A Test Lab Techno Corp.

Changan Lab：No. 140 -1, Changan Street, Bade City, Taoyuan County, Taiwan R.O.C.
Tel：886-3-271-0188 / Fax：886-3-271-0190

P22 & P24 Test Report

Test Report No.	：	**0710FR12**
Applicant	：	**NINGBO BIRD CO., LTD**
		NO.999 Dacheng East Road, Fenghua City, Zhejiang
Manufacturer	：	**NINGBO BIRD CO., LTD**
Model Name	：	**Dual Band GSM Mobile Phone**
Trade Mark	：	**BiRD**
Model Number	：	**Bird S700**
FCC ID	：	**SNMS700**
Tx Frequency Range	：	**824.2 - 848.8MHz (GSM 850)**
		1850.2 - 1909.8MHz (PCS 1900)
Dates of Test	：	**Oct. 03 ~ Oct. 05, 2007**
Test Specification	：	**47 CFR Part 22H, 24E**
Location of Test Lab.	：	**Chang-an Lab.**

1. The test operations have to be performed with cautious behavior, the test results are as attached.
2. The test results are under chamber environment of A Test Lab Techno Corp. A Test Lab Techno Corp. does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples.
3. The measurement report has to be written approval of A Test Lab Techno Corp. It may only be reproduced or published in full.

Country Huang **20071022**
Measurement Center Manager

John Cheng **20071022**
Testing Engineer

Contents

1. General Information

Applicant：

NINGBO BIRD CO., LTD

NO.999 Dacheng East Road, Fenghua City, Zhejiang

Manufacturer	：	NINGBO BIRD CO., LTD NO.999 Dacheng East Roda, Fenghua City, Zhejiang
Product Name	：	Dual Band GSM Mobile Phone
Trade Mark	：	BiRD
Model Number	：	Bird S700
FCC ID	：	SNMS700
TX Frequency	：	824 - 849 MHz (GSM 850) 1850 - 1910 MHz (PCS 1900)
RX Frequency	：	869 - 894 MHz (GSM 850) 1930 - 1990 MHz (PCS 1900)
Antenna Type	：	Fixed antenna
Maximum Output Power to Antenna	：	33.28 dBm (GSM 850) 30.24 dBm (PCS 1900)
Max. ERP/EIRP Power	：	0.586 W (GSM 850) 0.810 W (PCS 1900)
Power Rating (DC , Voltage and Current of RF element or PA)	：	3.7V / 0.65 A
Digital Modulation Emission	：	GMSK(GSM 850 / PCS1900)
Power Supply Type	：	AC Adapter
DC Power Cord	：	Shielded USB Cable, 1.8 meter, Cigarette Plug
Adapter	：	NINGBO BIRD CO.,LTD / BiRD
DUT Stage	：	Production Unit

2. Test Configuration of Equipment under Test

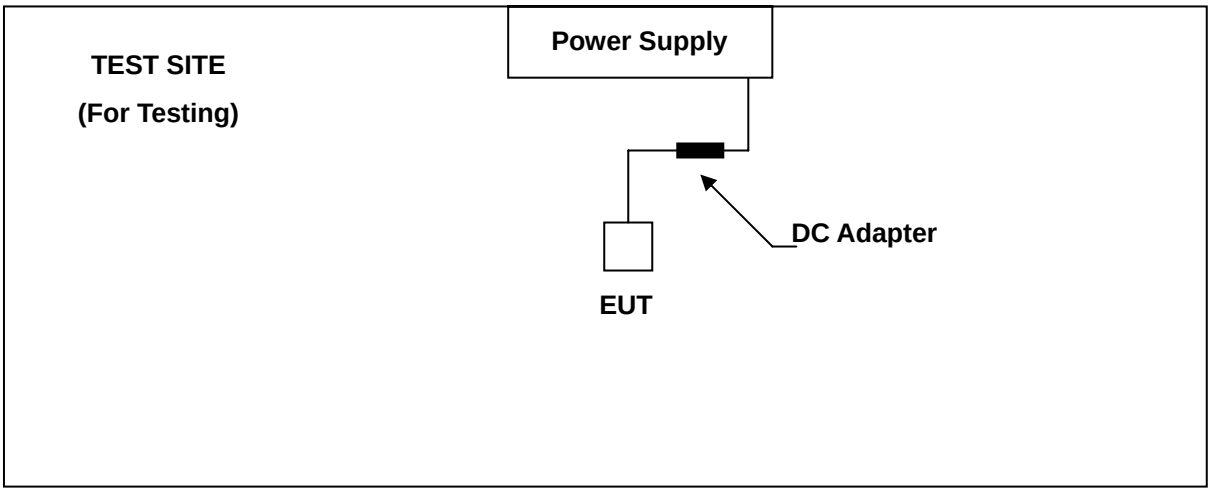
2.1 Test Manner

1. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range.
2. During all testing, EUT is in link mode with base station emulator at maximum power level. (PCL=5 for GSM 850 or PCL=0 for PCS 1900)
3. Frequency range investigated: radiated emission 30 MHz to 9000 MHz for GSM850; 30MHz to 19000 MHz for PCS 1900.

2.2 Test Mode

Application	GSM 850	PCS 1900
Radiated Emission	☒ CH 128 ☒ CH 190 ☒ CH 251	☒ CH 512 ☒ CH 661 ☒ CH 810
Conducted Measurement	☒ CH 128 ☒ CH 190 ☒ CH 251	☒ CH 512 ☒ CH 661 ☒ CH 810

2.3 Connection Diagram of Test System



During testing (LINK & Stand by Mode) the EUT (Dual Band GSM Mobile Phone) was connected dc output of DC adapter.

2.4 Ancillary Equipment List

1. Base Station(R&S) CMU200 106656
2. Power Supply (GW) 12P3A H281001

3. General Information of Test Site

Test Site Location: No. 140 -1, Changan Street, Bade City, Taoyuan County, Taiwan R.O.C.
TEL: 886-3-271-0188 FAX: 886-3-271-0190

Registration Number：854525
Designation Number：TW1330

The chamber meets the characteristics of ANSI C63.4-2003. This site is on file with the FCC.

3.1 Test Voltage

DC 3.7V / 0.65 A (Battery)

3.2 Test in Compliance with

47 CFR Part 22H, 24E and Part 2.

3.3 Frequency Range Investigated

1. Radiation: from 30 MHz to 9000 MHz for GSM 850.
2. Radiation: from 30 MHz to 19000 MHz for PCS 1900.

3.4 Test Distance

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

4. Test Data and Test Result

4.1 List of Measurements and Examinations

FCC Rule	DESCRIPTION OF TEST	Result	Section
§ 2.1046	RF Output Power	Passed	4.2
§ 22.913 § 24.232	ERP / EIRP	Passed	4.3
§ 2.1049 § 22.917 § 24.238(b)	Occupied Bandwidth & Band Edge Measurement	Passed	4.4
§ 2.1051	Conducted Emission	Passed	4.5
§ 2.1053	Field Strength of Spurious Radiation	Passed	4.6
§ 2.1055 § 22.355 § 24.235	Frequency Stability vs. Temperature	Passed	4.7
§ 2.1055 § 22.355 § 24.235	Frequency Stability vs. Voltage	Passed	4.8
§ 15.207	AC Power Conducted Emissions Requirements	Passed	4.9

4.2 RF Output Power

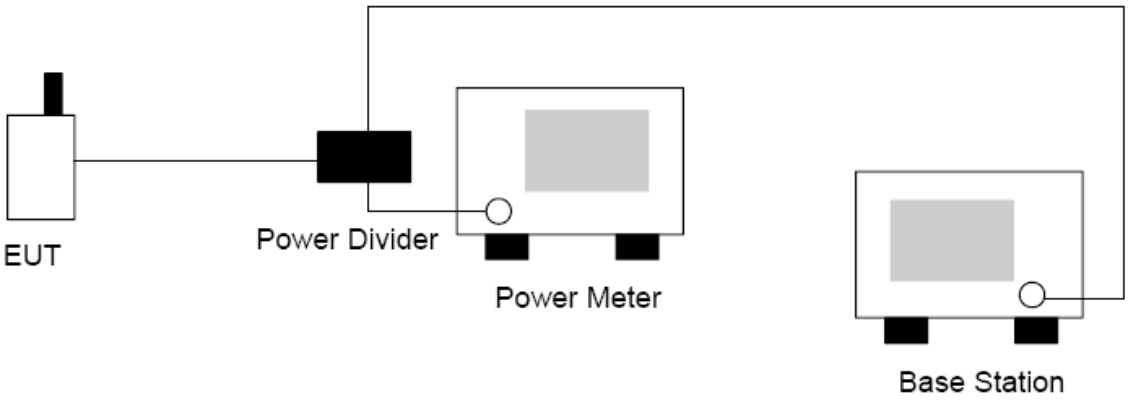
4.2.1 Measurement Instruments：

As described in chapter 5 of this test report.

4.2.2 Test Procedure：

1. The transmitter output was connected to power meter and base station through power divider.
2. Set EUT at PCL=5 for GSM 850 and/or PCL=0 for PCS 1900 through base station.
3. Select lowest, middle, and highest channels for each band.

4.2.3 Test Setup Layout：



4.2.4 Test Result：

Bands	Channel	Frequency (MHz)		Conducted Power (dBm)	Conducted Power (Watts)
GSM 850	128	Low	824.2	**33.28**	**2.128**
	190	Mid	836.4	**33.13**	**2.056**
	251	High	848.8	**33.21**	**2.094**

Bands	Channel	Frequency (MHz)		Conducted Power (dBm)	Conducted Power (Watts)
PCS 1900	512	Low	1850.2	**30.24**	**1.057**
	661	Mid	1880.0	**30.15**	**1.035**
	810	High	1909.8	**30.08**	**1.019**

4.3 ERP / EIRP Measurement

Equivalent isotropic radiated power measurements by substitution method according to ANSI/TIA/EIA-603-A.

4.3.1 Measurement Instruments

As described in chapter 5 of this test report.

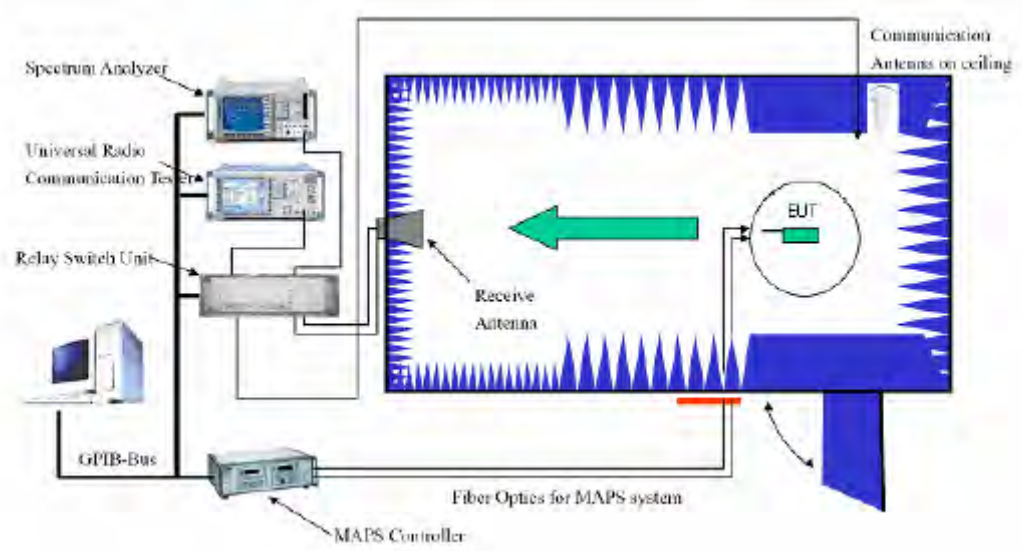
4.3.2 Test Procedure

The phone was tested in an anechoic chamber with a 3-axis position system that permits taking complete spherical scans of the EUT's 3-axis radiation patterns. For all tests, the phone was supported in a free space type environment, vertically oriented in the chamber. Tests were done for GSM 850 three frequencies (824.2, 836.6 and 848.8 MHz) and GSM 1900 three frequencies (1850.2, 1880.00, and 1909.80 MHz).

GSM measurements were made with the phone placed in a call using the CMU200 mobile station test set. The phone was weakly coupled to the test set and configured to transmit in full data rate mode.

The radiated power was measured using ETS-LINDGREN OTA Chamber in "Peak" mode. From these measurements, the software calculates the angle at which maximum radiated power occurs for each case, and the radiated power at this angle was extracted from the data.

4.3.3 Test Setup Layout of ERP/EIRP



4.3.4 Test Result

GSM 850 Radiated Power ERP		
Maximum Output Power		
Frequency (MHz)	ERP (dBm)	ERP (W)
824.2	**27.20**	**0.525**
836.4	**27.68**	**0.586**
848.8	**27.43**	**0.553**

PCS 1900 Radiated Power ERP		
Maximum Output Power		
Frequency (MHz)	ERP (dBm)	ERP (W)
1850.2	**27.33**	**0.540**
1880.0	**28.41**	**0.694**
1909.8	**29.09**	**0.810**

4.4 Occupied Bandwidth and Band Edge Measurement

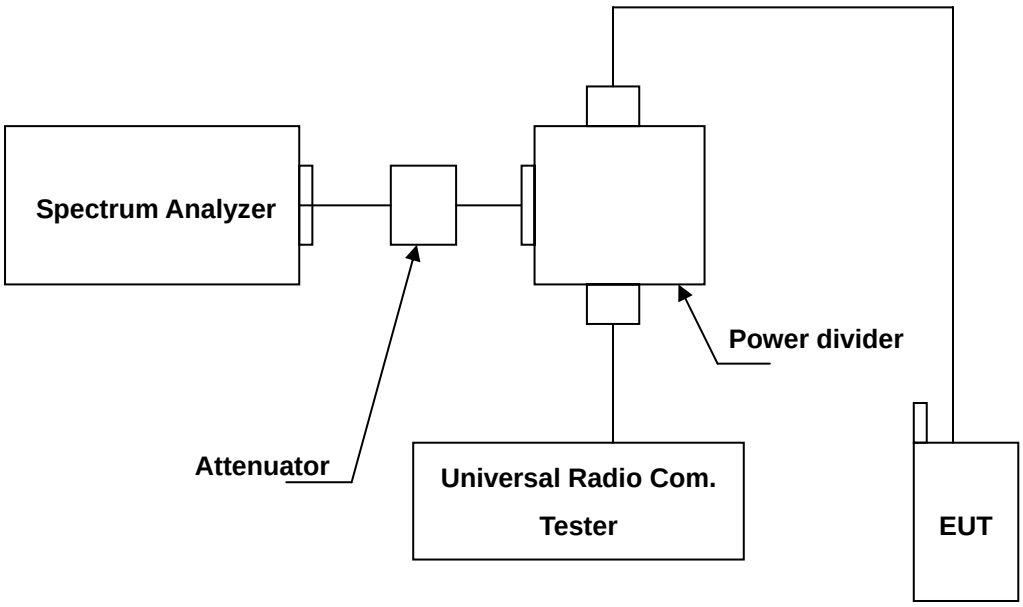
4.4.1 Measurement Instruments

As described in chapter 5 of this test report.

4.4.2 Test Procedure

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The occupied bandwidth of middle channel for the highest and lowest RF powers was measured.
3. The band edge of low and high channels for the highest RF powers within the transmitting frequency band were measured. Setting RBW as roughly BW/100.
4. The band edge setting RB=3kHz ; VB=3kHz.

4.4.3 Test Setup Layout

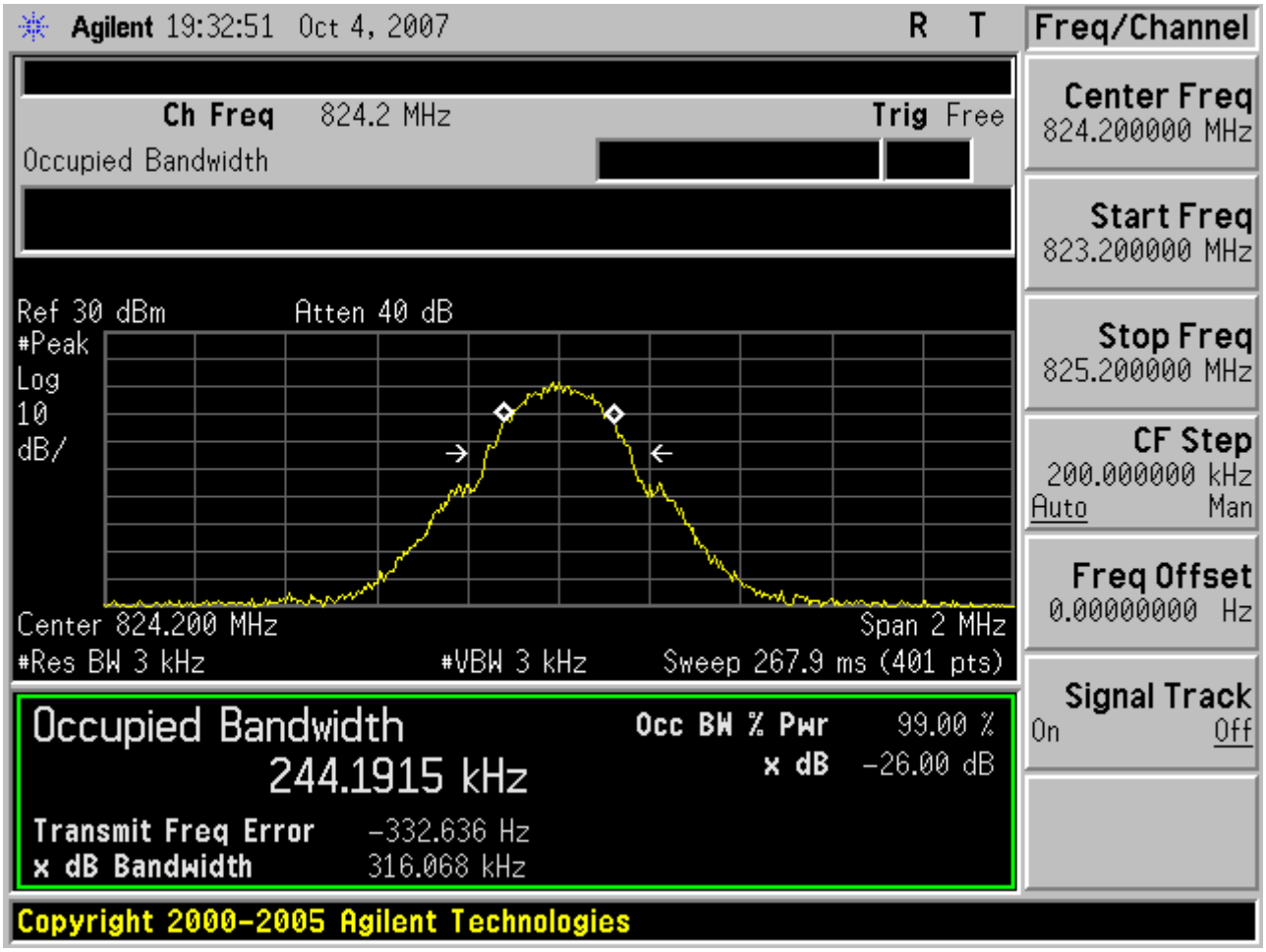


4.4.4 Occupied Bandwidth Test Result

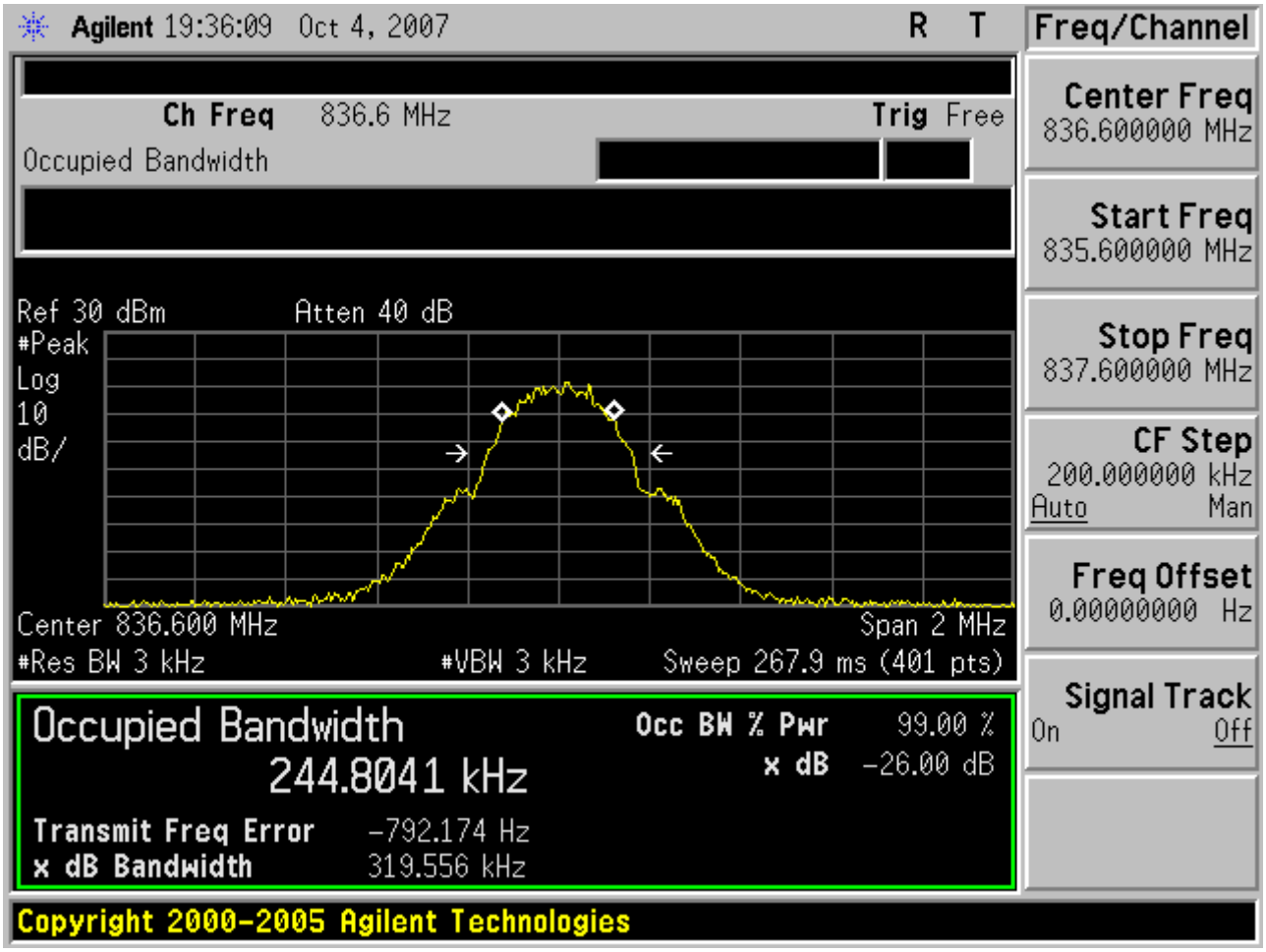
GSM 850		
Channel	**Frequency (MHz)**	**Output Power -26 dBc Bandwidth (kHz)**
128	824.2	**244.1915**
190	836.6	**244.8041**
251	848.8	**243.2583**
RB:3KHz , VBW:3KHz		

PCS 1900		
Channel	**Frequency (MHz)**	**Output Power -26 dBc Bandwidth (kHz)**
512	1850.2	**246.3426**
661	1880.0	**244.1423**
810	1909.8	**241.4129**
RB:3KHz , VBW:3KHz		

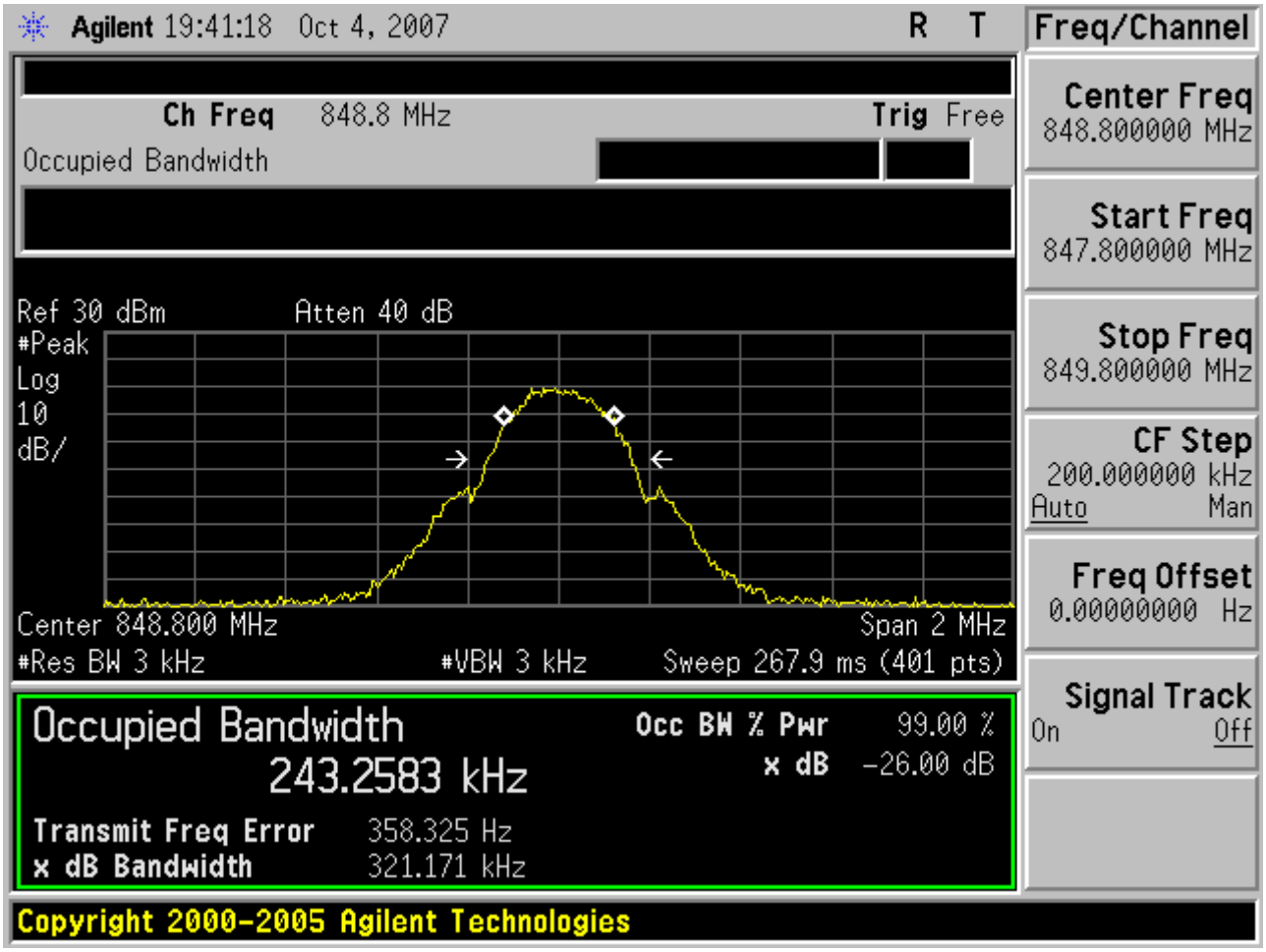
Test Mode: GSM 850 CH128 99% Occupied Bandwidth



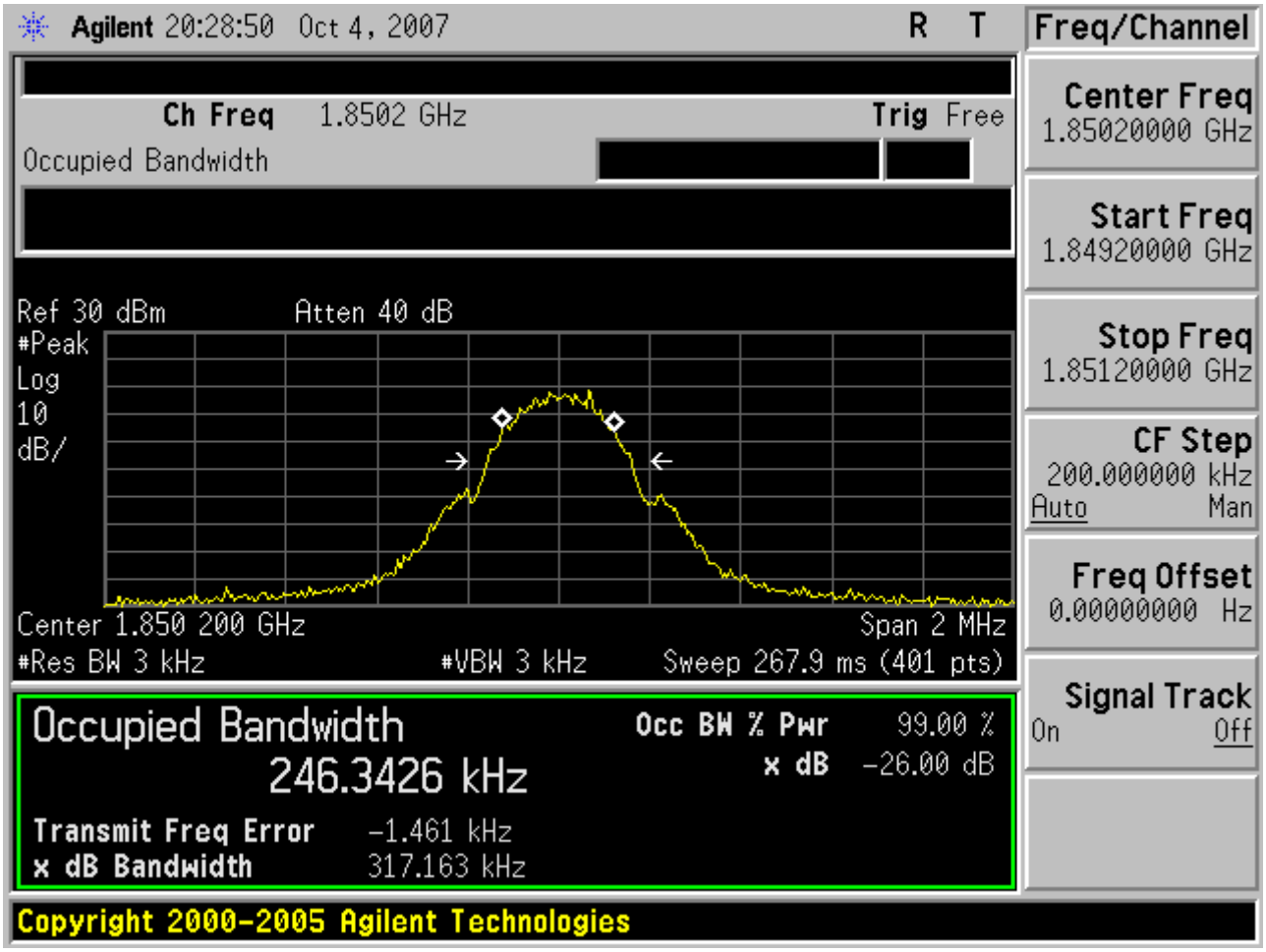
Test Mode: GSM 850 CH190 99% Occupied Bandwidth



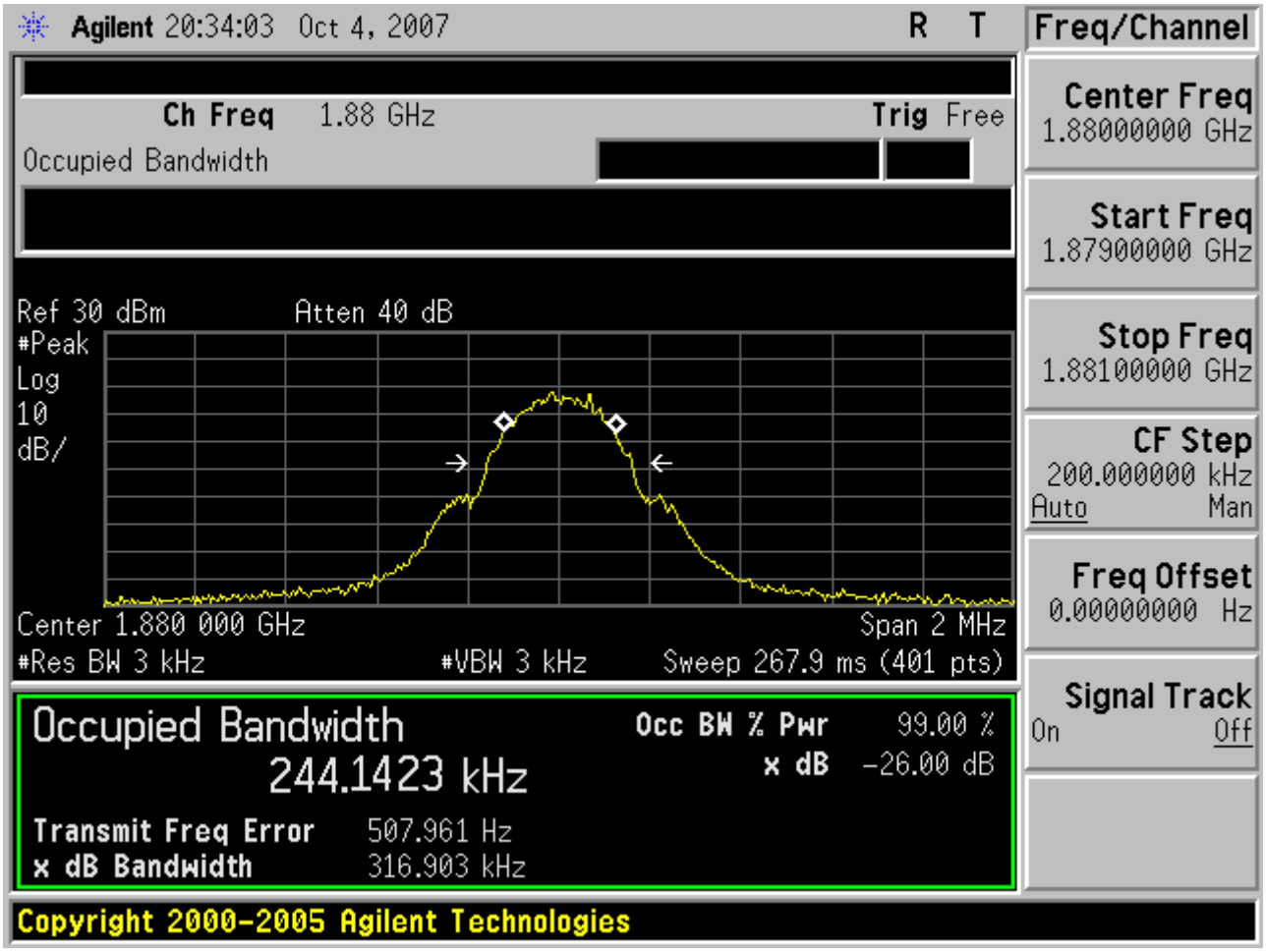
Test Mode: GSM 850 CH251 99% Occupied Bandwidth



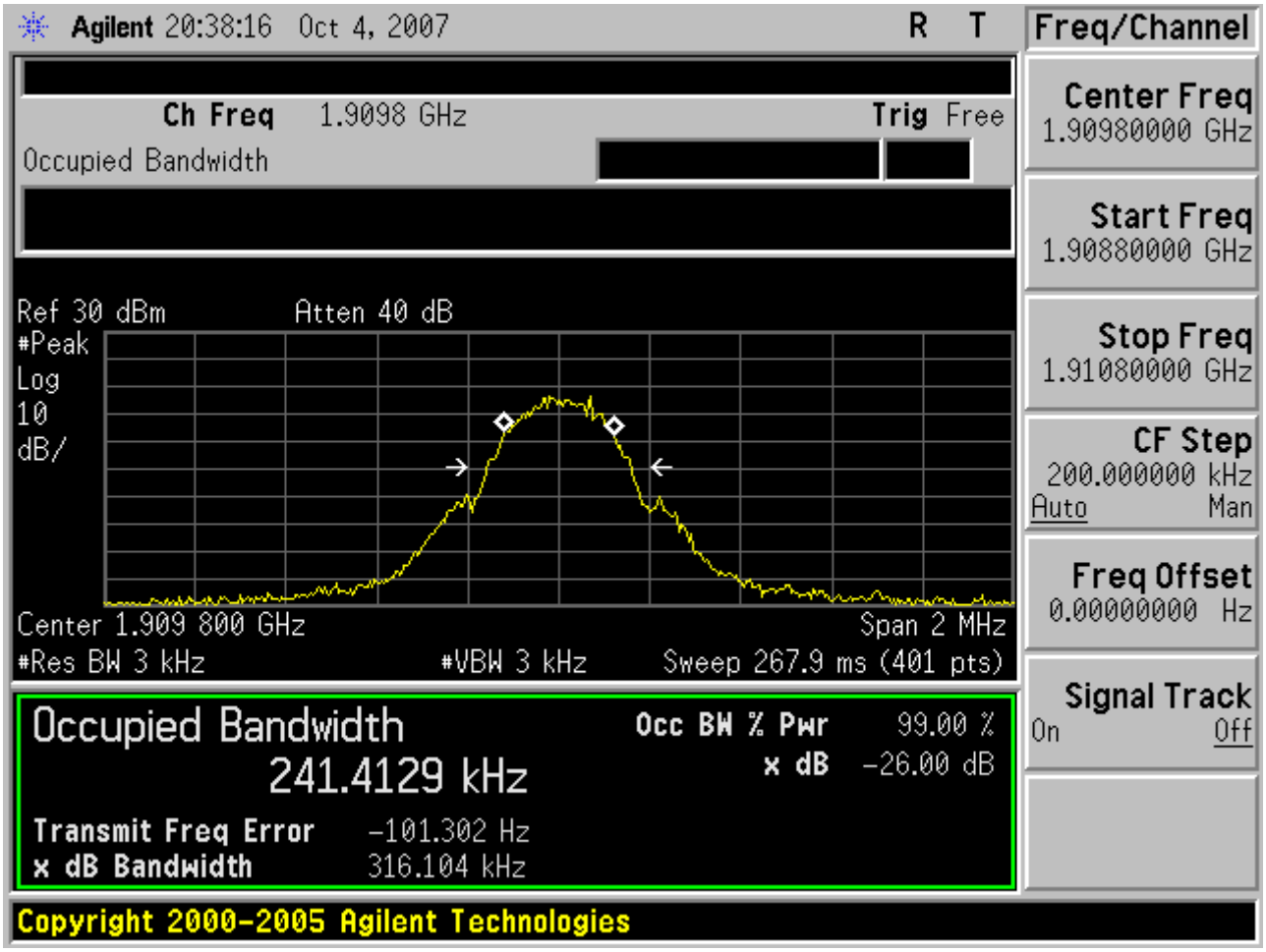
Test Mode: PCS 1900 CH512 99% Occupied Bandwidth



Test Mode: PCS 1900 CH661 99% Occupied Bandwidth



Test Mode: PCS 1900 CH810 99% Occupied Bandwidth



4.4.5 Bandedge Test Result

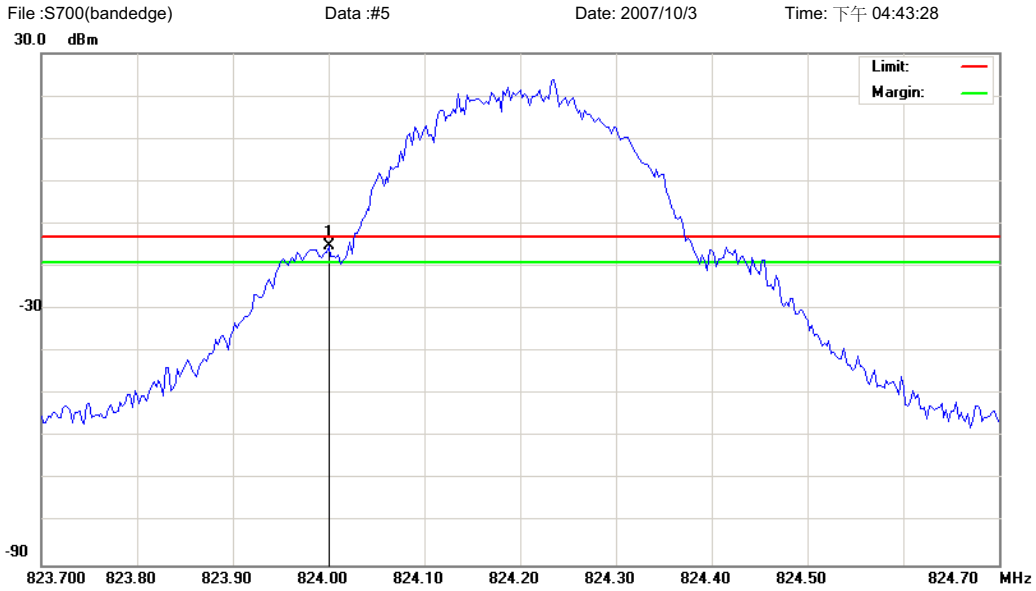
GSM 850			
Lower Band Edge			
Channel	**Frequency (MHz)**	**Bandwidth (dBm)**	**Limit (dBm)**
128	823.9900	**-15.10**	-13
Higher Band Edge			
Channel	**Frequency (MHz)**	**Bandwidth (dBm)**	**Limit (dBm)**
251	849.0175	**-15.24**	-13

PCS 1900			
Lower Band Edge			
Channel	**Frequency (MHz)**	**Bandwidth (dBm)**	**Limit (dBm)**
512	1849.995	**-16.02**	-13
Higher Band Edge			
Channel	**Frequency (MHz)**	**Bandwidth (dBm)**	**Limit (dBm)**
810	1910.015	**-19.13**	-13

Test Mode: GSM 850 CH128 Low Band Edge

Power State: Normal

RB=3kHz ; VB=3kHz



Site 966半電波暗室 Polarization: ***Conducted po*** Temperature: 26 ℃

Limit: FCC Part 22 conducted(9k-12.75G) Power: AC 110V/60Hz Humidity: 55 %

EUT: PHONE Distance:

M/N: S700

Mode: GSM850

Note: CH128(824.2MHz)

加10db衰減器

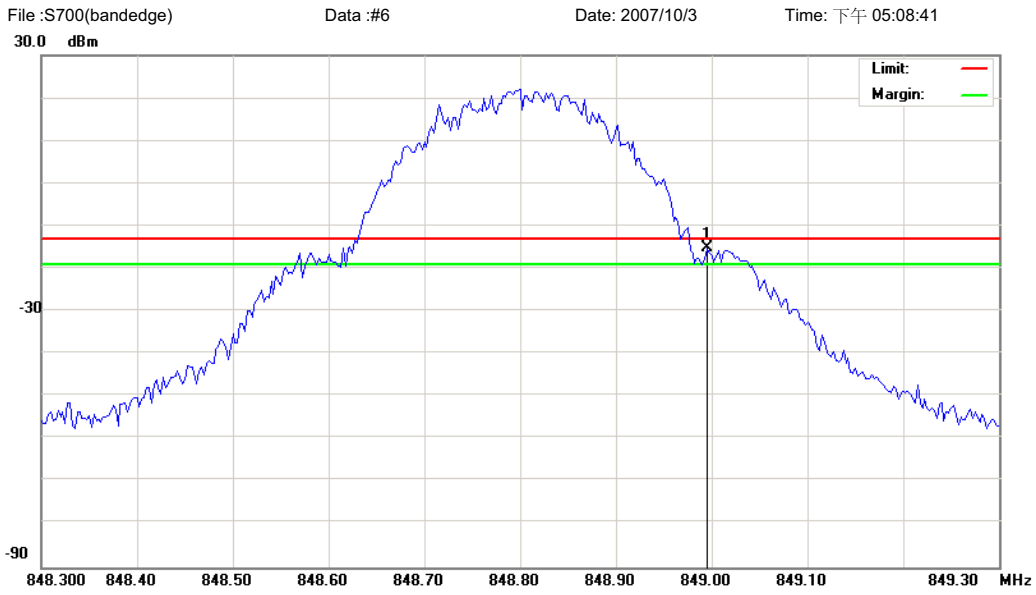
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	824.0000	-28.28	13.18	-15.10	-13.00	-2.10	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

Test Mode: GSM 850 CH251 High Band Edge

Power State: Normal

RB=3kHz ; VB=3kHz



Site 966半電波暗室 Polarization: ***Conducted po*** Temperature: 26 ℃

Limit: FCC Part 22 conducted(9k-12.75G) Power: AC 110V/60Hz Humidity: 55 %

EUT: PHONE Distance:

M/N: S700

Mode: GSM850

Note: CH251(848.8MHz)

加10db衰減器

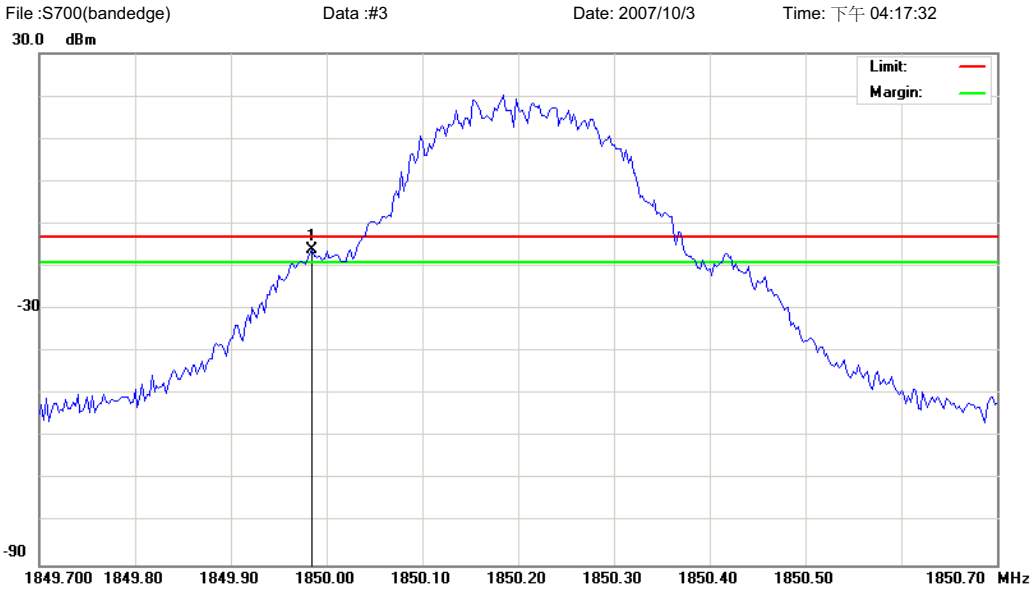
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	848.9950	-28.49	13.25	-15.24	-13.00	-2.24	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

Test Mode: PCS 1900 CH512 Low Band Edge

Power State: Normal

RB=3kHz ; VB=3kHz



Site 966半電波暗室	Polarization: ***Conducted po***	Temperature: 26 ℃
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 110V/60Hz	Humidity: 55 %
EUT: PHONE	Distance:	
M/N: S700		
Mode: PCS1900		
Note: CH512(1784.8MHz)		
加10db衰減器		

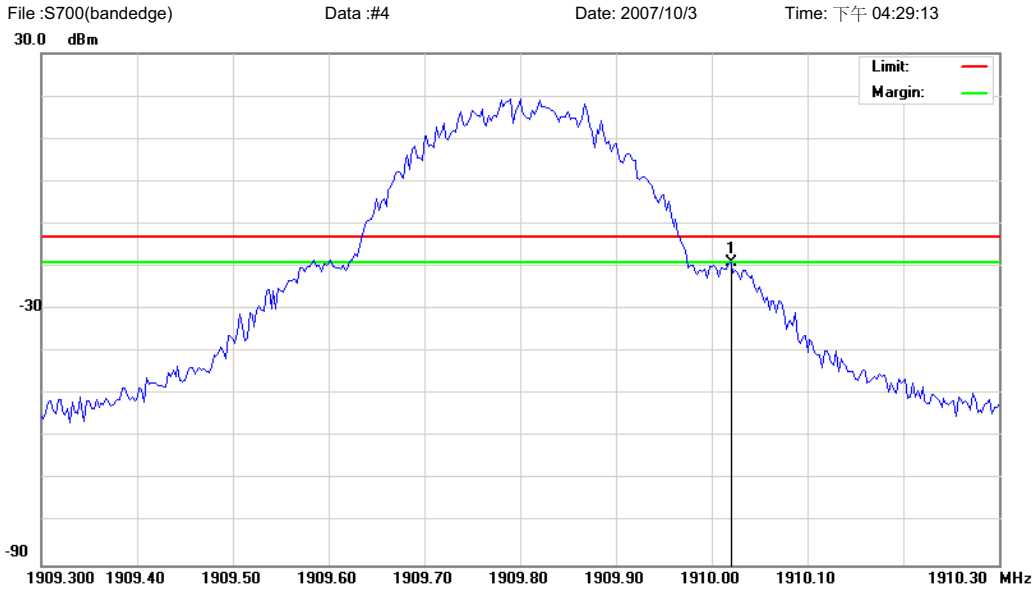
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1849.985	-20.27	4.25	-16.02	-13.00	-3.02	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

Test Mode: PCS 1900 CH810 High Band Edge

Power State: Normal

RB=3kHz ; VB=3kHz



Site 966半電波暗室	Polarization: ***Conducted po***	Temperature: 26 ℃
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 110V/60Hz	Humidity: 55 %
EUT: PHONE	Distance:	
M/N: S700		
Mode: PCS1900		
Note: CH810(1909.8MHz)		
加10db衰減器		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1910.020	-24.83	5.70	-19.13	-13.00	-6.13	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

4.5 Conducted Emission

4.5.1 Measurement Instruments

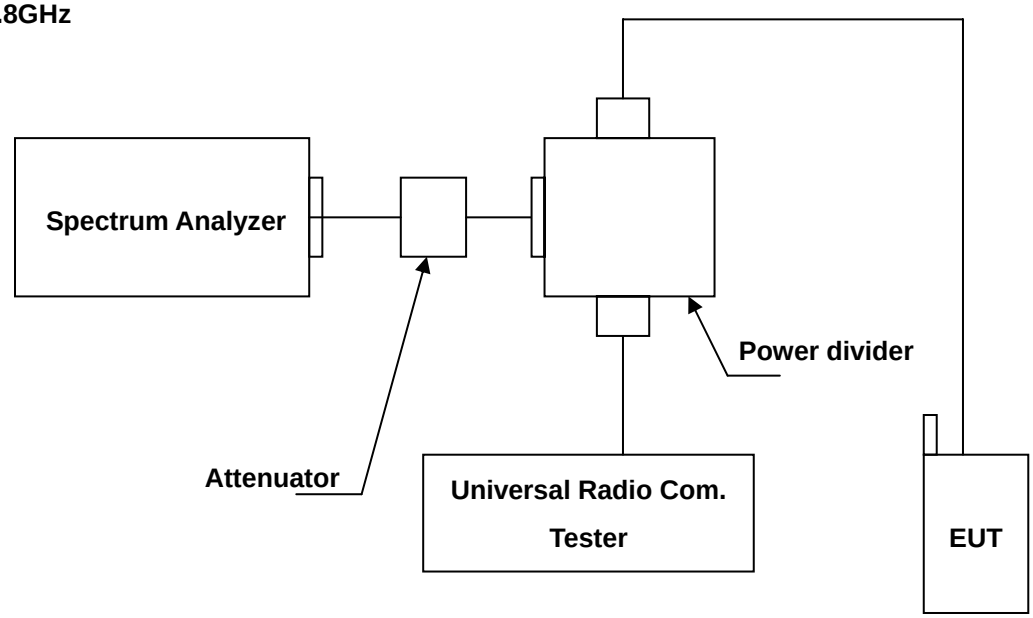
As described in chapter 5 of this test report.

4.5.2 Test Procedure

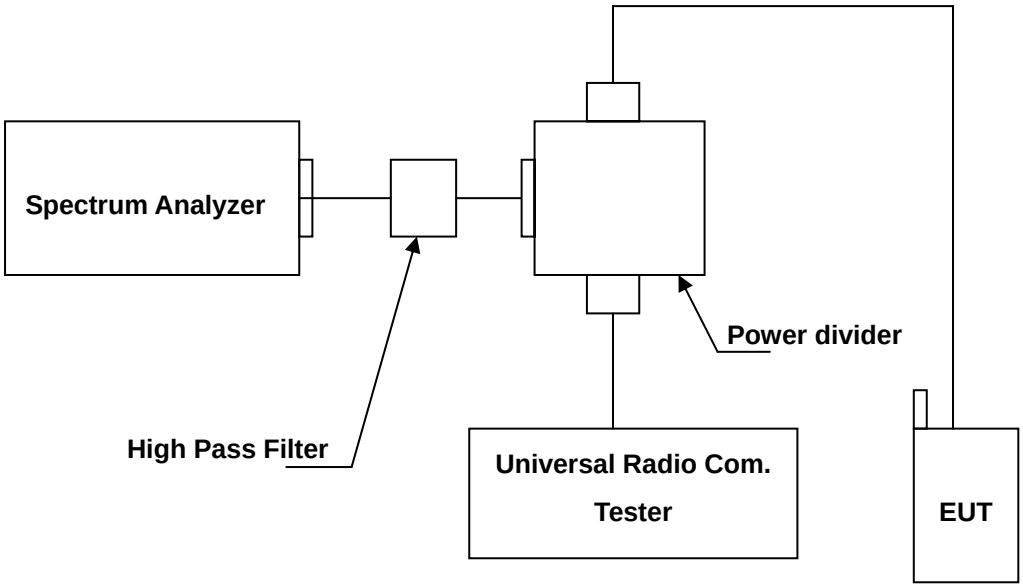
1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The middle channel for the highest RF power within the transmitting frequency was measured.
3. The conducted spurious emission for the whole frequency range was taken.
4. Test setting at GSM 850 RB>100 kHz, VB>100 kHz; PCS 1900 RB>1MHz, VB>1MHz.

4.5.3 Test Setup Layout

Below 2.8GHz



Above 2.8GHz



4.5.4 Test Result

4.5.4.1 GSM 850 Test Result

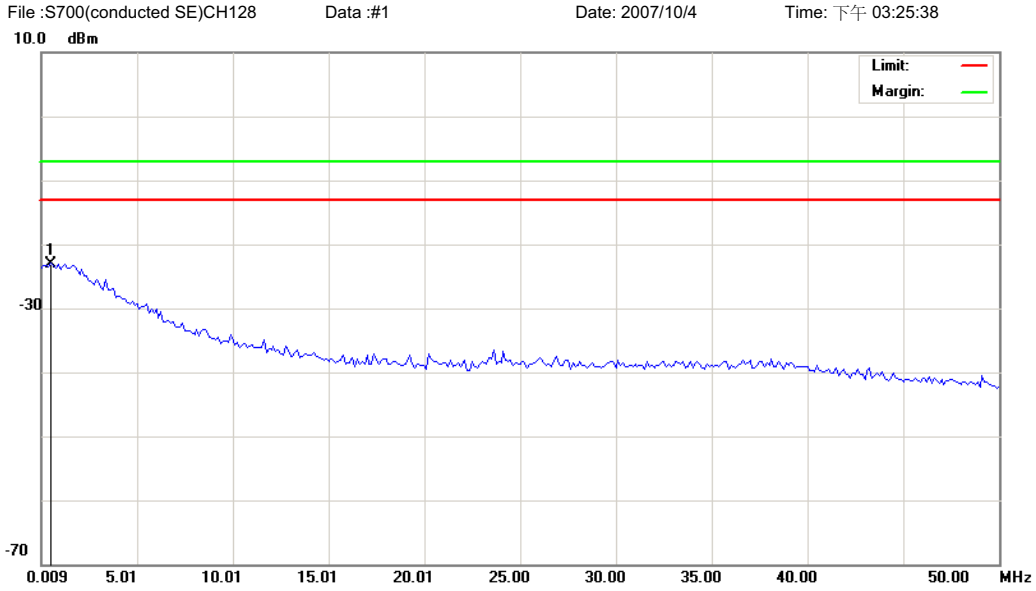
Applicant	: NINGBO BIRD CO., LTD
Model No	: Bird S700
EUT	: Dual Band GSM Mobile Phone
Test Mode	: GSM 850 (Low CH128 / Middle CH190 / High CH 251)
Test Date	: 10/04/2007

Please refer to next pager of detail testing data.

Note: Amplitude= Reading Amplitude + Factor (Cable loss + Filter Amplitude= Insertion loss)

(Auto calculate in spectrum analyzer)

RB=100kHz ; VB=100kHz

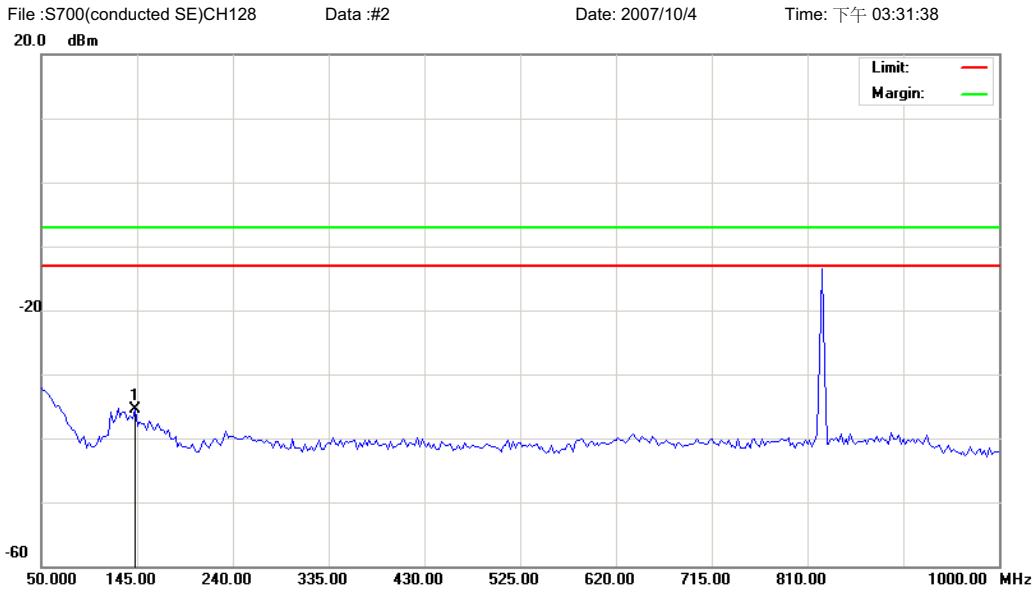


Site site #1	Polarization: *Conducted po*	Temperature:	26 ℃
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 110V/60Hz	Humidity:	55 %
EUT: PHONE	Distance:		
M/N: S700			
Mode: GSM850			
Note: CH128(824.2MHz)			
加Notch(3TNF-800)			

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	0.5089	-55.02	32.02	-23.00	-13.00	-10.00	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=100kHz ; VB=100kHz



Site site #1
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: GSM850
Note: CH128(824.2MHz)
加Notch(3TNF-800)

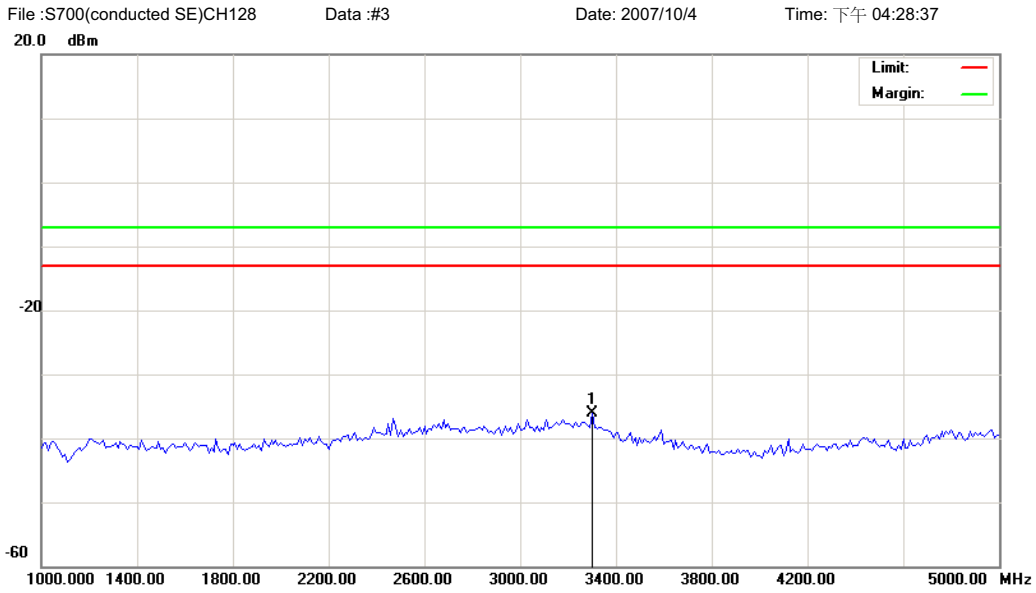
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	142.6250	-43.49	7.92	-35.57	-13.00	-22.57	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=100kHz ; VB=100kHz



Site site #1
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: GSM850
Note: CH128(824.2MHz)

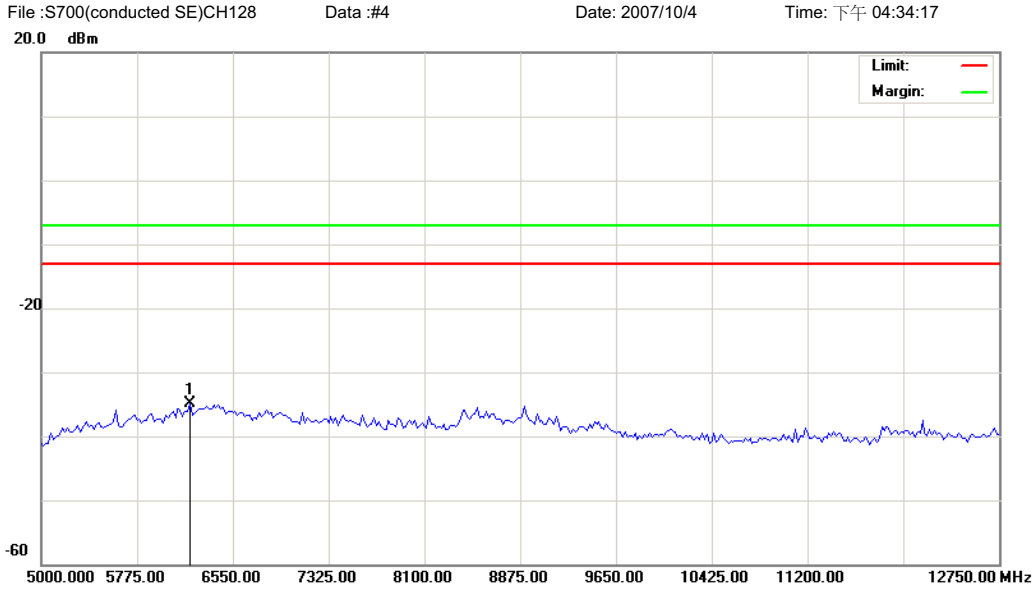
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	3300.000	-40.53	4.42	-36.11	-13.00	-23.11	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=100kHz ; VB=100kHz



Site site #1
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: GSM850
Note: CH128(824.2MHz)

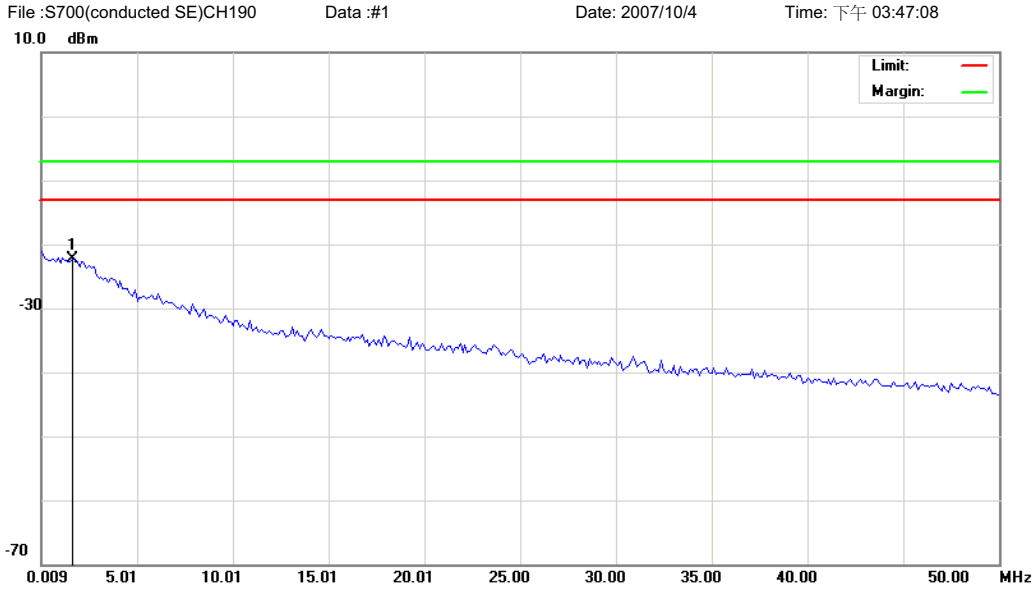
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	6201.250	-40.38	5.42	-34.96	-13.00	-21.96	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=100kHz ; VB=100kHz



Site site #1
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: GSM850
Note: CH190(836.6MHz)
加Notch(3TNF-800)

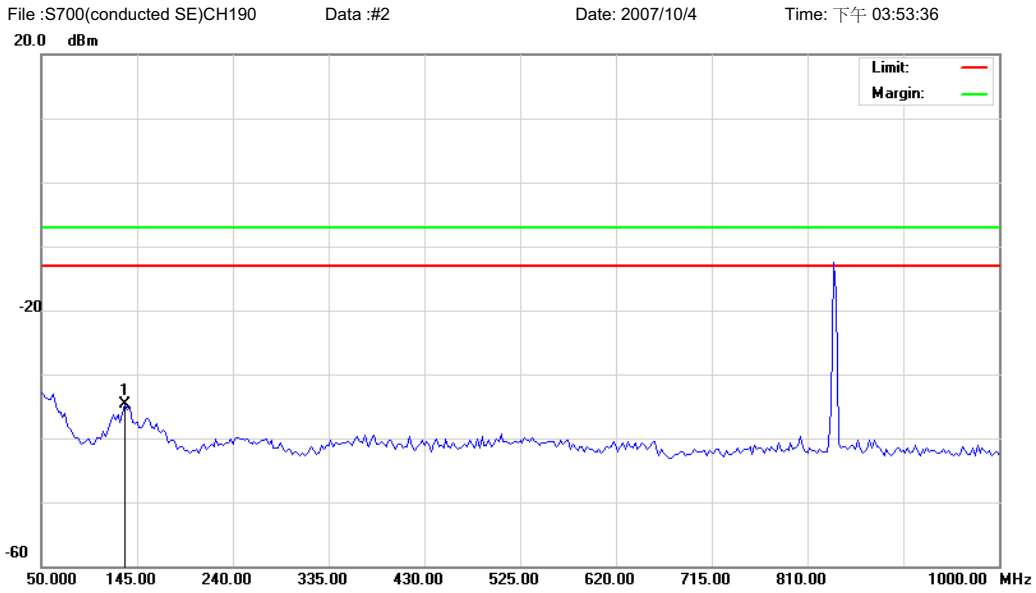
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1.6333	-53.44	31.15	-22.29	-13.00	-9.29	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=100kHz ; VB=100kHz



Site site #1
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: GSM850
Note: CH190(836.6MHz)
加Notch(3TNF-800)

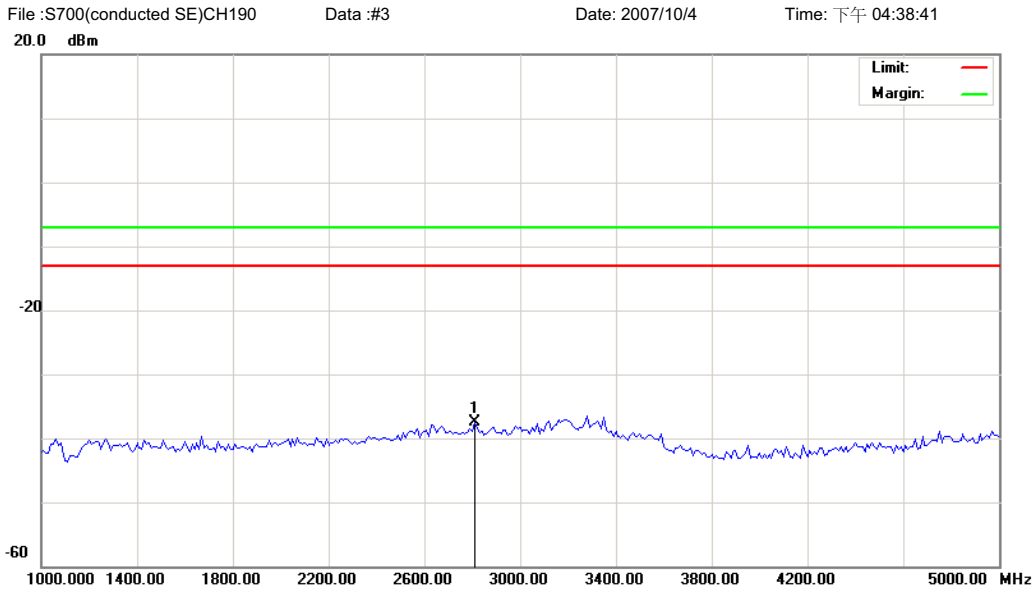
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	133.1250	-42.33	7.70	-34.63	-13.00	-21.63	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=100kHz ; VB=100kHz



Site site #1
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: GSM850
Note: CH190(836.6MHz)

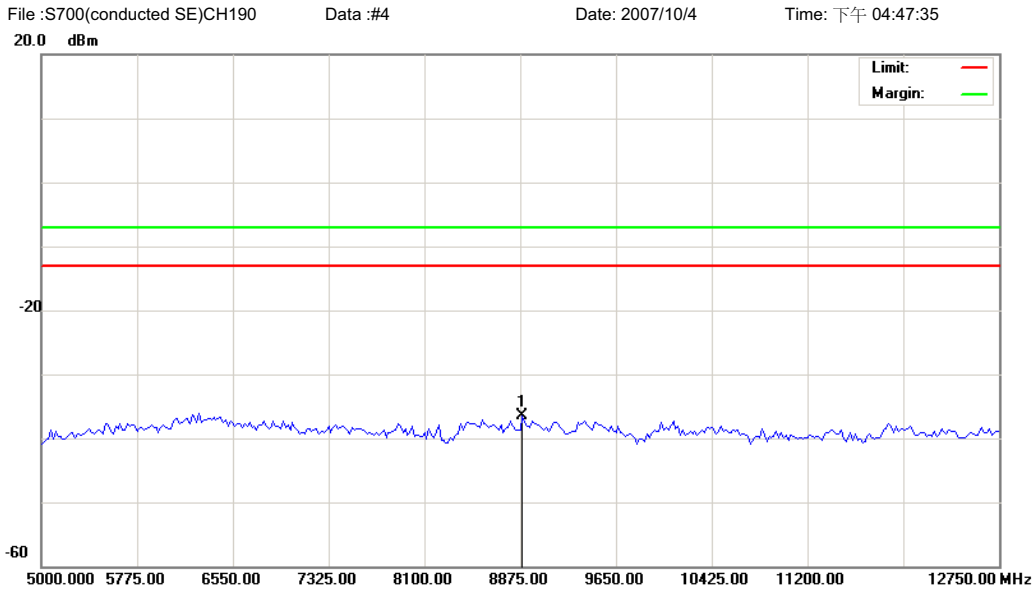
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2810.000	-42.10	4.52	-37.58	-13.00	-24.58	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=100kHz ; VB=100kHz

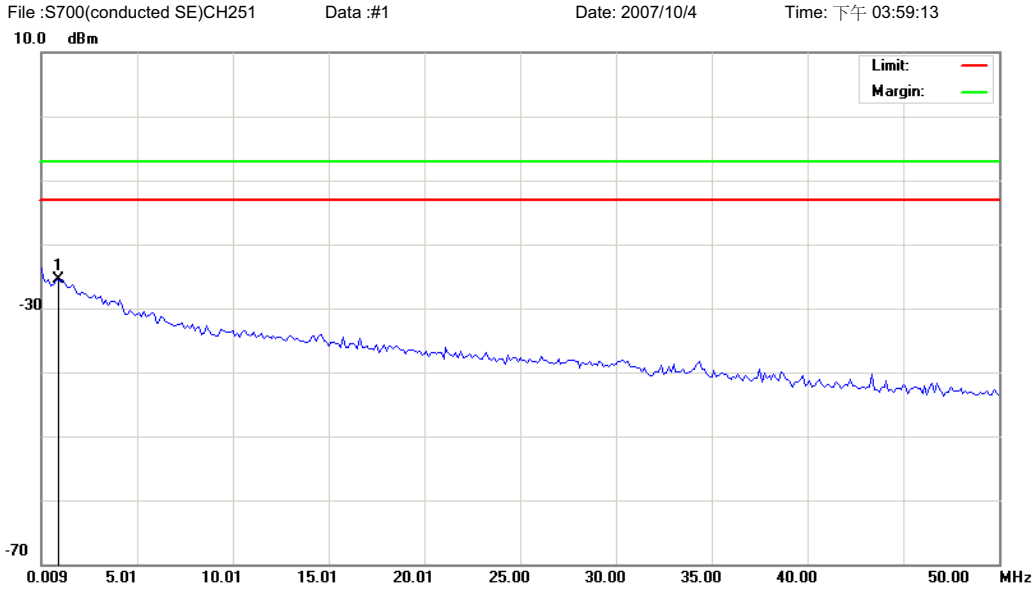


Site site #1	Polarization: ***Conducted po***	Temperature:	26 ℃
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 110V/60Hz	Humidity:	55 %
EUT: PHONE	Distance:		
M/N: S700			
Mode: GSM850			
Note: CH190(836.6MHz)			

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	8894.375	-41.89	5.40	-36.49	-13.00	-23.49	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=100kHz ; VB=100kHz



Site site #1
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: GSM850
Note: CH251(848.8MHz)
加Notch(3TNF-800)

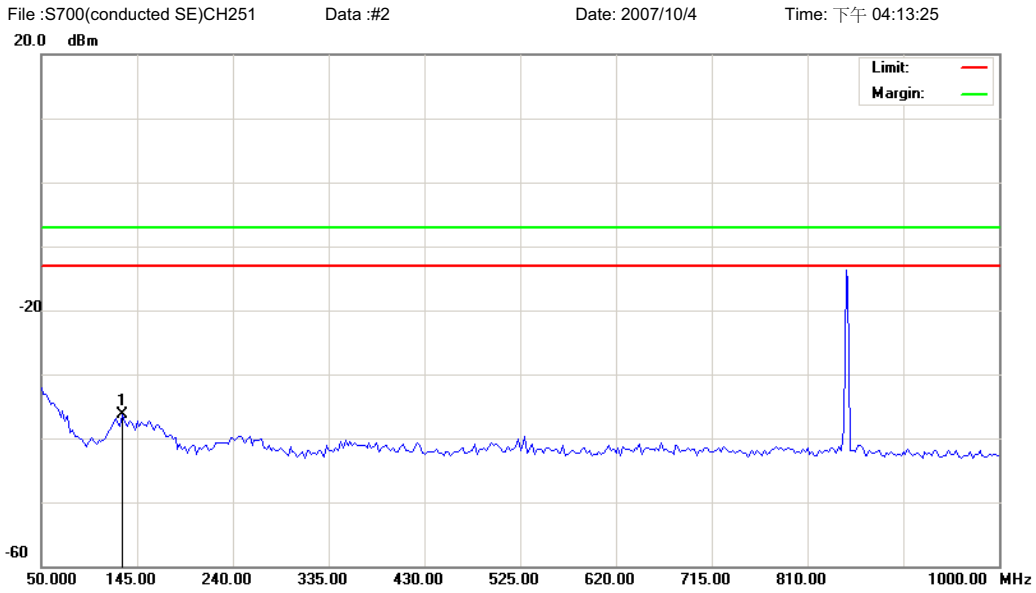
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	0.8838	-57.55	31.98	-25.57	-13.00	-12.57	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=100kHz ; VB=100kHz



Site site #1
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: GSM850
Note: CH251(848.8MHz)
加Notch(3TNF-800)

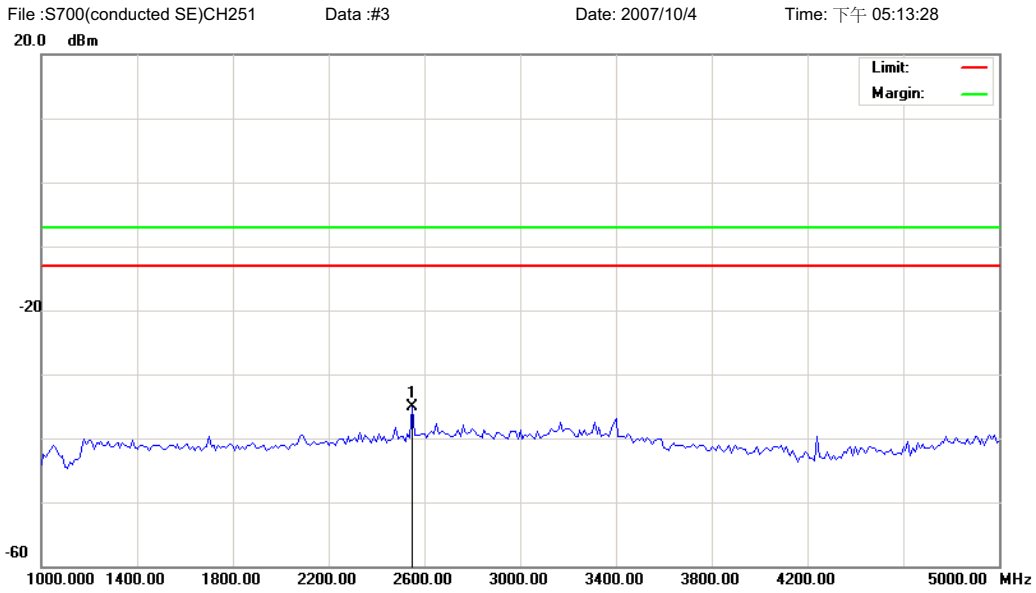
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	130.7500	-43.90	7.59	-36.31	-13.00	-23.31	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=100kHz ; VB=100kHz



Site site #1
Limit: FCC Part 22 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: GSM850
Note: CH251(848.8MHz)

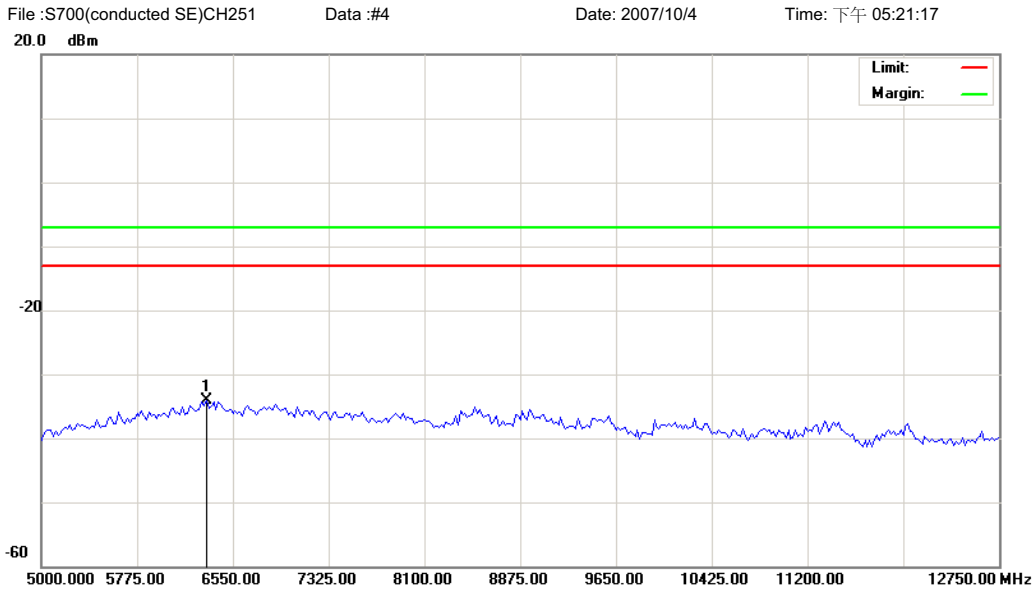
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2550.000	-39.58	4.45	-35.13	-13.00	-22.13	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=100kHz ; VB=100kHz



Site site #1	Polarization: ***Conducted po***	Temperature:	26 ℃
Limit: FCC Part 22 conducted(9k-12.75G)	Power: AC 110V/60Hz	Humidity:	55 %
EUT: PHONE	Distance:		
M/N: S700			
Mode: GSM850			
Note: CH251(848.8MHz)			

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	6336.875	-39.50	5.36	-34.14	-13.00	-21.14	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

4.5.4.2 PCS 1900 Test Result

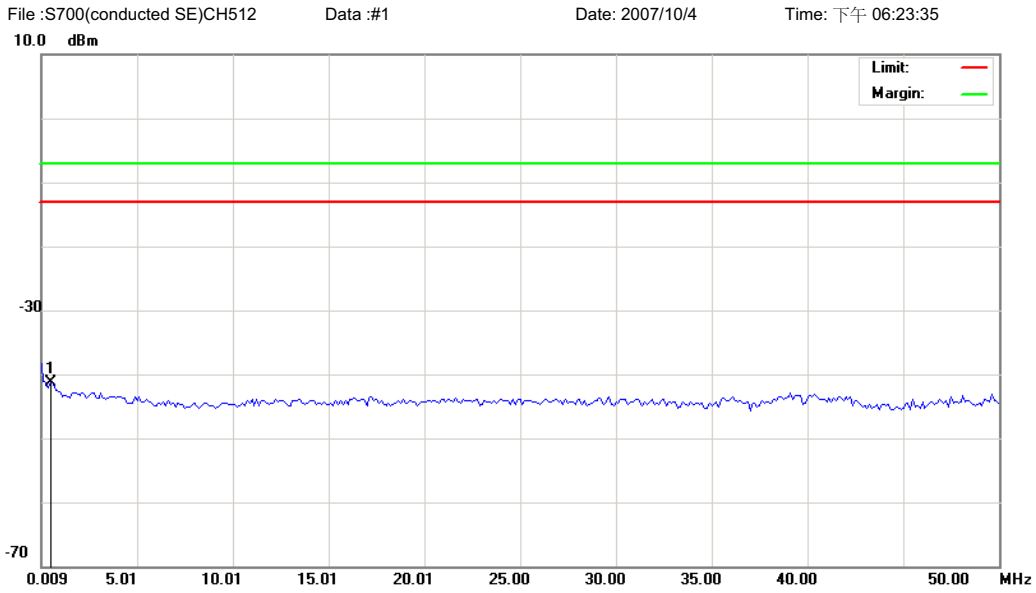
Applicant	: NINGBO BIRD CO., LTD
Model No	: Bird S700
EUT	: Dual Band GSM Mobile Phone
Test Mode	: PCS 1900 (Low CH512 / Middle CH661 / High CH 810)
Test Date	: 10/04/2007

Please refer to next pager of detail testing data.

Note: Amplitude= Reading Amplitude + Factor (Cable loss + Filter Amplitude= Insertion loss)

(Auto calculate in spectrum analyzer)

RB=1MHz ; VB=1MHz



Site site #1
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: PCS1900
Note: CH512(1850.2MHz)
加10db衰減器

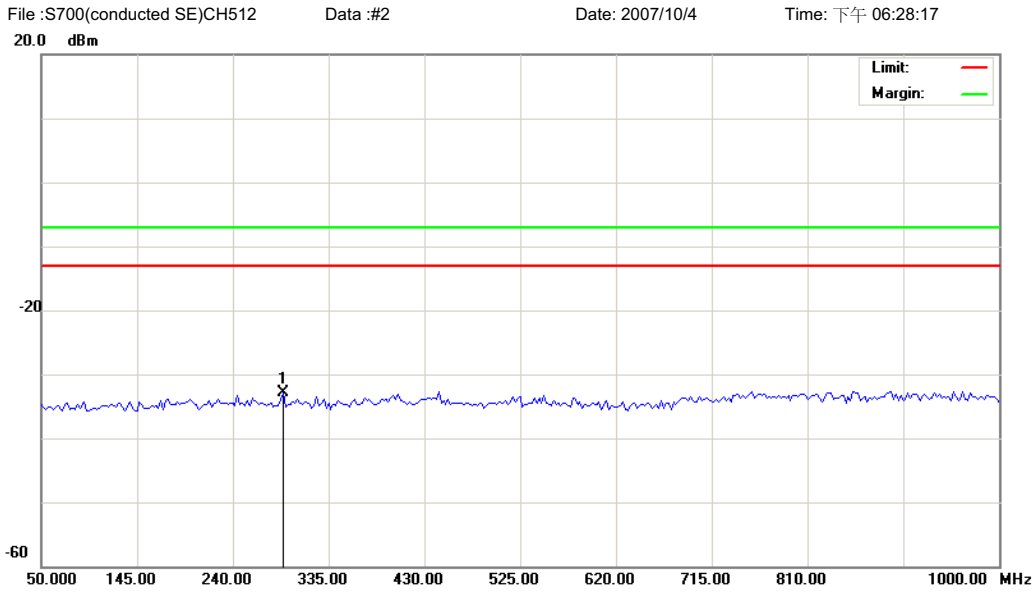
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	0.5089	-54.01	12.79	-41.22	-13.00	-28.22	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz



Site site #1
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: PCS1900
Note: CH512(1850.2MHz)
加10db衰減器

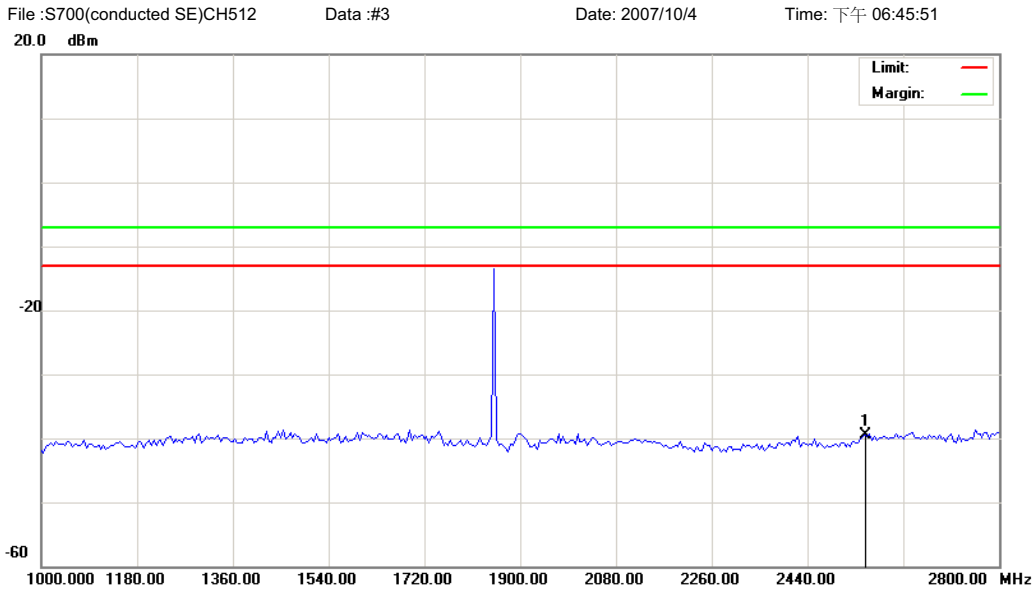
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	289.8750	-46.14	13.28	-32.86	-13.00	-19.86	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz



Site site #1
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: PCS1900
Note: CH512(1850.2MHz)
加Notch(5TNF-1700)

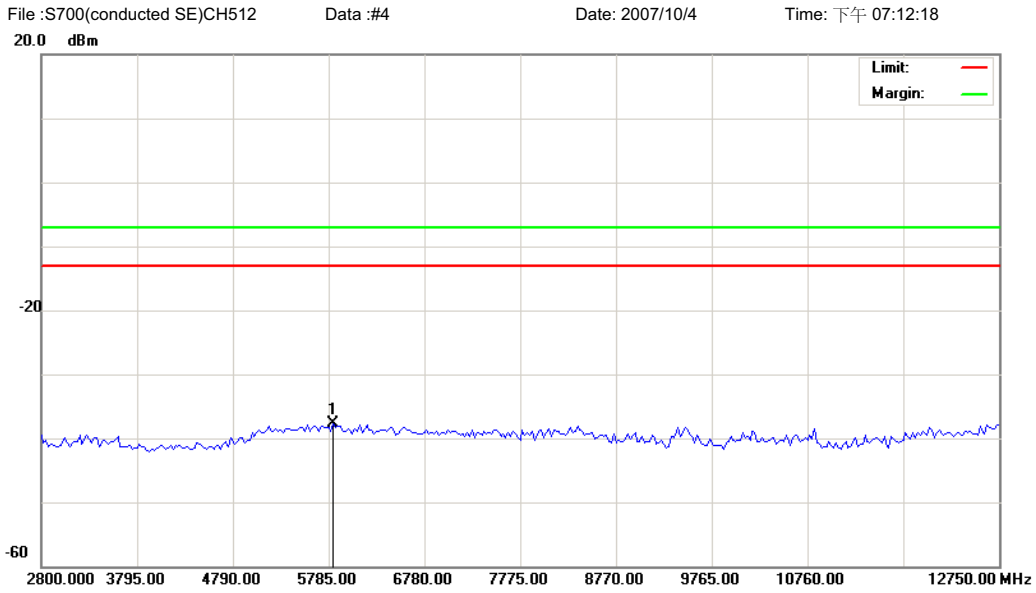
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2548.000	-44.68	5.14	-39.54	-13.00	-26.54	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz



Site site #1
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: PCS1900
Note: CH512(1850.2MHz)

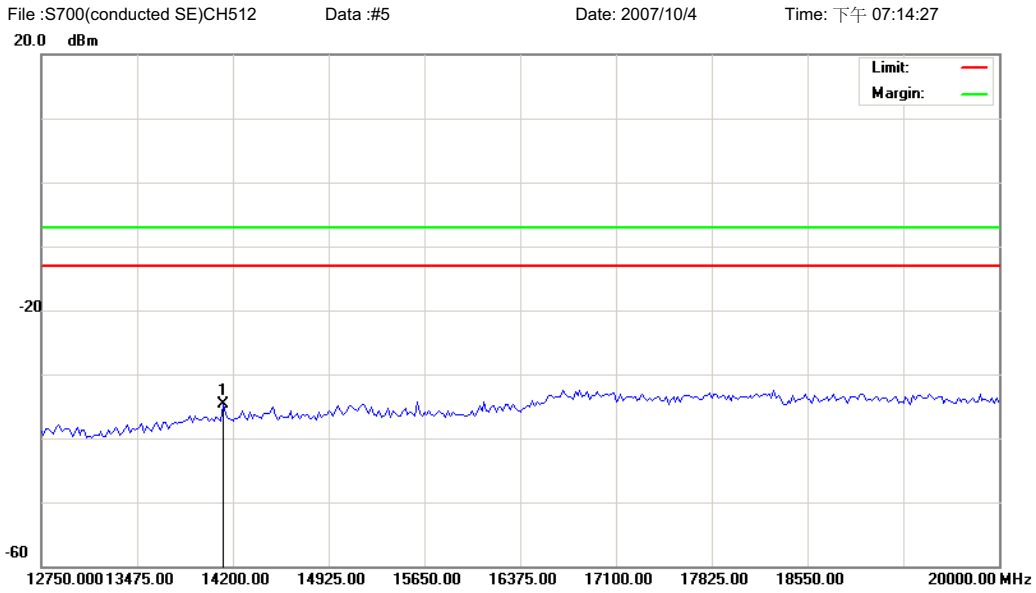
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	5834.750	-42.44	4.81	-37.63	-13.00	-24.63	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz



Site site #1
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: PCS1900
Note: CH512(1850.2MHz)

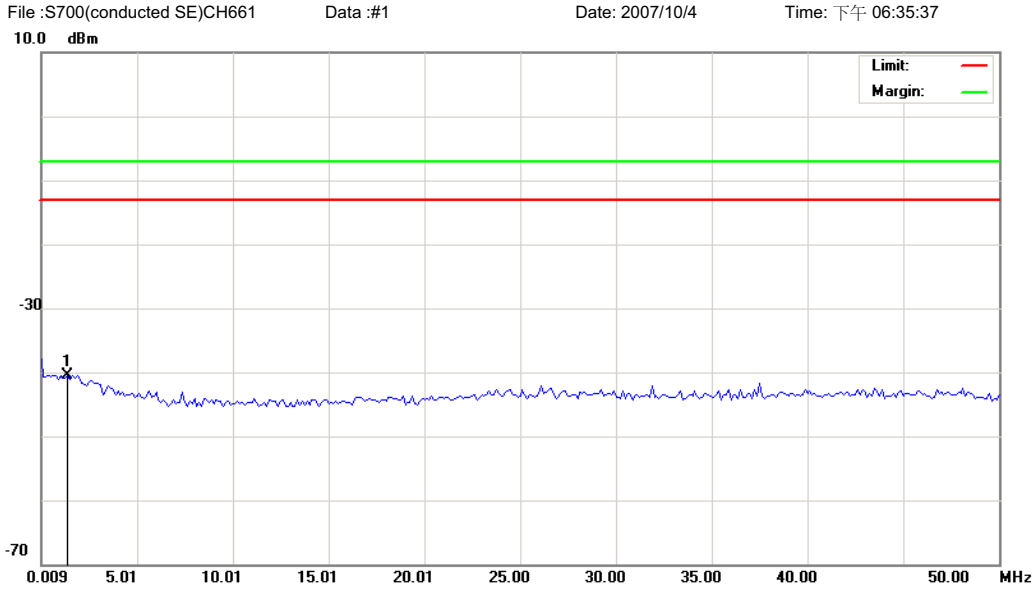
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	14127.50	-40.55	5.76	-34.79	-13.00	-21.79	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz



Site site #1
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: PCS1900
Note: CH661(1880MHz)
加10db衰減器

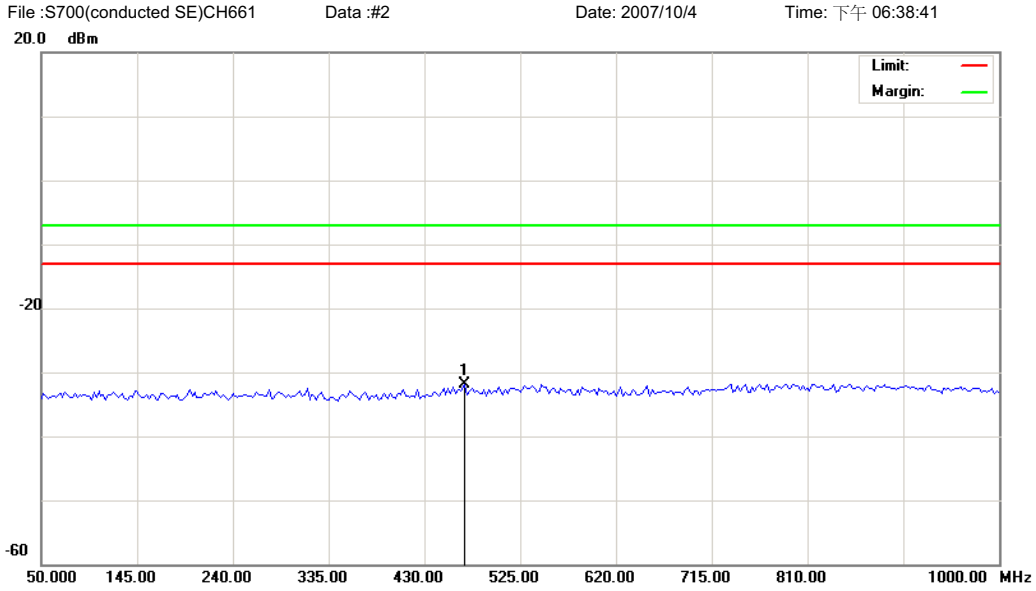
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1.3833	-53.08	12.65	-40.43	-13.00	-27.43	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz



Site site #1
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: PCS1900
Note: CH661(1880MHz)
加10db衰減器

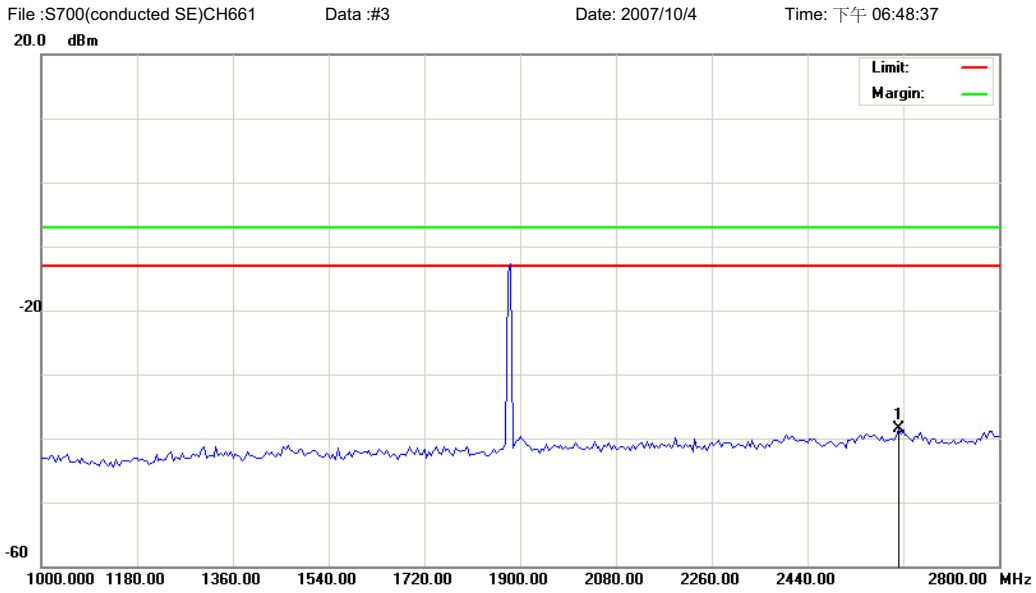
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	470.3750	-45.10	13.20	-31.90	-13.00	-18.90	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz

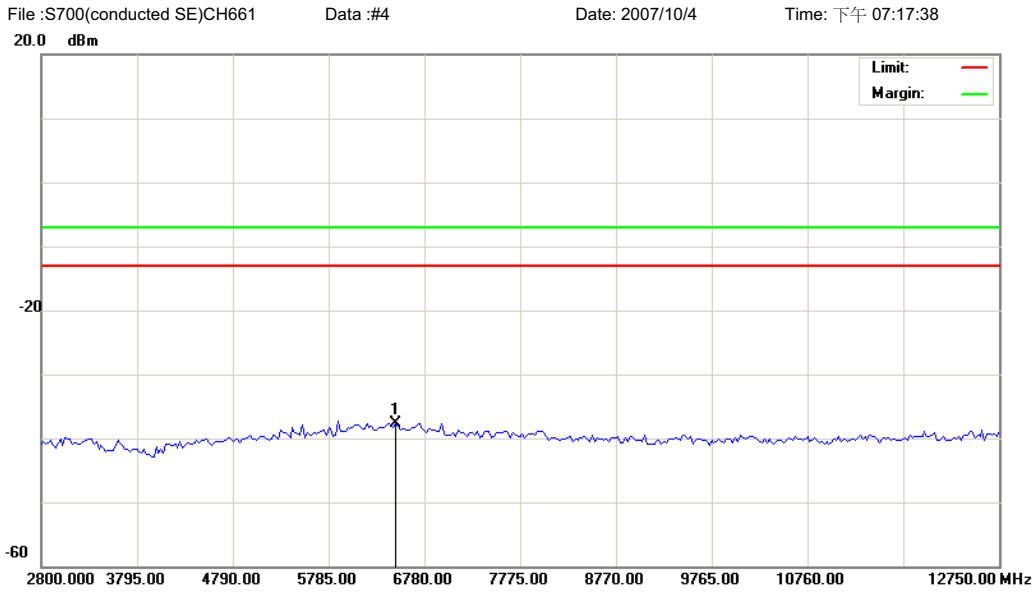


Site site #1	Polarization:	***Conducted po***	Temperature: 26 ℃
Limit: FCC Part 24 conducted(9k-12.75G)	Power:	AC 110V/60Hz	Humidity: 55 %
EUT: PHONE	Distance:		
M/N: S700			
Mode: PCS1900			
Note: CH661(1880MHz)			
加Notch(5TNF-1700)			

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2611.000	-44.01	5.44	-38.57	-13.00	-25.57	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz



Site site #1
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: PCS1900
Note: CH661(1880MHz)

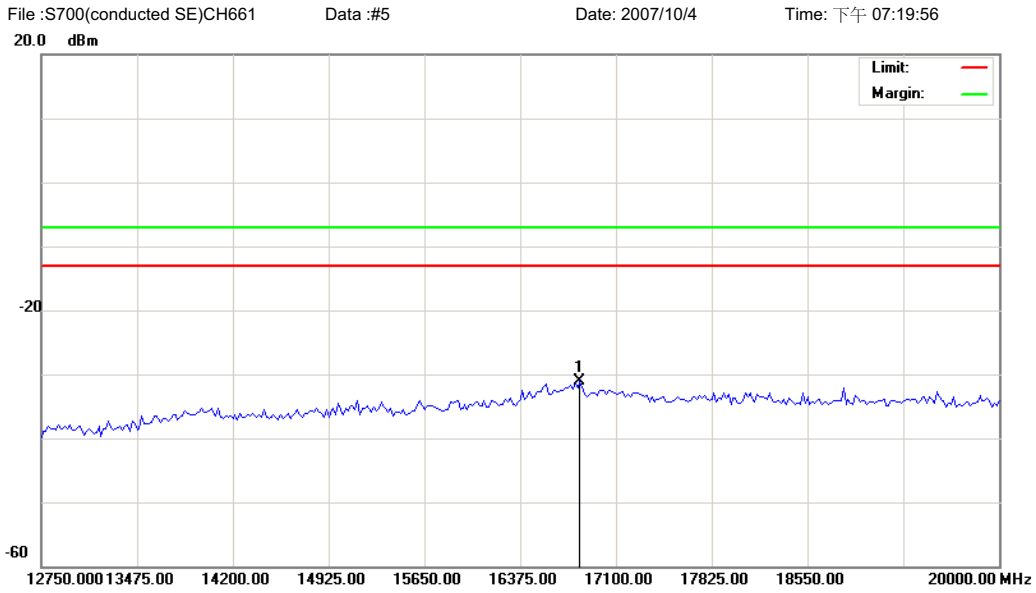
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	6481.500	-42.65	5.01	-37.64	-13.00	-24.64	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz



Site site #1
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: PCS1900
Note: CH661(1880MHz)

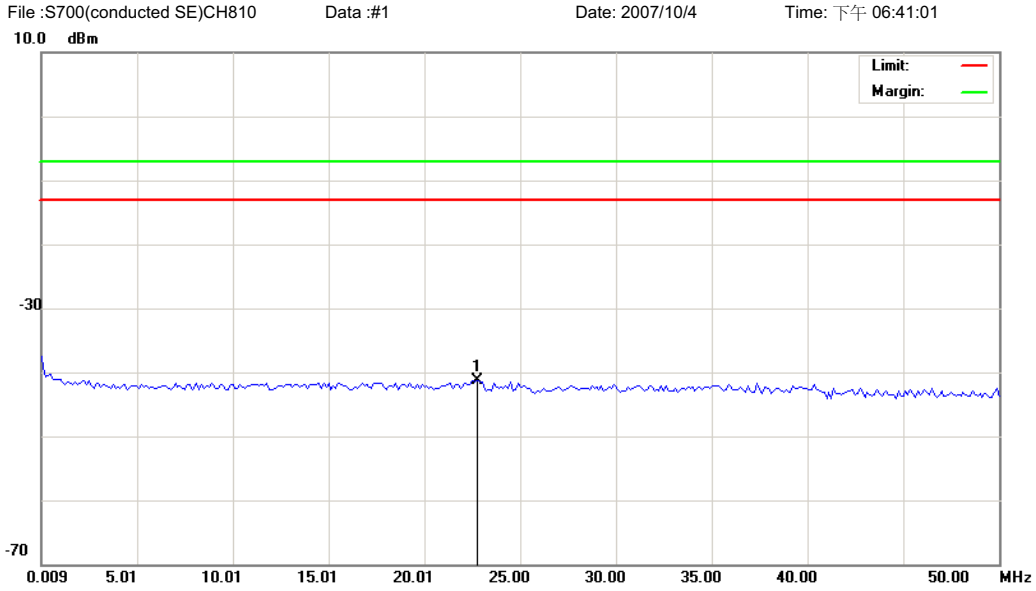
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	16828.12	-37.66	6.53	-31.13	-13.00	-18.13	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz

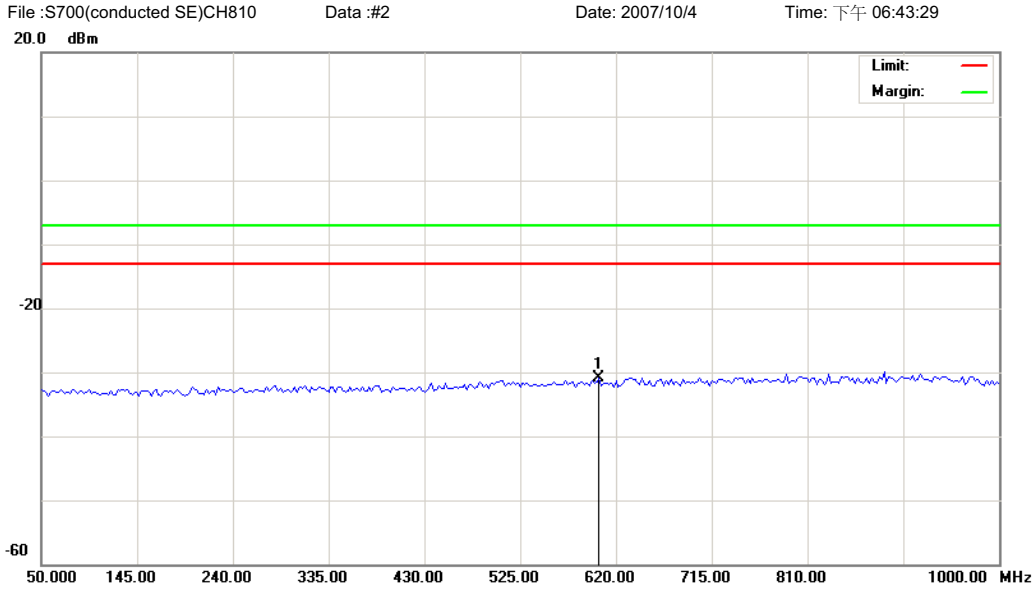


Site site #1	Polarization: ***Conducted po***	Temperature:	26 ℃
Limit: FCC Part 24 conducted(9k-12.75G)	Power: AC 110V/60Hz	Humidity:	55 %
EUT: PHONE	Distance:		
M/N: S700			
Mode: PCS1900			
Note: CH810(1909.8MHz)			
加10db衰減器			

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	22.7545	-54.54	13.32	-41.22	-13.00	-28.22	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz



Site site #1
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: PCS1900
Note: CH810(1909.8MHz)
加10db衰減器

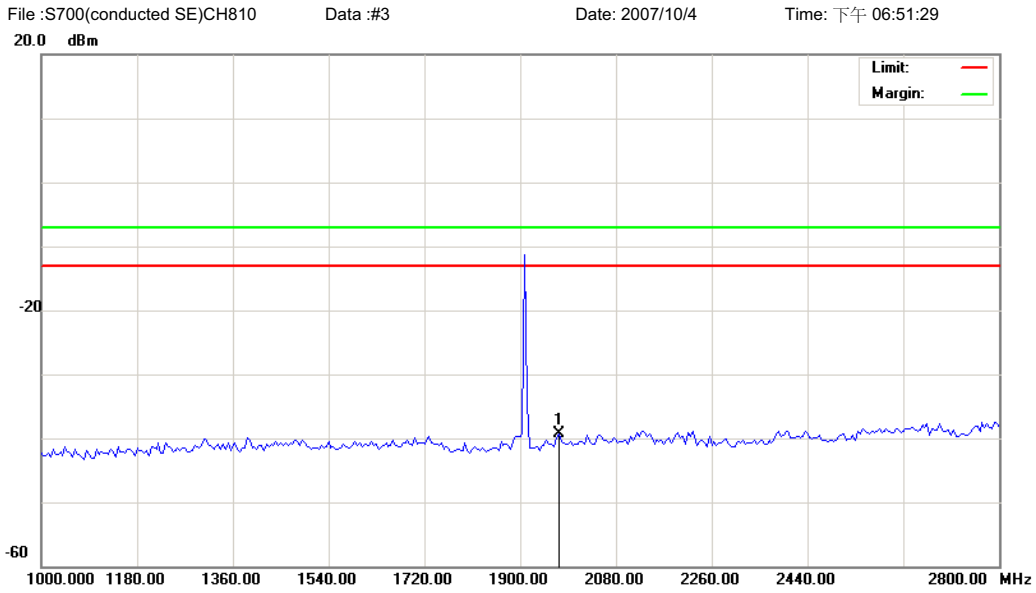
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	603.3750	-44.15	13.17	-30.98	-13.00	-17.98	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz



Site site #1
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: PCS1900
Note: CH810(1909.8MHz)
加Notch(5TNF-1700)

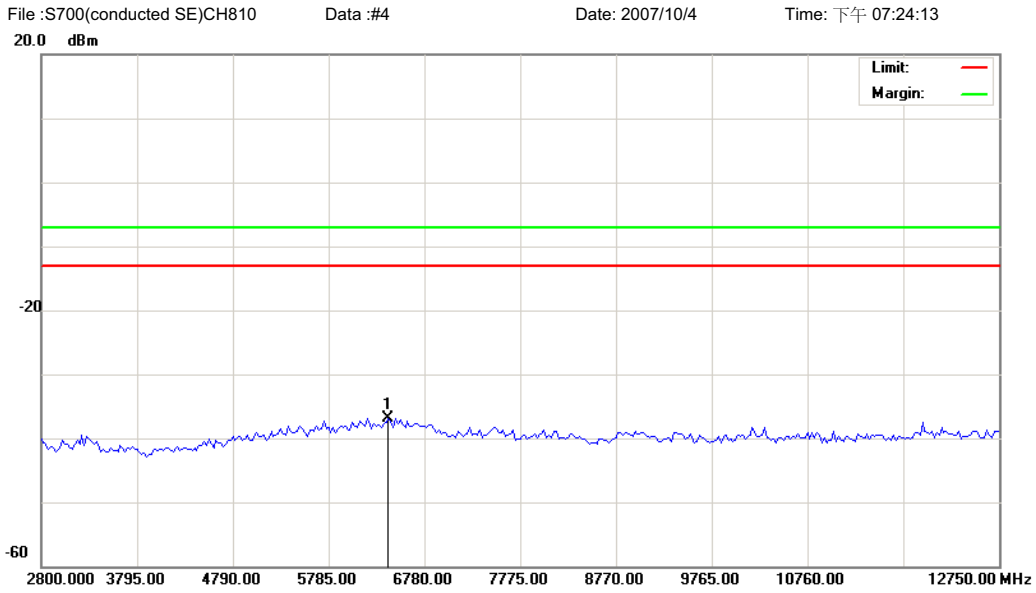
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	1972.000	-44.03	4.77	-39.26	-13.00	-26.26	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz



Site site #1
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: PCS1900
Note: CH810(1909.8MHz)

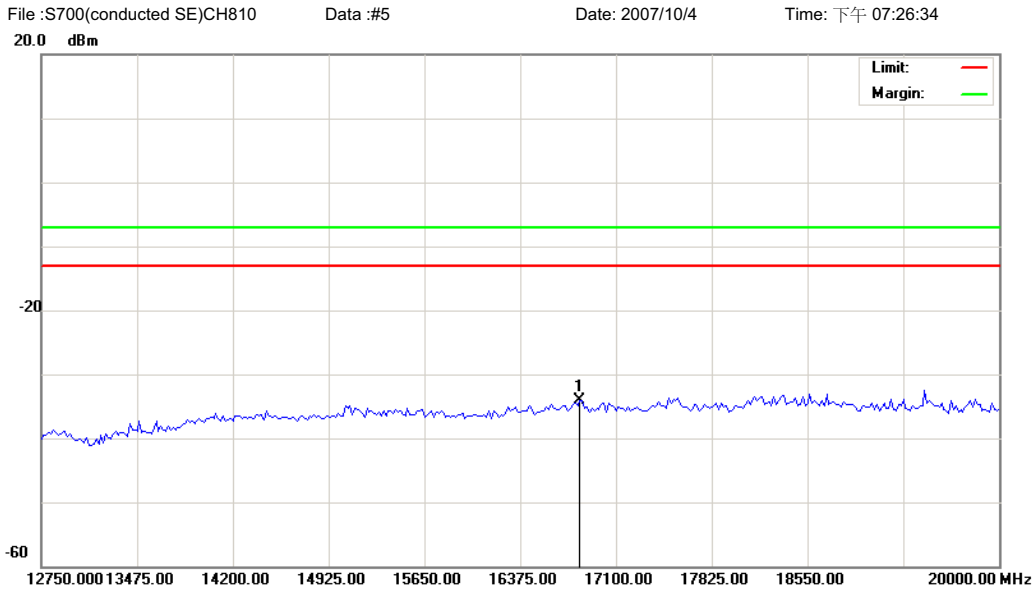
Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	6406.875	-41.86	4.99	-36.87	-13.00	-23.87	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

RB=1MHz ; VB=1MHz



Site site #1
Limit: FCC Part 24 conducted(9k-12.75G)
EUT: PHONE
M/N: S700
Mode: PCS1900
Note: CH810(1909.8MHz)

Polarization: ***Conducted po***
Power: AC 110V/60Hz
Distance:

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	16828.12	-40.57	6.53	-34.04	-13.00	-21.04	peak			

*:Maximum data x:Over limit !:over margin ●Reference Only

4.6 Field Strength of Spurious Radiation

Equivalent isotropic radiated Power Measurements by substitution method according to ANSI/TIA/EIA-603-A .

4.6.1 Measurement Instruments

As described in chapter 5 of this test report.

4.6.2 Test Procedure

The equipment under test is placed inside the semi-anechoic chamber on a wooden table at the turntable center. For each spurious frequency, the antenna mast is raised and lowered from 1 to 4 meters and the turntable is rotated 360 degrees to obtain a maximum reading on the spectrum analyzer. This is repeated for both horizontal and vertical polarizations of the receive antenna.

The equipment under test is then replaced with a substitution antenna fed by a signal generator. With the signal generator tuned to a particular spurious frequency, the antenna mast is raised and lowered from 1 to 4 meters to obtain a maximum reading at the spectrum analyzer. The output of the signal generator is then adjusted until a reading identical to that obtained with the actual transmitter is achieved.

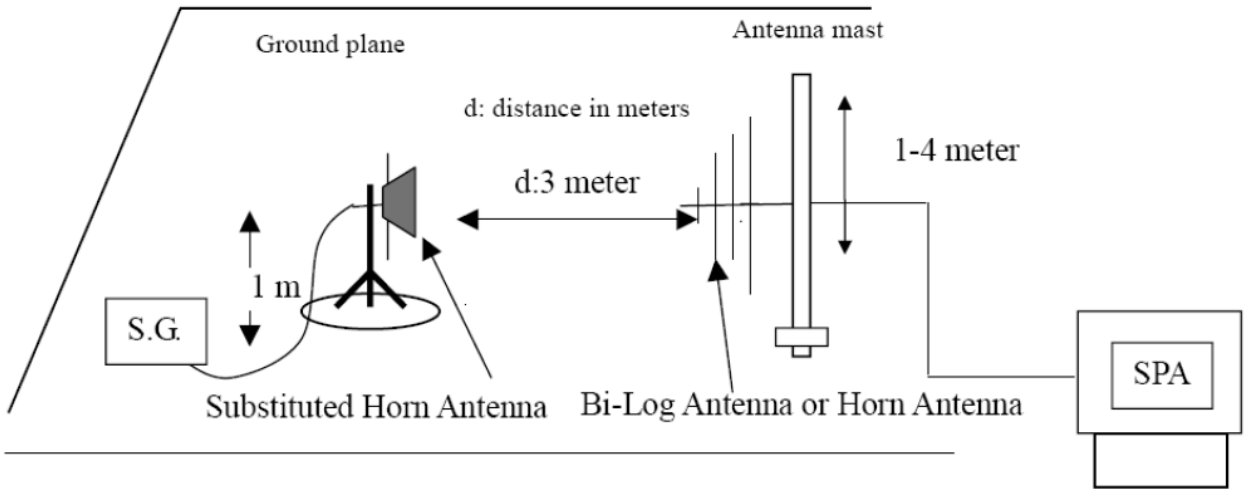
The power in dBm of each spurious emission is calculated by correcting the signal generator level for cable loss and gain of the substitution antenna referenced to a dipole. A fully charged battery was used for the supply voltage.

The settings of the receiver were as follows:

Units	dBm
Resolution Bandwidth	1 MHz
Video Bandwidth	Auto
Sweep Time	Auto

4.6.3 Test Setup Layout

Substituted Method Test Set-up



4.6.4 Test Result

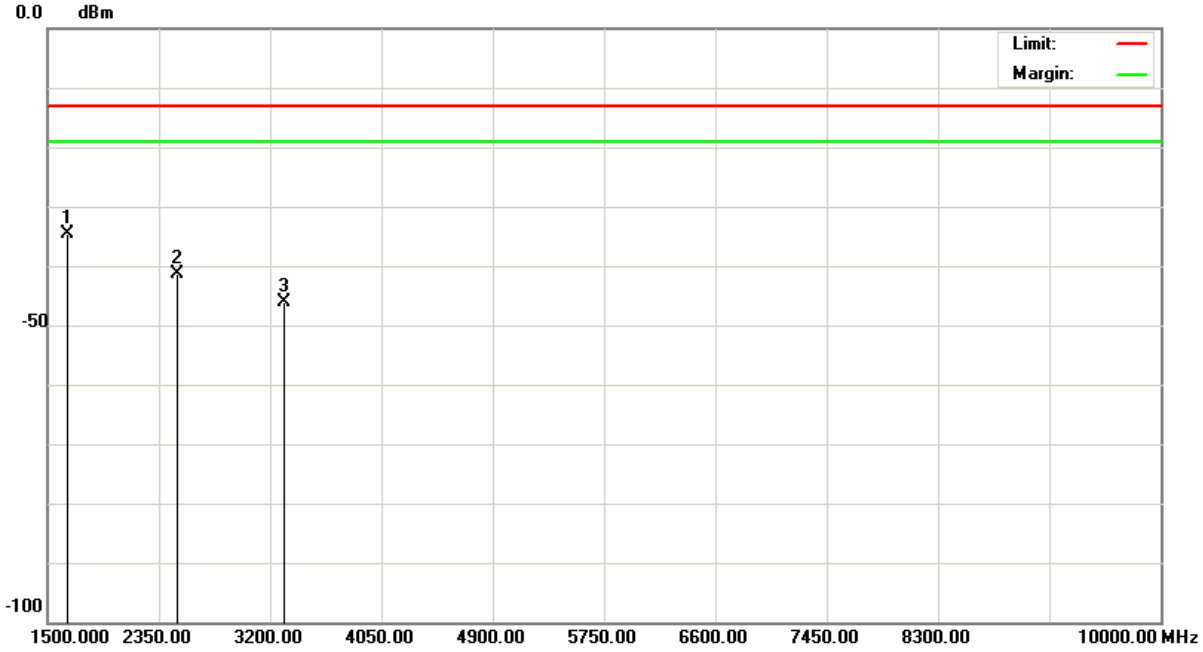
4.6.4.1 GSM 850 Test Result

Applicant : NINGBO BIRD CO., LTD
Model No : Bird S700
EUT : Dual Band GSM Mobile Phone
Test Mode : GSM 850 (Low CH128)
Test Date : 10/05/2007

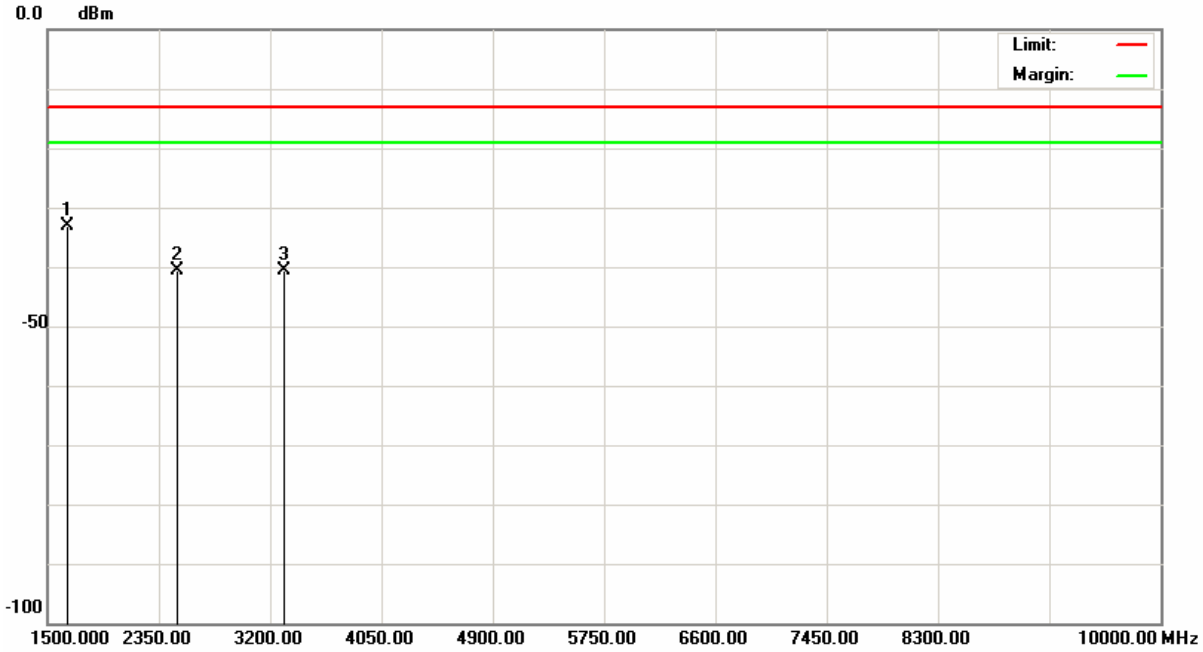
Frequency (MHz)	FCC Maximum Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
2nd harmonic	-13	-34.62	-33.18
3rd harmonic	-13	-41.37	-40.67
4th harmonic	-13	-46.19	-40.59
5th harmonic	-13	*	*
6th harmonic	-13	*	*
7th harmonic	-13	*	*
8th harmonic	-13	*	*
9th harmonic	-13	*	*
10th harmonic	-13	*	*

Notes:

1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.
2. Each emission reported reflects the highest absolute level at the specific harmonic for the low, mid, and high channels at maximum power.
3. The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.



Horizontal



Vertical

Applicant : NINGBO BIRD CO., LTD

Model No : Bird S700

EUT : Dual Band GSM Mobile Phone

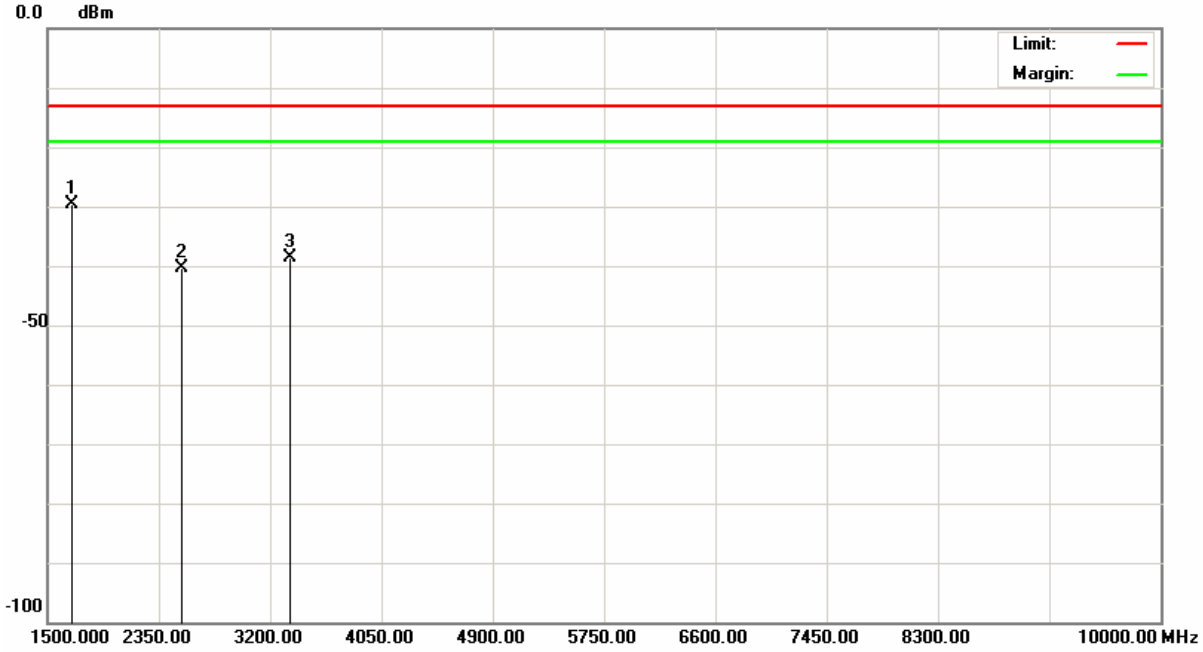
Test Mode : GSM 850 (Middle CH190)

Test Date : 10/05/2007

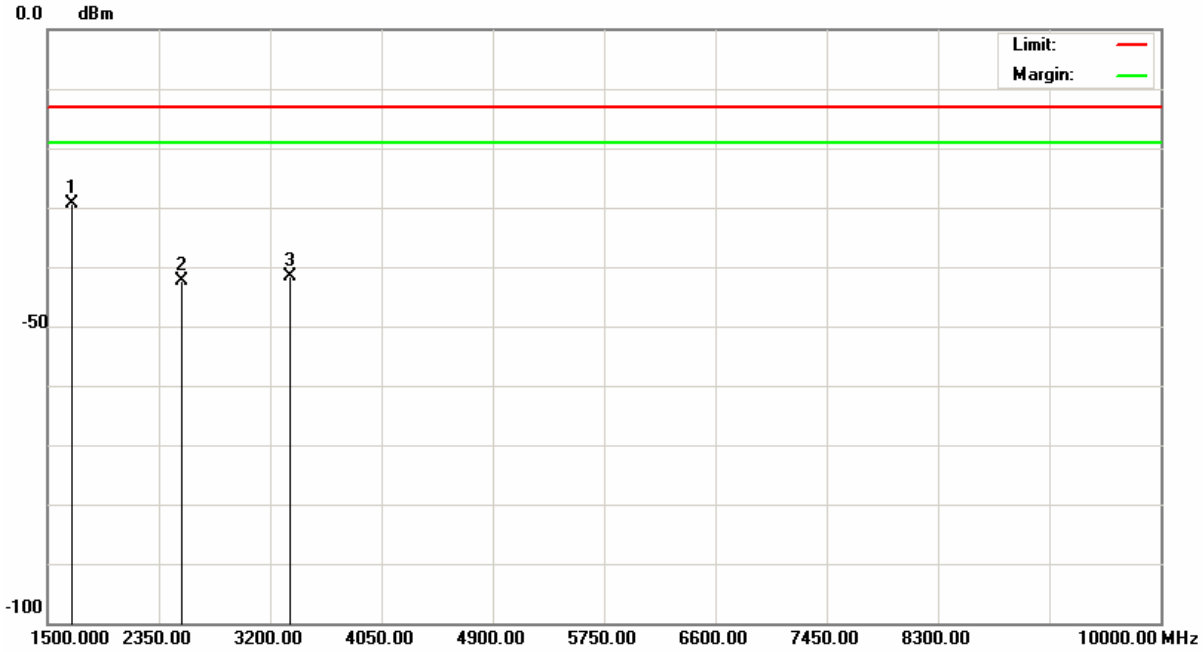
Frequency (MHz)	FCC Maximum Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
2nd harmonic	-13	-29.67	-29.38
3rd harmonic	-13	-40.48	-42.37
4th harmonic	-13	-38.57	-41.54
5th harmonic	-13	*	*
6th harmonic	-13	*	*
7th harmonic	-13	*	*
8th harmonic	-13	*	*
9th harmonic	-13	*	*
10th harmonic	-13	*	*

Notes:

1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.
2. Each emission reported reflects the highest absolute level at the specific harmonic for the low, mid, and high channels at maximum power.
3. The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.



Horizontal



Vertical

Applicant : NINGBO BIRD CO., LTD

Model No : Bird S700

EUT : Dual Band GSM Mobile Phone

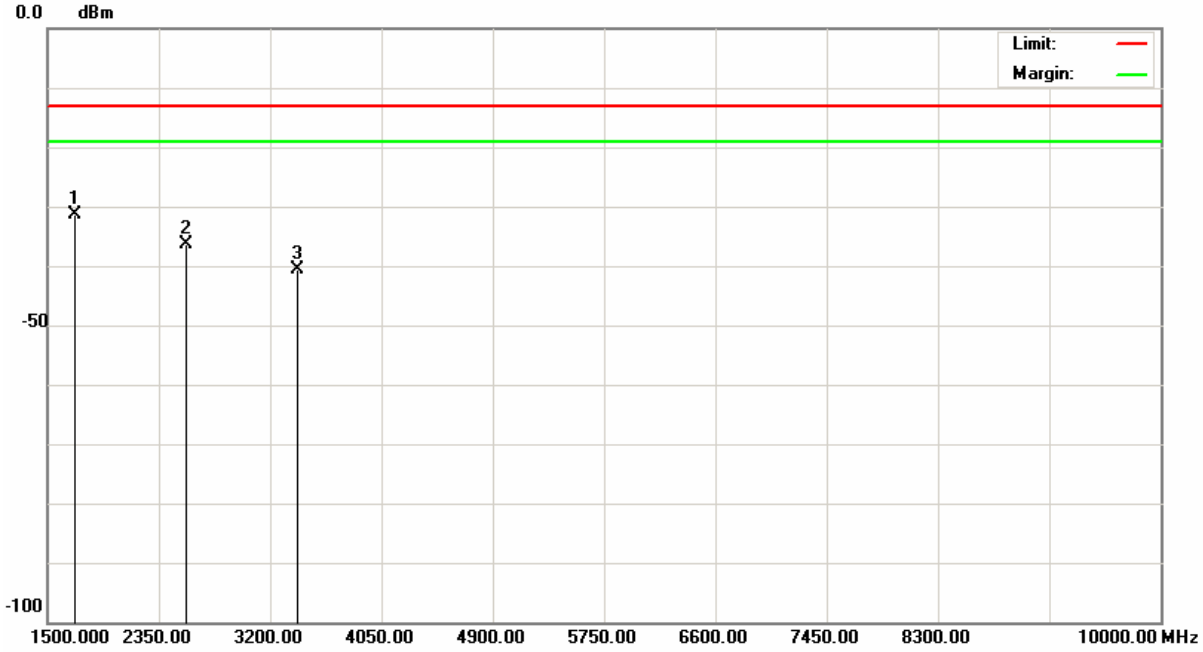
Test Mode : GSM 850 (High CH 251)

Test Date : 10/05/2007

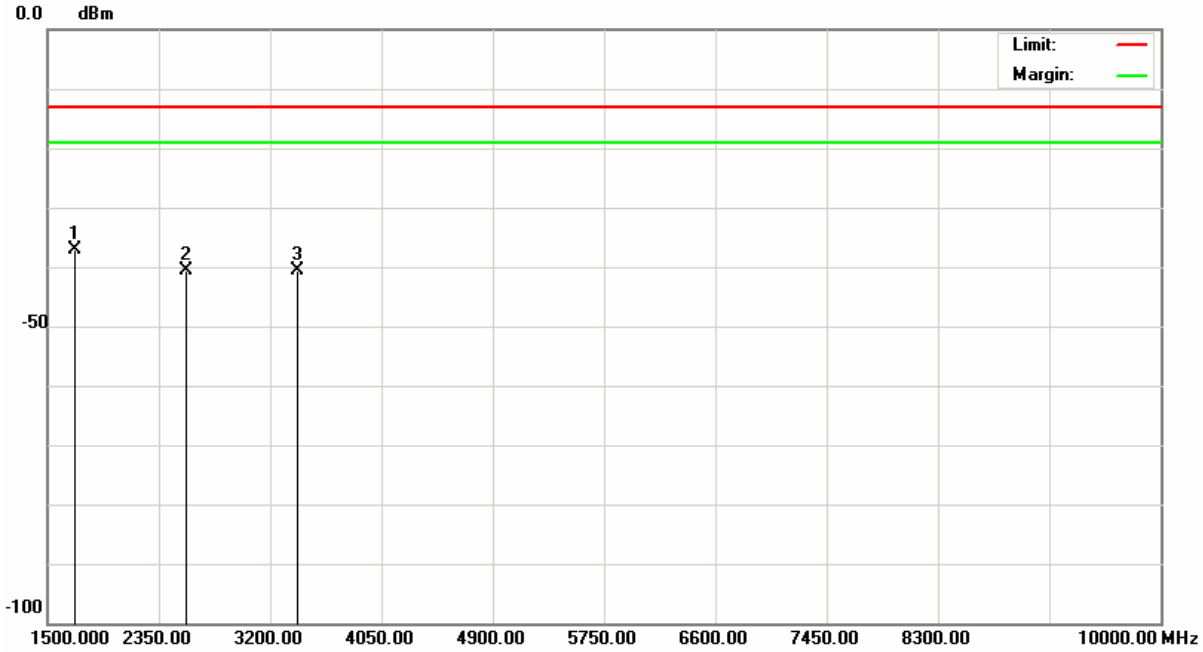
Frequency (MHz)	FCC Maximum Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
2nd harmonic	-13	-31.47	-37.06
3rd harmonic	-13	-36.39	-40.59
4th harmonic	-13	-40.63	-40.53
5th harmonic	-13	*	*
6th harmonic	-13	*	*
7th harmonic	-13	*	*
8th harmonic	-13	*	*
9th harmonic	-13	*	*
10th harmonic	-13	*	*

Notes:

1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.
2. Each emission reported reflects the highest absolute level at the specific harmonic for the low, mid, and high channels at maximum power.
3. The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.



Horizontal



Vertical

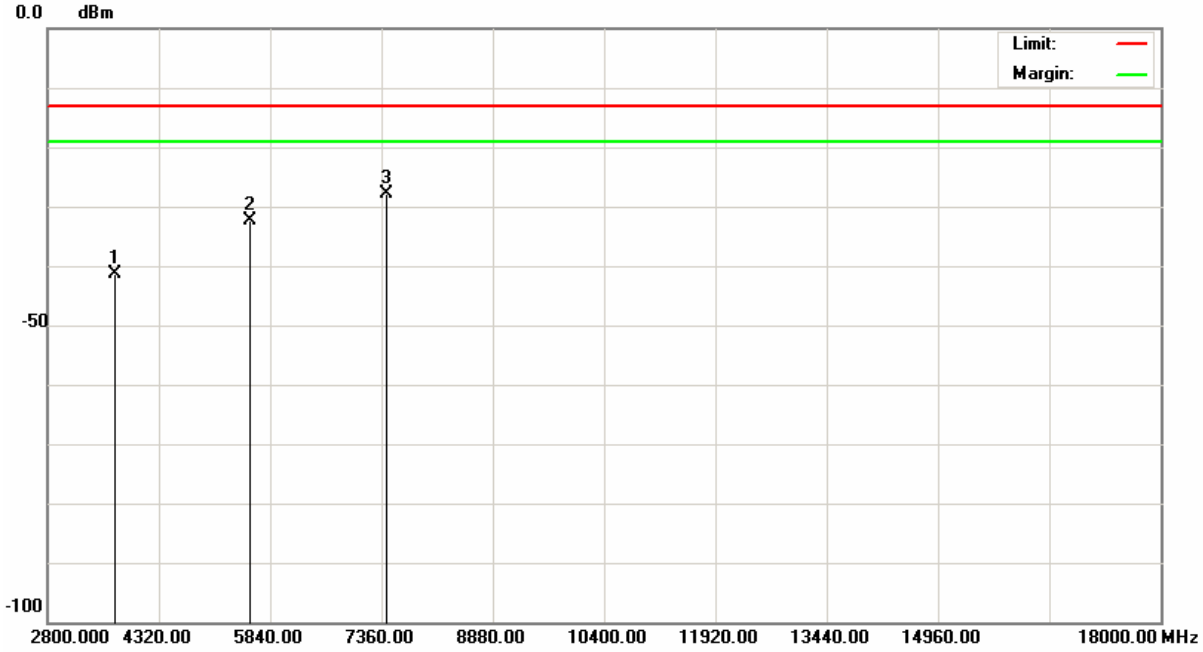
4.6.4.2 PCS 1900 Test Result

Applicant : NINGBO BIRD CO., LTD
Model No : Bird S700
EUT : Dual Band GSM Mobile Phone
Test Mode : PCS 1900 (Low CH512)
Test Date : 10/05/2007

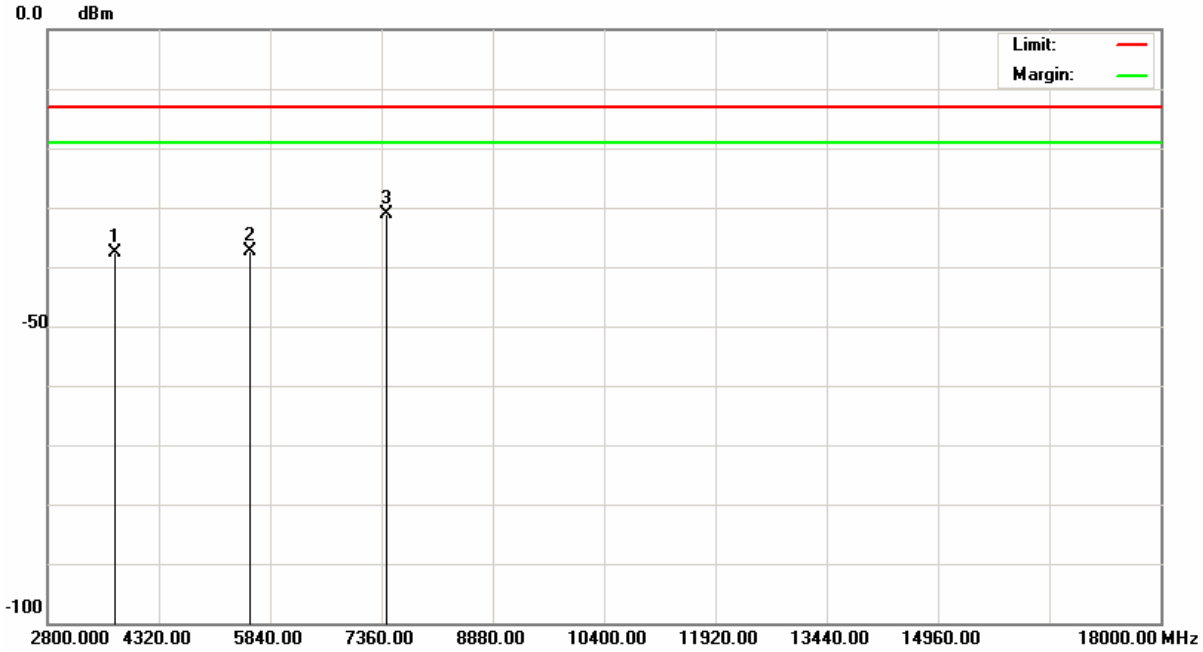
Frequency (MHz)	FCC Maximum Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
2nd harmonic	-13	-41.37	-37.73
3rd harmonic	-13	-32.43	-37.39
4th harmonic	-13	-27.85	-31.17
5th harmonic	-13	*	*
6th harmonic	-13	*	*
7th harmonic	-13	*	*
8th harmonic	-13	*	*
9th harmonic	-13	*	*
10th harmonic	-13	*	*

Notes:

1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.
2. Each emission reported reflects the highest absolute level at the specific harmonic for the low, mid, and high channels at maximum power.
3. The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.



Horizontal



Vertical

Applicant : NINGBO BIRD CO., LTD

Model No : Bird S700

EUT : Dual Band GSM Mobile Phone

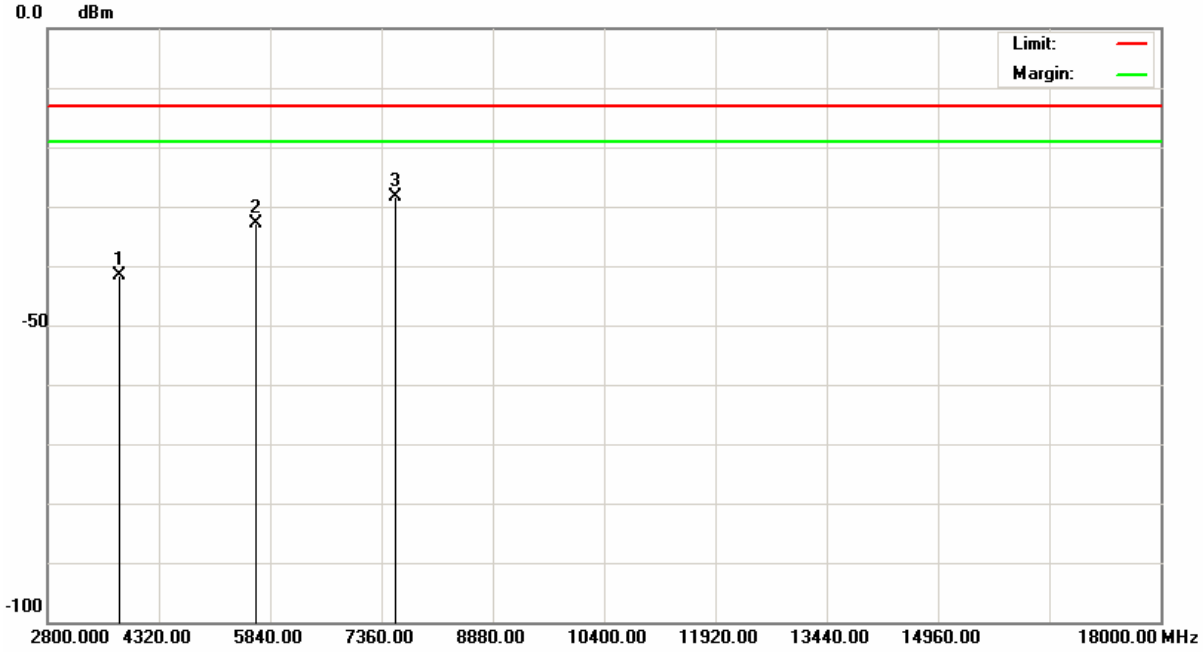
Test Mode : PCS 1900 (Middle CH661)

Test Date : 10/05/2007

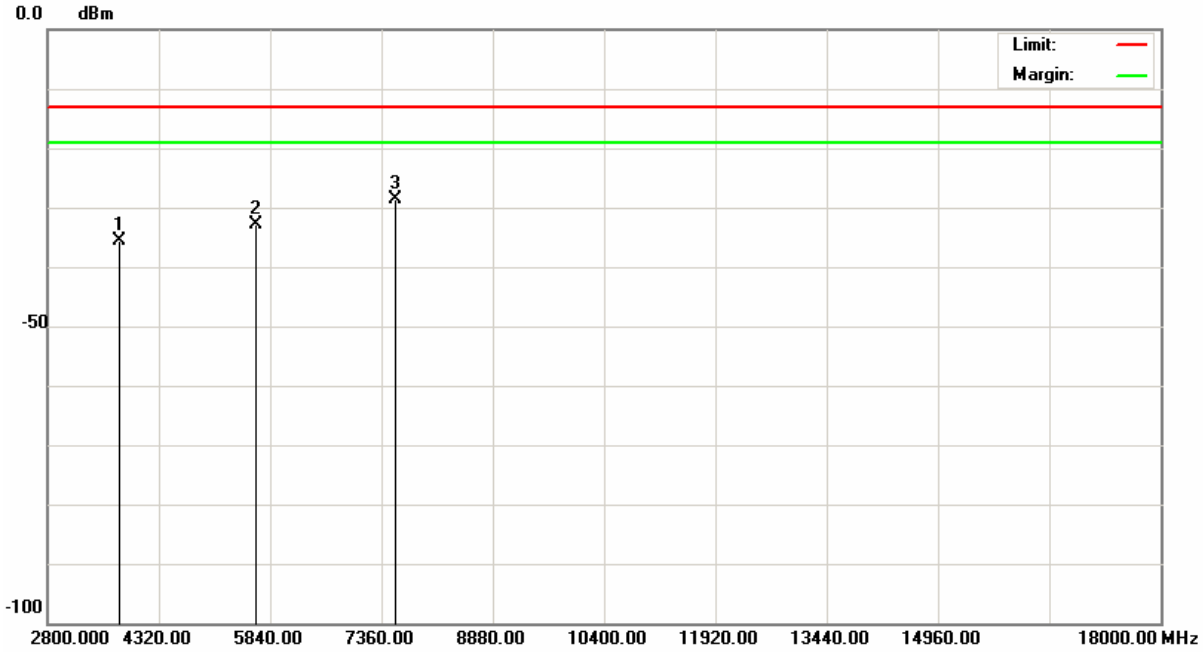
Frequency (MHz)	FCC Maximum Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
2nd harmonic	-13	-41.59	-35.53
3rd harmonic	-13	-32.76	-32.81
4th harmonic	-13	-28.34	-28.69
5th harmonic	-13	*	*
6th harmonic	-13	*	*
7th harmonic	-13	*	*
8th harmonic	-13	*	*
9th harmonic	-13	*	*
10th harmonic	-13	*	*

Notes:

1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.
2. Each emission reported reflects the highest absolute level at the specific harmonic for the low, mid, and high channels at maximum power.
3. The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.



Horizontal



Vertical

Applicant : NINGBO BIRD CO., LTD

Model No : Bird S700

EUT : Dual Band GSM Mobile Phone

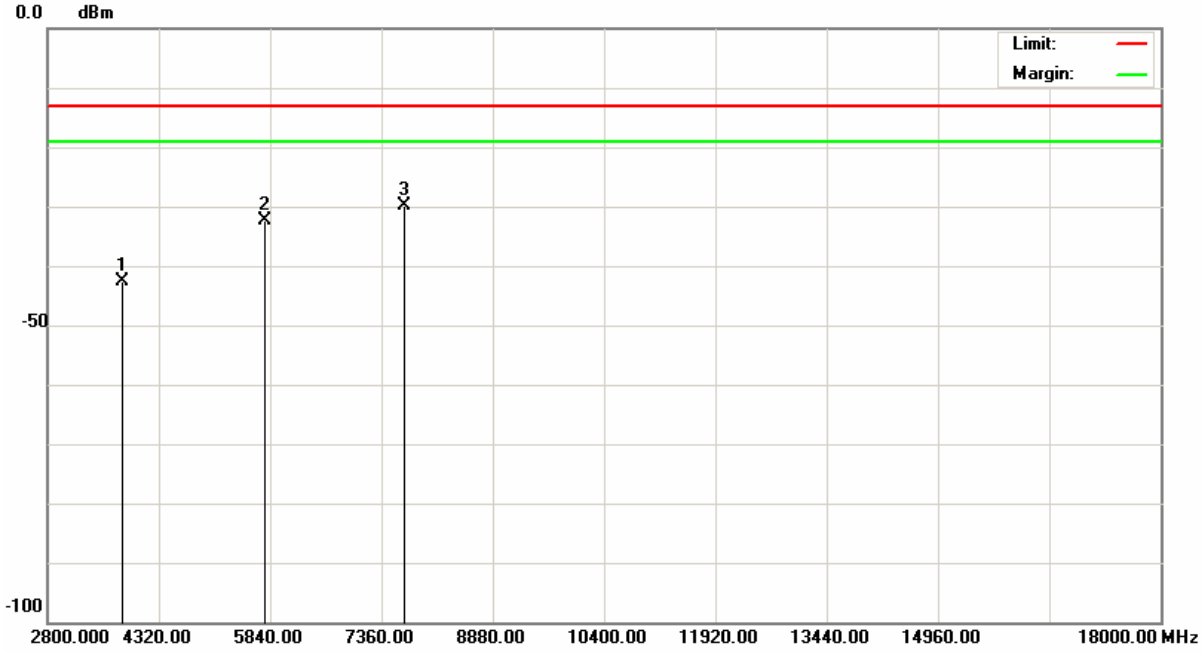
Test Mode : PCS 1900 (High CH 810)

Test Date : 10/05/2007

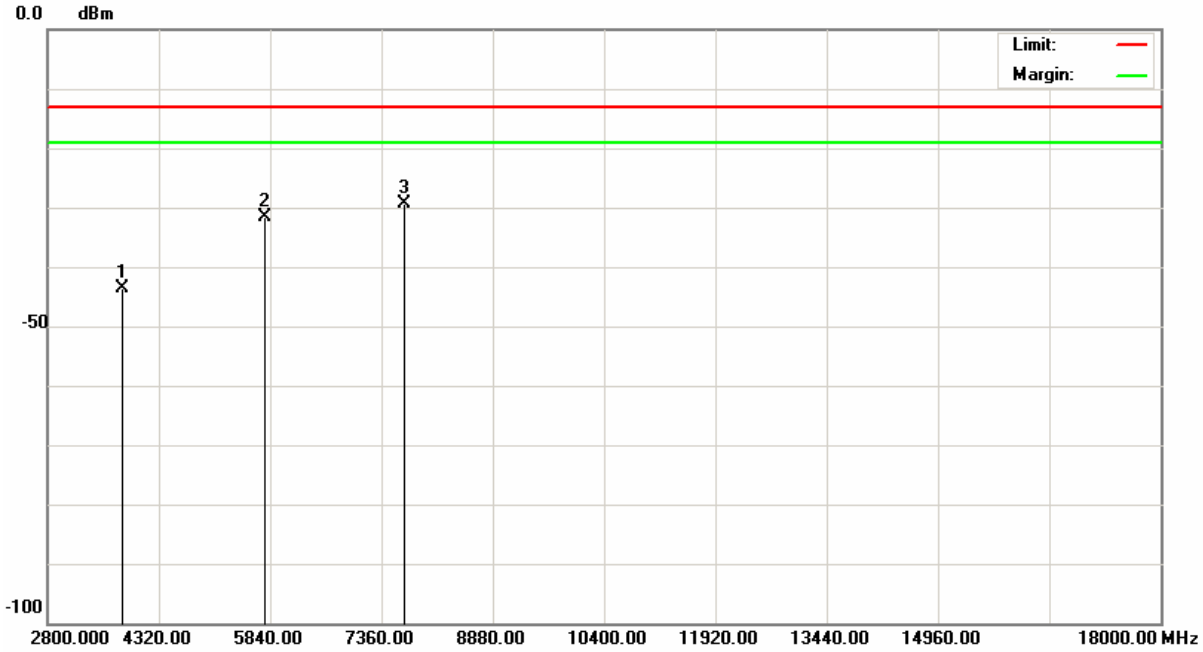
Frequency (MHz)	FCC Maximum Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
2nd harmonic	-13	-42.56	-43.71
3rd harmonic	-13	-32.38	-31.56
4th harmonic	-13	-29.75	-29.37
5th harmonic	-13	*	*
6th harmonic	-13	*	*
7th harmonic	-13	*	*
8th harmonic	-13	*	*
9th harmonic	-13	*	*
10th harmonic	-13	*	*

Notes:

1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.
2. Each emission reported reflects the highest absolute level at the specific harmonic for the low, mid, and high channels at maximum power.
3. The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.



Horizontal



Vertical

4.7 Frequency Stability (Temperature Variation)

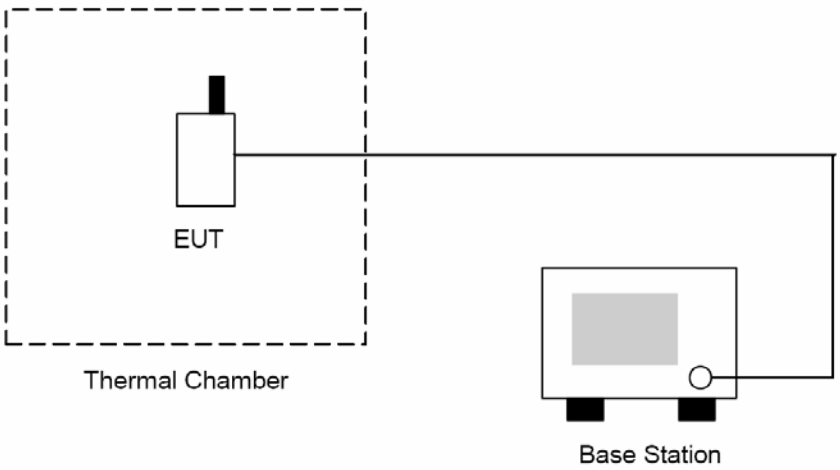
4.7.1 Measurement Instrument

As described in chapter 5 of this test report.

4.7.2 Test Procedure

1. The EUT and test equipment were set up as shown on the following section.
2. With all power removed, the temperature was decreased to -30°C and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was note within one minute.
3. With power OFF, the temperature was raised in 10°C steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.
4. The temperature tests were performed for the worst case.
5. Test data was recorded.

4.7.3 Test Setup Layout



4.7.4 Test Result

Test Mode: GSM 850 CH190

Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)
-30	**40.27**	**0.048**	0.1
-20	**38.13**	**0.046**	0.1
-10	**33.29**	**0.040**	0.1
0	**39.63**	**0.047**	0.1
10	**41.39**	**0.049**	0.1
20	**42.08**	**0.050**	0.1
30	**40.53**	**0.048**	0.1
40	**35.69**	**0.043**	0.1
50	**34.06**	**0.041**	0.1

Test Mode: PCS 1900 CH661

Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)
-30	**58.21**	**0.031**	1
-20	**55.73**	**0.030**	1
-10	**48.32**	**0.026**	1
0	**49.59**	**0.026**	1
10	**53.08**	**0.028**	1
20	**55.37**	**0.029**	1
30	**58.39**	**0.031**	1
40	**55.03**	**0.029**	1
50	**47.09**	**0.025**	1

4.8 Frequency Stability (Voltage Variation)

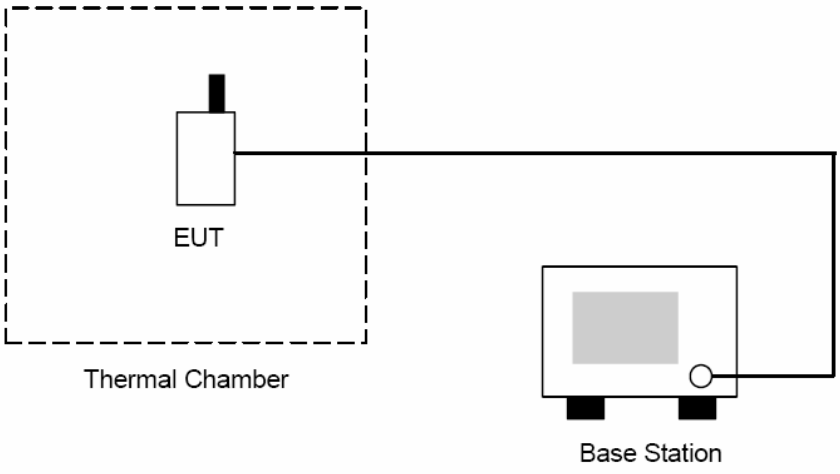
4.8.1 Measurement Instrument

As described in chapter 5 of this test report.

4.8.2 Test Procedure

1. The EUT was placed in a temperature chamber at 25±5 ℃ and connected as the following section.
2. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

4.8.3 Test Setup Layout



4.8.4 Test Result

Test Mode: GSM 850 CH190

Level	Voltage [V]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]
Battery full point	4.25	**55.31**	**0.066**	0.1
Normal	3.70	**57.08**	**0.068**	0.1
Battery cut-off point	3.20	**51.62**	**0.062**	0.1

Test Mode: PCS 1900 CH661

Level	Voltage [V]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]
Battery full point	4.25	**51.39**	**0.027**	1
Normal	3.70	**49.16**	**0.026**	1
Battery cut-off point	3.20	**39.24**	**0.021**	1

4.9 AC Power Conducted Emissions Requirements

4.9.1 Measurement Instrument

As described in chapter 5 of this test report.

4.9.2 Test Procedure

The power line conducted emission measurements were performed in a shielded enclosure. The EUT was assembled on a wooden table which is 80 centimeters high, was placed 40 centimeters from the back wall and at least 1 meter from the sidewall.

Power was fed to the EUT from the public utility power grid through a line filter and EMCO Model 3162/2 SH Line Impedance Stabilization Networks (LISN). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPR quasi-peak detection mode. The analyzer's 6 dB bandwidth was set to 9 KHz. No post-detector video filter was used.

The spectrum was scanned from 150 KHz to 30 MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in paragraph 2.6.

4.9.3 Test Configuration:

Figure 1. Front View of the Test Configuration

Figure 2. Rear View of the Test Configuration

4.9.4 Test condition:

EUT tested in accordance with the specifications given by the Manufacturer, and exercised in the most unfavorable manner.

4.9.5 Conducted Emissions Limits:

Frequency range (MHz)	Limits (dBuV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5.0	56	46
5.0 to 30	60	50

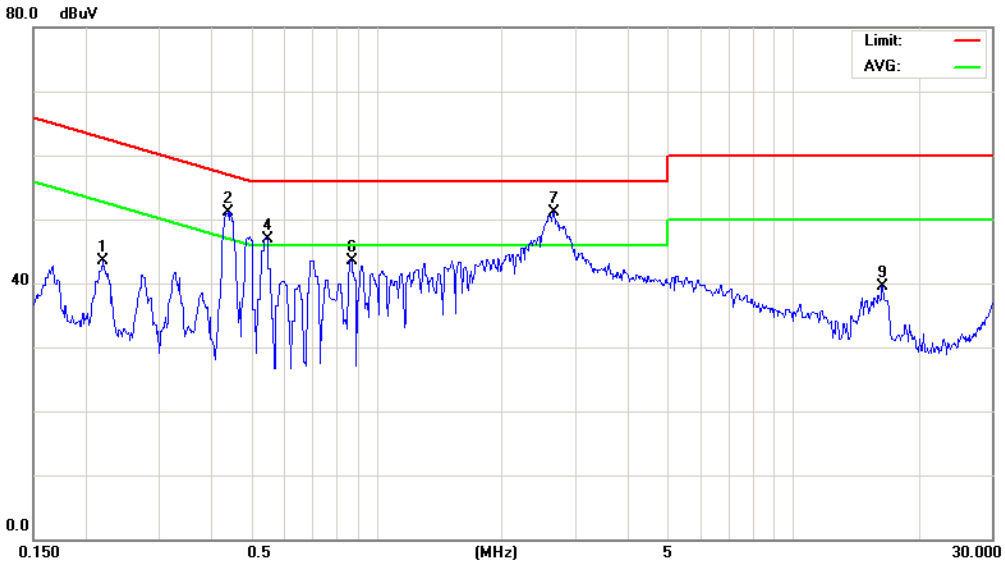
4.9.6 Test Result

4.9.6.1 GSM 850 Test Result

Applicant	: NINGBO BIRD CO., LTD
Model No	: Bird S700
EUT	: Dual Band GSM Mobile Phone
Test Mode	: GSM 850
Test Date	: 10/03/2007

Please refer to next pager of detail testing data.

File :S700-Charger(2007-10-03) Data :#1 Date: 2007/10/3 Time: 上午11:38:14



Site site #1 Phase: L1 Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

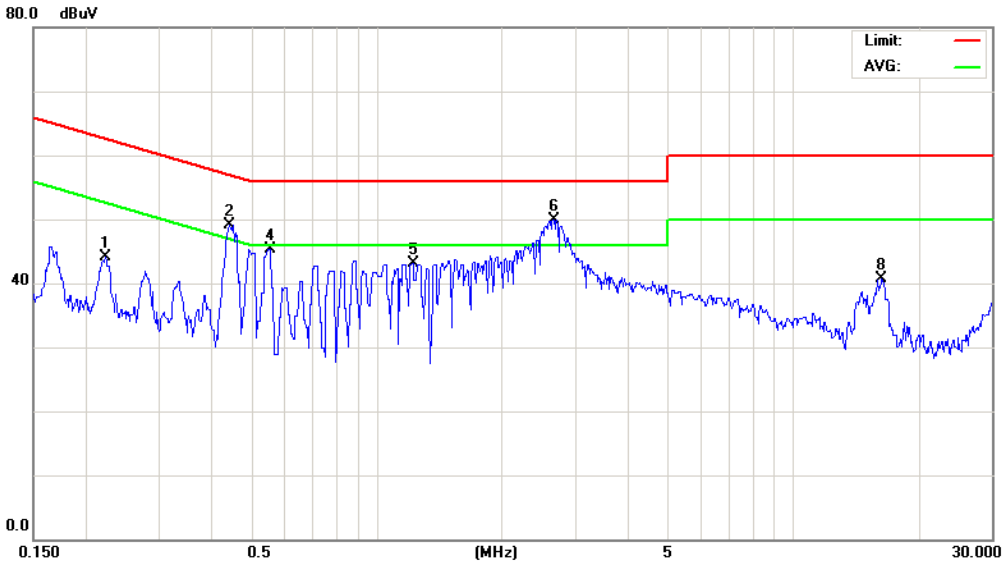
Mode: GSM850

Note: Charger

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2192	33.71	9.74	43.45	62.85	-19.40	peak	
2		0.4383	41.34	9.78	51.12	57.09	-5.97	peak	
3	*	0.4383	33.52	9.78	43.30	47.09	-3.79	AVG	
4		0.5450	37.03	9.79	46.82	56.00	-9.18	peak	
5		0.5450	30.95	9.79	40.74	46.00	-5.26	AVG	
6		0.8689	33.64	9.80	43.44	56.00	-12.56	peak	
7		2.6509	41.16	9.93	51.09	56.00	-4.91	peak	
8		2.6509	26.82	9.93	36.75	46.00	-9.25	AVG	
9		16.3500	29.22	10.25	39.47	60.00	-20.53	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700-Charger(2007-10-03) Data :#2 Date: 2007/10/3 Time: 上午12:05:24



Site site #1 Phase: *L2* Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

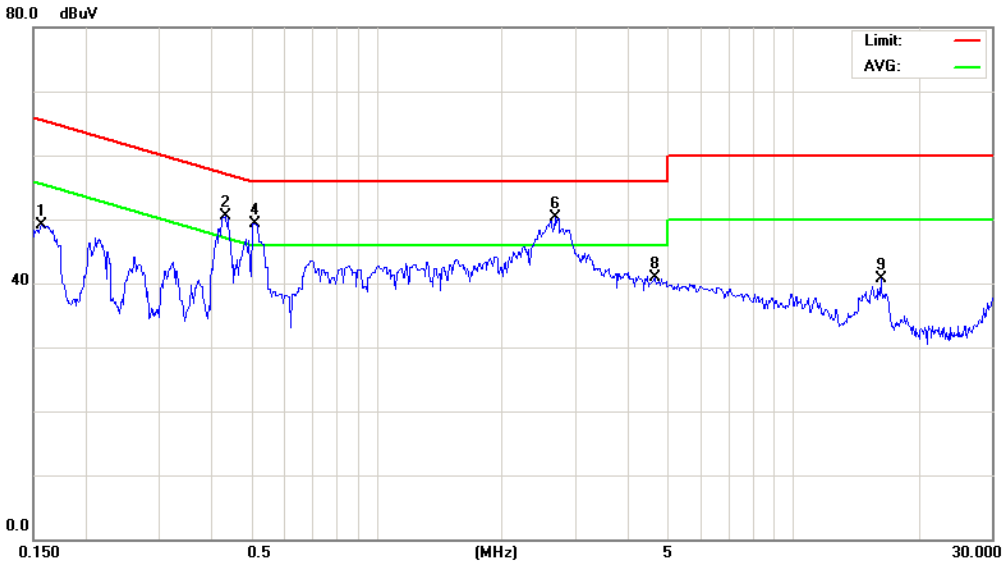
Mode: GSM850

Note: Charger

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2227	34.30	9.74	44.04	62.71	-18.67	peak	
2		0.4430	39.36	9.78	49.14	57.00	-7.86	peak	
3		0.4430	28.63	9.78	38.41	47.00	-8.59	AVG	
4		0.5540	35.42	9.79	45.21	56.00	-10.79	peak	
5		1.2200	33.36	9.81	43.17	56.00	-12.83	peak	
6	*	2.6509	40.01	9.93	49.94	56.00	-6.06	peak	
7		2.6509	24.69	9.93	34.62	46.00	-11.38	AVG	
8		16.3000	30.50	10.25	40.75	60.00	-19.25	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700(2007-10-03) Data :#1 Date: 2007/10/3 Time: 上午 09:38:15



Site site #1 Phase: *L1* Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

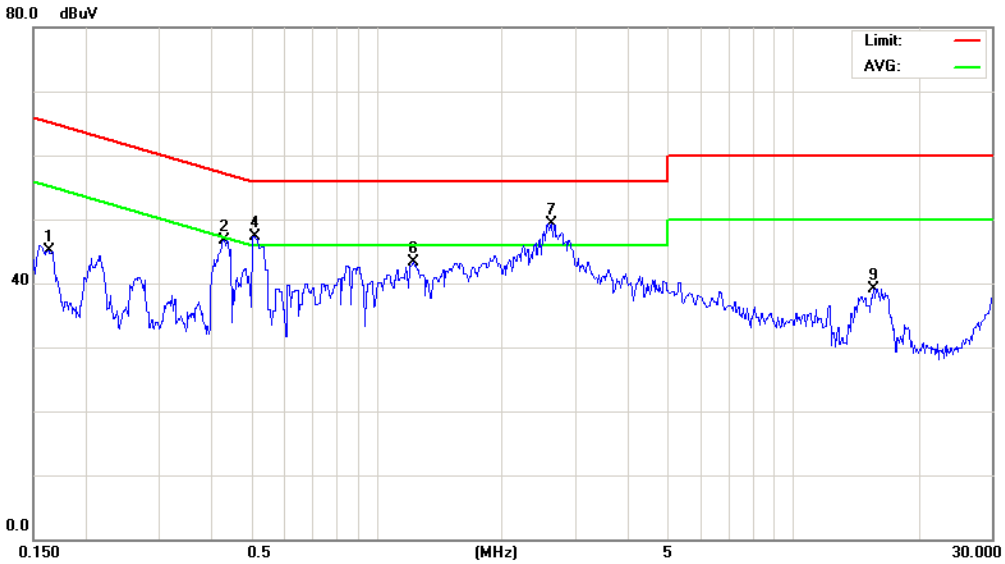
Mode: GSM850

Note: CH128

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1570	39.29	9.73	49.02	65.62	-16.60	peak	
2		0.4334	40.63	9.78	50.41	57.19	-6.78	peak	
3		0.4334	31.27	9.78	41.05	47.19	-6.14	AVG	
4		0.5090	39.48	9.79	49.27	56.00	-6.73	peak	
5	*	0.5090	30.62	9.79	40.41	46.00	-5.59	AVG	
6		2.6779	40.30	9.92	50.22	56.00	-5.78	peak	
7		2.6779	26.35	9.92	36.27	46.00	-9.73	AVG	
8		4.6400	30.95	10.01	40.96	56.00	-15.04	peak	
9		16.2000	30.40	10.25	40.65	60.00	-19.35	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700(2007-10-03) Data :#2 Date: 2007/10/3 Time: 上午 09:51:37



Site site #1 Phase: *L2* Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

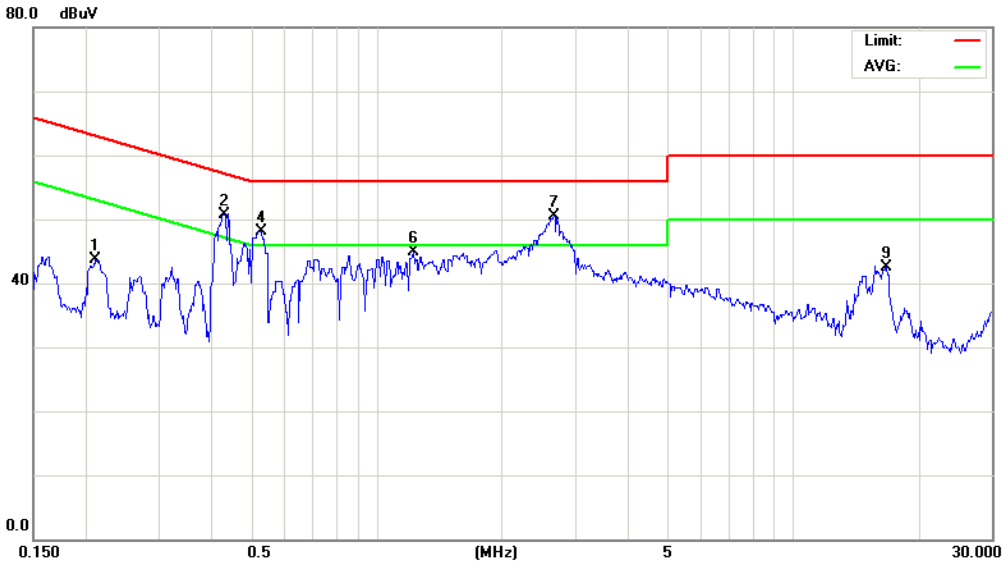
Mode: GSM850

Note: CH128

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1625	35.37	9.73	45.10	65.33	-20.23	peak	
2		0.4284	36.99	9.78	46.77	57.28	-10.51	peak	
3		0.4284	25.63	9.78	35.41	47.28	-11.87	AVG	
4		0.5090	37.50	9.79	47.29	56.00	-8.71	peak	
5		0.5090	23.67	9.79	33.46	46.00	-12.54	AVG	
6		1.2288	33.48	9.81	43.29	56.00	-12.71	peak	
7	*	2.6238	39.30	9.93	49.23	56.00	-6.77	peak	
8		2.6238	22.89	9.93	32.82	46.00	-13.18	AVG	
9		15.6000	28.91	10.27	39.18	60.00	-20.82	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700(2007-10-03) Data :#3 Date: 2007/10/3 Time: 上午10:11:28



Site site #1 Phase: *L1* Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

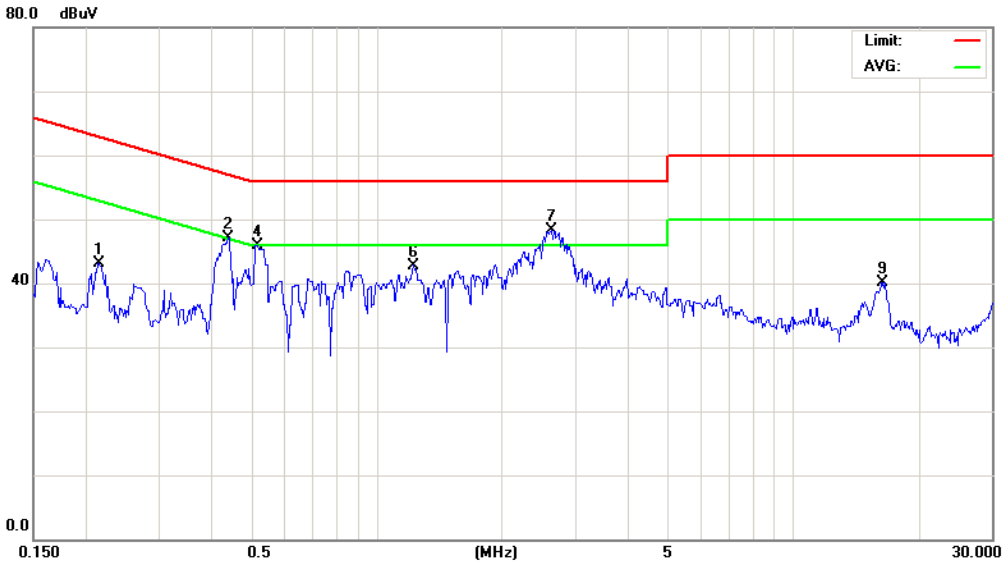
Mode: GSM850

Note: CH190

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2101	33.93	9.74	43.67	63.20	-19.53	peak	
2		0.4292	40.95	9.78	50.73	57.27	-6.54	peak	
3		0.4292	31.83	9.78	41.61	47.27	-5.66	AVG	
4		0.5270	38.30	9.79	48.09	56.00	-7.91	peak	
5		0.5270	29.68	9.79	39.47	46.00	-6.53	AVG	
6		1.2288	35.00	9.81	44.81	56.00	-11.19	peak	
7	*	2.6600	40.54	9.93	50.47	56.00	-5.53	peak	
8		2.6600	25.43	9.93	35.36	46.00	-10.64	AVG	
9		16.7000	32.26	10.25	42.51	60.00	-17.49	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700(2007-10-03) Data :#4 Date: 2007/10/3 Time: 上午10:36:14



Site site #1 Phase: L2 Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

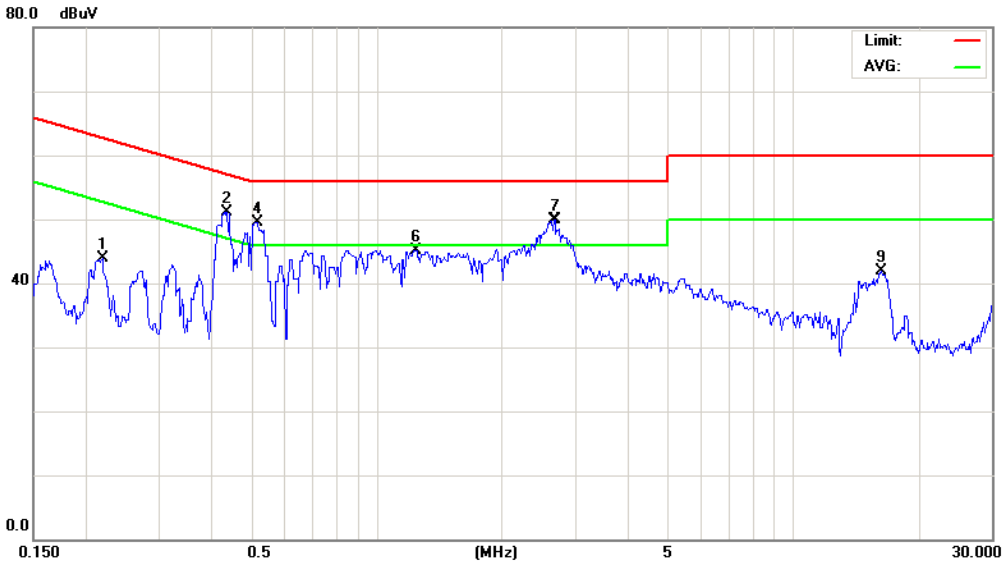
Mode: GSM850

Note: CH190

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2157	33.36	9.74	43.10	62.98	-19.88	peak	
2		0.4395	37.27	9.78	47.05	57.07	-10.02	peak	
3		0.4395	25.18	9.78	34.96	47.07	-12.11	AVG	
4		0.5180	36.09	9.79	45.88	56.00	-10.12	peak	
5		0.5180	22.93	9.79	32.72	46.00	-13.28	AVG	
6		1.2288	32.99	9.81	42.80	56.00	-13.20	peak	
7	*	2.6238	38.30	9.93	48.23	56.00	-7.77	peak	
8		2.6238	23.09	9.93	33.02	46.00	-12.98	AVG	
9		16.3500	29.88	10.25	40.13	60.00	-19.87	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700(2007-10-03) Data :#5 Date: 2007/10/3 Time: 上午10:58:37



Site site #1 Phase: *L1* Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

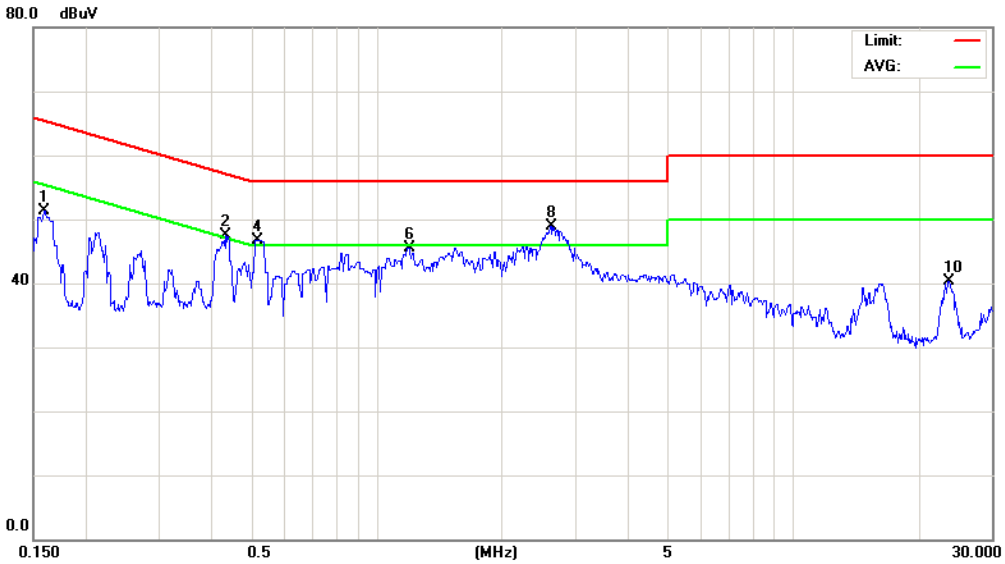
Mode: GSM850

Note: CH251

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2192	34.18	9.74	43.92	62.85	-18.93	peak	
2		0.4354	41.25	9.78	51.03	57.15	-6.12	peak	
3		0.4354	30.73	9.78	40.51	47.15	-6.64	AVG	
4		0.5180	39.63	9.79	49.42	56.00	-6.58	peak	
5		0.5180	29.72	9.79	39.51	46.00	-6.49	AVG	
6		1.2379	35.34	9.81	45.15	56.00	-10.85	peak	
7	*	2.6688	40.03	9.92	49.95	56.00	-6.05	peak	
8		2.6688	25.39	9.92	35.31	46.00	-10.69	AVG	
9		16.2000	31.59	10.25	41.84	60.00	-18.16	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700(2007-10-03) Data :#6 Date: 2007/10/3 Time: 上午11:17:26



Site site #1 Phase: *L2* Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

Mode: GSM850

Note: CH251

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1590	41.55	9.73	51.28	65.51	-14.23	peak	
2		0.4313	37.73	9.78	47.51	57.23	-9.72	peak	
3		0.4313	24.69	9.78	34.47	47.23	-12.76	AVG	
4		0.5180	37.01	9.79	46.80	56.00	-9.20	peak	
5		0.5180	23.72	9.79	33.51	46.00	-12.49	AVG	
6		1.1929	35.65	9.80	45.45	56.00	-10.55	peak	
7		1.1929	20.46	9.80	30.26	46.00	-15.74	AVG	
8	*	2.6149	38.97	9.93	48.90	56.00	-7.10	peak	
9		2.6149	21.83	9.93	31.76	46.00	-14.24	AVG	
10		23.5500	29.98	10.34	40.32	60.00	-19.68	peak	

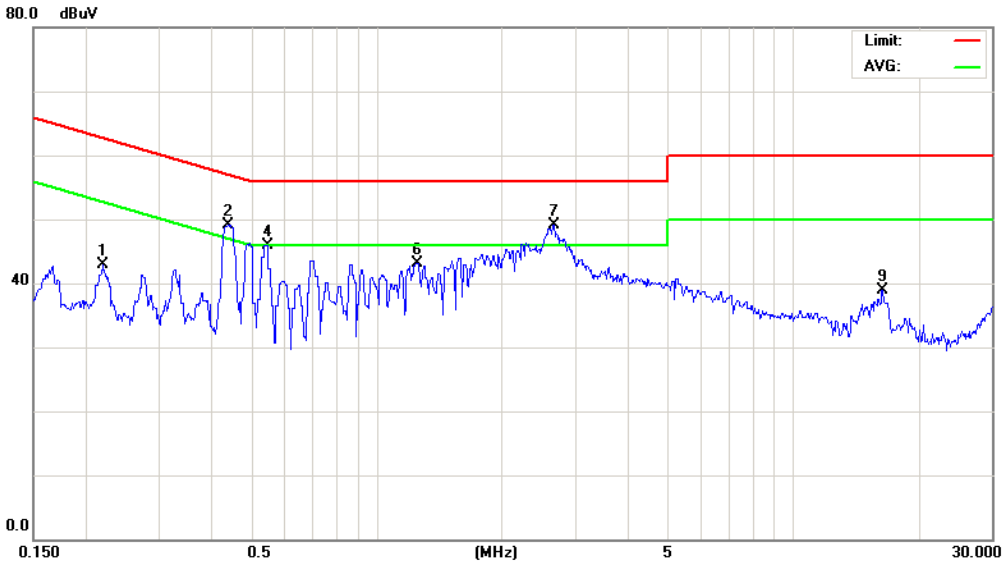
*:Maximum data x:Over limit !:over margin ●Reference Only

4.9.6.2 PCS 1900 Test Result

Applicant	: NINGBO BIRD CO., LTD
Model No	: Bird S700
EUT	: Dual Band GSM Mobile Phone
Test Mode	: PCS 1900
Test Date	: 10/03/2007

Please refer to next pager of detail testing data.

File :S700-Charger(2007-10-03) Data :#1 Date: 2007/10/3 Time: 下午 03:18:35



Site site #1 Phase: L1 Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

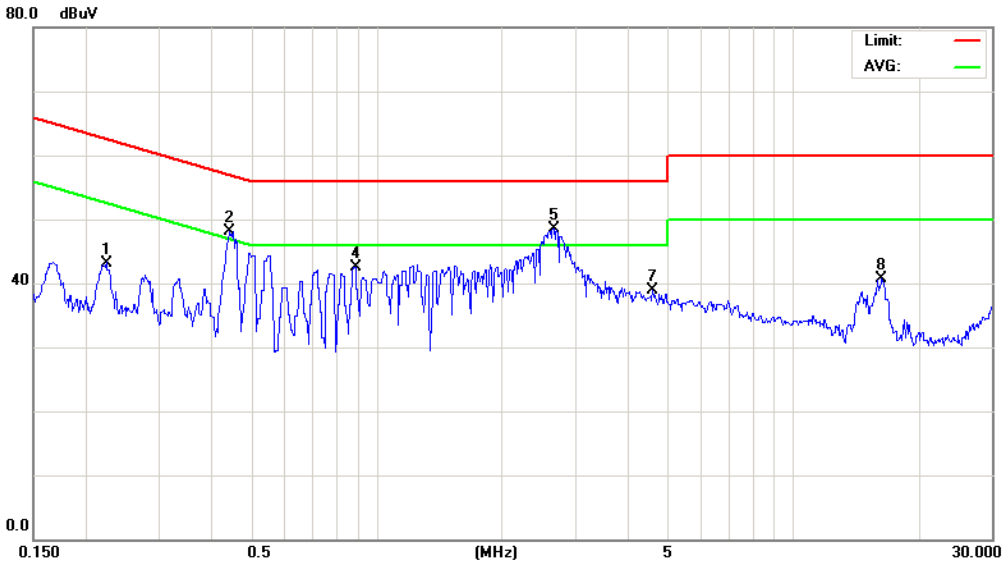
Mode: PCS1900

Note: Charger

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2192	33.21	9.74	42.95	62.85	-19.90	peak	
2		0.4383	39.34	9.78	49.12	57.09	-7.97	peak	
3	*	0.4383	33.16	9.78	42.94	47.09	-4.15	AVG	
4		0.5450	36.03	9.79	45.82	56.00	-10.18	peak	
5		0.5450	31.51	9.79	41.30	46.00	-4.70	AVG	
6		1.2464	33.24	9.81	43.05	56.00	-12.95	peak	
7		2.6509	39.16	9.93	49.09	56.00	-6.91	peak	
8		2.6509	26.37	9.93	36.30	46.00	-9.70	AVG	
9		16.3500	28.72	10.25	38.97	60.00	-21.03	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700-Charger(2007-10-03) Data :#2 Date: 2007/10/3 Time: 下午 03:38:07



Site site #1 Phase: *L2* Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

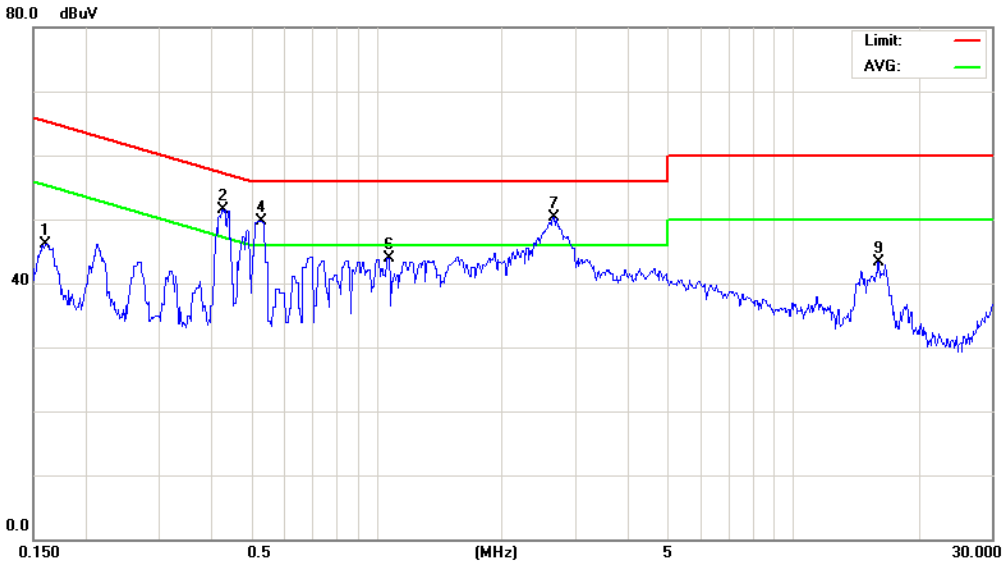
Mode: PCS1900

Note: Charger

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2235	33.46	9.74	43.20	62.68	-19.48	peak	
2		0.4430	38.36	9.78	48.14	57.00	-8.86	peak	
3		0.4430	27.38	9.78	37.16	47.00	-9.84	AVG	
4		0.8870	32.73	9.80	42.53	56.00	-13.47	peak	
5	*	2.6509	38.51	9.93	48.44	56.00	-7.56	peak	
6		2.6509	25.09	9.93	35.02	46.00	-10.98	AVG	
7		4.5948	28.82	10.02	38.84	56.00	-17.16	peak	
8		16.3000	30.50	10.25	40.75	60.00	-19.25	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700(2007-10-03) Data :#1 Date: 2007/10/3 Time: 下午 01:39:47



Site site #1 Phase: L1 Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

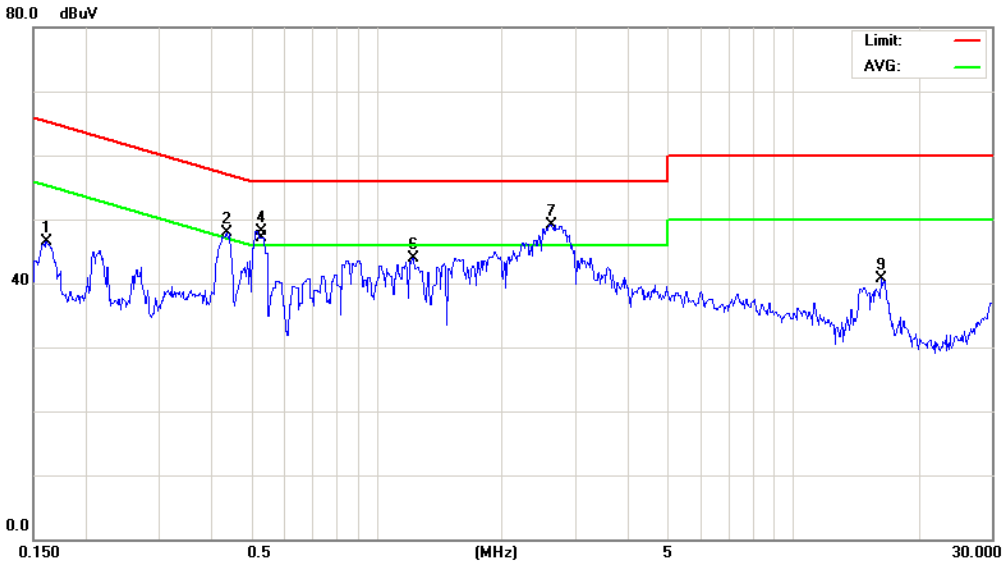
Mode: PCS-1900

Note: CH512

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1597	36.37	9.73	46.10	65.47	-19.37	peak	
2		0.4269	41.76	9.78	51.54	57.31	-5.77	peak	
3		0.4269	30.83	9.78	40.61	47.31	-6.70	AVG	
4		0.5270	39.85	9.79	49.64	56.00	-6.36	peak	
5		0.5270	29.62	9.79	39.41	46.00	-6.59	AVG	
6		1.0665	34.07	9.80	43.87	56.00	-12.13	peak	
7	*	2.6600	40.37	9.93	50.30	56.00	-5.70	peak	
8		2.6600	25.93	9.93	35.86	46.00	-10.14	AVG	
9		16.0000	33.02	10.25	43.27	60.00	-16.73	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700(2007-10-03) Data :#2 Date: 2007/10/3 Time: 下午 01:53:15



Site site #1 Phase: *L2* Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

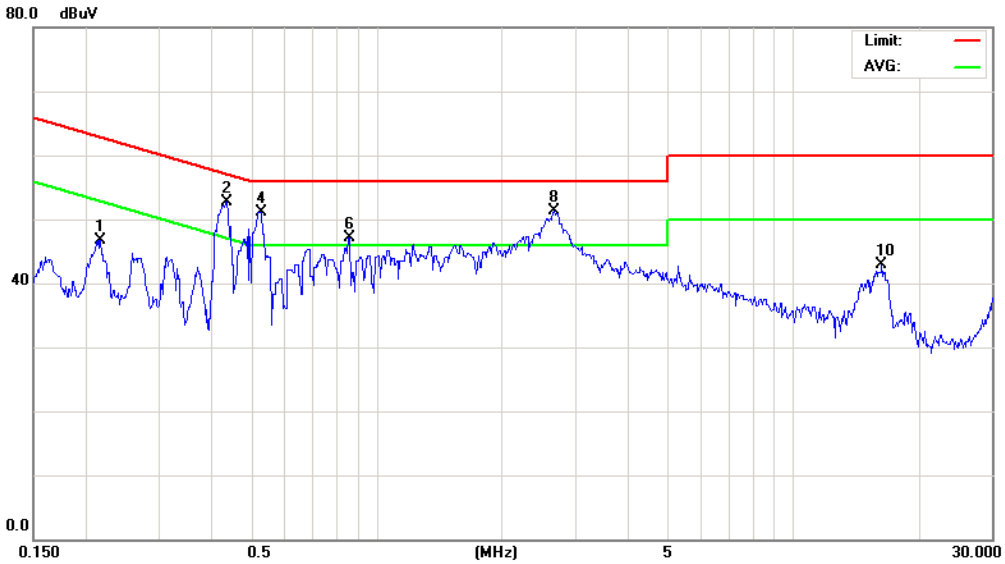
Mode: PCS-1900

Note: CH512

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1612	36.81	9.73	46.54	65.40	-18.86	peak	
2		0.4359	38.08	9.78	47.86	57.14	-9.28	peak	
3		0.4359	26.83	9.78	36.61	47.14	-10.53	AVG	
4		0.5270	38.28	9.79	48.07	56.00	-7.93	peak	
5		0.5270	23.97	9.79	33.76	46.00	-12.24	AVG	
6		1.2200	34.09	9.81	43.90	56.00	-12.10	peak	
7	*	2.6149	39.26	9.93	49.19	56.00	-6.81	peak	
8		2.6149	21.93	9.93	31.86	46.00	-14.14	AVG	
9		16.3000	30.53	10.25	40.78	60.00	-19.22	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700(2007-10-03) Data :#3 Date: 2007/10/3 Time: 下午 02:08:29



Site site #1 Phase: L1 Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

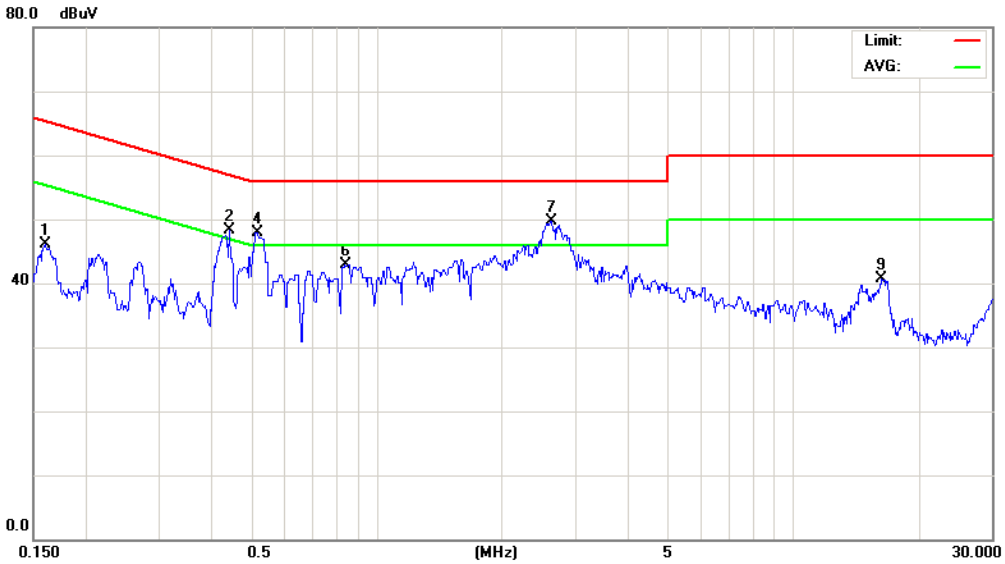
Mode: PCS-1900

Note: CH661

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2164	36.92	9.74	46.66	62.95	-16.29	peak	
2	*	0.4354	42.95	9.78	52.73	57.15	-4.42	peak	
3		0.4354	30.83	9.78	40.61	47.15	-6.54	AVG	
4		0.5270	41.41	9.79	51.20	56.00	-4.80	peak	
5		0.5270	29.32	9.79	39.11	46.00	-6.89	AVG	
6		0.8600	37.30	9.80	47.10	56.00	-8.90	peak	
7		0.8600	23.09	9.80	32.89	46.00	-13.11	AVG	
8		2.6600	41.33	9.93	51.26	56.00	-4.74	peak	
9		2.6600	26.89	9.93	36.82	46.00	-9.18	AVG	
10		16.3000	32.56	10.25	42.81	60.00	-17.19	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700(2007-10-03) Data :#4 Date: 2007/10/3 Time: 下午 02:24:48



Site site #1 Phase: *L2* Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

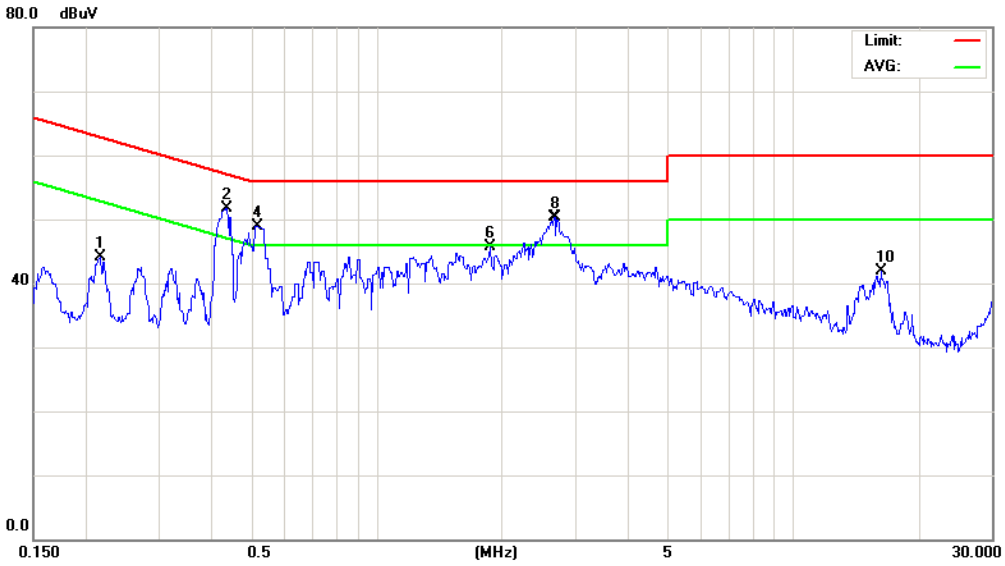
Mode: PCS-1900

Note: CH661

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1597	36.31	9.73	46.04	65.47	-19.43	peak	
2		0.4404	38.45	9.78	48.23	57.05	-8.82	peak	
3		0.4404	25.93	9.78	35.71	47.05	-11.34	AVG	
4		0.5180	38.17	9.79	47.96	56.00	-8.04	peak	
5		0.5180	23.76	9.79	33.55	46.00	-12.45	AVG	
6		0.8417	33.07	9.80	42.87	56.00	-13.13	peak	
7	*	2.6238	39.85	9.93	49.78	56.00	-6.22	peak	
8		2.6238	21.69	9.93	31.62	46.00	-14.38	AVG	
9		16.3000	30.40	10.25	40.65	60.00	-19.35	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700(2007-10-03) Data :#5 Date: 2007/10/3 Time: 下午 02:39:07



Site site #1 Phase: L1 Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

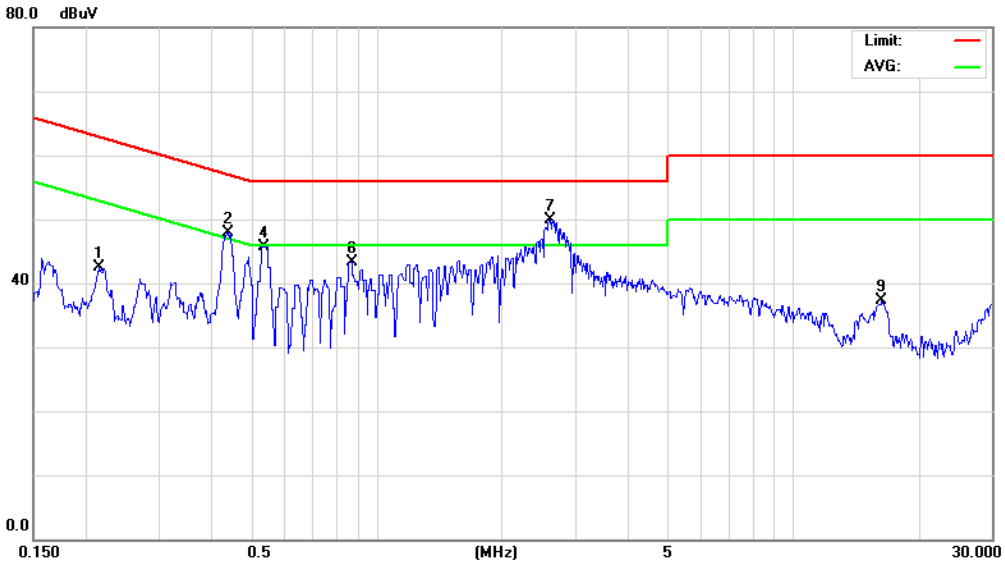
Mode: PCS-1900

Note: CH810

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2172	34.36	9.74	44.10	62.92	-18.82	peak	
2	*	0.4354	41.96	9.78	51.74	57.15	-5.41	peak	
3		0.4354	30.89	9.78	40.67	47.15	-6.48	AVG	
4		0.5180	39.10	9.79	48.89	56.00	-7.11	peak	
5		0.5180	29.83	9.79	39.62	46.00	-6.38	AVG	
6		1.8769	35.89	9.83	45.72	56.00	-10.28	peak	
7		1.8769	20.51	9.83	30.34	46.00	-15.66	AVG	
8		2.6688	40.38	9.92	50.30	56.00	-5.70	peak	
9		2.6688	25.73	9.92	35.65	46.00	-10.35	AVG	
10		16.2000	31.60	10.25	41.85	60.00	-18.15	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

File :S700(2007-10-03) Data :#6 Date: 2007/10/3 Time: 下午 02:57:13



Site site #1 Phase: L2 Temperature: 26 ℃

Limit: CISPR22 Class B Conduction(QP) Power: AC 110V/60Hz Humidity: 55 %

EUT: BIRD PHONE

M/N: S700

Mode: PCS-1900

Note: CH810

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2157	32.70	9.74	42.44	62.98	-20.54	peak	
2		0.4375	38.09	9.78	47.87	57.11	-9.24	peak	
3		0.4375	25.59	9.78	35.37	47.11	-11.74	AVG	
4		0.5360	35.90	9.79	45.69	56.00	-10.31	peak	
5		0.5360	24.17	9.79	33.96	46.00	-12.04	AVG	
6		0.8689	33.47	9.80	43.27	56.00	-12.73	peak	
7	*	2.5969	40.06	9.93	49.99	56.00	-6.01	peak	
8		2.5969	21.67	9.93	31.60	46.00	-14.40	AVG	
9		16.3000	27.02	10.25	37.27	60.00	-22.73	peak	

*:Maximum data x:Over limit !:over margin ●Reference Only

5. List of Measurement Equipments

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
Agilent	Spectrum analyzer	E4408B	MY45107753	May. 28, 2007	May. 28, 2008
R&S	Receiver	ESCI	100367	May. 23, 2007	May. 23, 2008
SCHWARZBECK	Trilog Broadband Antenna	VULB 9163	9163-270	Jun. 26, 2007	Jun. 26, 2008
SCHWARZBECK	Broadband Horn Antenna	BBHA 9120D	9120D-550	Jun. 26, 2007	Jun. 26, 2008
SCHWARZBECK	Broadband Horn Antenna	BBHA 9170	9170-320	Jun. 09, 2007	Jun. 09, 2008
Agilent	Amplifier	8447D	2944A10961	Jun. 09, 2007	Jun. 09, 2008
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	112387	Apr. 02, 2007	Apr. 02, 2008
Spectrum Analyzer	Agilent	E4445A	MY45300744	Nov. 01, 2006	Nov. 01, 2007
Loop Dipole	ETS-Lindgren	3127-1880	00052640	Jul. 02, 2007	Jul. 02, 2008
Loop Dipole	ETS-Lindgren	3127-836	00055272	Jun. 29, 2007	Jun. 29, 2008
Sleeve Dipole	ETS-Lindgren	3126-1845	00056670	Jun. 29, 2007	Jun. 29, 2008
Sleeve Dipole	ETS-Lindgren	3126-880	00052705	Jun. 29, 2007	Jun. 29, 2008
Anechoic Chamber	ETS-Lindgren	AMS 8500	S/N 102165	NA	
High Pass Filter	MICRO-TRONICS	HPM50108	020	NA	
High Pass Filter	MICRO-TRONICS	HPM50111	021	NA	
Circularly Polarized Communication Antennas	EMCO	3102	00051714	NA	
Pattern Measurement Software	ETS-Lindgren	EMQuest™ EMQ-100	NA	NA	
Desktop Computer with Windows XP		Dell Computers	NA	NA	
Antenna Positioner Controller	EMCO	2090	00052447	NA	
MAPS Positioner	EMCO	2010/2015	NA	NA	
Filter	K&L	5TNF-1700/ 2000-0.1N/N	166	NA	
Filter	K&L	3TNF-800/ 1000-0.2N/N	274	NA	
Attenuator	RADIALL	R41572000	0603033073	NA	
Splitter	Powercom	SGR-GFQ-2-D	41106609	NA	
Power divider	Agilent	87302C	3239A00760	NA	

6. Uncertainty Evaluation

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		$U(X_i)$	C_i	$C_i * U(X_i)$
	dB	Probability Distributio			
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 $\sqrt{1}$ = 0.197 Antenna VSWR $\sqrt{2}$ = 0.194 Uncertainty=20log(1-$\sqrt{1} * \sqrt{2} * \sqrt{3}$)	+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**				