



MEASUREMENT REPORT

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

Applicant Name:

Samsung Electronics Co., Ltd.
416 Maetan 3-Dong, Yeongtong-Gu
Suwon City, Kyungki-Do
Korea 443-742

Date of Testing:

02/24 - 03/13/2012

Test Site/Location:

PCTEST Lab., Columbia, MD, USA

Test Report Serial No.:

0Y1202220222.A3L

FCC ID:

A3LSCHI535

APPLICANT:

SAMSUNG ELECTRONICS CO., LTD.

Application Type:

Certification

Model(s):

SCH-i535

EUT Type:

Portable Handset

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

Test Procedure(s):

ANSI/TIA-603-C-2004

Test Device Serial No.:

identical prototype [S/N: 99000023077792, 99000023076711 (K)]

	Mode	Tx Frequency (MHz)	Emission Designator	ERP/EIRP	
				Max. Power (W)	Max. Power (dBm)
Tx #1	CDMA850	824.7 - 848.31	1M27F9W	0.091	19.61
	CDMA1900	1851.25 - 1908.75	1M27F9W	0.369	25.67
Tx #2	GSM850	824.2 - 848.8	243KGXW	0.352	25.46
	EDGE850	824.2 - 848.8	243KG7W	0.141	21.50
	GSM1900	1850.2 - 1909.8	246KGXW	0.528	27.22
	EDGE1900	1850.2 - 1909.8	244KG7W	0.179	22.52
	EvDO (Rev A)	824.7 - 848.31	1M29F9W	0.068	18.35
	EvDO (Rev A)	1851.25 - 1908.75	1M28F9W	0.146	21.65

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 Ortañez
President

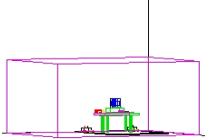


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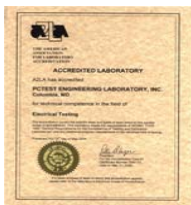
§2.1033 General Information

APPLICANT: Samsung Electronics Co., Ltd.
APPLICANT ADDRESS: 416 Maetan 3-Dong, Yeongtong-Gu
 Suwon City, Kyungki-Do, Korea 443-742
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: SCH-i535
FCC ID: A3LSCHI535
FCC CLASSIFICATION: PCS Licensed Transmitter Held to Ear (PCE)
MODE: GSM/EDGE/CDMA/EvDO
FREQUENCY TOLERANCE: $\pm 0.00025\%$ (2.5 ppm)
Test Device Serial No.: 99000023077792, ☐ Production ☒ Pre-Production ☐ Engineering
 99000023076711 (K)
DATE(S) OF TEST: 02/24 - 03/13/2012
TEST REPORT S/N: 0Y1202220222.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. 159966) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules.
- 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 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 located at 7185 Oakland Mills Road, Columbia, MD 21046. The site coordinates are 39° 10'23" N latitude and 76° 49'50" W longitude. The facility is 0.4 miles North of the FCC laboratory, and the ambient signal and ambient signal strength are approximately equal to those of the FCC laboratory. 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 February 15, 2012.

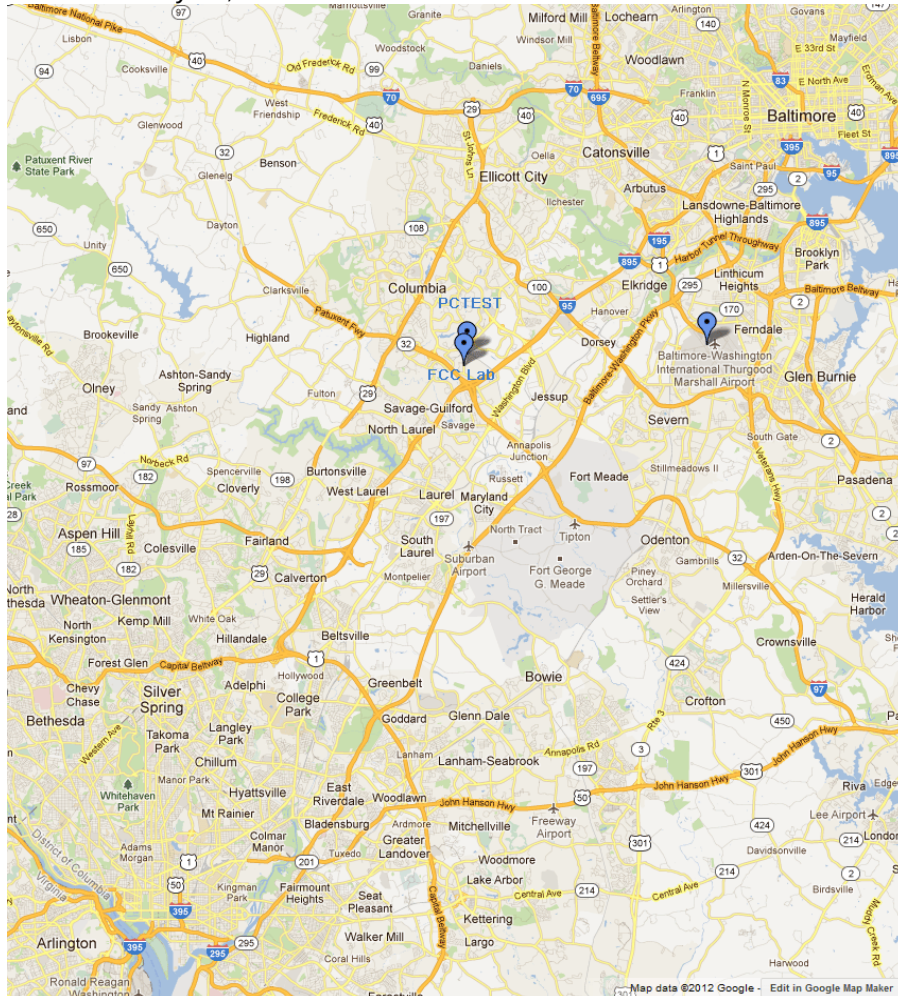


Figure 1-1. Map of the Greater Baltimore and Metropolitan Washington, D.C. area

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2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Samsung Portable Handset FCC ID: A3LSCHI535**. The test data contained in this report pertains only to the emissions due to the EUT's licensed transmitter.

2.2 Device Capabilities

This device contains the following capabilities:

850/1900 CDMA/EvDO Rev 0/A (BC0, BC1), 850/1900 GSM/GPRS/EDGE, Band 13 (10MHz BW) LTE, 802.11a/b/g/n WLAN (*), 802.11a/n UNII (*), Bluetooth (1x,EDR, LE), NFC

Note: UNII and 802.11n 5GHz WLAN support 20MHz and 40MHz channel bandwidths.

This device contains two transmit chains containing the following technologies:

Tx Chain 1: Cellular/PCS 1x Voice CDMA
Tx Chain 2: GSM850/1900, Cellular/PCS EvDO (Rev. 0/A), LTE Band 13

This device allows for simultaneous transmission of 1x CDMA with LTE (10MHz BW only) and 1x CDMA with EvDO. 1x CDMA with GSM is not a possible simultaneous transmission capability.

2.3 Test Configuration

The Samsung Portable Handset FCC ID: A3LSCHI535 was tested per the guidance of ANSI/TIA-603-C-2004. See Section 3.0 of this test report for a description of the radiated and antenna port conducted emissions tests.

2.4 EMI Suppression Device(s)/Modifications

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

2.5 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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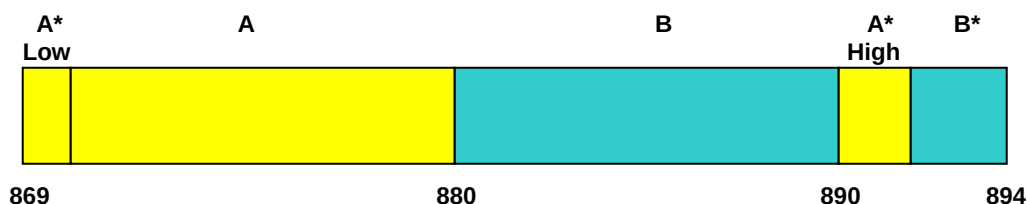
3.0 DESCRIPTION OF TESTS

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: A3LSCHI535**.

Deviation from Measurement Procedure.....None

3.2 Cellular - Base Frequency Blocks



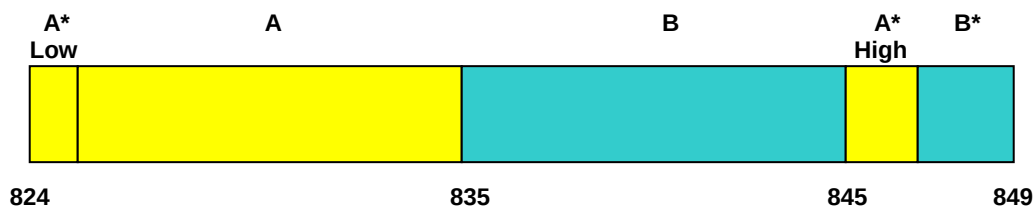
BLOCK 1: 869 – 880 MHz (A* Low + A)

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



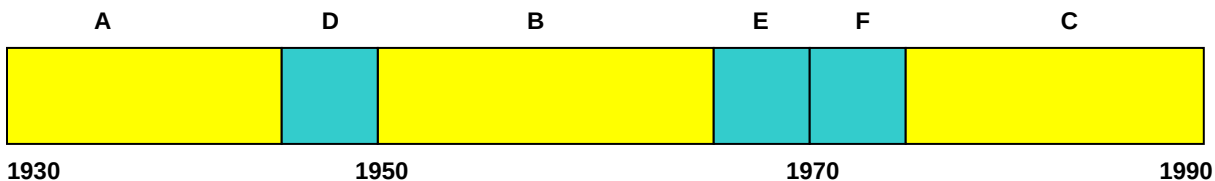
BLOCK 1: 824 – 835 MHz (A* Low + A)

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)

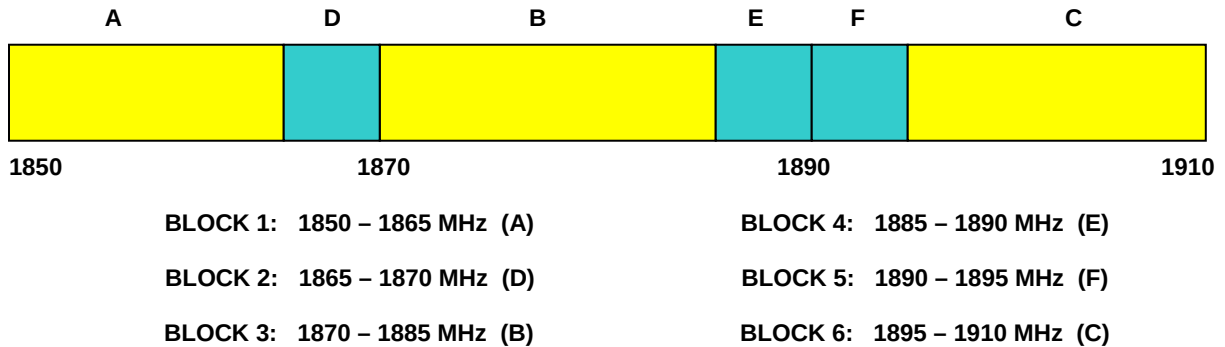
BLOCK 5: 1970 – 1975 MHz (F)

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 occupied bandwidth was measured using the signal analyzers' "Occupied Bandwidth" measurement function.

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. 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

§2.1053, 22.913(a)(2), 22.917(a), 24.232(c), 24.238(a); RSS-132 (4.5.1), RSS-133 (6.5.1)

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. An ETS Lindgren Model 2188 raised turntable is used for radiated measurement. It is a continuously rotatable, remote-controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. A 78cm high PVC support structure is placed on top of the turntable. A ¾" (~1.9cm) sheet of high density polyethylene is used as the table top and is placed on top of the PVC supports to bring the total height of the table to 80cm.

The equipment under test was transmitting while connected to its integral antenna and is placed on the table at a distance of 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 is mounted to a bore-sight mechanism on a mast that 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 radiated spurious emissions 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.

Per the guidance of ANSI/TIA-603-C-2004, 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).

For fundamental radiated power measurements, the guidance of KDB 971168 is used to record the EUT power level that is subsequently matched via the aforementioned substitution method given in ANSI/TIA-603-C-2004.

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SVDO (Simultaneous Voice and EvDO)

This device also supports SVDO capability with the device able to transmit 1x CDMA voice and EvDO simultaneously. Emissions were investigated in four different configurations:

- 1) Cellular band 1x CDMA + Cellular band EvDO
- 2) PCS band 1x CDMA + PCS band EvDO
- 3) Cellular band 1x CDMA + PCS band EvDO
- 4) PCS band 1x CDMA + Cellular band EvDO

All combinations of low, middle, and high channels were investigated for each configuration. Of the four configurations only the worst case emissions from each, with the exception of case 4, is reported in Section 6.10. The emissions found from configuration 4 were nearly undetectable.

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 WCDMA 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. For GSM signals, an average and a peak trace are used on a spectrum analyzer to determine the largest deviation between the average and the peak power of the EUT in a bandwidth greater than the emission bandwidth. The traces are generated with the spectrum analyzer set to zero span mode.

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 – The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ (± 2.5 ppm) of the center frequency.

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 period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

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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 (UHF/EHF)	6/7/2011	Annual	6/7/2012	N/A
-	RE2	Radiated Emissions Cable Set (VHF/UHF)	2/13/2012	Annual	2/13/2013	N/A
Agilent	8447D	Broadband Amplifier	3/17/2011	Annual	3/17/2012	1937A03348
Agilent	E8257D	(250kHz-20GHz) Signal Generator	4/8/2011	Annual	4/8/2012	MY45470194
Agilent	N9020A	MXA Signal Analyzer	10/10/2011	Annual	10/10/2012	US46470561
Agilent	E5515C	Wireless Communications Test Set	2/12/2012	Annual	2/12/2013	GB45360985
ETS Lindgren	3117	1-18 GHz DRG Horn (Medium)	7/22/2011	Annual	7/22/2012	125518
ETS Lindgren	3160-09	18-26.5 GHz Standard Gain Horn	5/31/2011	Annual	5/31/2012	135427
ETS Lindgren	3164-08	Quad Ridge Horn Antenna	10/1/2010	Biennial	10/1/2012	128337
Mini-Circuits	VHF-1200+	High Pass Filter	1/15/2012	Annual	1/15/2013	30923
Rohde & Schwarz	CMW500	LTE Radio Communication Tester	8/25/2011	Annual	8/25/2012	100976
Rohde & Schwarz	RS-PR18	1-18 GHz Pre-Amplifier	6/9/2011	Annual	6/9/2012	100071
Rohde & Schwarz	RS-PR26	18-26.5 GHz Pre-Amplifier	6/9/2011	Annual	6/9/2012	100040
Rohde & Schwarz	ESU26	EMI Test Receiver	4/27/2011	Annual	4/27/2012	100342
Schwarzbeck	UHA 9105	Dipole Antenna (400 - 1GHz) Rx	11/14/2011	Biennial	11/14/2013	9105-2404
Schwarzbeck	VULB-9161SE	Trilog Super Broadband Test Antenna	11/8/2011	Biennial	11/8/2013	9161-4075

Table 4-1. Test Equipment

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5.0 SAMPLE CALCULATIONS

GSM Emission Designator

Emission Designator = 250KGXW

GSM BW = 250 kHz
 G = Phase Modulation
 X = Cases not otherwise covered
 W = Combination (Audio/Data)

WCDMA Emission Designator

Emission Designator = 4M16F9W

WCDMA BW = 4.16 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: GSM Channel 512 PCS Mode 2nd Harmonic (3700.40 MHz)

The 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 3700.40 MHz. So 6.1 dB is added to the signal generator reading of -30.9 dBm yielding -24.80 dBm. The fundamental EIRP was 25.50 dBm so this harmonic was 25.50 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: A3LSCHI535
 FCC Classification: PCS Licensed Transmitter Held to Ear (PCE)
 Mode(s): GSM/EDGE/CDMA/EvDO

FCC Part Section(s)	RSS Section(s)	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, 8.0
2.1051, 22.917(a), 24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1)	Band Edge / Conducted Spurious Emissions	$< 43 + \log_{10}(P[\text{Watts}])$ at Band Edge and for all out-of-band emissions		PASS	Section 7.0, 8.0
24.232(d)	RSS-133 (6.4)	Peak-Average Ratio	$< 13 \text{ dB}$		PASS	Section 7.0, 8.0
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) [SRSP-503(5.1.3)]	Effective Radiated Power	$< 7 \text{ Watts max. ERP}$	RADIATED	PASS	Section 6.2
24.232(c)	RSS-133 (6.4) [SRSP-510 (5.1.2)]	Equivalent Isotropic Radiated Power	$< 2 \text{ Watts max. EIRP}$		PASS	Section 6.3
2.1053, 22.917(a), 24.238(a)	RSS-132 (4.5.1) RSS-133 (6.5.1)	Undesirable Emissions	$< 43 + \log_{10}(P[\text{Watts}])$ for all out-of-band emissions		PASS	Sections 6.4, 6.5, 6.6, 6.7, 6.8, 6.9
2.1055, 22.355, 24.235	RSS-132 (4.3) RSS-133 (6.3)	Frequency Stability	$< 2.5 \text{ ppm}$		PASS	Sections 6.11, 6.12, 6.13, 6.14, 6.15, 6.16

Table 6-1. Summary of Test Results

Notes:

- 1) All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.
- 2) The analyzer plots shown in Section 7.0 were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables, directional couplers, and attenuators used as part of the system to maintain a link between the call box and the EUT at all frequencies of interest.
- 3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables, attenuators, and couplers.

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6.2 Effective Radiated Power Output Data

§22.913(a)(2); RSS-132 (4.4) [SRSP-503(5.1.3)]

Frequency [MHz]	Mode	Battery Type	Substitute Level [dBm]	Antenna Gain [dBd]	Pol [H/V]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
824.20	GSM850	Standard	20.770	4.65	V	25.42	0.348	38.45	-13.03
836.60	GSM850	Standard	20.650	4.81	V	25.46	0.352	38.45	-12.99
848.80	GSM850	Standard	18.360	4.95	V	23.31	0.214	38.45	-15.14
824.20	EDGE850	Standard	16.850	4.65	V	21.50	0.141	38.45	-16.95

Table 6-2. Effective Radiated Power Output Data (Transmitter #2 – GSM)

Frequency [MHz]	Mode	Battery Type	Substitute Level [dBm]	Antenna Gain [dBd]	Pol [H/V]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
824.70	EvDO Rev A	Standard	13.700	4.65	V	18.35	0.068	38.45	-20.10
836.52	EvDO Rev A	Standard	9.760	4.81	V	14.57	0.029	38.45	-23.88
848.31	EvDO Rev A	Standard	9.970	4.95	V	14.92	0.031	38.45	-23.53

Table 6-3. Effective Radiated Power Output Data (Transmitter #2 – EvDO)

Frequency [MHz]	Mode	Battery Type	Substitute Level [dBm]	Antenna Gain [dBd]	Pol [H/V]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
824.70	CDMA 1x	Standard	14.96	4.65	H	19.61	0.091	38.45	-18.84
836.52	CDMA 1x	Standard	13.58	4.81	H	18.39	0.069	38.45	-20.06
848.31	CDMA 1x	Standard	13.17	4.95	H	18.12	0.065	38.45	-20.33

Table 6-4. Effective Radiated Power Output Data (Transmitter #1 – 1x CDMA)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.

2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.

3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. 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	Battery Type	Substitute Level [dBm]	Antenna Gain [dBi]	Pol [H/V]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1850.20	GSM1900	Standard	16.220	8.56	H	24.78	0.300	33.01	-8.23
1880.00	GSM1900	Standard	16.510	8.55	H	25.06	0.320	33.01	-7.95
1909.80	GSM1900	Standard	18.690	8.53	H	27.22	0.528	33.01	-5.79
1909.80	EDGE1900	Standard	13.990	8.53	H	22.52	0.179	33.01	-10.49

Table 6-5. Equivalent Isotropic Radiated Power Output Data (Transmitter #2 – GSM)

Frequency [MHz]	Mode	Battery Type	Substitute Level [dBm]	Antenna Gain [dBi]	Pol [H/V]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1851.25	EvDO Rev A	Standard	13.090	8.56	H	21.65	0.146	33.01	-11.36
1880.00	EvDO Rev A	Standard	12.660	8.55	H	21.21	0.132	33.01	-11.80
1908.75	EvDO Rev A	Standard	12.920	8.53	H	21.45	0.140	33.01	-11.56

Table 6-6. Equivalent Isotropic Radiated Power Output Data (Transmitter #2 – EvDO)

Frequency [MHz]	Mode	Battery Type	Substitute Level [dBm]	Antenna Gain [dBi]	Pol [H/V]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1851.25	CDMA 1x	Standard	17.11	8.56	H	25.67	0.369	33.01	-7.34
1880.00	CDMA 1x	Standard	13.50	8.55	H	22.05	0.160	33.01	-10.96
1908.75	CDMA 1x	Standard	13.68	8.53	H	22.21	0.167	33.01	-10.80

Table 6-7. Equivalent Isotropic Radiated Power Output Data (Transmitter #1 – 1x CDMA)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.

2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.

3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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6.4 Cellular GSM Radiated Measurements

§2.1053, 22.917(a); RSS-132 (4.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 824.20 MHz
 CHANNEL: 128
 MEASURED OUTPUT POWER: 25.42 dBm = 0.348 W
 MODULATION SIGNAL: GSM (GMSK)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 38.42 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
1648.40	-37.25	2.60	-34.66	V	60.1
2472.60	-37.91	2.90	-35.02	V	60.4
3296.80	-40.95	5.44	-35.51	V	60.9
4121.00	-93.60	7.05	-86.55	V	112.0
4945.20	-92.49	7.86	-84.63	V	110.1

Table 6-8. Radiated Spurious Data (Cellular GSM Mode – Ch. 128)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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Cellular GSM Radiated Measurements (Cont'd)

§2.1053, 22.917(a); RSS-132 (4.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 836.60 MHz
 CHANNEL: 190
 MEASURED OUTPUT POWER: 25.46 dBm = 0.352 W
 MODULATION SIGNAL: GSM (GMSK)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10}(W) = 38.46$ dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
1673.20	-30.27	2.34	-27.94	V	53.4
2509.80	-37.83	2.84	-34.99	V	60.4
3346.40	-43.50	5.64	-37.85	V	63.3
4183.00	-93.65	7.15	-86.51	V	112.0
5019.60	-92.40	7.97	-84.44	V	109.9

Table 6-9. Radiated Spurious Data (Cellular GSM Mode – Ch. 190)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.

2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.

3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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Cellular GSM Radiated Measurements (Cont'd)

§2.1053, 22.917(a); RSS-132 (4.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 848.80 MHz
 CHANNEL: 251
 MEASURED OUTPUT POWER: 23.31 dBm = 0.214 W
 MODULATION SIGNAL: GSM (GMSK)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 36.31 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
1697.60	-30.16	2.08	-28.07	V	51.4
2546.40	-37.94	3.17	-34.77	V	58.1
3395.20	-47.94	5.84	-42.10	V	65.4
4244.00	-93.70	7.24	-86.46	V	109.8
5092.80	-92.21	8.03	-84.18	V	107.5

Table 6-10. Radiated Spurious Data (Cellular GSM Mode – Ch. 251)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.

2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.

3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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6.5 Cellular EvDO Radiated Measurements

§2.1053, 22.917(a); RSS-132 (4.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 824.70 MHz
 CHANNEL: 1013
 MEASURED OUTPUT POWER: 18.35 dBm = 0.068 W
 MODULATION SIGNAL: EvDO
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 31.35 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
1649.40	-53.16	2.59	-50.57	V	68.9
2474.10	-45.86	2.89	-42.97	V	61.3
3298.80	-58.07	5.45	-52.61	V	71.0
4123.50	-93.60	7.05	-86.55	V	104.9
4948.20	-92.49	7.87	-84.62	V	103.0

Table 6-11. Radiated Spurious Data (Cellular EvDO Mode – Ch. 1013)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.

2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.

3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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Cellular EvDO Radiated Measurements (Cont'd)

§2.1053, 22.917(a); RSS-132 (4.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 836.52 MHz
 CHANNEL: 384
 MEASURED OUTPUT POWER: 14.57 dBm = 0.029 W
 MODULATION SIGNAL: EvDO
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 27.57 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
1673.04	-54.64	2.34	-52.30	V	66.9
2509.56	-49.11	2.84	-46.28	V	60.8
3346.08	-58.73	5.64	-53.09	V	67.7
4182.60	-93.65	7.14	-86.51	V	101.1
5019.12	-92.41	7.97	-84.44	V	99.0

Table 6-12. Radiated Spurious Data (Cellular EvDO Mode – Ch. 384)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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Cellular EvDO Radiated Measurements (Cont'd)

§2.1053, 22.917(a); RSS-132 (4.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 848.31 MHz
 CHANNEL: 777
 MEASURED OUTPUT POWER: 14.92 dBm = 0.031 W
 MODULATION SIGNAL: EvDO
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 27.92 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
1696.62	-55.81	2.09	-53.72	V	68.6
2544.93	-44.77	3.16	-41.61	V	56.5
3393.24	-58.44	5.83	-52.61	V	67.5
4241.55	-93.70	7.24	-86.47	V	101.4
5089.86	-92.22	8.02	-84.19	V	99.1

Table 6-13. Radiated Spurious Data (Cellular EvDO Mode – Ch. 777)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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6.6 Cellular 1x CDMA Radiated Measurements

§2.1053, 22.917(a); RSS-132 (4.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 824.70 MHz
 CHANNEL: 1013
 MEASURED OUTPUT POWER: 19.61 dBm = 0.091 W
 MODULATION SIGNAL: CDMA
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 32.61 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
1649.40	-38.41	2.59	-35.82	H	55.43
2474.10	-49.60	2.89	-46.71	H	66.32
3298.80	-52.30	5.45	-46.84	H	66.45
4123.50	-58.47	7.05	-51.42	H	71.03
4948.20	-57.14	7.87	-49.27	H	68.88

Table 6-14. Radiated Spurious Data (Cellular 1x CDMA Mode – Ch. 1013)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.

2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.

3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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Cellular 1x CDMA Radiated Measurements (Cont'd)

§2.1053, 22.917(a); RSS-132 (4.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 836.52 MHz
 CHANNEL: 384
 MEASURED OUTPUT POWER: 18.39 dBm = 0.069 W
 MODULATION SIGNAL: CDMA
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 31.39 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
1673.04	-38.86	2.34	-36.52	H	54.91
2509.56	-45.80	2.84	-42.97	H	61.36
3346.08	-50.63	5.64	-44.99	H	63.38
4182.60	-54.77	7.14	-47.62	H	66.01
5019.12	-54.01	7.97	-46.05	H	64.44

Table 6-15. Radiated Spurious Data (Cellular 1x CDMA Mode – Ch. 384)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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Cellular 1x CDMA Radiated Measurements (Cont'd)

§2.1053, 22.917(a); RSS-132 (4.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 848.31 MHz
 CHANNEL: 777
 MEASURED OUTPUT POWER: 18.12 dBm = 0.065 W
 MODULATION SIGNAL: CDMA
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 31.12 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
1696.62	-29.18	2.09	-27.09	H	45.21
2544.93	-47.78	3.16	-44.62	H	62.74
3393.24	-50.31	5.83	-44.48	H	62.60
4241.55	-52.02	7.24	-44.79	H	62.91
5089.86	-54.35	8.02	-46.32	H	64.44

Table 6-16. Radiated Spurious Data (Cellular 1x CDMA Mode – Ch. 777)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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6.7 PCS GSM Radiated Measurements

§2.1053, 24.238(a); RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1850.20 MHz
 CHANNEL: 512
 MEASURED OUTPUT POWER: 24.78 dBm = 0.300 W
 MODULATION SIGNAL: GSM (GMSK)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 37.78 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
3700.40	-51.74	8.40	-43.34	H	68.1
5550.60	-47.47	10.62	-36.85	H	61.6
7400.80	-43.35	11.82	-31.53	H	56.3
9251.00	-45.23	13.30	-31.93	H	56.7
11101.20	-50.35	13.50	-36.85	H	61.6

Table 6-17. Radiated Spurious Data (PCS GSM Mode – Ch. 512)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.

2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.

3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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PCS GSM 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: 661
 MEASURED OUTPUT POWER: 25.06 dBm = 0.320 W
 MODULATION SIGNAL: GSM (GMSK)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 38.06 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
3760.00	-46.94	8.42	-38.51	H	63.6
5640.00	-47.73	10.66	-37.07	H	62.1
7520.00	-43.96	11.92	-32.04	H	57.1
9400.00	-45.26	13.24	-32.02	H	57.1
11280.00	-49.85	13.49	-36.37	H	61.4

Table 6-18. Radiated Spurious Data (PCS GSM Mode – Ch. 661)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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PCS GSM Radiated Measurements (Cont'd)

§2.1053, 24.238(a); RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1909.80 MHz
 CHANNEL: 810
 MEASURED OUTPUT POWER: 27.22 dBm = 0.528 W
 MODULATION SIGNAL: GSM (GMSK)
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10}(W) = 40.22$ dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
3819.60	-39.73	8.57	-31.16	H	58.4
5729.40	-24.85	10.69	-14.16	H	41.4
7639.20	-35.47	12.07	-23.40	H	50.6
9549.00	-25.59	13.20	-12.39	H	39.6
11458.80	-47.47	13.42	-34.06	H	61.3

Table 6-19. Radiated Spurious Data (PCS GSM Mode – Ch. 810)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.

2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.

3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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6.8 PCS EvDO 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: 21.65 dBm = 0.146 W
 MODULATION SIGNAL: EvDO
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 34.65 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
3702.50	-41.37	8.40	-32.97	H	54.6
5553.75	-39.20	10.62	-28.58	H	50.2
7405.00	-28.40	11.82	-16.57	H	38.2
9256.25	-38.23	13.30	-24.94	H	46.6
11107.50	-28.50	13.50	-15.00	H	36.7

Table 6-20. Radiated Spurious Data (PCS EvDO Mode – Ch. 25)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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PCS EvDO 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: 21.21 dBm = 0.132 W
 MODULATION SIGNAL: EvDO
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 34.21 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
3760.00	-43.00	8.42	-34.57	H	55.8
5640.00	-38.60	10.66	-27.94	H	49.2
7520.00	-27.19	11.92	-15.27	H	36.5
9400.00	-39.59	13.24	-26.35	H	47.6
11280.00	-30.39	13.49	-16.91	H	38.1

Table 6-21. Radiated Spurious Data (PCS EvDO Mode – Ch. 600)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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PCS EvDO 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: 21.45 dBm = 0.140 W
 MODULATION SIGNAL: EvDO
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 34.45 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
3817.50	-43.35	8.57	-34.79	H	56.2
5726.25	-43.77	10.69	-33.08	H	54.5
7635.00	-29.52	12.06	-17.46	H	38.9
9543.75	-38.94	13.20	-25.74	H	47.2
11452.50	-39.43	13.42	-26.01	H	47.5

Table 6-22. Radiated Spurious Data (PCS EvDO Mode – Ch. 1175)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.

2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.

3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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6.9 PCS 1x 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: 25.67 dBm = 0.369 W
 MODULATION SIGNAL: CDMA
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 38.67 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
3702.50	-48.52	8.40	-40.12	H	65.79
5553.75	-40.18	10.62	-29.56	H	55.23
7405.00	-41.62	11.82	-29.79	H	55.46
9256.25	-44.74	13.30	-31.45	H	57.11
11107.50	-46.85	13.50	-33.35	H	59.02

Table 6-23. Radiated Spurious Data (PCS 1x CDMA Mode – Ch. 25)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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PCS 1x 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: 22.05 dBm = 0.160 W
 MODULATION SIGNAL: CDMA
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 35.05 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
3760.00	-45.34	8.42	-36.91	H	58.96
5640.00	-50.78	10.66	-40.12	H	62.17
7520.00	-43.63	11.92	-31.71	H	53.75
9400.00	-42.54	13.24	-29.30	H	51.34
11280.00	-51.38	13.49	-37.90	H	59.94

Table 6-24. Radiated Spurious Data (PCS 1x CDMA Mode – Ch. 600)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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PCS 1x 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: 777
 MEASURED OUTPUT POWER: 22.21 dBm = 0.167 W
 MODULATION SIGNAL: CDMA
 DISTANCE: 3 meters
 LIMIT: $43 + 10 \log_{10} (W) =$ 35.21 dBc

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	(dBc)
3817.50	-44.23	8.57	-35.67	H	57.88
5726.25	-41.77	10.69	-31.08	H	53.29
7635.00	-40.95	12.06	-28.89	H	51.10
9543.75	-40.79	13.20	-27.59	H	49.81
11452.50	-48.07	13.42	-34.65	H	56.87

Table 6-25. Radiated Spurious Data (PCS 1x CDMA Mode – Ch. 1175)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits". For GSM transmission in the second transmitter, GSM voice and all data modes, including multi-slot GPRS, EDGE GMSK, and EDGE 8-PSK, were investigated and the highest power and worst case emissions are reported in GPRS mode while transmitting with one slot active.
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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6.10 SVDO Radiated Measurements

§2.1053, 22.917(a), 24.238(a); RSS-132 (4.5.1), RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

EvDO FREQUENCY: 836.52 MHz
 1x CDMA FREQUENCY: 824.70 MHz
 MODULATION SIGNAL: CDMA + EvDO Rev A
 DISTANCE: 3 meters
 LIMIT: -13.00 dBm

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	MARGIN (dB)
1661.22	-54.28	2.46	-51.82	H	-38.82

Table 6-26. Radiated Spurious Data (Cellular 1x CDMA + Cellular EvDO)

NOTES:

1. For SVDO testing, the 1x CDMA and the EvDO base station simulators were both manipulated to determine the configuration resulting in the highest inter-modulation products while both transmitters were "on" and at maximum power. All configurations were examined and the worst case emissions are reported.
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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SVDO Radiated Measurements (Cont'd)

§2.1053, 22.917(a), 24.238(a); RSS-132 (4.5.1), RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

EvDO FREQUENCY: 1880.00 MHz
 1x CDMA FREQUENCY: 1851.25 MHz
 MODULATION SIGNAL: CDMA + EvDO Rev A
 DISTANCE: 3 meters
 LIMIT: -13.00 dBm

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	MARGIN (dB)
5611.25	-47.48	10.65	-36.83	H	-23.83

Table 6-27. Radiated Spurious Data (PCS 1x CDMA + PCS EvDO)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits".
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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SVDO Radiated Measurements (Cont'd)

§2.1053, 22.917(a), 24.238(a); RSS-132 (4.5.1), RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

EvDO FREQUENCY: 1851.25 MHz
 1x CDMA FREQUENCY: 824.70 MHz
 MODULATION SIGNAL: CDMA + EvDO Rev A
 DISTANCE: 3 meters
 LIMIT: -13.00 dBm

FREQUENCY (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	SPURIOUS EMISSION LEVEL (dBm)	POL (H/V)	MARGIN (dB)
4527.20	-44.12	9.43	-34.69	H	-21.69

Table 6-28. Radiated Spurious Data (Cellular 1x CDMA + PCS EvDO)

NOTES:

1. This device was tested under all configurations and all modes across both transmit antennas. In the first transmitter, the worst case 1x CDMA configuration was found with the device set to "All Up Bits" using RC3/SO55. On the second transmitter, the worst case EvDO configuration was found in EvDO Rev. A with the device set to "All Up Bits".
2. This unit was tested with its standard battery. The NFC antenna is integrated into the standard battery and is the only battery available from the manufacturer for this device. All spurious emissions were investigated and the worst case emissions were found with the EUT powered by this battery.
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case test configuration was found in the horizontal setup, unless otherwise noted. The data reported in the table above was measured in this test setup.

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6.11 Cellular GSM Frequency Stability Measurements

§2.1055, 22.355; RSS-132 (4.3)

OPERATING FREQUENCY: 836,600,000 Hz

CHANNEL: 190

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)	836,600,013	13	0.000002
100 %		- 30	836,599,992	-8	-0.000001
100 %		- 20	836,600,021	21	0.000003
100 %		- 10	836,600,005	5	0.000001
100 %		0	836,600,010	10	0.000001
100 %		+ 10	836,600,015	15	0.000002
100 %		+ 20	836,600,016	16	0.000002
100 %		+ 30	836,600,009	9	0.000001
100 %		+ 40	836,600,011	11	0.000001
100 %		+ 50	836,599,980	-20	-0.000002
115 %	4.26	+ 20	836,599,993	-7	-0.000001
BATT. ENDPOINT	3.41	+ 20	836,599,994	-6	-0.000001

Table 6-29. Frequency Stability Data (Cellular GSM Mode – Ch. 190)

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

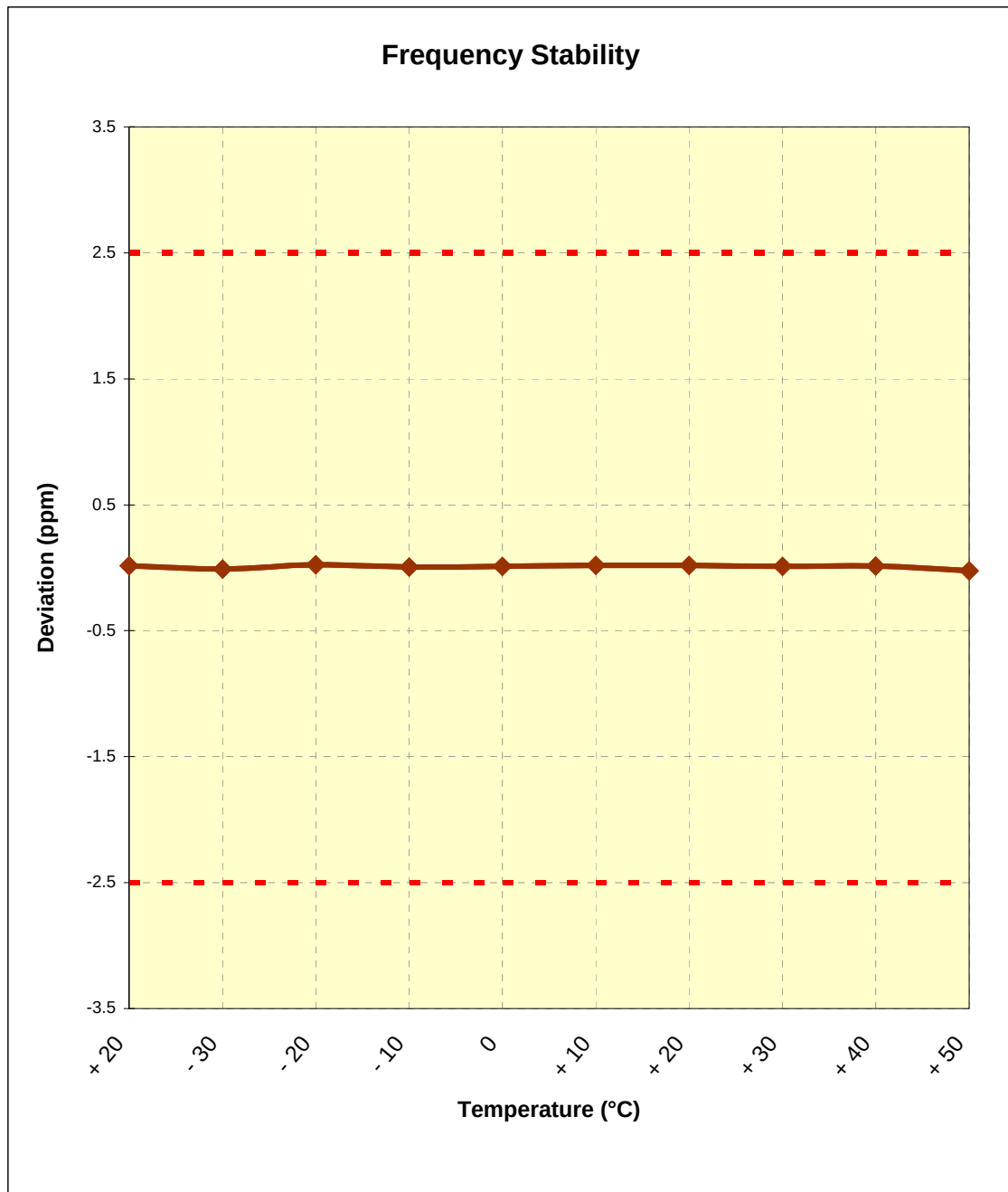


Figure 6-1. Frequency Stability Graph (Cellular GSM Mode – Ch. 190)

FCC ID: A3LSCHI535		FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
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6.12 Cellular EvDO 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)	836,599,987	-13	-0.000002
100 %		- 30	836,599,990	-10	-0.000001
100 %		- 20	836,599,986	-14	-0.000002
100 %		- 10	836,599,988	-12	-0.000001
100 %		0	836,599,983	-17	-0.000002
100 %		+ 10	836,600,009	9	0.000001
100 %		+ 20	836,600,013	13	0.000002
100 %		+ 30	836,599,985	-15	-0.000002
100 %		+ 40	836,600,018	18	0.000002
100 %		+ 50	836,600,012	12	0.000001
115 %	4.26	+ 20	836,599,983	-17	-0.000002
BATT. ENDPOINT	3.41	+ 20	836,599,991	-9	-0.000001

Table 6-30. Frequency Stability Data (Cellular EvDO Mode – Ch. 384)

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

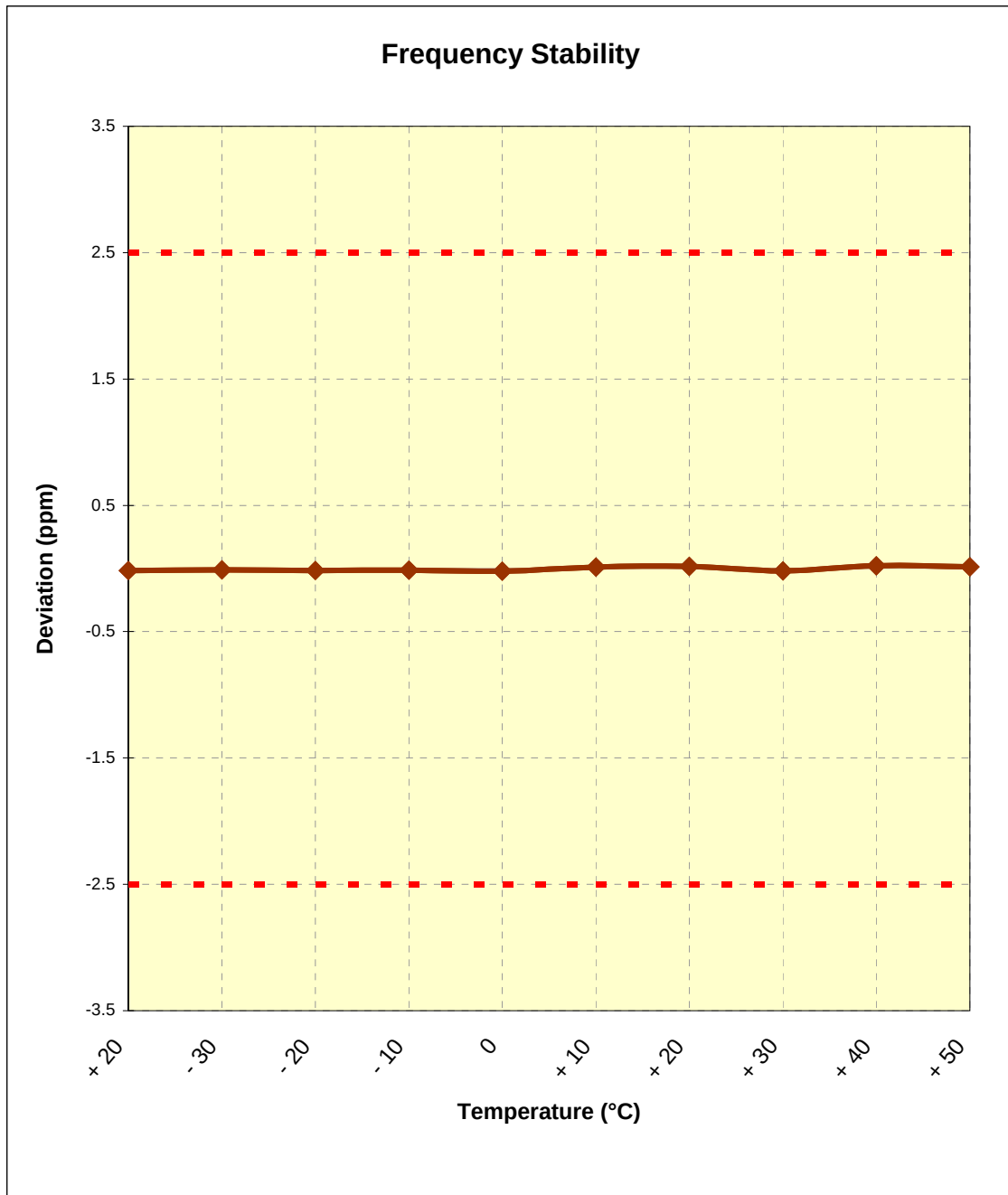


Figure 6-2. Frequency Stability Graph (Cellular EvDO Mode – Ch. 384)

FCC ID: A3LSCHI535		FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
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6.13 Cellular 1x 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)	836,600,003	3	0.000000
100 %		- 30	836,599,987	-13	-0.000002
100 %		- 20	836,599,989	-11	-0.000001
100 %		- 10	836,599,990	-10	-0.000001
100 %		0	836,600,009	9	0.000001
100 %		+ 10	836,600,019	19	0.000002
100 %		+ 20	836,599,993	-7	-0.000001
100 %		+ 30	836,600,004	4	0.000000
100 %		+ 40	836,599,987	-13	-0.000002
100 %		+ 50	836,600,015	15	0.000002
115 %	4.26	+ 20	836,600,011	11	0.000001
BATT. ENDPOINT	3.41	+ 20	836,599,990	-10	-0.000001

Table 6-31. Frequency Stability Data (Cellular 1x CDMA Mode – Ch. 384)

Cellular 1x CDMA Frequency Stability Measurements (Cont'd)
§2.1055, 22.355; RSS-132 (4.3)

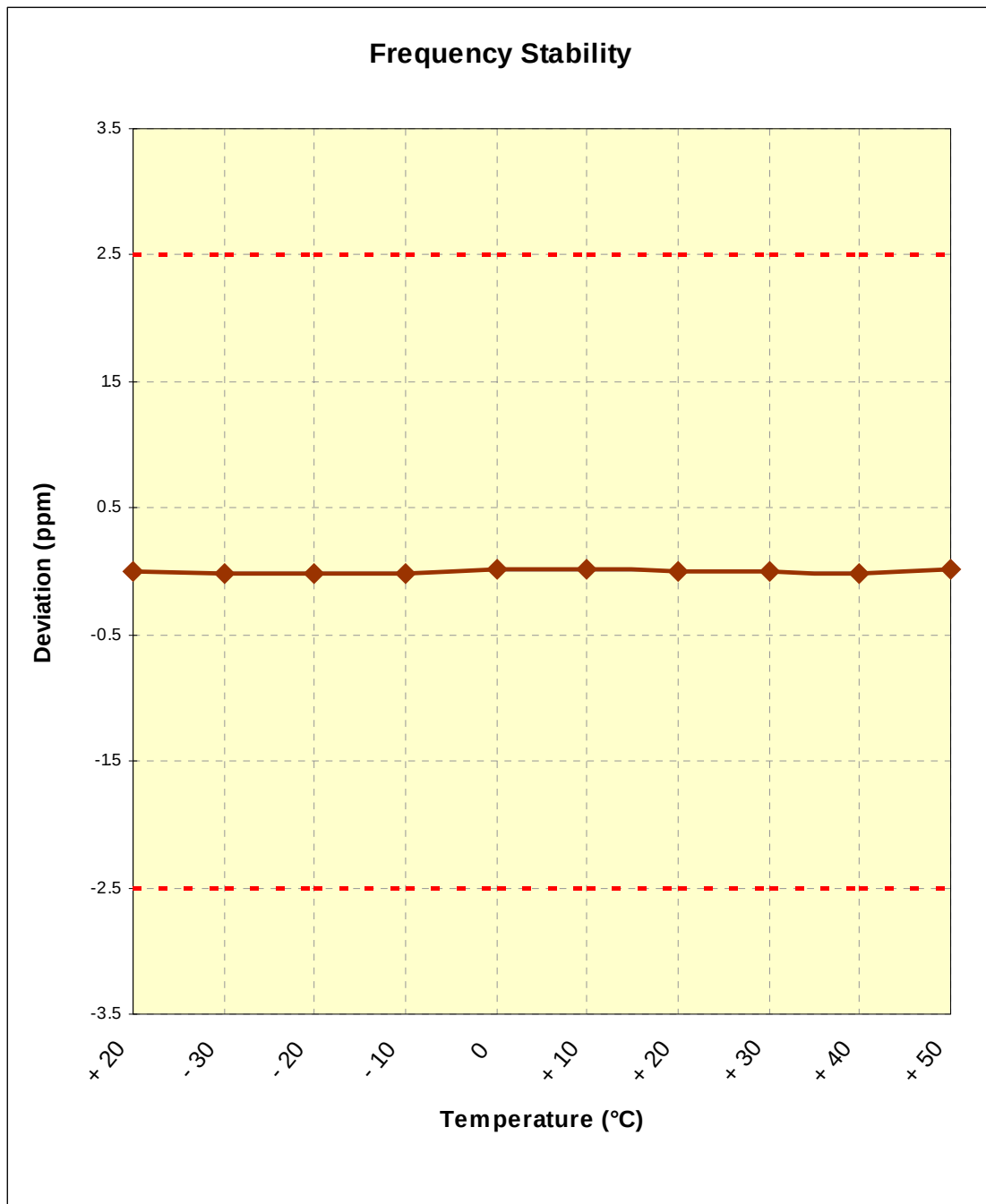


Figure 6-3. Frequency Stability Graph (Cellular 1x CDMA Mode – Ch. 384)

FCC ID: A3LSCHI535		FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
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6.14 PCS GSM Frequency Stability Measurements

§2.1055, 24.235; RSS-133 (6.3)

OPERATING FREQUENCY: 1,880,000,000 Hz

CHANNEL: 661

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)	1,879,999,990	-10	-0.000001
100 %		- 30	1,879,999,979	-21	-0.000001
100 %		- 20	1,879,999,982	-18	-0.000001
100 %		- 10	1,880,000,011	11	0.000001
100 %		0	1,879,999,981	-19	-0.000001
100 %		+ 10	1,879,999,985	-15	-0.000001
100 %		+ 20	1,880,000,013	13	0.000001
100 %		+ 30	1,880,000,011	11	0.000001
100 %		+ 40	1,879,999,989	-11	-0.000001
100 %		+ 50	1,879,999,991	-9	0.000000
115 %	4.26	+ 20	1,879,999,997	-3	0.000000
BATT. ENDPOINT	3.41	+ 20	1,879,999,988	-12	-0.000001

Table 6-32. Frequency Stability Data (PCS GSM Mode – Ch. 661)

PCS GSM Frequency Stability Measurements (Cont'd)
§2.1055, 24.235; RSS-133 (6.3)

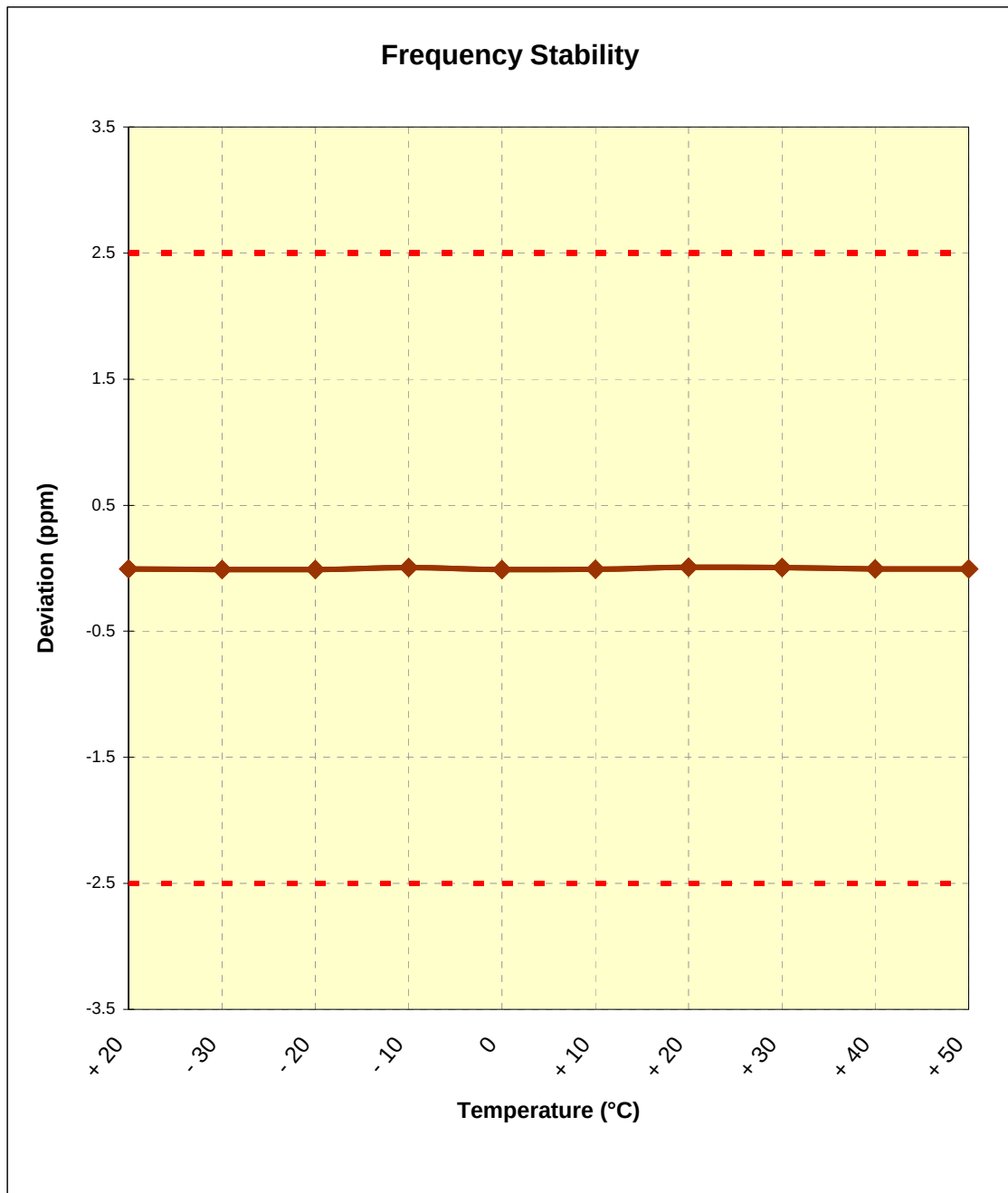


Figure 6-4. Frequency Stability Graph (PCS GSM Mode – Ch. 661)

FCC ID: A3LSCHI535		FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
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6.15 PCS EvDO 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)	1,879,999,991	-9	0.000000
100 %		- 30	1,880,000,014	14	0.000001
100 %		- 20	1,879,999,982	-18	-0.000001
100 %		- 10	1,880,000,006	6	0.000000
100 %		0	1,879,999,989	-11	-0.000001
100 %		+ 10	1,880,000,017	17	0.000001
100 %		+ 20	1,879,999,979	-21	-0.000001
100 %		+ 30	1,880,000,005	5	0.000000
100 %		+ 40	1,880,000,020	20	0.000001
100 %		+ 50	1,879,999,986	-14	-0.000001
115 %	4.26	+ 20	1,879,999,992	-8	0.000000
BATT. ENDPOINT	3.41	+ 20	1,880,000,010	10	0.000001

Table 6-33. Frequency Stability Data (PCS EvDO Mode – Ch. 600)

PCS EvDO Frequency Stability Measurements (Cont'd)
§2.1055, 24.235; RSS-133 (6.3)

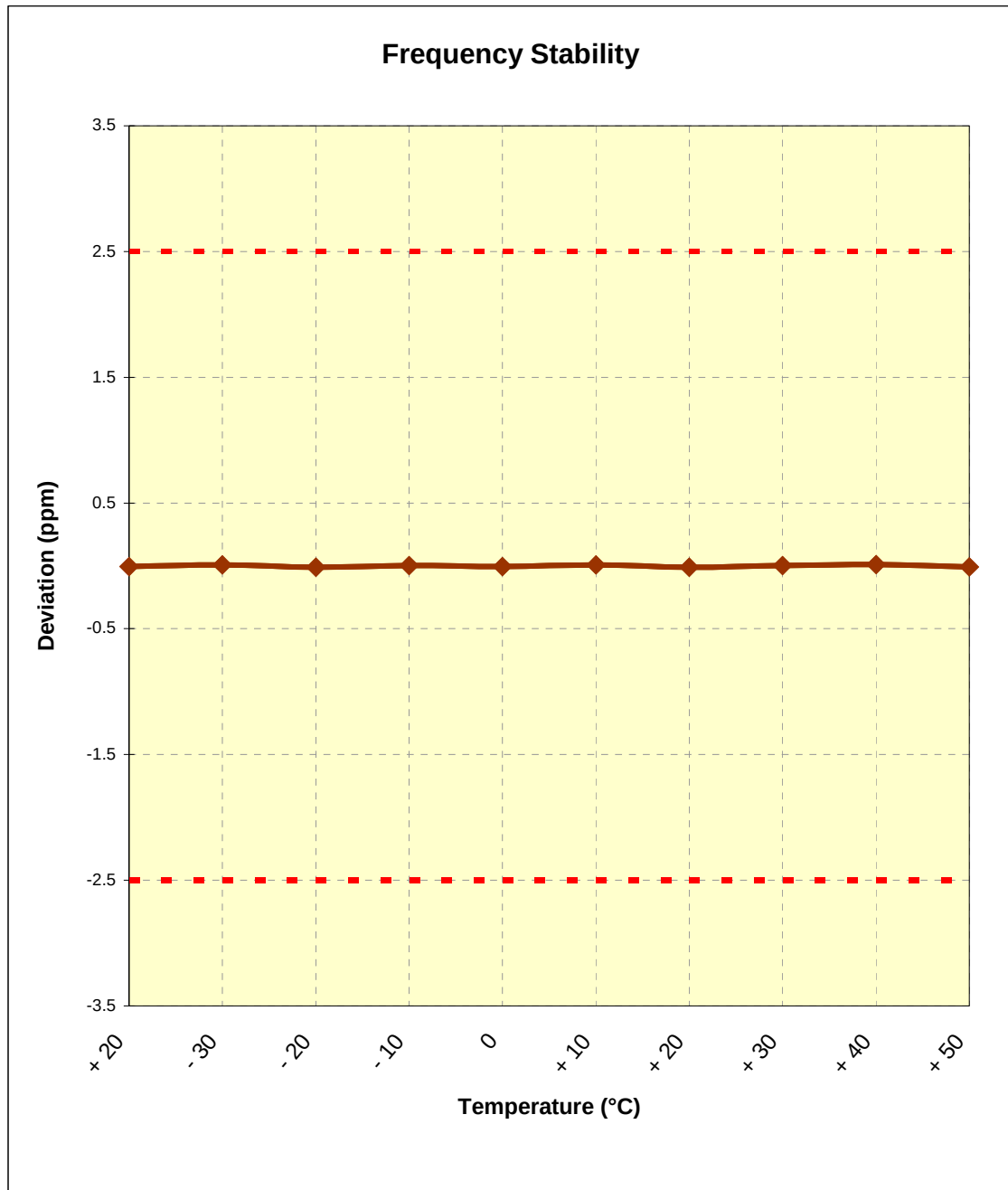


Figure 6-5. Frequency Stability Graph (PCS EvDO Mode – Ch. 600)

FCC ID: A3LSCHI535		FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
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6.16 PCS 1x 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)	1,880,000,007	7	0.000000
100 %		- 30	1,880,000,015	15	0.000001
100 %		- 20	1,880,000,010	10	0.000001
100 %		- 10	1,880,000,007	7	0.000000
100 %		0	1,880,000,013	13	0.000001
100 %		+ 10	1,880,000,006	6	0.000000
100 %		+ 20	1,880,000,014	14	0.000001
100 %		+ 30	1,880,000,023	23	0.000001
100 %		+ 40	1,880,000,015	15	0.000001
100 %		+ 50	1,880,000,020	20	0.000001
115 %	4.26	+ 20	1,880,000,012	12	0.000001
BATT. ENDPOINT	3.41	+ 20	1,880,000,014	14	0.000001

Table 6-34. Frequency Stability Data (PCS 1x CDMA Mode – Ch. 600)

PCS 1x CDMA Frequency Stability Measurements (Cont'd)
§2.1055, 24.235; RSS-133 (6.3)

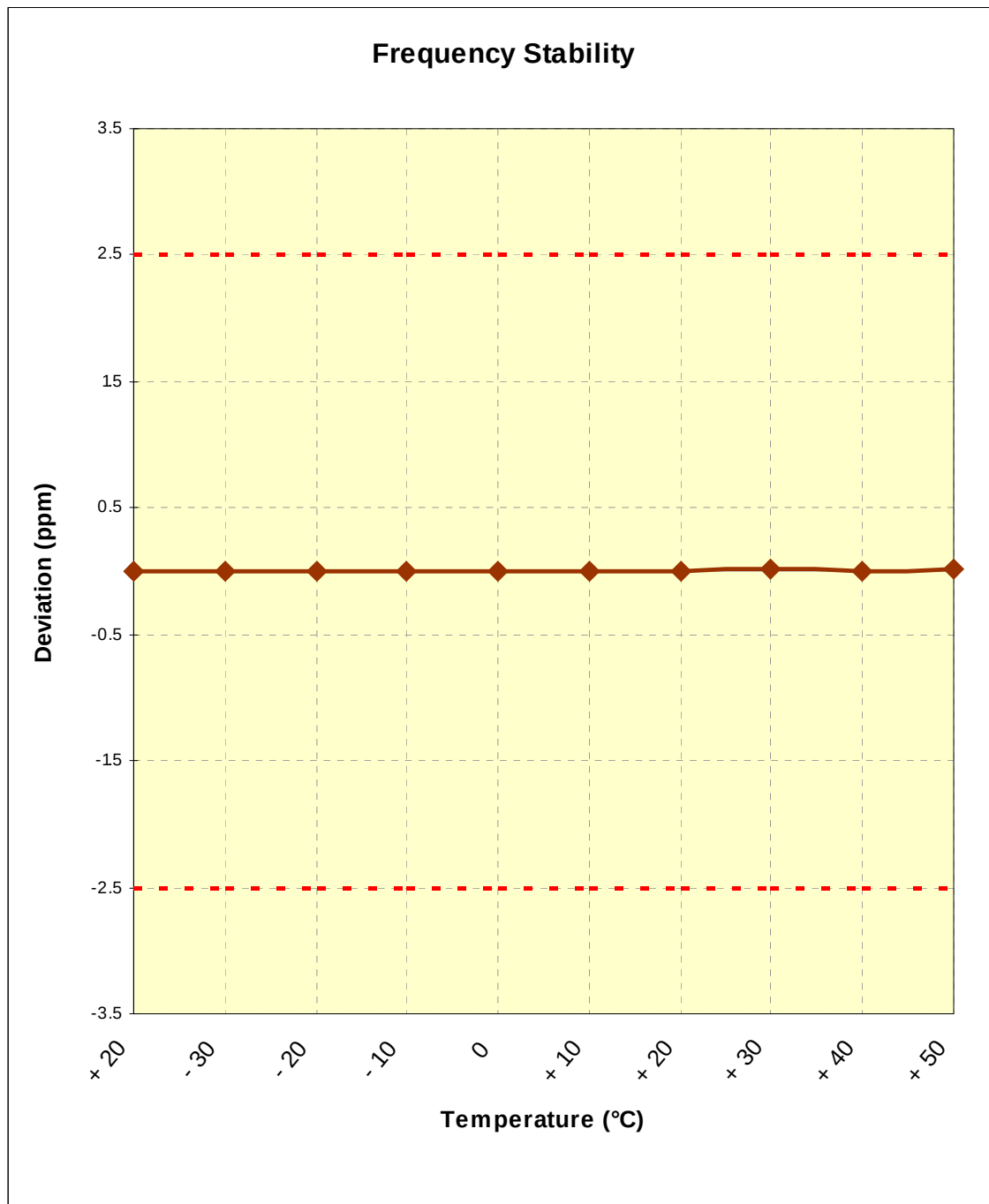
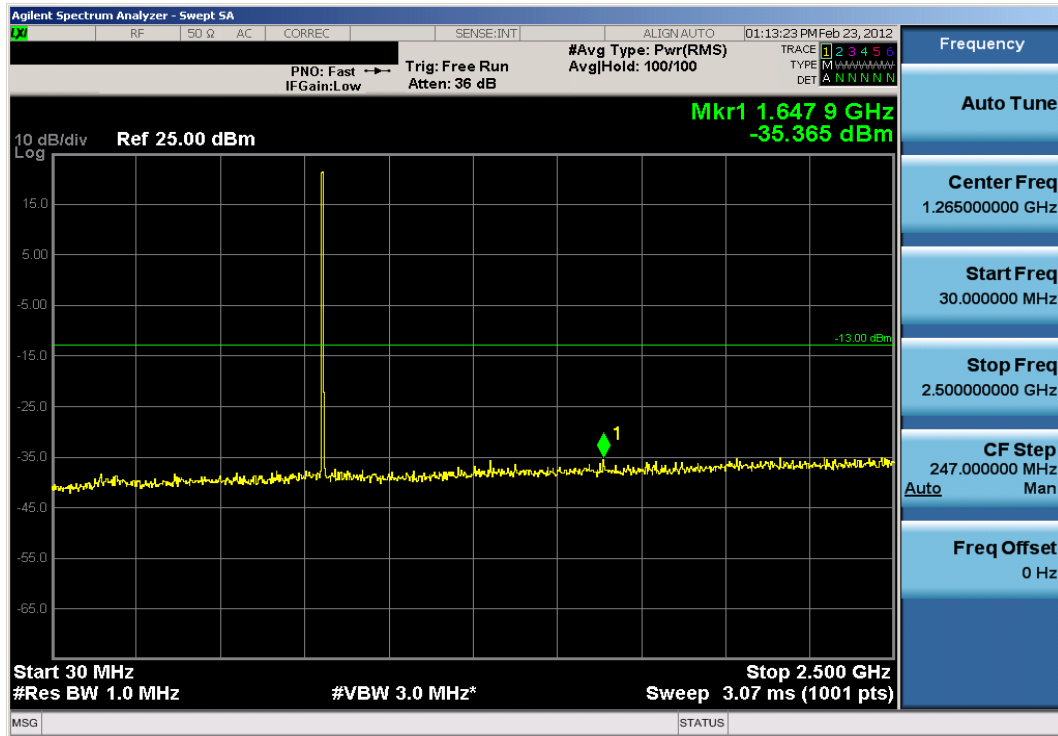


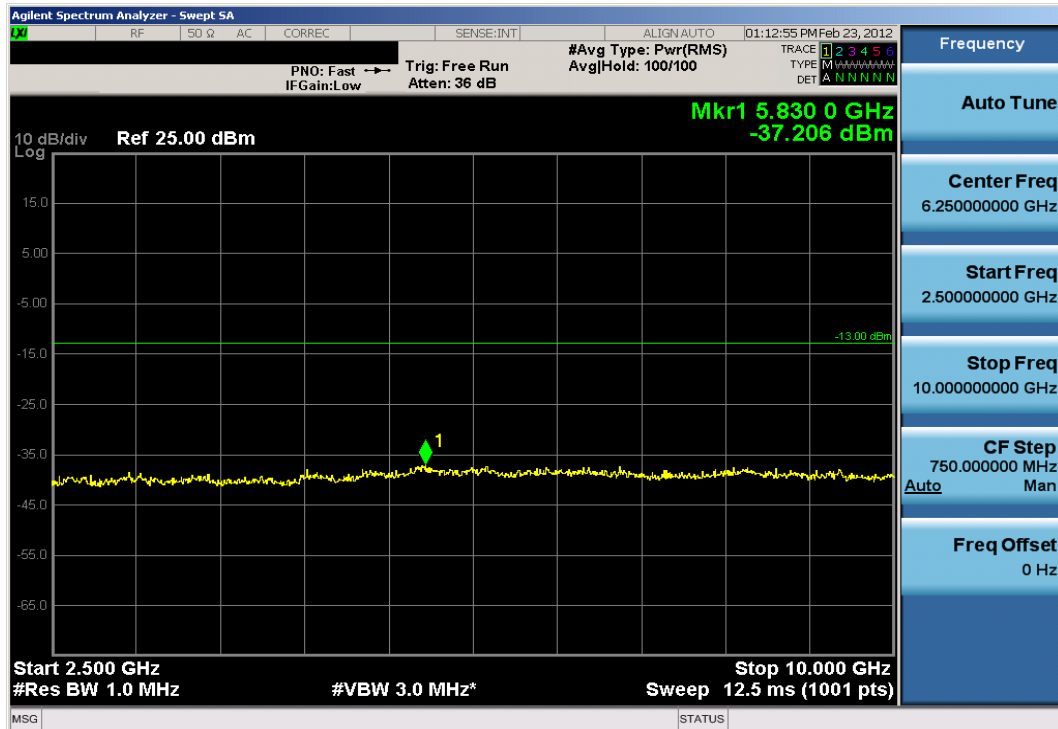
Figure 6-6. Frequency Stability Graph (PCS 1x CDMA Mode – Ch. 600)

FCC ID: A3LSCHI535		FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
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7.0 PLOTS OF EMISSIONS – TRANSMITTER #1

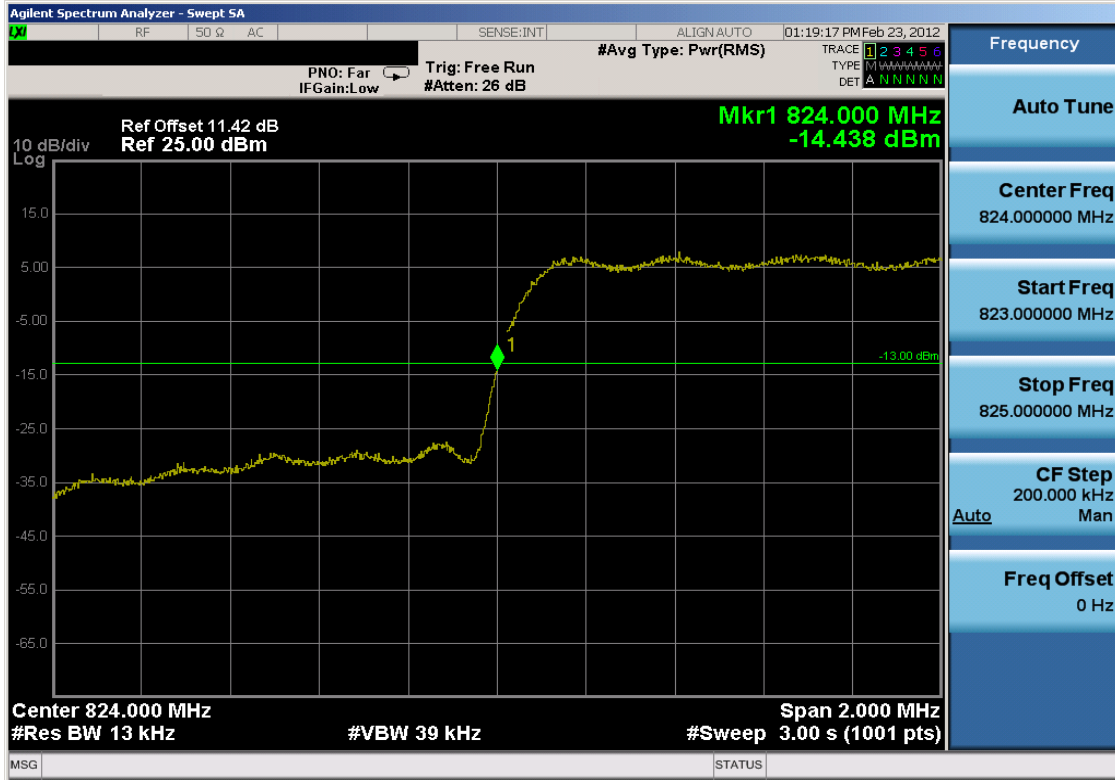


Plot 7-1. Conducted Spurious Plot (Cellular 1x CDMA Mode – Ch. 1013)

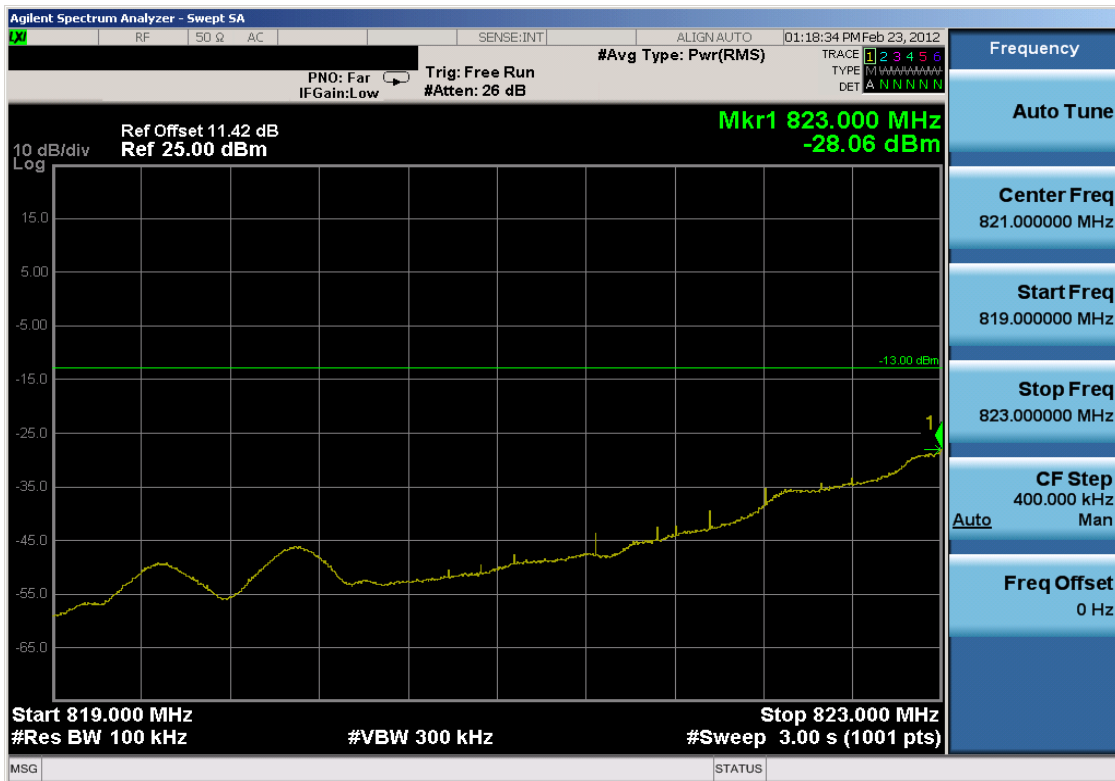


Plot 7-2. Conducted Spurious Plot (Cellular 1x CDMA Mode – Ch. 1013)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
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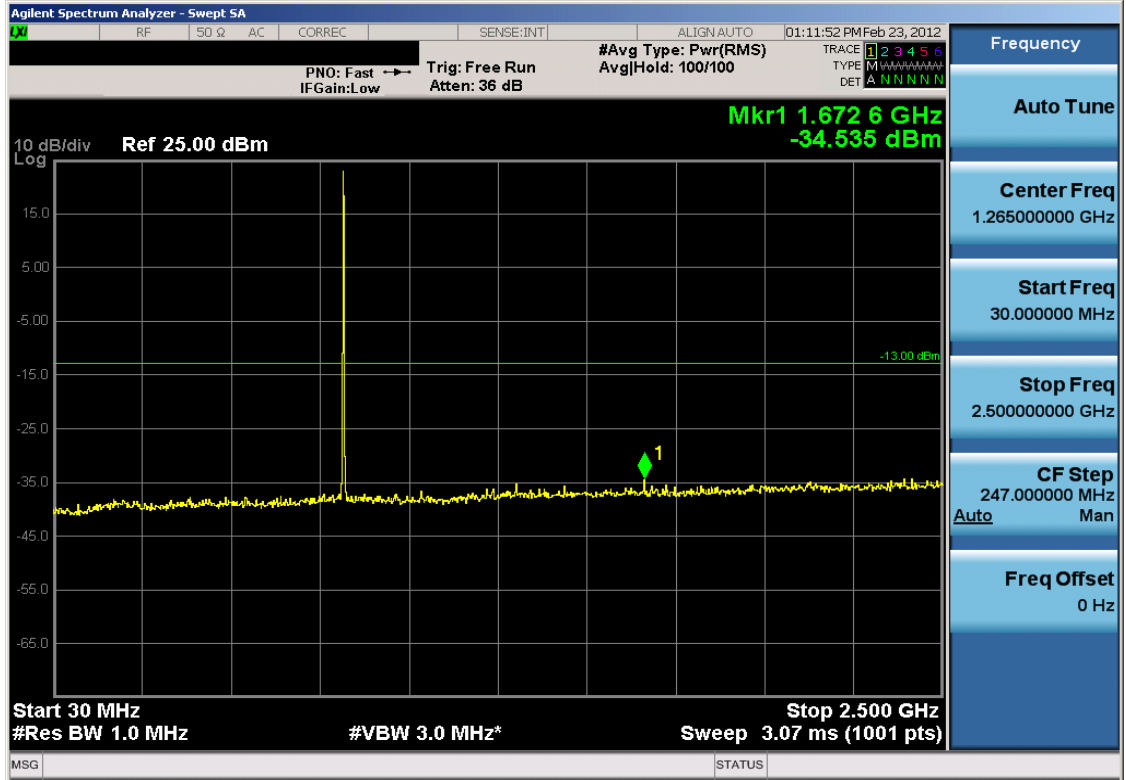


Plot 7-3. Band Edge Plot (Cellular 1x CDMA Mode – Ch. 1013)

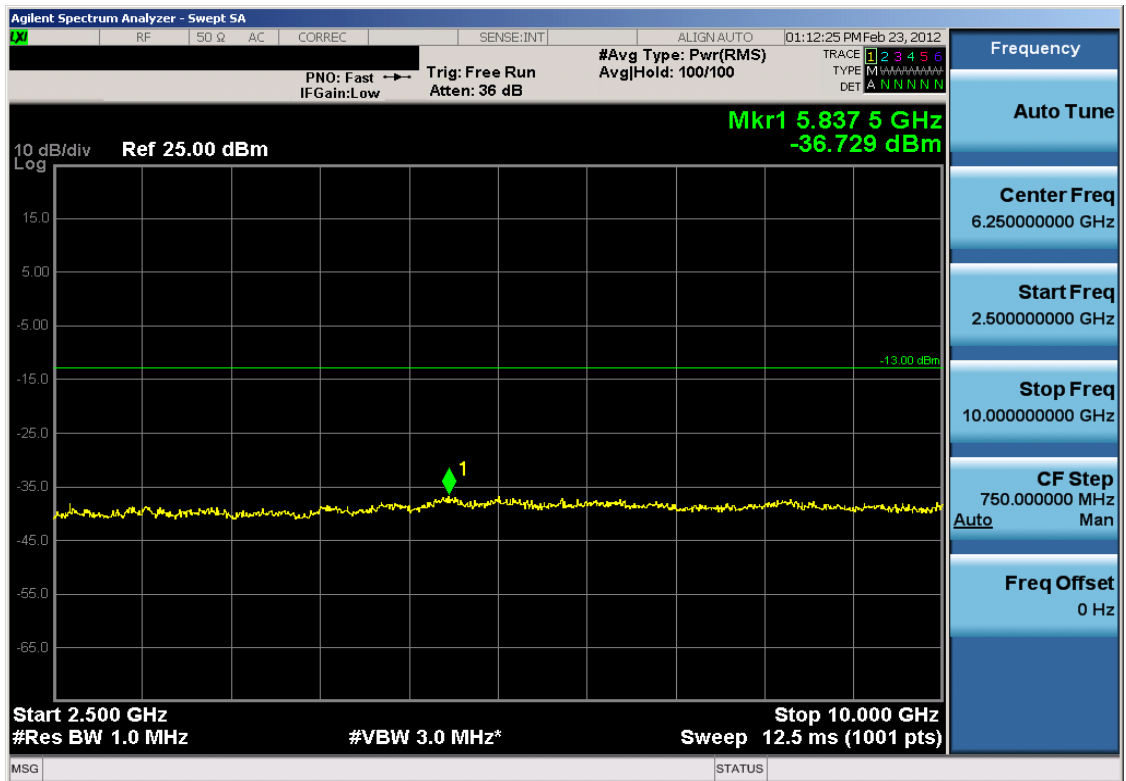


Plot 7-4. 4MHz Span Plot (Cellular 1x CDMA Mode – Ch. 1013)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
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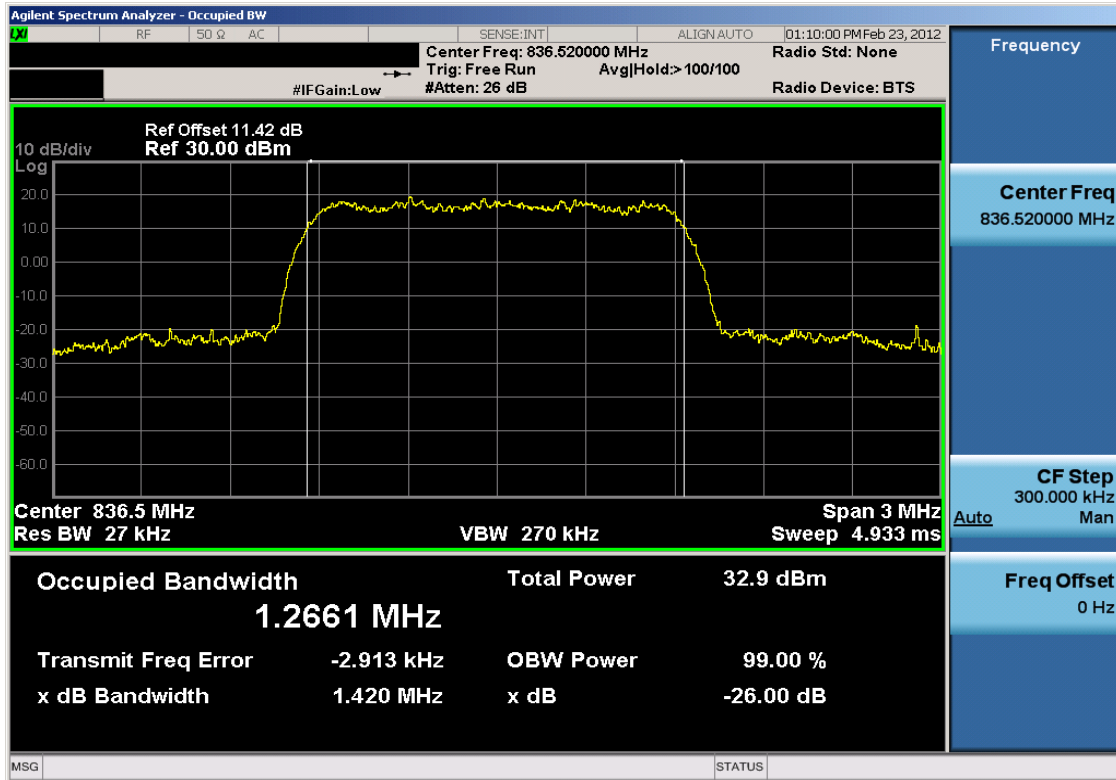


Plot 7-5. Conducted Spurious Plot (Cellular 1x CDMA Mode – Ch. 384)

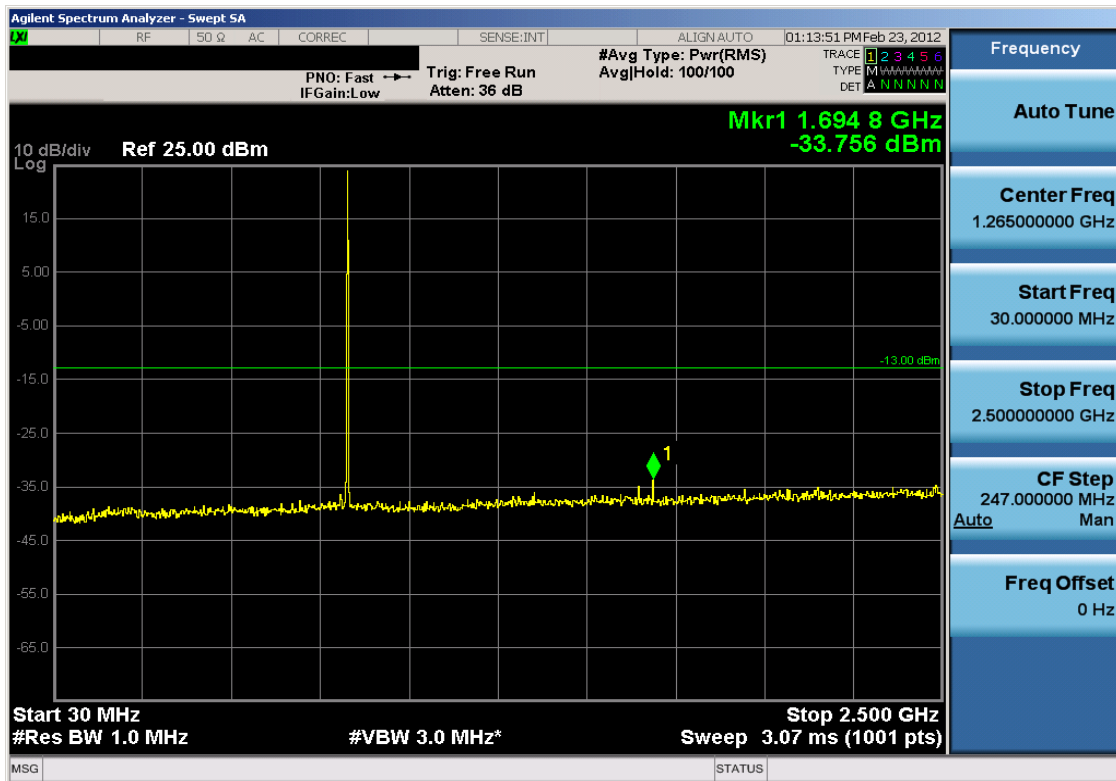


Plot 7-6. Conducted Spurious Plot (Cellular 1x CDMA Mode – Ch. 384)

FCC ID: A3LSCHI535		FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
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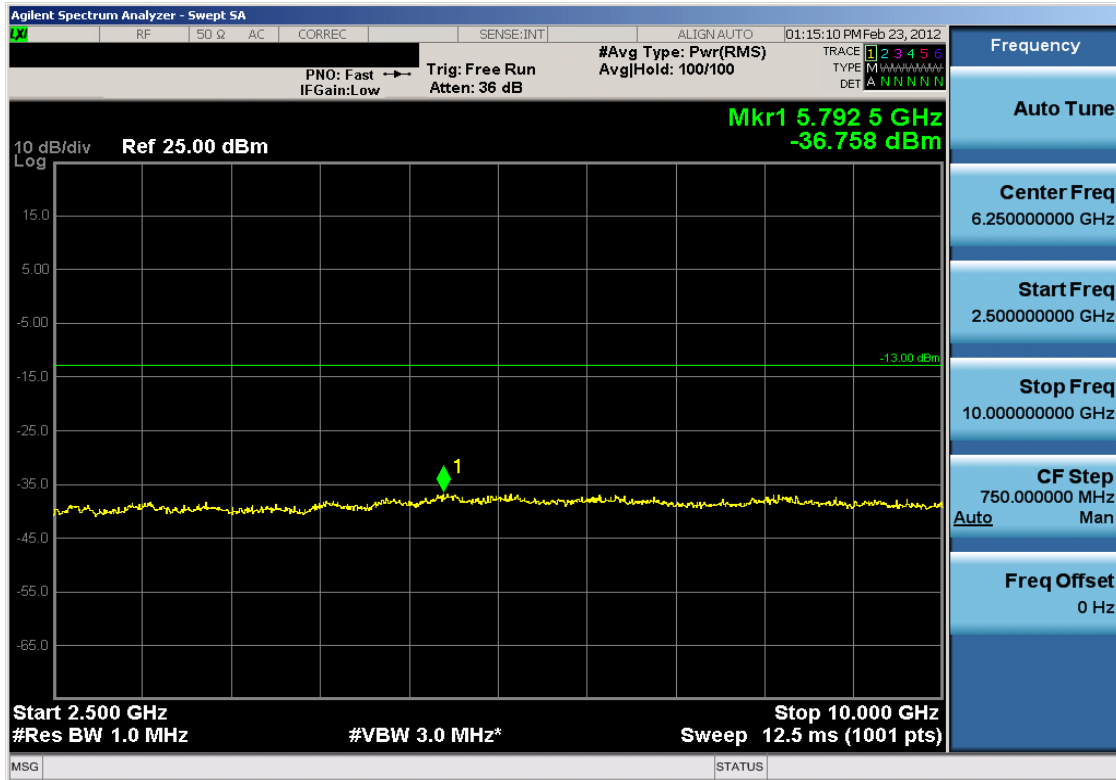


Plot 7-7. Occupied Bandwidth Plot (Cellular 1x CDMA Mode – Ch. 384)

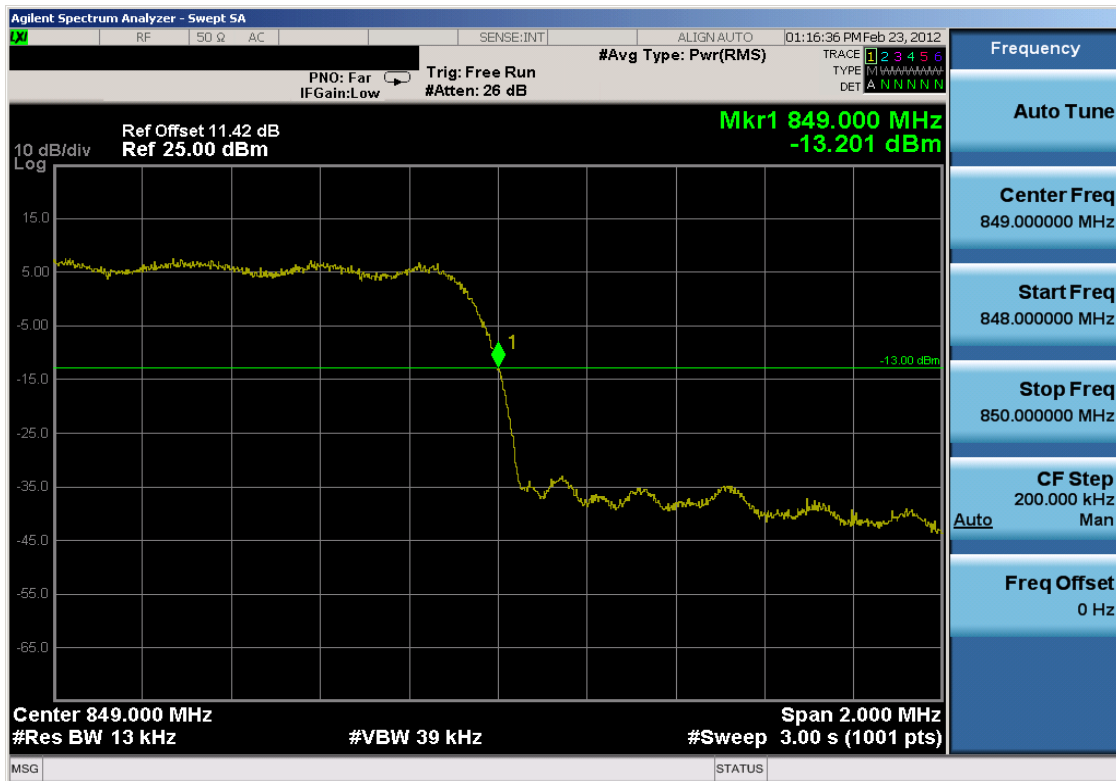


Plot 7-8. Conducted Spurious Plot (Cellular 1x CDMA Mode – Ch. 777)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
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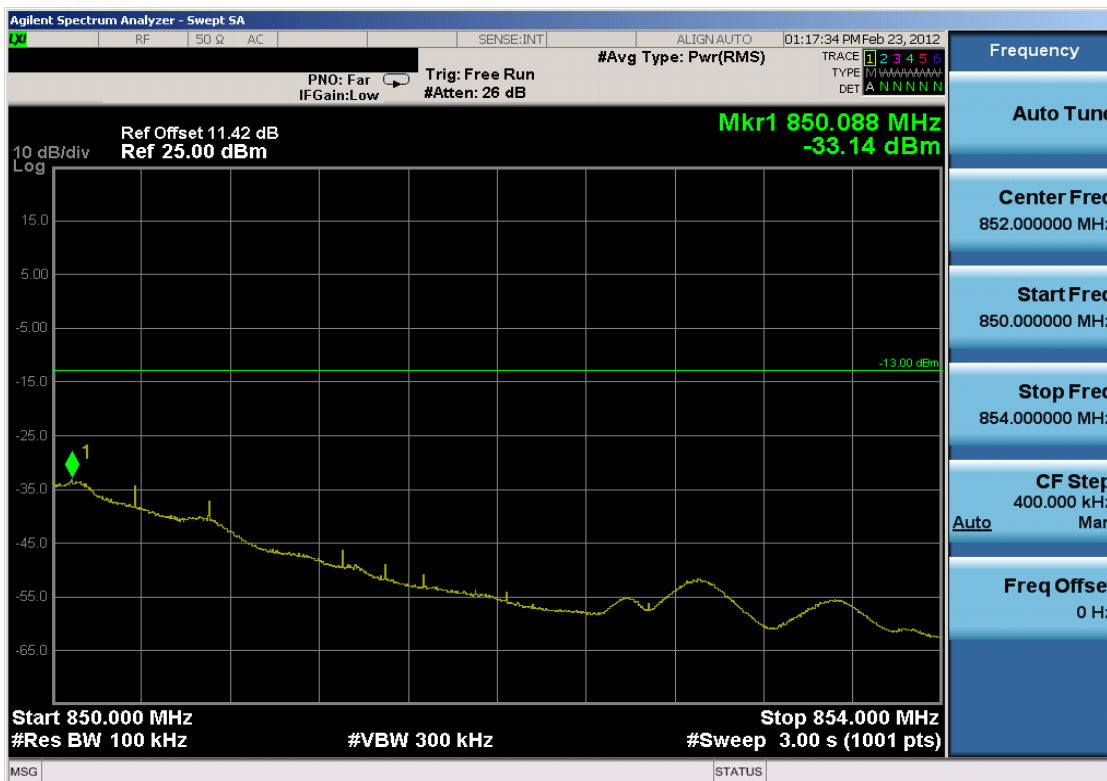


Plot 7-9. Conducted Spurious Plot (Cellular 1x CDMA Mode – Ch. 777)

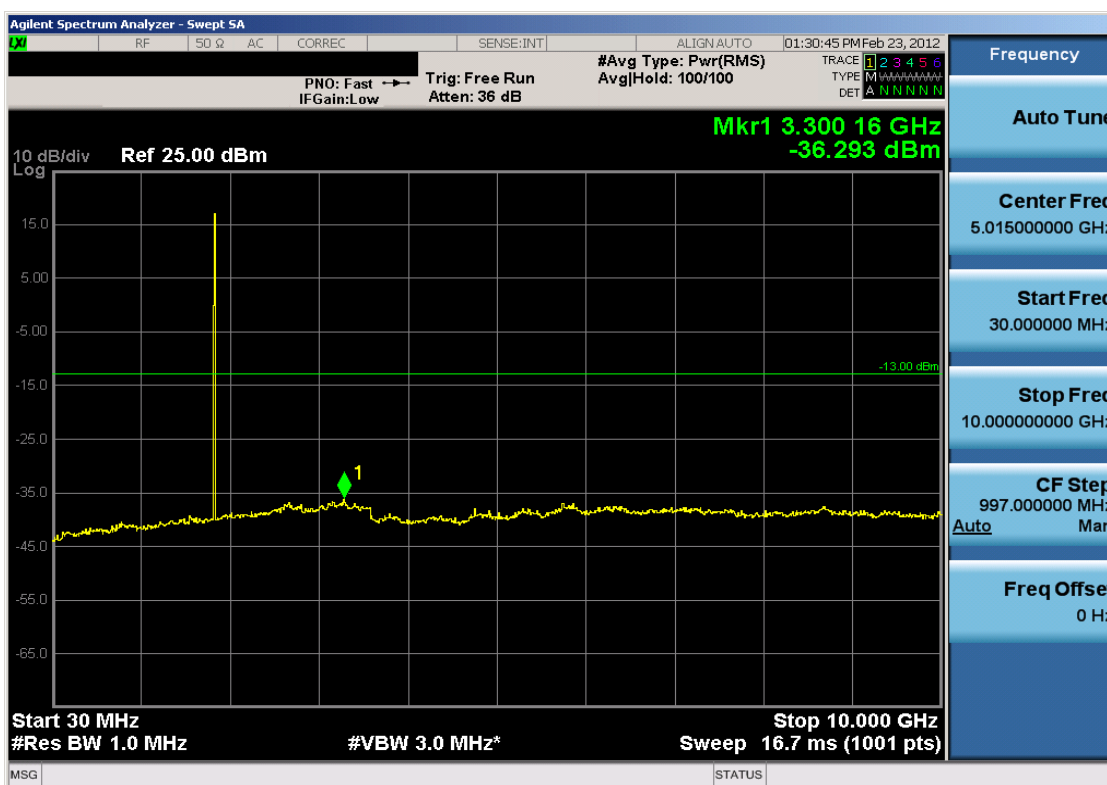


Plot 7-10. Band Edge Plot (Cellular 1x CDMA Mode – Ch. 777)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
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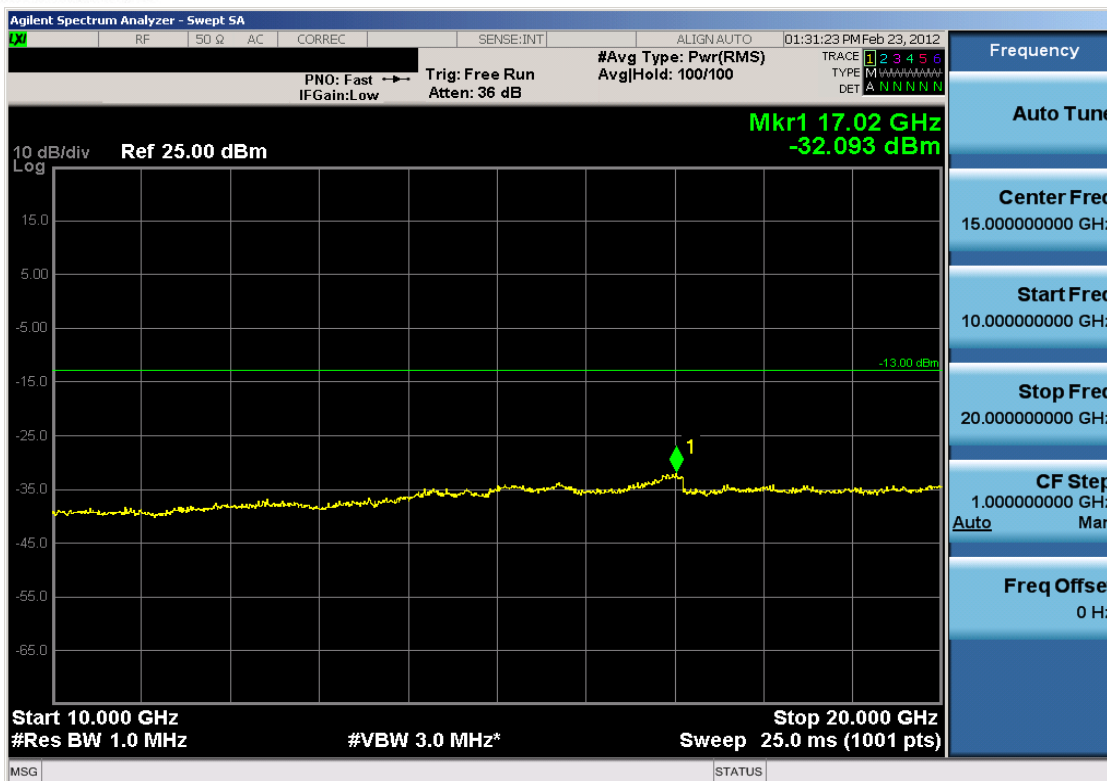


Plot 7-11. 4MHz Span Plot (Cellular 1x CDMA Mode – Ch. 777)

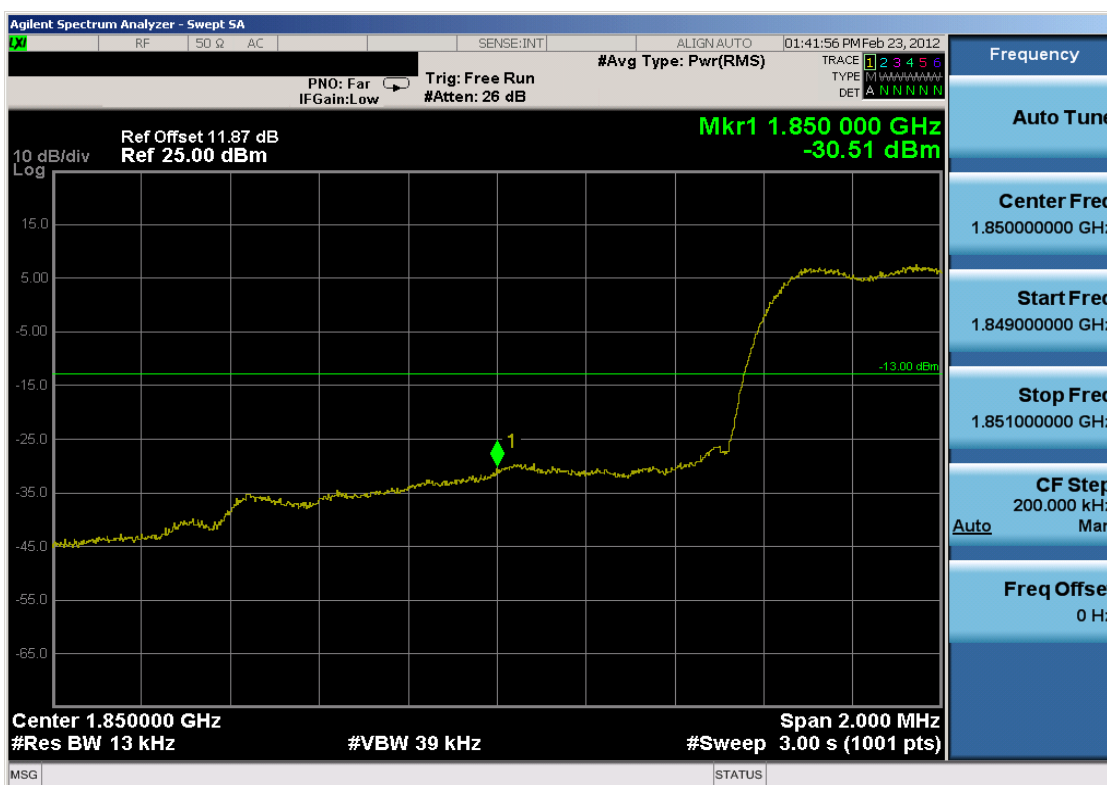


Plot 7-12. Conducted Spurious Plot (PCS 1x CDMA Mode – Ch. 25)

FCC ID: A3LSCHI535	 FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION) 		Reviewed by: Quality Manager
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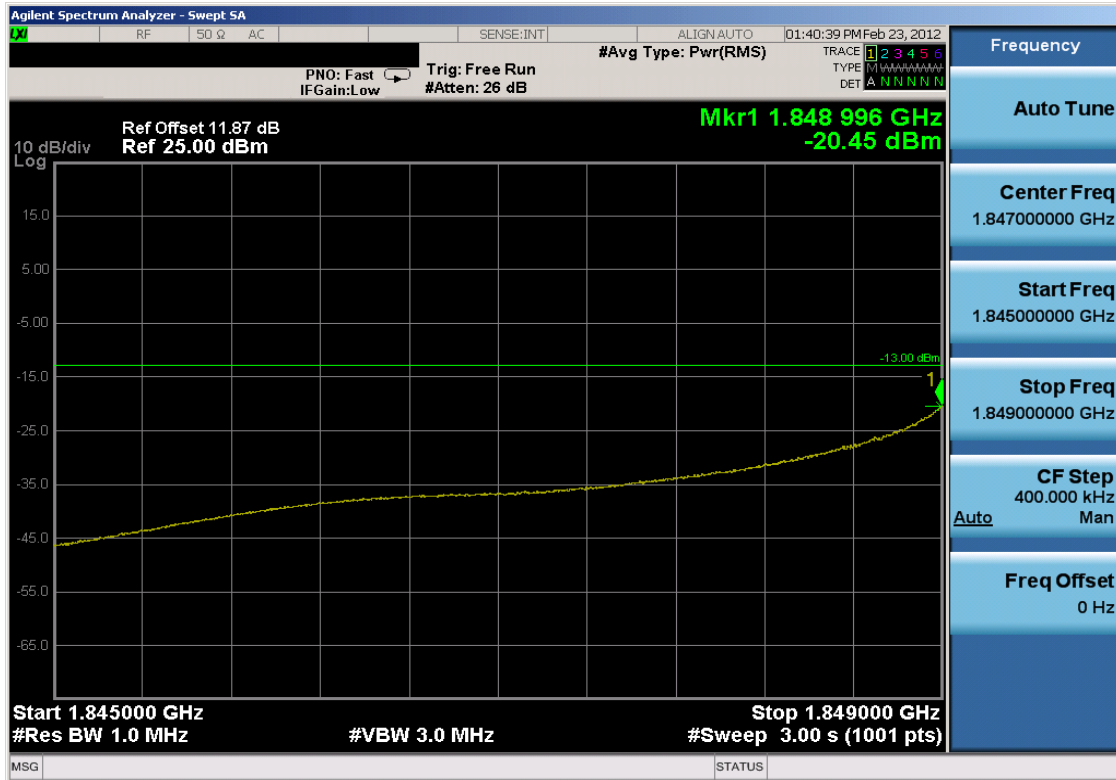


Plot 7-13. Conducted Spurious Plot (PCS 1x CDMA Mode – Ch. 25)

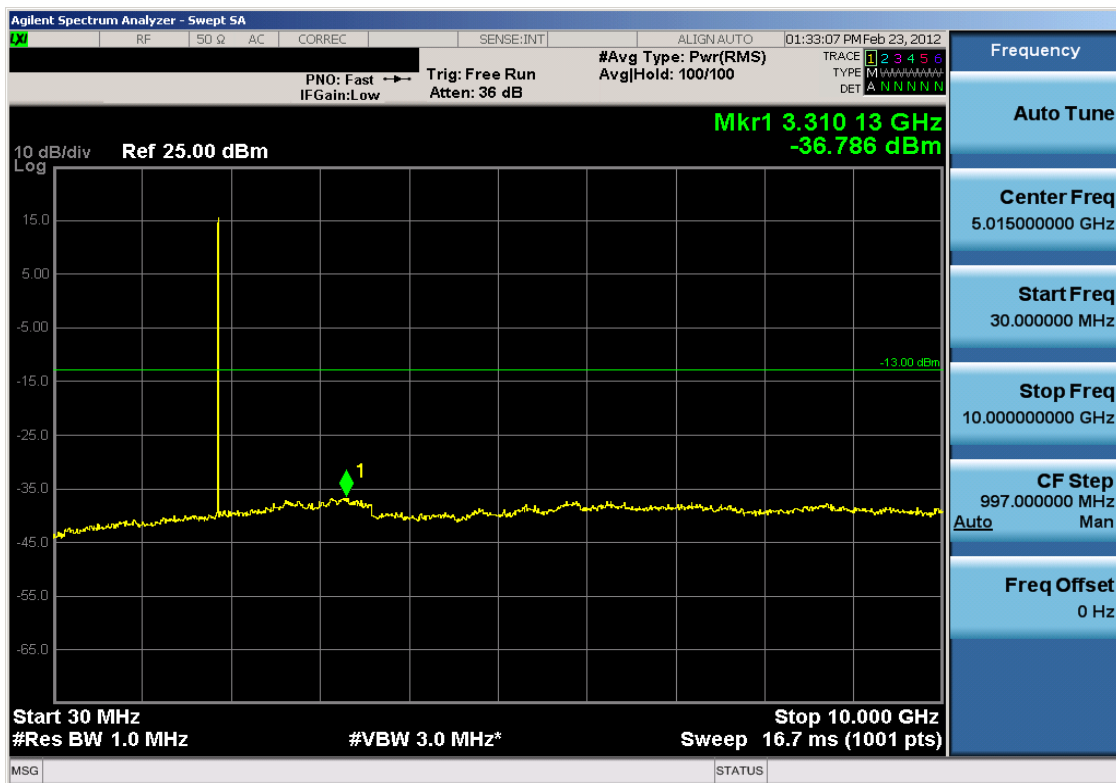


Plot 7-14. Band Edge Plot (PCS 1x CDMA Mode – Ch. 25)

FCC ID: A3LSCH1535		 FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION) 		Reviewed by: Quality Manager
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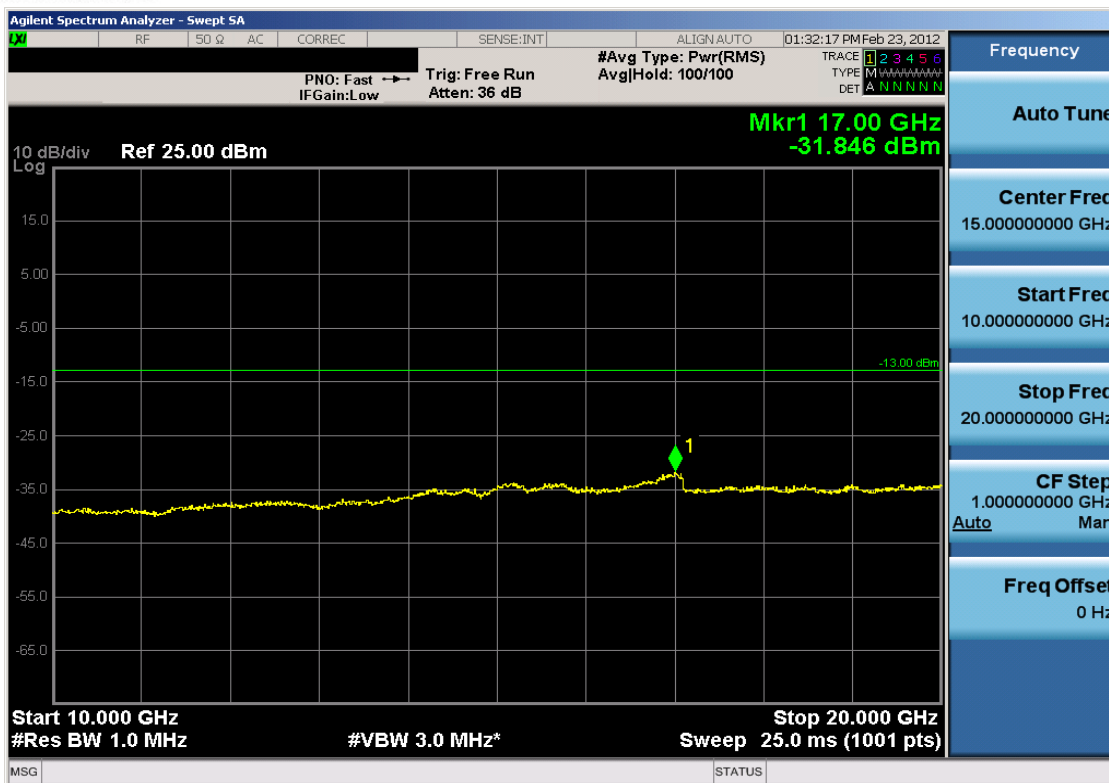


Plot 7-15. 4MHz Span Plot (PCS 1x CDMA Mode – Ch. 25)

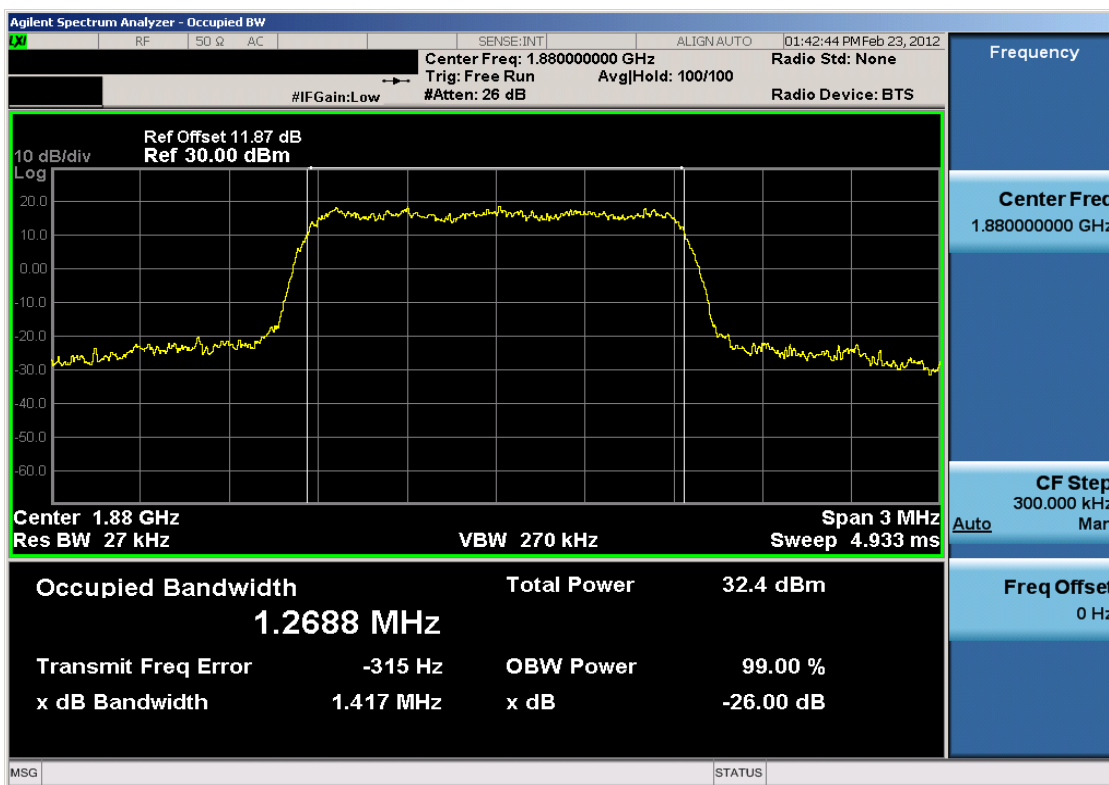


Plot 7-16. Conducted Spurious Plot (PCS 1x CDMA Mode – Ch. 600)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
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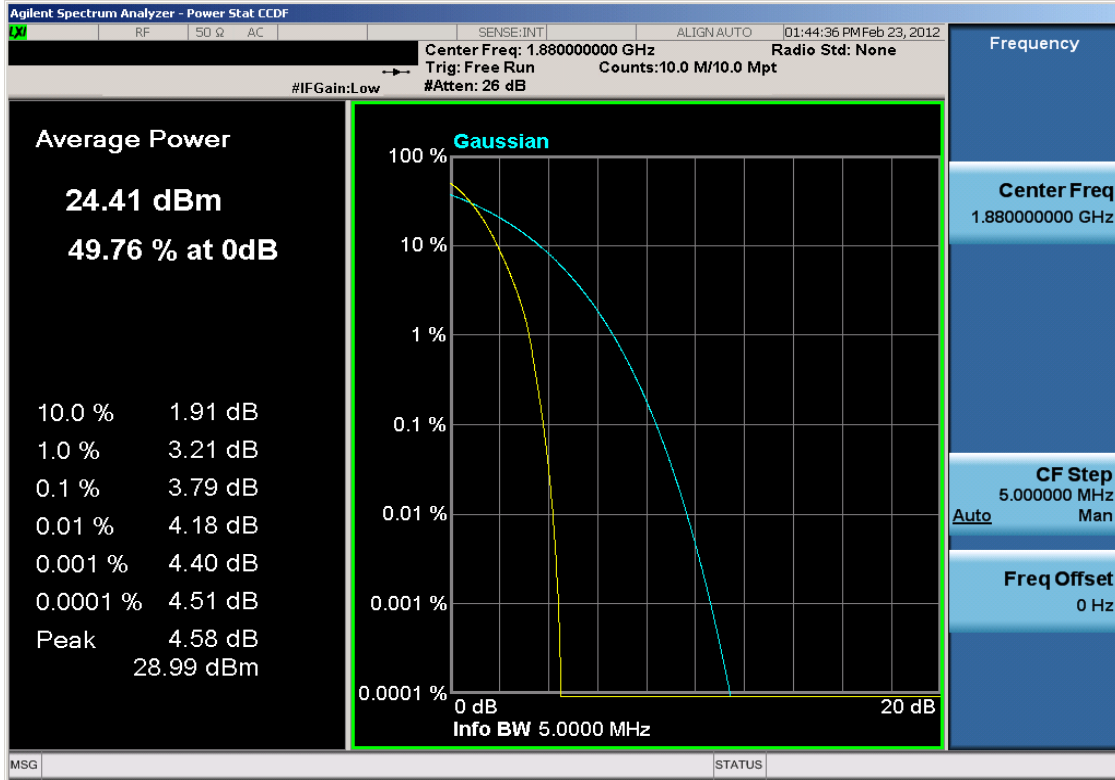


Plot 7-17. Conducted Spurious Plot (PCS 1x CDMA Mode – Ch. 600)

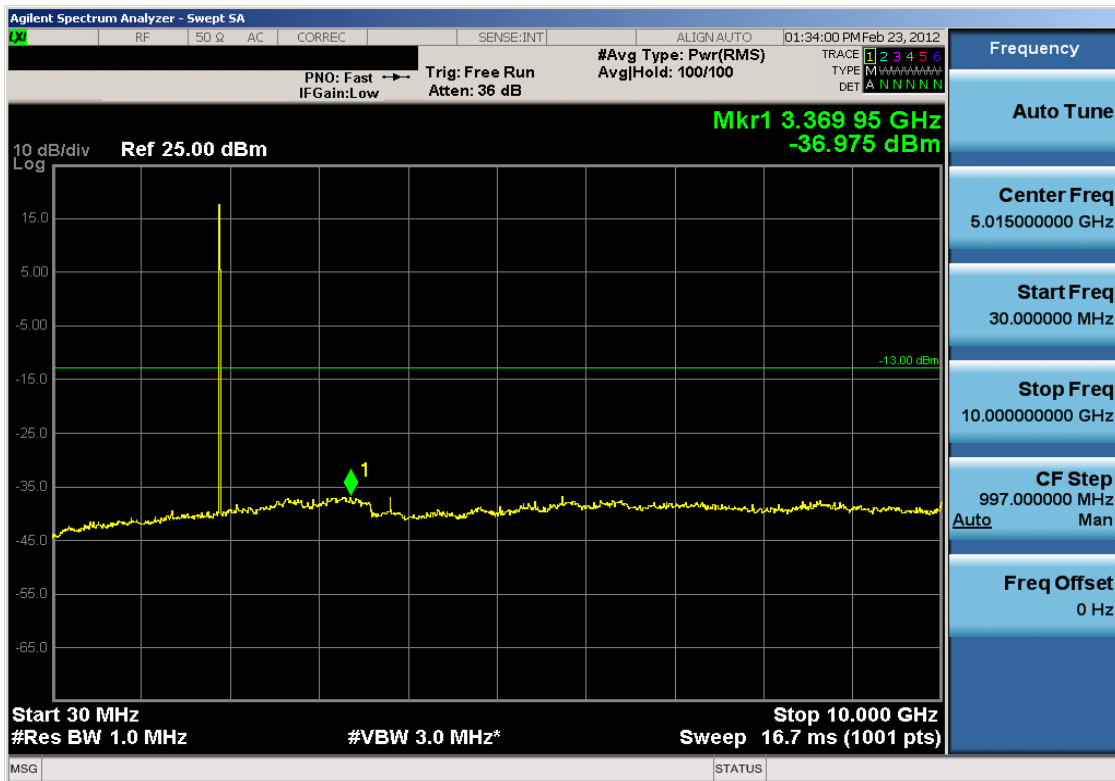


Plot 7-18. Occupied Bandwidth Plot (PCS 1x CDMA Mode – Ch. 600)

FCC ID: A3LSCH1535	 FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION) 		Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset	Page 56 of 83

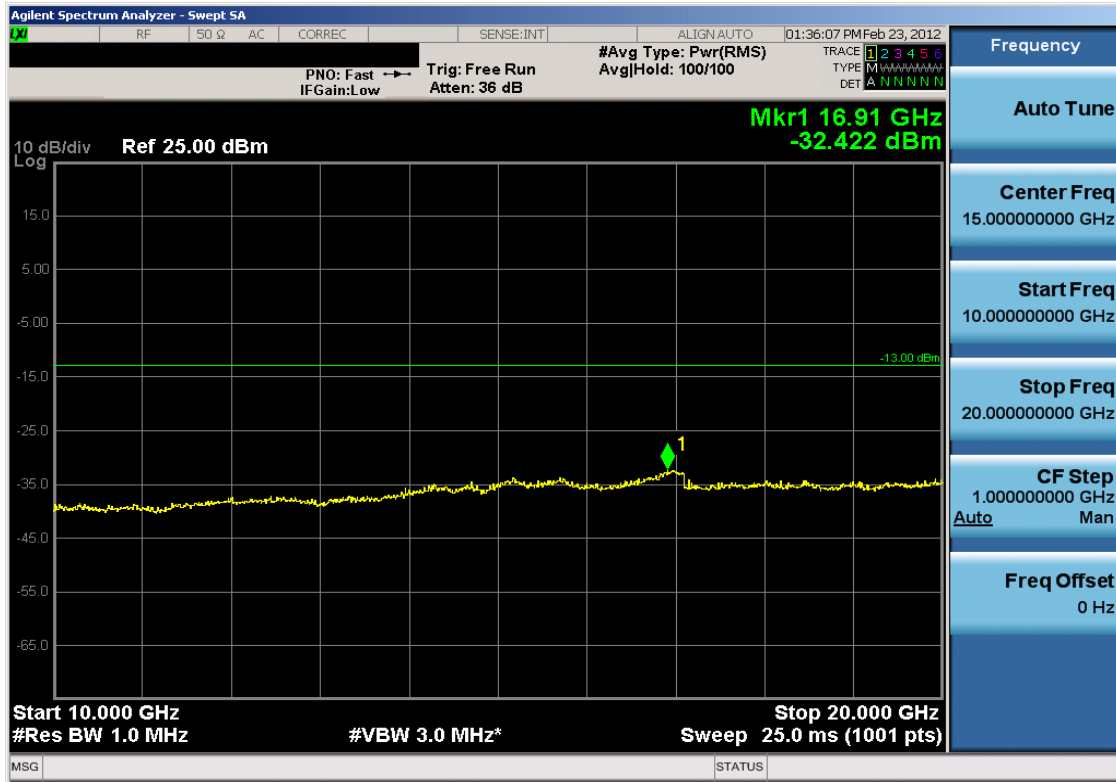


Plot 7-19. Peak-Average Ratio Plot (PCS 1x CDMA Mode – Ch. 600)

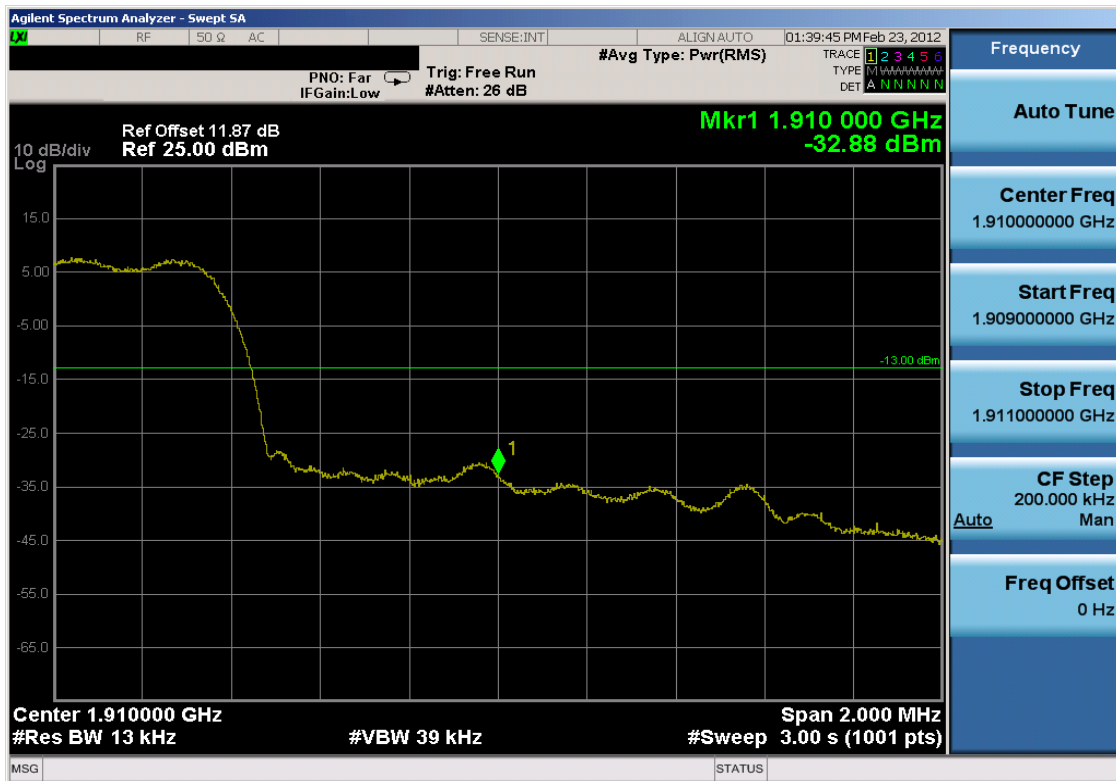


Plot 7-20. Conducted Spurious Plot (PCS 1x CDMA Mode – Ch. 1175)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 57 of 83

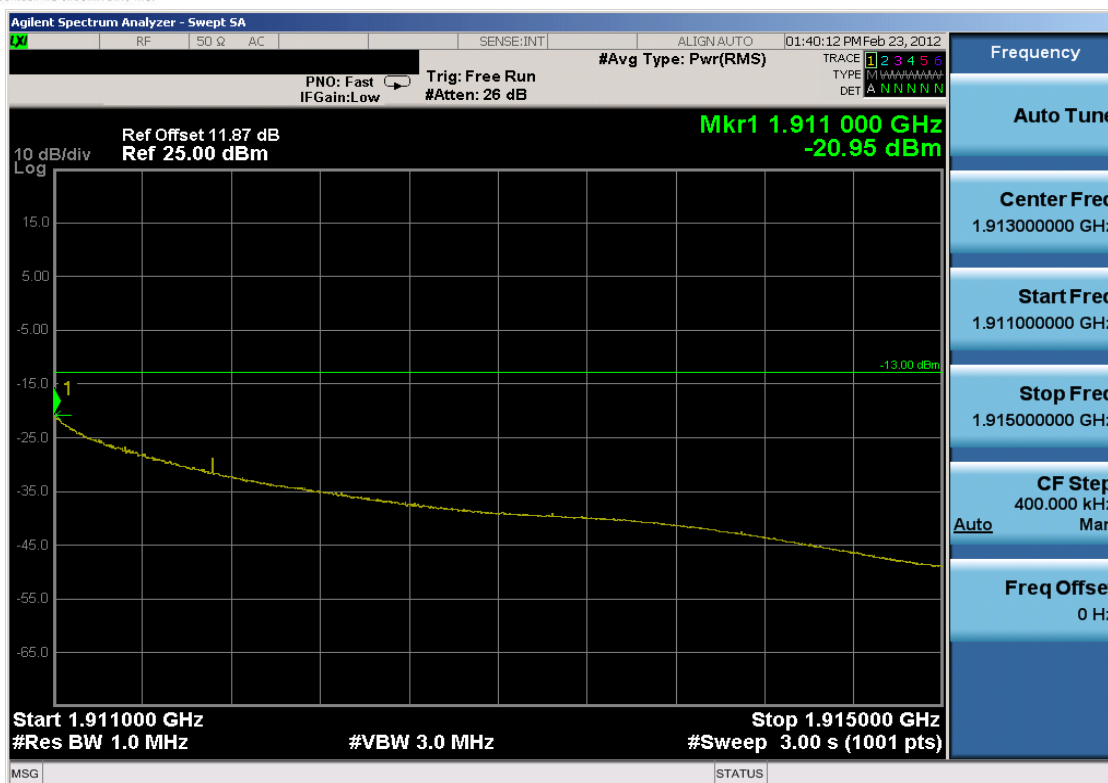


Plot 7-21. Conducted Spurious Plot (PCS 1x CDMA Mode – Ch. 1175)



Plot 7-22. Band Edge Plot (PCS 1x CDMA Mode – Ch. 1175)

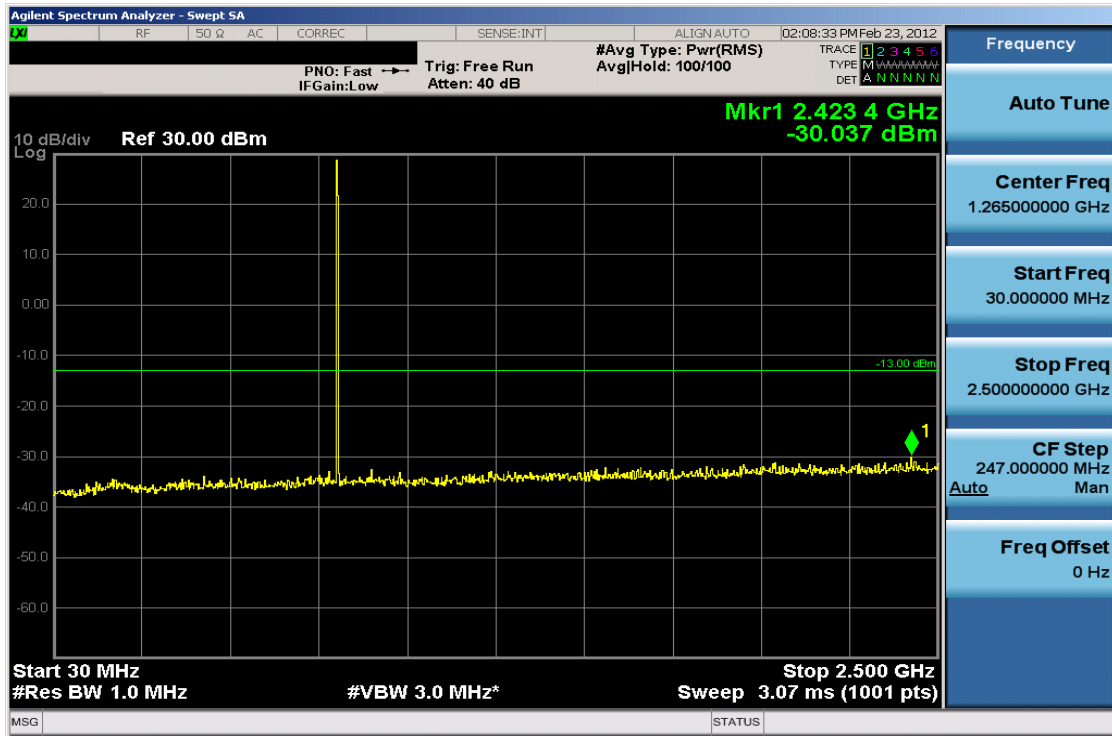
FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 58 of 83



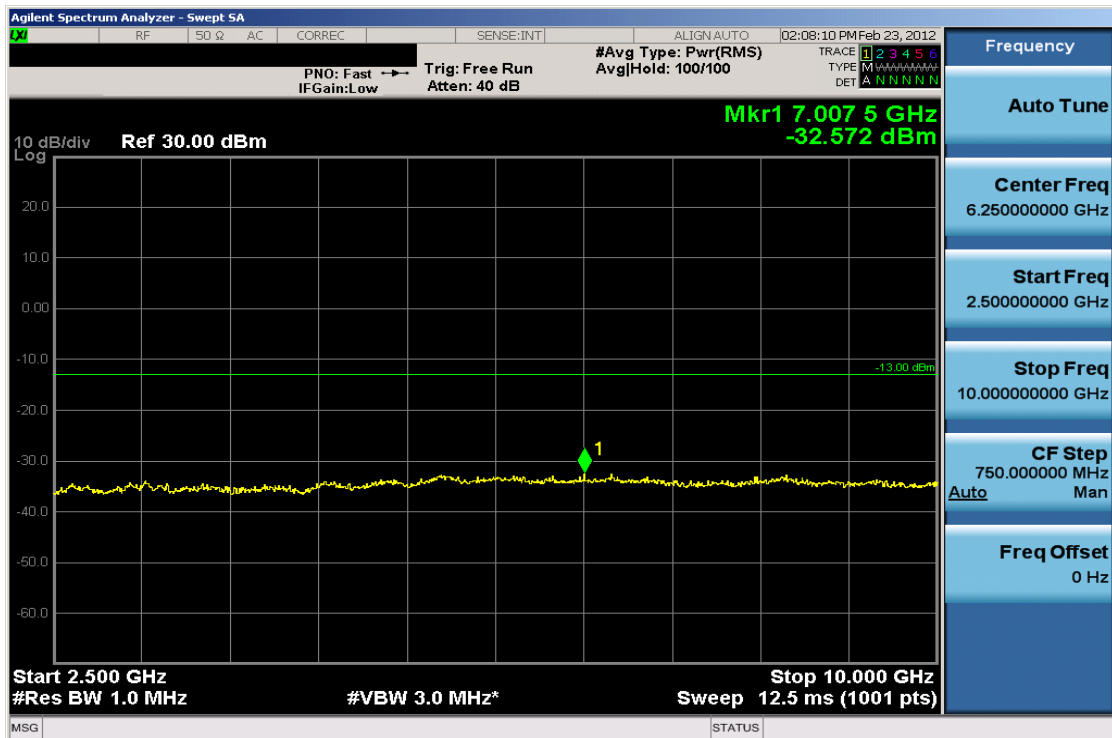
Plot 7-23. 4MHz Span Plot (PCS 1x CDMA Mode – Ch. 1175)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 59 of 83

8.0 PLOTS OF EMISSIONS – TRANSMITTER #2

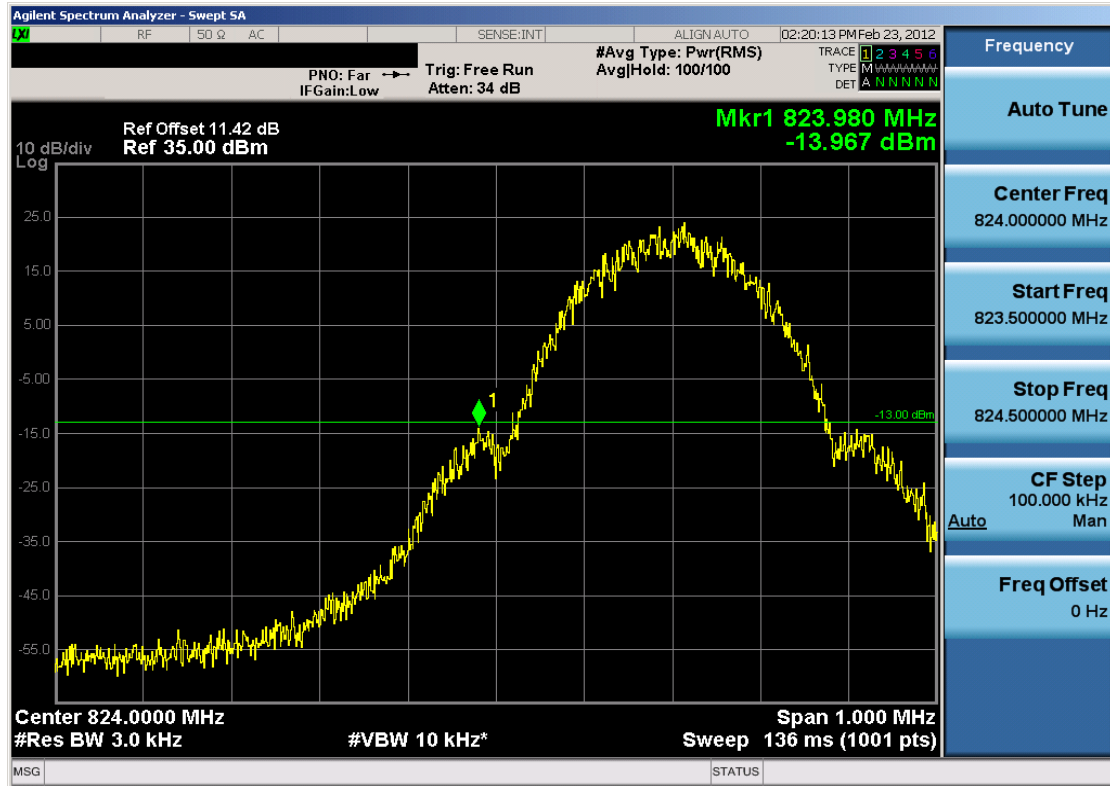


Plot 8-1. Conducted Spurious Plot (Cellular GSM Mode – Ch. 128)

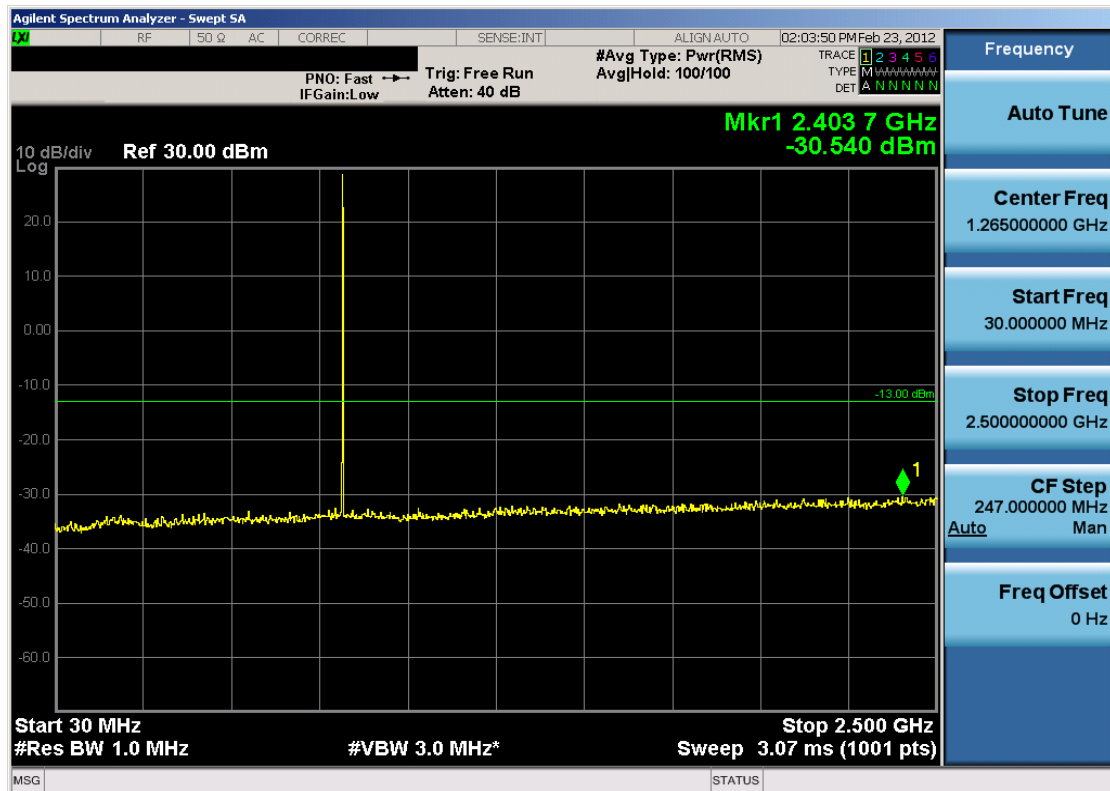


Plot 8-2. Conducted Spurious Plot (Cellular GSM Mode – Ch. 128)

FCC ID: A3LSCHI535		FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 60 of 83

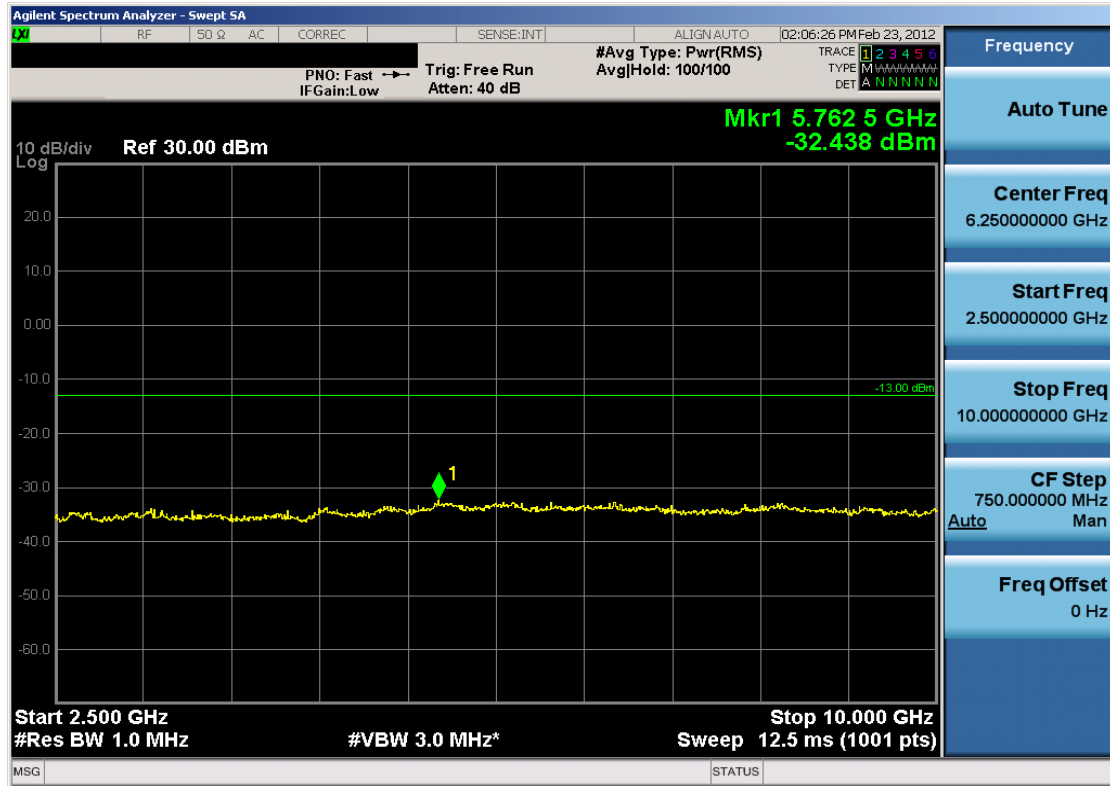


Plot 8-3. Band Edge Plot (Cellular GSM Mode – Ch. 128)

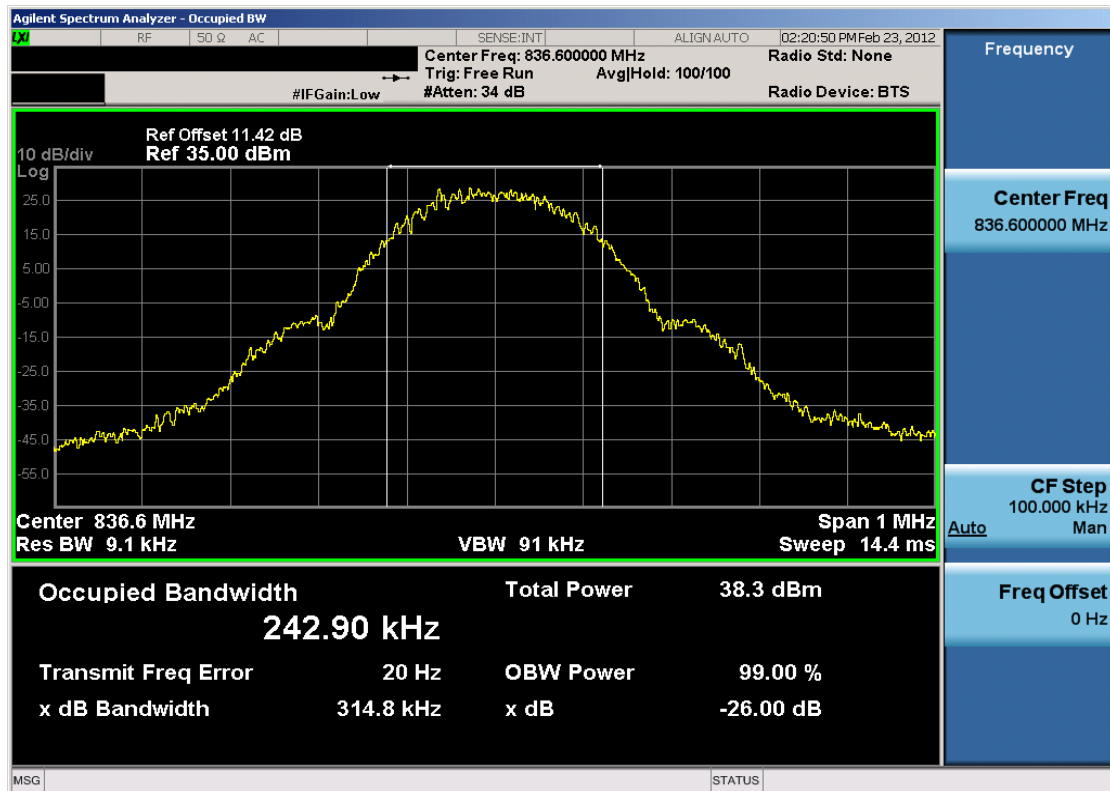


Plot 8-4. Conducted Spurious (Cellular GSM Mode – Ch. 190)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 61 of 83

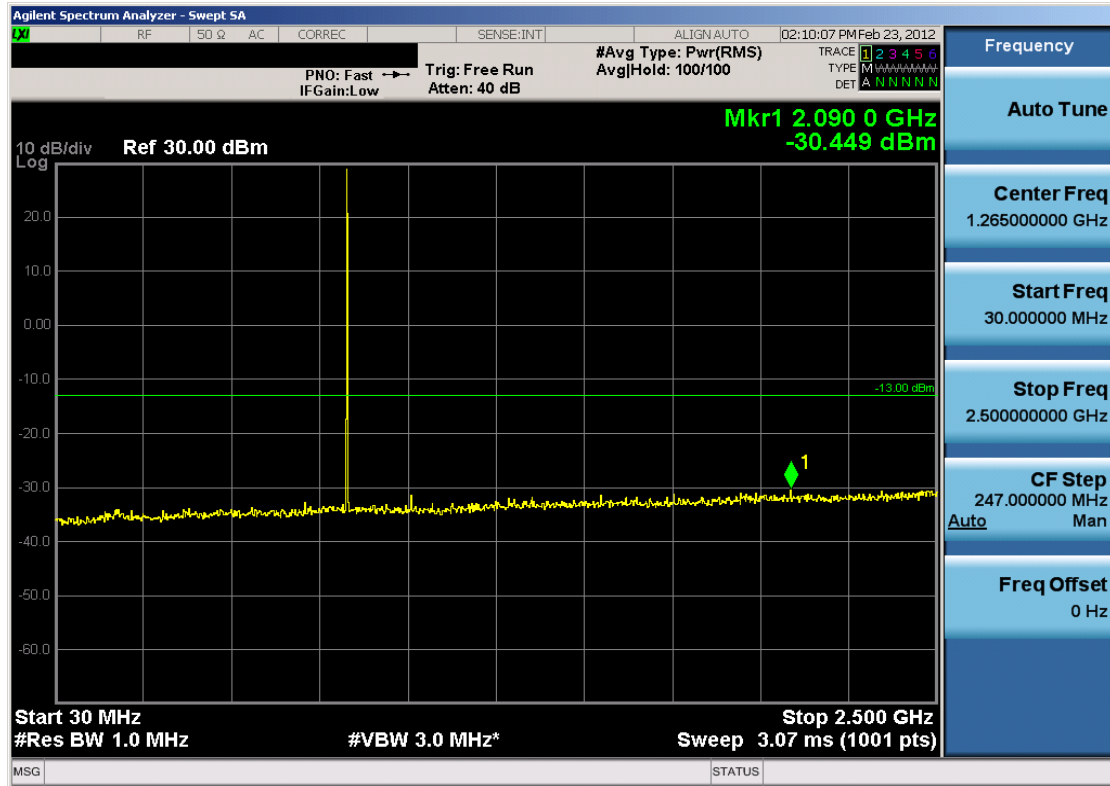


Plot 8-5. Conducted Spurious Plot (Cellular GSM Mode – Ch. 190)

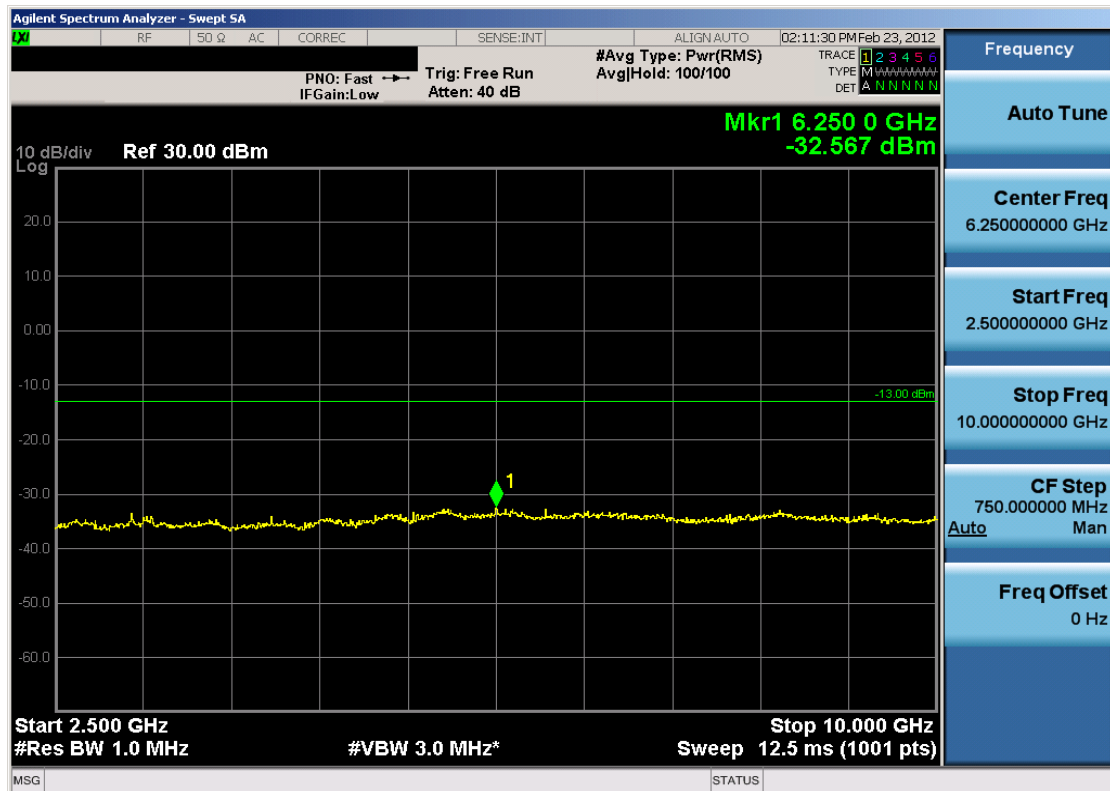


Plot 8-6. Occupied Bandwidth Plot (Cellular GSM Mode – Ch. 190)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y120222022.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 62 of 83

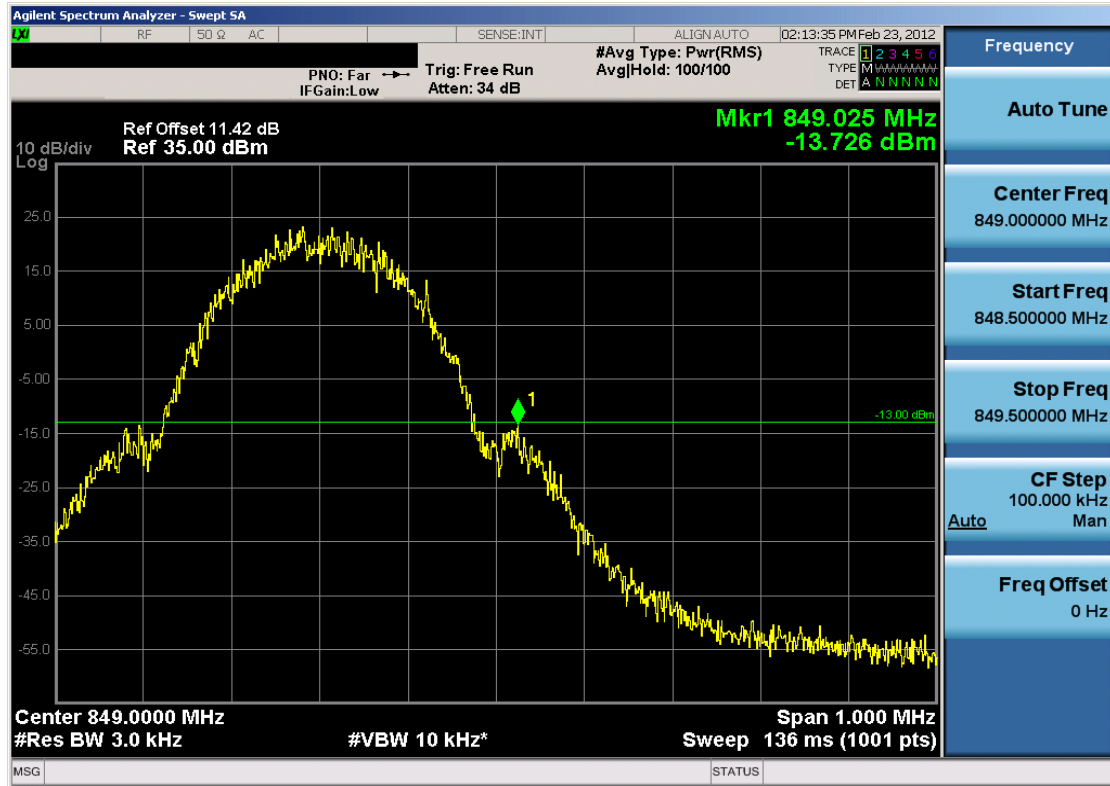


Plot 8-7. Conducted Spurious Plot (Cellular GSM Mode – Ch. 251)

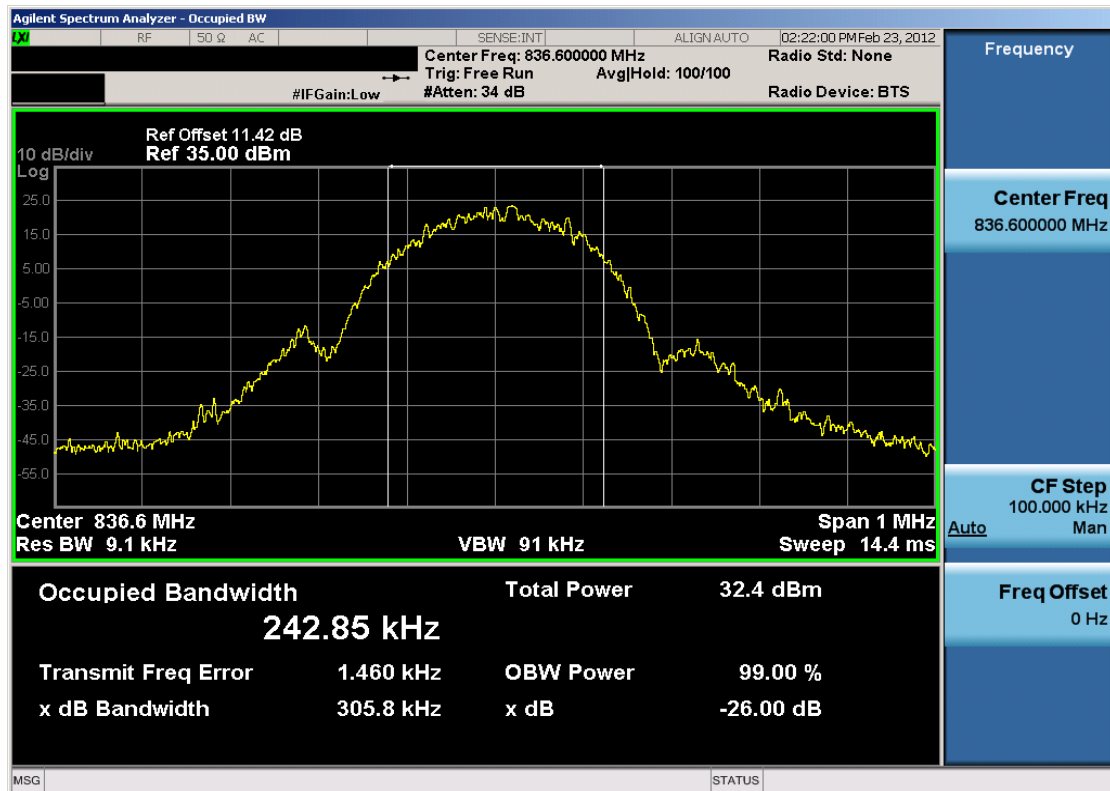


Plot 8-8. Conducted Spurious Plot (Cellular GSM Mode – Ch. 251)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y120222022.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 63 of 83

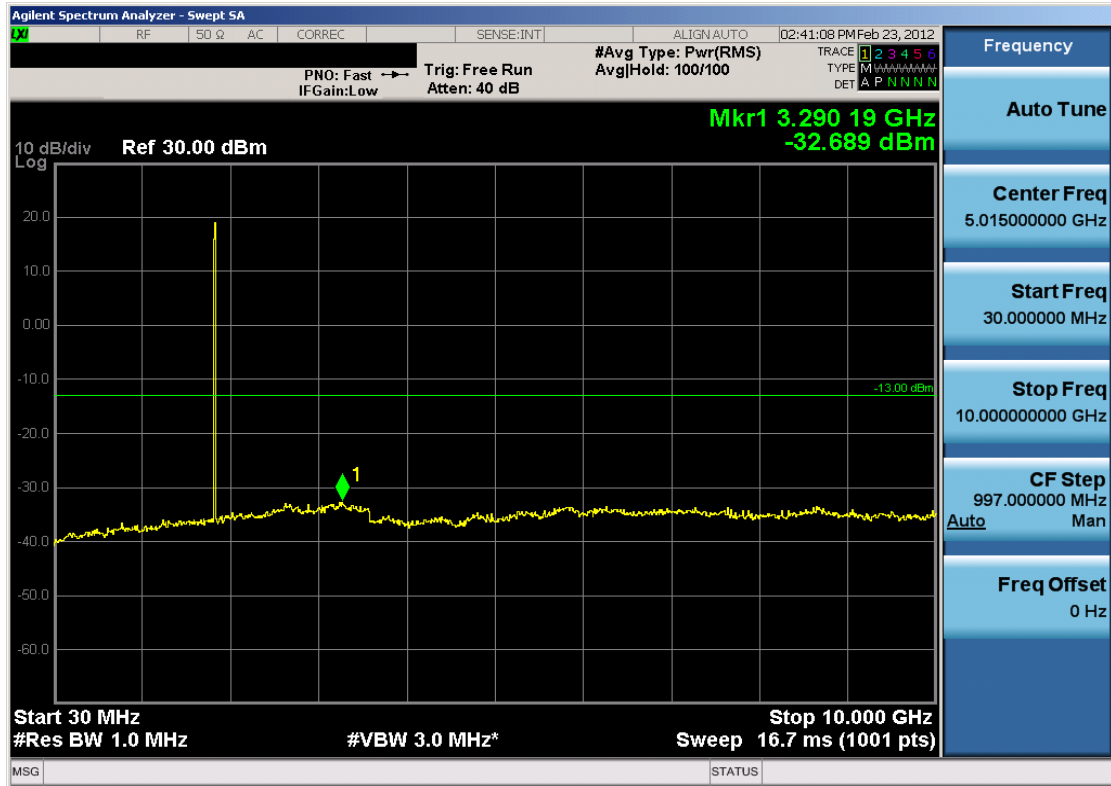


Plot 8-9. Band Edge Plot (Cellular GSM Mode – Ch. 251)

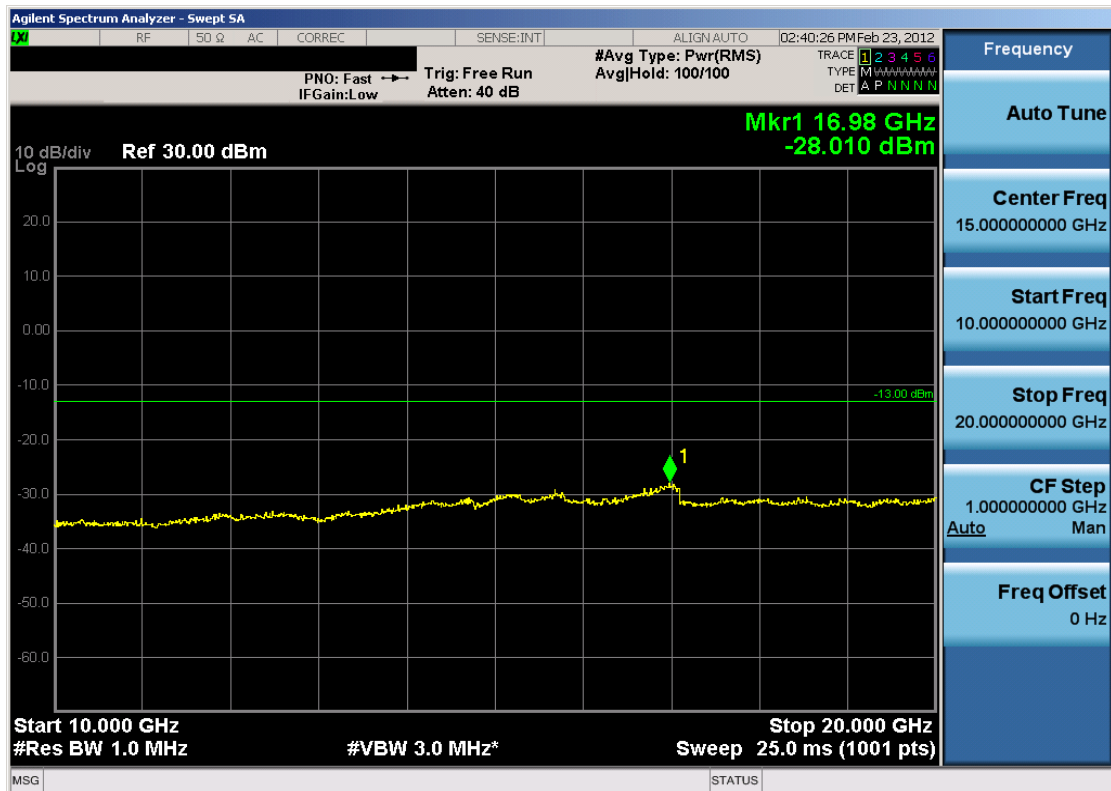


Plot 8-10. Occupied Bandwidth Plot (EDGE850 Mode – Ch. 190)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EVDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y120222022.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 64 of 83

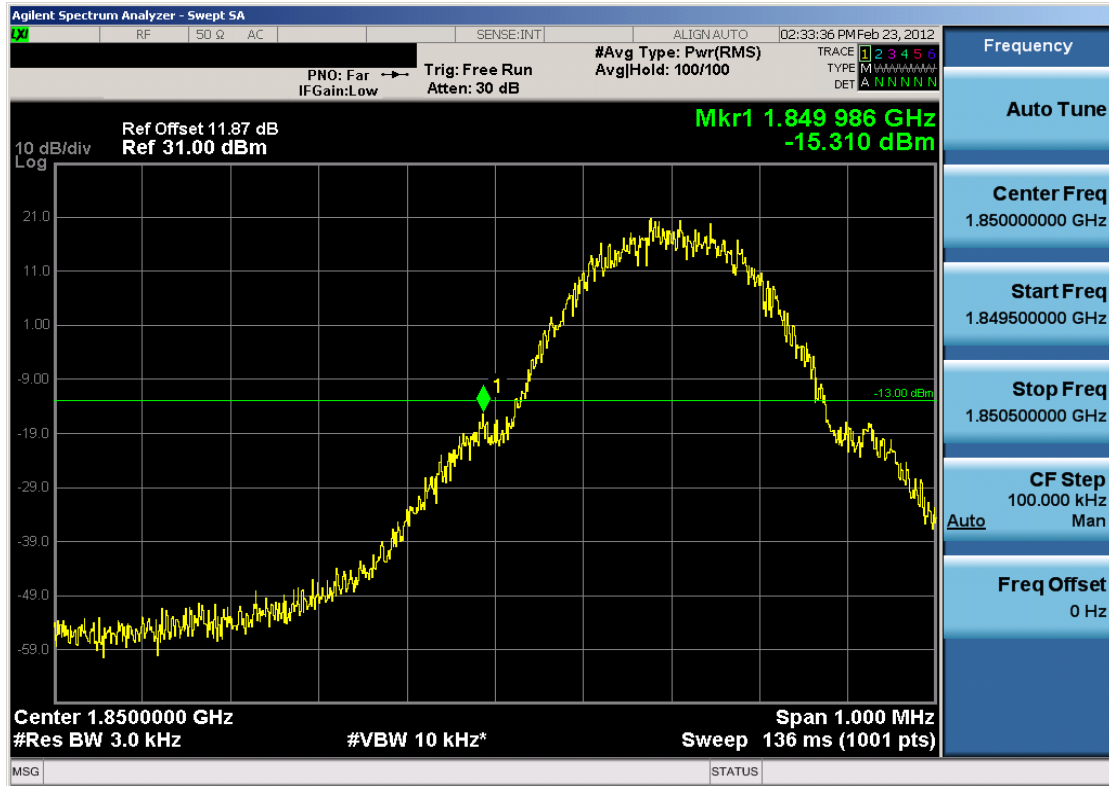


Plot 8-11. Conducted Spurious Plot (PCS GSM Mode – Ch. 512)

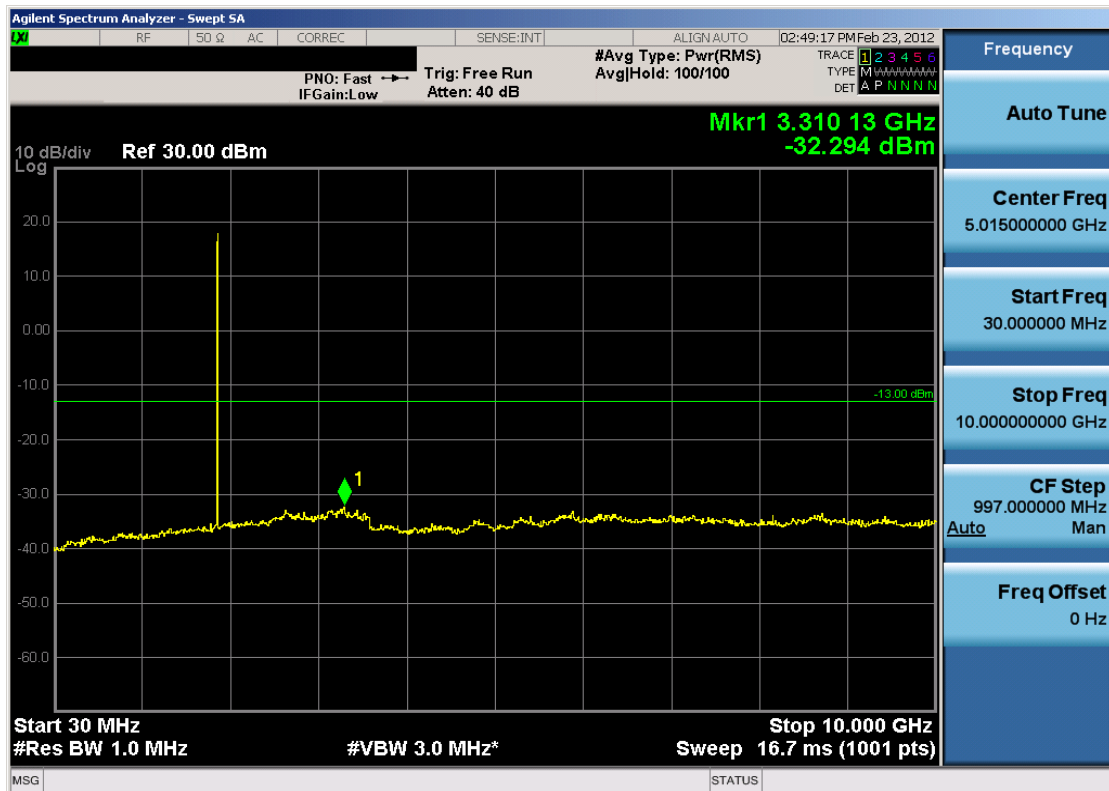


Plot 8-12. Conducted Spurious Plot (PCS GSM Mode – Ch. 512)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EVDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 65 of 83

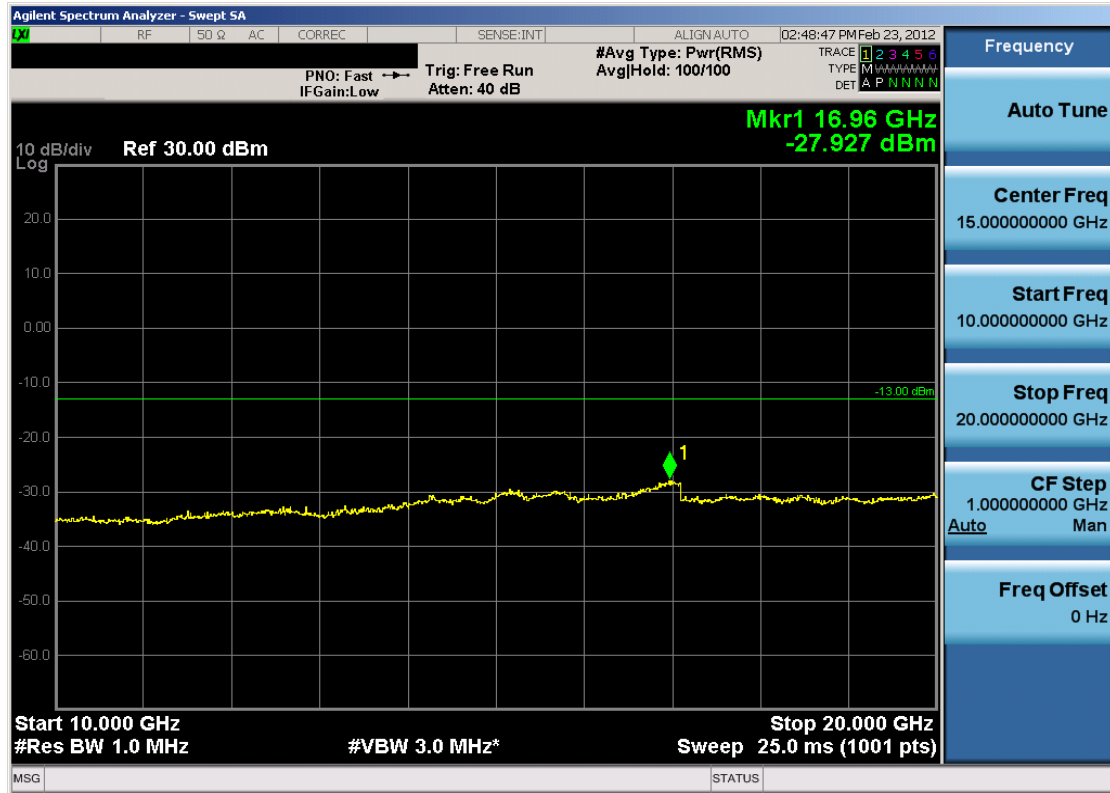


Plot 8-13. Band Edge Plot (PCS GSM Mode – Ch. 512)

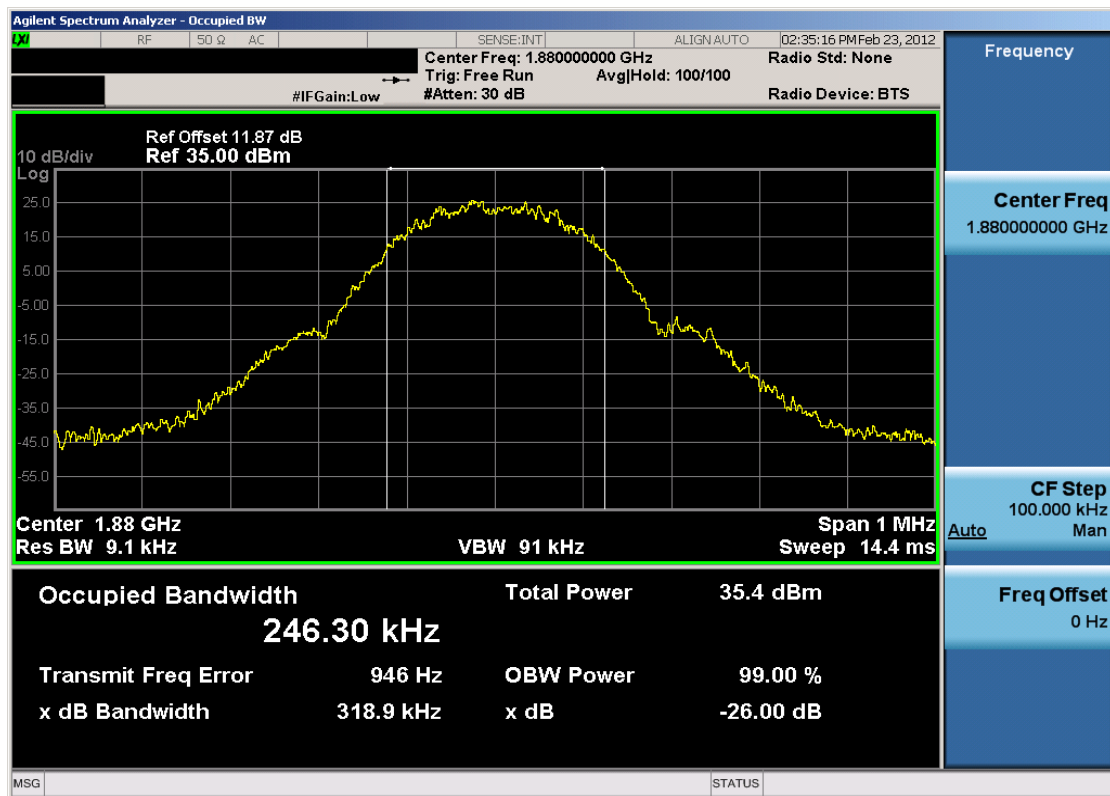


Plot 8-14. Conducted Spurious Plot (PCS GSM Mode – Ch. 661)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 66 of 83

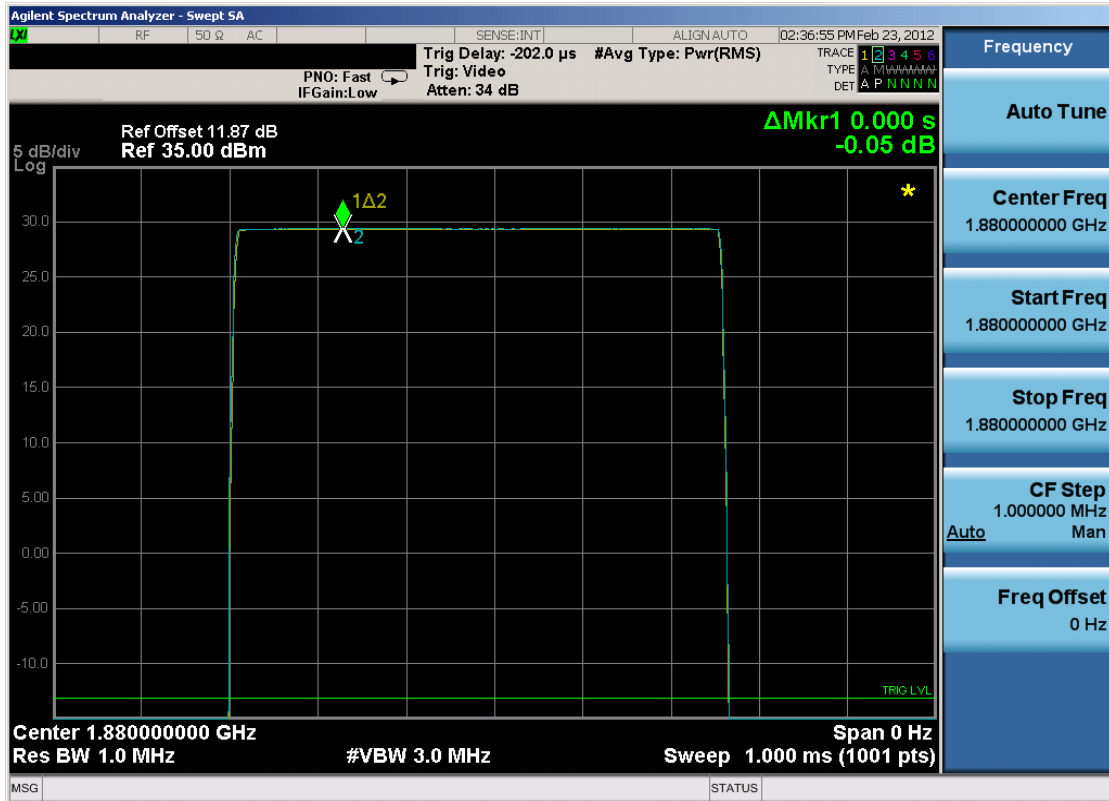


Plot 8-15. Conducted Spurious Plot (PCS GSM Mode – Ch. 661)

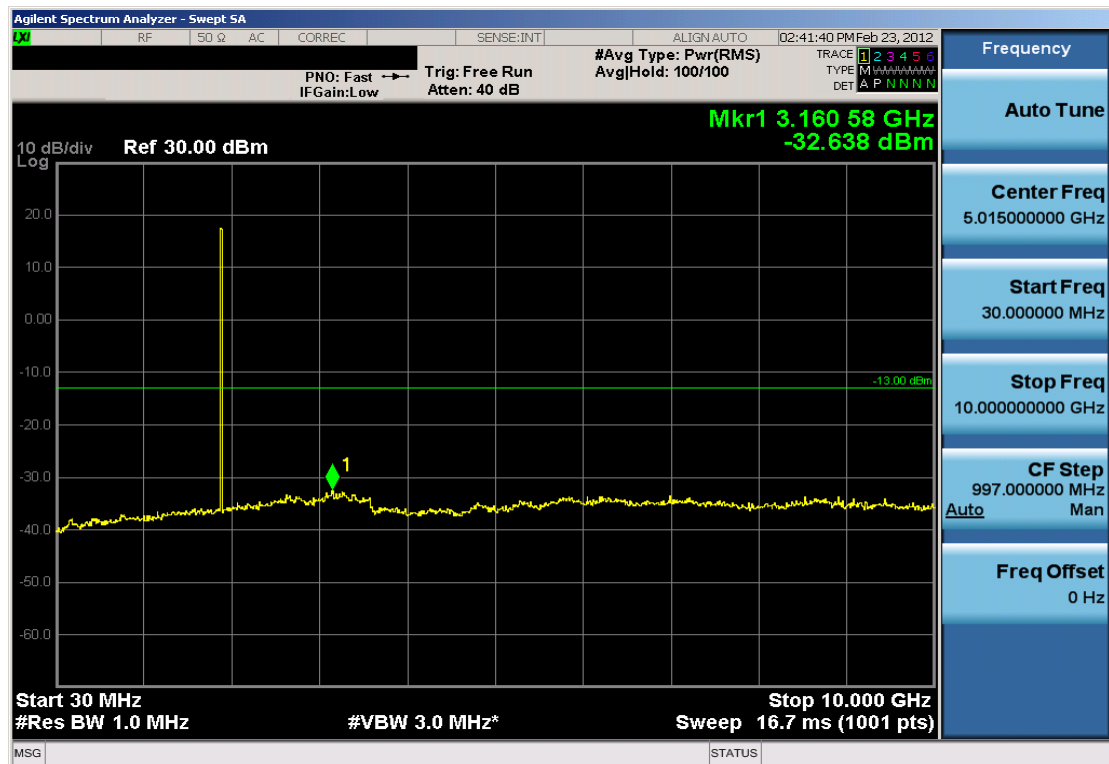


Plot 8-16. Occupied Bandwidth Plot (PCS GSM Mode – Ch. 661)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EVDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y120222022.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 67 of 83

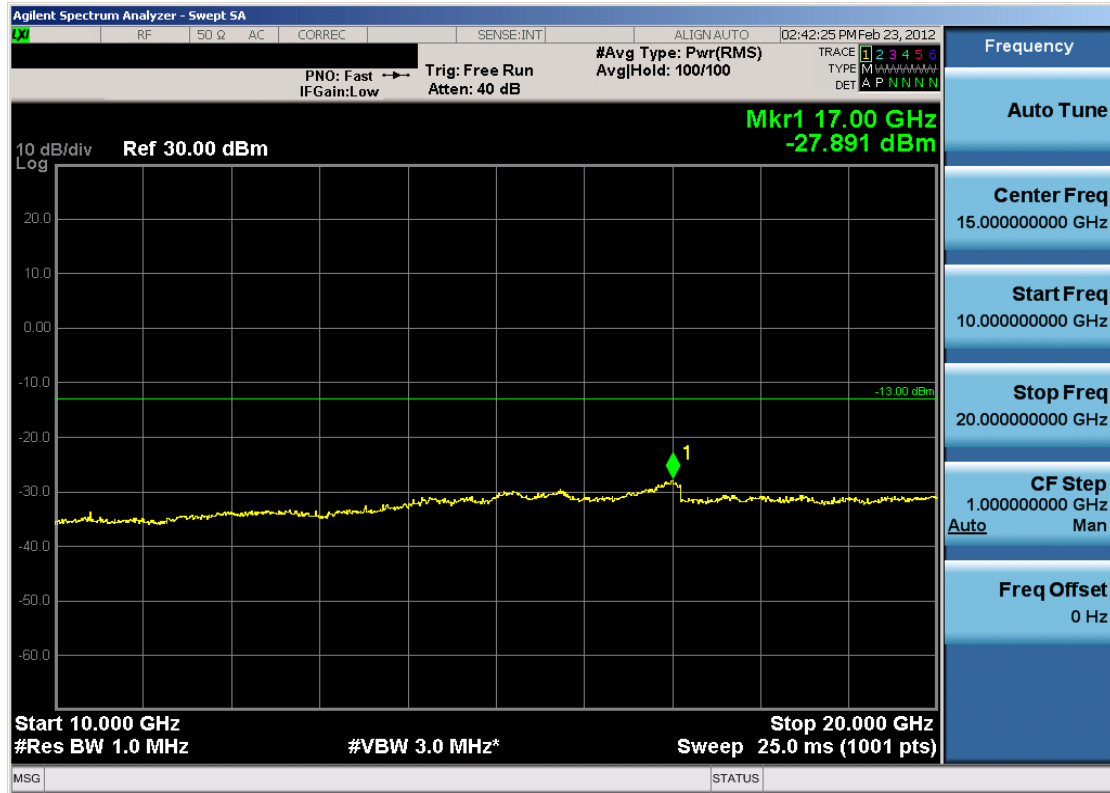


Plot 8-17. Peak-Average Ratio Plot (PCS GSM Mode – Ch. 661)

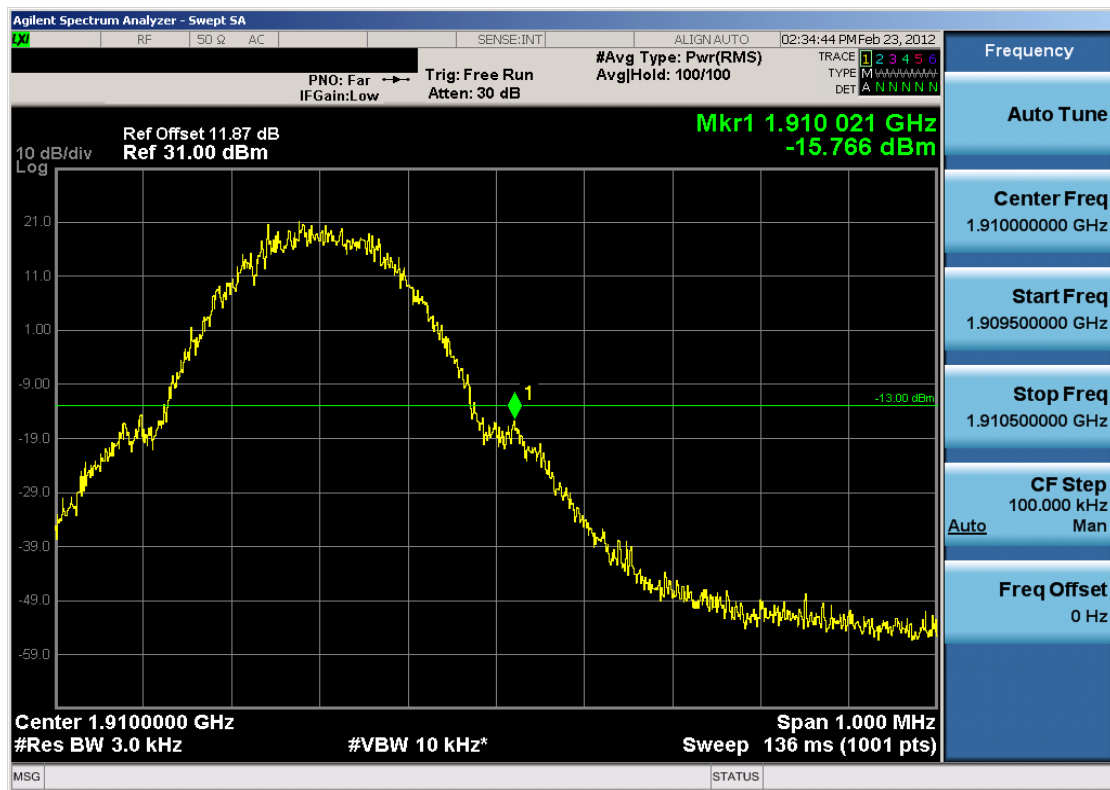


Plot 8-18. Conducted Spurious Plot (PCS GSM Mode – Ch. 810)

FCC ID: A3LSCHI535		 FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION) 		Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 68 of 83

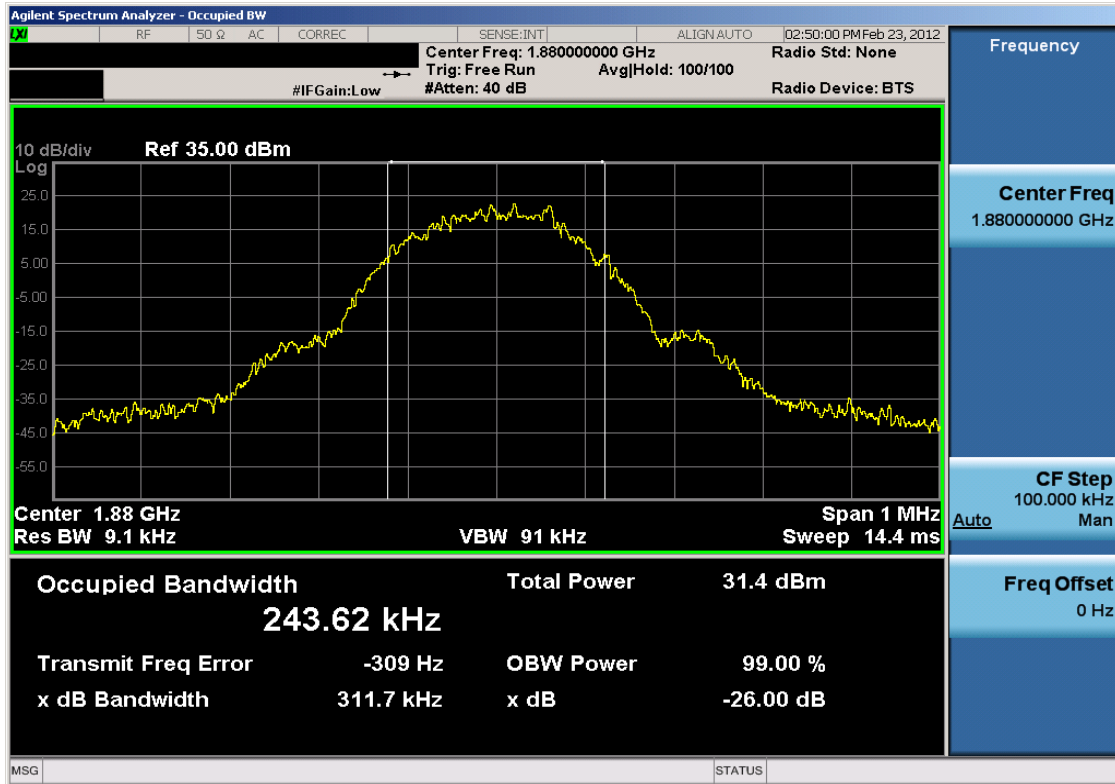


Plot 8-19. Conducted Spurious Plot (PCS GSM Mode – Ch. 810)

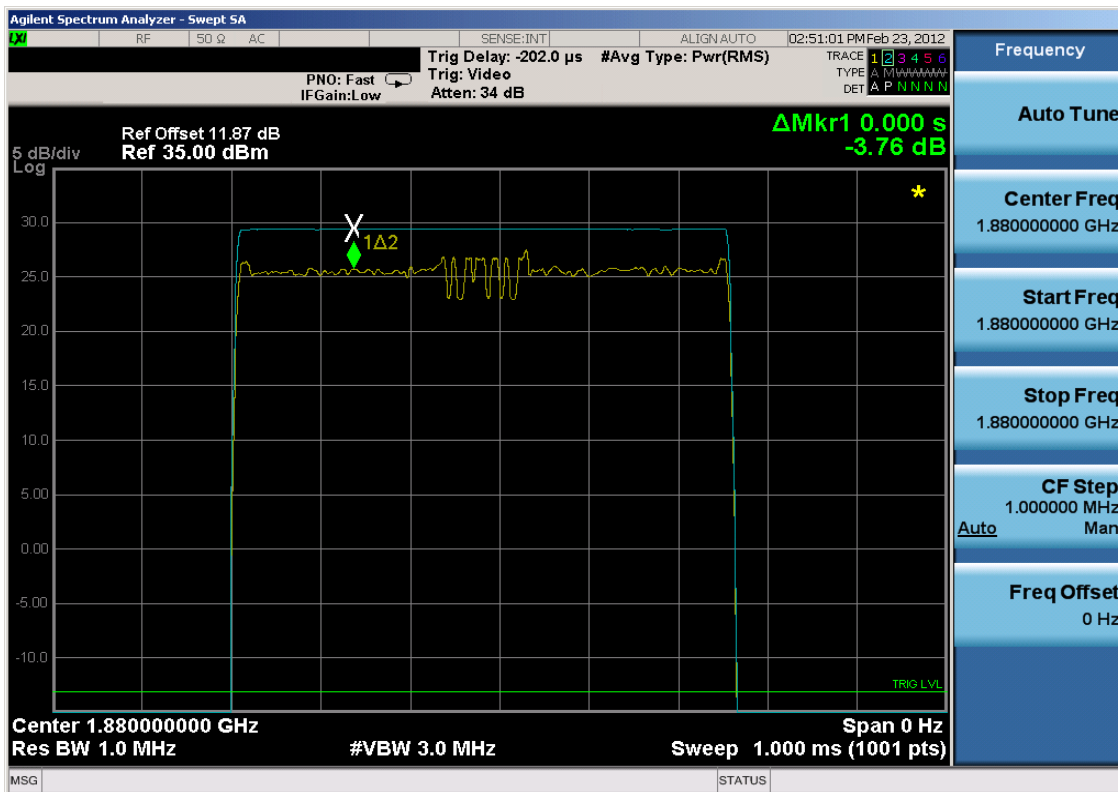


Plot 8-20. Band Edge Plot (PCS GSM Mode – Ch. 810)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 69 of 83

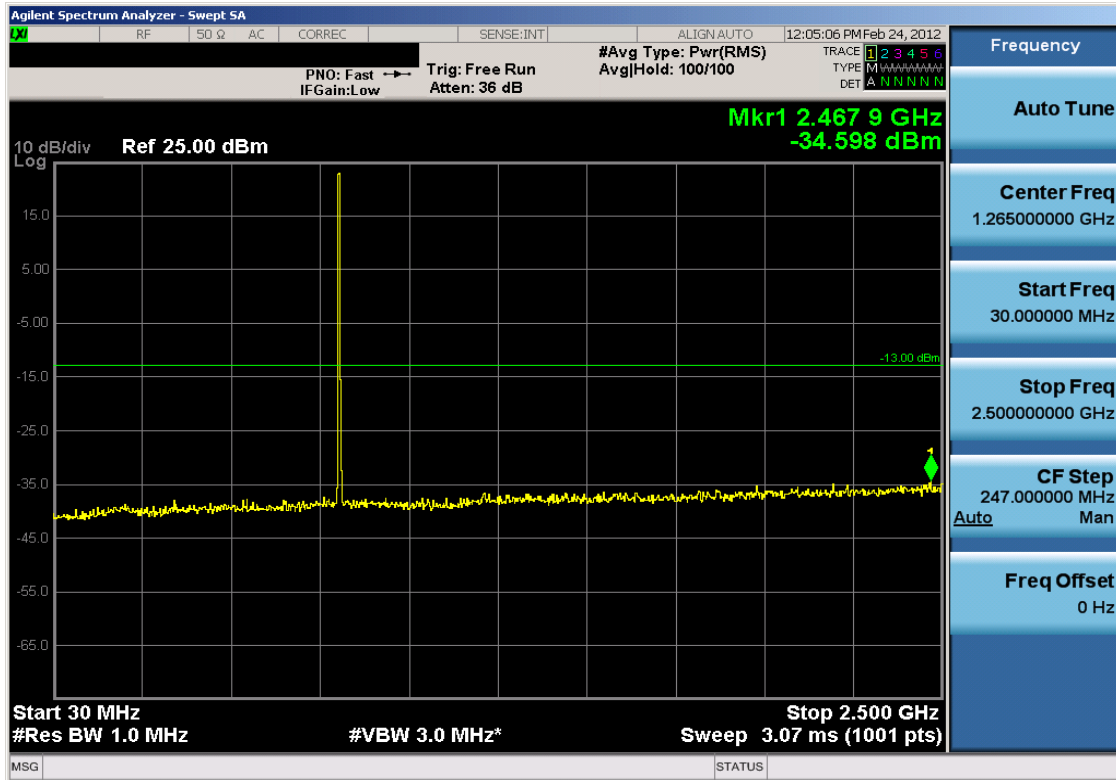


Plot 8-21. Occupied Bandwidth Plot (EDGE1900 Mode – Ch. 661)

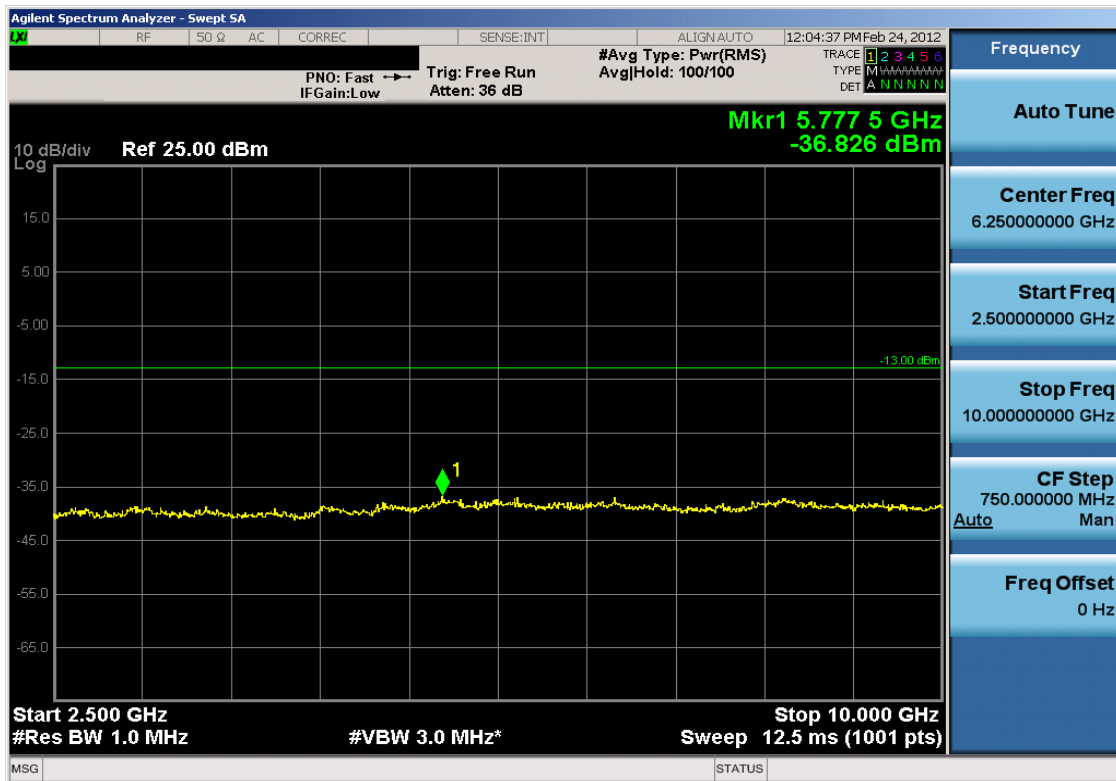


Plot 8-22. Peak-Average Ratio Plot (EDGE1900 Mode – Ch. 661)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 70 of 83

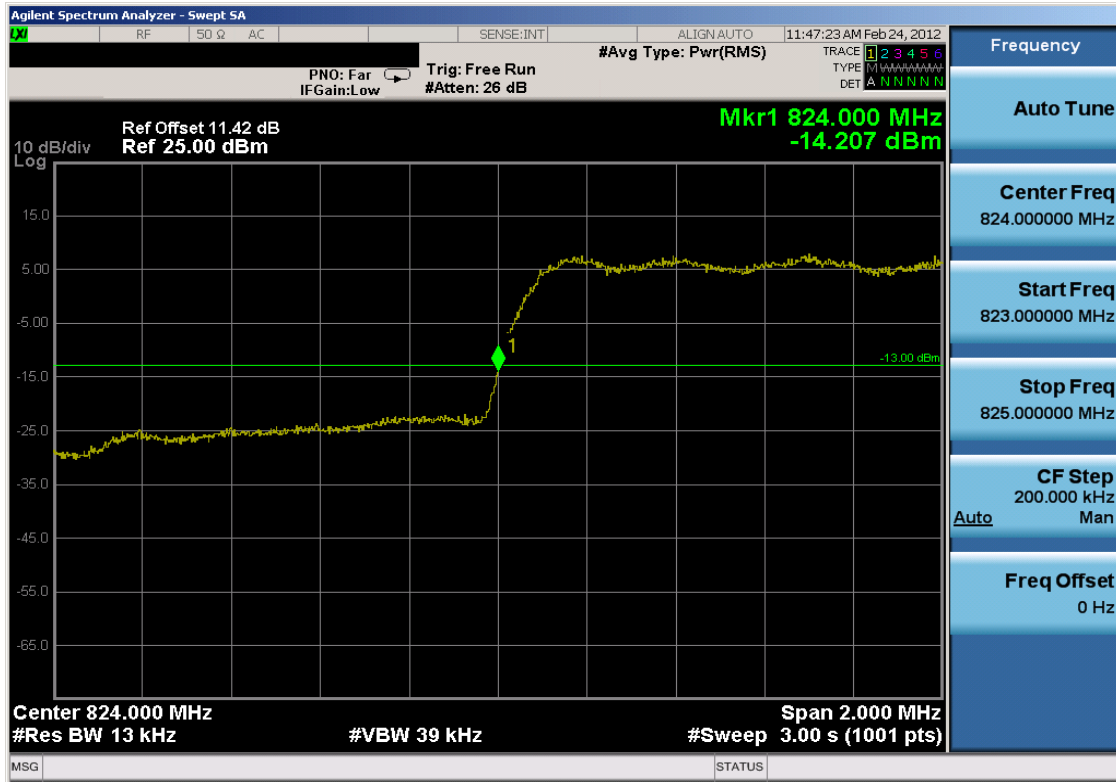


Plot 8-23. Conducted Spurious Plot (Cellular EvDO Mode – Ch. 1013)

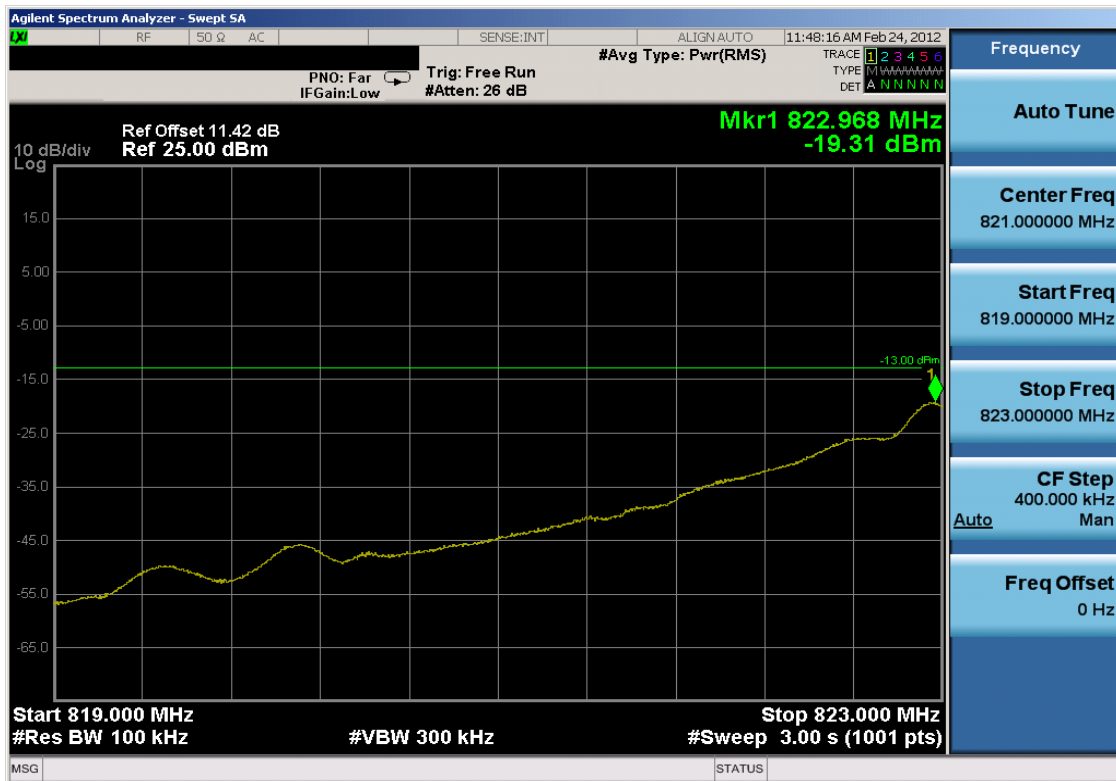


Plot 8-24. Conducted Spurious Plot (Cellular EVDO Mode – Ch. 1013)

FCC ID: A3LSCHI535		FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
Test Report S/N: 0Y120220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 71 of 83

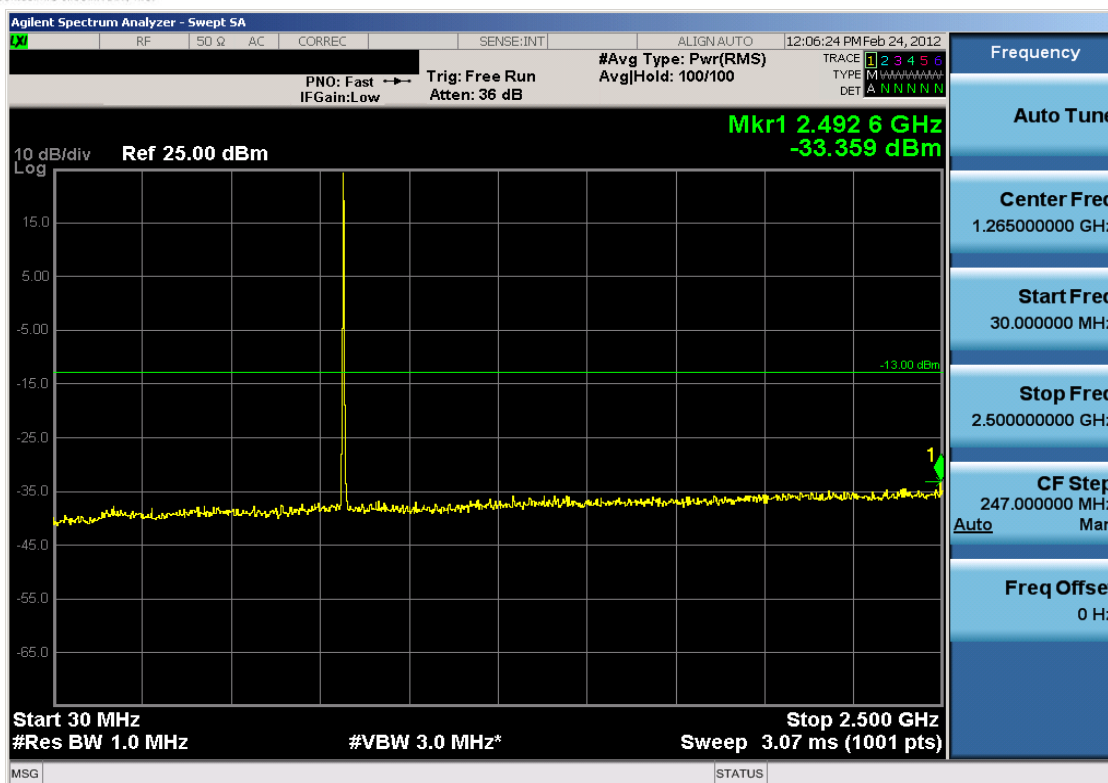


Plot 8-25. Band Edge Plot (Cellular EvDO Mode – Ch. 1013)

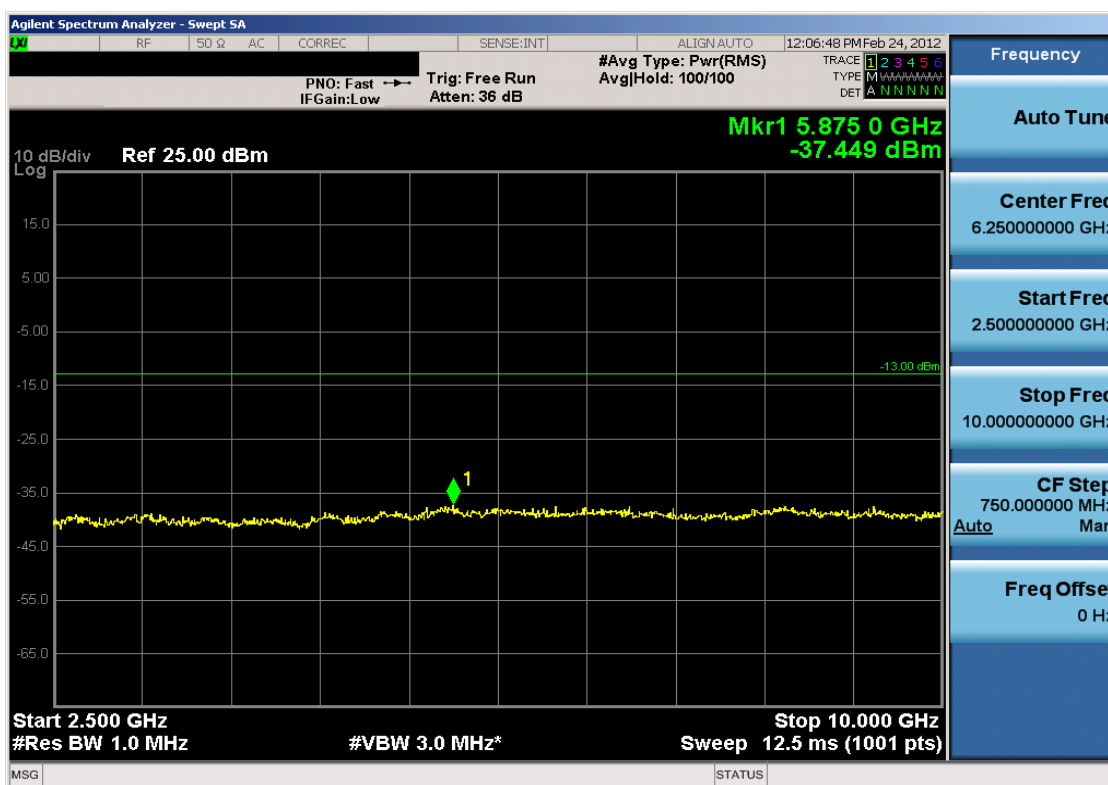


Plot 8-26. 4MHz Span Plot (Cellular EvDO Mode – Ch. 1013)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 72 of 83

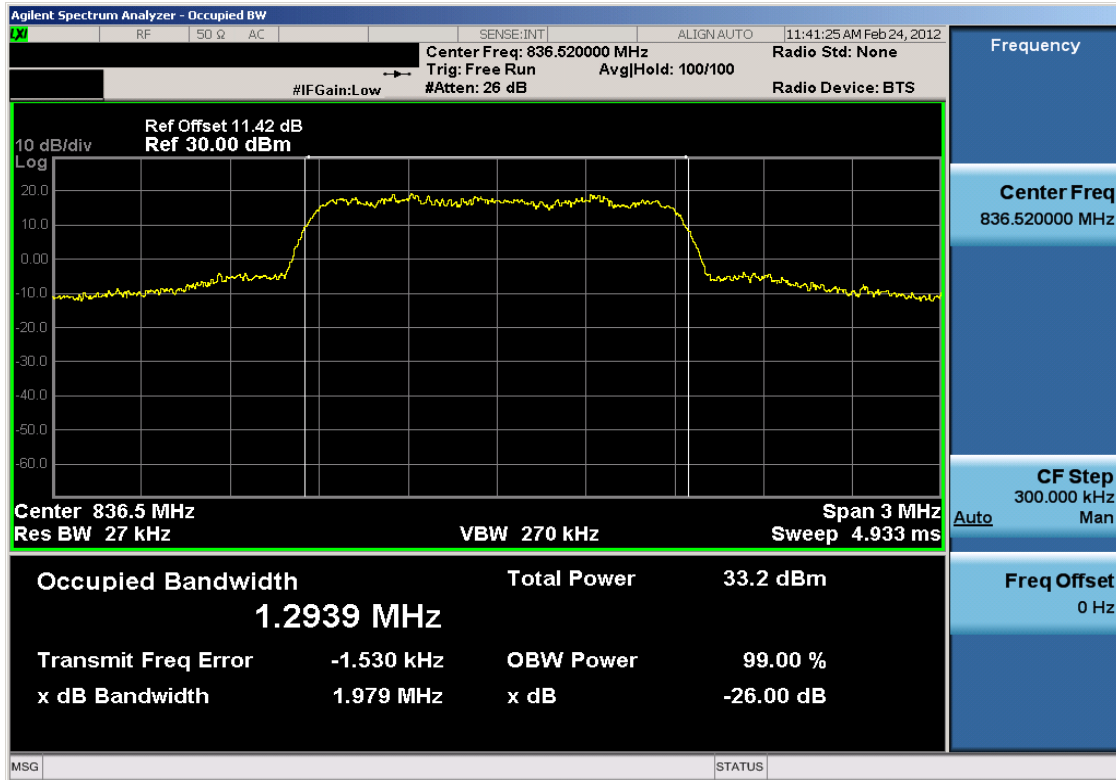


Plot 8-27. Conducted Spurious Plot (Cellular EvDO Mode – Ch. 384)

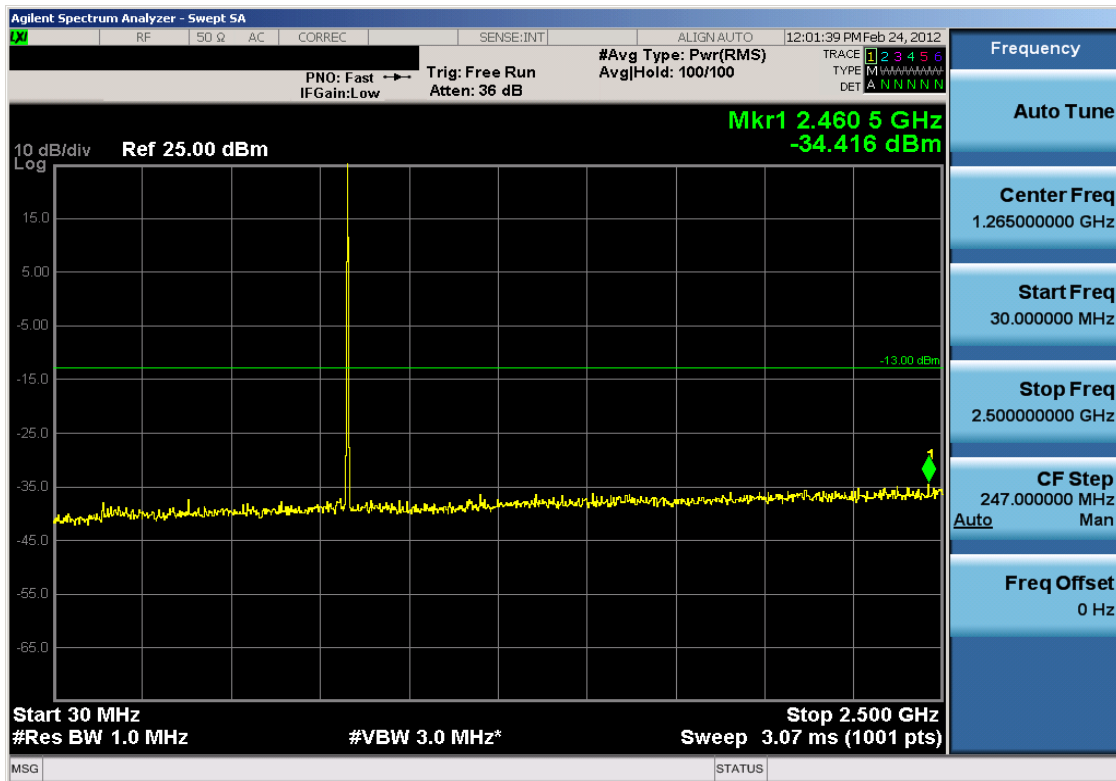


Plot 8-28. Conducted Spurious Plot (Cellular EvDO Mode – Ch. 384)

FCC ID: A3LSCHI535		FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)		Reviewed by: Quality Manager
Test Report S/N: 0Y120220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 73 of 83

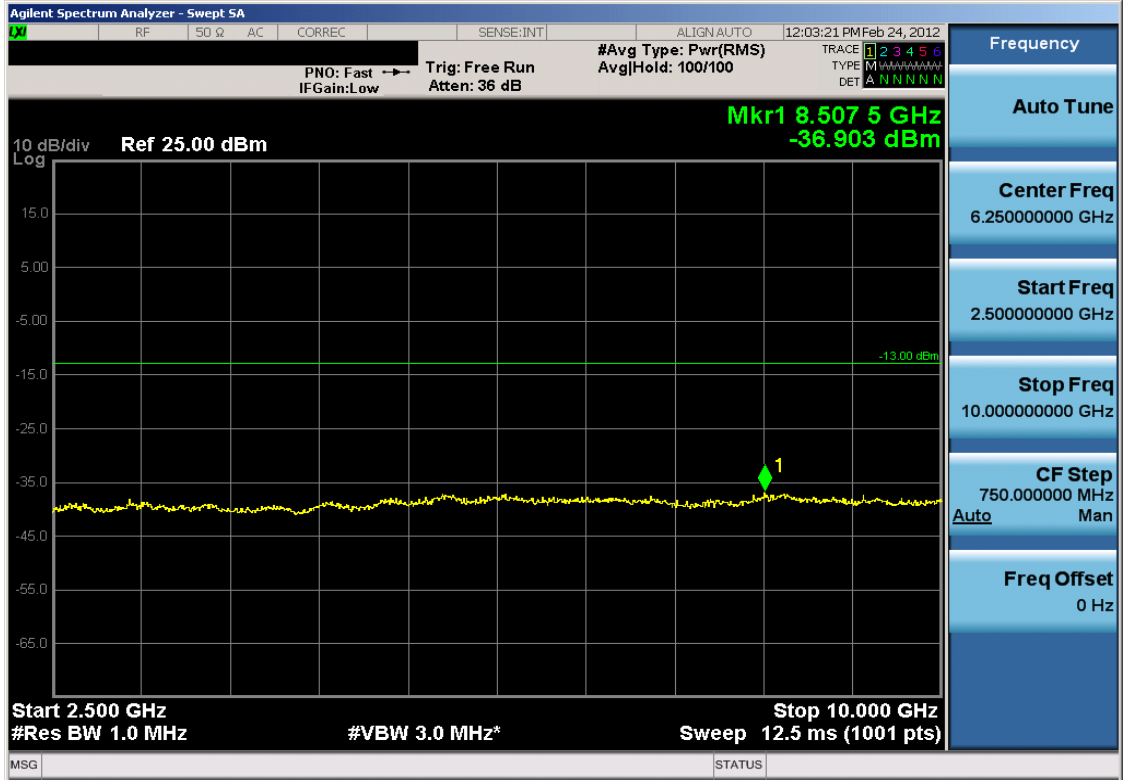


Plot 8-29. Occupied Bandwidth Plot (Cellular EvDO Mode – Ch. 384)

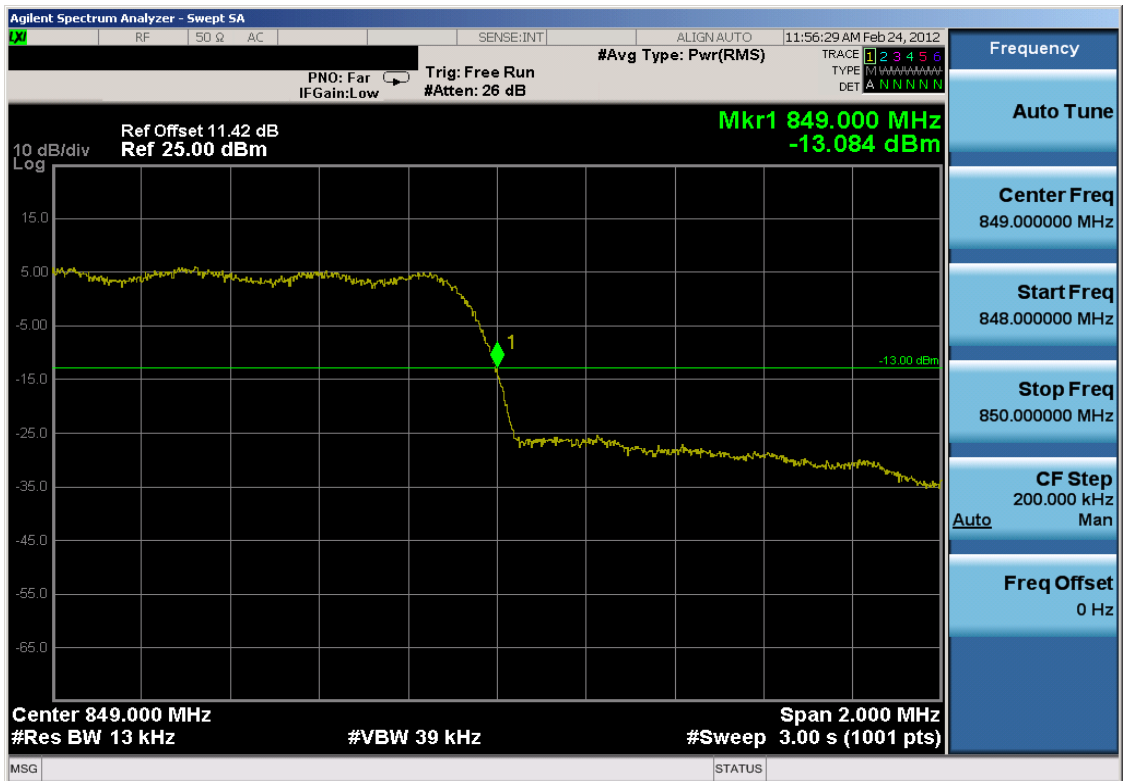


Plot 8-30. Conducted Spurious Plot (Cellular EvDO Mode – Ch. 777)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 74 of 83

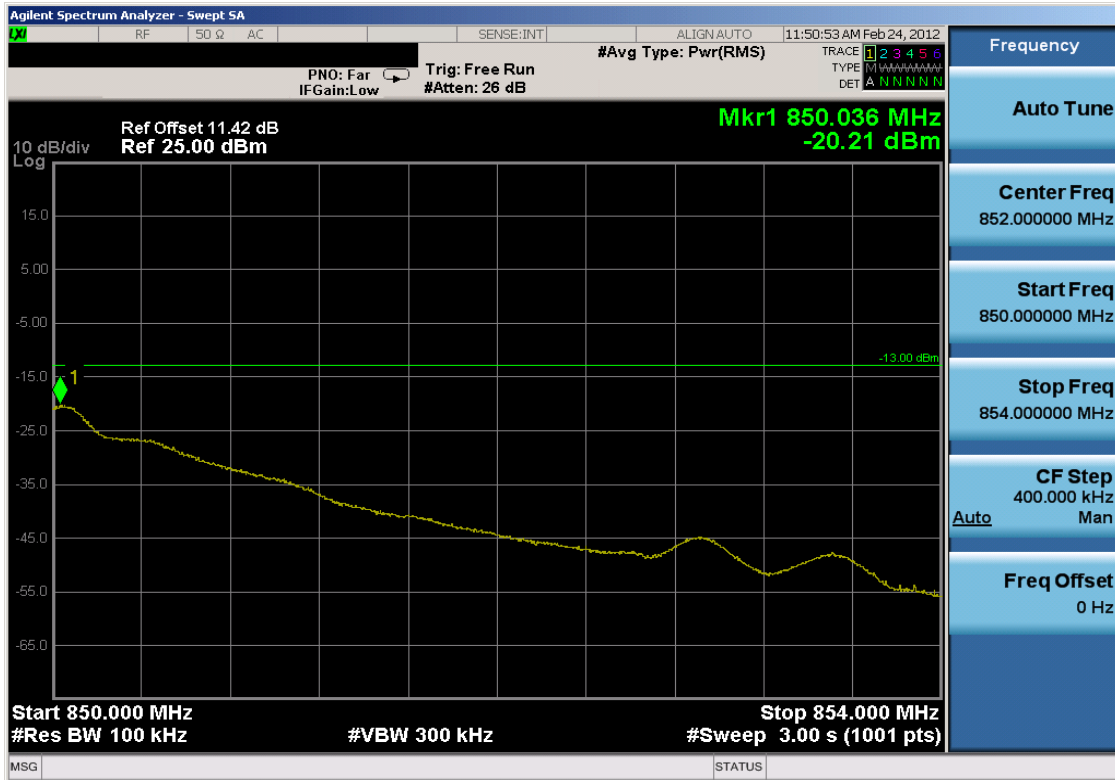


Plot 8-31. Conducted Spurious Plot (Cellular EvDO Mode – Ch. 777)

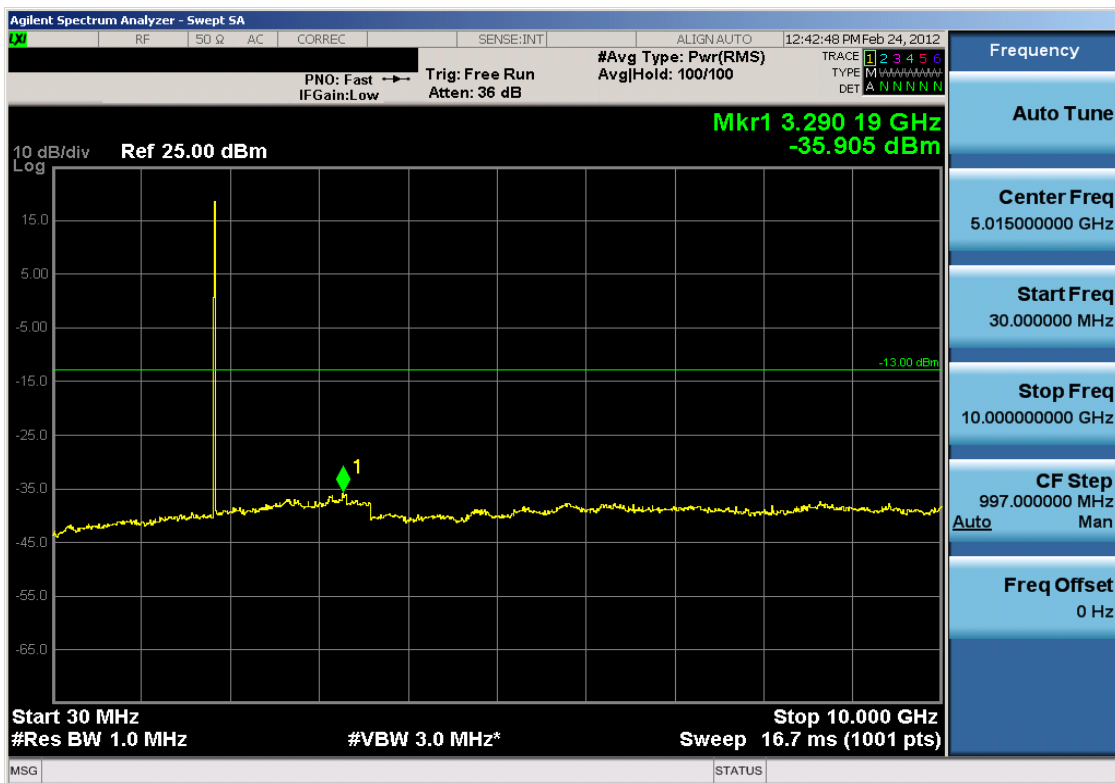


Plot 8-32. Band Edge Plot (Cellular EvDO Mode – Ch. 777)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 75 of 83

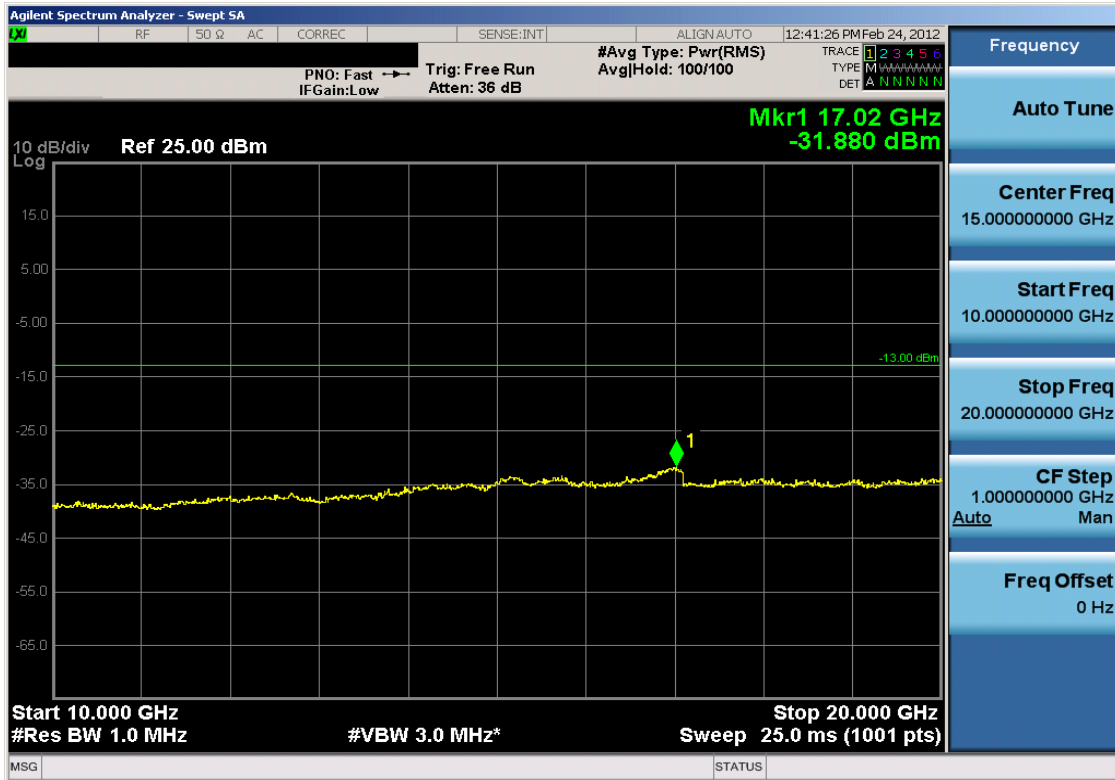


Plot 8-33. 4MHz Span Plot (Cellular EvDO Mode – Ch. 4233)

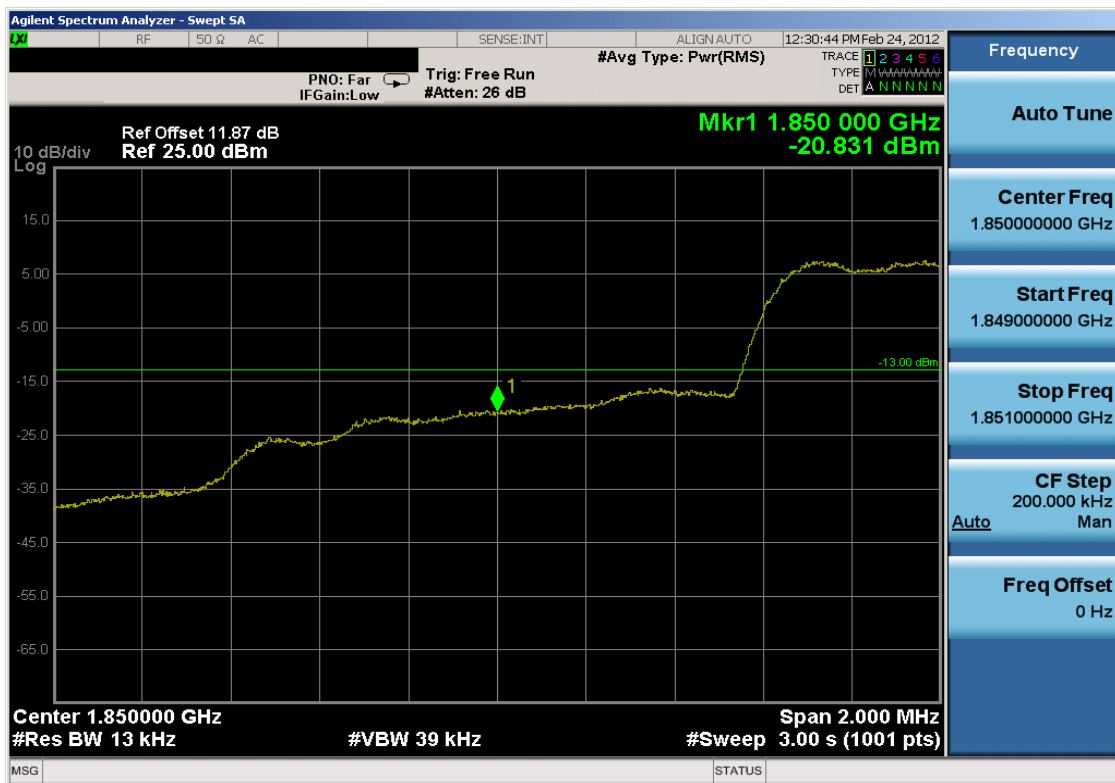


Plot 8-34. Conducted Spurious Plot (PCS EvDO Mode – Ch. 25)

FCC ID: A3LSCHI535		 FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION) 		Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 76 of 83

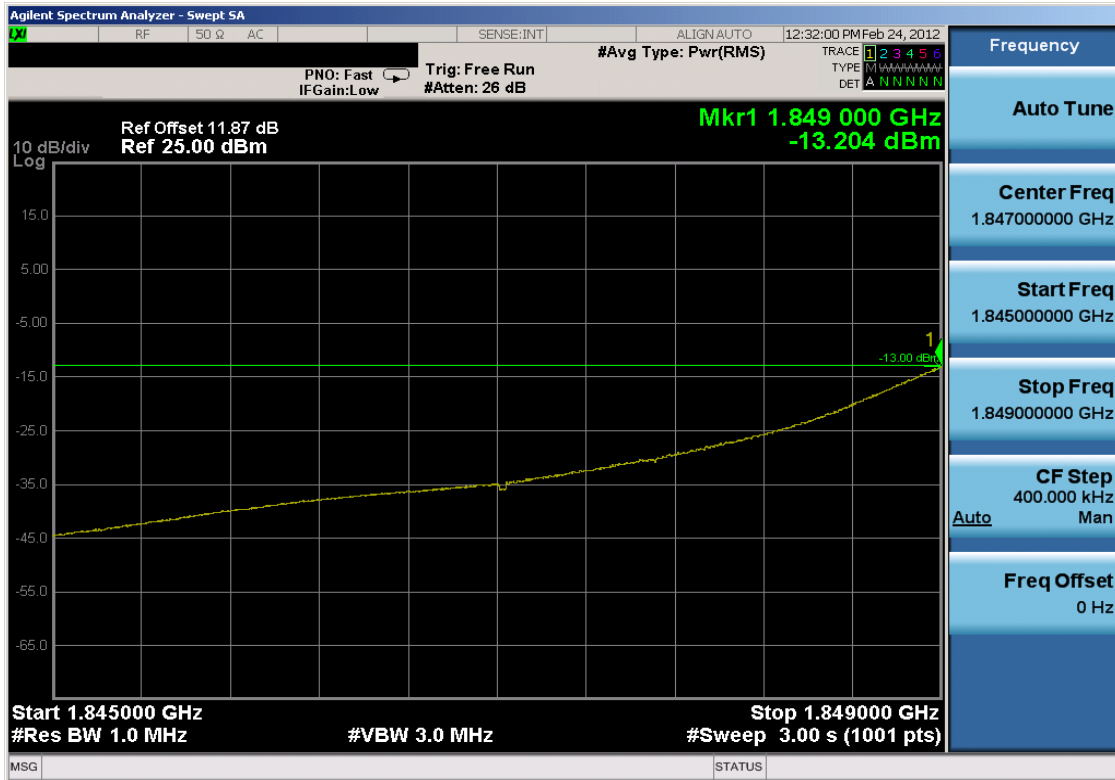


Plot 8-35. Conducted Spurious Plot (PCS EvDO Mode – Ch. 25)

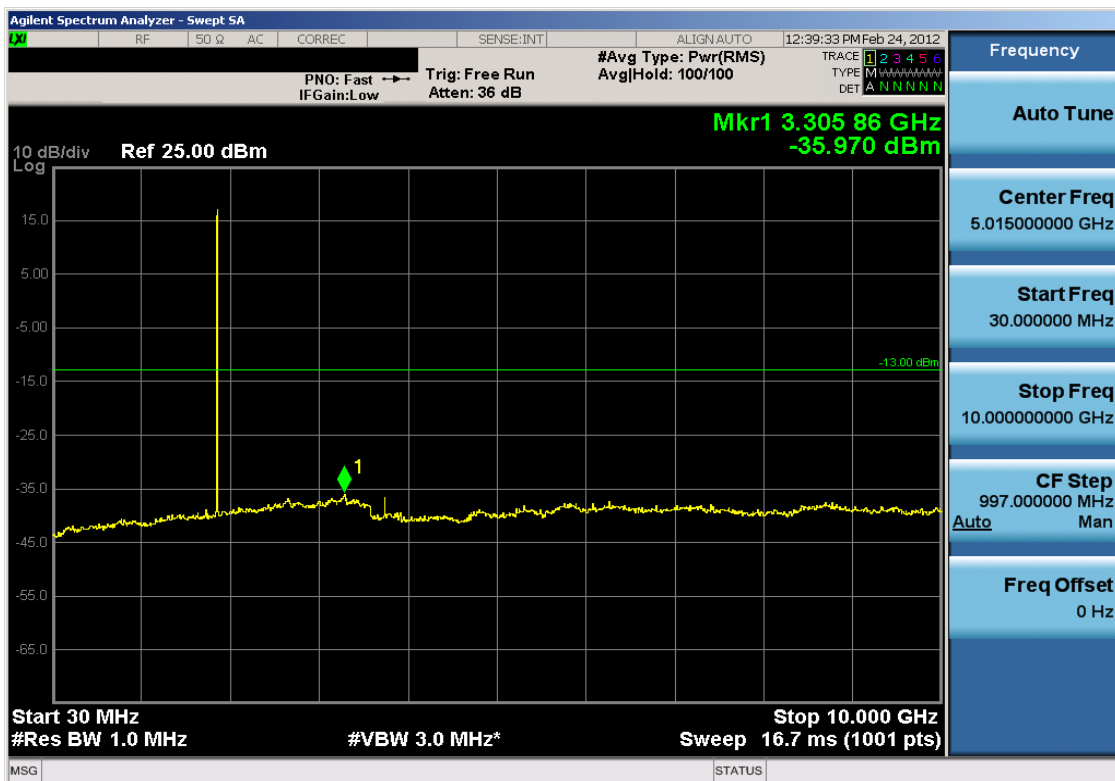


Plot 8-36. Band Edge Plot (PCS EvDO Mode – Ch. 25)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 77 of 83

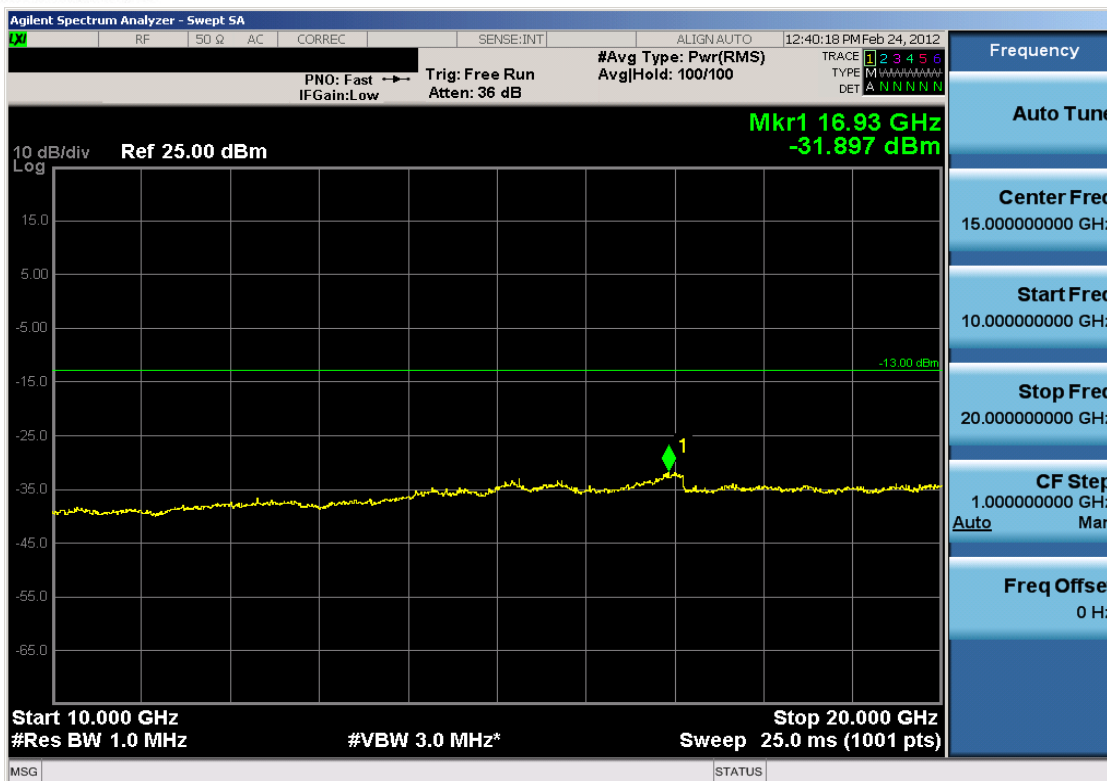


Plot 8-37. 4MHz Span Plot (PCS EvDO Mode – Ch. 25)

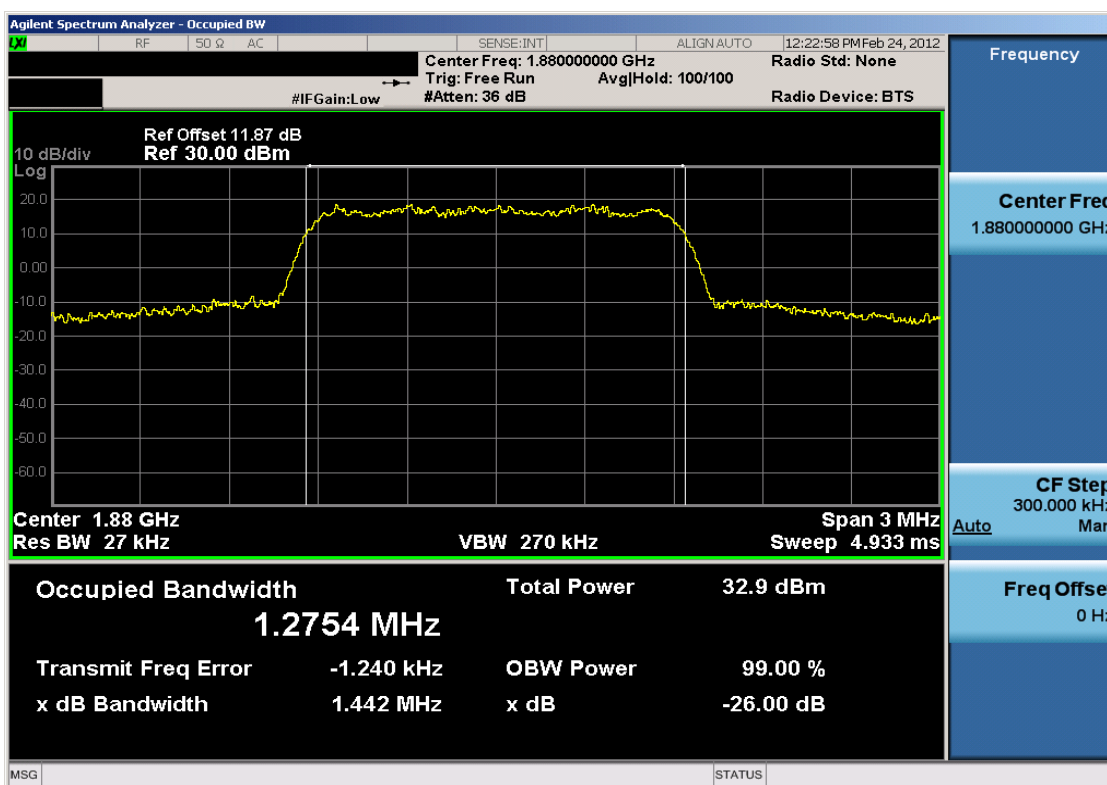


Plot 8-38. Conducted Spurious Plot (PCS EvDO Mode – Ch. 600)

FCC ID: A3LSCHI535		 FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION) 		Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 78 of 83

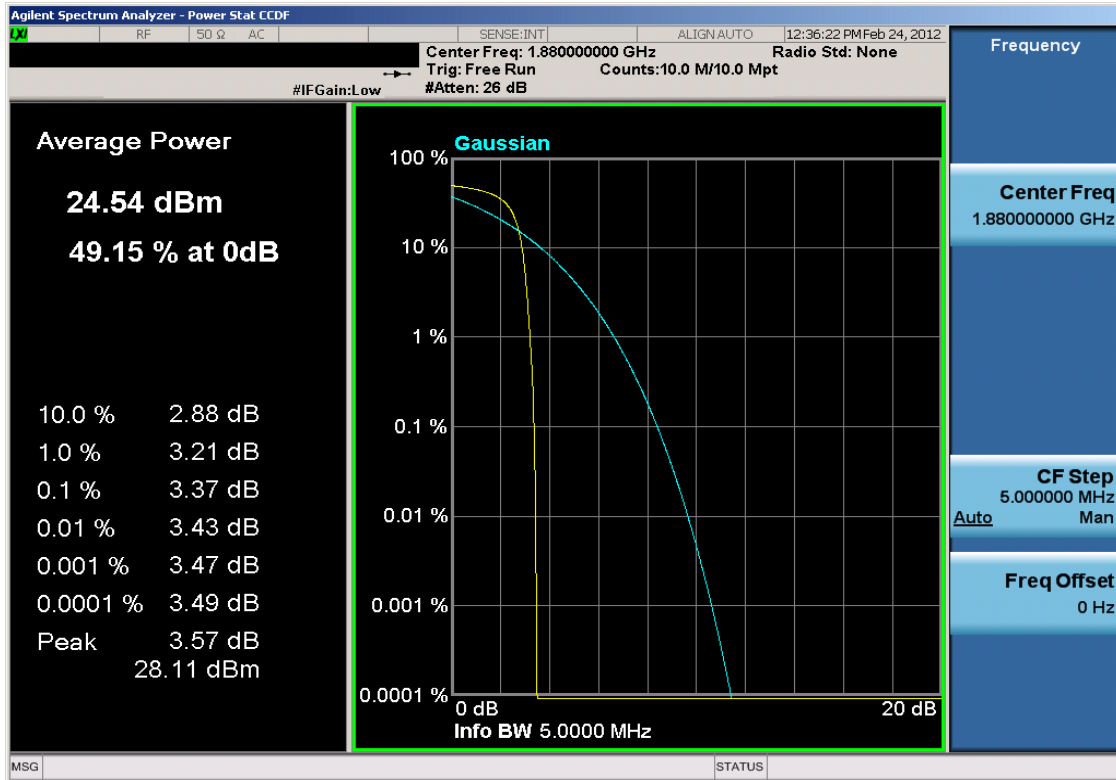


Plot 8-39. Conducted Spurious Plot (PCS EvDO Mode – Ch. 600)

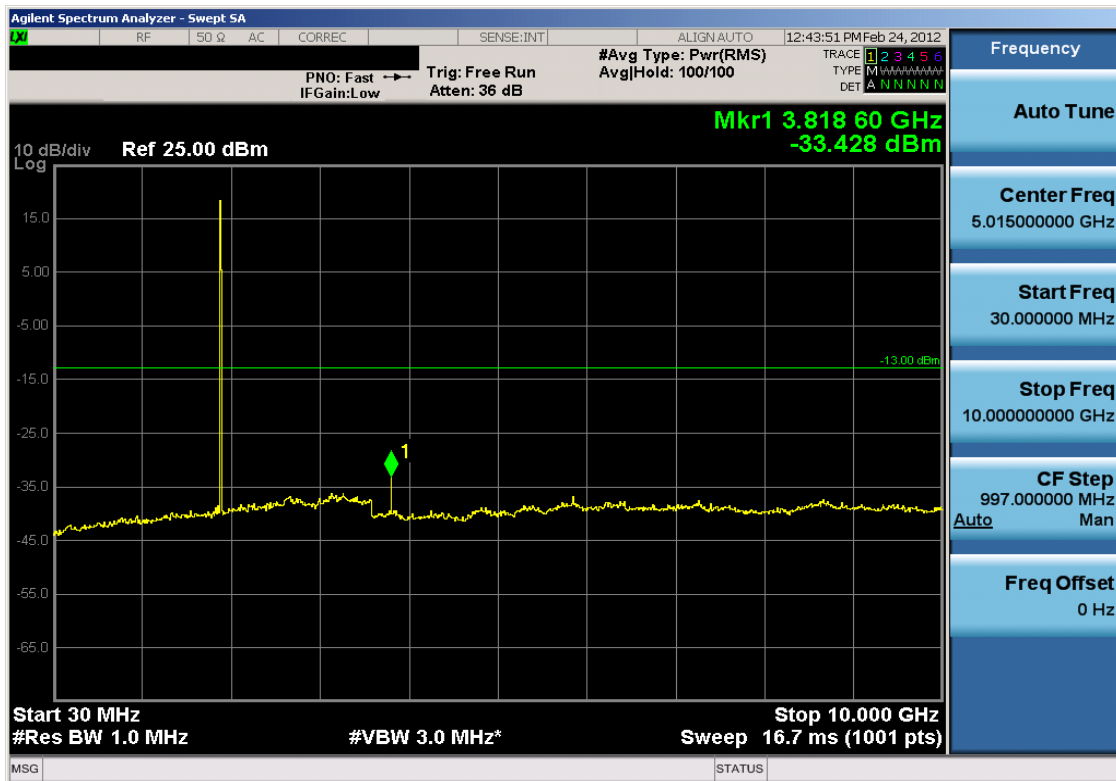


Plot 8-40. Occupied Bandwidth Plot (PCS EvDO Mode – Ch. 600)

FCC ID: A3LSCH1535	 FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION) 		Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset	Page 79 of 83

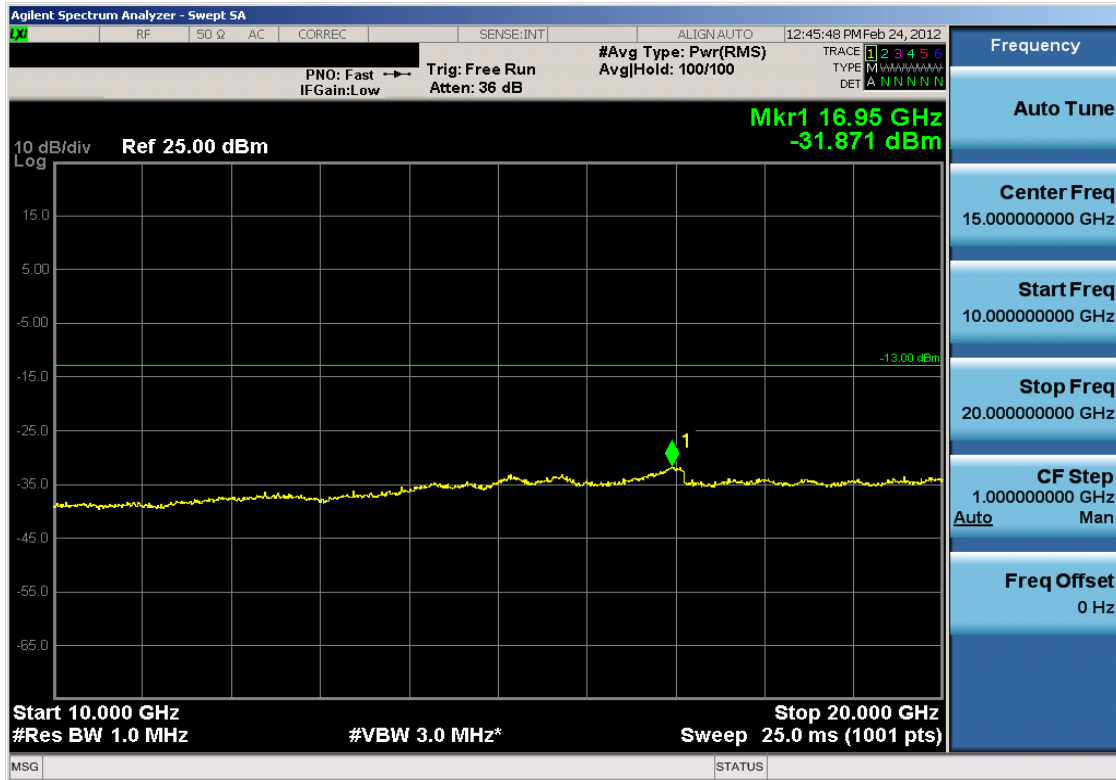


Plot 8-41. Peak-Average Ratio Plot (PCS EvDO Mode – Ch. 600)

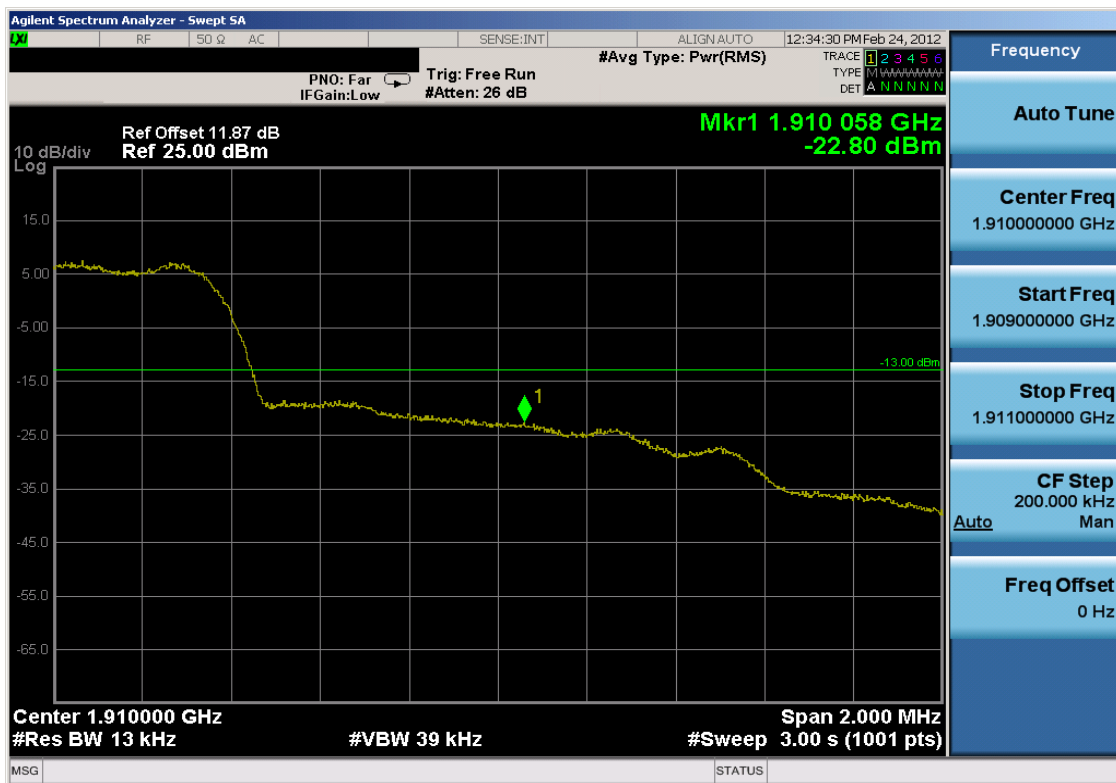


Plot 8-42. Conducted Spurious Plot (PCS EvDO Mode – Ch. 1175)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 80 of 83

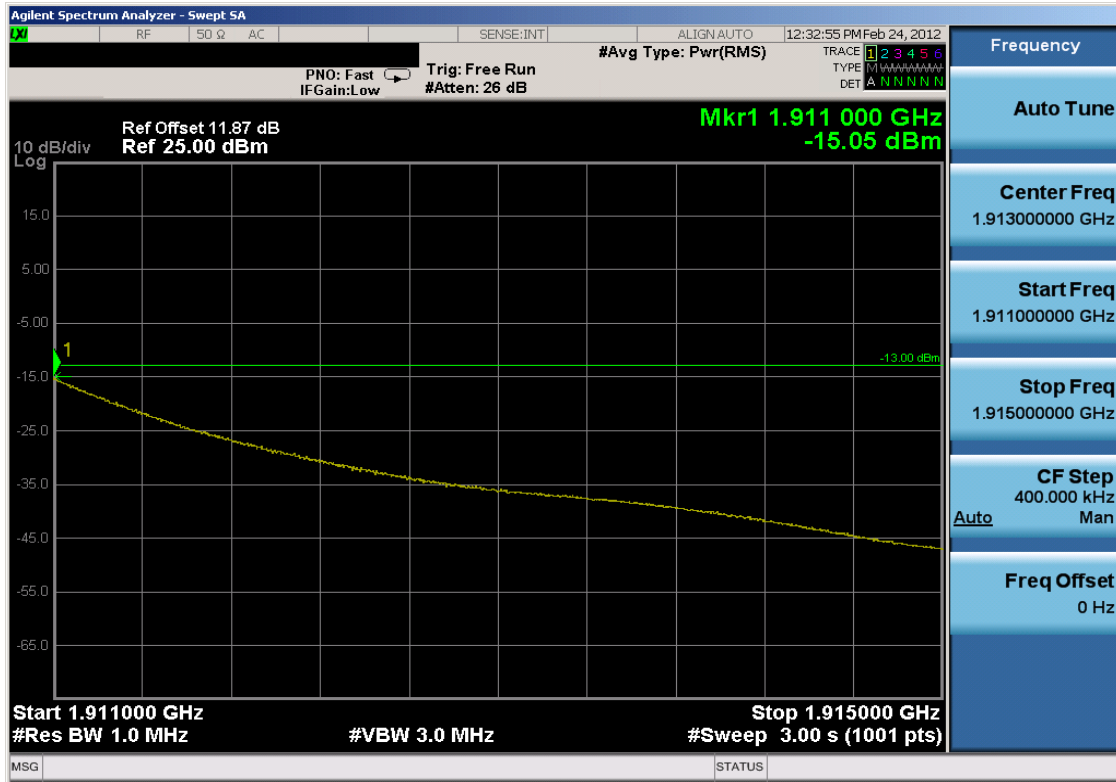


Plot 8-43. Conducted Spurious Plot (PCS EvDO Mode – Ch. 1175)



Plot 8-44. Band Edge Plot (PCS EvDO Mode – Ch. 1175)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
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Plot 8-45. 4MHz Span Plot (PCS EvDO Mode – Ch. 1175)

FCC ID: A3LSCHI535	PCTEST ENGINEERING LABORATORY, INC.	FCC Pt. 22/24 GSM/EDGE/CDMA/EvDO MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Reviewed by: Quality Manager
Test Report S/N: 0Y1202220222.A3L	Test Dates: 02/24 - 03/13/2012	EUT Type: Portable Handset		Page 82 of 83

9.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSCHI535** 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.

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