FCC CFR47 PART 22 SUBPART H
FCC CFR47 PART 24 SUBPART E
CERTIFICATION TEST REPORT

FOR

TABLET with GSM/GPRS/EDGE/WCDMA, 802.11bgn, BT3.0

MODEL NUMBER: GT-P3100B

FCC ID: A3LGTP3100B

REPORT NUMBER: 12I14351-1

ISSUE DATE: MARCH 28, 2012

Prepared for

SAMSUNG ELECTRONICS CO., LTD.
416, MAETAN 3-DONG, YEONGTONG-GU
SUWON-CITY, GYEONGGI-DO 443-742, SOUTH KOREA

Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
---	03/28/12	Initial Issue	T. Chan

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME:	SAMSUNG ELECTRONICS CO., LTD. 416, MAETAN 3-DONG, YEONGTONG-GU SUWON-CITY, GYEONGGI-DO 443-742, SOUTH KOREA
EUT DESCRIPTION:	TABLET with GSM/GPRS/EDGE/WCDMA, 802.11bgn, BT3.0
MODEL:	GT-P3100B
SERIAL NUMBER:	3047
DATE TESTED:	MARCH 25-28, 2012

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 22H AND 24E	PASS (Radiated Portion)

Compliance Certification Services (UL CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL CCS based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL CCS will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL CCS By:

THU CHAN
ENGINEERING MANAGER
UL CCS

Tested By:

MENGISTU MEKURIA
EMC ENGINEER
UL CCS

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA-603-C, FCC CFR 47 Part 2, FCC CFR 47 Part 22, and FCC CFR Part 24.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a TABLET with GSM/GPRS/EDGE/WCDMA, 802.11bgn, BT3.0

5.2. MAXIMUM RF CONDUCTED OUTPUT POWER

The measured average power values were within ± 0.5 dB of the original values. Refer to original report number 12I14206-1 with FCC ID: A3LGTP3100.

5.3. MAXIMUM ERP / EIRP OUTPUT POWER

The transmitter has a maximum peak ERP / EIRP output powers as follows:

Part 22 Cellular Band

Frequency range (MHz)	Modulation	ERP	
		dBm	mW
824.2 – 848.8	GPRS	28.38	688.7
	EGPRS	25.17	328.9
826.4 – 846.6	UMTS, REL 99	19.57	90.6
	UMTS, REL 6	24.42	276.7

Part 24 PCS Band

Frequency range (MHz)	Modulation	EIRP	
		dBm	mW
1850.2 – 1909.8	GPRS	31.21	1321.3
	EGPRS	30.75	1188.5
1852.4 – 1907.6	UMTS, REL 99	28.55	716.1
	UMTS, REL 6	29.83	961.6

5.4. SOFTWARE AND FIRMWARE

The EUT is linked with Agilent 8960 Communication Test Set.

5.5. WORST-CASE CONFIGURATION AND MODE

Based on the investigation results, the highest peak power and enhanced data rate is the worst-case scenario for all measurements.

Worst-case modes: GPRS, EGPRS, UMTS REL 99 and HSUPA Sub Set 5.

Since the EUT is a portable device, to determine the worst/highest emissions, the X, Y, and Z orientations of the EUT with respect to the turntable and the worst among them with headset and an AC adapter were investigated and the worst case were determined to be at Y-orientation with headset and AC adapter for cell and PCS bands.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	Samsung	ETA-P11X	1588-7285	DoC
Headset	Samsung	NA	3040	NA

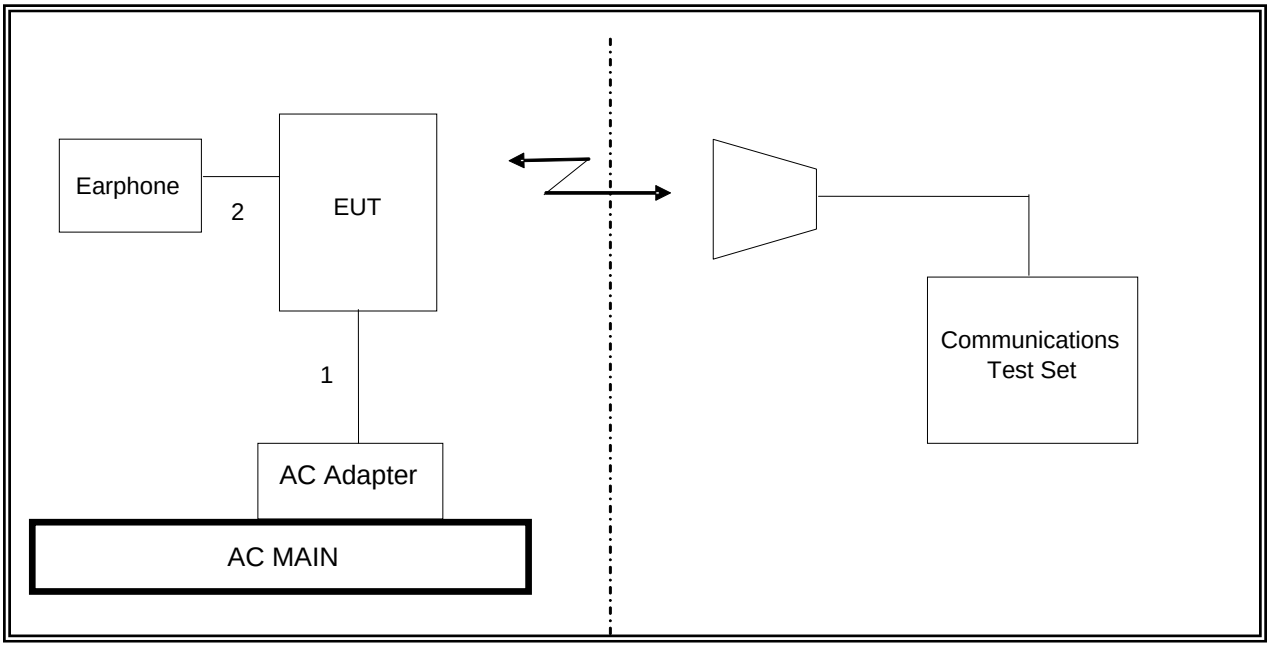
I/O CABLES

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	DC	1	DC	Un-shielded	1m	NA
2	Jack	1	Earphone	Un-shielded	1.2m	NA

TEST SETUP

The EUT is a stand-alone device. A link is established between the EUT and the Agilent communications test set.

SETUP DIAGRAM FOR RF RADIATED TESTS



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Asset**	**Cal Due**
Antenna, Horn, 18 GHz	EMCO	3115	C00872	06/29/12
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00885	11/11/12
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01159	05/11/12
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	07/12/12
Communication Test Set	Agilent / HP	E5515C	C01086	06/17/12
Highpass Filter, 1.5 GHz	Micro-Tronics	HPM13193	N02689`	CNR
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02687	CNR
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	07/16/12
Signal Generator, 20 GHz	Agilent / HP	83732B	C00774	07/14/12
Antenna, Tuned Dipole 400~1000 MHz	ETS	3121C DB4	C00993	07/16/12

7. RADIATED TEST RESULTS

7.1. RADIATED POWER (ERP & EIRP)

RULE PART(S)

FCC: §2.1046, §22.913, §24.232

LIMITS

22.913(a) - The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

24.232(c) - Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

TEST PROCEDURE

ANSI / TIA / EIA 603C

MODES TESTED

- GPRS and EGPRS
- UMTS, REL 99 and HSUPA

RESULTS

Mode	Channel	f (MHz)	ERP	
			dBm	mW
GPRS	128	824.20	26.42	438.53
	190	836.60	27.70	588.84
	251	848.80	**28.38**	688.65
EGPRS	128	824.20	24.45	278.61
	190	836.60	**25.17**	328.85
	251	848.80	25.14	326.59

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
GPRS	512	1850.20	29.90	977.24
	661	1880.00	**31.21**	1321.30
	810	1909.80	30.51	1124.60
EGPRS	512	1850.20	29.94	986.28
	661	1880.00	**30.75**	1188.50
	810	1909.80	29.63	918.33

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
UMTS,REL 99	4357	826.40	**19.57**	90.57
	4408	836.60	19.30	85.11
	4458	846.60	19.41	87.30
UMTS, HSDPA	4357	826.40	22.86	193.20
	4408	836.60	**24.42**	276.69
	4458	846.60	23.38	217.77

Mode	Channel	f (MHz)	EIRP	
			dBm	mW
UMTS,REL 99	9662	1852.40	27.19	523.60
	9800	1880.00	27.72	591.56
	9938	1907.60	**28.55**	716.14
UMTS, HSDPA	9662	1852.40	28.02	633.87
	9800	1880.00	28.54	714.50
	9938	1907.60	**29.83**	961.61

GPRS (Cellular Band)

High Frequency Substitution Measurement
Compliance Certification Services Chamber B

Company: SAMSUNG ELECTRONICS
Project #: 12I14351
Date: 03/25/12
Test Engineer: MENGISTU MEKURIA
Configuration: EUT with AC Adapter
Mode: TX , CELL GPRS MODE

Test Equipment:
Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT)
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
824.20	26.92	V	0.5	0.0	26.42	38.5	-12.0	
824.20	26.49	H	0.5	0.0	25.99	38.5	-12.5	
Mid Ch								
836.60	28.20	V	0.5	0.0	27.70	38.5	-10.8	
836.60	25.16	H	0.5	0.0	24.66	38.5	-13.8	
High Ch								
848.80	28.88	V	0.5	0.0	28.38	38.5	-10.1	
848.80	26.60	H	0.5	0.0	26.10	38.5	-12.3	

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EGPRS (Cellular Band)

High Frequency Substitution Measurement
Compliance Certification Services Chamber B

Company: SAMSUNG ELECTRONICS
Project #: 12I14351
Date: 03/25/12
Test Engineer: MENGISTU MEKURIA
Configuration: EUT with AC Adapter
Mode: TX , CELL EGPRS MODE

Test Equipment:
Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT)
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
824.20	24.70	V	0.5	0.0	24.20	38.5	-14.2	
824.20	24.95	H	0.5	0.0	24.45	38.5	-14.0	
Mid Ch								
836.60	25.67	V	0.5	0.0	25.17	38.5	-13.3	
836.60	24.22	H	0.5	0.0	23.72	38.5	-14.7	
High Ch								
848.80	25.33	V	0.5	0.0	24.83	38.5	-13.6	
848.80	25.64	H	0.5	0.0	25.14	38.5	-13.3	

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GPRS (PCS Band)

High Frequency Fundamental Measurement
Compliance Certification Services Chamber B

Company: SAMSUNG ELECTRONICS
Project #: 12I14351
Date: 03/25/12
Test Engineer: MENGISTU MEKURIA
Configuration: EUT with AC Adapter
Mode: TX , PCS GPRS MODE

Test Equipment:
Receiving: Horn T59, and Camber B SMA Cables
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1.850	22.3	V	0.53	8.10	29.90	33.0	-3.1	
1.850	20.3	H	0.53	8.14	27.91	33.0	-5.1	
Mid Ch								
1.880	23.6	V	0.53	8.10	31.21	33.0	-1.8	
1.880	20.6	H	0.53	8.14	28.21	33.0	-4.8	
High Ch								
1.910	22.9	V	0.53	8.10	30.51	33.0	-2.5	
1.910	21.5	H	0.53	8.14	29.10	33.0	-3.9	

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EGPRS (PCS Band)

High Frequency Fundamental Measurement
Compliance Certification Services Chamber B

Company: SAMSUNG ELECTRONICS
Project #: 12I14351
Date: 03/25/12
Test Engineer: MENGISTU MEKURIA
Configuration: EUT with AC Adapter
Mode: TX , PCS EGPRS MODE

Test Equipment:
Receiving: Horn T59, and Camber B SMA Cables
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1.850	22.4	V	0.53	8.10	29.94	33.0	-3.1	
1.850	19.9	H	0.53	8.14	27.52	33.0	-5.5	
Mid Ch								
1.880	23.2	V	0.53	8.10	30.75	33.0	-2.2	
1.880	20.0	H	0.53	8.14	27.61	33.0	-5.4	
High Ch								
1.910	22.1	V	0.53	8.10	29.63	33.0	-3.4	
1.910	21.2	H	0.53	8.14	28.83	33.0	-4.2	

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UMTS850 REL 99 (Cellular Band)

High Frequency Substitution Measurement
Compliance Certification Services Chamber B

Company:	SAMSUNG ELECTRONICS
Project #:	12I14351
Date:	03/25/12
Test Engineer:	MENGISTU MEKURIA
Configuration:	EUT with AC Adapter
Mode:	TX , CELL WCDMA REL 99 MODE

Test Equipment:
Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT)
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
826.40	18.63	V	0.5	0.0	18.13	38.5	-20.3	
826.40	20.07	H	0.5	0.0	19.57	38.5	-18.9	
Mid Ch								
836.60	19.55	V	0.5	0.0	19.05	38.5	-19.4	
836.60	19.80	H	0.5	0.0	19.30	38.5	-19.2	
High Ch								
848.60	18.87	V	0.5	0.0	18.37	38.5	-20.1	
848.80	19.91	H	0.5	0.0	19.41	38.5	-19.0	

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UMTS850 HSUPA (Cellular Band)

High Frequency Substitution Measurement
Compliance Certification Services Chamber B

Company: SAMSUNG ELECTRONICS
Project #: 12I14351
Date: 03/25/12
Test Engineer: MENGISTU MEKURIA
Configuration: EUT with AC Adapter
Mode: TX , CELL HSUPA MODE

Test Equipment:
Receiving: Sunol T130, and 3m Chamber N-type Cable (Setup this one for testing EUT)
Substitution: Dipole S/N: 00022117, 6ft SMA Cable (SN # 208947003) Warehouse.

f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch								
826.40	23.36	V	0.5	0.0	22.86	38.5	-15.6	
826.40	21.29	H	0.5	0.0	20.79	38.5	-17.7	
Mid Ch								
836.60	24.92	V	0.5	0.0	24.42	38.5	-14.0	
836.60	20.27	H	0.5	0.0	19.77	38.5	-18.7	
High Ch								
848.60	23.88	V	0.5	0.0	23.38	38.5	-15.1	
848.80	19.91	H	0.5	0.0	19.41	38.5	-19.0	

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UMTS1900 REL 99 (PCS Band)

High Frequency Fundamental Measurement
Compliance Certification Services Chamber B

Company: SAMSUNG ELECTRONICS
Project #: 12I14351
Date: 03/25/12
Test Engineer: MENGISTU MEKURIA
Configuration: EUT with AC Adapter
Mode: TX , PCS REL. 99 MODE

Test Equipment:
Receiving: Horn T59, and Camber B SMA Cables
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1.852	10.9	V	0.53	8.10	18.51	33.0	-14.5	
1.852	19.6	H	0.53	8.14	27.19	33.0	-5.8	
Mid Ch								
1.880	9.9	V	0.53	8.10	17.46	33.0	-15.5	
1.880	20.1	H	0.53	8.14	27.72	33.0	-5.3	
High Ch								
1.908	10.2	V	0.53	8.10	17.73	33.0	-15.3	
1.908	20.9	H	0.53	8.14	28.55	33.0	-4.5	

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UMTS1900 HSUPA (PCS Band)

High Frequency Fundamental Measurement
Compliance Certification Services Chamber B

Company: SAMSUNG ELECTRONICS
Project #: 12I14351
Date: 03/25/12
Test Engineer: MENGISTU MEKURIA
Configuration: EUT with AC Adapter
Mode: TX , PCS HSUPA MODE

Test Equipment:
Receiving: Horn T59, and Camber B SMA Cables
Substitution: Horn T217 Substitution, 4ft SMA Cable (244639001) Warehouse

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch								
1.852	12.1	V	0.53	8.10	19.65	33.0	-13.3	
1.852	20.4	H	0.53	8.14	28.02	33.0	-5.0	
Mid Ch								
1.880	10.8	V	0.53	8.10	18.41	33.0	-14.6	
1.880	20.9	H	0.53	8.14	28.54	33.0	-4.5	
High Ch								
1.908	11.0	V	0.53	8.10	18.55	33.0	-14.4	
1.908	22.2	H	0.53	8.14	29.83	33.0	-3.2	

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7.2. FIELD STRENGTH OF SPURIOUS RADIATION

RULE PART(S)

FCC: §2.1053, §22.917, §24.238

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.

TEST PROCEDURE

For Cellular equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For PCS equipment - Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

MODES TESTED

- GPRS and EGPRS
- UMTS, REL 99 and HSUPA

RESULTS

GPRS (Cellular Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Samsung
Project #: 12I14351
Date: 03/26/12
Test Engineer: Chin Pang
Configuration: EUT and AC Adapter
Mode: TX, CELL BAND GPRS MODE

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T145 8449B	Filter 1	Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (824.2MHz)									
1.648	-3.2	V	3.0	35.5	1.0	-37.8	-13.0	-24.8	
2.473	-15.3	V	3.0	35.4	1.0	-49.7	-13.0	-36.7	
1.648	-1.8	H	3.0	35.5	1.0	-36.3	-13.0	-23.3	
2.473	-16.2	H	3.0	35.4	1.0	-50.6	-13.0	-37.6	
Mid Ch, (836.6MHz)									
1.673	-4.9	V	3.0	35.5	1.0	-39.4	-13.0	-26.4	
3.346	-11.7	V	3.0	35.5	1.0	-46.3	-13.0	-33.3	
1.673	-5.7	H	3.0	35.5	1.0	-40.3	-13.0	-27.3	
2.510	-12.1	H	3.0	35.4	1.0	-46.5	-13.0	-33.5	
High Ch, (848.8MHz)									
1.698	-2.6	V	3.0	35.5	1.0	-37.1	-13.0	-24.1	
2.546	-15.0	V	3.0	35.4	1.0	-49.5	-13.0	-36.5	
1.698	-4.8	H	3.0	35.5	1.0	-39.3	-13.0	-26.3	
2.546	-14.4	H	3.0	35.4	1.0	-48.8	-13.0	-35.8	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

EGPRS (Cellular Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Samsung
Project #: 12I14351
Date: 03/26/12
Test Engineer: Chin Pang
Configuration: EUT and AC Adapter
Mode: TX, CELL BAND EGPRS MODE

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T145 8449B	Filter 1	Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (824.2MHz)									
1.648	-9.2	V	3.0	35.5	1.0	-43.8	-13.0	-30.8	
2.473	-17.3	V	3.0	35.4	1.0	-51.7	-13.0	-38.7	
1.648	-2.0	H	3.0	35.5	1.0	-36.5	-13.0	-23.5	
2.473	-18.2	H	3.0	35.4	1.0	-52.6	-13.0	-39.6	
Mid Ch, (836.6MHz)									
1.673	-6.9	V	3.0	35.5	1.0	-41.4	-13.0	-28.4	
3.346	-13.7	V	3.0	35.5	1.0	-48.3	-13.0	-35.3	
1.673	-11.5	H	3.0	35.5	1.0	-46.1	-13.0	-33.1	
2.510	-20.1	H	3.0	35.4	1.0	-54.5	-13.0	-41.5	
High Ch, (848.8MHz)									
1.698	-6.6	V	3.0	35.5	1.0	-41.1	-13.0	-28.1	
2.546	-15.0	V	3.0	35.4	1.0	-49.5	-13.0	-36.5	
1.698	-12.3	H	3.0	35.5	1.0	-46.8	-13.0	-33.8	
2.546	-18.9	H	3.0	35.4	1.0	-53.3	-13.0	-40.3	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

GPRS (PCS Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: Samsung
Project #: 12I14351
Date: 03/26/12
Test Engineer: Chin Pang
Configuration: EUT and AC Adapter
Mode: TX, PCS BAND GPRS

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T145 8449B	Filter 1	Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1850.2MHz)									
3.700	-2.9	V	3.0	35.4	1.0	-37.2	-13.0	-24.2	
5.551	-4.8	V	3.0	35.4	1.0	-39.2	-13.0	-26.2	
3.700	-11.7	H	3.0	35.4	1.0	-46.0	-13.0	-33.0	
5.551	-10.0	H	3.0	35.4	1.0	-44.4	-13.0	-31.4	
Mid Ch, (1880.0MHz)									
3.760	-14.7	V	3.0	35.3	1.0	-49.1	-13.0	-36.1	
5.640	-12.7	V	3.0	35.4	1.0	-47.1	-13.0	-34.1	
3.760	-13.0	H	3.0	35.3	1.0	-47.3	-13.0	-34.3	
5.640	-9.8	H	3.0	35.4	1.0	-44.3	-13.0	-31.3	
High Ch, (1909.8MHz)									
3.820	-14.6	V	3.0	35.3	1.0	-48.9	-13.0	-35.9	
5.729	-11.1	V	3.0	35.4	1.0	-45.6	-13.0	-32.6	
3.820	-14.3	H	3.0	35.3	1.0	-48.6	-13.0	-35.6	
5.729	-8.7	H	3.0	35.4	1.0	-43.1	-13.0	-30.1	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

EGPRS (PCS Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company:	Samsung
Project #:	12I14351
Date:	03/26/12
Test Engineer:	Chin Pang
Configuration:	EUT and AC Adapter
Mode:	TX, PCS BAND EGPRS

Chamber	Pre-amplifer	Filter	Limit
5m Chamber B	T145 8449B	Filter 1	Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, (1850.2MHz)									
3.700	-15.9	V	3.0	35.4	1.0	-50.2	-13.0	-37.2	
5.551	-13.4	V	3.0	35.4	1.0	-47.8	-13.0	-34.8	
3.700	-12.7	H	3.0	35.4	1.0	-47.0	-13.0	-34.0	
5.551	-12.0	H	3.0	35.4	1.0	-46.4	-13.0	-33.4	
Mid Ch, (1880.0MHz)									
3.760	-16.7	V	3.0	35.3	1.0	-51.1	-13.0	-38.1	
5.640	-13.9	V	3.0	35.4	1.0	-48.3	-13.0	-35.3	
3.760	-14.5	H	3.0	35.3	1.0	-48.8	-13.0	-35.8	
5.640	-11.8	H	3.0	35.4	1.0	-46.3	-13.0	-33.3	
High Ch, (1909.8MHz)									
3.820	-16.6	V	3.0	35.3	1.0	-50.9	-13.0	-37.9	
5.729	-13.6	V	3.0	35.4	1.0	-48.1	-13.0	-35.1	
3.820	-16.3	H	3.0	35.3	1.0	-50.6	-13.0	-37.6	
5.729	-10.7	H	3.0	35.4	1.0	-45.1	-13.0	-32.1	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

WCDMA REL 99 (Cellular Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: SAMSUNG ELECTRONICS
Project #: 12I14351
Date: 03/28/12
Test Engineer: Chin Pang
Configuration: EUT and AC Adapter
Mode: TX, WCDMA 850MHz, Rel 99

Chamber	Pre-amplifer	Filter	Limit
5m Chamber A	T144 8449B	Filter 1	FCC Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (826.4MHz)									
1.653	-2.1	V	3.0	38.1	1.0	-39.3	-13.0	-26.3	
2.479	-17.3	V	3.0	37.5	1.0	-53.7	-13.0	-40.7	
1.653	-12.9	H	3.0	38.1	1.0	-50.1	-13.0	-37.1	
3.306	-16.1	H	3.0	37.1	1.0	-52.2	-13.0	-39.2	
Mid Channel (836MHz)									
1.672	-19.4	V	3.0	38.1	1.0	-56.5	-13.0	-43.5	
2.508	-18.2	V	3.0	37.5	1.0	-54.6	-13.0	-41.6	
1.672	-15.2	H	3.0	38.1	1.0	-52.3	-13.0	-39.3	
2.508	-20.9	H	3.0	37.5	1.0	-57.3	-13.0	-44.3	
High Channel (846MHz)									
1.692	-12.7	V	3.0	38.1	1.0	-49.8	-13.0	-36.8	
3.384	-15.8	V	3.0	37.1	1.0	-51.9	-13.0	-38.9	
1.692	-19.0	H	3.0	38.1	1.0	-56.1	-13.0	-43.1	
3.384	-16.9	H	3.0	37.1	1.0	-53.0	-13.0	-40.0	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

WCDMA HSDPA (Cellular Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: SAMSUNG ELECTRONICS
Project #: 12I14351
Date: 03/28/12
Test Engineer: Chin Pang
Configuration: EUT and AC Adapter
Mode: TX, WCDMA 850MHz, HSUPA

Chamber	Pre-amplifer	Filter	Limit
5m Chamber A	T144 8449B	Filter 1	FCC Part 22

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	ERP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Channel (826.4MHz)									
1.653	-3.1	V	3.0	38.1	1.0	-40.3	-13.0	-27.3	
2.479	-18.3	V	3.0	37.5	1.0	-54.7	-13.0	-41.7	
1.653	-13.4	H	3.0	38.1	1.0	-50.6	-13.0	-37.6	
3.306	-17.1	H	3.0	37.1	1.0	-53.2	-13.0	-40.2	
Mid Channel (836MHz)									
1.672	-6.9	V	3.0	38.1	1.0	-44.0	-13.0	-31.0	
2.508	-17.6	V	3.0	37.5	1.0	-54.0	-13.0	-41.0	
1.672	-16.7	H	3.0	38.1	1.0	-53.8	-13.0	-40.8	
2.508	-20.9	H	3.0	37.5	1.0	-57.3	-13.0	-44.3	
High Channel (846MHz)									
1.692	-15.7	V	3.0	38.1	1.0	-52.8	-13.0	-39.8	
3.384	-16.8	V	3.0	37.1	1.0	-52.9	-13.0	-39.9	
1.692	-21.0	H	3.0	38.1	1.0	-58.1	-13.0	-45.1	
3.384	-17.9	H	3.0	37.1	1.0	-54.0	-13.0	-41.0	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

WCDMA REL 99 (PCS Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: SAMSUNG ELECTRONICS
Project #: 12I14351
Date: 03/28/12
Test Engineer: Chin Pang
Configuration: EUT and AC Adapter
Mode: TX, PCS BAND WCDMA MODE

Chamber	Pre-amplifer	Filter	Limit
5m Chamber A	T144 8449B	Filter 1	Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.4MHz									
3.705	-15.1	V	3.0	36.8	1.0	-50.9	-13.0	-37.9	
5.557	-12.7	V	3.0	36.3	1.0	-48.0	-13.0	-35.0	
3.705	-15.5	H	3.0	36.8	1.0	-51.3	-13.0	-38.3	
5.557	-13.0	H	3.0	36.3	1.0	-48.3	-13.0	-35.3	
Mid Ch, 1880.0MHz									
3.760	-15.9	V	3.0	36.8	1.0	-51.7	-13.0	-38.7	
5.640	-12.6	V	3.0	36.3	1.0	-47.9	-13.0	-34.9	
3.760	-16.8	H	3.0	36.8	1.0	-52.6	-13.0	-39.6	
5.640	-12.9	H	3.0	36.3	1.0	-48.2	-13.0	-35.2	
High Ch, 1907.6MHz									
3.815	-13.8	V	3.0	36.7	1.0	-49.6	-13.0	-36.6	
5.723	-13.5	V	3.0	36.3	1.0	-48.8	-13.0	-35.8	
3.815	-14.7	H	3.0	36.7	1.0	-50.4	-13.0	-37.4	
5.723	-12.8	H	3.0	36.3	1.0	-48.1	-13.0	-35.1	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.

WCDMA HSUPA (PCS Band)

Compliance Certification Services
Above 1GHz High Frequency Substitution Measurement

Company: SAMSUNG ELECTRONICS
Project #: 12I14351
Date: 03/28/12
Test Engineer: Chin Pang
Configuration: EUT and AC Adapter
Mode: TX, PCS BAND WCDMA HSUPA MODE

Chamber	Pre-amplifer	Filter	Limit
5m Chamber A	T144 8449B	Filter 1	Part 24

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
Low Ch, 1852.4MHz									
3.705	-16.1	V	3.0	36.8	1.0	-51.9	-13.0	-38.9	
5.557	-13.9	V	3.0	36.3	1.0	-49.2	-13.0	-36.2	
3.705	-17.0	H	3.0	36.8	1.0	-52.8	-13.0	-39.8	
5.557	-14.0	H	3.0	36.3	1.0	-49.3	-13.0	-36.3	
Mid Ch, 1880.0MHz									
3.760	-15.9	V	3.0	36.8	1.0	-51.7	-13.0	-38.7	
5.640	-13.6	V	3.0	36.3	1.0	-48.9	-13.0	-35.9	
3.760	-18.3	H	3.0	36.8	1.0	-54.1	-13.0	-41.1	
5.640	-13.9	H	3.0	36.3	1.0	-49.2	-13.0	-36.2	
High Ch, 1907.6MHz									
3.815	-15.8	V	3.0	36.7	1.0	-51.6	-13.0	-38.6	
5.723	-14.0	V	3.0	36.3	1.0	-49.3	-13.0	-36.3	
3.815	-18.2	H	3.0	36.7	1.0	-53.9	-13.0	-40.9	
5.723	-12.9	H	3.0	36.3	1.0	-48.2	-13.0	-35.2	

Rev. 03.03.09
Note: No other emissions were detected above the system noise floor.