MSUNG ELECTRONICS Co., Ltd.,
Regulatory Compliance Team
IT R&D Center
416, Maetan-3dong,
YoungTong-gu, Suwon-city,
Gyeonggi-do, Korea 442-600

FCC CFR47 PART 22 SUBPART CERTIFICATION REPORT

Model Tested: SCH-X601

FCC ID (Requested): A3LSCHX601

Report No: FA-031-R1

Date issued: November 19,2003

- Abstract –
All measurement reported herein accordance with FCC Rules, 47CFR Part2, Part22.

Prepared By	EH JUNG – Test Engineer	**Date**	2003.11.20
Checked By	CW PARK - Manager	**Date**	2003.11.20
Authorized By	JK CHOI – Senior Manager	**Date**	2003.11.20

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MEASUREMENT REPORT

1. FCC Certification Information

The following information is in accordance with FCC Rules, 47CFR Rart2, Subpart J, Sections 2.1033 – 2.1055.

1.1 §2.1033 General Information

· Applicant Name:	SAMSUNG ELECRONICS CO., LTD.
· Address:	416, Maetan-3Dong, YoungTong-Gu, Suwon City Gyeonggi-Do, KOREA 442-600
· Attention:	Wallace Oh, Engineering Manager (QA Lab)
· FCC ID:	A3LSCHX601
· Quantity:	Quantity production is planned
· Emission Designators:	1M25F9W
· Tx Freq. Range:	824.70 - 848.31MHz
· Rx Freq. Range:	869.70 - 893.31 MHz
· Max. Power Rating:	0.311W ERP CDMA(24.93dBm)
· FCC Classification(s):	Licensed Portable Tx Held to Ear (PCE)
· Equipment (EUT) Type:	Single modulation CDMA Phone
· Modulation(s):	CDMA
· Frequency Tolerance:	±0.00025% (2.5ppm)
· FCC Rule Part(s):	Rule part2 §22(H)
· Dates of Test:	Nov. 11, 14-17, 2003
· Place of Test:	SAMSUNG Lab,
· Test Report S/N:	FA-031-R1

2. INTRODUCTION

2.1 General

These measurement test were conducted at **SAMSUNG ELECTRONICS CO., LTD(SUWON)**. The site address is 416,Maetan-3Dong, YoungTong-Gu, Suwon City, Gyeonggi-Do, KOREA 442-600 The site have 1 Fully-anechoic chamber and measurement facility.

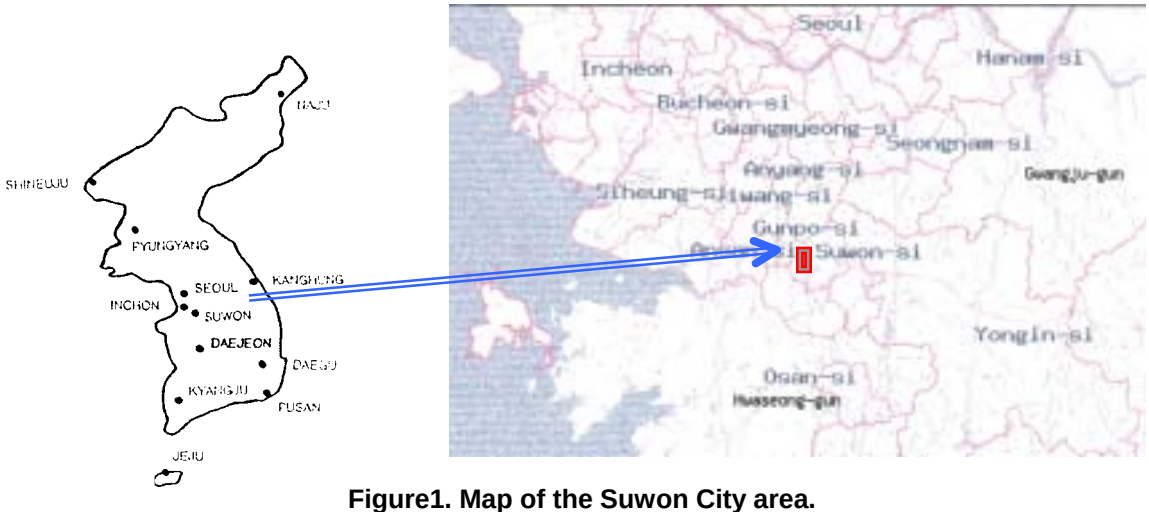

Figure1. Map of the Suwon City area.

Measurement Procedure

The radiated and spurious measurements were made Fully-anechoic chamber at a 3-meter test range (see Figure2). The equipment under testing was placed on a wooden turntable. 3-meters from the receive antenna. The receive antenna height and turntable rotations was adjusted for the highest reading on the receive spectrum analyzer. The substitution antenna will replace the EUT antenna it the same position and in vertical polarization. The frequency of the signal generator shall be set to the frequencies that were measured on the EUT. The test antenna shall be raised and lowered, if necessary, to ensure that the maximum signal is still being received. The signal generator, output level, shall be adjusted until an equal or a known related level to what was measured from the EUT is obtained in the spectrum analyzer. This level was recorded.

For readings above 1 GHz, the above procedure would be repeated using horn antennas and the difference between the gain of the horn and an isotropic antenna are taken into consideration.

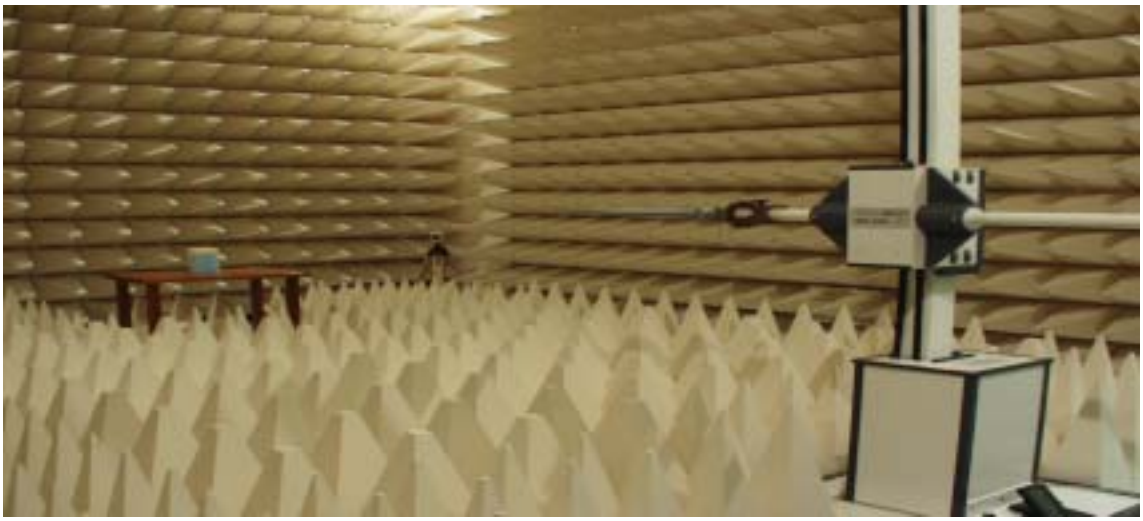

Figure2. Photograph of 3m Fully-Anechoic Chamber

3. MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

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4. TEST EQUIPMENT LIST

Name of Equipment	Model	Serial No.	Due Date
Spectrum Analyzer	ESI26	836119/010	2004-09-15
	E4440A(3Hz~26.5GHz)	MY41000236	2004-11-07
	E4440A(3Hz~26.5GHz)	MY41000233	2003-11-25
Signal Generator	SMIQ03B	83824/021	2004-01-20
	SMR20	835197/030	2004-01-20
Power Meter	E4419B	GB41293846	2004-10-02
Power Sensor	8481B	3318A10325	2004-10-06
	8485A	3318A19924	2004-10-04
Amplifier	5S1G4	304866	2003-11-26
Pre-Amplifier	8449B	3008A00691	2004-01-21
Communication test set	8960	GB42230535	2004-11-17
	8960	GB42360886	2004-11-10
Antenna Master	MA0001	ANT0967	Not Required
Controller	HD100	100/756	Not Required
Environmental Chamber	PL-4S	13005454	2004-08-22
	SH-241	92000548	2003-12-12
	SH-241	92000549	2003-12-12
Horn Antenna	HF906	360306/011	2004-02-10
	HF906	100134	2004-03-31
Dipole Antenna	3121C-DB4	9007-587	2004-03-21
	3121C-DB4	9007-588	2004-03-21
Receive Antenna	HO040	353255/020	2004-04-08
Attenuator	8494A	3308A31997	2004-01-20
	8496A	3308A14426	2004-01-20
Directional Coupler	4278-311-2	B3679637	2004-01-22
	4278-111-2	B103DC8722	2004-01-22
High Pass Filter	WHK1.0/15G-10SS	1	Not Required
	WHK1.0/15G-10SS	1	Not Required
	WHK/3.5/18G-10SS	3	Not Required
	WHK/3.5/18G-10SS	4	Not Required
Shielded Semi-Anechoic Chamber	RF0002	ANT0001	2004-01-21

5. DESCRIPTION OF TESTS

5.1 Effective Radiated Power

Test Set-up for the ERP/EIRP TEST

Effective Radiated Power Output Measurements by Substitution Method according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001:

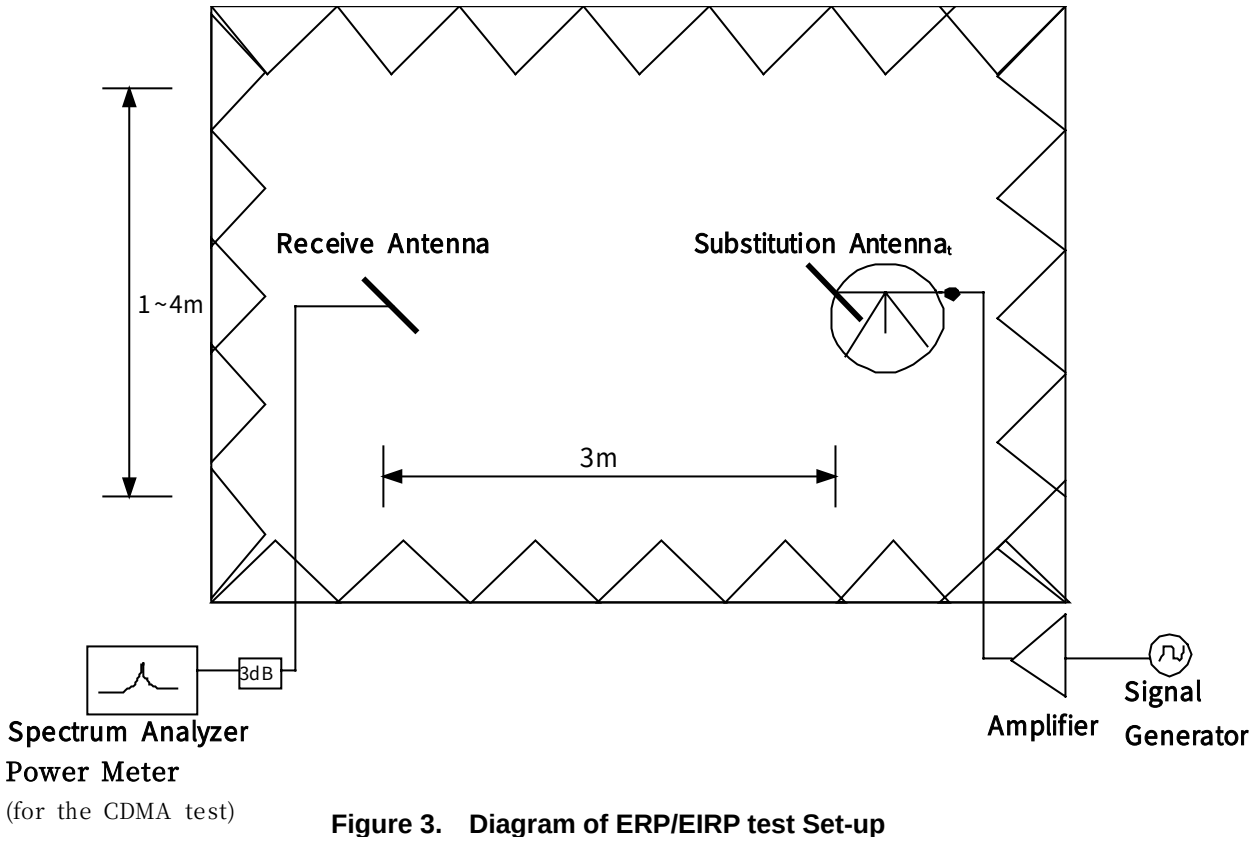


Figure 3. Diagram of ERP/EIRP test Set-up

The EUT was placed on a Non-conducted turntable 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. The conducted power at the terminals of dipole is measured. The ERP is recorded. For readings above 1GHz, the above procedure is repeated using horn antenna and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

5.2 Radiated Spurious & Harmonic Emission

Test Set-up for the Radiated Emission TEST

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-A-2001, Aug. 15, 2001

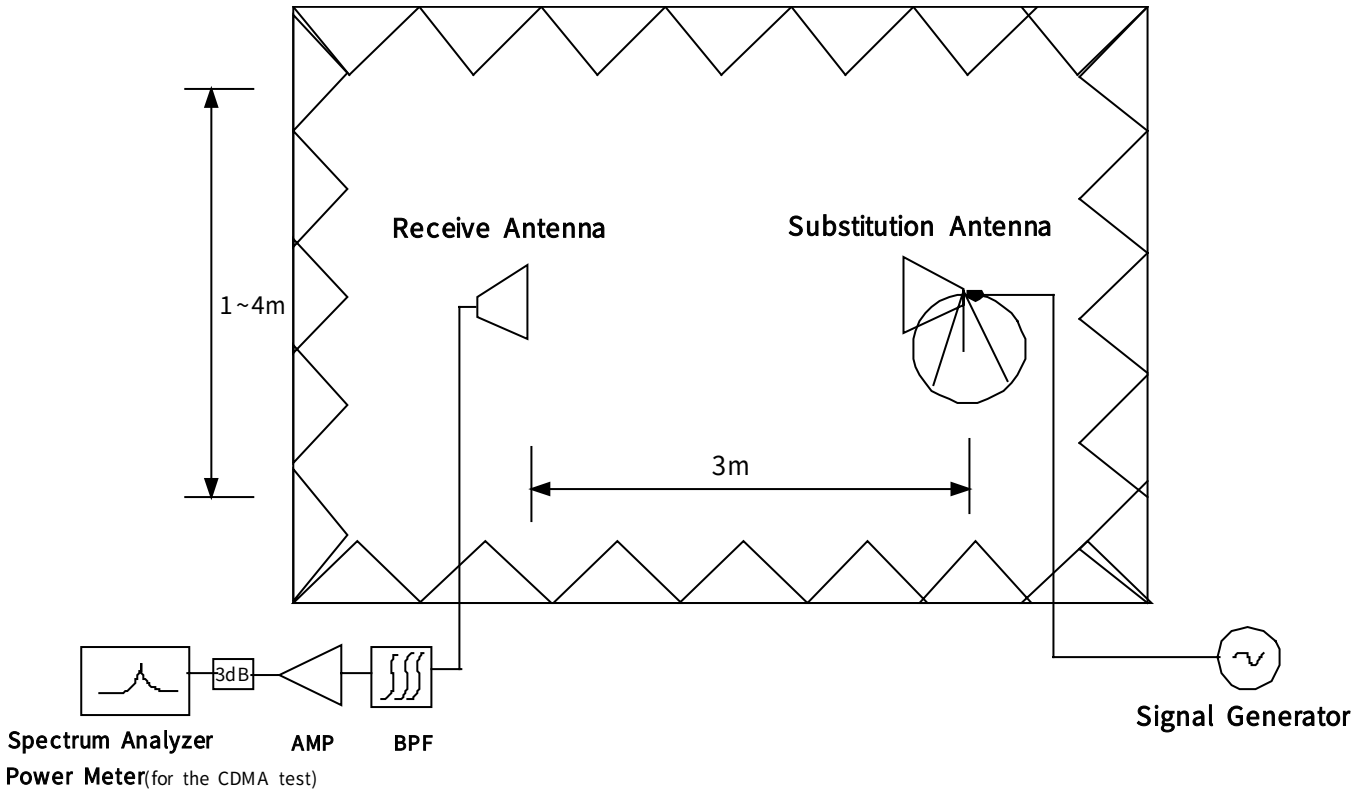


Figure 4. Diagram of Radiated Spurious & Harmonic test Set-up

The EUT was placed on a Non-conducted turntable 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

SAMPLE CALCULATION

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

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

5.3 Occupied Bandwidth

Test Procedure

The EUT was setup to maximum output power at its lowest channel. The occupied bandwidth was measured using a spectrum analyzer. The measurements are repeated for the highest and a middle channel. The EUT's occupied bandwidth is measured as the width of the signal between two points, one below the carrier center frequency and one above the carrier frequency, outside of which all emissions are attenuated at least 26dB below the transmitter power.

Plots of the EUT's occupied bandwidth are shown herein.

5.4 Spurious and Harmonic Emissions at Antenna Terminal

5.4.1 Occupied Bandwidth Emission Limits

(a) 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.

(b) Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1MHz 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.

(c) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the licensee's frequency block edges, both upper and lower, as the design permits.

(d) The measurement of emission power can be expressed in peak or average values, provided they are expressed in the same parameters as the transmitter power.

BLOCK	Freq. Range (MHz) Transmitter (Tx)	Freq. Range (MHz) Receiver (Rx)
A	824 – 835	869 - 880
B	835 – 845	880 - 890
A'	845 – 846.5	890 – 891.5
B'	846.5 - 849	891.5 - 894

Table 1. Broadband CDMA Service Frequency Blocks.

5.4.2 Conducted Spurious Emission

Minimum standard:
On any frequency outside a license frequency block, the power of any emission shall be attenuated below the transmitter power(P) by at least 43+10log (P)dB. Limit equivalent to –13dBm, calculation shown below.

43 + 10log (0.311W) = 37.93dB
24.93dBm – 37.93dB = -13Bm

Test Procedure:

The EUT was setup to maximum output power at its lowest channel. The Resolution BW of the analyzer is set to 1% of the emission bandwidth to show compliance with the –13dBm limit, in the 1MHz bands immediately outside and adjacent to the edge of the frequency block. The measurements are repeated for the EUT's highest channel. For the Out-of-Band measurements a 1MHz RBW was used to scan from 10MHz to 10GHz. A display line was placed at –13dBm to show compliance. The high, lowest and a middle channel were tested for out of band measurements.

Plots are shown herein.

5.5 Frequency Stability / Temperature Variation

The frequency stability of the transmitter is measured by:

a.) Temperature: The temperature is carried from -30°C to +60°C using an environmental chamber.
b.) Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the voltage normally at the input to the device or at the power supply terminals if cables are not normally supplied.

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 ±0.0001 (±1ppm) of the center frequency.

Time Period and Procedure:

1. The carrier frequency of the transmitter and the individual oscillators is measured at room temperature(25°C to 27°C to provide a reference).
2. The equipment is subjected to an overnight "soak" at -30°C without any power applied.
1. After the overnight "soak" at 30°C (Usually 14~16 hours), the equipment is turned on in a "standby" condition for one minute before applying power to the transmitter. Measurement of the carrier frequency of the transmitter and the individual oscillators is made within a three minute interval after applying to the transmitter.
2. Frequency measurements are made at 10°C interval up to room temperature. At least a period of one and one half-hour is provided to allow stabilization of the equipment at each temperature level.
3. Again the transmitter carrier frequency and the individual oscillators is measured at room temperature to begin measurement of the upper temperature levels.
4. Frequency measurements are at 10 intervals starting at 30°C up to +50°C allowing at least two hours at each temperature for stabilization. In all measurements the frequency is measured within three minutes after re-applying power to the transmitter.
5. The artificial load is mounted external to the temperature chamber.

NOTE : The EUT is tested down to the battery endpoint.

6. TEST DATA

6.1 Effective Radiated Power(E.R.P.)

Supply Voltage : 3.7VDC

Modulation : CDMA

■ Reference level

Frequency (MHz)	Output (dBm)	Polarization	P/M (dBm)	Ant gain (dBi)	Ref level (dBm)
835.89	25.00	H	-13.55	0.00	-13.55
		V	-12.04	0.00	-12.04

■ Result

Frequency (MHz)	From EUT Tested level (dBm)	Polarization (H/V)	Azimuth (angle)	EIRP (dBm)	EIRP (W)	Battery
824.70	-13.62	H2	180	24.93	0.311	Standard
835.89	-15.48	H1	174	23.07	0.203	Standard
848.31	-15.06	H1	176	23.56	0.227	Standard

NOTE : Standard batteries are the only battery options for this phone

Radiated measurements at 3 meters by Substitution Method

6.2 Radiated Spurious & Harmonic measurement
Field Strength of SPURIOUS Radiation

Operating Frequency : 824.70 MHz(Low), 835.89MHz(Middle), 848.37MHz(High)

Measured Output Power : 24.93 dBm = 0.311 W

Modulation Signal : CDMA

Limit : 43 + 10log$_{10}$(w) = 37.93 dBc

■ **Result**

Channel	Harmonic	Frequency (MHz)	From EUT Tested level (dBm)	POL (H/V)	Result (dBc)
1013	2	1649.40	-43.62	H1	59.69
	3	2474.10	-63.67	H1	73.58
	4	3298.80	-61.05	H1	68.13
	5	4123.50	-63.81	H1	67.97
	6	4948.20	-	-	-
	7	5772.90	-	-	-
363	2	1671.78	-47.91	H1	63.87
	3	2507.67	-63.28	V	72.50
	4	3343.56	-60.67	H1	67.32
	5	4179.45	-	-	-
	6	5015.34	-	-	-
	7	5851.23	-	-	-
777	2	1696.62	-52.18	H2	66.62
	3	2544.93	-62.27	H2	71.83
	4	3393.24	-60.37	V	68.04
	5	4241.55	-	-	-
	6	5089.86	-	-	-
	7	5938.17	-	-	-

Radiated Spurious Emission measurements at 3 meters by Substitution Method

6.3 Radiated Spurious & Harmonic Conversion Table

Date : 2003 . 11. 14 .

Test Engineer : E H JUNG

① Tx Cable loss
② Tx Horn Ant Gain
③ Rx Cable loss + HPF Insertion loss + Attenuator
④ Pre-Amp gain
⑤ Air loss
⑥ Tested Level from EUT
⑦ = ⑥ + ⑤ + ③ - ④
⑧ = ERP +2.14- ⑦

CH	Har	Frequency (MHz)	① Tx CL (dB)	② Horn Gain (dB)	Tx Level @ (S/G 0dBm)	⑥ Tested Level EUT : H (dBm)	⑥ Tested Level EUT : V (dBm)	⑦ Amplitude of Emission EUT : H (dBm)	⑦ Amplitude of Emission EUT : V (dBm)	⑧ Result EUT : H (dBc)	⑧ Result EUT : V (dBc)
1013	2	1649.40	6.83	7.21	0.38	-43.62	-49.28	-32.62	-37.23	59.69	64.30
	3	2474.10	8.64	8.87	0.23	-63.67	-65.02	-46.51	-47.60	73.58	74.67
	4	3298.80	10.35	8.43	-1.92	-61.05	-63.75	-41.06	-43.91	68.13	70.98
	5	4123.50	12.82	9.89	-2.93	-63.81	-65.05	-40.90	-42.40	67.97	69.47
	6	4948.20	12.77	10.33	-2.44	-	-	-	-	-	-
	7	5772.90	13.88	10.86	-3.02	-	-	-	-	-	-
363	2	1671.78	6.91	7.21	0.30	-47.91	-52.43	-36.80	-39.85	63.87	66.92
	3	2507.67	8.75	8.87	0.12	-63.30	-63.28	-45.45	-45.43	72.52	72.50
	4	3343.56	10.28	8.43	-1.85	-60.67	-62.85	-40.25	-42.89	67.32	69.96
	5	4179.45	12.27	10.20	-2.07	-	-	-	-	-	-
	6	5015.34	13.15	10.34	-2.81	-	-	-	-	-	-
	7	5851.23	14.46	10.86	-3.60	-	-	-	-	-	-
777	2	1696.62	6.93	7.21	0.28	-52.18	-56.02	-39.55	-41.85	66.62	68.92
	3	2544.93	8.82	8.87	0.05	-62.27	-62.32	-44.97	-44.76	72.04	71.83
	4	3393.24	10.41	8.54	-1.87	-60.86	-60.37	-41.22	-40.97	68.29	68.04
	5	4241.55	12.25	10.20	-2.05	-	-	-	-	-	-
	6	5089.86	13.16	10.39	-2.77	-	-	-	-	-	-
	7	5938.17	14.65	10.86	-3.79	-	-	-	-	-	-

6.4 Frequency Stability

6.4.1 Frequency Stability Table

Operating Frequency : 835,890,000 Hz

Channel : 363

Reference Voltage : 3.7VDC

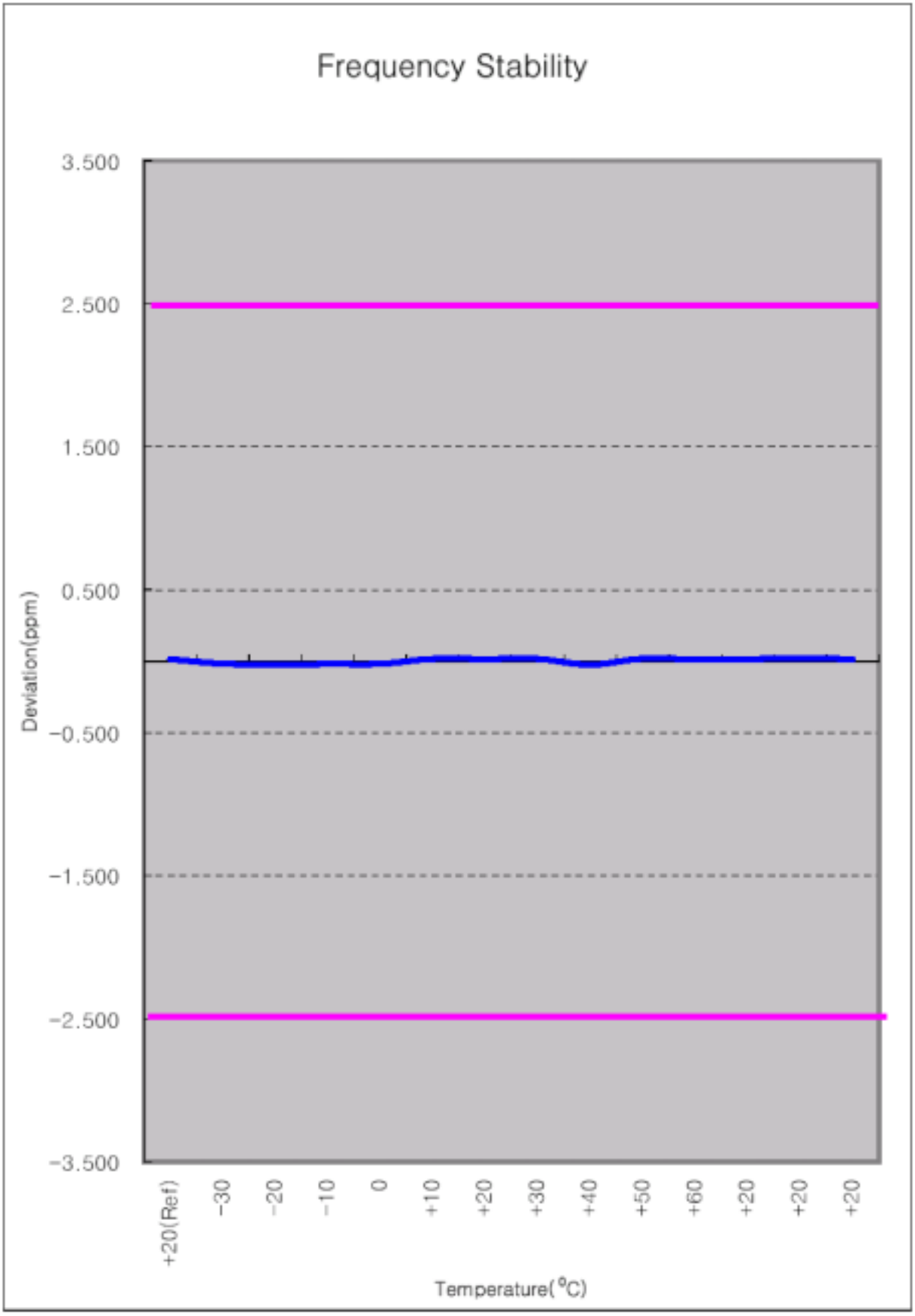
Deviation Limit : ±0.00025 % or 2.5ppm

Voltage (%)	Power (VDC)	Temp. (°C)	Frequency Error (Hz)	Frequency (Hz)	Deviation (%)	ppm
100%	3.70	+20(Ref)	12.07	835,890,012	0.000001	0.014
100%		-30	-14.50	835,889,986	-0.000002	-0.017
100%		-20	-20.20	835,889,980	-0.000002	-0.024
100%		-10	-14.80	835,889,985	-0.000002	-0.018
100%		0	-14.70	835,889,985	-0.000002	-0.018
100%		+10	14.60	835,890,015	0.000002	0.017
100%		+20	11.90	835,890,012	0.000001	0.014
100%		+30	13.70	835,890,014	0.000002	0.016
100%		+40	-20.10	835,889,980	-0.000002	-0.024
100%		+50	15.60	835,890,016	0.000002	0.019
100%		+60	11.20	835,890,011	0.000001	0.013
85%	3.15	+20	12.11	835,890,012	0.000001	0.014
115%	4.26	+20	16.09	835,890,016	0.000002	0.019
Batt.Endpoint	3.10	+20	12.06	835,890,012	0.000001	0.014

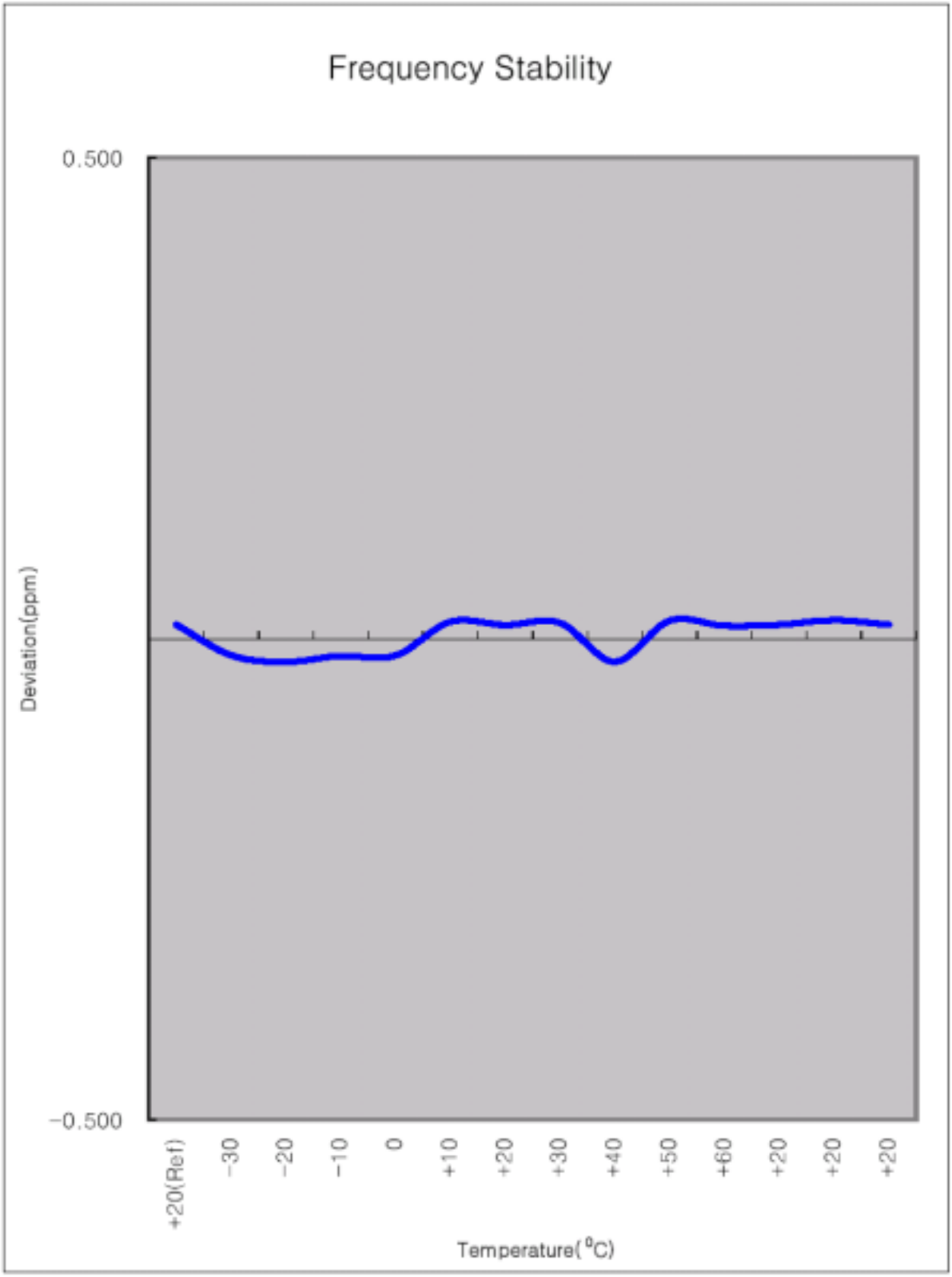
Note : The temperature is varied from -30 °C to +60 °C using an environmental chamber.

The EUT is tested down to the battery end point

6.4.2 Frequency Stability Graph



Zoom In


Frequency Stability
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-0.500
Deviation(ppm)
+20(Ref)
-30
-20
-10
0
+10
+20
+30
+40
+50
+60
+20
+20
+20
Temperature(°C)

7. SAMPLE CALCULATION

7.1 Emission Designator

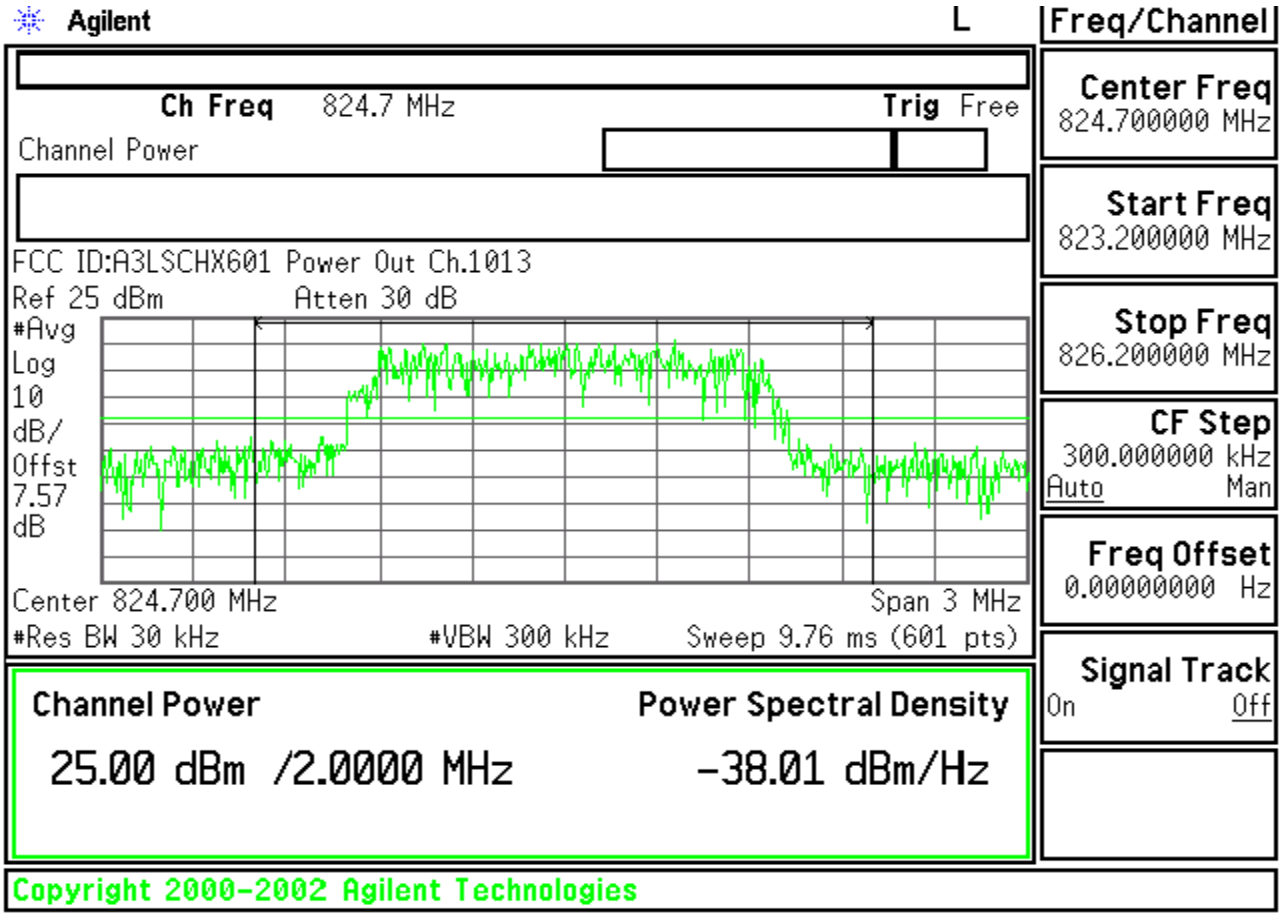
Emission Designator = 1M25F9W

Calculation : 2M + 2DK
CDMA BW = 1.25MHz
F = Frequency Modulation
9 = Composite Digital Info
W = Combination(Audio/Data)
(Measured at the 99.75% power bandwidth)

8. CONCLUSION

The data collected shows that the SAMSUNG Single modulation CDMA Phone FCC ID : A3LSCHX601 complies with all the requirements of Parts 2,22 of the FCC Rules.

9. TEST PLOTS


Agilent
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Freq/Channel
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Trig Free
Channel Power
FCC ID:A3LSCHX601 Power Out Ch.1013
Ref 25 dBm
Atten 30 dB
#Avg
Log
10
dB/
Offst
7.57
dB
Center 824.700 MHz
Span 3 MHz
#Res BW 30 kHz
#VBW 300 kHz
Sweep 9.76 ms (601 pts)
Center Freq
824.700000 MHz
Start Freq
823.200000 MHz
Stop Freq
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CF Step
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Auto
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Off
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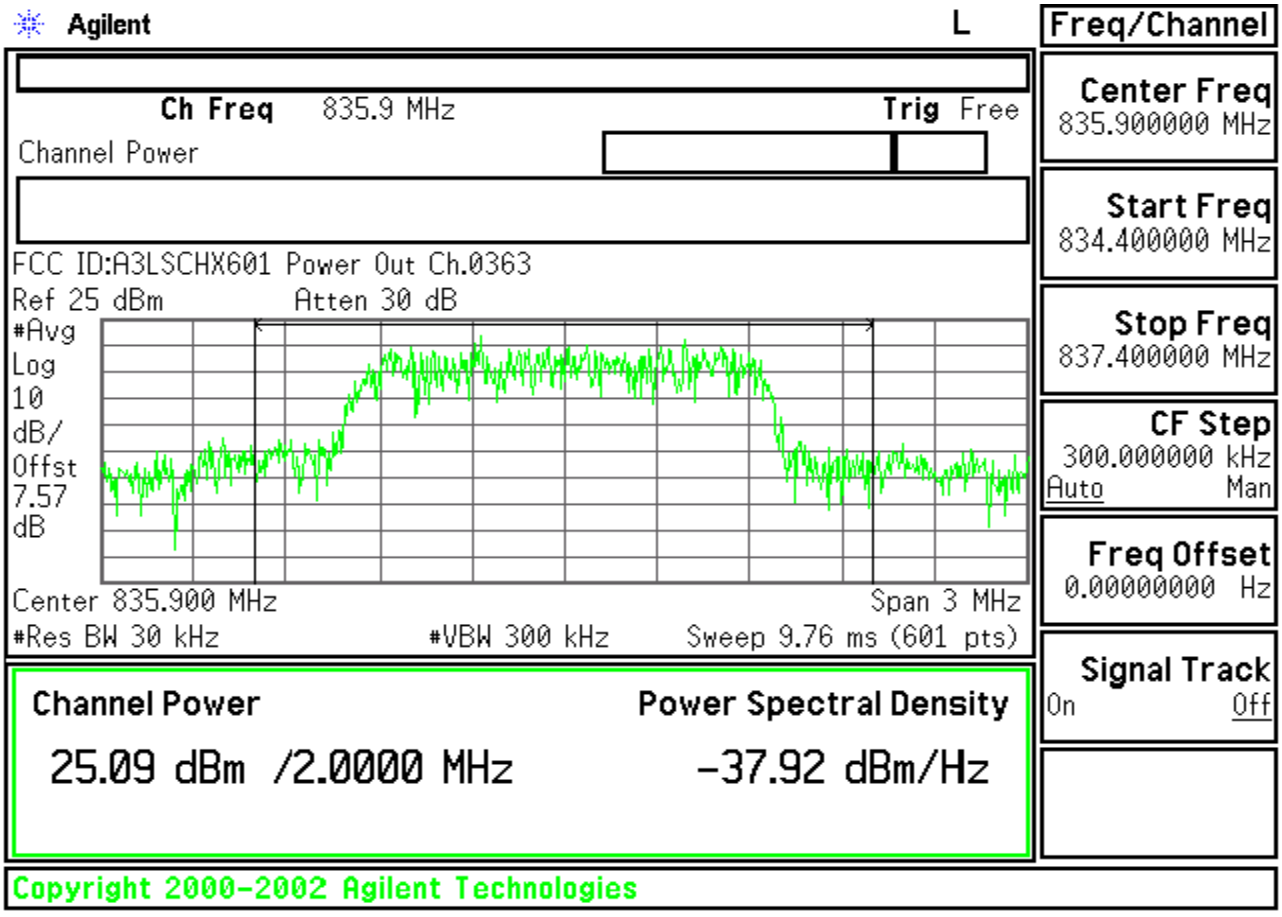
Power Spectral Density
-38.01 dBm/Hz
Copyright 2000-2002 Agilent Technologies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Trig Free
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FCC ID:A3LSCHX601 Power Out Ch.0363
Ref 25 dBm
Atten 30 dB
#Avg
Log
10
dB/
Offst
7.57
dB
Center 835.900 MHz
Span 3 MHz
#Res BW 30 kHz
#VBW 300 kHz
Sweep 9.76 ms (601 pts)
Center Freq
835.900000 MHz
Start Freq
834.400000 MHz
Stop Freq
837.400000 MHz
CF Step
300.000000 kHz
Auto
Man
Freq Offset
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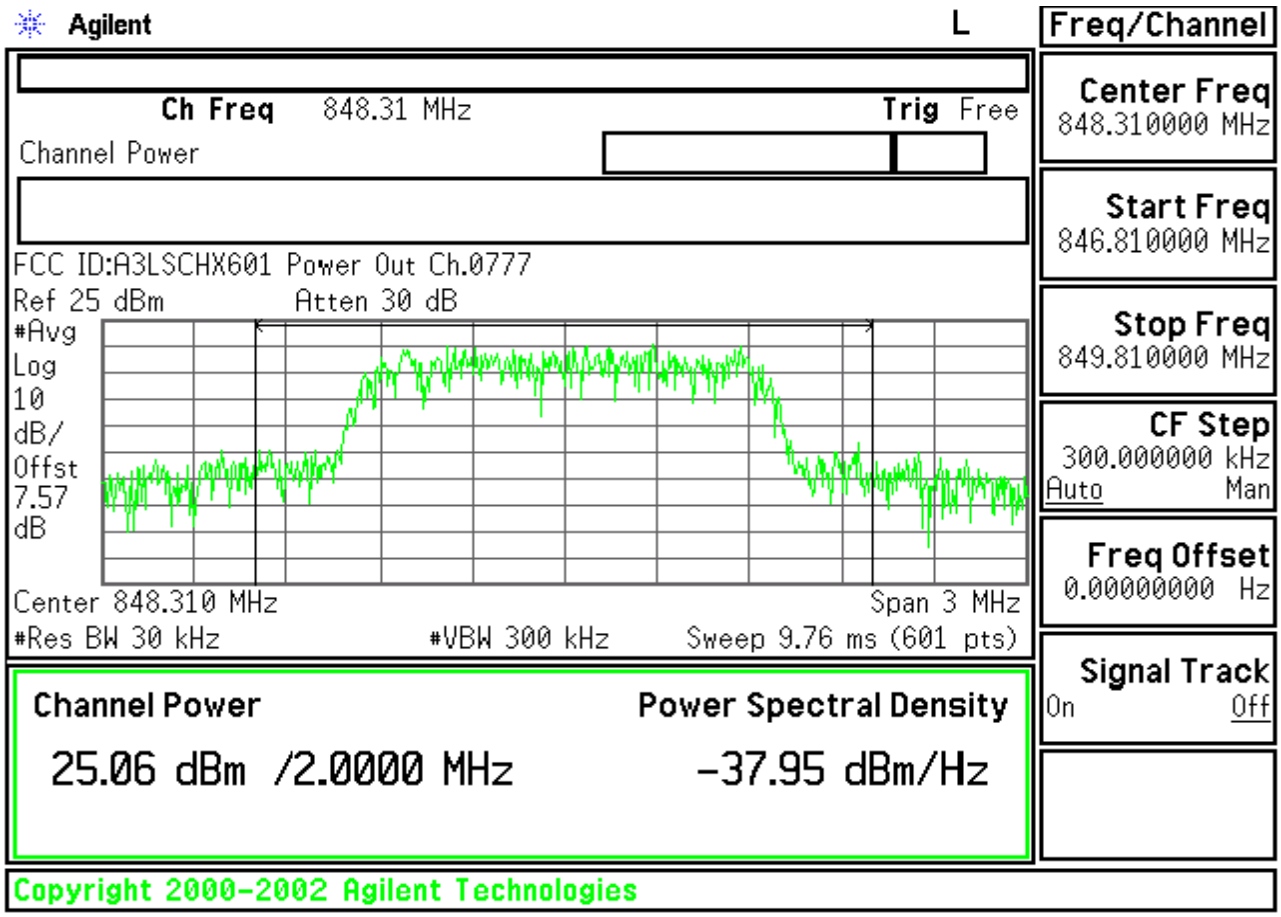
Power Spectral Density
-37.92 dBm/Hz
Copyright 2000-2002 Agilent Technologies


Agilent
L
Freq/Channel
Ch Freq 848.31 MHz
Trig Free
Channel Power
FCC ID:A3LSCHX601 Power Out Ch.0777
Ref 25 dBm
Atten 30 dB
#Avg
Log
10
dB/
Offst
7.57
dB
Center 848.310 MHz
Span 3 MHz
#Res BW 30 kHz
#VBW 300 kHz
Sweep 9.76 ms (601 pts)
Channel Power
25.06 dBm /2.0000 MHz
Power Spectral Density
-37.95 dBm/Hz
Center Freq
848.310000 MHz
Start Freq
846.810000 MHz
Stop Freq
849.810000 MHz
CF Step
300.000000 kHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
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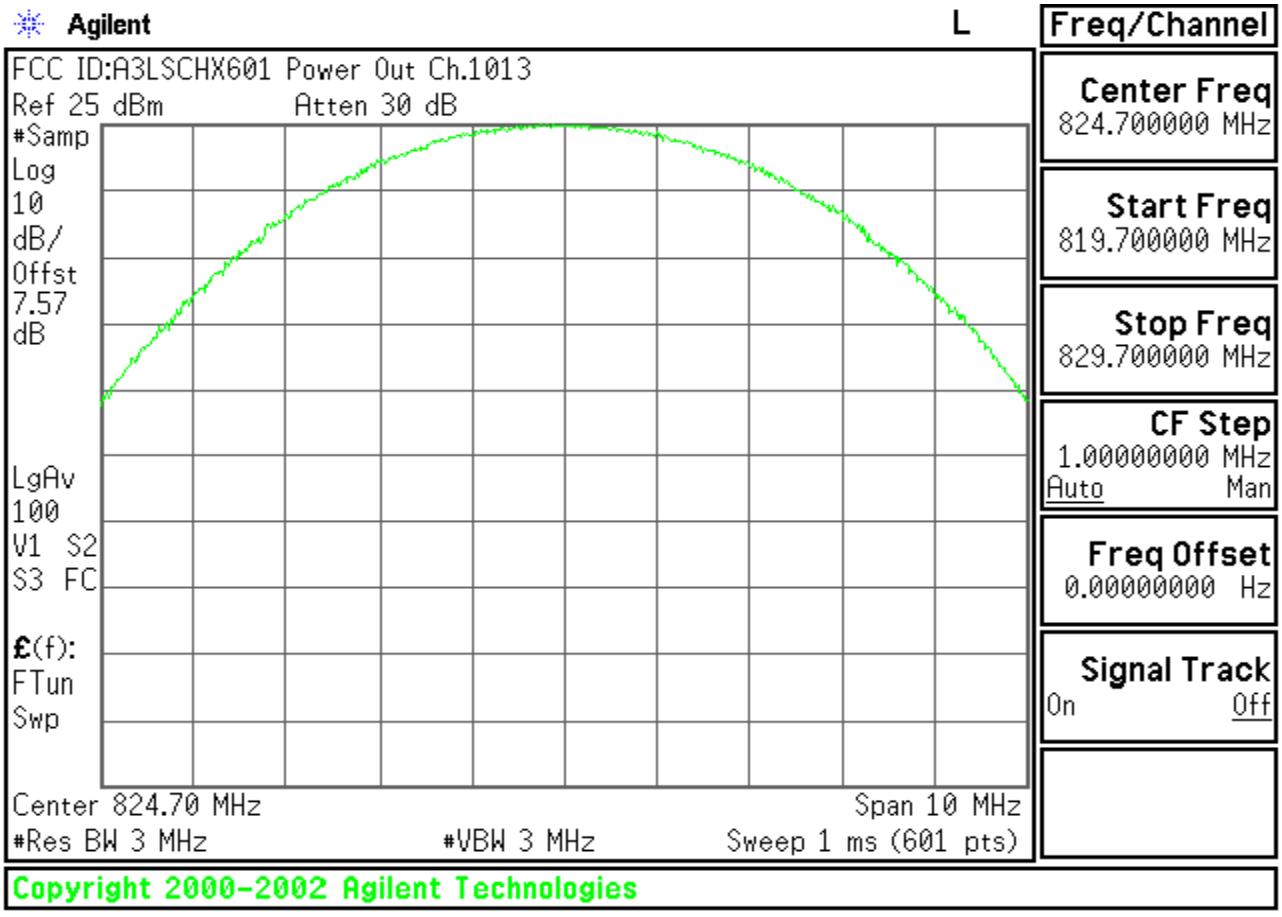
Agilent
L
Freq/Channel
FCC ID:A3LSCHX601 Power Out Ch.1013
Ref 25 dBm
Atten 30 dB
#Samp
Log
10
dB/
Offst
7.57
dB
LgAv
100
V1 S2
S3 FC
£(f):
FTun
Swp
Center 824.70 MHz
Span 10 MHz
#Res BW 3 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Center Freq
824.700000 MHz
Start Freq
819.700000 MHz
Stop Freq
829.700000 MHz
CF Step
1.00000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
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Agilent

L

Ch Freq 848.31 MHz

Trig Free

Occupied Bandwidth

FCC ID:A3LSCHX601 Occ BW Ch.0777

Ref 25 dBm Atten 30 dB

#Samp

Log

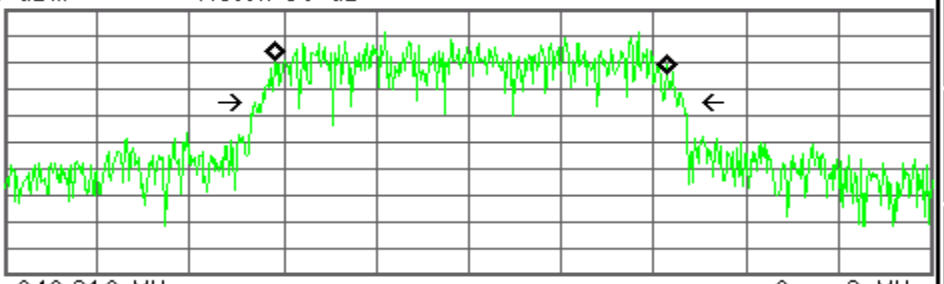
10

dB/

Offst

7.57

dB



Center 848.310 MHz

Span 3 MHz

#Res BW 30 kHz #VBW 300 kHz #Sweep 10.08 ms (601 pts)

Occupied Bandwidth

1.251 MHz

Occ BW % Pwr 99.00 %

x dB -26.00 dB

Transmit Freq Error 4.527 kHz

x dB Bandwidth 1.368 MHz*

Freq/Channel

Center Freq
848.310000 MHz

Start Freq
846.810000 MHz

Stop Freq
849.810000 MHz

CF Step
300.000000 kHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

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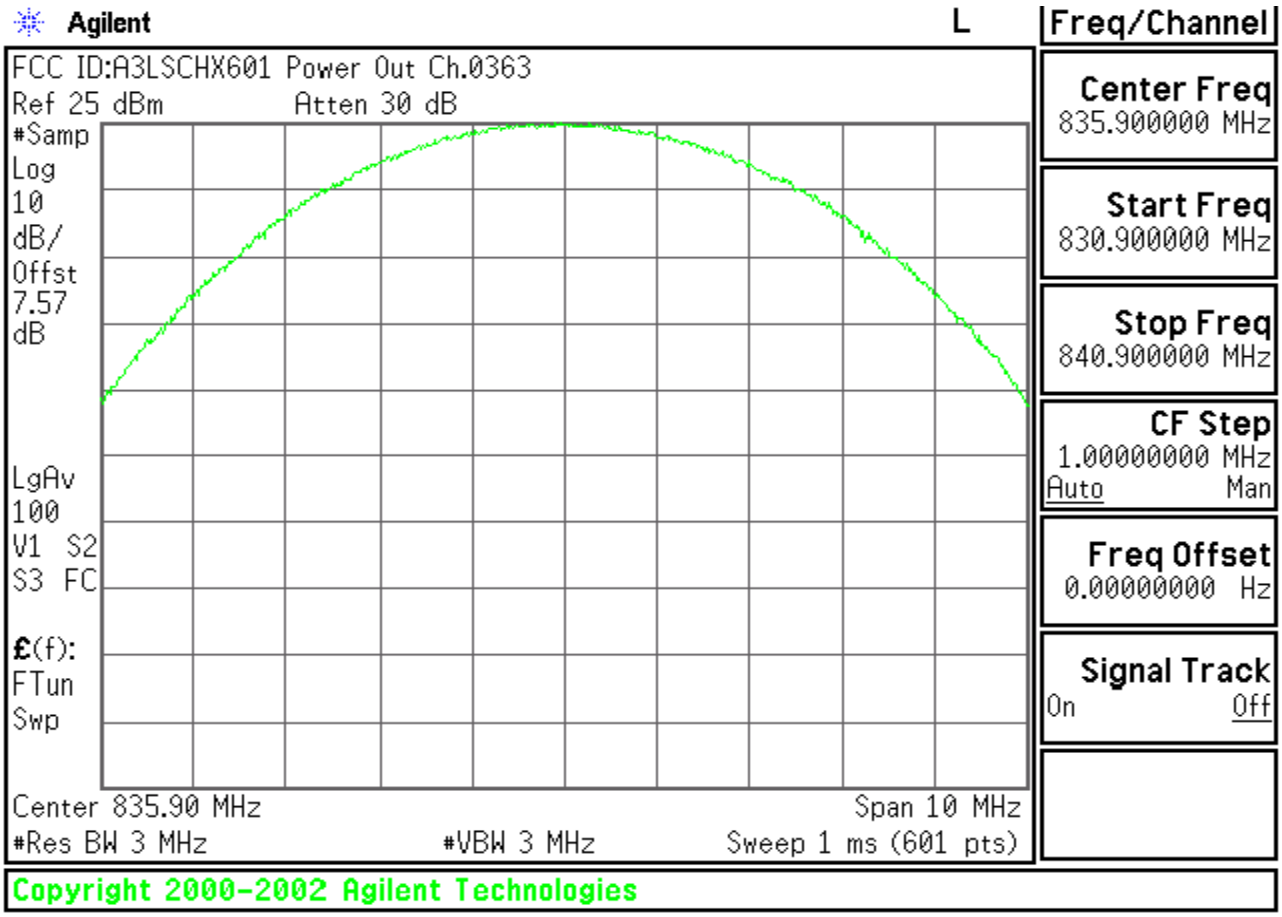
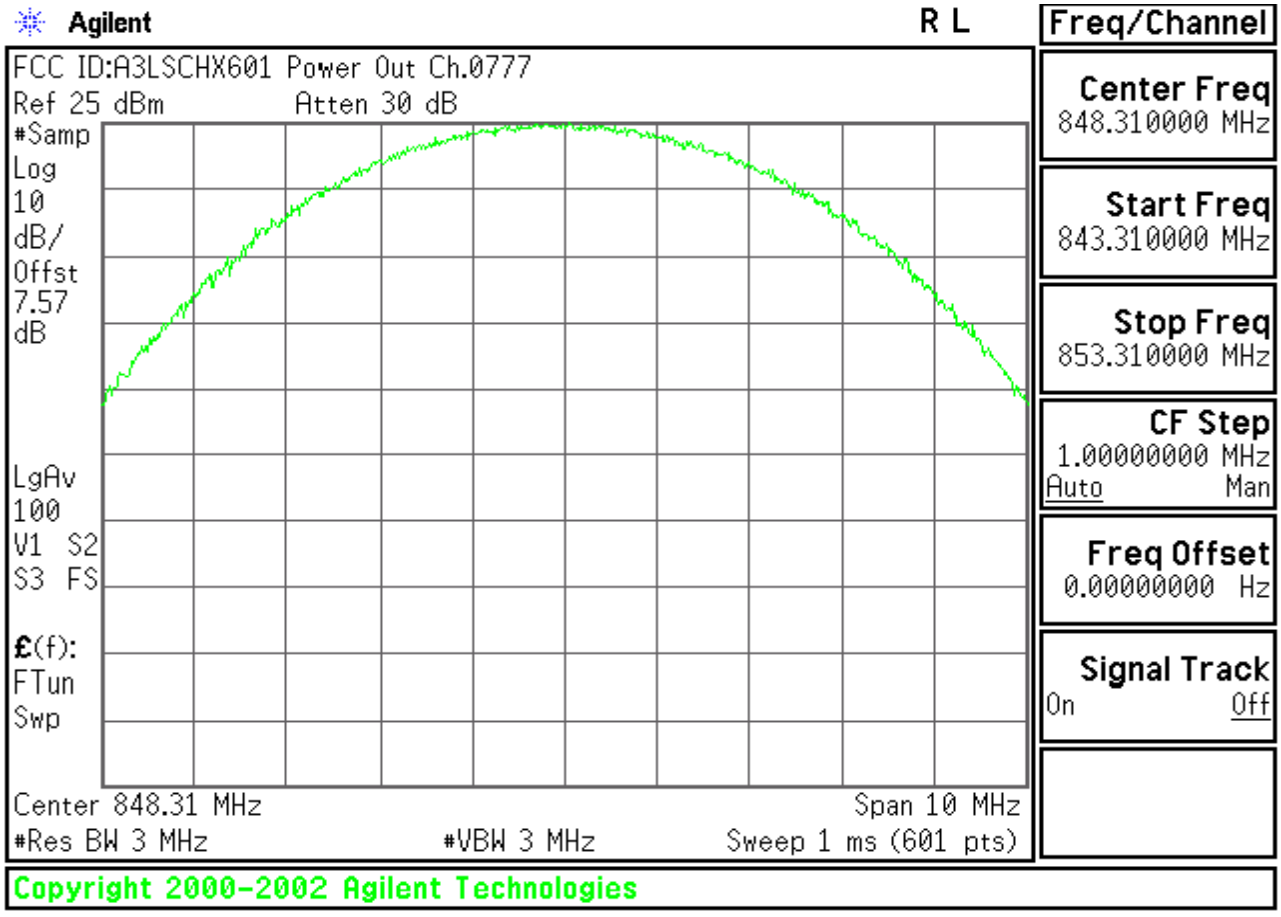
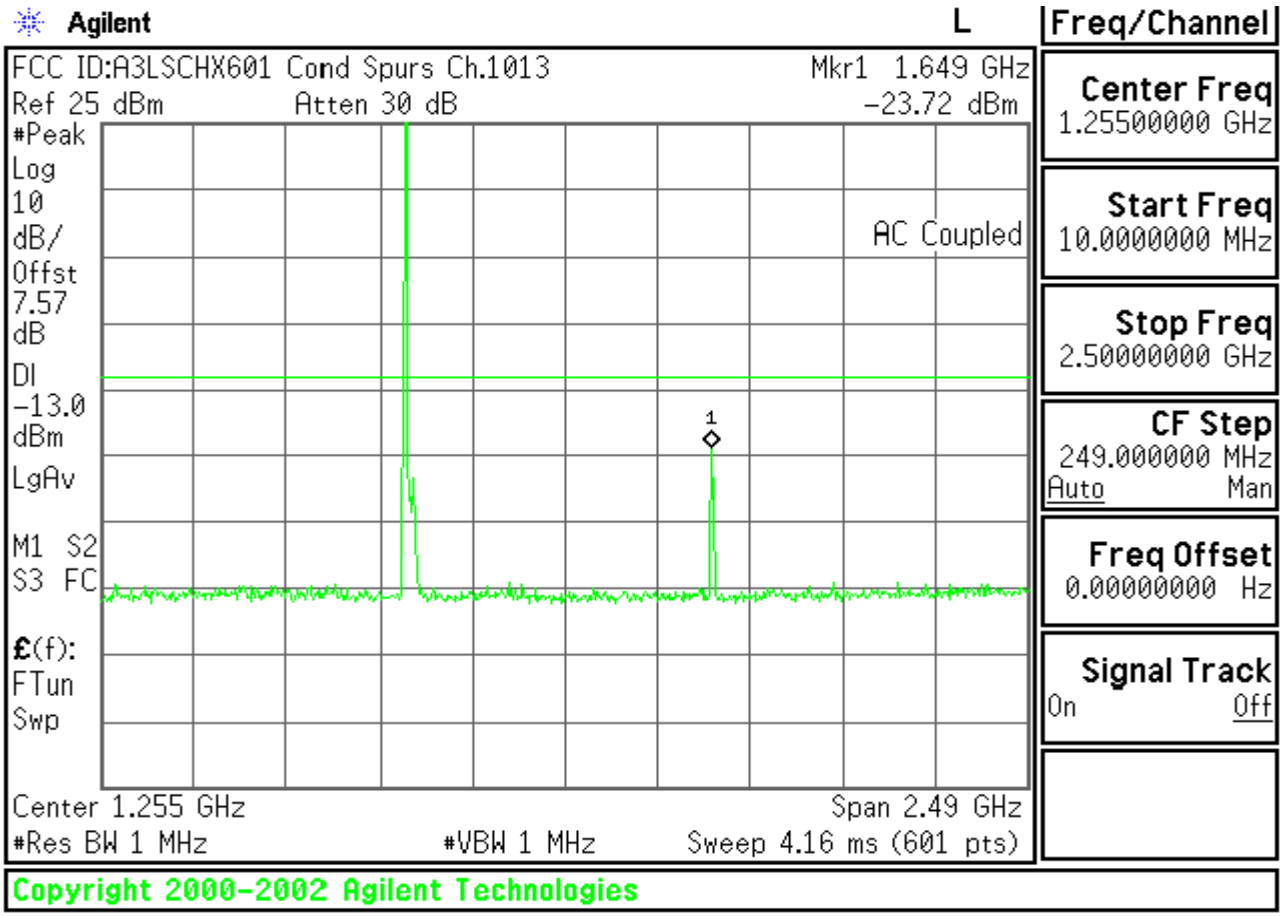

Agilent
L
Freq/Channel
FCC ID:A3LSCHX601 Power Out Ch.0363
Ref 25 dBm
Atten 30 dB
#Samp
Log
10
dB/
Offst
7.57
dB
LgAv
100
V1 S2
S3 FC
£(f):
FTun
Swp
Center 835.90 MHz
Span 10 MHz
#Res BW 3 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Center Freq
835.900000 MHz
Start Freq
830.900000 MHz
Stop Freq
840.900000 MHz
CF Step
1.00000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Copyright 2000-2002 Agilent Technologies


Agilent
R L
Freq/Channel
FCC ID:A3LSCHX601 Power Out Ch.0777
Ref 25 dBm
Atten 30 dB
#Samp
Log
10
dB/
Offst
7.57
dB
LgAv
100
V1 S2
S3 FS
£(f):
FTun
Swp
Center 848.31 MHz
Span 10 MHz
#Res BW 3 MHz
#VBW 3 MHz
Sweep 1 ms (601 pts)
Center Freq
848.310000 MHz
Start Freq
843.310000 MHz
Stop Freq
853.310000 MHz
CF Step
1.00000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Copyright 2000-2002 Agilent Technologies


Agilent
L
Freq/Channel
FCC ID:A3LSCHX601 Cond Spurs Ch.1013
Mkr1 1.649 GHz
Ref 25 dBm
Atten 30 dB
-23.72 dBm
#Peak
Log
10
dB/
Offst
7.57
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
AC Coupled
1
Center Freq
1.25500000 GHz
Start Freq
10.0000000 MHz
Stop Freq
2.50000000 GHz
CF Step
249.000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Center 1.255 GHz
Span 2.49 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 4.16 ms (601 pts)
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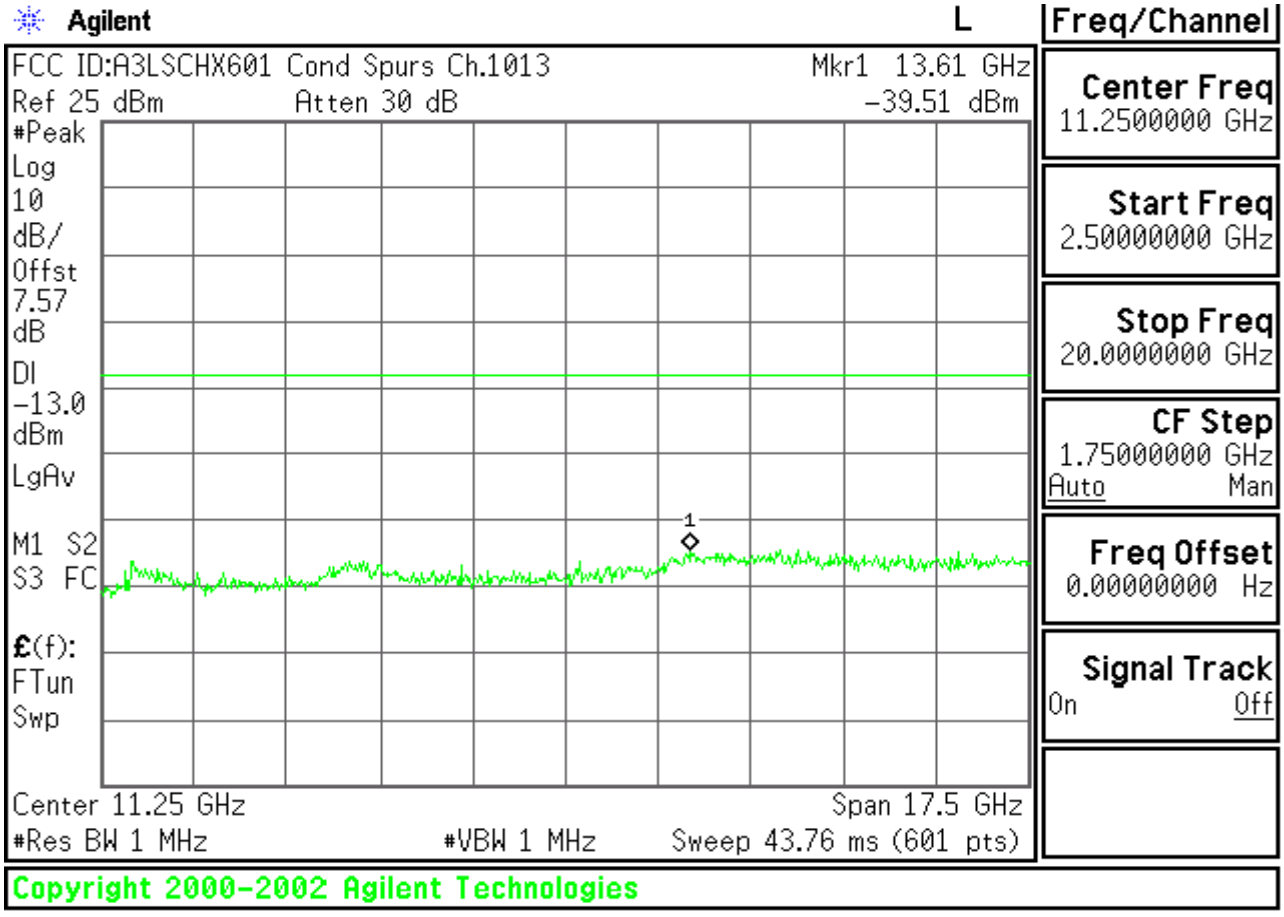
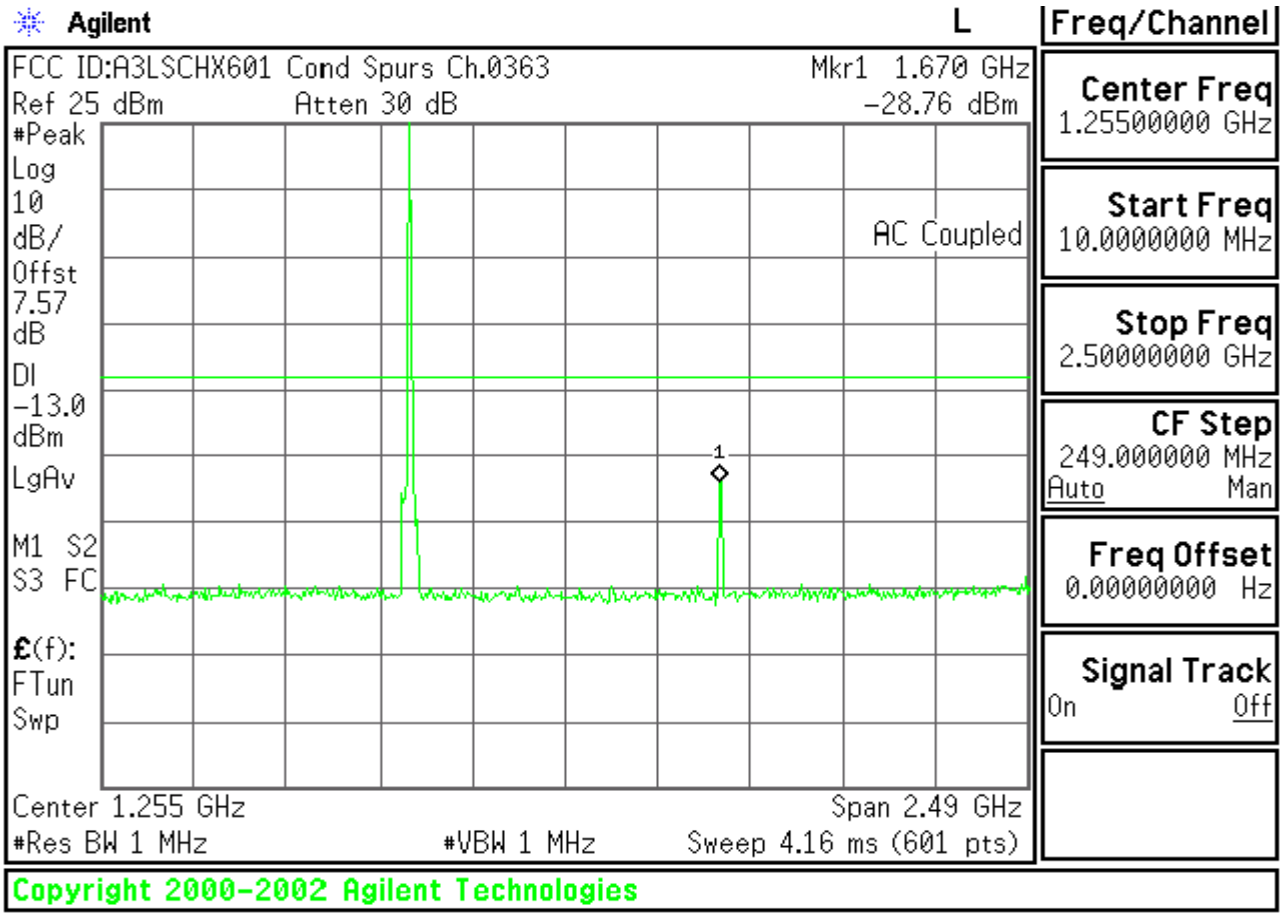
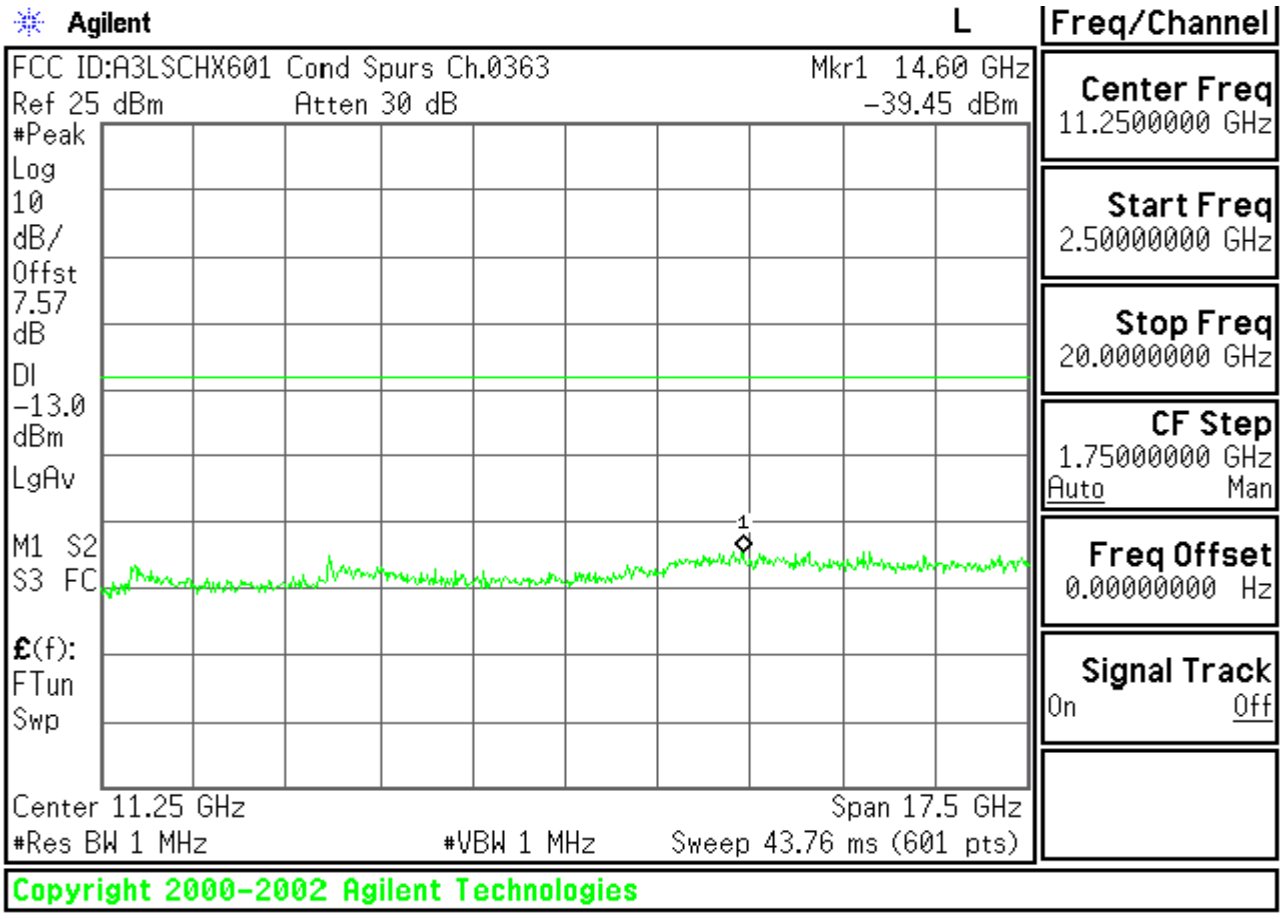
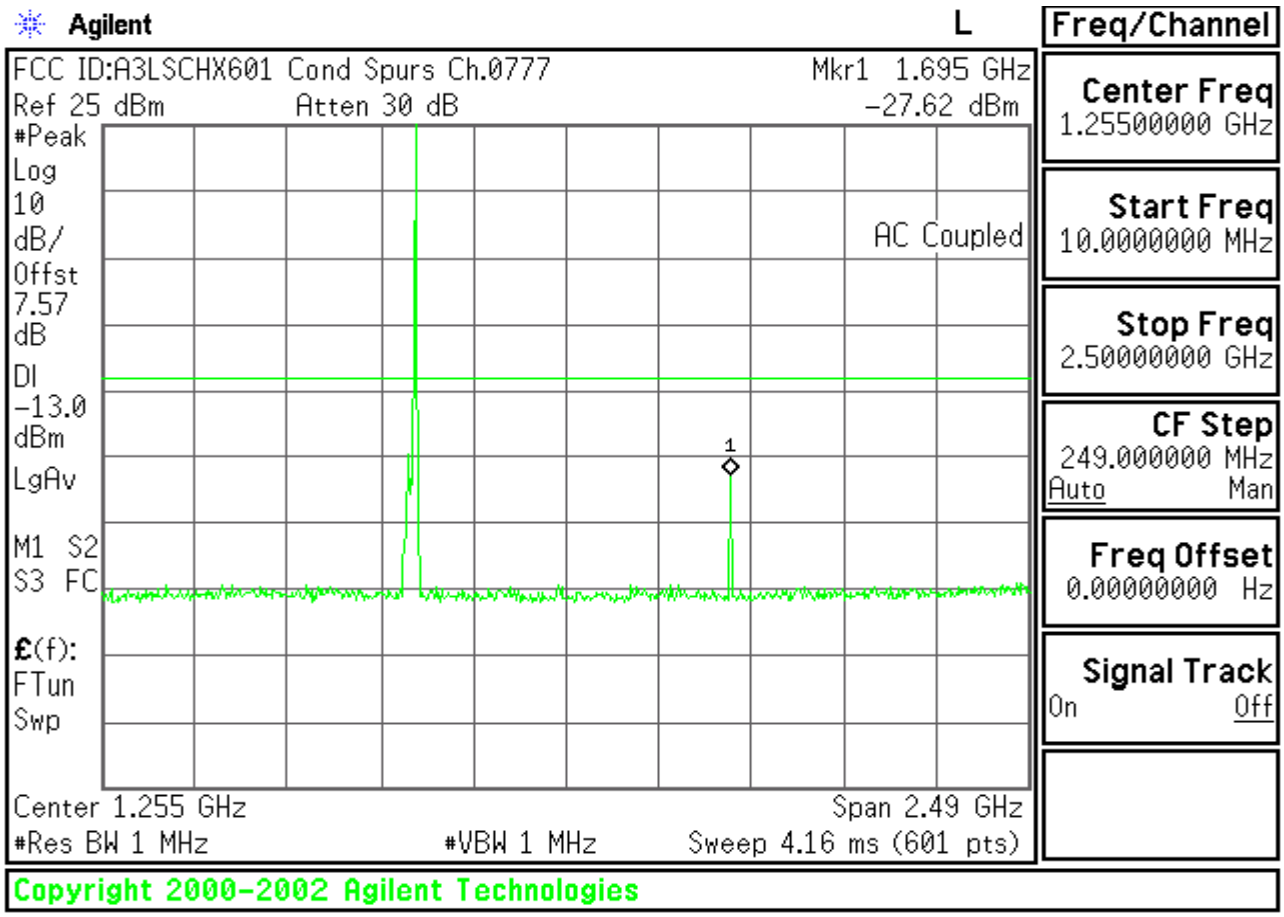

Agilent
L
Freq/Channel
FCC ID:A3LSCHX601 Cond Spurs Ch.1013
Mkr1 13.61 GHz
Ref 25 dBm
Atten 30 dB
-39.51 dBm
#Peak
Log
10
dB/
Offst
7.57
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
1
Center Freq
11.2500000 GHz
Start Freq
2.50000000 GHz
Stop Freq
20.0000000 GHz
CF Step
1.75000000 GHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Center 11.25 GHz
Span 17.5 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 43.76 ms (601 pts)
Copyright 2000-2002 Agilent Technologies


Agilent
L
Freq/Channel
FCC ID:A3LSCHX601 Cond Spurs Ch.0363
Mkr1 1.670 GHz
Ref 25 dBm
Atten 30 dB
-28.76 dBm
#Peak
Log
10
dB/
Offst
7.57
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
AC Coupled
1
Center 1.255 GHz
Span 2.49 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 4.16 ms (601 pts)
Center Freq
1.25500000 GHz
Start Freq
10.0000000 MHz
Stop Freq
2.50000000 GHz
CF Step
249.000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Copyright 2000-2002 Agilent Technologies


Agilent
L
Freq/Channel
FCC ID:A3LSCHX601 Cond Spurs Ch.0363
Mkr1 14.60 GHz
Ref 25 dBm
Atten 30 dB
-39.45 dBm
#Peak
Log
10
dB/
Offst
7.57
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
1
Center 11.25 GHz
Span 17.5 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 43.76 ms (601 pts)
Center Freq
11.2500000 GHz
Start Freq
2.50000000 GHz
Stop Freq
20.0000000 GHz
CF Step
1.75000000 GHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Copyright 2000-2002 Agilent Technologies


Agilent
L
Freq/Channel
FCC ID:A3LSCHX601 Cond Spurs Ch.0777
Mkr1 1.695 GHz
Ref 25 dBm
Atten 30 dB
-27.62 dBm
#Peak
Log
10
dB/
Offst
7.57
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
AC Coupled
1
Center 1.255 GHz
Span 2.49 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 4.16 ms (601 pts)
Center Freq
1.25500000 GHz
Start Freq
10.0000000 MHz
Stop Freq
2.50000000 GHz
CF Step
249.000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
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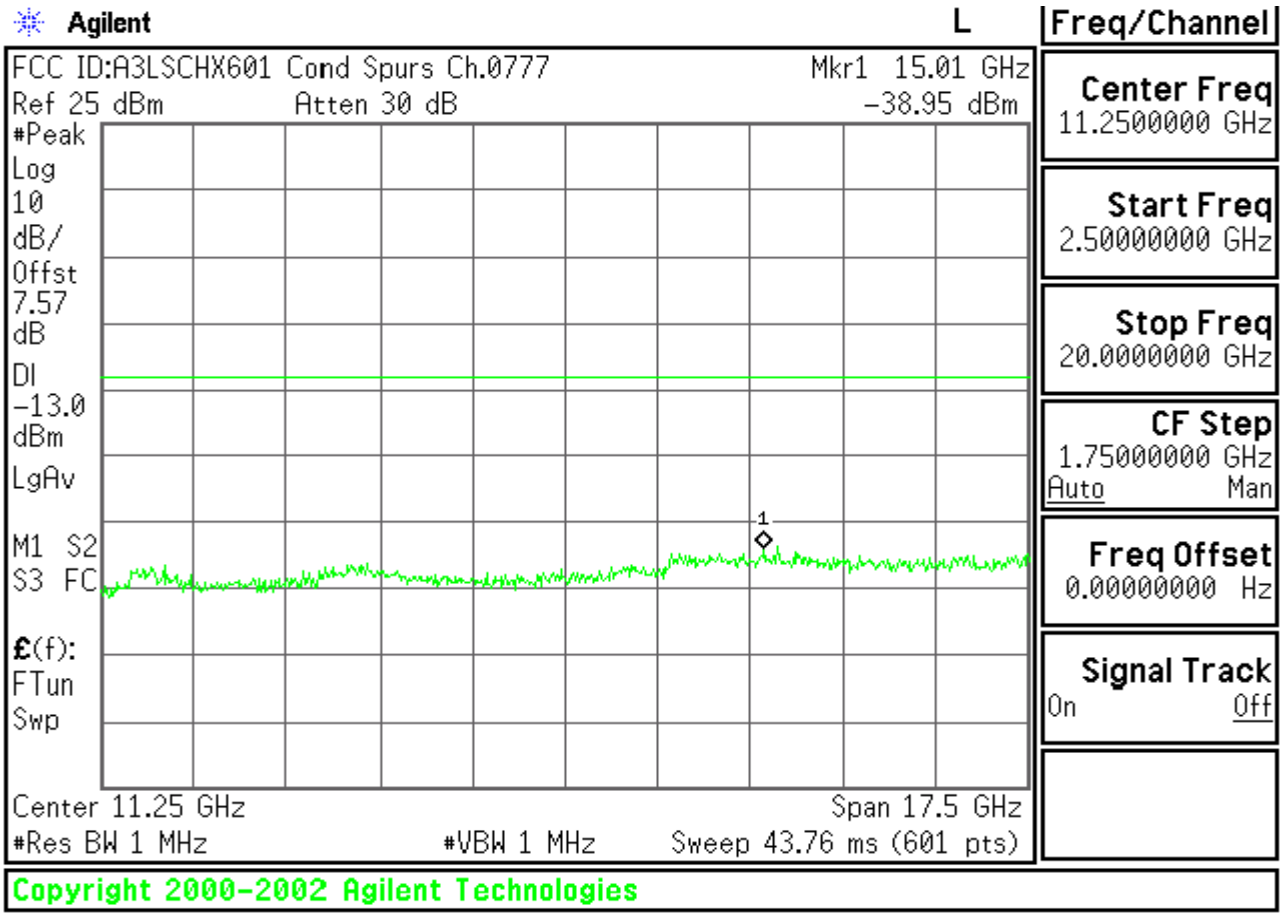
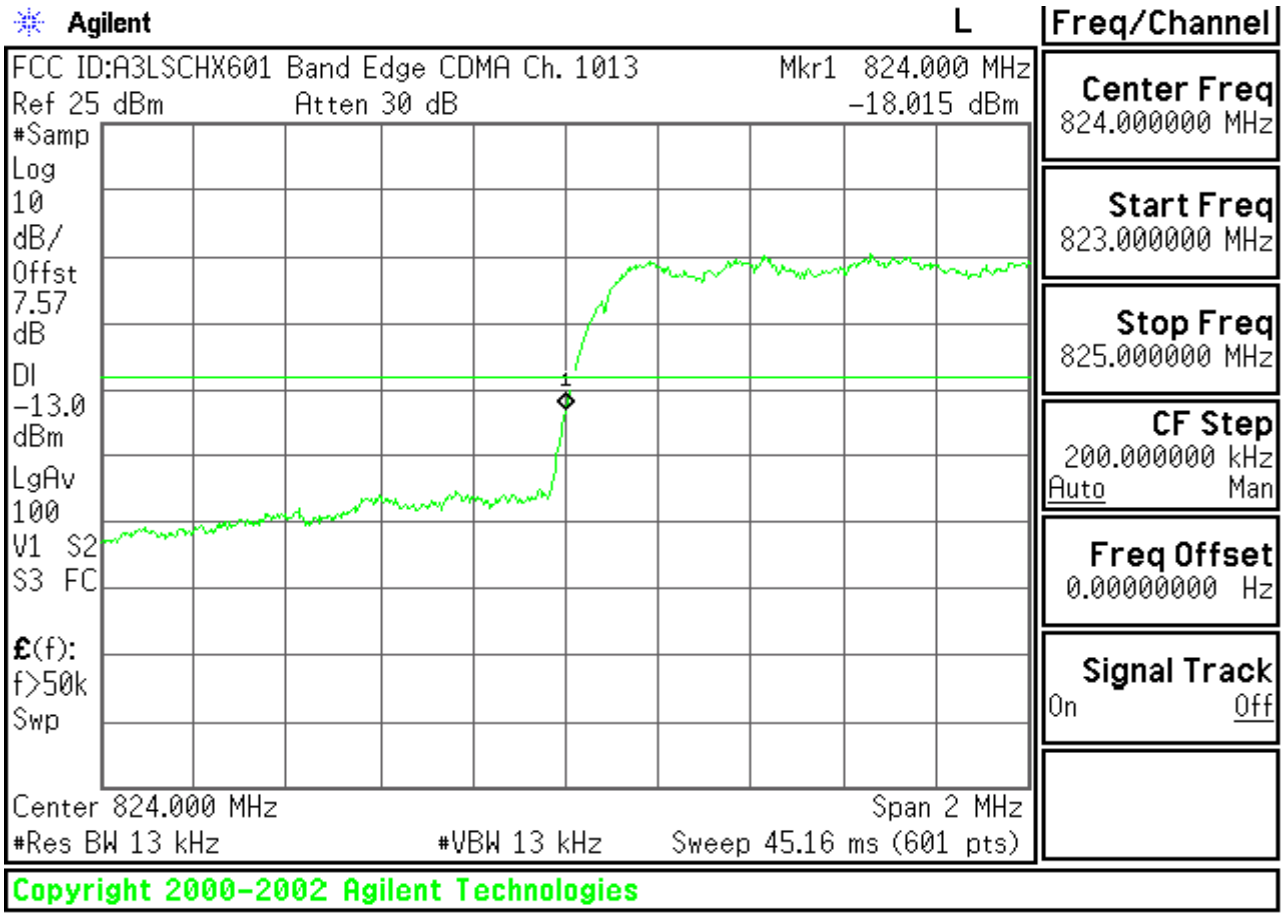

Agilent
L
Freq/Channel
FCC ID:A3LSCHX601 Cond Spurs Ch.0777
Mkr1 15.01 GHz
Ref 25 dBm
Atten 30 dB
-38.95 dBm
#Peak
Log
10
dB/
Offst
7.57
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
1
Center 11.25 GHz
Span 17.5 GHz
#Res BW 1 MHz
#VBW 1 MHz
Sweep 43.76 ms (601 pts)
Center Freq
11.2500000 GHz
Start Freq
2.50000000 GHz
Stop Freq
20.0000000 GHz
CF Step
1.75000000 GHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Copyright 2000-2002 Agilent Technologies


Agilent
L
Freq/Channel
FCC ID:A3LSCHX601 Band Edge CDMA Ch. 1013
Mkr1 824.000 MHz
Ref 25 dBm
Atten 30 dB
-18.015 dBm
#Samp
Log
10
dB/
Offst
7.57
dB
Dl
-13.0
dBm
LgAv
100
V1 S2
S3 FC
£(f):
f>50k
Swp
Center 824.000 MHz
Span 2 MHz
#Res BW 13 kHz
#VBW 13 kHz
Sweep 45.16 ms (601 pts)
Center Freq
824.000000 MHz
Start Freq
823.000000 MHz
Stop Freq
825.000000 MHz
CF Step
200.000000 kHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
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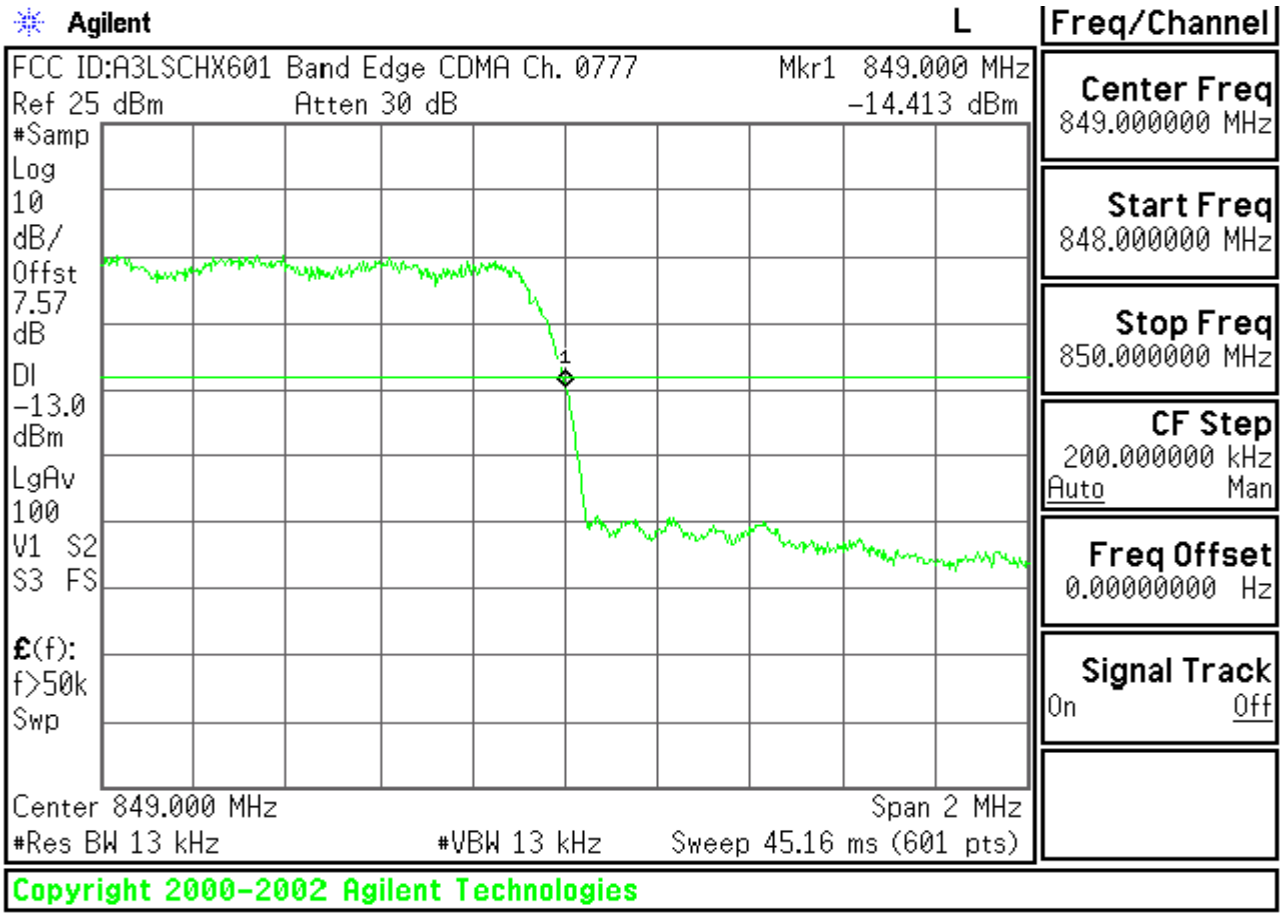
Agilent
L
Freq/Channel
FCC ID:A3LSCHX601 Band Edge CDMA Ch. 0777
Mkr1 849.000 MHz
Ref 25 dBm
Atten 30 dB
-14.413 dBm
#Samp
Log
10
dB/
Offst
7.57
dB
Dl
-13.0
dBm
LgAv
100
V1 S2
S3 FS
£(f):
f>50k
Swp
Center 849.000 MHz
Span 2 MHz
#Res BW 13 kHz
#VBW 13 kHz
Sweep 45.16 ms (601 pts)
Center Freq
849.000000 MHz
Start Freq
848.000000 MHz
Stop Freq
850.000000 MHz
CF Step
200.000000 kHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
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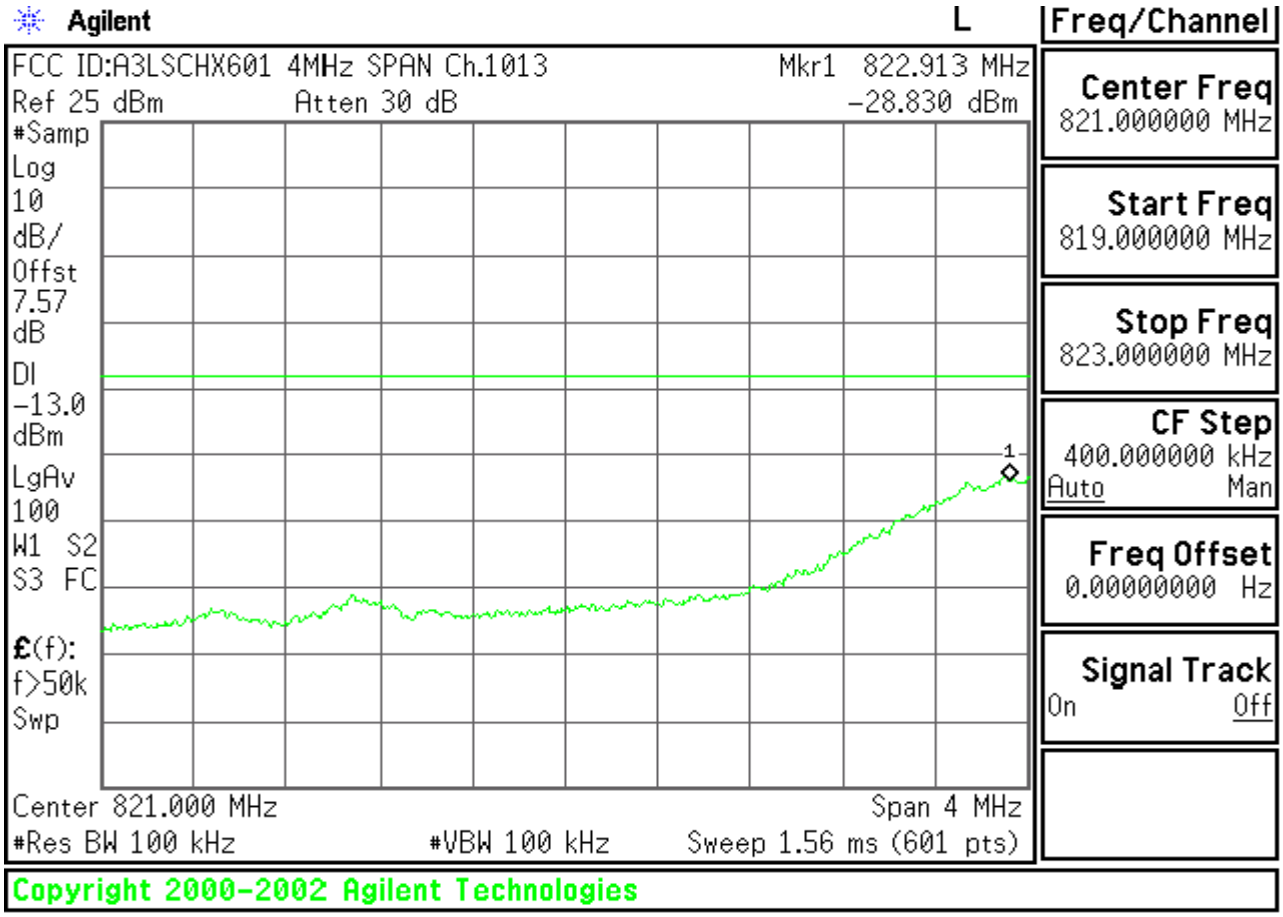
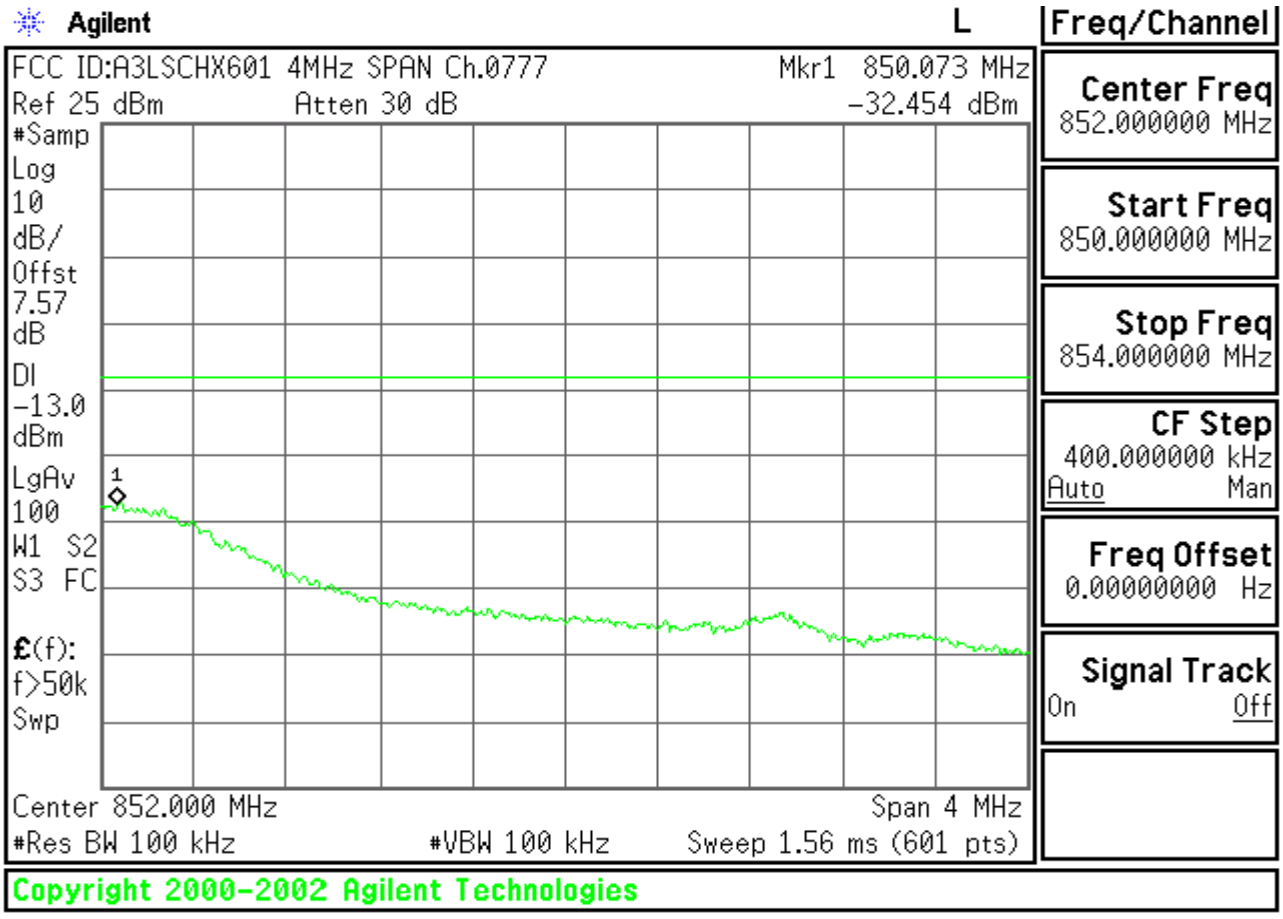

Agilent
L
Freq/Channel
FCC ID:A3LSCHX601 4MHz SPAN Ch.1013
Mkr1 822.913 MHz
Ref 25 dBm
Atten 30 dB
-28.830 dBm
#Samp
Log
10
dB/
Offst
7.57
dB
Dl
-13.0
dBm
LgAv
100
W1 S2
S3 FC
£(f):
f>50k
Swp
Center Freq
821.000000 MHz
Start Freq
819.000000 MHz
Stop Freq
823.000000 MHz
CF Step
400.000000 kHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Center 821.000 MHz
Span 4 MHz
#Res BW 100 kHz
#VBW 100 kHz
Sweep 1.56 ms (601 pts)
Copyright 2000-2002 Agilent Technologies


Agilent
L
Freq/Channel
FCC ID:A3LSCHX601 4MHz SPAN Ch.0777
Mkr1 850.073 MHz
Ref 25 dBm
Atten 30 dB
-32.454 dBm
#Samp
Log
10
dB/
Offst
7.57
dB
Dl
-13.0
dBm
LgAv
100
W1 S2
S3 FC
£(f):
f>50k
Swp
Center Freq
852.000000 MHz
Start Freq
850.000000 MHz
Stop Freq
854.000000 MHz
CF Step
400.000000 kHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Center 852.000 MHz
Span 4 MHz
#Res BW 100 kHz
#VBW 100 kHz
Sweep 1.56 ms (601 pts)
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