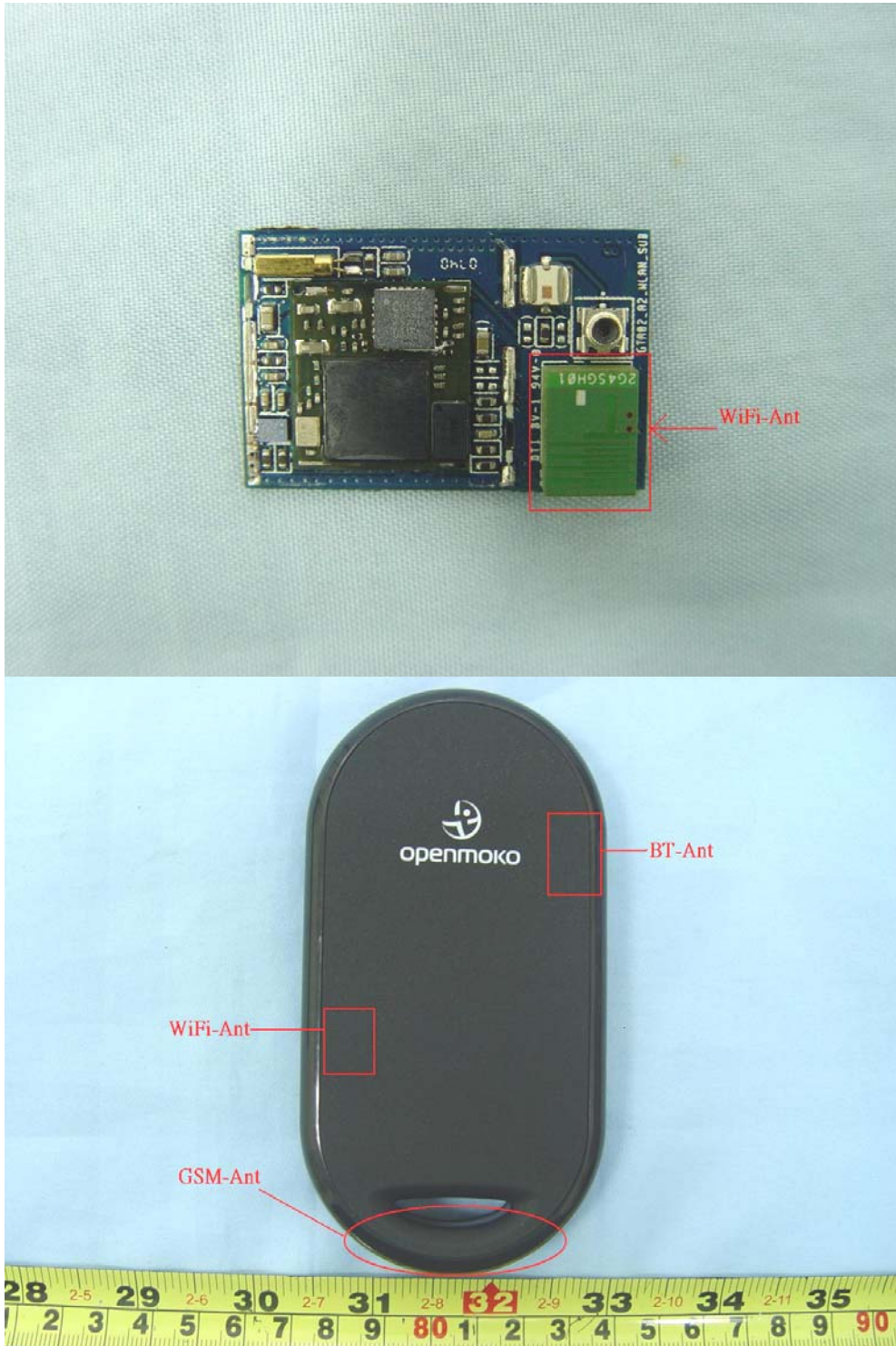






















## Appendix B. Setup Photographs

### Spurious Conduction

#### Mode 1

FRONT VIEW



REAR VIEW



SIDE VIEW

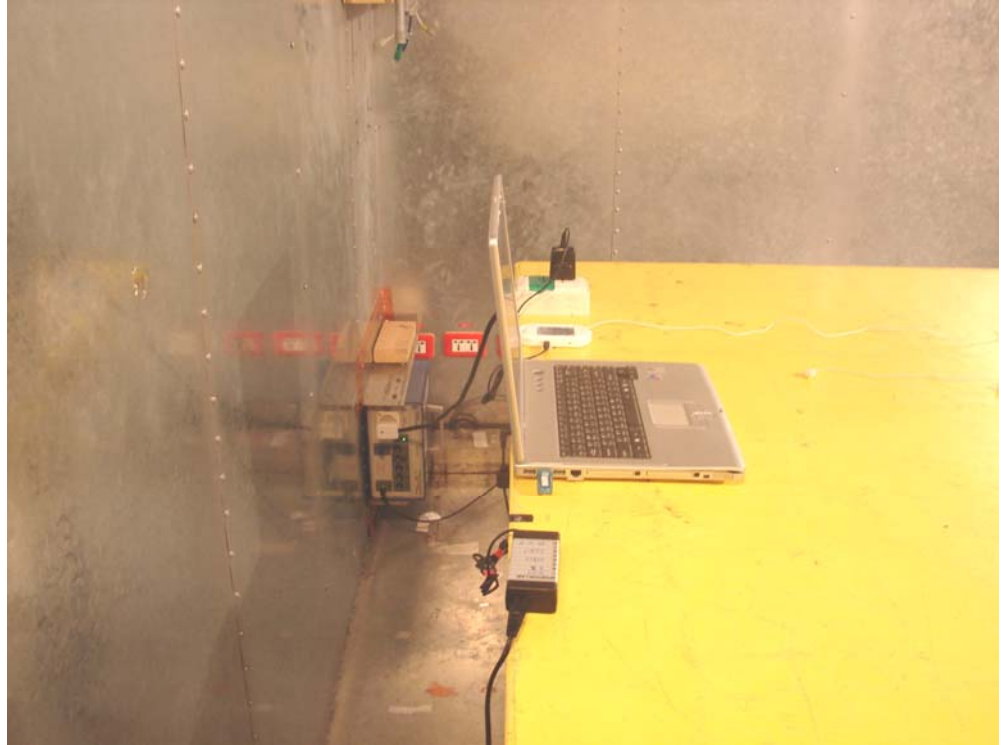


Mode 2

FRONT VIEW



REAR VIEW

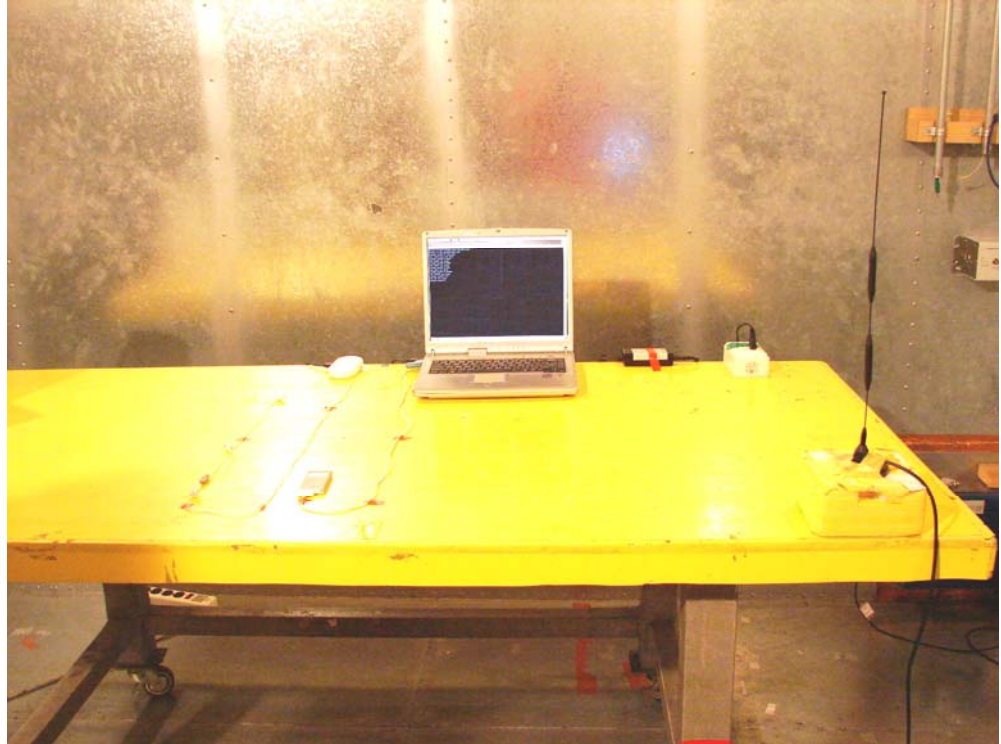


SIDE VIEW



**Mode 3~4**

**FRONT VIEW**



**REAR VIEW**



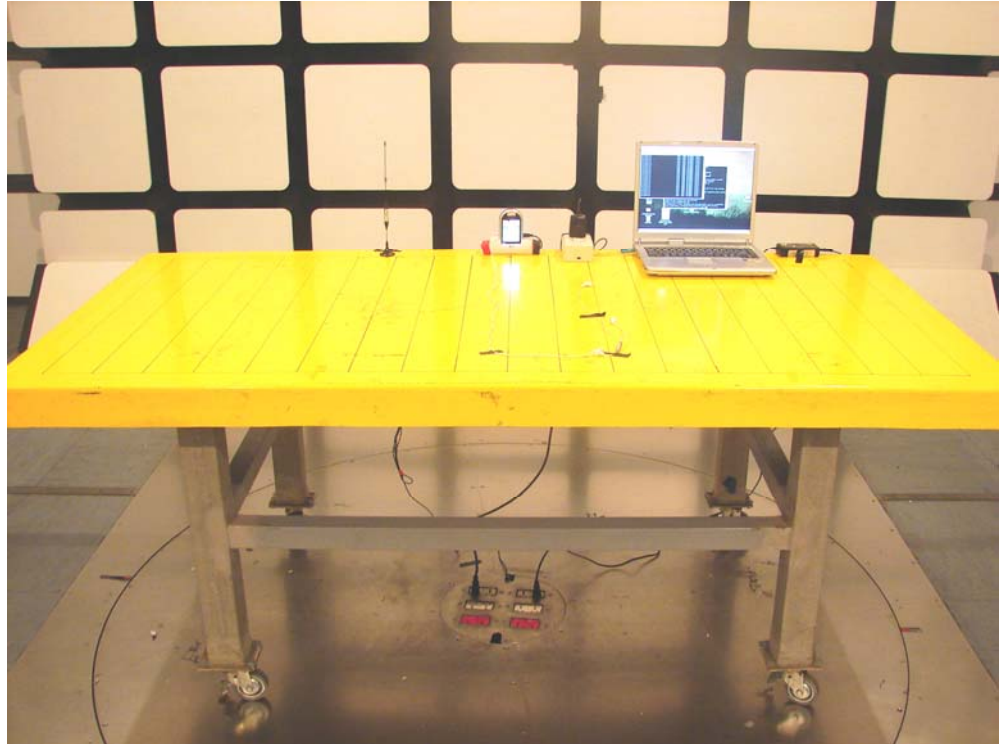


SIDE VIEW

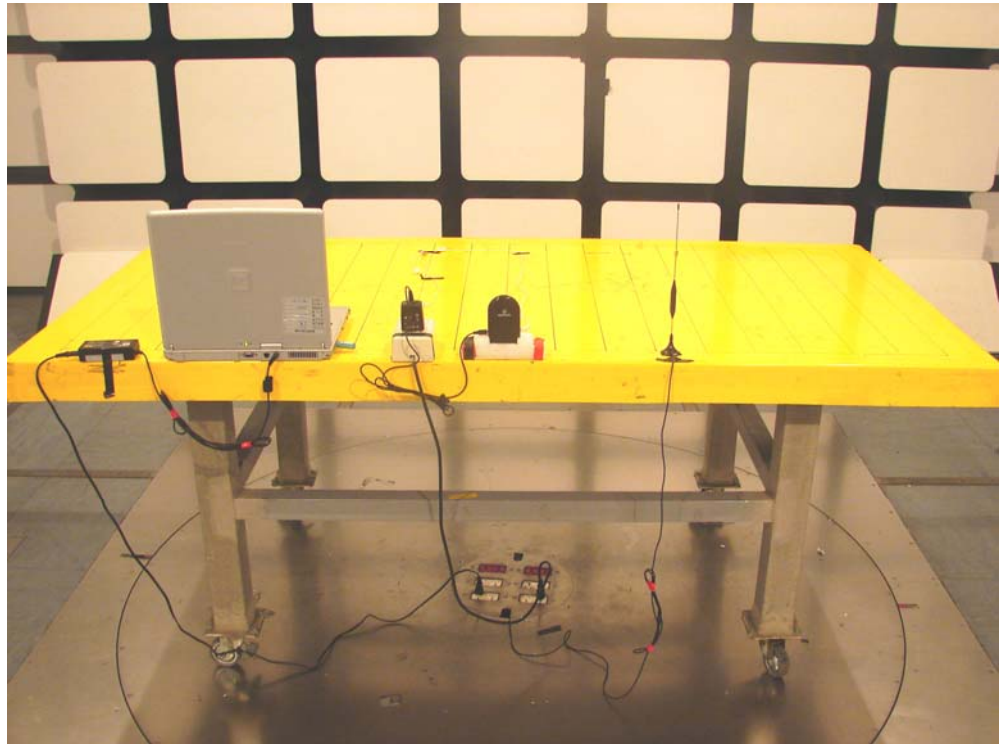


**Spurious Radiation  
Mode 1**

FRONT VIEW

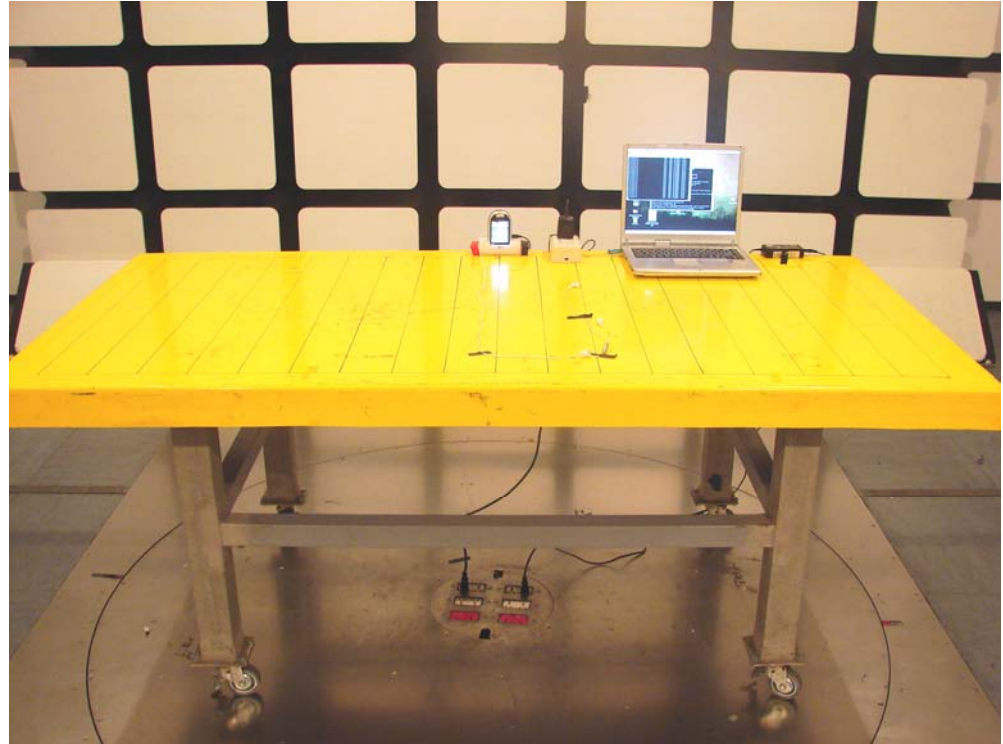


REAR VIEW

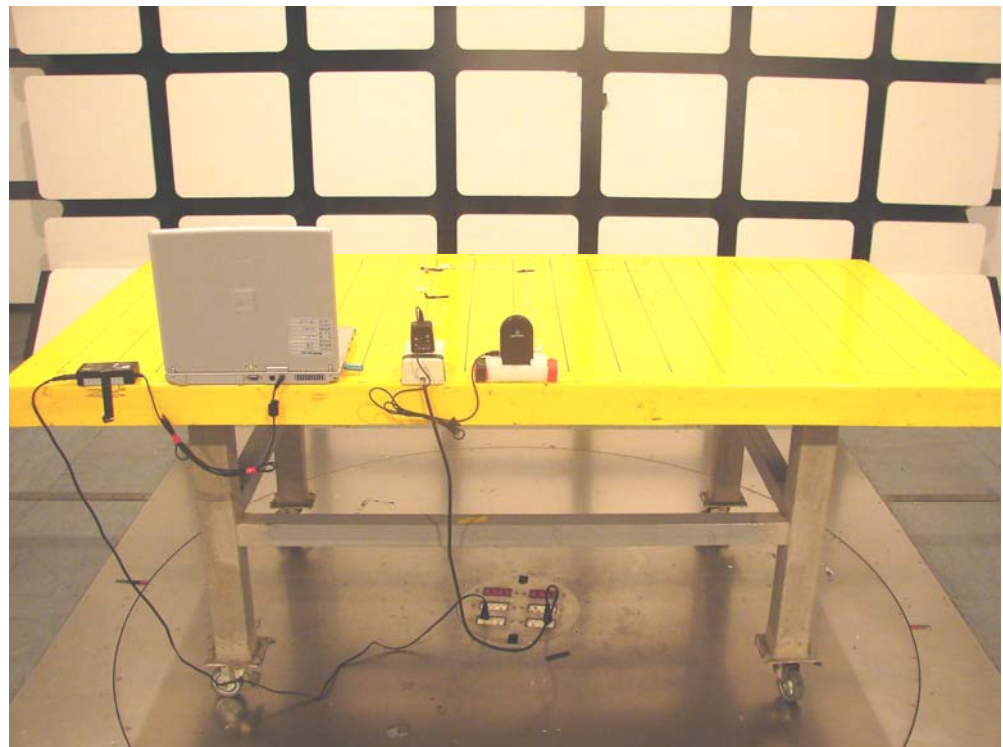


Mode 2

FRONT VIEW

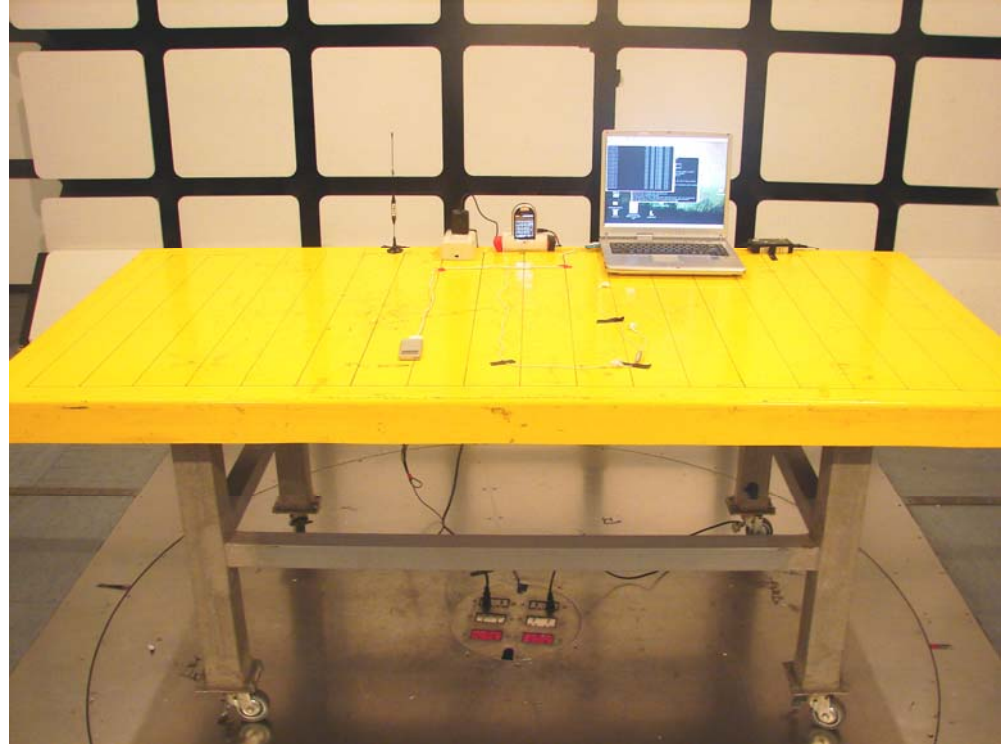


REAR VIEW



Mode 3-4

FRONT VIEW



REAR VIEW

