

FCC 47 CFR PART 22H and 24E

Product Type : Smartphone
Applicant : HTC Corporation
Address : No. 23, Xinghua Rd., Taoyuan City, Taoyuan County
330, Taiwan
Trade Name : HTC
Model Number : PB76110
Test Specification : FCC 47 CFR PART 22H: Oct, 2009
FCC 47 CFR PART 24E: Oct, 2009
ANSI/TIA-603-2007
Issue Date : Mar. 31, 2010

Issue by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade City,
Taoyuan Country 334, Taiwan R.O.C.
Tel : +886-3-2710188 / Fax : +886-3-2710190



Taiwan Accreditation Foundation accreditation number: 1330

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Revision History

Rev.	Issue Date	Revisions	Revised By
00	Mar. 31, 2010	Initial Issue	

Verification

Issued Date: 2010/03/31

Product Type : Smartphone
Applicant : HTC Corporation
Address : No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330,
Taiwan
Trade Name : HTC
Model Number : PB76110
FCC ID : NM8PB76110
EUT Rated Voltage : DC 5.0V, 1.0A
Test Voltage : 120 Vac / 60 Hz
Applicable : FCC 47 CFR PART 22H: Oct, 2009
Standard : FCC 47 CFR PART 24E: Oct, 2009
ANSI/TIA-603-2007

Test Result : Complied

Performed Lab. : A Test Lab Techno Corp.

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Taoyuan Country 334, Taiwan R.O.C.


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<http://www.atl-lab.com.tw/e-index.htm>

The above equipment has been tested by A Test Lab Techno Corp., and found compliance with the requirements set forth in the Electromagnetic Compatibility Directive 2004/108/EC and technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved By : 
(Manager) (Miller Lee)

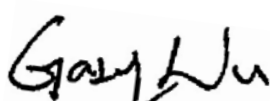
Reviewed By : 
(Testing Engineer) (Gary Wu)

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1 General Information

1.1. EUT Description

Applicant		HTC Corporation			
Applicant Address		No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan			
Manufacturer		HTC Corporation			
Manufacturer Address		No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan			
Product Type		Smartphone			
Trade Name		HTC			
Model Number		PB76110			
FCC ID		NM8PB76110			
Mode	GSM/GPRS/EGPRS	Band	UL Frequency (MHz)	DL Frequency (MHz)	Modulation
		850	824.2 ~ 848.8	869.2 ~ 893.8	GMSK/8PSK
	WCDMA/HSDPA/HSUPA	1900	1850.2 ~ 1909.8	1930.2 ~ 1989.8	GMSK/8PSK
		Band	UL Frequency (MHz)	DL Frequency (MHz)	Modulation
		II	1852.4 ~ 1907.6	1932.4 ~ 1987.6	QPSK
V	826.4 ~ 846.6	871.4 ~ 891.6	QPSK		
Channel Control		Auto			
Hardware version		V1.02			
Software version		XP x86			
Type of Antenna		PCB Antenan			
Antenna Gain (dBi)		GSM/GPRS/EGPRS 850: -0.99 dBi GSM/GPRS/EGPRS 1900: 1.63 dBi WCDMA/HSDPA/HSUPA Band II: 1.63 dBi WCDMA/HSDPA/HSUPA Band V: -1.21 dBi			
Max. RF Output power		GSM/GPRS 850: 33.30 dBm / 2.042 W, EGPRS 850: 26.90 dBm / 0.490 W GSM/GPRS 1900: 30.42 dBm / 1.102 W, EGPRS 1900: 26.00 dBm / 0.398 W WCDMA/HSDPA/HSUPA Band II: 26.00 dBm / 0.398 W WCDMA/HSDPA/HSUPA Band V: 27.00 dBm / 0.501 W			
Max. ERP/EIRP		GSM/GPRS 850: 30.32 dBm / 1.076 W, EGPRS 850: 29.62 dBm / 0.916 W GSM/GPRS 1900: 26.21 dBm / 0.418 W, EGPRS 1900: 27.41 dBm / 0.551 W WCDMA/HSDPA/HSUPA Band II: 27.64 dBm / 0.581 W WCDMA/HSDPA/HSUPA Band V: 23.53 dBm / 0.225 W			
Emission Designator		GSM/GPRS 850: 243KGXW, EGPRS 850: 236KG7W GSM/GPRS 1900: 246KGXW, EGPRS 1900: 246KG7W WCDMA/HSDPA/HSUPA Band II: 4M18F9W WCDMA/HSDPA/HSUPA Band V: 4M17F9W			

1.2. Mode of Operation

ATL has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: GSM 850 Link
Mode 2: GSM 1900 Link
Mode 3: WCDMA Band II Link
Mode 4: WCDMA Band V Link
Mode 5: EGPRS 850 Link
Mode 6: EGPRS 1900 Link

Note: Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

Tested System Details

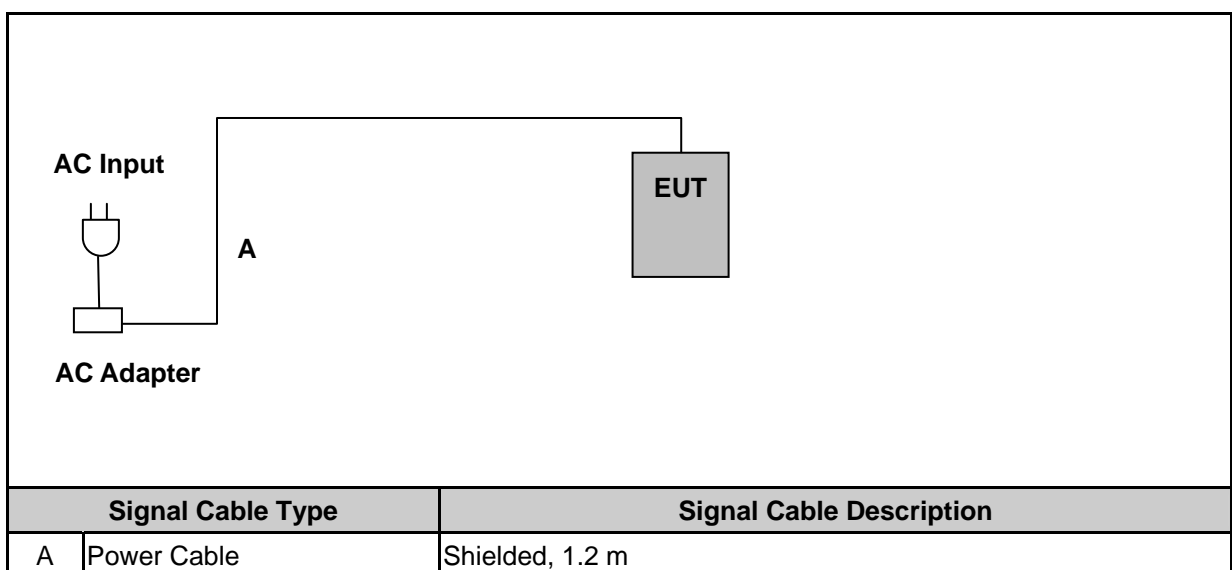
The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

	Product	Manufacturer	Model Number	Serial Number	Power Cord
1.	Universal Radio Communication Tester	R&S	CMU200	109369	N/A

1.3. EUT Exercise Software

1.	Setup the EUT and Base Station (CMU200) as shown on 1.4.
2.	Turn on the power of all equipment.

1.4. Configuration of Test System Details



1.5. Test Site Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	25
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950-1000

1.6. Summary of Test Result

Description	FCC Rule	IC Rule	Limit	Result
Conducted Output Power	§2.1046	N/A	N/A	Pass
Effective Radiated Power	§22.913(a)(2)	RSS-132(4.4) SRSP-503(5.1.3)	< 7 Watts for FCC (<6.3 Watts for IC)	Pass
Equivalent Isotropic Radiated Power	§24.232(c)	RSS-133 (6.4) SRSP-510(5.1.2)	< 2 Watts	Pass
Occupied Bandwidth	§2.1049 §22.917(a) §24.238(a)	N/A	N/A	Pass
Band Edge Measurement	§2.1051 §22.917(a) §24.238(a)	RSS-132 (4.5.1)RSS-133 (6.5.1)	< 43+10log ₁₀ (P[Watts])	Pass
Conducted Emission	§2.1051 §22.917(a) §24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1)	< 43+10log ₁₀ (P[Watts])	Pass
Field Strength of Spurious Radiation	§2.1053 §22.917(a) §24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1)	< 43+10log ₁₀ (P[Watts])	Pass
Frequency Stability for Temperature & Voltage	§2.1055 §22.355 §24.235	RSS-132(4.3) RSS-133(6.3)	< 2.5 ppm	Pass

2 RF Output Power Test

2.1. Limit

N/A

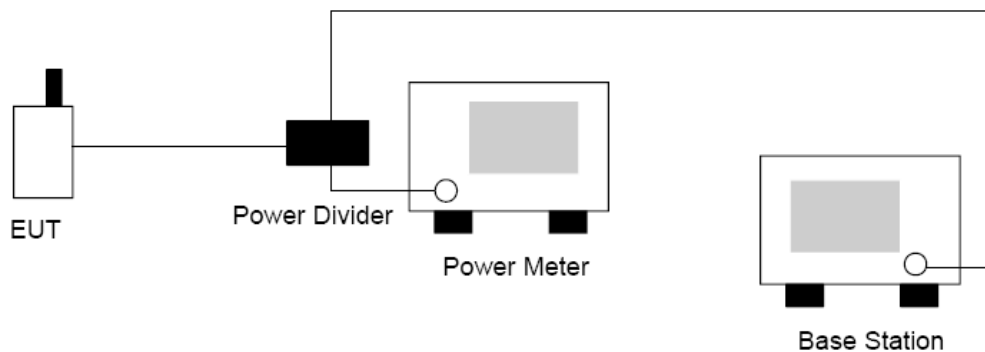
2.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
WIDE BAND SENSOR	ROHDE & SCHWARZ	NRP-Z81	100017	05/17/2009	(1)
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

2.3. Test Setup



2.4. Test Procedure

The measurement is made according to ANSI/TIA-603-C-2004 as follows:

1. The transmitter output was connected to power meter and base station through power divider.
2. Set base station for EUT at GSM 850: PCL=5 and PCS 1900: PCL=0.
3. Set base station for EUT at WCDMA Band V and WCDMA Band II, power level was set to maximum.
4. Select lowest, middle, and highest channels for each band.

2.5. Uncertainty

The measurement uncertainty is defined as for RF output power measurement is 1.2 dB.

2.6. Test Result

Product	Smartphone		
Test Item	RF Output Power		
Date of Test	03/20/2010	Test Site	TE02

Bands	Data Rate	Frequency (MHz)	Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)
GSM 850	-----	824.2	23.91	0.246	33.10	2.042
		836.4	24.01	0.252	33.20	2.089
		848.8	24.11	0.258	33.30	2.138
GRRS 850	4Down1Up	824.2	23.81	0.240	33.00	1.995
		836.4	23.91	0.246	33.10	2.042
		848.8	24.01	0.252	33.20	2.089
	2Doen3Up	824.2	28.43	0.697	32.90	1.950
		836.4	28.53	0.713	33.00	1.995
		848.8	28.63	0.729	33.10	2.042
EGPRS 850	4Down1Up	824.2	17.61	0.058	26.80	0.479
		836.4	17.71	0.059	26.90	0.490
		848.8	17.71	0.059	26.90	0.490
	2Doen3Up	824.2	21.83	0.152	26.30	0.427
		836.4	21.93	0.156	26.40	0.437
		848.8	21.93	0.156	26.40	0.437

Bands	Data Rate	Frequency (MHz)	Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)
GSM 1900	-----	1850.20	21.11	0.129	30.42	1.102
		1880.00	21.01	0.126	30.28	1.067
		1909.80	20.81	0.121	30.12	1.028
GRRS 1900	4Down1Up	1850.20	21.21	0.132	30.40	1.096
		1880.00	21.11	0.129	30.30	1.072
		1909.80	20.91	0.123	30.10	1.023
	1Doen4Up	1850.20	25.58	0.361	30.30	1.072
		1880.00	25.48	0.353	30.20	1.047
		1909.80	25.28	0.337	30.00	1.000
EGPRS 1900	4Down1Up	1850.20	16.81	0.048	26.00	0.398
		1880.00	16.71	0.047	25.90	0.389
		1909.80	16.51	0.045	25.70	0.372
	1Doen4Up	1850.20	22.28	0.169	25.50	0.355
		1880.00	22.08	0.161	25.30	0.339
		1909.80	21.98	0.158	25.20	0.331

Note: The peak power testing result was used peak detector.

Bands	Sub-test	Frequency (MHz)	Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)
WCDMA Band II	-----	1852.4	23.14	0.206	26.00	0.398
		1880.0	22.91	0.195	25.94	0.393
		1907.6	22.35	0.172	25.40	0.347
HSDPA Band II	1	1852.4	23.15	0.207	23.20	0.209
		1880.0	23.03	0.201	23.11	0.205
		1907.6	22.29	0.169	22.37	0.173
	2	1852.4	23.13	0.206	23.19	0.208
		1880.0	22.95	0.197	23.03	0.201
		1907.6	22.25	0.168	22.33	0.171
	3	1852.4	22.60	0.182	22.68	0.185
		1880.0	22.52	0.179	22.61	0.182
		1907.6	21.79	0.151	21.83	0.152
	4	1852.4	22.66	0.185	22.74	0.188
		1880.0	22.52	0.179	22.61	0.182
		1907.6	21.73	0.149	21.84	0.153
HSUPA Band II	1	1852.4	22.54	0.179	22.62	0.183
		1880.0	22.37	0.173	22.45	0.176
		1907.6	22.07	0.161	22.15	0.164
	2	1852.4	20.56	0.114	20.66	0.116
		1880.0	20.34	0.108	20.50	0.112
		1907.6	20.05	0.101	20.10	0.102
	3	1852.4	21.58	0.144	21.67	0.147
		1880.0	21.39	0.138	21.51	0.142
		1907.6	21.08	0.128	21.16	0.131
	4	1852.4	20.63	0.116	20.66	0.116
		1880.0	20.44	0.111	20.50	0.112
		1907.6	20.12	0.103	20.21	0.105
	5	1852.4	22.52	0.179	22.61	0.182
		1880.0	22.28	0.169	22.37	0.173
		1907.6	22.02	0.159	22.10	0.162

Note: The peak power testing result was used peak detector.

Bands	Sub-test	Frequency (MHz)	Average Power		Peak Power	
			(dBm)	(W)	(dBm)	(W)
WCDMA Band V	-----	826.4	23.50	0.224	27.00	0.501
		836.4	23.53	0.225	26.98	0.499
		846.4	23.16	0.207	26.73	0.471
HSDPA Band V	1	826.4	23.03	0.201	23.11	0.205
		836.4	23.30	0.214	23.38	0.218
		846.4	22.86	0.193	22.94	0.197
	2	826.4	22.97	0.198	23.03	0.201
		836.4	23.25	0.211	23.32	0.215
		846.4	22.82	0.191	22.90	0.195
	3	826.4	22.57	0.181	22.65	0.184
		836.4	22.77	0.189	22.85	0.193
		846.4	22.30	0.170	22.38	0.173
	4	826.4	22.49	0.177	22.55	0.180
		836.4	22.74	0.188	22.82	0.191
		846.4	22.30	0.170	22.38	0.173
HSUPA Band V	1	826.4	23.10	0.204	23.18	0.208
		836.4	22.90	0.195	22.98	0.199
		846.4	22.30	0.170	22.38	0.173
	2	826.4	21.01	0.126	21.16	0.131
		836.4	20.88	0.122	20.92	0.124
		846.4	20.31	0.107	20.40	0.110
	3	826.4	22.04	0.160	22.10	0.162
		836.4	21.90	0.155	21.98	0.158
		846.4	21.23	0.133	21.28	0.134
	4	826.4	21.12	0.129	21.20	0.132
		836.4	20.98	0.125	21.03	0.127
		846.4	20.36	0.109	20.44	0.111
	5	826.4	23.08	0.203	23.11	0.205
		836.4	22.83	0.192	22.91	0.195
		846.4	22.26	0.168	22.37	0.173

Note: The peak power testing result was used peak detector.

3 Effective Radiated Power / Equivalent Isotropic Radiated Power Test

3.1. Limit

For FCC Part 22.913(a)(2): The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

For FCC Part 24.232(b): The EIRP of mobile transmitters and auxiliary test transmitters must not exceed 2 Watts.

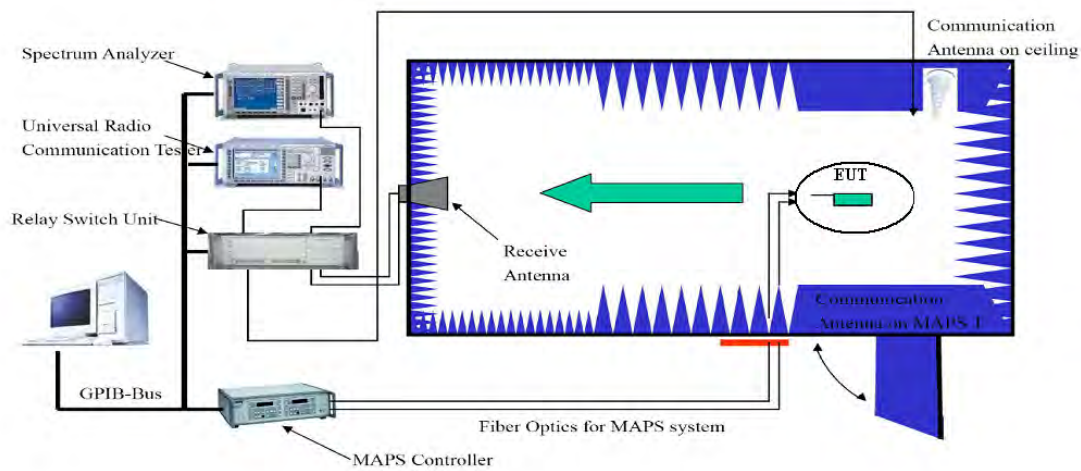
3.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/22/2008	(2)
Loop Dipole	ETS-Lindgren	3127-1880	00064239	02/05/2009	(2)
Loop Dipole	ETS-Lindgren	3127-836	00064352	02/19/2009	(2)
Sleeve Dipole	ETS-Lindgren	3126-1845	00083335	03/18/2009	(2)
Sleeve Dipole	ETS-Lindgren	3126-880	00052705	11/05/2009	(2)
Circularly Polarized Communication Antennas	EMCO	3102	00051714	NCR	-----
Antenna Positioner Controller	EMCO	2090	00052447	NCR	-----
MAPS Positioner	EMCO	2010/2015	NA	NCR	-----
Pattern Measurement Software	ETS-Lindgren	EMQuest™ EMQ-100	NA	NCR	-----
Desktop Computer with Windows XP	DELL	Dell Computers	NA	NCR	-----
Anechoic Chamber	ETS-Lindgren	AMS 8500	102165	NCR	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

3.3. Test Setup



3.4. 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.

Each individual data point in a radiated power or sensitivity measurement is referred to as the effective isotropic radiated power or effective isotropic sensitivity. That is, the desired information is how the measured quantity relates to the same quantity from an isotropic radiator. Thus, the reference measurement must relate the power received or transmitted at the EUT test equipment (spectrum analyzer or communication tester) back to the power transmitted or received at a theoretical isotropic radiator. The total path loss then, is just the difference in dB between the power transmitted or received at the isotropic radiator and that seen at the test equipment (see follow Figure 1).

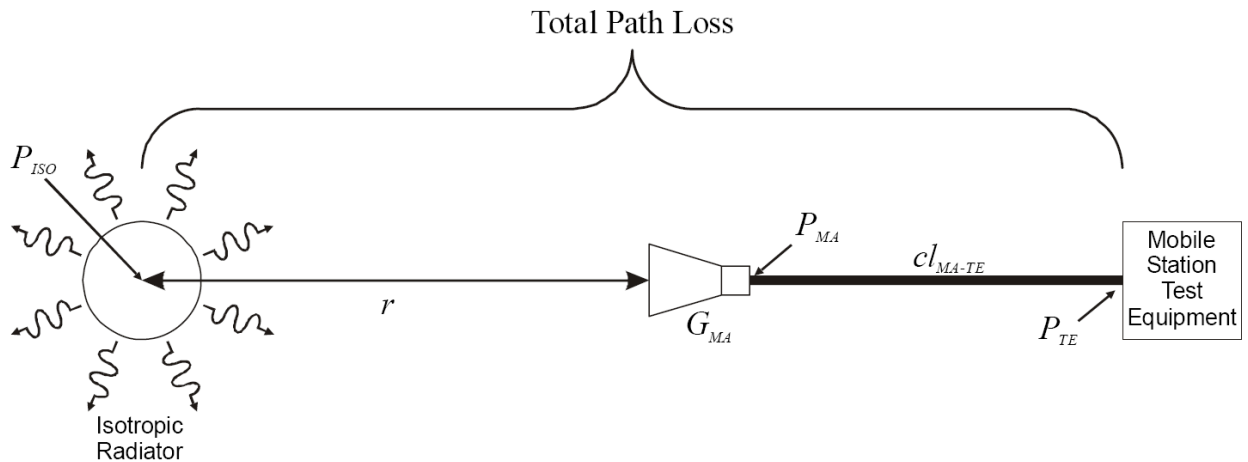


Figure 1. THEORETICAL CASE FOR DETERMINING PATH LOSS

In equation form, this becomes:

Equation 1

$$PL = P_{ISO} - P_{TE}$$

where PL is the total path loss, P_{ISO} is the power radiated by the theoretical isotropic radiator, and P_{TE} is the power received at the test equipment port. As can be seen in Figure 1, this quantity includes the range path loss due to the range length r , the gain of the measurement antenna, and any loss terms associated with the cabling, connections, amplifiers, splitters, etc. between the measurement antenna and the test equipment port.

Figure 2 shows a typical real world configuration for measuring the path loss. In this case, a reference antenna with known gain is used in place of the theoretical isotropic source. The path loss may then be determined from the power into the reference antenna by adding the gain of the reference antenna.

That is:

Equation 2

$$P_{ISO} = P_{RA} + G_{RA}$$

where P_{RA} is the power radiated by reference antenna, and G_{RA} is the gain of the reference antenna, so that:

Equation 3

$$PL = P_{RA} + G_{RA} - P_{TE}$$

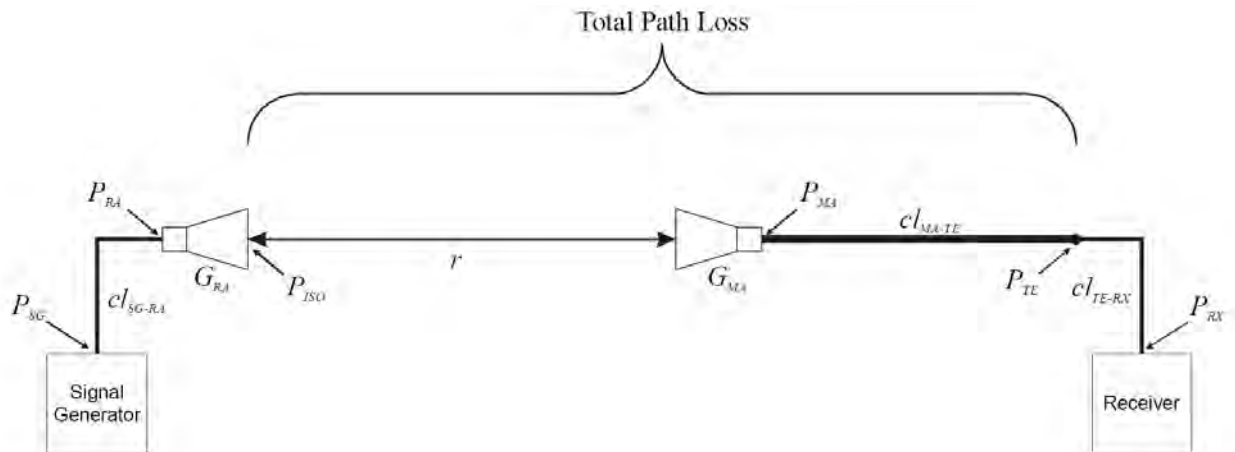


Figure 2. TYPICAL CONFIGURATION FOR MEASURING PATH LOSS

In order to determine P_{RA} , it is necessary to perform a cable reference measurement to remove the effects of the cable loss between signal generator and reference antenna, and between the test equipment port and the receiver. This establishes a reference point at the input to the reference antenna. Figure 3 illustrates the cable reference measurement configuration. Assuming the power level at the signal generator is fixed, it is easy to show that the difference between P_{RA} and P_{TE} in Figure 2 is given by:

Equation 4

$$P_{RA} - P_{TE} = P_{RX}' - P_{RX}$$

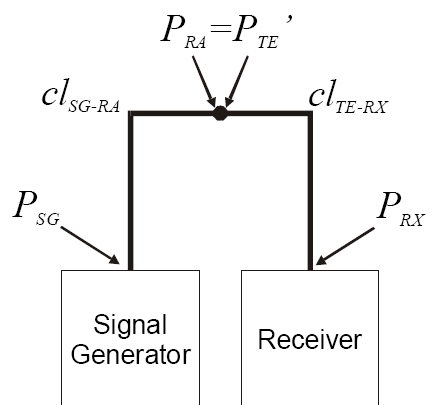


Figure 3. CABLE REFERENCE CALIBRATION CONFIGURATION

Where P_{RX} is the power measured at the receiver during the cable reference test, and P_{RX} is the power measured at the receiver during the range path loss measurement in Figure 2. Thus, the path loss is then just given by:

Equation 5

$$PL = G_{RA} + P_{RX} - P_{RX}$$

$$EIRP = P_t + P_L$$

P_t = Often referred to as antenna output power

3.5. Uncertainty

The measurement uncertainty is defined as for Radiated Power measurement list below:

Band	Uncertainty
Cell	1.08 dB
PCS	1.42 dB
GPRS	1.44 dB

3.6. Test Result

Product	Smartphone		
Test Item	ERP/EIRP		
Date of Test	03/27/2010	Test Site	TC03

Bands	Frequency (MHz)	Read Level (dBm)	Correction factor (dBm)	ERP		Limit
				(dBm)	(W)	
GSM 850	824.2	78.16	-49.50	28.66	0.734	< 7W
	836.4	79.63	-49.70	29.93	0.984	< 7W
	848.8	80.02	-49.70	30.32	1.076	< 7W
EGPRS 850	824.2	78.87	-49.50	29.37	0.865	< 7W
	836.4	79.32	-49.70	29.62	0.916	< 7W
	848.8	78.84	-49.70	29.14	0.820	< 7W

Bands	Frequency (MHz)	Read Level (dBm)	Correction factor (dBm)	EIRP		Limit
				(dBm)	(W)	
GSM 1900	1850.20	80.52	-55.40	25.12	0.325	< 2W
	1880.00	81.43	-55.60	25.83	0.383	< 2W
	1909.80	81.91	-55.70	26.21	0.418	< 2W
EGPRS 1900	1850.20	82.46	-55.40	27.06	0.508	< 2W
	1880.00	83.01	-55.60	27.41	0.551	< 2W
	1909.80	82.71	-55.70	27.01	0.502	< 2W

Bands	Frequency (MHz)	Read Level (dBm)	Correction factor (dBm)	EIRP		Limit
				(dBm)	(W)	
WCDMA Band II	1852.4	82.92	-55.40	27.52	0.565	< 2W
	1880.0	83.24	-55.60	27.64	0.581	< 2W
	1907.6	82.78	-55.70	27.08	0.511	< 2W

Bands	Frequency (MHz)	Read Level (dBm)	Correction factor (dBm)	ERP		Limit
				(dBm)	(W)	
WCDMA Band V	826.4	72.57	-49.50	23.07	0.203	< 7W
	836.4	73.23	-49.70	23.53	0.225	< 7W
	846.4	73.15	-49.70	23.45	0.221	< 7W

Note: 1. ERP/EIRP = Read Level + Correction factor.

2. For WCDMA signals, a peak detector is used with RBW = VBW = 5MHz.

3. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW= 1 MHz.

4 Occupied Bandwidth Test

4.1. Limit

The Occupied Bandwidth Limit:

N/A.

The Band Edge Limit:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10\log(P)$ dB.

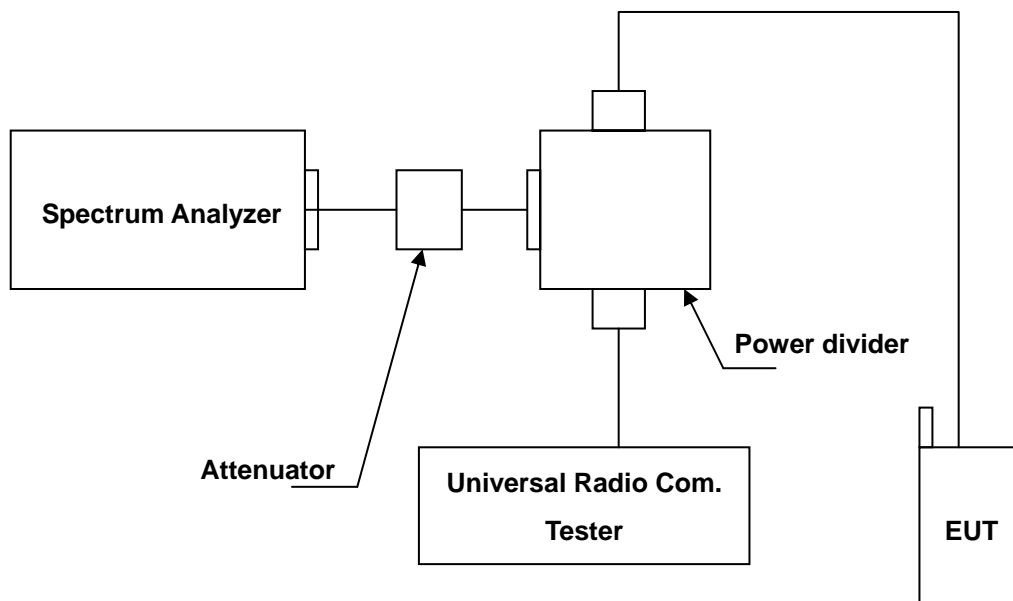
4.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/14/2009	(2)
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Attenuator	RADIALL	R41572000	0603033073	N.C.R.	-----
Power divider	Agilent	87302C	3239A00760	N.C.R.	-----
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

4.3. Setup



4.4. Test Procedure

The measurement is made according to FCC rules part 22 and 24:

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:
 - a. RB=3 kHz; VB=3 kHz for GSM 850 and PCS 1900.
 - b. RB=100 kHz; VB=100 kHz for WCDMA Band V and WCDMA Band II.

4.5. Uncertainty

The measurement uncertainty is defined as $\pm 10\text{Hz}$

4.6. Test Result

99% Occupied Bandwidth

Product	Smartphone		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: GSM 850 Link		
Date of Test	03/25/2010	Test Site	TE02

Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
128	824.2	243.6070	RBW:3KHz , VBW:10KHz
190	836.4	242.1886	RBW:3KHz , VBW:10KHz
251	848.8	243.4492	RBW:3KHz , VBW:10KHz

Figure Channel 128

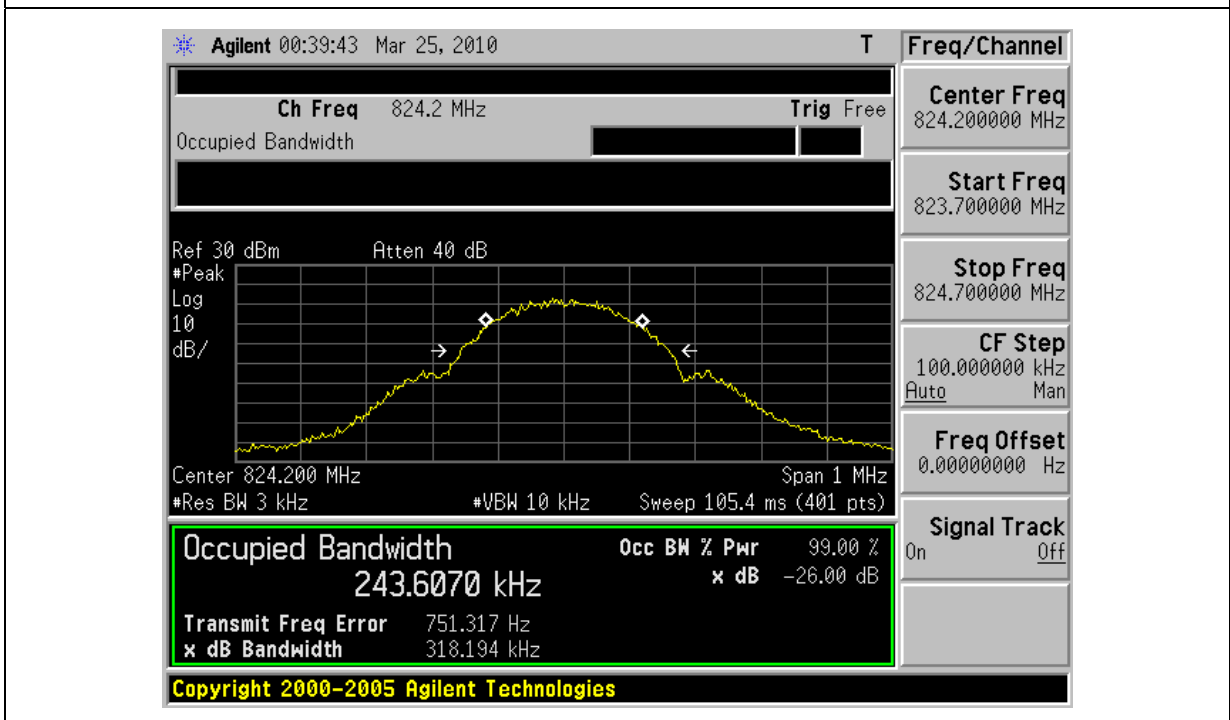


Figure Channel 190

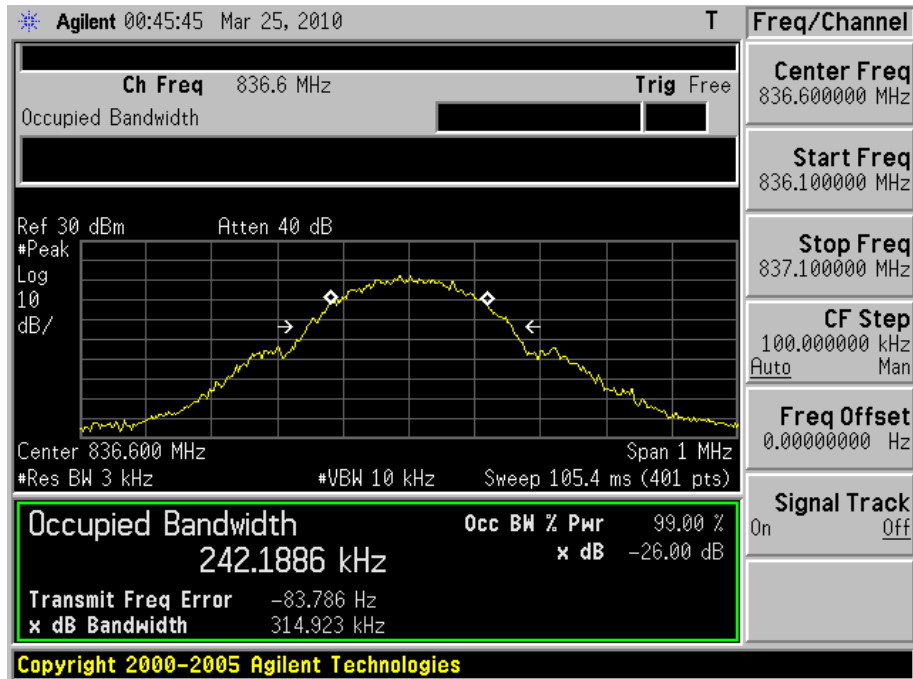
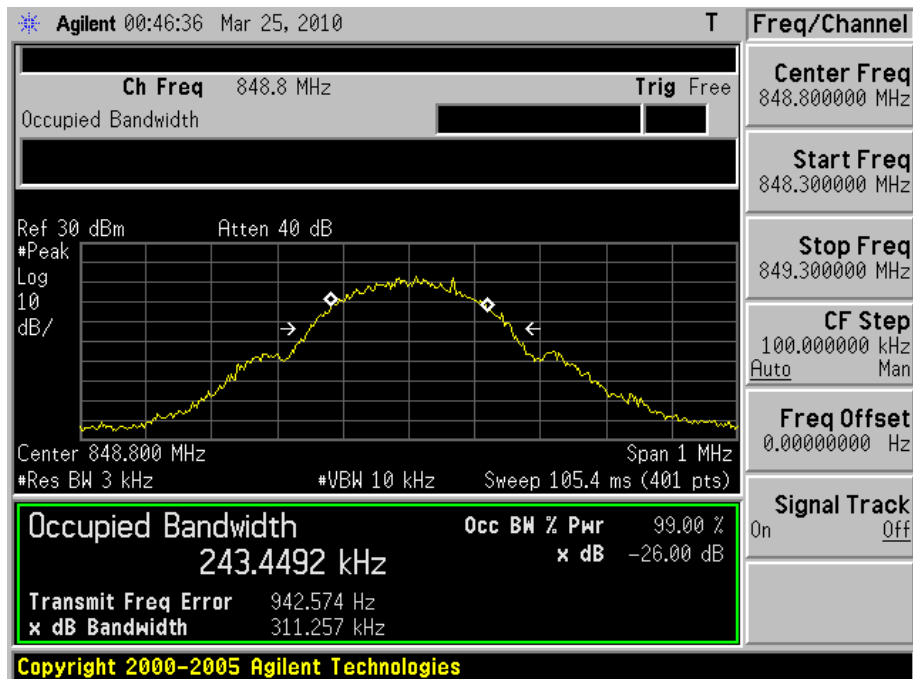


Figure Channel 251



Product	Smartphone		
Test Item	Occupied Bandwidth		
Test Mode	Mode 2: GSM 1900 Link		
Date of Test	03/25/2010	Test Site	TE02

Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
512	1850.20	242.8190	RBW:3KHz , VBW:10KHz
661	1880.00	244.0929	RBW:3KHz , VBW:10KHz
810	1909.80	246.3908	RBW:3KHz , VBW:10KHz

Figure Channel 512

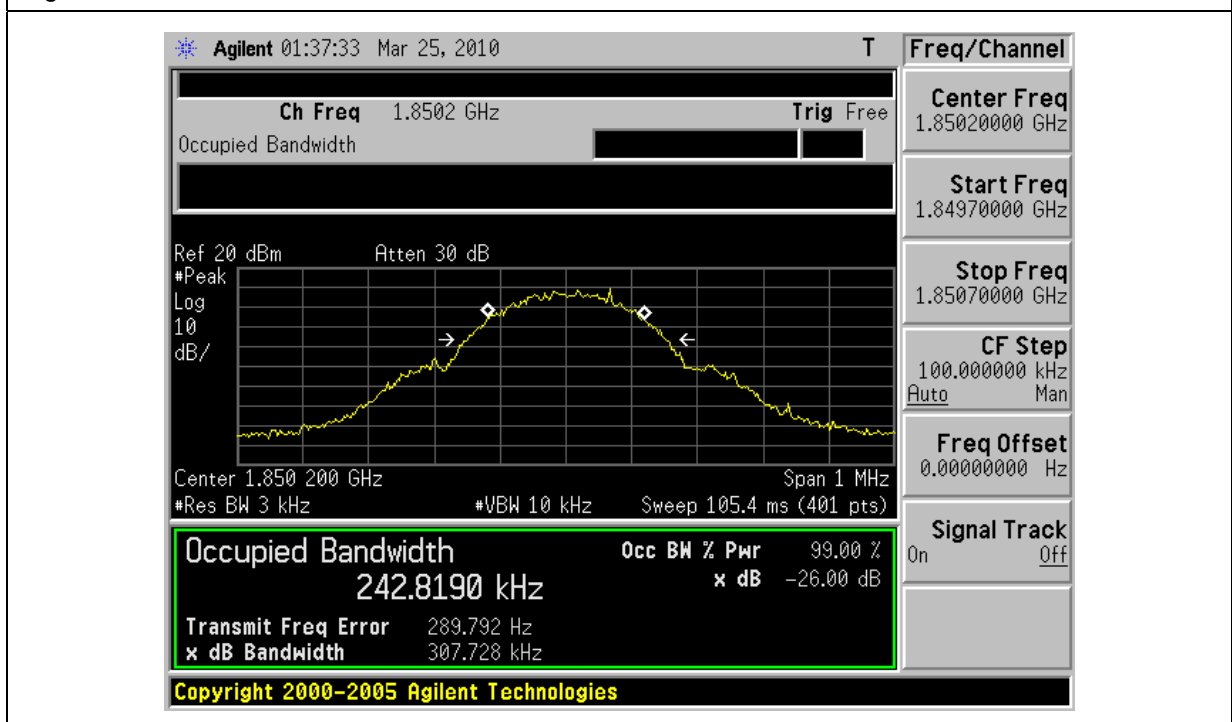


Figure Channel 661

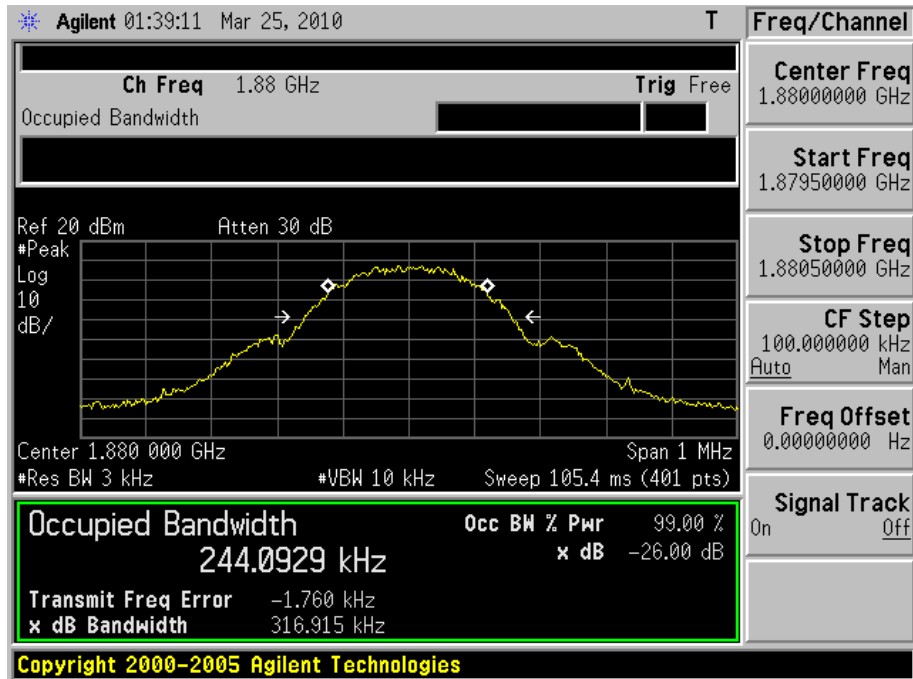
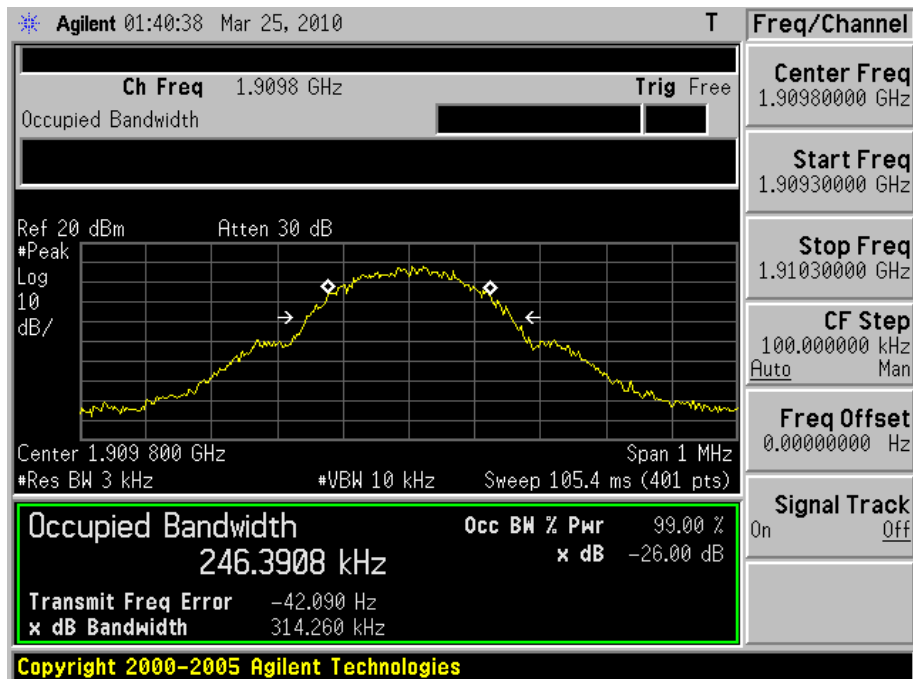


Figure Channel 810



Product	Smartphone		
Test Item	Occupied Bandwidth		
Test Mode	Mode 3: WCDMA Band II Link		
Date of Test	03/25/2010	Test Site	TE02

Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
9262	1852.4	4172.7	RBW:30KHz , VBW:300KHz
9400	1880.0	4177.5	RBW:30KHz , VBW:300KHz
9538	1907.6	4182.9	RBW:30KHz , VBW:300KHz

Figure Channel 9262

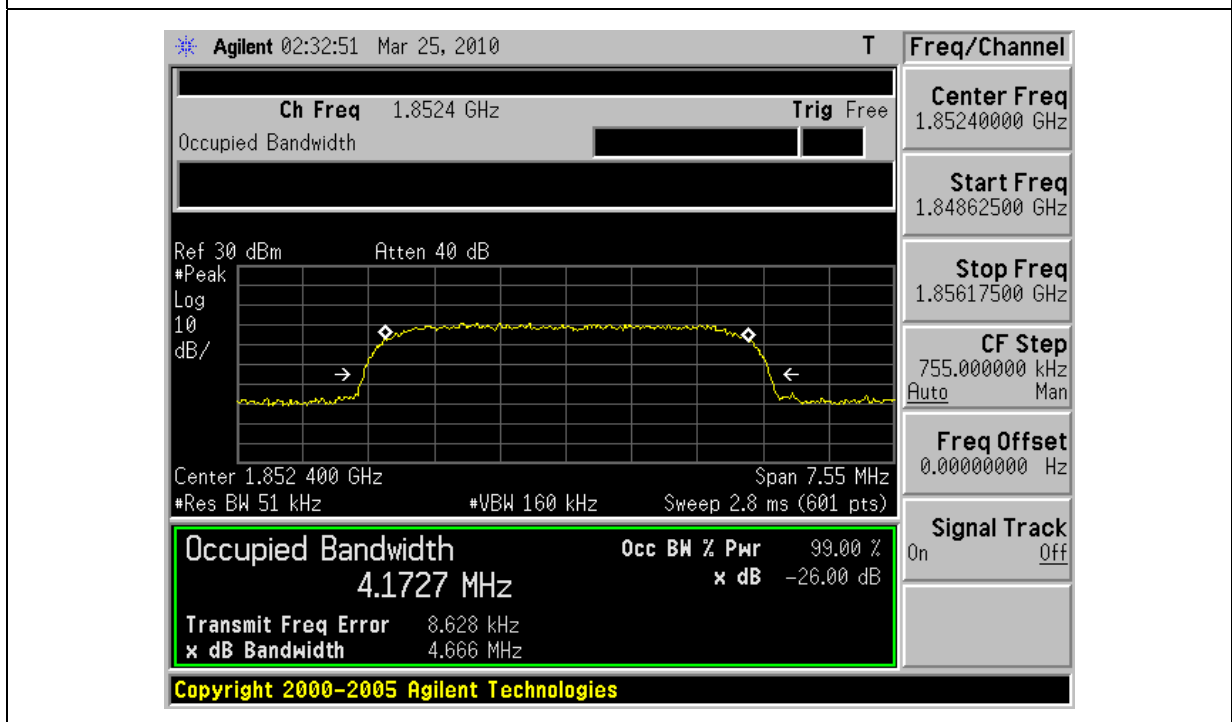


Figure Channel 9400

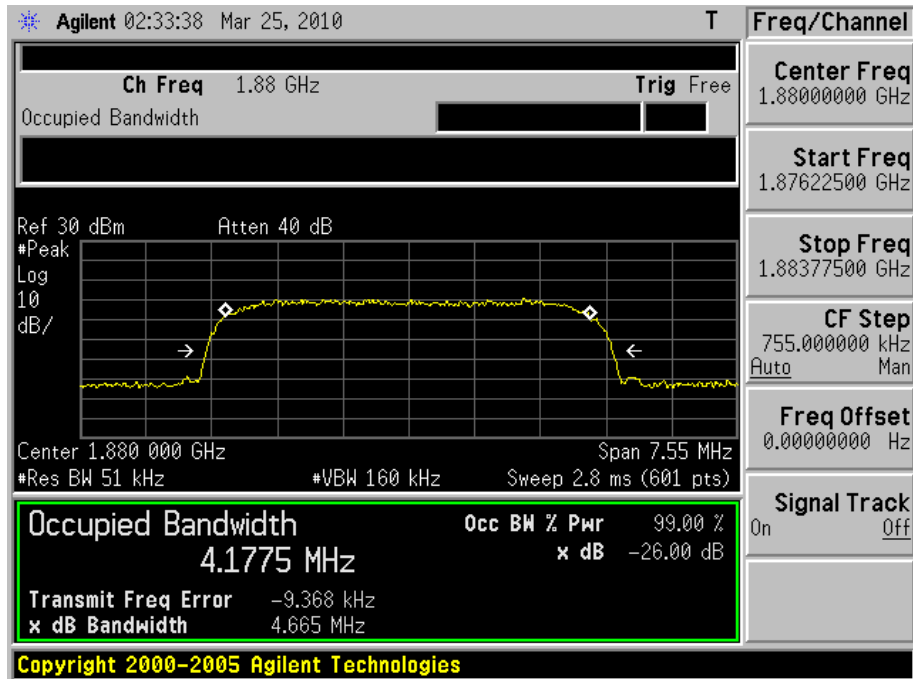
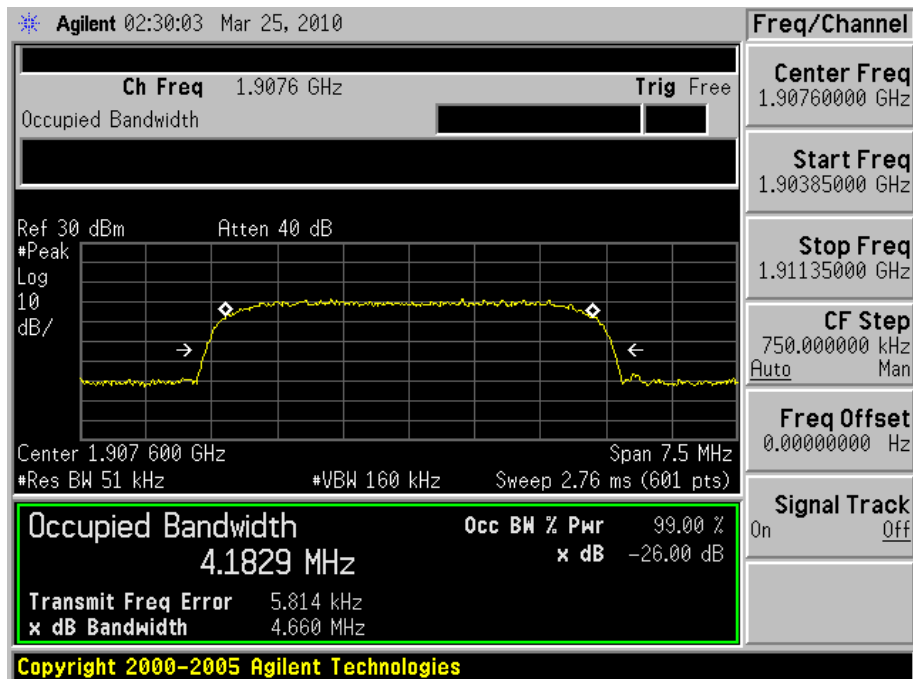


Figure Channel 9538



Product	Smartphone		
Test Item	Occupied Bandwidth		
Test Mode	Mode 4: WCDMA Band V Link		
Date of Test	03/25/2010	Test Site	TE02

Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
4132	826.4	4176.4	RBW:30KHz , VBW:300KHz
4182	836.4	4178.7	RBW:30KHz , VBW:300KHz
4233	846.4	4172.5	RBW:30KHz , VBW:300KHz

Figure Channel 4132

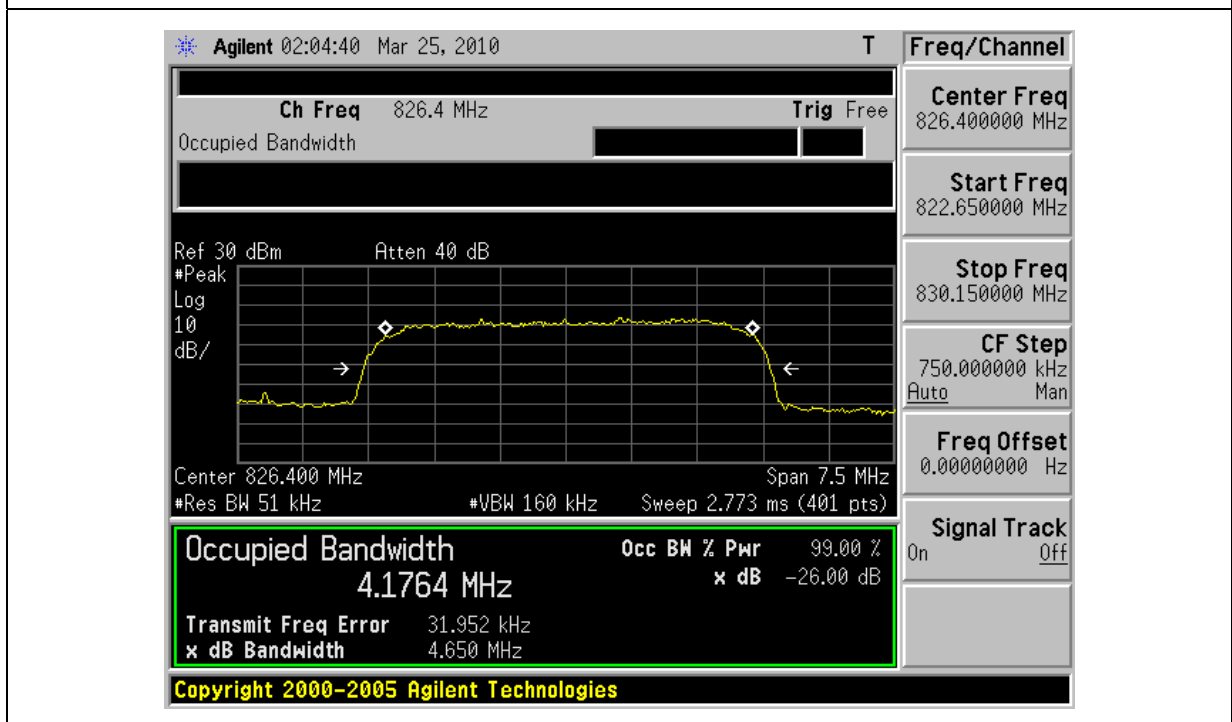


Figure Channel 4182

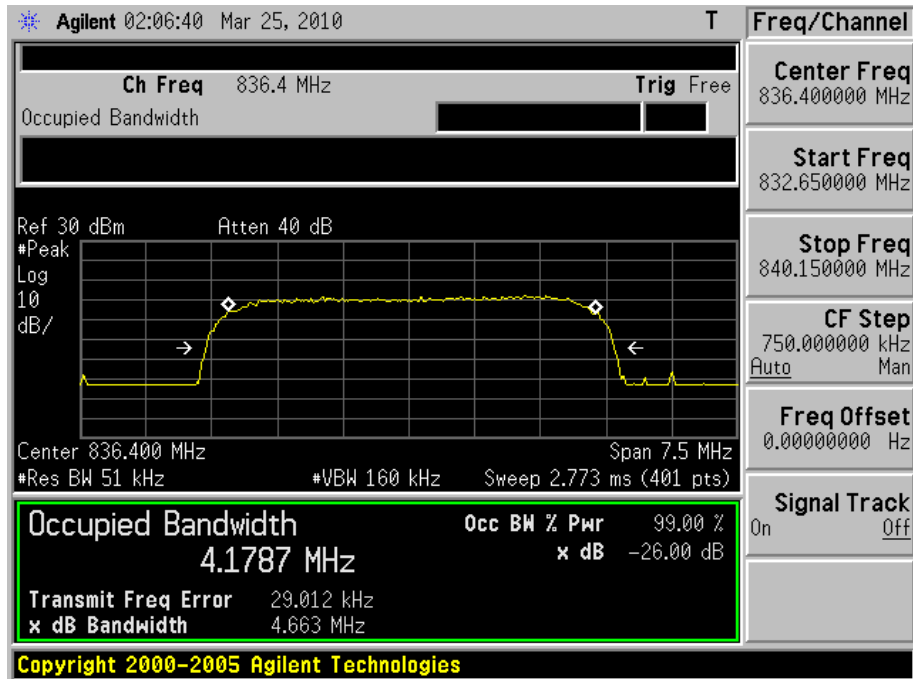
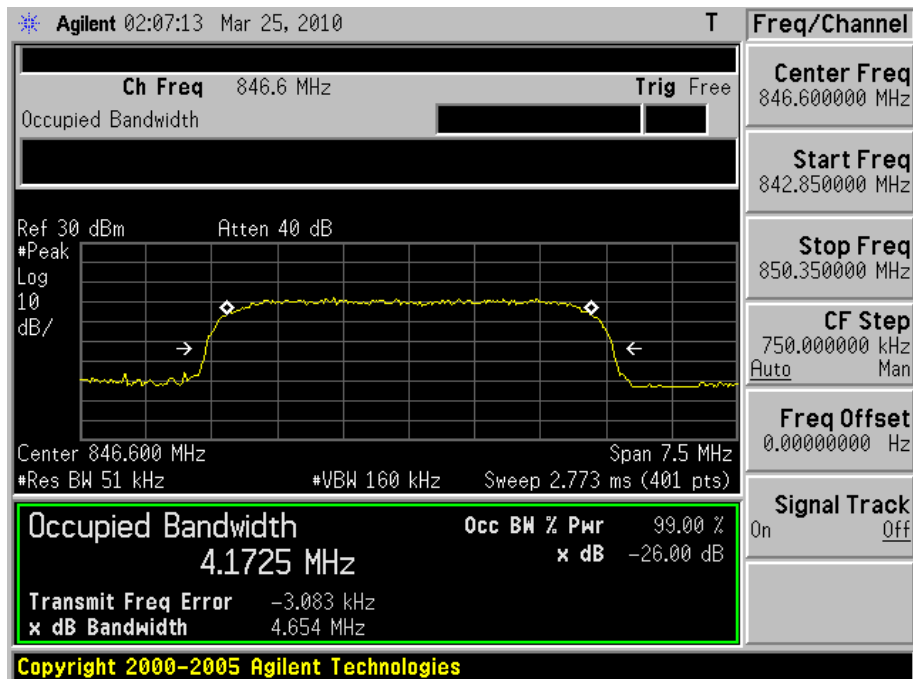


Figure Channel 4233



Product	Smartphone		
Test Item	Occupied Bandwidth		
Test Mode	Mode 5: EGPRS 850 Link		
Date of Test	03/25/2010	Test Site	TE02

Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
128	824.2	236.1801	RBW:3KHz , VBW:10KHz
190	836.4	235.8717	RBW:3KHz , VBW:10KHz
251	848.8	236.1675	RBW:3KHz , VBW:10KHz

Figure Channel 128

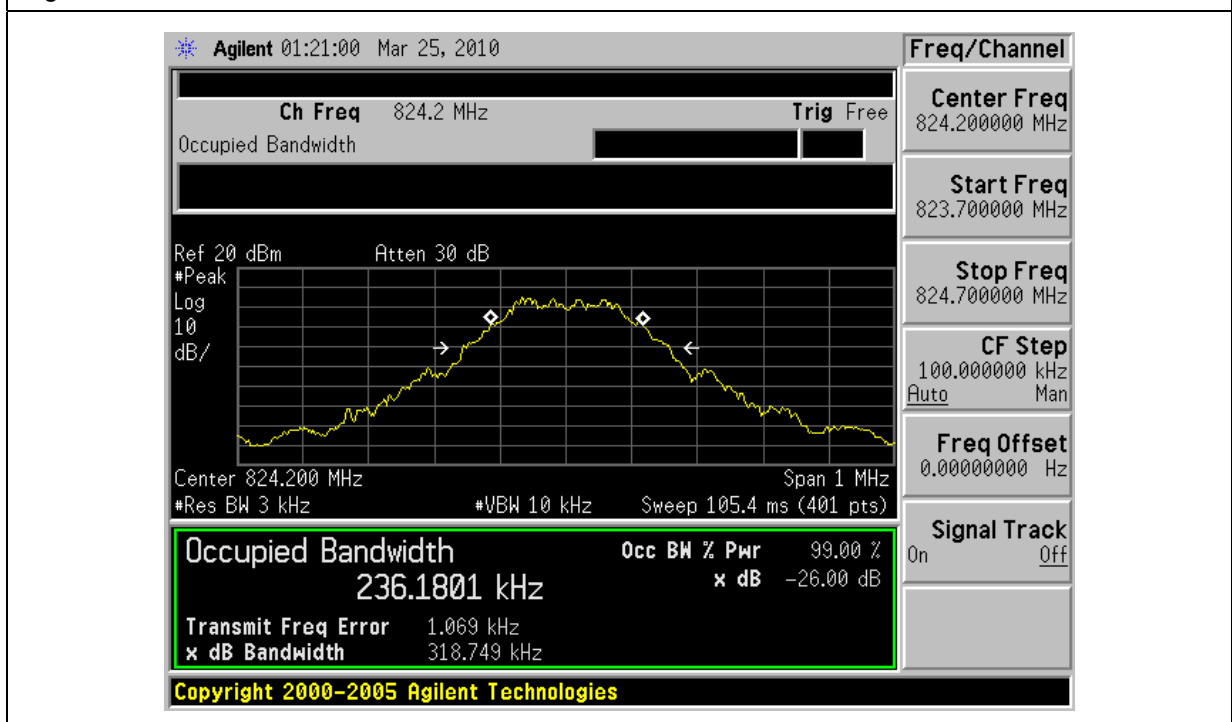


Figure Channel 190

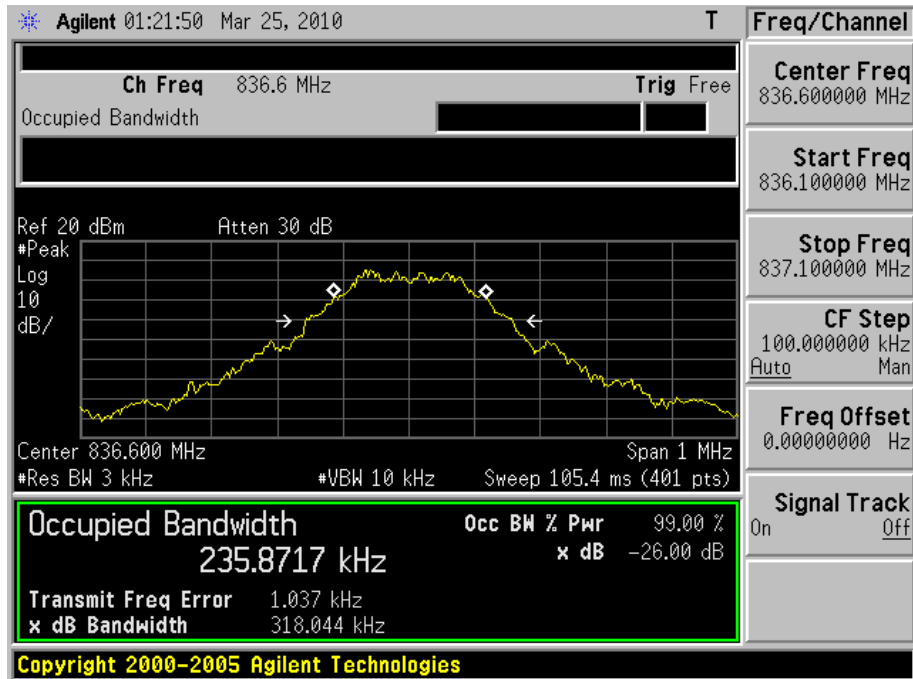
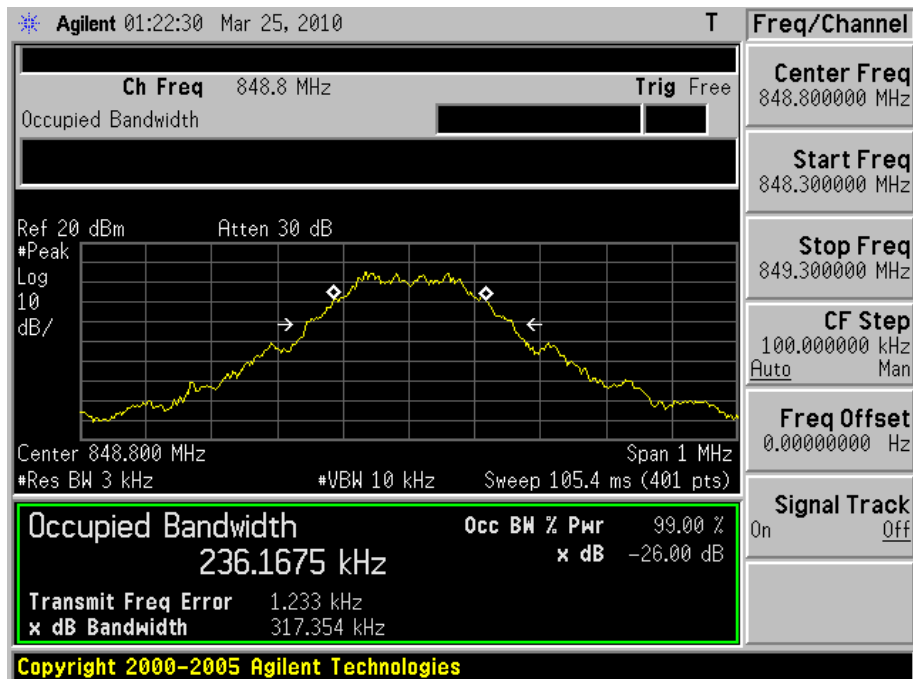


Figure Channel 251



Product	Smartphone		
Test Item	Occupied Bandwidth		
Test Mode	Mode 6: EGPRS 1900 Link		
Date of Test	03/25/2010	Test Site	TE02

Channel No.	Frequency (MHz)	99% Bandwidth (kHz)	Note
512	1850.20	246.1900	RBW:3KHz , VBW:10KHz
661	1880.00	242.5249	RBW:3KHz , VBW:10KHz
810	1909.80	236.3567	RBW:3KHz , VBW:10KHz

Figure Channel 512

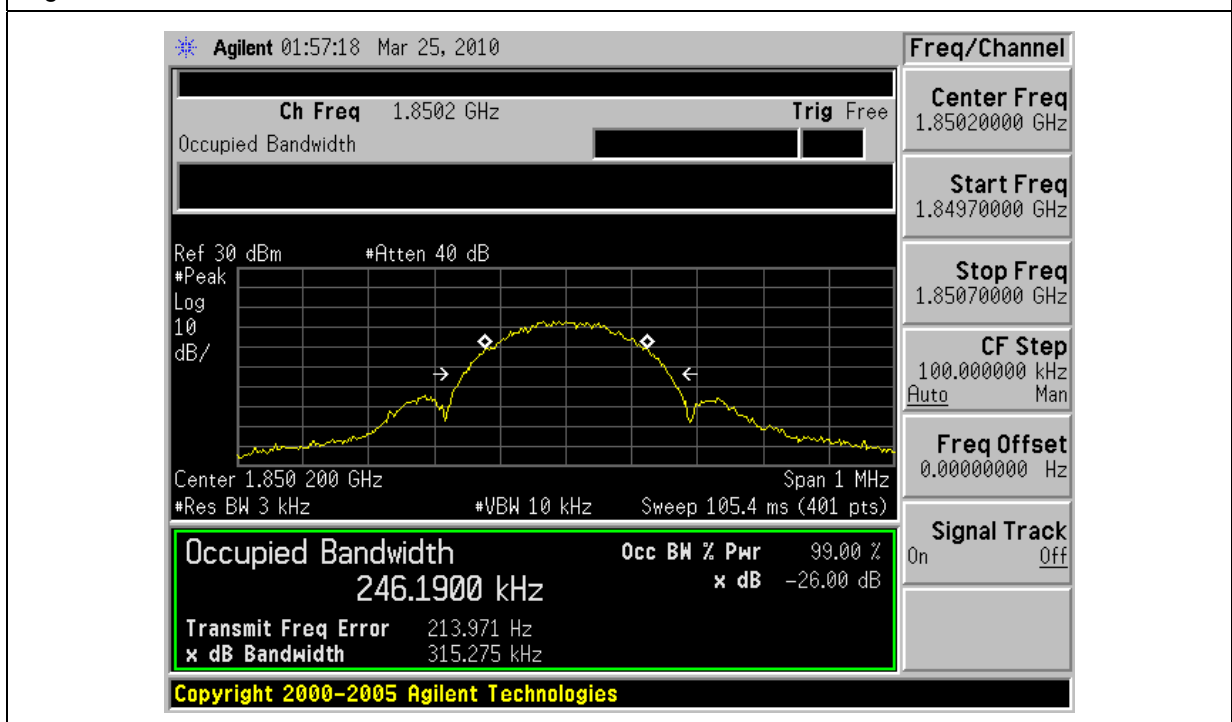


Figure Channel 661

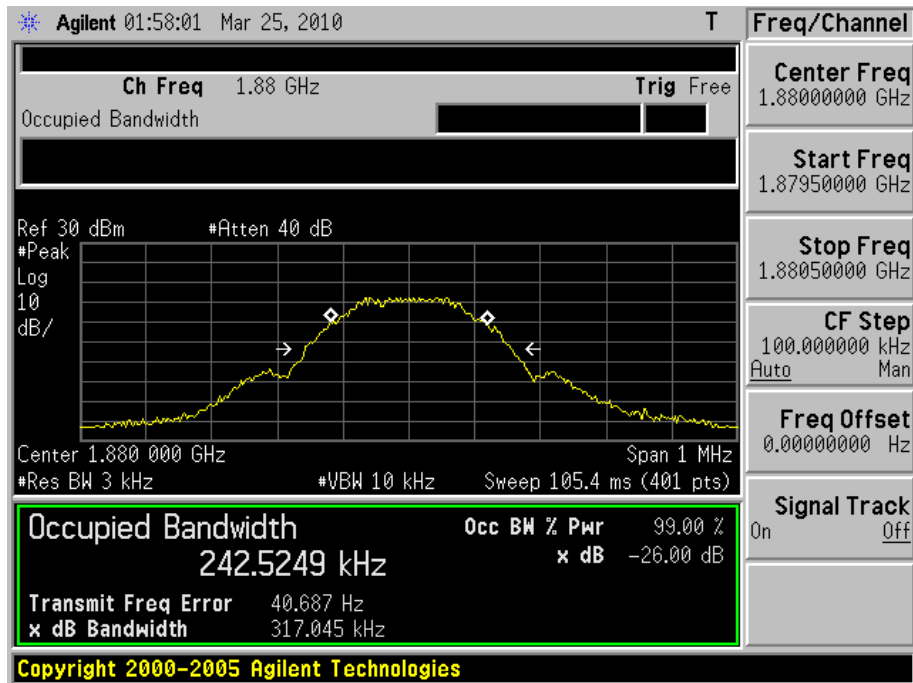
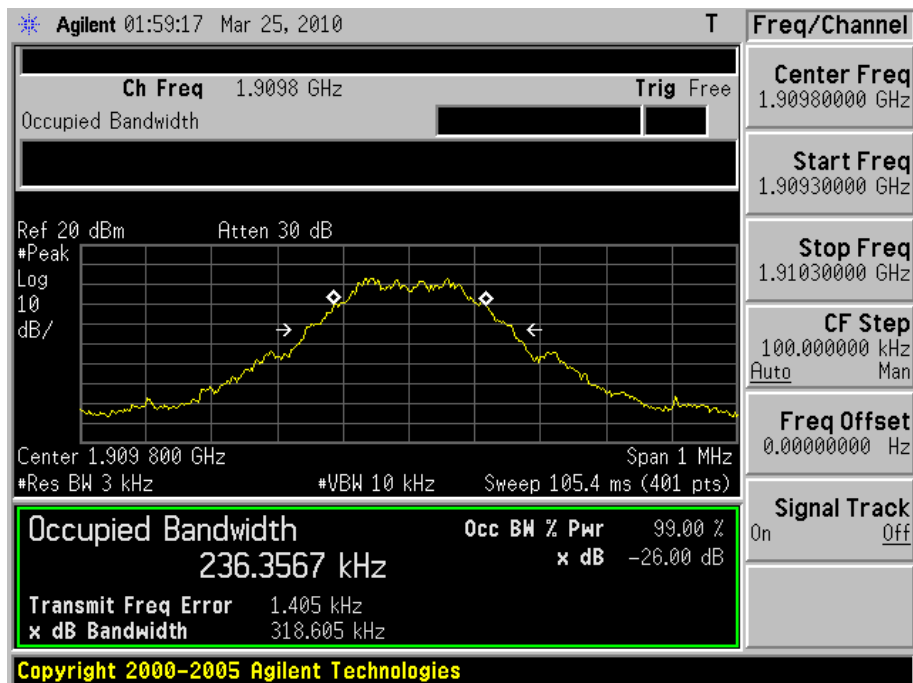


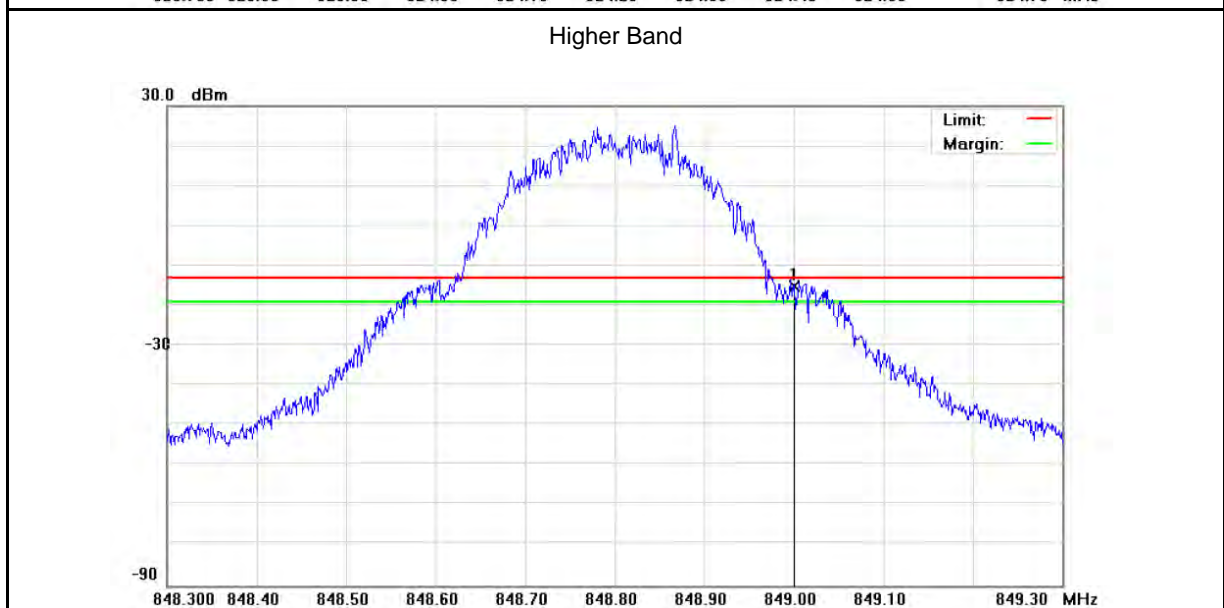
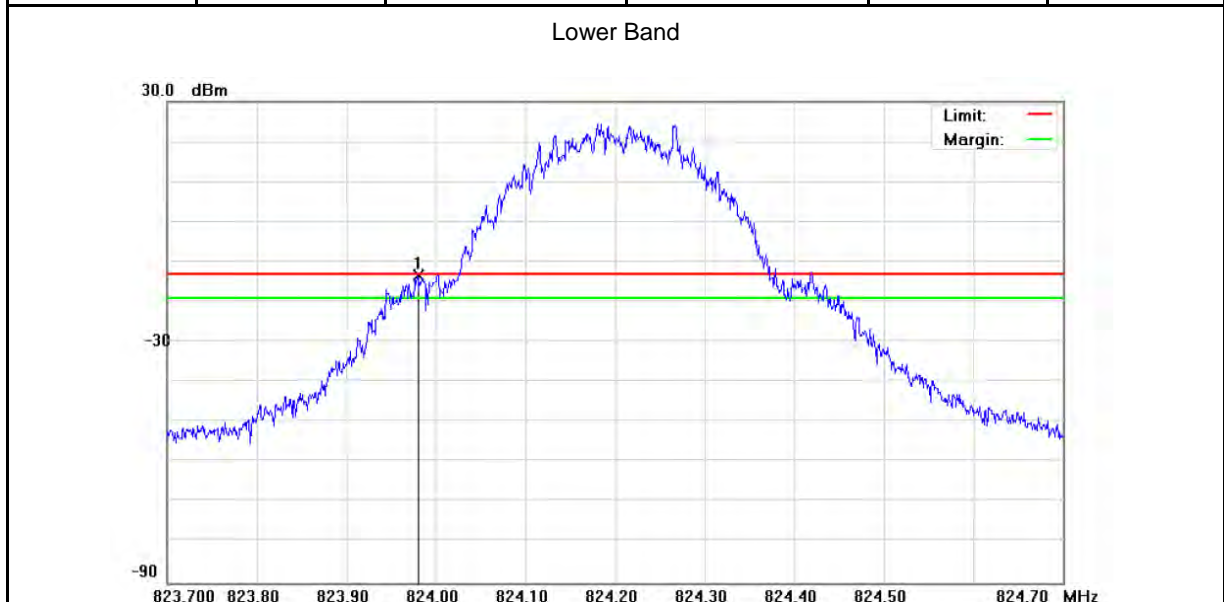
Figure Channel 810



Band Edge

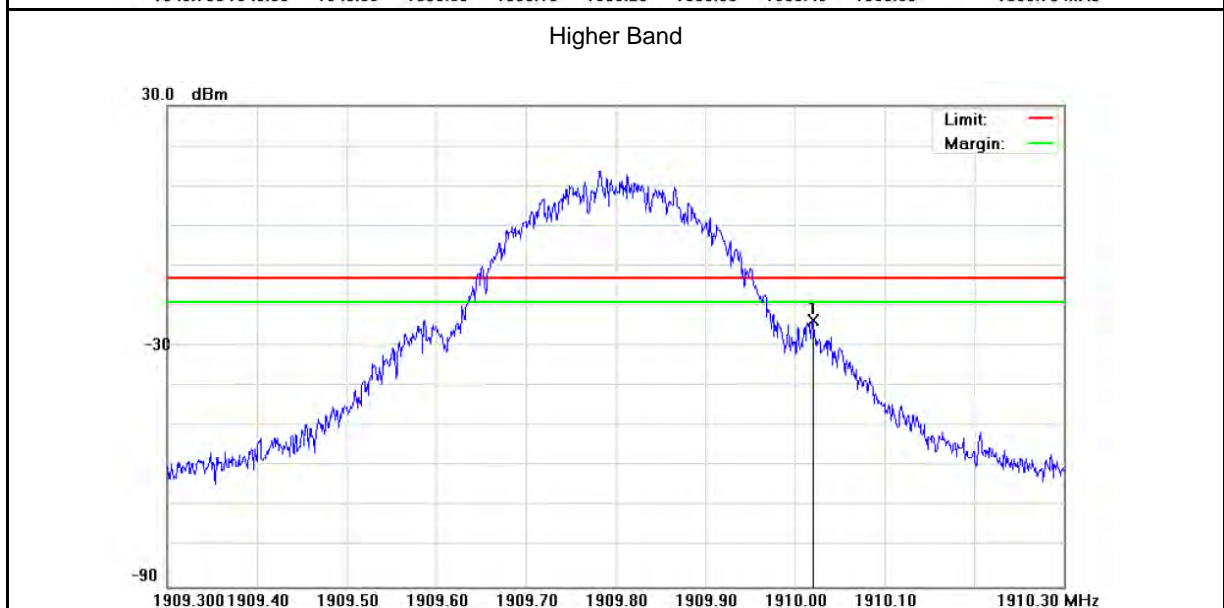
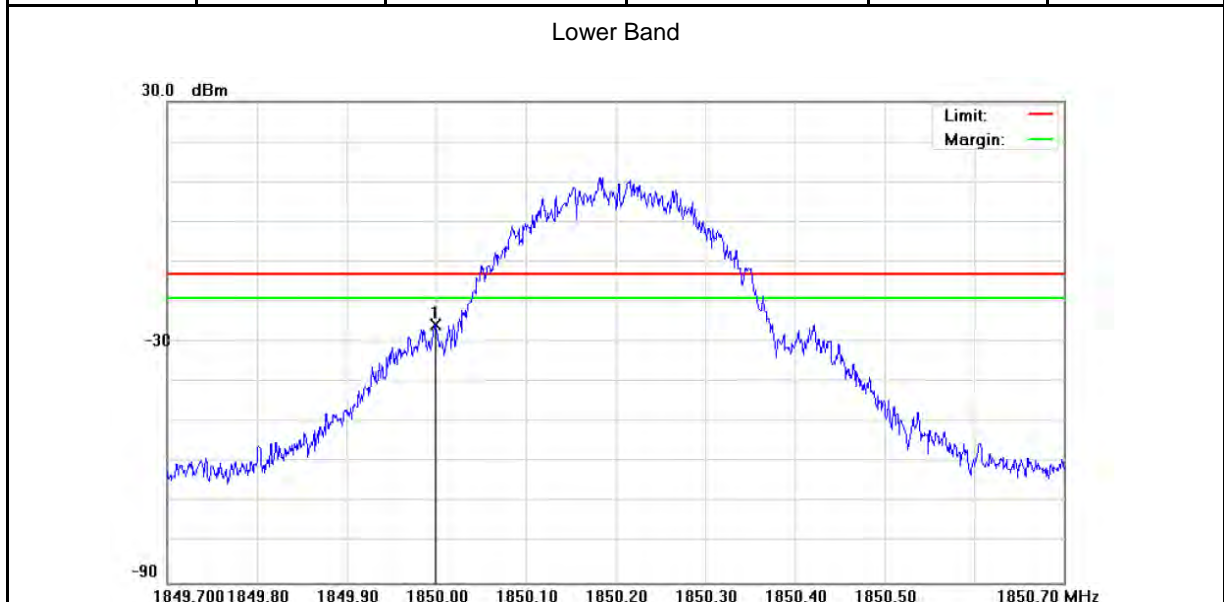
Product	Smartphone		
Test Item	Band Edge		
Test Mode	Mode 1: GSM 850 Link		
Date of Test	03/26/2010	Test Site	TE02

Band	Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
Lower	128	823.9795	-13.40	-13	Pass
Higher	251	849.0000	-15.22	-13	Pass



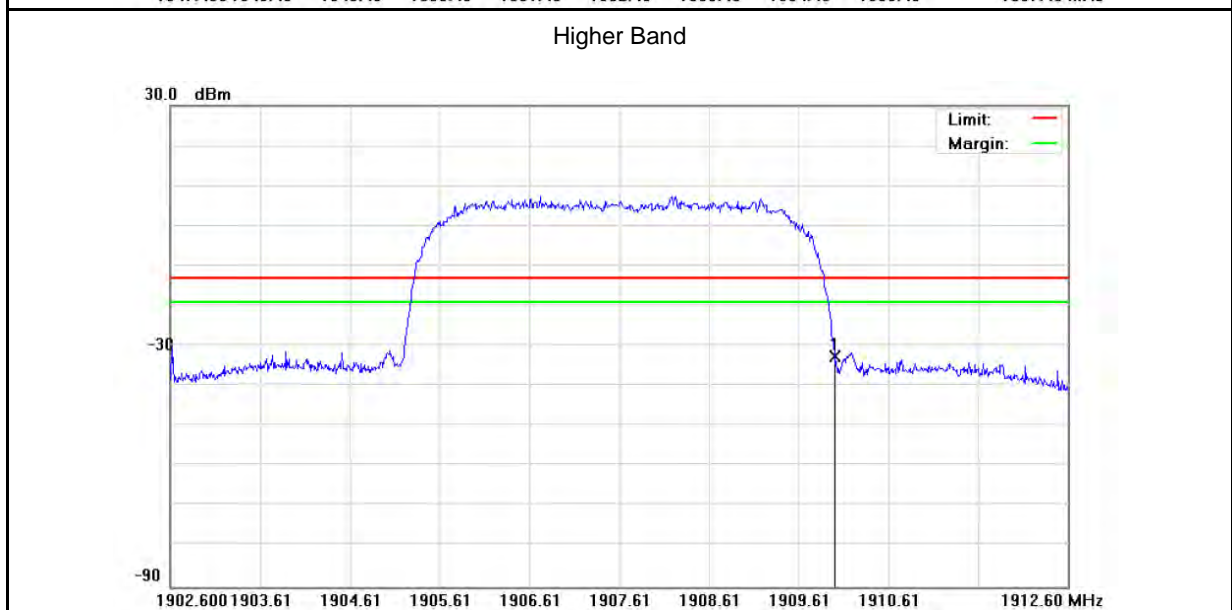
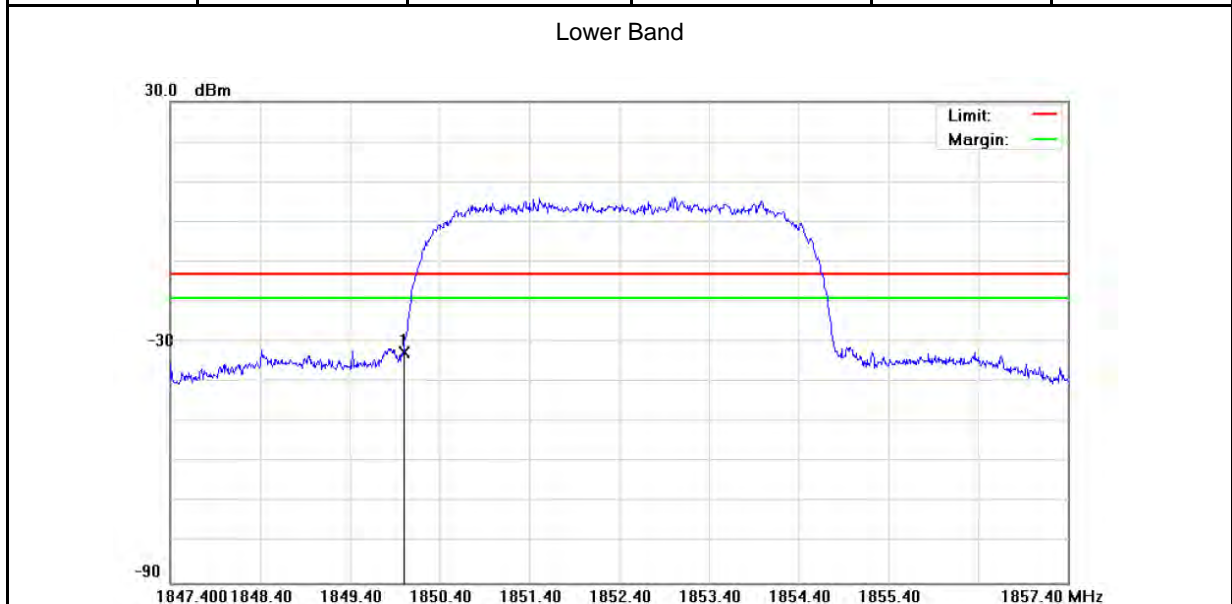
Product	Smartphone		
Test Item	Band Edge		
Test Mode	Mode 2: GSM 1900 Link		
Date of Test	03/26/2010	Test Site	TE02

Band	Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
Lower	512	1849.999	-25.58	-13	Pass
Higher	810	1910.020	-23.46	-13	Pass



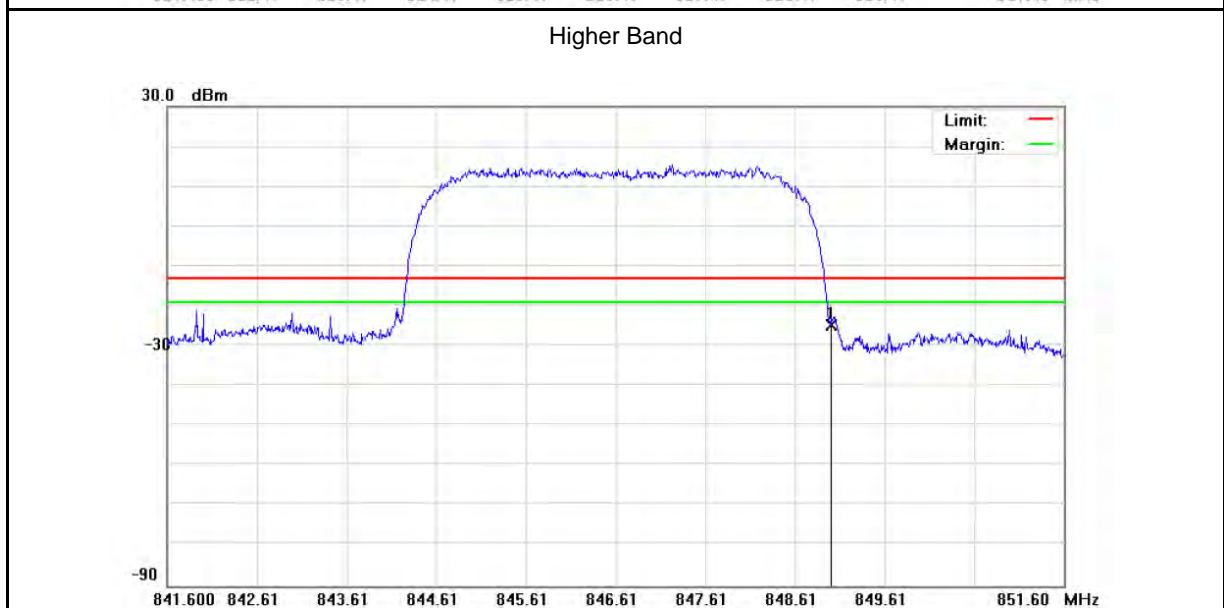
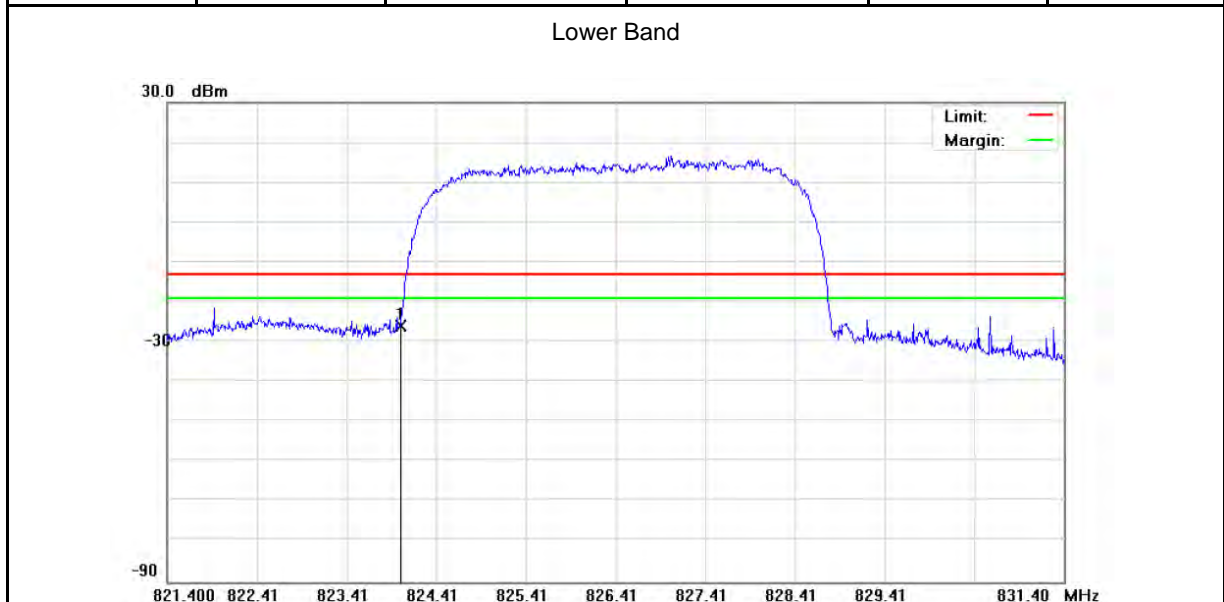
Product	Smartphone		
Test Item	Band Edge		
Test Mode	Mode 3: WCDMA Band II Link		
Date of Test	03/26/2010	Test Site	TE02

Band	Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
Lower	9262	1850.000	-32.47	-13	Pass
Higher	9538	1910.000	-32.60	-13	Pass



Product	Smartphone		
Test Item	Band Edge		
Test Mode	Mode 4: WCDMA Band V Link		
Date of Test	03/26/2010	Test Site	TE02

Band	Channel	Frequency (MHz)	Bandwidth (dBm)	Limit (dBm)	Result
Lower	4132	824.0000	-25.93	-13	Pass
Higher	4233	849.0000	-24.83	-13	Pass



5 Conducted Emission Test

5.1. Limit

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10\log(P)$ dB.

5.2. Test Instruments

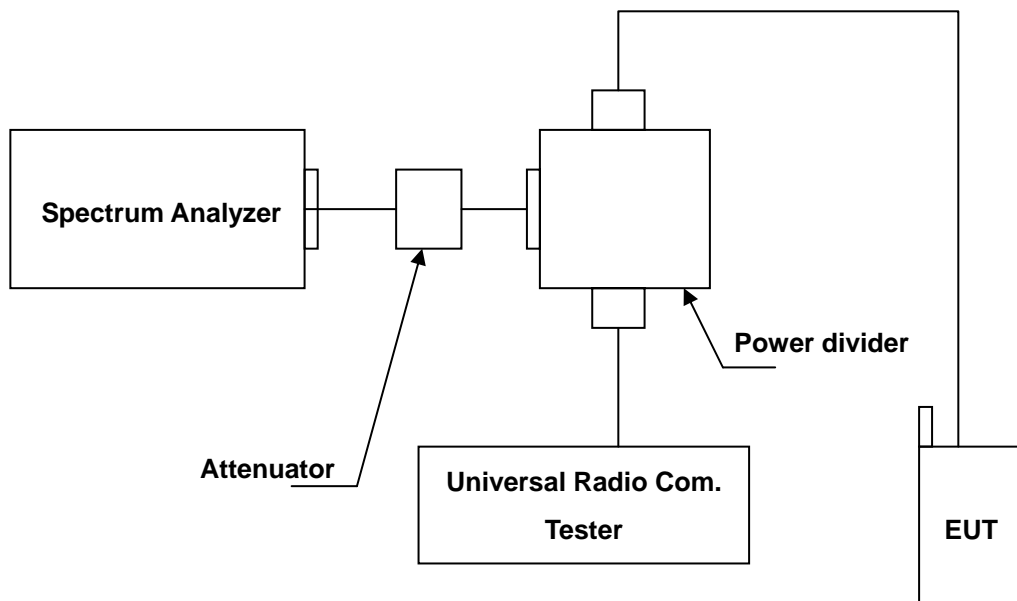
Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/14/2009	(2)
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Attenuator	RADIALL	R41572000	0603033073	N.C.R.	-----
Power divider	Agilent	87302C	3239A00760	N.C.R.	-----
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

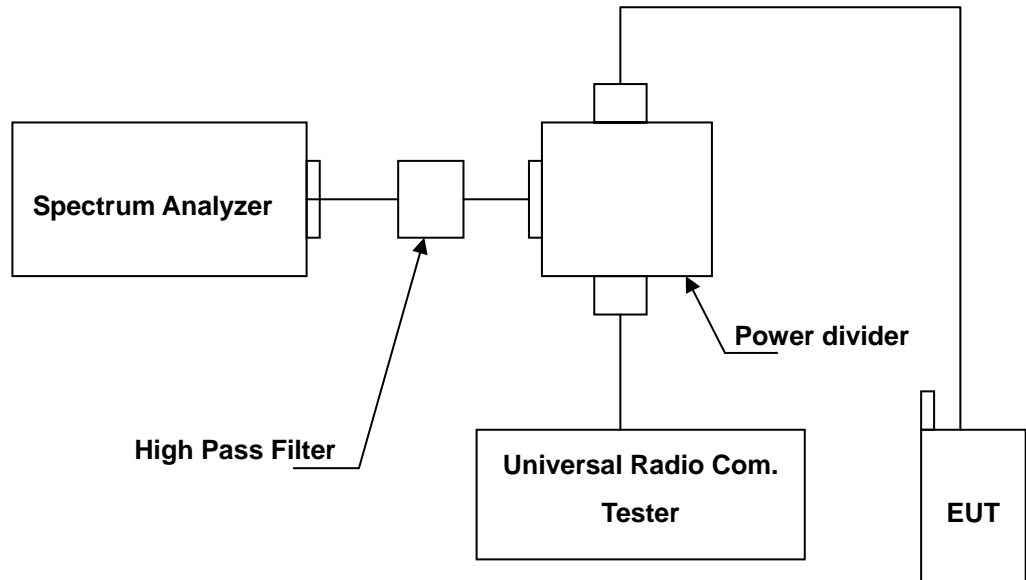
NOTE: N.C.R. = No Calibration Request.

5.3. Setup

Below 2.8GHz



Above 2.8GHz



5.4. Test Procedure

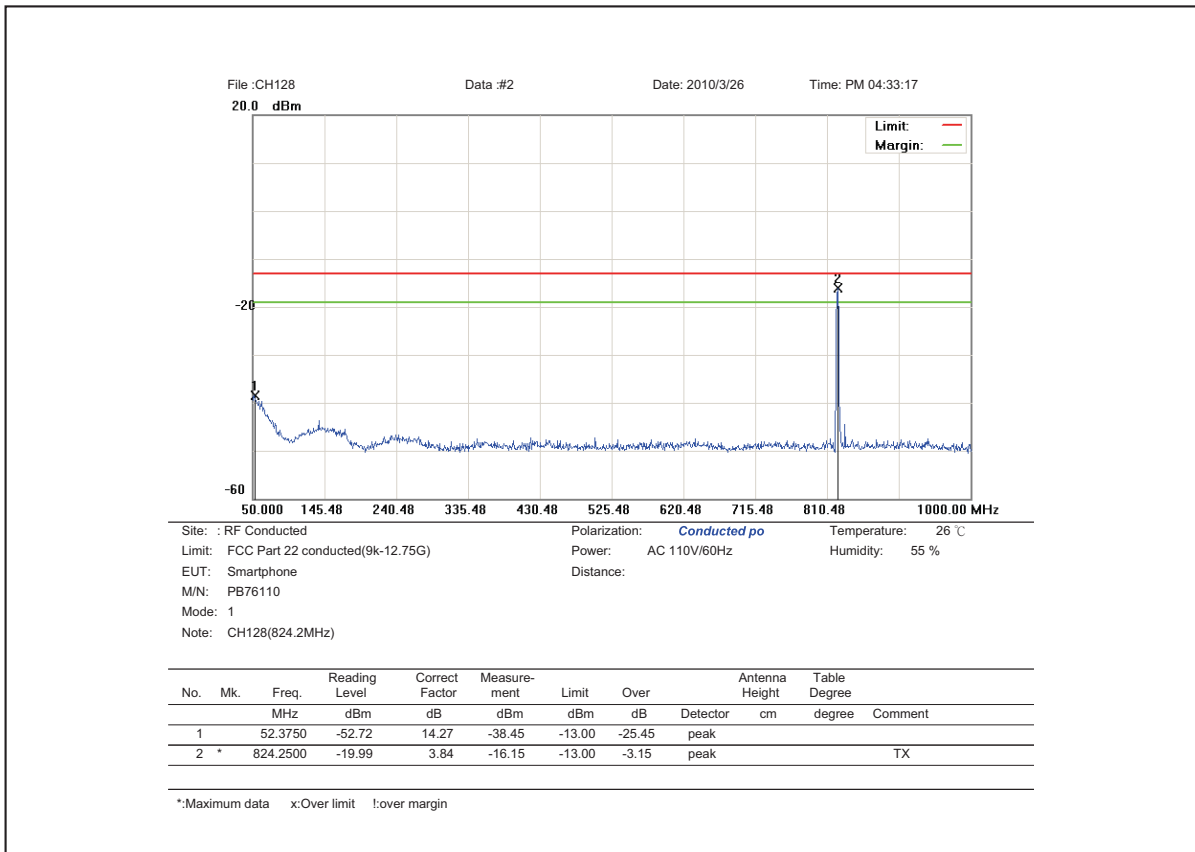
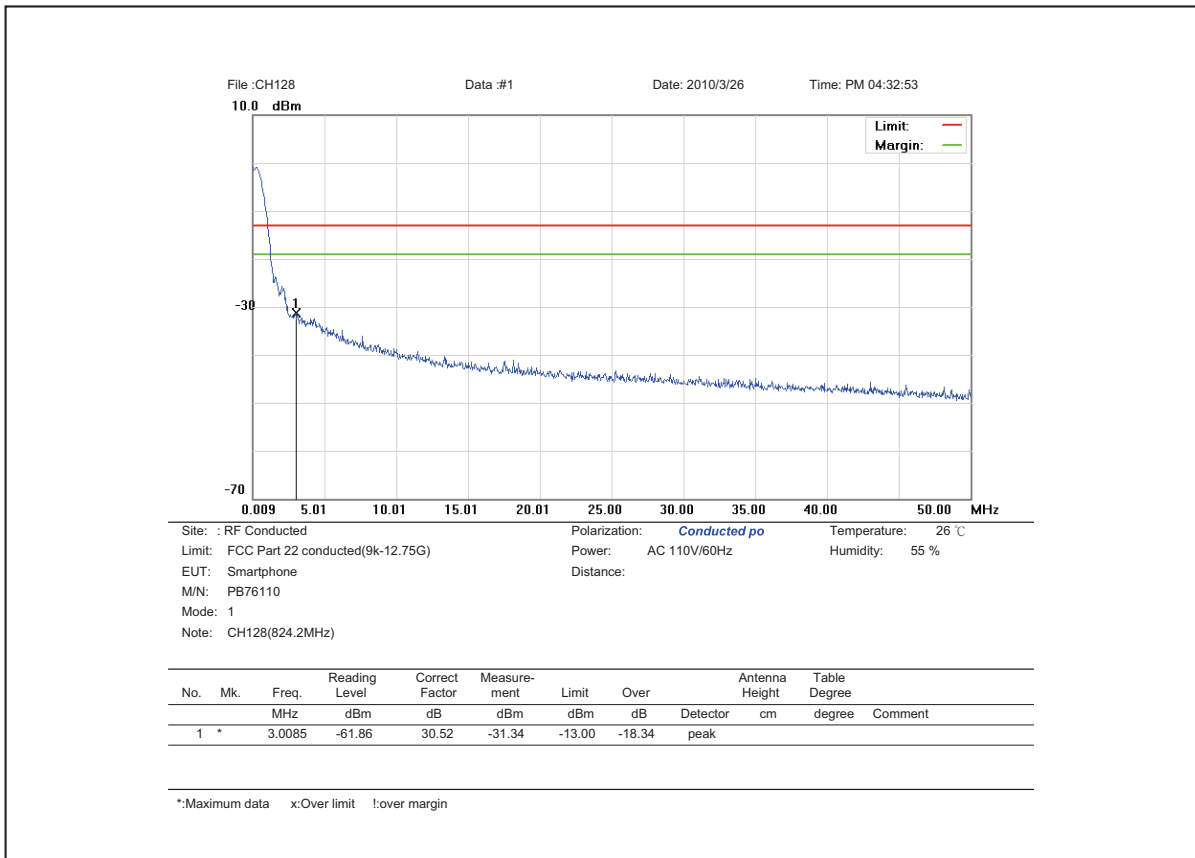
1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The middle channel for the highest RF power within the transmitting frequency was measured.
3. The conducted spurious emission for the whole frequency range was taken.
4. Test setting at GSM 850 RB>100 kHz, VB>100 kHz;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

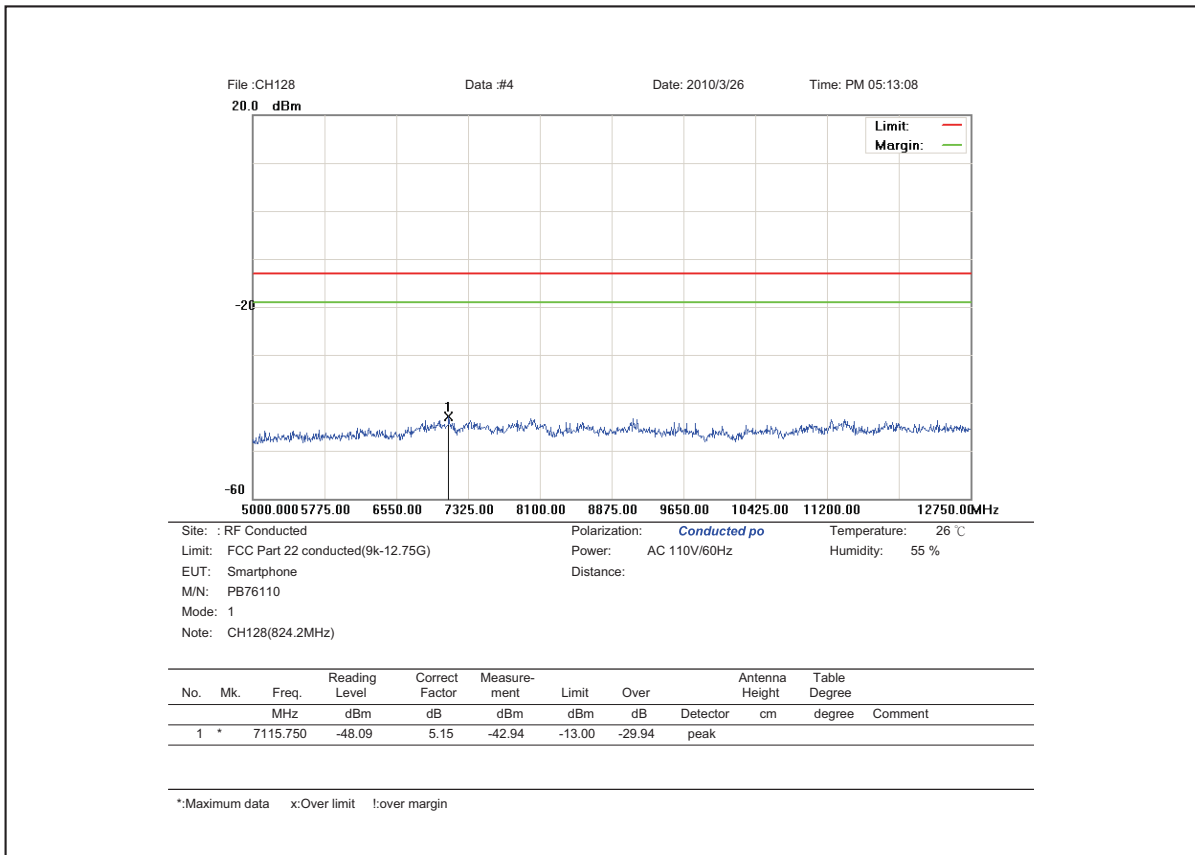
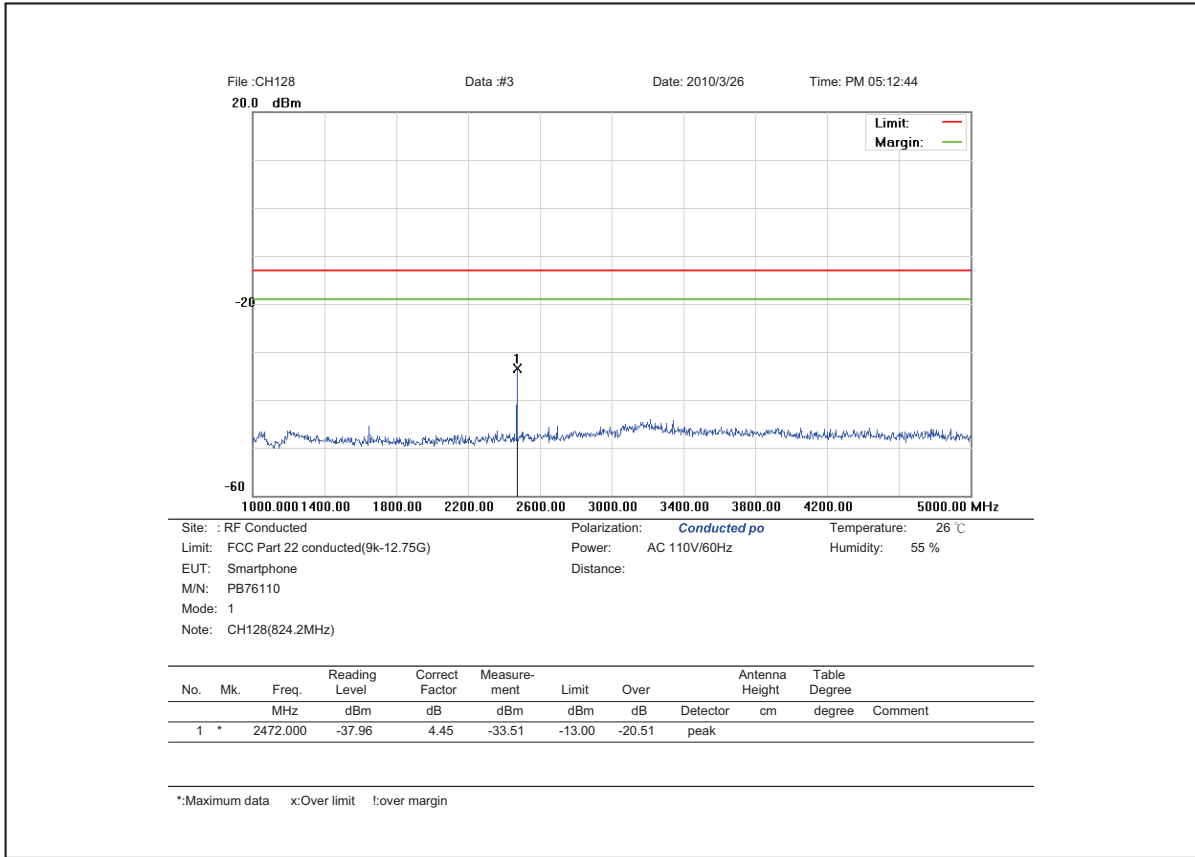
5.5. Uncertainty

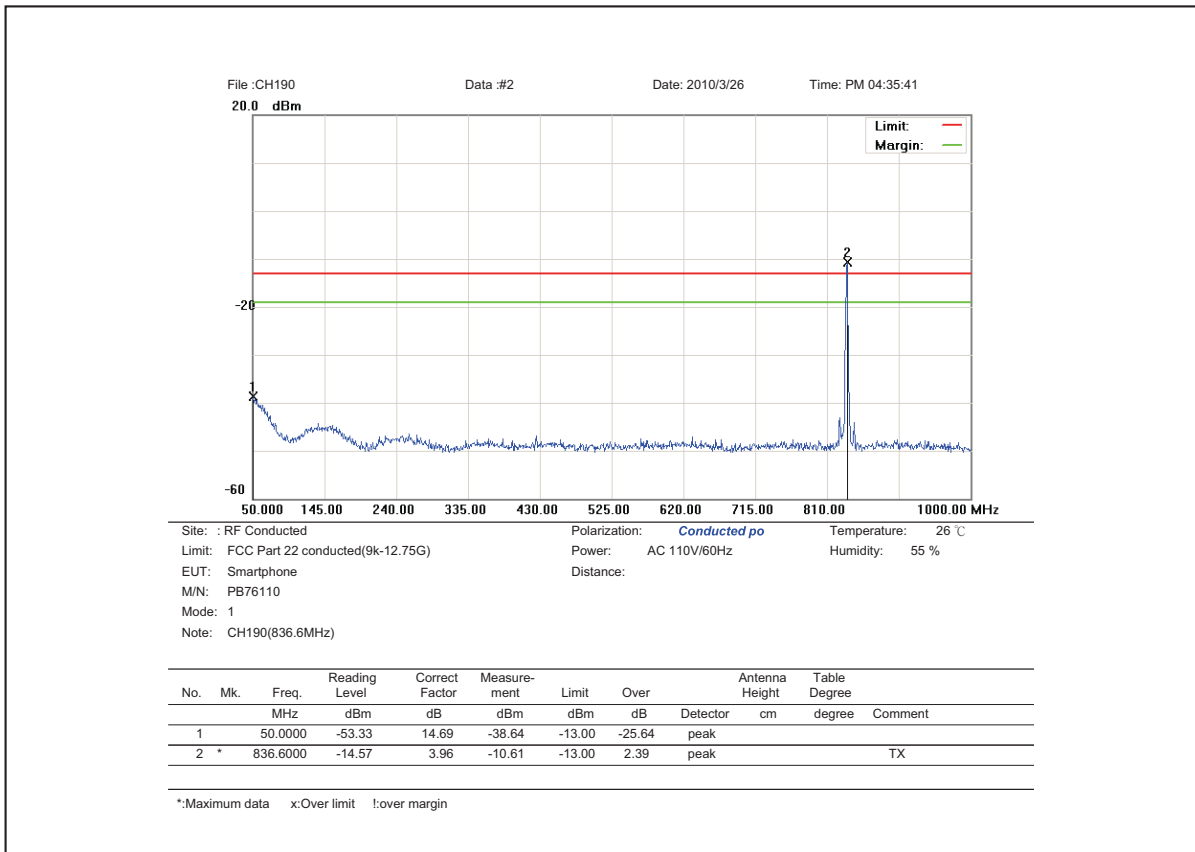
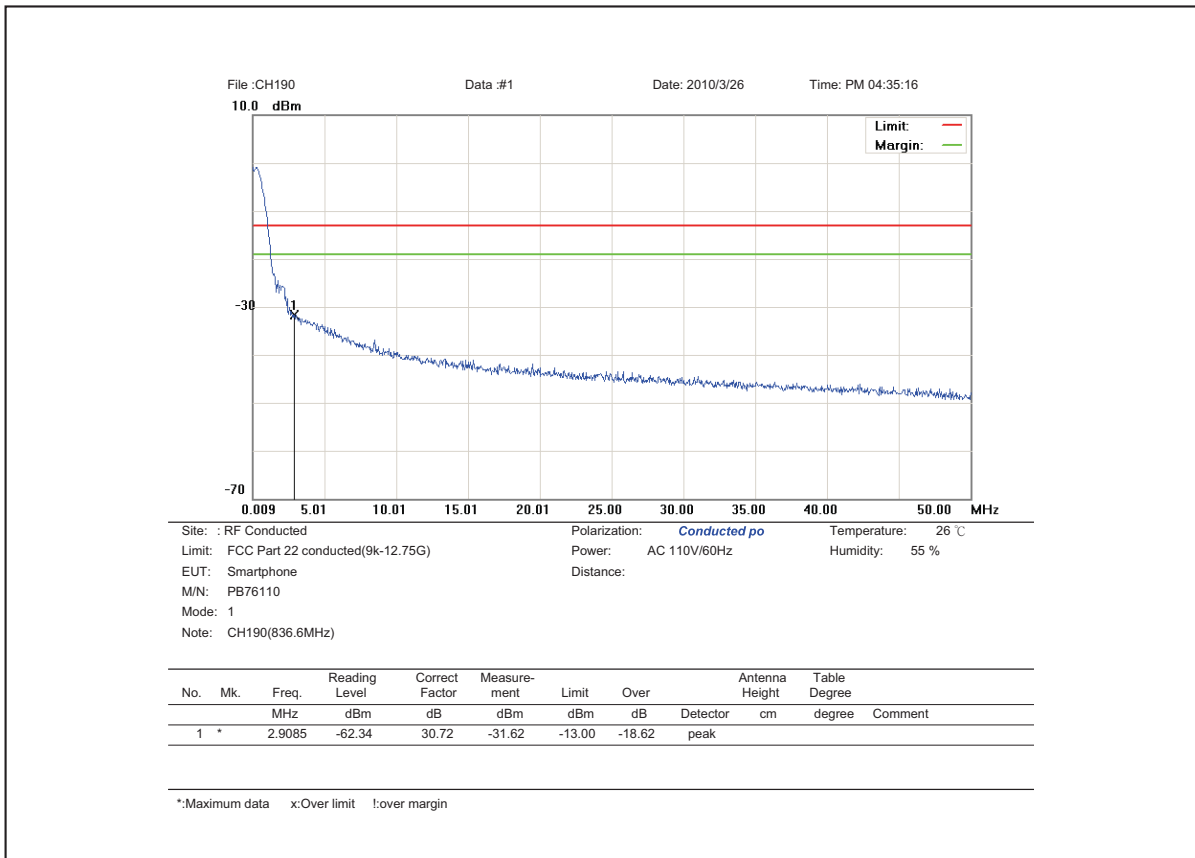
The measurement uncertainty is evaluated as ± 2.24 dB.

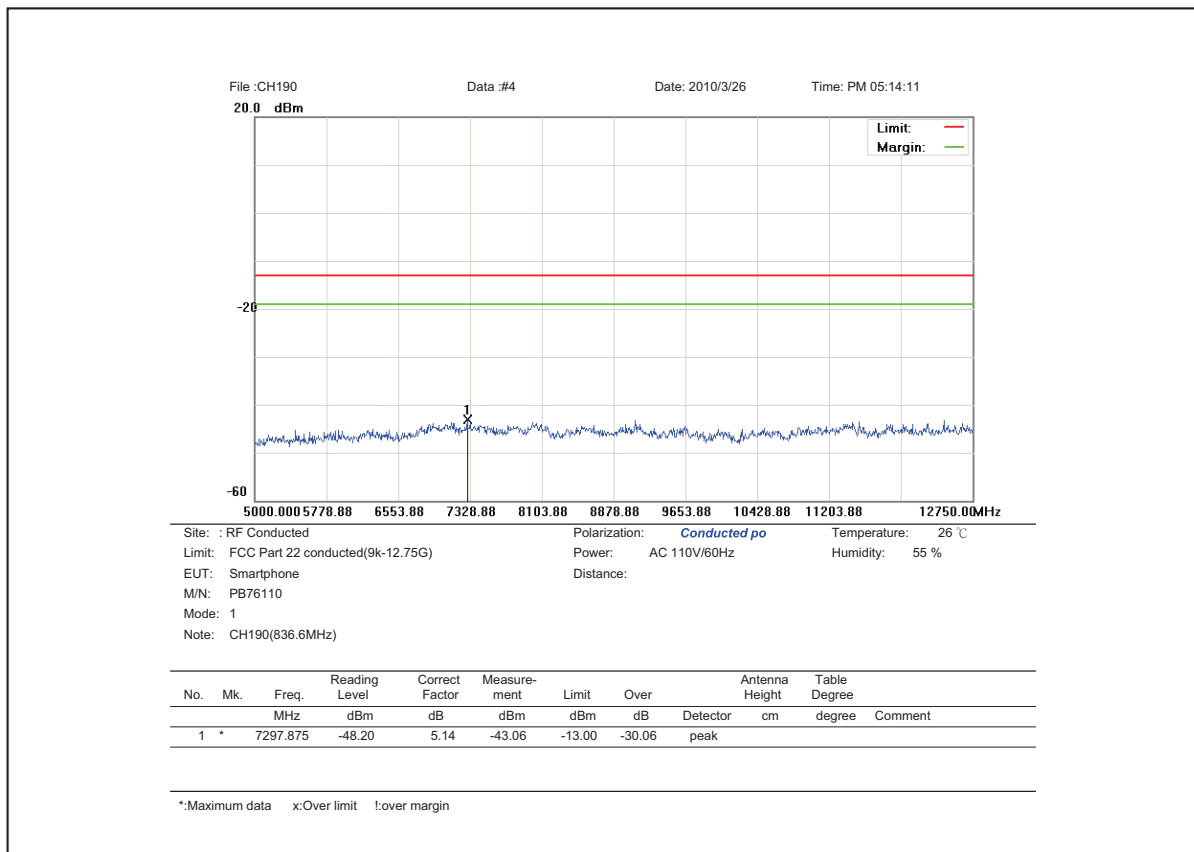
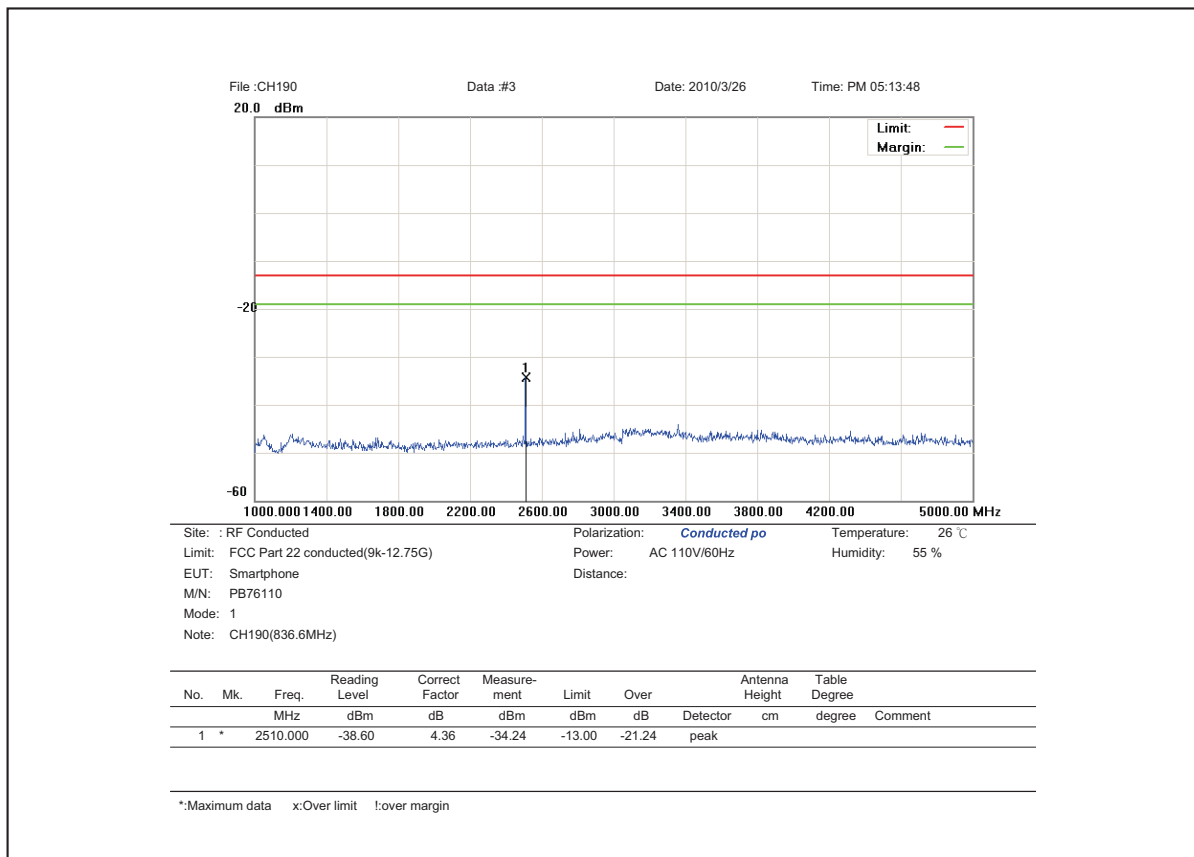
5.6. Test Result

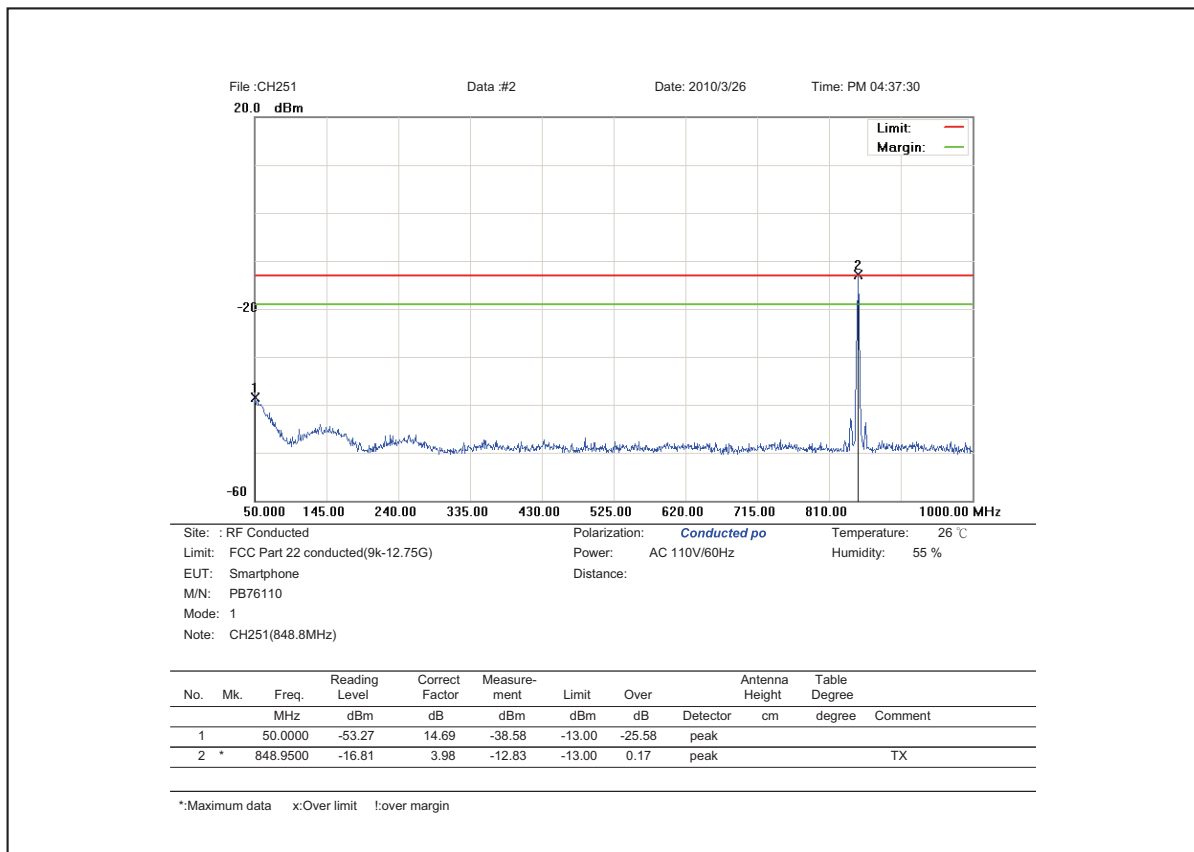
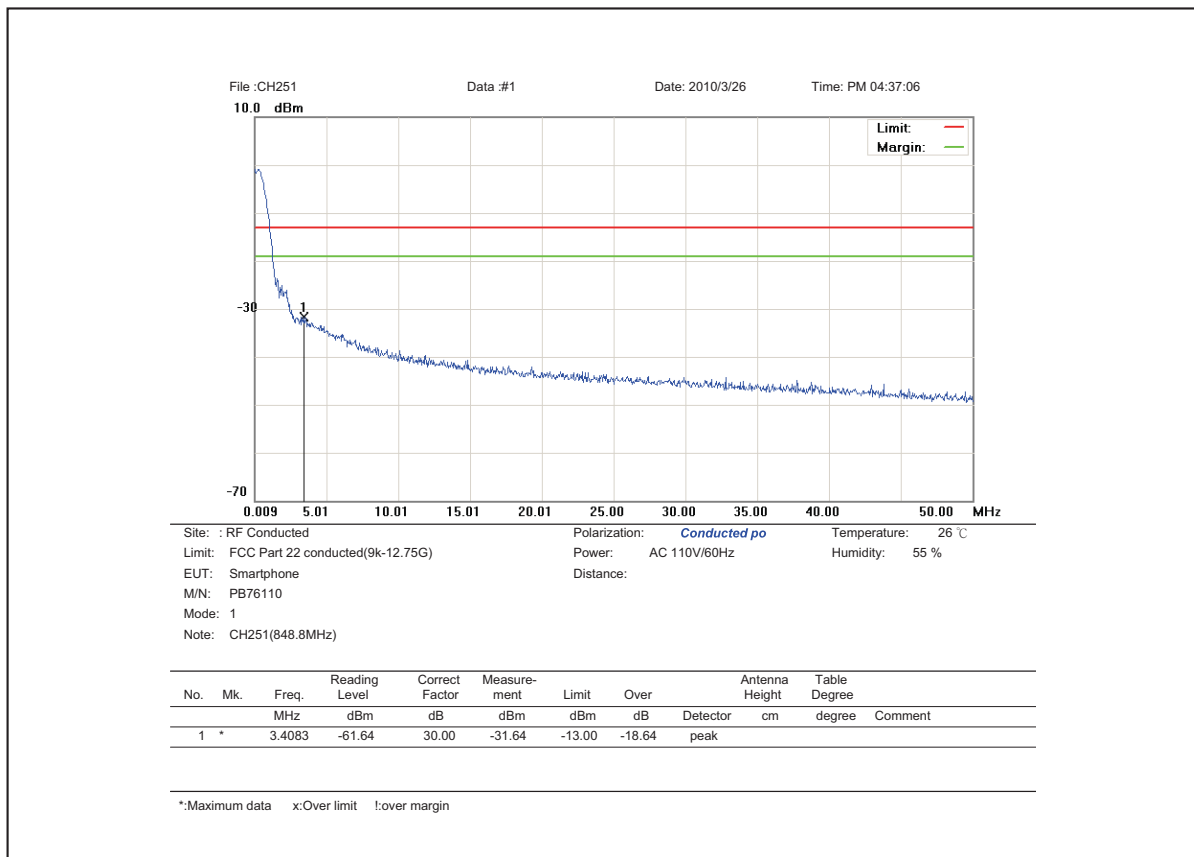
Product	Smartphone		
Test Item	Conducted Emission		
Mode	Mode 1: GSM 850 Link Mode 2: GSM 1900 Link Mode 3: WCDMA Band II Link Mode 4: WCDMA Band V Link		
Date of Test	03/26/2010	Test Site	TE02

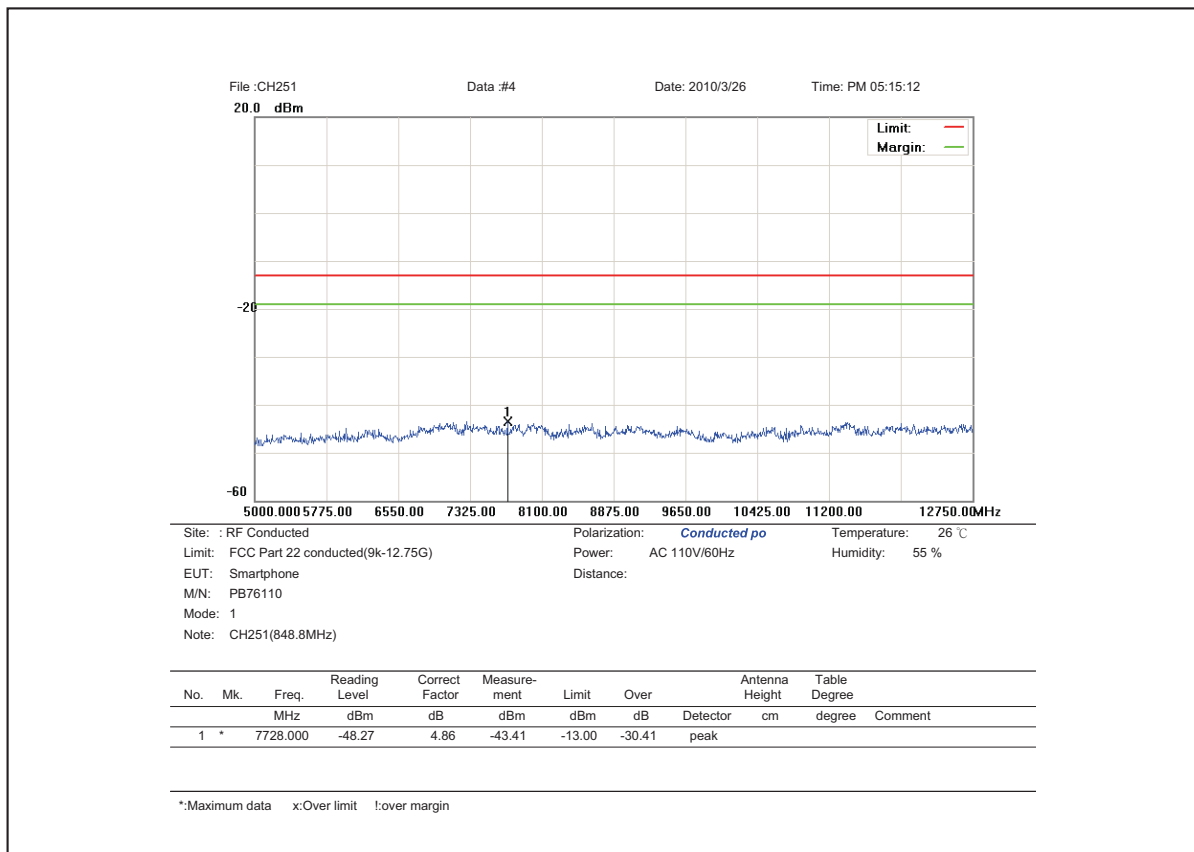
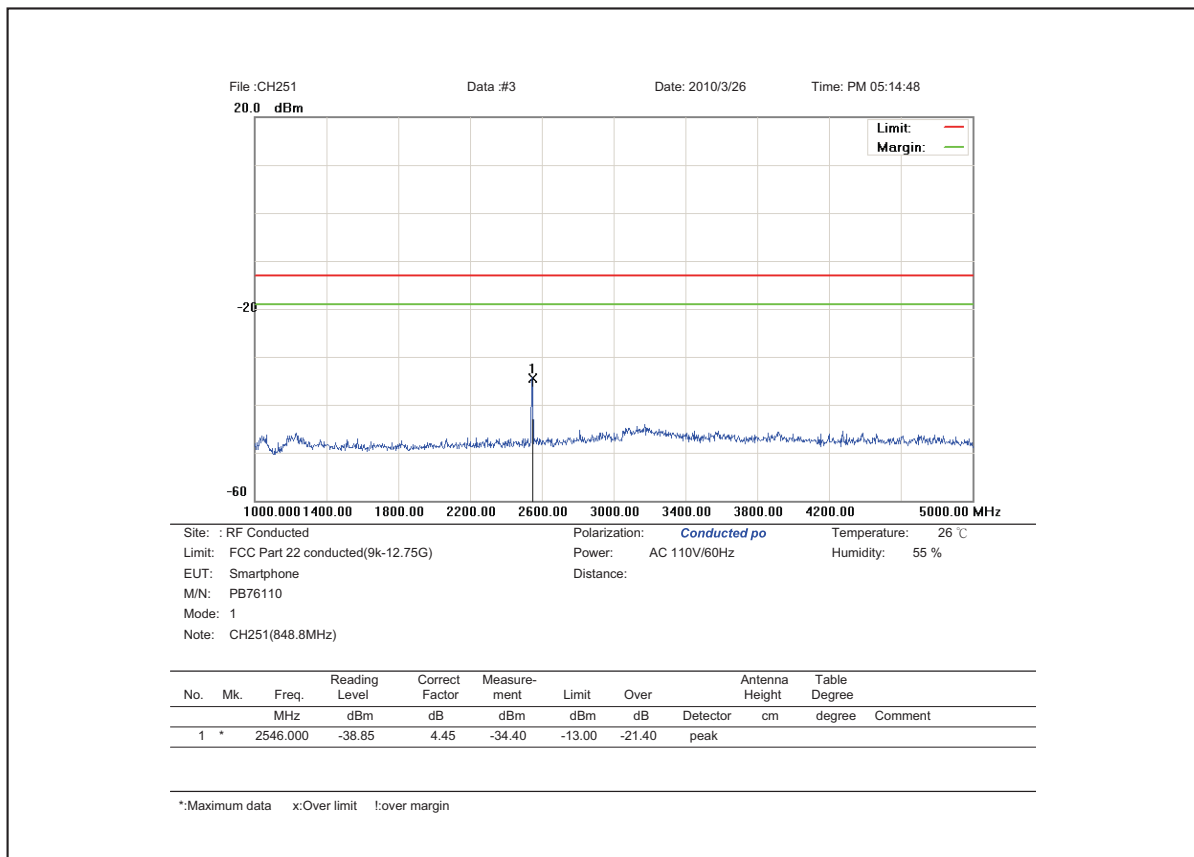


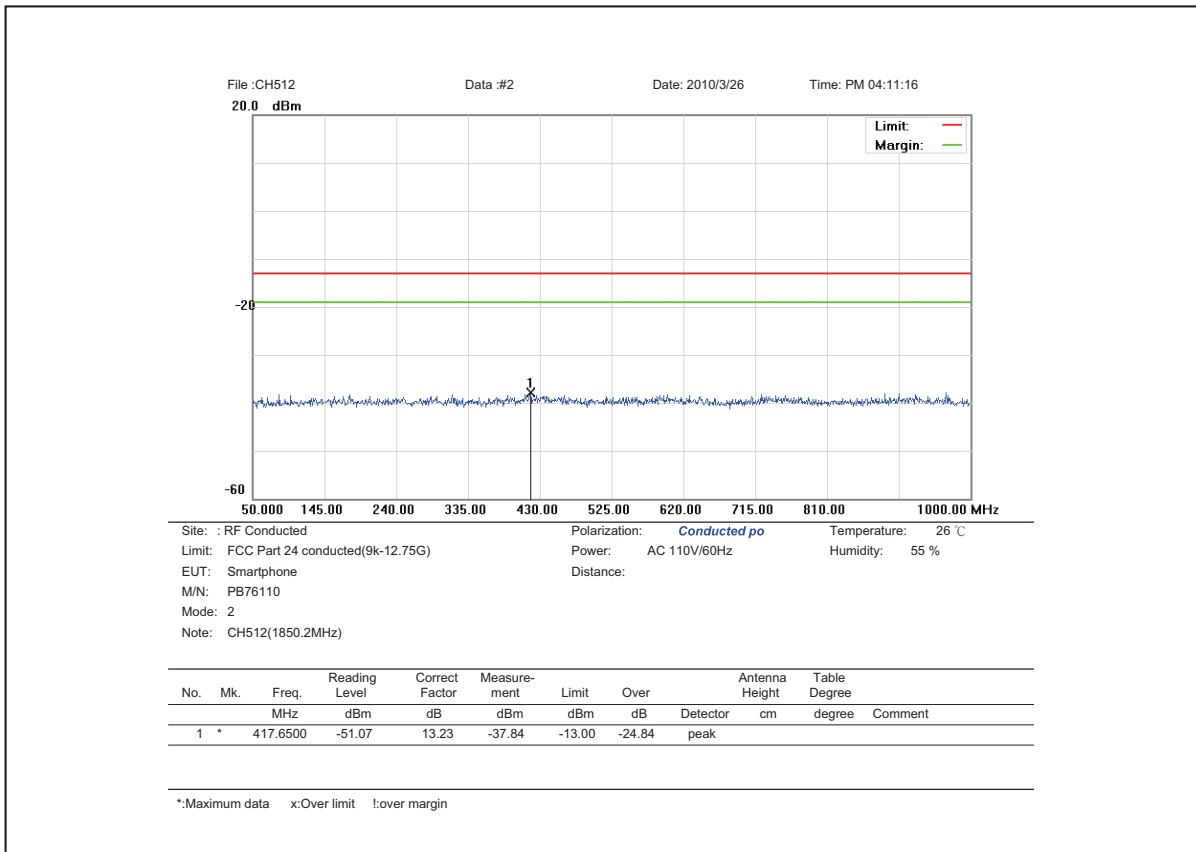
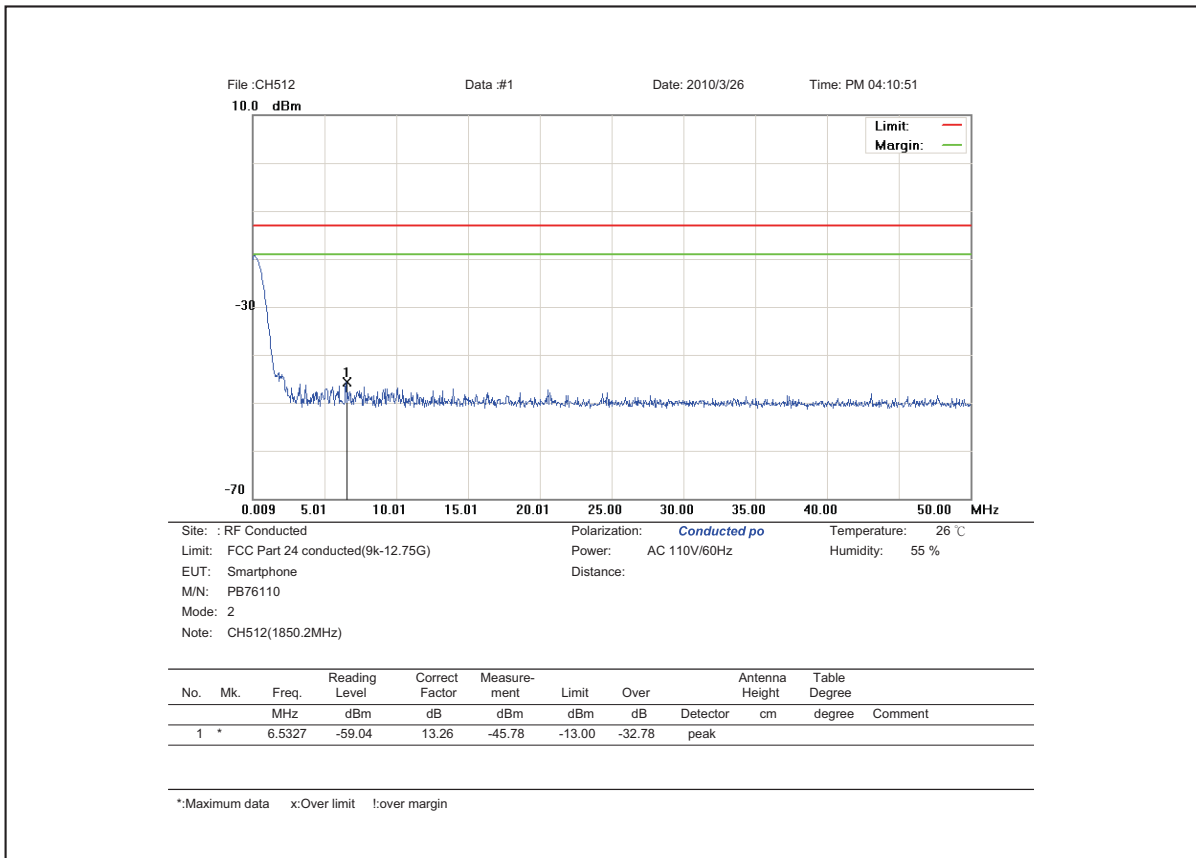


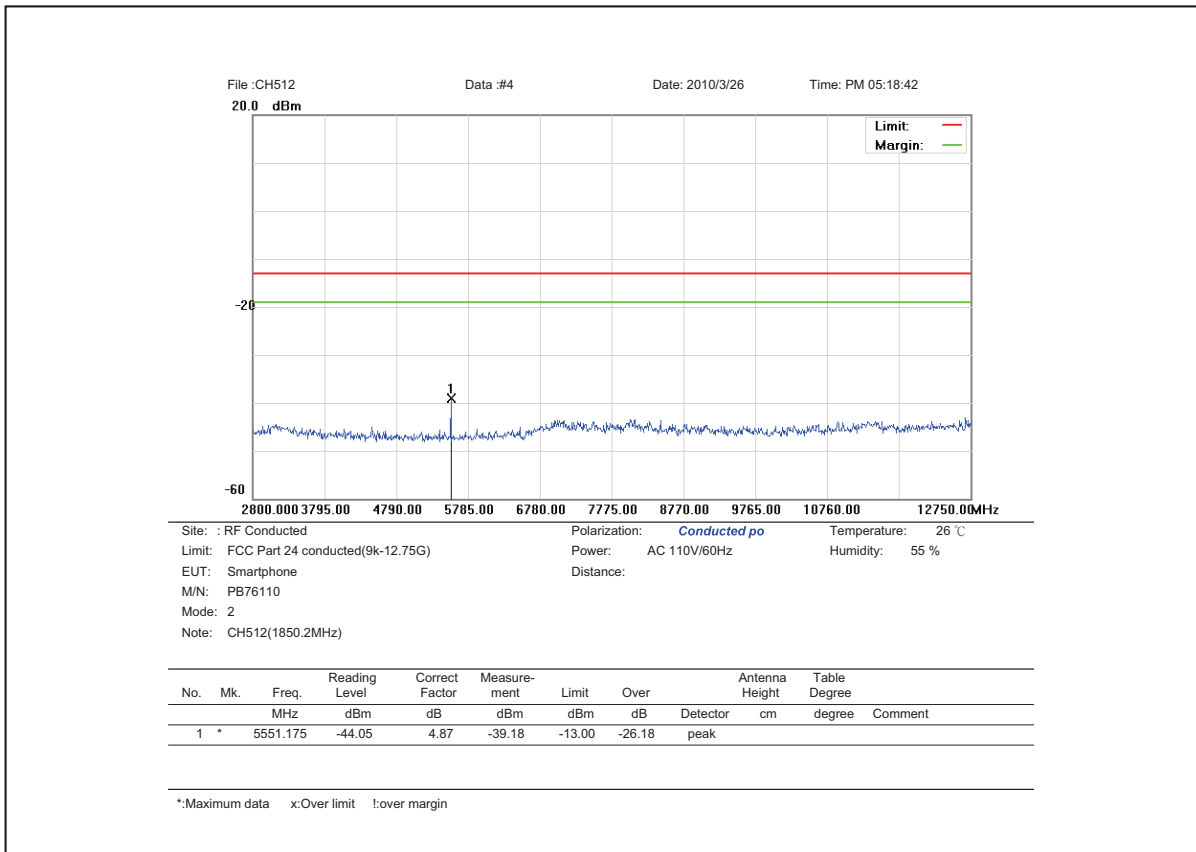
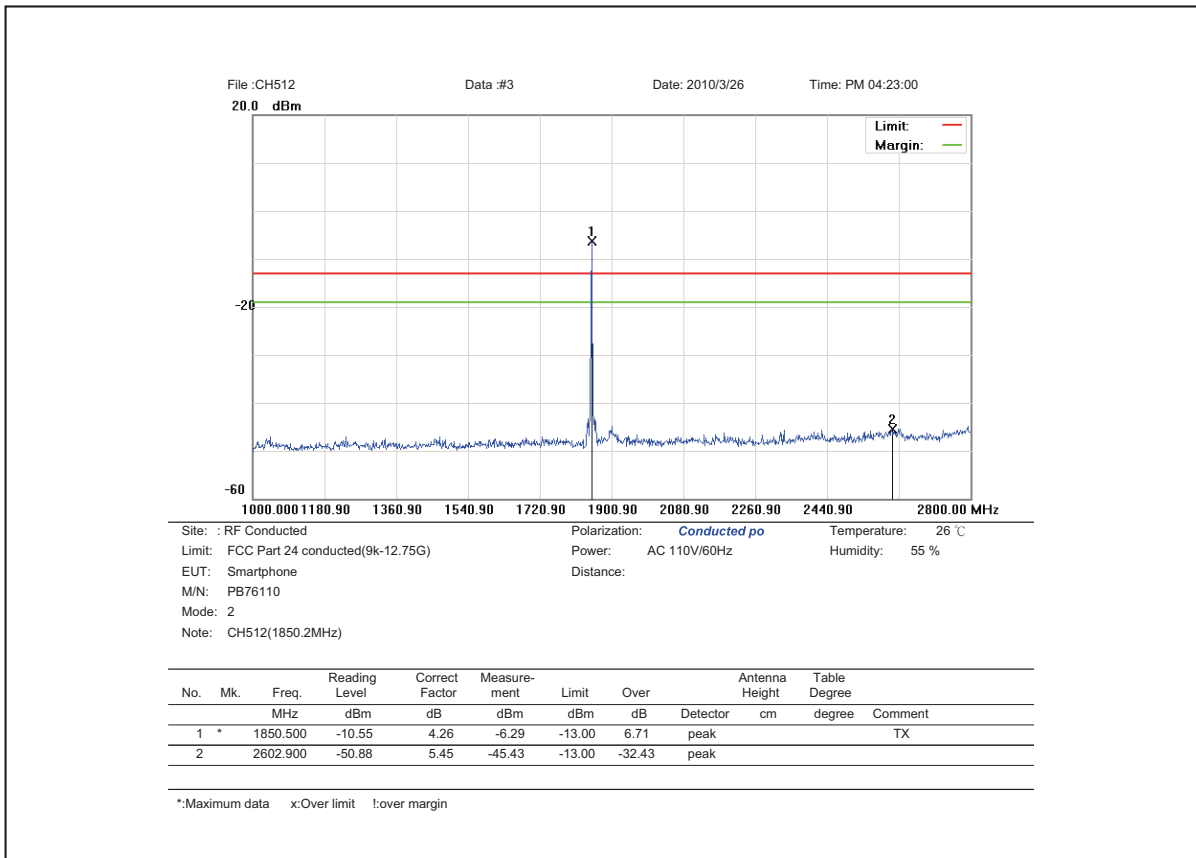


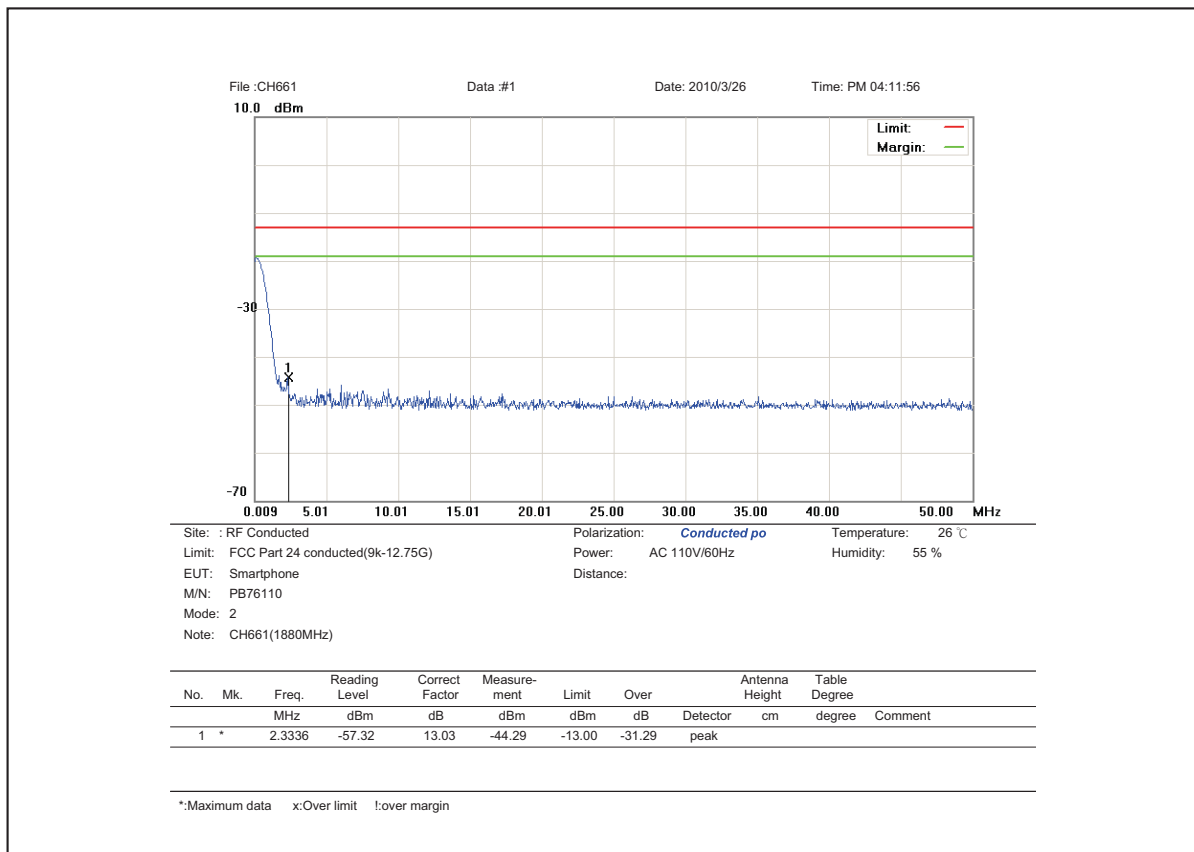
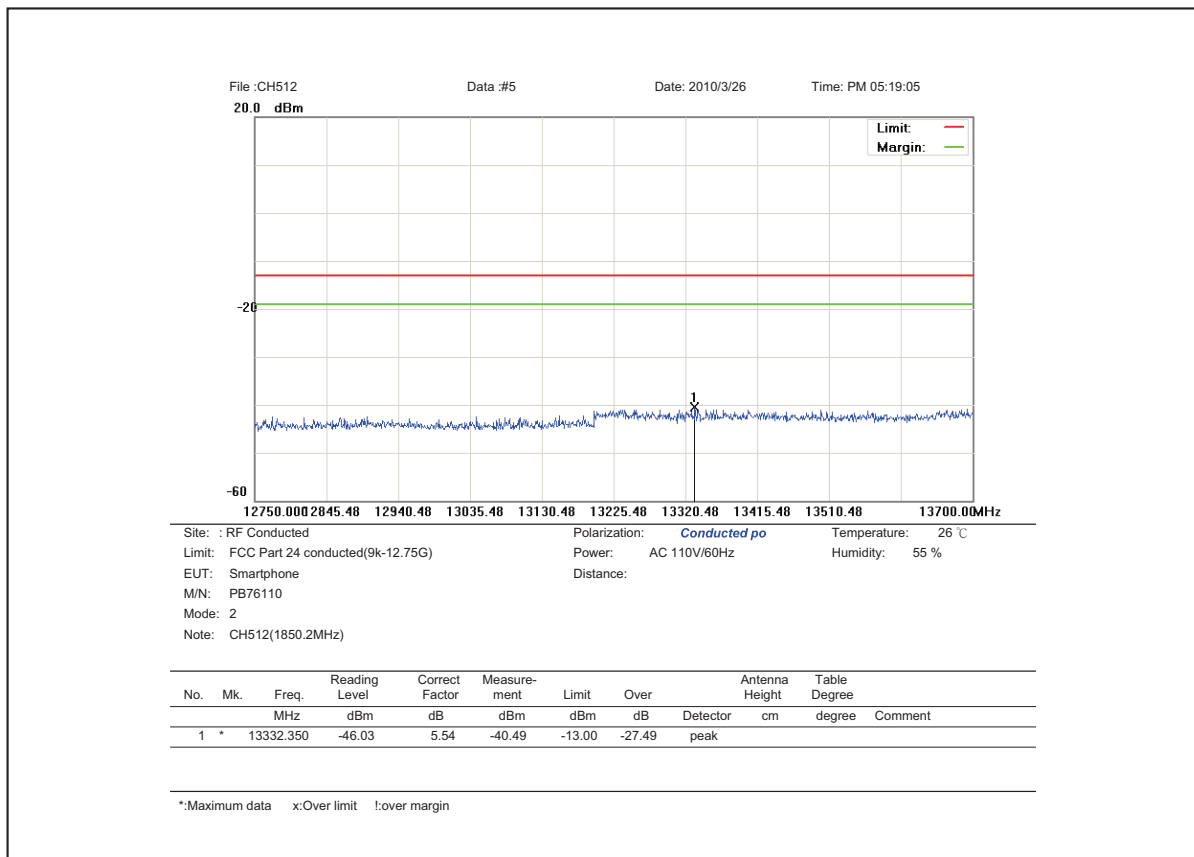


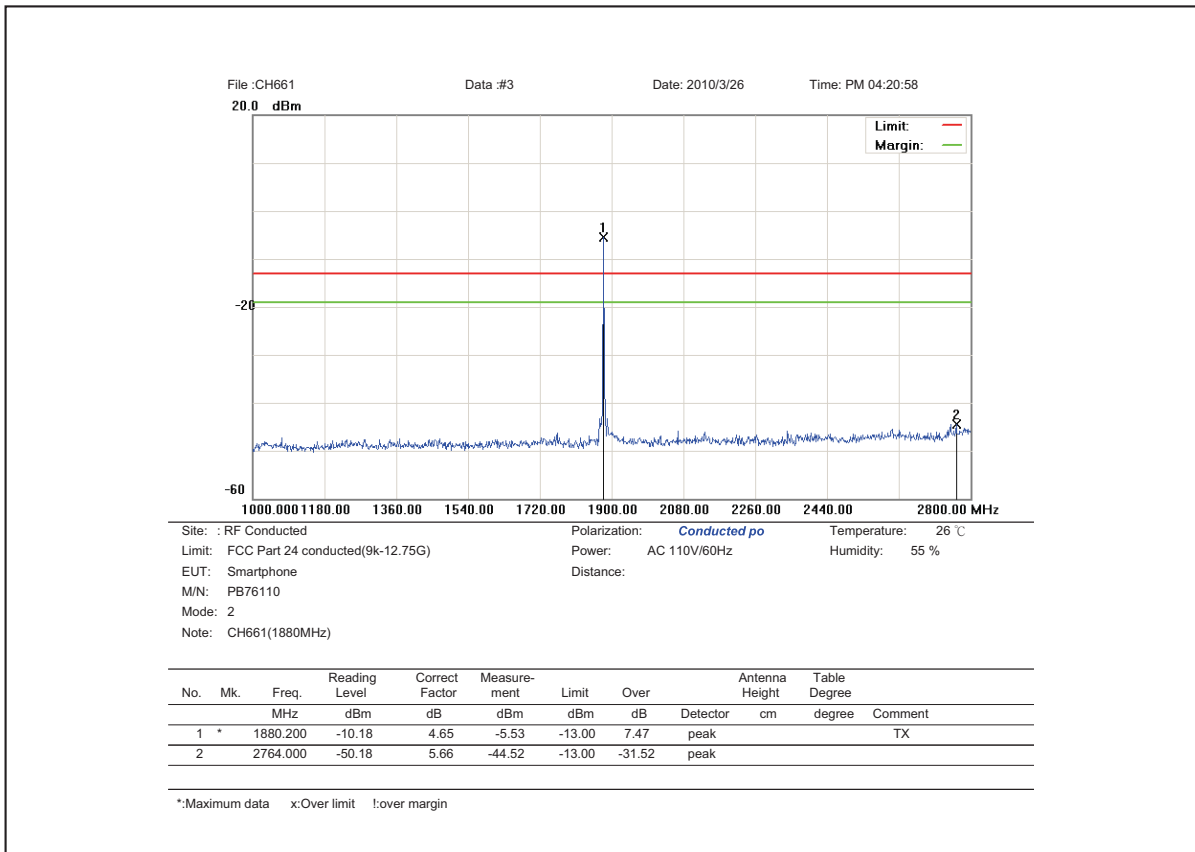
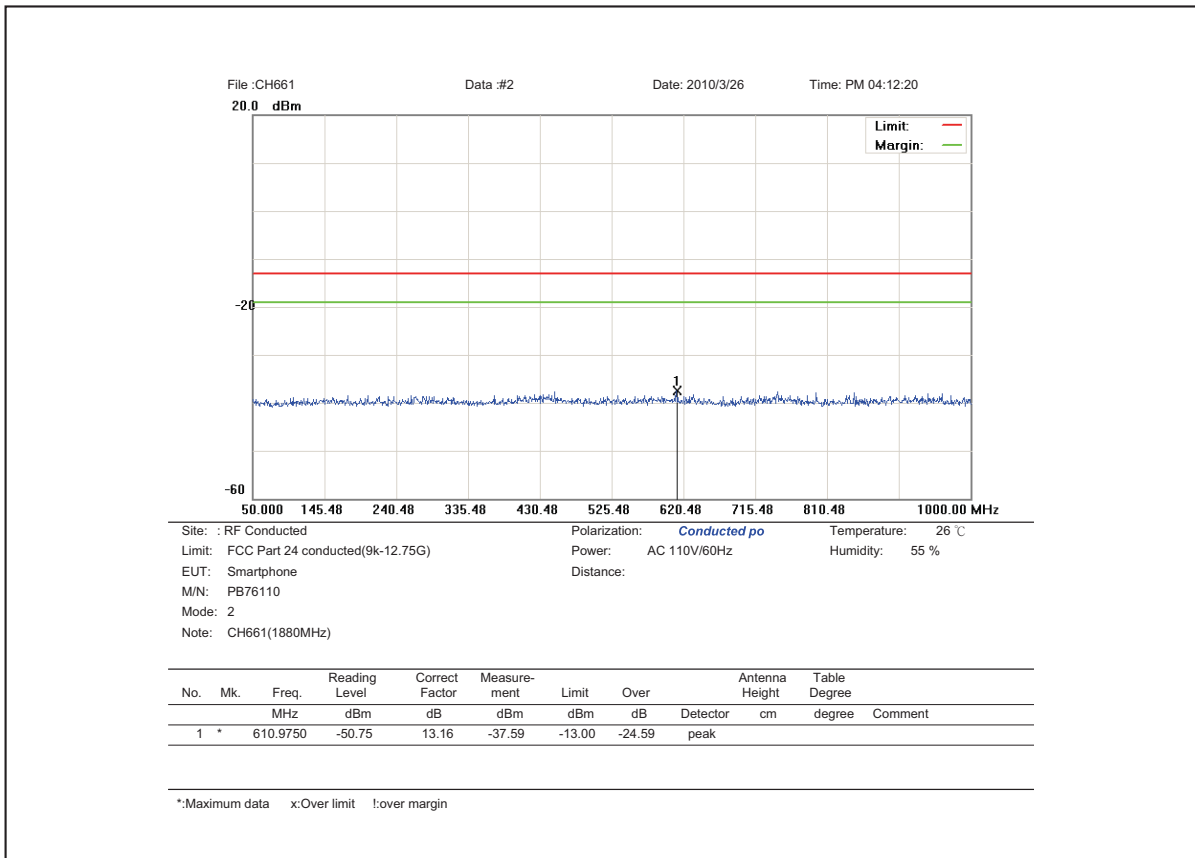


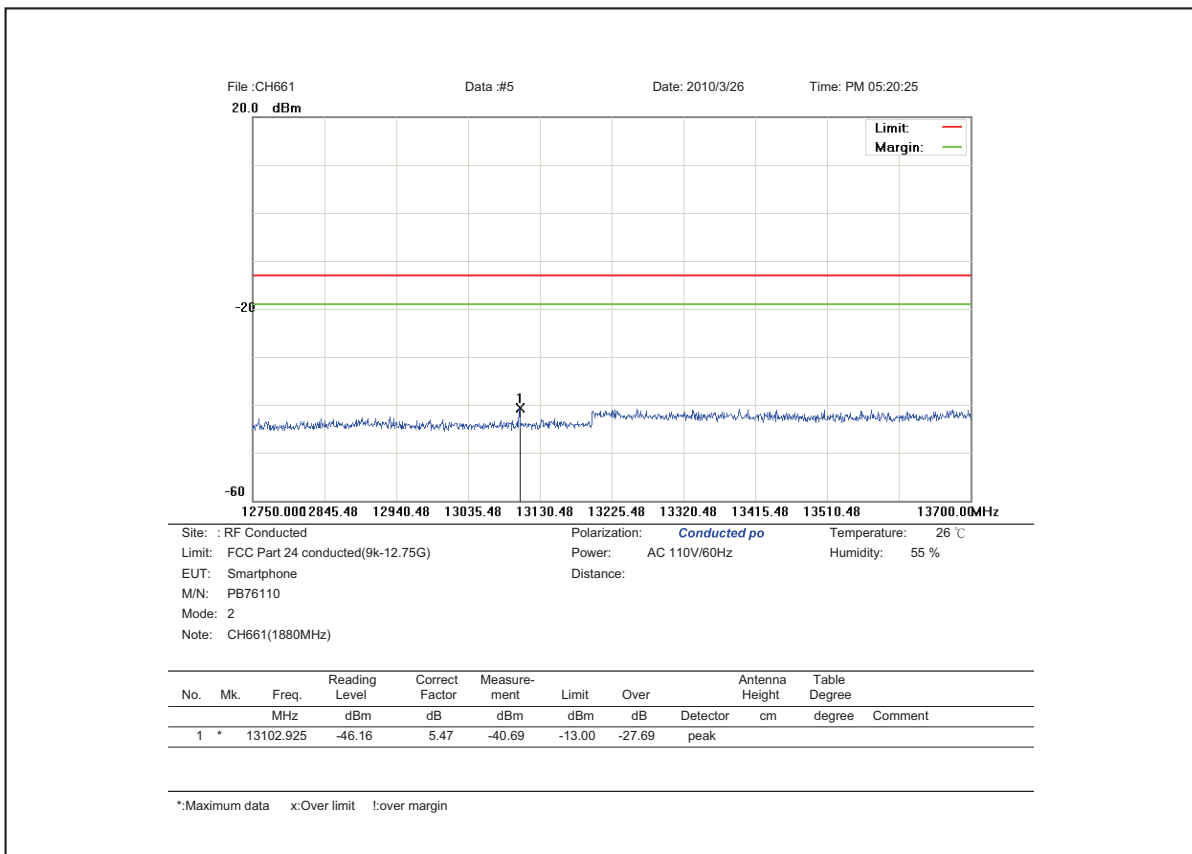
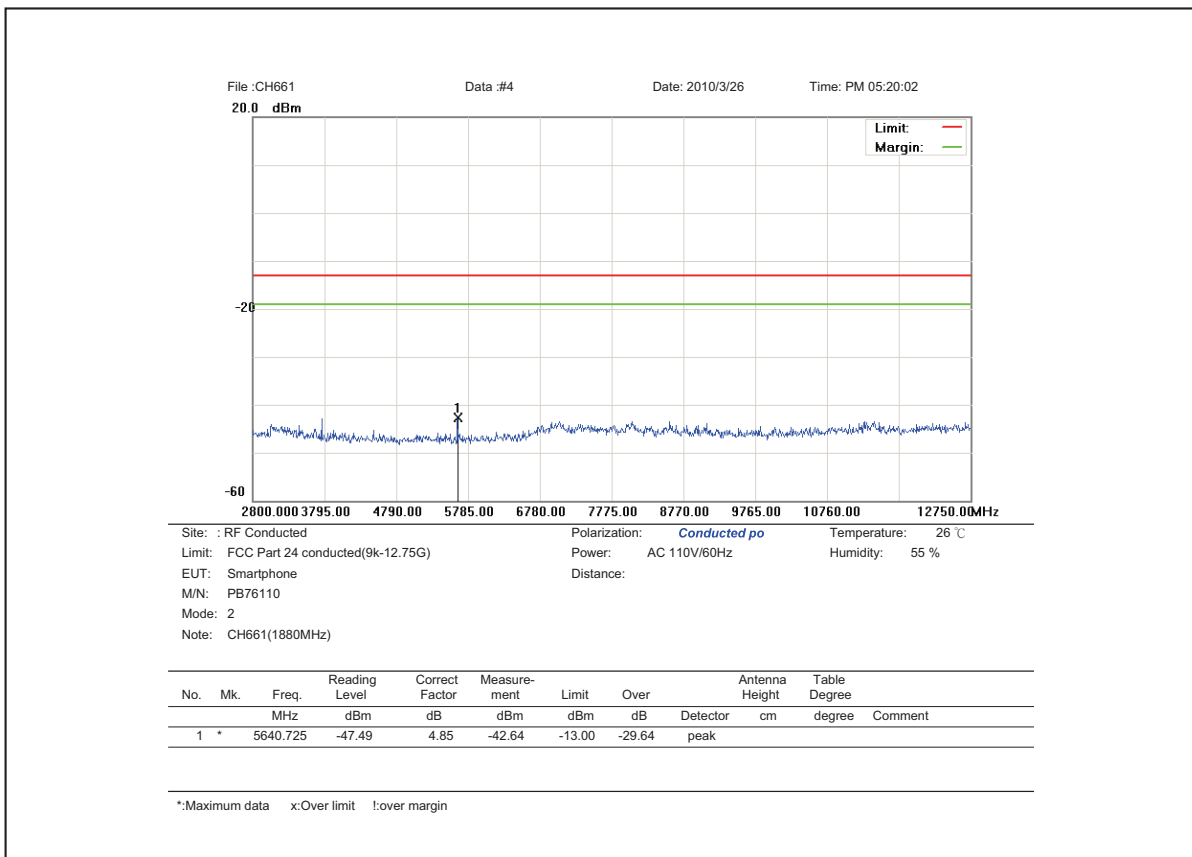


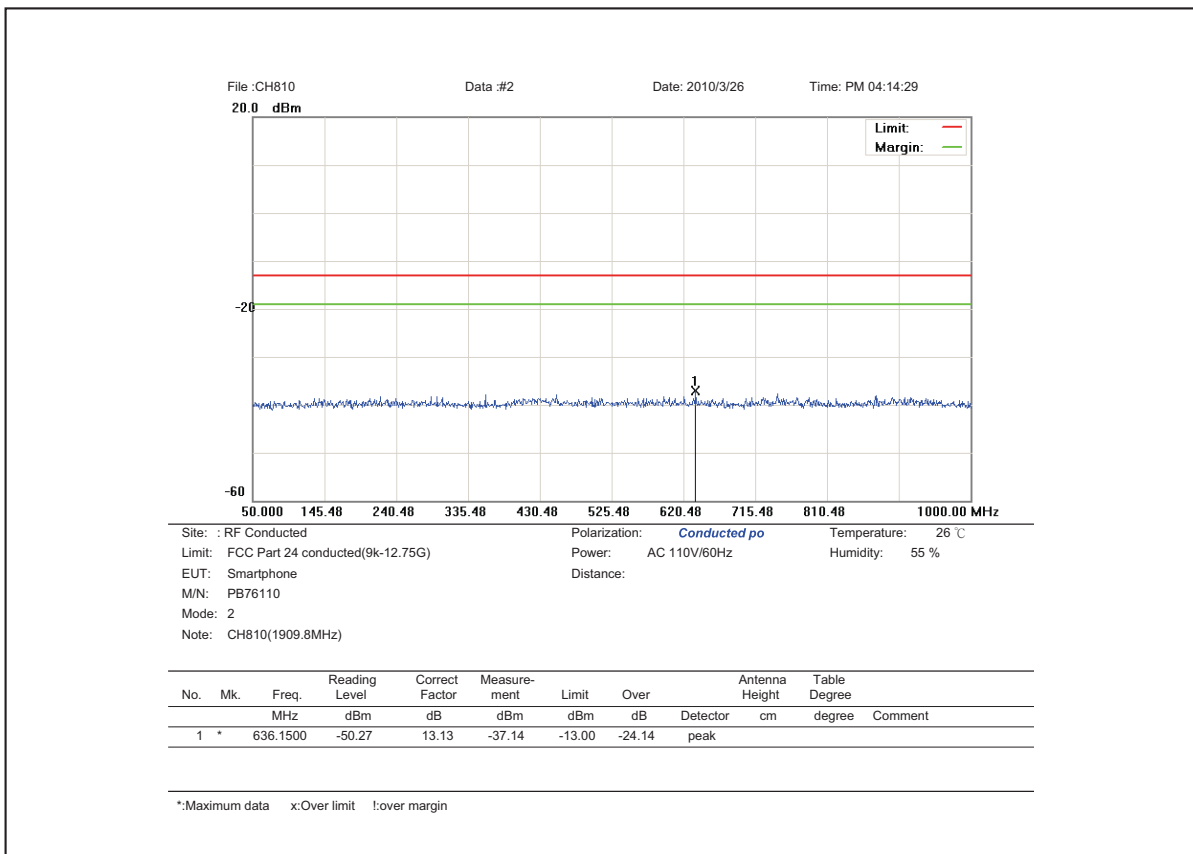
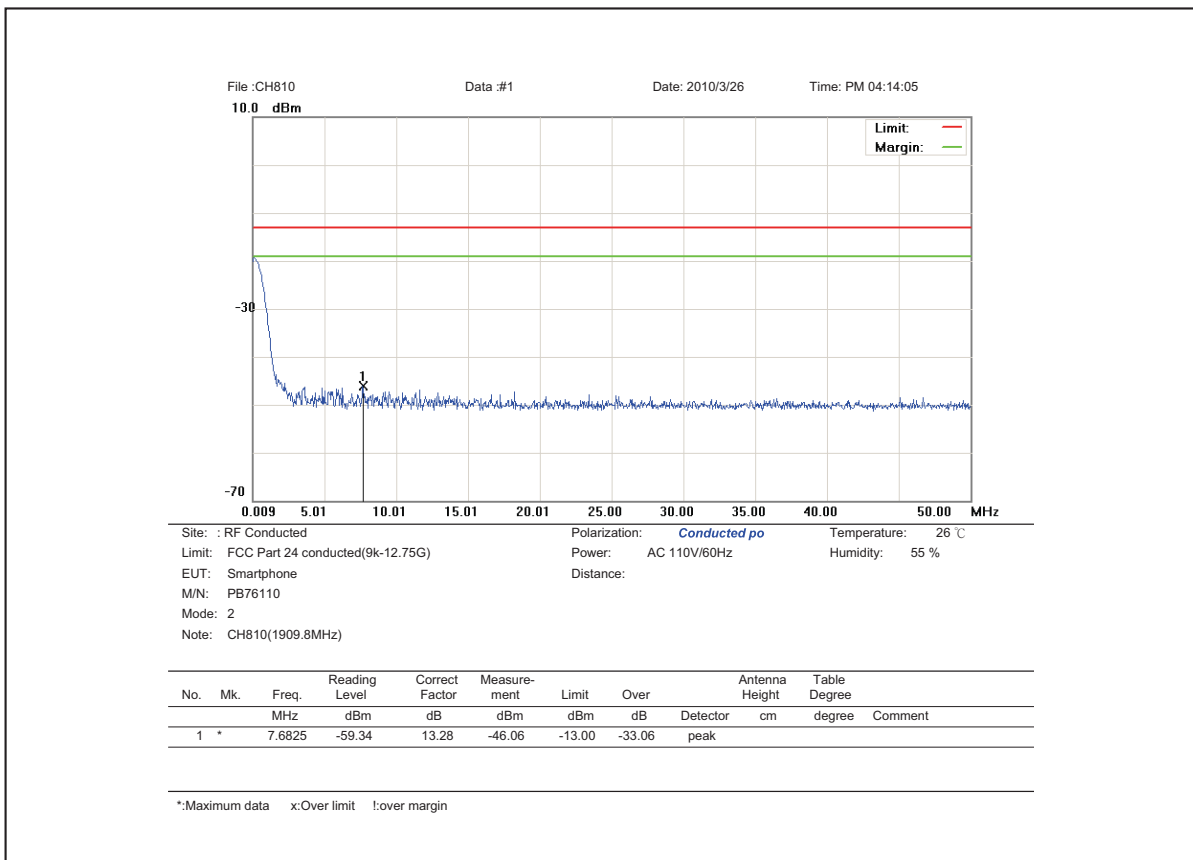


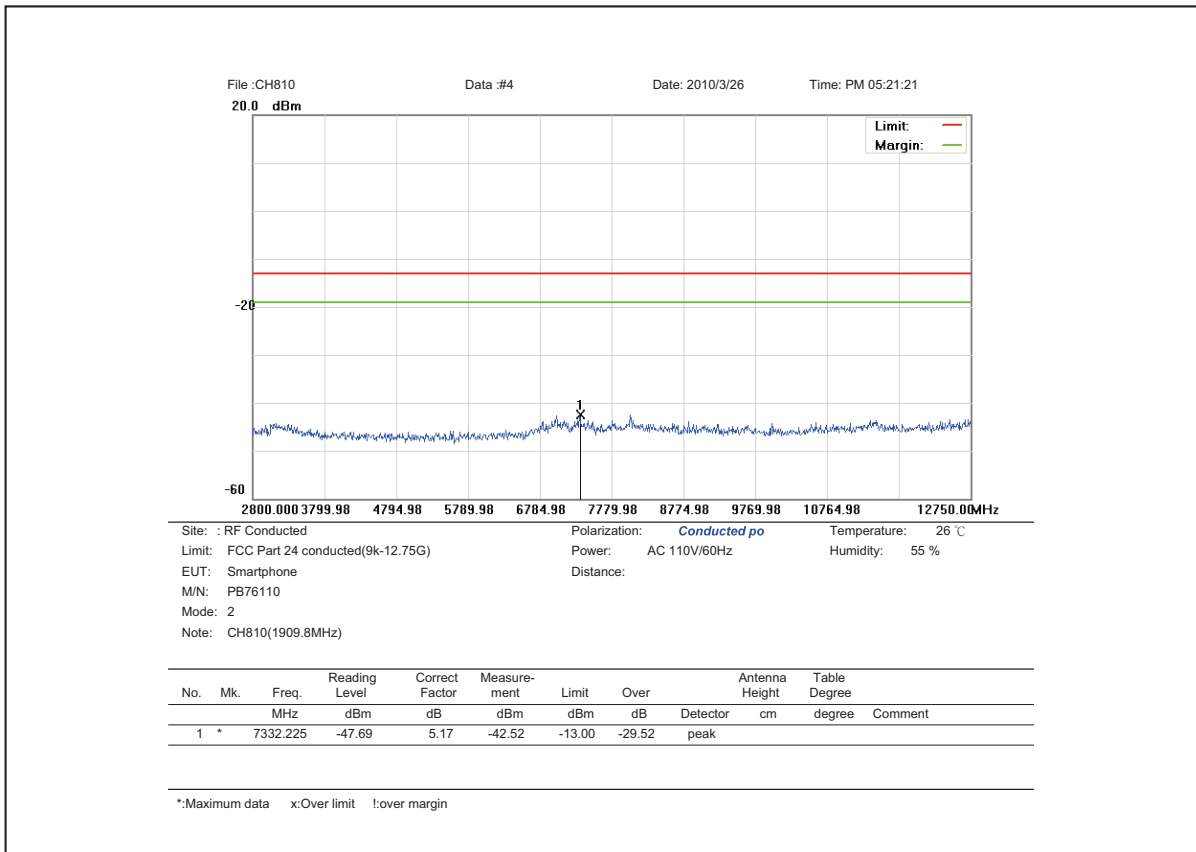
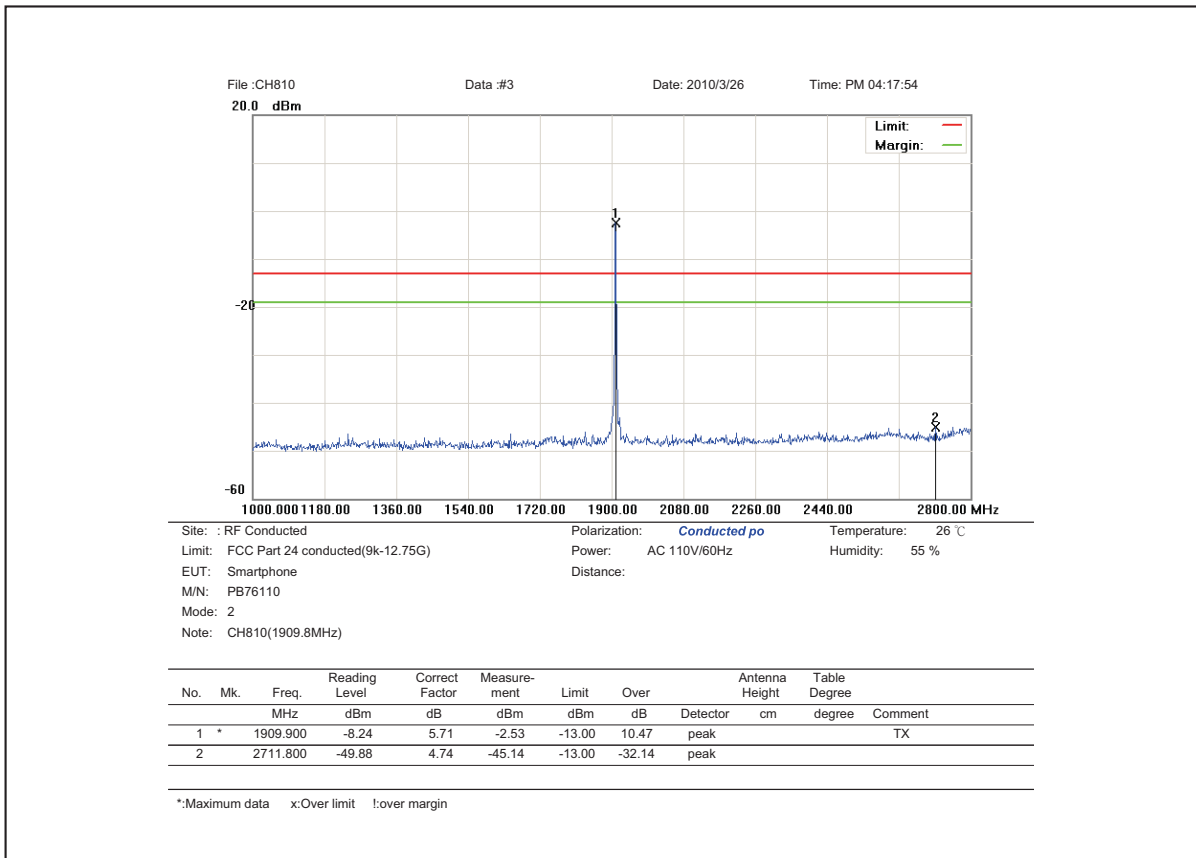


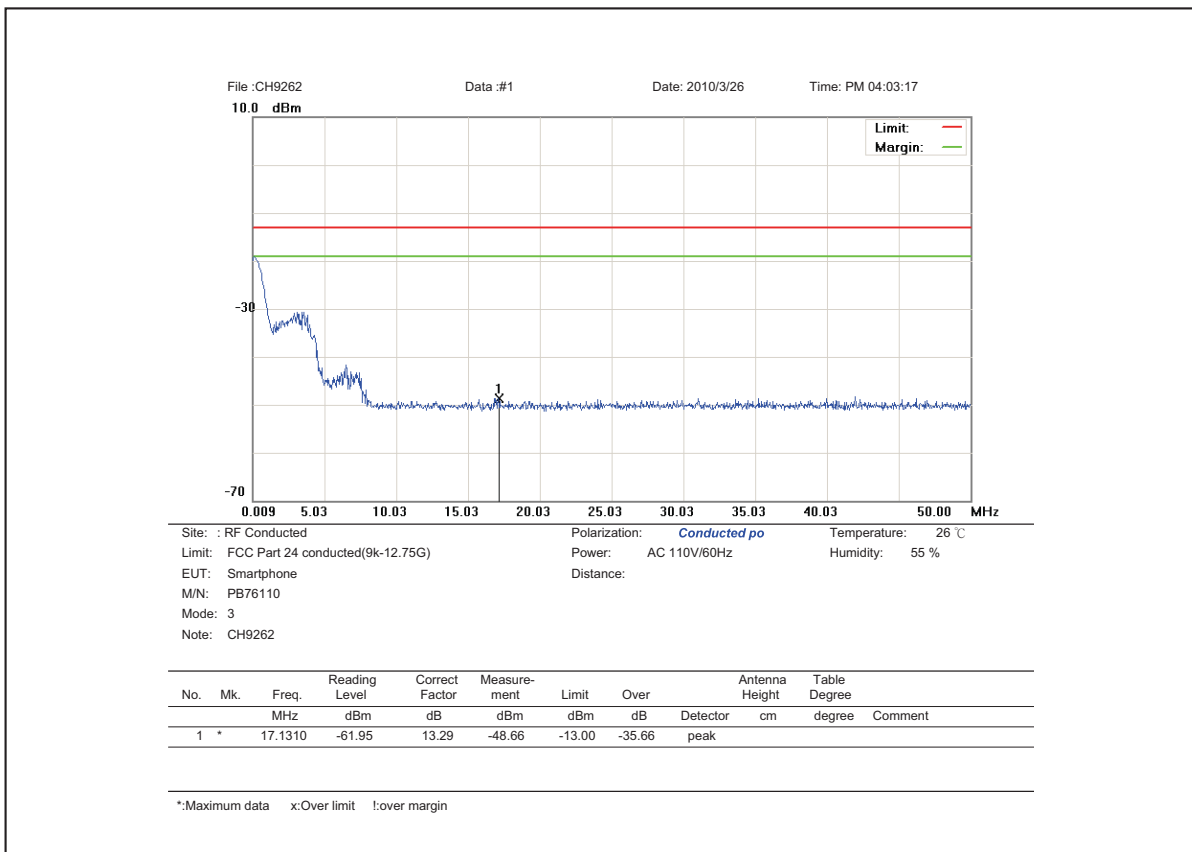
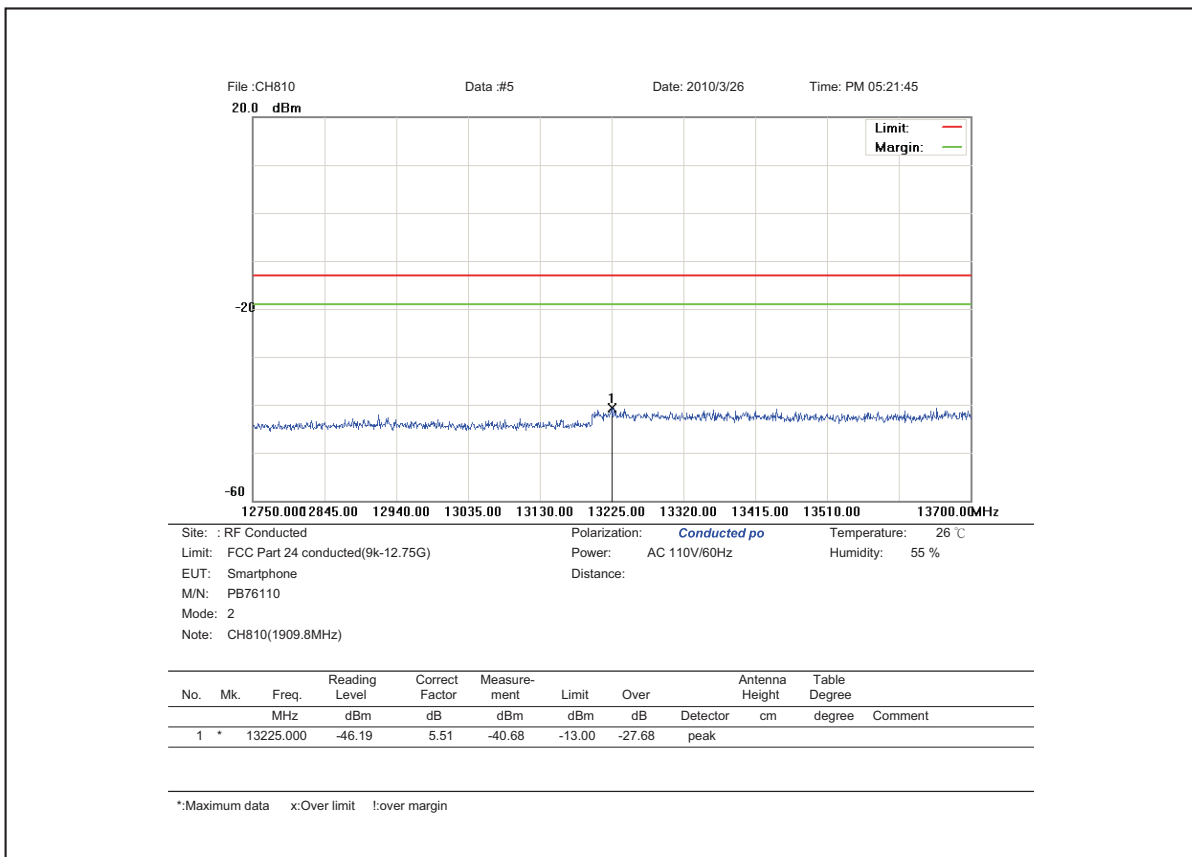


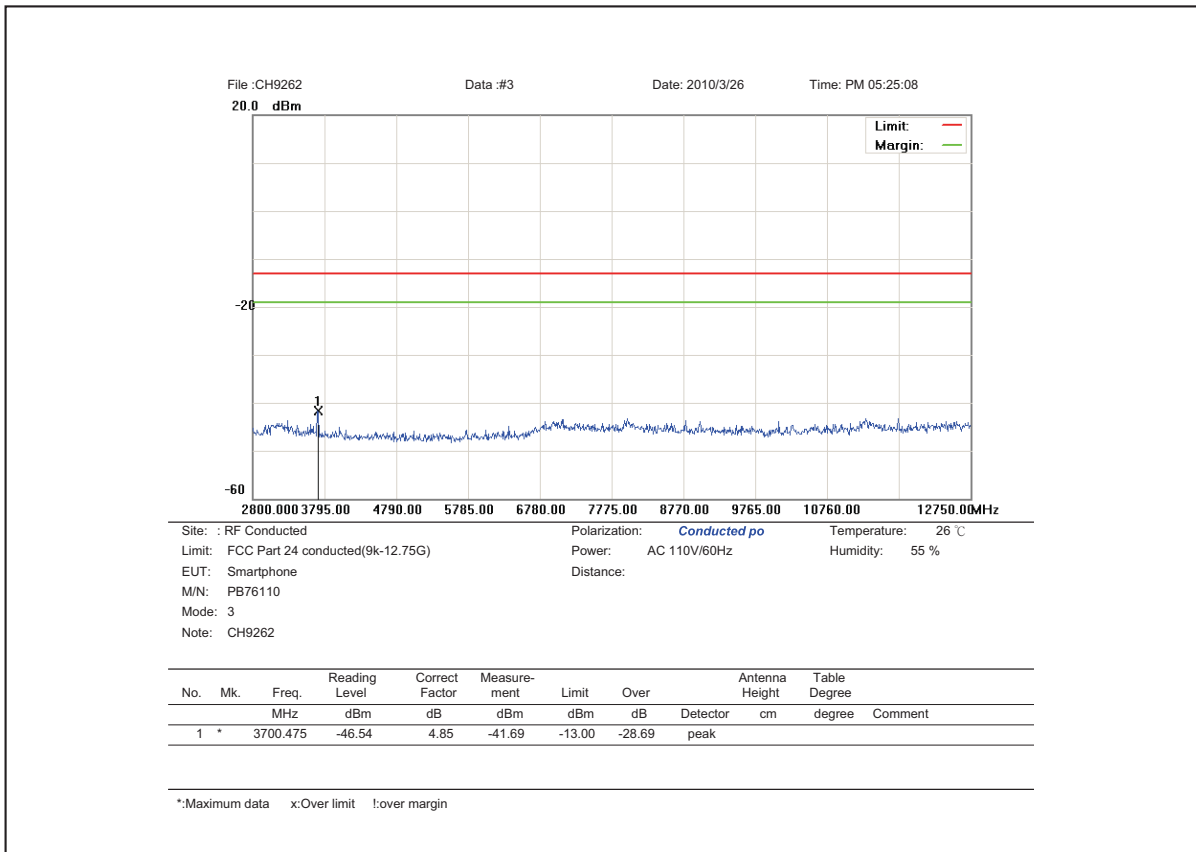
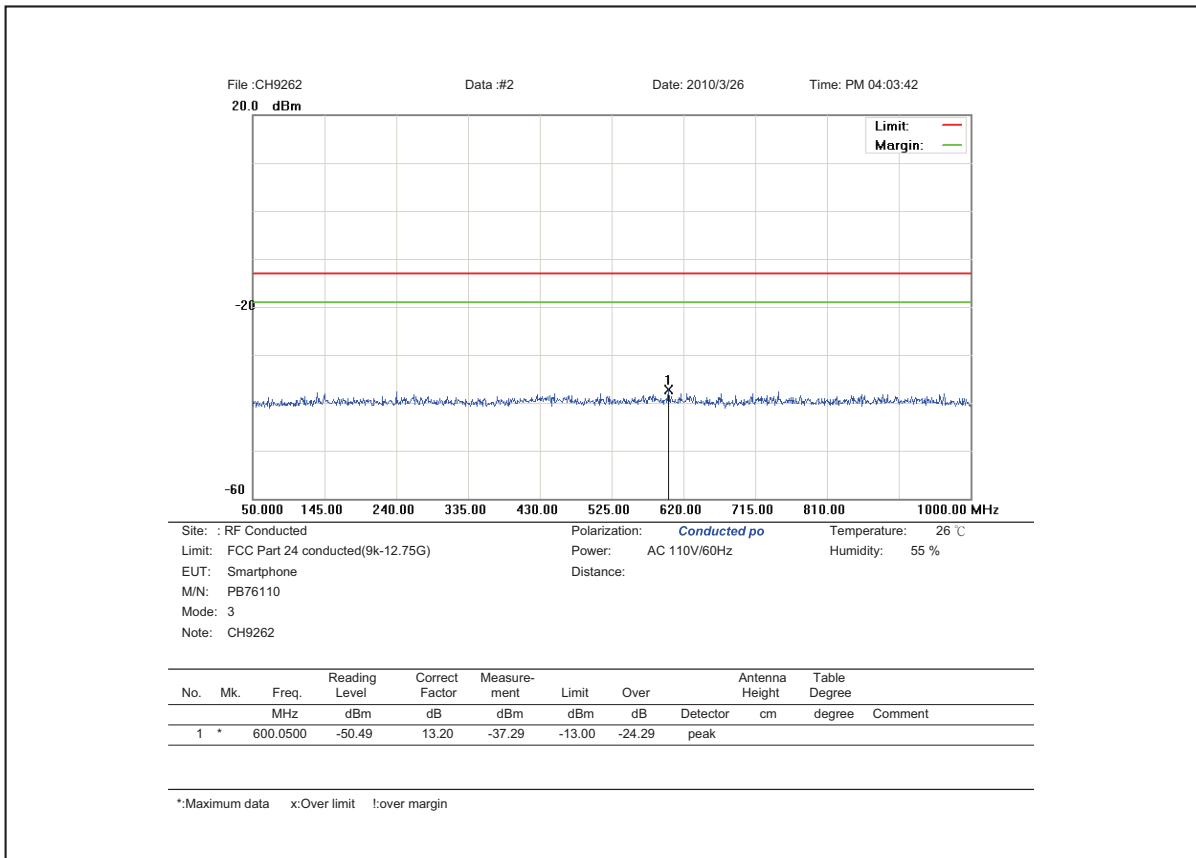


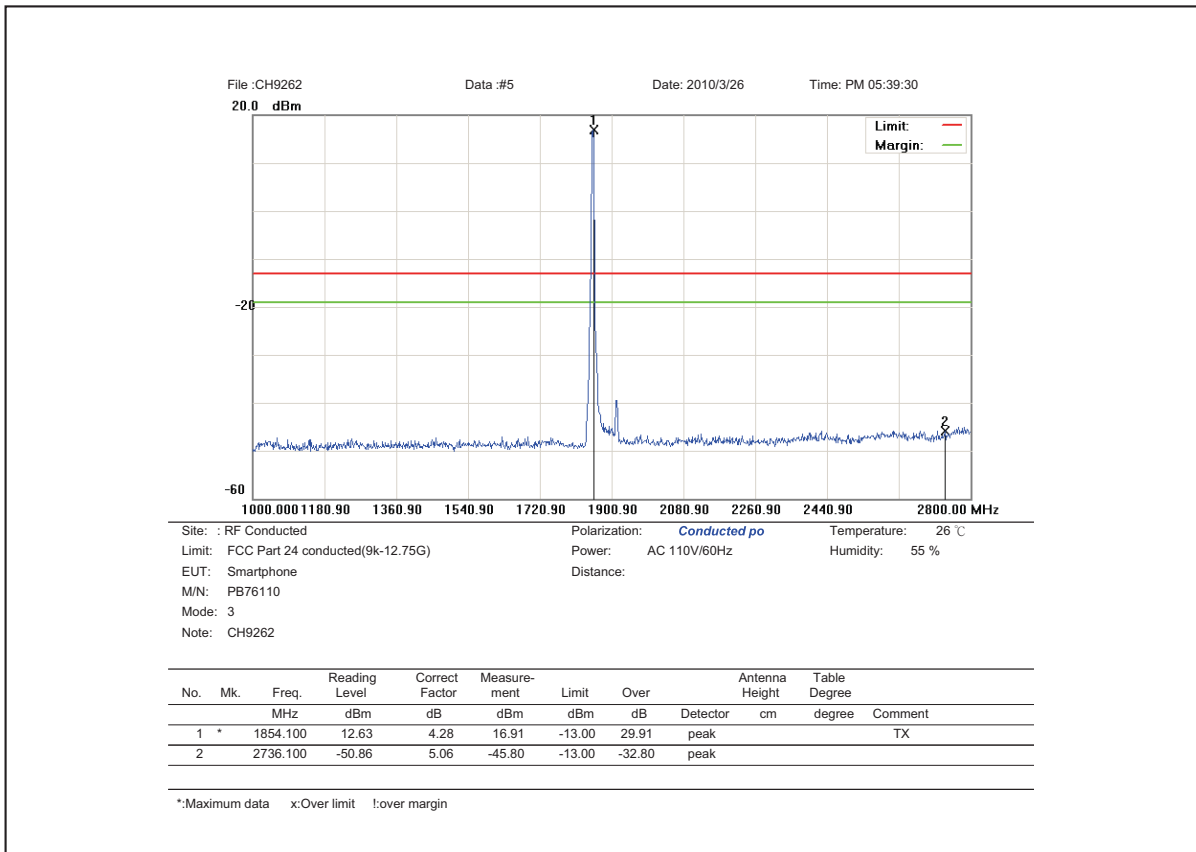
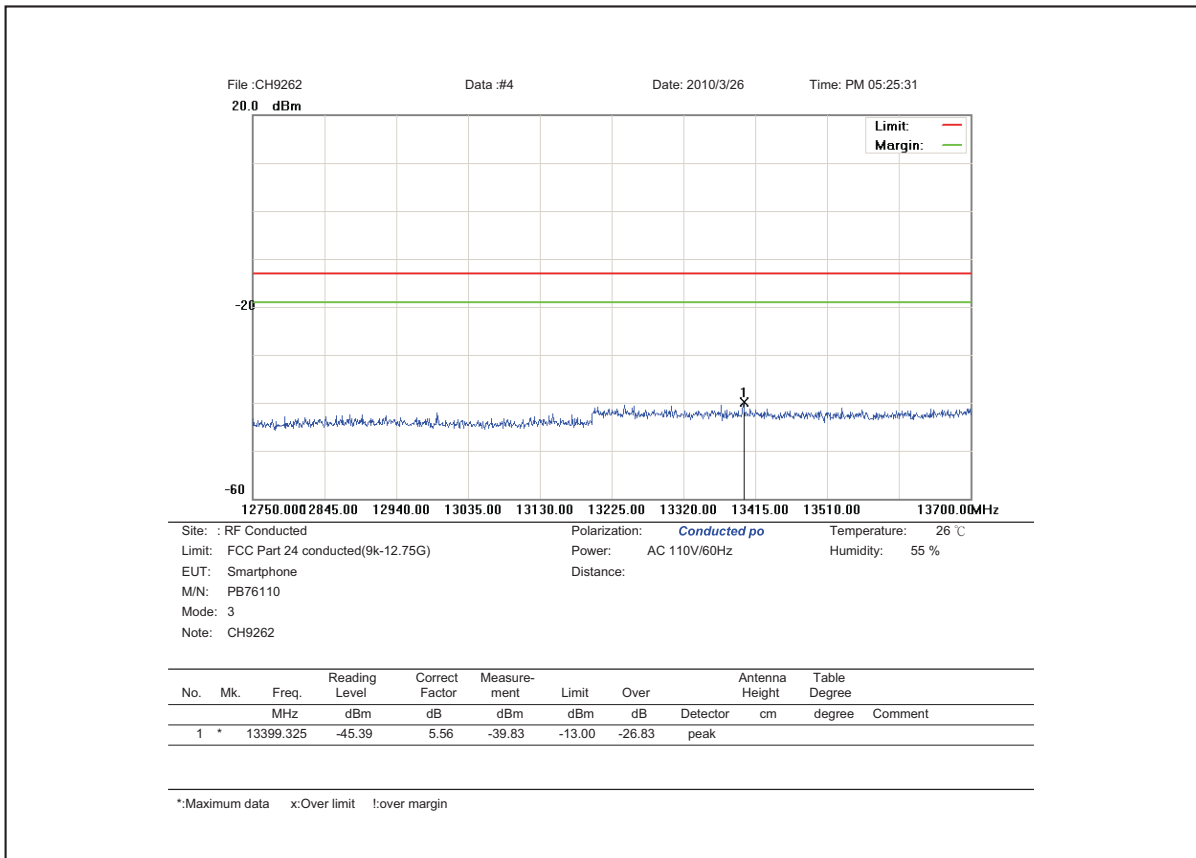


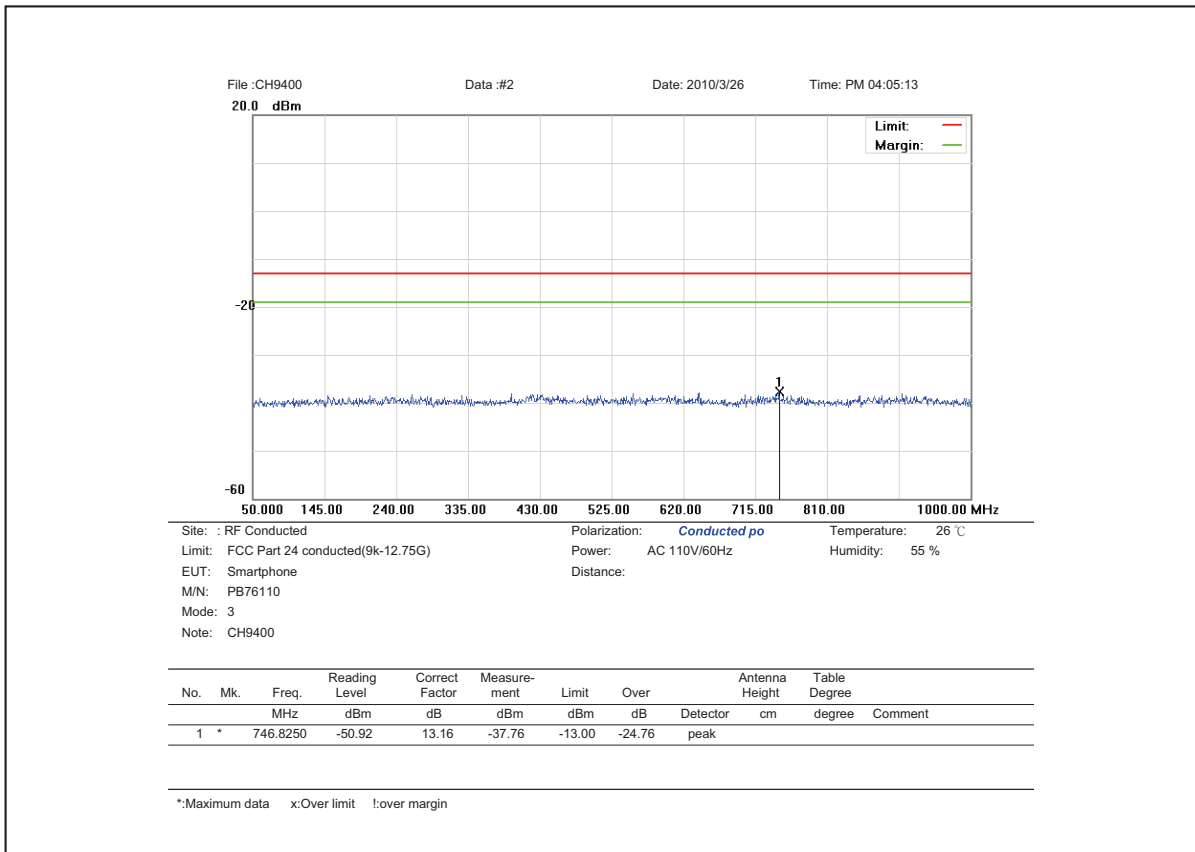
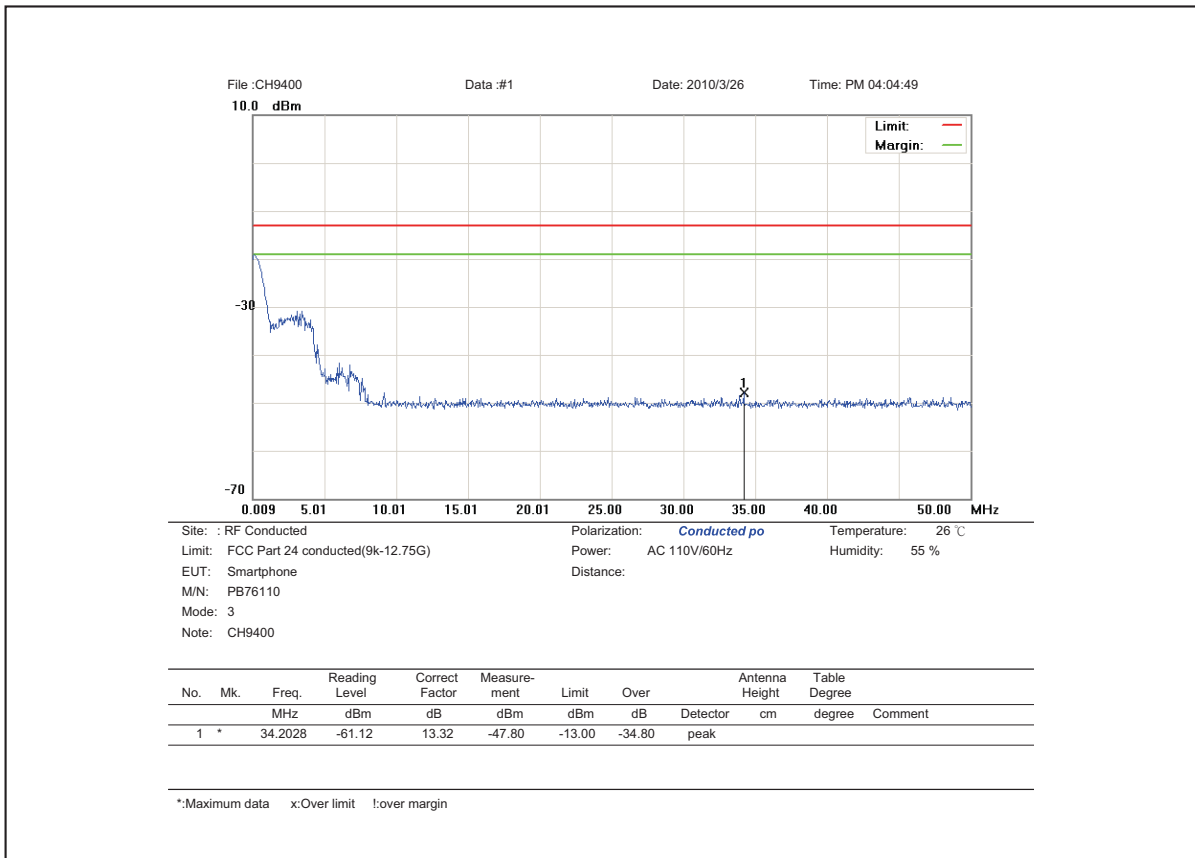


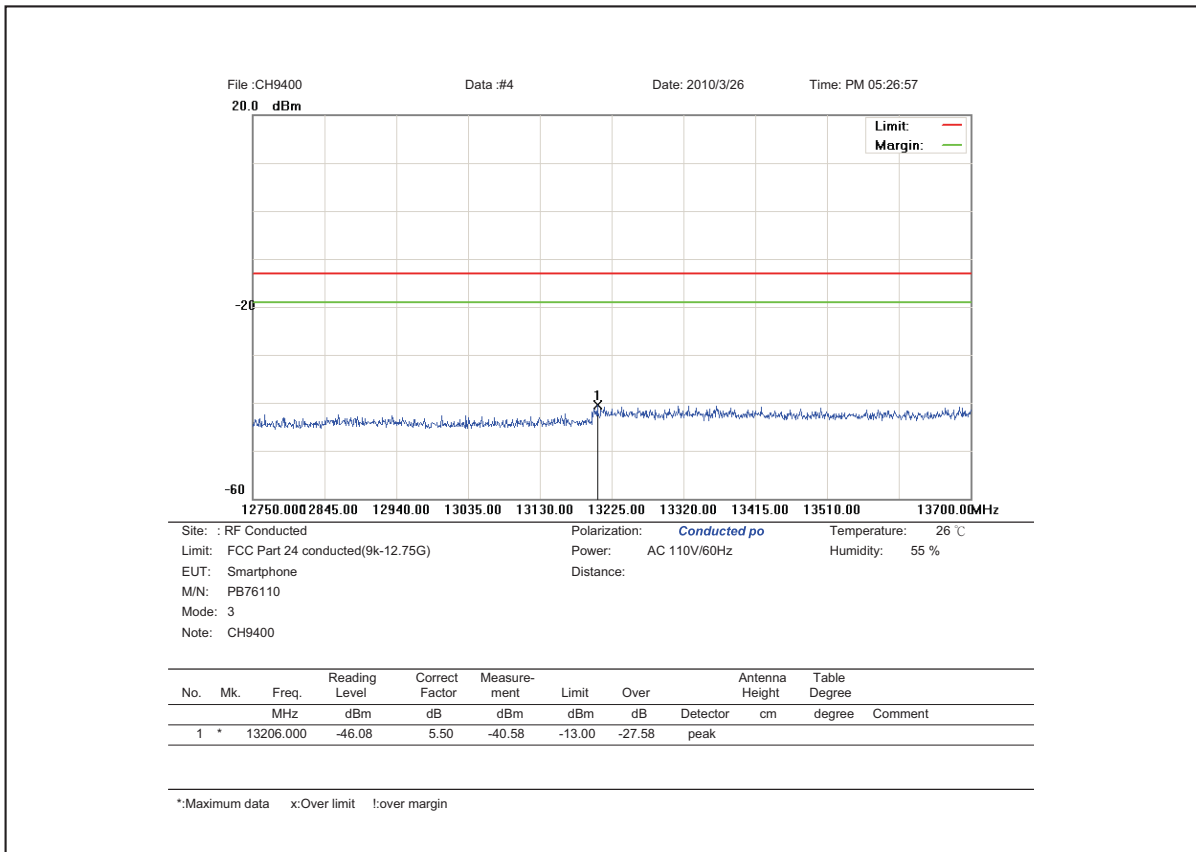
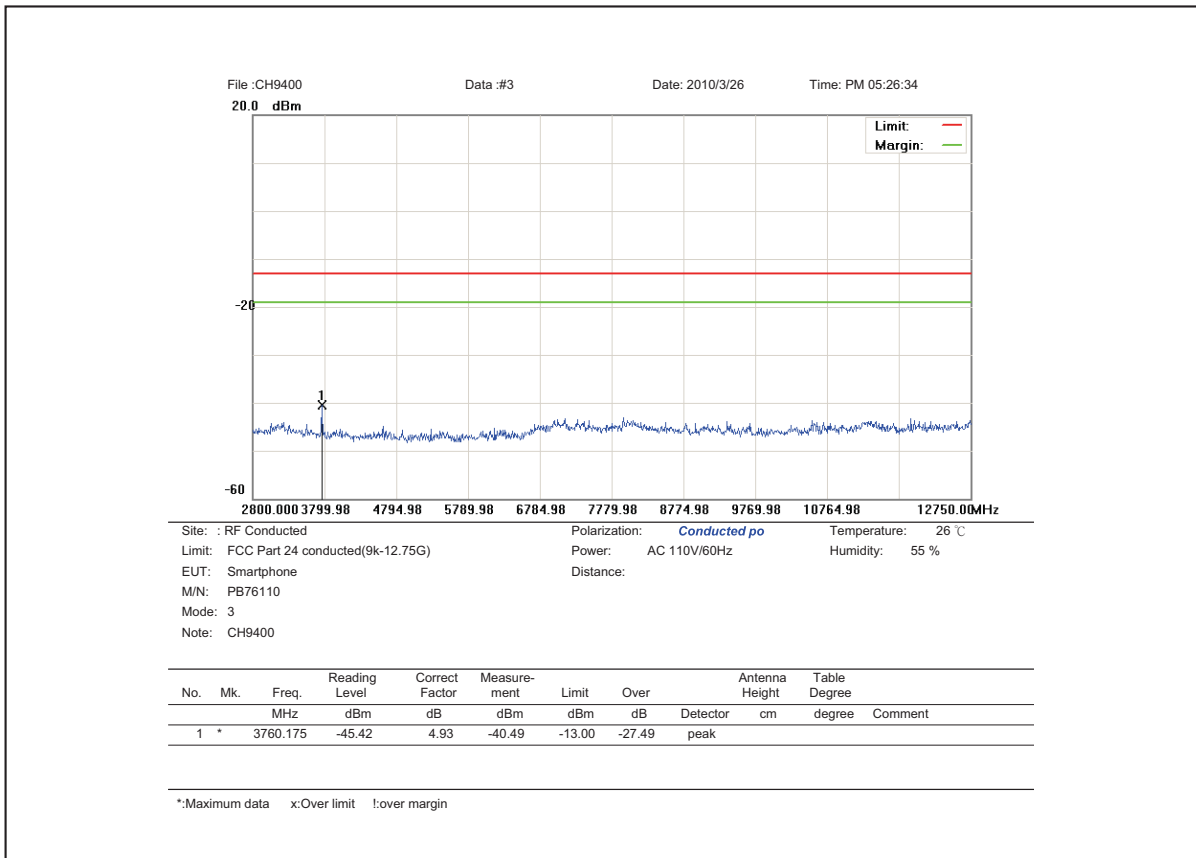


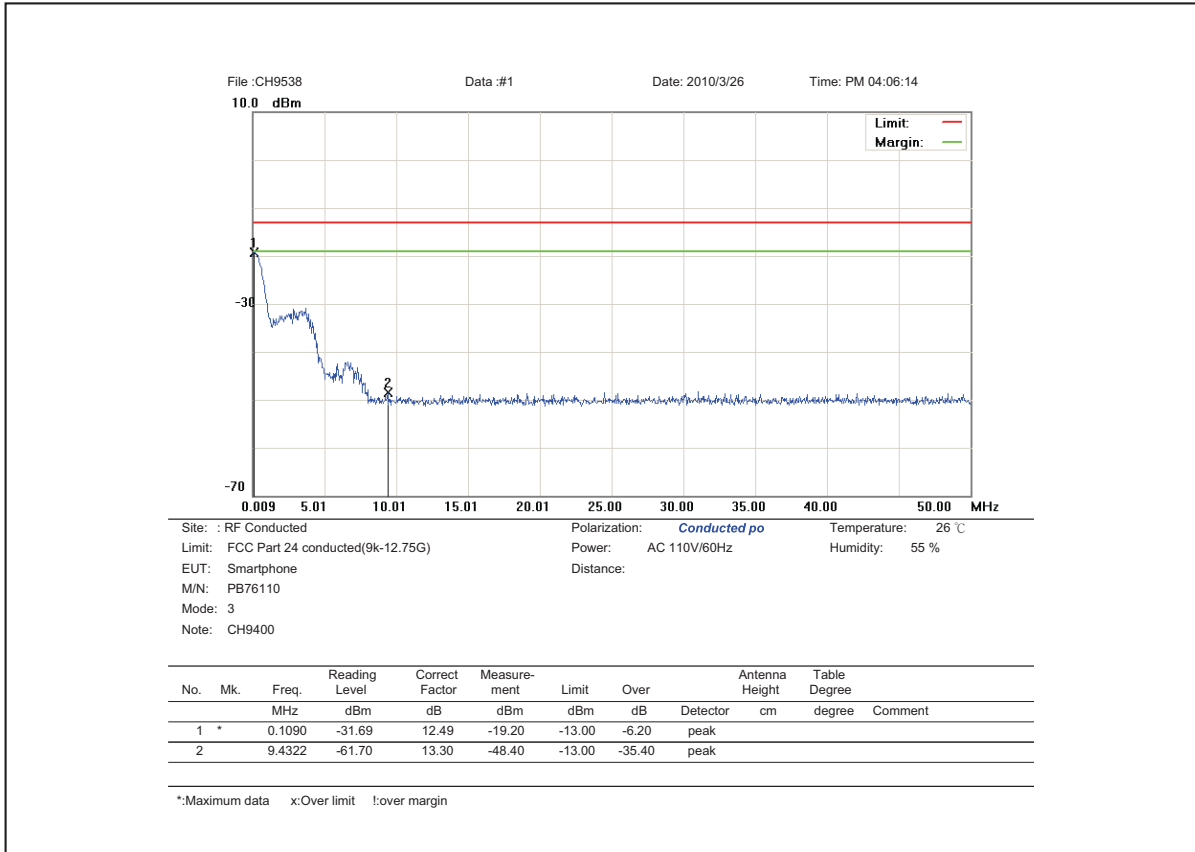
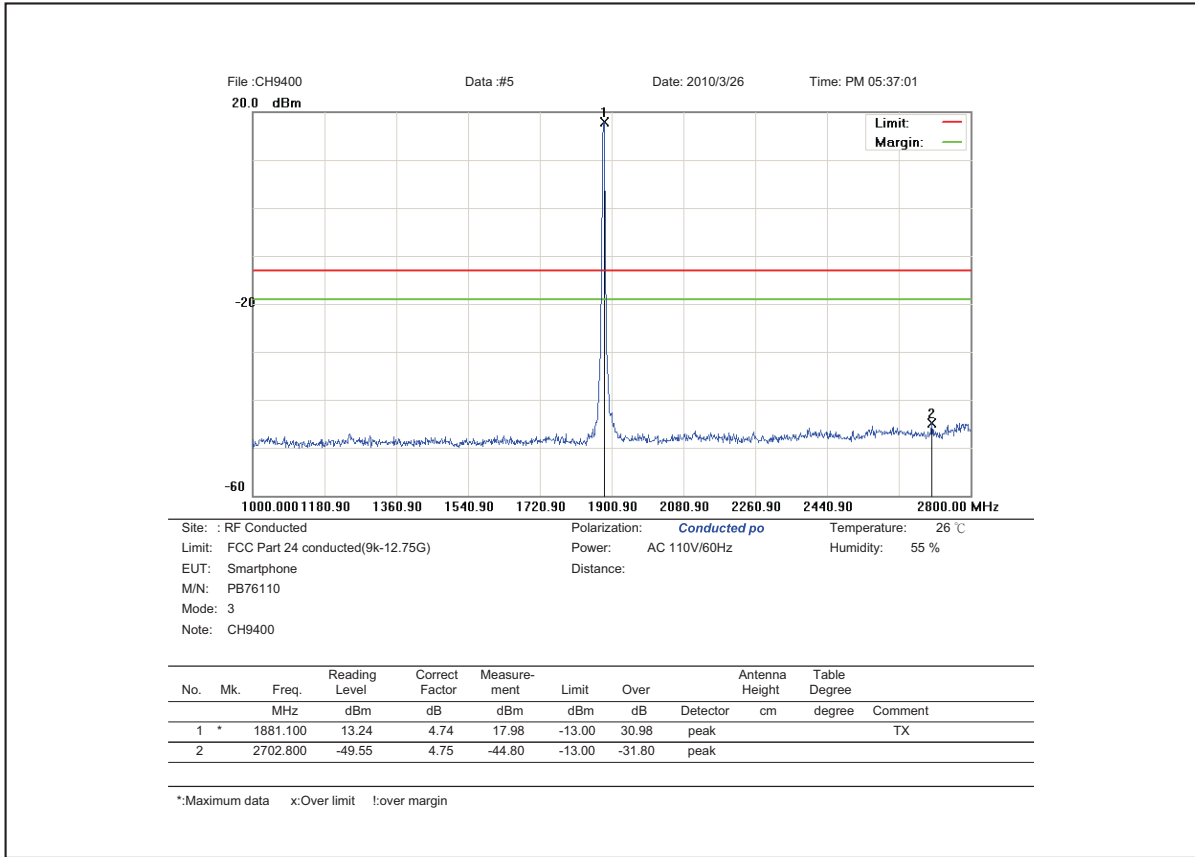


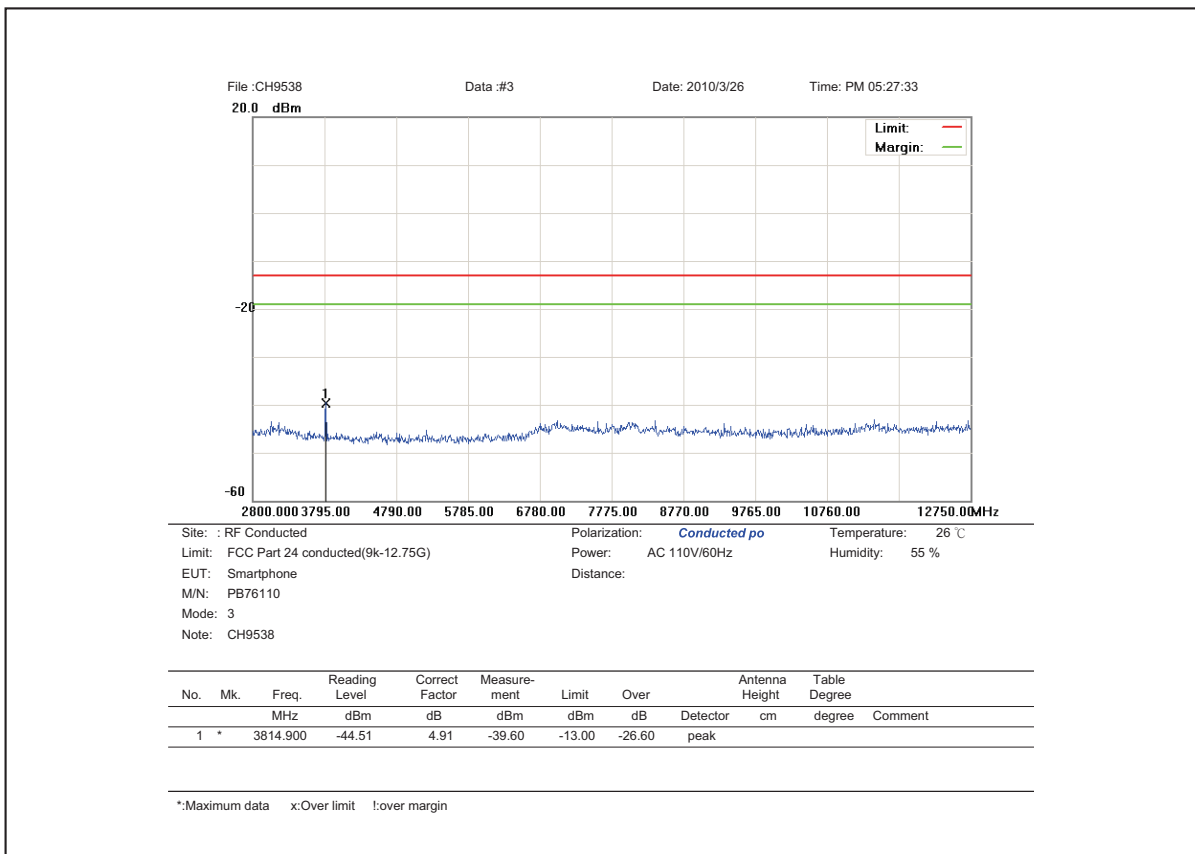
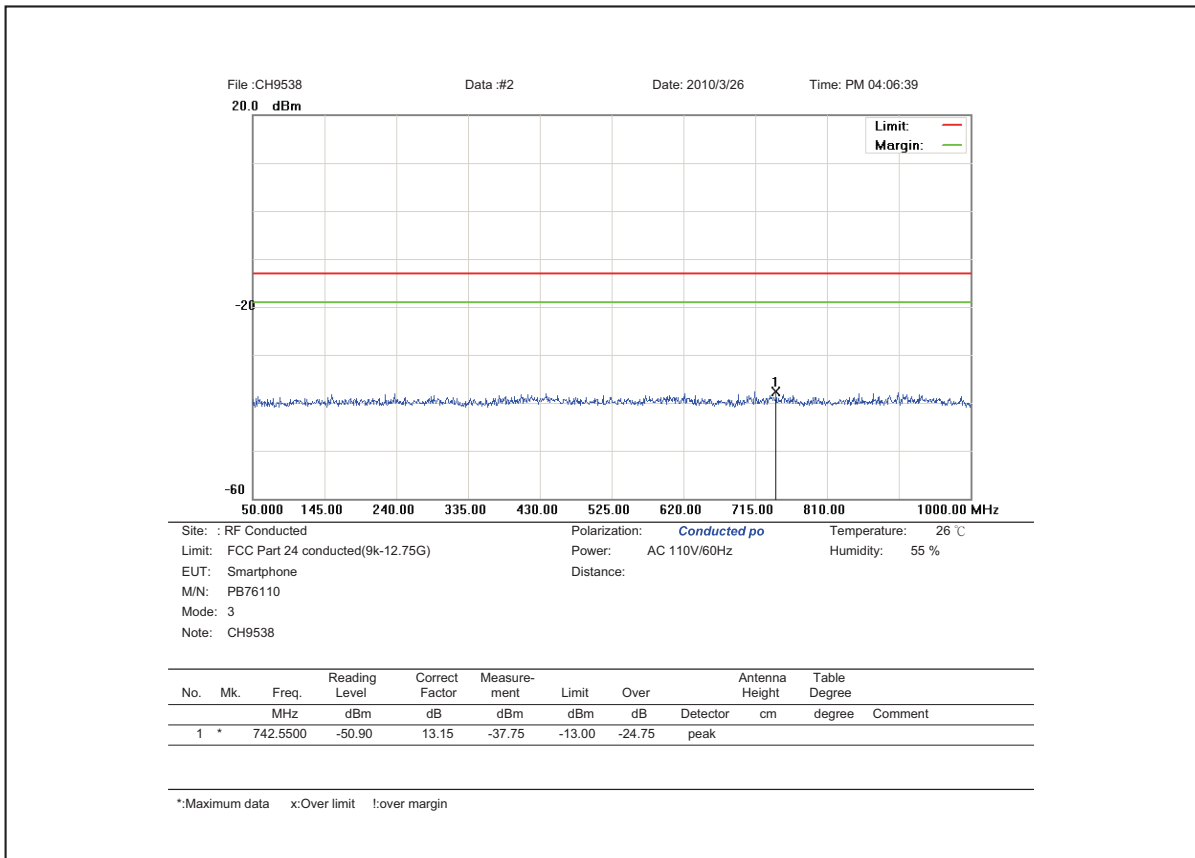


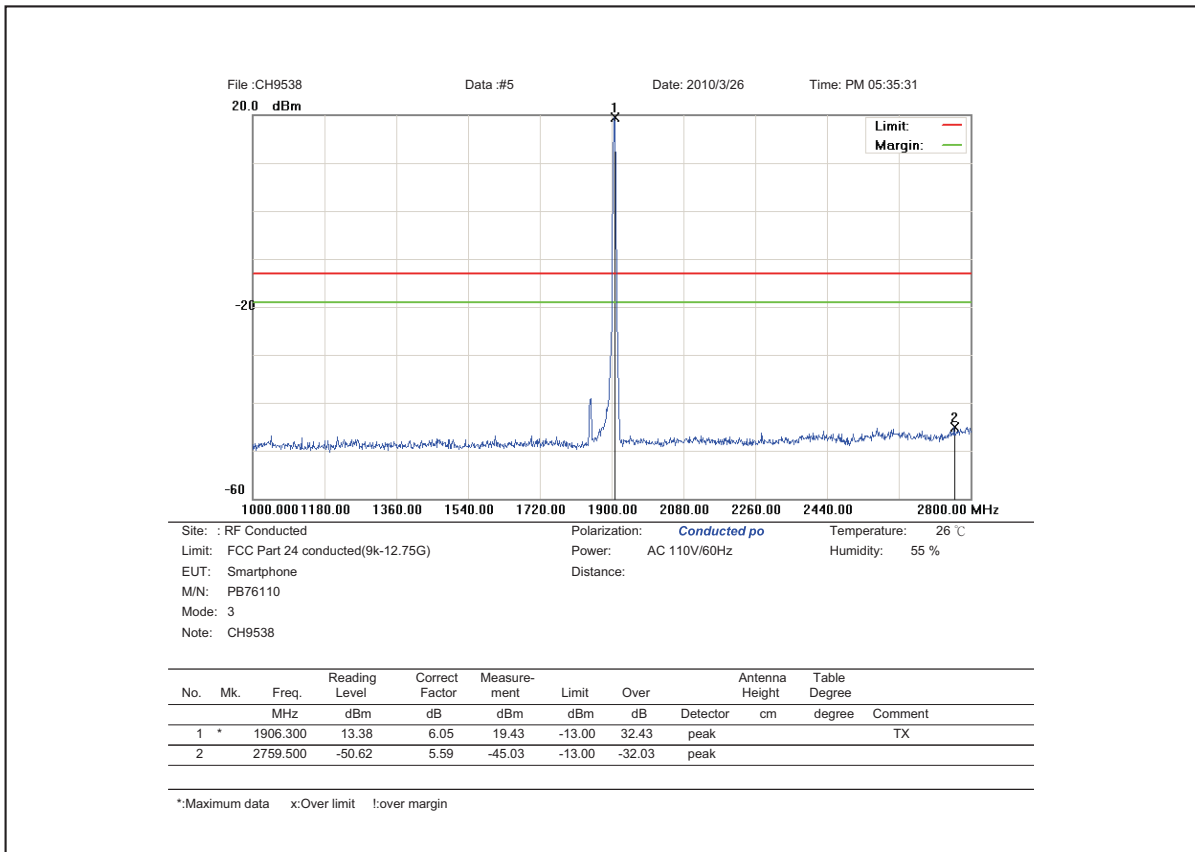
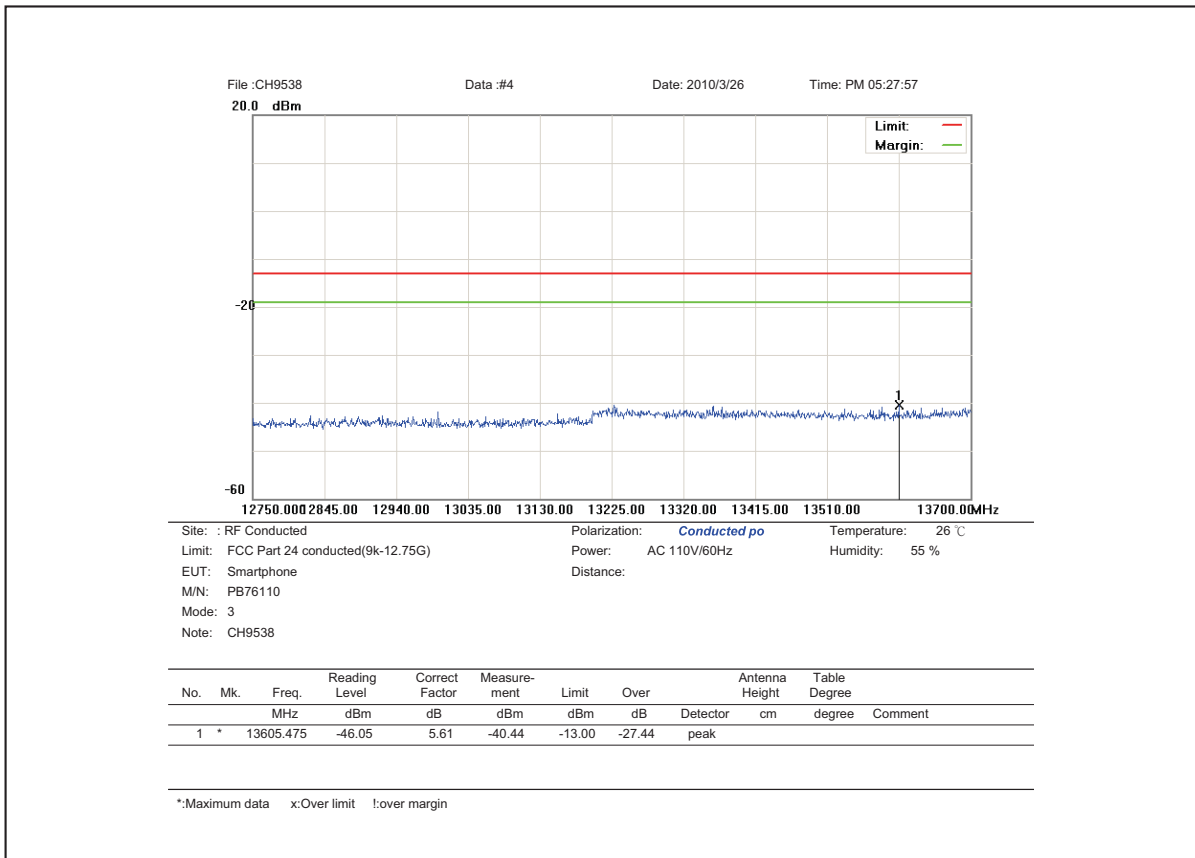


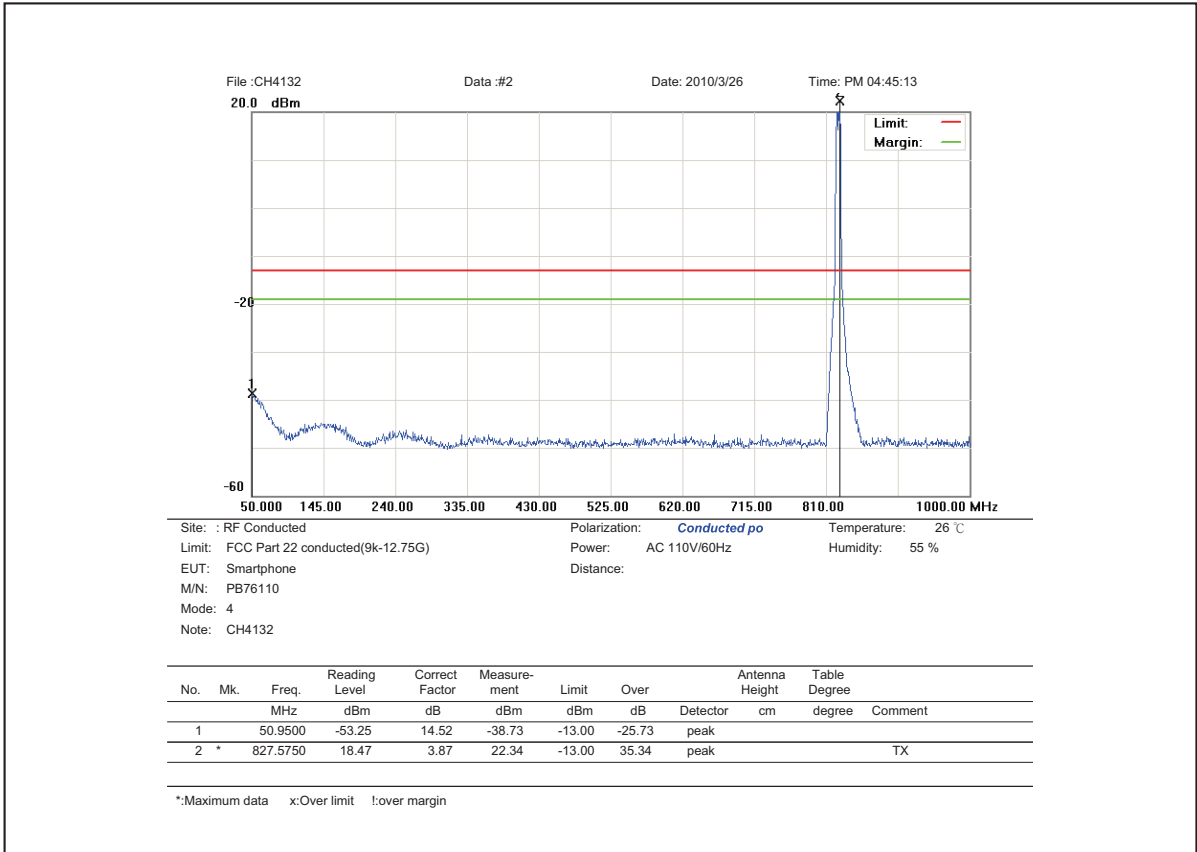
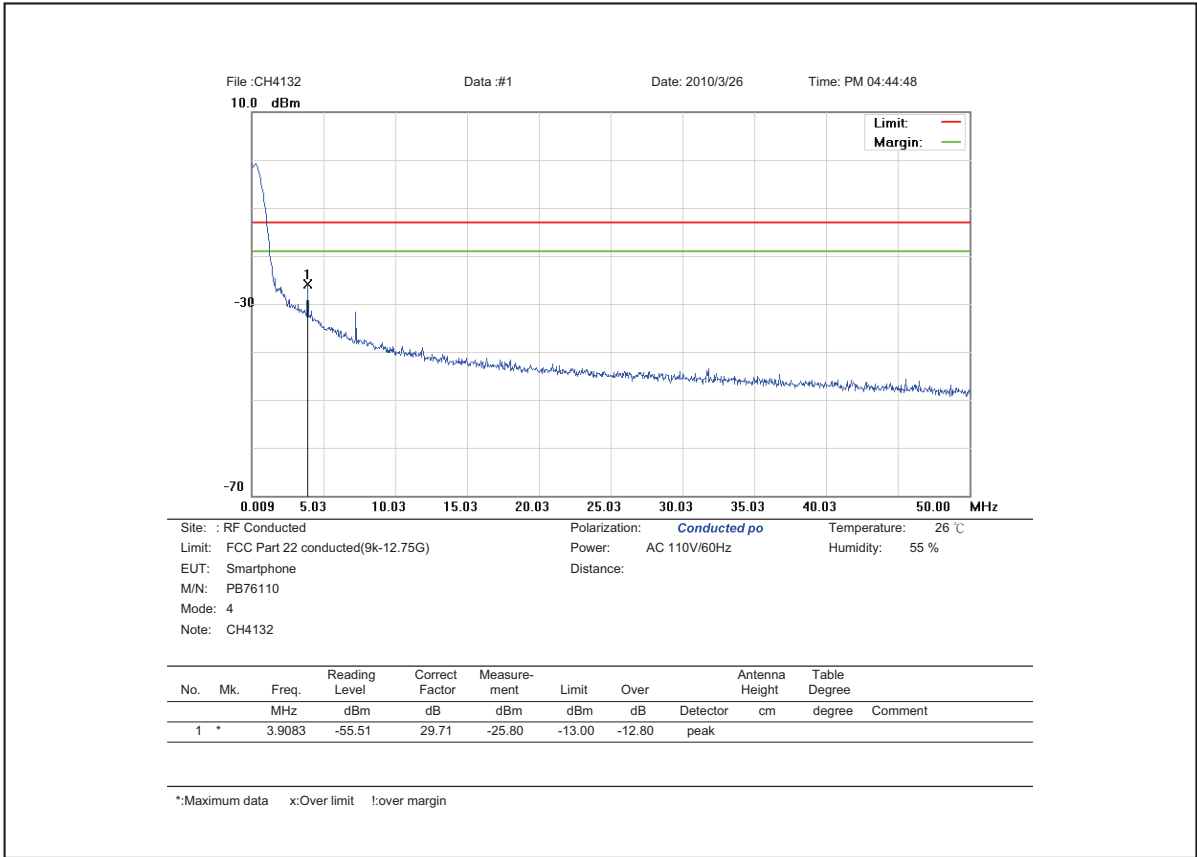


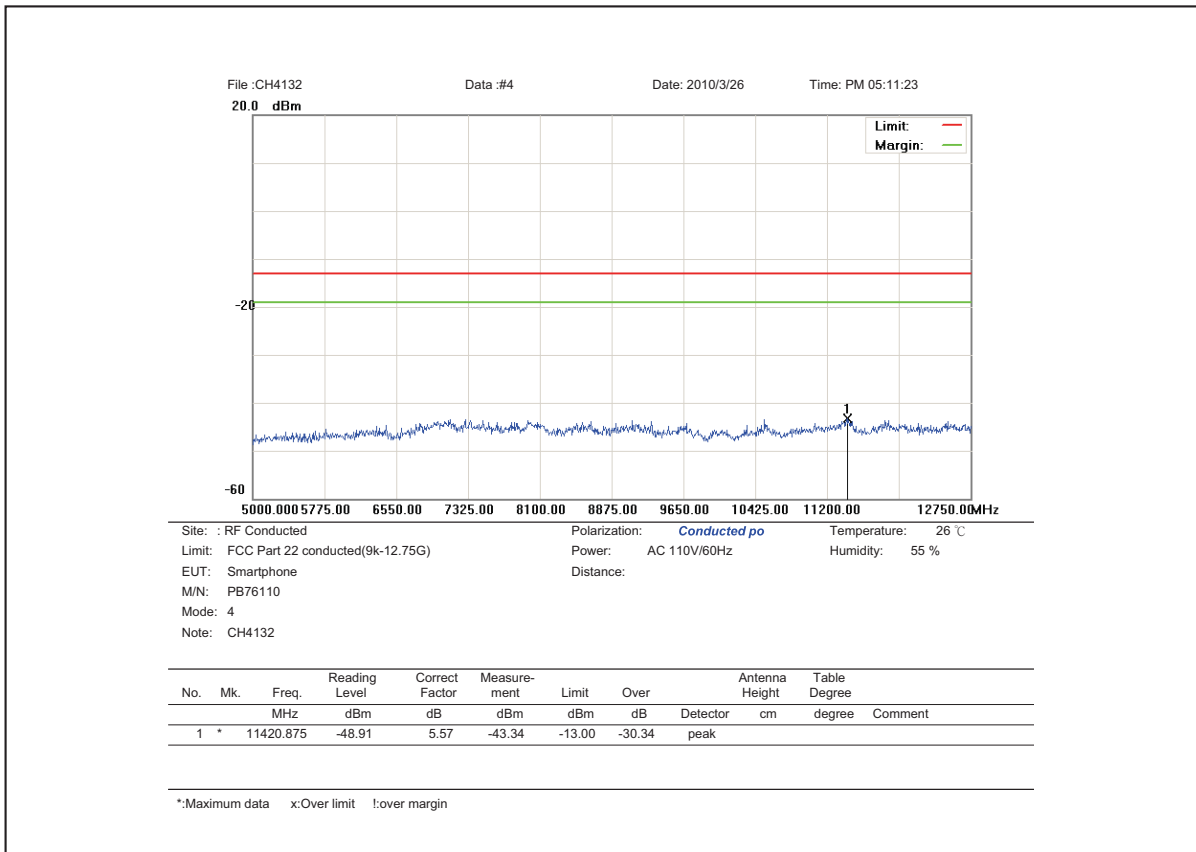
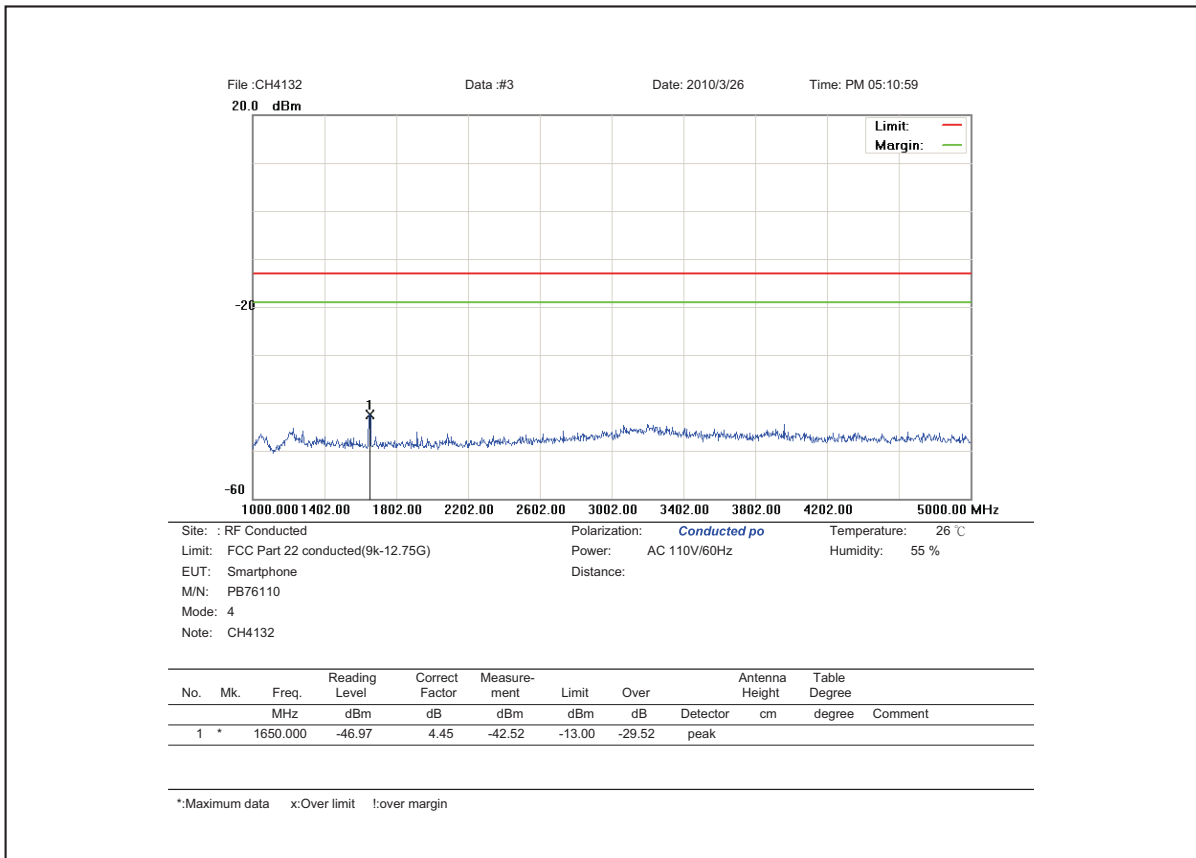


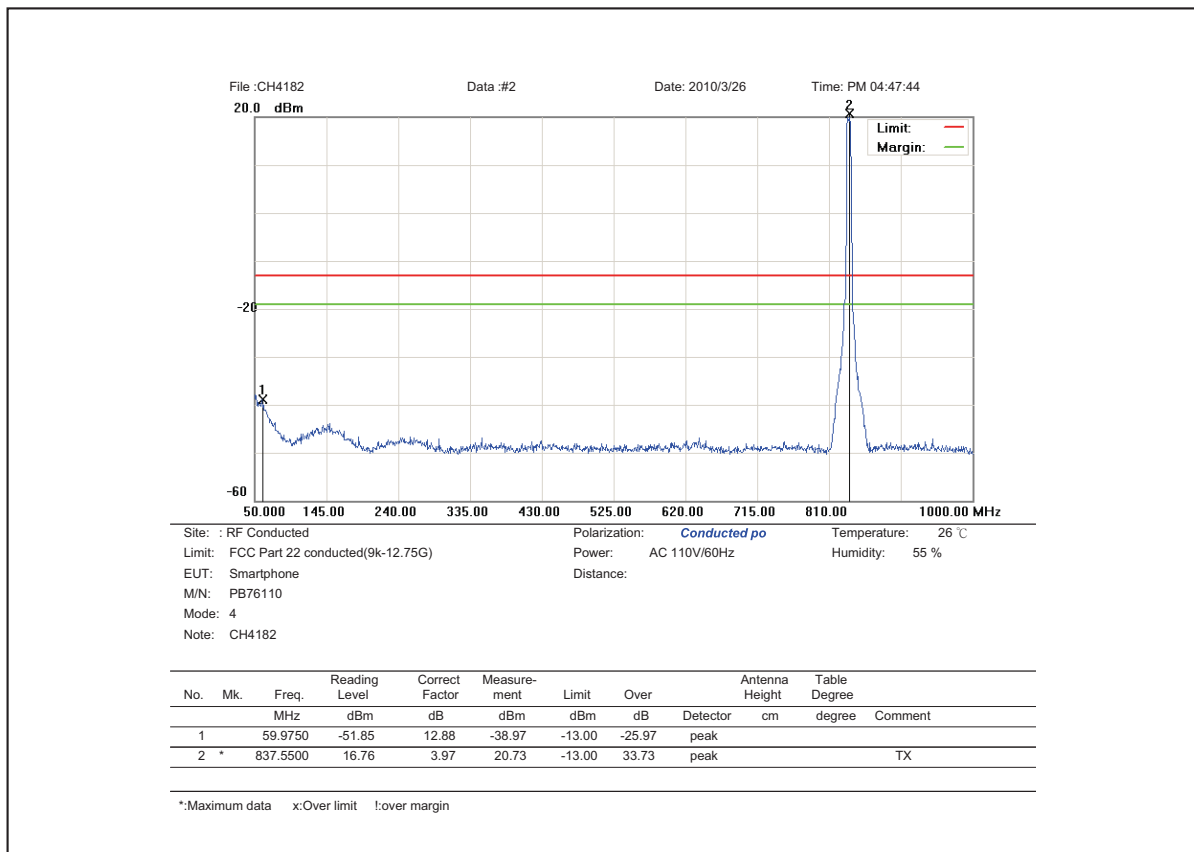
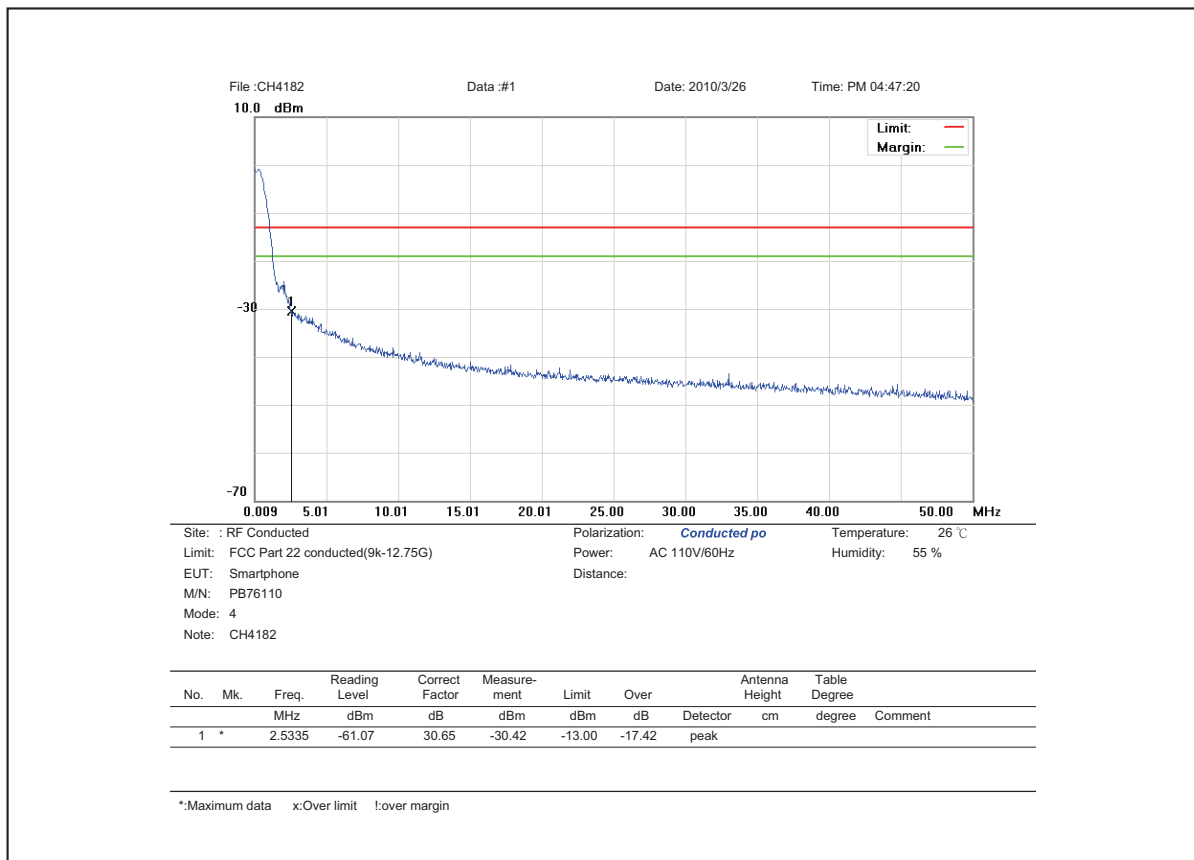


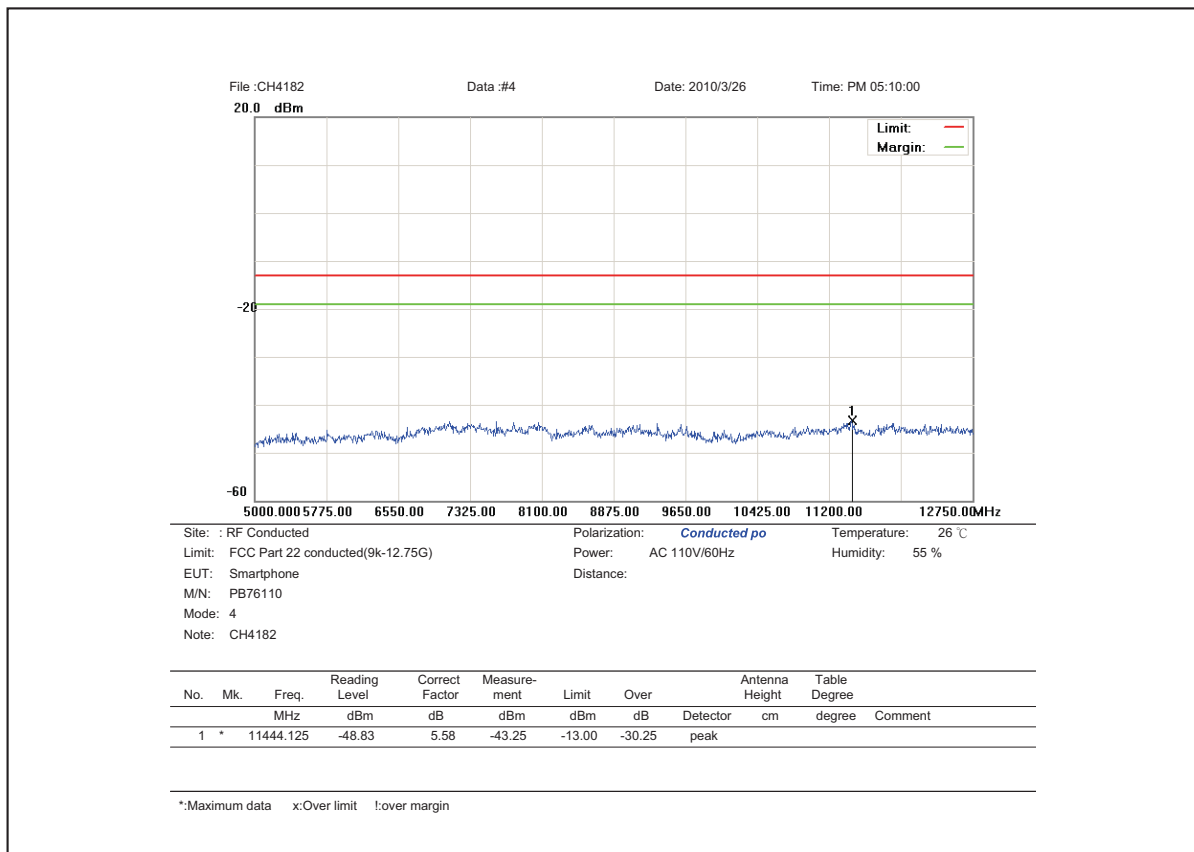
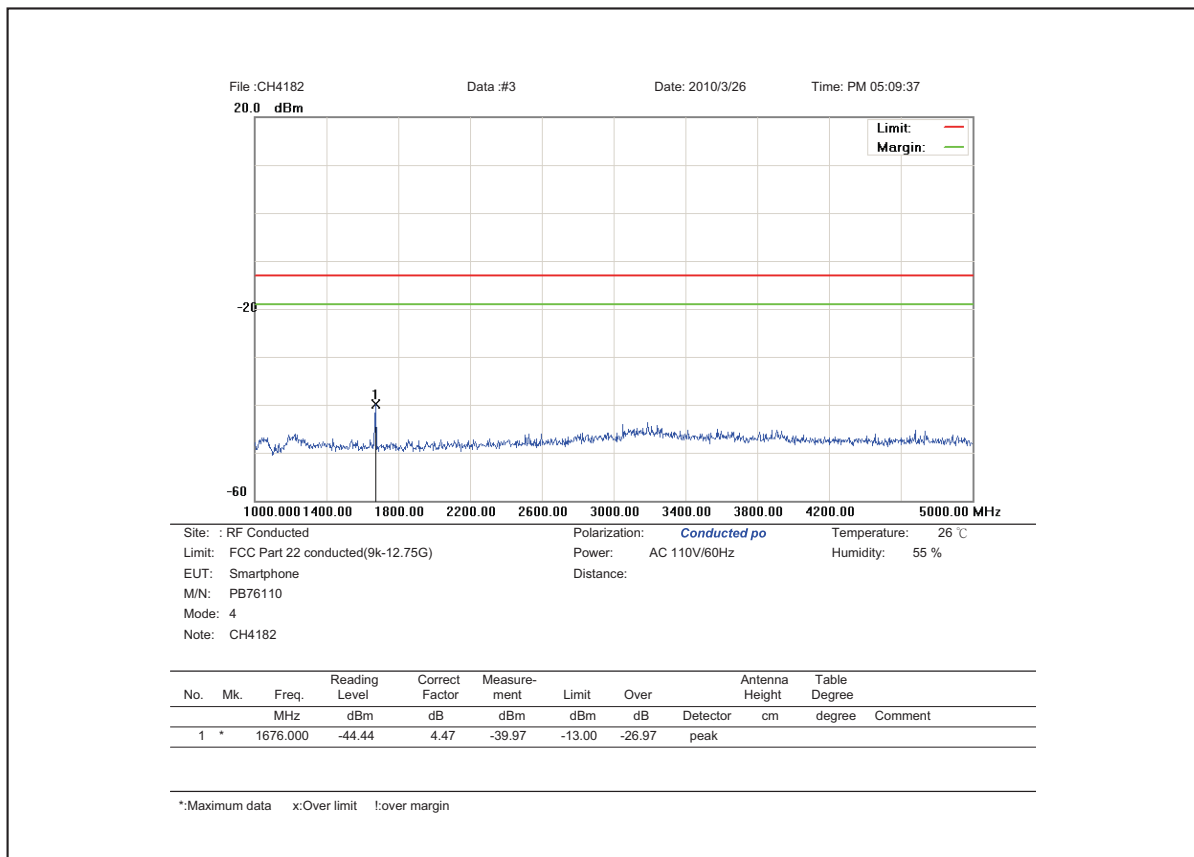


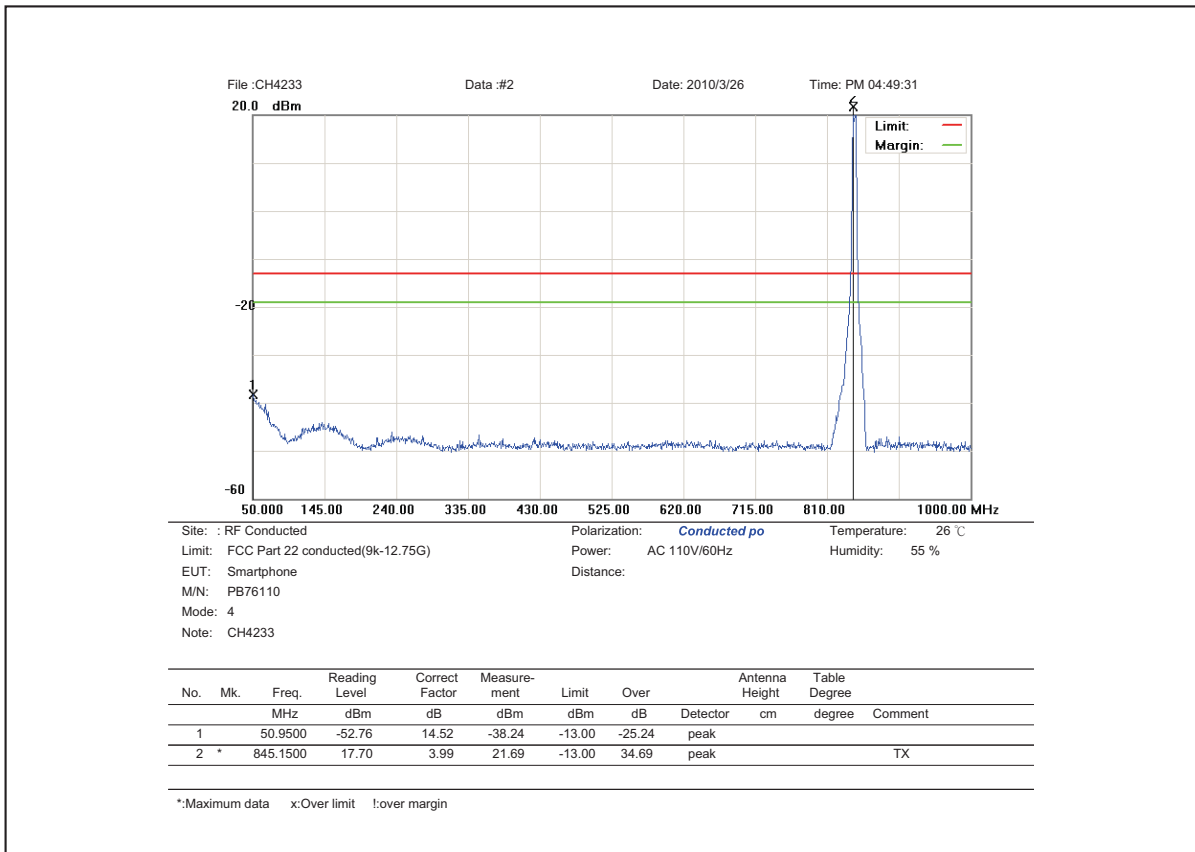
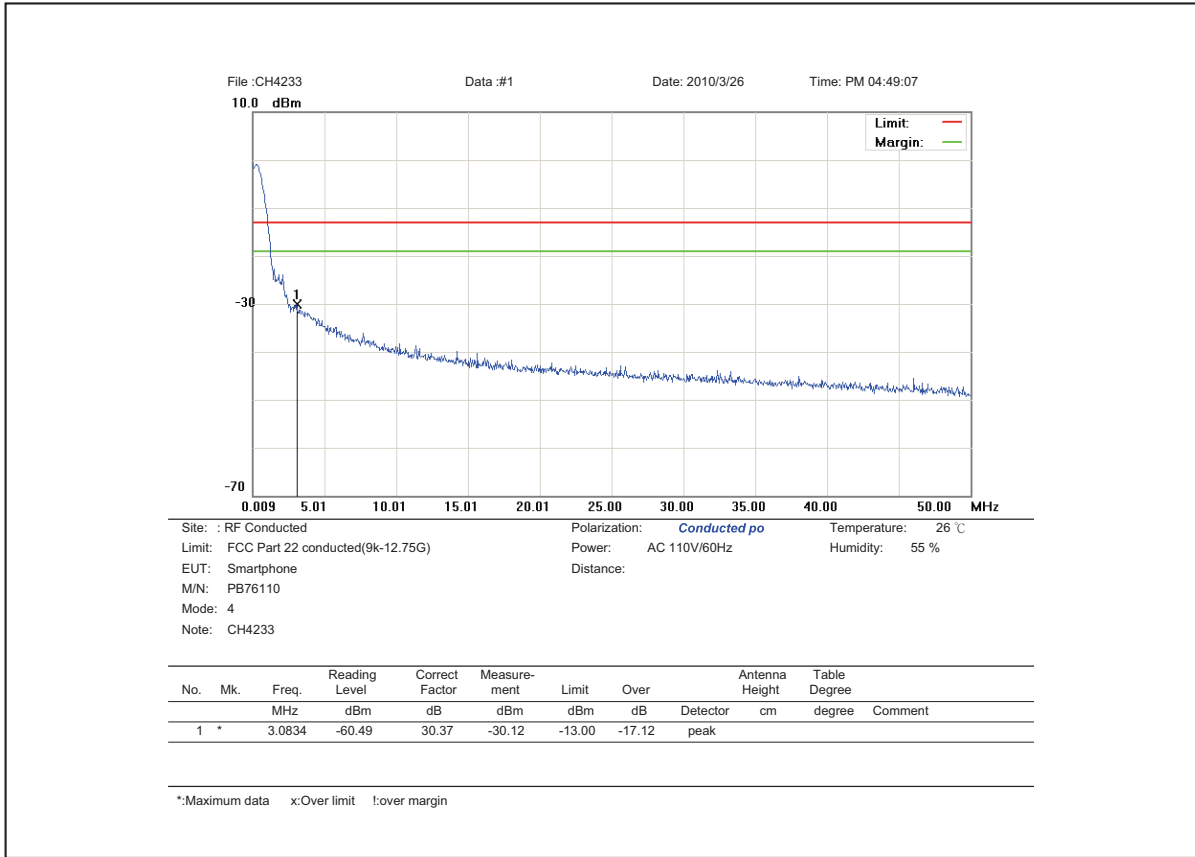


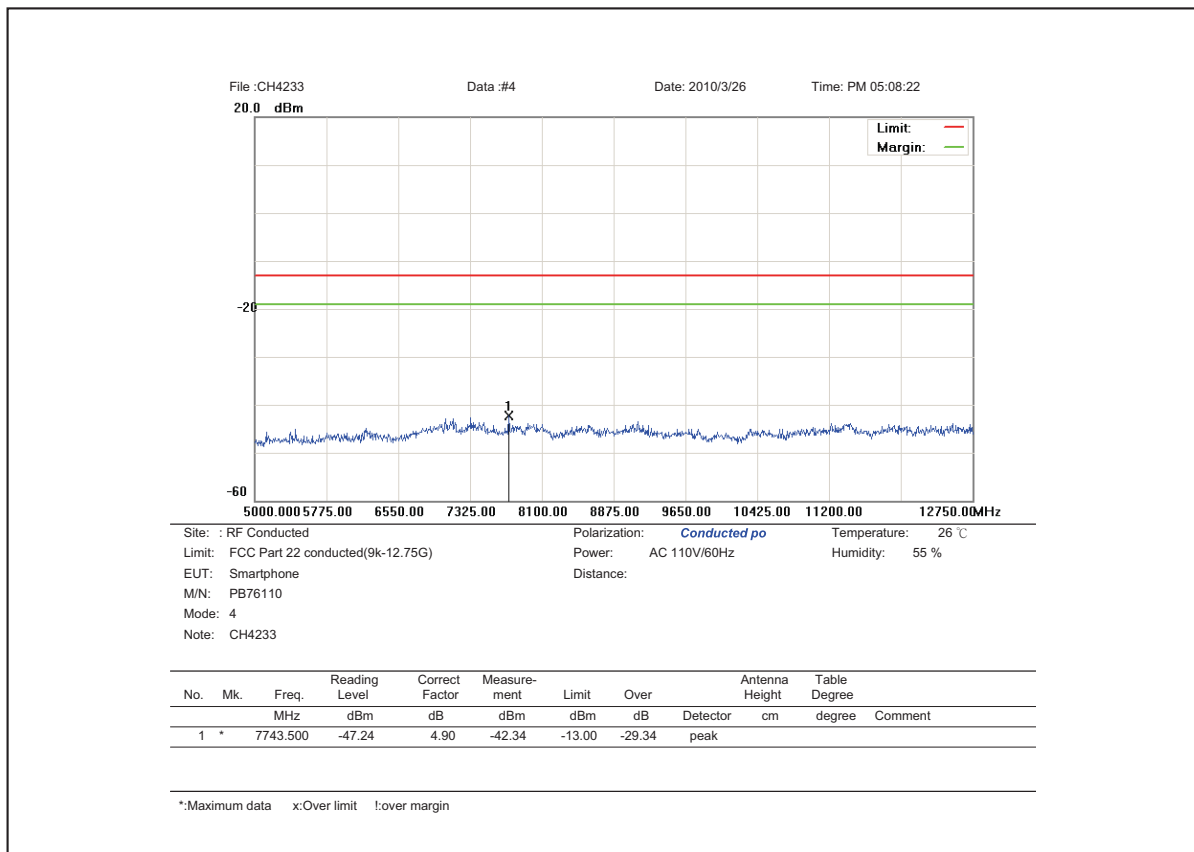
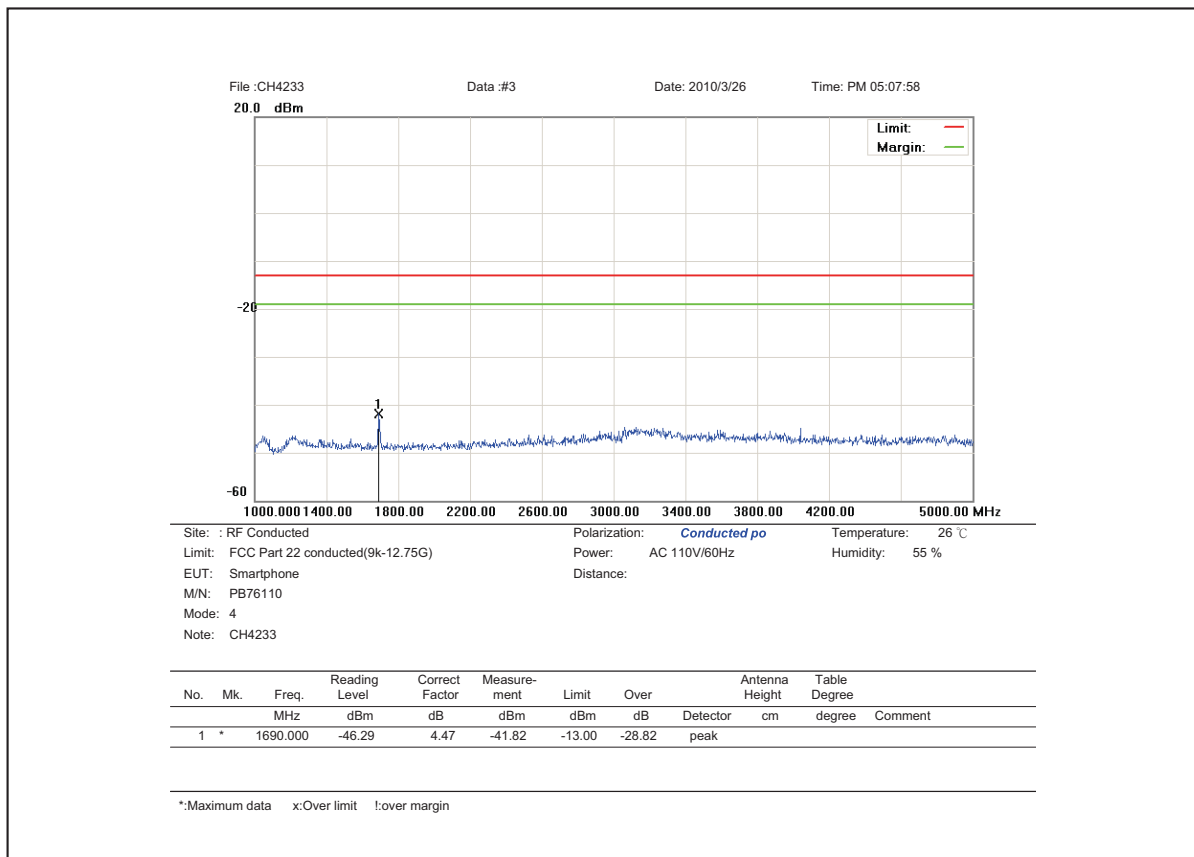












6 Field Strength of Spurious Radiation Test

6.1. Limit

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10\log(P)$ dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

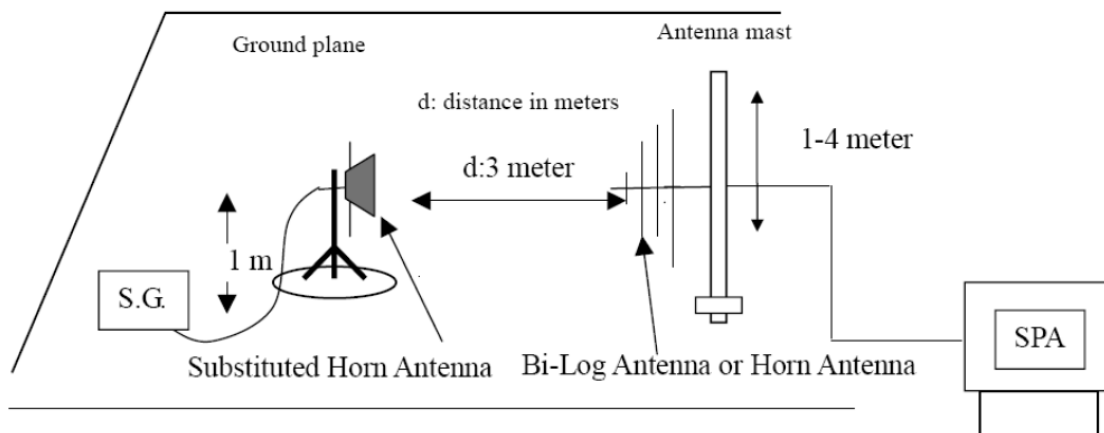
6.2. Test Instruments

3 Meter Chamber					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
RF Pre-selector	Agilent	N9039A	MY46520256	01/27/2009	(2)
Spectrum Analyzer	Agilent	E4446A	MY46180578	01/20/2009	(2)
Pre Amplifier	Agilent	8449B	3008A02237	07/01/2009	(1)
Pre Amplifier	Agilent	8447D	2944A10961	06/30/2009	(1)
Broadband Antenna (30MHz~1GHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	06/23/2009	(2)
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	07/01/2009	(2)
Horn Antenna (18~40GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	06/30/2009	(2)
Test Site	ATL	TE01	TE01	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

6.3. Setup



6.4. Test Procedure

The measurement is made according to ANSI/TIA-603-C-2004 as follows:

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

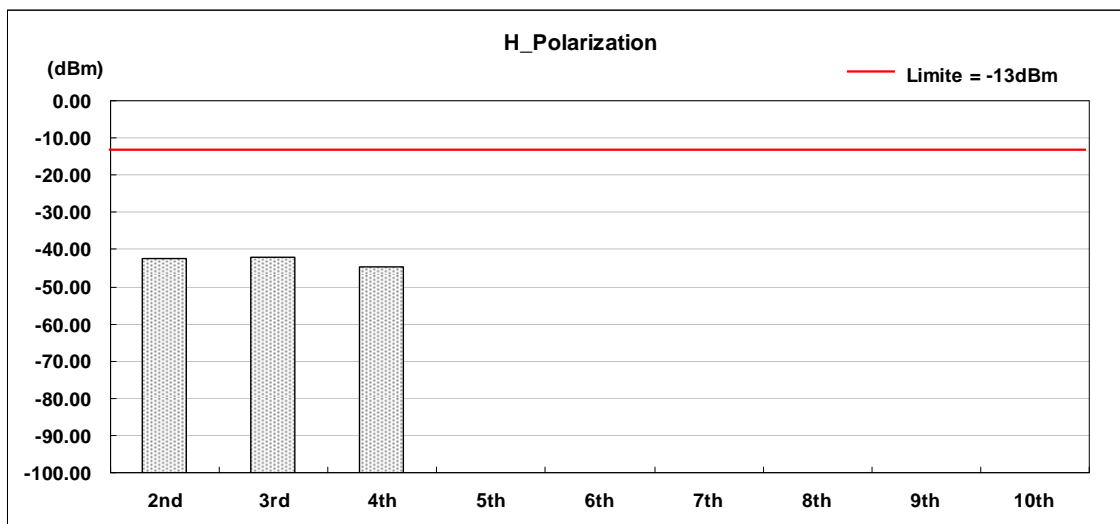
6.5. Uncertainty

The measurement uncertainty is defined as for Field Strength of Spurious Radiation measurement is ± 3.072 dB.

6.6. Test Result

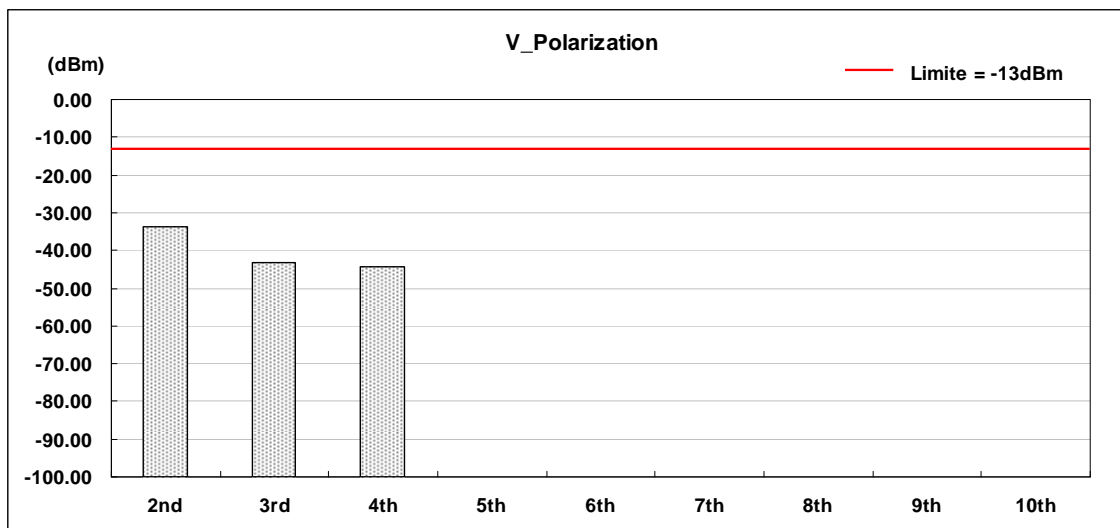
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 1: GSM 850 Link / CH128	Polarization	Horizontal
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1648.8	H	-13	-52.63	10.72	0.56	-42.47
3rd	2473.2	H	-13	-52.13	10.66	0.62	-42.09
4th	3297.6	H	-13	-54.68	10.78	0.74	-44.64
5th	4122.0	H	-13	*	*	*	*
6th	4946.4	H	-13	*	*	*	*
7th	5770.8	H	-13	*	*	*	*
8th	6595.2	H	-13	*	*	*	*
9th	7419.6	H	-13	*	*	*	*
10th	8244.0	H	-13	*	*	*	*



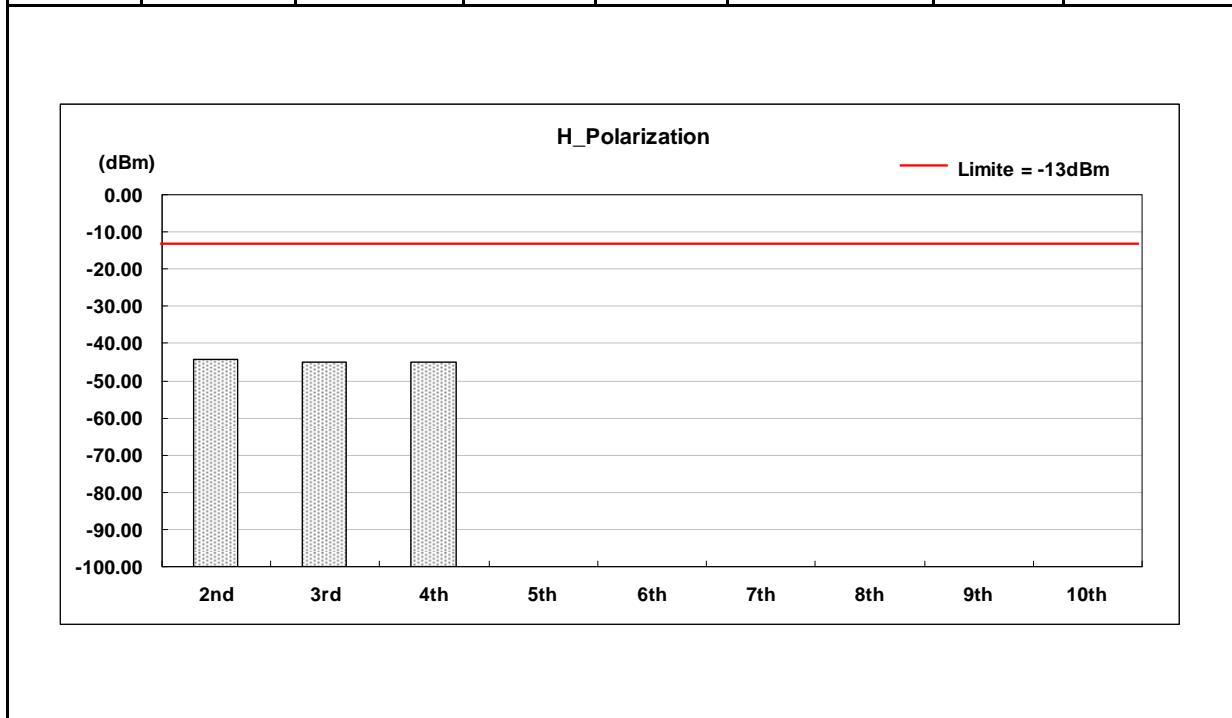
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 1: GSM 850 Link / CH128	Polarization	Vertical
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1648.8	V	-13	-43.86	10.72	0.56	-33.70
3rd	2473.2	V	-13	-53.11	10.66	0.62	-43.07
4th	3297.6	V	-13	-54.20	10.78	0.74	-44.16
5th	4122.0	V	-13	*	*	*	*
6th	4946.4	V	-13	*	*	*	*
7th	5770.8	V	-13	*	*	*	*
8th	6595.2	V	-13	*	*	*	*
9th	7419.6	V	-13	*	*	*	*
10th	8244.0	V	-13	*	*	*	*



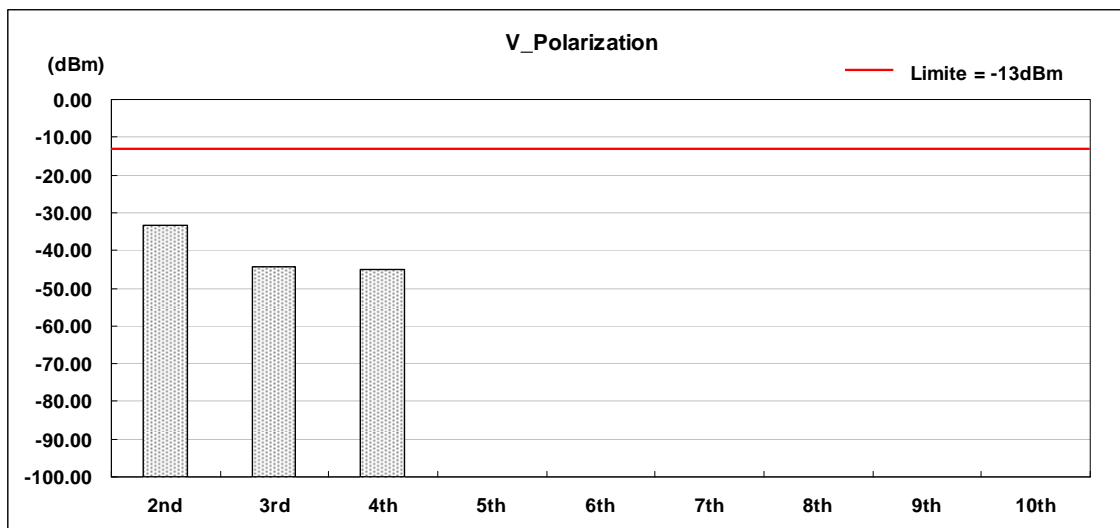
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 1: GSM 850 Link / CH190	Polarization	Horizontal
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1673.2	H	-13	-54.41	10.72	0.56	-44.25
3rd	2509.8	H	-13	-55.20	10.66	0.62	-45.16
4th	3346.4	H	-13	-55.08	10.78	0.74	-45.04
5th	4183.0	H	-13	*	*	*	*
6th	5019.6	H	-13	*	*	*	*
7th	5856.2	H	-13	*	*	*	*
8th	6692.8	H	-13	*	*	*	*
9th	7529.4	H	-13	*	*	*	*
10th	8366.0	H	-13	*	*	*	*



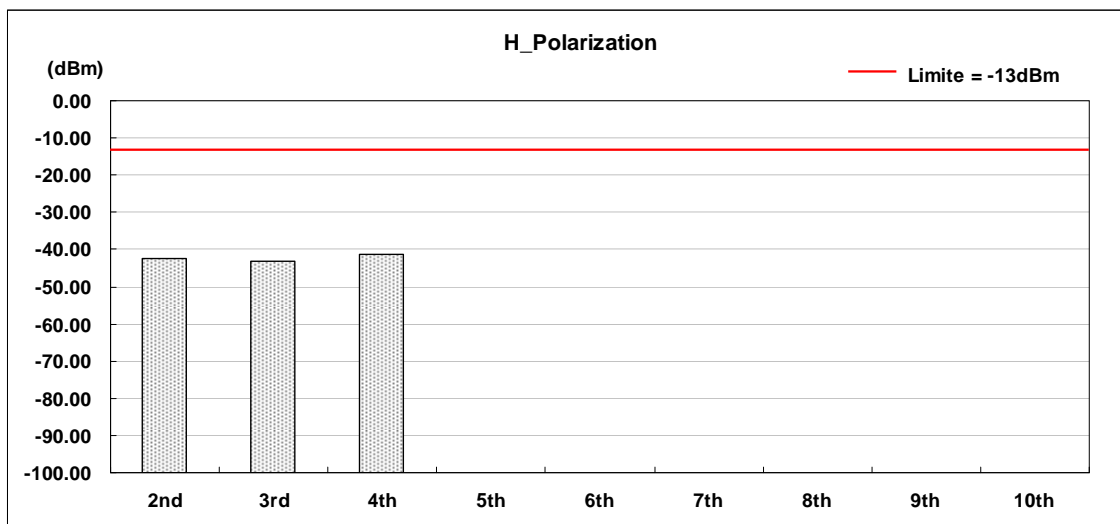
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 1: GSM 850 Link / CH190	Polarization	Vertical
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1673.2	V	-13	-43.50	10.72	0.56	-33.34
3rd	2509.8	V	-13	-54.46	10.66	0.62	-44.42
4th	3346.4	V	-13	-55.04	10.78	0.74	-45.00
5th	4183.0	V	-13	*	*	*	*
6th	5019.6	V	-13	*	*	*	*
7th	5856.2	V	-13	*	*	*	*
8th	6692.8	V	-13	*	*	*	*
9th	7529.4	V	-13	*	*	*	*
10th	8366.0	V	-13	*	*	*	*



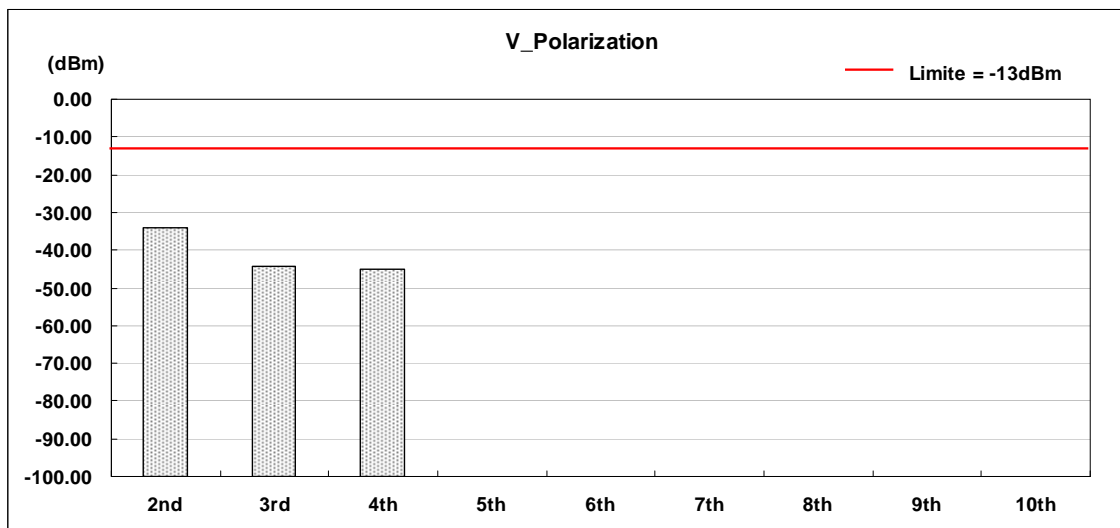
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 1: GSM 850 Link / CH251	Polarization	Horizontal
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1697.6	H	-13	-52.61	10.72	0.56	-42.45
3rd	2546.4	H	-13	-53.20	10.66	0.62	-43.16
4th	3395.2	H	-13	-51.19	10.78	0.74	-41.15
5th	4244.0	H	-13	*	*	*	*
6th	5092.8	H	-13	*	*	*	*
7th	5941.6	H	-13	*	*	*	*
8th	6790.4	H	-13	*	*	*	*
9th	7639.2	H	-13	*	*	*	*
10th	8488.0	H	-13	*	*	*	*



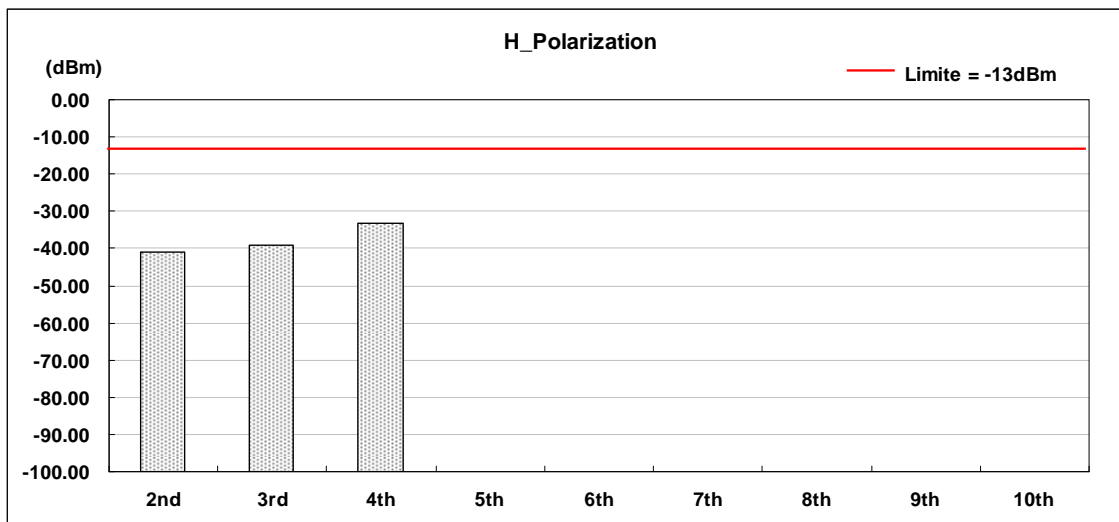
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 1: GSM 850 Link / CH251	Polarization	Vertical
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1697.6	V	-13	-44.09	10.72	0.56	-33.93
3rd	2546.4	V	-13	-54.21	10.66	0.62	-44.17
4th	3395.2	V	-13	-55.09	10.78	0.74	-45.05
5th	4244.0	V	-13	*	*	*	*
6th	5092.8	V	-13	*	*	*	*
7th	5941.6	V	-13	*	*	*	*
8th	6790.4	V	-13	*	*	*	*
9th	7639.2	V	-13	*	*	*	*
10th	8488.0	V	-13	*	*	*	*



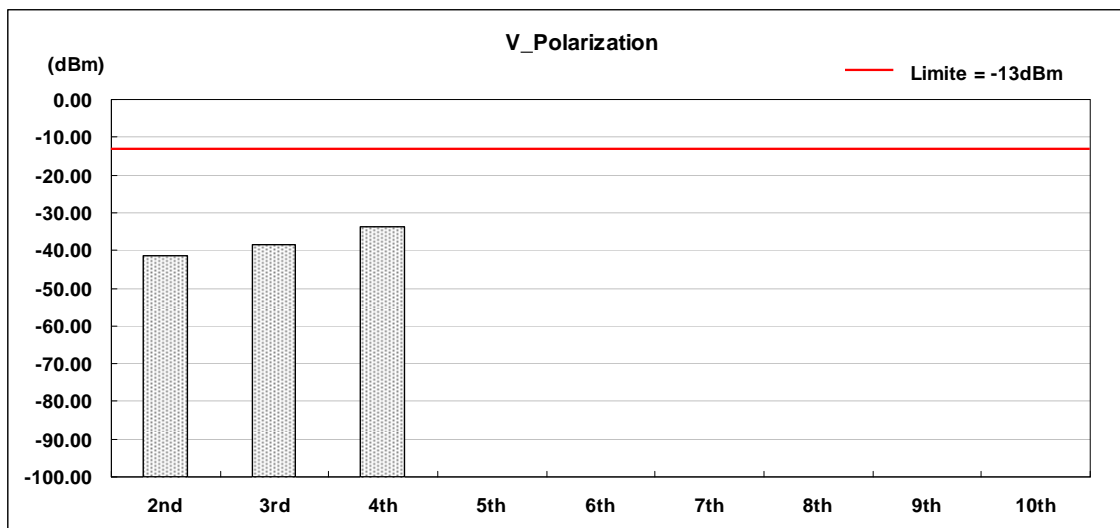
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 2: GSM 1900 Link / CH512	Polarization	Horizontal
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3700.4	H	-13	-51.16	10.72	0.56	-41.00
3rd	5550.6	H	-13	-49.02	10.66	0.62	-38.98
4th	7400.8	H	-13	-43.29	10.78	0.74	-33.25
5th	9251.0	H	-13	*	*	*	*
6th	11101.2	H	-13	*	*	*	*
7th	12951.4	H	-13	*	*	*	*
8th	14801.6	H	-13	*	*	*	*
9th	16651.8	H	-13	*	*	*	*
10th	18502.0	H	-13	*	*	*	*



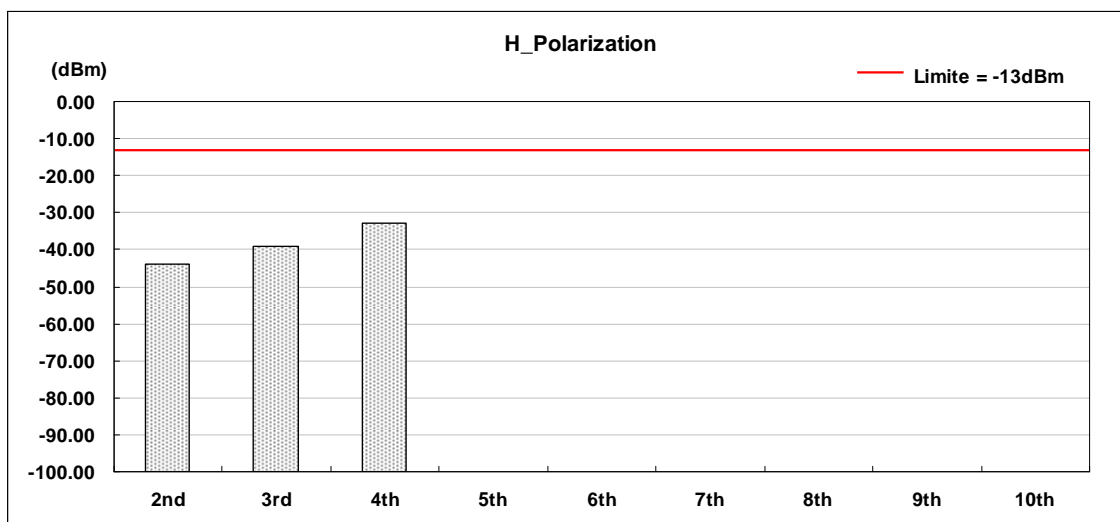
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 2: GSM 1900 Link / CH512	Polarization	Vertical
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3700.4	V	-13	-51.53	10.72	0.56	-41.37
3rd	5550.6	V	-13	-48.51	10.66	0.62	-38.47
4th	7400.8	V	-13	-43.87	10.78	0.74	-33.83
5th	9251.0	V	-13	*	*	*	*
6th	11101.2	V	-13	*	*	*	*
7th	12951.4	V	-13	*	*	*	*
8th	14801.6	V	-13	*	*	*	*
9th	16651.8	V	-13	*	*	*	*
10th	18502.0	V	-13	*	*	*	*



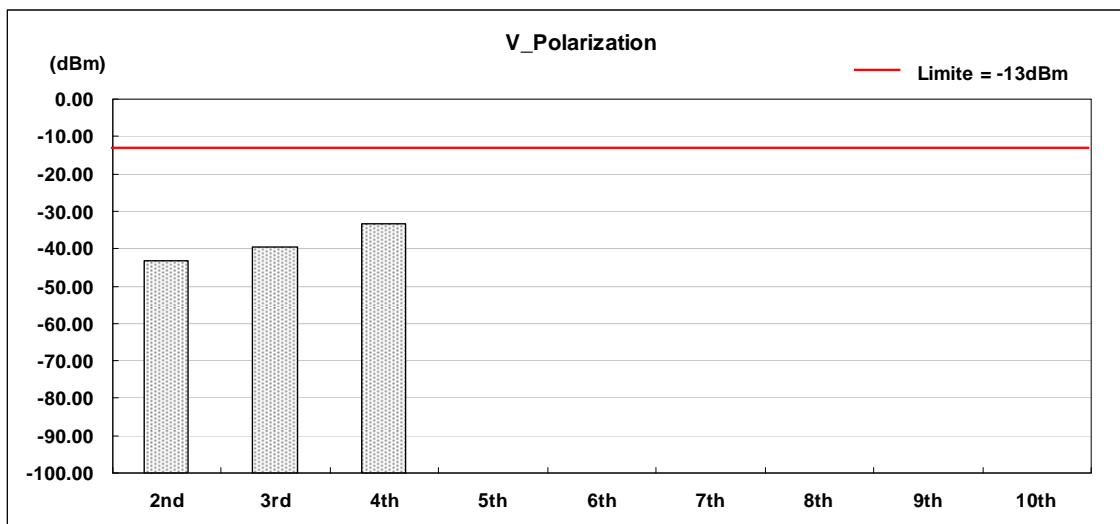
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 2: GSM 1900 Link / CH661	Polarization	Horizontal
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3760.0	H	-13	-53.89	10.72	0.56	-43.73
3rd	5640.0	H	-13	-49.24	10.66	0.62	-39.20
4th	7520.0	H	-13	-42.70	10.78	0.74	-32.66
5th	9400.0	H	-13	*	*	*	*
6th	11280.0	H	-13	*	*	*	*
7th	13160.0	H	-13	*	*	*	*
8th	15040.0	H	-13	*	*	*	*
9th	16920.0	H	-13	*	*	*	*
10th	18800.0	H	-13	*	*	*	*



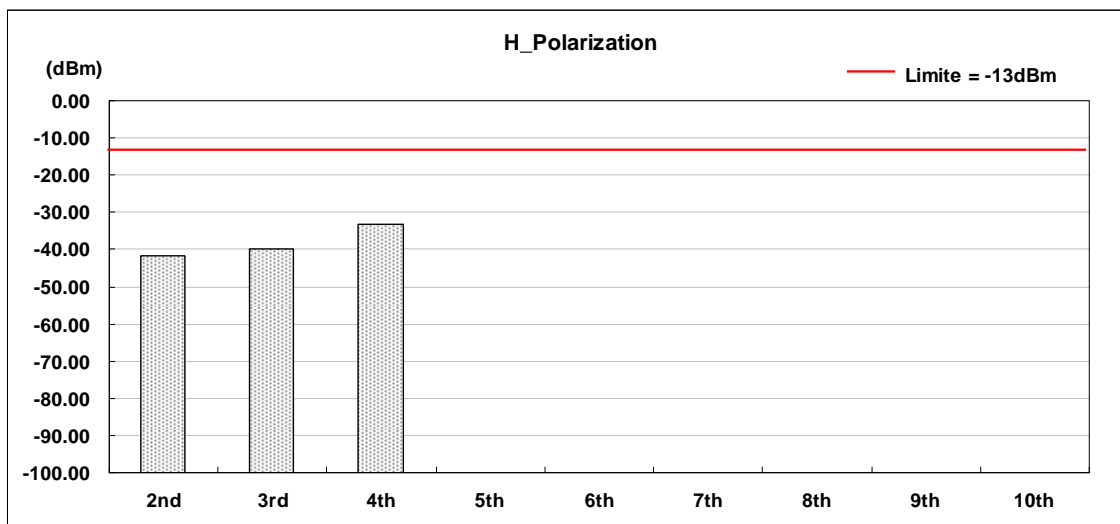
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 2: GSM 1900 Link / CH661	Polarization	Vertical
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3760.0	V	-13	-53.47	10.72	0.56	-43.31
3rd	5640.0	V	-13	-49.47	10.66	0.62	-39.43
4th	7520.0	V	-13	-43.33	10.78	0.74	-33.29
5th	9400.0	V	-13	*	*	*	*
6th	11280.0	V	-13	*	*	*	*
7th	13160.0	V	-13	*	*	*	*
8th	15040.0	V	-13	*	*	*	*
9th	16920.0	V	-13	*	*	*	*
10th	18800.0	V	-13	*	*	*	*



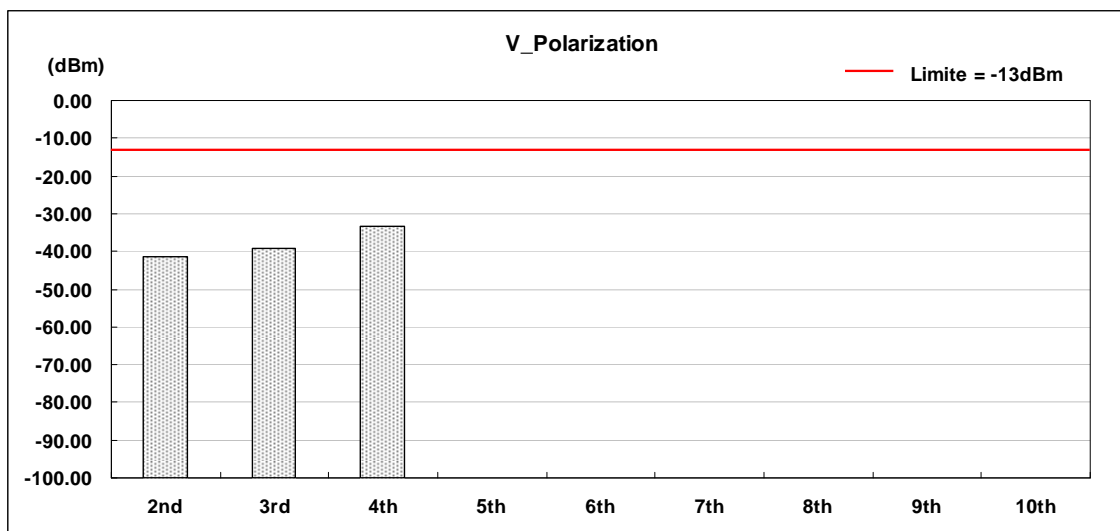
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 2: GSM 1900 Link / CH810	Polarization	Horizontal
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3819.6	H	-13	-51.92	10.72	0.56	-41.76
3rd	5729.4	H	-13	-49.97	10.66	0.62	-39.93
4th	7639.2	H	-13	-43.33	10.78	0.74	-33.29
5th	9549.0	H	-13	*	*	*	*
6th	11458.8	H	-13	*	*	*	*
7th	13368.6	H	-13	*	*	*	*
8th	15278.4	H	-13	*	*	*	*
9th	17188.2	H	-13	*	*	*	*
10th	19098.0	H	-13	*	*	*	*



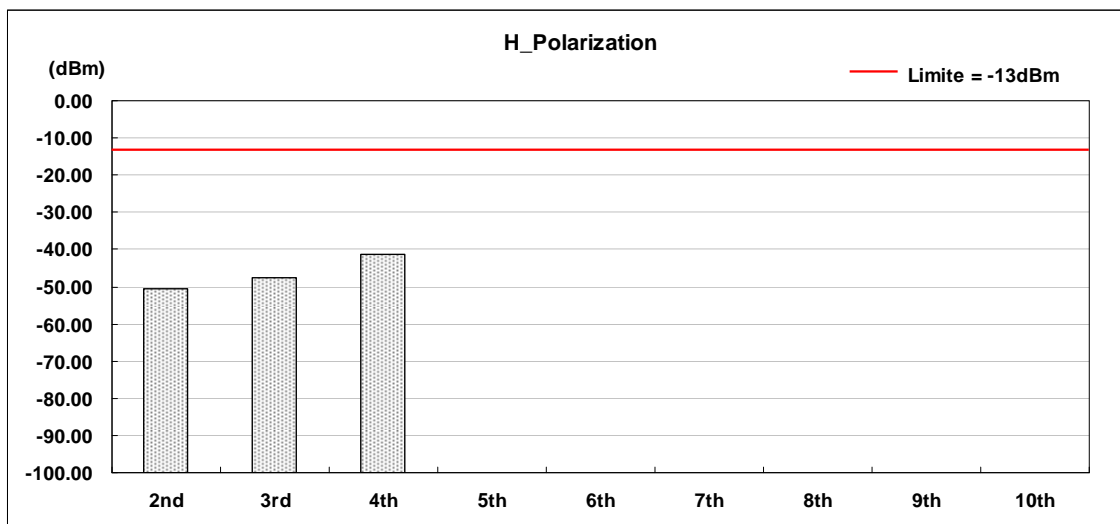
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 2: GSM 1900 Link / CH810	Polarization	Vertical
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3819.6	V	-13	-51.43	10.72	0.56	-41.27
3rd	5729.4	V	-13	-49.27	10.66	0.62	-39.23
4th	7639.2	V	-13	-43.21	10.78	0.74	-33.17
5th	9549.0	V	-13	*	*	*	*
6th	11458.8	V	-13	*	*	*	*
7th	13368.6	V	-13	*	*	*	*
8th	15278.4	V	-13	*	*	*	*
9th	17188.2	V	-13	*	*	*	*
10th	19098.0	V	-13	*	*	*	*



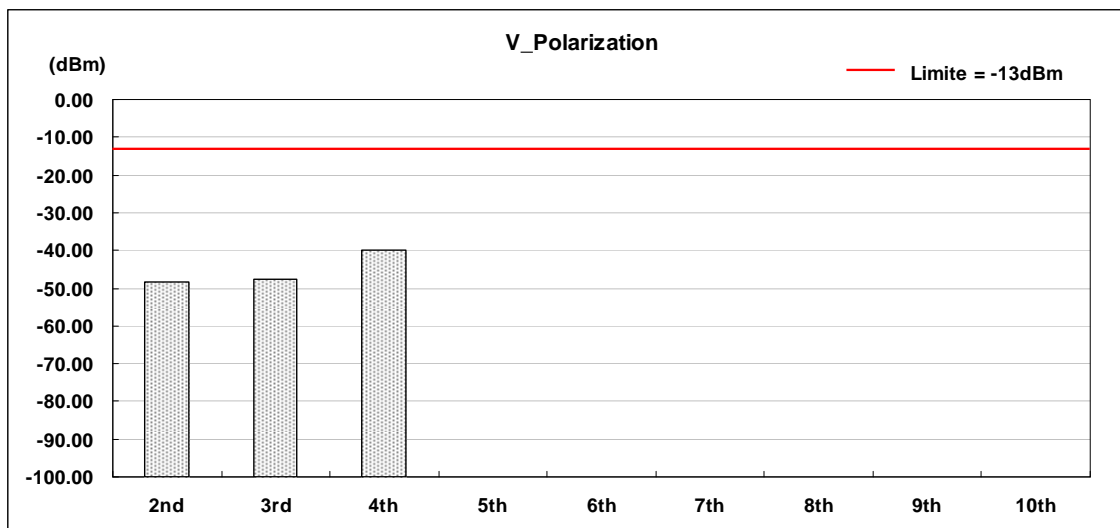
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 3: WCDMA Band II Link / CH9262	Polarization	Horizontal
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3704.8	H	-13	-60.69	10.79	0.58	-50.48
3rd	5557.2	H	-13	-57.68	10.71	0.63	-47.60
4th	7409.6	H	-13	-51.35	10.81	0.78	-41.32
5th	9262.0	H	-13	*	*	*	*
6th	11114.4	H	-13	*	*	*	*
7th	12966.8	H	-13	*	*	*	*
8th	14819.2	H	-13	*	*	*	*
9th	16671.6	H	-13	*	*	*	*
10th	18524.0	H	-13	*	*	*	*



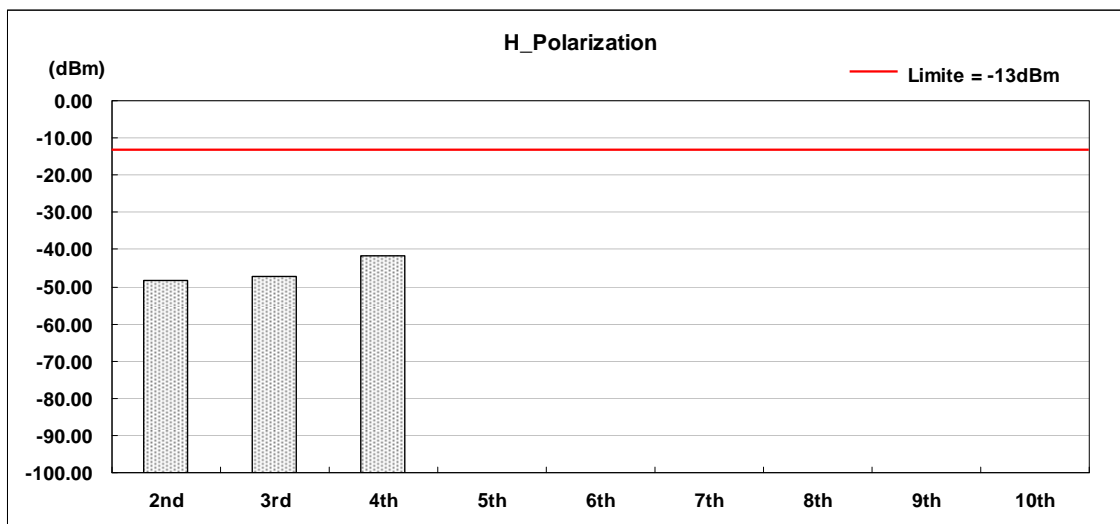
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 3: WCDMA Band II Link / CH9262	Polarization	Vertical
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3704.8	V	-13	-58.42	10.79	0.58	-48.21
3rd	5557.2	V	-13	-57.88	10.71	0.63	-47.80
4th	7409.6	V	-13	-49.96	10.81	0.78	-39.93
5th	9262.0	V	-13	*	*	*	*
6th	11114.4	V	-13	*	*	*	*
7th	12966.8	V	-13	*	*	*	*
8th	14819.2	V	-13	*	*	*	*
9th	16671.6	V	-13	*	*	*	*
10th	18524.0	V	-13	*	*	*	*



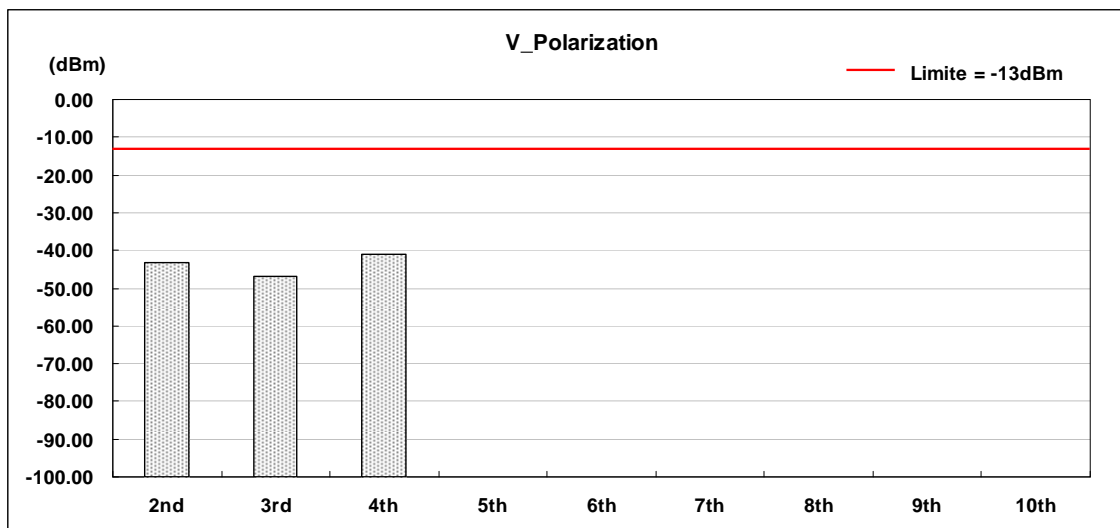
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 3: WCDMA Band II Link / CH9400	Polarization	Horizontal
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3760.0	H	-13	-58.40	10.79	0.58	-48.19
3rd	5640.0	H	-13	-57.19	10.71	0.63	-47.11
4th	7520.0	H	-13	-51.57	10.81	0.78	-41.54
5th	9400.0	H	-13	*	*	*	*
6th	11280.0	H	-13	*	*	*	*
7th	13160.0	H	-13	*	*	*	*
8th	15040.0	H	-13	*	*	*	*
9th	16920.0	H	-13	*	*	*	*
10th	18800.0	H	-13	*	*	*	*



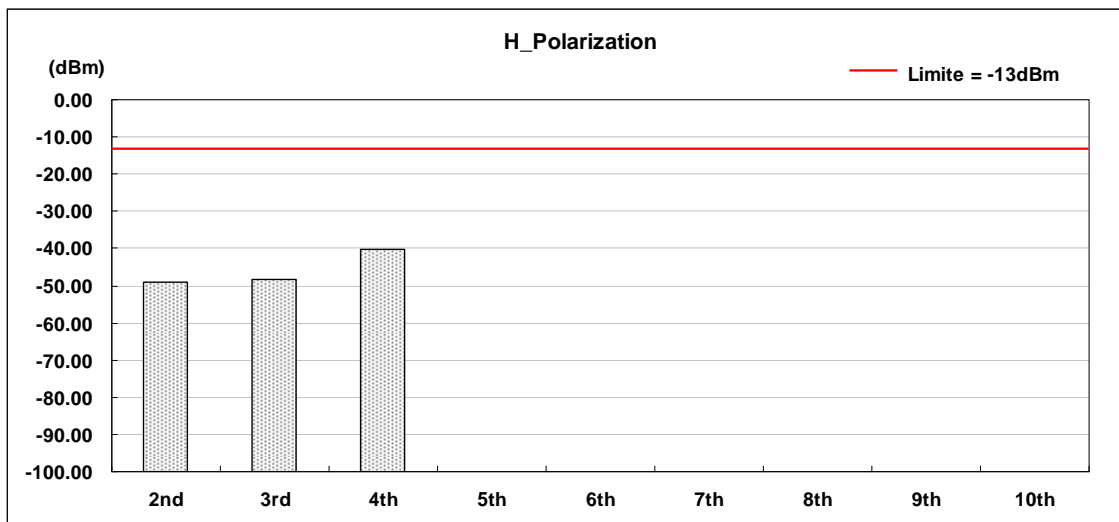
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 3: WCDMA Band II Link / CH9400	Polarization	Vertical
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3760.0	V	-13	-53.52	10.79	0.58	-43.31
3rd	5640.0	V	-13	-57.14	10.71	0.63	-47.06
4th	7520.0	V	-13	-50.97	10.81	0.78	-40.94
5th	9400.0	V	-13	*	*	*	*
6th	11280.0	V	-13	*	*	*	*
7th	13160.0	V	-13	*	*	*	*
8th	15040.0	V	-13	*	*	*	*
9th	16920.0	V	-13	*	*	*	*
10th	18800.0	V	-13	*	*	*	*



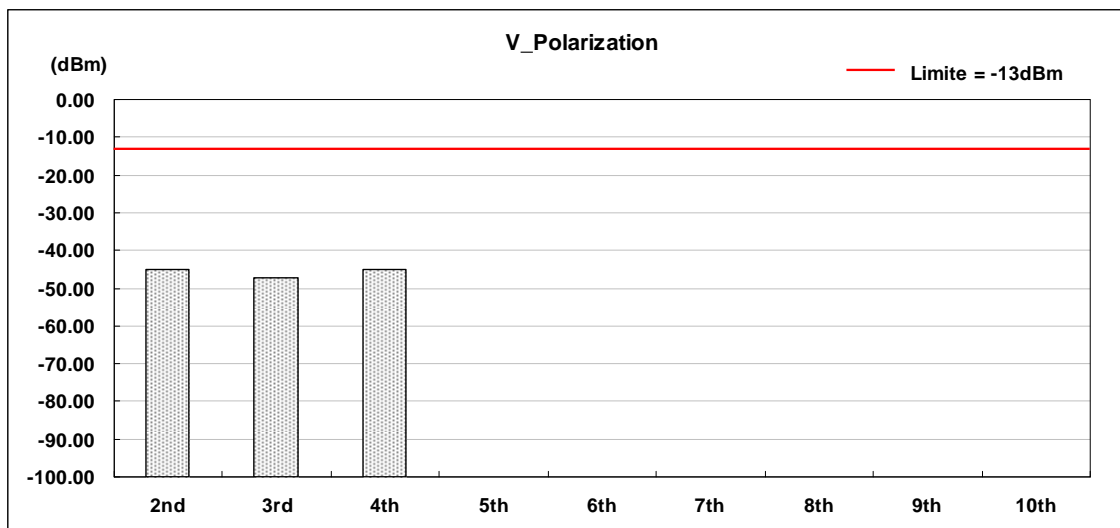
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 3: WCDMA Band II Link / CH9538	Polarization	Horizontal
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3815.2	H	-13	-59.44	10.79	0.58	-49.23
3rd	5722.8	H	-13	-58.25	10.71	0.63	-48.17
4th	7630.4	H	-13	-50.33	10.81	0.78	-40.30
5th	9538.0	H	-13	*	*	*	*
6th	11445.6	H	-13	*	*	*	*
7th	13353.2	H	-13	*	*	*	*
8th	15260.8	H	-13	*	*	*	*
9th	17168.4	H	-13	*	*	*	*
10th	19076.0	H	-13	*	*	*	*



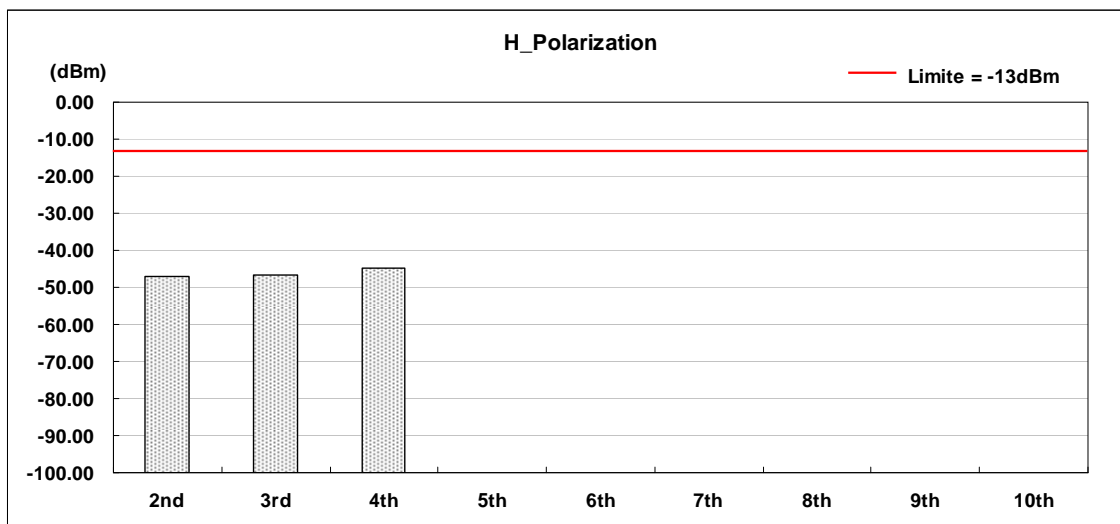
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 3: WCDMA Band II Link / CH9538	Polarization	Vertical
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	3815.2	V	-13	-51.36	10.79	0.58	-41.15
3rd	5722.8	V	-13	-58.23	10.71	0.63	-48.15
4th	7630.4	V	-13	-50.77	10.81	0.78	-40.74
5th	9538.0	V	-13	*	*	*	*
6th	11445.6	V	-13	*	*	*	*
7th	13353.2	V	-13	*	*	*	*
8th	15260.8	V	-13	*	*	*	*
9th	17168.4	V	-13	*	*	*	*
10th	19076.0	V	-13	*	*	*	*



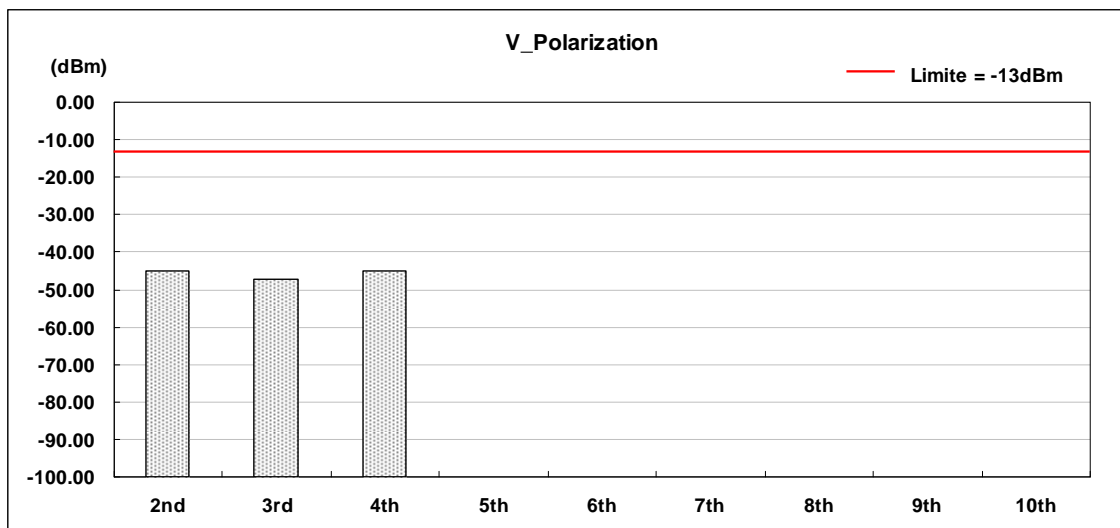
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 4: WCDMA Band V Link / CH4132	Polarization	Horizontal
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1652.8	H	-13	-57.13	10.74	0.59	-46.98
3rd	2479.2	H	-13	-56.66	10.68	0.63	-46.61
4th	3305.6	H	-13	-54.99	10.80	0.78	-44.97
5th	4132.0	H	-13	*	*	*	*
6th	4958.4	H	-13	*	*	*	*
7th	5784.8	H	-13	*	*	*	*
8th	6611.2	H	-13	*	*	*	*
9th	7437.6	H	-13	*	*	*	*
10th	8264.0	H	-13	*	*	*	*



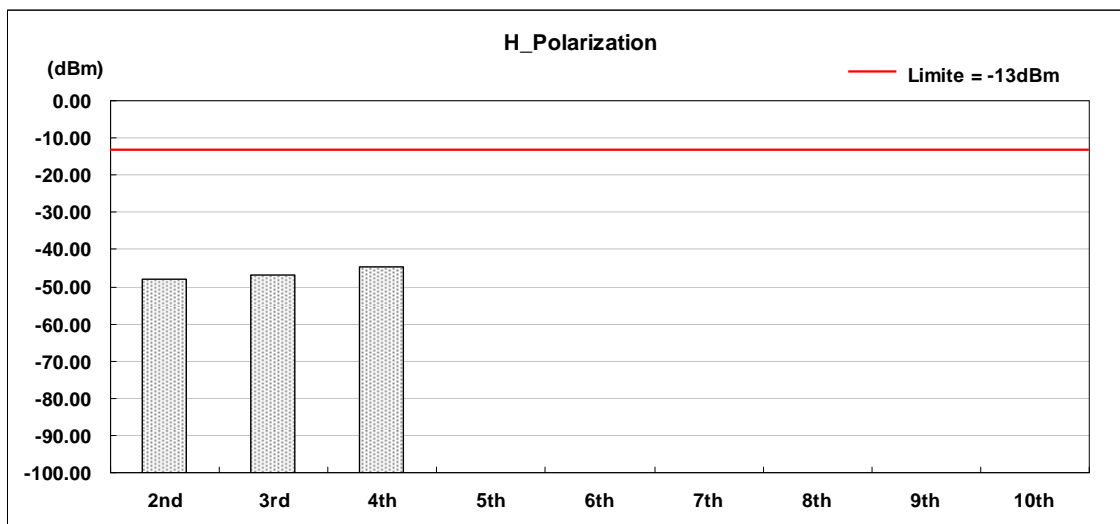
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 4: WCDMA Band V Link / CH4132	Polarization	Vertical
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1652.8	V	-13	-55.07	10.74	0.59	-44.92
3rd	2479.2	V	-13	-57.22	10.68	0.63	-47.17
4th	3305.6	V	-13	-54.94	10.80	0.78	-44.92
5th	4132.0	V	-13	*	*	*	*
6th	4958.4	V	-13	*	*	*	*
7th	5784.8	V	-13	*	*	*	*
8th	6611.2	V	-13	*	*	*	*
9th	7437.6	V	-13	*	*	*	*
10th	8264.0	V	-13	*	*	*	*



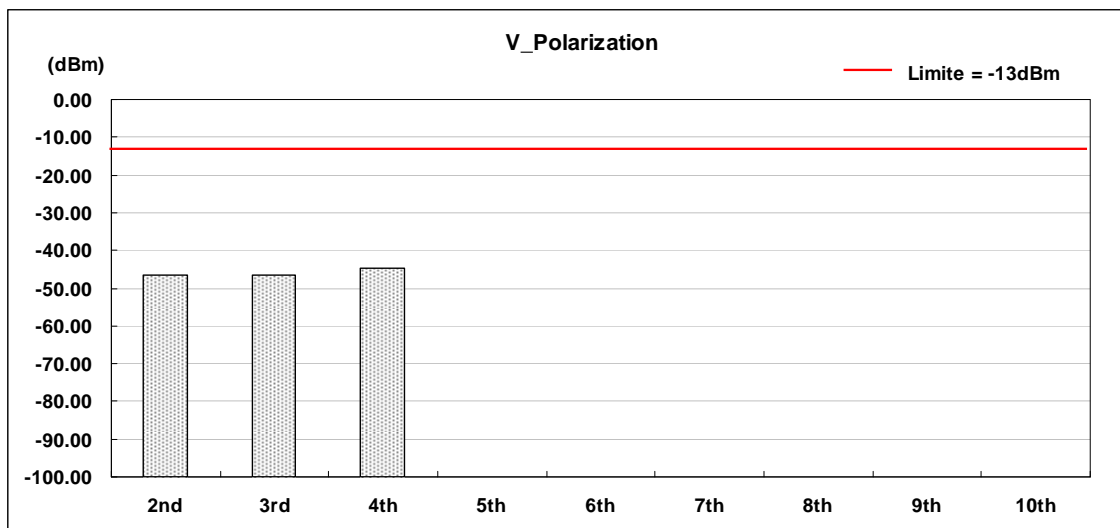
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 4: WCDMA Band V Link / CH4183	Polarization	Horizontal
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1673.2	H	-13	-58.19	10.74	0.59	-48.04
3rd	2509.8	H	-13	-56.77	10.68	0.63	-46.72
4th	3346.4	H	-13	-54.72	10.80	0.78	-44.70
5th	4183.0	H	-13	*	*	*	*
6th	5019.6	H	-13	*	*	*	*
7th	5856.2	H	-13	*	*	*	*
8th	6692.8	H	-13	*	*	*	*
9th	7529.4	H	-13	*	*	*	*
10th	8366.0	H	-13	*	*	*	*



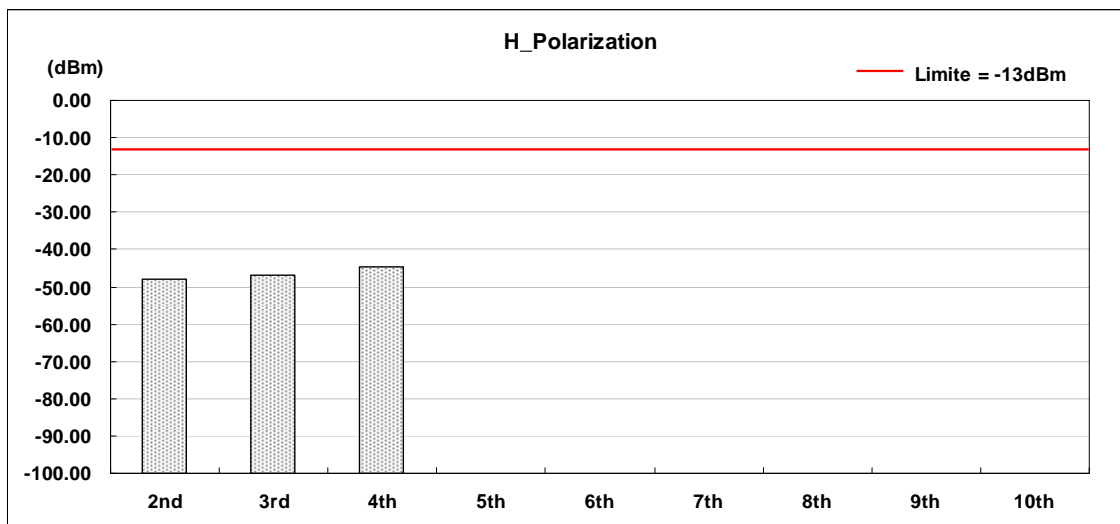
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 4: WCDMA Band V Link / CH4183	Polarization	Vertical
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1673.2	V	-13	-56.76	10.74	0.59	-46.61
3rd	2509.8	V	-13	-56.53	10.68	0.63	-46.48
4th	3346.4	V	-13	-54.58	10.80	0.78	-44.56
5th	4183.0	V	-13	*	*	*	*
6th	5019.6	V	-13	*	*	*	*
7th	5856.2	V	-13	*	*	*	*
8th	6692.8	V	-13	*	*	*	*
9th	7529.4	V	-13	*	*	*	*
10th	8366.0	V	-13	*	*	*	*



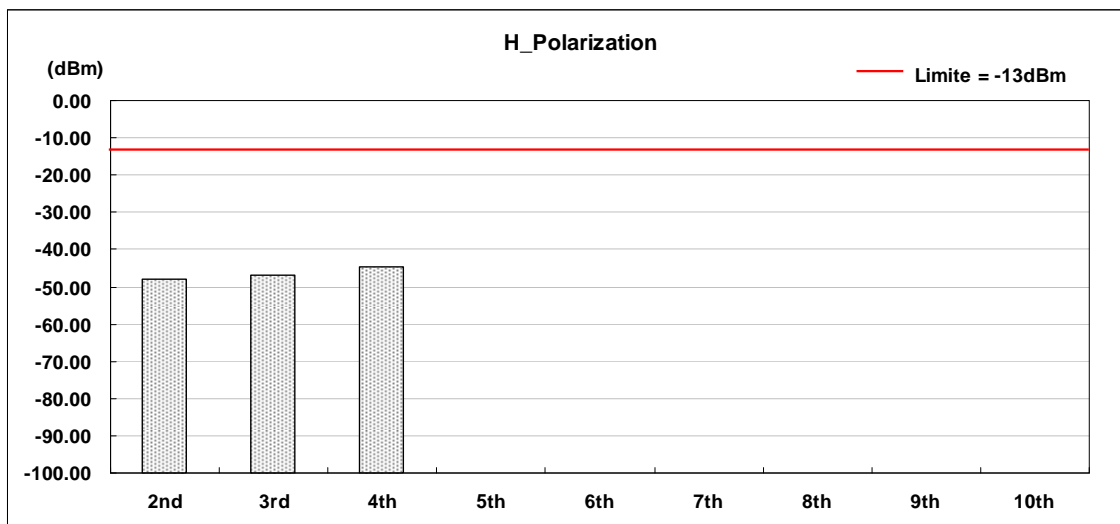
Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 4: WCDMA Band V Link / CH4233	Polarization	Horizontal
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1693.2	H	-13	-57.97	10.74	0.59	-47.82
3rd	2539.8	H	-13	-56.76	10.68	0.63	-46.71
4th	3386.4	H	-13	-54.84	10.80	0.78	-44.82
5th	4233.0	H	-13	*	*	*	*
6th	5079.6	H	-13	*	*	*	*
7th	5926.2	H	-13	*	*	*	*
8th	6772.8	H	-13	*	*	*	*
9th	7619.4	H	-13	*	*	*	*
10th	8466.0	H	-13	*	*	*	*



Product	Smartphone		
Test Item	Field Strength of Spurious Radiation		
Test Mode	Mode 4: WCDMA Band V Link / CH4233	Polarization	Vertical
Date of Test	03/21/2010	Test Site	TE01

Harmonic	Frequency (MHz)	Polarization	FCC Max. Limit (dBm)	S.G Power (dBm)	Substitution Antenna Gain (dBi)	Cable Loss (dBm)	Peak Output Power (dBm)
2nd	1693.2	V	-13	-58.15	10.74	0.59	-48.00
3rd	2539.8	V	-13	-55.07	10.68	0.63	-45.02
4th	3386.4	V	-13	-55.12	10.80	0.78	-45.10
5th	4233.0	V	-13	*	*	*	*
6th	5079.6	V	-13	*	*	*	*
7th	5926.2	V	-13	*	*	*	*
8th	6772.8	V	-13	*	*	*	*
9th	7619.4	V	-13	*	*	*	*
10th	8466.0	V	-13	*	*	*	*



7 Frequency Stability (Temperature Variation) Test

7.1. Limit

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

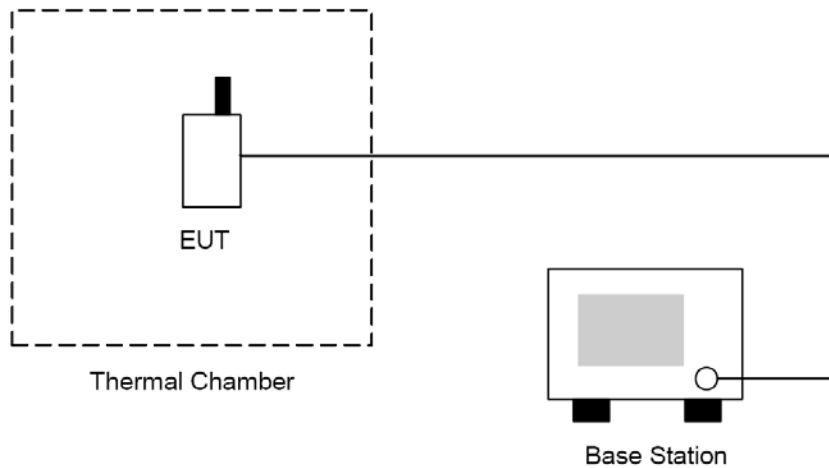
7.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Temperature & Humidity Chamber	GIANT FORCE	GHT-225-70-1	GF-94454-1	07/24/2009	(2)
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

7.3. Setup



7.4. Test Procedure

The measurement is made according to FCC rules part 22 and 24:

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.

7.5. Uncertainty

The measurement uncertainty is defined as for Frequency Stability (Temperature Variation) measurement is $\pm 10\text{Hz}$.

7.6. Test Result

Product	Smartphone		
Test Item	Frequency Stability (Temperature Variation)		
Test Mode	Mode 1: GSM 850 Link		
Date of Test	03/21/2010	Test Site	TE02

Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
-30	20.44	0.024	±2.5	Pass
-20	20.39	0.024	±2.5	Pass
-10	18.48	0.022	±2.5	Pass
0	19.72	0.024	±2.5	Pass
10	19.39	0.023	±2.5	Pass
20	20.44	0.024	±2.5	Pass
30	18.44	0.022	±2.5	Pass
40	23.48	0.028	±2.5	Pass
50	21.77	0.026	±2.5	Pass

Product	Smartphone		
Test Item	Frequency Stability (Temperature Variation)		
Test Mode	Mode 2: GSM 1900 Link		
Date of Test	03/21/2010	Test Site	TE02

Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
-30	19.38	0.010	±2.5	Pass
-20	19.77	0.011	±2.5	Pass
-10	20.46	0.011	±2.5	Pass
0	20.43	0.011	±2.5	Pass
10	17.69	0.009	±2.5	Pass
20	17.27	0.009	±2.5	Pass
30	16.48	0.009	±2.5	Pass
40	16.22	0.009	±2.5	Pass
50	18.35	0.010	±2.5	Pass

Product	Smartphone		
Test Item	Frequency Stability (Temperature Variation)		
Test Mode	Mode 3: WCDMA Band II Link		
Date of Test	03/21/2010	Test Site	TE02

Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
-30	27.89	0.033	±2.5	Pass
-20	25.36	0.030	±2.5	Pass
-10	26.24	0.031	±2.5	Pass
0	29.42	0.035	±2.5	Pass
10	23.54	0.028	±2.5	Pass
20	24.47	0.029	±2.5	Pass
30	26.34	0.031	±2.5	Pass
40	28.64	0.034	±2.5	Pass
50	26.95	0.032	±2.5	Pass

Product	Smartphone		
Test Item	Frequency Stability (Temperature Variation)		
Test Mode	Mode 4: WCDMA Band V Link		
Date of Test	03/21/2010	Test Site	TE02

Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
-30	28.83	0.015	±2.5	Pass
-20	27.34	0.015	±2.5	Pass
-10	26.19	0.014	±2.5	Pass
0	28.13	0.015	±2.5	Pass
10	27.64	0.015	±2.5	Pass
20	25.53	0.014	±2.5	Pass
30	27.96	0.015	±2.5	Pass
40	25.78	0.014	±2.5	Pass
50	23.46	0.012	±2.5	Pass

8 Frequency Stability (Voltage Variation) Test

8.1. Limit

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block.

The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

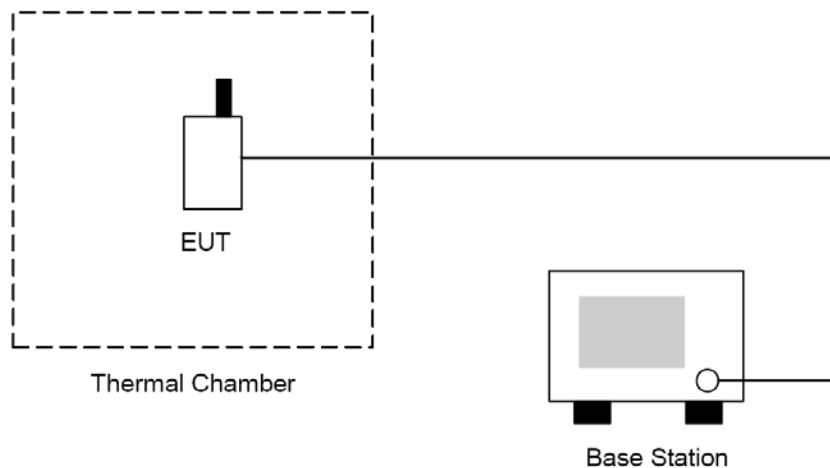
8.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Universal Radio Communication Tester	ROHDE & SCHWARZ	CMU200	109369	07/29/2009	(2)
Temperature & Humidity Chamber	GIANT FORCE	GHT-225-70-1	GF-94454-1	07/24/2009	(2)
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

8.3. Setup



8.4. Test Procedure

1. The EUT was placed in a temperature chamber at $25 \pm 5 \text{ }^\circ\text{C}$ 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.

8.5. Uncertainty

The measurement uncertainty is defined as for Frequency Stability (Voltage Variation) measurement is $\pm 10\text{Hz}$.

8.6. Test Result

Product	Smartphone				
Test Item	Frequency Stability (Voltage Variation)				
Test Mode	Mode 1: GSM 850 Link				
Date of Test	03/21/2010		Test Site	TE02	
Level	Voltage [V]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Result
Battery full point	4.20	21.79	0.026	± 2.5	Pass
Normal	3.70	24.38	0.029	± 2.5	Pass
Battery cut-off point	3.40	23.77	0.028	± 2.5	Pass

Product	Smartphone				
Test Item	Frequency Stability (Voltage Variation)				
Test Mode	Mode 2: GSM 1900 Link				
Date of Test	03/21/2010		Test Site	TE02	
Level	Voltage [V]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Result
Battery full point	4.20	21.45	0.011	± 2.5	Pass
Normal	3.70	24.72	0.013	± 2.5	Pass
Battery cut-off point	3.40	23.58	0.013	± 2.5	Pass

Product	Smartphone				
Test Item	Frequency Stability (Voltage Variation)				
Test Mode	Mode 3: WCDMA Band II Link				
Date of Test	03/21/2010		Test Site	TE02	
Level	Voltage [V]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Result
Battery full point	4.20	28.72	0.034	± 2.5	Pass
Normal	3.70	29.53	0.035	± 2.5	Pass
Battery cut-off point	3.20	27.79	0.033	± 2.5	Pass

Product	Smartphone				
Test Item	Frequency Stability (Voltage Variation)				
Test Mode	Mode 4: WCDMA Band V Link				
Date of Test	03/21/2010		Test Site	TE02	
Level	Voltage [V]	Deviation [Hz]	Deviation [ppm]	Limit [ppm]	Result
Battery full point	4.20	25.64	0.014	± 2.5	Pass
Normal	3.70	29.14	0.016	± 2.5	Pass
Battery cut-off point	3.20	30.12	0.016	± 2.5	Pass

9 AC Power Conducted Emissions Test

9.1. Limit

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

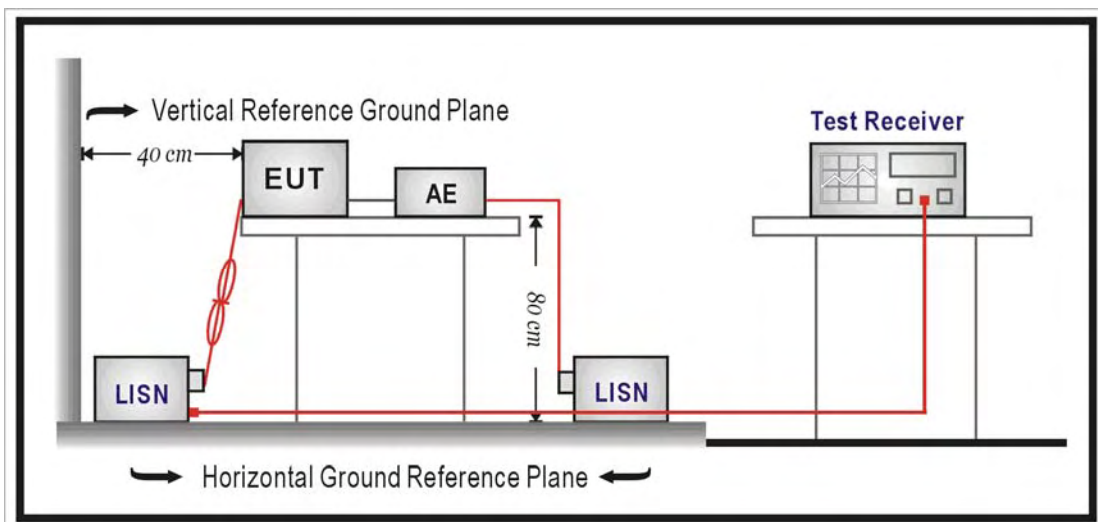
9.2. Test Instruments

Describe	Manufacturer	Model No.	Serial No.	Cal. Date	Remark
Test Receiver	R&S	ESCI	100722	10/08/2009	(1)
LISN	EMCO	3816/2 SH	00060110	06/05/2009	(1)
LISN	EMCO	3816/2 SH	00060111	06/29/2009	(1)
Transient Limiter	ELECTRO-METRICS	EM-7600	777	09/22/2009	(1)
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

9.3. Setup



9.4. Test Procedure

The measurement is made according to FCC rules 15.207:

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 section 10.6.

9.5. Uncertainty

The measurement uncertainty is defined as for AC power conducted emission measurement is ± 2.24 dB.

9.6. Test Result

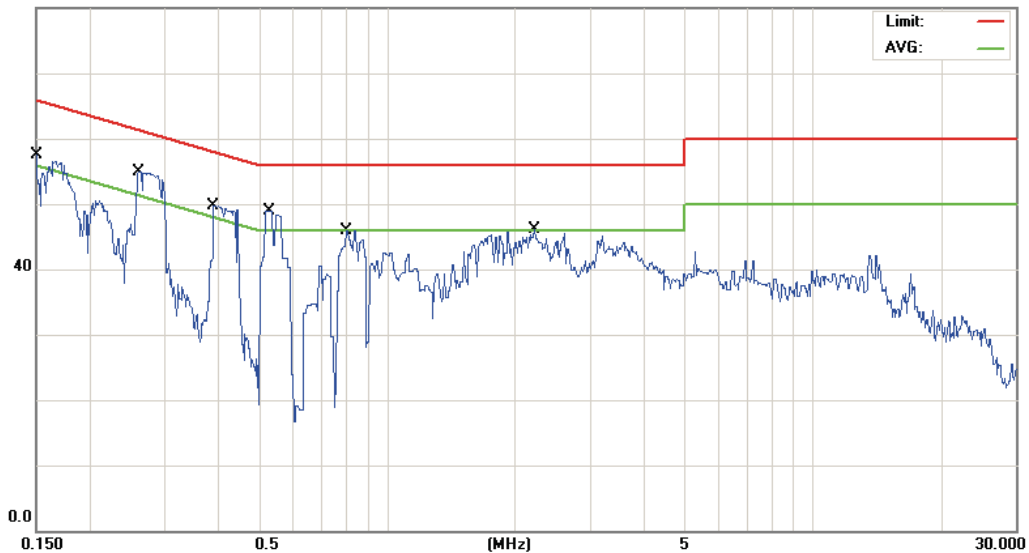
Product	Smartphone		
Test Item	AC Power Conducted Emissions		
Test Mode	Mode 1: GSM 850 Link Mode 2: GSM 1900 Link Mode 3: WCDMA Band II Link Mode 4: WCDMA Band V Link		
Date of Test	03/21/2010	Test Site	TE02

File :10-0084-SE(GSM850+BT+WIF Data :#1

Date: 2010/03/21

Time: 下午 06:55:06

80.0 dBuV



Site : Conducted

 Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 1

Note: Adapter #1

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1500	43.30	10.11	53.41	65.99	-12.58	QP	
2	0.1500	20.80	10.11	30.91	55.99	-25.08	AVG	
3 *	0.2613	41.30	10.06	51.36	61.39	-10.03	QP	
4	0.2613	21.70	10.06	31.76	51.39	-19.63	AVG	
5	0.3908	34.20	10.00	44.20	58.05	-13.85	QP	
6	0.3908	14.40	10.00	24.40	48.05	-23.65	AVG	
7	0.5270	34.00	9.95	43.95	56.00	-12.05	QP	
8	0.5270	16.80	9.95	26.75	46.00	-19.25	AVG	
9	0.8059	32.60	9.84	42.44	56.00	-13.56	QP	
10	0.8059	15.20	9.84	25.04	46.00	-20.96	AVG	
11	2.2190	31.00	9.74	40.74	56.00	-15.26	QP	
12	2.2190	18.90	9.74	28.64	46.00	-17.36	AVG	

*:Maximum data x:Over limit !:over margin

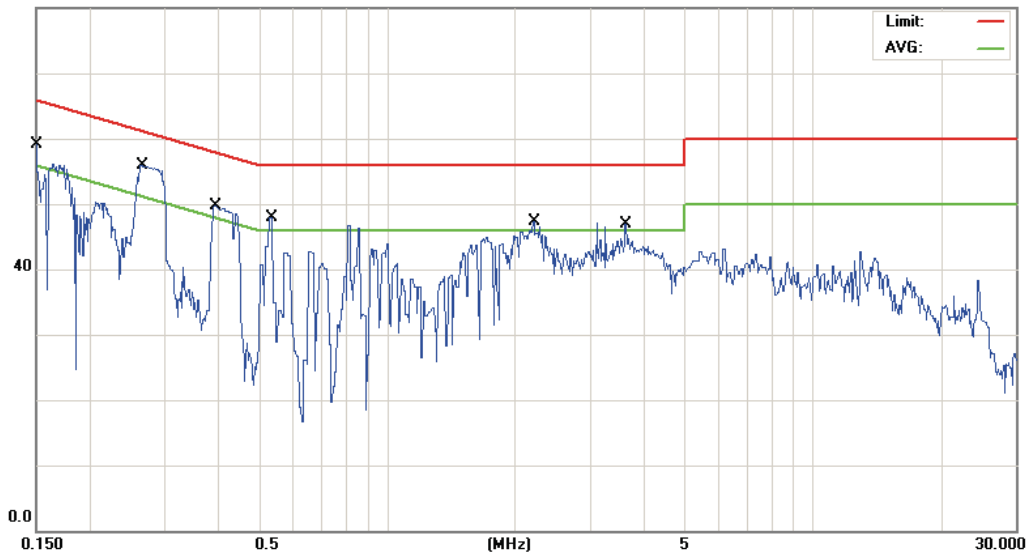
●Reference Only

File :10-0084-SE(GSM850+BT+WIF) Data :#2

Date: 2010/03/21

Time: 下午 07:03:57

80.0 dBuV



Site : Conducted

 Phase: **N**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 1

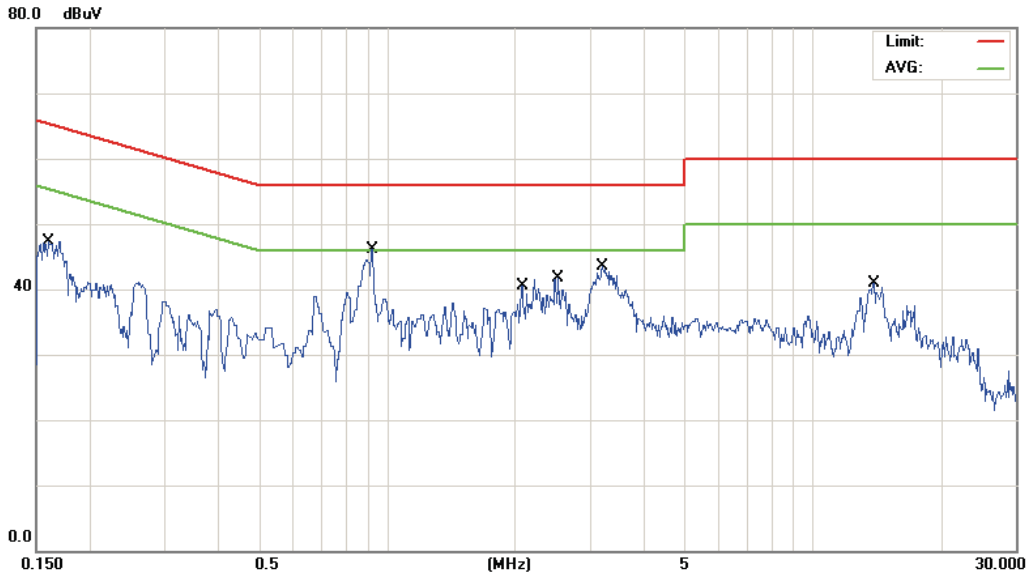
Note: Adapter #1

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1500	44.60	10.10	54.70	65.99	-11.29	QP	
2		0.1500	20.80	10.10	30.90	55.99	-25.09	AVG	
3	*	0.2669	42.80	10.04	52.84	61.21	-8.37	QP	
4		0.2669	22.10	10.04	32.14	51.21	-19.07	AVG	
5		0.3936	35.40	10.00	45.40	57.99	-12.59	QP	
6		0.3936	14.20	10.00	24.20	47.99	-23.79	AVG	
7		0.5360	34.10	9.94	44.04	56.00	-11.96	QP	
8		0.5360	12.90	9.94	22.84	46.00	-23.16	AVG	
9		2.2100	30.00	9.73	39.73	56.00	-16.27	QP	
10		2.2100	11.00	9.73	20.73	46.00	-25.27	AVG	
11		3.6230	28.20	9.83	38.03	56.00	-17.97	QP	
12		3.6230	15.50	9.83	25.33	46.00	-20.67	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

File :10-0084-SE(PCS1900+BT+WI) Data :#1 Date: 2010/03/21 Time: 下午 07:47:07



Site : Conducted	Phase: L1	Temperature: 26 °C
Limit: CISPR22 Class B Conduction(QP)	Power: AC 120V/60Hz	Humidity: 55 %
EUT: Smartphone		
M/N: PB76110		
Mode: 2		
Note: Adapter #2		

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1598	30.30	10.11	40.41	65.47	-25.06	QP	
2		0.1598	8.30	10.11	18.41	55.47	-37.06	AVG	
3		0.9230	30.10	9.79	39.89	56.00	-16.11	QP	
4		0.9230	20.00	9.79	29.79	46.00	-16.21	AVG	
5		2.0660	23.00	9.72	32.72	56.00	-23.28	QP	
6		2.0660	15.10	9.72	24.82	46.00	-21.18	AVG	
7		2.5250	30.10	9.78	39.88	56.00	-16.12	QP	
8		2.5250	18.40	9.78	28.18	46.00	-17.82	AVG	
9		3.2000	30.60	9.82	40.42	56.00	-15.58	QP	
10	*	3.2000	22.20	9.82	32.02	46.00	-13.98	AVG	
11		13.8500	25.80	10.31	36.11	60.00	-23.89	QP	
12		13.8500	17.30	10.31	27.61	50.00	-22.39	AVG	

*:Maximum data x:Over limit !:over margin

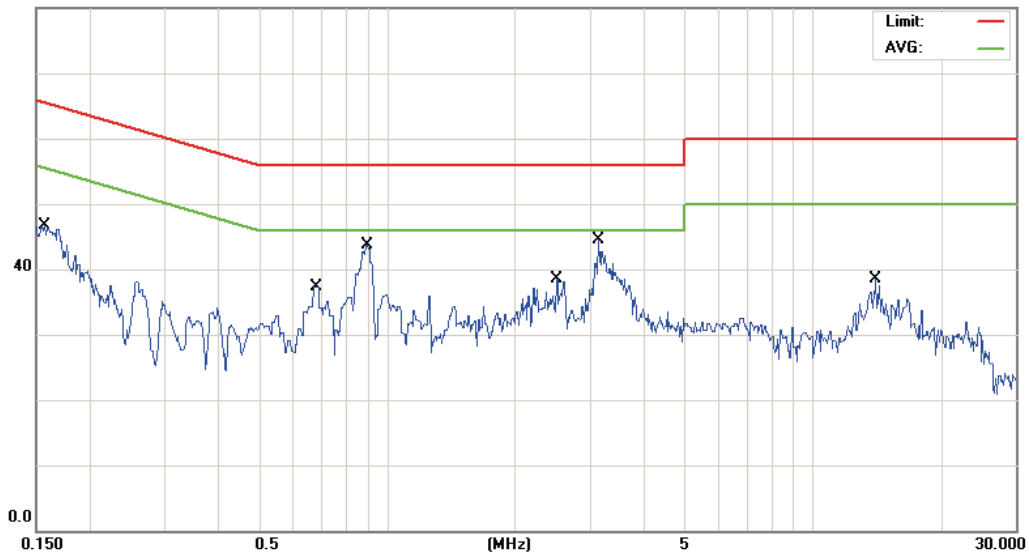
●Reference Only

File :10-0084-SE(PCS1900+BT+WI) Data :#2

Date: 2010/03/21

Time: 下午 08:11:16

80.0 dBuV



Site : Conducted

 Phase: **N**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 2

Note: Adapter #2

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1570	30.30	10.10	40.40	65.62	-25.22	QP	
2		0.1570	8.60	10.10	18.70	55.62	-36.92	AVG	
3		0.6889	24.20	9.87	34.07	56.00	-21.93	QP	
4		0.6889	14.60	9.87	24.47	46.00	-21.53	AVG	
5	*	0.8960	32.40	9.79	42.19	56.00	-13.81	QP	
6		0.8960	21.90	9.79	31.69	46.00	-14.31	AVG	
7		2.5070	23.01	9.76	32.77	56.00	-23.23	QP	
8		2.5070	12.61	9.76	22.37	46.00	-23.63	AVG	
9		3.1370	27.20	9.82	37.02	56.00	-18.98	QP	
10		3.1370	18.00	9.82	27.82	46.00	-18.18	AVG	
11		14.0500	23.00	10.34	33.34	60.00	-26.66	QP	
12		14.0500	14.50	10.34	24.84	50.00	-25.16	AVG	

*:Maximum data x:Over limit !:over margin

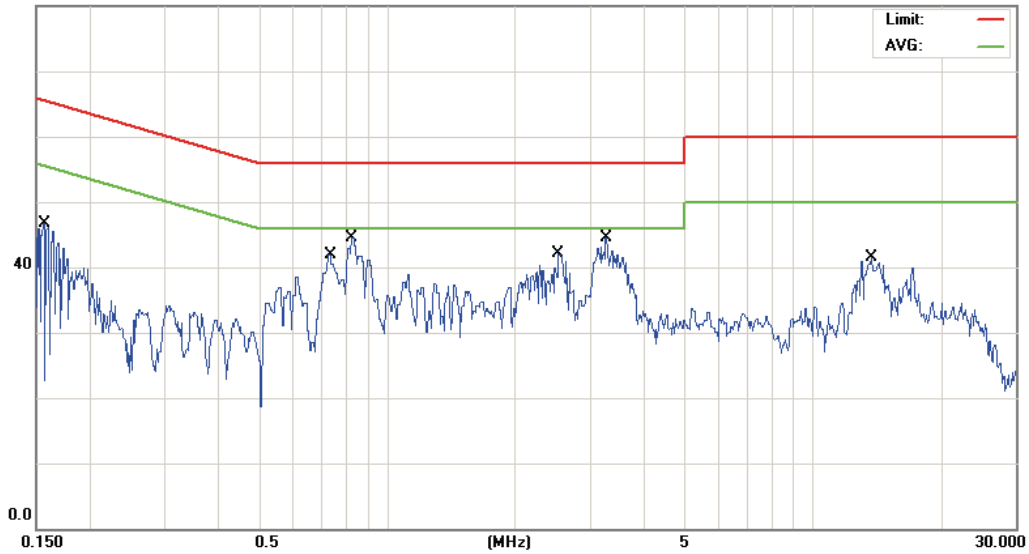
●Reference Only

File :10-0084-SE(WCDMA B2+BT+W) Data :#1

Date: 2010/03/21

Time: 下午 07:25:50

80.0 dBuV



Site : Conducted

 Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 3

Note: Adapter #3

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1563	29.80	10.11	39.91	65.65	-25.74	QP	
2		0.1563	8.10	10.11	18.21	55.65	-37.44	AVG	
3		0.7340	27.40	9.87	37.27	56.00	-18.73	QP	
4		0.7340	18.60	9.87	28.47	46.00	-17.53	AVG	
5		0.8330	29.90	9.83	39.73	56.00	-16.27	QP	
6		0.8330	18.50	9.83	28.33	46.00	-17.67	AVG	
7		2.5250	28.60	9.78	38.38	56.00	-17.62	QP	
8		2.5250	17.50	9.78	27.28	46.00	-18.72	AVG	
9		3.2630	31.30	9.82	41.12	56.00	-14.88	QP	
10	*	3.2630	21.70	9.82	31.52	46.00	-14.48	AVG	
11		13.7000	28.41	10.31	38.72	60.00	-21.28	QP	
12		13.7000	18.81	10.31	29.12	50.00	-20.88	AVG	

*:Maximum data x:Over limit !:over margin

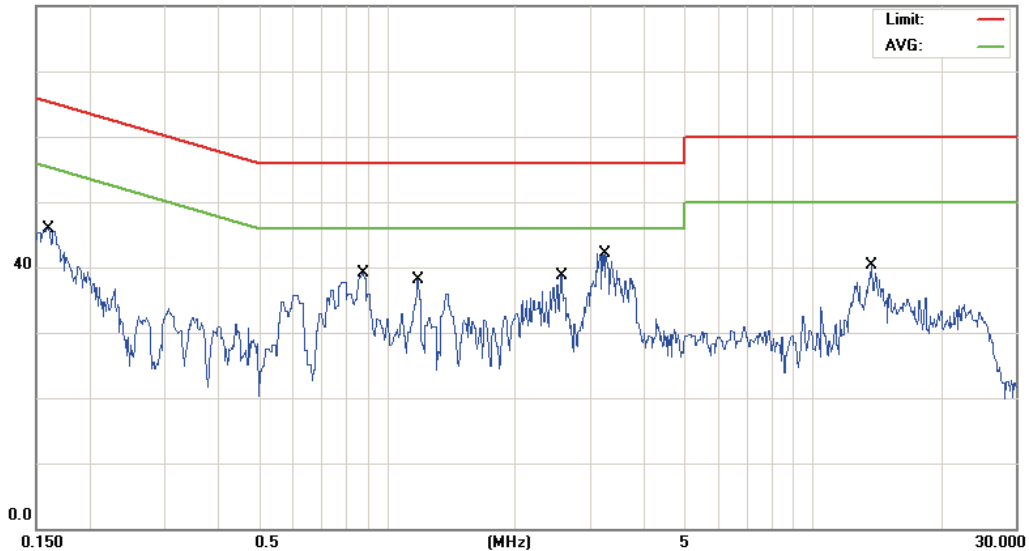
●Reference Only

File :10-0084-SE(WCDMA B2+BT+W) Data :#2

Date: 2010/03/21

Time: 下午 07:33:59

80.0 dBuV



Site : Conducted

 Phase: **N**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 3

Note: Adapter #3

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1598	29.40	10.10	39.50	65.47	-25.97	QP	
2		0.1598	5.60	10.10	15.70	55.47	-39.77	AVG	
3		0.8780	25.90	9.80	35.70	56.00	-20.30	QP	
4		0.8780	14.80	9.80	24.60	46.00	-21.40	AVG	
5		1.1840	22.60	9.67	32.27	56.00	-23.73	QP	
6		1.1840	10.50	9.67	20.17	46.00	-25.83	AVG	
7		2.5610	15.60	9.76	25.36	56.00	-30.64	QP	
8		2.5610	8.40	9.76	18.16	46.00	-27.84	AVG	
9	*	3.2540	26.60	9.81	36.41	56.00	-19.59	QP	
10		3.2540	16.40	9.81	26.21	46.00	-19.79	AVG	
11		13.7000	23.20	10.34	33.54	60.00	-26.46	QP	
12		13.7000	15.40	10.34	25.74	50.00	-24.26	AVG	

*:Maximum data x:Over limit !:over margin

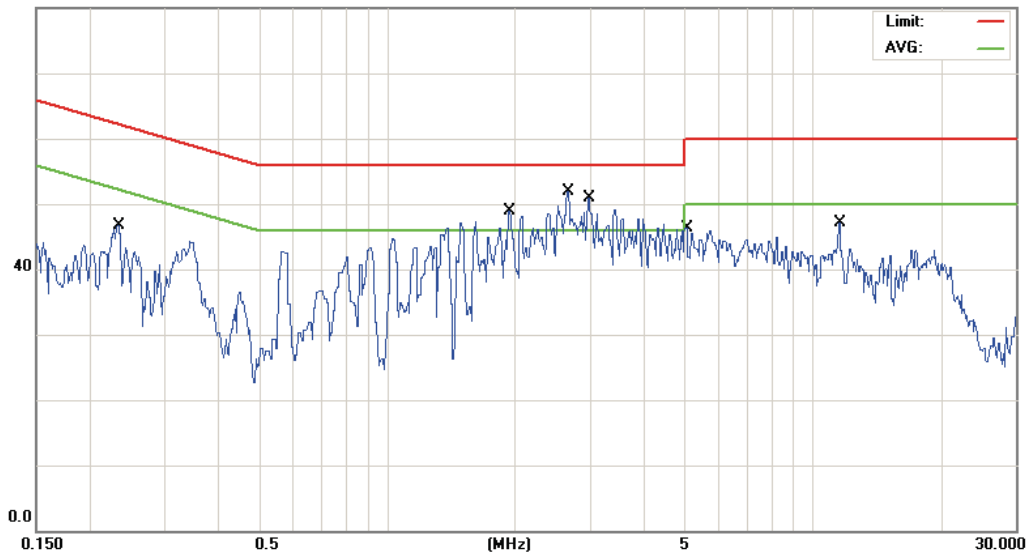
●Reference Only

File :10-0084-SE(WCDMA B2+BT+W Data :#3

Date: 2010/03/25

Time: 下午 09:19:06

80.0 dBuV



Site : Conducted

 Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 4

Note: Adapter #4

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.2333	29.80	10.28	40.08	62.33	-22.25	QP	
2		0.2333	17.20	10.28	27.48	52.33	-24.85	AVG	
3		1.9310	31.20	9.85	41.05	56.00	-14.95	QP	
4		1.9310	21.70	9.85	31.55	46.00	-14.45	AVG	
5		2.6510	34.80	9.92	44.72	56.00	-11.28	QP	
6	*	2.6510	27.60	9.92	37.52	46.00	-8.48	AVG	
7		2.9660	32.70	9.97	42.67	56.00	-13.33	QP	
8		2.9660	24.30	9.97	34.27	46.00	-11.73	AVG	
9		5.0500	29.50	9.94	39.44	60.00	-20.56	QP	
10		5.0500	20.60	9.94	30.54	50.00	-19.46	AVG	
11		11.5000	26.40	10.31	36.71	60.00	-23.29	QP	
12		11.5000	18.00	10.31	28.31	50.00	-21.69	AVG	

*:Maximum data x:Over limit !:over margin

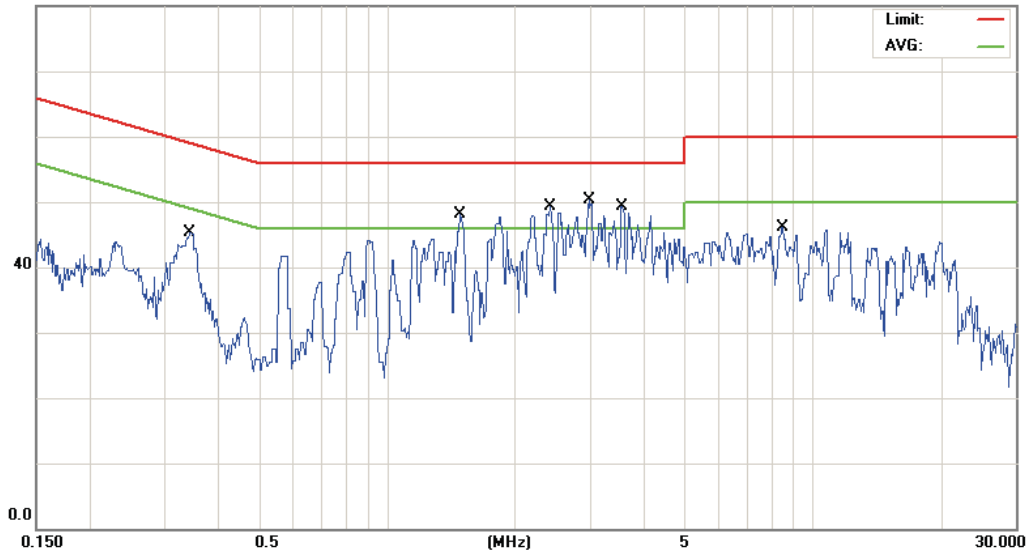
●Reference Only

File :10-0084-SE(WCDMA B2+BT+W) Data :#4

Date: 2010/03/25

Time: 下午 09:24:45

80.0 dBuV



Site : Conducted

 Phase: **N**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 4

Note: Adapter #4

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.3453	29.50	10.22	39.72	59.07	-19.35	QP	
2		0.3453	18.80	10.22	29.02	49.07	-20.05	AVG	
3		1.4810	31.10	9.88	40.98	56.00	-15.02	QP	
4		1.4810	19.70	9.88	29.58	46.00	-16.42	AVG	
5		2.4170	31.30	9.92	41.22	56.00	-14.78	QP	
6		2.4170	20.00	9.92	29.92	46.00	-16.08	AVG	
7		2.9750	33.30	9.97	43.27	56.00	-12.73	QP	
8	*	2.9750	24.00	9.97	33.97	46.00	-12.03	AVG	
9		3.5510	32.00	9.96	41.96	56.00	-14.04	QP	
10		3.5510	21.10	9.96	31.06	46.00	-14.94	AVG	
11		8.5000	28.20	10.05	38.25	60.00	-21.75	QP	
12		8.5000	17.40	10.05	27.45	50.00	-22.55	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only