47 CFR PART 15 SUBPART B

TEST REPORT

of

Mobile Phone

Model Name:	ZMKN2000
Brand Name:	ZONDA
Report No.:	SZ07080068E01
FCC ID:	UT3KK363

prepared for

SHENZHEN KONKA TELECOMMNICATIONS TECHNOLOGY CO., LTD
ShenNan Road 9008, Overseas Chinese Town,
Shenzhen, Guangdong, China

prepared by

Shenzhen Electronic Product Quality Testing Center
Morlab Laboratory
3/F, Electronic Testing Building, Shahe Road, Xili,
Nanshan District, Shenzhen, 518055 P.R. China
Tel: +86 755 86130398
Fax: +86 755 86130218

OFTA 電訊管理局 SET GCF Official Observer of Global Certification Forum CNAS GSM GLOBAL SYSTEM FOR MOBILE COMMUNICATIONS

TABLE OF CONTENTS

1. TEST CERTIFICATION

Equipment under Test:	Mobile Phone
Brand Name:	ZONDA
Model Name:	ZMKN2000
FCC ID:	UT3KK363
Applicant:	SHENZHEN KONKA TELECOMMNICATIONS TECHNOLOGY CO., LTD ShenNan Road 9008, Overseas Chinese Town, Shenzhen, Guangdong, China
Manufacturer:	SHENZHEN KONKA TELECOMMNICATIONS TECHNOLOGY CO., LTD ShenNan Road 9008, Overseas Chinese Town, Shenzhen, Guangdong, China
Emission Designator:	300KGXW
Test Standards:	47 CFR Part 15 Subpart B
Test Date(s):	September 10, 2007 –September 13, 2007
Test Result:	PASS

*** We Hereby Certify That:**

The equipment under test was tested by Shenzhen Electronic Product Quality Testing Center Morlab Laboratory. The test data, data evaluation, test procedures and equipment configurations shown in this report were made in accordance with the requirement of related FCC rules.

The test results of this report only apply for the tested sample equipment identified above. The test report shall be invalid without all the signatures of the test engineer, the reviewer and the approver.

Tested by: Luo Biao Dated: 2007.09.14

Luo Biao

Reviewed by: Wei Yanquan Dated: 2007.09.14

Wei Yanquan

Approved by: Shu Luan Dated: 2007.09.14

Shu Luan

2. GENERAL INFORMATION

2.1 EUT Description

EUT Type.....:	Mobile phone
Model Name .....:	ZMKN2000
Serial No.....:	(n.a, marked #1 by test site)
IMEI .....:	352616015999904
Hardware Version .....:	V2.2
Software Version .....:	KAB363_MXA_EN_FR_SP_090.801
Modulation Type.....:	GMSK
Power Supply.....:	Battery Brand name: ZONDA Mode no.: KLB90N93 Capacitance: 900mAh Rated voltage: 3.7V Charge limited: 4.2±0.05V Manufacturer: SHENZHEN KONKA TELECOMMNICATIONS TECHNOLOGY CO., LTD Manufacturer Address: ShenNan Road 9008, Overseas Chinese Town, Shenzhen, Guangdong, China
Ancillary Equipment .....:	AC Adapter (Charger for Battery) Model Name: ZMKN1000 Brand Name: ZONDA Serial No.: (n.a. marked #1 by test site) Rated Input: ~ 100-240V, 0.15A,50~60Hz Rated Output: ⎓ 5V, 500mA Manufacturer: SHENZHEN KONKA TELECOMMNICATIONS TECHNOLOGY CO., LTD Manufacturer Address: ShenNan Road 9008, Overseas Chinese Town, Shenzhen, Guangdong, China Wire Length: 150cm

Note 1: The EUT is a GSM /GPRS terminal which include Bluetooth Module; it supports GSM 850MHz, 1900MHz, GSM 850MHz and 1900MHz bands are tested in this report.

Note 2: A communication link between the EUT and the Bluetooth Earphone are established at the start of the test, and maintained during the all test in this report.

Note 3: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

2.2 EUT Function

The EUT supports Bluetooth function.

The EUT supports GPRS function, and GPRS Class is 12.

The EUT is equipped with a T-Flash card slot; equipped with a special port which can be connected to the ancillary equipments supplied by the manufacturer e.g. the AC Adapter and the USB Adapter Cable.

The EUT outfits an inner Camera, and the EUT supports PC Web Camera function.

2.3 Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart B:

No.	Identity	Document Title
1	47 CFR Part 15 (10-1-05 Edition)	Radio Frequency Devices

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Result
1	15.107	Conducted Emission	PASS
2	15.109	Radiated Emission	PASS

NOTE:

The tests were performed according to the method of measurements prescribed in ANSI C63.4 2003.

2.4 Facilities and Accreditations

2.4.1 Facilities

Shenzhen Electronic Product Quality Testing Center Morlab Laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659.

All measurement facilities used to collect the measurement data are located at Electronic Testing Building, Shahe Road, Xili, Nanshan District, Shenzhen 518055 CHINA. The test site is constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22; the FCC registration number is 741109.

2.4.2 Test Environment Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	20 - 25
Relative Humidity (%):	40 - 60
Atmospheric Pressure (kPa):	96

3. TEST CONDITIONS SETTING

3.1 Test Mode

3.1.1 GSM Test Mode

(1) The first test mode (GSM)

The EUT configuration of the emission tests is EUT + Battery + Charger.

In this test mode, the EUT will be working under the Traffic operating mode and Idle operating mode.

During the measurement of Traffic operating mode, a communication link was established between the EUT and a System Simulator (SS). The EUT operated at GSM 850MHz mid ARFCN (190) and maximum output power (level 5).

(2) The second test mode (GPRS)

The EUT configuration of the emission tests is EUT + Battery + Charger.

In this test mode, a GPRS link was established between the EUT and a System Simulator (SS); date was transmitted between EUT and System Simulator (SS), and maintained during the measurement.

NOTE: These test modes are performed, only the worst cases are recorded in this report.

3.1.2 USB Test Mode

(1) The first test mode (USB)

The EUT configuration of the emission tests is TransFlash Card + EUT + Battery + PC.

In this test mode, the EUT with a TransFlash Card embedded is connected with a PC via a special USB cable supplied by applicant. During the measurement, a communication link was established between the EUT and a System Simulator (SS), simultaneity, the date is transmitting between the PC and the TransFlash Card of the EUT.

(2) The second test mode (PC Web Camera)

The EUT configuration of the emission tests is EUT + Battery + PC.

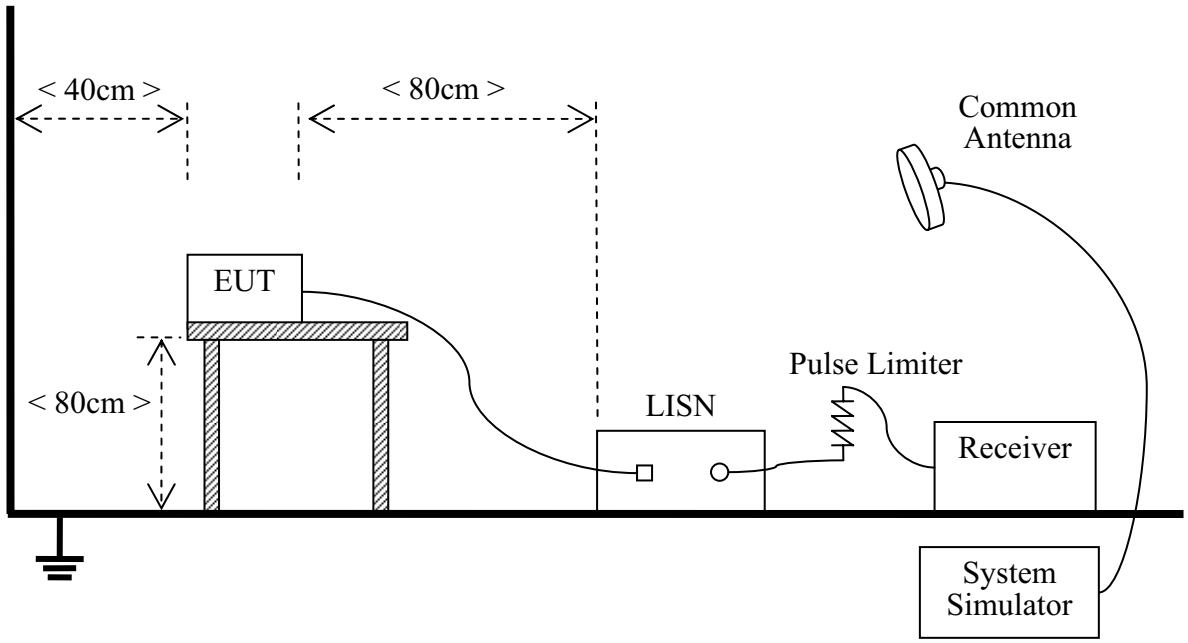
The EUT supports PC Web Camera function. During the measurement, the EUT was connected with a PC via a special USB cable supplied by applicant, and the EUT working by way of the PC Web Camera.

NOTE: These test modes are performed, only the worst cases are recorded in this report.

3.2 Test Setup and Equipments List

3.2.1 Conducted Emission

A. Test Setup:



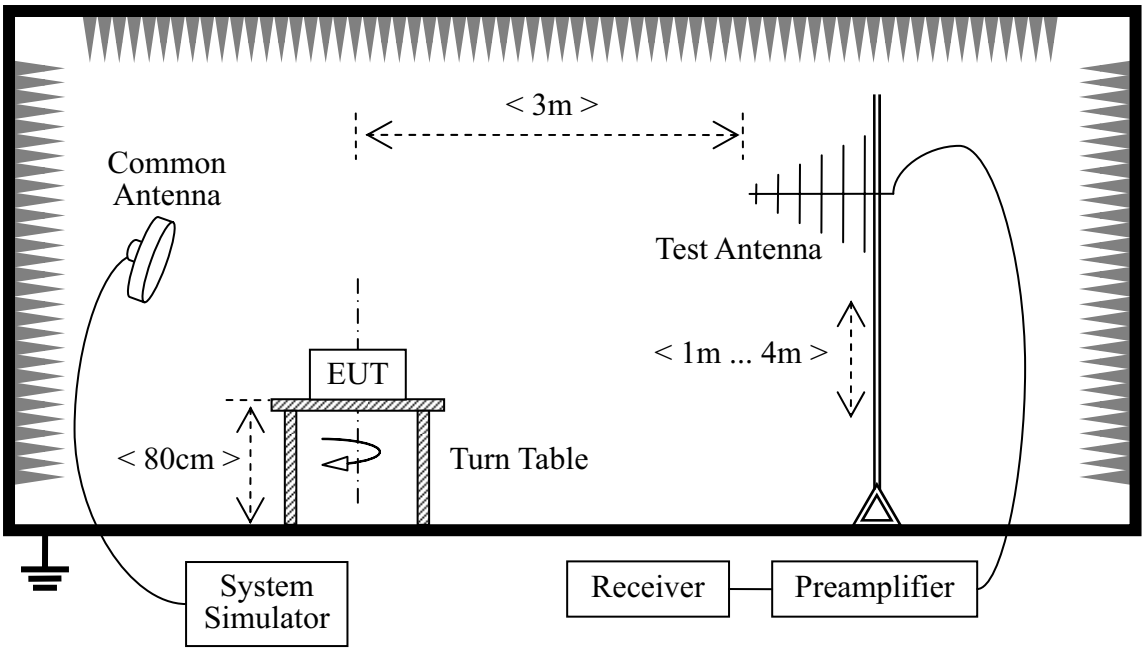
The EUT is placed on a 0.8m high insulating table, which stands on the grounded conducting floor, and keeps 0.4m away from the grounded conducting wall. The EUT is connected to the power mains through a LISN which provides 50Ω/50μH of coupling impedance for the measuring instrument. The Common Antenna is used for the call between the EUT and the System Simulator (SS). A Pulse Limiter is used to protect the measuring instrument. The factors of the whole test system are calibrated to correct the reading.

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Agilent	E7405A	US44210471	2007.07	1year
LISN	Schwarzbeck	NSLK 8127	812744	2007.08	1year
Pulse Limiter (20dB)	Schwarzbeck	VTSD 9561-D	9391	(n.a.)	(n.a.)
System Simulator	Agilent	E5515C	GB43130131	2007.06	1year
Personal Computer	HP	Pavilion ze2202	CNF5460DNL	(n.a.)	(n.a.)
Bluetooth-Headset	Nokia	HS-36W	(n.a.)	(n.a.)	(n.a.)
T-Flash Card	SanDisk	256MB	(n.a.)	(n.a.)	(n.a.)

3.2.2 Radiated Emission

C. Test Setup:



The test is performed in a 3m Semi-Anechoic Chamber; the antenna factor, cable loss and so on of the site (factors) is calculated to correct the reading. The EUT is placed on a 0.8m high insulating Turn Table, and keeps 3m away from the Test Antenna, which is mounted on a variable-height antenna master tower. The Common Antenna is used for the call between the EUT and the System Simulator (SS).

D. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Agilent	E7405A	US44210471	2007.07	1year
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2006.08	2year
Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	9163-274	2007.07	1year
Test Antenna - Horn	Schwarzbeck	BBHA 9120C	9120C-384	2007.07	1year
System Simulator	Agilent	E5515C	GB43130131	2007.06	1year
Personal Computer	HP	Pavilion ze2202	CNF5460DNL	(n.a.)	(n.a.)
Bluetooth-Headset	Nokia	HS-36W	(n.a.)	(n.a.)	(n.a.)
T-Flash Card	SanDisk	256MB	(n.a.)	(n.a.)	(n.a.)

4. 47 CFR PART 15B REQUIREMENTS

4.1 Conducted Emission

4.1.1 Requirement

According to FCC section 15.107, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50μH/50Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dBμV)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
0.50 - 30	60	50

NOTE:

a) The limit subjects to the Class B digital device.

b) The lower limit shall apply at the band edges.

c) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

4.1.2 Test Description

See section 3.2.1 of this report.

4.1.3 Test Result

The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. All test modes are considered, refer to recorded points and plots below.

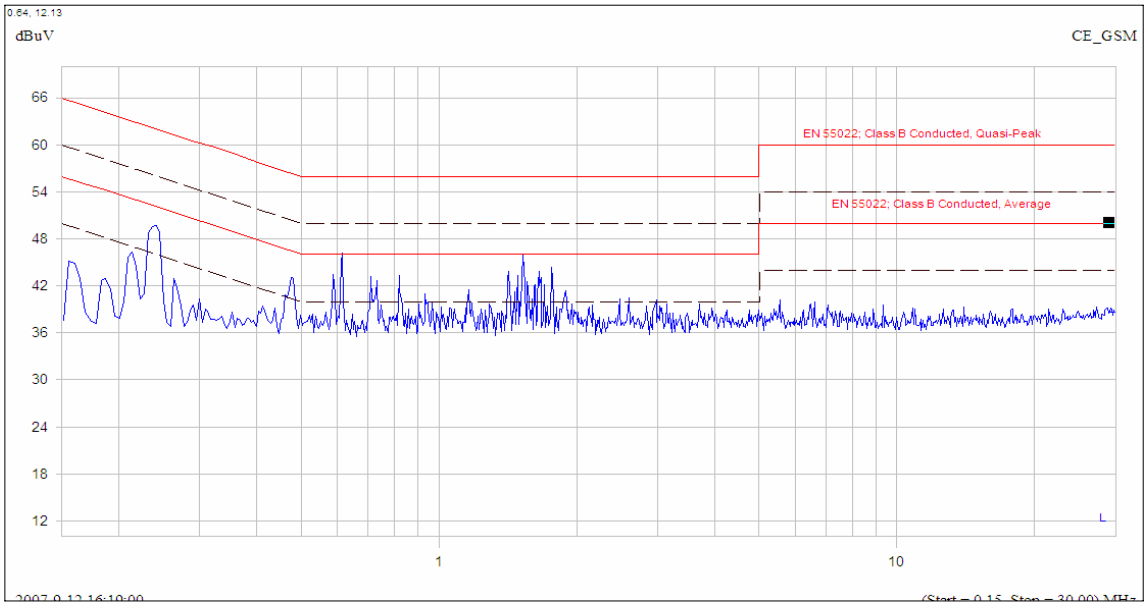
4.1.3.1 GSM Test Tode

A. Test Verdict Recorded for Suspicious Points:

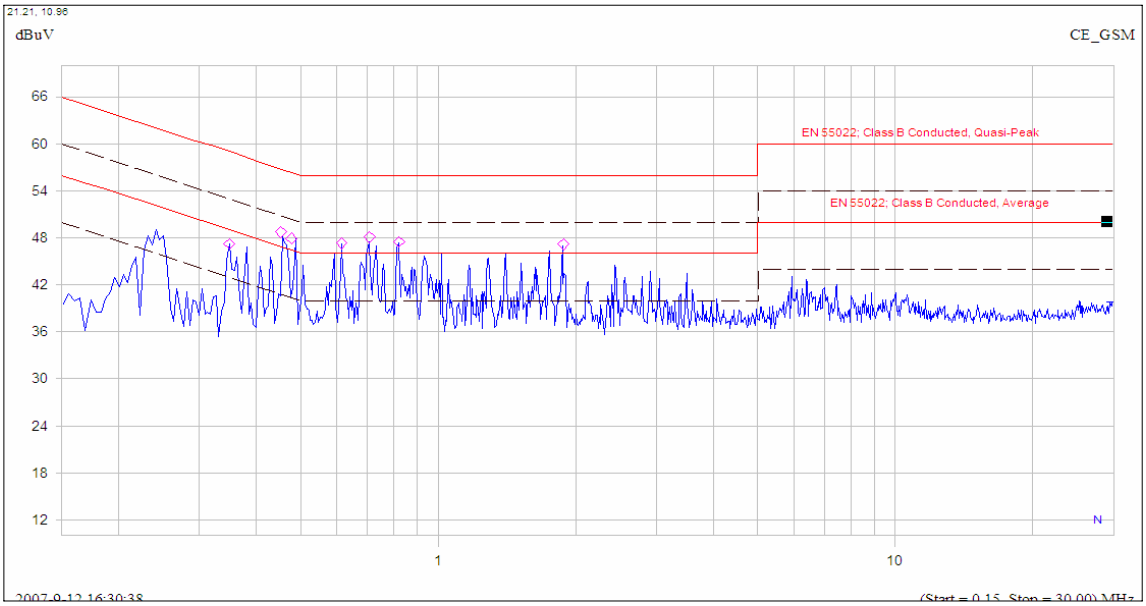
No.	@Frequency (MHz)	Measured Emission Level (dBμV)				Limit (dBμV)		Verdict
		PK	QP	AV	Phase	QP	AV	
1	0.236	49.9	48.5	37.2	L	62.3	52.3	PASS
2	0.616	47.4	43.7	31.6	L	56.0	46.0	PASS

No.	@Frequency (MHz)	Measured Emission Level (dBμV)				Limit (dBμV)		Verdict
		PK	QP	AV	Phase	QP	AV	
3	0.818	40.1	37.4	28.3	L	56.0	46.0	PASS
4	1.417	44.3	39.5	27.8	L	56.0	46.0	PASS
5	1.528	46.1	41.2	29.5	L	56.0	46.0	PASS
6	1.765	43.5	39.7	27.1	L	56.0	46.0	PASS
7	0.349	47.2	45.7	34.5	N	59.0	49.0	PASS
8	0.452	48.7	39.9	24.8	N	56.8	46.8	PASS
9	0.614	47.3	43.7	32.6	N	56.0	46.0	PASS
10	0.706	48.1	45.9	29.4	N	56.0	46.0	PASS
11	0.820	47.5	46.3	31.8	N	56.0	46.0	PASS
12	1.877	47.2	46.5	39.5	N	56.0	46.0	PASS

B. Test Plot:



(Plot A: L Phase)



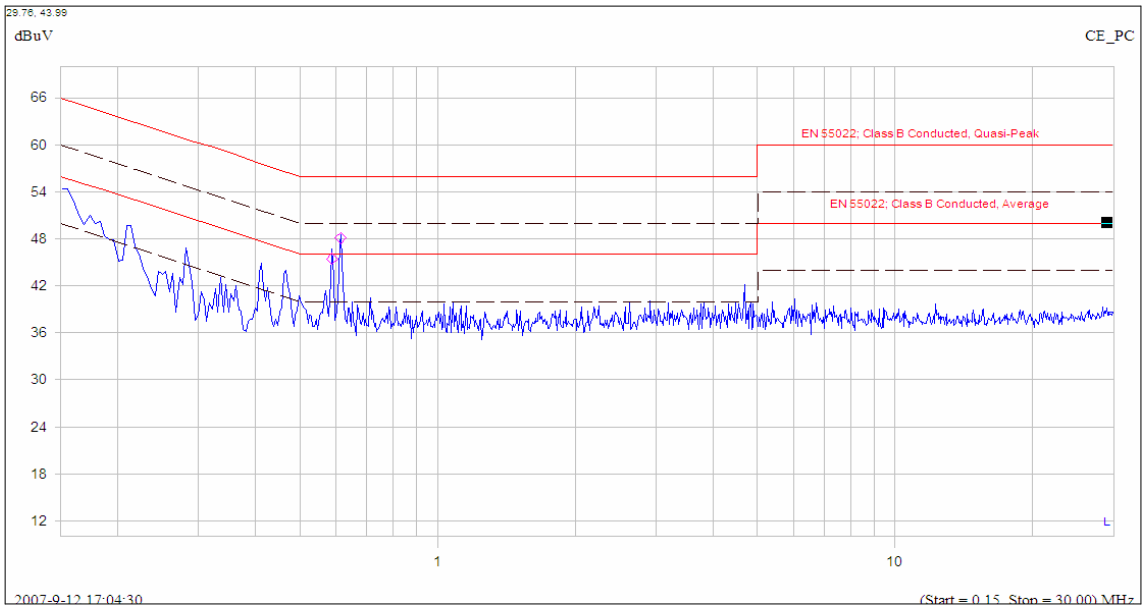
(Plot B: N Phase)

4.1.3.2 USB Test Mode

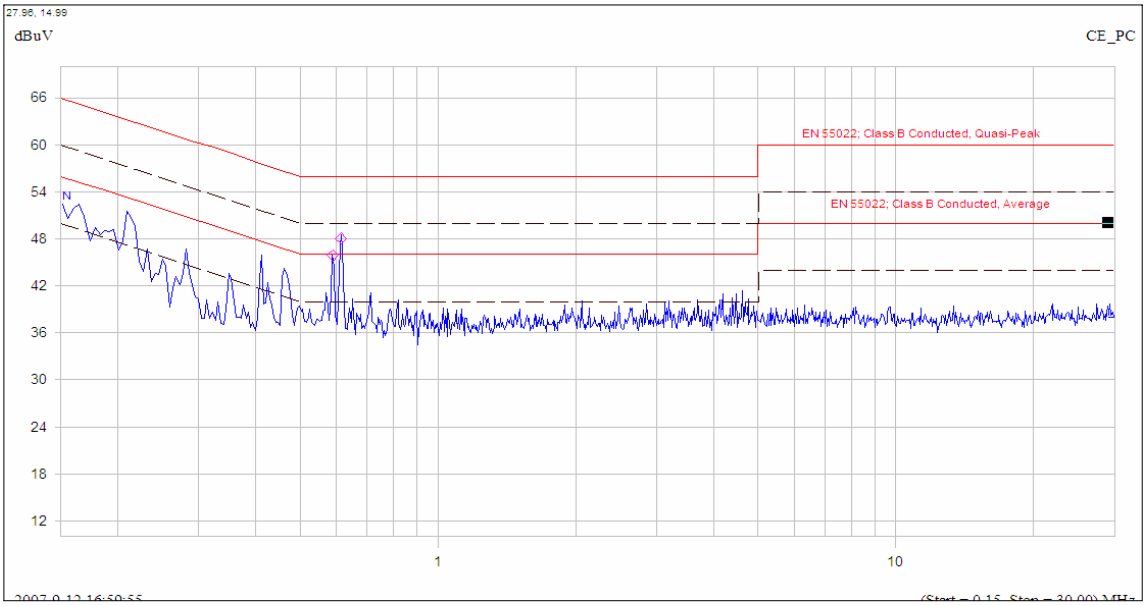
A. Test Verdict Recorded for Suspicious Points:

No.	@Frequency (MHz)	Measured Emission Level (dBμV)				Limit (dBμV)		Verdict
		PK	QP	AV	Phase	QP	AV	
1	0.588	45.4	44.1	34.6	L	56.0	46.0	PASS
2	0.613	48.1	46.5	35.3	L	56.0	46.0	PASS
3	(n.a)	(n.a)	(n.a)	(n.a)	L	(n.a)	(n.a)	(n.a)
4	(n.a)	(n.a)	(n.a)	(n.a)	L	(n.a)	(n.a)	(n.a)
5	(n.a)	(n.a)	(n.a)	(n.a)	L	(n.a)	(n.a)	(n.a)
6	(n.a)	(n.a)	(n.a)	(n.a)	L	(n.a)	(n.a)	(n.a)
7	0.589	45.9	44.5	34.9	N	56.0	46.0	PASS
8	0.613	48.0	46.5	35.3	N	56.0	46.0	PASS
9	(n.a)	(n.a)	(n.a)	(n.a)	N	(n.a)	(n.a)	(n.a)
10	(n.a)	(n.a)	(n.a)	(n.a)	N	(n.a)	(n.a)	(n.a)
11	(n.a)	(n.a)	(n.a)	(n.a)	N	(n.a)	(n.a)	(n.a)
12	(n.a)	(n.a)	(n.a)	(n.a)	N	(n.a)	(n.a)	(n.a)

B. Test Plot:



(Plot A: L Phase)



(Plot B: N Phase)

4.2 Radiated Emission

4.2.1 Requirement

According to FCC section 15.109, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency range (MHz)	Field Strength	
	μV/m	dBμV/m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

NOTE:

a) Field Strength (dBμV/m) = 20*log[Field Strength (μV/m)].

b) In the emission tables above, the tighter limit applies at the band edges.

4.2.2 Test Description

See section 3.2.2 of this report.

4.2.3 Test Result

The maximum radiated emission is searched using PK, QP and AV detectors; the emission levels more than the limits, and that have narrow margins from the limits will be re-measured with AV and QP detectors. Both the vertical and the horizontal polarizations of the Test Antenna are considered to perform the tests. All test modes are considered, refer to recorded points and plots below.

4.2.3.1 GSM test mode

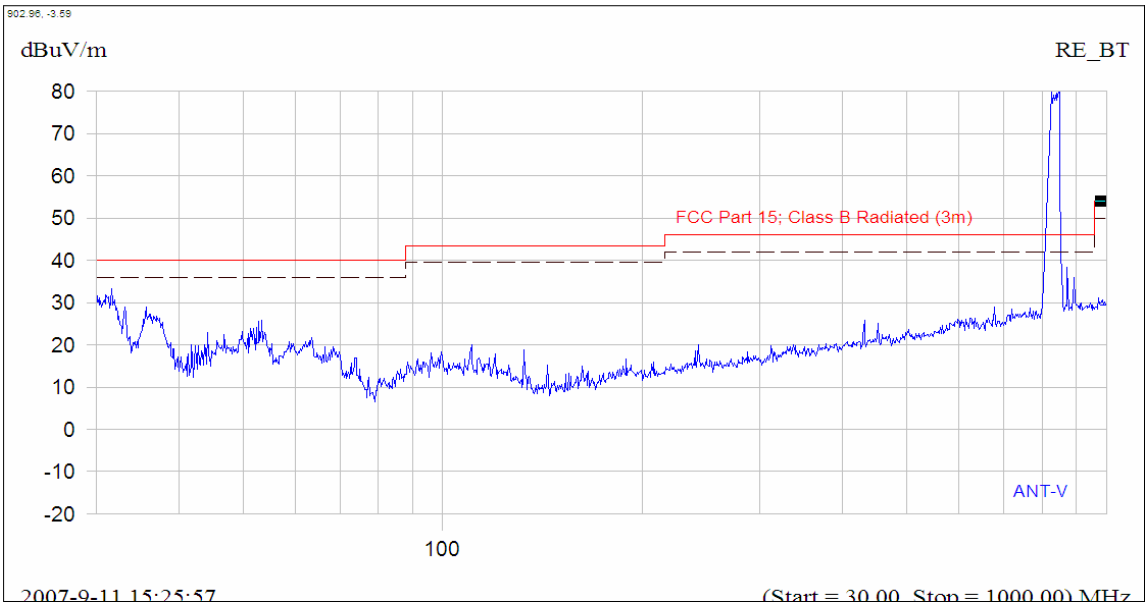
A. Test Verdict Recorded for Suspicious Points:

No.	@Frequency (MHz)	Emission Level (dBμV/m)			Quasi-Peak Limit (dBμV/m)	Result
		PK	QP	Antenna Polarization		
1	31.692	33.2	---	Vertical	40	PASS
2	35.712	29.0	---	Vertical	40	PASS
3	53.412	25.9	---	Vertical	40	PASS
4	110.628	20.1	---	Vertical	43.5	PASS
5	432.084	25.7	---	Vertical	46	PASS
6	(n.a)	(n.a)	(n.a)	Vertical	(n.a)	(n.a)
7	55.224	19.6	---	Horizontal	40	PASS

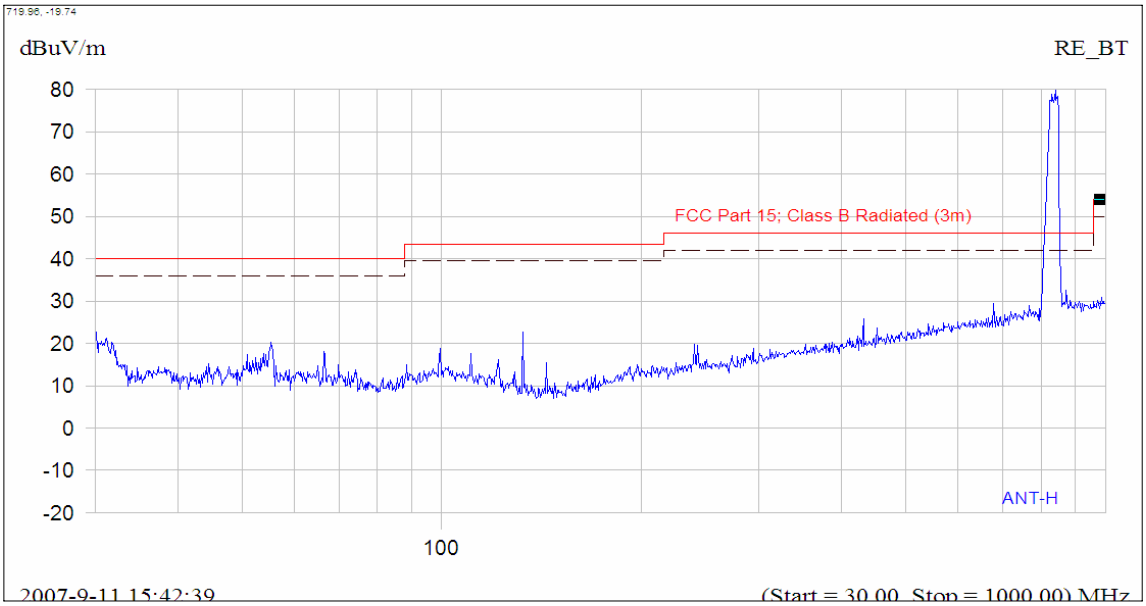
No.	@Frequency (MHz)	Emission Level (dBμV/m)			Quasi-Peak Limit (dBμV/m)	Result
		PK	QP	Antenna Polarization		
8	132.720	22.7	---	Horizontal	43.6	PASS
9	432.084	25.8	---	Horizontal	46	PASS
10	678.996	29.5	---	Horizontal	46	PASS
11	(n.a)	(n.a)	(n.a)	Horizontal	(n.a)	(n.a)
12	(n.a)	(n.a)	(n.a)	Horizontal	(n.a)	(n.a)

B. Test Plot:

Note: Following is the plots for emission measurement; please note that marked spikes with circle should be ignored because they are MS and SS carrier frequency.



(Plot A: Test Antenna Vertical)



(Plot B: Test Antenna Horizontal)

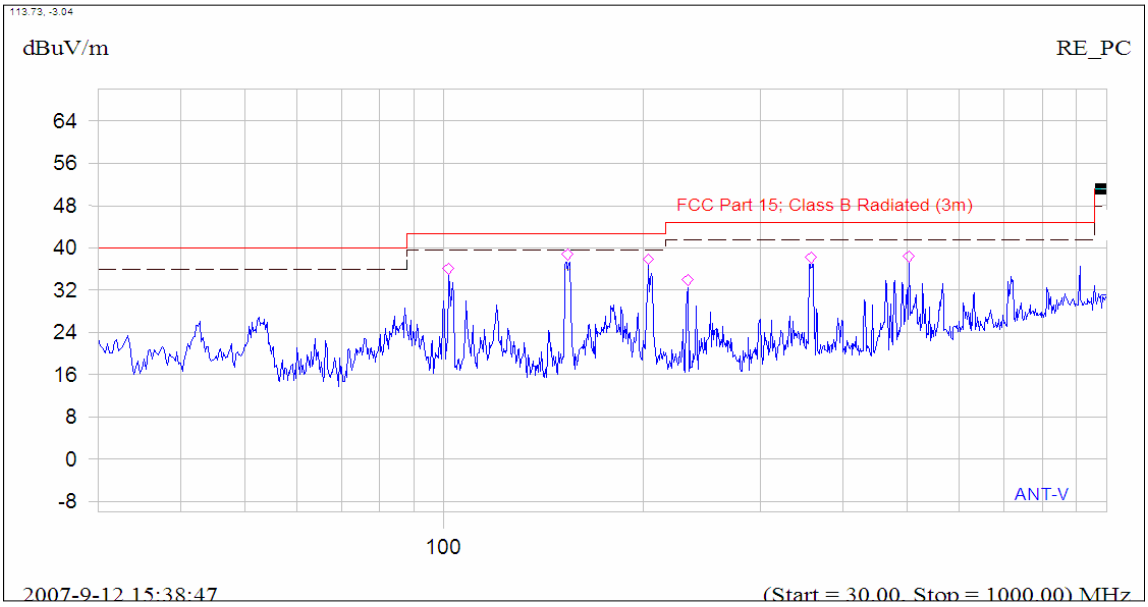
4.2.3.2 USB Test Mode

A. Test Verdict Recorded for Suspicious Points:

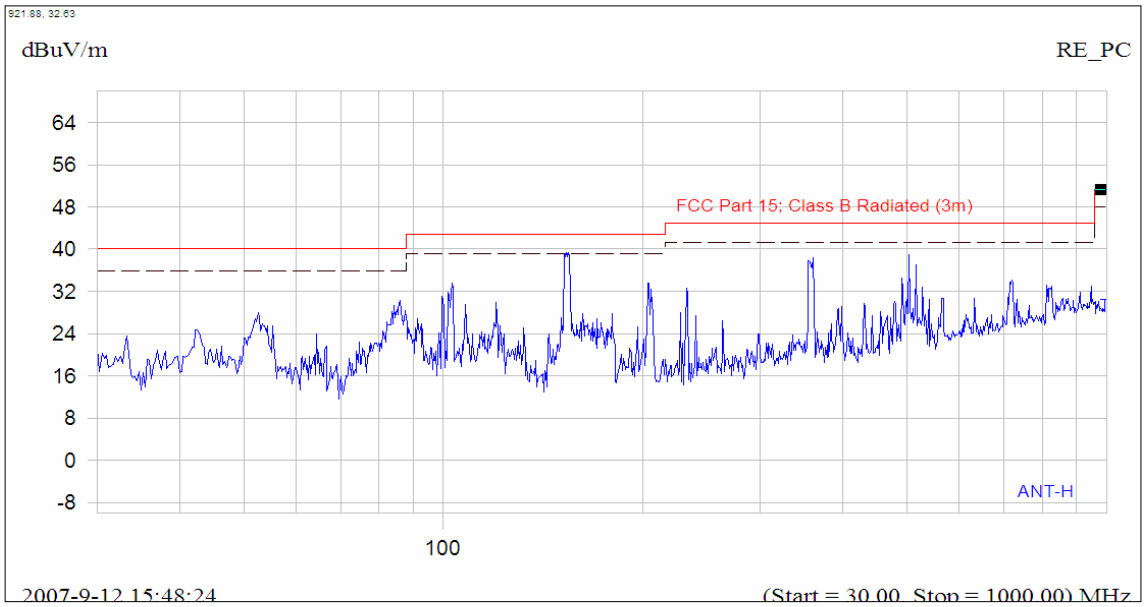
No.	@Frequency (MHz)	Emission Level (dBμV/m)			Quasi-Peak Limit (dBμV/m)	Result
		PK	QP	Antenna Polarization		
1	101.618	40.7	32.0	Vertical	40	PASS
2	152.728	42.2	34.9	Vertical	43.5	PASS
3	203.215	37.8	30.0	Vertical	43.5	PASS
4	233.162	33.9	30.0	Vertical	46	PASS
5	361.107	41.9	37.1	Vertical	46	PASS
6	504.074	42.3	38.1	Vertical	46	PASS
7	103.114	38.2	31.6	Horizontal	43.5	PASS
8	152.350	40.0	29.8	Horizontal	43.5	PASS
9	203.350	33.6	20.5	Horizontal	43.5	PASS
10	232.326	34.7	31.2	Horizontal	46	PASS
11	360.950	38.5	30.8	Horizontal	46	PASS
12	504.081	43.1	38.8	Horizontal	46	PASS

B. Test Plot:

Note: Following is the plots for emission measurement; please note that marked spikes with circle should be ignored because they are MS and SS carrier frequency.



(Plot A: Test Antenna Vertical)



(Plot B: Test Antenna Horizontal)

** END OF REPORT **