

8. SPURIOUS AND HARMONIC EMISSION AT ANTENNA TERMINAL

Test Requirement(s): § 2.1051 Measurements required: Spurious emissions at antenna terminals:

The radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in § 2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

§ 22.917 Emission limitations for cellular equipment.

The rules in this section govern the spectral characteristics of emissions in the Cellular Radiotelephone Service.

(a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

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

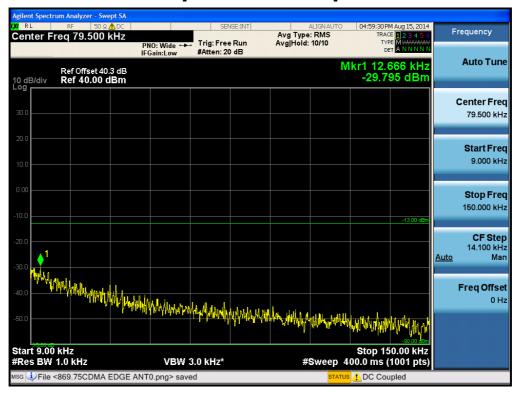
(c) Alternative out of band emission limit. Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas, in lieu of that set forth in this section, pursuant to a private contractual arrangement of all affected licensees and applicants. In this event, each party to such contract shall maintain a copy of the contract in their station files and disclose it to prospective assignees or transferees and, upon request, to the FCC.
(d) Interference caused by out of band emissions. If any emission from a transmitter



operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.



Plots of Spurious Emission Conducted Spurious Emissions (9 kHz – 150 kHz)



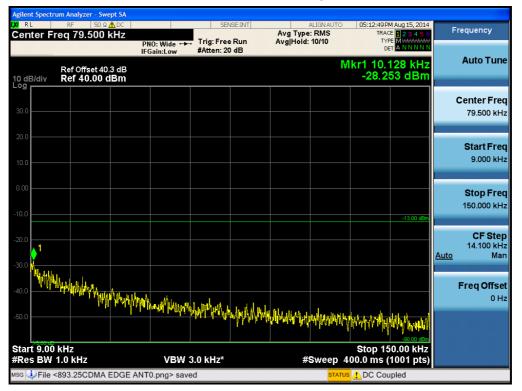
[CDMA Downlink Low]

[CDMA Downlink Middle]

Center Freq 79.500 kHz PNO: Wide ++- Trig: Free Run #Atten: 20 dB Avg Type: RMS Avg Hold: 10/10 Trace Date with the per with the pe	Agilent Spectrum Analyzer - Swept SA ₩ RL RF 50 Ω ▲ DC		ICE WIT	ALIGN AUTO 05:06:52P	M Aug 15, 2014	
Ref Offset 40.3 dB Mkr1 9.141 kHz -27.980 dBm Auto Tu 300 Center Fr 79.500 k 300 Start Fr 9.000 kHz		PNO: Wide 🛶 Trig: Free	Avg Type ∋Run Avg Hold:	: RMS TRAC		Frequency
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Start 9.00 kHz Stop 150.00 kHz	-40.0	mail manager were providing	artholoffathathalanapalarapal	Mpulluthanalantah	wittpation	Freq Offset 0 Hz
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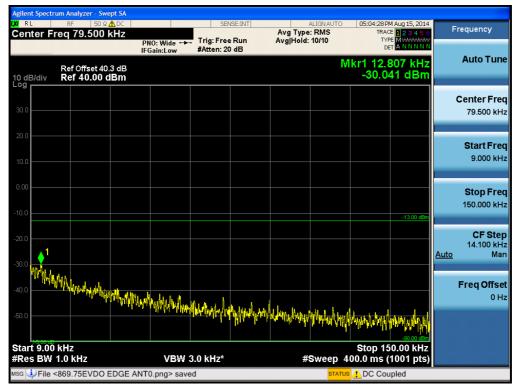
HCT CO., LTD



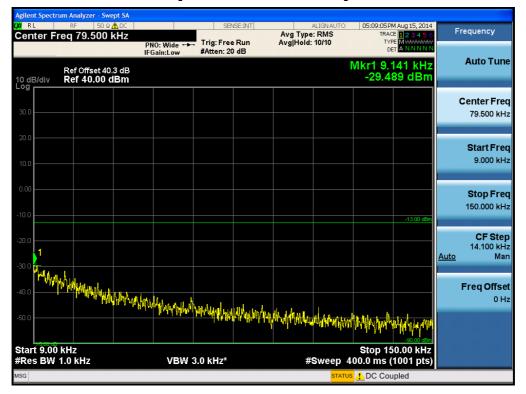


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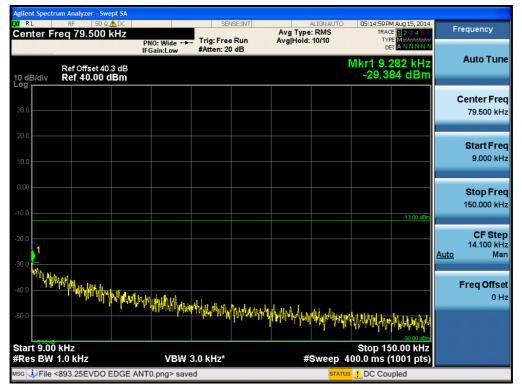






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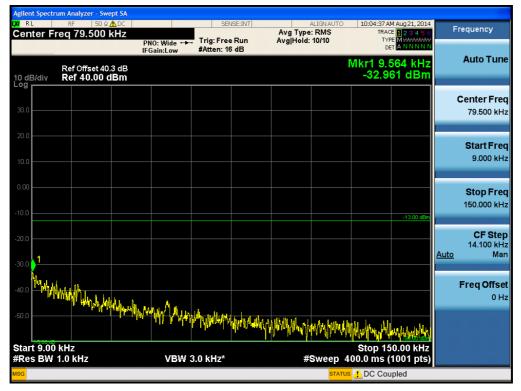






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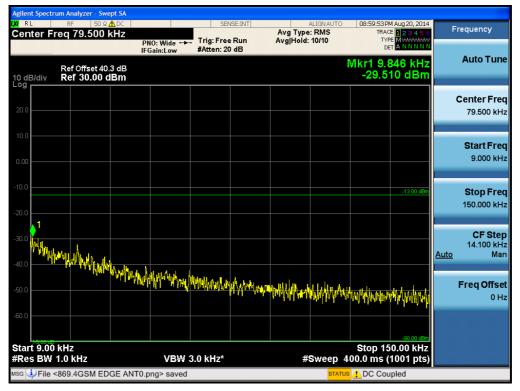




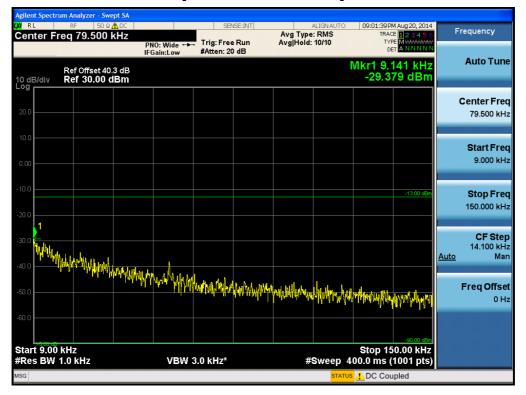


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[GSM Downlink Low]

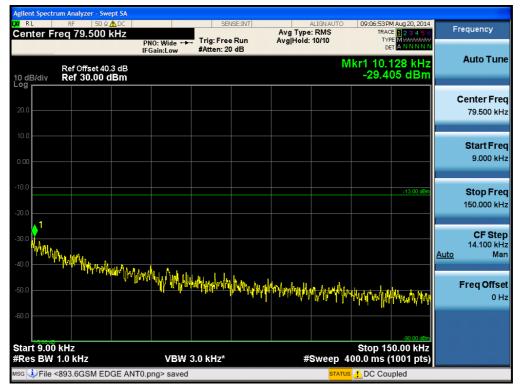




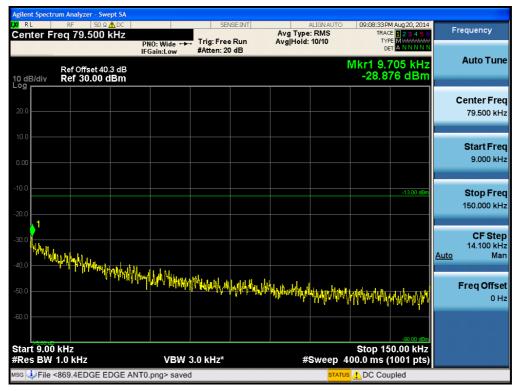


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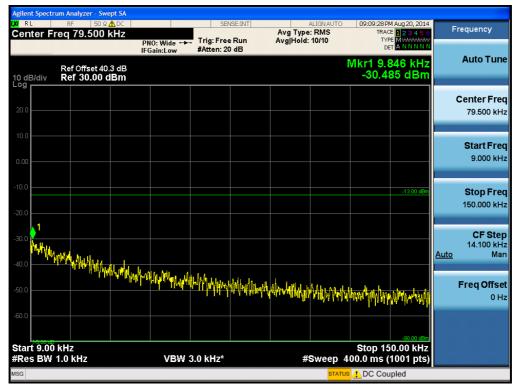




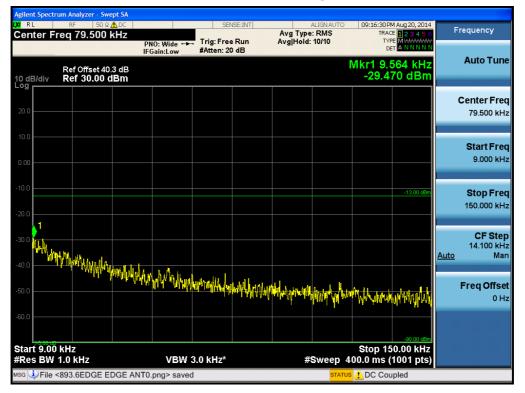


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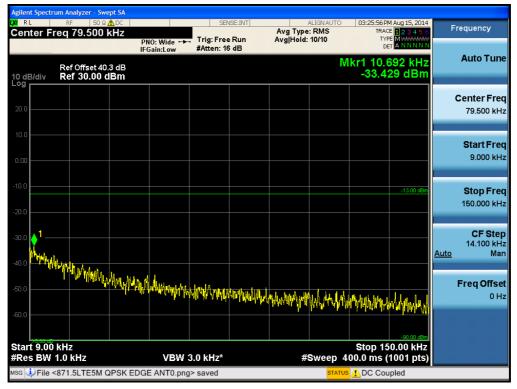






[EDGE Downlink High]

[LTE Downlink 5 MHz Low]

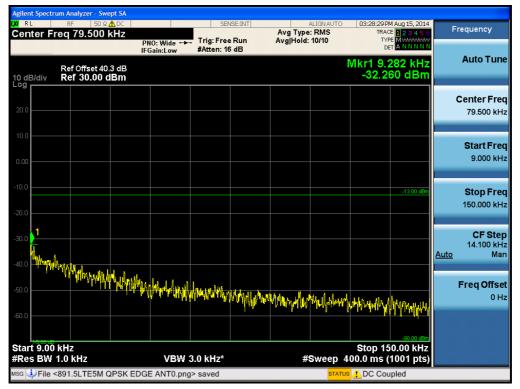






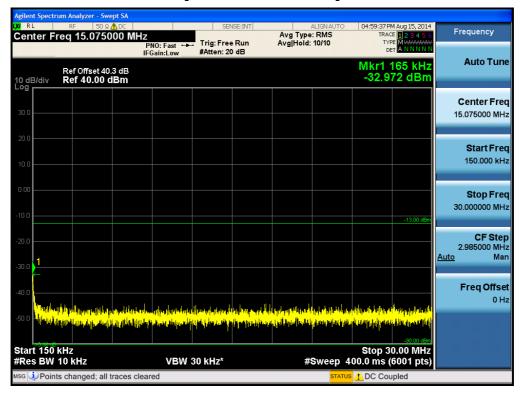
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Conducted Spurious Emissions (150 kHz – 30 MHz) [CDMA Downlink Low]



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	um Analyzer - Swe									
Center Fi		00 MHz		.	ISE:INT	Avg Type		TRAC	Aug 15, 2014	Frequency
	Ref Offset 40.	IFG 3 dB	IO: Fast ↔ Gain:Low	Trig: Free #Atten: 20		Avg Hold:	10/10	Mkr1 1		Auto Tune
10 dB/div Log	Ref 40.00 d	Bm						-32.2	49 dBm	
30.0										Center Freq 15.075000 MHz
20.0										Start Freq 150.000 kHz
-10.0										Stop Freq 30.000000 MHz
-20.0									-13.00 dBm	CF Step 2.985000 MHz <u>Auto</u> Man
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Start 150 #Res BW			VBW :	30 kHz*		#	Sweep 4		0.00 MHz 6001 pts)	
мsg 🗼 Point	ts changed; all ti	races clear	ed				STATUS	1 DC Cou	pled	



ectrum Analyzer - Swept SA Center Freq 15.075000 MHz 05:12:56 PM Aug 15, 2014 Avg Type: RMS Avg|Hold: 10/10 Frequency TRACE 1 2 3 4 5 TYPE MWWWW DET A N N N N Trig: Free Run #Atten: 20 dB PNO: Fast IFGain:Low DET A Mkr1 150 kHz -29.005 dBm Auto Tune Ref Offset 40.3 dB Ref 40.00 dBm 10 dB/div Log Center Freq 15.075000 MHz Start Freq 150.000 kHz Stop Freq 30.000000 MHz CF Step 2.985000 MHz Man <u>Auto</u> Freq Offset 0 Hz فتعاقبني ومعلوا فريعهما والمؤرفة تعرطانه وطلورا مطعه والعربي والمعاقطة فيعنوا مترفيه فالمتكومة وعار والمراجع المتقر alah dipetikan peringan dipat peringan dipat peringan dipat peringan dipat peringan dipat peringan dipat pering And the of the set of the local set of the local set of the set of asta tente de la la la la del al la colta parta materia de la la deservida Start 150 kHz #Res BW 10 kHz Stop 30.00 MHz #Sweep 400.0 ms (6001 pts) VBW 30 kHz* Points changed; all traces cleared 1 DC Coupled

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[EVDO Downlink Low]

XIRL RF 50Ω ALDC		CEN	ISE:INT		ALIGN AUTO	05:04:06.01	M Aug 15, 2014		
Center Freq 15.075000 M		.		Avg Type Avg Hold:	RMS	TRAC	E 1 2 3 4 5 6	Freque	ency
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Start 150 kHz	VDW	30 kHz*			Sweep 4		0.00 MHz		
#Res BW 10 kHz		30 KHZ"		#		DC Cou			



ectrum Analyzer - Swept SA ilent Sp Center Freq 15.075000 MHz 05:09:13 PM Aug 15, 2014 Avg Type: RMS Avg|Hold: 10/10 Frequency TRACE 12345 TYPE MUMMA DET A N N N N Trig: Free Run #Atten: 20 dB PNO: Fast IFGain:Low DET Mkr1 150 kHz -30.668 dBm Auto Tune Ref Offset 40.3 dB Ref 40.00 dBm 10 dB/div Log Center Freq 15.075000 MHz Start Freq 150.000 kHz Stop Freq 30.000000 MHz CF Step 2.985000 MHz Man 1 <u>Auto</u> Freq Offset 0 Hz and have near physical defense and physical and the provident and the term of the term of the provided on the provided term of the The second s and the state of the price of the price long of أرأفان الارتباع ورأبانها والالا Start 150 kHz #Res BW 10 kHz Stop 30.00 MHz #Sweep 400.0 ms (6001 pts) VBW 30 kHz* Points changed; all traces cleared 1 DC Coupled

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[WCDMA Downlink Middle]

Agilent Spectru K/ RL	u <mark>m Analyzer - Swep</mark> RF 50 Ω 🥂			SEN	ISE:INT		ALIGNAUTO	10:04:44 A	M Aug 21, 2014		
Center Fr	eq 15.07500	PNO:		Trig: Free #Atten: 16		Avg Type Avg Hold:		TRAC TYF DE	E 123456 E M MMMMM T A N N N N N	Freque	ency
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Res BW	10 kHz s changed; all tra	aces cleared	VBW 30	kHz*		#	Sweep 4 status	00.0 ms (



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Res BW	10 kHz		VBW 3	30 kHz*		#	Sweep 4	00.0 ms (6001 pts)		

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[GSM Downlink Low]

Agilent Spectrum Analyzer - Swept SA ₩ RL RF 50 Ω 🔥 DC		SEN	ISE:INT		ALIGN AUTO	09:00:01 Pf	4 Aug 20, 2014	
Center Freq 15.075000 M	PNO: Fast ↔	. Trig: Free	Run	Avg Type Avg Hold:	RMS	TRAC	E 1 2 3 4 5 6 E M WWWWW T A N N N N N	Frequency
Ref Offset 40.3 dB 10 dB/div Ref 30.00 dBm	IFGain:Low	#Atten: 20) dB			Mkr1 1	150 kHz 08 dBm	Auto Tune
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0.00								Start Freq 150.000 kHz
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-60.0 Start 150 kHz						Stop 3	-90.00 dBm 0.00 MHz	
#Res BW 10 kHz		30 kHz*		#	Sweep 4		6001 pts)	



ectrum Analyzer - Swept SA nt Sr Center Freq 15.075000 MHz RL 09:01:46 PM Aug 20, 2014 Avg Type: RMS Avg|Hold: 10/10 Frequency TRACE 12345 TYPE MWWWW DET A N N N N Trig: Free Run #Atten: 20 dB PNO: Fast IFGain:Low DET A Mkr1 175 kHz -33.525 dBm Auto Tune Ref Offset 40.3 dB Ref 30.00 dBm 10 dB/div Log **Center Freq** 15.075000 MHz Start Freq 150.000 kHz Stop Freq 30.000000 MHz CF Step 2.985000 MHz Man <u>Auto</u> it is the last Freq Offset to and the test for all the second والمتعلقين أيه 0 Hz Start 150 kHz #Res BW 10 kHz Stop 30.00 MHz #Sweep 400.0 ms (6001 pts) VBW 30 kHz* Points changed; all traces cleared 1 DC Coupled

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[GSM Downlink High]

Agilent Spectr	r <mark>um Analyzer - Swe</mark> RF 50 Ω			SEN	ISE:INT		ALIGNAUTO	09:07:00 Pf	4 Aug 20, 2014		
Center F	req 15.0750	Р	NO: Fast 🕶	Trig: Free		Avg Type Avg Hold:		TYP	E 123456 E MWWWW T A NNNNN	Fr	equency
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isg 🥹 Poin	ts changed; all t	races clear	ed				STATUS	🚹 DC Col	ipled		



ectrum Analyzer - Swept SA ilent Sp Center Freq 15.075000 MHz RL 09:08:40 PM Aug 20, 2014 Avg Type: RMS Avg|Hold: 10/10 Frequency TRACE 1 2 3 4 5 TYPE MWWWW DET A N N N N Z PNO: Fast →→→ Trig: Free Run IFGain:Low #Atten: 20 dB DET A Mkr1 155 kHz -32.212 dBm Auto Tune Ref Offset 40.3 dB Ref 30.00 dBm 10 dB/div Log Center Freq 15.075000 MHz Start Freq 150.000 kHz Stop Freq 30.000000 MHz CF Step 2.985000 MHz Man <u>Auto</u> Freq Offset أأرار ومشركتكم أتشر بارتثاثا الألجه يوريدا الاعتاريل الزرسطر الخذاريات 0 Hz Start 150 kHz #Res BW 10 kHz Stop 30.00 MHz #Sweep 400.0 ms (6001 pts) VBW 30 kHz* Points changed; all traces cleared 1 DC Coupled

[EDGE Downlink Low]

[EDGE Downlink Middle]

Agilent Spectr	um Analyzer - Swe RF 50 Q			SEN	ISE:INT		ALIGN AUTO	09:09:35 P	M Aug 20, 2014		
Center Fi	req 15.0750	00 MHz	NO: Fast 🔸	Trig: Free #Atten: 20		Avg Type Avg Hold:		TRAC TYP DE	E 123456 E M WWWW	Fi	requency
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-60.0 Start 150 #Res BW			VBW	30 kHz*		#	Sweep 4		-90.00 dBm 0.00 MHz 6001 pts)		
	ts changed; all t	races clear						L DC Cou			



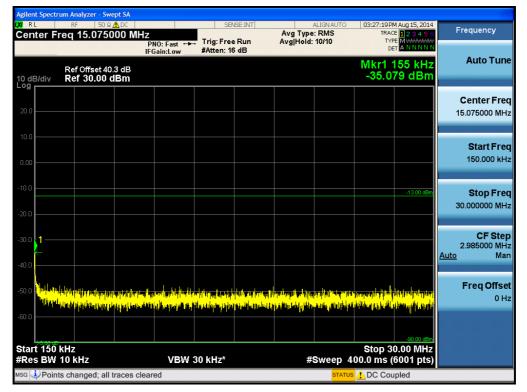
ectrum Analyzer - Swept SA Center Freq 15.075000 MHz 09:16:37 PM Aug 20, 2014 Avg Type: RMS Avg|Hold: 10/10 Frequency TRACE 1 2 3 4 5 TYPE MWWWW DET A N N N N Trig: Free Run #Atten: 20 dB PNO: Fast IFGain:Low DET Mkr1 150 kHz -31.170 dBm Auto Tune Ref Offset 40.3 dB Ref 30.00 dBm 10 dB/div Log Center Freq 15.075000 MHz Start Freq 150.000 kHz Stop Freq 30.000000 MHz CF Step 2.985000 MHz Man <u>Auto</u> al the second second and all hall be Freq Offset and the test of the last part of the state o الوزأورير ومطفى الواؤرأأ أأ العادة بتدغيز إغديد متلقا بمرعدها إنه 0 Hz Start 150 kHz #Res BW 10 kHz Stop 30.00 MHz #Sweep 400.0 ms (6001 pts) VBW 30 kHz* Points changed; all traces cleared 1 DC Coupled

[EDGE Downlink High]

[LTE Downlink 5 MHz Low]

RL enter F	RF 50Ω reg 15.0750	<u>∧</u> dc)00 MHz			SENSE:INT ALIGN AU Avg Type: RMS				4 Aug 15, 2014 E <mark>1 2 3 4 5 6</mark>	Frequency	
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art 150	kHz							Stop 3	-90.00 dBm 0.00 MHz		
Res BW	10 kHz		VBW	30 kHz*		#	Sweep 4				





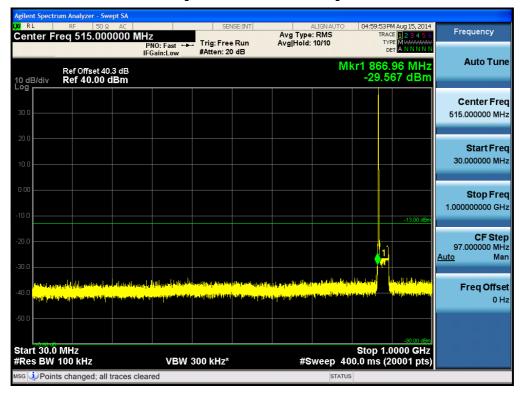
[LTE Downlink 5 MHz Middle]

[LTE Downlink 5 MHz High]

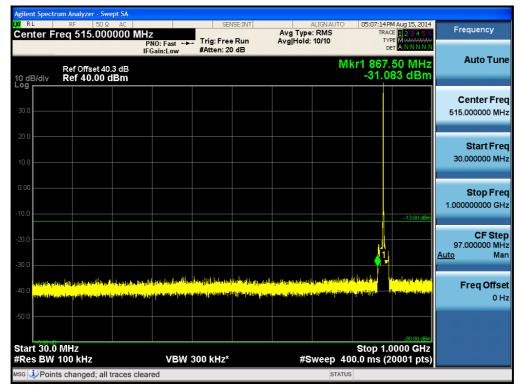
Agilent Spectr	r <mark>um Analyzer - Swe</mark> RF 50 Ω			SEM	ISE:INT		ALIGN AUTO	03:28:36 PI	M Aug 15, 2014		
Center F	req 15.0750	Р	NO: Fast 🔸	Trig: Free #Atten: 16		Avg Type Avg Hold:		TRAC TYF DE	E 123456 E M MMMM A N N N N N	F	requency
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20.0											Center Freq 5.075000 MHz
0.00											Start Freq 150.000 kHz
-10.0									-13.00 dBm	3(Stop Freq
-30.0 <mark>1</mark>										Auto	CF Step 2.985000 MH: Mar
The second second	un de la distanti ya dan pina Talaya distanti ya dan pina	t performation de la companya de la La companya de la comp	ringe (Deletander <mark>Produkt ut Hander</mark>	r i hi tina dai Satu pilika dai	n a fa la facella facella Na fa facella	en ner produktion Tali en fer produktion	uranta fisia pentra Patan fisia pentra	<mark>n bilikkombo Gilippin (ik</mark> ter	lej De slavijsti De la politika		Freq Offse 0 Ha
-60.0 Start 150 #Res BW	kHz			30 kHz*			Sweep 4	Stop 3	-90.00 dBm 0.00 MHz		
	ts changed; all t	traces clear						DC Cou			



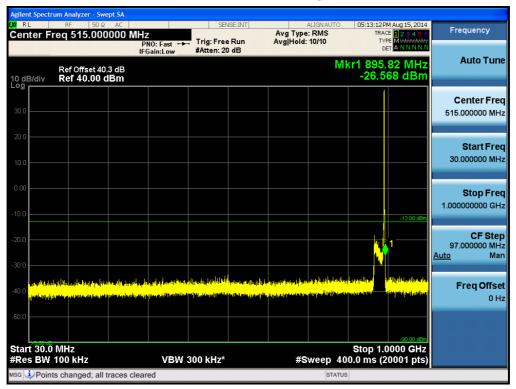
Conducted Spurious Emissions (30 MHz – 1 GHz) [CDMA Downlink Low]



[CDMA Downlink Middle]

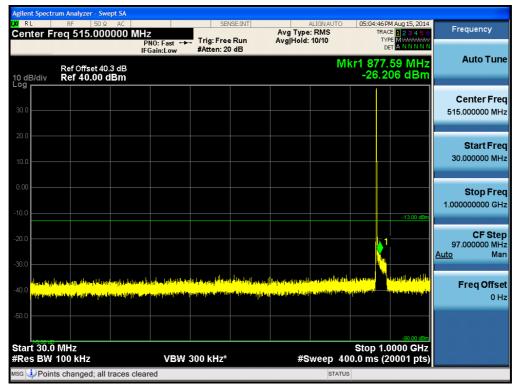




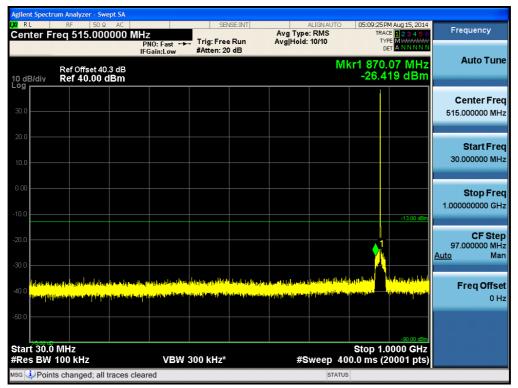


[CDMA Downlink High]

[EVDO Downlink Low]

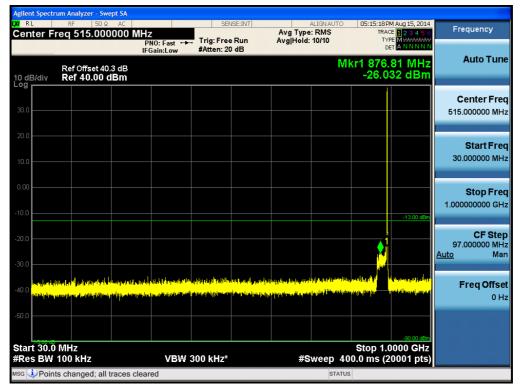




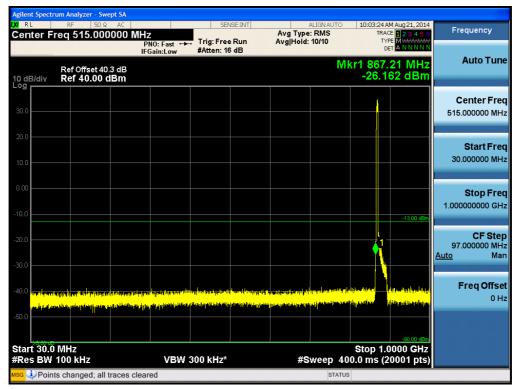


[EVDO Downlink Middle]

[EVDO Downlink High]

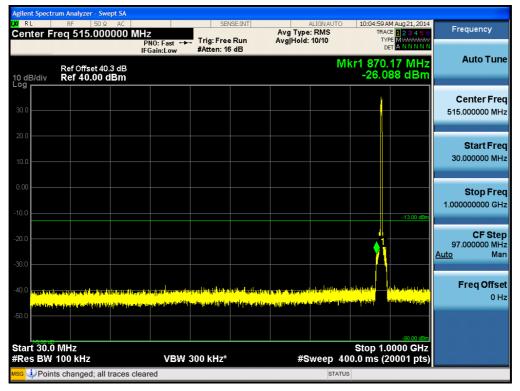




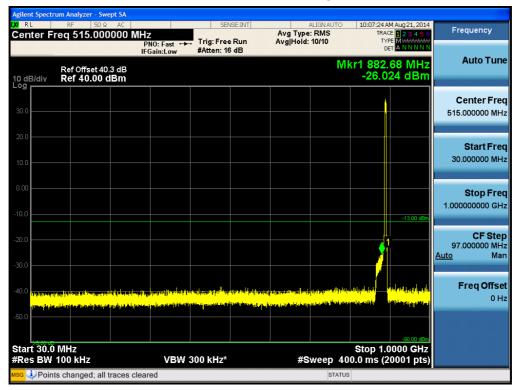


[WCDMA Downlink Low]

[WCDMA Downlink Middle]

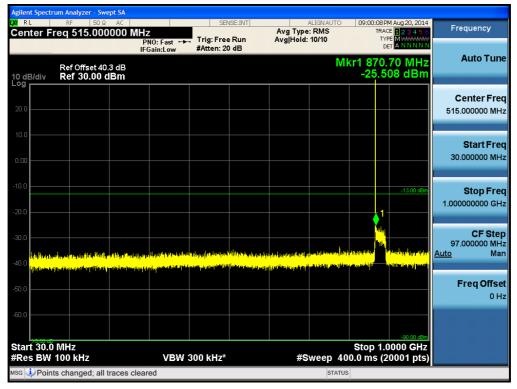






[WCDMA Downlink High]

[GSM Downlink Low]

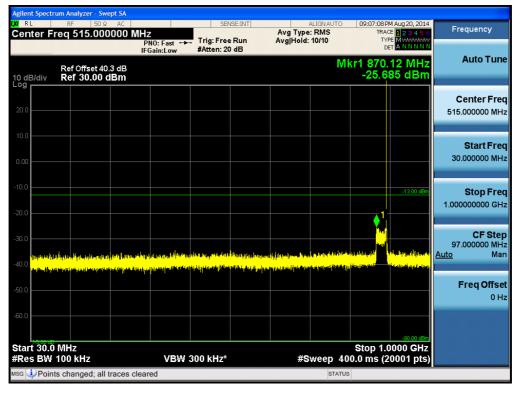




ectrum Analyzer Swept SA 09:01:54 PN Avg Type: RMS Avg|Hold: 10/10 Frequency Center Freq 515.000000 MHz **FRACE** Trig: Free Run #Atten: 20 dB TYPE PNO: Fast IFGain:Low DET Mkr1 880.88 MHz -20.567 dBm Auto Tune Ref Offset 40.3 dB Ref 30.00 dBm 10 dB/div Loa **Center Freq** 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.00000000 GHz CF Step 97.000000 MHz <u>Auto</u> Man **Freq Offset** 0 Hz Start 30.0 MHz #Res BW 100 kHz Stop 1.0000 GHz #Sweep 400.0 ms (20001 pts) VBW 300 kHz* Points changed; all traces cleared

[GSM Downlink Middle]

[GSM Downlink High]

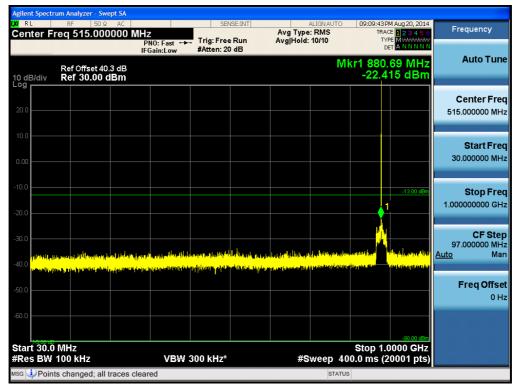




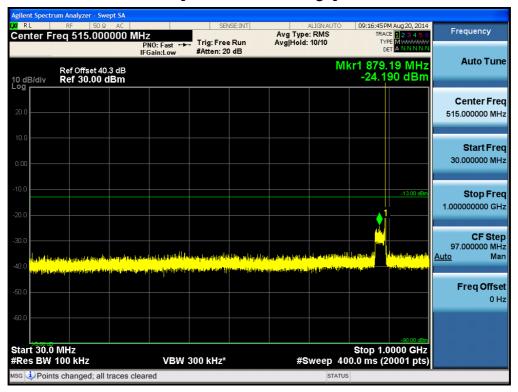
ectrum Analyzer - Swept SA 09:08:47 PM Avg Type: RMS Avg|Hold: 10/10 Aua 20, 2014 Frequency Center Freq 515.000000 MHz Trig: Free Run #Atten: 20 dB TYP PNO: Fast IFGain:Low DET Auto Tune Mkr1 871.52 MHz -25.616 dBm Ref Offset 40.3 dB Ref 30.00 dBm 10 dB/div Loa **Center Freq** 515.000000 MHz Start Freq 30.000000 MHz Stop Freq 1.00000000 GHz CF Step 97.000000 MHz <u>Auto</u> Man **Freq Offset** 0 Hz Start 30.0 MHz #Res BW 100 kHz Stop 1.0000 GHz #Sweep 400.0 ms (20001 pts) VBW 300 kHz* Points changed; all traces cleared

[EDGE Downlink Low]

[EDGE Downlink Middle]

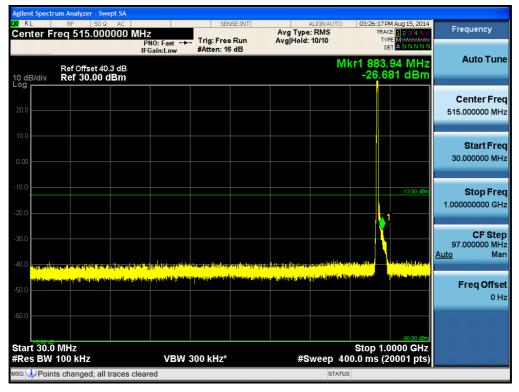




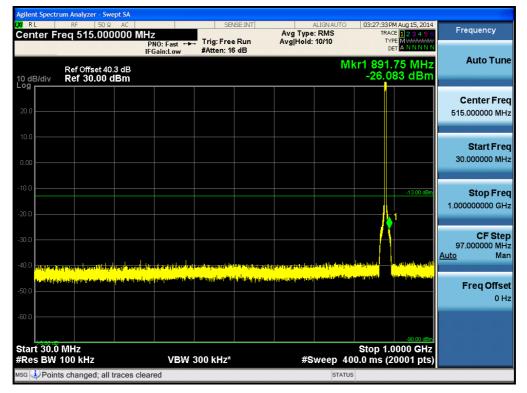


[EDGE Downlink High]

[LTE Downlink 5 MHz Low]

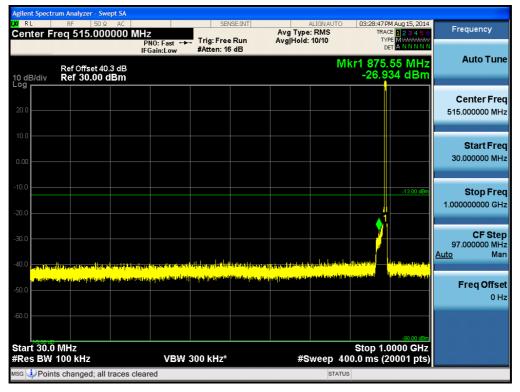






[LTE Downlink 5 MHz Middle]

[LTE Downlink 5 MHz High]





MODEL: TR-HRDU-850C

Conducted Spurious Emissions (1 GHz –12.75 GHz) [CDMA Downlink Low]



[CDMA Downlink Middle]







[CDMA Downlink High]

[EVDO Downlink Low]







[EVDO Downlink Middle]

[EVDO Downlink High]







[WCDMA Downlink Low]

[WCDMA Downlink Middle]







[WCDMA Downlink High]

[GSM Downlink Low]







[GSM Downlink Middle]

[GSM Downlink High]







[EDGE Downlink Low]

[EDGE Downlink Middle]







[EDGE Downlink High]

[LTE Downlink 5 MHz Low]







[LTE Downlink 5 MHz Middle]

[LTE Downlink 5 MHz High]





Intermodulation Spurious Emissions



[CDMA Downlink Low]

[CDMA Downlink High]







[EVDO Downlink Low]

[EVDO Downlink High]







[WCDMA Downlink Low]

[WCDMA Downlink High]







[GSM Downlink Low]

[GSM Downlink High]





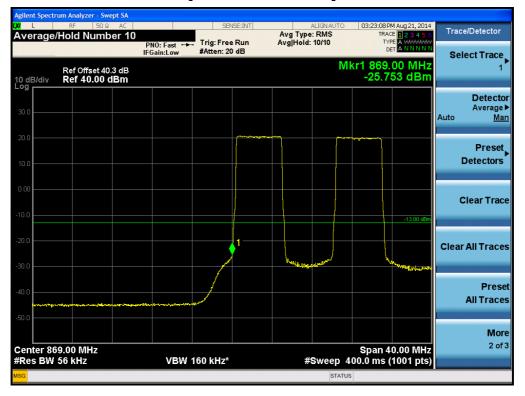


[EDGE Downlink Low]

[EDGE Downlink High]

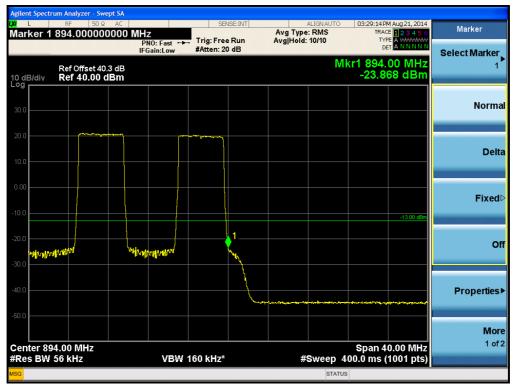






[LTE5 Downlink Low]

[LTE5 Downlink High]





Band Edge

[CDMA Downlink Low]



[CDMA Downlink High]







[EVDO Downlink Low]

[EVDO Downlink High]







[WCDMA Downlink Low]

[WCDMA Downlink High]







[GSM Downlink Low]

[GSM Downlink High]







[EDGE Downlink Low]

[EDGE Downlink High]







[LTE Downlink 5 MHz Low]

[LTE Downlink 5 MHz High]





9. OUT OF BAND REJECTION

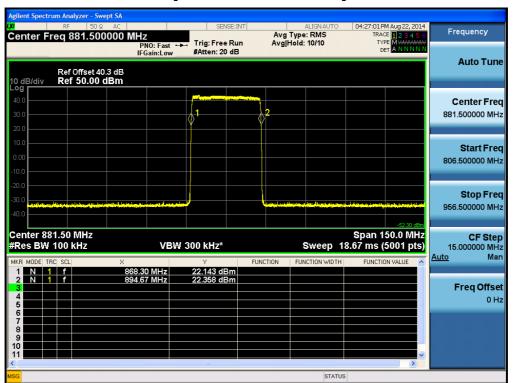
Test Requirement(s): KDB 935210 D03 v02r01

Out of Band Rejection – Test for rejection of out of band signals. Filter freq. response plots are acceptable.

Test Procedures: A modulated carrier generated by the signal generator carrier was connected to either the Uplink or Downlink RF port at a maximum level as determined by the spectrum analyzer was connected to either the Uplink or Downlink port depending on the circuitry being measured. Signal generator sweep from the frequency more lower than the operating frequency to the frequency more higher than it, find the product band filter characteristic

Test Results: The EUT complies with the requirements of this section.

Out of Band Rejection



[Cellular Band Downlink]



10. FIELD STRENGTH OF SPURIOUS RADIATION

Test Requirement(s): § 2.1053 Measurements required: Field strength of spurious radiation.

§ 2.1053 (a) Measurements shall be made to detect spurious emissions that may be Radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of § 2.1049, as appropriate. For equipment operating on frequencies below 890 MHz, an open field test is normally required with the measuring instrument antenna located in the far-field at all test frequencies. In the event it is either impractical or impossible to make open field measurements (e.g. a broadcast transmitter installed in a building) measurements will be accepted of the equipment as installed. Such measurements must be accompanied by a description of the site where the measurements were made showing the location of any possible source of reflections which might distort the field strength measurements. Information submitted shall include the relative radiated power of each spurious emission with reference to the rated power output of the transmitter, assuming all emissions are radiated from half-wave dipole antennas.

§ 2.1053 (b): The measurements specified in paragraph (a) of this section shall be made for the following equipment:

(1) Those in which the spurious emissions are required to be 60 dB or more below the mean power of the transmitter.

(2) All equipment operating on frequencies higher than 25 MHz.

(3) All equipment where the antenna is an integral part of, and attached directly to The transmitter.

(4) Other types of equipment as required, when deemed necessary by the Commission.

Test Procedures: As required by 47 CFR 2.1053, *field strength of radiated spurious measurements* were made in accordance with the procedures of ANSI/TIA-603-C-2004 "Land Mobile FM or PM Communications Equipment Measurement and Performance Standards".

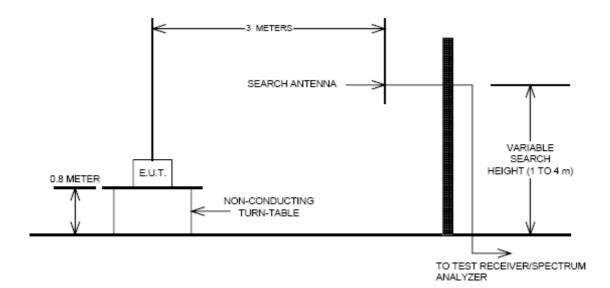
Radiated emission measurements were performed inside a 3 meter semi-anechoic chamber.

The EUT was set at a distance of 3m from the receiving antenna. The EUT's RF ports



were terminated to 50ohm load. The EUT was set to transmit at the low, mid and high channels of the transmitter frequency range at its maximum power level. The EUT was rotated about 360 and the receiving antenna scanned from 1-3m in order to capture the maximum emission. A calibrated antenna source was positioned in place of the EUT and the previously recorded signal was duplicated. The maximum EIRP of the emission was calculated by adding the forward power to the calibrated source plus its appropriate gain value. These steps were carried. out with the receiving antenna in both vertical and horizontal polarization. Harmonic emissions up to the 10th or 40 GHz, whichever was the lesser, were investigated.

Radiated Spurious Emissions Test Setup





Test Result:

Note.

Input signal is the CW signal.

Harmonics were not found.

[Downlink]

Tx Freq.(MHz)		<u>Substitute</u>	Ant. Gain			ERP	Margin
	Freq.(MHz)	Level	(dBi)	C.L	Pol.	(dBm)	(dB)
		[dBm]					
869.4	1776	-31.41	7.94	5.24	Н	-28.71	15.71
	2000	-33.14	8.45	5.64	Н	-30.33	17.33
881.5	1776	-31.52	7.94	5.24	Н	-28.82	15.82
	2000	-32.78	8.45	5.64	Н	-29.97	16.97
893.6	1776	-31.73	7.94	5.24	Н	-29.03	16.03
	2000	-32.53	8.45	5.64	Н	-29.72	16.72



11. FREQUENCY STABILITY OVER TEMPERATURE AND VOLTAGE VARIATIONS

Test Requirement(s): §2.1055(a)(1), §22.355

Test Procedures:

As required by 47 CFR 2.1055, *Frequency Stability measurements* were made at the RF output terminals using a Spectrum Analyzer.

The EUT was placed in the Environmental Chamber.

A CW signal was injected into the EUT at the appropriate RF level. The frequency counter option on the Spectrum Analyzer was used to measure frequency deviations.

The frequency drift was investigated for every 10 $^{\circ}$ C increment until the unit is stabilized then recorded the reading in tabular format with the temperature range of -30 to 50 $^{\circ}$ C.

Voltage supplied to EUT is 110 Vac reference temperature was done at 20°C. The voltage was varied by \pm 15 % of nominal

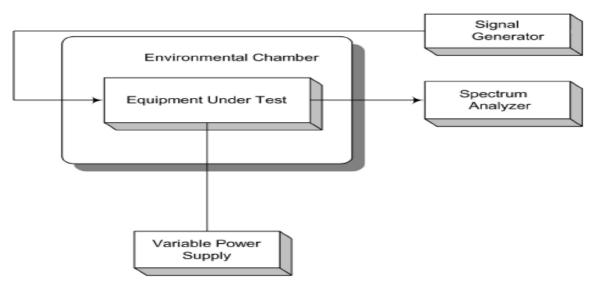
§ 22.355 Frequency tolerance. Except as otherwise provided in this part, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table C–1 of this section.

Frequency range (MHz)	Base, fixed (ppm)	Mobile ≤3 watts (ppm)	Mobile ≤3 watts (ppm)
25 to 50	20.0 20.0		50.0
50 to 450	5.0	5.0	50.0
450 to 512	2.5	5.0	5.0
821 to 896	1.5	2.5	2.5
928 to 929	5.0	n/a	n/a
929 to 960	1.5	n/a	n/a
2110 to 2220	10.0	n/a	n/a

Table C-1—Frequency Tolerance for Transmitters in the Public Mobile Services



Test Setup:



Test Results:

The E.U.T was found in compliance for Frequency Stability and Voltage Test

AC Frequency Stability and Voltage Test Results

Reference: 120 Vac at 20°C Freq. = 881.5 MHz

Voltage	Temp.	Frequency	Frequency	Deviation	nnm				
(%)	(°C)	(Hz)	Error (Hz)	(Hz)	ppm				
	+20(Ref)	881500000. 0	0.0	0.0	0.0000				
100%	-30	881500000. 1	0.1	0.1	0.0000				
	-20	881499999. 9	-0.1	-0.1	0.0000				
	-10	881500000. 1	0.1	0.1	0.0000				
	0	881500000. 0	0.0	0.0	0.0000				
	+10	881500000. 0	0.0	0.0	0.0000				
	+30	881499999. 9	-0.1	-0.1	0.0000				
	+40	881500000. 0	0.0	0.0	0.0000				
	+50	881499999. 9	-0.1	-0.1	0.0000				
115%	+20	881500000. 0	0.0	0.0	0.0000				
85%	+20	881500000. 0	0.0	0.0	0.0000				

[Downlink]