SAMSUNG ELECTRONICS Co., Ltd.,
Regulatory Compliance Group
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-N380**
Additional Model:	**SCH-N381, SCH-N382 SCH-N383, SCH-N384**
FCC ID (Requested):	**A3LSCHN380**
Report No:	**FC-019-R1**
Job No:	**FC-019**
Date issued:	**Feb. 22, 2005**

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

Prepared By	SS LEE – Test Engineer	**Date**	2005.02.23
Checked By	JH CHOI – Engineer	**Date**	2005.02.23
Authorized By	JK CHOI – Senior Manager	**Date**	2005.02.23

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MEASUREMENT REPORT

1. FCC Certification Information

The following information is in accordance with FCC Rules, 47 CFR Part2, 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:	SungJoo KIM, Engineering Manager (QA Lab)
· FCC ID:	A3LSCHN380
· Additional Model	SCH-N381, SCH-N382, SCH-N383, SCH-N384
· 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:	0.256 W ERP CDMA(24.08 dBm)
· FCC Classification(s):	Non-Broadcast Transmitter Held to Ear (TNE)
· Equipment (EUT) Type:	Single modulation CDMA Phone
· Modulation(s):	CDMA
· Frequency Tolerance:	±0.00025% (2.5ppm)
· FCC Rule Part(s):	§22(H), §2
· Dates of Test:	Feb.17, 17-18, 2005
· Place of Test:	SAMSUNG Lab,
· Test Report S/N:	FC-019-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.

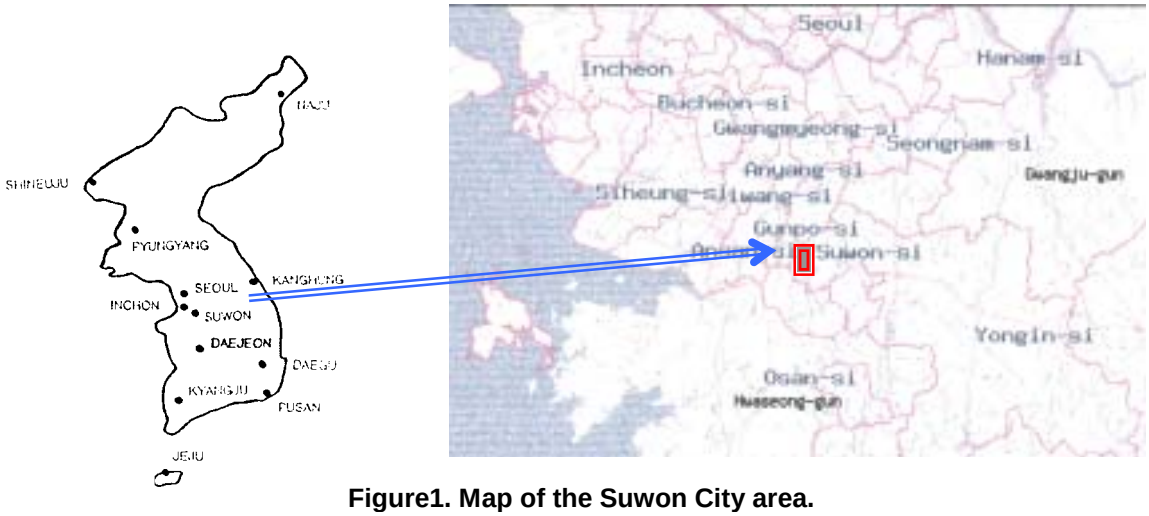


Figure1. Map of the Suwon City area.

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 were 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 is repeated using horn antennas and the difference between the gain of the horn and an isotropic antenna are taken into consideration.

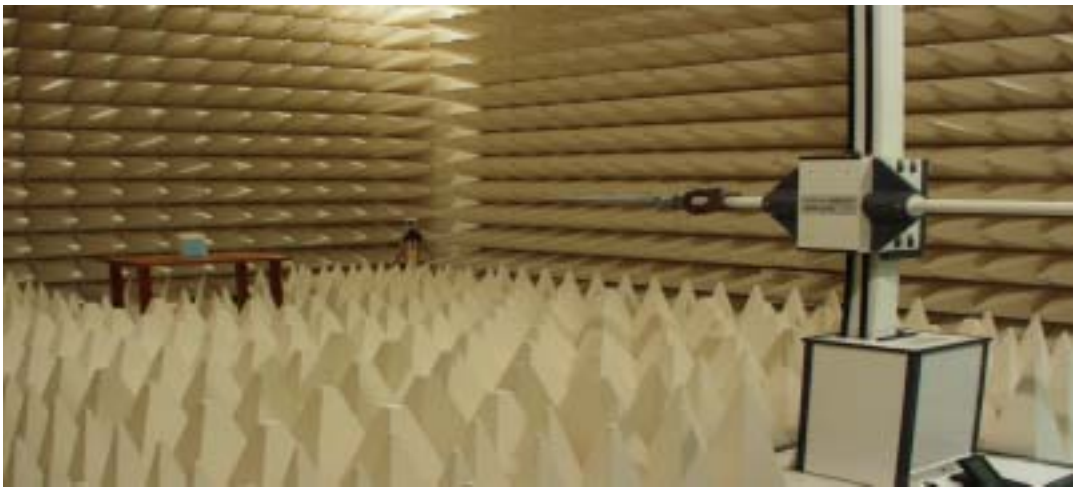


Figure2. Photograph of 3m Fully-Anechoic Chamber

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.

- End of page -

4. TEST EQUIPMENT LIST

Name of Equipment	Model	Serial No.	Due Date
Spectrum Analyzer	ESI26	836119/010	2005-09-20
	E4440A(3Hz~26.5GHz)	MY41000236	2005-10-27
	E4440A(3Hz~26.5GHz)	MY41000233	2005-11-04
Signal Generator	SMIQ03B	83824/021	2005-12-27
	SMR20	835197/030	2006-01-18
Power Meter	E4419B	GB41293846	2005-09-21
Power Sensor	8481B	3318A10325	2005-10-06
	8485A	3318A19924	2005-09-20
Amplifier	5S1G4	304866	2005-10-19
Pre-Amplifier	8449B	3008A00691	2006-01-11
Communication test set	8960	GB42230535	2005-11-04
	8960	GB42360886	2005-10-27
Antenna Master	MA0001	ANT0967	Not Required
Controller	HD100	100/756	Not Required
Environmental Chamber	PL-4S	13005454	2005-07-31
	SH-241	92000548	2005-11-22
	SH-241	92000549	2005-11-22
Horn Antenna	HF906	360306/011	2005-03-11
	HF906	100134	2005-05-02
Dipole Antenna	3121C-DB4	9007-587	2005-12-02
	3121C-DB4	9007-588	2005-05-28
Receive Antenna	HL040	353255/019	2005-08-13
	HL040	353255/020	2005-06-07
Attenuator	8494A	3308A31997	2006-01-03
	8496A	3308A14426	2006-01-04
Divider	11636B	51941	Not Required
	11636B	51942	Not Required
	11636B	51946	Not Required
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 Fully Anechoic Chamber	RF0002	ANT0001	Not Required

5. DESCRIPTION OF TESTS

5.1 Effective Radiated Power

Test Set-up for the ERP/EIRP TEST

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

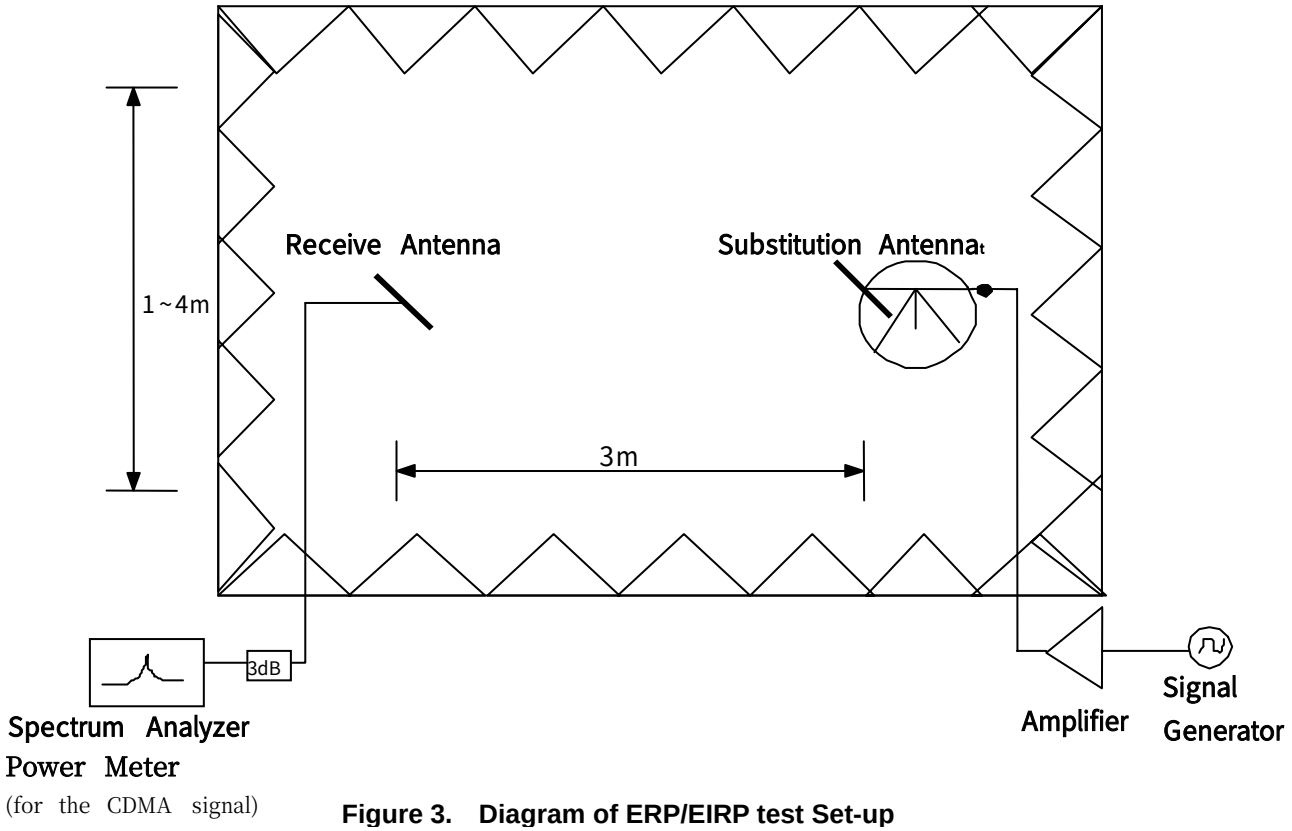


Figure 3. Diagram of ERP/EIRP test Set-up

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. For CDMA signals, an average detector is used, with RBW=VBW=3MHz, SPAN=10MHz. 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.

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

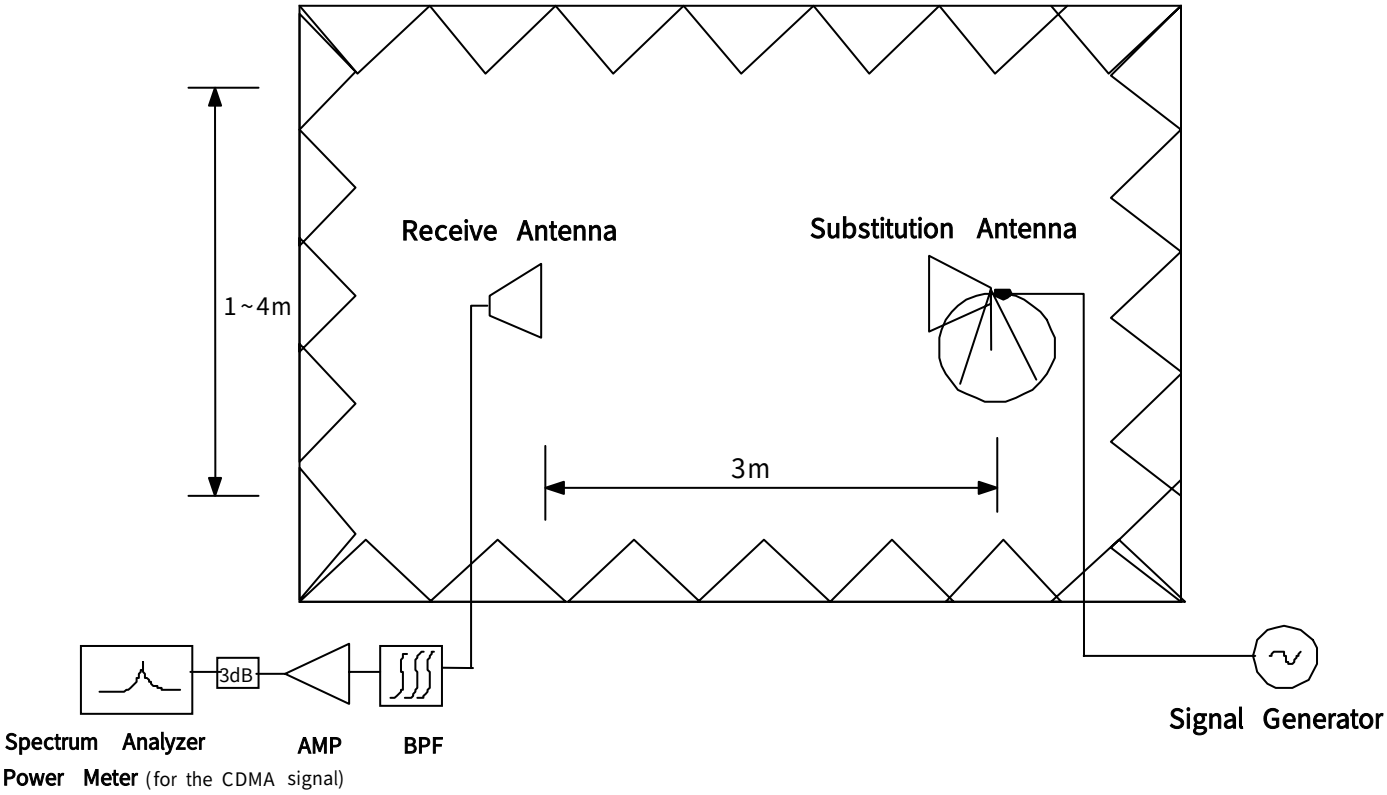


Figure 4. Diagram of Radiated Spurious & Harmonic test Set-up

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. The Spectrum was investigated from 30MHz to the 10th Harmonic of the fundamental. A peak detector is used, with RBW=VBW=1MHz. The value that we could measure was only reported. 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 363 CDMA Mode 2nd Harmonic(1671.78MHz)

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 1671.78MHz. So 6.1dB is added to the signal generator reading of –30.9dBm yielding –24.8dBm. The fundamental ERP was 25.5dBm so this harmonic was 25.5dBm –(-24.8)= 50.3dBc .

- End of page -

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. CDMA Cellular 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 (0.256 W) = 37.08 dB
24.08 dBm – 37.08 dB = -13 dBm

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.

- End of page -

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.
3. 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.
4. 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.
5. Again the transmitter carrier frequency and the individual oscillators is measured at room temperature to begin measurement of the upper temperature levels.
6. Frequency measurements are at 10 intervals starting at -30°C up to +60°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.
7. The artificial load is mounted external to the temperature chamber.

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

- End of page -

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 (dBd)	Ref level (dBm)
824.70	22.00	H	-16.34	0.00	-16.34
		V	-15.48	0.00	-15.48
835.89	24.00	H	-14.34	0.00	-14.34
		V	-13.49	0.00	-13.49
848.31	22.50	H	-15.83	0.00	-15.83
		V	-14.96	0.00	-14.96

■ Result

Frequency (MHz)	From EUT Tested level (dBm)	Polarization (H/V)	Azimuth (angle)	ERP (dBm)	ERP (W)	Battery
824.70	-16.51	H1	208	21.83	0.152	Standard
835.89	-14.26	H1	214	24.08	0.256	Standard
848.31	-15.80	H1	197	22.53	0.179	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), 848.31MHz(High)

Measured Output Power : 24.08 dBm = 0.256 W

Modulation Signal : CDMA

Limit : 43 + 10log$_{10}$(P) = 37.08 dBc

■ **Result**

Channel	Harmonic	Frequency (MHz)	From EUT Tested level (dBm)	POL (H/V)	Result (dBc)
1013	2	1649.40	-50.93	H1	63.88
	3	2474.10	-52.70	H2	61.19
	4	3298.80	-66.98	V	72.09
	5	4123.50	-67.14	H1	69.22
	6	4948.20	-	-	-
	7	5772.90	-	-	-
363	2	1671.78	-51.53	H1	64.03
	3	2507.67	-54.66	H1	62.61
	4	3343.56	-66.51	V	70.74
	5	4179.45	-68.58	V	67.99
	6	5015.34	-	-	-
	7	5851.23	-	-	-
777	2	1696.62	-51.45	H1	62.35
	3	2544.93	-57.42	H1	64.85
	4	3393.24	-67.03	V	72.38
	5	4241.55	-68.73	V	70.21
	6	5089.86	-	-	-
	7	5938.17	-	-	-

Radiated Spurious Emission measurements at 3 meters by Substitution Method

6.3 Radiated Spurious & Harmonic Conversion Table

Date : 2005 . 02 . 18 .

Test Engineer : SS LEE

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	6.90	7.68	0.78	-50.93	-54.53	-37.66	-41.41	63.88	67.63
	3	2474.10	8.77	9.19	0.42	-52.70	-58.02	-34.97	-40.01	61.19	66.23
	4	3298.80	10.80	9.00	-1.80	-67.04	-66.98	-46.38	-45.87	72.60	72.09
	5	4123.50	12.41	10.19	-2.22	-67.14	-68.17	-43.00	-43.84	69.22	70.06
	6	4948.20	13.41	10.16	-3.25	-	-	-	-	-	-
	7	5772.90	14.57	10.54	-4.03	-	-	-	-	-	-
363	2	1671.78	7.00	7.68	0.68	-51.53	-57.32	-37.81	-43.53	64.03	69.75
	3	2507.67	8.93	9.19	0.26	-54.66	-58.24	-36.39	-38.89	62.61	65.11
	4	3343.56	10.88	9.00	-1.88	-66.48	-66.51	-45.74	-44.52	71.96	70.74
	5	4179.45	10.46	10.19	-0.27	-68.22	-68.58	-41.92	-41.77	68.14	67.99
	6	5015.34	13.77	10.16	-3.61	-	-	-	-	-	-
	7	5851.23	14.68	10.54	-4.14	-	-	-	-	-	-
777	2	1696.62	7.04	7.68	0.64	-51.45	-56.80	-36.13	-41.79	62.35	68.01
	3	2544.93	8.93	9.19	0.26	-57.42	-59.50	-38.63	-40.27	64.85	66.49
	4	3393.24	11.11	9.00	-2.11	-67.43	-67.03	-47.56	-46.16	73.78	72.38
	5	4241.55	12.36	10.19	-2.17	-68.02	-68.73	-44.50	-43.99	70.72	70.21
	6	5089.86	13.86	10.16	-3.70	-	-	-	-	-	-
	7	5938.17	15.31	10.54	-4.77	-	-	-	-	-	-

6.4 Frequency Stability

6.4.1 Frequency Stability Table

Operating Frequency : 835,890,000 Hz

Channel : 363

Reference Voltage : 3.7VDC

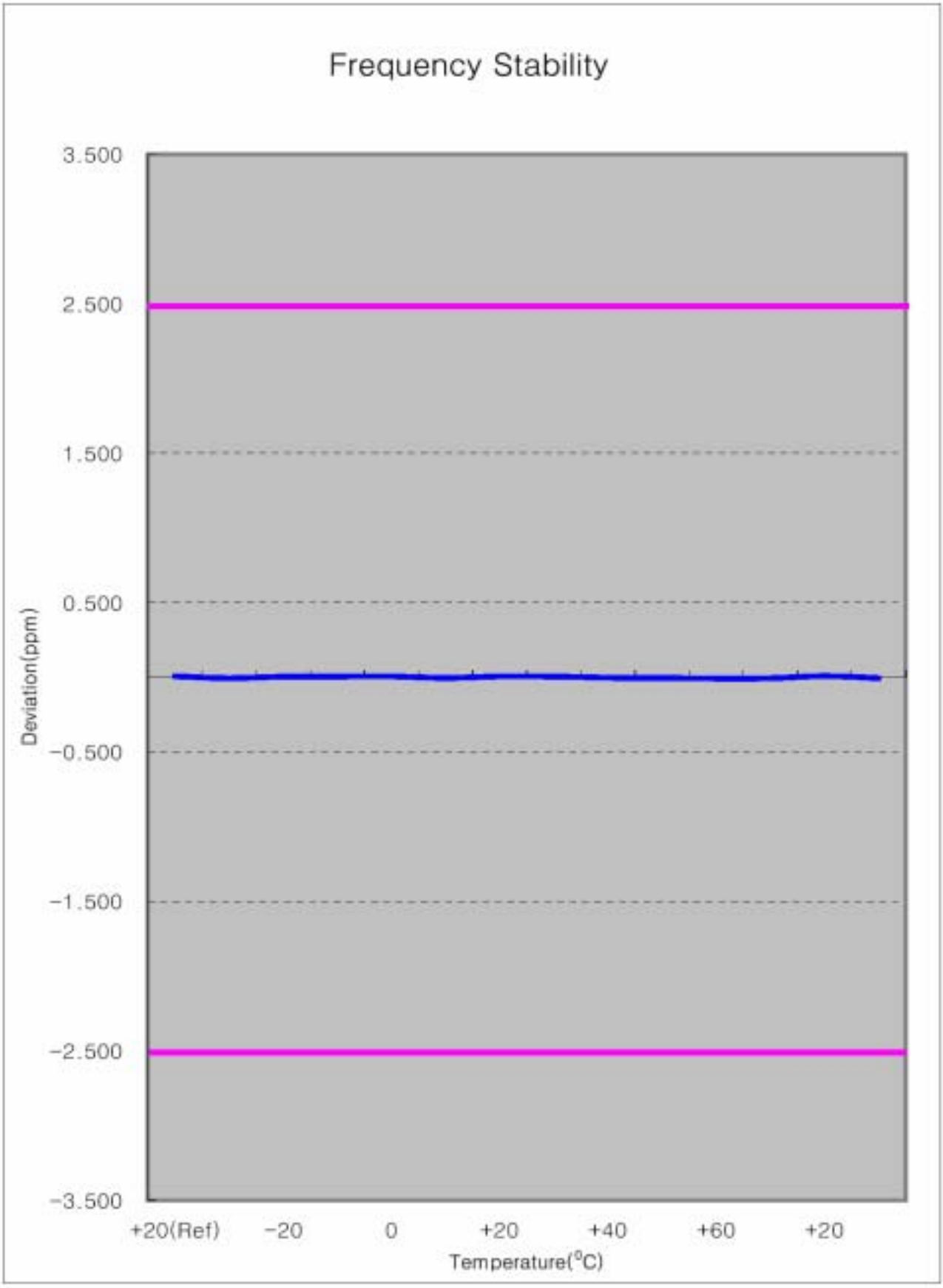
Deviation Limit : ±0.00025 % or 2.5ppm

Voltage (%)	Power (VDC)	Temp. (°C)	Frequency Error (Hz)	Frequency (Hz)	Deviation (%)	ppm
100%	3.70	+20(Ref)	6.00	835,890,006	0.000001	0.007
100%		-30	-4.92	835,889,995	-0.000001	-0.006
100%		-20	4.68	835,890,005	0.000001	0.006
100%		-10	4.74	835,890,005	0.000001	0.006
100%		0	5.50	835,890,006	0.000001	0.007
100%		+10	-4.31	835,889,996	-0.000001	-0.005
100%		+20	6.00	835,890,006	0.000001	0.007
100%		+30	3.66	835,890,004	0.000000	0.004
100%		+40	-3.40	835,889,997	0.000000	-0.004
100%		+50	-3.76	835,889,996	0.000000	-0.004
100%		+60	-6.94	835,889,993	-0.000001	-0.008
85%	3.36	+20	-5.42	835,889,995	-0.000001	-0.006
115%	4.26	+20	6.70	835,890,007	0.000001	0.008
Batt.Endpoint	3.36	+20	-5.42	835,889,995	-0.000001	-0.006

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



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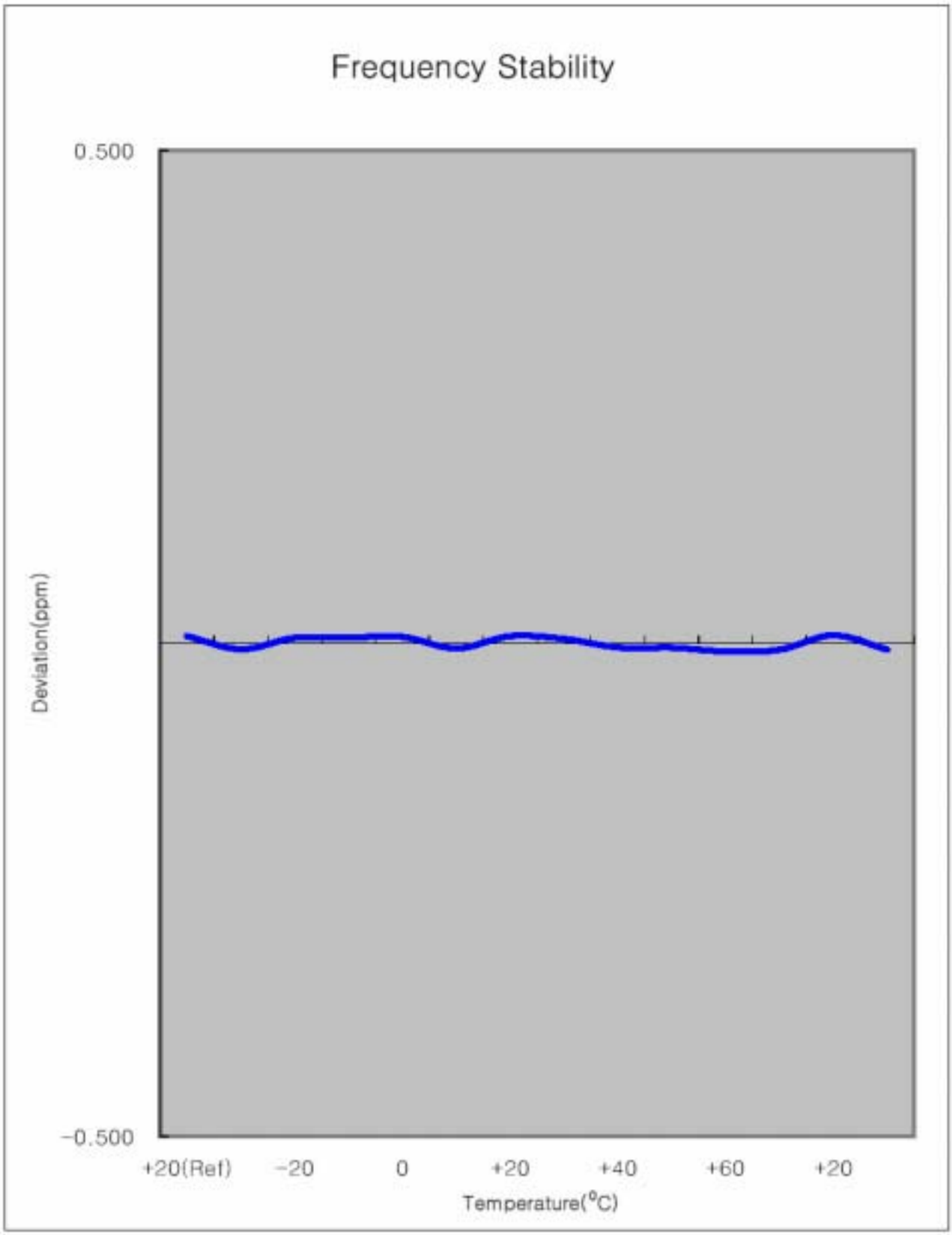
Zoom In



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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)

- End of page -

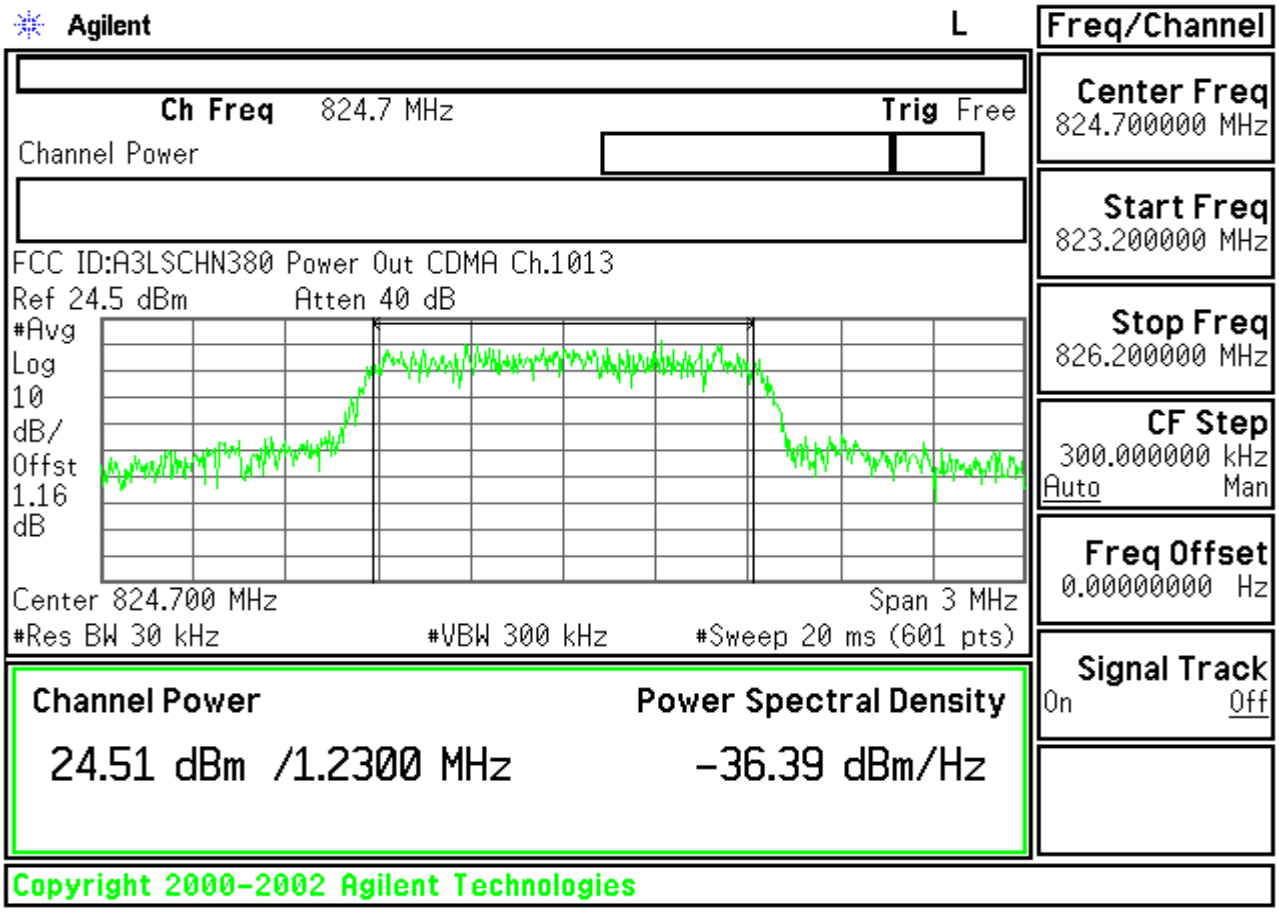
8. CONCLUSION

The data collected shows that the SAMSUNG Single modulation CDMA Phone.
FCC ID : A3LSCHN380 complies with all the requirements of Parts 2,22 of the FCC Rules.

- End of page -

9. TEST PLOTS

- End of page -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Freq/Channel
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Ref 24.5 dBm
Atten 40 dB
#Avg
Log
10
dB/
Offst
1.16
dB
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Span 3 MHz
#Res BW 30 kHz
#VBW 300 kHz
#Sweep 20 ms (601 pts)
Center Freq
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Start Freq
823.200000 MHz
Stop Freq
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Auto
Man
Freq Offset
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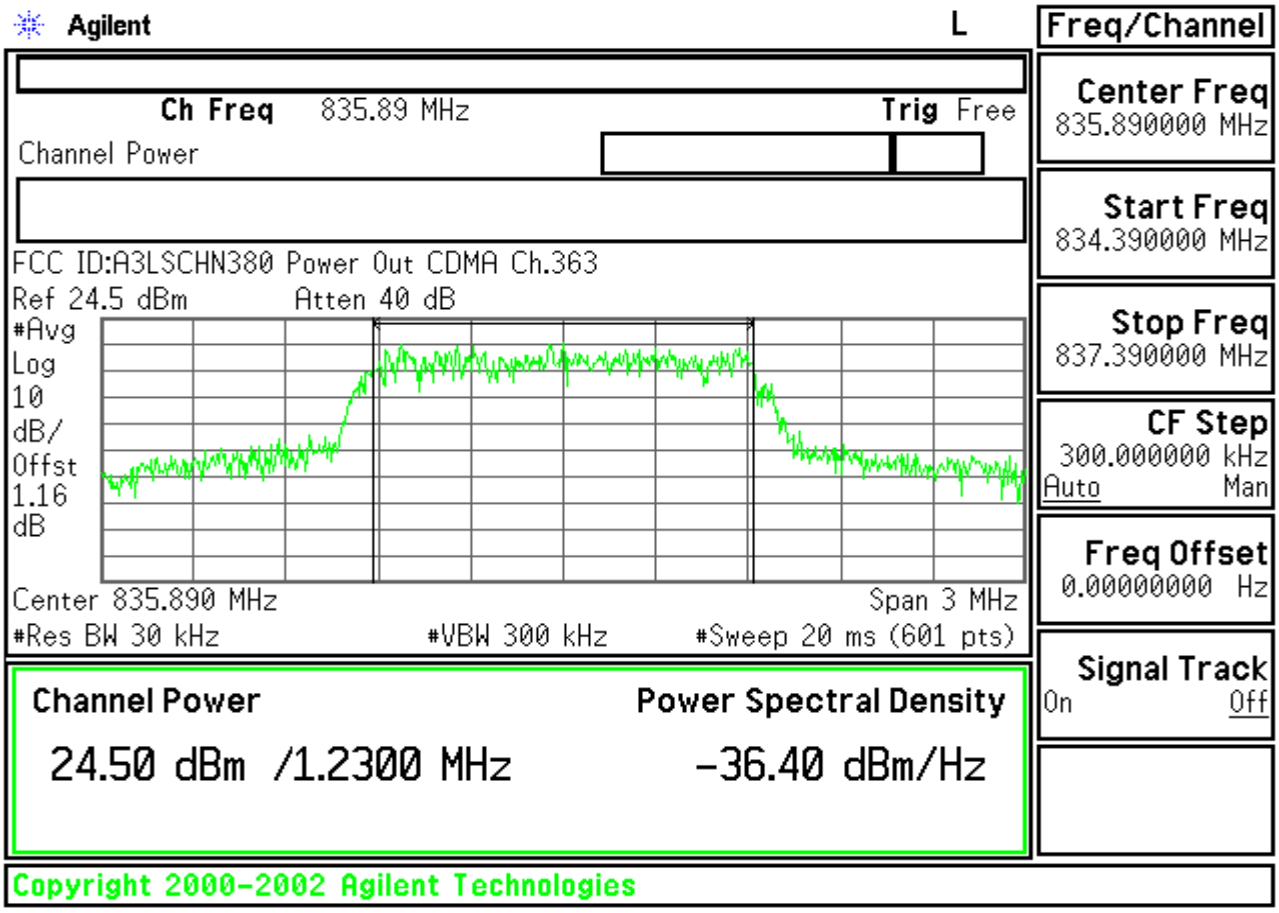
-36.39 dBm/Hz
Copyright 2000-2002 Agilent Technologies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Log
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dB/
Offst
1.16
dB
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Span 3 MHz
#Res BW 30 kHz
#VBW 300 kHz
#Sweep 20 ms (601 pts)
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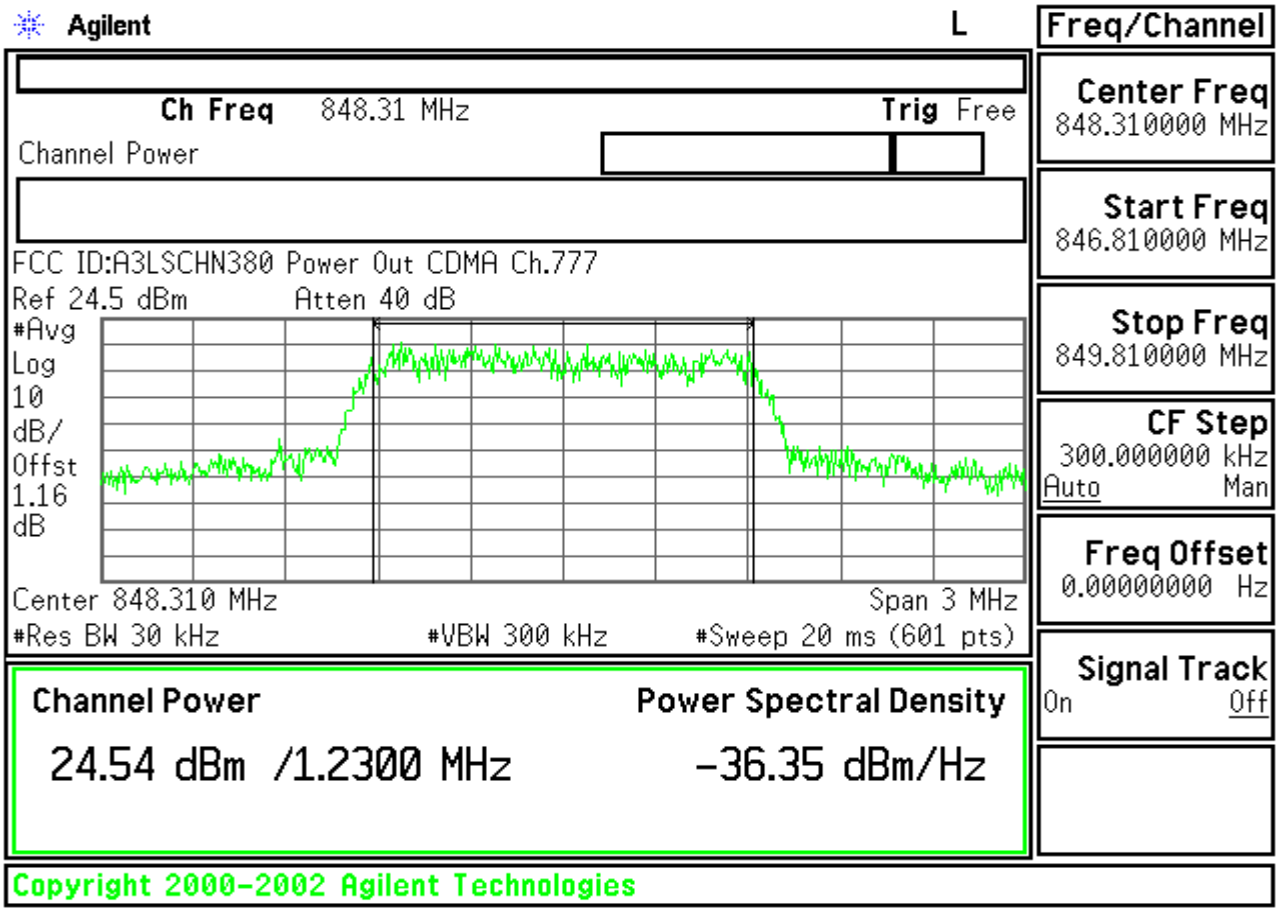
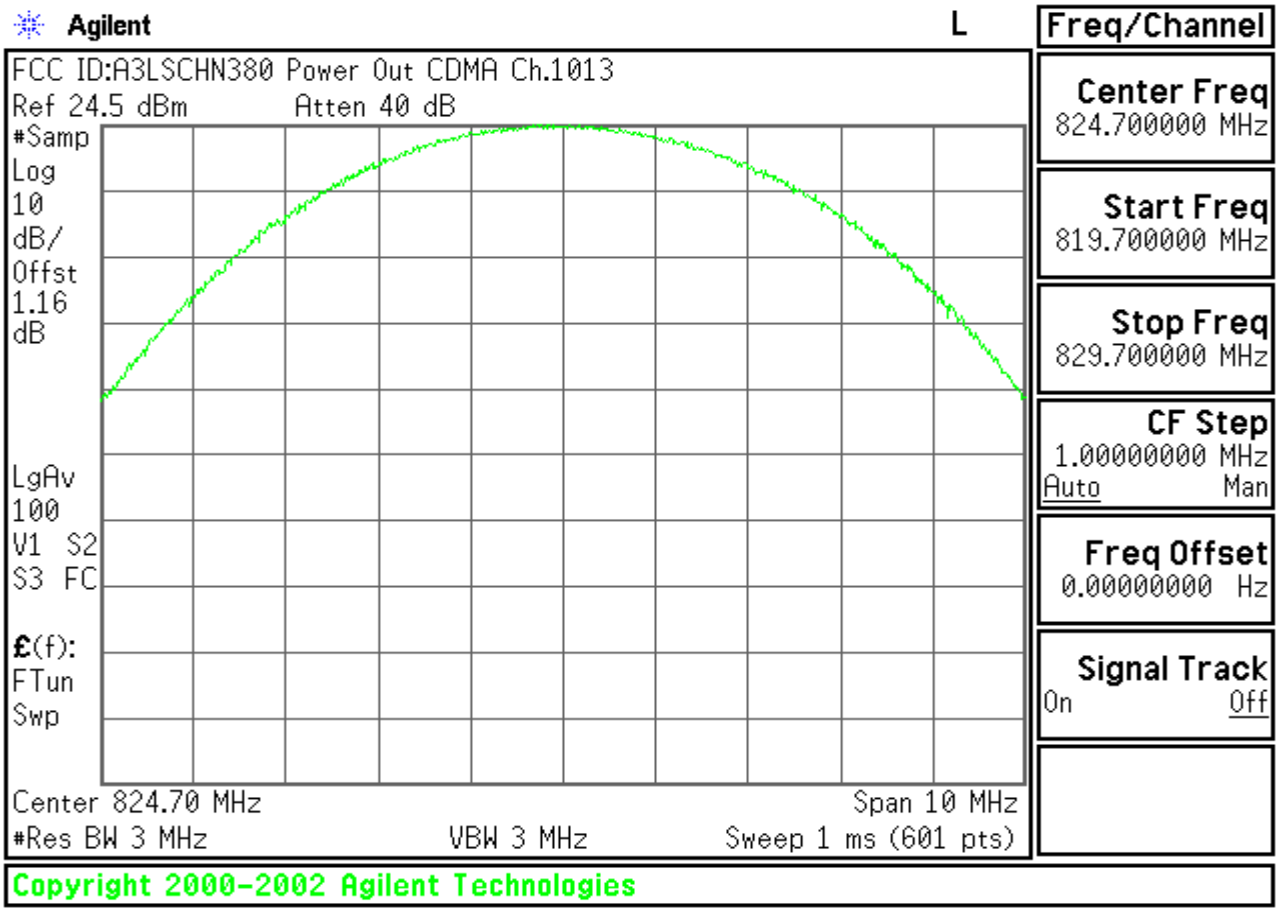
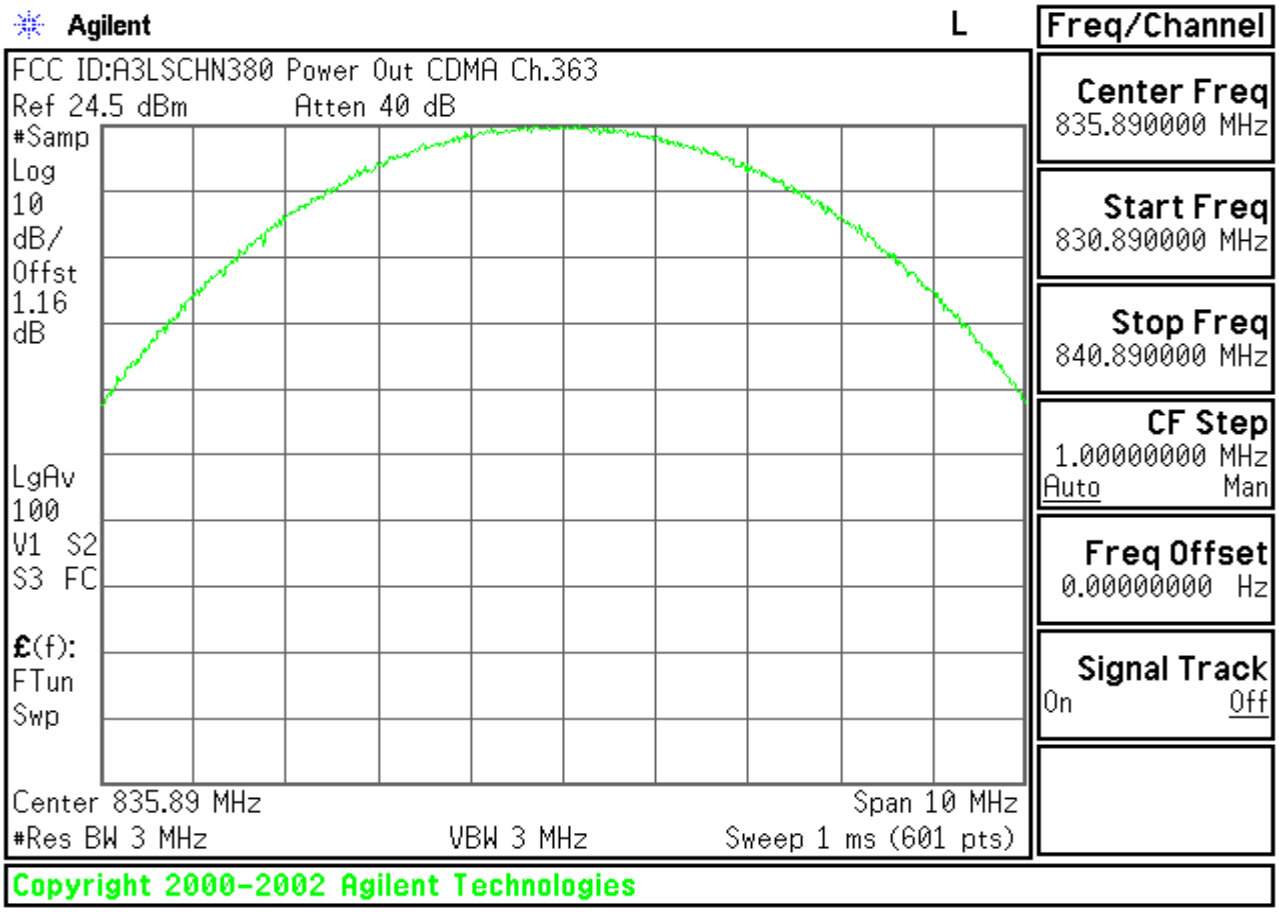
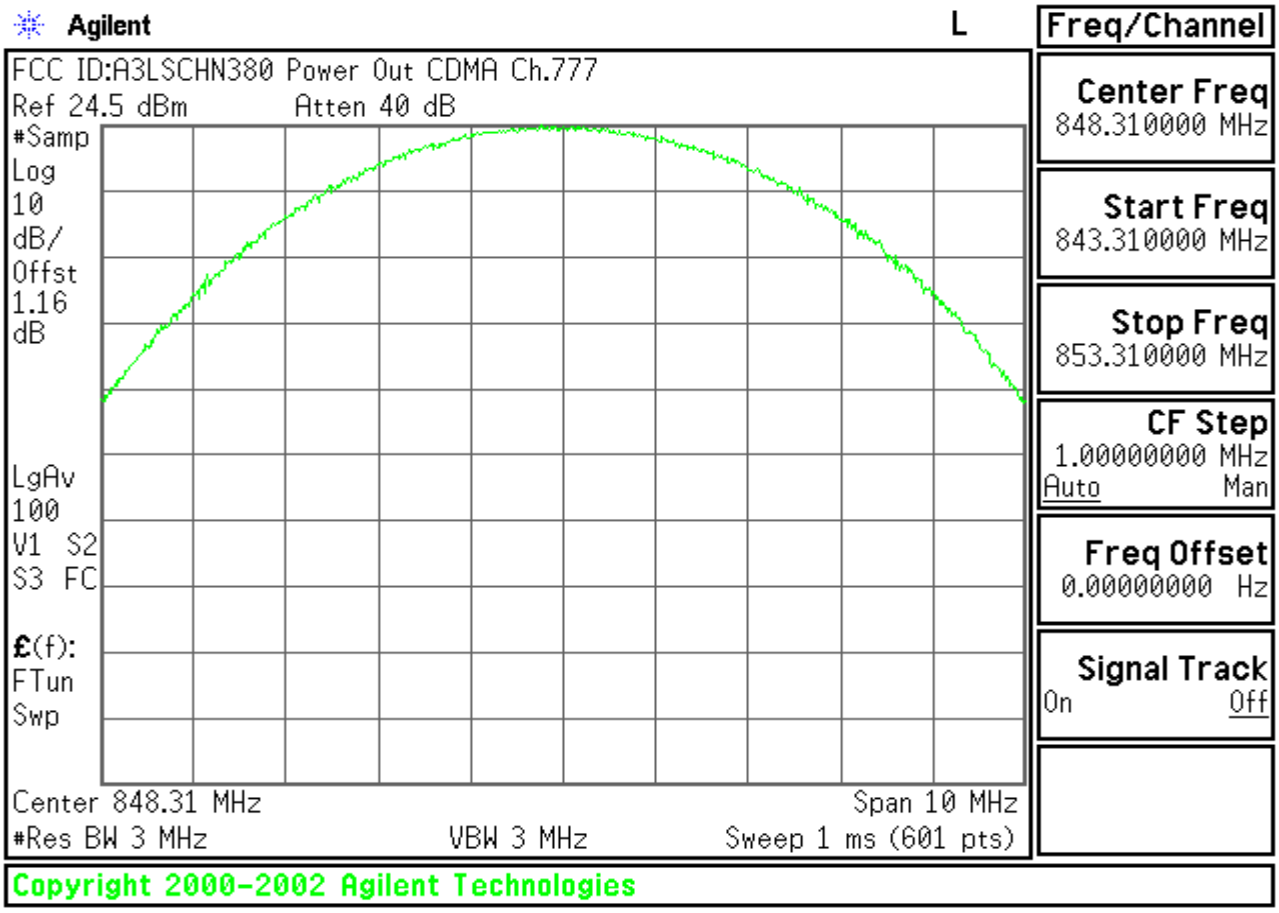
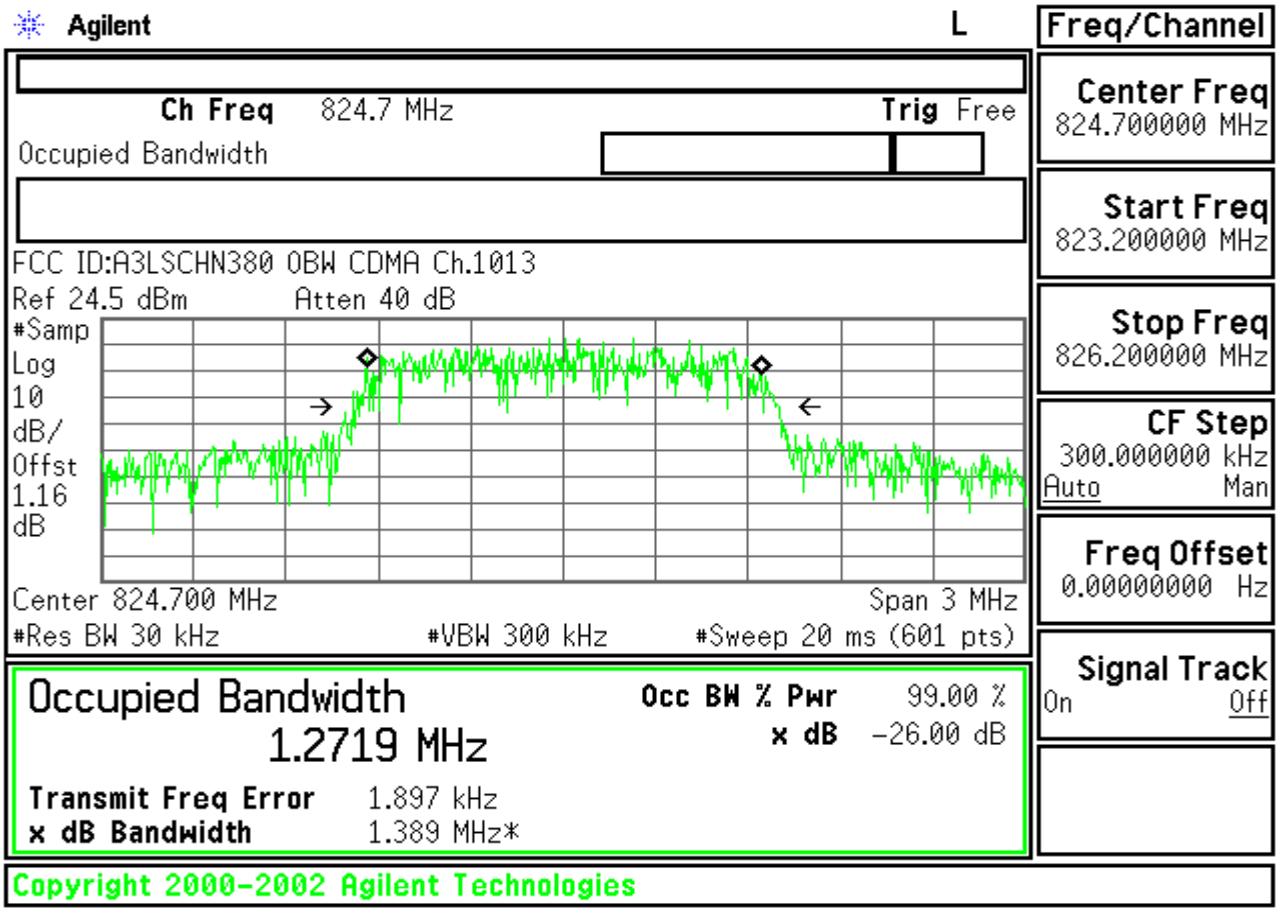
835.890000 MHz
Start Freq
834.390000 MHz
Stop Freq
837.390000 MHz
CF Step
300.000000 kHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Channel Power
24.50 dBm /1.2300 MHz
Power Spectral Density
-36.40 dBm/Hz
Copyright 2000-2002 Agilent Technologies

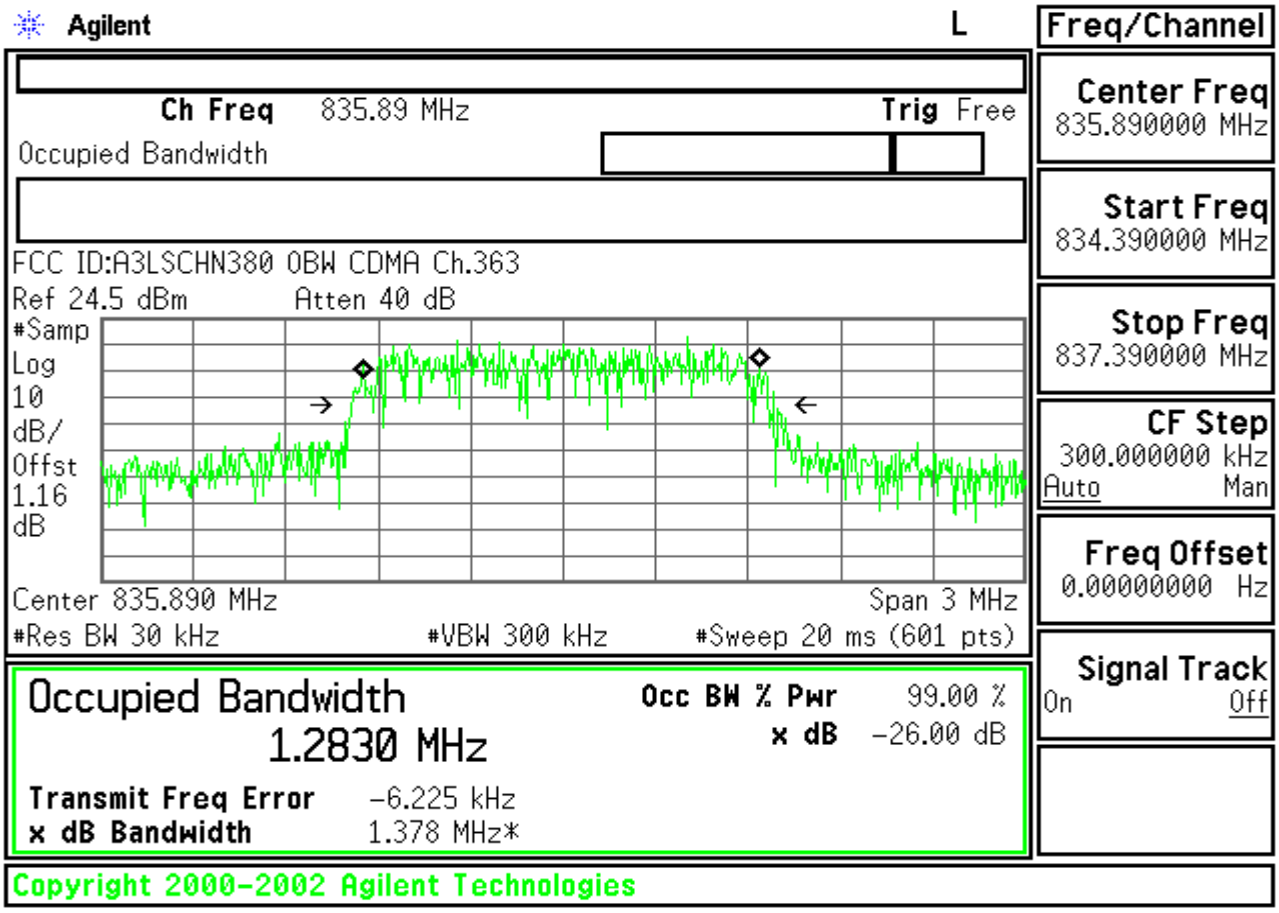

Agilent
L
Freq/Channel
Ch Freq 848.31 MHz
Trig Free
Channel Power
FCC ID:A3LSCHN380 Power Out CDMA Ch.777
Ref 24.5 dBm
Atten 40 dB
#Avg
Log
10
dB/
Offst
1.16
dB
Center 848.310 MHz
Span 3 MHz
#Res BW 30 kHz
#VBW 300 kHz
#Sweep 20 ms (601 pts)
Center Freq
848.310000 MHz
Start Freq
846.810000 MHz
Stop Freq
849.810000 MHz
CF Step
300.000000 kHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Channel Power
24.54 dBm /1.2300 MHz
Power Spectral Density
-36.35 dBm/Hz
Copyright 2000-2002 Agilent Technologies

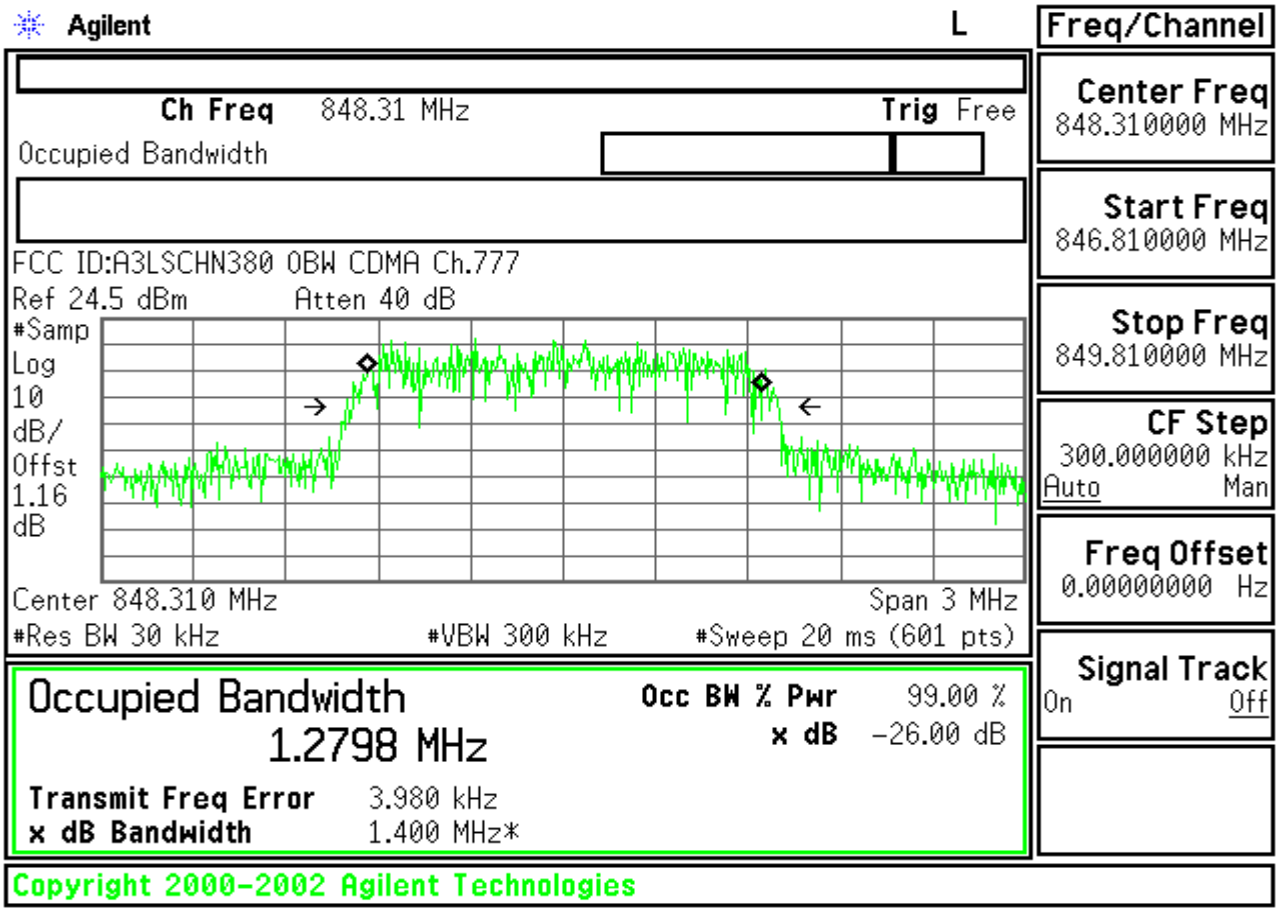

Agilent
L
Freq/Channel
FCC ID:A3LSCHN380 Power Out CDMA Ch.1013
Ref 24.5 dBm
Atten 40 dB
#Samp
Log
10
dB/
Offst
1.16
dB
LgAv
100
V1 S2
S3 FC
£(f):
FTun
Swp
Center 824.70 MHz
Span 10 MHz
#Res BW 3 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Center Freq
824.700000 MHz
Start Freq
819.700000 MHz
Stop Freq
829.700000 MHz
CF Step
1.00000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Copyright 2000-2002 Agilent Technologies

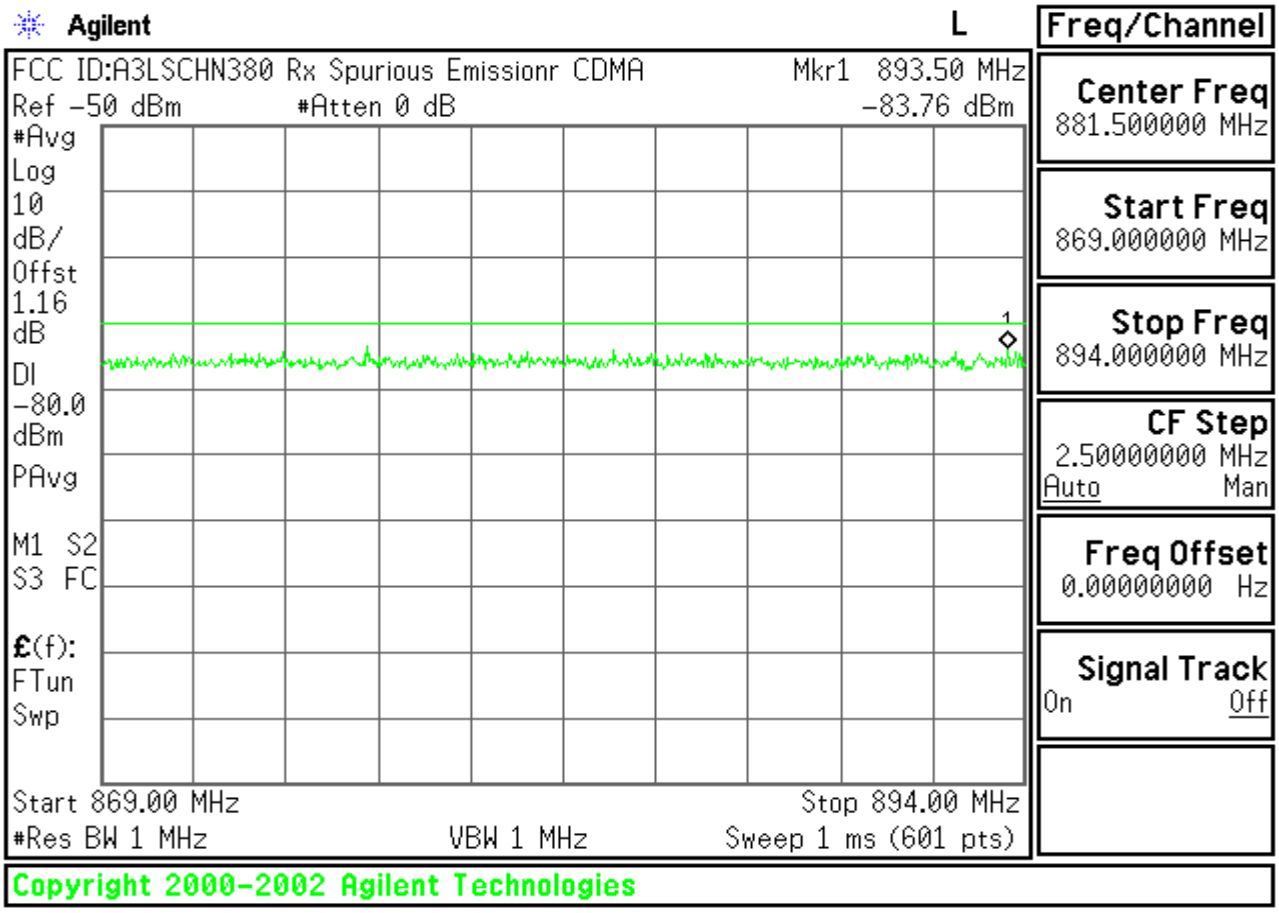

Agilent
L
Freq/Channel
FCC ID:A3LSCHN380 Power Out CDMA Ch.363
Ref 24.5 dBm
Atten 40 dB
#Samp
Log
10
dB/
Offst
1.16
dB
LgAv
100
V1 S2
S3 FC
£(f):
FTun
Swp
Center 835.89 MHz
Span 10 MHz
#Res BW 3 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Center Freq
835.890000 MHz
Start Freq
830.890000 MHz
Stop Freq
840.890000 MHz
CF Step
1.00000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Copyright 2000-2002 Agilent Technologies

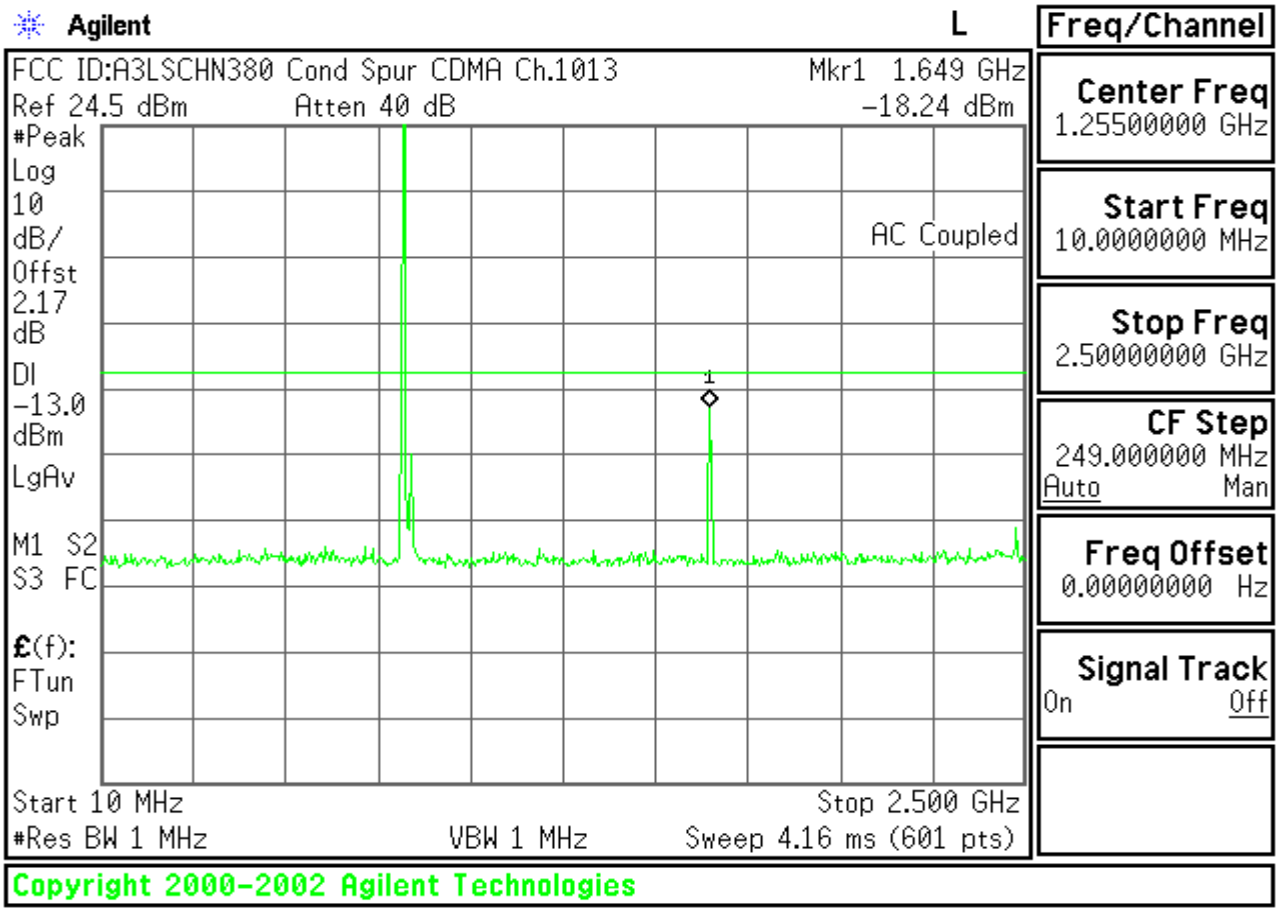

Agilent
L
Freq/Channel
FCC ID:A3LSCHN380 Power Out CDMA Ch.777
Ref 24.5 dBm
Atten 40 dB
#Samp
Log
10
dB/
Offst
1.16
dB
LgAv
100
V1 S2
S3 FC
£(f):
FTun
Swp
Center 848.31 MHz
Span 10 MHz
#Res BW 3 MHz
VBW 3 MHz
Sweep 1 ms (601 pts)
Center Freq
848.310000 MHz
Start Freq
843.310000 MHz
Stop Freq
853.310000 MHz
CF Step
1.00000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Copyright 2000-2002 Agilent Technologies

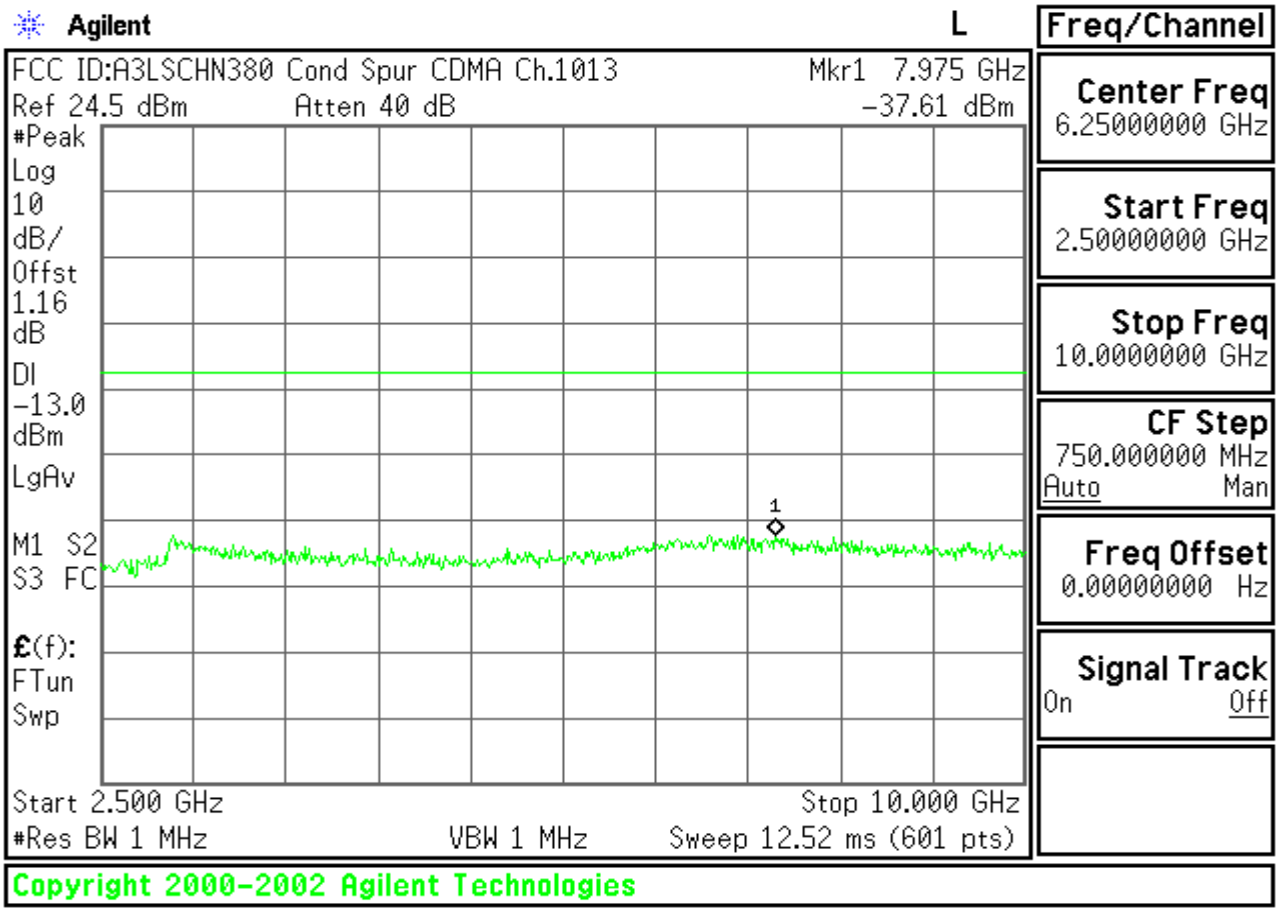

Agilent
L
Freq/Channel
Ch Freq 824.7 MHz
Trig Free
Occupied Bandwidth
FCC ID:A3LSCHN380 OBW CDMA Ch.1013
Ref 24.5 dBm
Atten 40 dB
#Samp
Log
10
dB/
Offst
1.16
dB
Center 824.700 MHz
Span 3 MHz
#Res BW 30 kHz
#VBW 300 kHz
#Sweep 20 ms (601 pts)
Occupied Bandwidth
1.2719 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 1.897 kHz
x dB Bandwidth 1.389 MHz*
Center Freq
824.700000 MHz
Start Freq
823.200000 MHz
Stop Freq
826.200000 MHz
CF Step
300.000000 kHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2002 Agilent Technologies

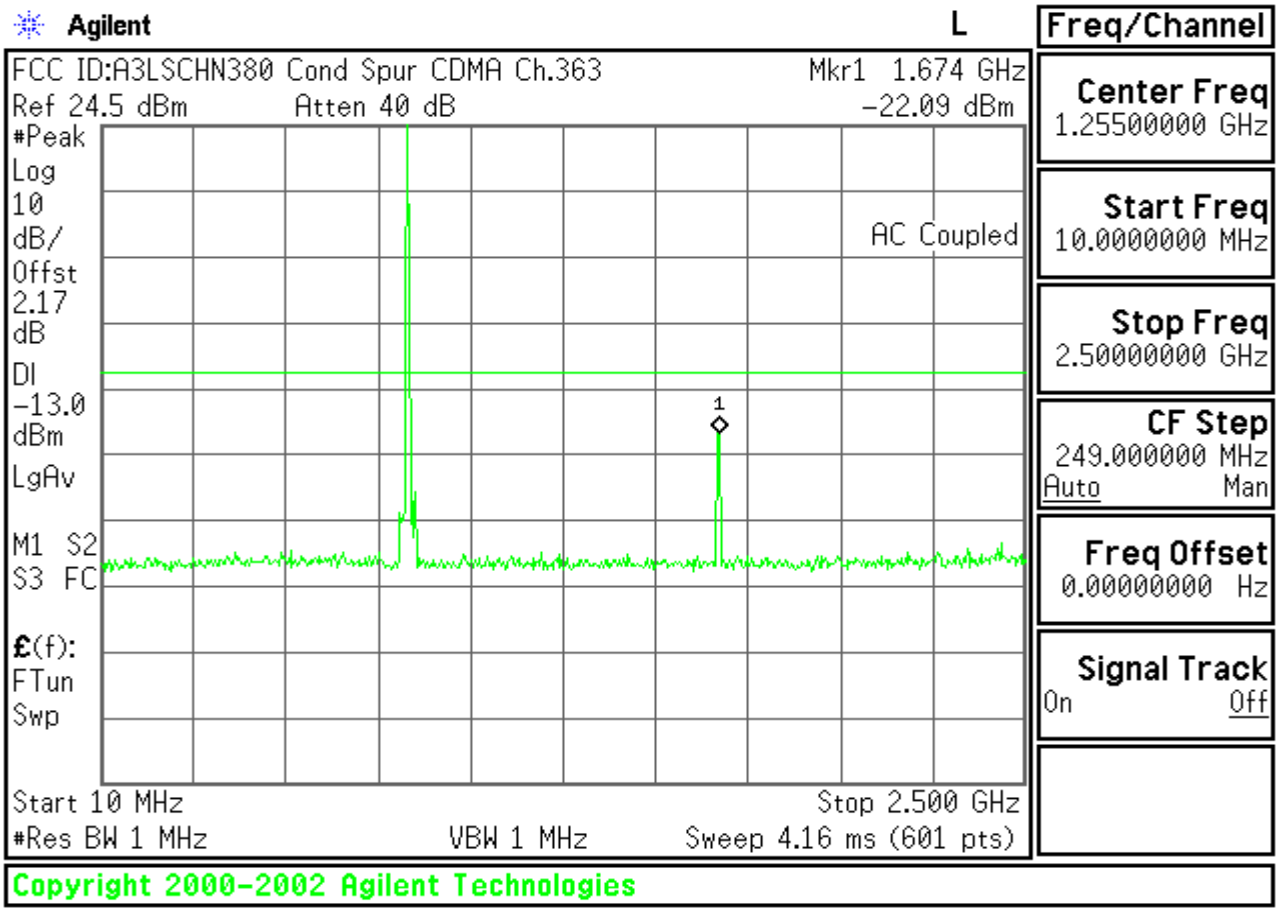

Agilent
L
Freq/Channel
Ch Freq 835.89 MHz
Trig Free
Occupied Bandwidth
FCC ID:A3LSCHN380 OBW CDMA Ch.363
Ref 24.5 dBm
Atten 40 dB
#Samp
Log
10
dB/
Offst
1.16
dB
Center 835.890 MHz
Span 3 MHz
#Res BW 30 kHz
#VBW 300 kHz
#Sweep 20 ms (601 pts)
Occupied Bandwidth
1.2830 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error -6.225 kHz
x dB Bandwidth 1.378 MHz*
Center Freq
835.890000 MHz
Start Freq
834.390000 MHz
Stop Freq
837.390000 MHz
CF Step
300.000000 kHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2002 Agilent Technologies

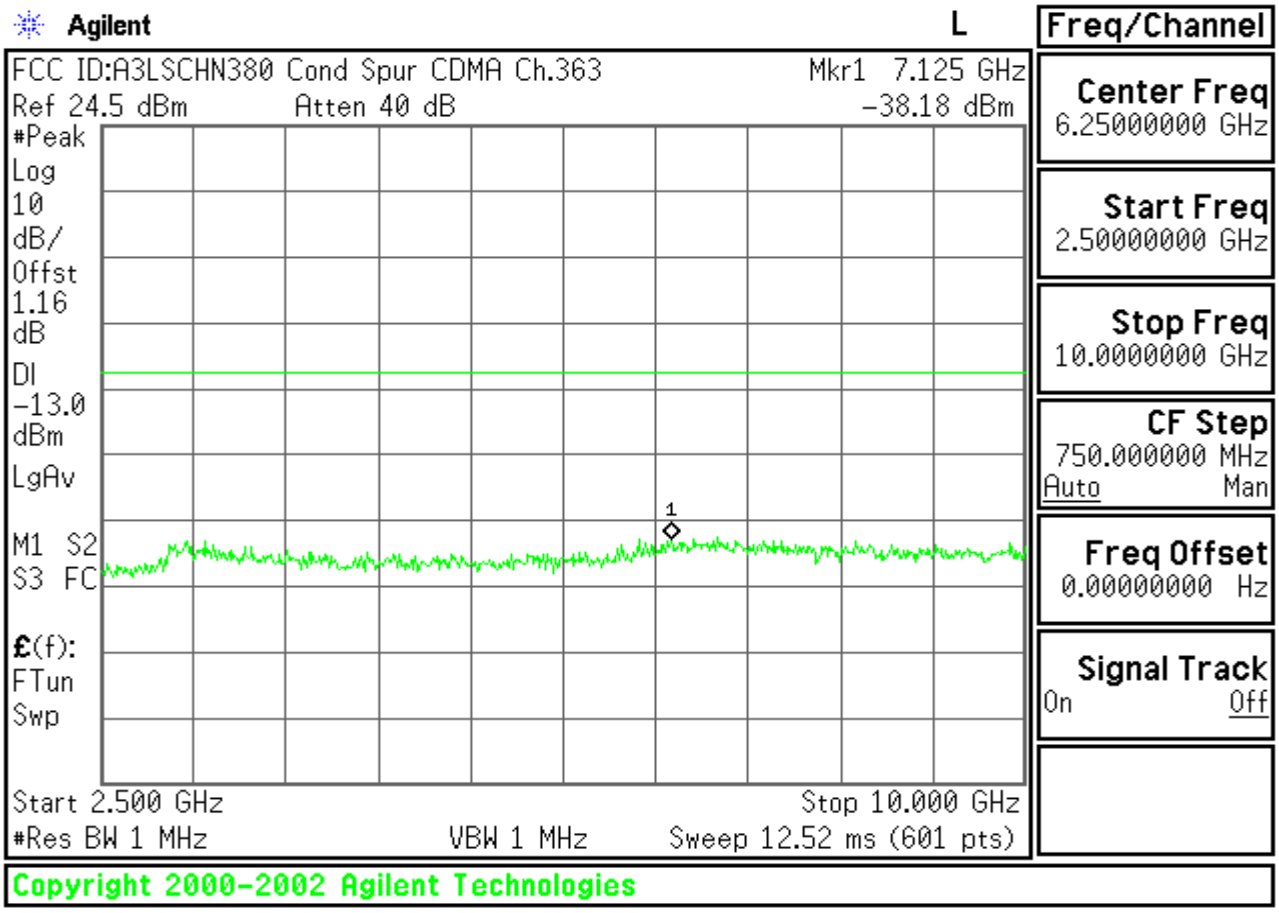

Agilent
L
Freq/Channel
Ch Freq 848.31 MHz
Trig Free
Occupied Bandwidth
FCC ID:A3LSCHN380 OBW CDMA Ch.777
Ref 24.5 dBm
Atten 40 dB
#Samp
Log
10
dB/
Offst
1.16
dB
Center 848.310 MHz
Span 3 MHz
#Res BW 30 kHz
#VBW 300 kHz
#Sweep 20 ms (601 pts)
Occupied Bandwidth
1.2798 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 3.980 kHz
x dB Bandwidth 1.400 MHz*
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
Copyright 2000-2002 Agilent Technologies

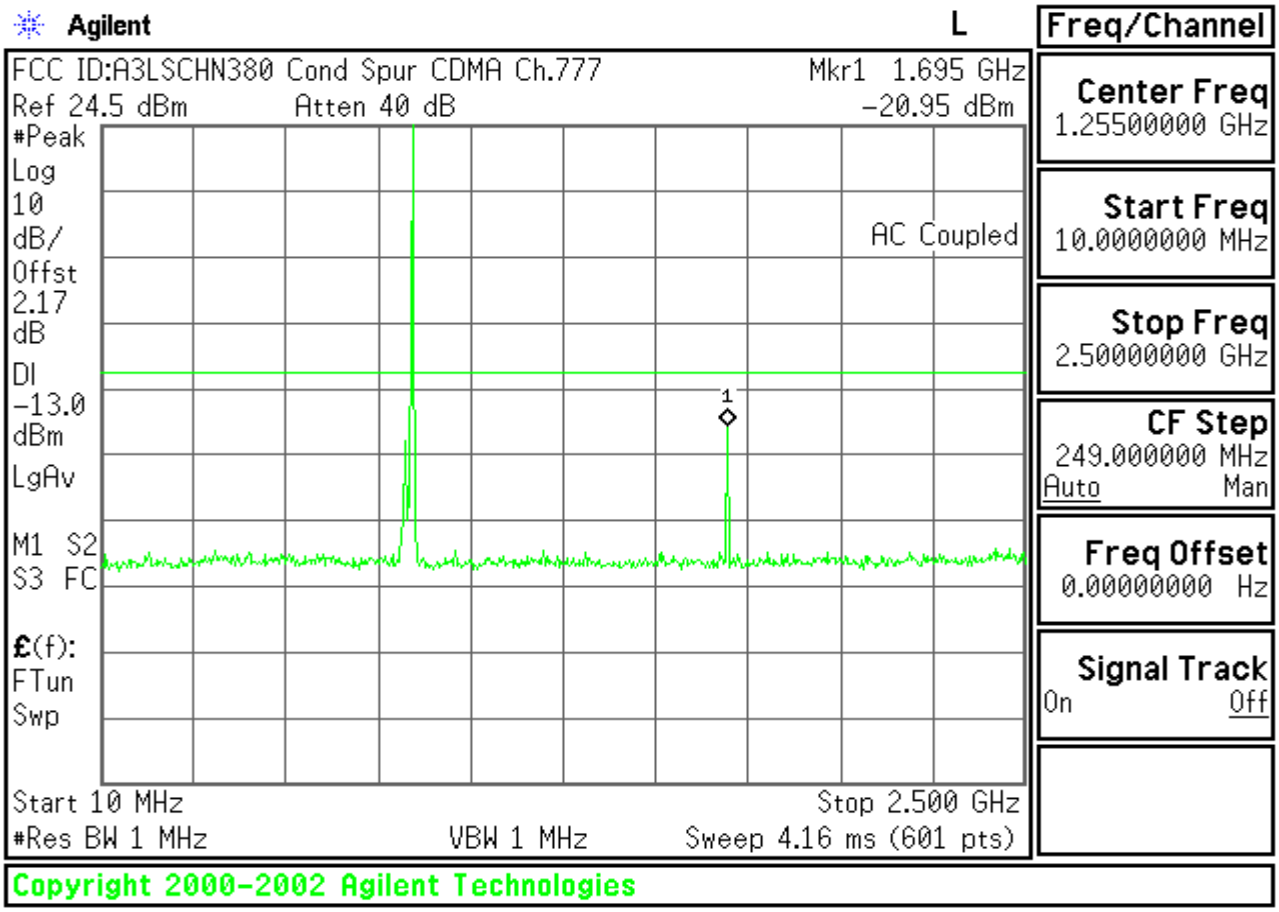

Agilent
L
Freq/Channel
FCC ID:A3LSCHN380 Rx Spurious Emissionr CDMA
Mkr1 893.50 MHz
Ref -50 dBm
#Atten 0 dB
-83.76 dBm
#Avg
Log
10
dB/
Offst
1.16
dB
Dl
-80.0
dBm
PAvg
M1 S2
S3 FC
£(f):
FTun
Swp
Start 869.00 MHz
Stop 894.00 MHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 1 ms (601 pts)
Center Freq
881.500000 MHz
Start Freq
869.000000 MHz
Stop Freq
894.000000 MHz
CF Step
2.50000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2002 Agilent Technologies

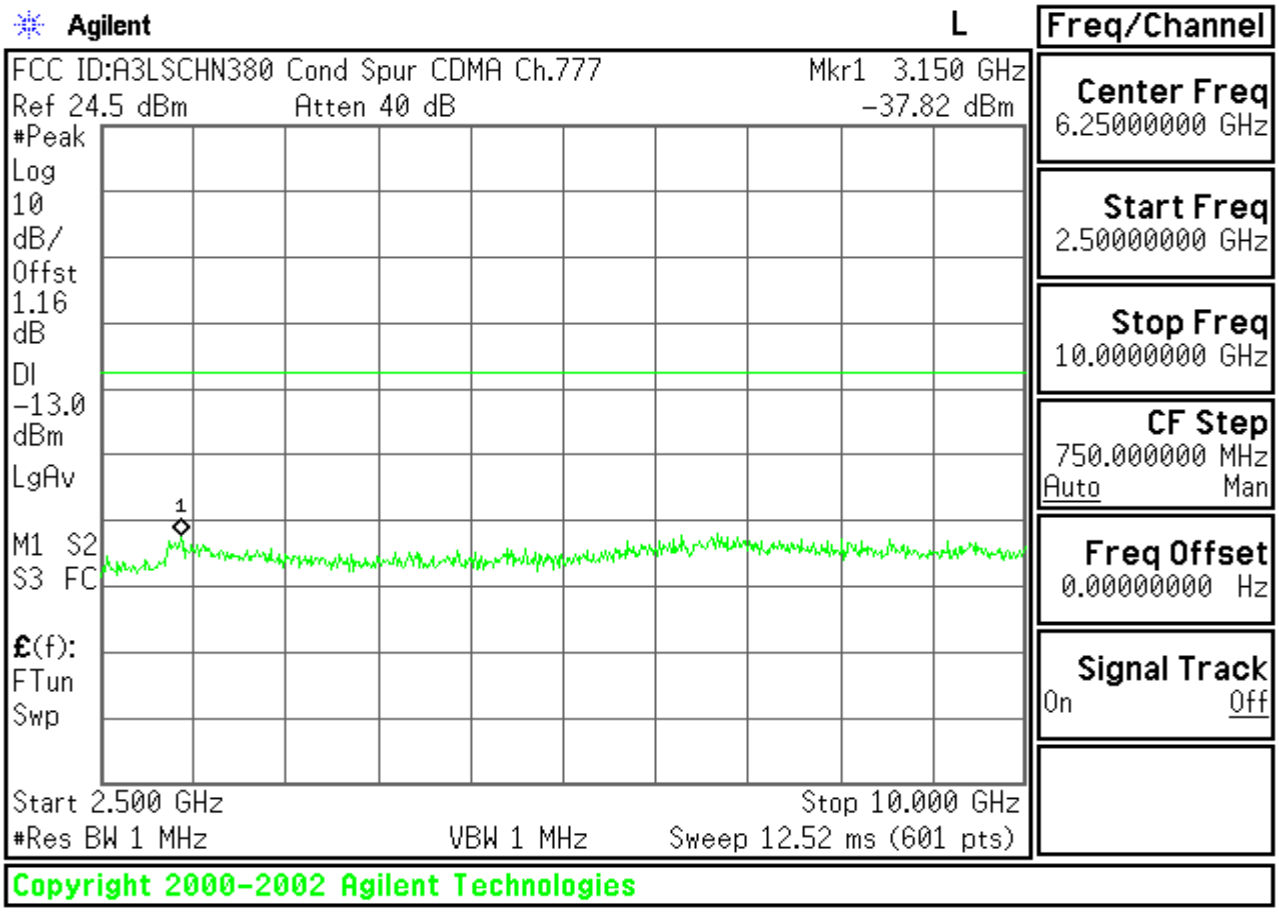

Agilent
L
Freq/Channel
FCC ID:A3LSCHN380 Cond Spur CDMA Ch.1013
Mkr1 1.649 GHz
Ref 24.5 dBm
Atten 40 dB
-18.24 dBm
#Peak
Log
10
dB/
Offst
2.17
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
AC Coupled
1
Center Freq
1.25500000 GHz
Start Freq
10.0000000 MHz
Stop Freq
2.50000000 GHz
CF Step
249.000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Start 10 MHz
Stop 2.500 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 4.16 ms (601 pts)
Copyright 2000-2002 Agilent Technologies

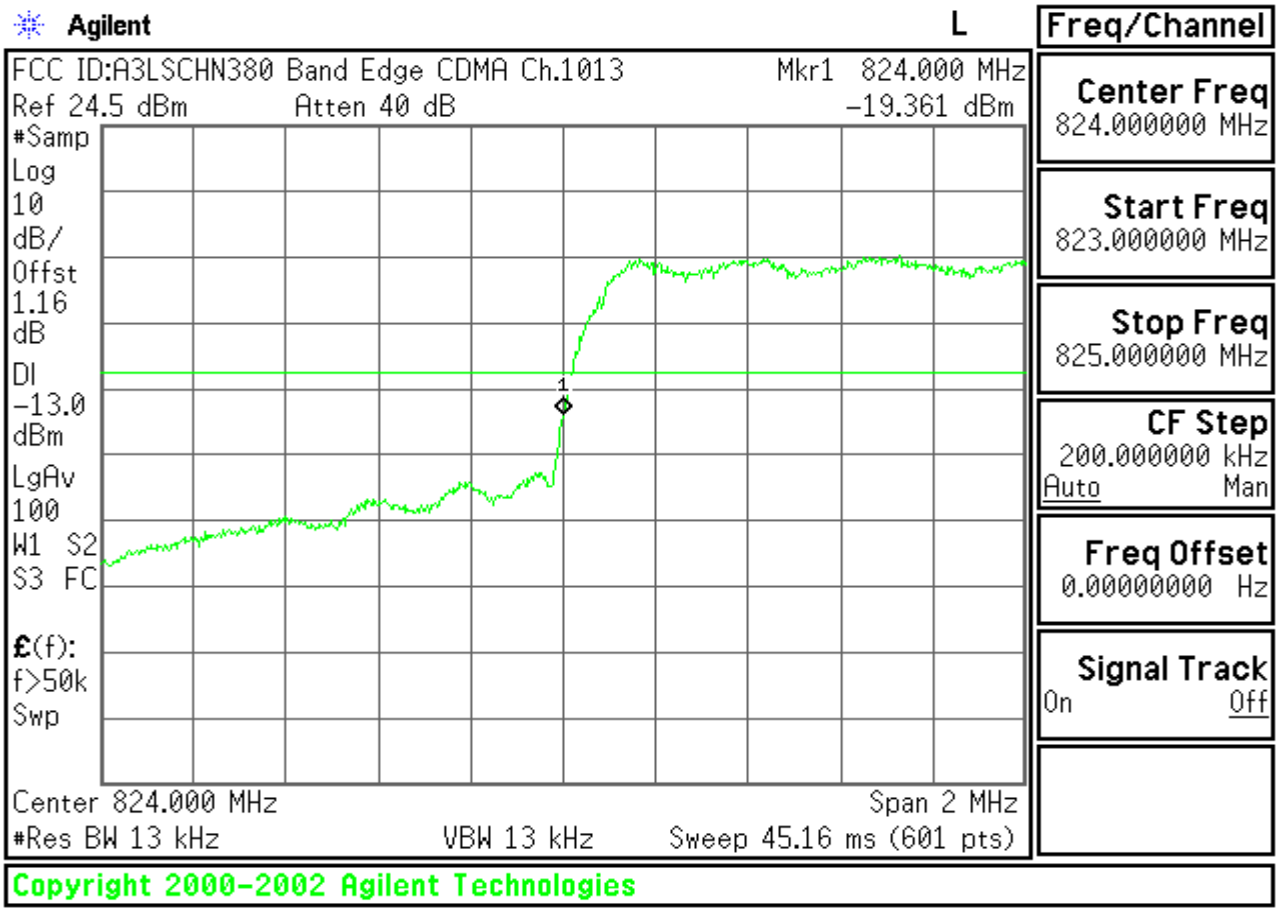

Agilent
L
Freq/Channel
FCC ID:A3LSCHN380 Cond Spur CDMA Ch.1013
Mkr1 7.975 GHz
Ref 24.5 dBm
Atten 40 dB
-37.61 dBm
#Peak
Log
10
dB/
Offst
1.16
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
1
Center Freq
6.25000000 GHz
Start Freq
2.50000000 GHz
Stop Freq
10.0000000 GHz
CF Step
750.000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Start 2.500 GHz
Stop 10.000 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 12.52 ms (601 pts)
Copyright 2000-2002 Agilent Technologies

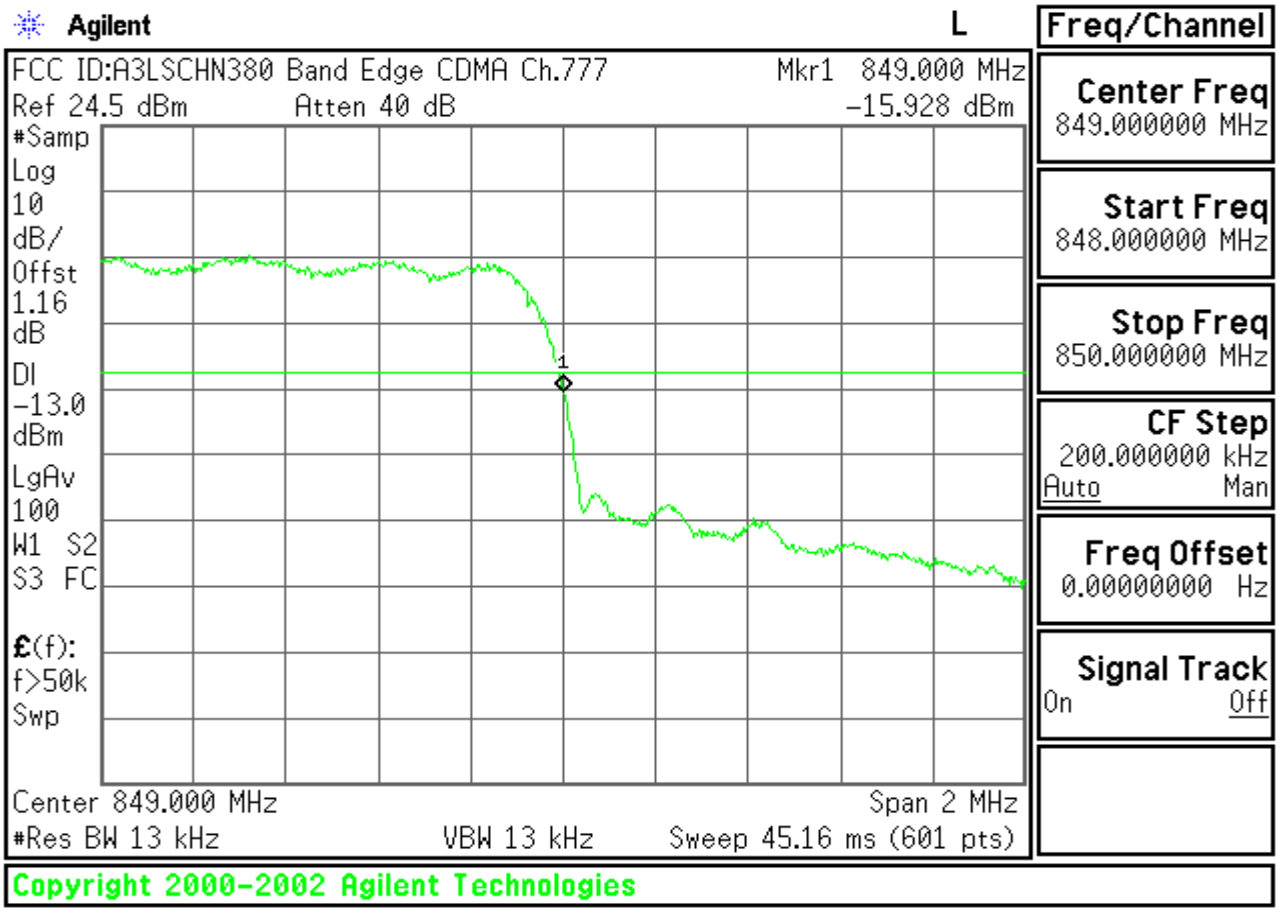

Agilent
L
Freq/Channel
FCC ID:A3LSCHN380 Cond Spur CDMA Ch.363
Mkr1 1.674 GHz
Ref 24.5 dBm
Atten 40 dB
-22.09 dBm
#Peak
Log
10
dB/
Offst
2.17
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
AC Coupled
1
Center Freq
1.25500000 GHz
Start Freq
10.0000000 MHz
Stop Freq
2.50000000 GHz
CF Step
249.000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Start 10 MHz
Stop 2.500 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 4.16 ms (601 pts)
Copyright 2000-2002 Agilent Technologies

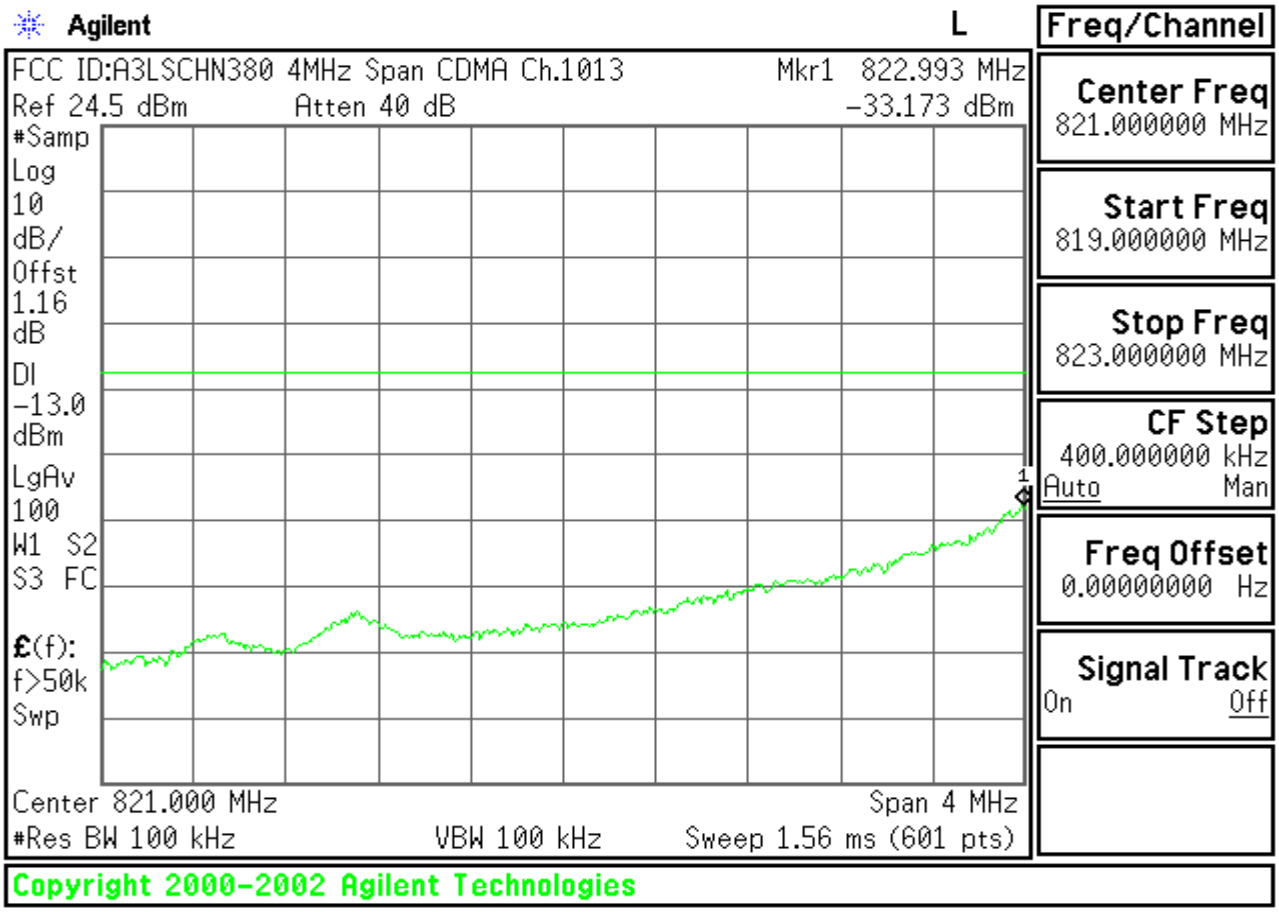

Agilent
L
Freq/Channel
FCC ID:A3LSCHN380 Cond Spur CDMA Ch.363
Mkr1 7.125 GHz
Ref 24.5 dBm
Atten 40 dB
-38.18 dBm
#Peak
Log
10
dB/
Offst
1.16
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
1
Center Freq
6.25000000 GHz
Start Freq
2.50000000 GHz
Stop Freq
10.0000000 GHz
CF Step
750.000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Start 2.500 GHz
Stop 10.000 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 12.52 ms (601 pts)
Copyright 2000-2002 Agilent Technologies

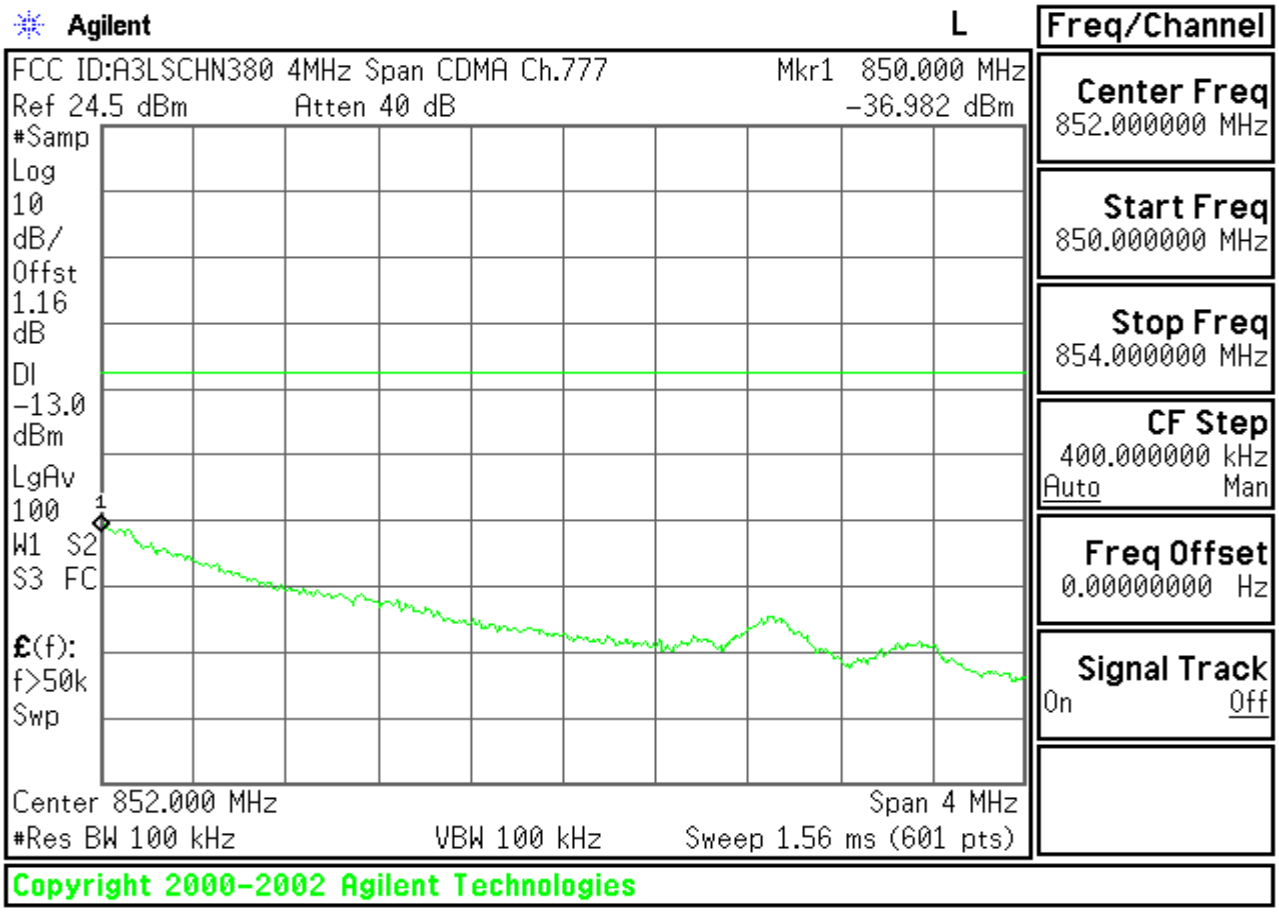

Agilent
L
Freq/Channel
FCC ID:A3LSCHN380 Cond Spur CDMA Ch.777
Mkr1 1.695 GHz
Ref 24.5 dBm
Atten 40 dB
-20.95 dBm
#Peak
Log
10
dB/
Offst
2.17
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
AC Coupled
1
Center Freq
1.25500000 GHz
Start Freq
10.0000000 MHz
Stop Freq
2.50000000 GHz
CF Step
249.000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Start 10 MHz
Stop 2.500 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 4.16 ms (601 pts)
Copyright 2000-2002 Agilent Technologies


Agilent
L
Freq/Channel
FCC ID:A3LSCHN380 Cond Spur CDMA Ch.777
Mkr1 3.150 GHz
Ref 24.5 dBm
Atten 40 dB
-37.82 dBm
#Peak
Log
10
dB/
Offst
1.16
dB
Dl
-13.0
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
1
Center Freq
6.25000000 GHz
Start Freq
2.50000000 GHz
Stop Freq
10.0000000 GHz
CF Step
750.000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Start 2.500 GHz
Stop 10.000 GHz
#Res BW 1 MHz
VBW 1 MHz
Sweep 12.52 ms (601 pts)
Copyright 2000-2002 Agilent Technologies


Agilent
L
Freq/Channel
FCC ID:A3LSCHN380 Band Edge CDMA Ch.1013
Mkr1 824.000 MHz
Ref 24.5 dBm
Atten 40 dB
-19.361 dBm
#Samp
Log
10
dB/
Offst
1.16
dB
Dl
-13.0
dBm
LgAv
100
W1 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
Copyright 2000-2002 Agilent Technologies


Agilent
L
Freq/Channel
FCC ID:A3LSCHN380 Band Edge CDMA Ch.777
Mkr1 849.000 MHz
Ref 24.5 dBm
Atten 40 dB
-15.928 dBm
#Samp
Log
10
dB/
Offst
1.16
dB
Dl
-13.0
dBm
LgAv
100
W1 S2
S3 FC
£(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
Copyright 2000-2002 Agilent Technologies


Agilent
L
Freq/Channel
FCC ID:A3LSCHN380 4MHz Span CDMA Ch.1013
Mkr1 822.993 MHz
Ref 24.5 dBm
Atten 40 dB
-33.173 dBm
#Samp
Log
10
dB/
Offst
1.16
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:A3LSCHN380 4MHz Span CDMA Ch.777
Mkr1 850.000 MHz
Ref 24.5 dBm
Atten 40 dB
-36.982 dBm
#Samp
Log
10
dB/
Offst
1.16
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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