



PCTEST ENGINEERING LABORATORY, INC.

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CERTIFICATE OF COMPLIANCE FCC PART 15.247 Certification

Applicant Name:
Samsung Electronics, Co. Ltd.
18600 Broadwick St.
Rancho Dominguez, CA 90220 USA

Date of Testing:
October 31, 2006
Test Site/Location:
PCTEST Lab. Columbia, MD, USA
Test Report Serial No.:
0610260941

FCC ID: A3LSPHA720

APPLICANT: Samsung Electronics, Co. Ltd.

Model(s): SPH-A720
EUT Type: Dual-Band CDMA Phone with Bluetooth
Max. RF Output Power: 0.0010 W (-0.12 dBm) Conducted
Frequency Range: 2402 – 2480MHz (Bluetooth for US)
FCC Classification: Part 15 Subpart C (15.247)
FCC Rule Part(s): Part 15 Subpart C (15.247)
Class II Permissive Change: Please see documents

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2003.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Grant Conditions: Listed output power is conducted.

PCTEST certifies that no party to this application has been denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 862.


Randy Ortanez
President



FCC ID: A3LSPHA720		FCC Pt. 15.247 BLUETOOTH SUPPLEMENTAL DATA		Reviewed by: Quality Manager
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Radiated Restricted Band Measurements

§15.247 (d) / §15.205 & §15.209; RSS-210 (A8.5)

Special attention is made for the EUT's harmonic and spurious radiated emission in the restricted bands of operations. The EUT was tested from 9kHz and up to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average measurement was used, using RBW = 1MHz, VBW = 10Hz and linearly polarized horn antennas. All harmonics/spurs are at least 20dB below the highest emission in the authorized band using RBW = 100kHz. In addition, peak measurements were taken to ensure that the peak levels are not more than 20dB above the average limit. All out of band emissions, other than those created by the spreading sequence, data sequence, and the carrier modulation must not exceed the limits shown in Table 1 per Section 15.209.

Frequency	Field Strength [μV/m]	Measured Distance [Meters]
0.009 – 0.490 MHz	2400/F (kHz)	300
0.490 – 1.705 MHz	24000/F (kHz)	30
1.705 – 30.00 MHz	30	30
30.00 – 88.00 MHz	100	3
88.00 – 216.0 MHz	150	3
216.0 – 960.0 MHz	200	3
Above 960.0 MHz	500	3

Table 1. Radiated Limits

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Radiated Restricted Band Measurements (Cont'd)

§15.247 (d) / §15.205 & §15.209; RSS-210 (A8.5)

Mode: Bluetooth

Measurement Distance: 3 Meters

Operating Frequency: 2480MHz

Channel: 78

Frequency [MHz]	Level [dBm]	AFCL [dB]	Pol. [H/V]	Field Strength [dBμV/m]	Field Strength [μV/m]	Margin [dB]
2483.59	-111.43	30.81	H	26.38	20.84	-27.60
2484.78	-113.33	30.82	H	24.49	16.77	-29.49
2487.14	-112.63	30.83	H	25.20	18.20	-28.78
2491.27	-112.73	30.83	V	25.10	17.99	-28.88
2493.47	-113.23	30.85	V	24.62	17.02	-29.36
2495.66	-113.03	30.86	H	24.83	17.44	-29.15

Table 2. Radiated Restricted Band Measurements at 3-meters

NOTES:

1. The antenna is manipulated through typical positions, polarity and length during the testing.
2. The EUT is supplied with the minimal AC voltage or/and a new/fully re-charged battery.
3. The spectrum is measured from 9kHz up to the 10th harmonic and the worst-case emissions are reported.
4. Above 1 GHz the limit is 500μV/m.
5. < -135 dBm is below the analyzer measurement floor level.
6. The peak emissions above 1 GHz are not more than 20 dB above the average limit.

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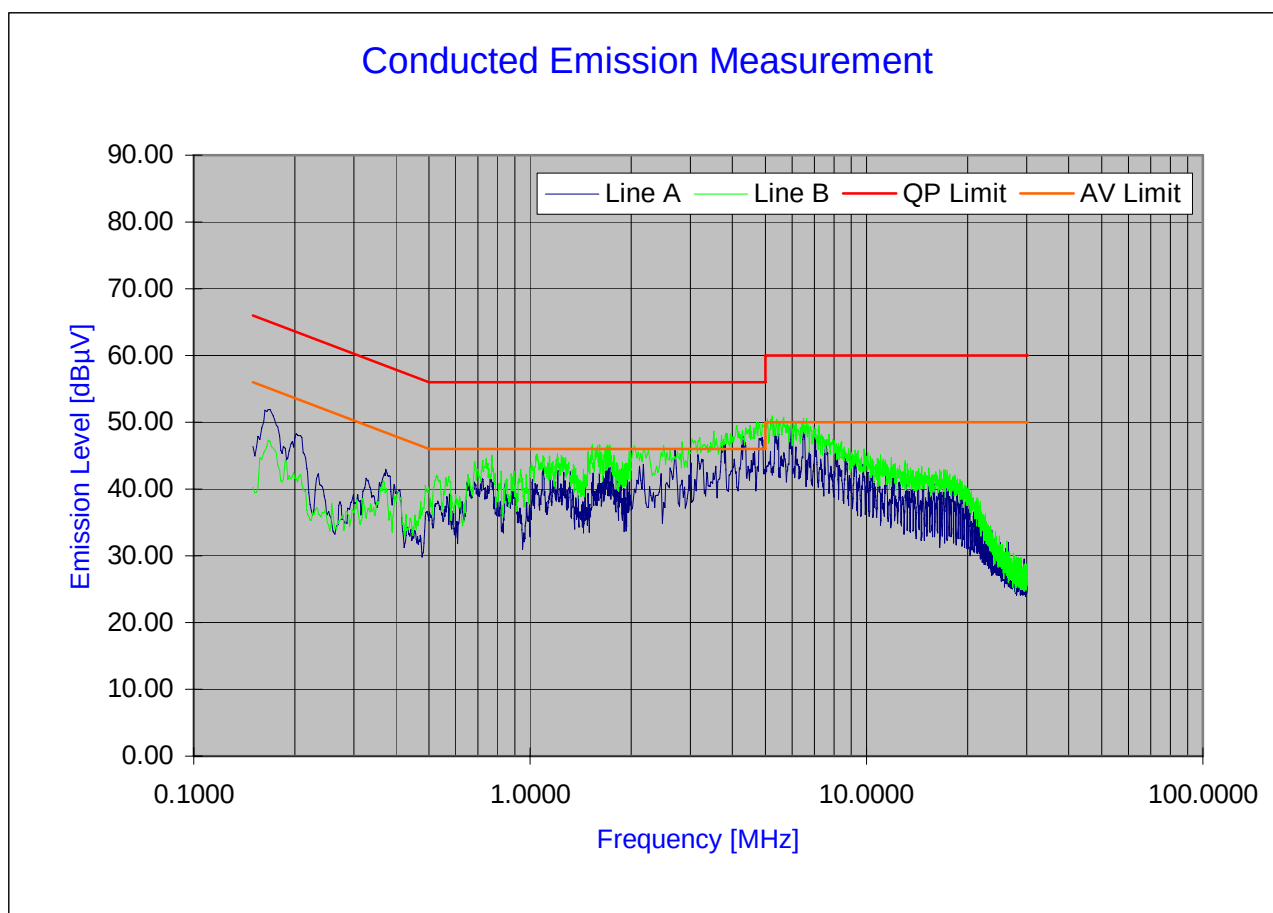


Line-Conducted Test Data
§15.207; RSS-Gen (7.2.2)

PCTEST Engineering Laboratory Inc.

Company : Samsung Electronics
Model Number : SPH-A720
FCC ID Code : A3LSPHA720
Standard : FCC Part 15B class B

Power Source : AC120V/60Hz
Tested Date : 10/31/2006
Note : Tested w/ Bluetooth ON



Ver.1.1 ©PCTEST 2006.08

Plot 1. Line Conducted Plot with Bluetooth

Notes:

1. All Modes of operation were investigated and the worst-case emissions are reported.
2. The limit for Class B device(s) from 150kHz to 30MHz are Specified in EN55022.
3. Line A = Phase; Line B = Neutral
4. Deviations to the Specifications: None.

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Line-Conducted Test Data

§15.207; RSS-Gen (7.2.2)

Nb.	Line	Frequency	Factor	QP	Limit	Margin	Average	Limit	Margin
		[MHz]	[dB]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dB]
1	A	2.696	7.43	40.01	56.00	-15.99	29.93	46.00	-16.07
2	A	3.188	7.45	40.26	56.00	-15.74	31.19	46.00	-14.81
3	A	3.766	7.47	40.73	56.00	-15.27	32.19	46.00	-13.81
4	A	4.039	7.48	40.91	56.00	-15.09	32.68	46.00	-13.32
5	A	4.317	7.49	41.29	56.00	-14.71	32.80	46.00	-13.20
6	A	4.902	7.51	42.18	56.00	-13.82	33.54	46.00	-12.46
7	A	5.884	7.53	42.46	60.00	-17.54	33.25	50.00	-16.75
8	A	5.911	7.53	42.62	60.00	-17.38	33.42	50.00	-16.58
9	A	6.489	7.54	41.75	60.00	-18.25	32.61	50.00	-17.39
10	A	7.024	7.55	41.36	60.00	-18.64	32.27	50.00	-17.73
11	B	1.528	7.36	42.44	56.00	-13.56	31.31	46.00	-14.69
12	B	1.615	7.36	41.94	56.00	-14.06	30.94	46.00	-15.06
13	B	1.702	7.37	41.79	56.00	-14.21	30.95	46.00	-15.05
14	B	1.712	7.37	40.83	56.00	-15.17	30.34	46.00	-15.66
15	B	3.592	7.47	43.60	56.00	-12.40	34.17	46.00	-11.83
16	B	3.846	7.48	43.95	56.00	-12.05	33.25	46.00	-12.75
17	B	4.083	7.48	44.38	56.00	-11.62	34.50	46.00	-11.50
18	B	4.760	7.50	45.54	56.00	-10.46	35.42	46.00	-10.58
19	B	5.694	7.53	45.71	60.00	-14.29	35.62	50.00	-14.38
20	B	6.547	7.54	44.85	60.00	-15.15	34.53	50.00	-15.47

Table 3. Line Conducted Data with Bluetooth

Notes:

1. All Modes of operation were investigated and the worst-case emissions are reported.
2. The limit for Class B device(s) from 150kHz to 30MHz are Specified in EN55022.
3. Line A = Phase; Line B = Neutral
4. Deviations to the Specifications: None.

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