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MEASUREMENT REPORT FCC Part 22 & 24 / IC RSS-132/RSS-133

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

Date of Testing:
01/23/12 - 01/26/12
Test Site/Location:
PCTEST Lab., Columbia, MD, USA
Test Report Serial No.:
0Y1201230109.A3L

FCC ID:	A3LSPHL700
APPLICANT:	SAMSUNG ELECTRONICS, CO. LTD.


Application Type: Certification
FCC Classification: PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s): §2; §22(H), §24(E)
IC Specification(s): RSS-132 Issue 2; RSS-133 Issue 5
EUT Type: Portable Handset
Model(s): SPH-L700
Test Device Serial No.: identical prototype [S/N: EMC #4]

Mode	Tx Frequency (MHz)	Emission Designator	ERP/EIRP	
			Max. Power (W)	Max. Power (dBm)
CDMA850	824.70 - 848.31	1M27F9W	0.314	24.97
CDMA1900	1851.25 - 1908.75	1M27F9W	0.313	24.96



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 §2.947. Test results reported herein relate only to the item(s) tested.

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.

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




 Randy Ortanez
 President



FCC ID: A3LSPHL700		FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
Test Report S/N: 0Y1201230109.A3L	Test Dates: 01/23/12 - 01/26/12	EUT Type: Portable Handset	Page 1 of 38	

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MEASUREMENT REPORT

FCC Part 22 & 24

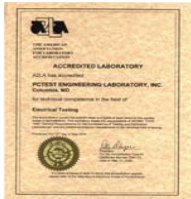


§2.1033 General Information



APPLICANT: Samsung Electronics, Co. Ltd.
APPLICANT ADDRESS: 18600 Broadwick St.
 Rancho Dominguez, CA 90220, United States
TEST SITE: PCTEST ENGINEERING LABORATORY, INC.
TEST SITE ADDRESS: 6660-B Dobbin Road, Columbia, MD 21045 USA
FCC RULE PART(S): §2; §22(H), §24(E)
IC SPECIFICATION(S): RSS-132 Issue 2; RSS-133 Issue 5
BASE MODEL: SPH-L700
FCC ID: A3LSPHL700
FCC CLASSIFICATION: PCS Licensed Transmitter Held to Ear (PCE)
MODE: CDMA / EvDO
FREQUENCY TOLERANCE: ±0.00025 % (2.5 ppm)
Test Device Serial No.: EMC #4 Production Pre-Production Engineering
DATE(S) OF TEST: 01/23/12 - 01/26/12
TEST REPORT S/N: 0Y1201230109.A3L

Test Facility / Accreditations

Measurements were performed at PCTEST Engineering Lab. located in Columbia, MD 21045, U.S.A.



- PCTEST facility is an FCC registered (PCTEST Reg. No. 90864) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules and Industry Canada (2451A-1).
- PCTEST Lab is accredited to ISO 17025 by U.S. National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP Lab code: 100431-0) in EMC, FCC and Telecommunications.
- PCTEST Lab is accredited to ISO 17025-2005 by the American Association for Laboratory Accreditation (A2LA) in Specific Absorption Rate (SAR) testing, Hearing Aid Compatibility (HAC) testing, CTIA Test Plans, and wireless testing for FCC and Industry Canada Rules.
- PCTEST Lab is a recognized U.S. Conformity Assessment Body (CAB) in EMC and R&TTE (n.b. 0982) under the U.S.-EU Mutual Recognition Agreement (MRA).
- PCTEST TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC Guide 65 by the American National Standards Institute (ANSI) in all scopes of FCC Rules and Industry Canada Standards (RSS).
- PCTEST facility is an IC registered (2451A-1) test laboratory with the site description on file at Industry Canada.
- PCTEST is a CTIA Authorized Test Laboratory (CATL) for AMPS, CDMA, and EvDO wireless devices and for Over-the-Air (OTA) Antenna Performance testing for AMPS, CDMA, GSM, GPRS, EGPRS, UMTS (W-CDMA), CDMA 1xEVDO, and CDMA 1xRTT.

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1.0 INTRODUCTION

1.1 Scope

Measurement and determination of electromagnetic emissions (EME) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

1.2 Testing Facility

The map below shows the location of the PCTEST LABORATORY, its proximity to the FCC Laboratory, the Columbia vicinity, the Baltimore-Washington Intern't'l (BWI) airport, the city of Baltimore and the Washington, DC area. (See Figure 1-1).

These measurement tests were conducted at the PCTEST Engineering Laboratory, Inc. facility in New Concept Business Park, Guilford Industrial Park, Columbia, Maryland. The site address is 6660-B Dobbin Road, Columbia, MD 21045. The test site is one of the highest points in the Columbia area with an elevation of 390 feet above mean sea level. The site coordinates are 39° 11'15" N latitude and 76° 49'38" W longitude. The facility is 1.5 miles North of the FCC laboratory, and the ambient signal and ambient signal strength are approximately equal to those of the FCC laboratory. There are no FM or TV transmitters within 15 miles of the site. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2003 on January 28, 2009.

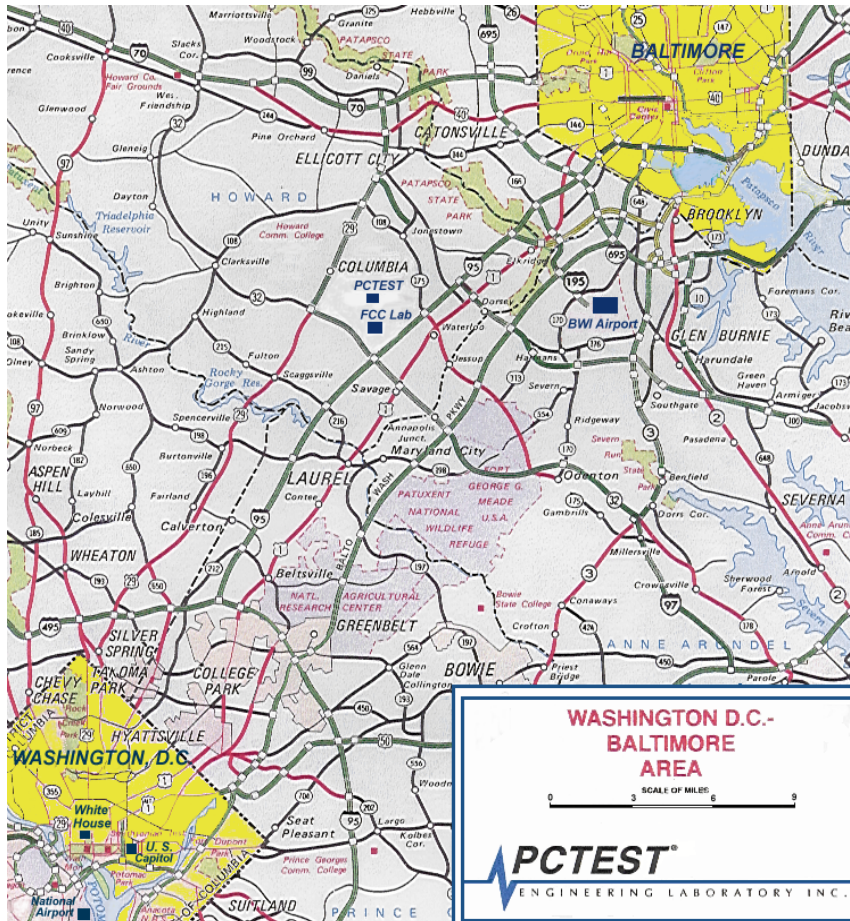




Figure 1-1. Map of the Greater Baltimore and Metropolitan Washington, D.C. area

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2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Samsung Portable Handset FCC ID: A3LSPHL700**. The EUT consisted of the following component(s):

Trade Name / Base Model	FCC ID	Description
Samsung / Model: SPH-L700	A3LSPHL700	Portable Handset

Table 2-1. EUT Equipment Description

2.2 Device Capabilities

This device contains the following capabilities:

850/1900 CDMA/EvDO (BC0, BC1, BC10), Band 25 LTE, 802.11a/b/g/n WLAN, 802.11a/n UNII, Bluetooth, NFC

2.3 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and no modifications were made during testing.

2.4 Labeling Requirements

Per 2.925

The FCC identifier shall be permanently affixed to the equipment and shall be readily visible to the purchaser at the time of purchase.



Per 15.19; Docket 95-19

In addition to this requirement, a device subject to certification shall be labeled as follows:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the trade name and FCC ID must be displayed on the device per Section 15.19(b)(2).

Please see attachment for FCC ID label and label location.

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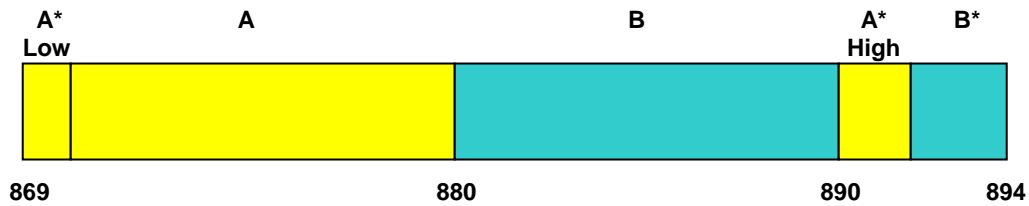
3.0 DESCRIPTION OF TESTS

3.1 Evaluation Procedure

The measurement procedures described in the document titled "Land Mobile FM or PM – Communications Equipment – Measurements and Performance Standards" (ANSI/TIA-603-C-2004) was used in the measurement of the measurement of the **Samsung Portable Handset FCC ID: A3LSPHL700**.

Deviation from Measurement Procedure.....None

3.2 Cellular - Base Frequency Blocks



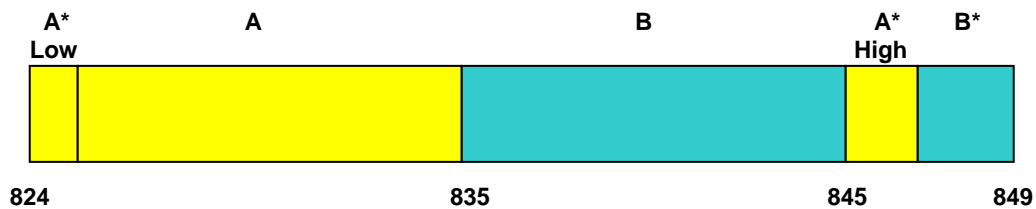
BLOCK 1: 869 – 880 MHz (A* Low + A)

BLOCK 3: 890 – 891.5 MHz (A* High)

BLOCK 2: 880 – 890 MHz (B)

BLOCK 4: 891.5 – 894 MHz (B*)

3.3 Cellular - Mobile Frequency Blocks



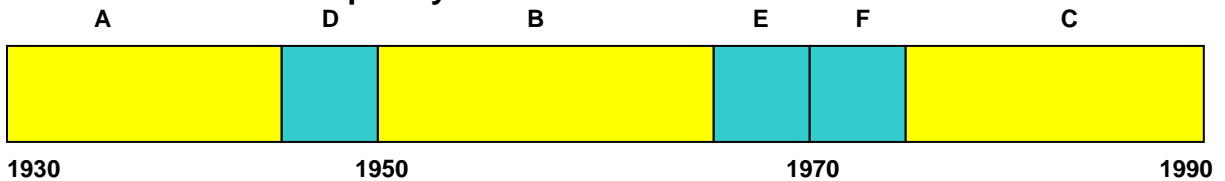
BLOCK 1: 824 – 835 MHz (A* Low + A)

BLOCK 3: 845 – 846.5 MHz (A* High)

BLOCK 2: 835 – 845 MHz (B)

BLOCK 4: 846.5 – 849 MHz (B*)

3.4 PCS - Base Frequency Blocks



BLOCK 1: 1930 – 1945 MHz (A)

BLOCK 4: 1965 – 1970 MHz (E)

BLOCK 2: 1945 – 1950 MHz (D)

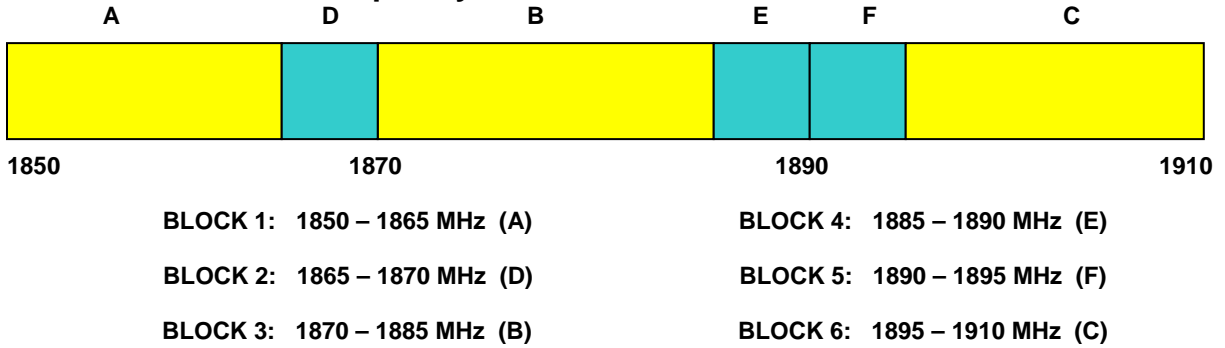
BLOCK 5: 1970 – 1975 MHz (F)

BLOCK 3: 1950 – 1965 MHz (B)

BLOCK 6: 1975 – 1990 MHz (C)

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3.5 PCS - Mobile Frequency Blocks



3.6 Occupied Bandwidth



§2.1049, RSS-Gen (4.6.1)

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. The internal occupied bandwidth function of the analyzer was used to obtain a measurement.

3.7 Spurious and Harmonic Emissions at Antenna Terminal

§2.1051, 22.917(a), 24.238(a)(b); RSS-132 (4.5.1), RSS-133 (6.5.1)

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least 43 + 10 log(P) dB. Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater for the PCS band; 100 KHz resolution bandwidth or greater for the cellular band. 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. 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 emission are attenuated at least 26 dB below the transmitter power.

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3.8 Radiated Power and Radiated Spurious Emissions

§22.913(a)(2), 22.917(a), 24.232(c), 24.238(a), RSS-132 (4.5.1.2), RSS-133 (6.5.1)

Radiated spurious emissions are investigated indoors in a semi-anechoic chamber to determine the frequencies producing the worst case emissions. Final measurements for radiated power and radiated spurious emissions are performed on the 3 meter OATS per the guidelines of ANSI/TIA-603-C-2004. The measurement area is situated on an 18 meter x 20 meter galvanized 1/2" hardware cloth as the conducting ground plane. This material is sewn together in sections 4 feet wide and 60 feet long. A total of eighteen sections are required to cover the entire measurement area. Sections are laid across the width of the pad, overlapped 1" and sewn and soldered together at intervals of 3" (7.6 cm.) The terrain of the test site is reasonably flat and level. Power and cable to the test site are buried 18" deep into the ground outside the perimeter of the site. An all-weather non-metallic housing is situated on a 2 x 3 meter area adjacent to the measurement area to house the test equipment. The equipment under test was transmitting while connected to its integral antenna and is placed on a wooden turntable 80cm above the ground plane and 3 meters from the receive antenna. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. The receive antenna height is adjusted between 1 and 4 meter height, the turntable is rotated through 360 degrees, and the EUT is manipulated through all orthogonal planes representative of its typical use to achieve the highest reading on the receive spectrum analyzer. Emissions are also investigated with the receive antenna horizontally and vertically polarized. The level of the maximized emission is recorded with the spectrum analyzer using a peak detector with RBW = 1MHz, VBW = 3MHz for emissions greater than 1GHz. For emissions below 1GHz, the spectrum analyzer is set to RBW = 100kHz and VBW = 300kHz.

A half-wave dipole is then substituted in place of the EUT. For emissions above 1GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator with the level of the signal generator being adjusted to obtain the same receive spectrum analyzer level previously recorded from the spurious emission from the EUT. The power of the emission is calculated using the following formula:

$$P_d \text{ [dBm]} = P_g \text{ [dBm]} - \text{cable loss [dB]} + \text{antenna gain [dBd/dBi]}$$

Where, P_d is the dipole equivalent power, P_g is the generator output into the substitution antenna, and the antenna gain is the gain of the substitute antenna used relative to either a half-wave dipole (dBd) or an isotropic source (dBi). The substitute level is equal to $P_g \text{ [dBm]} - \text{cable loss [dB]}$.

The calculated P_d levels are then compared to the absolute spurious emission limit of -13dBm which is equivalent to the required minimum attenuation of $43 + 10\log_{10}(\text{Power}_{\text{[Watts]}})$ specified in 22.917(a) and 24.238(a).

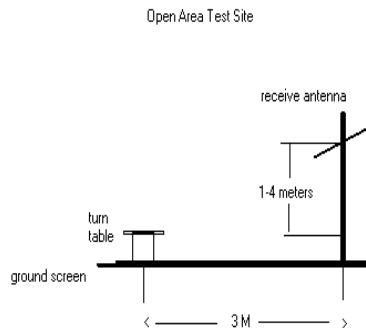


Figure 3-1. Diagram of 3-meter outdoor test range

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3.9 Peak-Average Ratio

§24.232(d), RSS-133 (6.4)

A peak to average ratio measurement is performed at the conducted port of the EUT. For CDMA signals, the spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level.

3.10 Frequency Stability / Temperature Variation

§2.1055, 22.355, 24.235, RSS-132 (4.3), RSS-133 (6.3)

Frequency stability testing is performed in accordance with the guidelines of ANSI/TIA-603-C-2004. The frequency stability of the transmitter is measured by:



- a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

Specification –

- a. *The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block for the PCS band.*
- b. *The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5 ppm) of the center frequency for the cell band.*

Time Period and Procedure:

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A sufficient stabilization period at each temperature shall be used prior to each frequency requirement.

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4.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST).

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
-	LTX1	Licensed Transmitter Cable Set	1/25/2012	Annual	1/25/2013	N/A
-	RE1	Radiated Emissions Cable Set	6/7/2011	Annual	6/7/2012	N/A
Agilent	8449B	(1-26.5GHz) Pre-Amplifier	2/8/2011	Annual	2/8/2012	3008A00985
Agilent	8648D	(9kHz-4GHz) Signal Generator	10/10/2011	Annual	10/10/2012	3613A00315
Agilent	N9020A	MXA Signal Analyzer	10/10/2011	Annual	10/10/2012	US46470561
Agilent	N9038A	MXE EMI Receiver	8/5/2011	Annual	8/5/2012	MY51210133
Anritsu	ML2495A	Power Meter	10/13/2011	Annual	10/13/2012	1039008
Espec	ESX-2CA	Environmental Chamber	4/21/2011	Annual	4/21/2012	17620
MiniCircuits	VHF-1300+	High Pass Filter	N/A		N/A	30716
MiniCircuits	VHF-3100+	High Pass Filter	N/A		N/A	30721
Pasternack	PE2208-6	Bidirectional Coupler	6/3/2011	Annual	6/3/2012	N/A
Rohde & Schwarz	CMU200	Base Station Simulator	6/1/2011	Annual	6/1/2012	833855/0010
Schwarzbeck	UHA 9105	Dipole Antenna (400 - 1GHz) Rx	11/14/2011	Biennial	11/14/2013	9105-2404
Schwarzbeck	UHA 9105	Dipole Antenna (400 - 1GHz) Tx	11/14/2011	Biennial	11/14/2013	9105-2403
Sunol	JB5	Bi-Log Antenna (30M - 5GHz)	1/26/2012	Biennial	1/26/2014	A051107
Sunol	DRH-118	Horn Antenna (1-18 GHz)	6/17/2011	Biennial	6/17/2013	A042511

Table 4-1. Test Equipment

Note: The LTX1 cable set was used after the calibration date of 01/25/2012. The JB5 antenna was used on the calibration date of 01/26/2012.

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5.0 SAMPLE CALCULATIONS

Emission Designator

Emission Designator = 1M25F9W

CDMA BW = 1.25 MHz

F = Frequency Modulation



9 = Composite Digital Info

W = Combination (Audio/Data) (Measured at the 99.75% power bandwidth)

Spurious Radiated Emission - PCS Band

Example: Channel 25 PCS Mode 2nd Harmonic (3702.50 MHz)

The average receive spectrum analyzer reading at 3 meters with the EUT on the turntable was -81.0 dBm. The gain of the substituted antenna is 8.1 dBi. The signal generator connected to the substituted antenna terminals is adjusted to produce a reading of -81.0 dBm on the spectrum analyzer. The loss of the cable between the signal generator and the terminals of the substituted antenna is 2.0 dB at 3702.50 MHz. So 6.1 dB is added to the signal generator reading of -30.9 dBm yielding -24.80 dBm. The fundamental EIRP was 25.501 dBm so this harmonic was 25.501 dBm $- (-24.80) = 50.3$ dBc.

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6.0 TEST RESULTS

6.1 Summary

Company Name: Samsung Electronics, Co. Ltd.
 FCC ID: A3LSPHL700
 FCC Classification: PCS Licensed Transmitter Held to Ear (PCE)
 Mode(s): CDMA / EvDO

FCC Part Section(s)	RSS Sections	Test Description	Test Limit	Test Condition	Test Result	Reference
TRANSMITTER MODE (TX)						
2.1049, 22.917(a), 24.238(a)	RSS-Gen (4.6.1) RSS-133 (2.3)	Occupied Bandwidth	N/A	CONDUCTED	PASS	Section 7.0
2.1051, 22.917(a), 24.238(a)	RSS-132 (4.5.1.2) RSS-133 (6.5.1)	Band Edge / Conducted Spurious Emissions	< 43 + 10log ₁₀ (P[Watts]) at Band Edge and for all out-of-band emissions		PASS	Section 7.0
24.232(d)	RSS-133 (6.4)	Peak-Average Ratio	< 13 dB		PASS	Section 7.0
2.1046	RSS-132 (4.4) RSS-133 (4.1)	Transmitter Conducted Output Power	N/A		PASS	RF Exposure Report
22.913(a)(2)	RSS-132 (4.4)	Effective Radiated Power	< 7 Watts max. ERP	RADIATED	PASS	Section 6.2
24.232(c)	RSS-133 (6.4) [SRSP-510 (5.1.2)]	Equivalent Isotropic Radiated Power	< 2 Watts max. EIRP		PASS	Section 6.3
2.1053, 22.917(a), 24.238(a)	RSS-132 (4.5.1.2) RSS-133 (6.5.1)	Undesirable Emissions	< 43 + 10log ₁₀ (P[Watts]) for all out-of-band emissions		PASS	Sections 6.4, 6.5
2.1055, 22.355, 24.235	RSS-132 (4.3) RSS-133 (6.3)	Frequency Stability	< 2.5 ppm		PASS	Sections 6.6, 6.7
RECEIVER MODE (RX) / DIGITAL EMISSIONS						
N/A	RSS-132 (4.6) RSS-133 (6.6)	Receiver Spurious Emissions Limits	< RSS-Gen limits [Section 6; Table 1]	RADIATED	PASS	Section 6.8

Table 6-1. Summary of Test Results

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6.2 Effective Radiated Power Output Data

§22.913(a)(2), RSS-132 (4.4)

Frequency [MHz]	Mode	Measured Level [dBm]	Substitute Level [dBm]	Antenna Gain [dBd]	PoI [H/V]	ERP [dBm]	ERP [Watts]	Battery Type
824.70	CDMA850	-13.880	18.53	4.66	H	23.19	0.208	Standard
836.52	CDMA850	-12.240	20.17	4.80	H	24.97	0.314	Standard
848.31	CDMA850	-12.570	19.84	4.95	H	24.79	0.301	Standard



Table 6-2. Effective Radiated Power Output Data

NOTES:

Effective Radiated Power Output Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 80cm above the ground plane and 3 meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This level is recorded using the power meter. The conducted power at the terminals of the dipole is measured. The ERP is recorded.

This device was tested under all R.C.s and S.O.s, including EvDO Rev0 and RevA; the worst case is reported with RC3/SO55 with "All Up" power control bits. This unit was tested with its standard battery. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test was found with the EUT and antenna in horizontal configuration. The data reported in the table above was measured in this test setup.

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6.3 Equivalent Isotropic Radiated Power Output Data §24.232(c), RSS-133 (6.4) [SRSP-510 (5.1.2)]

Frequency [MHz]	Mode	Measured Level [dBm]	Substitute Level [dBm]	Antenna Gain [dBi]	Pol [H/V]	EIRP [dBm]	EIRP [Watts]	Battery Type
1851.25	CDMA1900	-16.390	16.16	7.75	H	23.91	0.246	Standard
1880.00	CDMA1900	-15.420	17.13	7.83	H	24.96	0.313	Standard
1908.75	CDMA1900	-16.310	16.24	7.93	H	24.17	0.261	Standard



Table 6-3. Equivalent Isotropic Radiated Power Output Data

NOTES:

Equivalent Isotropic Radiated Power Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 80cm above the ground plane and 3 meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A Horn antenna was substituted in place of the EUT. This Horn antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This level is recorded using the power meter. The conducted power at the terminals of the Horn antenna is measured. The difference between the gain of the horn and an isotropic antenna is taken into consideration and the EIRP is recorded.

This device was tested under all R.C.s and S.O.s, including EvDO Rev0 and RevA; the worst case is reported with RC3/SO55 with "All Up" power control bits. This unit was tested with its standard battery. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test was found with the EUT and antenna in horizontal configuration. The data reported in the table above was measured in this test setup.

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6.4 Cellular CDMA Radiated Measurements

§2.1053, 22.917(a), RSS-132 (4.5.1.2)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 824.70 MHz
 CHANNEL: 1013
 MEASURED OUTPUT POWER: 23.19 dBm = 0.208 W
 MODULATION SIGNAL: CDMA
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10}(W) =$ 36.19 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
1649.40	-44.14	2.59	-41.55	H	64.7
2474.10	-35.26	2.89	-32.37	H	55.6
3298.80	-47.79	5.45	-42.34	H	65.5
4123.50	-53.09	7.05	-46.04	H	69.2
4948.20	-56.51	7.87	-48.64	H	71.8



Table 6-4. Radiated Spurious Data (Cellular CDMA Mode – Ch. 1013)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 80cm above the ground plane and 3 meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This spurious level is recorded using the power meter. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

This device was tested under all R.C.s and S.O.s, including EvDO Rev0 and RevA; the worst case is reported with RC3/SO55 with "All Up" power control bits. This unit was tested with its standard battery. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test was found with the EUT and antenna in horizontal configuration. The data reported in the table above was measured in this test setup.

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Cellular CDMA Radiated Measurements (Cont'd)
§2.1053, 22.917(a), RSS-132 (4.5.1.2)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 836.52 MHz
 CHANNEL: 384
 MEASURED OUTPUT POWER: 24.97 dBm = 0.314 W
 MODULATION SIGNAL: CDMA
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10}(W) =$ 37.97 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
1673.04	-41.21	2.34	-38.87	H	63.8
2509.56	-35.67	2.84	-32.83	H	57.8
3346.08	-44.40	5.64	-38.76	H	63.7
4182.60	-49.50	7.14	-42.35	H	67.3
5019.12	-45.80	7.97	-37.83	H	62.8



Table 6-5. Radiated Spurious Data (Cellular CDMA Mode – Ch. 384)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 80cm above the ground plane and 3 meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This spurious level is recorded using the power meter. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

This device was tested under all R.C.s and S.O.s, including EvDO Rev0 and RevA; the worst case is reported with RC3/SO55 with "All Up" power control bits. This unit was tested with its standard battery. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test was found with the EUT and antenna in horizontal configuration. The data reported in the table above was measured in this test setup.

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Cellular CDMA Radiated Measurements (Cont'd)
§2.1053, 22.917(a), RSS-132 (4.5.1.2)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 848.31 MHz
 CHANNEL: 777
 MEASURED OUTPUT POWER: 24.79 dBm = 0.301 W
 MODULATION SIGNAL: CDMA
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10}(W) =$ 37.79 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
1696.62	-32.89	2.09	-30.80	H	55.6
2544.93	-34.38	3.16	-31.22	H	56.0
3393.24	-48.54	5.83	-42.71	H	67.5
4241.55	-47.49	7.24	-40.25	H	65.0
5089.86	-45.62	8.02	-37.59	H	62.4



Table 6-6. Radiated Spurious Data (Cellular CDMA Mode – Ch. 777)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 80cm above the ground plane and 3 meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This spurious level is recorded using the power meter. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

This device was tested under all R.C.s and S.O.s, including EvDO Rev0 and RevA; the worst case is reported with RC3/SO55 with "All Up" power control bits. This unit was tested with its standard battery. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test was found with the EUT and antenna in horizontal configuration. The data reported in the table above was measured in this test setup.

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6.5 PCS CDMA Radiated Measurements

§2.1053, 24.238(a), RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1851.25 MHz
 CHANNEL: 25
 MEASURED OUTPUT POWER: 23.91 dBm = 0.246 W
 MODULATION SIGNAL: CDMA
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10}(W) =$ 36.91 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
3702.50	-41.38	9.62	-31.76	H	55.7
5553.75	-31.03	10.61	-20.42	H	44.3
7405.00	-31.25	10.84	-20.41	H	44.3
9256.25	-39.06	12.20	-26.86	H	50.8
11107.50	-42.56	12.86	-29.70	H	53.6



Table 6-7. Radiated Spurious Data (PCS CDMA Mode – Ch. 25)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 80cm above the ground plane and 3 meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This spurious level is recorded using the power meter. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

This device was tested under all R.C.s and S.O.s, including EvDO Rev0 and RevA; the worst case is reported with RC3/SO55 with "All Up" power control bits. This unit was tested with its standard battery. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test was found with the EUT and antenna in horizontal configuration. The data reported in the table above was measured in this test setup.

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PCS CDMA Radiated Measurements (Cont'd)
§2.1053, 24.238(a), RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1880.00 MHz
 CHANNEL: 600
 MEASURED OUTPUT POWER: 24.96 dBm = 0.313 W
 MODULATION SIGNAL: CDMA
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 37.96 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
3760.00	-35.05	9.30	-25.75	H	50.7
5640.00	-34.72	10.89	-23.83	H	48.8
7520.00	-33.56	10.85	-22.70	H	47.7
9400.00	-35.21	12.17	-23.03	H	48.0
11280.00	-43.47	13.05	-30.42	H	55.4



Table 6-8. Radiated Spurious Data (PCS CDMA Mode – Ch. 600)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 80cm above the ground plane and 3 meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This spurious level is recorded using the power meter. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

This device was tested under all R.C.s and S.O.s, including EvDO Rev0 and RevA; the worst case is reported with RC3/SO55 with "All Up" power control bits. This unit was tested with its standard battery. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test was found with the EUT and antenna in horizontal configuration. The data reported in the table above was measured in this test setup.

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PCS CDMA Radiated Measurements (Cont'd)
§2.1053, 24.238(a), RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1908.75 MHz
 CHANNEL: 1175
 MEASURED OUTPUT POWER: 24.17 dBm = 0.261 W
 MODULATION SIGNAL: CDMA
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10}(W) =$ 37.17 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
3817.50	-38.39	9.05	-29.34	H	53.5
5726.25	-40.63	11.07	-29.56	H	53.7
7635.00	-36.96	11.11	-25.85	H	50.0
9543.75	-37.87	12.36	-25.52	H	49.7
11452.50	-43.74	13.23	-30.52	H	54.7



Table 6-9. Radiated Spurious Data (PCS CDMA Mode – Ch. 1175)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 80cm above the ground plane and 3 meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. Final power measurements are made with a broadband average power meter. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. This spurious level is recorded using the power meter. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

This device was tested under all R.C.s and S.O.s, including EvDO Rev0 and RevA; the worst case is reported with RC3/SO55 with "All Up" power control bits. This unit was tested with its standard battery. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test was found with the EUT and antenna in horizontal configuration. The data reported in the table above was measured in this test setup.

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6.6 Cellular CDMA Frequency Stability Measurements

§2.1055, 22.355, RSS-132 (4.3)



OPERATING FREQUENCY: 836,520,000 Hz
 CHANNEL: 384
 REFERENCE VOLTAGE: 3.7 VDC
 DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.70	+ 20 (Ref)	836,519,986	-14	-0.000002
100 %		- 30	836,519,998	-2	0.000000
100 %		- 20	836,520,004	4	0.000000
100 %		- 10	836,519,991	-9	-0.000001
100 %		0	836,519,983	-17	-0.000002
100 %		+ 10	836,520,008	8	0.000001
100 %		+ 20	836,520,004	4	0.000000
100 %		+ 30	836,519,985	-15	-0.000002
100 %		+ 40	836,519,999	-1	0.000000
100 %		+ 50	836,520,005	5	0.000001
115 %		4.26	+ 20	836,519,996	-4
BATT. ENDPOINT	3.40	+ 20	836,519,999	-1	0.000000

Table 6-10. Frequency Stability Data (Cellular CDMA Mode – Ch. 384)

Note:

Carrier frequency stability measurements performed according to ANSI/TIA/EIA-603-C-2004, Aug. 17,2004

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Cellular CDMA Frequency Stability Measurements (Cont'd)
§2.1055, 22.355, RSS-132 (4.3)

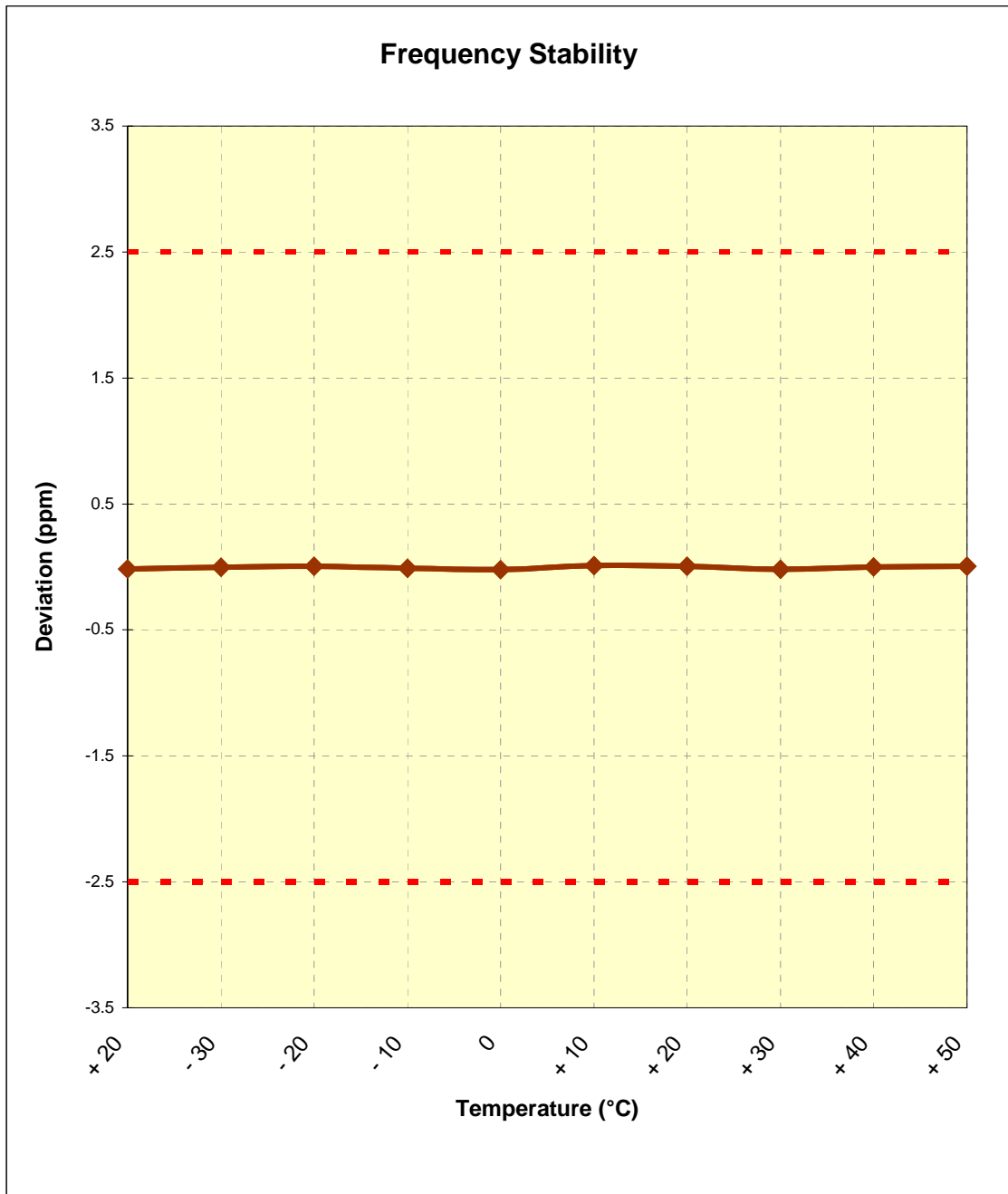




Figure 6-1. Frequency Stability Graph (Cellular CDMA Mode – Ch. 384)

Note:

Carrier frequency stability measurements performed according to ANSI/TIA/EIA-603-C-2004, Aug. 17,2004

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6.7 PCS CDMA Frequency Stability Measurements

§2.1055, 24.235, RSS-133 (6.3)



OPERATING FREQUENCY: 1,880,000,000 Hz
 CHANNEL: 600
 REFERENCE VOLTAGE: 3.7 VDC
 DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.70	+ 20 (Ref)	1,879,999,998	-2	0.000000
100 %		- 30	1,879,999,990	-10	-0.000001
100 %		- 20	1,879,999,997	-3	0.000000
100 %		- 10	1,879,999,989	-11	-0.000001
100 %		0	1,879,999,998	-2	0.000000
100 %		+ 10	1,880,000,013	13	0.000001
100 %		+ 20	1,880,000,008	8	0.000000
100 %		+ 30	1,879,999,994	-6	0.000000
100 %		+ 40	1,879,999,990	-10	-0.000001
100 %		+ 50	1,879,999,983	-17	-0.000001
115 %	4.26	+ 20	1,880,000,018	18	0.000001
BATT. ENDPOINT	3.40	+ 20	1,879,999,988	-12	-0.000001

Table 6-11. Frequency Stability Data (PCS CDMA Mode – Ch. 600)

Note:

Carrier frequency stability measurements performed according to ANSI/TIA/EIA-603-C-2004, Aug. 17,2004

FCC ID: A3LSPHL700		FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
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PCS CDMA Frequency Stability Measurements (Cont'd)
§2.1055, 24.235, RSS-133 (6.3)

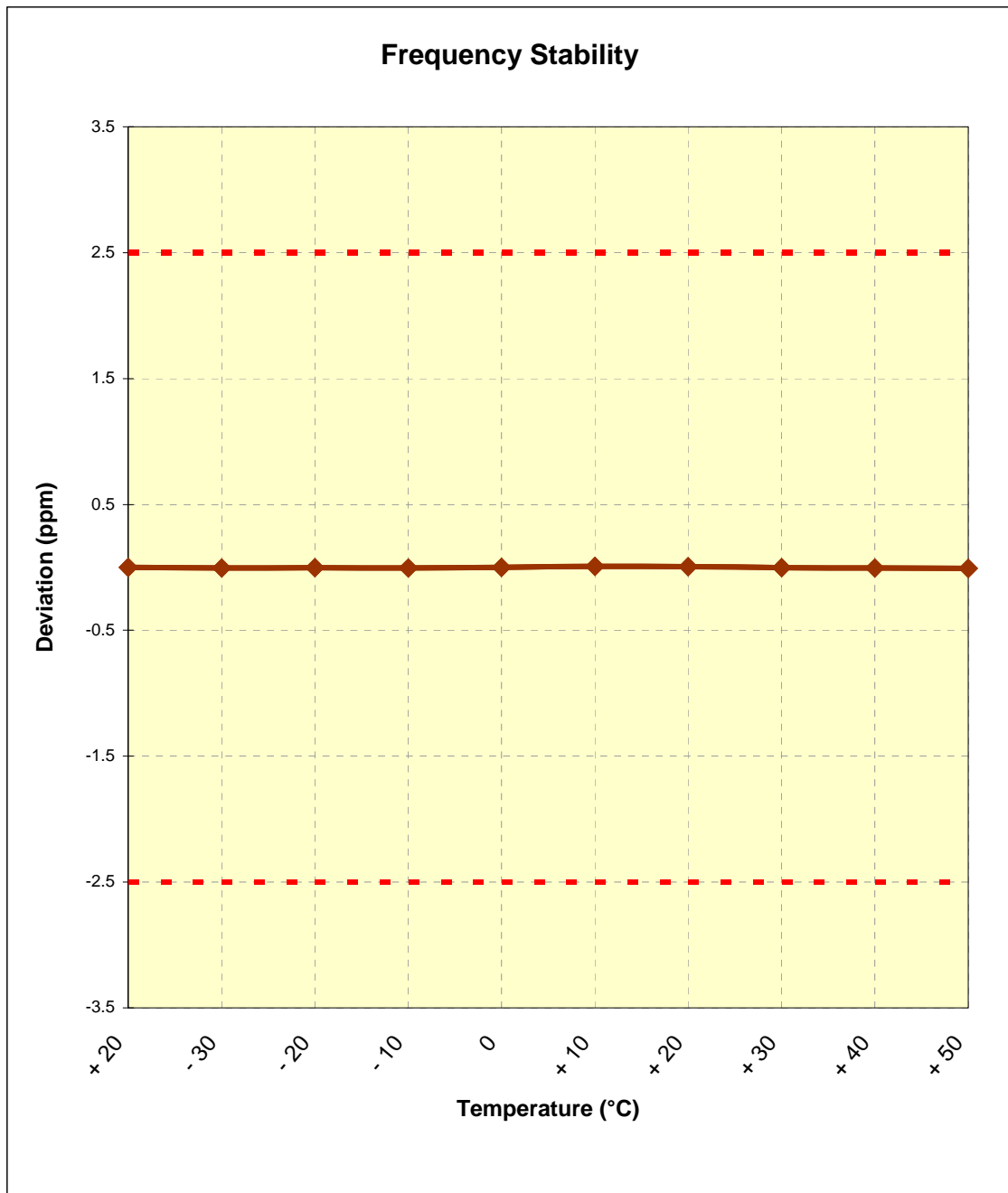




Figure 6-2. Frequency Stability Graph (PCS CDMA Mode – Ch. 600)

Note:

Carrier frequency stability measurements performed according to ANSI/TIA/EIA-603-C-2004, Aug. 17,2004

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6.8 Receiver Spurious Emissions

RSS-132 (4.6), RSS-133 (6.6)

Frequency [MHz]	Level [dBm]	AFCL [dB]	Pol [H/V]	Height [m]	Azimuth [degrees]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
30.97	-91.17	11.67	V	1.2	317	27.50	40.00	-12.50
71.71	-93.30	8.55	H	1.6	278	22.25	40.00	-17.75
90.14	-88.77	10.73	H	1.6	282	28.97	43.52	-14.56
126.03	-95.51	12.99	V	1.1	319	24.48	43.52	-19.04
171.62	-90.39	16.61	H	1.5	274	33.22	43.52	-10.30
335.55	-101.41	16.38	H	1.4	275	21.97	46.02	-24.05

Table 6-12. Radiated Measurements at 3-meters

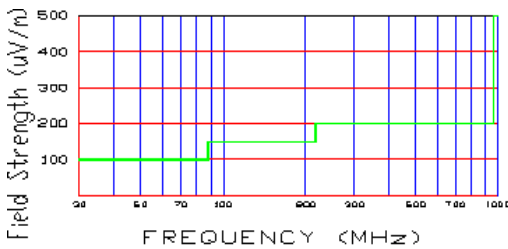




Figure 6-3. 3-Meter Limits

NOTES:

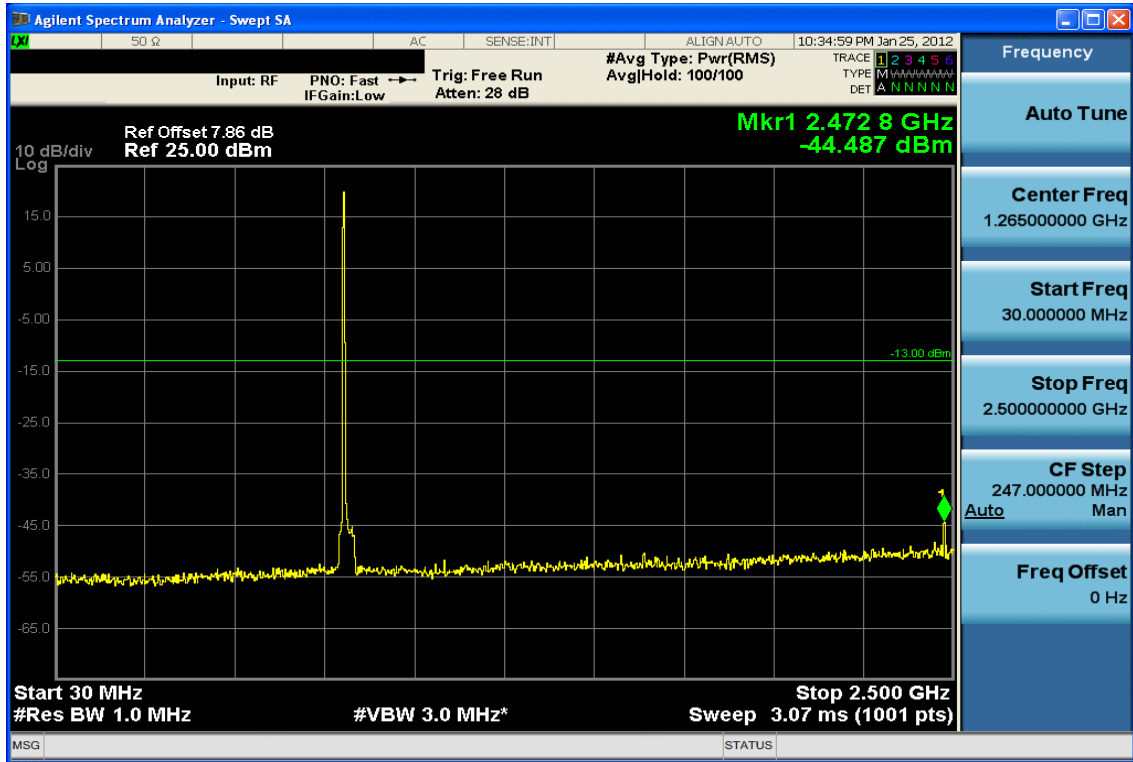
1. All modes of operation were investigated and the worst-case emissions are reported.
2. The EUT was set to “receive” mode in the middle channel of operation while registered to a call box simulating a BC0 cellular band network as these produced the worst case radiated emissions.
3. Radiated emissions were measured from 30MHz to 6000MHz.
4. The radiated limits are shown on Figure 6-3. Above 960MHz the limit is 500 μ V/m.

1. All readings are calibrated by a Signal Generator with accuracy traceable to the National Institute of Standards and Technology (NIST).
2. AFCL = Antenna Factor and Cable Loss
3. Measurements are made using CISPR quasi-peak mode. Peak and average measurements are recorded above 1GHz. Peak mode is used with linearly polarized horn antenna and low-loss microwave cable.

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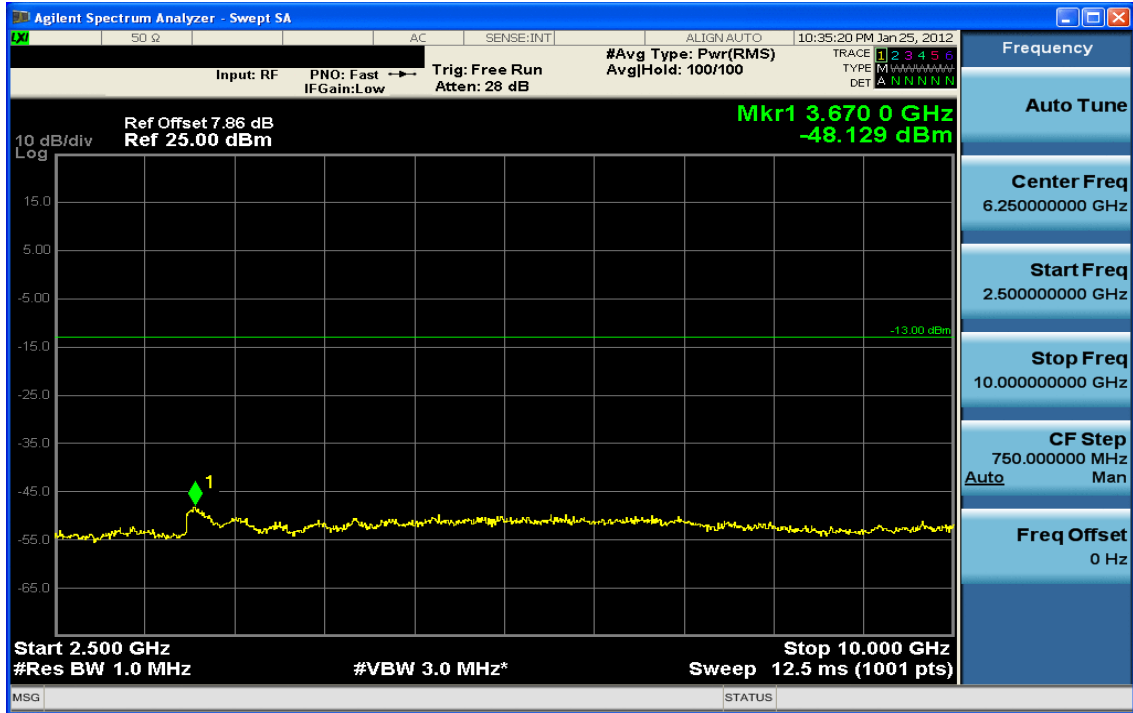
7.0 PLOT(S) OF EMISSIONS

Note: All CDMA data rates, including EvDO Rev0 and RevA, were tested for compliance. The data rate that produced the worst-case emissions, in this case RC3/SO55, for band edge and out of band emissions plots are shown below.

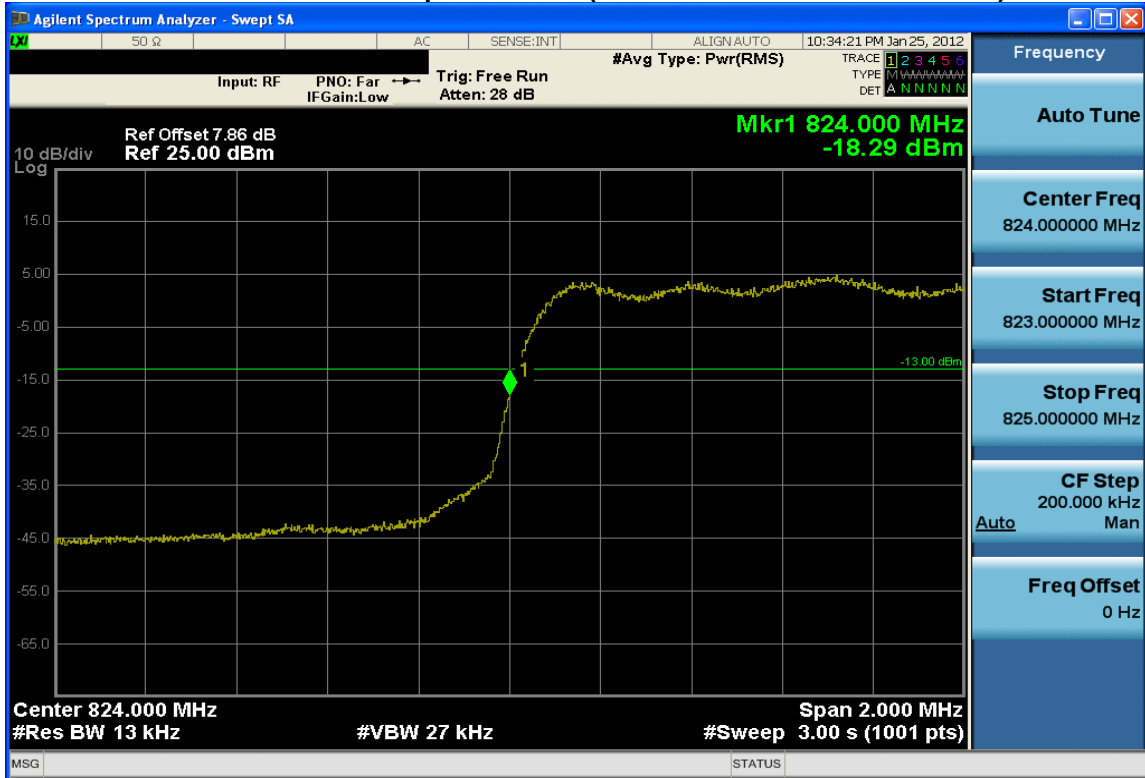


Plot 7-1. Conducted Spurious Plot (Cellular CDMA Mode – Ch. 1013)

FCC ID: A3LSPHL700		FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
Test Report S/N: 0Y1201230109.A3L	Test Dates: 01/23/12 - 01/26/12	EUT Type: Portable Handset		Page 26 of 38

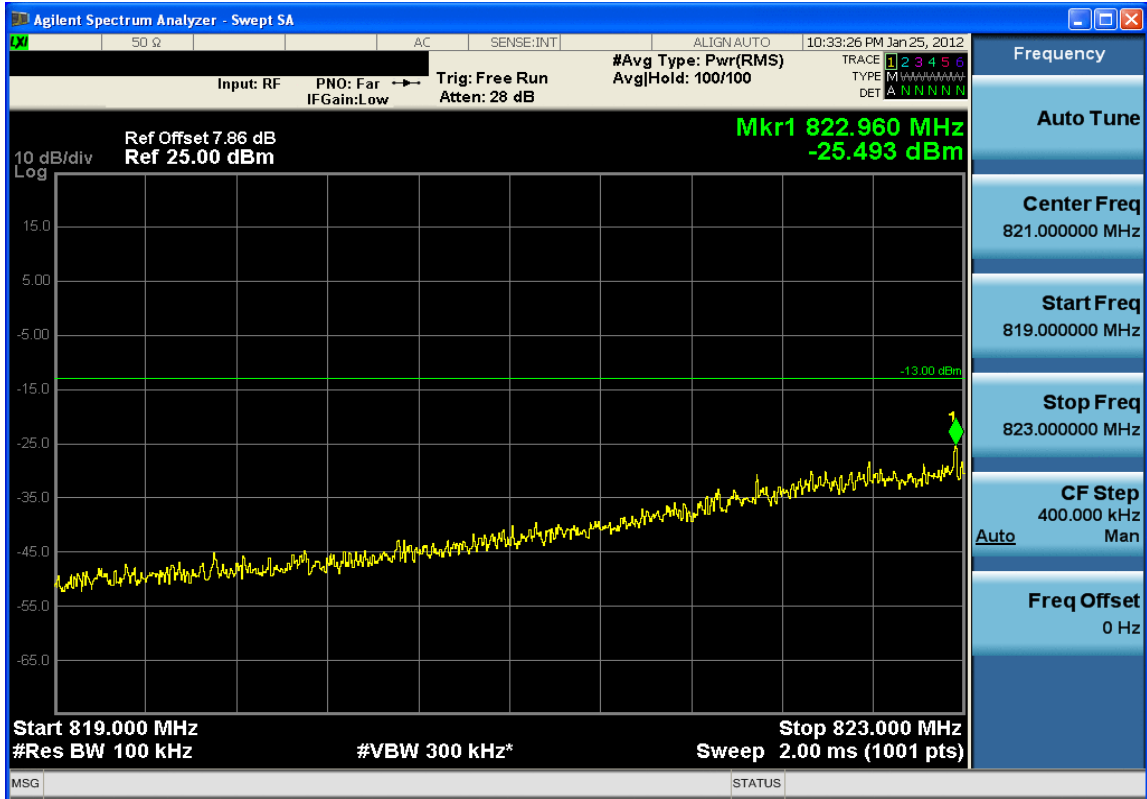


Plot 7-2. Conducted Spurious Plot (Cellular CDMA Mode – Ch. 1013)

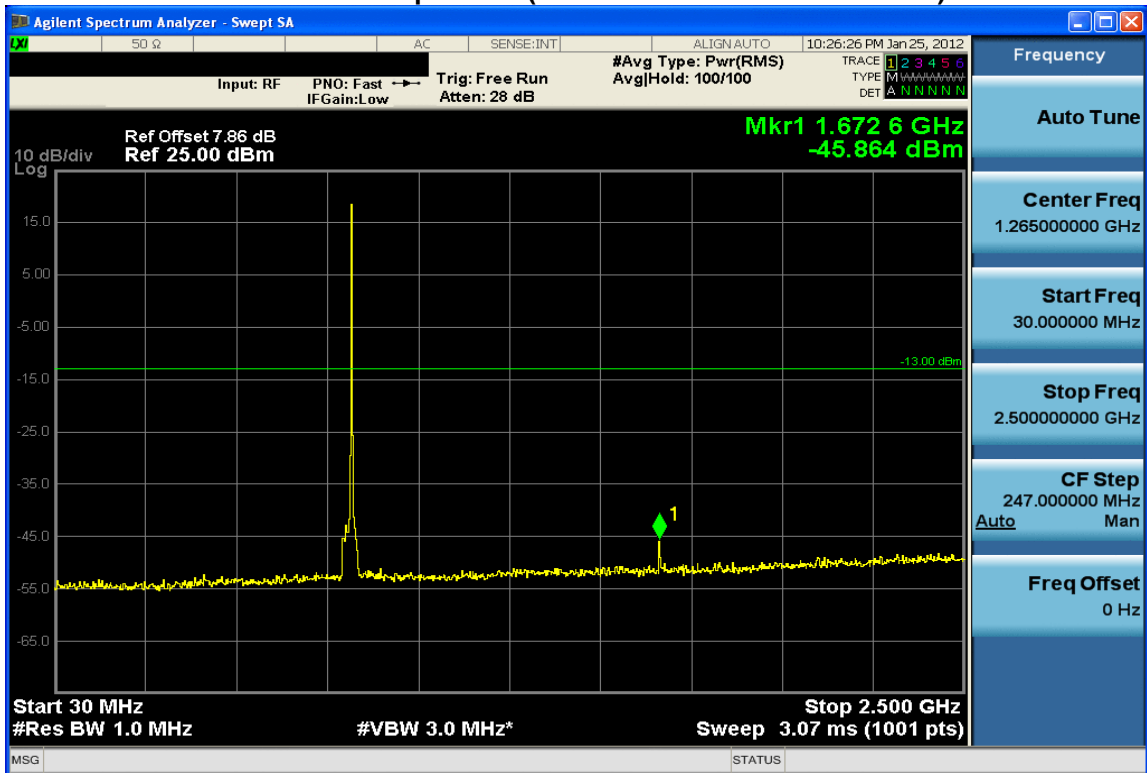


Plot 7-3. Band Edge Plot (Cellular CDMA Mode – Ch. 1013)

FCC ID: A3LSPHL700	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1201230109.A3L	Test Dates: 01/23/12 - 01/26/12	EUT Type: Portable Handset		Page 27 of 38

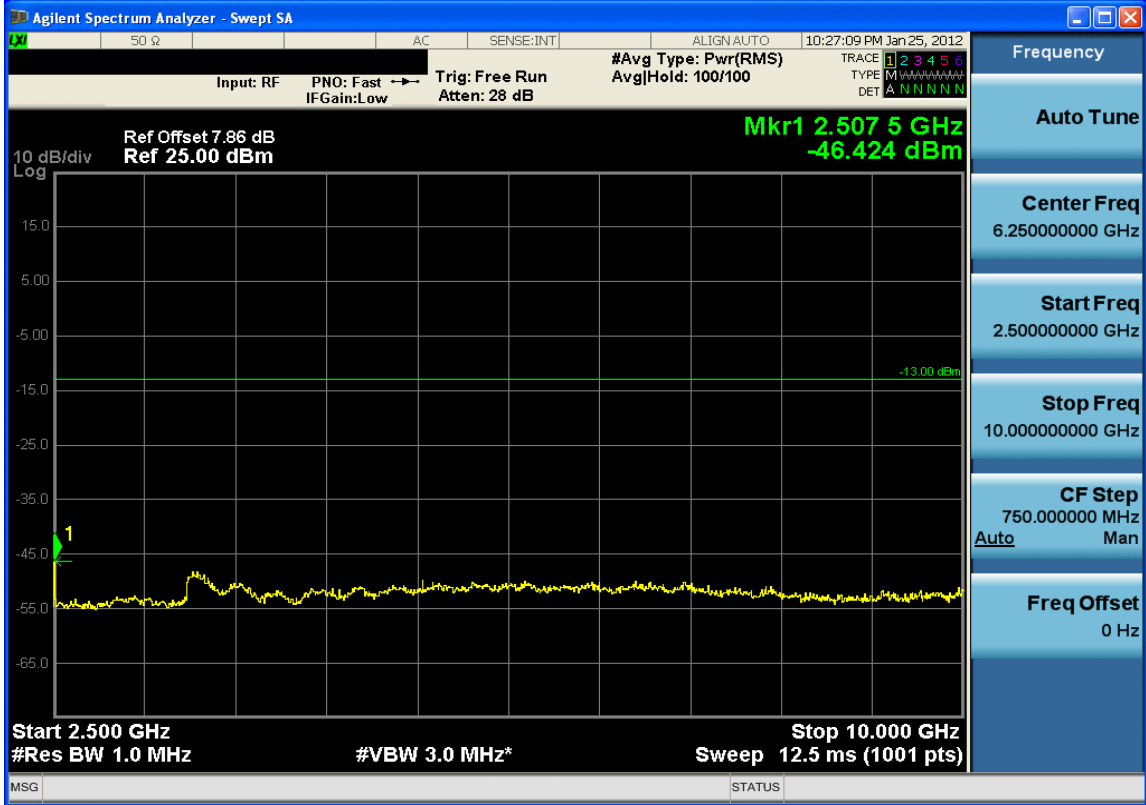


Plot 7-4. 4MHz Span Plot (Cellular CDMA Mode – Ch. 1013)

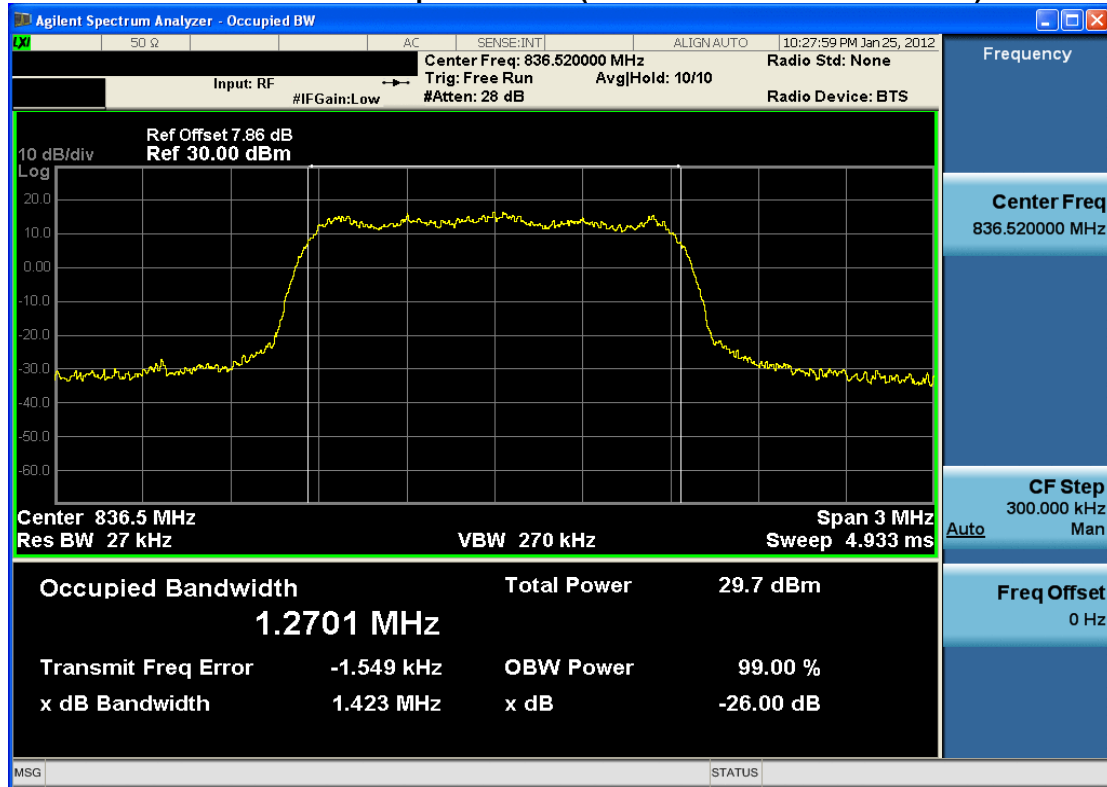


Plot 7-5. Conducted Spurious Plot (Cellular CDMA Mode – Ch. 384)

FCC ID: A3LSPHL700	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 CDMA / EVDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1201230109.A3L	Test Dates: 01/23/12 - 01/26/12	EUT Type: Portable Handset		Page 28 of 38

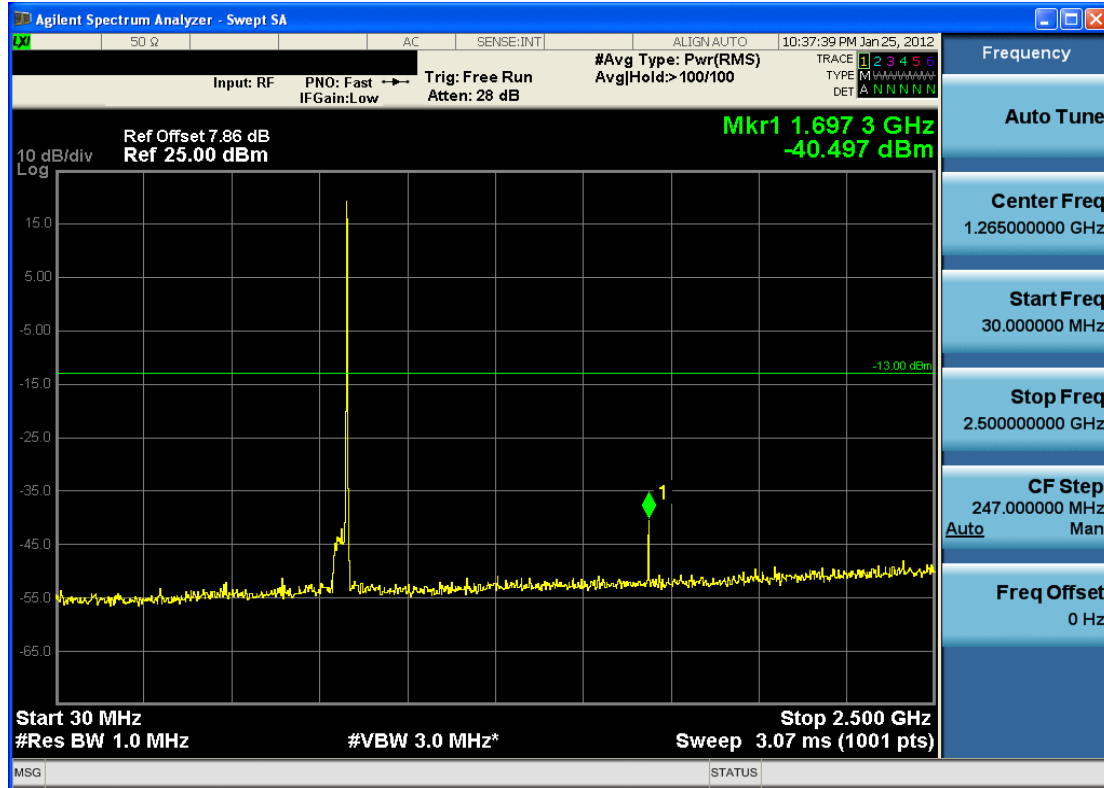


Plot 7-6. Conducted Spurious Plot (Cellular CDMA Mode – Ch. 384)

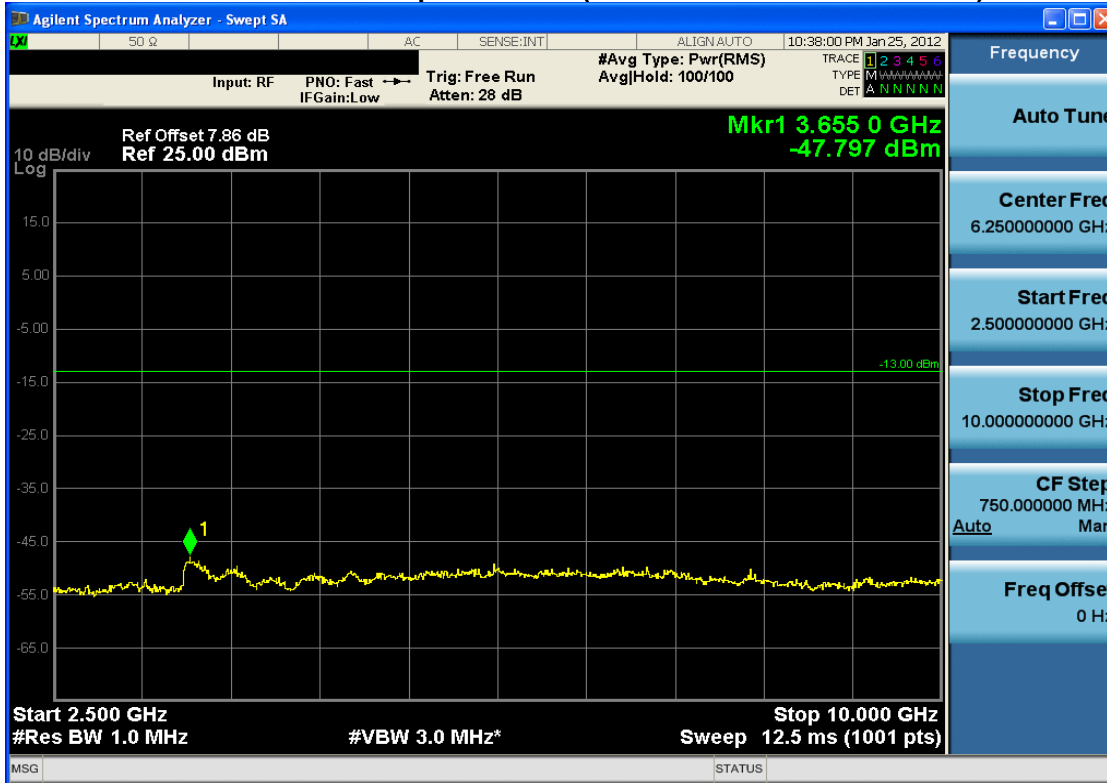


Plot 7-7. Occupied Bandwidth Plot (Cellular CDMA Mode – Ch. 384)

FCC ID: A3LSPHL700	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 CDMA / EVDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1201230109.A3L	Test Dates: 01/23/12 - 01/26/12	EUT Type: Portable Handset		Page 29 of 38

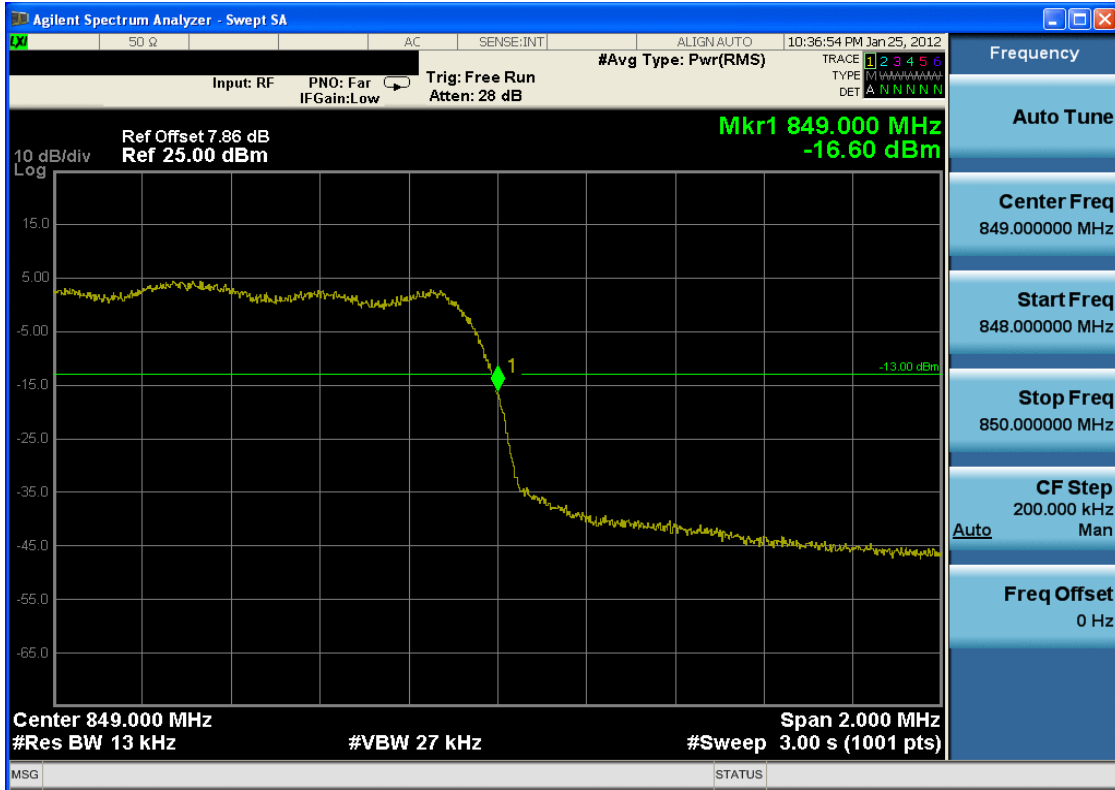


Plot 7-8. Conducted Spurious Plot (Cellular CDMA Mode – Ch. 777)

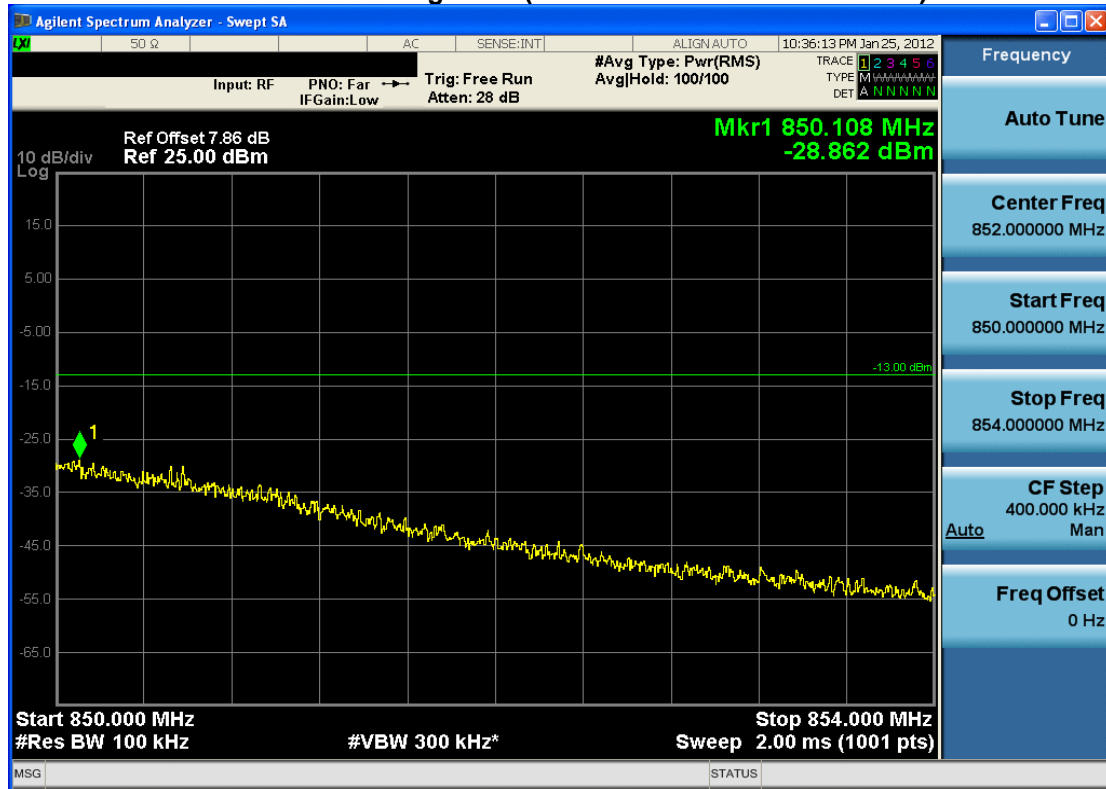


Plot 7-9. Conducted Spurious Plot (Cellular CDMA Mode – Ch. 777)

FCC ID: A3LSPHL700	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 CDMA / EVDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1201230109.A3L	Test Dates: 01/23/12 - 01/26/12	EUT Type: Portable Handset		Page 30 of 38

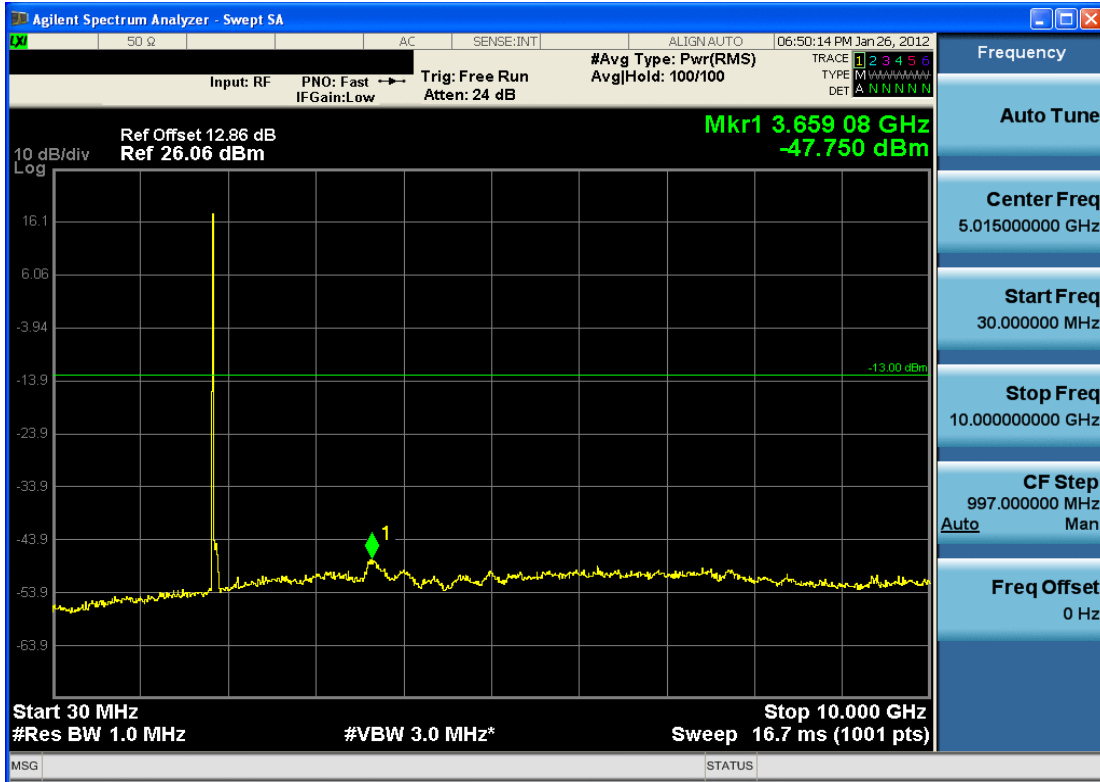


Plot 7-10. Band Edge Plot (Cellular CDMA Mode - Ch. 777)

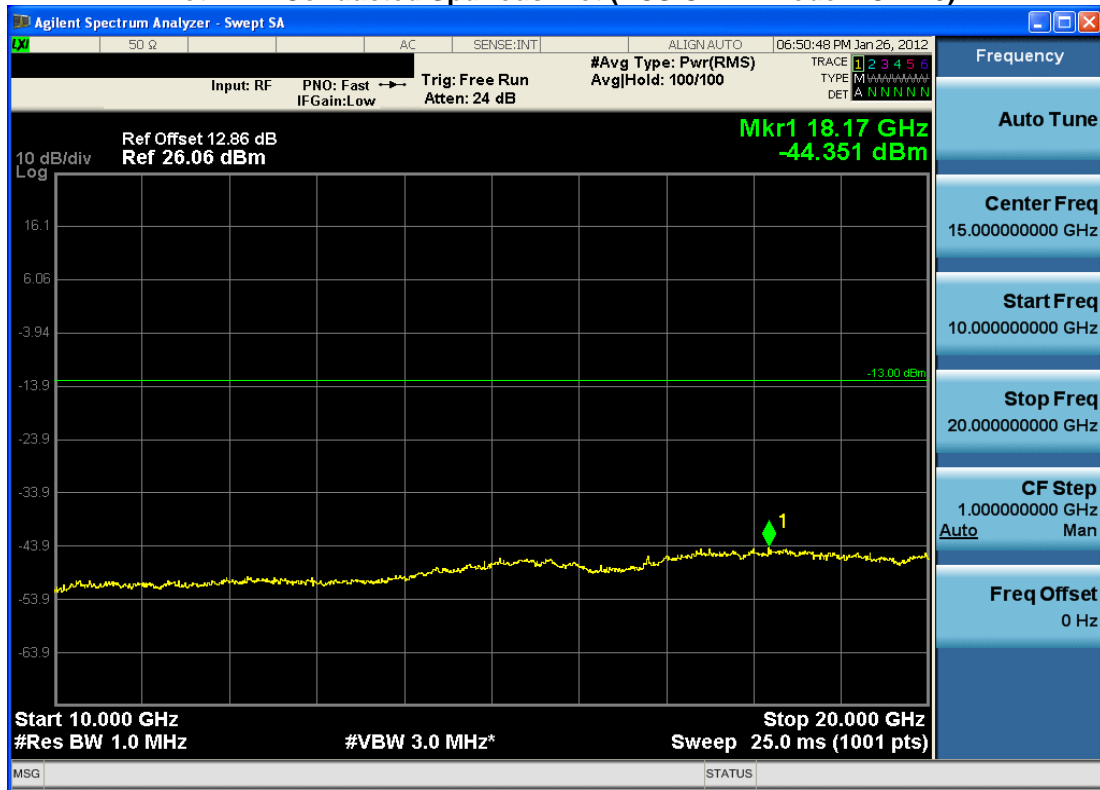


Plot 7-11. 4MHz Span Plot (Cellular CDMA Mode - Ch. 777)

FCC ID: A3LSPHL700	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1201230109.A3L	Test Dates: 01/23/12 - 01/26/12	EUT Type: Portable Handset		Page 31 of 38

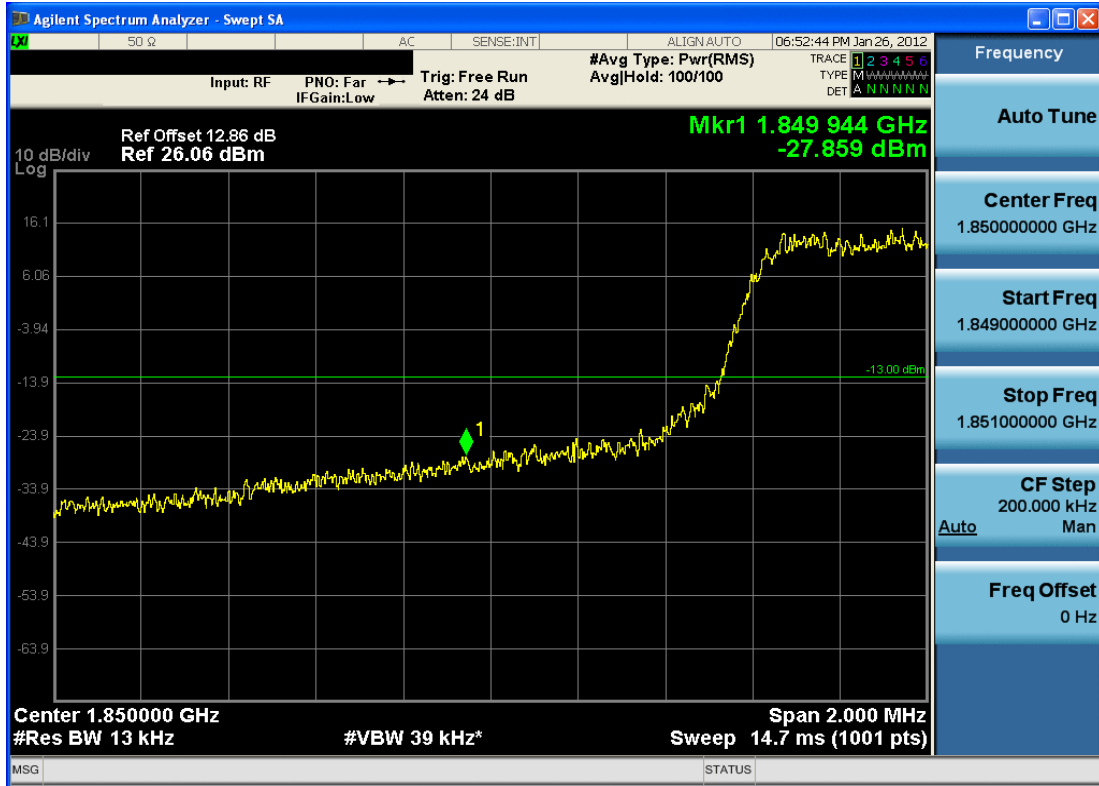


Plot 7-12. Conducted Spurious Plot (PCS CDMA Mode – Ch. 25)

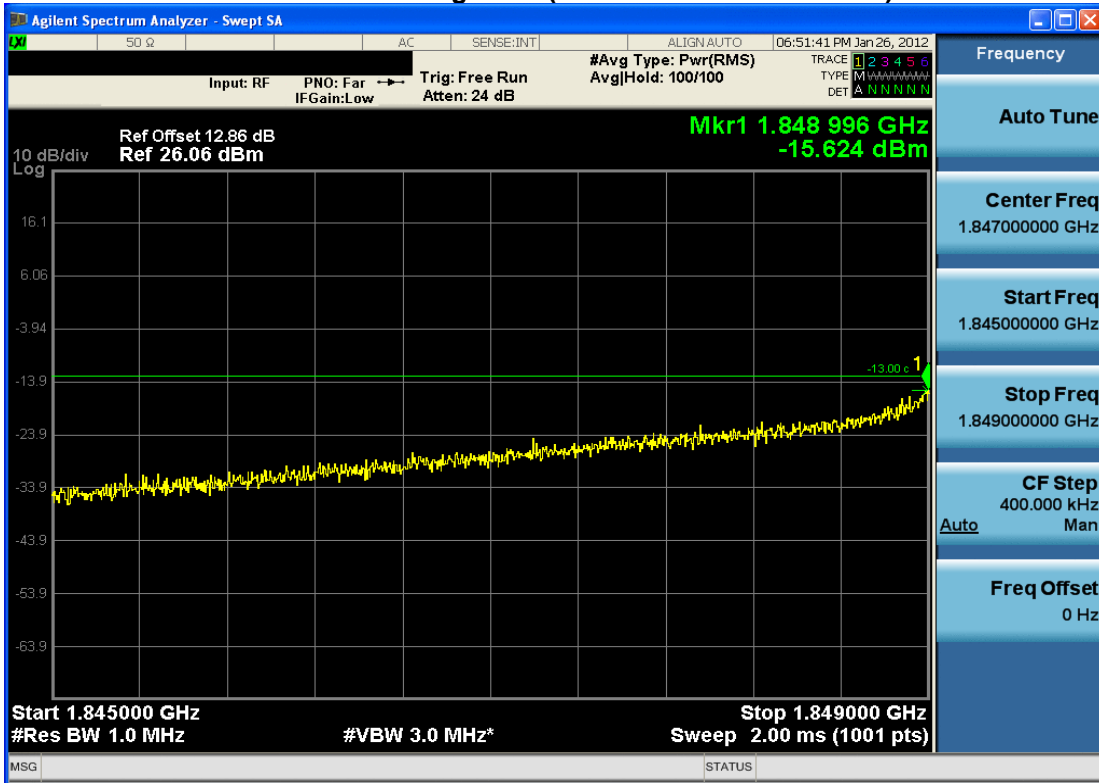


Plot 7-13. Conducted Spurious Plot (PCS CDMA Mode – Ch. 25)

FCC ID: A3LSPHL700	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1201230109.A3L	Test Dates: 01/23/12 - 01/26/12	EUT Type: Portable Handset		Page 32 of 38

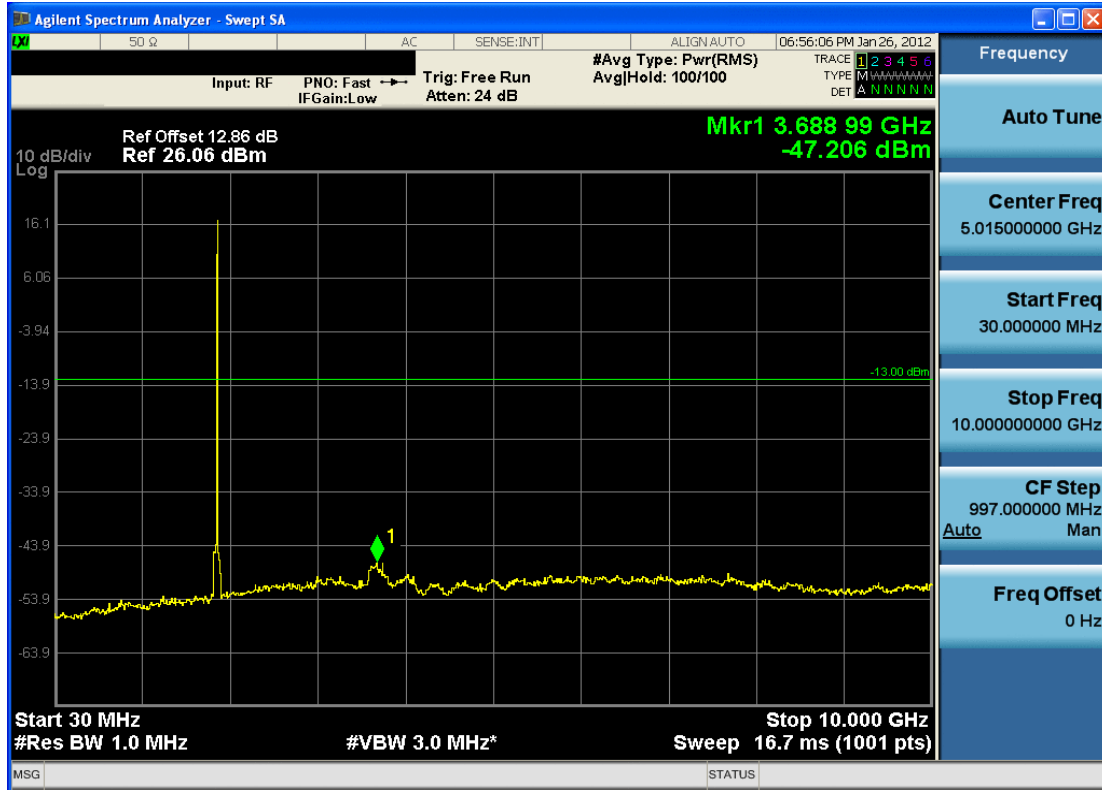


Plot 7-14. Band Edge Plot (PCS CDMA Mode – Ch. 25)

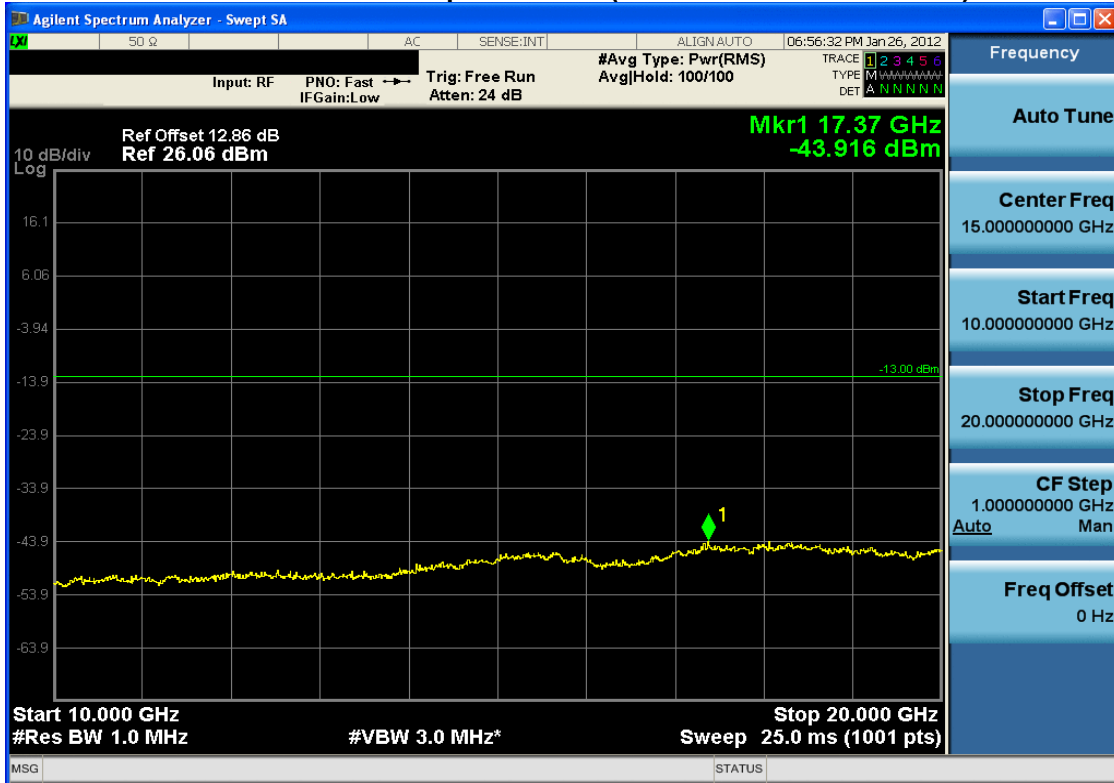


Plot 7-15. 4MHz Span Plot (PCS CDMA Mode – Ch. 25)

FCC ID: A3LSPHL700	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1201230109.A3L	Test Dates: 01/23/12 - 01/26/12	EUT Type: Portable Handset		Page 33 of 38

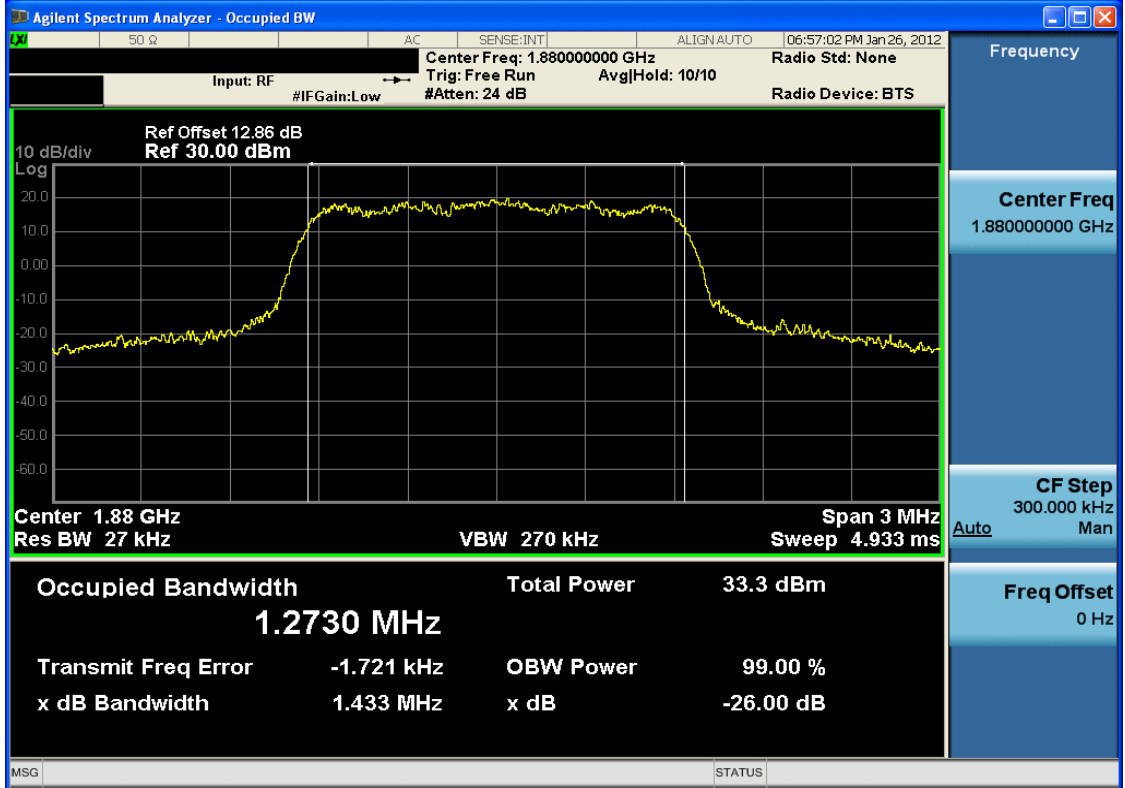


Plot 7-16. Conducted Spurious Plot (PCS CDMA Mode – Ch. 600)

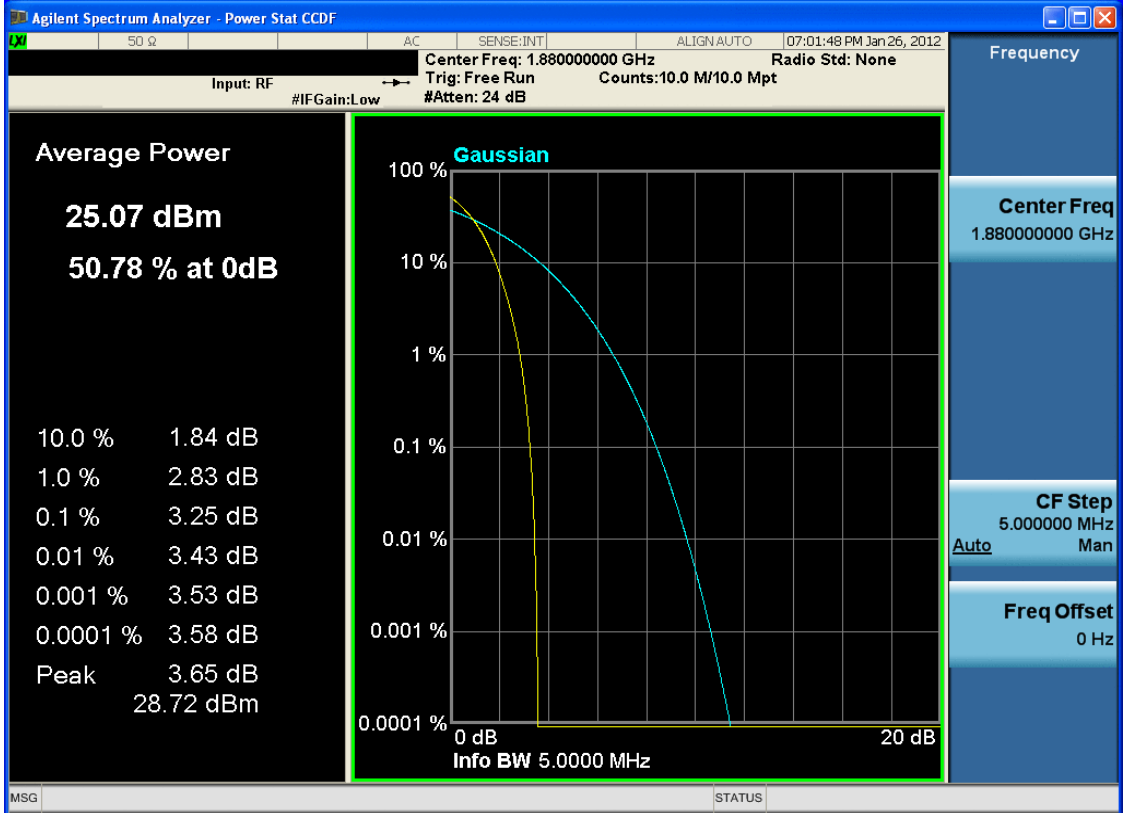


Plot 7-17. Conducted Spurious Plot (PCS CDMA Mode – Ch. 600)

FCC ID: A3LSPHL700	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1201230109.A3L	Test Dates: 01/23/12 - 01/26/12	EUT Type: Portable Handset		Page 34 of 38

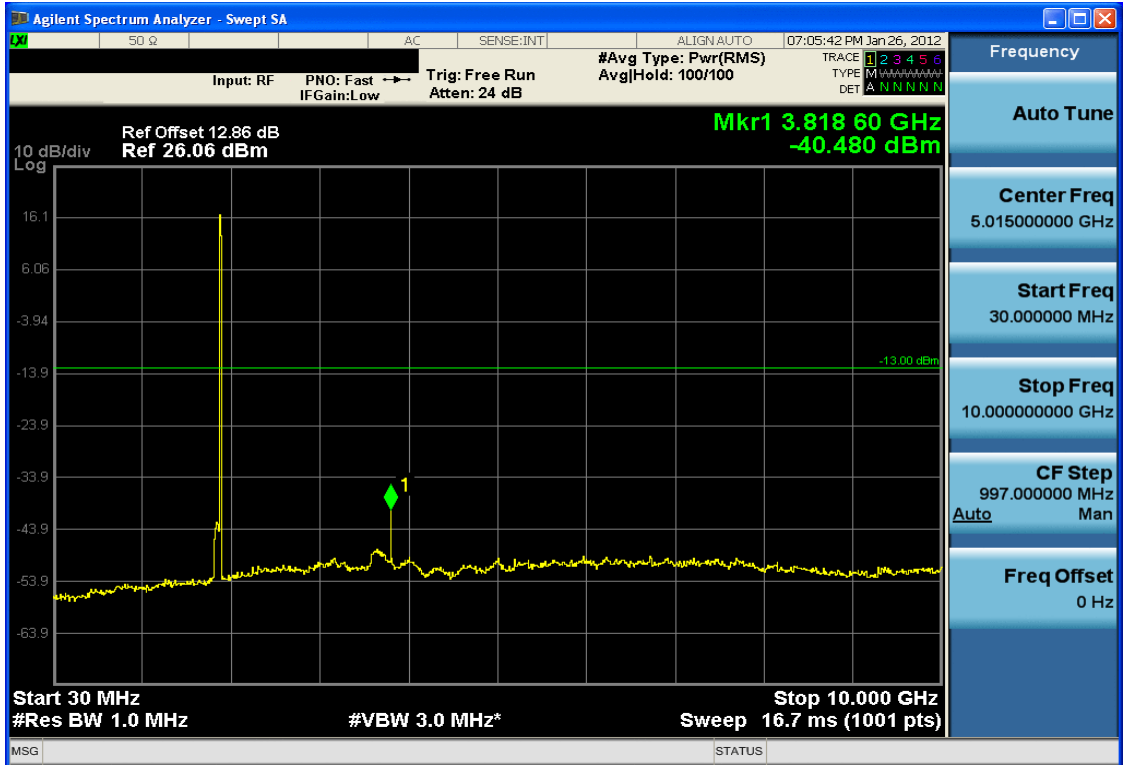


Plot 7-18. Occupied Bandwidth Plot (PCS CDMA Mode – Ch. 600)

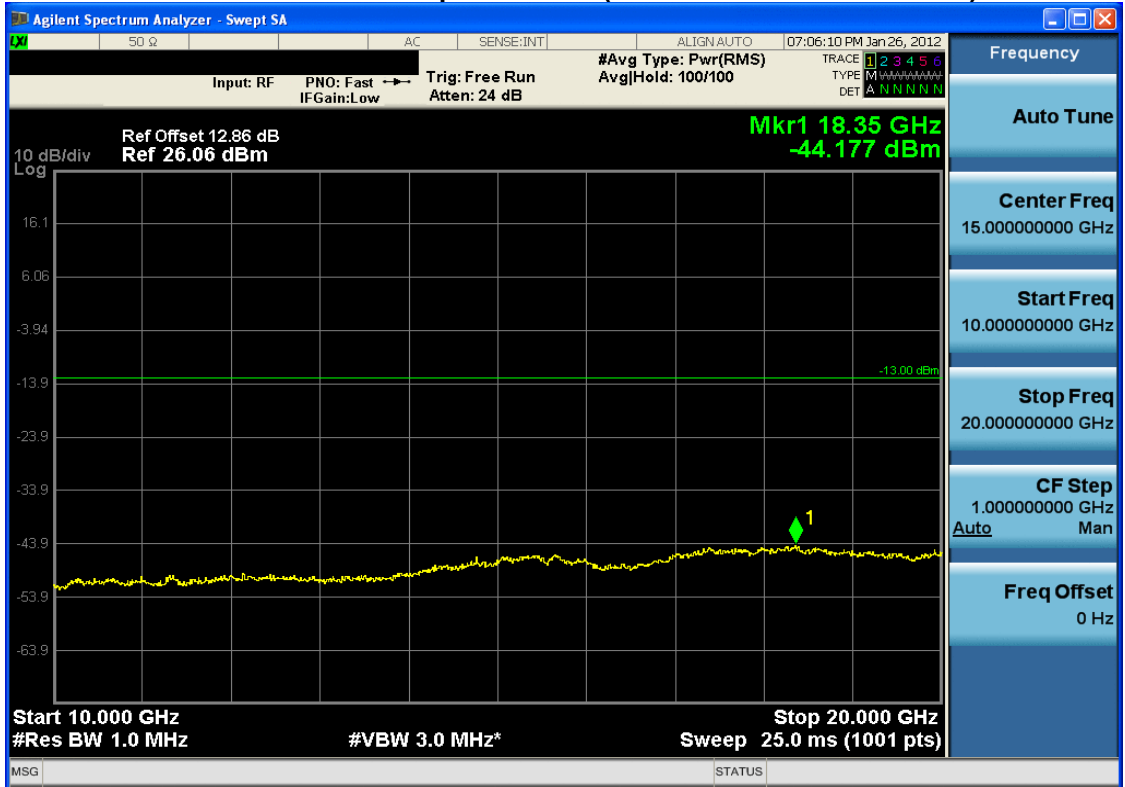


Plot 7-19. Peak-Average Ratio Plot (PCS CDMA Mode – Ch. 600)

FCC ID: A3LSPHL700	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 CDMA / EVDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
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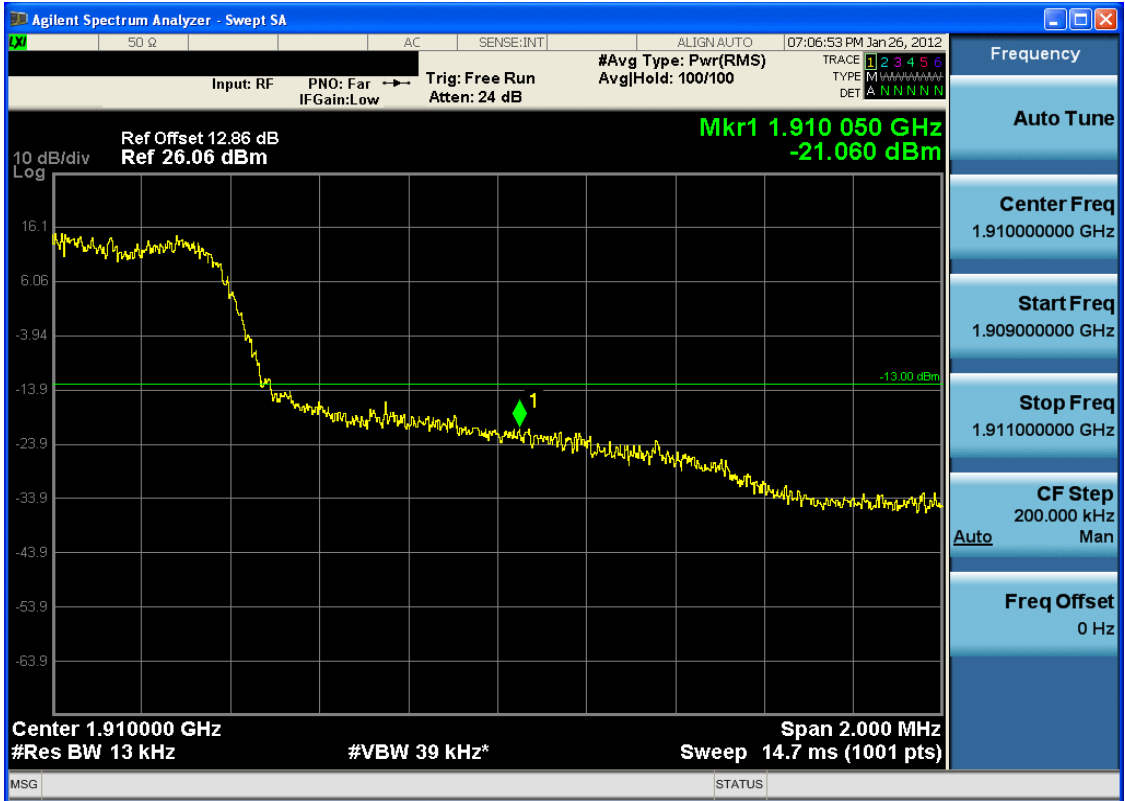


Plot 7-20. Conducted Spurious Plot (PCS CDMA Mode – Ch. 1175)

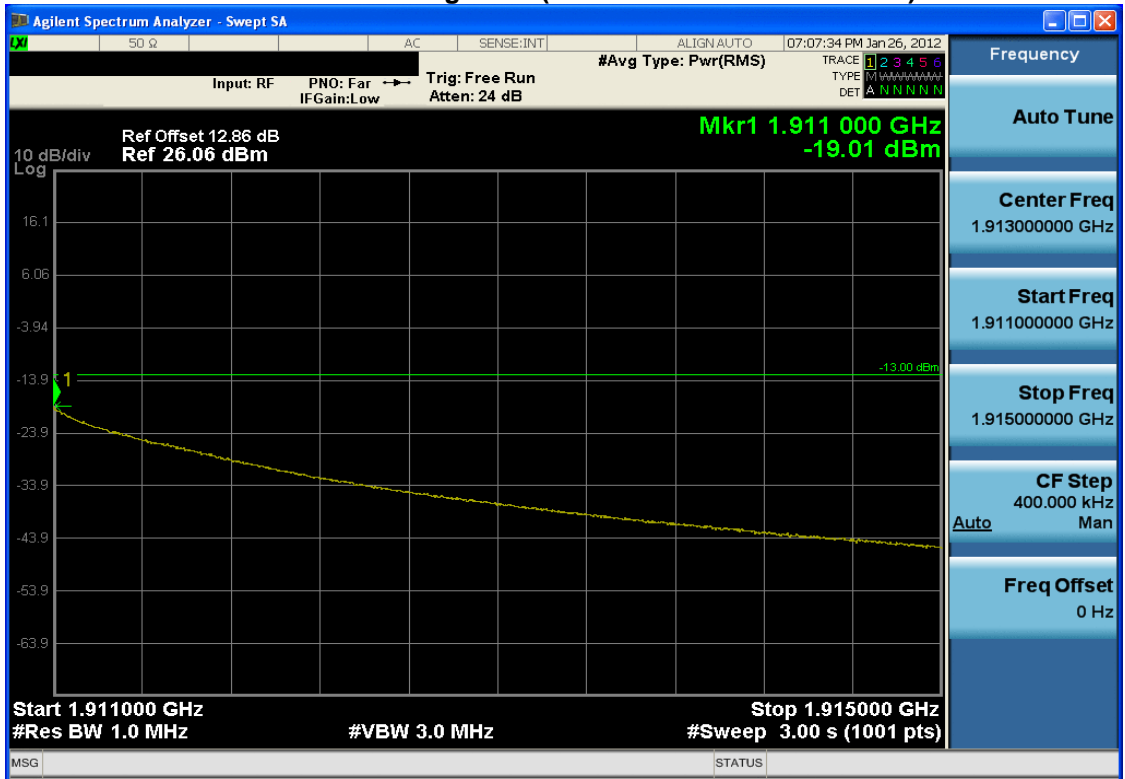


Plot 7-21. Conducted Spurious Plot (PCS CDMA Mode – Ch. 1175)

FCC ID: A3LSPHL700	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
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Plot 7-22. Band Edge Plot (PCS CDMA Mode – Ch. 1175)





Plot 7-23. 4MHz Span Plot (PCS CDMA Mode – Ch. 1175)

FCC ID: A3LSPHL700	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 CDMA / EVDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1201230109.A3L	Test Dates: 01/23/12 - 01/26/12	EUT Type: Portable Handset		Page 37 of 38

8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSPHL700** complies with all the requirements of Parts 2, 22, and 24 of the FCC rules and RSS-132 and RSS-133 of the Industry Canada rules.

FCC ID: A3LSPHL700		FCC Pt. 22/24 CDMA / EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
Test Report S/N: 0Y1201230109.A3L	Test Dates: 01/23/12 - 01/26/12	EUT Type: Portable Handset		Page 38 of 38