



REPORT No.: SZ18060085W04

TEST REPORT

APPLICANT : Hot Pepper, Inc.

PRODUCT NAME : 4G Smart Phone

MODEL NAME : VLE5

BRAND NAME : Hot Pepper

FCC ID : 2APD4-A80C

STANDARD(S) : 47 CFR Part 22 Subpart H
47 CFR Part 24 Subpart E

TEST DATE : 2018-06-19 to 2018-07-19

ISSUE DATE : 2018-07-23

Tested by:

Gao Mingzhou
Gao Mingzhou (Test Engineer)

Approved by:

Peng Huarui
Peng Huarui (Supervisor)

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Change History		
Issue	Date	Reason for change
1.0	2018-07-23	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Hot Pepper, Inc.
Applicant Address:	5151 California Ave., Suite 100, Irvine 92617, USA
Manufacturer:	Hot Pepper, Inc.
Manufacturer Address:	5151 California Ave., Suite 100, Irvine 92617, USA

1.2. Equipment Under Test (EUT) Description

Product Name:	4G Smart Phone	
Serial No:	(N/A, marked #1 by test site)	
Hardware Version:	HXF-M 94V-0	
Software Version:	HPP-VLE5180706	
Modulation Type:	CDMA 1X; EVDO 0; EVDO A	
Operating Frequency Range:	CDMA 800MHz: (BC 0) Tx: 824.70 – 848.31 MHz; Rx: 869.70-- 893.31MHz CDMA 1900MHz: (BC 1) Tx: 1851.25 MHz -1908.75 MHz; Rx: 1931.25 MHz-1988.75 MHz	
Emission Designators:	CDMA 800MHz, BC0:1M28F9W CDMA 1900MHz, BC1: 1M29F9W	
Antenna Type:	PIFA Antenna	
Antenna Gain:	-3.0 dBi	
Operating voltage:	Normal(NV):	3.8V
	Lowest(LV):	3.5V
	Highest(HV):	4.4V

Note 1: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



1.3. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 2, Part 22 and Part 24 for the EUT FCC ID Certification:

No	Identity	Document Title
1	47 CFR Part 2 (10-1-12 Edition)	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	47 CFR Part 22 (10-1-12 Edition)	Public Mobile Services
3	47 CFR Part 24 (10-1-12 Edition)	Personal Communications Services

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Test Date	Test Engineer	Result
1	2.1046	Conducted RF Output Power	Jun 19, 2018	Gao Mingzhou	PASS
2	24.232(d)	Peak - Average Ratio	Jun 19, 2018 Jul 03&19, 2018	Gao Mingzhou	PASS
3	2.1049	99% Occupied Bandwidth	Jun 19, 2018 Jul 03&19, 2018	Gao Mingzhou	PASS
4	2.1055, 22.355, 24.235	Frequency Stability	Jul 19, 2018	Gao Mingzhou	PASS
5	2.1051, 22.917(a), 24.238(a)	Conducted Out of Band Emissions	Jun 19, 2018 Jul 03&19, 2018	Gao Mingzhou	PASS
6	2.1051, 22.917(a), 24.238(a)	Band Edge	Jun 20, 2018 Jul 03&19, 2018	Gao Mingzhou	PASS
7	2.1046, 22.913(a), 24.232(a)	Transmitter Radiated Power (EIPR/ERP)	Jul 16, 2018	Wang Dalong	PASS
8	2.1053, 22.917(a), 24.238(a)	Radiated Out of Band Emissions	Jun 20, 2018 Jul 04, 2018	Wang Dalong	PASS
Note: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 (Oct 27, 2017) and ANSI/TIA-603-E-2016.					

1.4. Environmental Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15 - 35
Relative Humidity (%):	30 -60
Atmospheric Pressure (kPa):	86-106

2.47 CFR Part 2, Part 22H & 24E Requirements

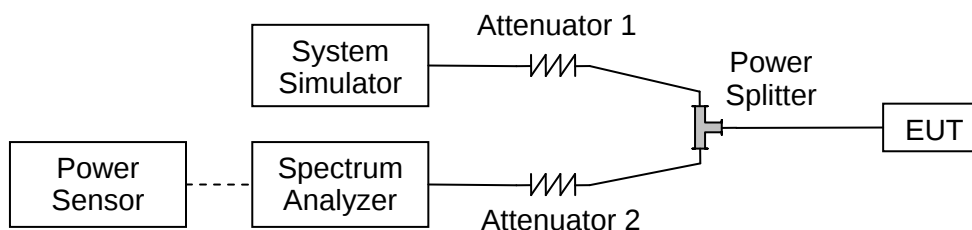
2.1. Conducted RF Output Power

2.1.1. Requirement

According to FCC section 2.1046(a), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

2.1.2. Test Description

Test Setup:



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS.



2.1.3. Test Results

The lowest, middle and highest channels are selected to perform testing to verify the conducted RF output power of the EUT.

Band	CDMA2000 BC0			CDMA2000 BC1		
TX Channel	1013	384	777	25	600	1175
Frequency (MHz)	824.7	836.52	848.31	1851.25	1880	1908.75
RC1 SO32	23.92	24.19	24.04	23.35	23.26	23.23
RC3 SO55	24.01	24.22	24.17	23.47	23.27	23.29
RC3 SO32 (F+SCH)	23.92	24.13	24.12	23.44	23.31	23.23
RC3 SO32 (+SCH)	23.98	24.19	24.06	23.40	23.28	23.25
RTAP 153.6Kbps	23.18	23.21	23.55	22.79	22.91	22.81
RETAP 4096Bits	22.81	22.91	23.20	22.68	22.86	22.51

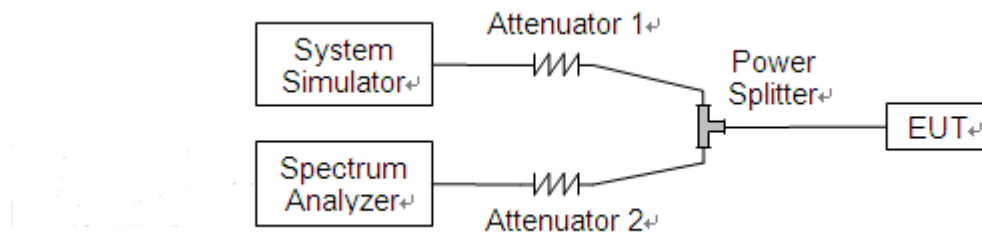
2.2. Peak to Average Ratio

2.2.1. Requirement

According to FCC 24.232(d) the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

2.2.2. Test Description

Test Setup:



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS.

2.2.3. Test procedure

For CDMA operating mode:

- Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
- The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1%.



2.2.4. Test Result

The lowest, middle and highest channels are selected to perform testing to verify the conducted RF output peak power of the Module.

A. Test Verdict:

Band	Channel	Frequency (MHz)	Peak to Average ratio	Limit	Verdict
			dB	dB	
CDMA (BC1)	25	1851.25	2.40	13	PASS
	600	1880.00	3.41		PASS
	1175	1908.75	3.05		PASS
EVDO 0 (BC1)	25	1851.25	3.86	13	PASS
	600	1880.00	4.24		PASS
	1175	1908.75	3.97		PASS
EVDO A (BC1)	25	1851.25	4.59	13	PASS
	600	1880.00	4.95		PASS
	1175	1908.75	4.91		PASS



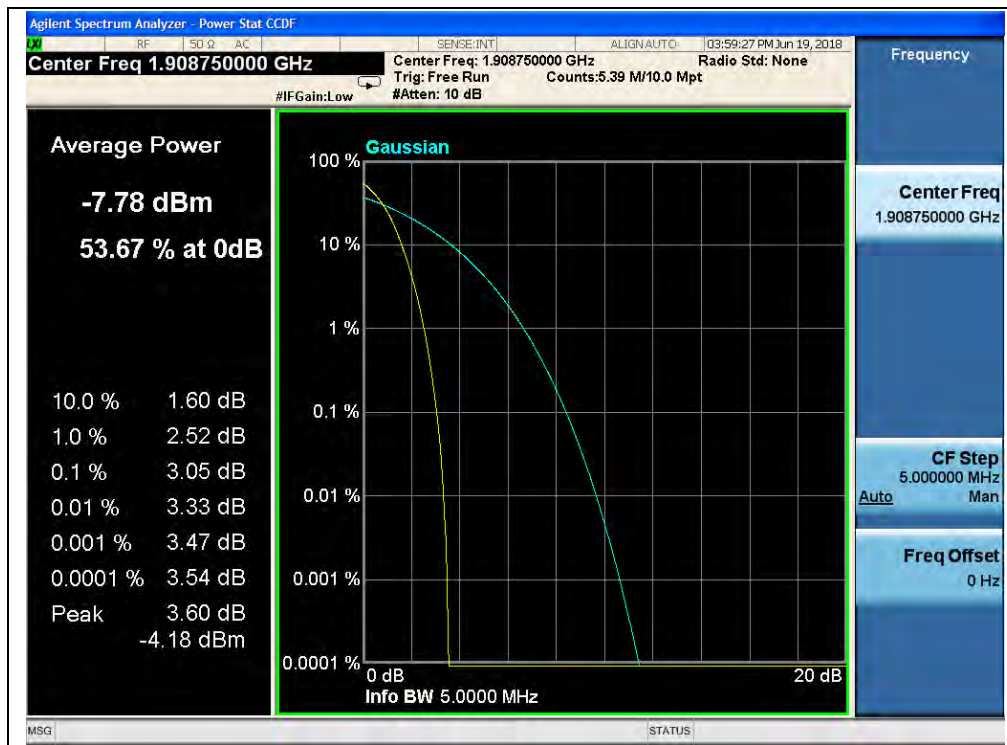
B. Test Plots:



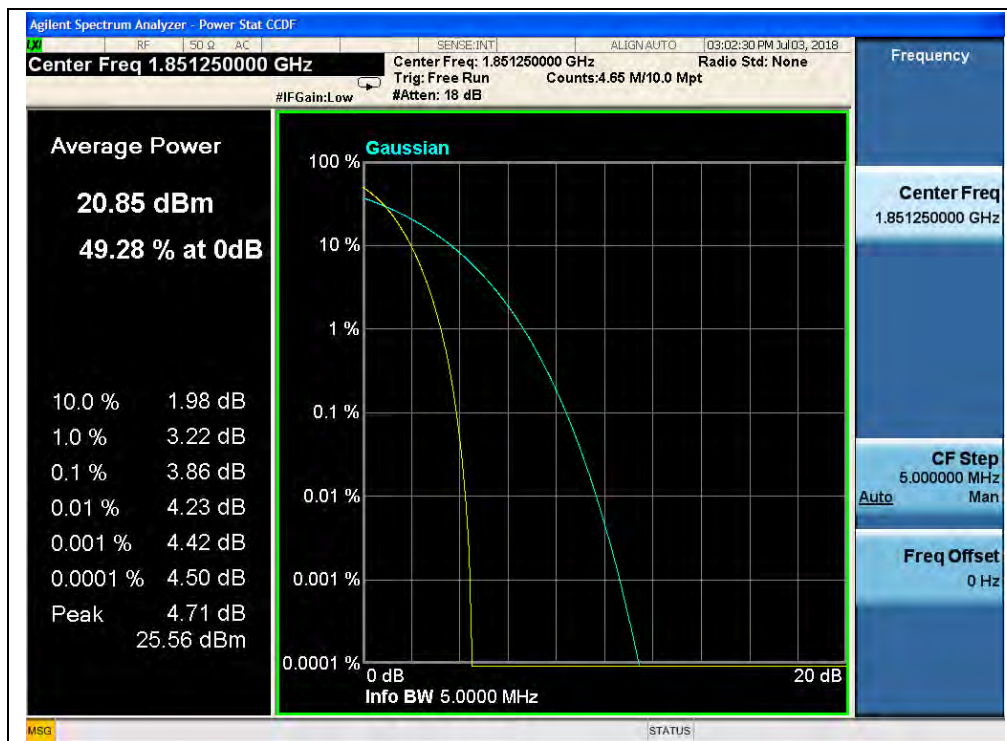
(CDMA BC1, Channel = 25)



(CDMA BC1, Channel = 600)



(CDMA BC1, Channel = 1175)



(EVDO 0 BC1, Channel = 25)



(EVDO 0 BC1, Channel = 600)



(EVDO 0 BC1, Channel = 1175)



(EVDO A BC1, Channel = 25)



(EVDO A BC1, Channel = 600)



(EVDO A BC1, Channel = 1175)

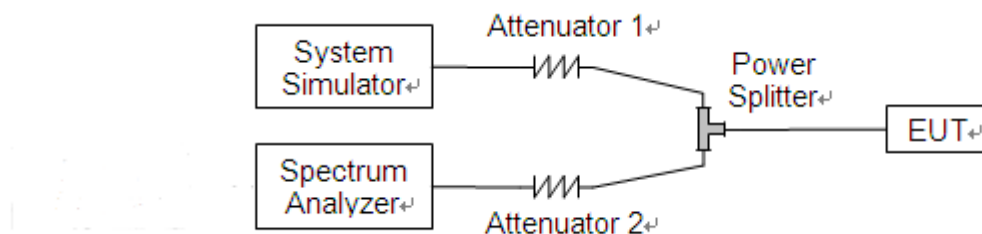
2.3. 99% Occupied Bandwidth

2.3.1. Requirement

According to FCC section 2.1049, the occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission. Occupied bandwidth is also known as the 99% emission bandwidth.

2.3.2. Test Description

Test Setup:



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS.



2.3.3. Test Result

The lowest, middle and highest channels are selected to perform testing to record the 99% occupied bandwidth.

GSM Test Verdict:

Band	Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26dB bandwidth (kHz)	Refer to Plot
CDMA (BC0)	1013	824.7	1.2794	1.432	Plot A1 to A3
	384	836.52	1.2734	1.424	
	777	848.31	1.2738	1.429	
EVDO 0 (BC0)	1013	824.7	1.2819	1.429	Plot B1 to B3
	384	836.52	1.2678	1.421	
	777	848.31	1.2776	1.426	
EVDO A (BC0)	1013	824.7	1.2770	1.427	Plot C1 to C3
	384	836.52	1.2779	1.431	
	777	848.31	1.2701	1.429	
CDMA (BC1)	25	1851.25	1.2893	1.450	Plot D1 to D3
	600	1880.00	1.2809	1.425	
	1175	1908.75	1.2764	1.434	
EVDO 0 (BC1)	25	1851.25	1.2704	1.424	Plot E1 to E3
	600	1880.00	1.2717	1.423	
	1175	1908.75	1.2668	1.429	
EVDO A (BC1)	25	1851.25	1.2757	1.438	Plot F1 to F3
	600	1880.00	1.2695	1.429	
	1175	1908.75	1.2666	1.418	



Agilent Spectrum Analyzer - Occupied BW

RF 50 Ω AC SENSE INT ALIGN AUTO 04:06:54 PM Jun 19, 2018

Center Freq 824.700000 MHz Center Freq: 824.700000 MHz Radio Std: None
Trig: Free Run Avg/Hold: >10/10
#IFGain: Low #Atten: 10 dB Radio Device: BTS

10 dB/div Ref 10.00 dBm

Log

Center 824.7 MHz Span 3 MHz
Res BW 27 kHz VBW 270 kHz Sweep 4.933 ms

Occupied Bandwidth	Total Power
1.2794 MHz	-3.20 dBm

Transmit Freq Error	OBW Power
1.910 kHz	99.00 %

x dB Bandwidth	x dB
1.432 MHz	-26.00 dB

MSG STATUS

Frequency

Center Freq
824.700000 MHz

CF Step
300,000 kHz
Man

Auto

Freq Offset
0 Hz

Agilent Spectrum Analyzer - Occupied BW

RF 50.0 AC SENSE INT ALIGN AUTO 04:05:43 PM Jun 19, 2018

Center Freq 836.520000 MHz Center Freq: 836.520000 MHz Radio Std: None
 Trig: Free Run Avg/Hold: >10/10
 #IFGain: Low #Atten: 10 dB Radio Device: BTS

10 dB/div Ref 10.00 dBm

Log

Center 836.5 MHz Span 3 MHz
 Res BW 27 kHz VBW 270 kHz Sweep 4.933 ms

Occupied Bandwidth		Total Power	
1.2734 MHz		-3.25 dBm	
Transmit Freq Error	-2.110 kHz	OBW Power	99.00 %
x dB Bandwidth	1.424 MHz	x dB	-26.00 dB

Auto

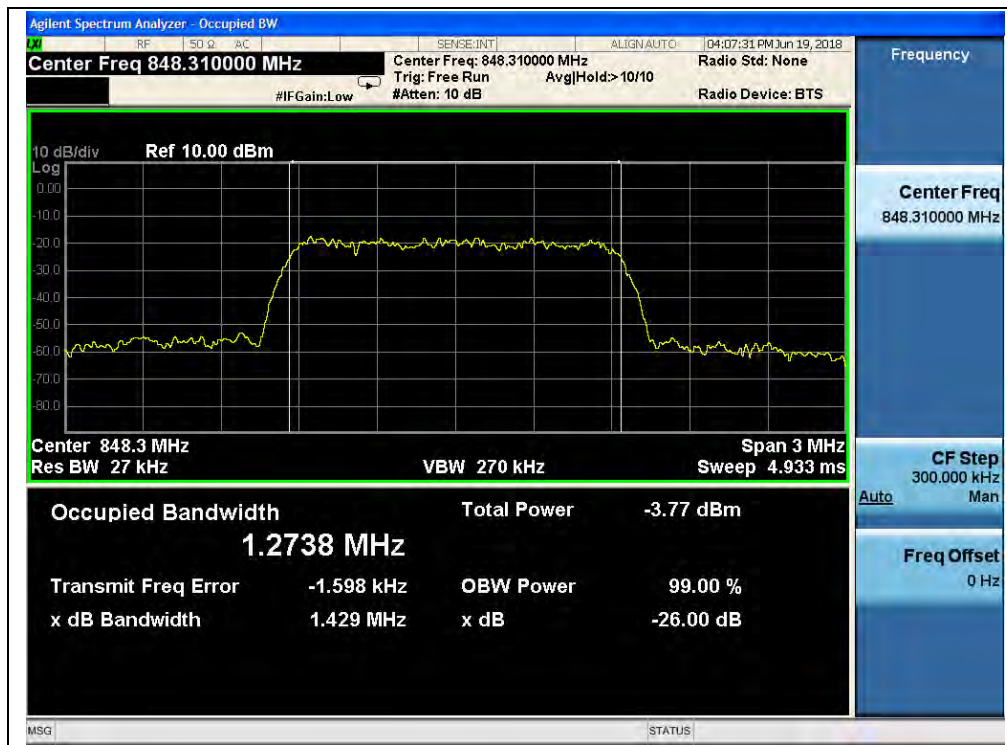
CF Step 300,000 kHz Man

Freq Offset 0 Hz

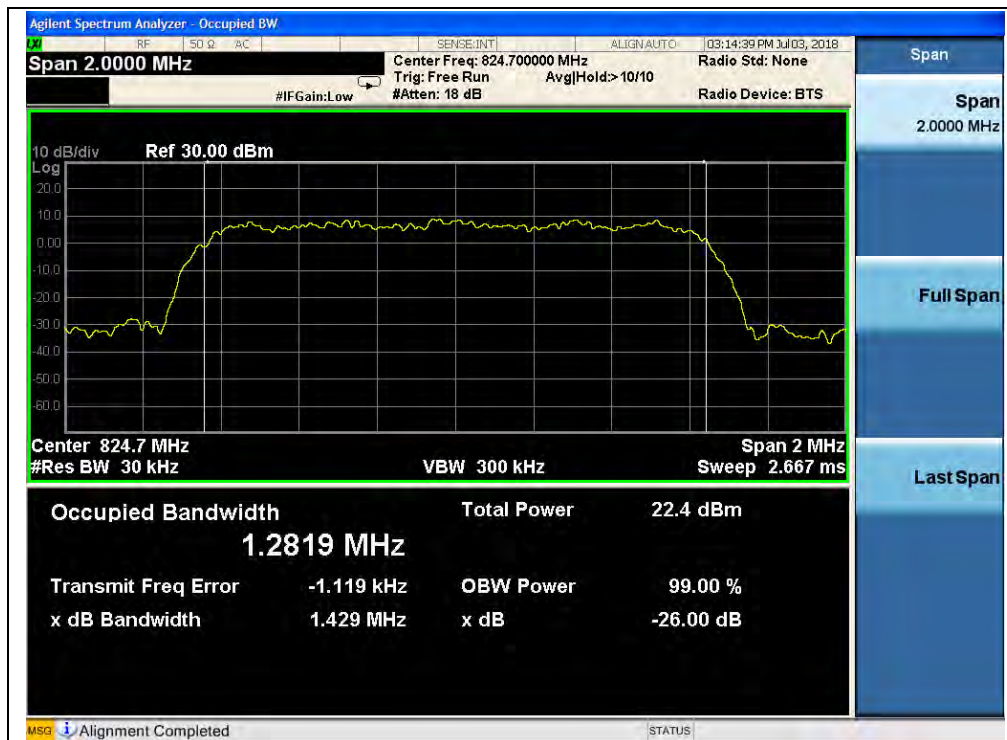
MSG Alignment Completed STATUS

MORLAB

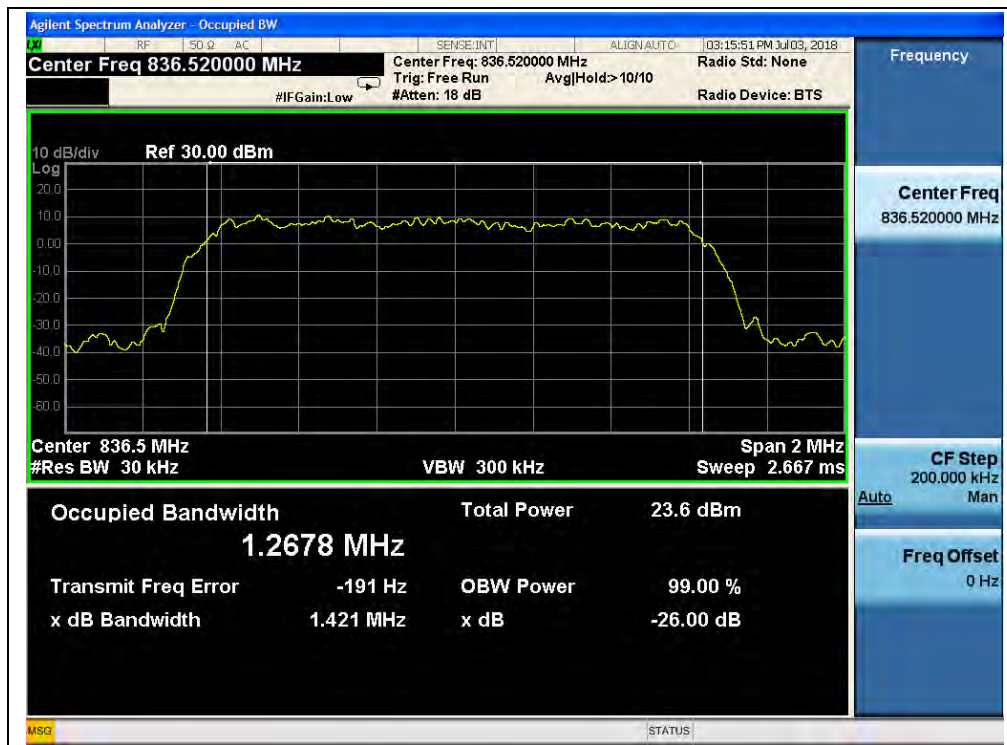
E-mail: service@morlab.cn



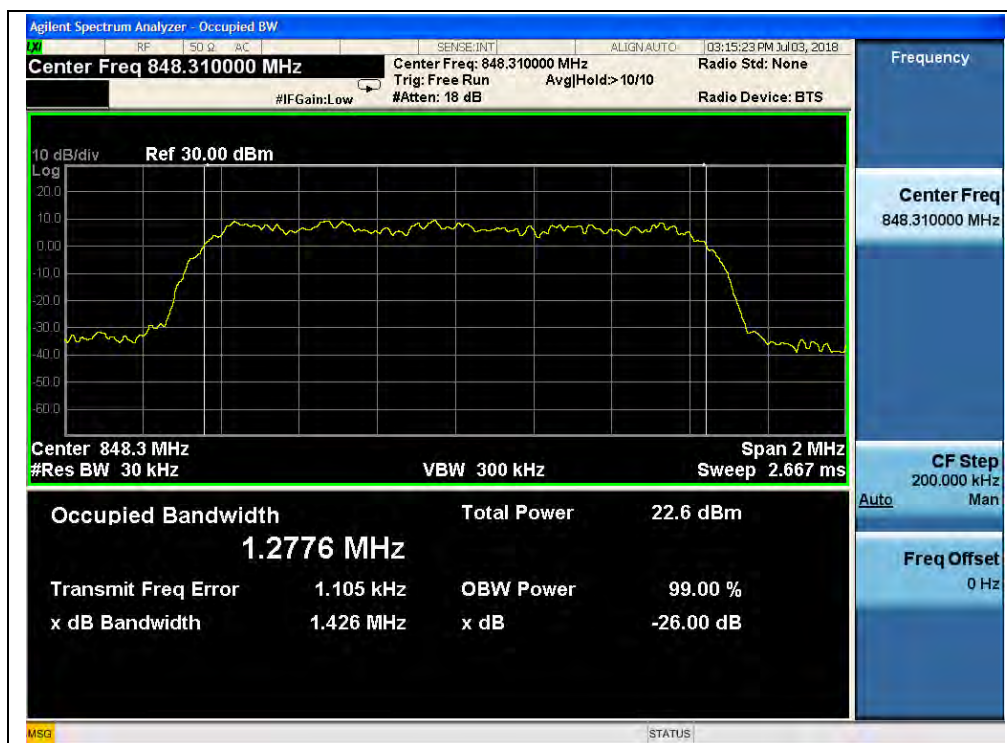
(Plot A3, CDMA BC0, Channel = 777)



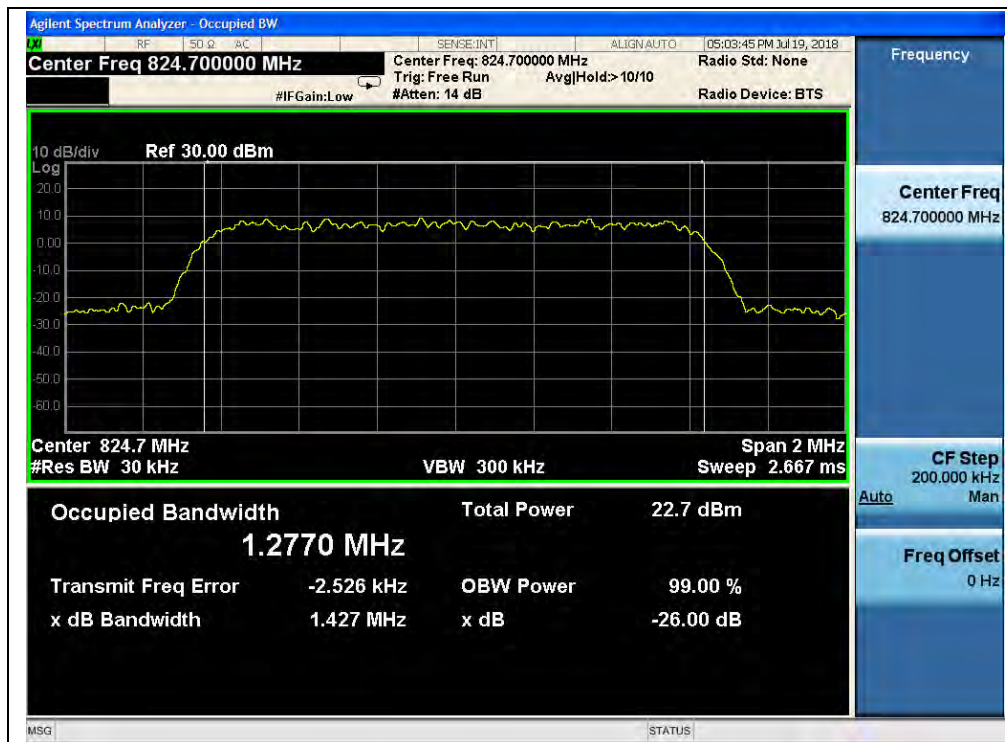
(Plot B1, EVDO 0 BC0, Channel = 1013)



(Plot B2, EVDO 0 BC0, Channel = 384)



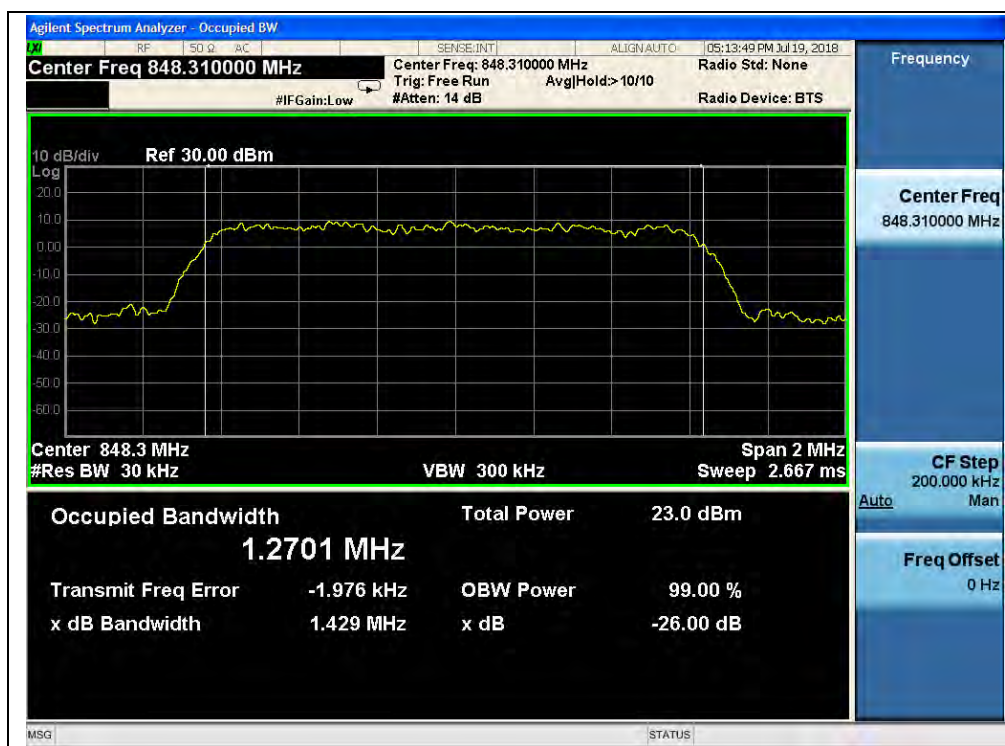
(Plot B3, EVDO 0 BC0, Channel = 777)



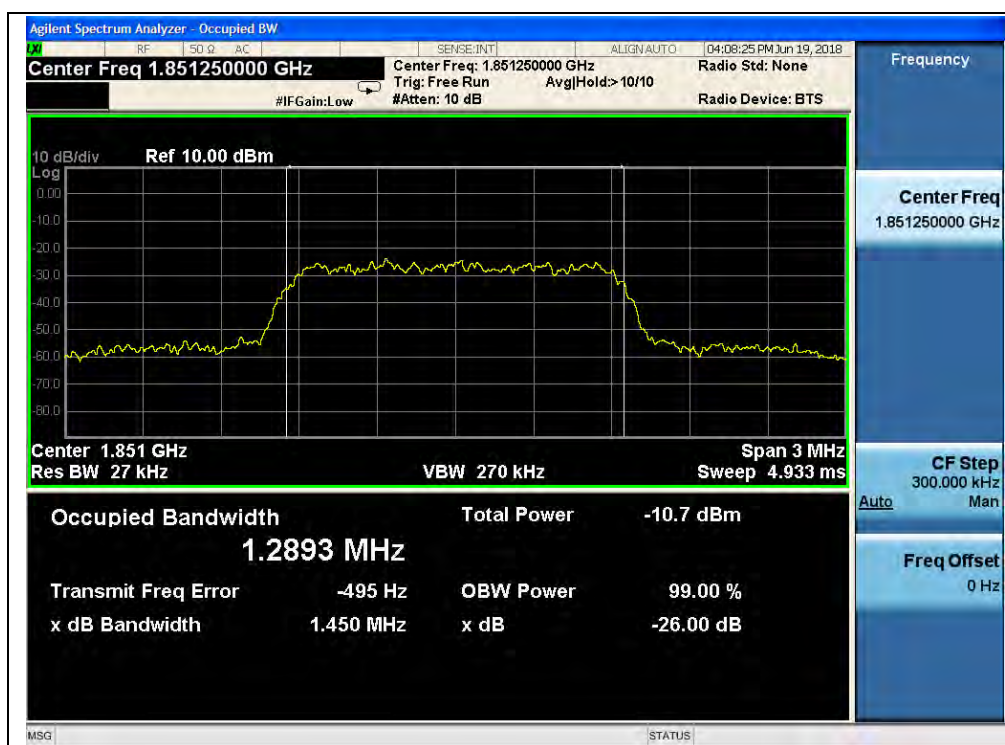
(Plot C1, EVDO A BC0, Channel = 1013)



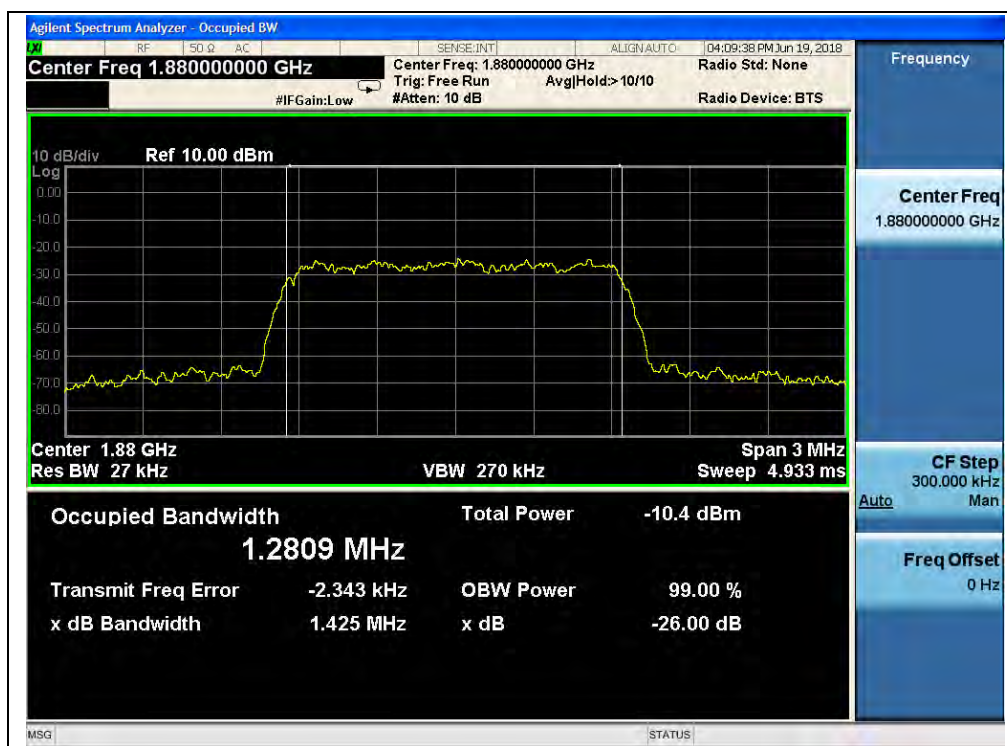
(Plot C2, EVDO A BC0, Channel = 384)



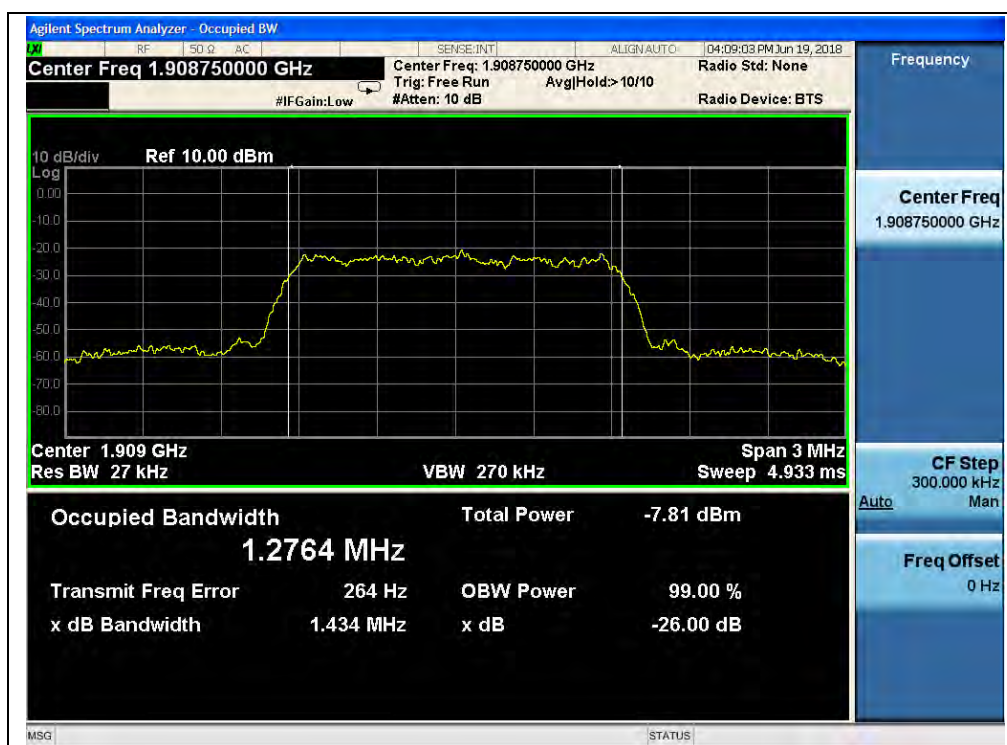
(Plot C3, EVDO A BC0, Channel = 777)



(Plot D1, CDMA BC1, Channel = 25)



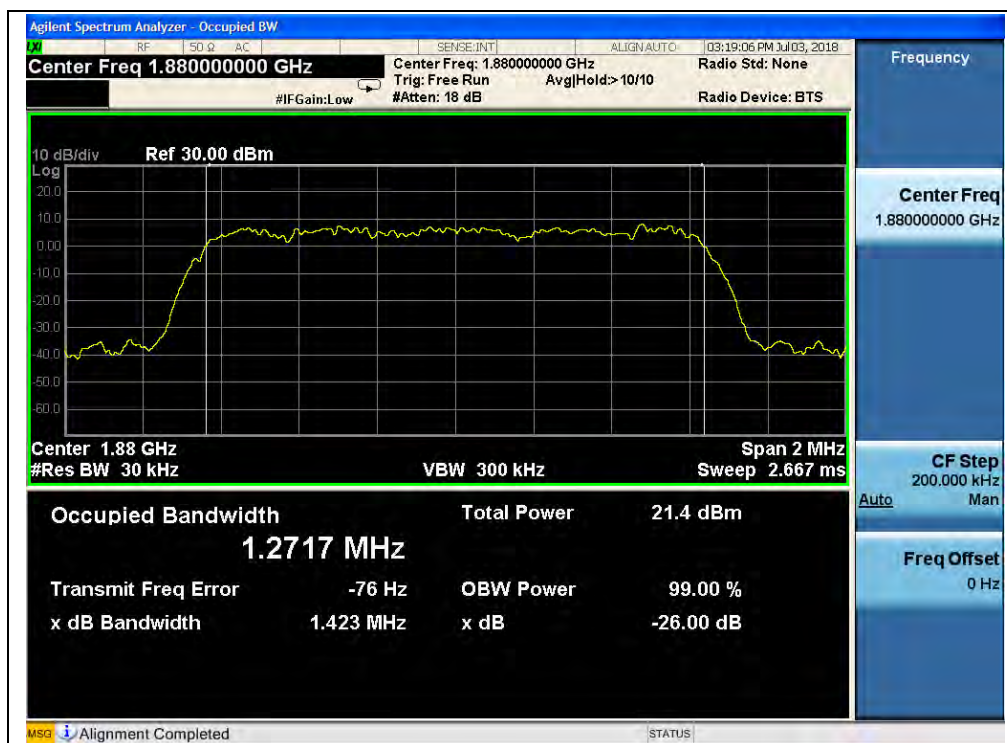
(Plot D2, CDMA BC1, Channel = 600)



(Plot D3, CDMA BC1, Channel = 1175)



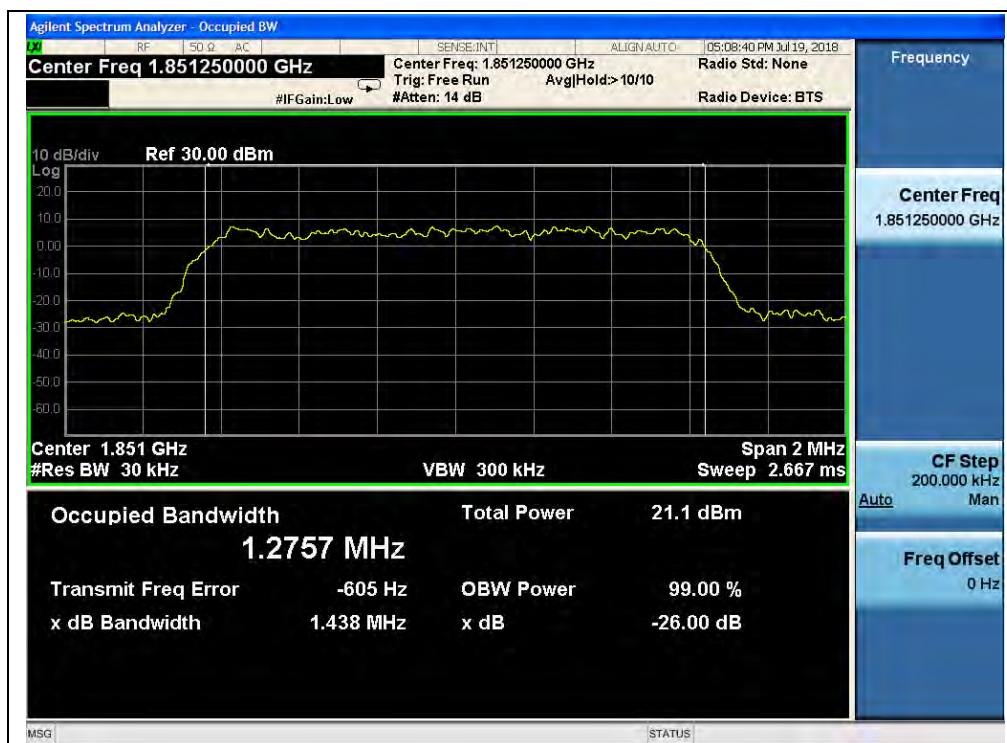
(Plot E1, EVDO 0 BC1, Channel = 25)



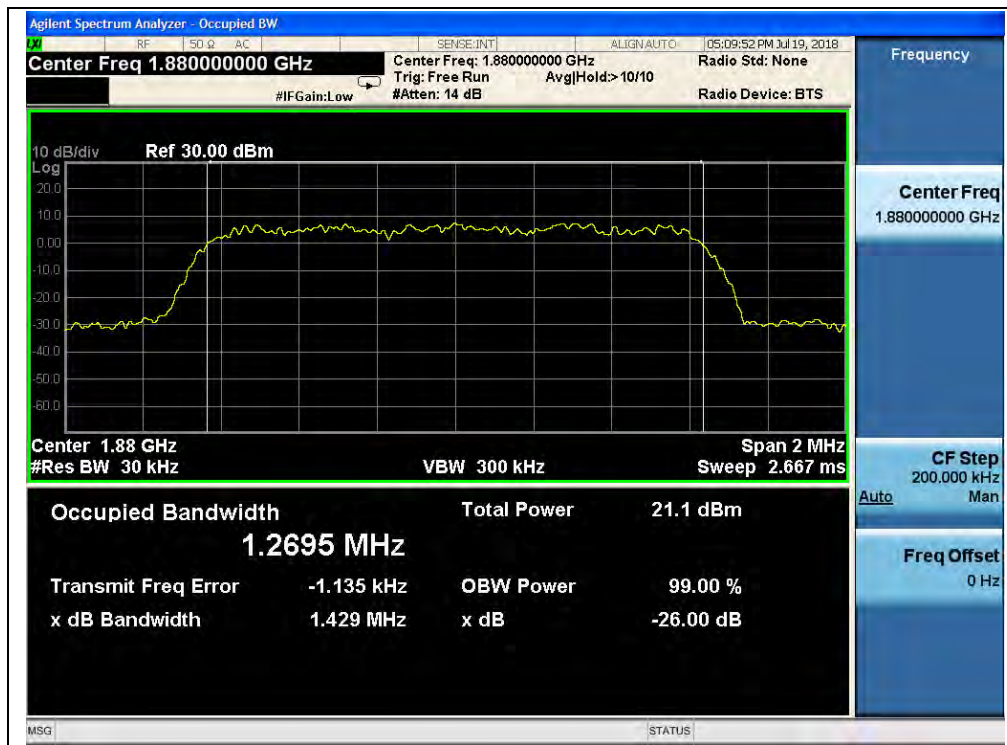
(Plot E2, EVDO 0 BC1, Channel = 600)



(Plot E3, EVDO 0 BC1, Channel = 1175)



(Plot F1, EVDO A BC1, Channel = 25)



(Plot F2, EVDO A BC1, Channel = 600)



(Plot F3, EVDO A BC1, Channel = 1175)

2.4. Frequency Stability

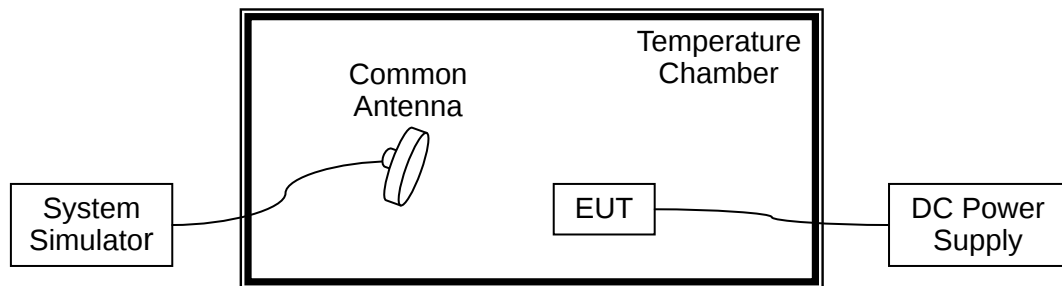
2.4.1. Requirement

According to FCC section 22.355, 24.235 and 27.54, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

- (a) The temperature is varied from -30°C to $+50^{\circ}\text{C}$ at intervals of not more than 10°C .
- (b) For hand carried battery powered equipment, the primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacture. The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided.

2.4.2. Test Description

Test Setup:



The EUT, which is powered by the DC Power Supply directly, is located in the Temperature Chamber. The EUT is commanded by the System Simulator (SS) to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS via a Common Antenna.

**2.4.3. Test Result**

The nominal, highest and lowest extreme voltages are separately 3.8VDC, 4.4VDC and 3.5VDC, which are specified by the applicant; the normal temperature here used is 25°C. The frequency deviation limit of 850MHz band is ± 2.5 ppm, and 1900MHz is ± 1 ppm.

A. Test Verdict:**CDMA BC0 Band**

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 1013 (824.70MHz)		Channel = 384 (836.52MHz)		Channel =777 (848.31MHz)		
		Hz	Limits	Hz	Limits	Hz	Limits	
3.8	-30	-8.68	±2061.75	-9.24	±2091.30	-8.32	±2120.78	PASS
	-20	9.14		6.68		5.73		
	-10	12.58		9.94		10.08		
	0	15.26		21.87		11.87		
	+10	-2.77		-15.08		-17.08		
	+20	-2.09		-5.99		-14.99		
	+30	9.77		21.87		17.87		
	+40	18.73		19.57		15.77		
	+50	17.52		14.65		13.66		
4.4	+20	-19.12		-7.89		-18.87		
3.5	+20	19.73		11.99		3.56		

EVDO 0 BC0 Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 1013 (824.70MHz)		Channel = 384 (836.52MHz)		Channel =777 (848.31MHz)		
		Hz	Limits	Hz	Limits	Hz	Limits	
3.8	-30	-8.68	±2061.75	-9.24	±2091.30	-8.32	±2120.78	PASS
	-20	9.14		6.68		5.73		
	-10	12.58		9.94		10.08		
	0	15.26		21.87		11.87		
	+10	-2.77		-15.08		-17.08		
	+20	-2.09		-5.99		-14.99		
	+30	9.77		21.87		17.87		
	+40	18.73		19.57		15.77		
	+50	17.52		14.65		13.66		
4.4	+20	-19.12		-7.89		-18.87		
3.5	+20	19.73		11.99		3.56		

**EVDO A BC0 Band**

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 1013 (824.70MHz)		Channel = 384 (836.52MHz)		Channel =777 (848.31MHz)		
		Hz	Limits	Hz	Limits	Hz	Limits	
3.8	-30	9.76	±2061.75	9.24	±2091.30	16.43	±2120.78	PASS
	-20	-5.46		-15.46		15.77		
	-10	7.96		6.97		5.83		
	0	-13.24		-18.42		-5.99		
	+10	-17.64		-7. 46		-12.98		
	+20	-13.52		-18. 25		-14.51		
	+30	21.47		18.83		-5.63		
	+40	14.75		17.45		6.89		
	+50	4.56		6.77		20.44		
4.4	+20	20.33		16.72		18.32		
3.5	+20	18.73		13.55		15.23		

CDMA BC1 Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 25 (1851.25MHz)		Channel = 600 (1880.00MHz)		Channel =1175 (1908.75MHz)		
		Hz	Limits	Hz	Limits	Hz	Limits	
3.8	-30	-9.32	±1851.2	8.77	±1880.0	12.98	±1908.8	PASS
	-20	6.73		13.66		18.3		
	-10	9.08		-20.98		15.77		
	0	13.87		-13.21		13.33		
	+10	-20.08		8.59		19.28		
	+20	-21.99		7.36		-9.66		
	+30	19.87		9.42		-15.32		
	+40	18.77		12.83		8.75		
	+50	12.66		18.56		7.03		
4.4	+20	-9.87		-4.77		5.42		
3.5	+20	9.56		9.54		7.99		

**EVDO 0 BC1 Band**

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 25 (1851.25MHz)		Channel = 600 (1880.00MHz)		Channel =1175 (1908.75MHz)		
		Hz	Limits	Hz	Limits	Hz	Limits	
3.8	-30	4.68	±1851.2	-20.68	±1880.0	-3.68	±1908.8	PASS
	-20	7.14		13.24		5.14		
	-10	9.94		4.58		12.58		
	0	5.26		12.36		17.26		
	+10	-13.77		-2.77		-15.77		
	+20	-16.09		-2.19		-13.09		
	+30	10.77		9.47		14.57		
	+40	13.97		12.97		18.37		
	+50	11.52		15.52		14.52		
4.4	+20	-13.12		-19.12	-19.12			
3.5	+20	5.77		19.07	9.57			

EVDO A BC1 Band

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	Channel = 25 (1851.25MHz)		Channel = 600 (1880.00MHz)		Channel =1175 (1908.75MHz)		
		Hz	Limits	Hz	Limits	Hz	Limits	
3.8	-30	-9.52	±1851.2	-9.48	±1880.0	-10.68	±1908.8	PASS
	-20	6.38		6.94		6.15		
	-10	5.58		9.73		9.78		
	0	14.26		18.26		13.67		
	+10	-21.47		-24.87		-20.23		
	+20	-11.09		-13.09		-11.09		
	+30	1.77		13.77		16.74		
	+40	8.97		16.97		14.57		
	+50	2.52		17.52		17.58		
4.4	+20	-9.02		-12.42		-8.12		
3.5	+20	7.76		6.77		8.97		

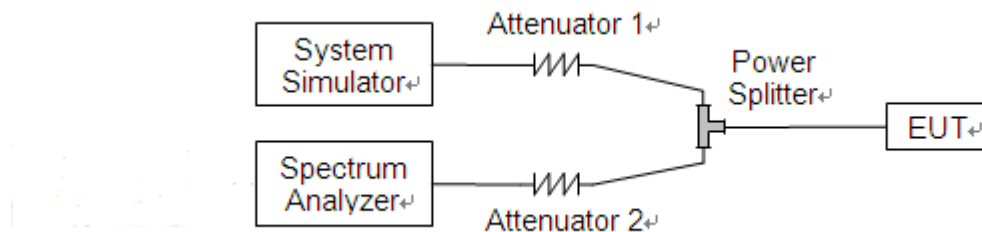
2.5. Conducted Out of Band Emissions

2.5.1. Requirement

According to FCC section 2.1051, 22.917(a), 24.238(a) 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. This calculated to be -13dBm.

2.5.2. Test Description

Test Setup:



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS.

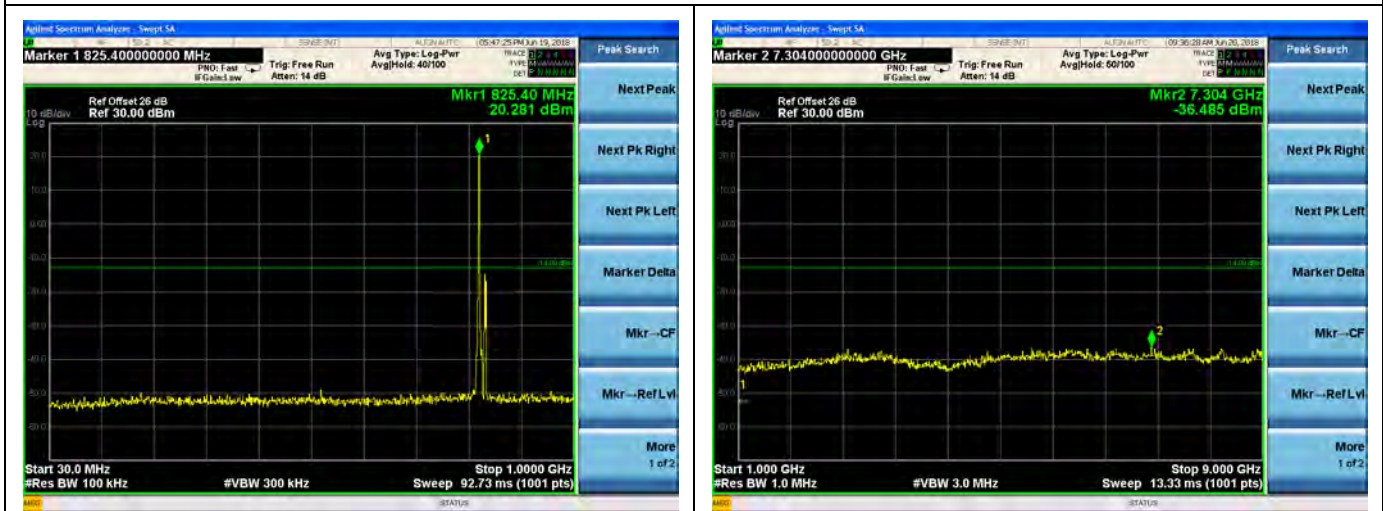


2.5.3. Test Result

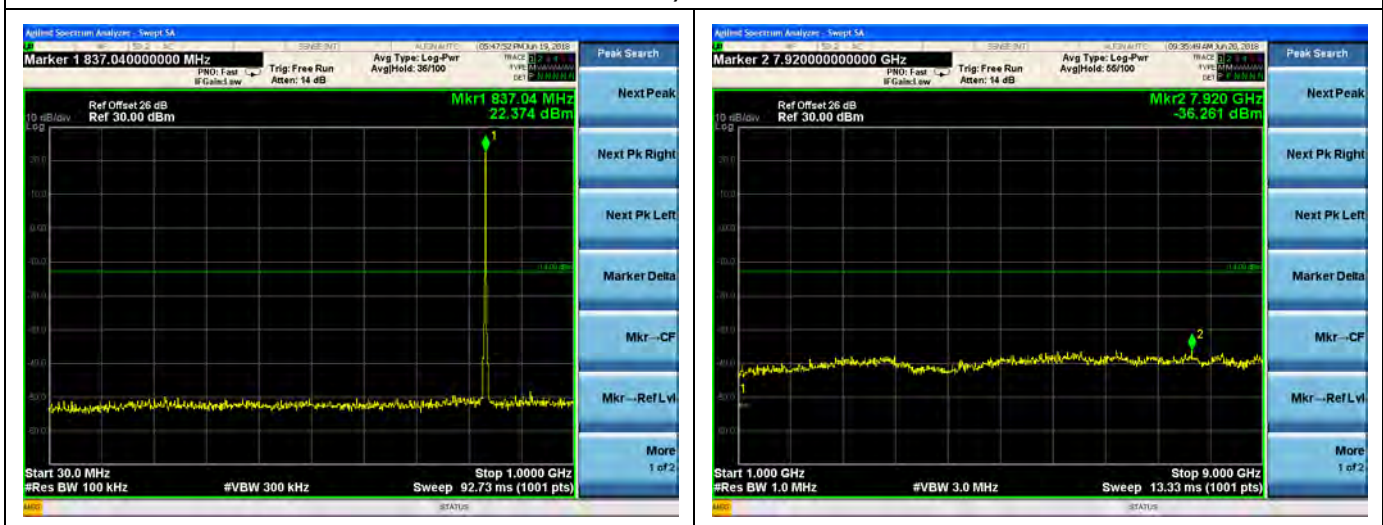
The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the out of band emissions.

Note: The power of the EUT transmitting frequency should be ignored.

CDMA BC0, Channel=1013

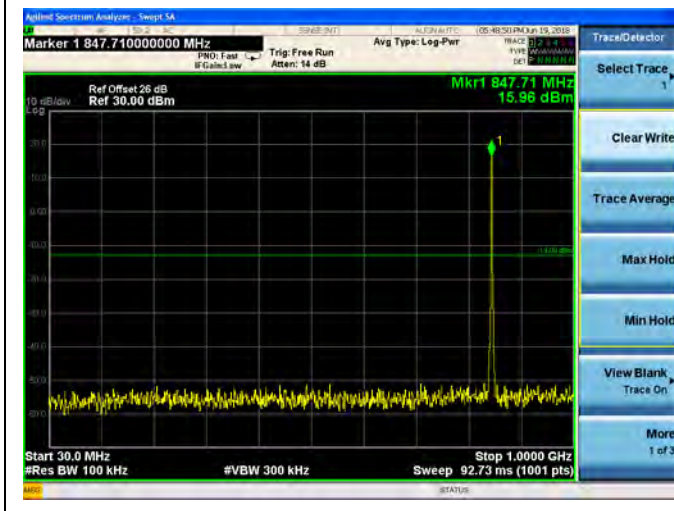


CDMA BC0, Channel=384





CDMA BC0, Channel=777

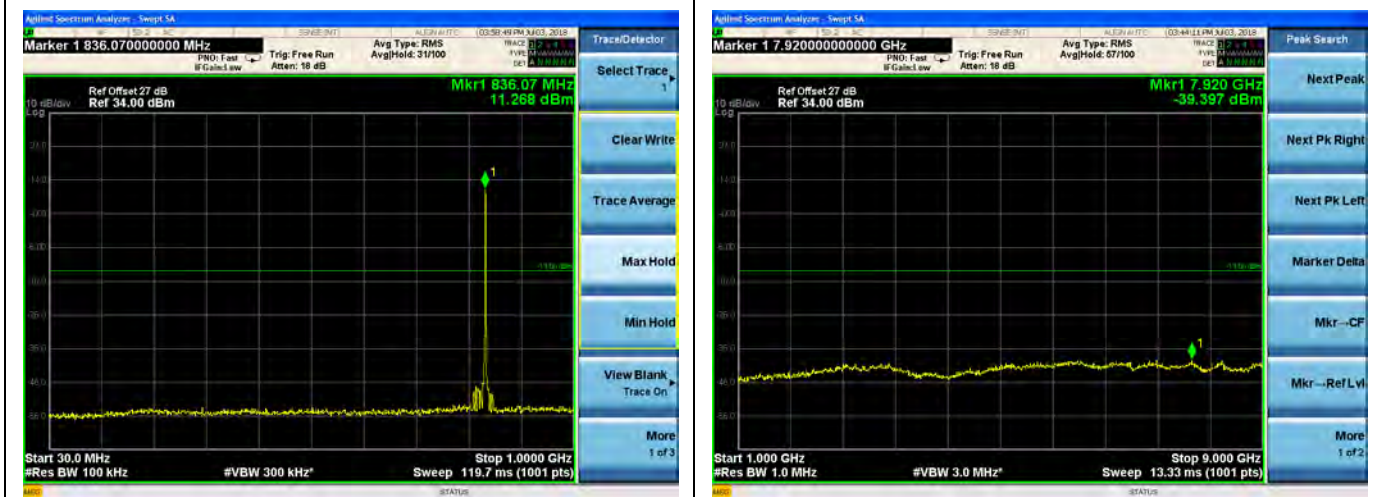




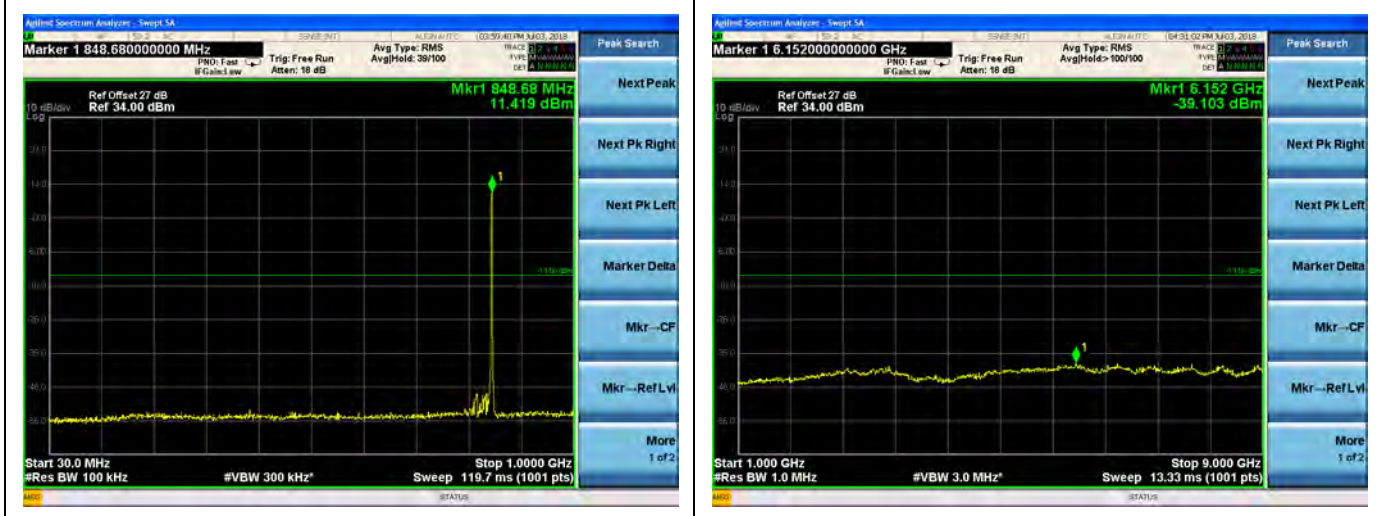
EVDO 0 BC0, Channel=1013



EVDO 0 BC0, Channel=384

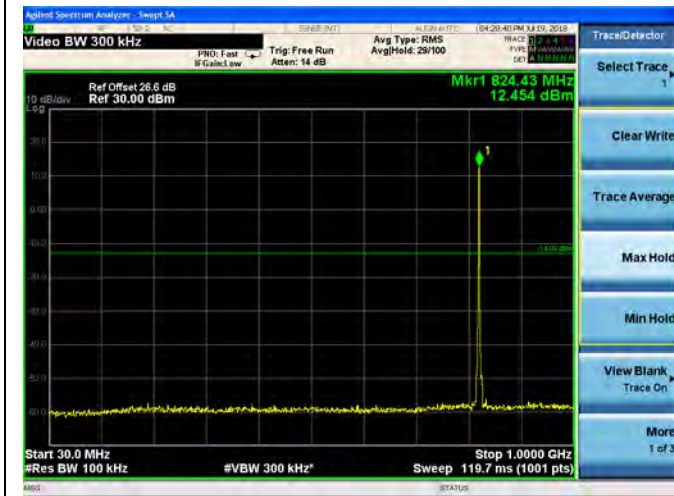


EVDO 0 BC0, Channel=777

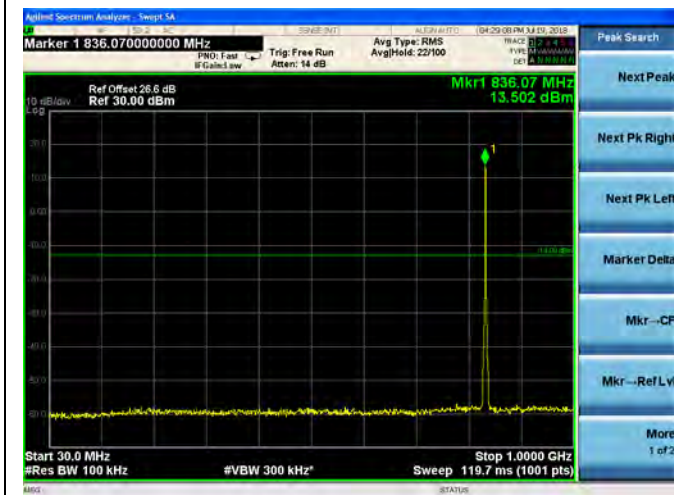




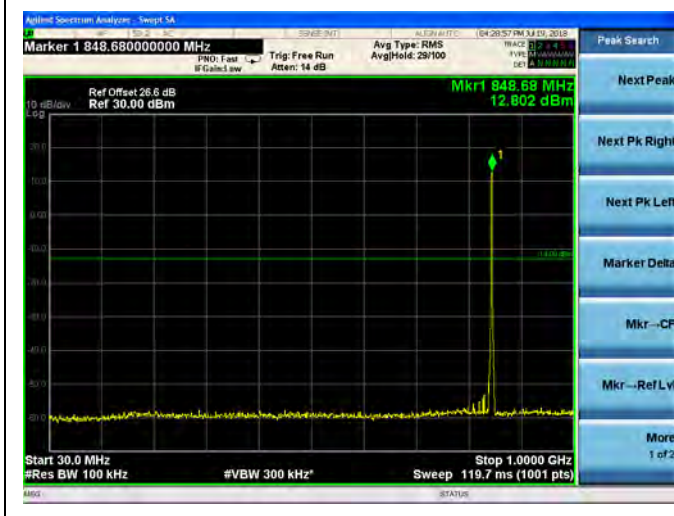
EVDO A BC0, Channel=1013



EVDO A BC0, Channel=384



EVDO A BC0, Channel=777





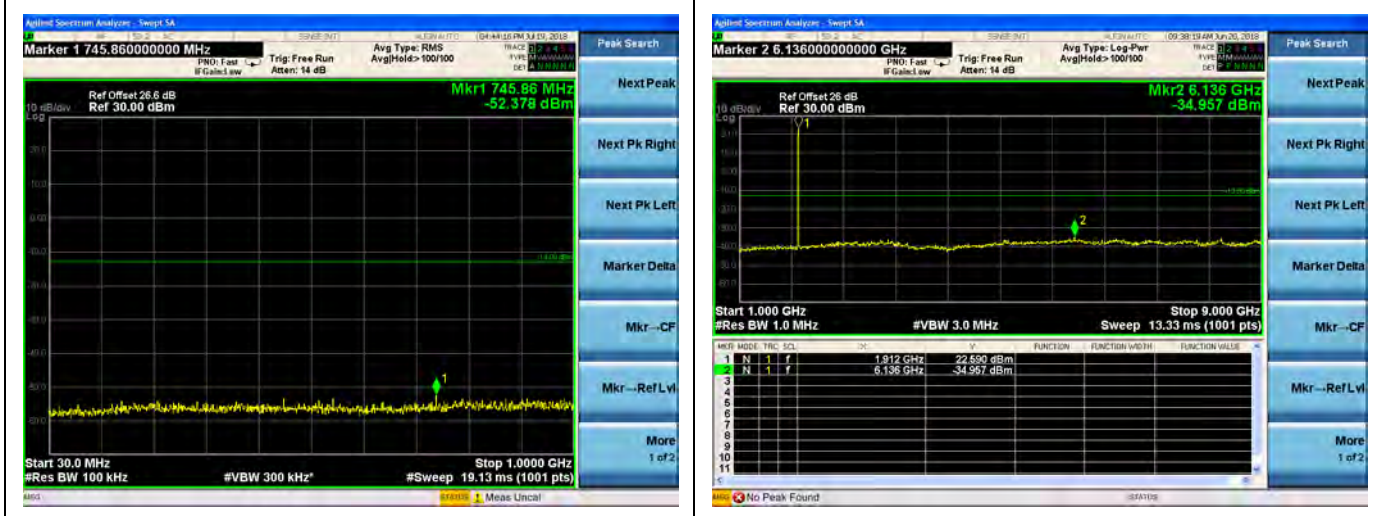
CDMA BC1, Channel=25



CDMA BC1, Channel=600

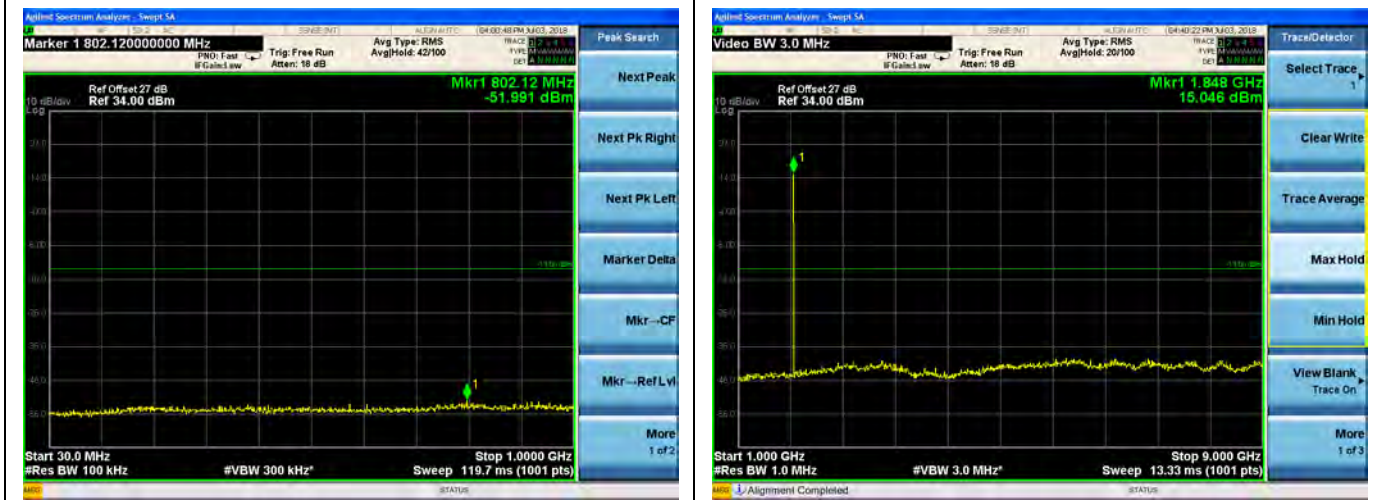


CDMA BC1, Channel=1175





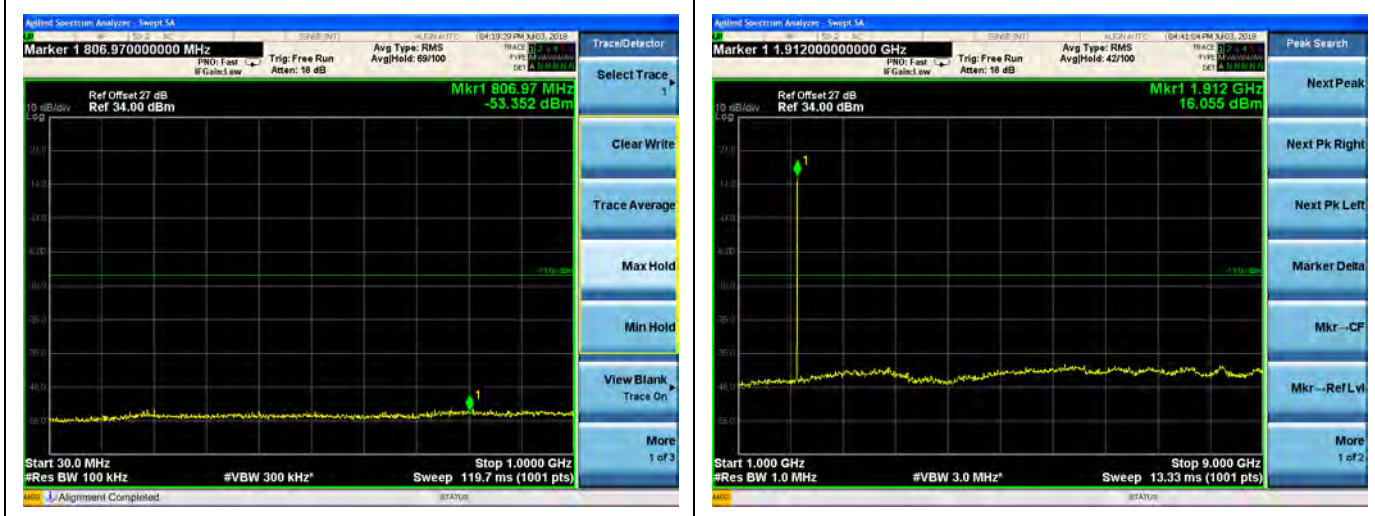
EVDO 0 BC1, Channel=25



EVDO 0 BC1, Channel=600

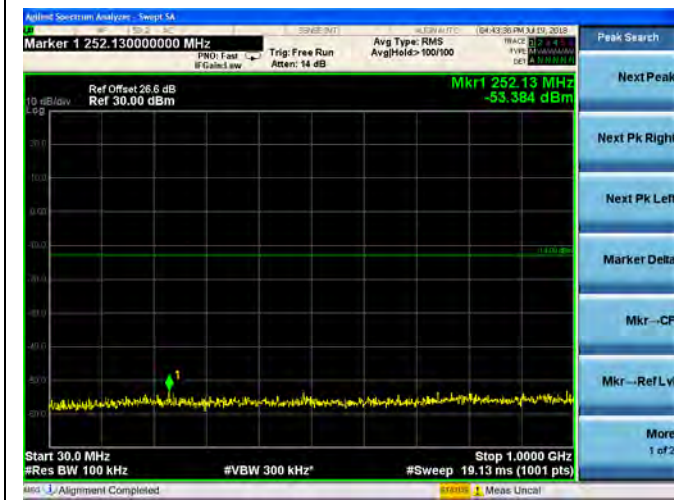


EVDO 0 BC1, Channel=1175

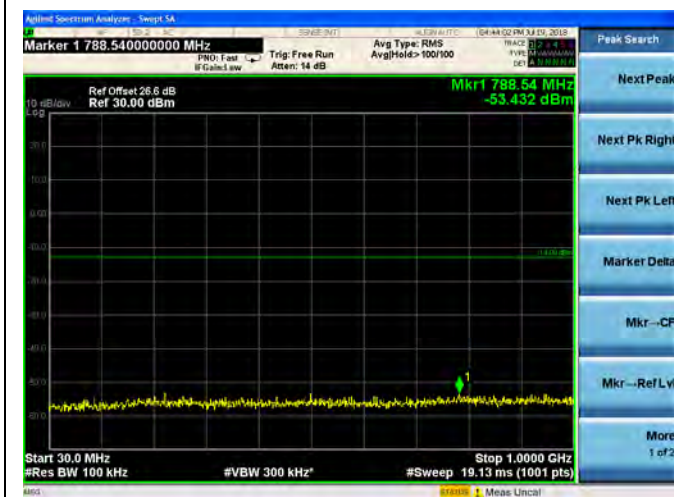




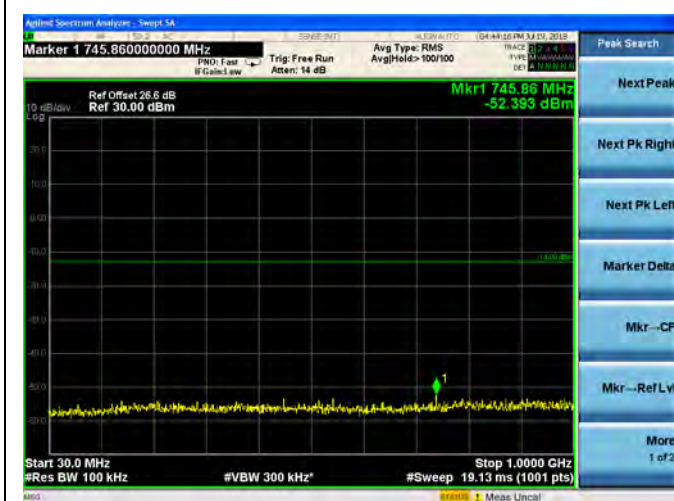
EVDO A BC1, Channel=25



EVDO A BC1, Channel=600



EVDO A BC1, Channel=1175



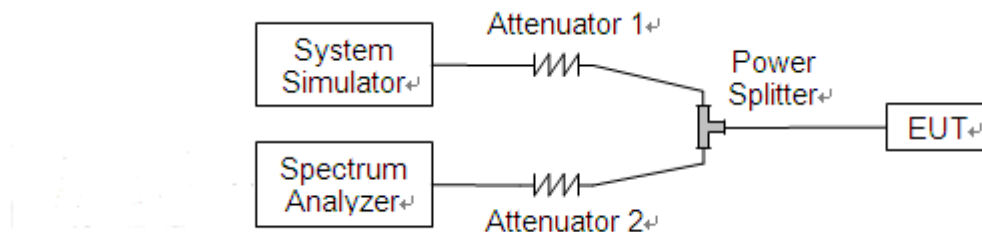
2.6. Band Edge

2.6.1. Requirement

According to FCC section 22.917(b), 24.238(b) and 27.53(h) in the 1MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth (26dB emission bandwidth) of the fundamental emission of the transmitter may be employed.

2.6.2. Test Description

Test Setup:



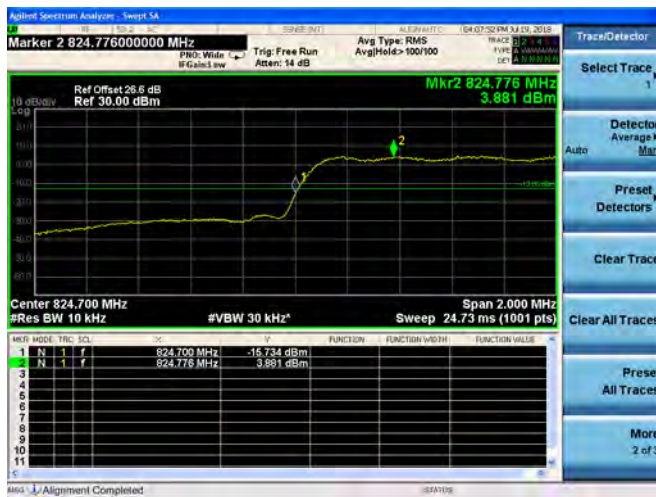
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS.



2.6.3. Test Result

The lowest and highest channels are tested to verify the band edge emissions.

CDMA BC0, Channel=1013



CDMA BC0, Channel=777



EVDO 0 BC0, Channel=1013

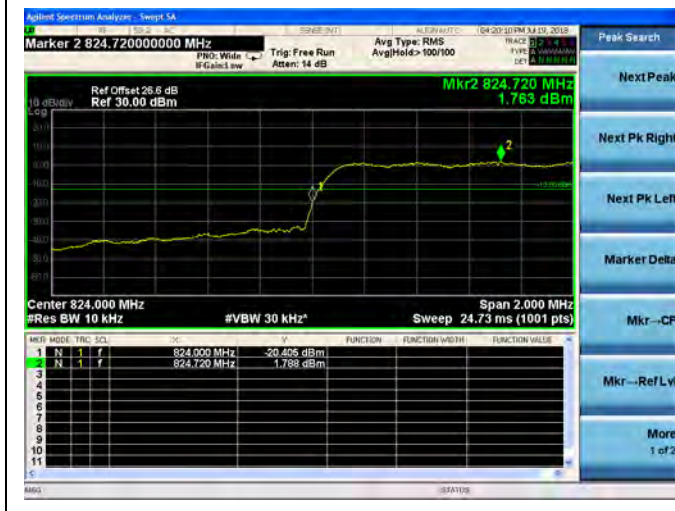


EVDO 0 BC0, Channel=777





EVDO A BC0, Channel=1013



EVDO A BC0, Channel=777





CDMA BC1, Channel=25



CDMA BC1, Channel=1175



EVDO 0 BC1, Channel=25



EVDO 0 BC1, Channel=1175



EVDO A BC1, Channel=25



EVDO A BC1, Channel=1175



2.7. Transmitter Radiated Power (EIRP/ERP)

2.7.1. Requirement

According to FCC section 22.913, the Effective Radiated Power (ERP) of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

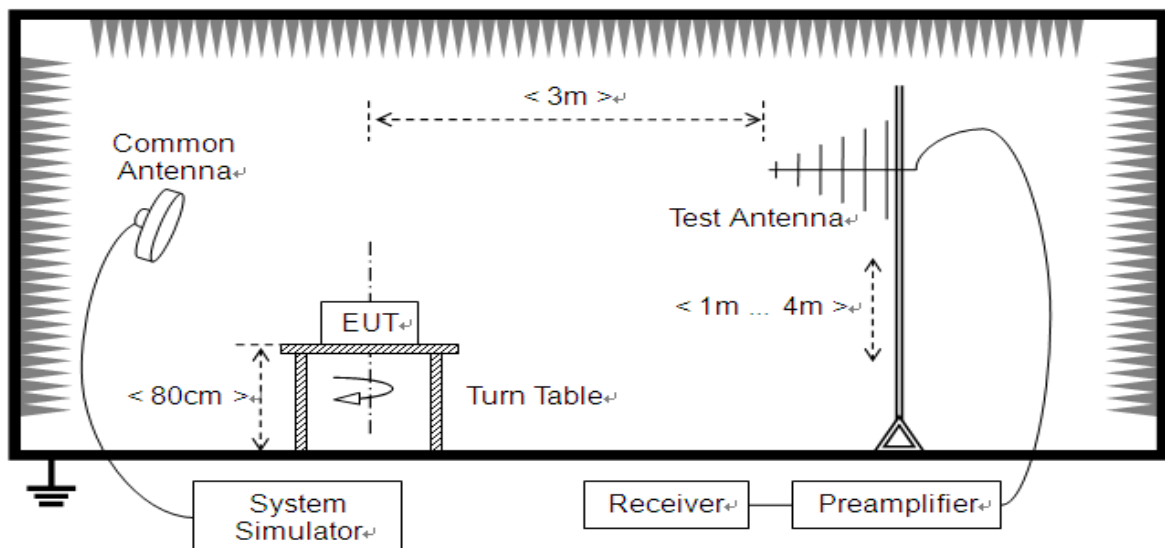
According to FCC section 24.232, the broadband PCS mobile station is limited to 2 Watts e.i.r.p. peak power.

According to FCC section 27.50, mobile, and portable (hand-held) stations is limited to 1 Watts e.i.r.p. peak power.

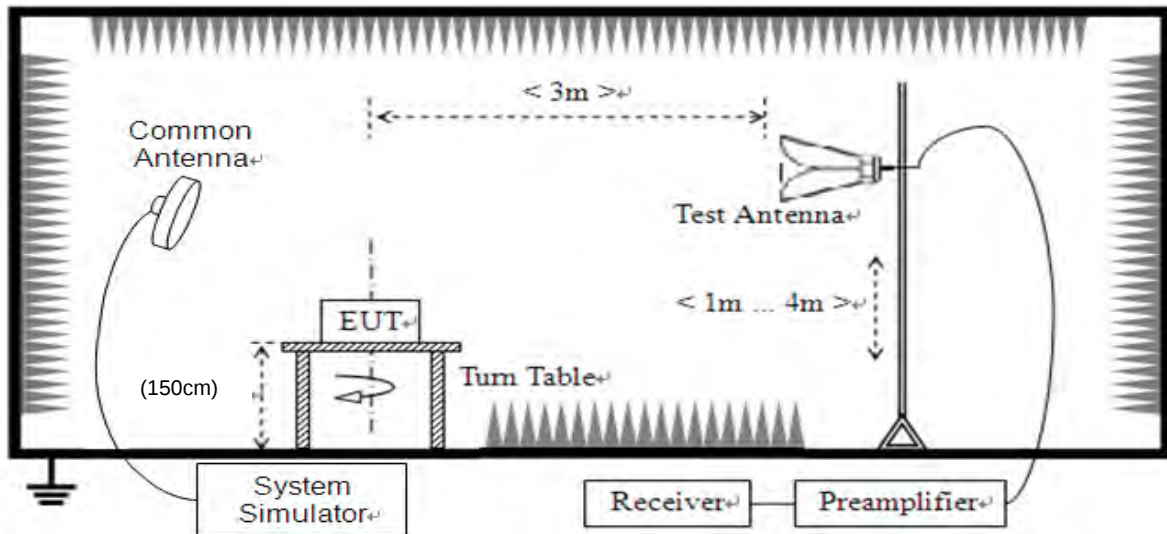
2.7.2. Test Description

Test Setup:

1) Below 1GHz



2) Above 1GHz



The EUT is located in a 3m Full-Anechoic Chamber; the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading. A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power (i.e. GSM850MHz band Power Control Level (PCL) = 5/19 and Power Class = 4, GSM1900MHz band Power Control Level (PCL) = 0/15 and Power Class = 1), and only the test result of the maximum output power was recorded. Please refer to section 2.1.3 of this report.

- Step size (dB): 3dB

The Test Antenna is a Bi-Log one (used for 30MHz to 1GHz) or a Horn one (used for above 3GHz), it's located at the same height as the EUT. The Filters consists of Notch Filters and High Pass Filter.



2.7.3. Test Result

The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested.

The substitution corrections are obtained as described below:

$$A_{\text{SUBST}} = P_{\text{SUBST_TX}} - P_{\text{SUBST_RX}} - L_{\text{SUBST_CABLES}} + G_{\text{SUBST_TX_ANT}}$$

$$A_{\text{TOT}} = L_{\text{CABLES}} + A_{\text{SUBST}}$$

Where A_{SUBST} is the final substitution correction including receive antenna gain.

$P_{\text{SUBST_TX}}$ is signal generator level,

$P_{\text{SUBST_RX}}$ is receiver level,

$L_{\text{SUBST_CABLES}}$ is cable losses including TX cable,

$G_{\text{SUBST_TX_ANT}}$ is substitution antenna gain.

A_{TOT} is total correction factor including cable loss and substitution correction

During the test, the data of A_{TOT} was added in the Test Spectrum Analyze, so Spectrum Analyze reading is the final values which contain the data of A_{TOT} .

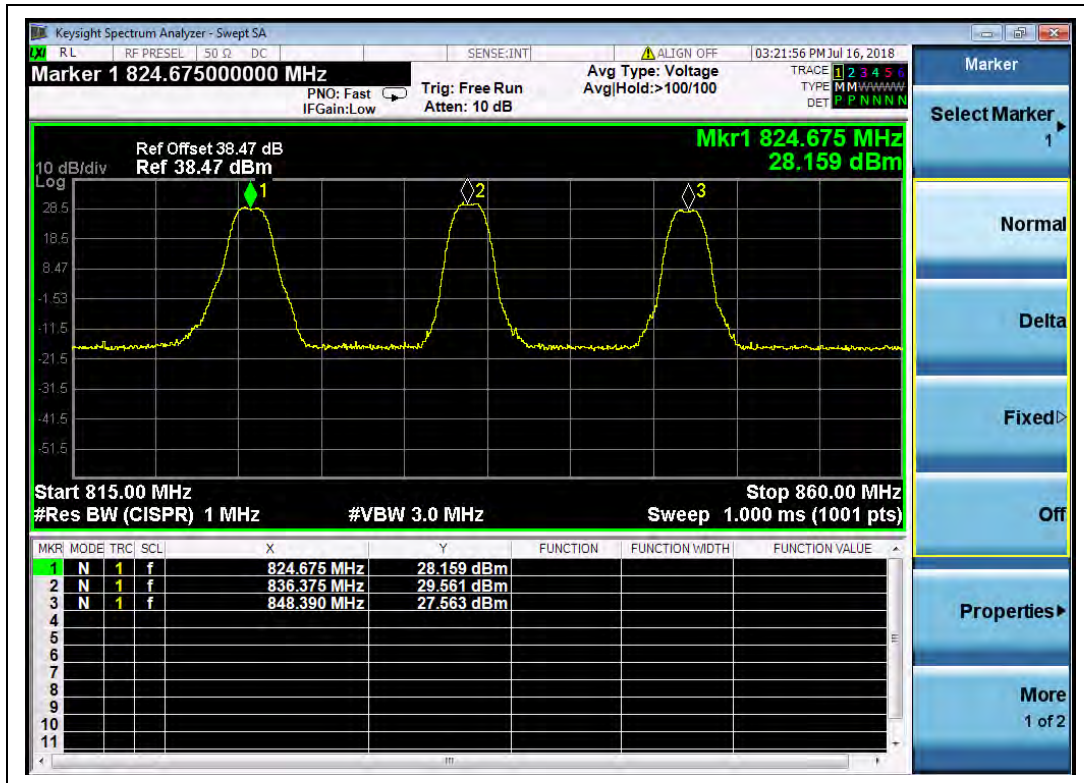
**Test verdict:**

Band	Channel	Frequency (MHz)	Measured ERP			Limit		Verdict
			dBm	W	Refer to Plot	dBm	W	
CDMA (BC0)	1013	824.70	28.16	0.65	Plot A	38.5	7	PASS
	384	836.52	29.56	0.90				PASS
	777	848.31	27.56	0.57				PASS
EVDO 0 (BC0)	1013	824.70	27.57	0.57	Plot B	38.5	7	PASS
	384	836.52	28.98	0.79				PASS
	777	848.31	27.25	0.53				PASS
EVDO A (BC0)	1013	824.70	28.64	0.73	Plot C	38.5	7	PASS
	384	836.52	29.31	0.85				PASS
	777	848.31	27.17	0.52				PASS
CDMA (BC1)	25	1851.25	29.45	0.88	Plot D	33	2	PASS
	600	1880.00	28.92	0.78				PASS
	1175	1908.75	30.06	1.01				PASS
EVDO 0 (BC1)	25	1851.25	29.29	0.85	Plot E	33	2	PASS
	600	1880.00	28.90	0.78				PASS
	1175	1908.75	28.72	0.74				PASS
EVDO A (BC1)	25	1851.25	28.81	0.76	Plot F	33	2	PASS
	600	1880.00	27.57	0.57				PASS
	1175	1908.75	30.22	1.05				PASS

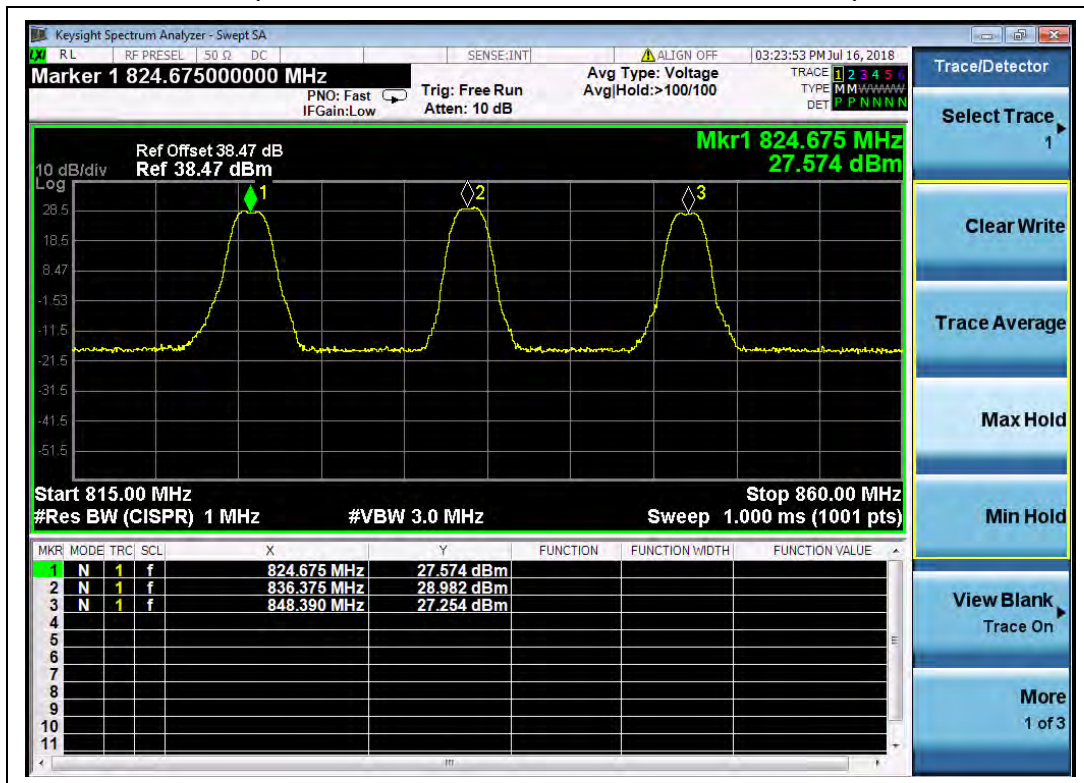
Note 1: Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report.



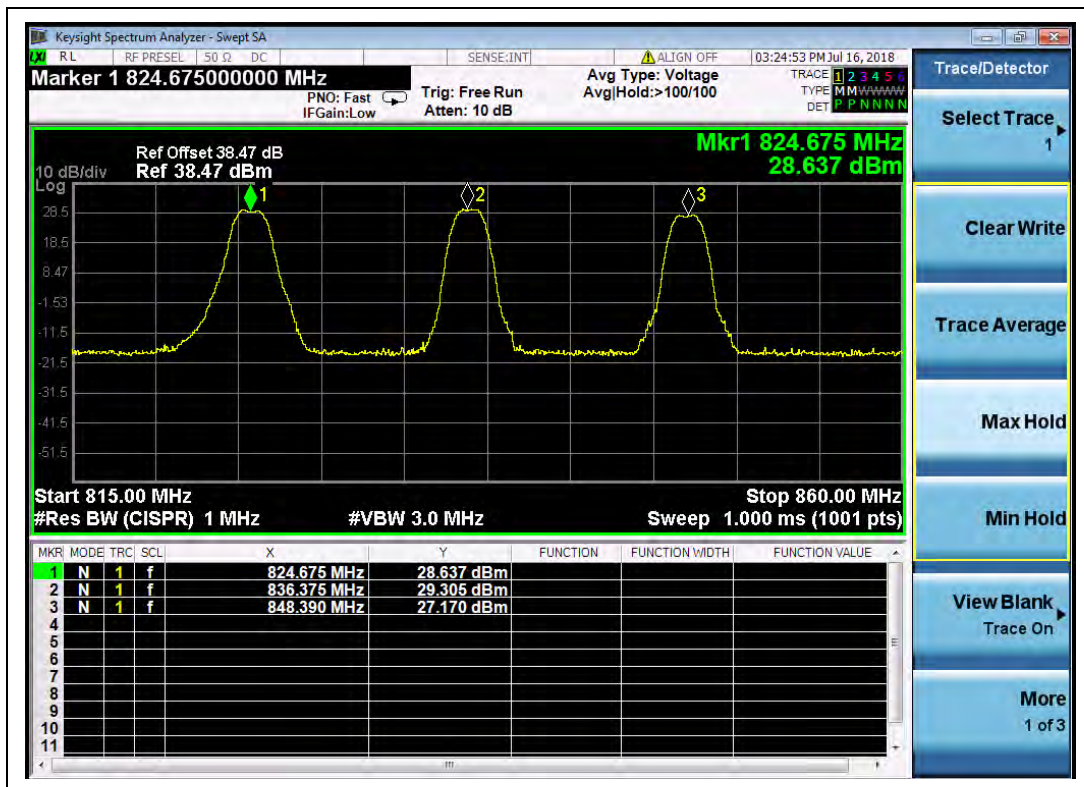
Test Plots:



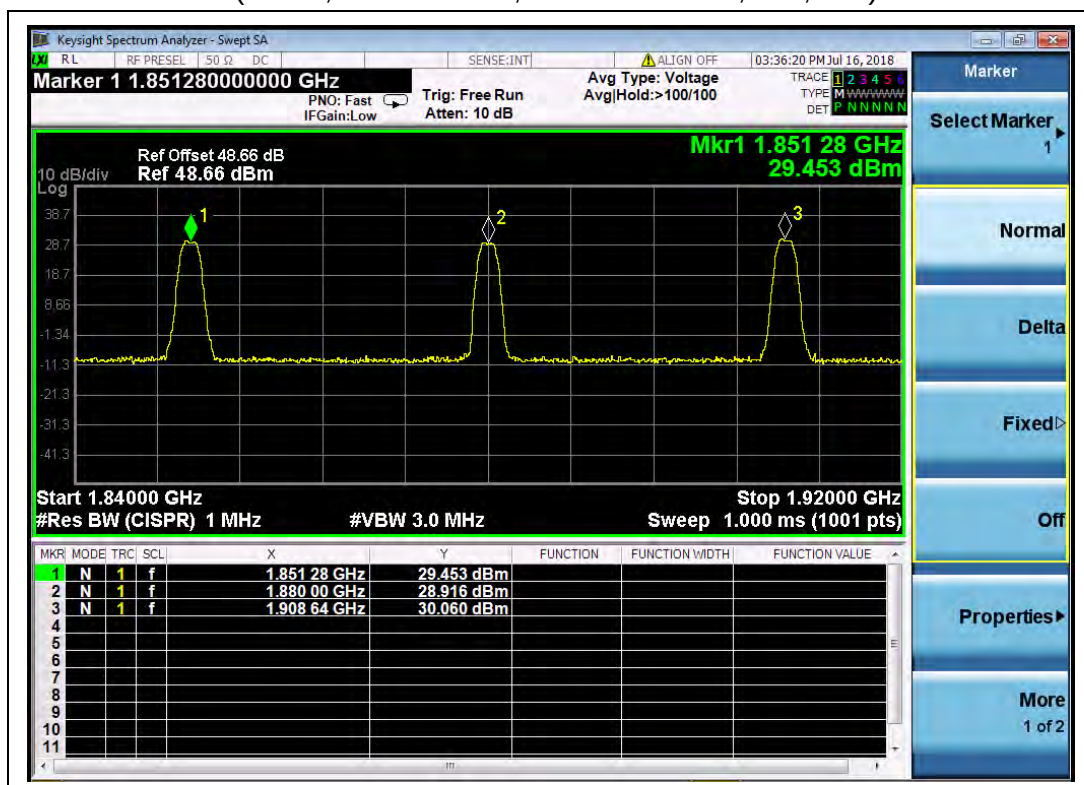
(Plot A, CDMA BC0, Channel = 1013, 384, 777)



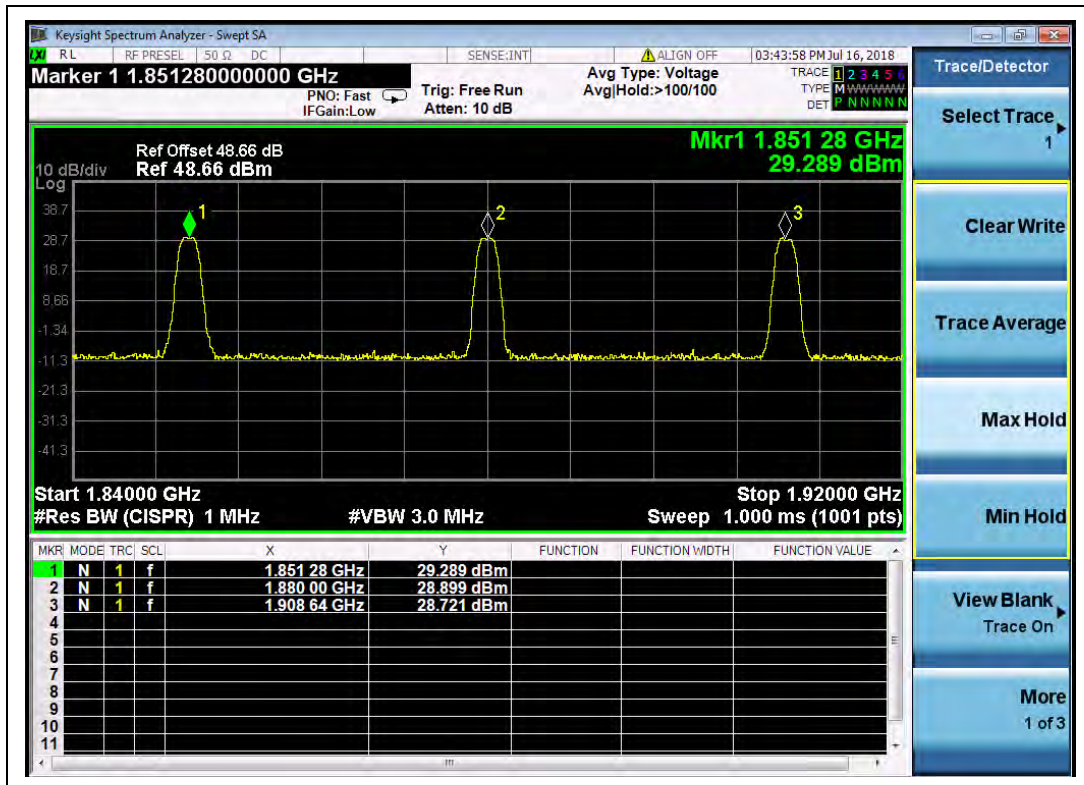
(Plot B, EVDO 0 BC0, Channel = 1013, 384, 777)



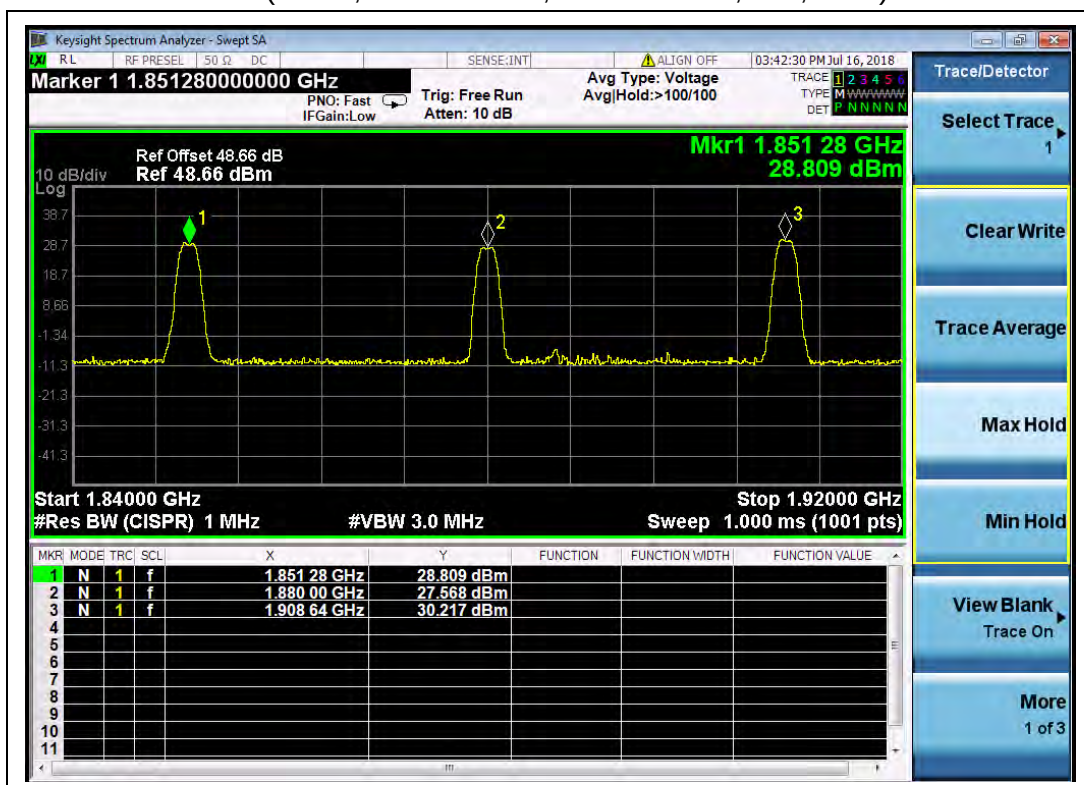
(Plot C, EVDO A BC0, Channel = 1013, 384, 777)



(Plot D, CDMA BC1, Channel = 25, 600, 1175)



(Plot E, EVDO 0 BC1, Channel = 25, 600, 1175)



(Plot F, EVDO A BC1, Channel = 25, 600, 1175)

2.8. Radiated Out of Band Emissions

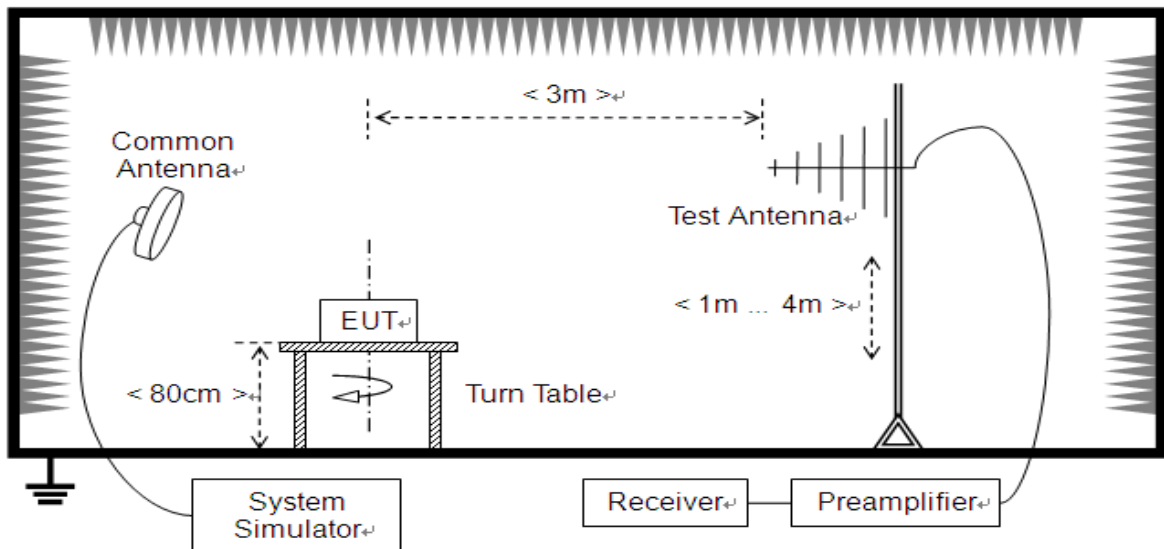
2.8.1. Requirement

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. This calculated to be -13dBm.

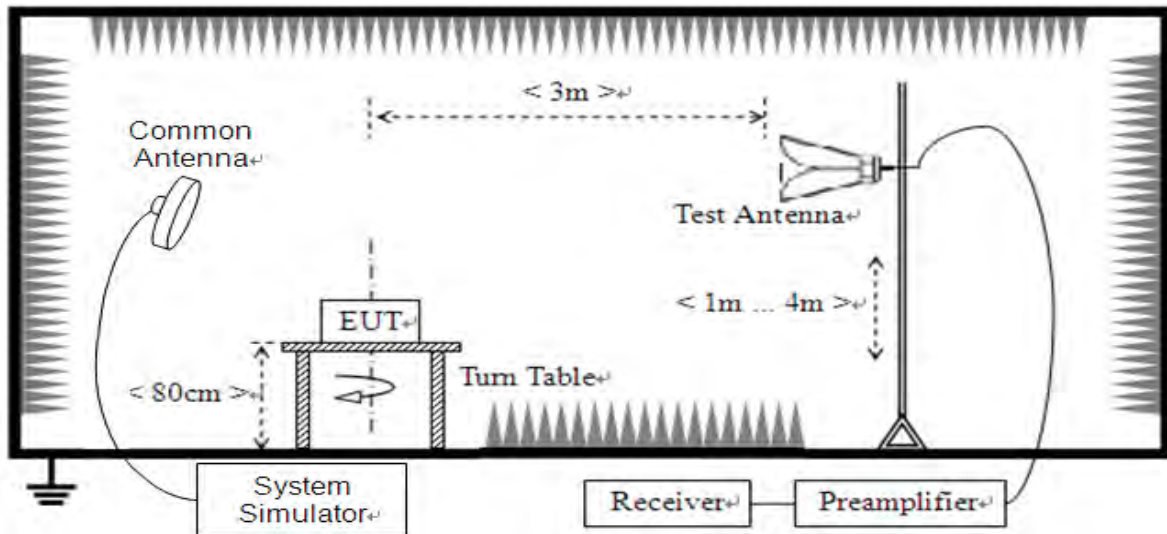
2.8.2. Test Description

Test Setup:

- 1) Below 1GHz



2) Above 1GHz



The EUT is located in a 3m Full-Anechoic Chamber, the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading.

A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power (i.e. GSM850MHz band Power Control Level (PCL) = 5/19 and Power Class = 4, GSM1900MHz band Power Control Level (PCL) = 0/15 and Power Class = 1), and only the test result of the maximum output power was recorded. Please refer to section 2.1.3 of this report.

- Step size (dB): 3dB

The Test Antenna is a Bi-Log one (used for 30MHz to 1GHz) and a Horn one (used for above 3 GHz), it's located at the same height as the EUT. The Filters consists of Notch Filters and High Pass Filter.

Note: when doing measurements above 1GHz, the EUT has been within the 3dB cone width of the horn antenna during horizontal antenna.



2.8.3. Test Result

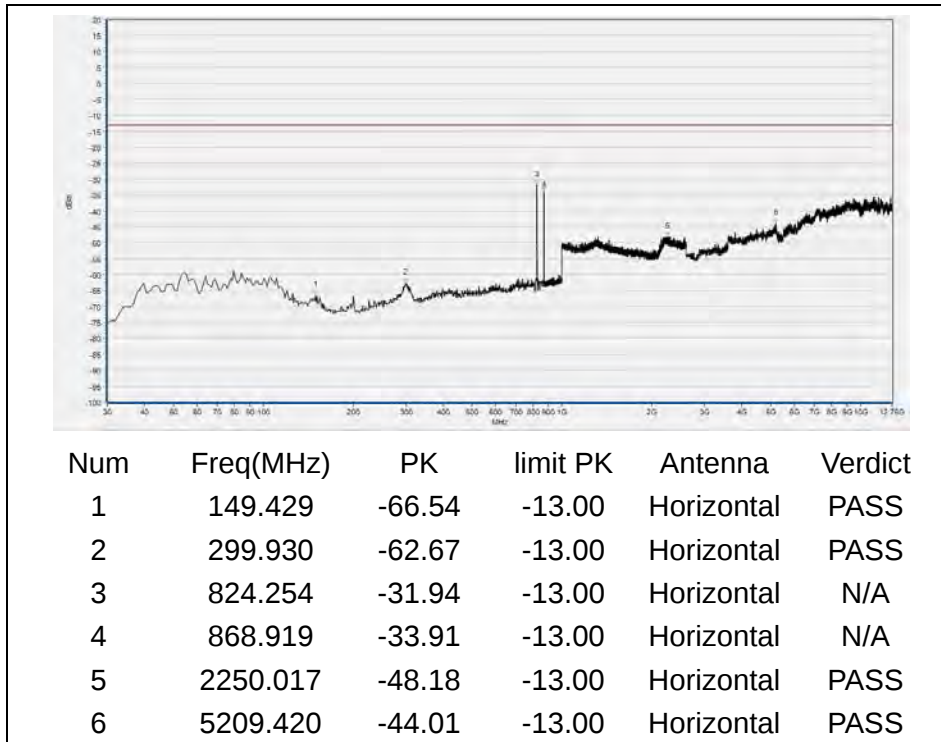
The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested to verify the out of band emissions. The power of the EUT transmitting frequency should be ignored.

Note 1: All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

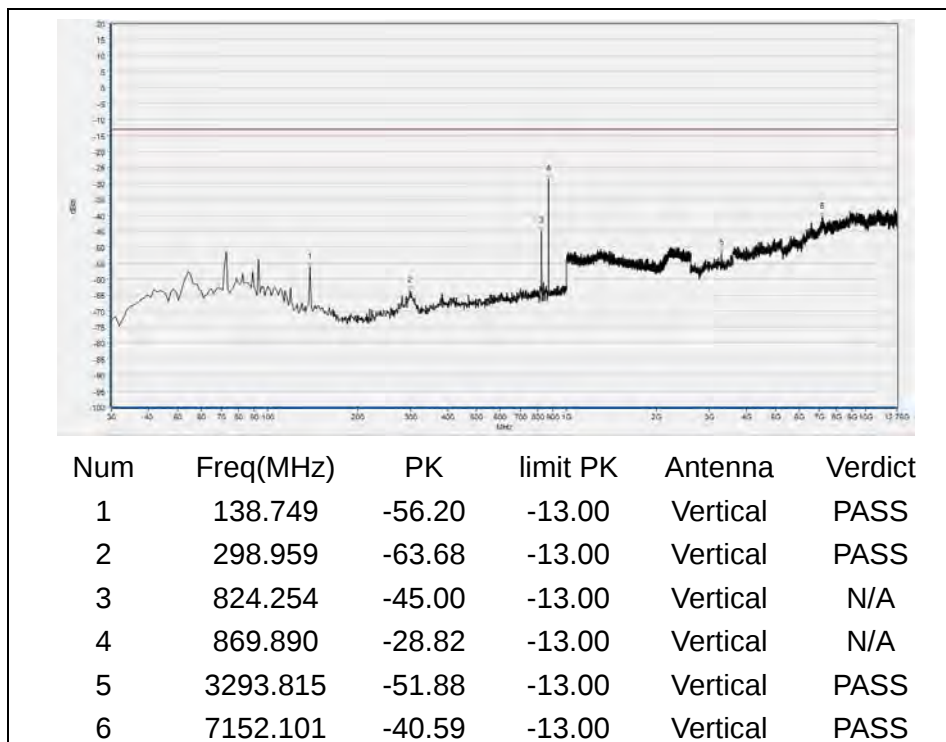
A. Test Verdict:

Band	Channel	Frequency (MHz)	Measured Max. Spurious Emission (dBm)		Refer to Plot	Limit (dBm)	Verdict
			Test Antenna Horizontal	Test Antenna Vertical			
CDMA (BC0)	1013	824.7	< -25	< -25	Plot A1/A2	-13	PASS
	384	836.52	< -25	< -25	Plot A3/A4		PASS
	777	848.31	< -25	< -25	Plot A5/A6		PASS
EVDO 0 (BC0)	1013	824.7	< -25	< -25	Plot B1/B2	-13	PASS
	384	836.52	< -25	< -25	Plot B3/B4		PASS
	777	848.31	< -25	< -25	Plot B5/B6		PASS
EVDO A (BC0)	1013	824.7	< -25	< -25	Plot C1/C2	-13	PASS
	384	836.52	< -25	< -25	Plot C3/C4		PASS
	777	848.31	< -25	< -25	Plot C5/C6		PASS
CDMA (BC1)	25	1851.25	< -25	< -25	Plot D1/D2	-13	PASS
	600	1880.00	< -25	< -25	Plot D3/D4		PASS
	1175	1908.75	< -25	< -25	Plot D5/D6		PASS
EVDO 0 (BC1)	25	1851.25	< -25	< -25	Plot E1/E2	-13	PASS
	600	1880.00	< -25	< -25	Plot E3/E4		PASS
	1175	1908.75	< -25	< -25	Plot E5/E6		PASS
EVDO A (BC1)	25	1851.25	< -25	< -25	Plot F1/F2	-13	PASS
	600	1880.00	< -25	< -25	Plot F3/F4		PASS
	1175	1908.75	< -25	< -25	Plot F5/F6		PASS

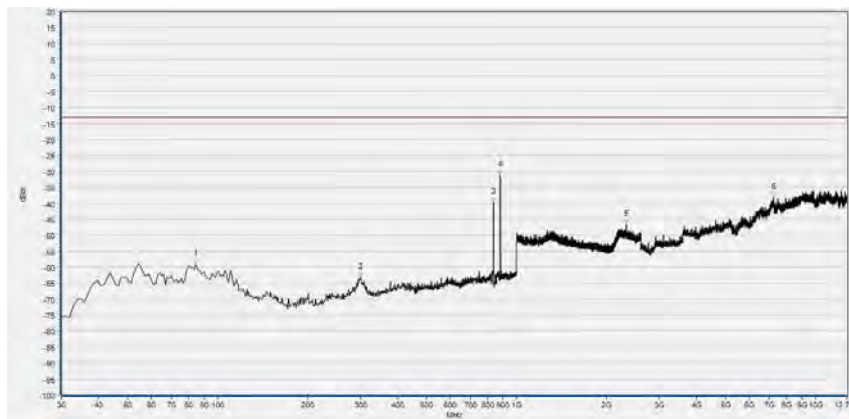
B. Test Plots



(Plot A1, CDMA BC0, Channel = 1013, Horizontal)

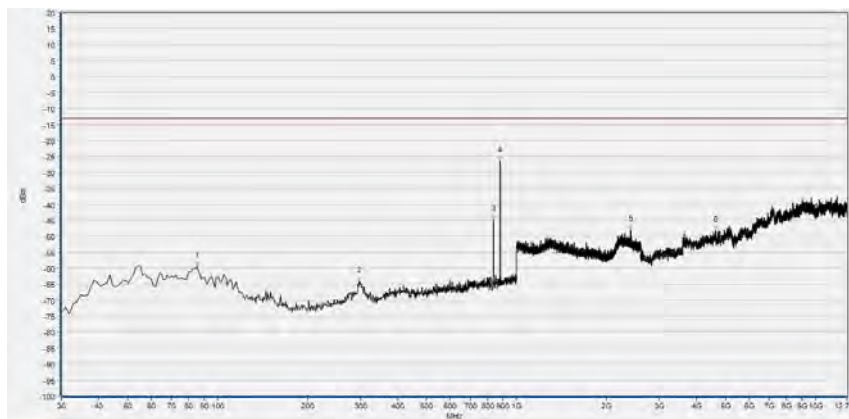


(Plot A2, CDMA BC0, Channel = 1013, Vertical)



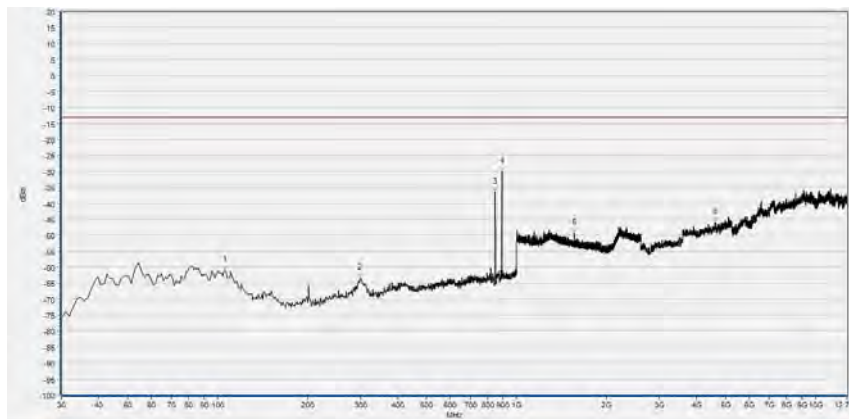
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	84.374	-59.18	-13.00	Horizontal	PASS
2	300.901	-63.23	-13.00	Horizontal	PASS
3	835.906	-39.68	-13.00	Horizontal	N/A
4	881.542	-31.07	-13.00	Horizontal	N/A
5	2324.708	-46.56	-13.00	Horizontal	PASS
6	7233.328	-38.03	-13.00	Horizontal	PASS

(Plot A3, CDMA BC0, Channel = 384, Horizontal)



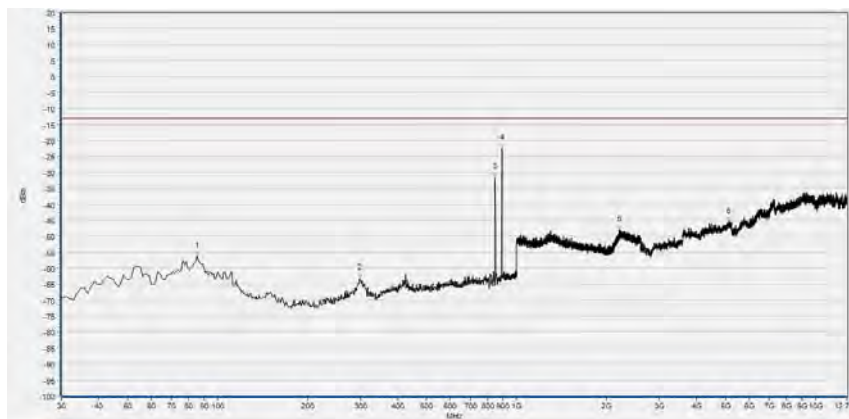
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	85.345	-59.37	-13.00	Vertical	PASS
2	297.017	-63.92	-13.00	Vertical	PASS
3	835.906	-44.78	-13.00	Vertical	N/A
4	881.542	-26.50	-13.00	Vertical	N/A
5	2410.070	-47.93	-13.00	Vertical	PASS
6	4620.524	-48.16	-13.00	Vertical	PASS

(Plot A4, CDMA BC0, Channel = 384, Vertical)



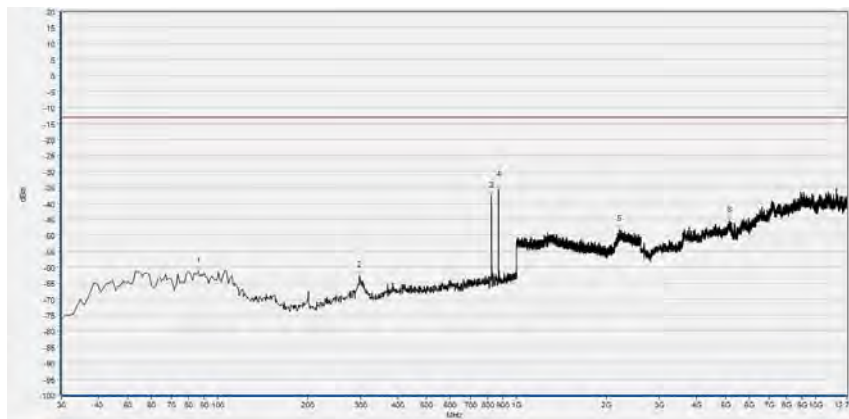
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	105.736	-60.99	-13.00	Horizontal	PASS
2	299.930	-63.41	-13.00	Horizontal	PASS
3	848.529	-36.54	-13.00	Horizontal	N/A
4	893.193	-30.00	-13.00	Horizontal	N/A
5	1556.986	-49.30	-13.00	Horizontal	PASS
6	4606.986	-45.96	-13.00	Horizontal	PASS

(Plot A5, CDMA BC0, Channel = 777, Horizontal)



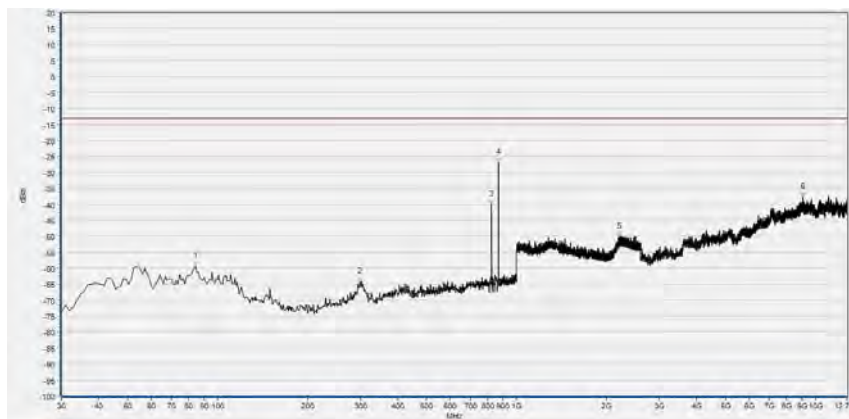
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	85.345	-56.29	-13.00	Vertical	PASS
2	298.959	-63.07	-13.00	Vertical	PASS
3	848.529	-31.64	-13.00	Vertical	N/A
4	893.193	-22.44	-13.00	Vertical	N/A
5	2206.802	-48.03	-13.00	Vertical	PASS
6	5124.808	-45.57	-13.00	Vertical	PASS

(Plot A6, CDMA BC0, Channel = 777, Vertical)



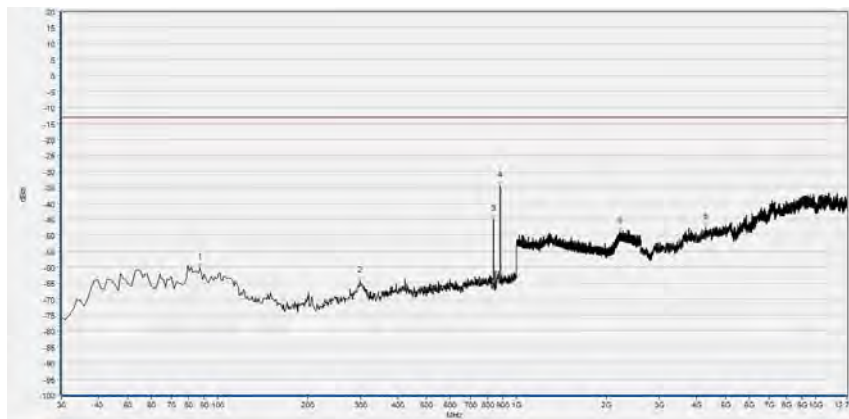
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	86.316	-61.38	-13.00	Horizontal	PASS
2	297.988	-62.74	-13.00	Horizontal	PASS
3	824.254	-37.56	-13.00	Horizontal	N/A
4	869.890	-35.71	-13.00	Horizontal	N/A
5	2210.003	-48.15	-13.00	Horizontal	PASS
6	5141.731	-45.39	-13.00	Horizontal	PASS

(Plot B1, EVDO 0 BC0, Channel = 1013, Horizontal)



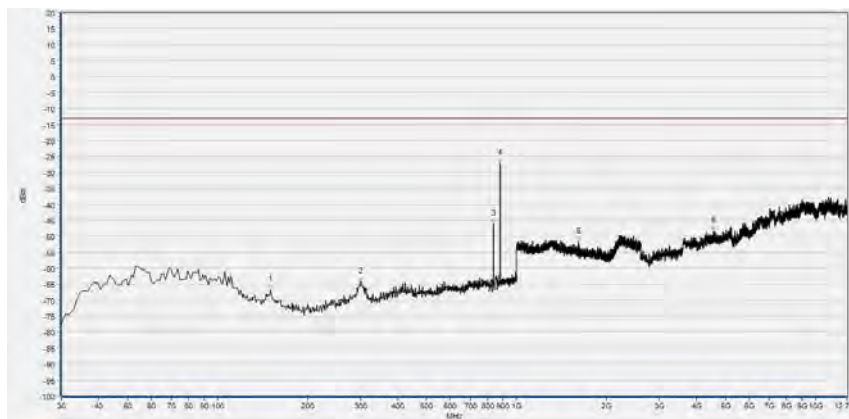
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	84.374	-59.39	-13.00	Vertical	PASS
2	298.959	-64.35	-13.00	Vertical	PASS
3	824.254	-40.18	-13.00	Vertical	N/A
4	868.919	-26.97	-13.00	Vertical	N/A
5	2206.802	-50.18	-13.00	Vertical	PASS
6	9057.553	-37.75	-13.00	Vertical	PASS

(Plot B2, EVDO 0 BC0, Channel = 1013, Vertical)



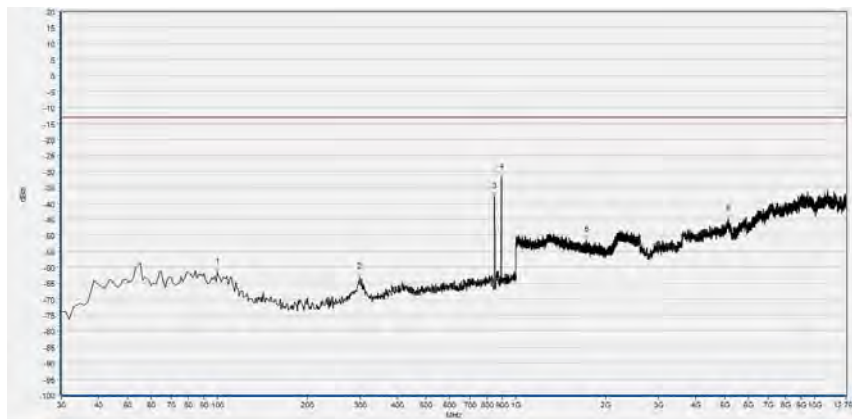
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	87.287	-60.13	-13.00	Horizontal	PASS
2	298.959	-64.27	-13.00	Horizontal	PASS
3	835.906	-45.04	-13.00	Horizontal	N/A
4	880.571	-34.60	-13.00	Horizontal	N/A
5	2213.738	-48.74	-13.00	Horizontal	PASS
6	4295.615	-47.54	-13.00	Horizontal	PASS

(Plot B3, EVDO 0 BC0, Channel = 384, Horizontal)



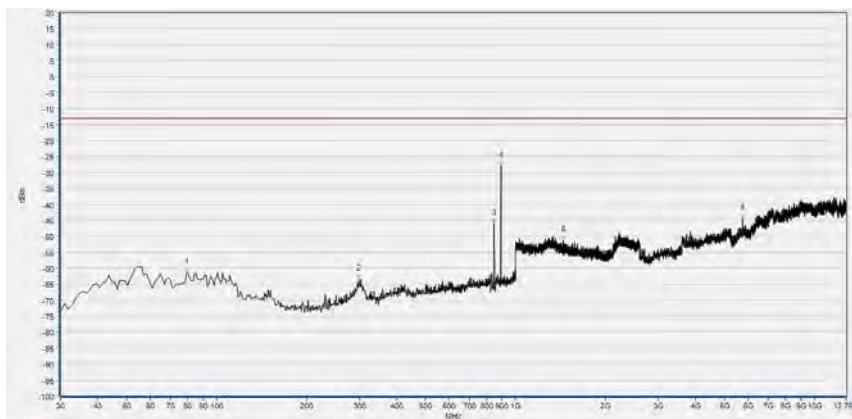
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	150.400	-66.74	-13.00	Vertical	PASS
2	300.901	-64.27	-13.00	Vertical	PASS
3	835.906	-46.20	-13.00	Vertical	N/A
4	881.542	-27.05	-13.00	Vertical	N/A
5	1607.136	-51.75	-13.00	Vertical	PASS
6	4556.219	-48.44	-13.00	Vertical	PASS

(Plot B4, EVDO 0 BC0, Channel = 384, Vertical)



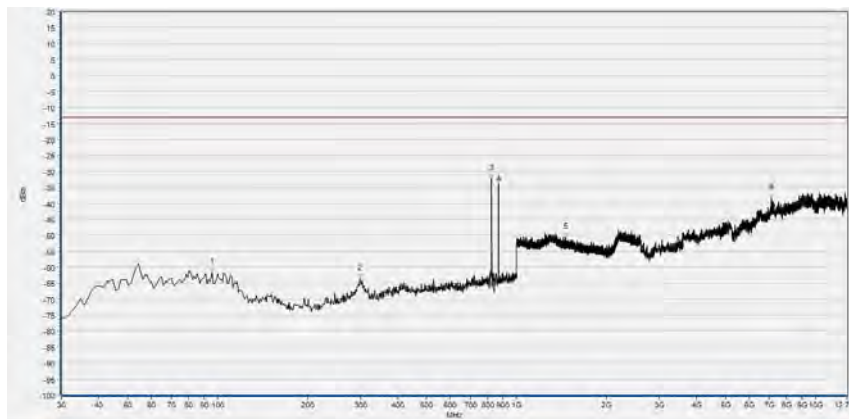
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	99.910	-61.62	-13.00	Horizontal	PASS
2	299.930	-63.19	-13.00	Horizontal	PASS
3	848.529	-37.82	-13.00	Horizontal	N/A
4	893.193	-31.91	-13.00	Horizontal	N/A
5	1720.240	-51.49	-13.00	Horizontal	PASS
6	5148.499	-44.89	-13.00	Horizontal	PASS

(Plot B5, EVDO 0 BC0, Channel = 777, Horizontal)



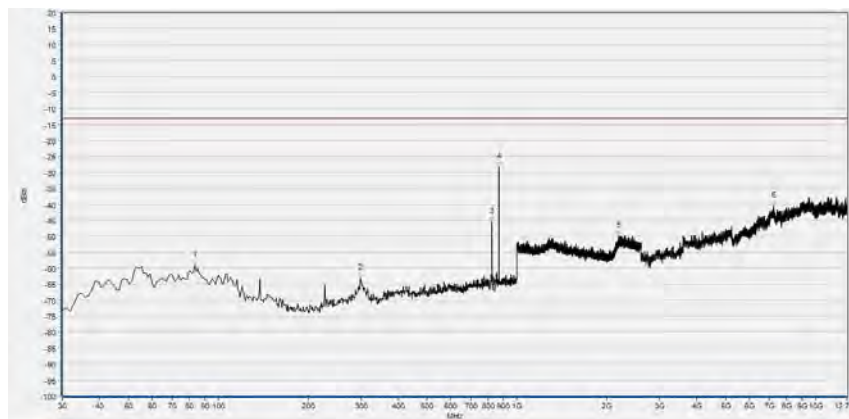
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	79.520	-61.34	-13.00	Vertical	PASS
2	299.930	-63.25	-13.00	Vertical	PASS
3	848.529	-45.97	-13.00	Vertical	N/A
4	893.193	-28.09	-13.00	Vertical	N/A
5	1445.482	-51.36	-13.00	Vertical	PASS
6	5747.549	-44.39	-13.00	Vertical	PASS

(Plot B6, EVDO 0 BC0, Channel = 777, Vertical)



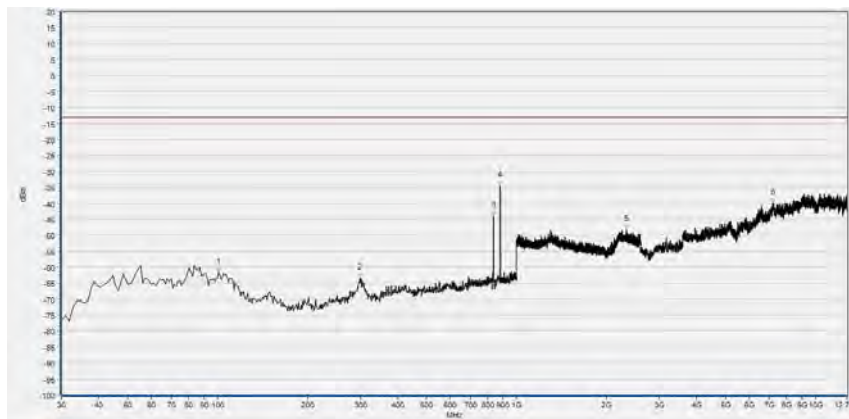
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	96.026	-61.60	-13.00	Horizontal	PASS
2	298.959	-63.64	-13.00	Horizontal	PASS
3	824.254	-32.21	-13.00	Horizontal	N/A
4	868.919	-33.78	-13.00	Horizontal	N/A
5	1457.753	-50.71	-13.00	Horizontal	PASS
6	7104.718	-38.29	-13.00	Horizontal	PASS

(Plot C1, EVDO A BC0, Channel = 1013, Horizontal)



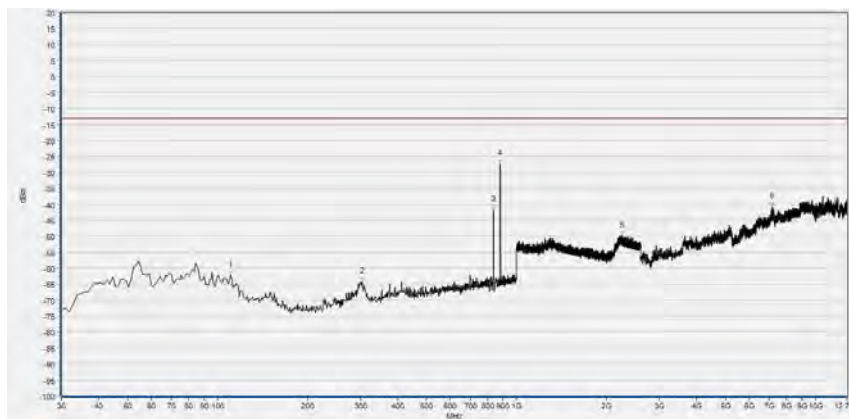
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	83.403	-59.09	-13.00	Vertical	PASS
2	298.959	-63.22	-13.00	Vertical	PASS
3	824.254	-45.36	-13.00	Vertical	N/A
4	869.890	-28.28	-13.00	Vertical	N/A
5	2192.397	-49.93	-13.00	Vertical	PASS
6	7243.481	-40.45	-13.00	Vertical	PASS

(Plot C2, EVDO A BC0, Channel = 1013, Vertical)



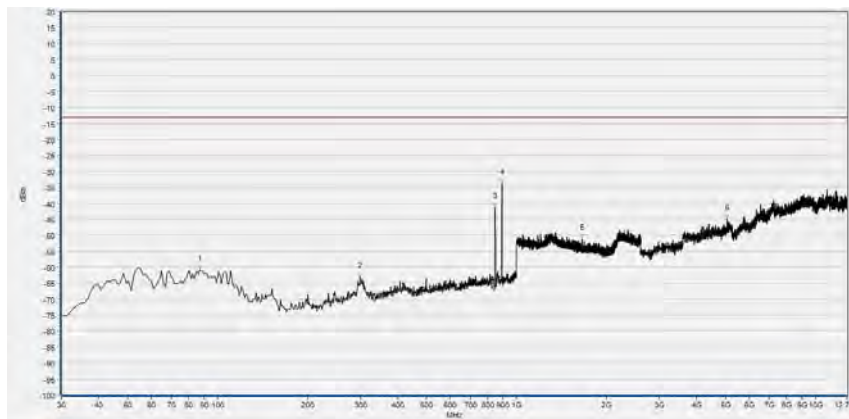
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	100.881	-61.60	-13.00	Horizontal	PASS
2	299.930	-63.32	-13.00	Horizontal	PASS
3	835.906	-43.94	-13.00	Horizontal	N/A
4	881.542	-34.48	-13.00	Horizontal	N/A
5	2334.845	-48.26	-13.00	Horizontal	PASS
6	7192.714	-39.83	-13.00	Horizontal	PASS

(Plot C3, EVDO A BC0, Channel = 384, Horizontal)



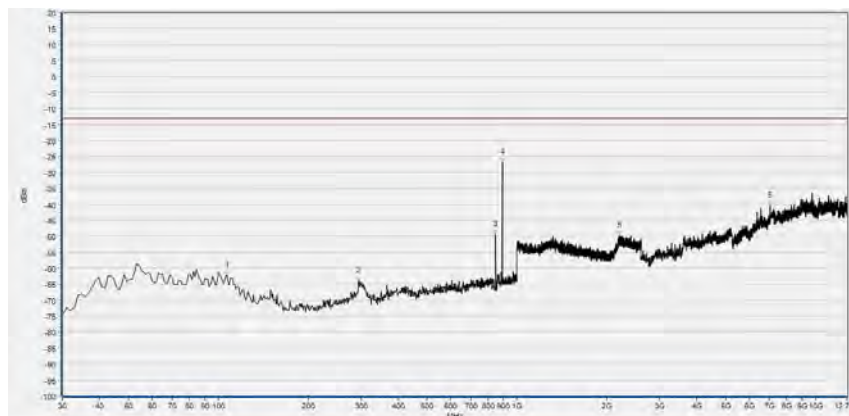
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	110.591	-62.23	-13.00	Vertical	PASS
2	304.785	-64.19	-13.00	Vertical	PASS
3	835.906	-41.62	-13.00	Vertical	N/A
4	881.542	-27.43	-13.00	Vertical	N/A
5	2255.885	-49.98	-13.00	Vertical	PASS
6	7158.870	-40.81	-13.00	Vertical	PASS

(Plot C4, EVDO A BC0, Channel = 384, Vertical)



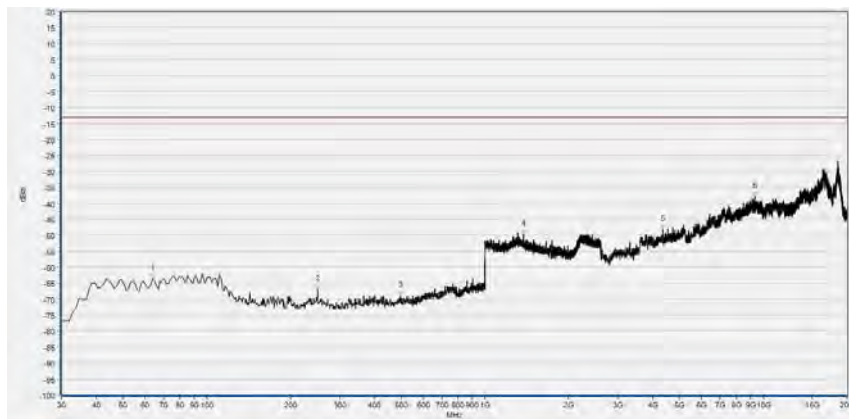
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	87.287	-60.61	-13.00	Horizontal	PASS
2	299.930	-63.02	-13.00	Horizontal	PASS
3	848.529	-41.20	-13.00	Horizontal	N/A
4	893.193	-33.53	-13.00	Horizontal	N/A
5	1654.085	-51.04	-13.00	Horizontal	PASS
6	5067.272	-44.88	-13.00	Horizontal	PASS

(Plot C5, EVDO A BC0, Channel = 777, Horizontal)



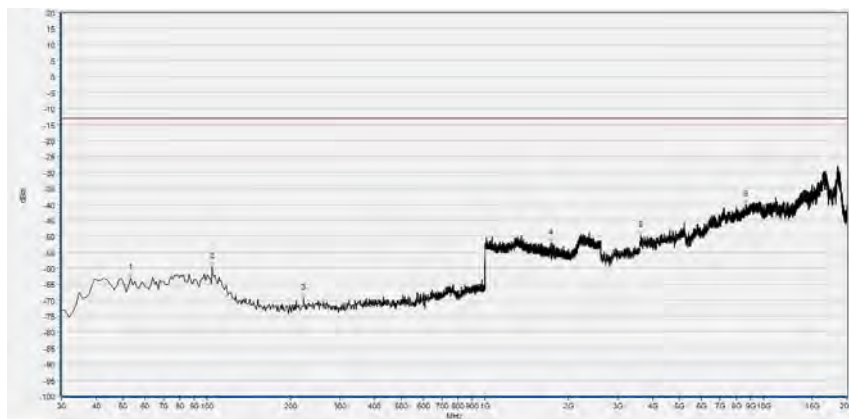
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	106.707	-62.17	-13.00	Vertical	PASS
2	295.075	-64.00	-13.00	Vertical	PASS
3	848.529	-49.40	-13.00	Vertical	N/A
4	893.193	-26.90	-13.00	Vertical	N/A
5	2207.336	-50.02	-13.00	Vertical	PASS
6	7040.413	-40.55	-13.00	Vertical	PASS

(Plot C6, EVDO A BC0, Channel = 777, Vertical)



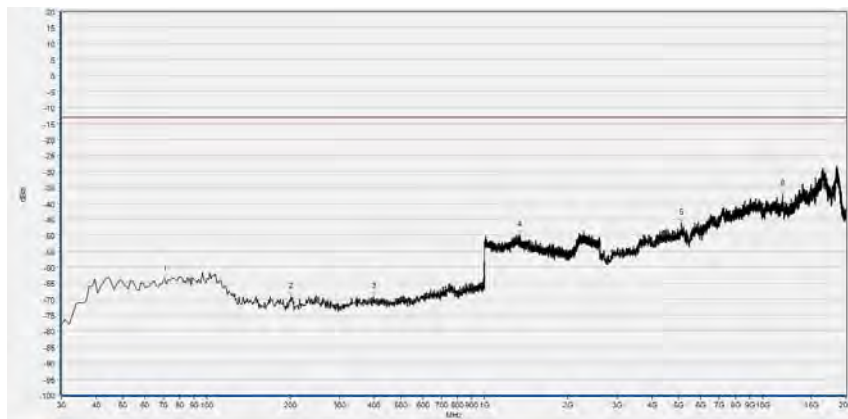
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	63.950	-63.55	-13.00	Horizontal	PASS
2	250.190	-66.99	-13.00	Horizontal	PASS
3	496.570	-68.87	-13.00	Horizontal	PASS
4	1372.629	-49.82	-13.00	Horizontal	PASS
5	4351.591	-48.22	-13.00	Horizontal	PASS
6	9304.928	-37.94	-13.00	Horizontal	PASS

(Plot D1, CDMA BC1, Channel = 25, Horizontal)



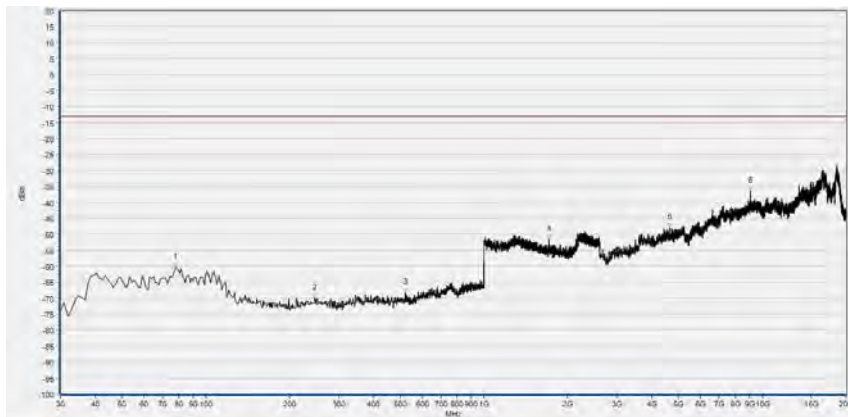
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	53.280	-63.04	-13.00	Vertical	PASS
2	104.690	-59.59	-13.00	Vertical	PASS
3	223.030	-69.43	-13.00	Vertical	PASS
4	1719.008	-52.11	-13.00	Vertical	PASS
5	3630.587	-49.72	-13.00	Vertical	PASS
6	8657.247	-40.19	-13.00	Vertical	PASS

(Plot D2, CDMA BC1, Channel = 25, Vertical)



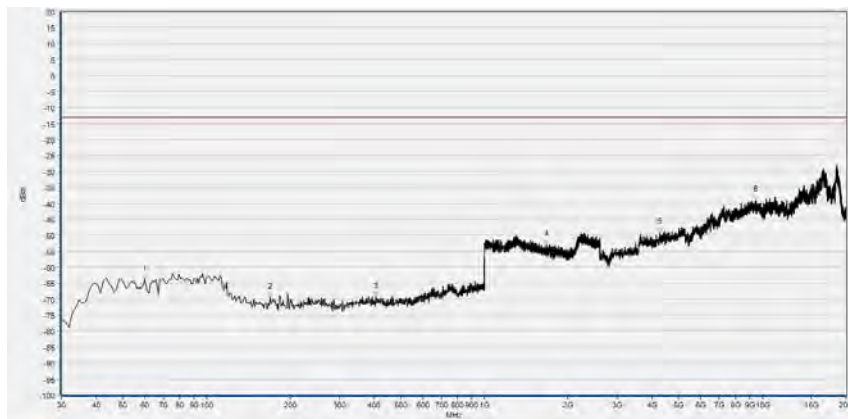
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	70.740	-63.89	-13.00	Horizontal	PASS
2	200.720	-69.26	-13.00	Horizontal	PASS
3	398.600	-69.25	-13.00	Horizontal	PASS
4	1336.775	-50.02	-13.00	Horizontal	PASS
5	5109.256	-46.20	-13.00	Horizontal	PASS
6	11797.891	-37.16	-13.00	Horizontal	PASS

(Plot D3, CDMA BC1, Channel = 600, Horizontal)



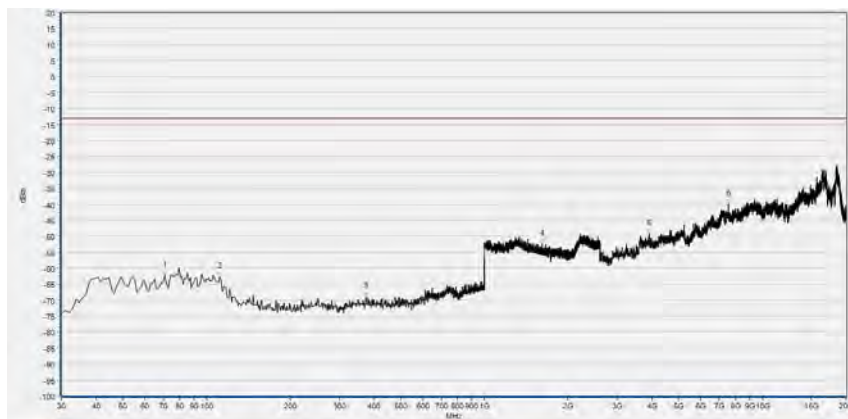
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	77.530	-60.37	-13.00	Vertical	PASS
2	246.310	-70.06	-13.00	Vertical	PASS
3	519.850	-68.36	-13.00	Vertical	PASS
4	1712.605	-51.81	-13.00	Vertical	PASS
5	4644.881	-47.99	-13.00	Vertical	PASS
6	9056.447	-36.55	-13.00	Vertical	PASS

(Plot D4, CDMA BC1, Channel = 600, Vertical)



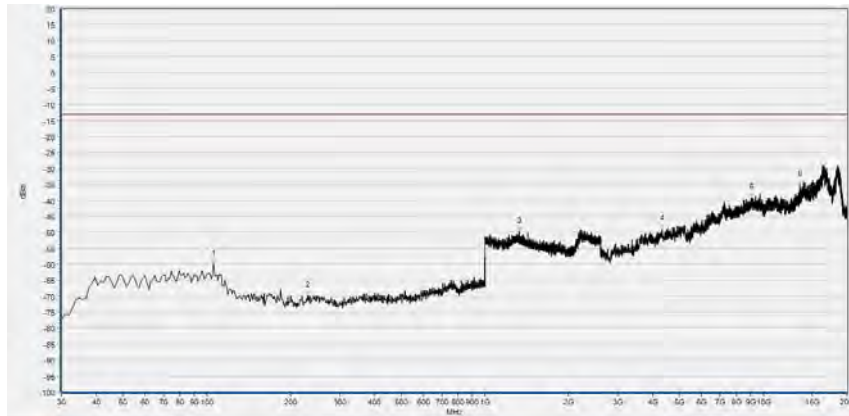
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	60.070	-63.78	-13.00	Horizontal	PASS
2	169.680	-69.30	-13.00	Horizontal	PASS
3	407.330	-69.17	-13.00	Horizontal	PASS
4	1665.866	-52.80	-13.00	Horizontal	PASS
5	4270.122	-49.08	-13.00	Horizontal	PASS
6	9451.573	-39.08	-13.00	Horizontal	PASS

(Plot D5, CDMA BC1, Channel = 1175, Horizontal)



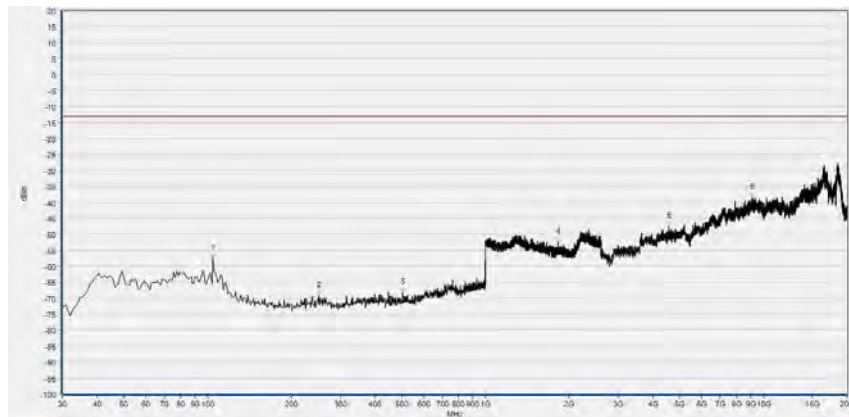
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	70.740	-62.20	-13.00	Vertical	PASS
2	111.480	-62.71	-13.00	Vertical	PASS
3	373.380	-68.97	-13.00	Vertical	PASS
4	1614.646	-52.35	-13.00	Vertical	PASS
5	3923.877	-49.17	-13.00	Vertical	PASS
6	7532.970	-39.97	-13.00	Vertical	PASS

(Plot D6, CDMA BC1, Channel = 1175, Vertical)



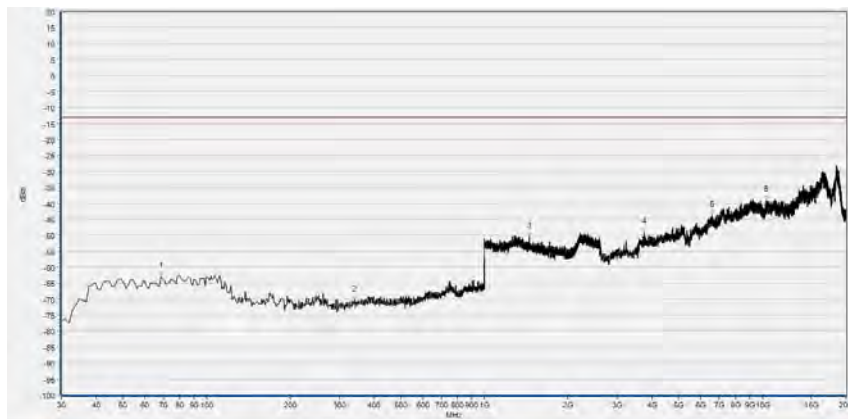
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	105.660	-60.11	-13.00	Horizontal	PASS
2	230.790	-69.88	-13.00	Horizontal	PASS
3	1330.372	-49.81	-13.00	Horizontal	PASS
4	4327.150	-49.02	-13.00	Horizontal	PASS
5	9036.079	-39.14	-13.00	Horizontal	PASS
6	13573.923	-35.27	-13.00	Horizontal	PASS

(Plot E1, EVDO 0 BC1, Channel = 25, Horizontal)



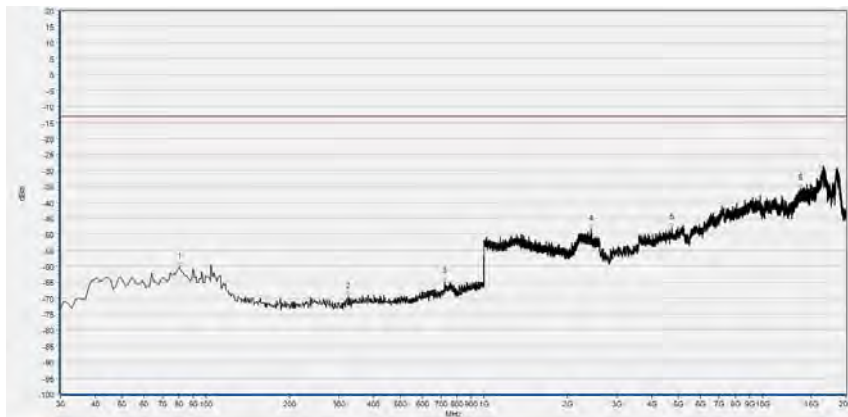
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	104.690	-57.44	-13.00	Vertical	PASS
2	252.130	-69.27	-13.00	Vertical	PASS
3	503.360	-68.22	-13.00	Vertical	PASS
4	1829.132	-52.43	-13.00	Vertical	PASS
5	4571.558	-47.46	-13.00	Vertical	PASS
6	9105.328	-38.48	-13.00	Vertical	PASS

(Plot E2, EVDO 0 BC1, Channel = 25, Vertical)



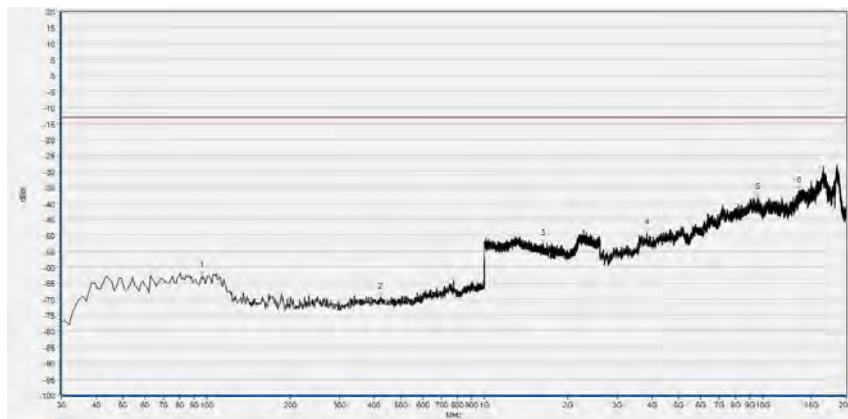
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	68.800	-62.93	-13.00	Horizontal	PASS
2	341.370	-70.26	-13.00	Horizontal	PASS
3	1448.820	-50.48	-13.00	Horizontal	PASS
4	3752.791	-49.06	-13.00	Horizontal	PASS
5	6571.631	-43.80	-13.00	Horizontal	PASS
6	10290.707	-39.07	-13.00	Horizontal	PASS

(Plot E3, EVDO 0 BC1, Channel = 600, Horizontal)



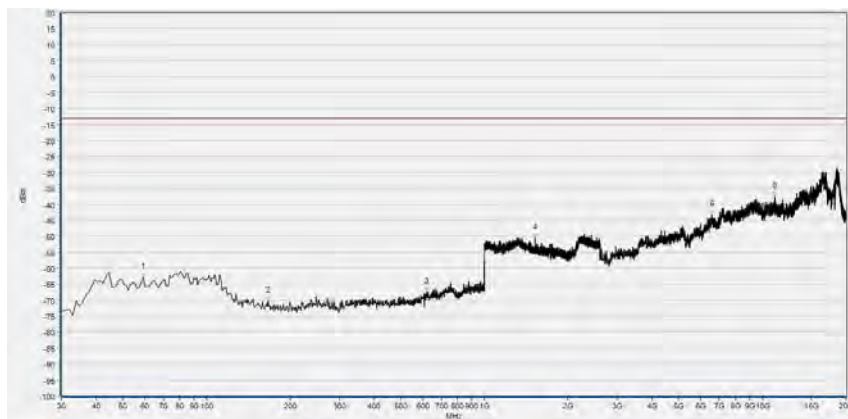
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	80.440	-60.29	-13.00	Vertical	PASS
2	324.880	-69.61	-13.00	Vertical	PASS
3	722.580	-64.94	-13.00	Vertical	PASS
4	2418.167	-48.38	-13.00	Vertical	PASS
5	4718.203	-47.85	-13.00	Vertical	PASS
6	13708.347	-35.56	-13.00	Vertical	PASS

(Plot E4, EVDO 0 BC1, Channel = 600, Vertical)



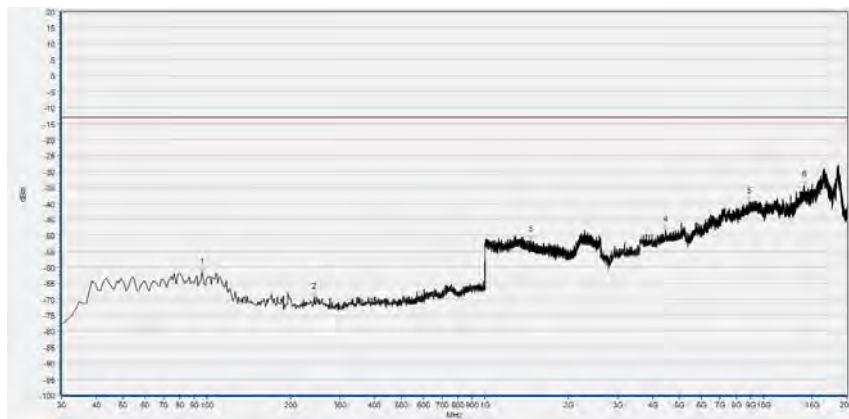
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	95.960	-62.64	-13.00	Horizontal	PASS
2	420.910	-69.49	-13.00	Horizontal	PASS
3	1621.689	-52.72	-13.00	Horizontal	PASS
4	3850.555	-49.27	-13.00	Horizontal	PASS
5	9598.218	-38.10	-13.00	Horizontal	PASS
6	13549.482	-36.14	-13.00	Horizontal	PASS

(Plot E5, EVDO 0 BC1, Channel = 1175, Horizontal)



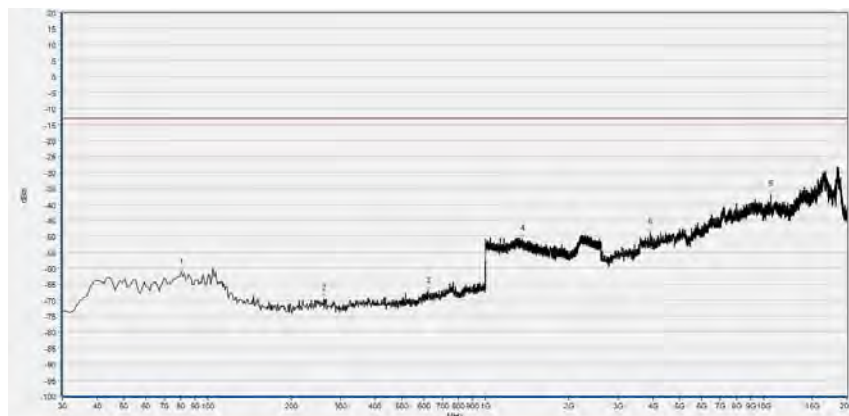
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	59.100	-62.93	-13.00	Vertical	PASS
2	166.770	-70.26	-13.00	Vertical	PASS
3	618.790	-67.47	-13.00	Vertical	PASS
4	1519.888	-50.61	-13.00	Vertical	PASS
5	6575.705	-43.23	-13.00	Vertical	PASS
6	11085.034	-37.51	-13.00	Vertical	PASS

(Plot E6, EVDO 0 BC1, Channel = 1175, Vertical)



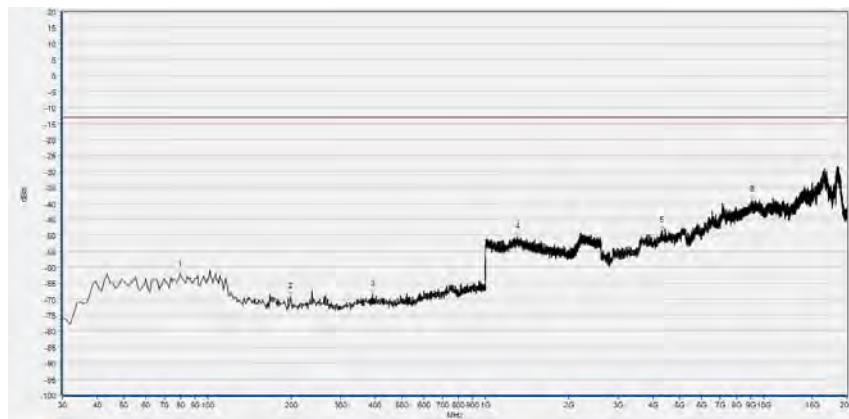
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	95.960	-61.48	-13.00	Horizontal	PASS
2	243.400	-69.48	-13.00	Horizontal	PASS
3	1455.222	-51.58	-13.00	Horizontal	PASS
4	4445.281	-48.49	-13.00	Horizontal	PASS
5	8913.875	-39.52	-13.00	Horizontal	PASS
6	14001.637	-34.28	-13.00	Horizontal	PASS

(Plot F1, EVDO A BC1, Channel = 25, Horizontal)



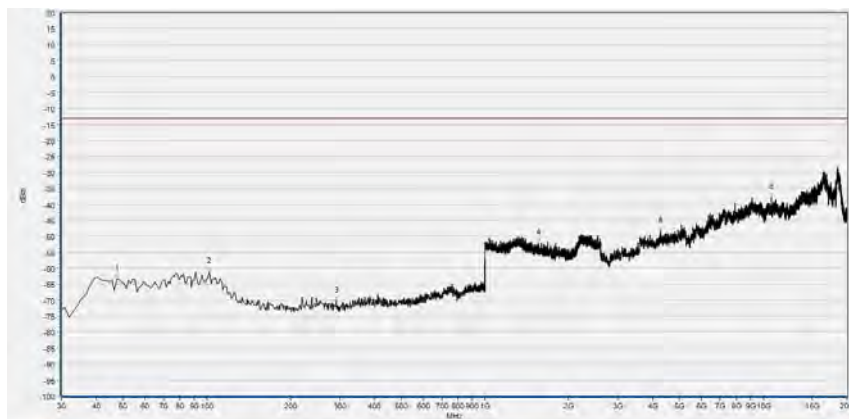
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	80.440	-61.40	-13.00	Vertical	PASS
2	261.830	-69.67	-13.00	Vertical	PASS
3	620.730	-67.06	-13.00	Vertical	PASS
4	1355.982	-50.92	-13.00	Vertical	PASS
5	3911.657	-48.88	-13.00	Vertical	PASS
6	10653.246	-37.02	-13.00	Vertical	PASS

(Plot F2, EVDO A BC1, Channel = 25, Vertical)



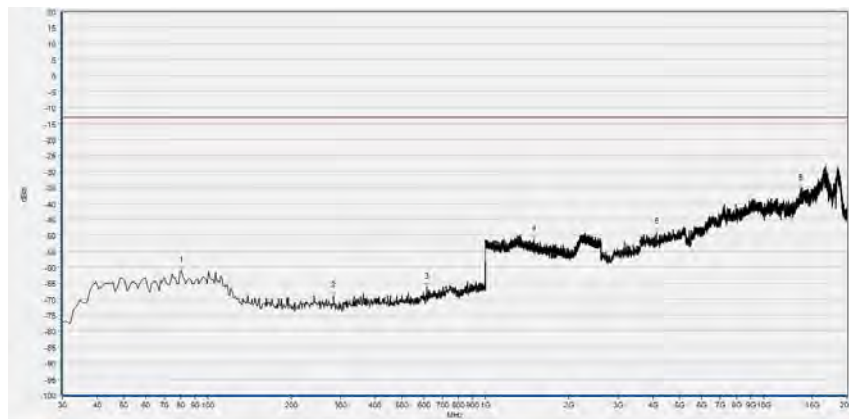
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	79.470	-62.33	-13.00	Horizontal	PASS
2	198.780	-69.09	-13.00	Horizontal	PASS
3	392.780	-68.56	-13.00	Horizontal	PASS
4	1303.481	-50.67	-13.00	Horizontal	PASS
5	4298.636	-48.63	-13.00	Horizontal	PASS
6	9101.255	-38.92	-13.00	Horizontal	PASS

(Plot F3. EVDO A BC1, Channel = 600, Horizontal)



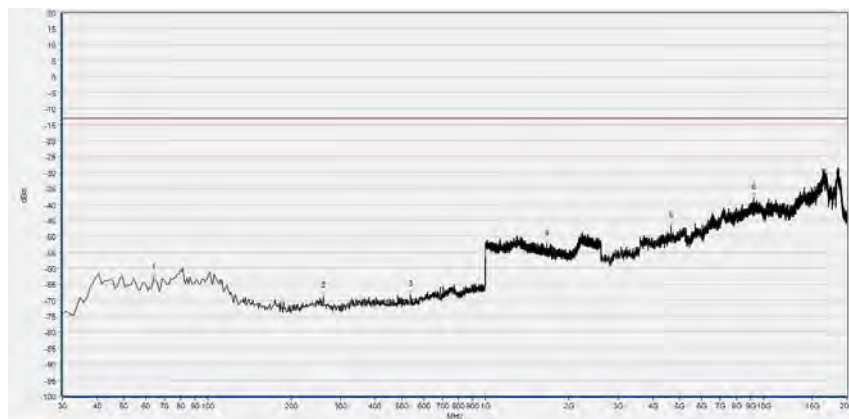
Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	47.460	-63.45	-13.00	Vertical	PASS
2	101.780	-61.15	-13.00	Vertical	PASS
3	291.900	-70.24	-13.00	Vertical	PASS
4	1553.181	-52.18	-13.00	Vertical	PASS
5	4282.342	-48.44	-13.00	Vertical	PASS
6	10661.393	-37.97	-13.00	Vertical	PASS

(Plot F4, EVDO A BC1, Channel = 600, Vertical)



Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	80.440	-61.07	-13.00	Horizontal	PASS
2	284.140	-68.93	-13.00	Horizontal	PASS
3	615.880	-66.16	-13.00	Horizontal	PASS
4	1496.839	-51.18	-13.00	Horizontal	PASS
5	4119.404	-49.06	-13.00	Horizontal	PASS
6	13590.216	-35.32	-13.00	Horizontal	PASS

(Plot F5, EVDO A BC1, Channel = 1175, Horizontal)



Num	Freq(MHz)	PK	limit PK	Antenna	Verdict
1	63.950	-63.23	-13.00	Vertical	PASS
2	260.860	-68.75	-13.00	Vertical	PASS
3	538.280	-68.23	-13.00	Vertical	PASS
4	1663.946	-52.49	-13.00	Vertical	PASS
5	4644.881	-46.88	-13.00	Vertical	PASS
6	9231.606	-37.92	-13.00	Vertical	PASS

(Plot F6, EVDO A BC1, Channel = 1175, Vertical)



Annex A Test Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

Test items	Uncertainty
Output Power	$\pm 2.22\text{dB}$
Bandwidth	$\pm 5\%$
Conducted Spurious Emission	$\pm 2.77\text{ dB}$
Radiated Emission	$\pm 2.95\text{dB}$

This uncertainty represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$



Annex B Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

Company Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Department:	Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, Guangdong Province, P. R. China
Responsible Test Lab Manager:	Mr. Su Feng
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, Guangdong Province, P. R. China

3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at FL.3, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10-2013 and CISPR Publication 22; the FCC designation number is CN1192, the test firm registration number is 226174.



4. Test Equipments Utilized

4.1 Conducted Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal. Due
Power Splitter	NW521	1506A	Weinschel	2018.04.17	2019.04.16
Attenuator 1	(N/A.)	10dB	Resnet	2018.04.17	2019.04.16
Attenuator 2	(N/A.)	3dB	Resnet	2018.04.17	2019.04.16
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2017.12.03	2018.12.02
Wireless synthesizer	MY48364176	8960 -E5515C	Agilent	2018.04.17	2019.04.16
RF cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
Coaxial cable	CB02	RF02	Morlab	N/A	N/A
SMA connector	CN01	RF03	HUBER-SUHNER	N/A	N/A
Temperature Chamber	(N/A)	HUT705P	CHONGQING HANBA EXPERIMENTAL EQUIPMENT CO.,LTD	2018.04.17	2019.04.16

4.2 Auxiliary Test Equipment

Equipment Name	Model No.	Brand Name	Manufacturer	Cal.Date	Cal. Due
Computer	T430i	Think Pad	Lenovo	N/A	N/A

**4.3 Radiated Test Equipments**

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal. Due
Receiver	MY54130016	N9038A	Agilent	2018.05.08	2019.05.07
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2018.05.08	2019.05.07
Test Antenna - Horn	9170C-531	BBHA9170	Schwarzbeck	2017.09.13	2018.09.12
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2018.03.03	2019.03.02
Test Antenna - Horn	01774	BBHA 9120D	Schwarzbeck	2017.09.13	2018.09.12
Coaxial cable (N male) (9KHz-30MHz)	CB04	EMC04	Morlab	N/A	N/A
Coaxial cable (N male) (30MHz-26GHz)	CB02	EMC02	Morlab	N/A	N/A
Coaxial cable (N male) (30MHz-26GHz)	CB03	EMC03	Morlab	N/A	N/A
1-18GHz pre-Amplifier	MA02	TS-PR18	Rohde& Schwarz	2018.05.08	2019.05.07
18-26.5GHz pre-Amplifier	MA03	TS-PR18	Rohde& Schwarz	2018.05.08	2019.05.07
Anechoic Chamber	N/A	9m*6m*6m	CRT	2017.11.19	2020.11.18

————— END OF REPORT —————