



Variant FCC RF Test Report

APPLICANT : HTC Corporation
EQUIPMENT : Smartphone
MODEL NAME : PB92110
FCC ID : NM8PB92110
STANDARD : FCC 47 CFR Part 2, 22(H), 24(E)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)
Tx/Rx FREQUENCY RANGE : GSM850 : 824.2 ~ 848.8 MHz /
869.2 ~ 893.8 MHz
GSM1900 : 1850.2 ~ 1909.8 MHz /
1930.2 ~ 1989.8 MHz
WCDMA Band V : 826.4 ~ 846.6 MHz /
871.4 ~ 891.6 MHz
WCDMA Band II : 1852.4 ~ 1907.6 MHz /
1932.4 ~ 1987.6 MHz
MAX. ERP/EIRP POWER : <Sample 1>
GSM850 (GSM) : 0.44 W
GSM850 (EDGE 8) : 0.15 W
GSM1900 (GSM) : 0.61 W
GSM1900 (EDGE 8) : 0.26 W
WCDMA Band V (RMC 12.2Kbps) : 0.03 W
WCDMA Band II (RMC 12.2Kbps) : 0.06 W
<Sample 2>
GSM850 (GSM) : 0.42 W
GSM850 (EDGE 8) : 0.14 W
GSM1900 (GSM) : 0.26 W
GSM1900 (EDGE 8) : 0.12 W
WCDMA Band V (RMC 12.2Kbps) : 0.02 W
WCDMA Band II (RMC 12.2Kbps) : 0.03 W



This is a variant report which is only valid together with the original test report. The product was received on Feb. 19, 2011 and completely tested on Mar. 17, 2011. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI / TIA / EIA-603-C-2004 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by:

Roy Wu / Manager



SPORTON INTERNATIONAL INC.

No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

SPORTON INTERNATIONAL INC.

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FCC ID : NM8PB92110

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SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
2.1	§22.913(a)(2)	RSS-132(4.4) SRSP-503(5.1.3)	Effective Radiated Power	< 7 Watts	PASS	-
2.1	§24.232(c)	RSS-133 (6.4) SRSP-510(5.1.2)	Equivalent Isotropic Radiated Power	< 2 Watts	PASS	-



1 General Description

1.1 Applicant

HTC Corporation

No. 23, Xinghua Rd., Taoyuan 330, Taiwan

1.2 Manufacturer

HTC Corporation

No. 23, Xinghua Rd., Taoyuan 330, Taiwan

1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	Smartphone
Model Name	PB92110
FCC ID	NM8PB92110
Sample 1	EUT with LCM 1 and Camera 1
Sample 2	EUT with LCM 2 and Camera 2
Tx Frequency	GSM850 : 824 MHz ~ 849 MHz GSM1900 : 1850 MHz ~ 1910 MHz WCDMA Band V : 824 MHz ~ 849 MHz WCDMA Band II : 1850 MHz ~ 1910 MHz
Rx Frequency	GSM850 : 869 MHz ~ 894 MHz GSM1900 : 1930 MHz ~ 1990 MHz WCDMA Band V : 869 MHz ~ 894 MHz WCDMA Band II : 1930 MHz ~ 1990 MHz
Maximum ERP/EIRP	<p><Sample 1> GSM850 (GSM) : 0.44 W (26.40 dBm) GSM850 (EDGE 8) : 0.15 W (21.78 dBm) GSM1900 (GSM) : 0.61 W (27.82 dBm) GSM1900 (EDGE 8) : 0.26 W (24.12 dBm) WCDMA Band V (RMC 12.2Kbps) : 0.03 W (14.10 dBm) WCDMA Band II (RMC 12.2Kbps) : 0.06 W (17.99 dBm)</p> <p><Sample 2> GSM850 (GSM) : 0.42 W (26.25 dBm) GSM850 (EDGE 8) : 0.14 W (21.36 dBm) GSM1900 (GSM) : 0.26 W (24.17 dBm) GSM1900 (EDGE 8) : 0.12 W (20.82 dBm) WCDMA Band V (RMC 12.2Kbps) : 0.02 W (13.71 dBm) WCDMA Band II (RMC 12.2Kbps) : 0.03 W (14.96 dBm)</p>
Antenna Type	Fixed Internal Antenna
Type of Modulation	GSM / GPRS : GMSK EDGE : 8PSK WCDMA : QPSK HSDPA : QPSK / 16QAM
EUT Stage	Identical Prototype

Remark:

1. This test report recorded only product characteristics and test results of PCS Licensed Transmitter Held to Ear (PCE).
2. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Testing Site

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	Sporton Site No.	FCC/IC Registration No.
	03CH06-HY	722060/4086B-1

1.5 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ Preliminary Guidance for Receiving Applications for Certification of 3G Device. May 9, 2006.
- ♦ FCC 47 CFR Part 2, 22(H), 24(E)
- ♦ ANSI / TIA / EIA-603-C-2004
- ♦ IC RSS-132 Issue 2
- ♦ IC RSS-133 Issue 5

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B (DoC), recorded in a separate test report.

1.6 Ancillary Equipment List

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU200	N/A	N/A	Unshielded, 1.8 m



2 Test Result

2.1 Effective Radiated Power and Effective Isotropic Radiated Power Measurement

2.1.1 Description of the ERP/EIRP Measurement

ERP/EIRP is measured by substitution method according to ANSI / TIA / EIA-603-C-2004. The ERP of mobile transmitters must not exceed 7 Watts and the EIRP of mobile transmitters are limited to 2 Watts.

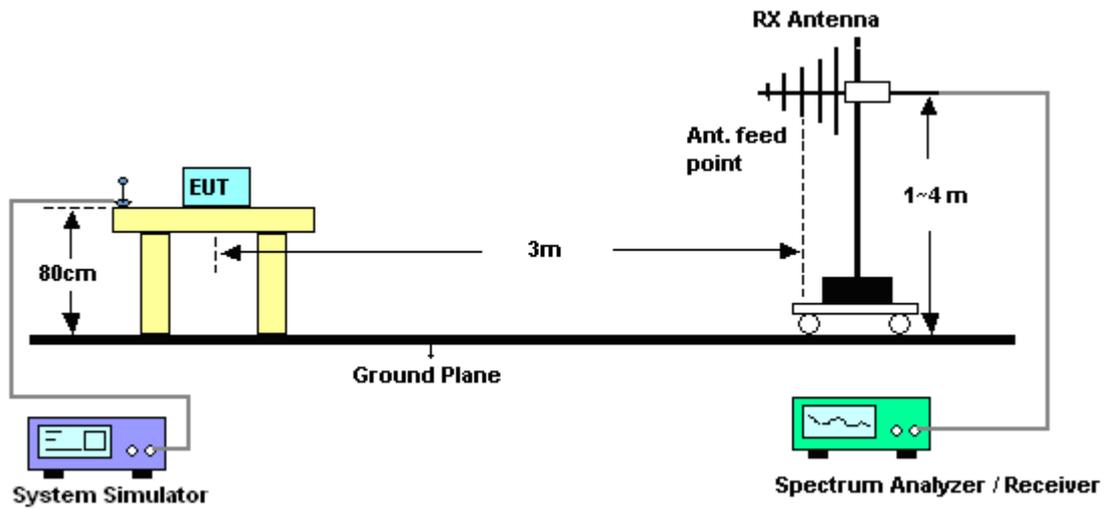
2.1.2 Measuring Instruments

See list of measuring instruments of this test report.

2.1.3 Test Procedures

1. The EUT was placed on an non-conductive rotating platform with 0.8 meter height in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RBW= 3MHz,VBW= 3MHz, and peak detector settings.
2. During the measurement, the EUT was enforced in maximum power and linked with a base station. The highest emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
3. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-C. The EUT was replaced by dipole antenna (substitution antenna) at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading. Then the EUT's EIRP was calculated with the correction factor, $EIRP = LVL + \text{Correction factor}$ and $ERP = EIRP - 2.15$.

2.1.4 Test Setup





2.1.5 Test Result of ERP

GSM850 (GSM) Radiated Power ERP for Sample 1				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-3.78	30.89	24.96	0.31
836.4	-3.50	31.13	25.48	0.35
848.8	-3.07	31.62	26.40	0.44
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-13.72	35.93	20.06	0.10
836.4	-12.88	34.95	19.92	0.10
848.8	-11.70	34.71	20.86	0.12

* ERP = LVL (dBm) + Correction Factor (dB) – 2.15

GSM850 (GSM) Radiated Power ERP for Sample 2				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-3.32	30.89	25.42	0.35
836.4	-2.73	31.13	26.25	0.42
848.8	-3.31	31.62	26.16	0.41
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-14.64	35.93	19.14	0.08
836.4	-13.22	34.95	19.58	0.09
848.8	-12.96	34.71	19.60	0.09

* ERP = LVL (dBm) + Correction Factor (dB) – 2.15



GSM850 (EDGE 8) Radiated Power ERP for Sample 1				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-7.51	30.89	21.23	0.13
836.4	-7.35	31.13	21.63	0.15
848.8	-7.69	31.62	21.78	0.15
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-17.13	35.93	16.65	0.05
836.4	-17.44	34.95	15.36	0.03
848.8	-17.13	34.71	15.43	0.03

* ERP = LVL (dBm) + Correction Factor (dB) – 2.15

GSM850 (EDGE 8) Radiated Power ERP for Sample 2				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-7.63	30.89	21.11	0.13
836.4	-7.98	31.13	21.00	0.13
848.8	-8.11	31.62	21.36	0.14
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-17.74	35.93	16.04	0.04
836.4	-16.87	34.95	15.93	0.04
848.8	-16.69	34.71	15.87	0.04

* ERP = LVL (dBm) + Correction Factor (dB) – 2.15



WCDMA Band V (RMC 12.2Kbps) Radiated Power ERP for Sample 1				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
826.40	-14.76	30.89	13.98	0.03
836.40	-15.61	31.13	13.37	0.02
846.60	-15.37	31.62	14.10	0.03
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
826.40	-24.58	35.93	9.20	0.01
836.40	-25.73	34.95	7.07	0.01
846.60	-24.84	34.71	7.72	0.01

* ERP = LVL (dBm) + Correction Factor (dB) – 2.15

WCDMA Band V (RMC 12.2Kbps) Radiated Power ERP for Sample 2				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
826.40	-15.03	30.89	13.71	0.02
836.40	-15.32	31.13	13.66	0.02
846.60	-16.01	31.62	13.46	0.02
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
826.40	-24.05	35.93	9.73	0.01
836.40	-25.71	34.95	7.09	0.01
846.60	-24.27	34.71	8.29	0.01

* ERP = LVL (dBm) + Correction Factor (dB) – 2.15



2.1.6 Test Result of EIRP

GSM1900 (GSM) Radiated Power EIRP for Sample 1				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-14.95	41.24	26.29	0.43
1880.0	-14.37	41.46	27.09	0.51
1909.8	-13.39	41.21	27.82	0.61
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-24.73	43.52	18.79	0.08
1880.0	-23.86	43.10	19.24	0.08
1909.8	-23.09	42.73	19.64	0.09

* EIRP = LVL (dBm) + Correction Factor (dB)

GSM1900 (GSM) Radiated Power EIRP for Sample 2				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-17.68	41.24	23.56	0.23
1880.0	-17.82	41.46	23.64	0.23
1909.8	-17.04	41.21	24.17	0.26
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-25.80	43.52	17.72	0.06
1880.0	-25.73	43.10	17.37	0.05
1909.8	-24.96	42.73	17.77	0.06

* EIRP = LVL (dBm) + Correction Factor (dB)



GSM1900 (EDGE 8) Radiated Power EIRP for Sample 1				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-17.71	41.24	23.53	0.23
1880.0	-17.54	41.46	23.92	0.25
1909.8	-17.09	41.21	24.12	0.26
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-26.99	43.52	16.53	0.04
1880.0	-26.77	43.10	16.33	0.04
1909.8	-26.67	42.73	16.06	0.04

* EIRP = LVL (dBm) + Correction Factor (dB)

GSM1900 (EDGE 8) Radiated Power EIRP for Sample 2				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-20.74	41.24	20.50	0.11
1880.0	-20.64	41.46	20.82	0.12
1909.8	-20.67	41.21	20.54	0.11
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-27.88	43.52	15.64	0.04
1880.0	-27.56	43.10	15.54	0.04
1909.8	-28.37	42.73	14.36	0.03

* EIRP = LVL (dBm) + Correction Factor (dB)



WCDMA Band II (RMC 12.2Kbps) Radiated Power EIRP for Sample 1				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.40	-23.64	41.24	17.60	0.06
1880.00	-23.47	41.46	17.99	0.06
1907.60	-23.47	41.21	17.74	0.06
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.40	-32.60	43.52	10.92	0.01
1880.00	-32.40	43.10	10.70	0.01
1907.60	-32.64	42.73	10.09	0.01

* EIRP = LVL (dBm) + Correction Factor (dB)

WCDMA Band II (RMC 12.2Kbps) Radiated Power EIRP for Sample 2				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.40	-26.90	41.24	14.34	0.03
1880.00	-27.08	41.46	14.38	0.03
1907.60	-26.25	41.21	14.96	0.03
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.40	-33.69	43.52	9.83	0.01
1880.00	-34.09	43.10	9.01	0.01
1907.60	-34.62	42.73	8.11	0.01

* EIRP = LVL (dBm) + Correction Factor (dB)



3 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100057	9KHz-40GHz	Oct. 25, 2010	Oct. 24, 2011	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/003	20MHz-1000MHz	Apr. 28, 2010	Apr. 27, 2011	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Oct. 31, 2010	Oct. 31, 2011	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1GHz~18GHz	Aug. 02, 2010	Aug. 01, 2011	Radiation (03CH06-HY)
Double Ridge Horn Antenna	Training Research	AH-0801	95119	8GHz~18GHz	Oct. 20, 2010	Oct. 19, 2011	Radiation (03CH06-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA917025 1	15GHz- 40GHz	Oct. 18, 2010	Oct. 17, 2011	Radiation (03CH06-HY)
Pre Amplifier	Agilent	8449B	3008A01917	1GHz- 26.5GHz	Apr. 15, 2010	Apr. 14, 2011	Radiation (03CH06-HY)
Amplifier	Agilent	310N	186713	9KHz~1GHz	Apr. 15, 2010	Apr. 14, 2011	Radiation (03CH06-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz~30 MHz	Jul. 29, 2010	Jul. 28, 2011	Radiation (03CH06-HY)
System Simulator	R&S	CMU200	117997	N/A	May 14, 2009	May 13, 2011	Radiation (03CH06-HY)



Appendix A. Product Equality Declaration

HTC Corporation

No. 23, Xinghua Rd., Taoyuan 330, Taiwan
Tel: +886-3-327-3456 ; Fax: +886-3-375-3243

Federal Communications Commission
Authorization and Evaluation Division
1435 Oakland Mills Road
Columbia, MD 21046

SUBJECT: Class II Permissive Change for FCC ID: NM8PB92110

The product, Smartphone, has been granted by FCC dated 04/20/2010, FCC ID:
NM8PB92110.

Now we, HTC Corporation, would like to modify the authorized equipment for below
changes:

◆ Add Hot-Spot Function.

Except for above listed change, no other modification is performed.

We would like to certify the additional of certified FCC ID: NM8PB92110 as a Class
II Permissive Change in this device.

Sincerely Yours,

Contact Person: Wawii Lin

Company: HTC Corporation

TEL: +886-3-375-3252

FAX: +886-3-375-3243

E-mail: Wawii_lin@htc.com



Appendix B. Original Report

Please refer to Sporton report number FG020105 as below.