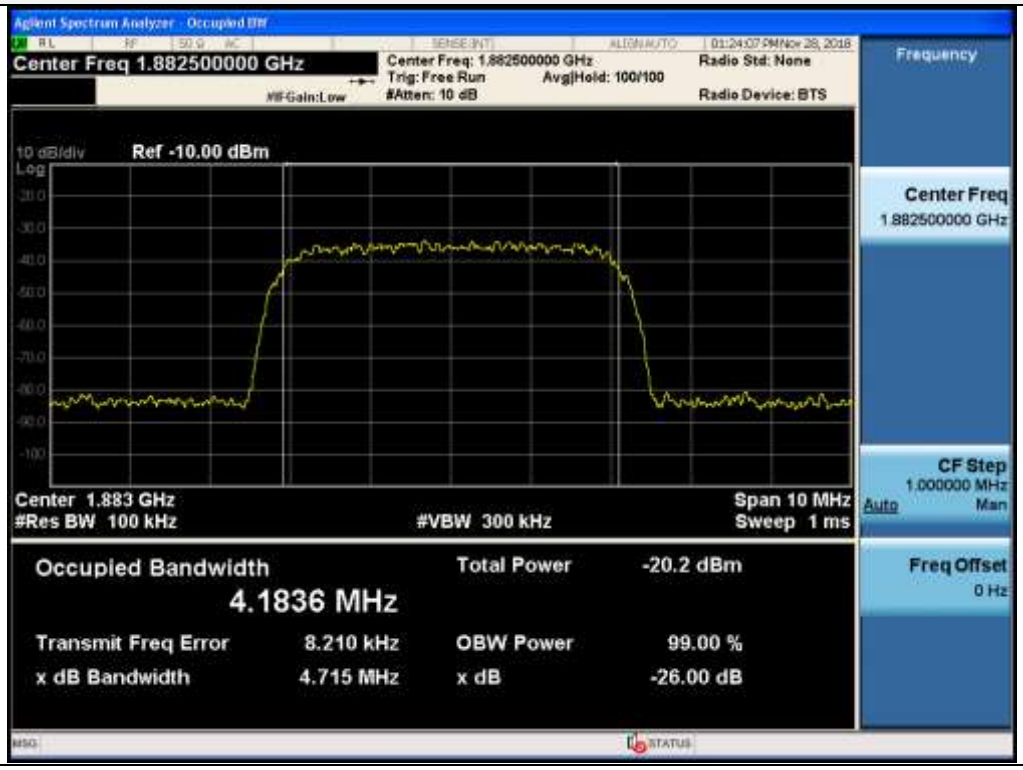
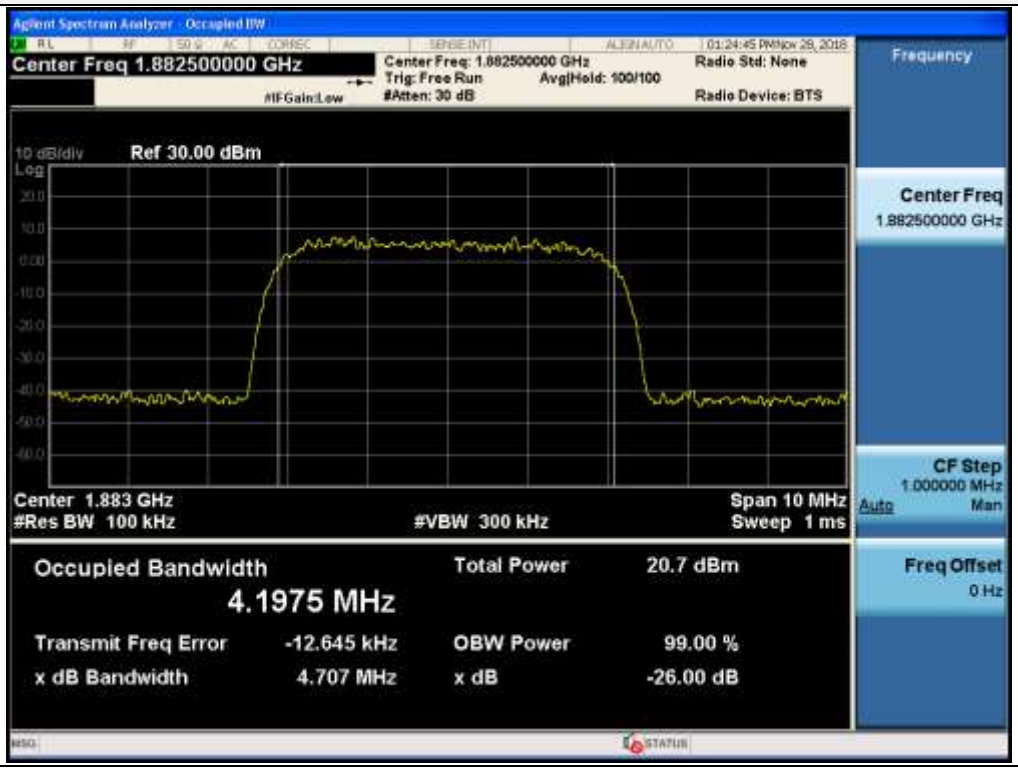
Occupied Bandwidth / Broadband PCS / Uplink / WCDMA/ Input


Occupied Bandwidth / Broadband PCS / Uplnik / WCDMA / Output


Occupied Bandwidth / Lower 700 MHz / Downlink / GSM / Input


Occupied Bandwidth / Lower 700 MHz / Downlink / GSM / Output


Occupied Bandwidth / Upper 700 MHz / Downlink / GSM / Input


Occupied Bandwidth / Upper 700 MHz / Downlink / GSM / Output


Occupied Bandwidth / Cellular / Downlink / GSM / Input

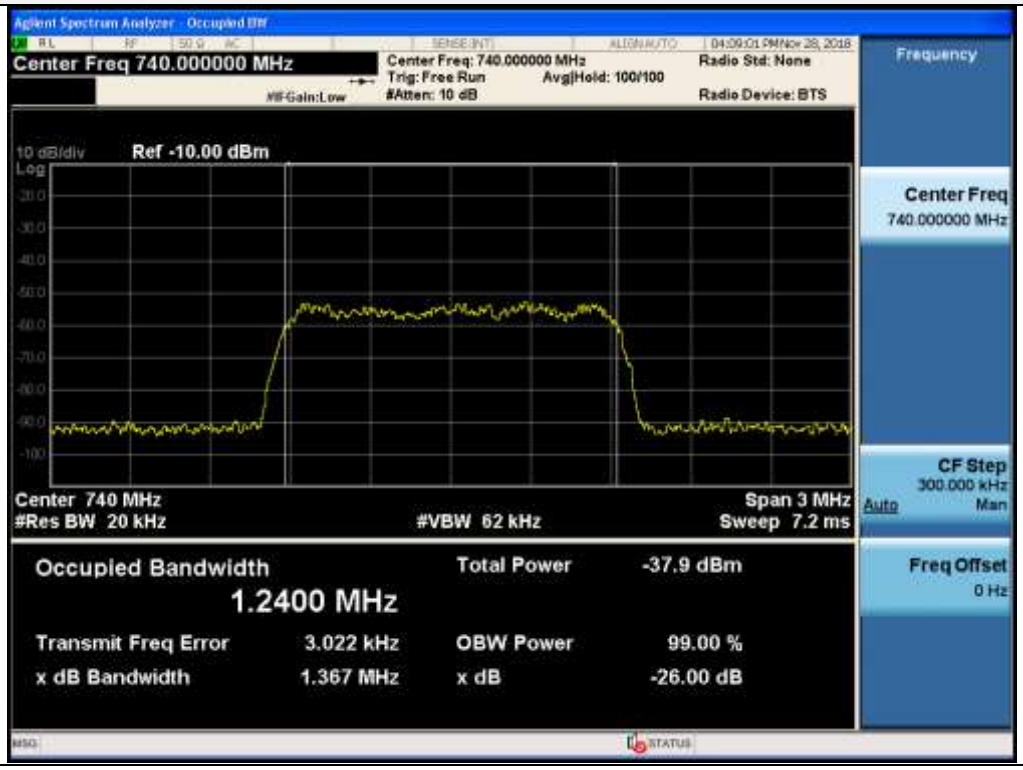

Occupied Bandwidth / Cellular / Downlink / GSM / Output


Occupied Bandwidth / AWS-1 / Downlink / GSM / Input

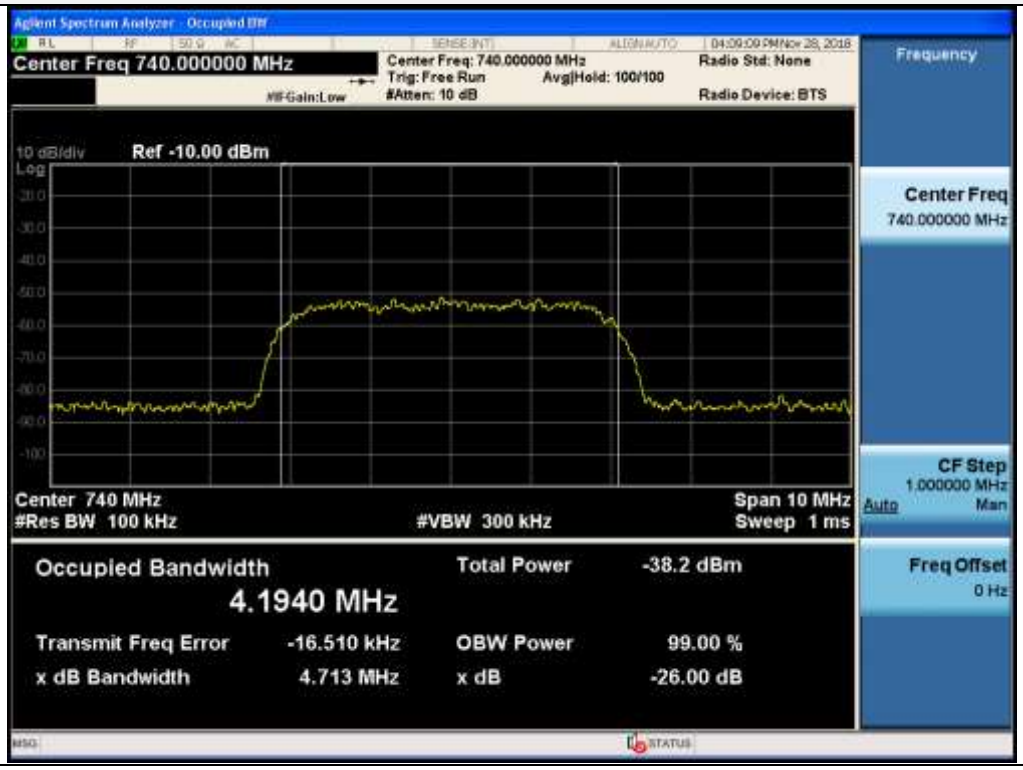

Occupied Bandwidth / AWS-1 / Downlink / GSM / Output

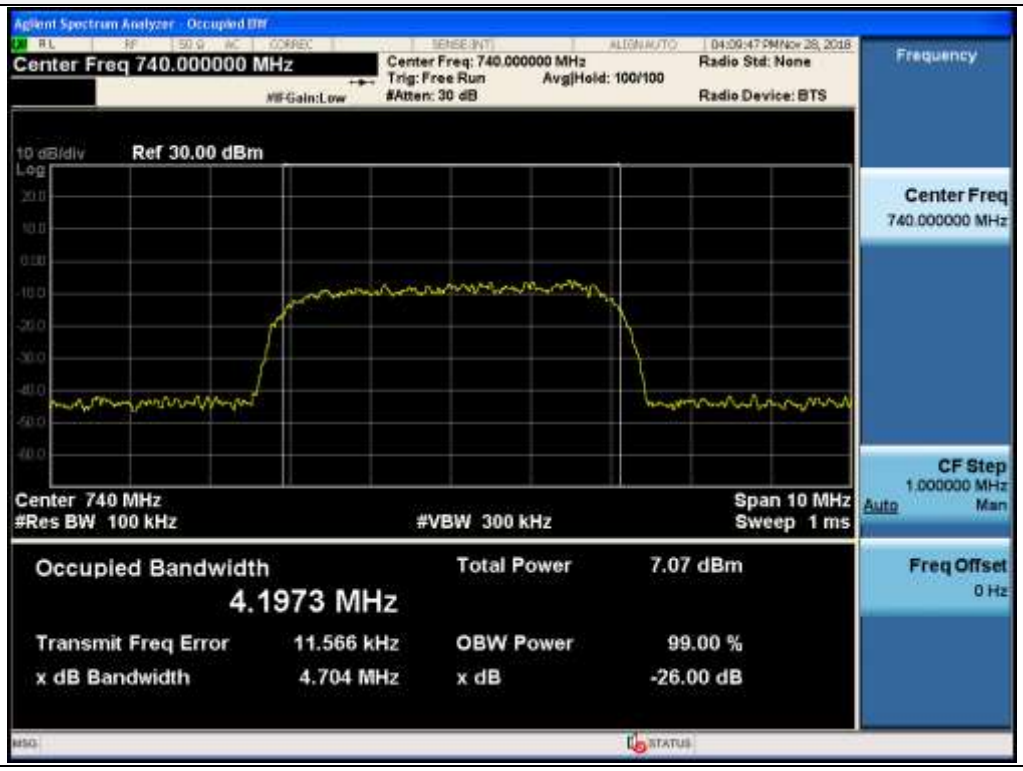

Occupied Bandwidth / Broadband PCS / Downlink / GSM / Input

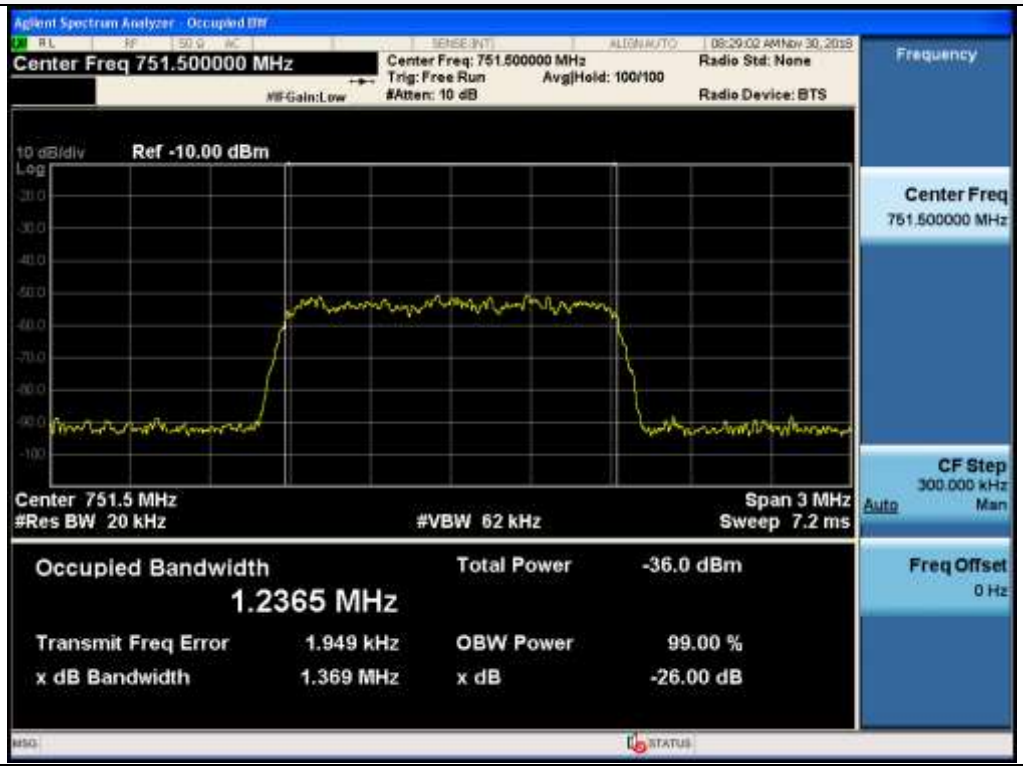

Occupied Bandwidth / Broadband PCS / Downlink / GSM / Output

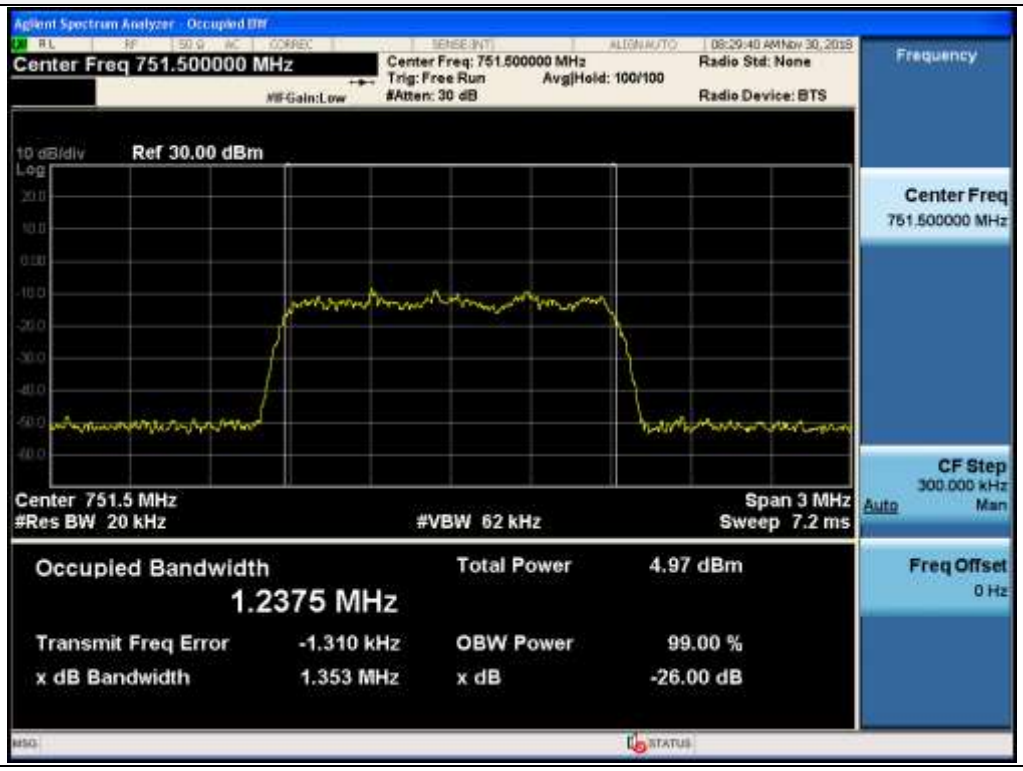

Occupied Bandwidth / Lower 700 MHz / Downlink / CDMA/ Input


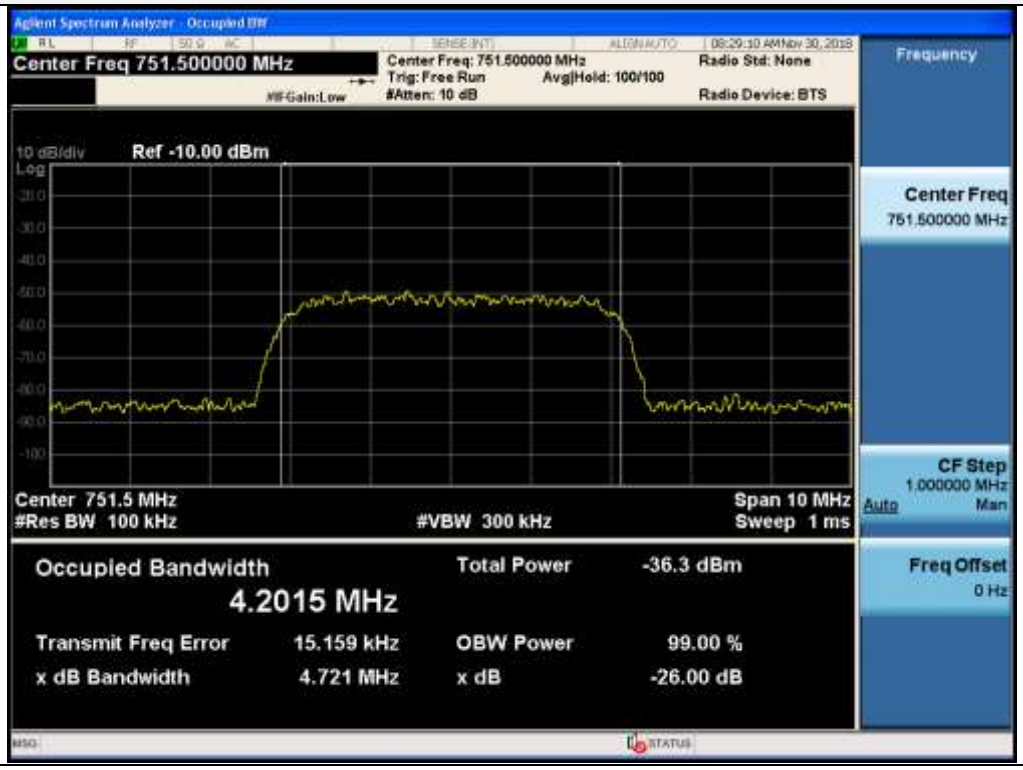
Occupied Bandwidth / Lower 700 MHz / Downlink / CDMA / Output

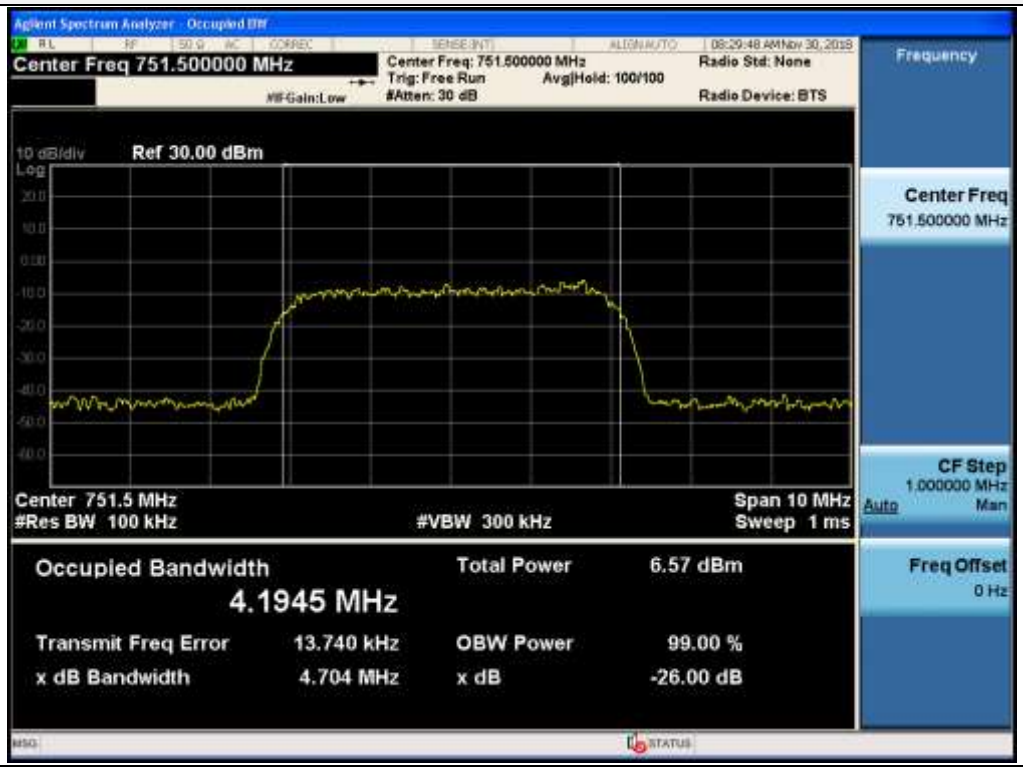

Occupied Bandwidth / Lower 700 MHz / Downlink / WCDMA/ Input


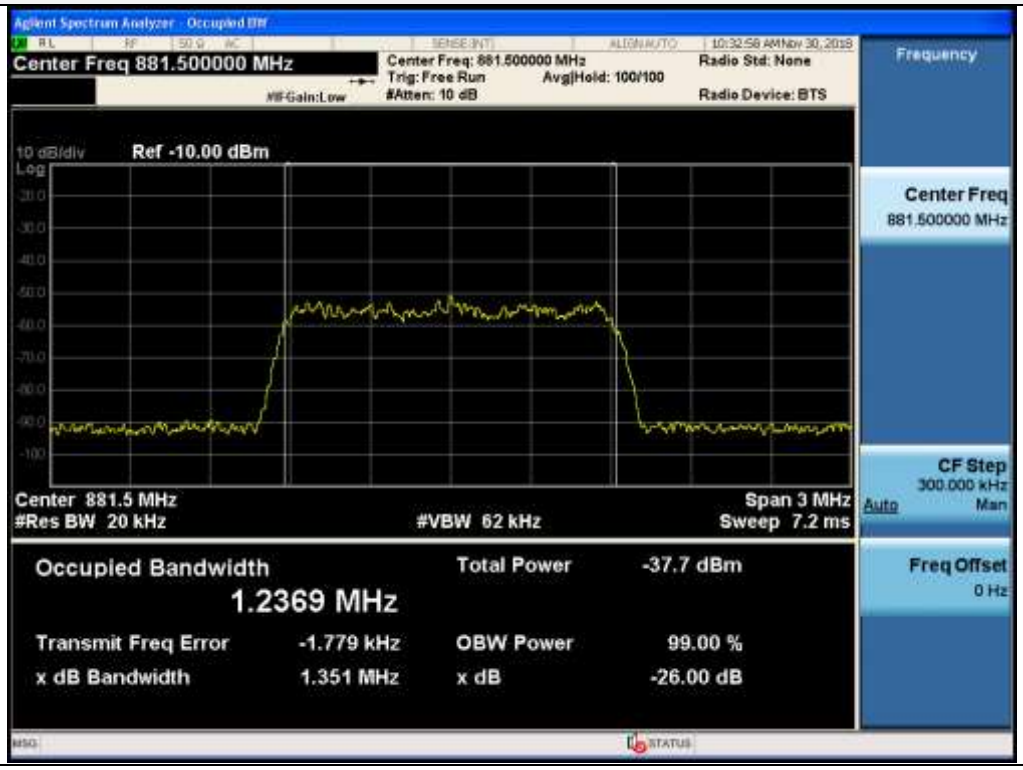
Occupied Bandwidth / Lower 700 MHz / Downlink / WCDMA / Output


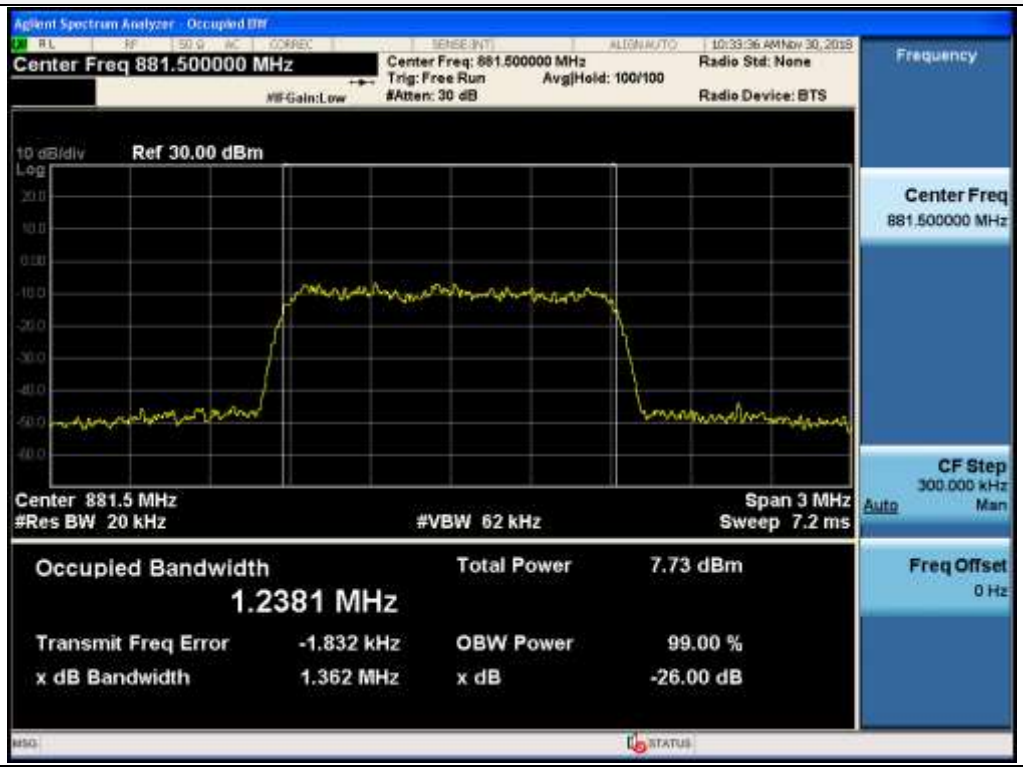
Occupied Bandwidth / Upper 700 MHz / Downlink / CDMA/ Input


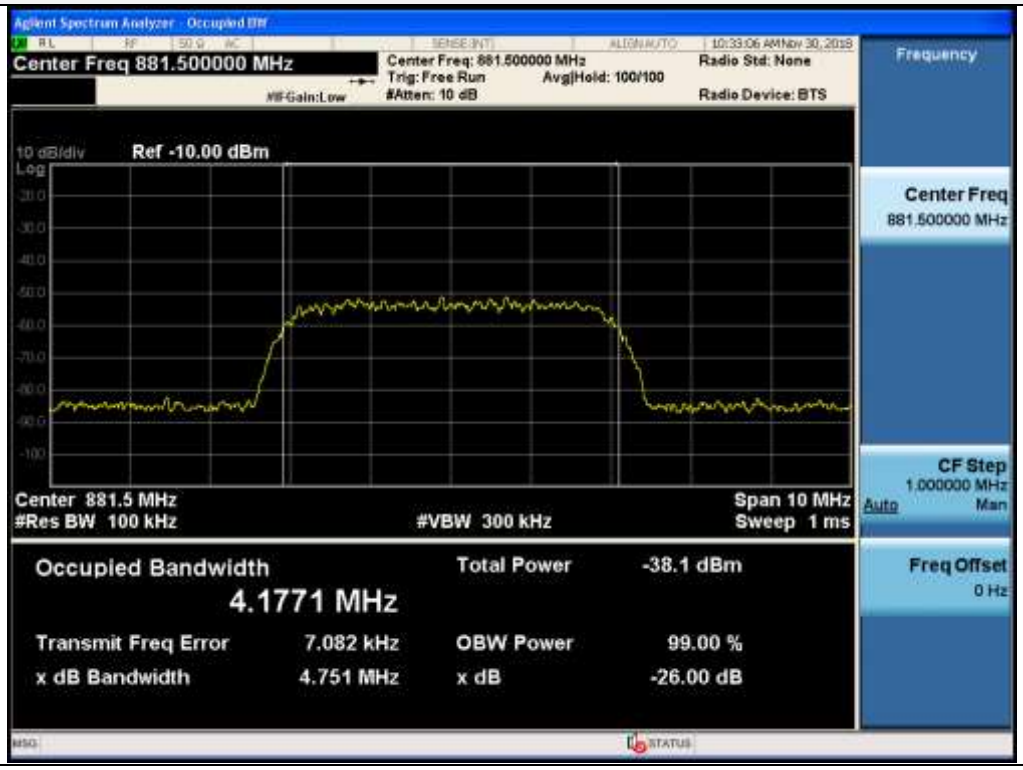
Occupied Bandwidth / Upper 700 MHz / Downlink / CDMA / Output


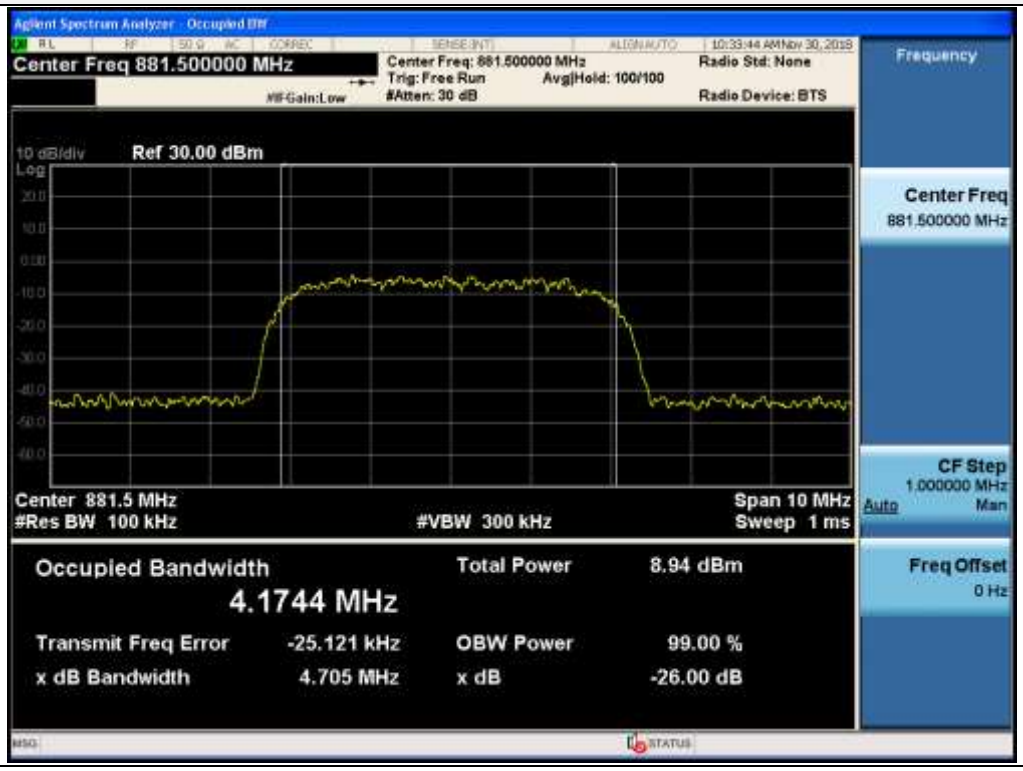
Occupied Bandwidth / Upper 700 MHz / Downlink / WCDMA/ Input


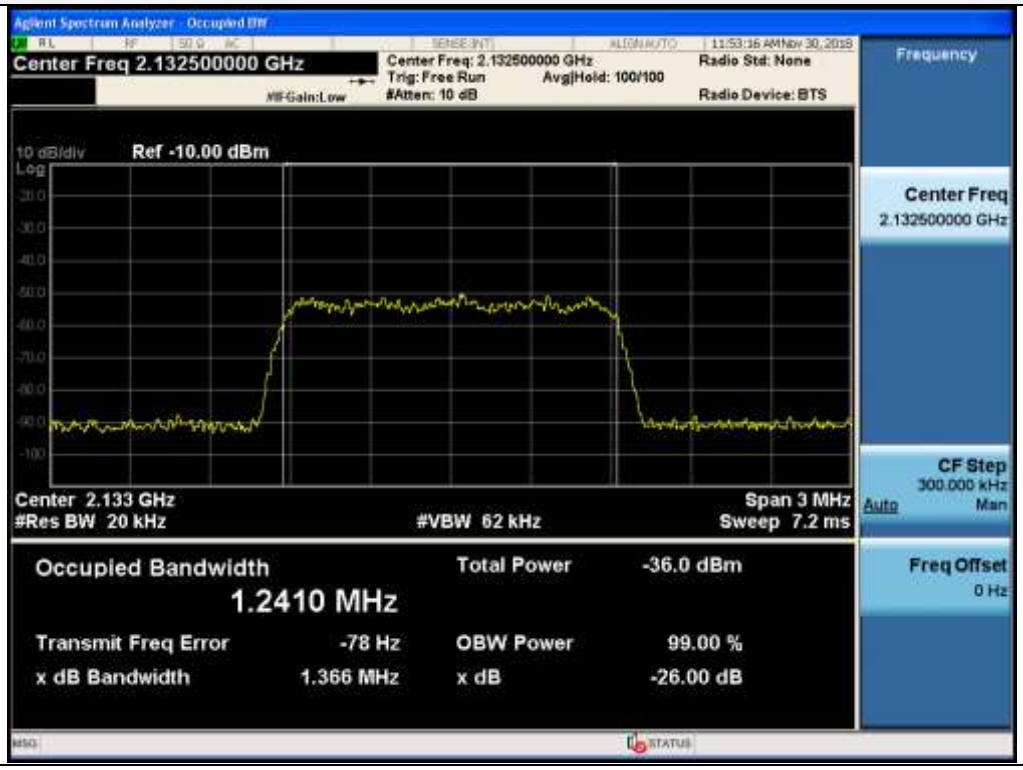
Occupied Bandwidth / Upper 700 MHz / Downlink / WCDMA / Output


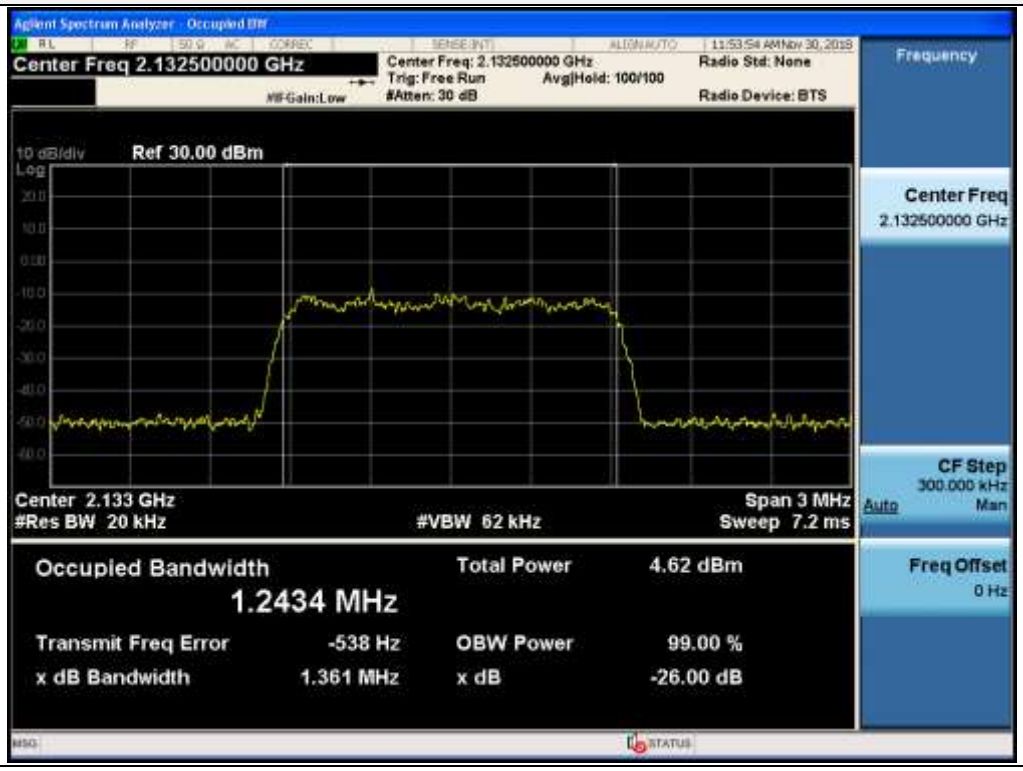
Occupied Bandwidth / Cellular / Downlink / CDMA/ Input


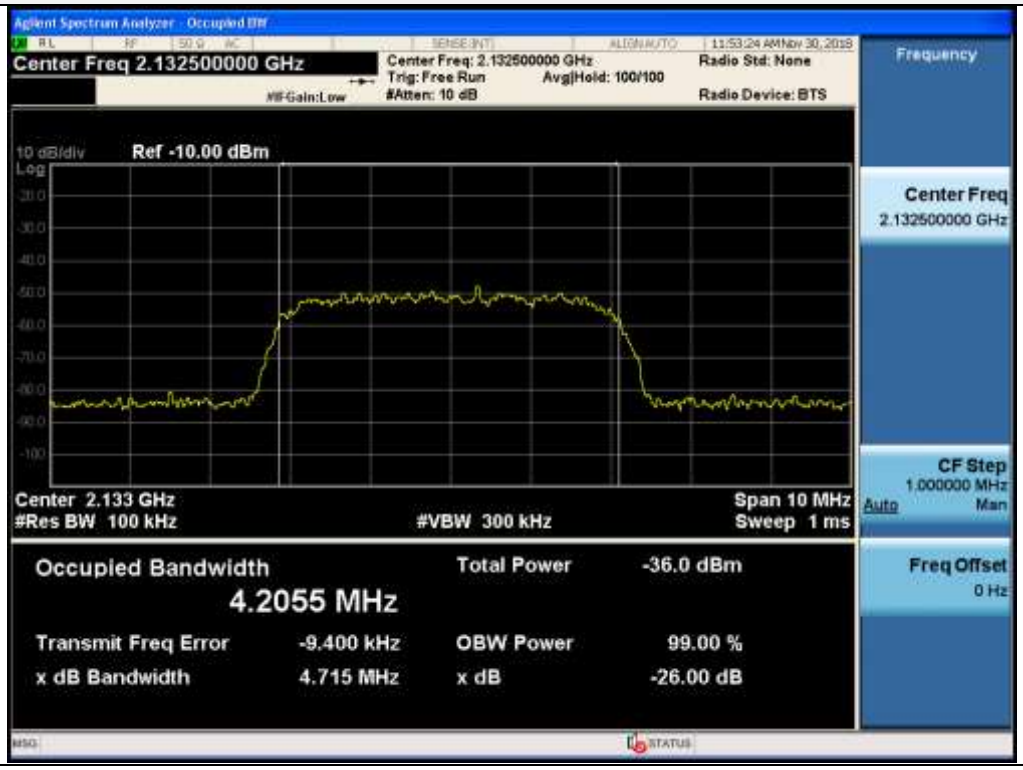
Occupied Bandwidth / Cellular / Downlink / CDMA / Output


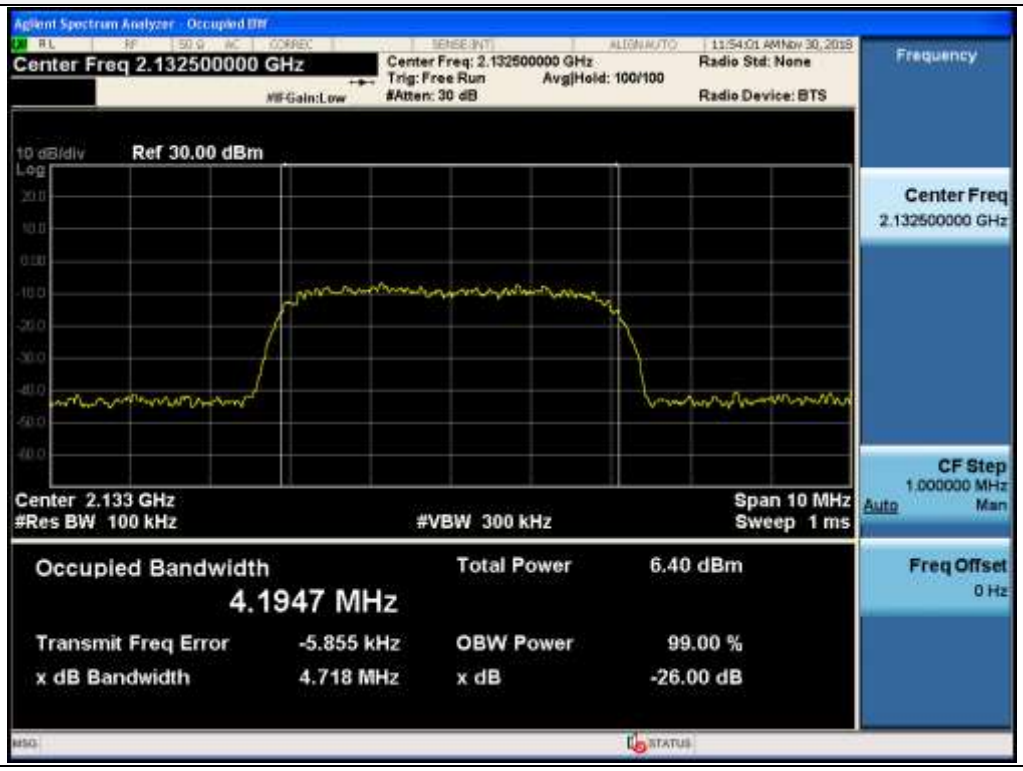
Occupied Bandwidth / Cellular / Downlink / WCDMA/ Input


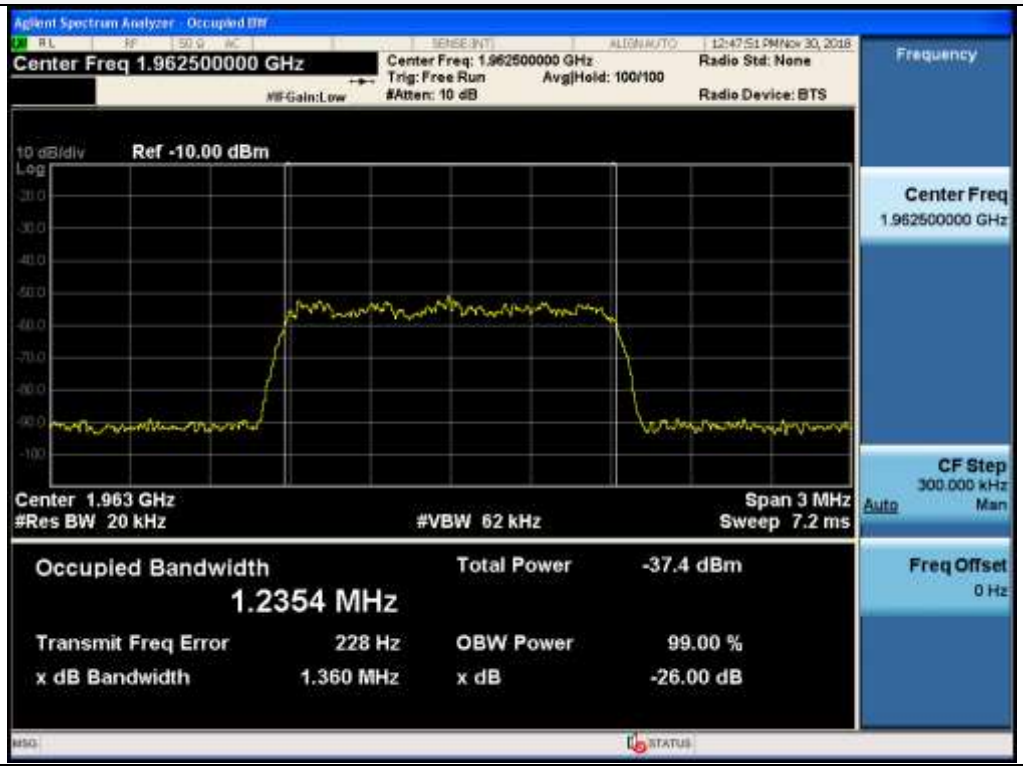
Occupied Bandwidth / Cellular / Downlink / WCDMA / Output


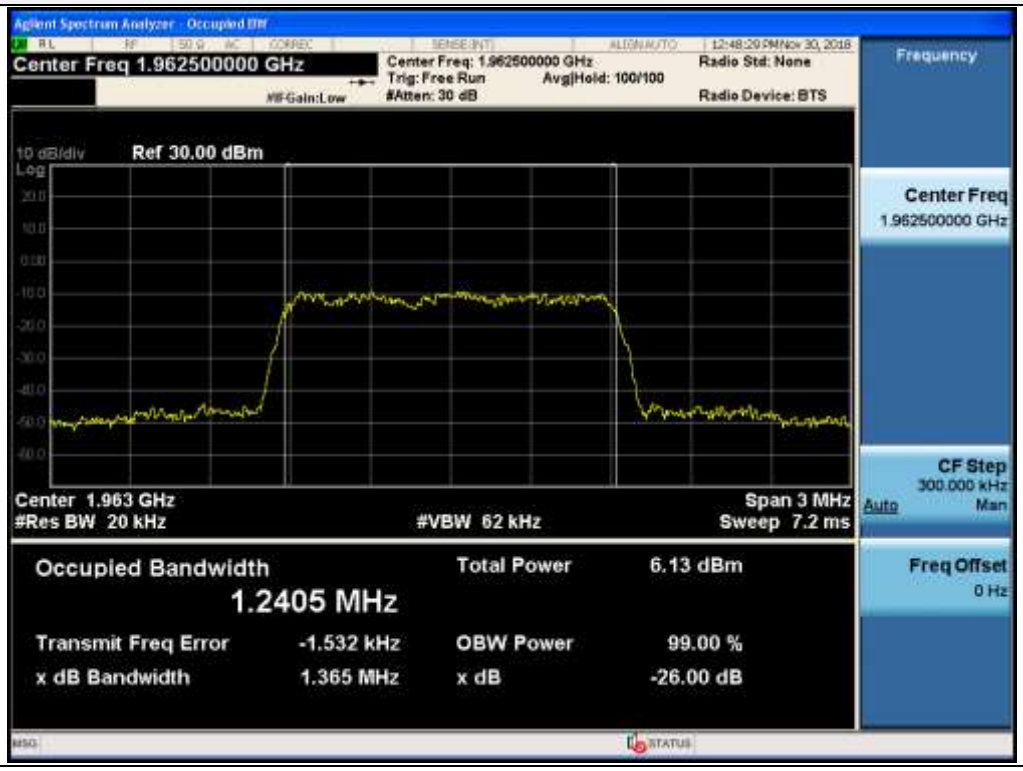
Occupied Bandwidth / AWS-1 / Downlink / CDMA/ Input


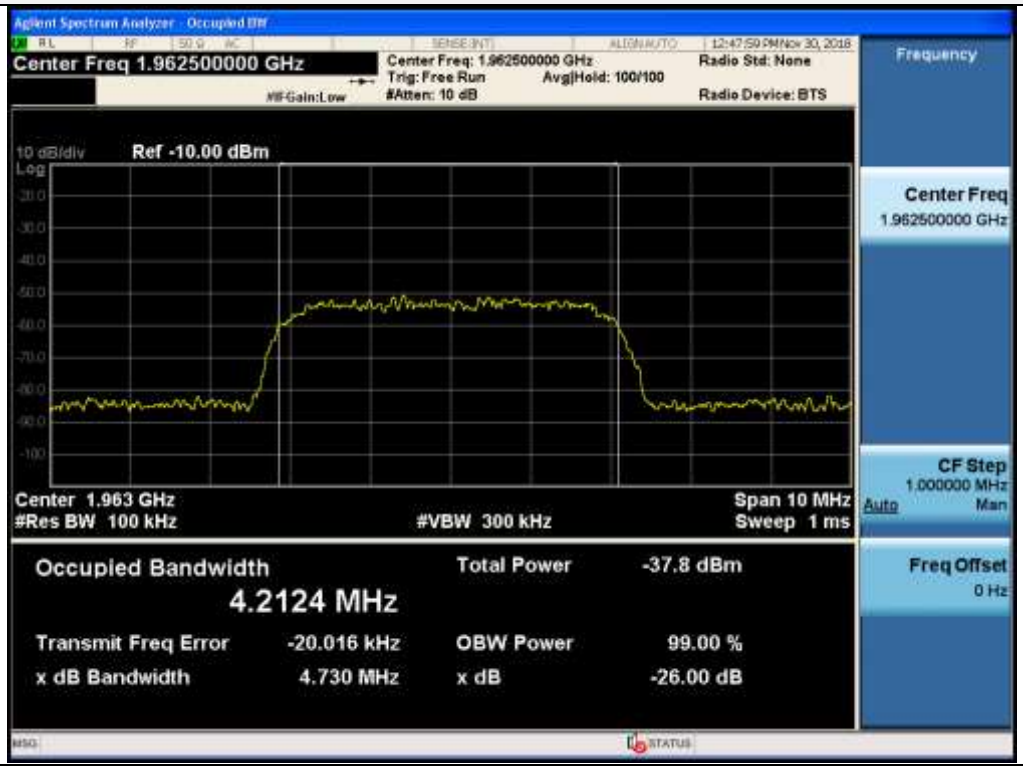
Occupied Bandwidth / AWS-1 / Downlink / CDMA / Output


Occupied Bandwidth / AWS-1 / Downlink / WCDMA/ Input


Occupied Bandwidth / AWS-1 / Downlink / WCDMA / Output


Occupied Bandwidth / Broadband PCS / Downlink / CDMA/ Input


Occupied Bandwidth / Broadband PCS / Downlink / CDMA / Output


Occupied Bandwidth / Broadband PCS / Downlink / WCDMA/ Input


Occupied Bandwidth / Broadband PCS / Downlink / WCDMA / Output


5.11. OSCILLATION

Test Requirements:

§ 20.21(e)(8)(ii)(A) ANTI-OSCILLATION.

Consumer boosters must be able to detect and mitigate (i.e., by automatic gain reduction or shut down), any oscillations in uplink and downlink bands. Oscillation detection and mitigation must occur automatically within 0.3 seconds in the uplink band and within 1 second in the downlink band. In cases where oscillation is detected, the booster must continue mitigation for at least one minute before restarting. After five such restarts, the booster must not resume operation until manually reset.

Test Procedures:

Measurements were in accordance with the test methods section 7.11 of KDB 935210 D03 v04r02.

7.11.2 Oscillation restart tests

a) Beginning with the spectrum analyzer on the uplink output (donor) port. Confirm that the RF coupled path is connected to the spectrum analyzer.

b) Spectrum analyzer settings:

1) Center frequency at the center of the band under test

2) Span equal or slightly exceeding the width of the band under test

3) Continuous sweep, max-hold

4) RBW x 1 MHz, VBW > 3 x RBW

c) Decrease the variable attenuator until the spectrum analyzer displays a signal within the band under test. Using a marker, identify the approximate center frequency of this signal on the max-hold display, increase the attenuation by 10 dB, then reset the EUT (e.g., cycle ac/dc power).

d) Repeat c) twice to ensure that the center of the signal created by the booster remains within 250 kHz of the spectrum analyzer display center frequency. If the frequency of the signal is unstable, confirm that the spectrum analyzer display is centered between the frequency extremes observed. If the signal is wider than 1 MHz, ensure that the spectrum analyzer display is centered on the signal by increasing the RBW. Reset the EUT (e.g., cycle ac/dc power) after each oscillation event, if necessary. Set the spectrum analyzer sweep trigger level to just below the peak amplitude of the displayed EUT oscillation signal.

e) Set the spectrum analyzer to zero-span, with a sweep time of 5 seconds, and single-sweep with max-hold. The spectrum analyzer sweep trigger level in this and the subsequent steps shall be the level identified in d).

f) Decrease the variable attenuator until the spectrum analyzer sweep is triggered, increase the attenuation by 10 dB, then reset the EUT (e.g., cycle ac/dc power).

g) Reset the zero-span trigger of the spectrum analyzer, then repeat f) twice to ensure that the spectrum analyzer is reliably triggered, resetting the EUT (e.g., cycle ac/dc power) after each oscillation event if necessary.

h) Reset the zero-span sweep trigger of the spectrum analyzer, and reset the EUT (e.g., cycle ac/dc power).

i) Force the EUT into oscillation by reducing the attenuation.

j) Use the marker function of the spectrum analyzer to measure the time from the onset of oscillation until the EUT turns off, by setting Marker 1 on the leading edge of the oscillation signal and Marker 2 on the trailing edge. The spectrum analyzer sweep time may be adjusted to improve the time resolution of these cursors.

k) Capture the spectrum analyzer zero-span trace for inclusion in the test report. Report the power level associated with the oscillation separately if it can't be displayed on the trace.

l) Repeat b) to k) for all operational uplink and downlink bands.

m) Set the spectrum analyzer zero-span sweep time for longer than 60 seconds, then measure the restart time for each operational uplink and downlink band.

n) Replace the normal-operating mode EUT with the EUT that supports an anti-oscillation test mode.

o) Set the spectrum analyzer zero-span time for a minimum of 120 seconds, and a single sweep.

p) Manually trigger the spectrum analyzer zero-span sweep, and manually force the booster into oscillation as described in i).

q) When the sweep is complete, place cursors between the first two oscillation detections, and save the plot for inclusion in the test report. The time between restarts must match the manufacturer's timing for the test mode, and there shall be no more than 5 restarts.

r) Repeat m) to q) for all operational uplink and downlink bands.

7.11.3 Test procedure for measuring oscillation mitigation or shutdown

a) Connect the normal-operating mode EUT to the test equipment.

b) Set the spectrum analyzer center frequency to the center of band under test, and use the following settings:

1) RBW=30 kHz, VBW ≥ 3 × RBW,

2) power averaging (rms) detector,

3) trace averages ≥ 100,

4) span ≥ 120% of operational band under test,

5) number of sweep points ≥ 2 × Span/RBW.

c) Configure the signal generator for AWGN operation with a 99% OBW of 4.1 MHz, tuned to the frequency of 2.5 MHz above the lower edge or below the upper edge of the operating band under test. Adjust the RF output level of the signal generator such that the measured power level of the AWGN signal at the output port of the booster is 30 dB less than the maximum power of the booster for the band under test. Affirm that the input signal is not obstructing the measurement of the strongest oscillation peak in the band, and is not included within the span in the measurement.

1) Boosters with operating spectrum passbands of 10 MHz or less may use a CW signal source at the band

edge rather than AWGN.

2) For device passbands greater than 10 MHz, standard CMRS signal sources (i.e., CDMA, W-CDMA, LTE) may be used instead of AWGN at the band edge.

d) Set the variable attenuator to a high attenuation setting such that the booster will operate at maximum gain when powered on. Reset the the EUT (e.g., cycle ac/dc power). Allow the EUT to complete its boot-up process, to reach full operational gain, and to stabilize its operation.

e) Set the variable attenuator such that the insertion loss for the center of the band under test (isolation) between the booster donor port and server port is 5 dB greater than the maximum gain, as recorded in the maximum gain test procedure, for the band under test.

f) Verify the EUT shuts down, i.e., to mitigate the oscillations. If the booster does not shut down, measure and verify the peak oscillation level as follows.

1) Allow the spectrum analyzer trace to stabilize.

2) Place the marker at the highest oscillation level occurring within the span, and record its output level and frequency.

3) Set the spectrum analyzer center frequency to the frequency with the highest oscillation signal level, and reduce the span such that the upper and lower adjacent oscillation peaks are within the span.

4) Use the Minimum Search Marker function to find the lowest output level that is within the span, and within the operational band under test, and record its output level and frequency.

5) Affirm that the peak oscillation level measured in 2), does not exceed by 12.0 dB the minimal output level measured in 4). Record the measurement results of 2) and 4) in tabular format for inclusion in the test report.

6) The procedure of 1) to 5) allows the spectrum analyzer trace to stabilize, and verification of shutdown or oscillation level measurement must occur within 300 seconds.

g) Decrease the variable attenuator in 1 dB steps, and repeat step f) for each 1 dB step. Continue testing to the level when the insertion loss for the center of band under test (isolation) between the booster donor port and server port is 5 dB lower than the maximum gain.

h) Repeat a) to g) for all operational uplink and downlink bands.

Note1. According to § 20.21(e)(8)(ii)(A), limits of oscillation test are as follows.

- Detect and migration time: Uplink 0.3 second, Downlink 1 second.
- Migration duration: 1 minute.
- Number of restart: 5 times.
- Oscillation Migration limit ‘12 dB’ refers to section 7.11.3 of KDB 935210 D03

Note2. We adjusted the sweep time of test in KDB procedure to show the data.

Note3. 4.1 MHz AWGN Signal is used for migration test.

Note4. Because shutdown process did not occur in migration test, shutdown time data was not provided in this report

Test Result:

Tabulated Result of Uplink Oscillation Detection

Band	Frequency (MHz)	Limit (ms)	Measured Time (ms)
Lower 700 MHz	707.900	300	2.000
Upper 700 MHz	783.073		2.000
Cellular	832.700		3.000
AWS-1	1 715.445		1.000
Broadband PCS	1 855.150		1.000

Tabulated Result of Downlink Oscillation Detection

Band	Frequency (MHz)	Limit (ms)	Measured Time (ms)
Lower 700 MHz	742.664	1 000	3.000
Upper 700 MHz	755.273		2.000
Cellular	882.375		3.000
AWS-1	2 128.000		5.000
Broadband PCS	1 966.985		3.000

Tabulated Result of Uplink Oscillation Restart

Band	Frequency (MHz)	Time Limit (s)	Restart Limit	Restart Time (s)	Number of Restart
Lower 700 MHz	707.900	60	5	60.00	5
Upper 700 MHz	783.073			60.03	5
Cellular	832.700			60.26	5
AWS-1	1 715.445			60.13	5
Broadband PCS	1 885.915			60.00	5

Tabulated Result of Downlink Oscillation Restart

Band	Frequency (MHz)	Time Limit (s)	Restart Limit	Restart Time (s)	Number of Restart
Lower 700 MHz	742.664	60	5	60.00	5
Upper 700 MHz	755.273			60.02	5
Cellular	882.375			60.00	5
AWS-1	2 128.000			60.10	5
Broadband PCS	1 966.985			60.00	5

Tabulated Result of Uplink Oscillation Migration

Band	Variable Att. (dB)	Max Freq. (MHz)	Max Level (dBm)	Min Freq. (MHz)	Min Level (dBm)	Limit (dB)	Difference (dB)
Lower 700 MHz	+5	707.810	-33.457	704.512	-38.902	12	5.445
	+4	707.874	-33.412	705.065	-39.441		6.029
	+3	708.062	-33.105	705.076	-39.223		6.118
	+2	707.809	-32.867	705.178	-39.052		6.185
	+1	707.739	-32.847	704.958	-40.064		7.217
	0	707.786	-33.024	704.957	-39.984		6.960
	-1	707.849	-32.596	705.596	-39.528		6.932
	-2	707.914	-32.468	705.237	-40.192		7.724
	-3	707.887	-31.955	705.279	-40.141		8.186
	-4	707.731	-31.756	704.946	-40.208		8.452
	-5	707.937	-31.149	704.979	-41.129		9.980
Upper 700 MHz	+5	779.691	-32.825	776.690	-40.558		7.733
	+4	779.945	-33.295	777.632	-40.471		7.176
	+3	779.497	-32.561	777.441	-40.504		7.943
	+2	779.687	-32.926	777.219	-40.736		7.810
	+1	779.529	-32.523	777.168	-40.738		8.215
	0	779.914	-32.258	777.225	-40.839		8.581
	-1	779.790	-32.108	777.335	-41.182		9.074
	-2	779.572	-32.203	777.142	-41.471		9.268
	-3	779.460	-31.821	777.294	-41.684		9.863
	-4	779.414	-31.132	776.922	-41.684		10.552
	-5	779.486	-30.589	776.969	-42.182		11.593

Band	Variable Att. (dB)	Max Freq. (MHz)	Max Level (dBm)	Min Freq. (MHz)	Min Level (dBm)	Limit (dB)	Difference (dB)
Cellular	+5	828.257	-30.168	825.137	-36.664	12	6.496
	+4	828.163	-30.068	825.511	-36.569		6.501
	+3	827.964	-30.102	825.271	-36.684		6.582
	+2	828.343	-29.612	825.561	-36.570		6.958
	+1	828.457	-29.250	825.549	-36.910		7.660
	0	828.365	-29.416	825.553	-37.050		7.634
	-1	828.271	-28.816	825.504	-37.230		8.414
	-2	828.034	-28.459	824.957	-37.113		8.654
	-3	828.055	-28.110	825.188	-37.220		9.110
	-4	828.272	-27.399	825.855	-37.598		10.199
	-5	828.329	-26.756	825.749	-37.702		10.946
AWS-1	+5	1 714.371	-35.760	1 711.101	-42.907		7.147
	+4	1 714.461	-35.857	1 710.856	-43.132		7.275
	+3	1 714.484	-35.660	1 711.089	-42.939		7.279
	+2	1 714.329	-35.995	1 711.017	-43.283		7.288
	+1	1 714.435	-35.576	1 711.109	-43.169		7.593
	0	1 714.473	-34.879	1 710.763	-43.706		8.827
	-1	1 714.486	-35.233	1 710.500	-43.625		8.392
	-2	1 714.405	-35.080	1 710.827	-43.920		8.840
	-3	1 714.415	-35.504	1 711.072	-43.928		8.424
	-4	1 714.478	-32.643	1 710.783	-44.237		11.594
	-5	1 714.464	-32.462	1 710.562	-44.456		11.994

Band	Variable Att. (dB)	Max Freq. (MHz)	Max Level (dBm)	Min Freq. (MHz)	Min Level (dBm)	Limit (dB)	Difference (dB)
Broadband PCS	+5	1 854.361	-32.676	1 850.918	-36.488	12	3.812
	+4	1 854.369	-32.147	1 851.513	-36.977		4.830
	+3	1 854.496	-32.676	1 851.774	-37.029		4.353
	+2	1 854.471	-32.992	1 851.790	-37.408		4.416
	+1	1 854.285	-33.191	1 852.503	-37.259		4.068
	0	1 854.438	-33.626	1 852.501	-37.640		4.014
	-1	1 854.339	-33.640	1 852.525	-37.681		4.041
	-2	1 854.391	-34.086	1 852.723	-37.957		3.871
	-3	1 854.349	-34.186	1 852.470	-38.273		4.087
	-4	1 850.644	-33.428	1 852.532	-38.963		5.535
	-5	1 854.499	-33.304	1 852.486	-39.197		5.893

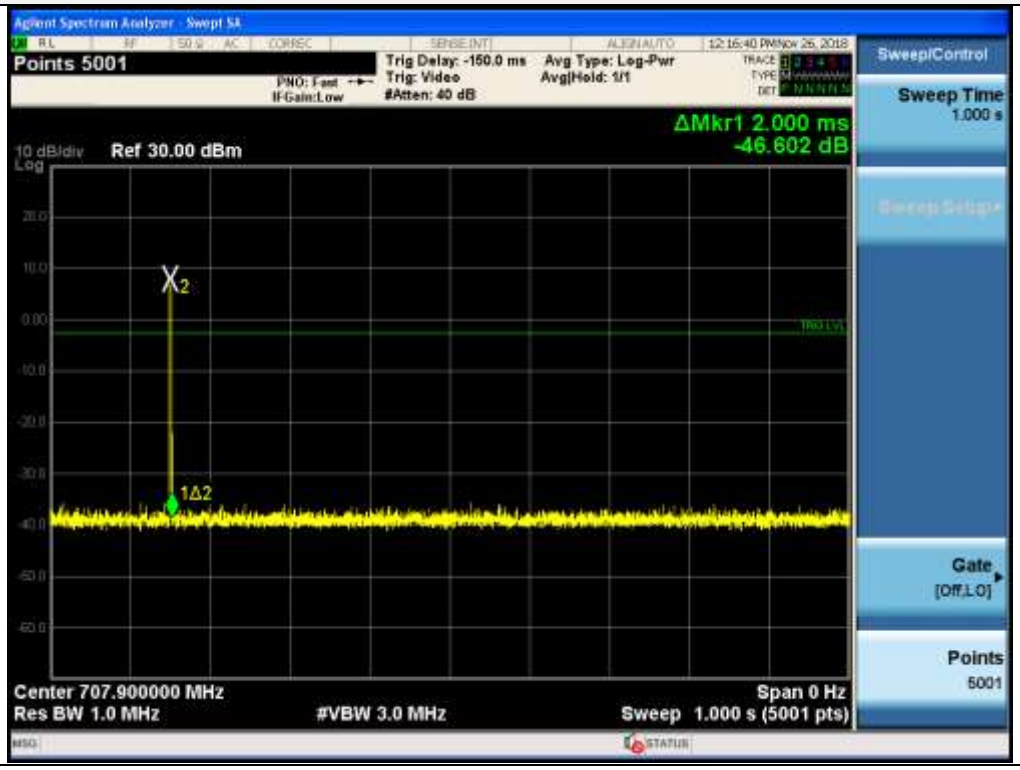
Tabulated Result of Downlink Oscillation Migration

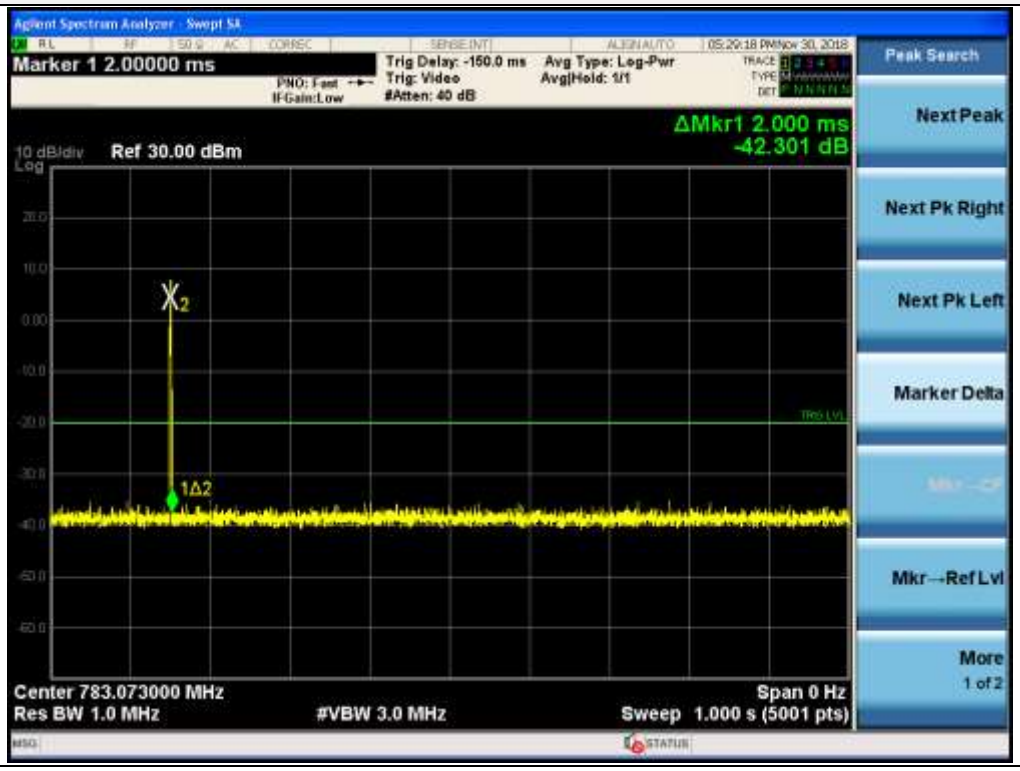
Band	Variable Att. (dB)	Max Freq. (MHz)	Max Level (dBm)	Min Freq. (MHz)	Min Level (dBm)	Limit (dB)	Difference (dB)
Lower 700 MHz	+5	738.500	-50.429	734.507	-59.101	12	8.672
	+4	738.434	-50.759	734.520	-59.258		8.499
	+3	738.458	-50.485	734.683	-59.449		8.964
	+2	738.407	-50.475	734.553	-59.406		8.931
	+1	738.494	-50.511	734.515	-59.142		8.631
	0	738.484	-50.690	734.572	-58.976		8.286
	-1	738.425	-50.158	734.506	-59.000		8.842
	-2	738.477	-49.991	734.507	-59.298		9.307
	-3	738.485	-49.756	734.510	-59.738		9.982
	-4	738.465	-49.235	734.530	-59.376		10.141
	-5	738.483	-48.489	736.825	-58.768		10.279
Upper 700 MHz	+5	746.855	-47.320	749.036	-52.458		5.138
	+4	746.929	-47.289	749.249	-52.392		5.103
	+3	747.302	-47.319	749.346	-52.819		5.500
	+2	746.856	-46.873	749.103	-52.850		5.977
	+1	746.915	-46.797	749.837	-52.954		6.157
	0	746.901	-46.470	749.543	-53.193		6.723
	-1	746.966	-46.666	749.763	-53.216		6.550
	-2	746.754	-45.831	749.316	-53.381		7.550
	-3	746.865	-45.526	748.939	-53.462		7.936
	-4	746.738	-44.980	748.949	-53.814		8.834
	-5	746.897	-44.303	749.531	-53.919		9.616

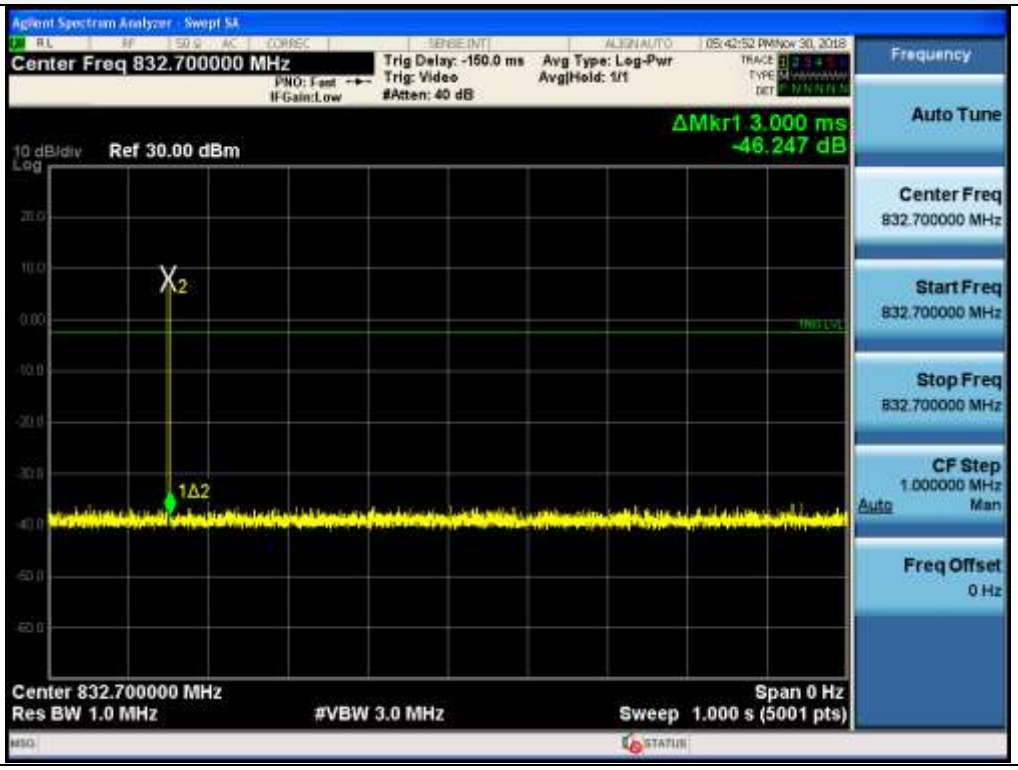
Band	Variable Att. (dB)	Max Freq. (MHz)	Max Level (dBm)	Min Freq. (MHz)	Min Level (dBm)	Limit (dB)	Difference (dB)
Cellular	+5	871.077	-47.217	869.551	-53.164	12	5.947
	+4	870.896	-47.816	869.565	-52.916		5.100
	+3	870.977	-48.076	869.573	-53.479		5.403
	+2	870.953	-47.430	869.667	-53.321		5.891
	+1	871.054	-47.758	869.505	-54.076		6.318
	0	871.082	-47.429	869.500	-53.773		6.344
	-1	870.832	-47.135	869.589	-53.904		6.769
	-2	870.995	-46.530	869.541	-53.951		7.421
	-3	871.091	-46.640	869.536	-54.562		7.922
	-4	871.024	-45.429	869.659	-54.456		9.027
	-5	871.063	-45.167	869.523	-55.247		10.080
AWS-1	+5	2 114.412	-51.455	2 110.684	-55.866		4.411
	+4	2 114.421	-51.765	2 111.244	-55.949		4.184
	+3	2 114.463	-51.652	2 111.090	-56.182		4.530
	+2	2 114.491	-52.060	2 111.375	-56.187		4.127
	+1	2 114.319	-52.204	2 110.647	-56.713		4.509
	0	2 114.489	-52.438	2 111.288	-56.425		3.987
	-1	2 114.493	-52.520	2 111.364	-57.204		4.684
	-2	2 114.500	-52.762	2 111.988	-56.890		4.128
	-3	2 114.247	-53.051	2 112.497	-57.106		4.055
	-4	2 114.431	-53.564	2 111.253	-57.081		3.517
	-5	2 114.273	-51.889	2 110.958	-57.732		5.843

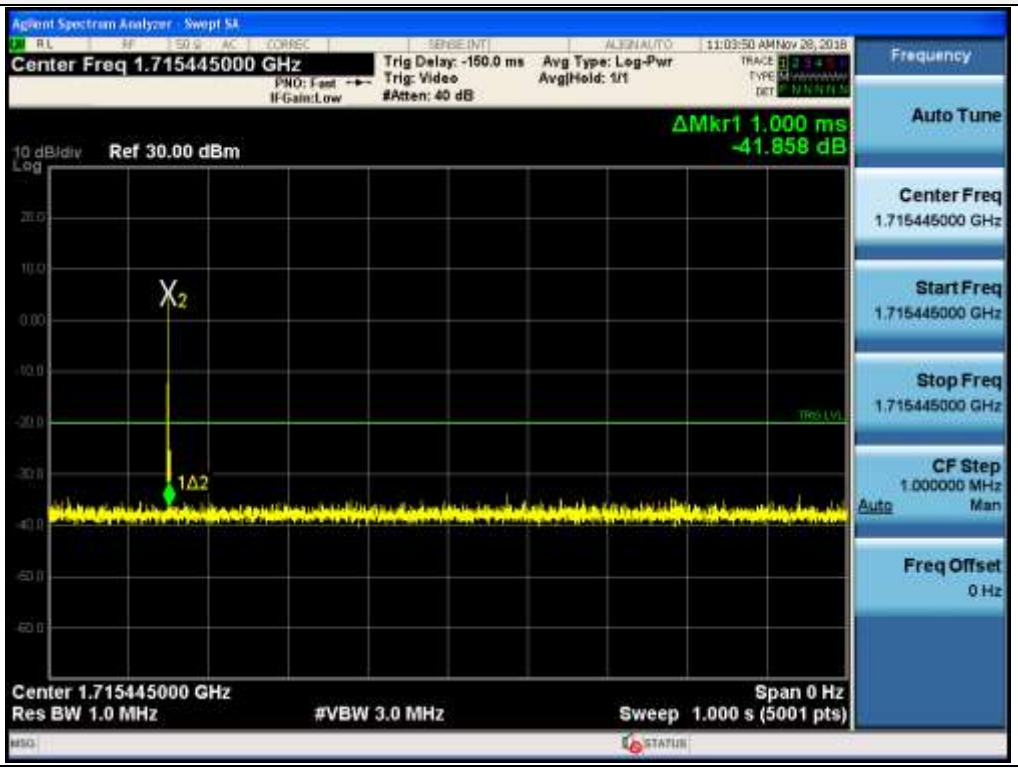
Band	Variable Att. (dB)	Max Freq. (MHz)	Max Level (dBm)	Min Freq. (MHz)	Min Level (dBm)	Limit (dB)	Difference (dB)
Broadband PCS	+5	1934.473	-54.076	1931.455	-59.624	12	5.548
	+4	1934.420	-54.083	1932.505	-59.472		5.389
	+3	1934.461	-54.037	1932.271	-59.498		5.461
	+2	1934.401	-54.334	1931.475	-59.590		5.256
	+1	1934.473	-53.802	1931.745	-59.683		5.881
	0	1934.486	-53.652	1932.379	-59.857		6.205
	-1	1934.396	-54.253	1932.586	-60.034		5.781
	-2	1934.420	-54.131	1932.609	-60.107		5.976
	-3	1934.457	-54.445	1932.362	-60.254		5.809
	-4	1934.491	-54.254	1932.515	-60.499		6.245
	-5	1930.578	-54.821	1932.489	-60.623		5.802

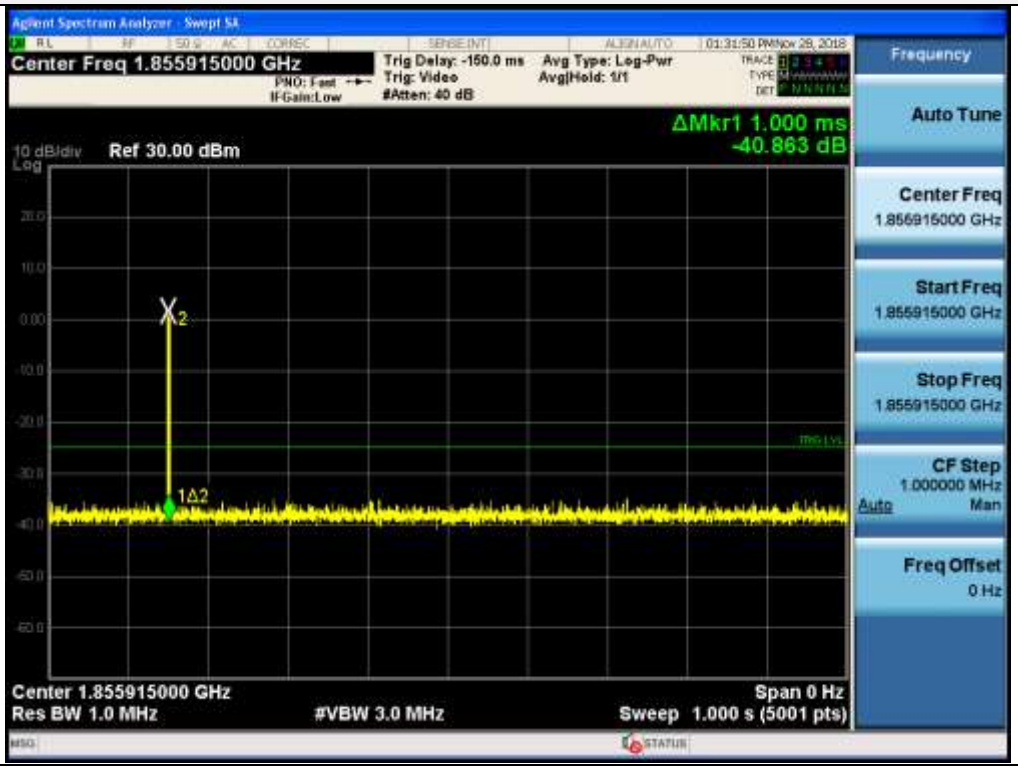
Plot data of Oscillation Detect

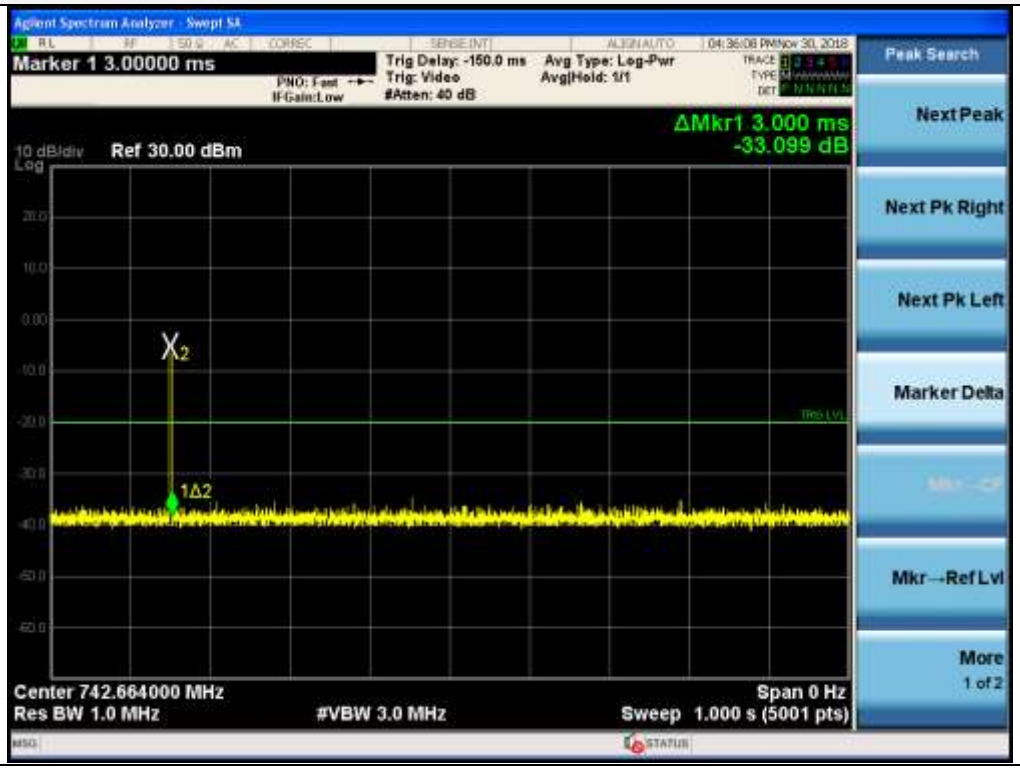
Oscillation Detect / Lower 700 MHz / Uplink


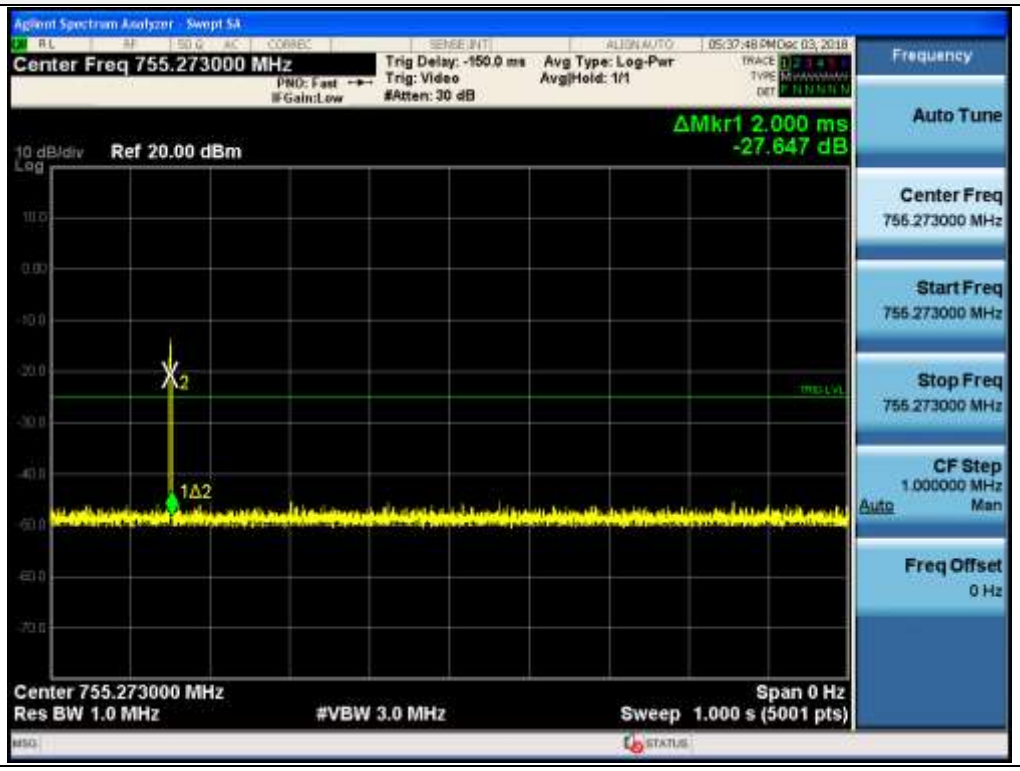
Oscillation Detect / Upper 700 MHz / Uplink


Oscillation Detect / Cellular / Uplink


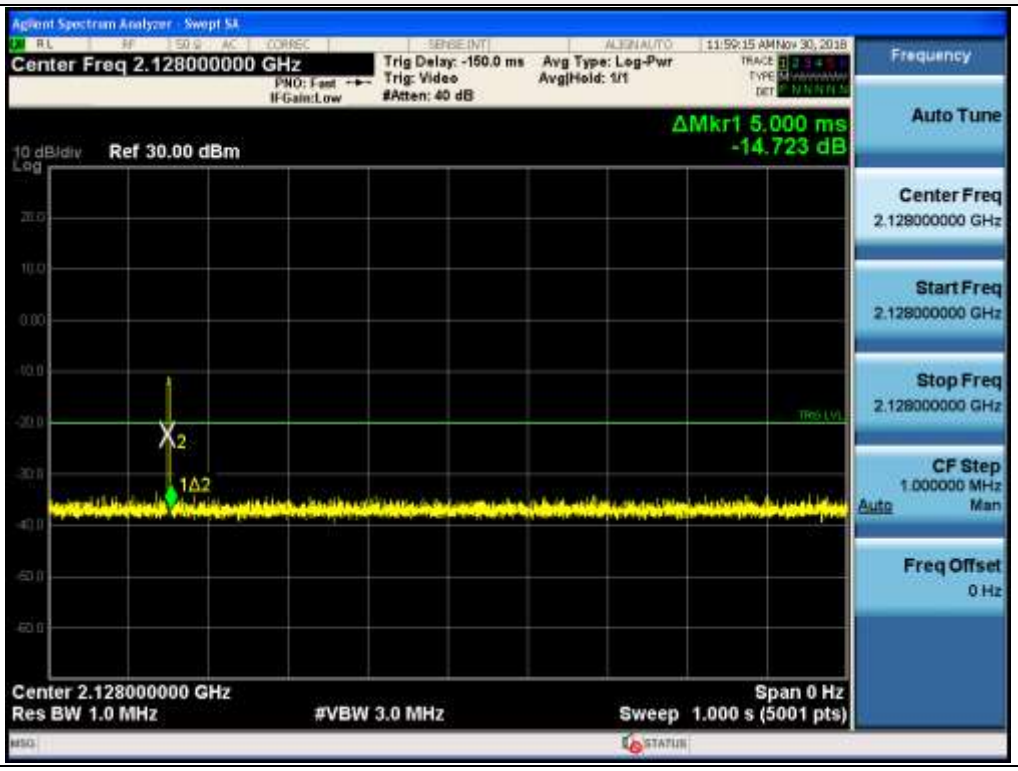
Oscillation Detect / AWS-1 / Uplink


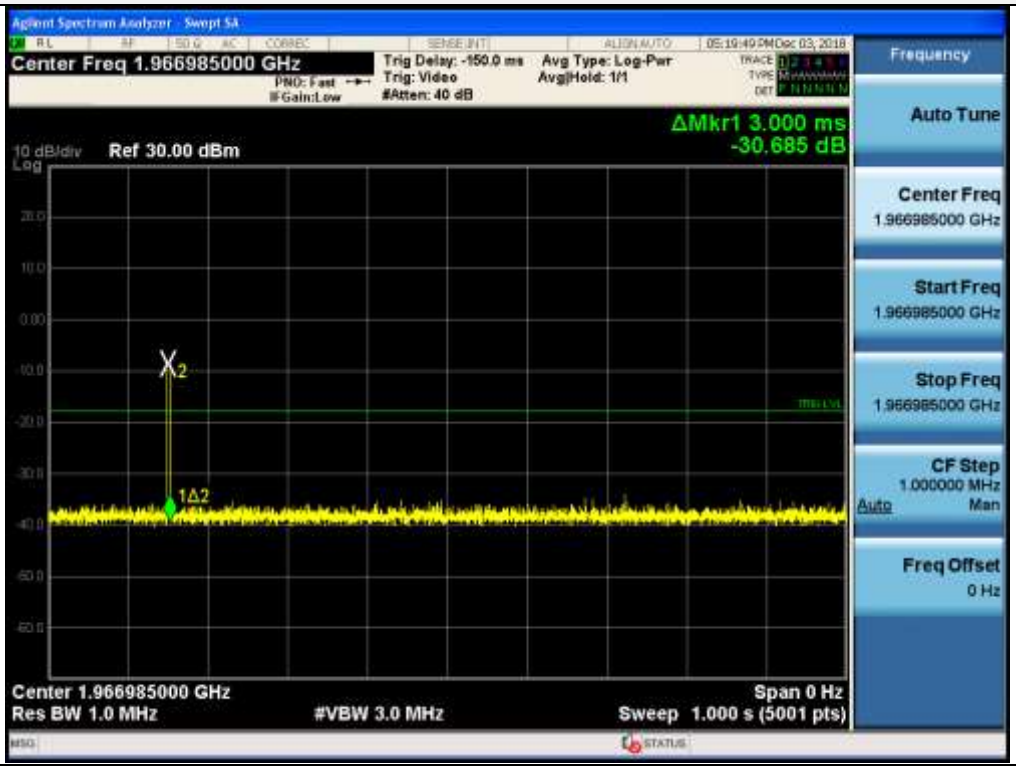
Oscillation Detect / Broadband PCS / Uplink


Oscillation Detect / Lower 700 MHz / Downlink


Oscillation Detect / Upper 700 MHz / Downlink


Oscillation Detect / Cellular / Downlink

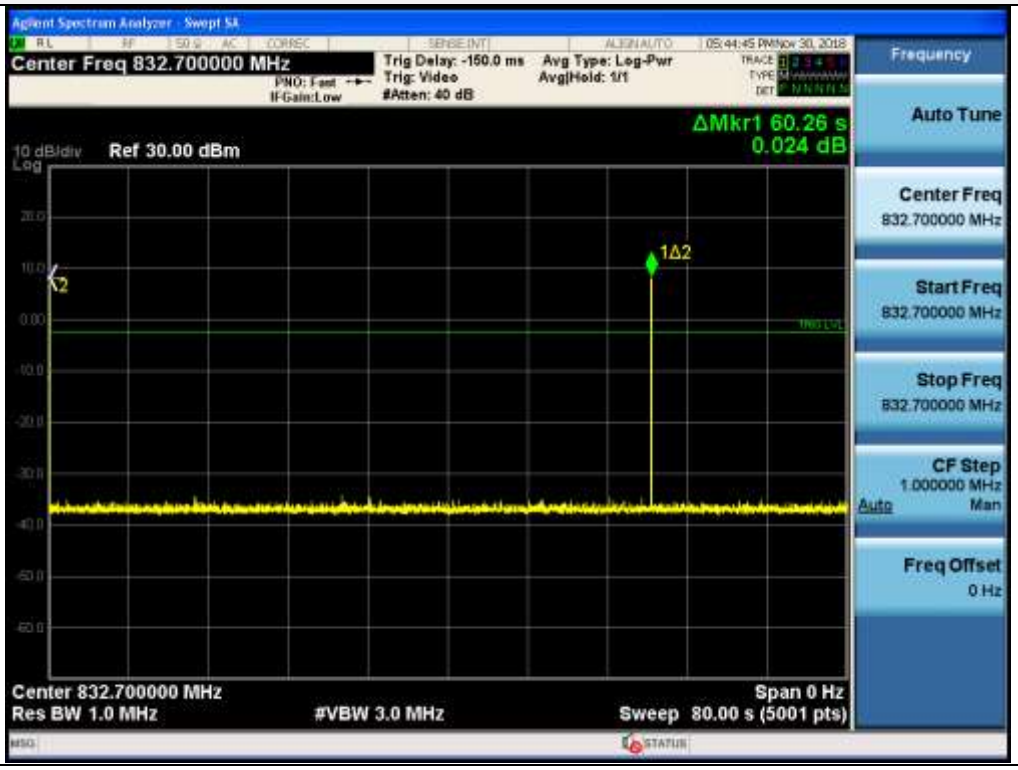

Oscillation Detect / AWS-1 / Downlink


Oscillation Detect / Broadband PCS / Downlink


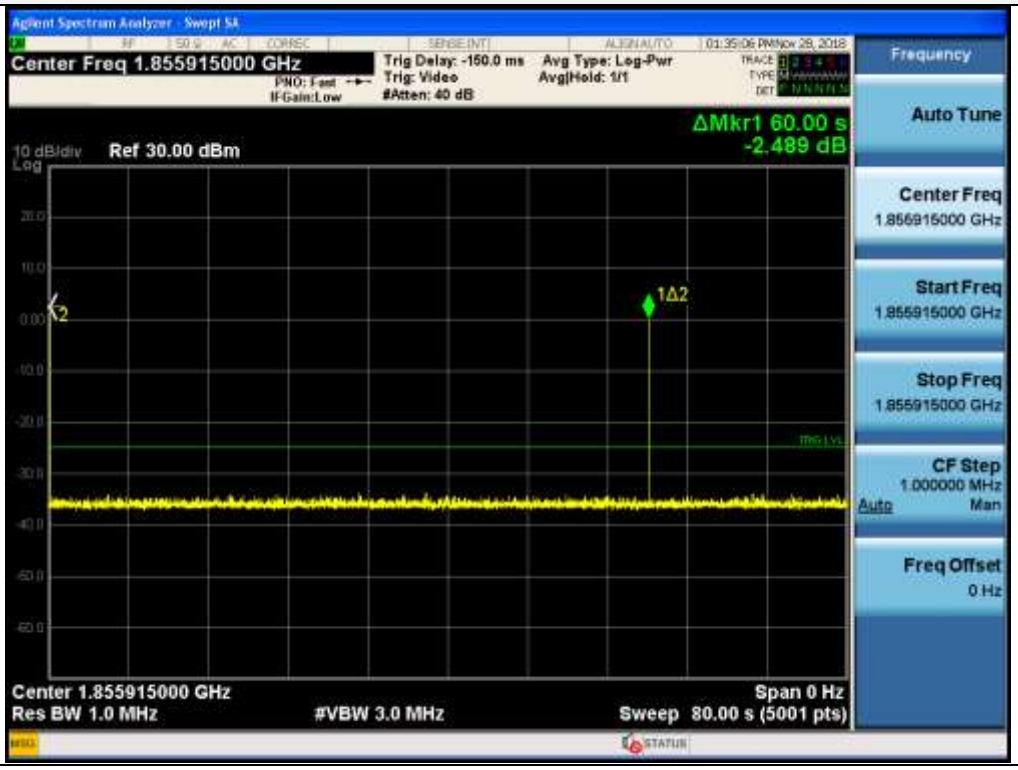
Plot data of Oscillation Restart Time

Oscillation Restart Time / Lower 700 MHz / Uplink


Oscillation Restart Time / Upper 700 MHz / Uplink


Oscillation Restart Time / Cellular / Uplink


Oscillation Restart Time / AWS-1 / Uplink


Oscillation Restart Time / Broadband PCS / Uplink


Oscillation Restart Time / Lower 700 MHz / Downlink

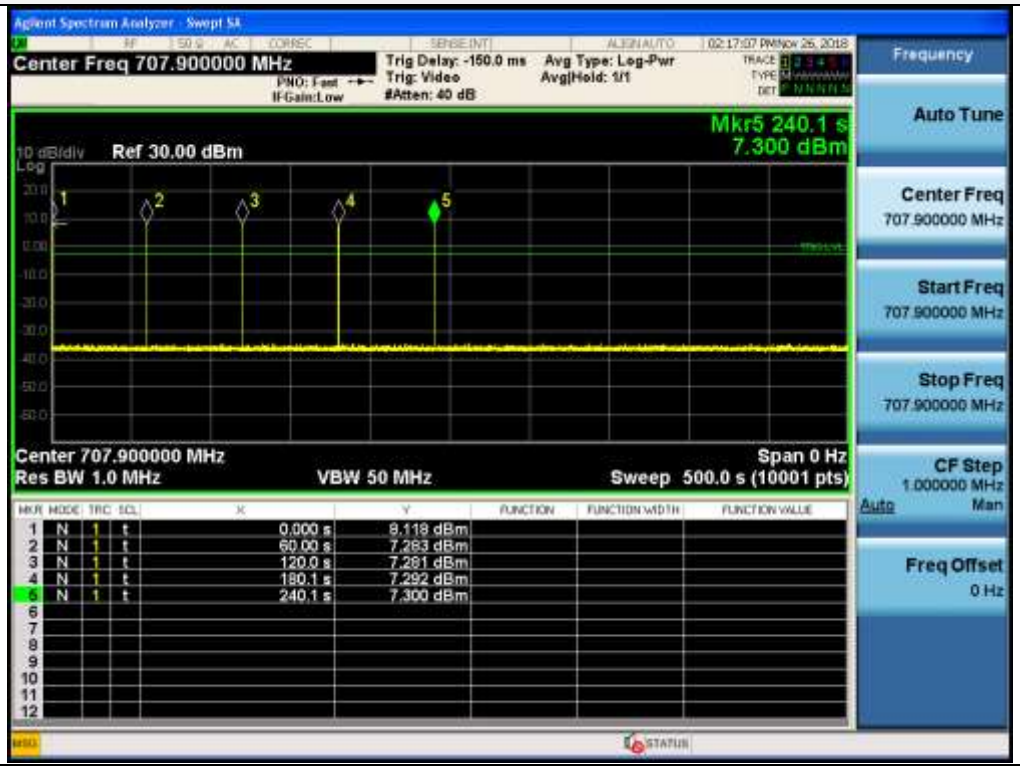

Oscillation Restart Time / Upper 700 MHz / Downlink

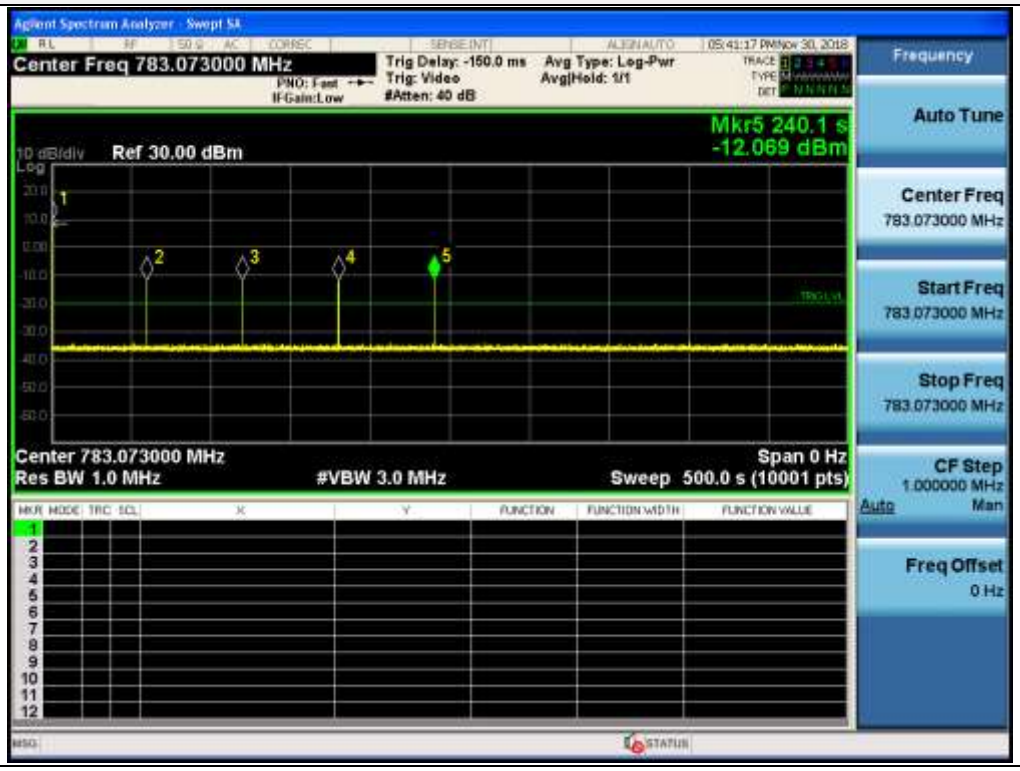

Oscillation Restart Time / Cellular / Downlink

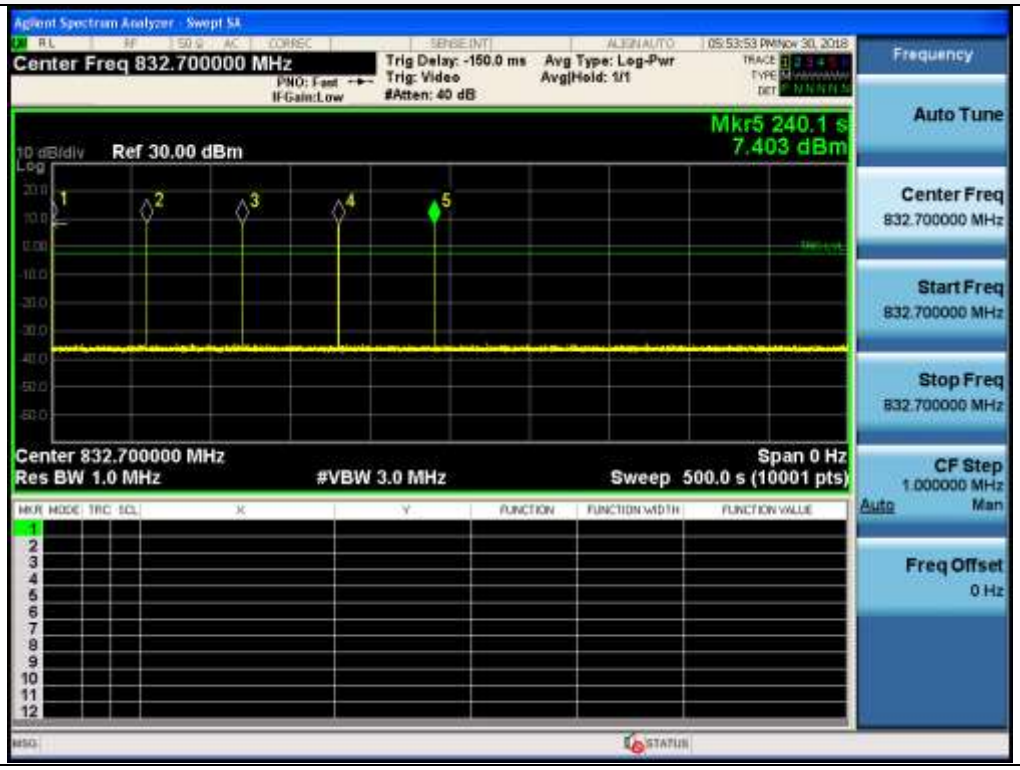

Oscillation Restart Time / AWS-1 / Downlink

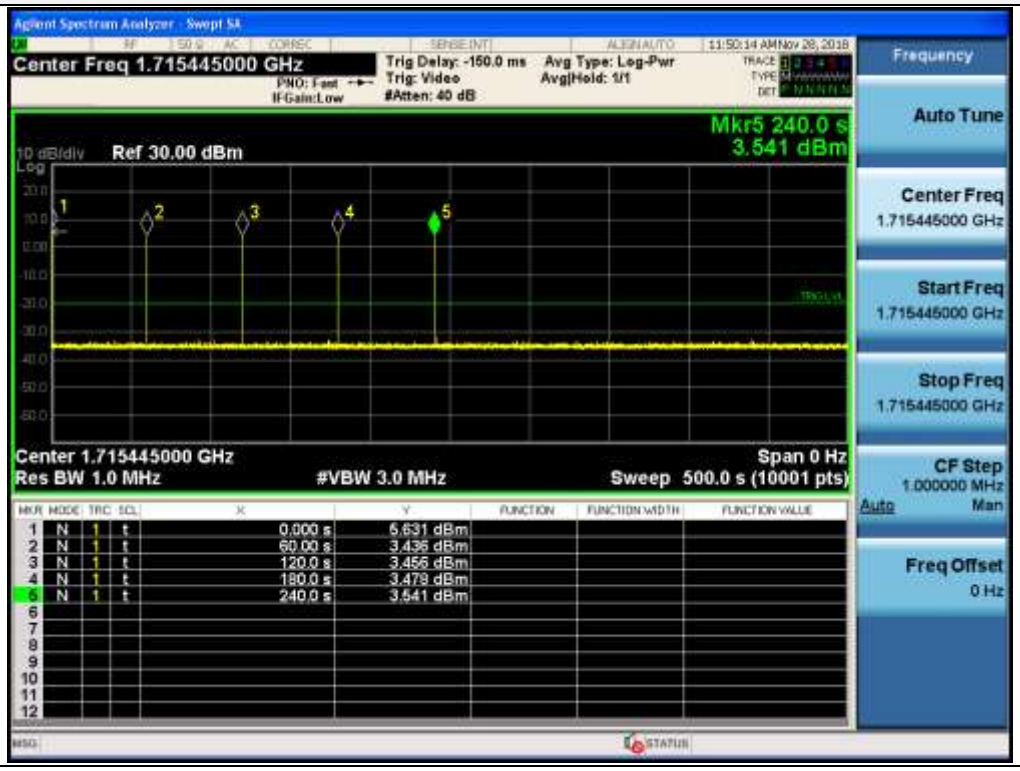

Oscillation Restart Time / Broadband PCS / Downlink

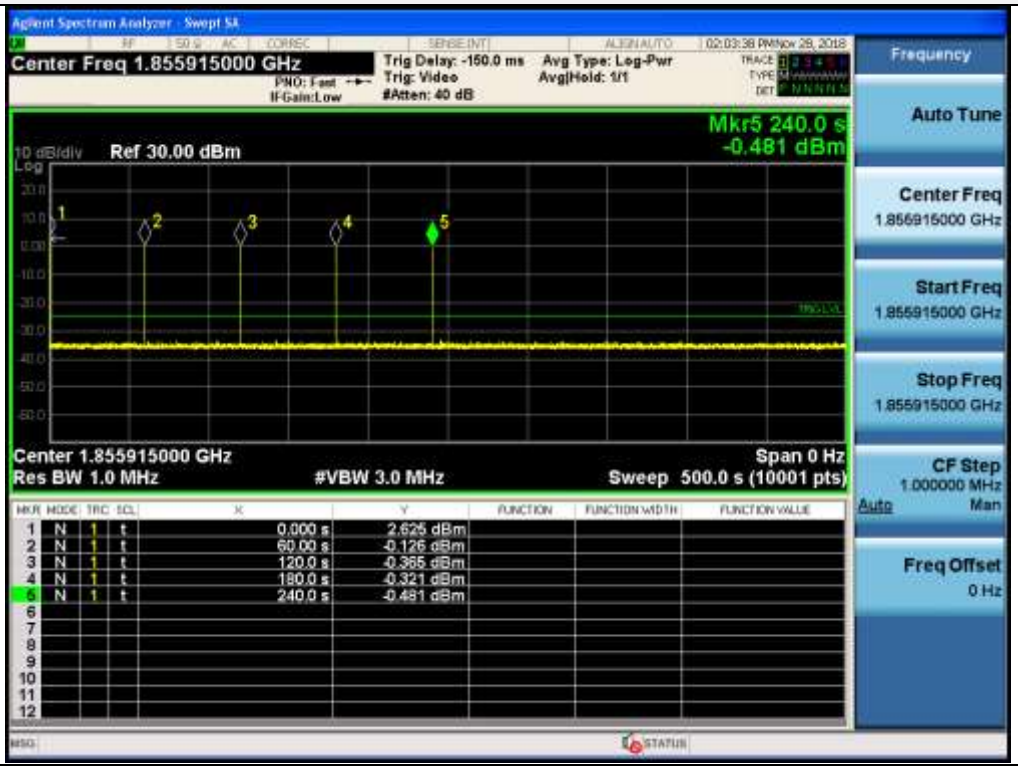

Plot data of Number of Oscillation Restart

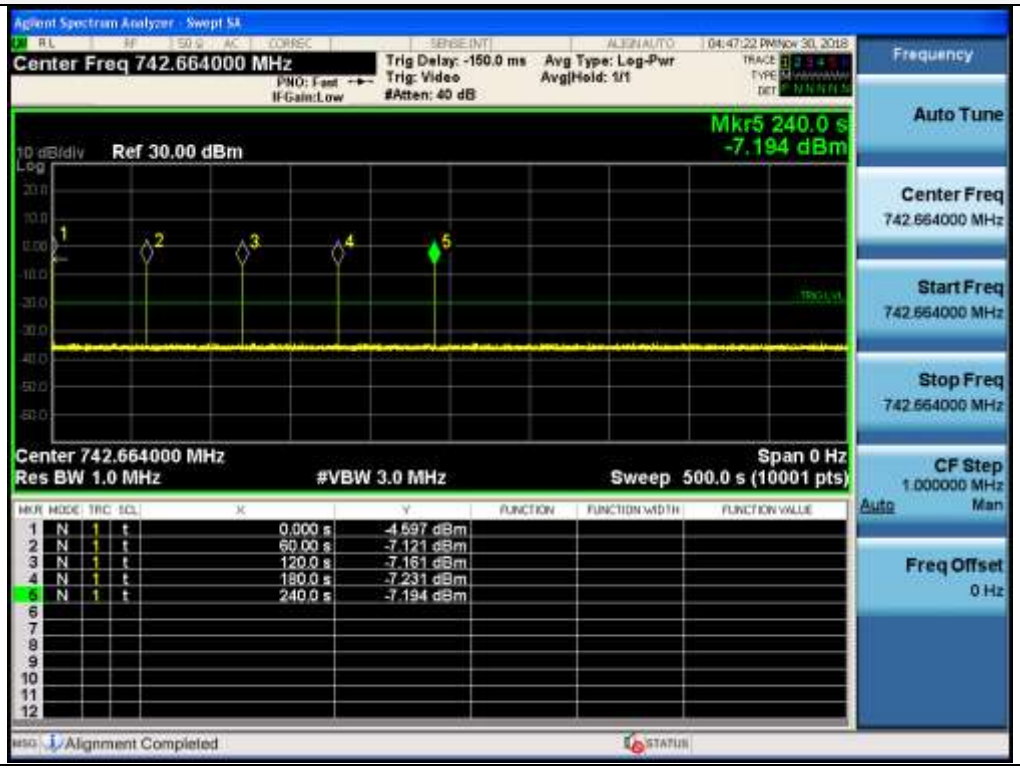
Number of Oscillation Restart / Lower 700 MHz / Uplink


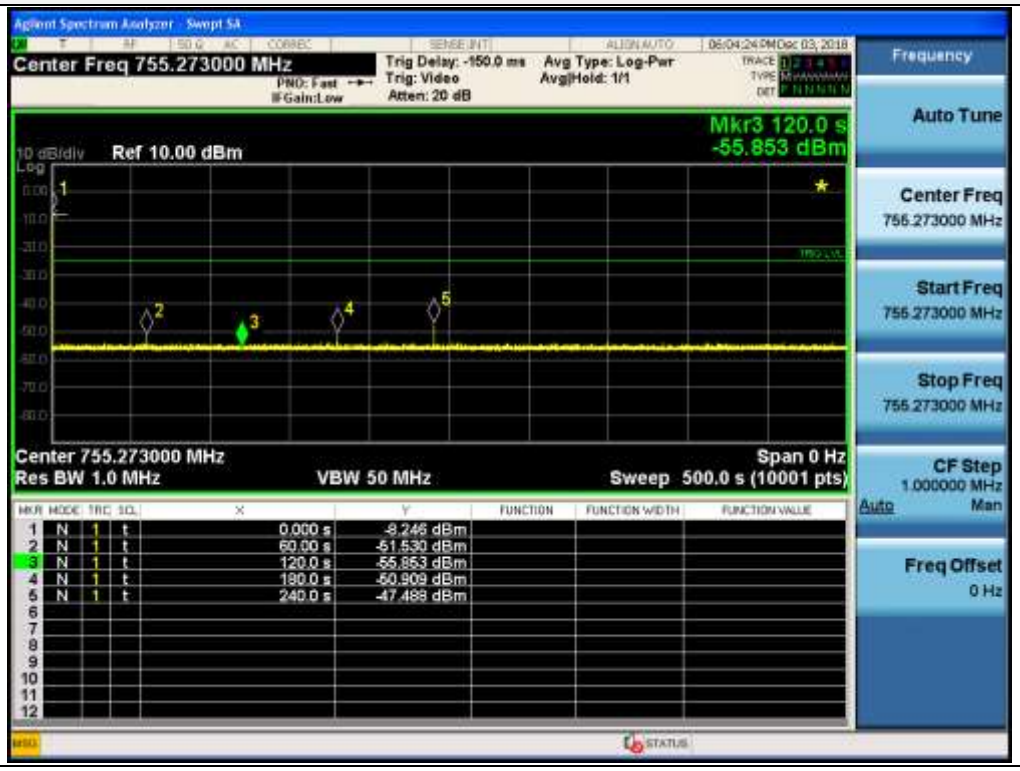
Number of Oscillation Restart / Upper 700 MHz / Uplink


Number of Oscillation Restart / Cellular / Uplink


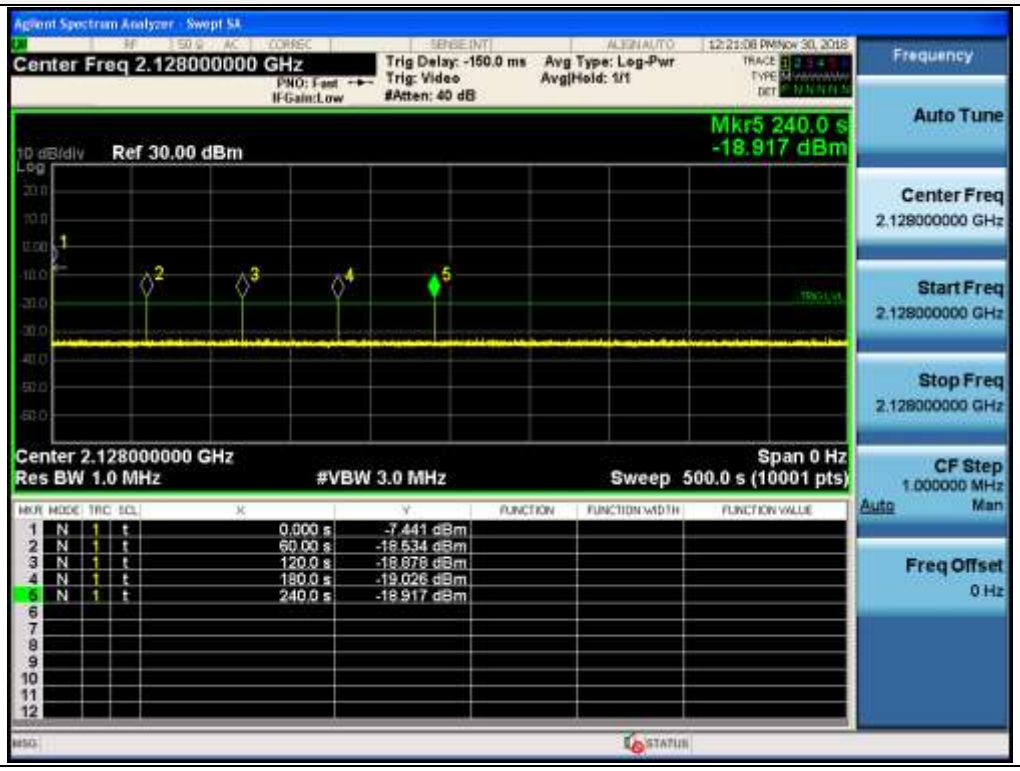
Number of Oscillation Restart / AWS-1 / Uplink


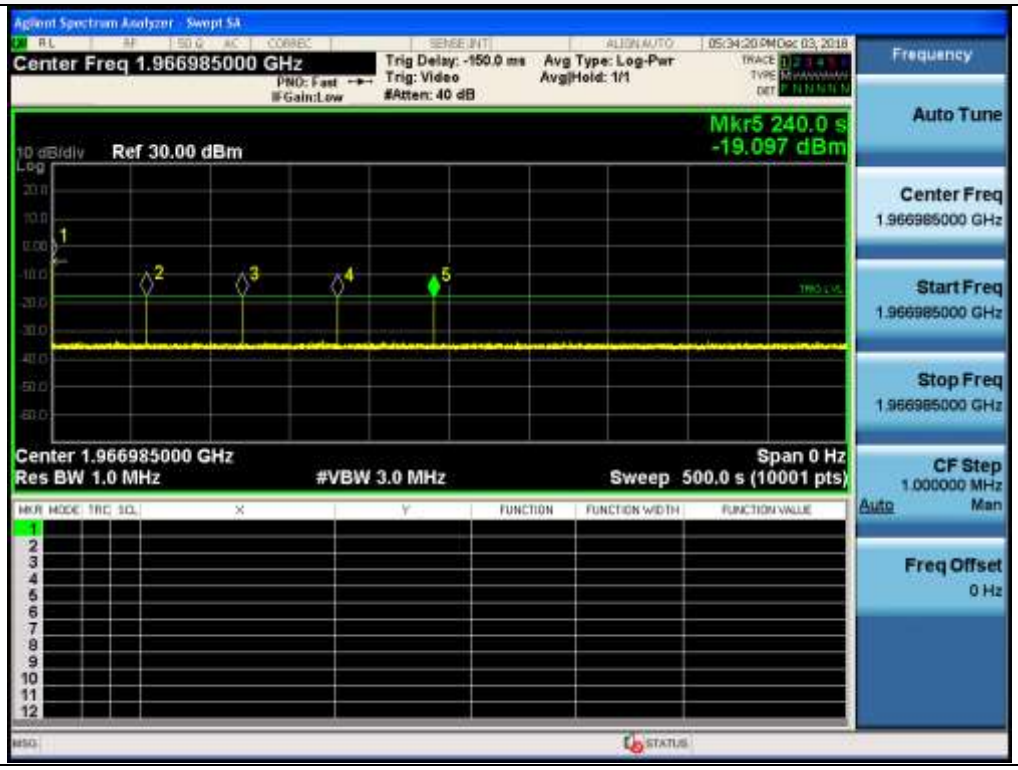
Number of Oscillation Restart / Broadband PCS / Uplink


Number of Oscillation Restart / Lower 700 MHz / Downlink


Number of Oscillation Restart / Upper 700 MHz / Downlink


Number of Oscillation Restart / Cellular / Downlink


Number of Oscillation Restart / AWS-1 / Downlink


Number of Oscillation Restart / Broadband PCS / Downlink


5.12. RADIATED SPURIOUS EMISSIONS

Test Requirements:

§ 2.1053 Measurements required: Field strength of spurious radiation.

(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 halfwave dipole antennas.

(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:

Measurements were in accordance with the test methods section 7.12 of KDB 935210 D03 v04r02

a) Place the EUT on an OATS or semi-anechoic chamber turntable 3 m from the receiving antenna.

b) Connect the EUT to the test equipment beginning with the uplink output (donor) port.

c) Set the signal generator to produce a CW signal with the frequency set to the center of the operational band under test, and the power level set at P_{IN} as determined from measurement results per maximum power measurement.

d) Measure the radiated spurious emissions from the EUT from the lowest to the highest frequencies as specified in Section 2.1057. Maximize the radiated emissions by using the procedures described in ANSI C63.26.

e) Capture the peak emissions plots using a peak detector with Max-Hold for inclusion in the test report. Tabular data is acceptable in lieu of spectrum analyzer plots.

f) Repeat c) through e) for all uplink and downlink operational bands.

Note1. Limit is according to '-13 dBm' of spurious test.

Note2. According to section 7.12 e) of KDB 935210 D03 v04r02, tabular data is provided in lieu of plots.

Note3. Test results of below 1 GHz band were not recorded in this report, because its result was in 20 dB lower than limit.

Note4. C.L.: Cable Loss (Including high pass filter loss) / A.G.: Ant. Gain / D.F.: Distance Factor (3.75 m)

Test Result:

Tabulated Result of Uplink Radiated Spurious Emissions

Band	Frequency (MHz)	Measured Level (dBuV)	Ant. Factor (dB/m)	C.L (dB)	A.G. (dB)	D.F. (dB)	Limit (dBm)	Result (dBm/m)
AWS-1	9 427.5	54.02	38.70	13.98	39.64	1.96	-13	-26.18
Broadband PCS	9 427.5	57.78	38.70	13.98	39.64	1.96	-13	-22.42

Tabulated Result of Downlink Radiated Spurious Emissions

Band	Frequency (MHz)	Measured Level (dBuV)	Ant. Factor (dB/m)	C.L (dB)	A.G. (dB)	D.F. (dB)	Limit (dBm)	Result (dBm/m)
AWS-1	9 427.5	55.96	38.70	13.98	39.64	1.96	-13	-24.24
Broadband PCS	9 427.5	56.53	38.70	13.98	39.64	1.96	-13	-23.67

6. Annex A_EUT AND TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

No.	Description
1	HCT-RF-1812-FC019-P