HCT CO., LTD.
CERTIFICATION DIVISION
74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Korea
TEL : +82 31 645 6300 FAX : +82 31 645 6401

CERTIFICATE OF COMPLIANCE (ERM EVALUATION)

FCC Class II Permissive Change

Manufacture;

10, 9th Floor, SOLiD Space, Pangyoyeok-ro 220, Bundang-gu, Seongnam-si, Gyeonggi-do, 463-400

SOLiD, Inc

Date of Issue : August 04, 2014

Test Site/Location:
HCT CO., LTD., 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Korea

Report No.: HCT-R-1408-F003

FCC ID:	**W6U19P85C70L21A**
APPLICANT:	**SOLiD, Inc**

FCC Model Name	**SC-MRU1900P850C-AC, SC-MRU1900P850C-DC, SC-ARU700LTEAWS-AC, SC-ARU700LTEAWS-DC**	
Additional Model Name	**SC-MRU1900P850C-AC(N), SC-MRU1900P850C-DC(N) SC-ARU700LTEAWS-AC(N), SC-ARU700LTEAWS-DC(N)**	
EUT Type:	**REPEATER**	
Frequency Ranges:	**700 MHz LTE Band:**	**728 MHz ~ 757 MHz**
	Cellular Band:	**869 MHz ~ 894 MHz**
	PCS Band:	**1930 MHz ~ 1995 MHz**
	AWS Band:	**2110 MHz ~ 2155 MHz**
Conducted Output Power:	**700 MHz LTE Band:**	**0.25 W (24 dBm)**
	Cellular Band:	**0.25 W (24 dBm)**
	PCS Band:	**0.63 W (28 dBm)**
	AWS Band:	**0.63 W (28 dBm)**
Date of Test :	**July 18, 2014 ~ July 26, 2014**	
FCC Rules Part(s):	**CFR 47, Part 22, 24, 27**	

Engineering Statement:
The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of Part 22, 24, 27 of the FCC Rules under normal use and maintenance.

Report prepared by : Jae Chul Shin
Engineer of RF Team

Report approved by : Chang Seok Choi
Manager of RF Team

Report Revision

TEST REPORT NO.	DATE	DESCRIPTION
HCT-R-1408-F003	August 04, 2014	- First Approval Report

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1. CLIENT INFORMATION

The EUT has been tested by request of

Company	SOLiD, Inc 10, 9th Floor, SOLiD Space, Pangyoyeok-ro 220, Bundang-gu, Seongnam-si, Gyeonggi-do, 463-400

■ FCC ID:	**W6U19P85C70L21A**	
■ APPLICATION TYPE:	**FCC Class II Permissive Change**	
■ APPLICANT:	**SOLiD, Inc**	
■ EUT Type:	**REPEATER**	
■ Model:	**SC-MRU1900P850C-AC, SC-MRU1900P850C-DC, SC-ARU700LTEAWS-AC, SC-ARU700LTEAWS-DC**	
■ Additional Model:	**SC-MRU1900P850C-AC(N), SC-MRU1900P850C-DC(N) SC-ARU700LTEAWS-AC(N), SC-ARU700LTEAWS-DC(N)**	
■Frequency Ranges:	**700 MHz LTE Band:** **Cellular Band:** **PCS Band:** **AWS Band:**	**728 MHz ~ 757 MHz** **869 MHz ~ 894 MHz** **1930 MHz ~ 1995 MHz** **2110 MHz ~ 2155 MHz**
■ Conducted Output Power:	**700 MHz LTE Band:** **Cellular Band:** **PCS Band:** **AWS Band:**	**0.25 W (24 dBm)** **0.25 W (24 dBm)** **0.63 W (28 dBm)** **0.63 W (28 dBm)**
■ Antenna Gain(s):	**Manufacturer does not provide an antenna.**	
FCC Rules Part(s):	**CFR Title 47 Part 22, 24, 27 (700 MHz LTE Band Sub Part C)**	
■ Measurement standard(s):	**ANSI/TIA-603-C-2004, KDB 971168 D01 v02, KDB 935210 D03 v02r01**	
■ Place of Tests:	**74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Korea. (IC Recognition No. : 5944A-3)**	

2. FACILITIES AND ACCREDITATIONS

2.1. FACILITIES

The SAC(Semi-Anechoic Chamber) and conducted measurement facility used to collect the radiated data are located at the 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Korea. The site is constructed in conformance with the requirements of ANSI C63.4. (Version :2003) and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated June 21, 2011 (Registration Number: 90661).

2.2. EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

3. TEST SUMMARY

3.1. STANDARDS

The following tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part22, 24, 27.

Description	Reference	Results
Conducted RF Output Power	§2.1046; §22.913; §24.232; §27.50	Compliant
Occupied Bandwidth	§2.1049	Compliant
Spurious Emissions at Antenna Terminals	§2.1051, §22.917, §24.238, §27.53	Compliant
Out of Band Rejection	KDB 935210 D03 v02r01	Compliant
Radiated Spurious Emissions	§2.1053, §22.917, §24.238, §27.53	Compliant
Frequency Stability	§2.1055, §22.355, § 24.235 , §27.54	Compliant

3.2. MODE OF OPERATION DURING THE TEST

The EUT was operated in a manner representative of the typical usage of the equipment.
During all testing, system components were manipulated within the confines of typical usage to maximize each emission.
The device does not supply antenna(s) with the system, so the dummy loads were connected to the RF output ports for radiated spurious emission testing.
QPSK was only selected and tested since it's the worst case configuration among all here modulations (QPSK, 16QAM, 64QAM).

4. STANDARDS ENVIRONMENTAL TEST CONDITIONS

Temperature :	**+ 15 ℃ to + 35 ℃**
Relative humidity:	**30 % to 60 %**
Air pressure	**860 mbar to 1 060 mbar**

5. TEST EQUIPMENT

Manufacturer	Model / Equipment	Cal Interval	Calibration Due	Serial No.
Agilent	E4438C /Signal Generator	Annual	09/05/2014	MY42082646
Agilent	N5182A /Signal Generator	Annual	09/30/2014	MY50141649
Agilent	E4416A /Power Meter	Annual	10/16/2014	GB41291412
Agilent	E9327A/ Power Sensor	Annual	03/31/2015	MY4442009
NANGYEUL CO., LTD.	NY-THR18750/ Temperature and Humidity Chamber	Annual	10/30/2014	NY-2009012201A
Agilent	N9020A /Signal Analyzer	Annual	04/16/2015	US46220219
WEINSCHEL	67-30-33 / Fixed Attenuator	Annual	11/05/2014	BU5347
MCE / Weinschel	2-10 / Fixed Attenuator	Annual	10/28/2014	BR0554
HD	MA240/ Antenna Position Tower	N/A	N/A	556
EMCO	1050/ Turn Table	N/A	N/A	114
HD GmbH	HD 100/ Controller	N/A	N/A	13
HD GmbH	KMS 560/ SlideBar	N/A	N/A	12
MITEQ	AMF-6D-001180-35-20P/AMP	Annual	09/12/2014	1081666
Schwarzbeck	BBHA 9120D/ Horn Antenna	Biennial	07/05/2015	1151
Schwarzbeck	BBHA 9120D/ Horn Antenna	Biennial	07/05/2015	1151
Schwarzbeck	VULB 9160/TRILOG Antenna	Biennial	12/17/2014	3150

6. RF OUTPUT POWER

Test Requirements:

§ 2.1046 Measurements required: RF power output:

§ 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 §2.1033(c)(8).The electrical characteristics of the radio frequency load attached to the output terminals when this test is made shall be stated.

§ 2.1046 (b) For single sideband, independent sideband, and single channel, controlled carrier radiotelephone transmitters, the procedure specified in paragraph (a) of this section shall be employed and, in addition, the transmitter shall be modulated during the test as specified and as applicable in § 2.1046 (b) (1-5). In all tests, the input level of the modulating signal shall be such as to develop rated peak envelope power or carrier power, as appropriate, for the transmitter.

§ 2.1046 (c) For measurements conducted pursuant to paragraphs (a) and (b) of this section, all calculations and methods used by the applicant for determining carrier power or peak envelope power, as appropriate, on the basis of measured power in the radio frequency load attached to the transmitter output terminals shall be shown. Under the test conditions specified, no components of the emission spectrum shall exceed the limits specified in the applicable rule parts as necessary for meeting occupied bandwidth or emission limitations.

§ 22.913 Effective radiated power limits. The effective radiated power (ERP) of transmitters in the Cellular Radiotelephone Service must not exceed the limits in this section.

(a) Maximum ERP. In general, the effective radiated power (ERP) of base transmitters and cellular repeaters must not exceed 500 Watts. However, for those systems operating in areas more than 72 km (45 miles) from international borders that:

(1) Are located in counties with population densities of 100 persons or fewer per square mile, based upon the most recently available population statistics from the Bureau of the Census; or,

(2) Extend coverage on a secondary basis into cellular unserved areas, as those areas are defined in § 22.949, the ERP of base transmitters and cellular repeaters of such systems must not exceed 1000 Watts. The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

§ 24.232 Power and antenna height limits. (a) Base stations are limited to 1640 watts peak equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT, except as described in paragraph (b) below. See §24.53 for HAAT calculation method.

Base station antenna heights may exceed 300 meters with a corresponding reduction in power; see Table 1 of this section.

The service area boundary limit and microwave protection criteria specified in §24.236 and §24.237 apply.

§ 27.50 Power and antenna height limits.

(d) The following power and antenna height requirements apply to stations transmitting in the 1710–1755 MHz and 2110–2155 MHz bands:

(1) The power of each fixed or base station transmitting in the 2110–2155 MHz band and located in any county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census

(2) The power of each fixed or base station transmitting in the 2110–2155 MHz band and situated in any geographic location other than that described in paragraph (d)(1) is limited to:

(A) an equivalent isotropically radiated power (EIRP) of 1640 watts when transmitting with an emission bandwidth of 1 MHz or less;

(B) an EIRP of 1640 watts/MHz when transmitting with an emission bandwidth greater than 1 MHz.

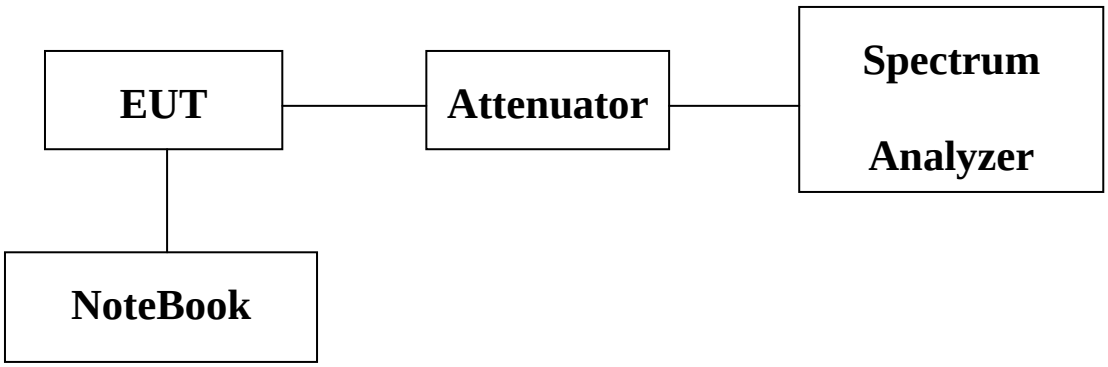
(4) Fixed, mobile, and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP. Fixed stations operating in this band are limited to a maximum antenna height of 10 meters above ground. Mobile and portable stations operating in this band must employ a means for limiting power to the minimum necessary for successful communications.

§ 27.50 Power and antenna height limits.

2) Fixed and base stations transmit- ting a signal in the 746–757 MHz, 758–763 MHz, 776–787 MHz, and 788–793 MHz bands with an emission bandwidth of 1 MHz or less must not exceed an ERP of 1000 watts and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts ERP in accordance with Table 1 of this section.

Test Procedures:

As required by 47 CFR 2.1046, RF power output measurements were made at the RF output terminals using an attenuator and spectrum analyzer or power meter. This test was performed in all applicable modulations.



Block Diagram 1. RF Power Output Test Setup

Test Results:

700 MHz LTE Band

Input Signal	Input Level (dBm)	Maximum Amp Gain
LTE 5 MHz	DL : -20.5 dBm	DL : 45 dB
LTE 10 MHz		

Cellular Band

Input Signal	Input Level (dBm)	Maximum Amp Gain
CDMA	DL : -20.5 dBm	DL : 44.5 dB
WCDMA		
GSM		
LTE 5 MHz		

PCS Band

Input Signal	Input Level (dBm)	Maximum Amp Gain
CDMA	DL : -20.5 dBm	DL : 48.5 dB
WCDMA		
GSM		
LTE 5 MHz		

AWS Band

Input Signal	Input Level (dBm)	Maximum Amp Gain
CDMA	DL : -21.0 dBm	DL : 49 dB
WCDMA		
LTE 5 MHz	DL : -20.5 dBm	
LTE 10 MHz		

Cellular Band

[Downlink]

	Channel	Frequency (MHz)	Output Power	
			(dBm)	(W)
CDMA	Low	869.73	24.05	0.254
	Middle	881.52	24.14	0.260
	High	893.28	24.12	0.258
CDMA EVDO	Low	869.73	23.98	0.250
	Middle	881.52	24.17	0.261
	High	893.28	24.11	0.258
WCDMA	Low	871.40	24.14	0.259
	Middle	881.40	24.14	0.259
	High	891.60	24.03	0.253

[Downlink]

	Channel	Frequency (MHz)	Output Power	
			(dBm)	(W)
GSM	Low	869.20	24.23	0.265
	Middle	881.40	24.15	0.260
	High	893.80	23.95	0.249
GSM EDGE	Low	869.20	24.10	0.257
	Middle	881.40	24.17	0.261
	High	893.80	24.09	0.256
LTE 5 MHz	Low	871.50	24.07	0.255
	Middle	881.50	24.05	0.254
	High	891.50	24.00	0.251

PCS Band

[Downlink]

	Channel	Frequency (MHz)	Output Power	
			(dBm)	(W)
CDMA	Low	1931.25	28.04	0.636
	Middle	1962.50	28.16	0.654
	High	1993.75	27.96	0.625
CDMA EVDO	Low	1931.25	27.99	0.630
	Middle	1962.50	28.15	0.653
	High	1993.75	27.96	0.625
WCDMA	Low	1932.40	28.09	0.644
	Middle	1962.40	28.14	0.651
	High	1992.60	28.08	0.643

[Downlink]

	Channel	Frequency (MHz)	Output Power	
			(dBm)	(W)
GSM	Low	1930.20	28.06	0.639
	Middle	1962.40	28.24	0.666
	High	1994.80	27.99	0.629
GSM EDGE	Low	1930.20	28.07	0.641
	Middle	1962.40	28.19	0.659
	High	1994.80	28.04	0.637
LTE 5 MHz	Low	1932.50	27.99	0.629
	Middle	1962.50	28.03	0.635
	High	1992.50	28.00	0.631

AWS Band

[Downlink]

	Channel	Frequency (MHz)	Output Power	
			(dBm)	(W)
CDMA	Low	2111.25	28.05	0.639
	Middle	2132.50	28.14	0.651
	High	2153.75	28.10	0.646
WCDMA	Low	2112.40	28.12	0.649
	Middle	2132.40	28.12	0.649
	High	2152.60	28.23	0.665

[Downlink]

	Channel	Frequency (MHz)	Output Power	
			(dBm)	(W)
LTE 5 MHz	Low	2112.50	28.00	0.631
	Middle	2132.50	28.04	0.636
	High	2152.50	28.15	0.653
LTE 10 MHz	Low	2115.00	28.09	0.644
	Middle	2132.50	28.03	0.636
	High	2150.00	28.05	0.639

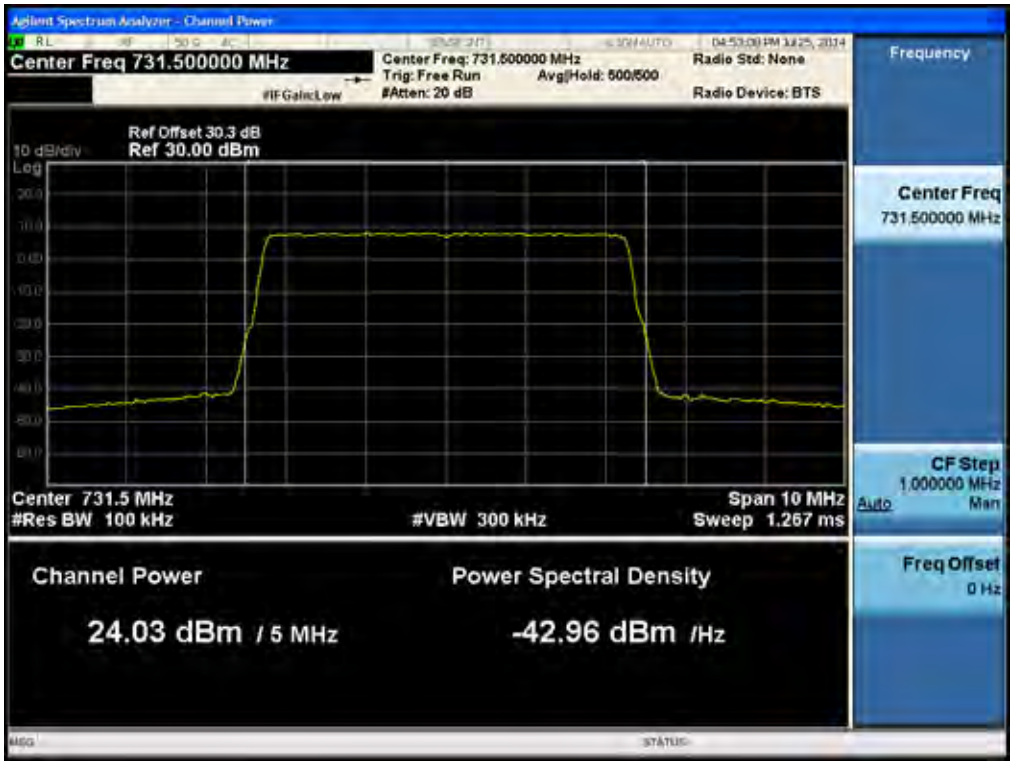
700 MHz LTE Band

[Downlink]

	Channel	Frequency (MHz)	Output Power	
			(dBm)	(W)
LTE 5 MHz	Low	731.50	24.03	0.253
	Middle	742.50	24.01	0.252
	High	753.50	24.04	0.254
LTE 10 MHz	Low	734.00	24.10	0.257
	Middle	741.00	24.05	0.254
	High	751.00	24.03	0.253

700 MHz LTE Band Plots of RF Output Power

[LTE Downlink 5 MHz Low]

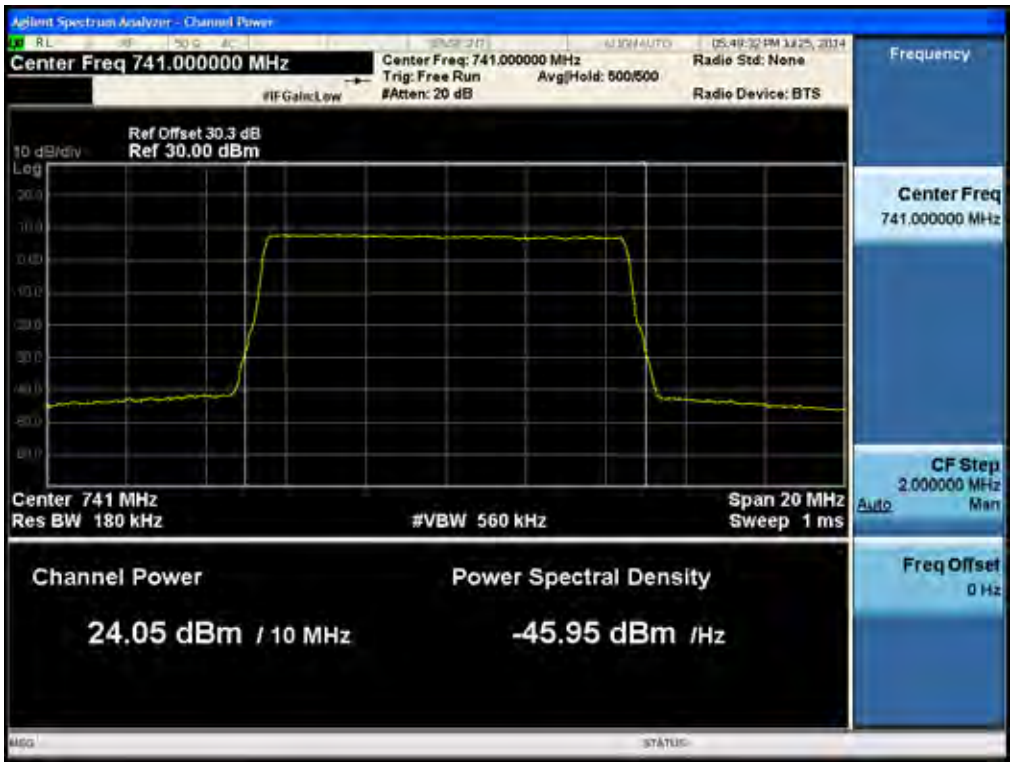


[LTE Downlink 5 MHz Middle]

[LTE Downlink 5 MHz High]

[LTE Downlink 10 MHz Low]

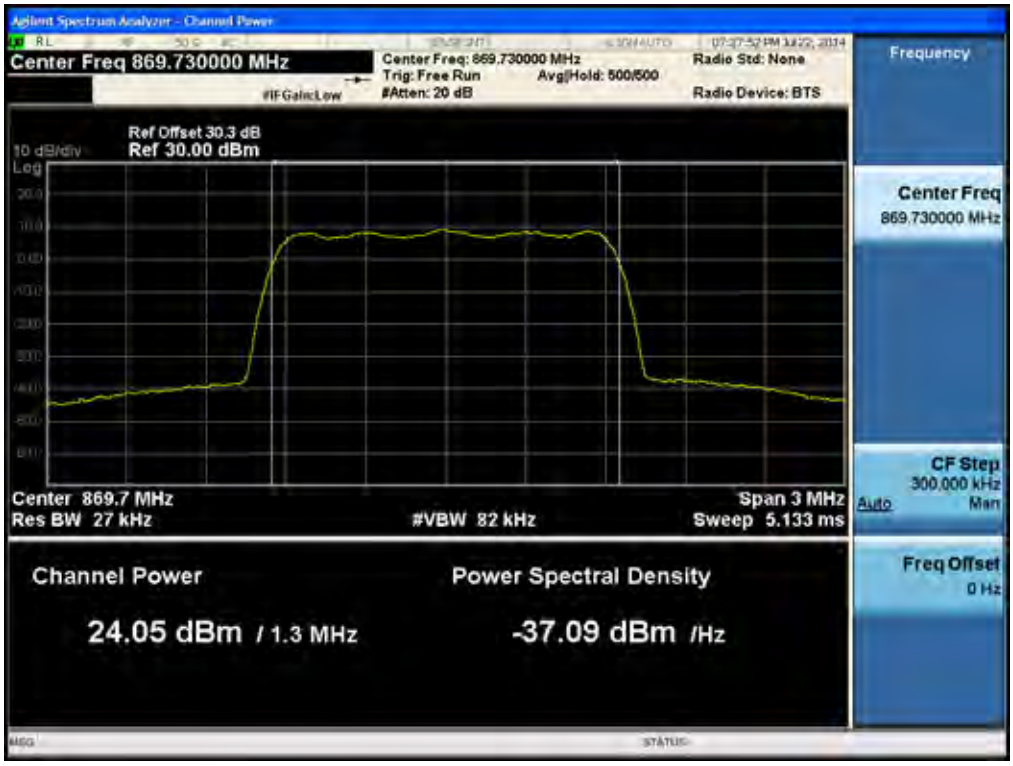
[LTE Downlink 10 MHz Middle]



[LTE Downlink 10 MHz High]

Cellular Band Plots of RF Output Power

[CDMA Downlink Low]



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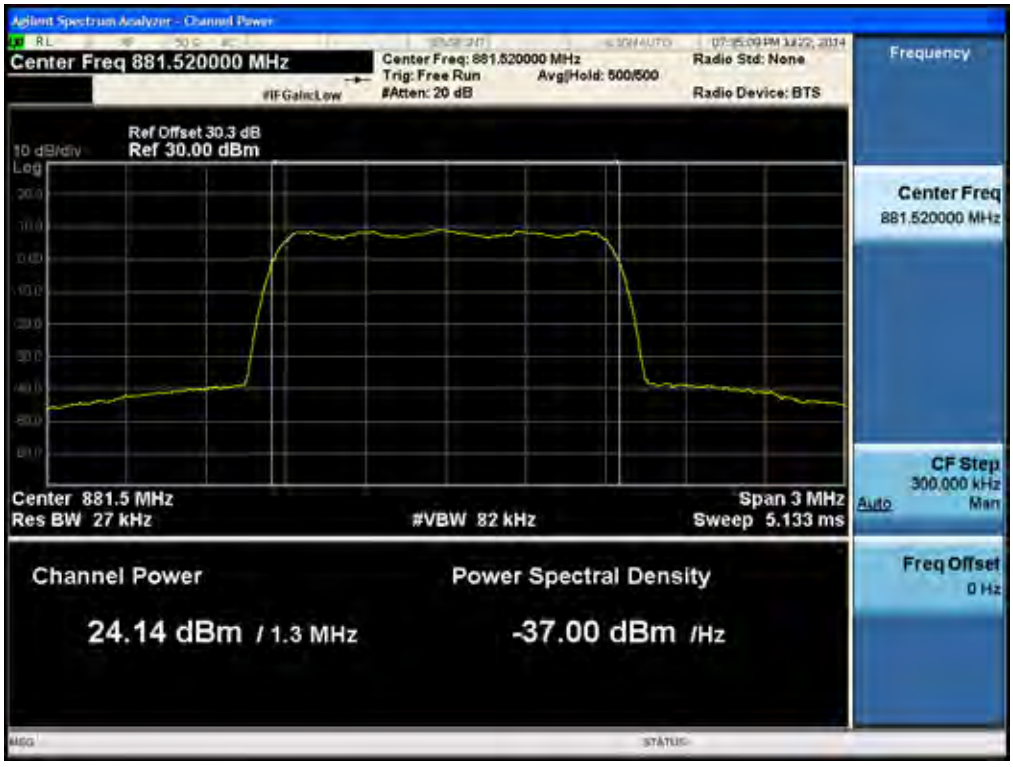
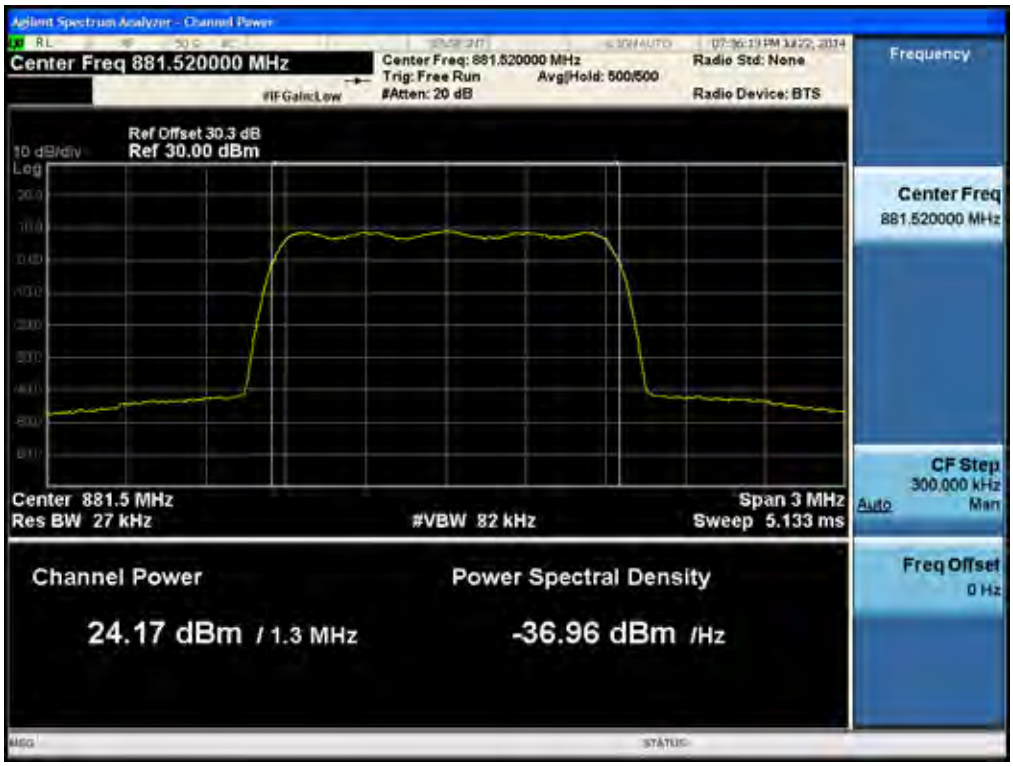


[CDMA Downlink High]

[CDMA EVDO Downlink Low]

[CDMA EVDO Downlink Middle]



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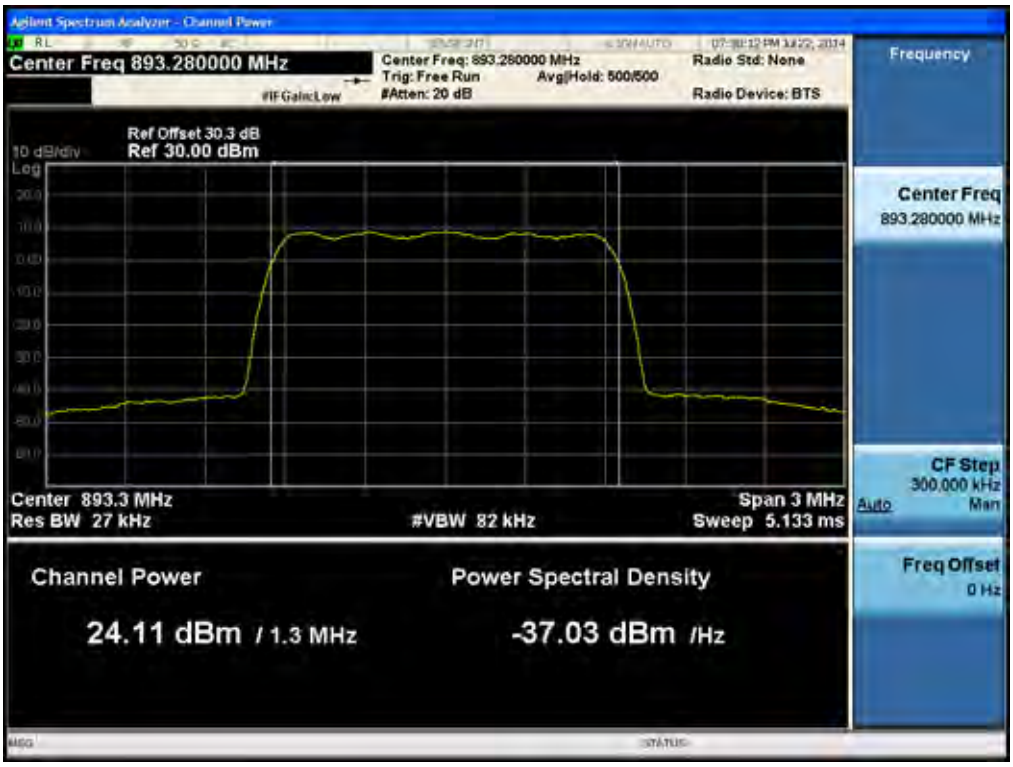
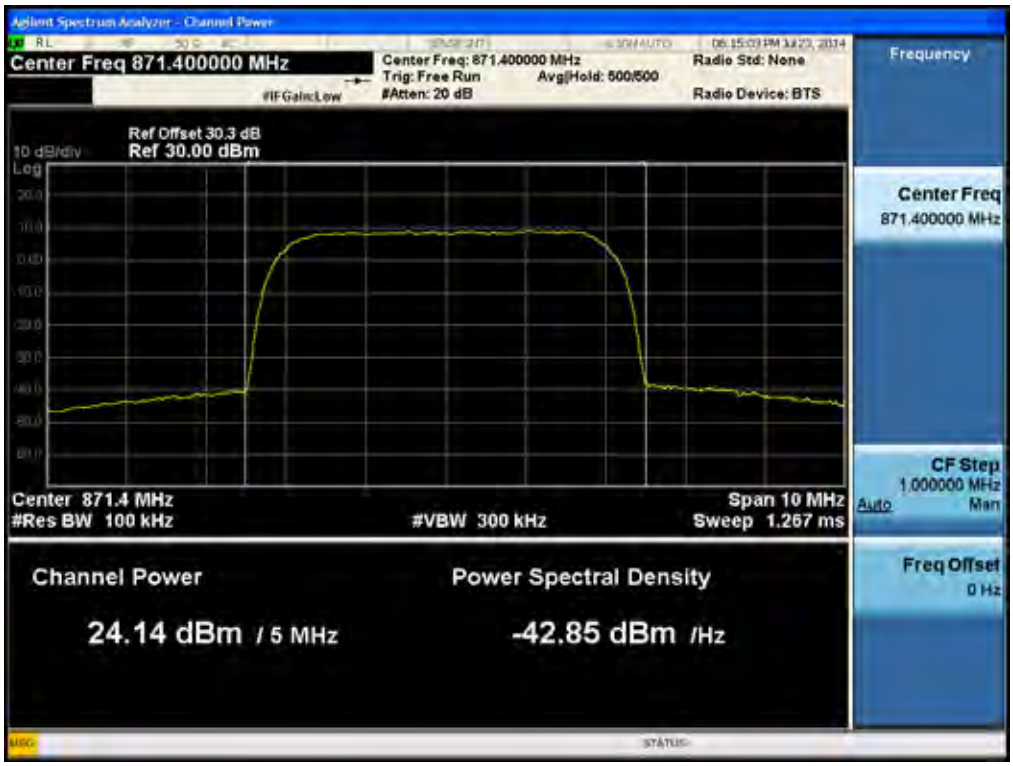


[WCDMA Downlink Low]



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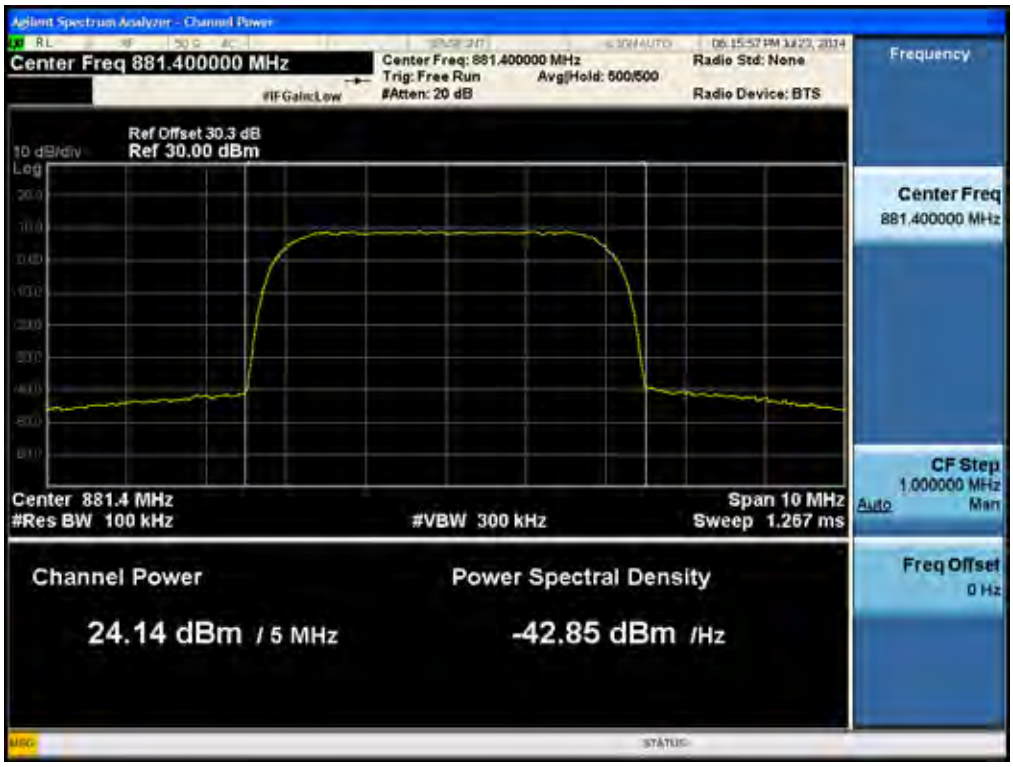

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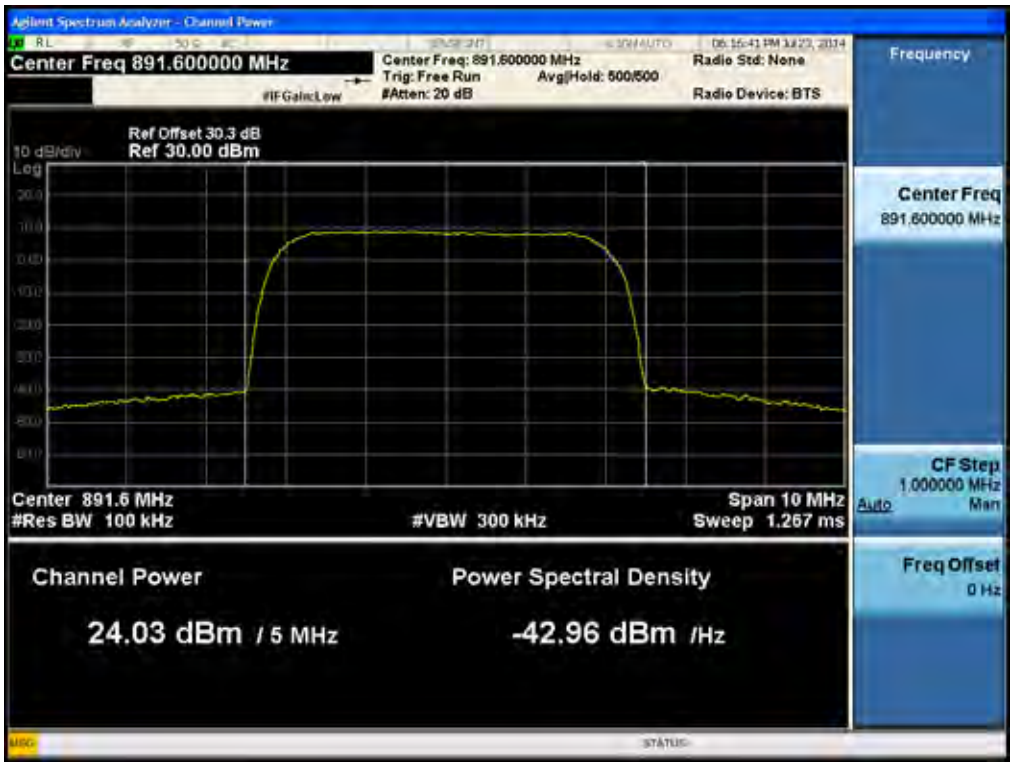
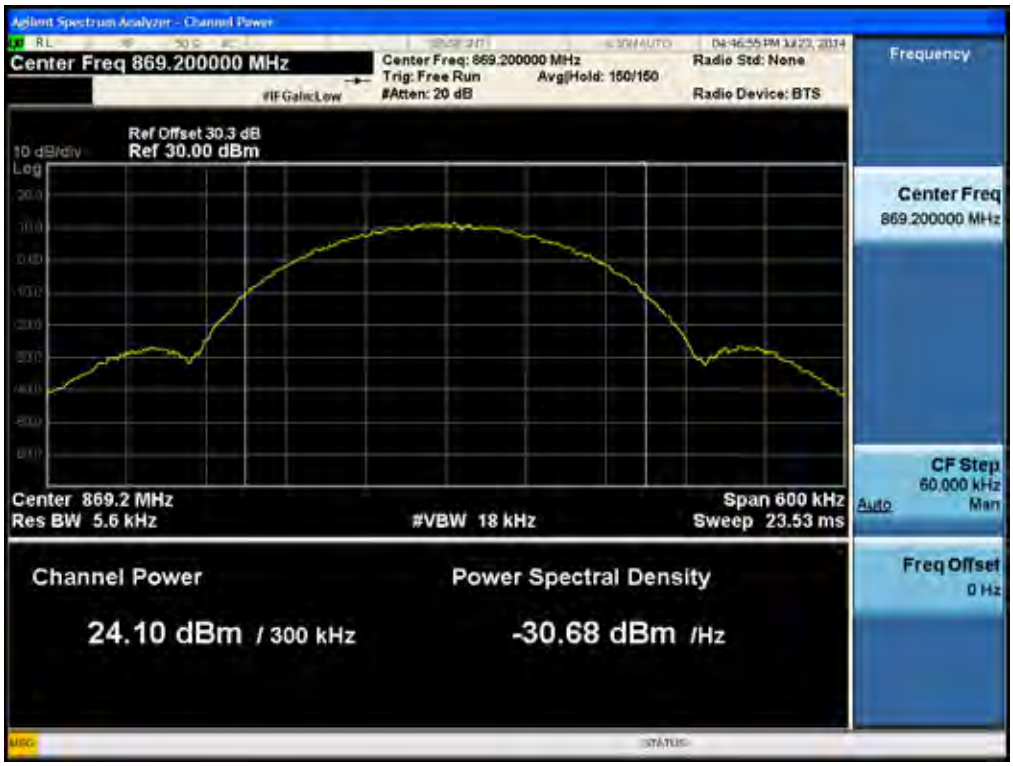


[GSM Downlink Low]

[GSM Downlink Middle]

[GSM Downlink High]

[GSM EDGE Downlink Low]



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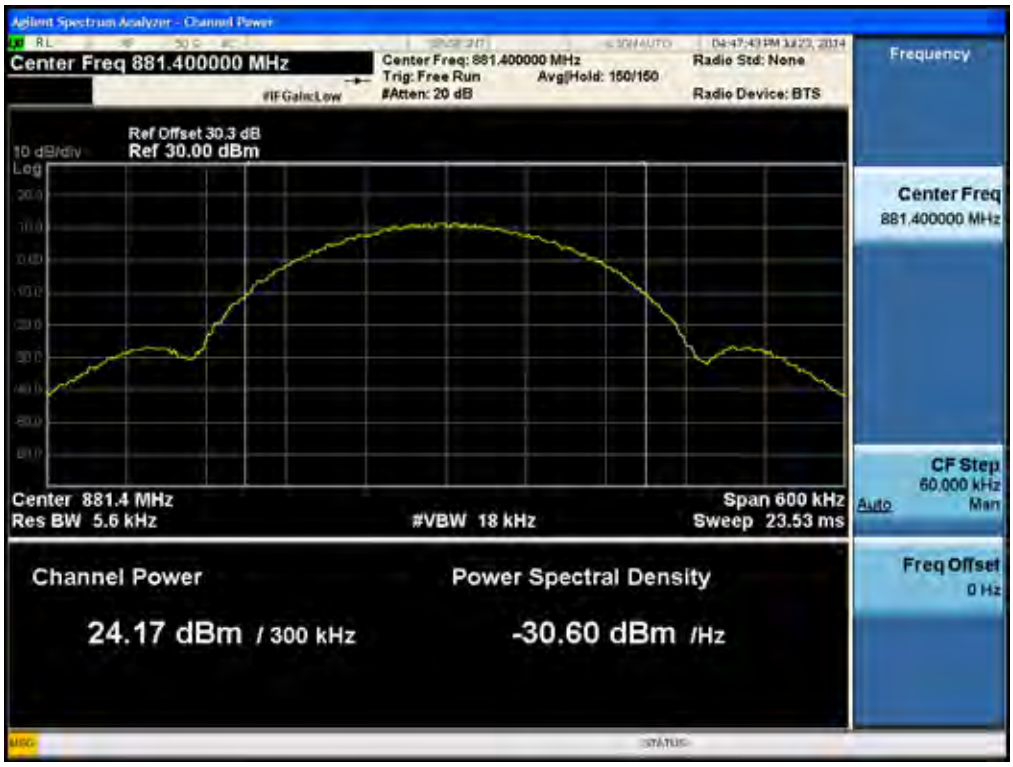

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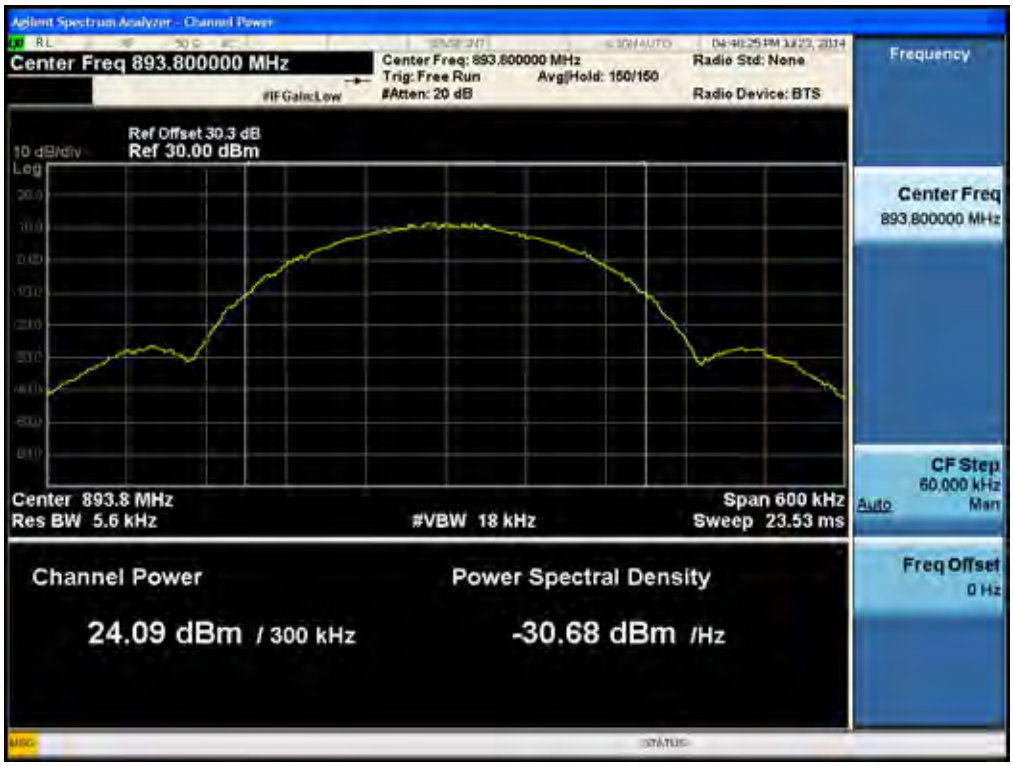
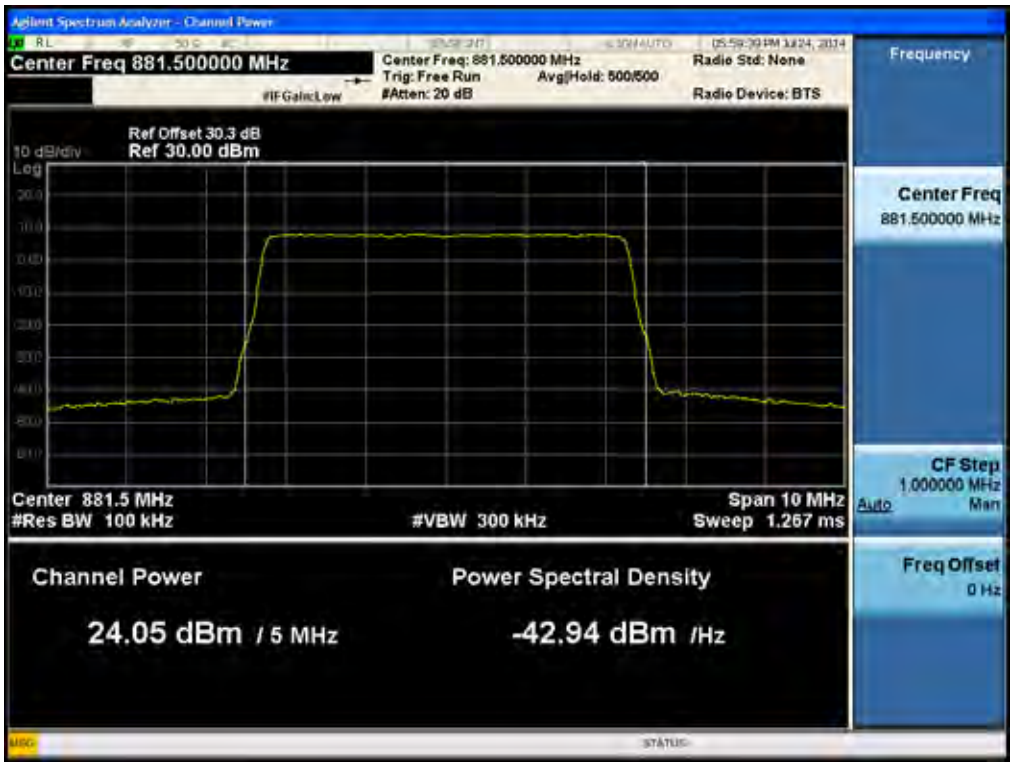


[LTE Downlink 5 MHz Low]

[LTE Downlink 5 MHz Middle]



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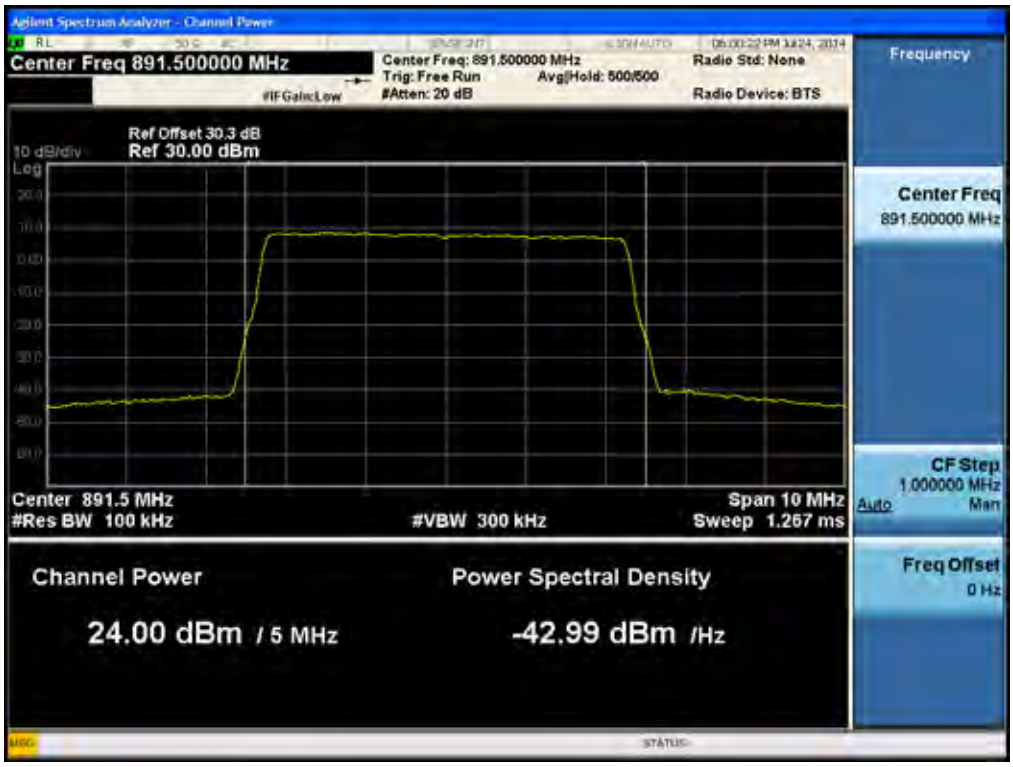
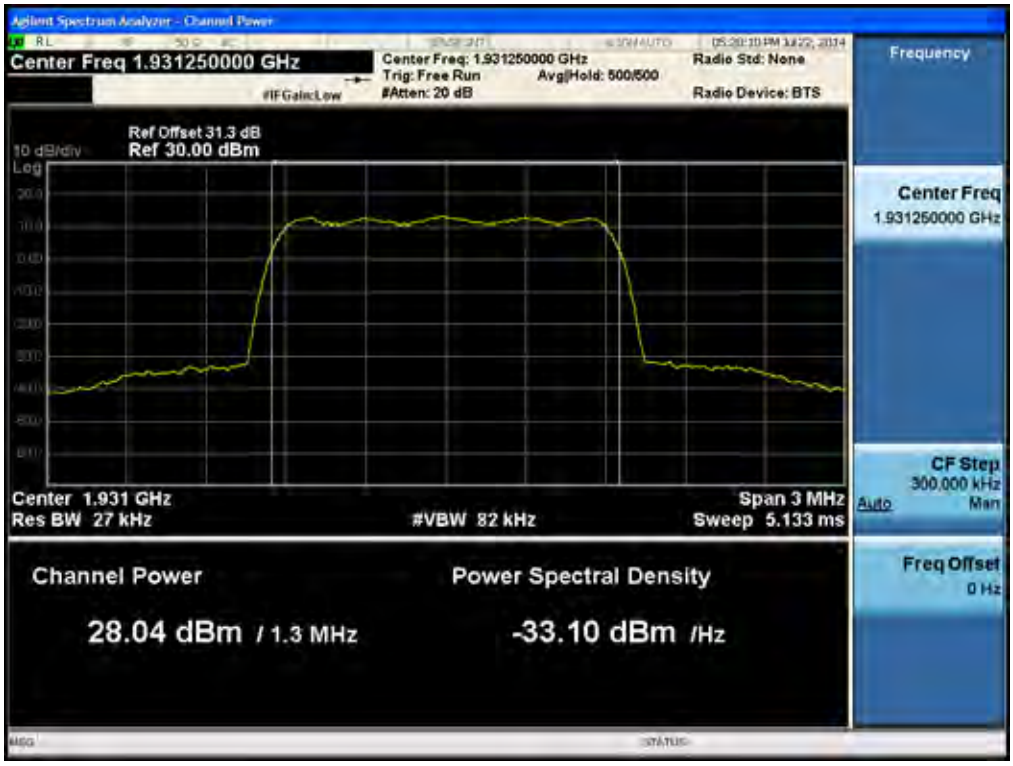


PCS Band Plots of RF Output Power

[CDMA Downlink Low]



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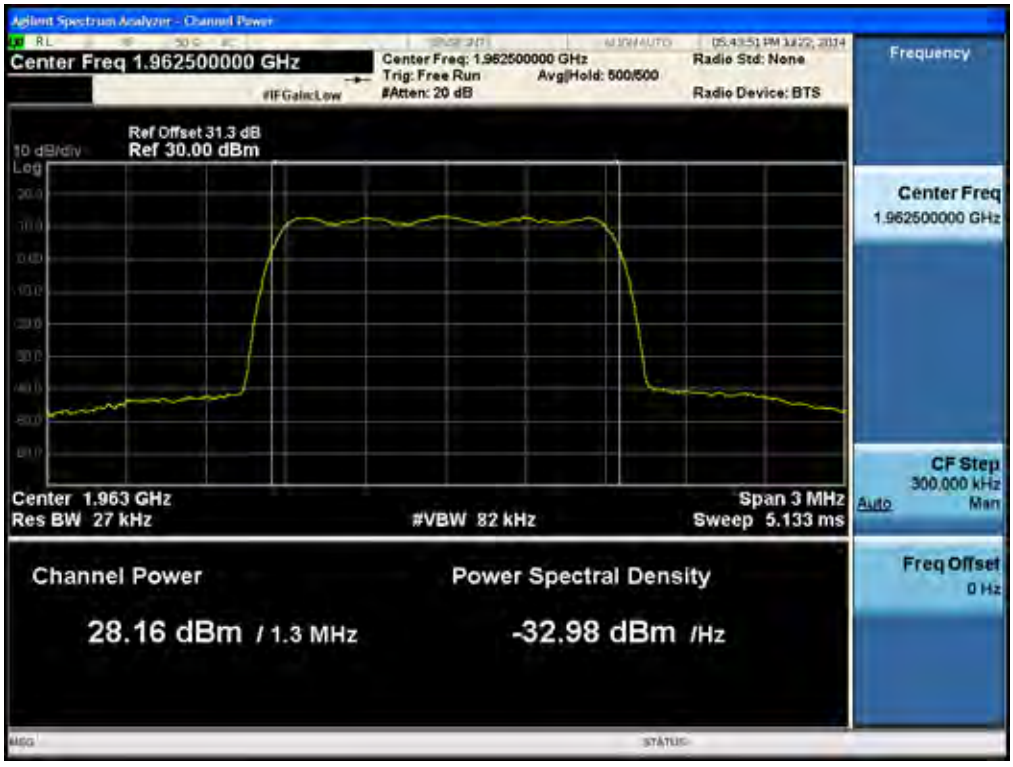

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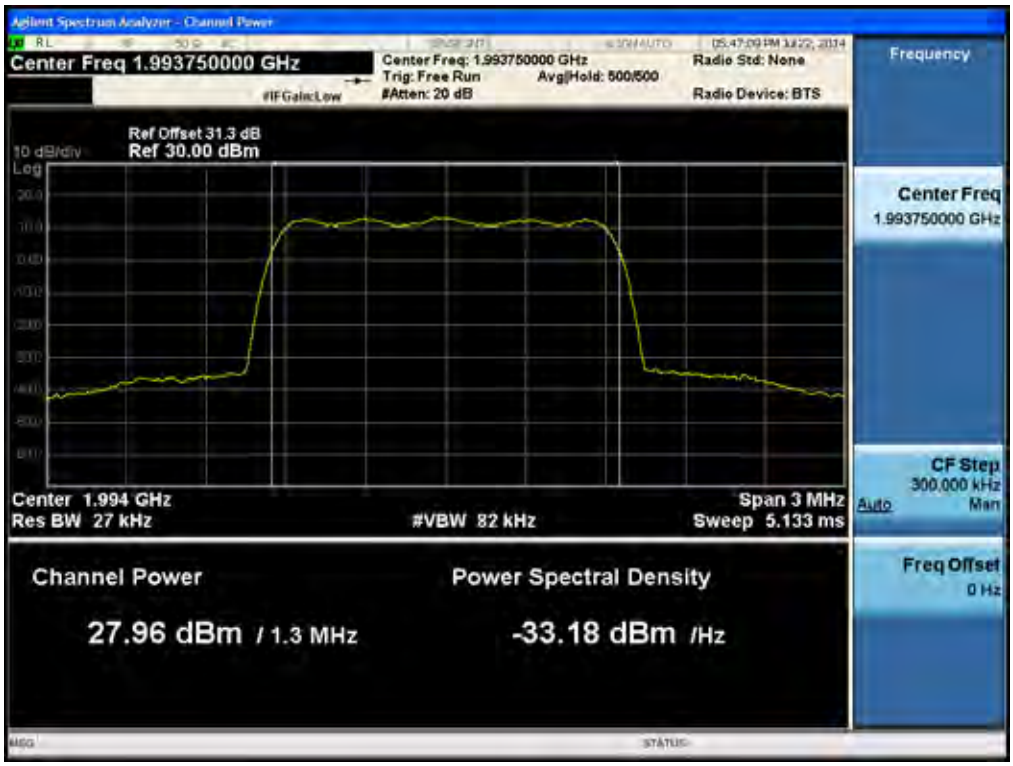

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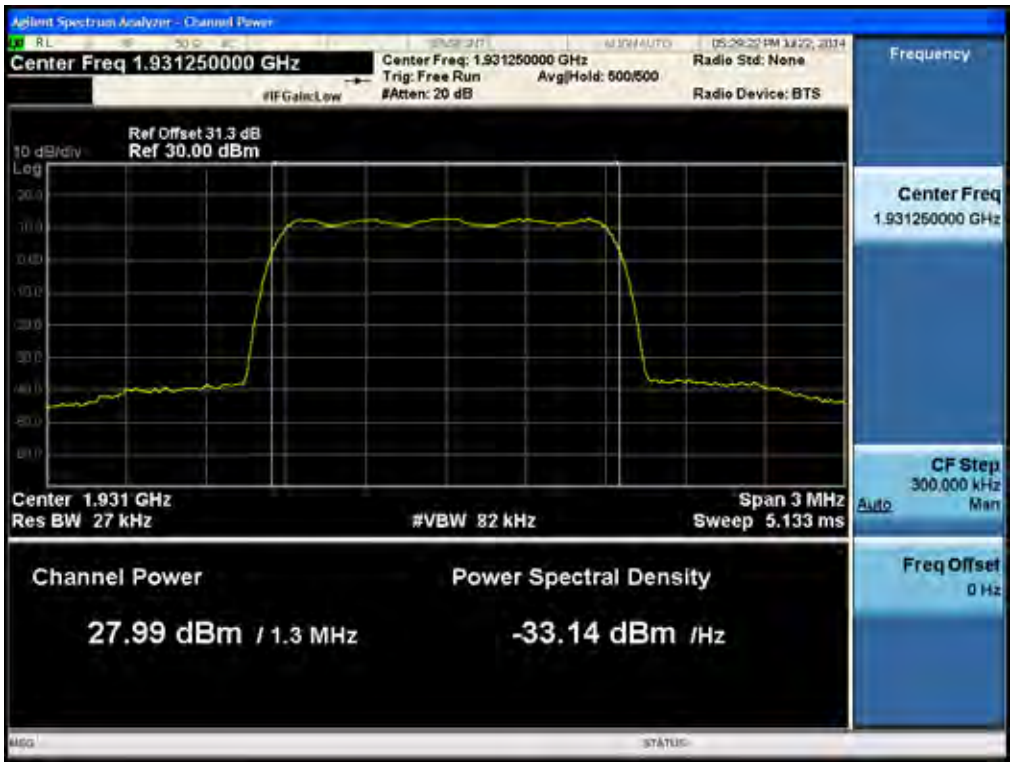

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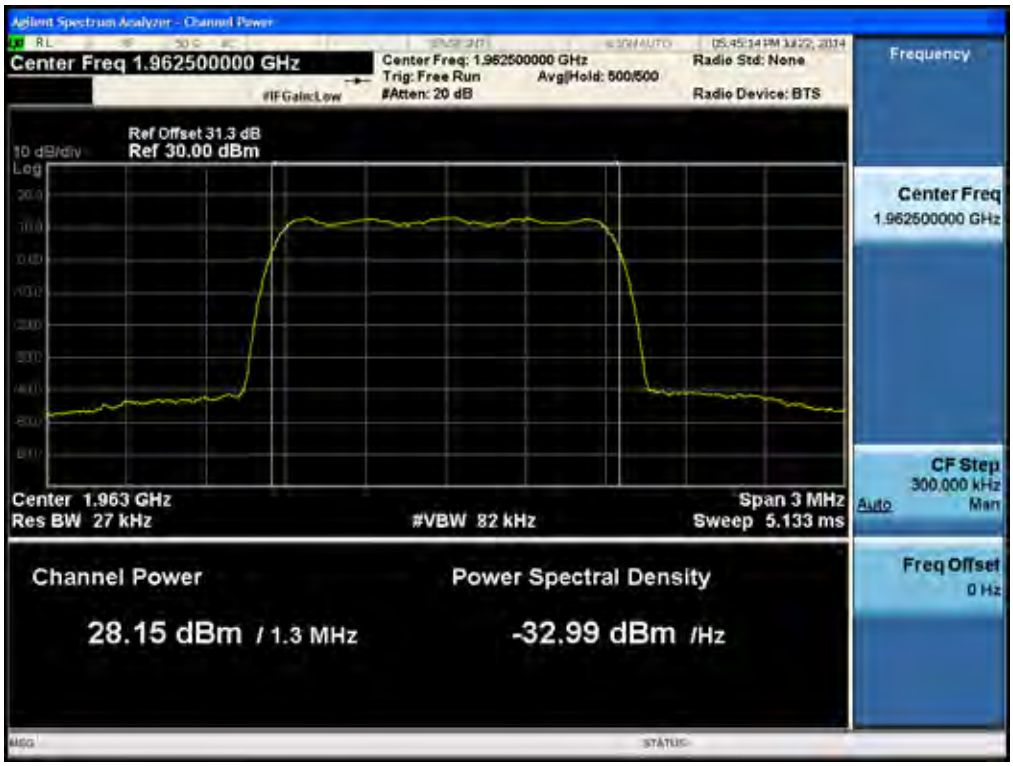
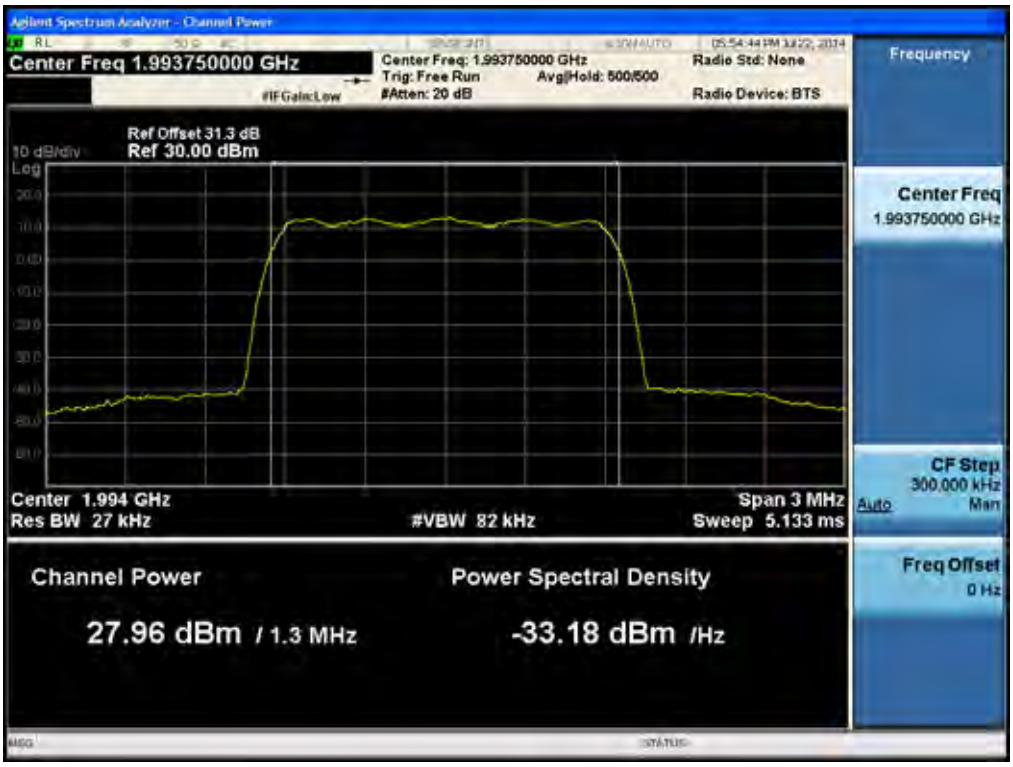


[CDMA EVDO Downlink High]



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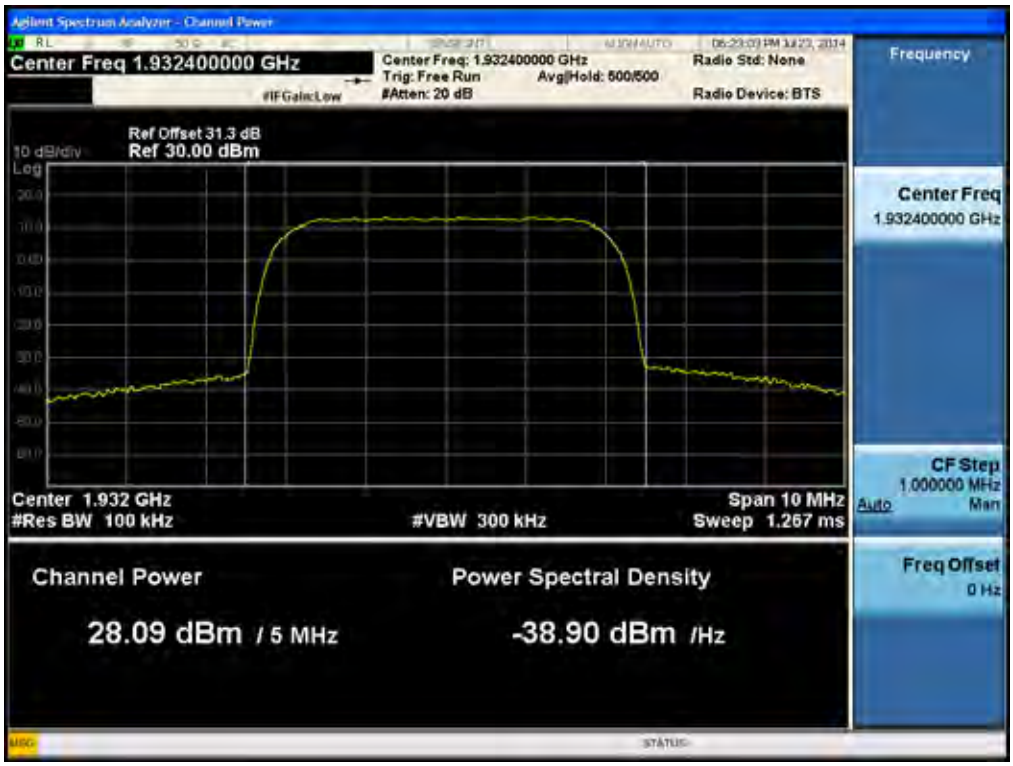
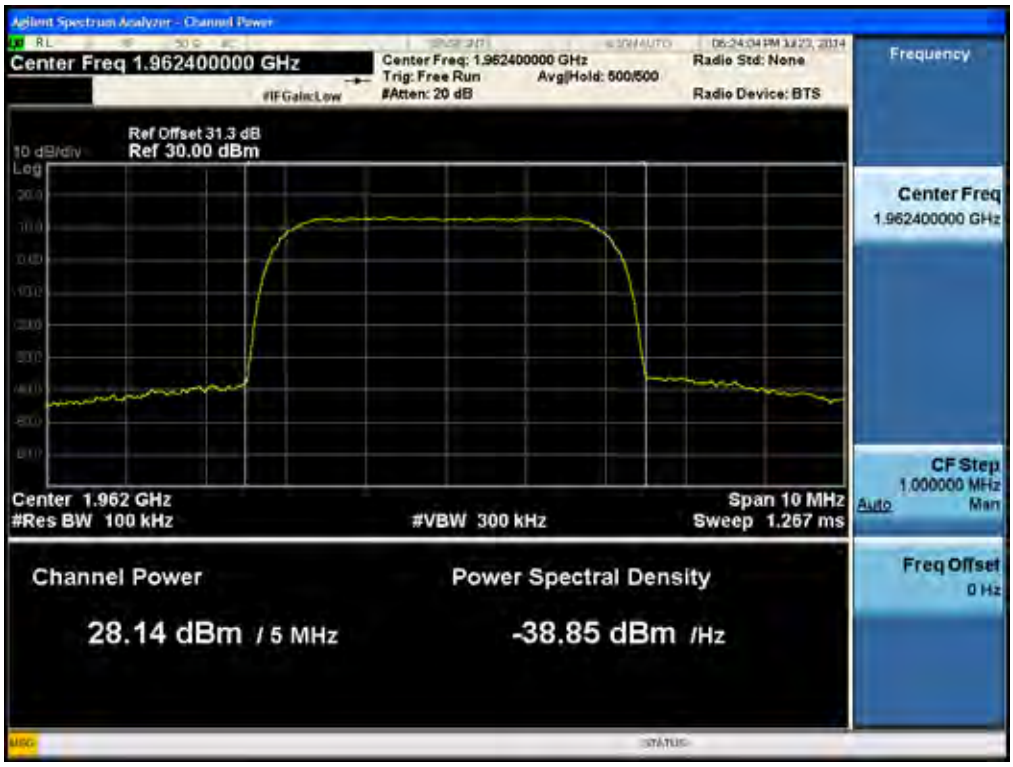
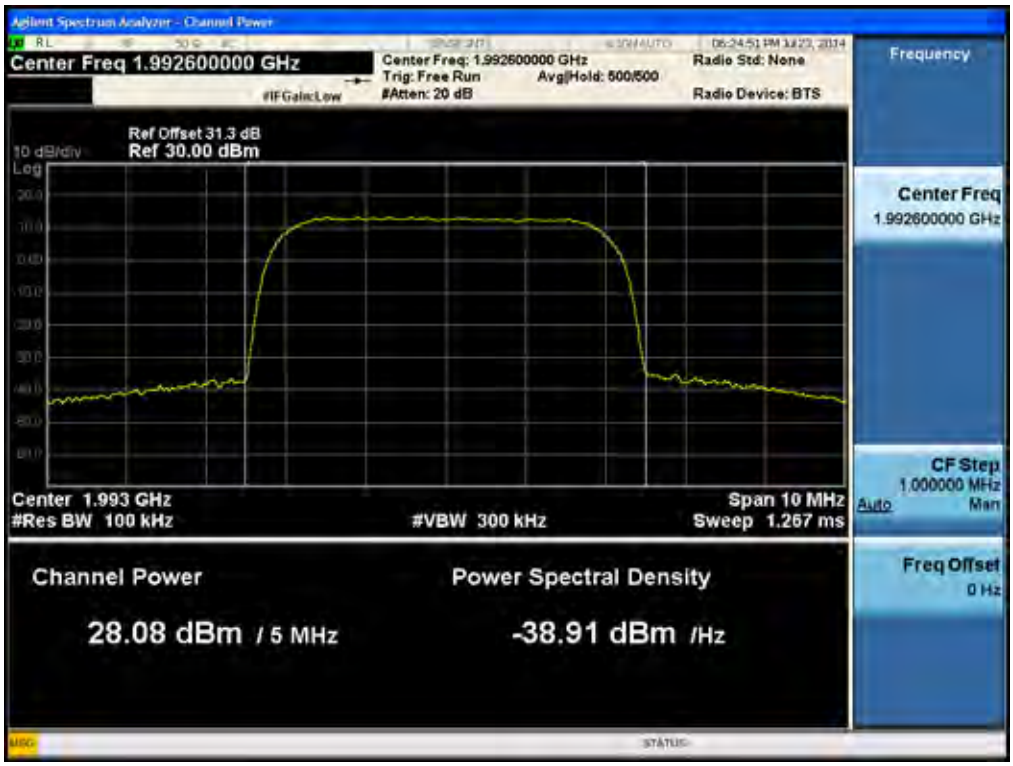


[WCDMA Downlink Middle]

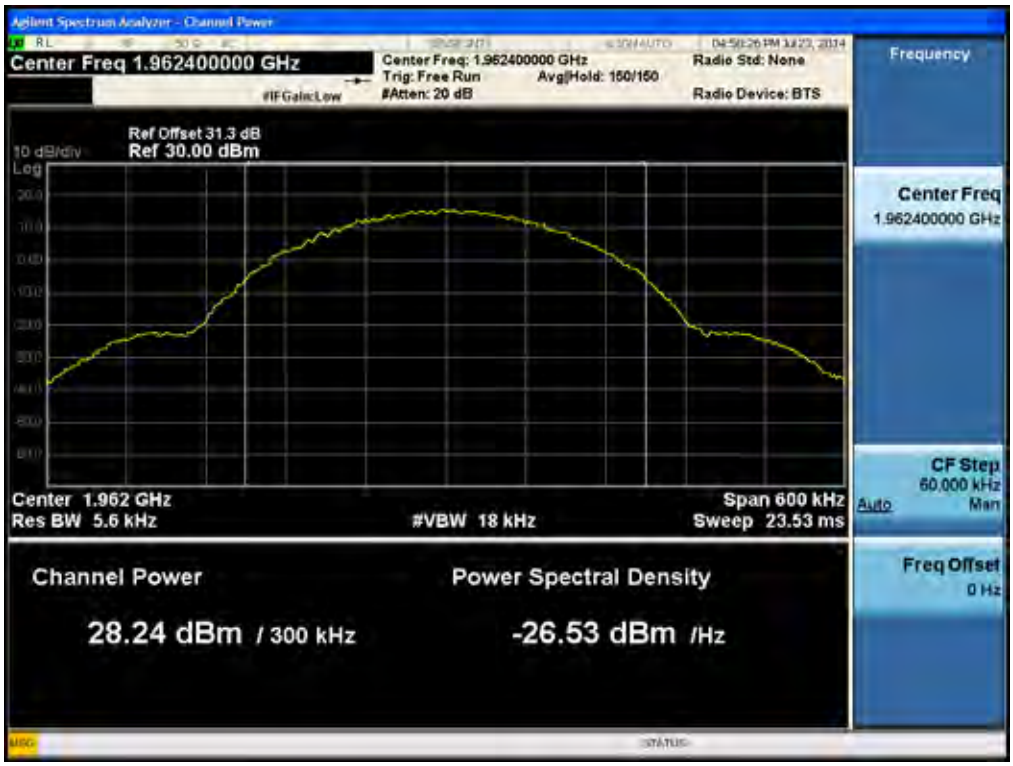


[WCDMA Downlink High]

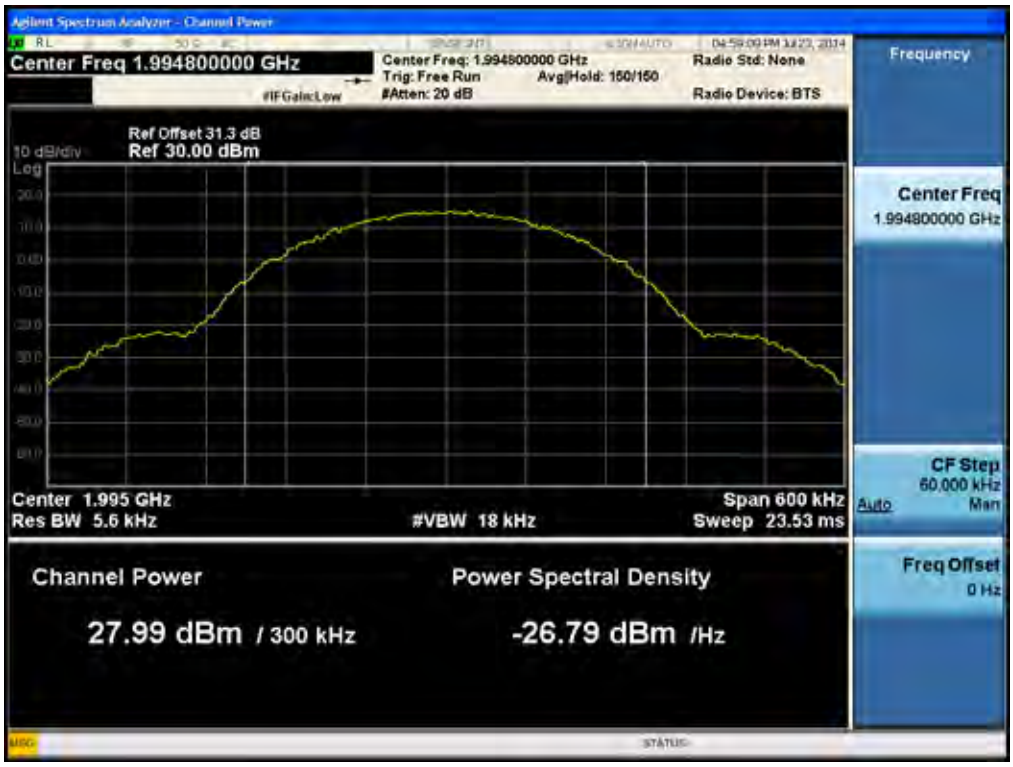


[GSM Downlink Low]

[GSM Downlink Middle]

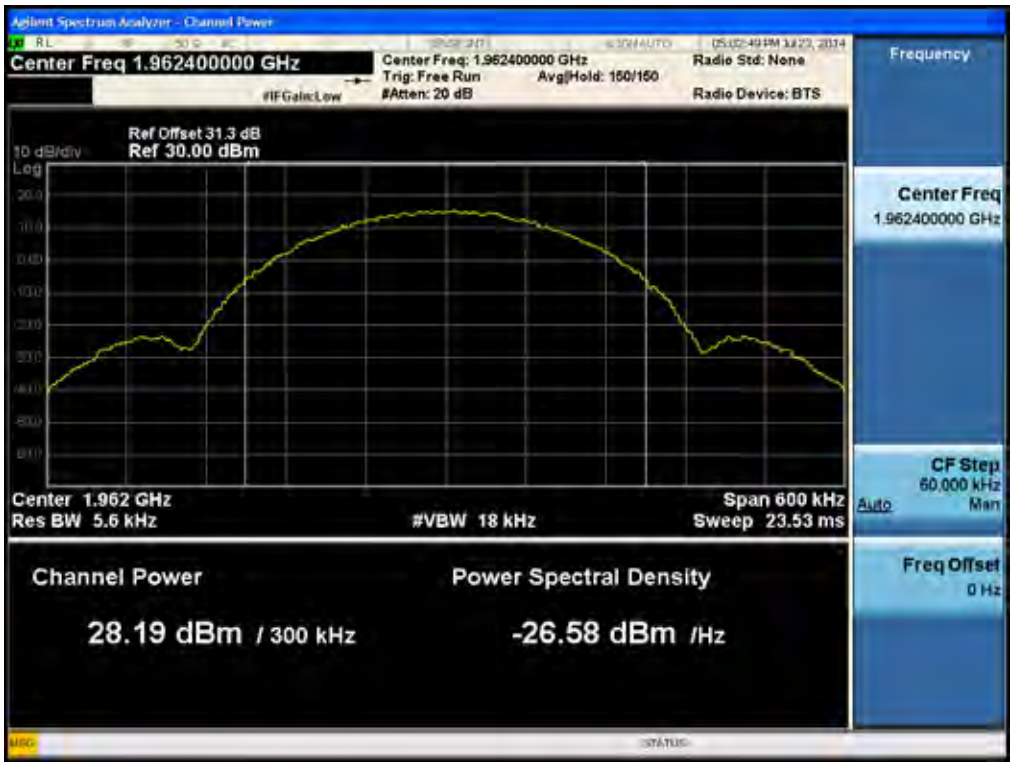


[GSM Downlink High]

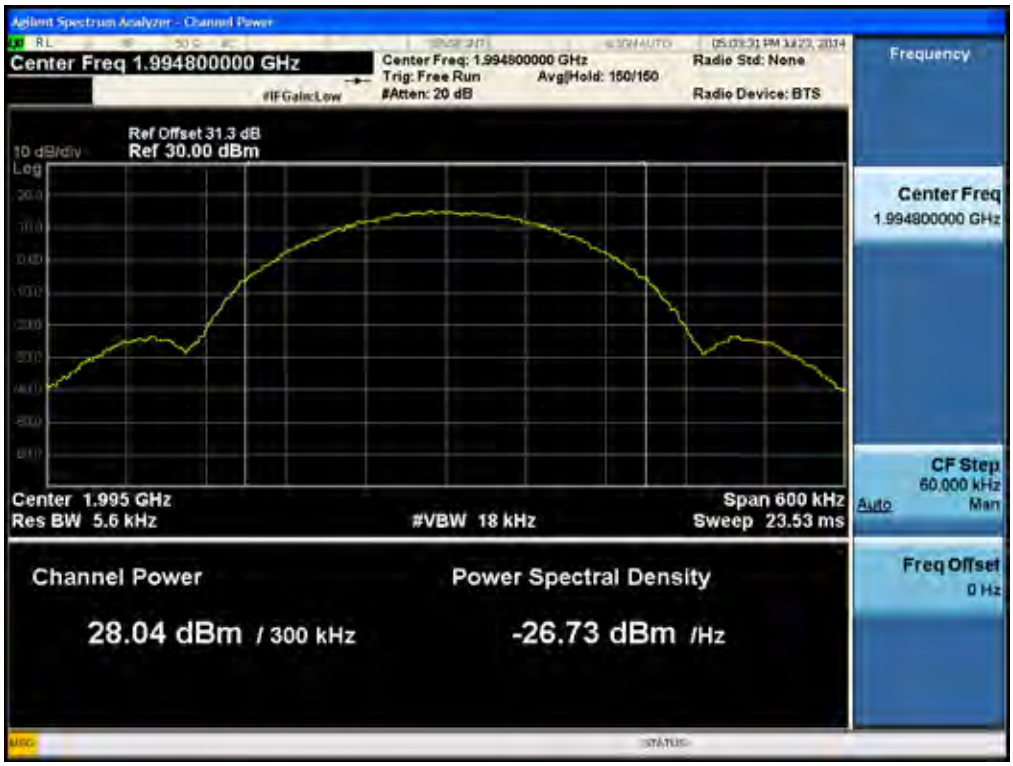


[GSM EDGE Downlink Low]

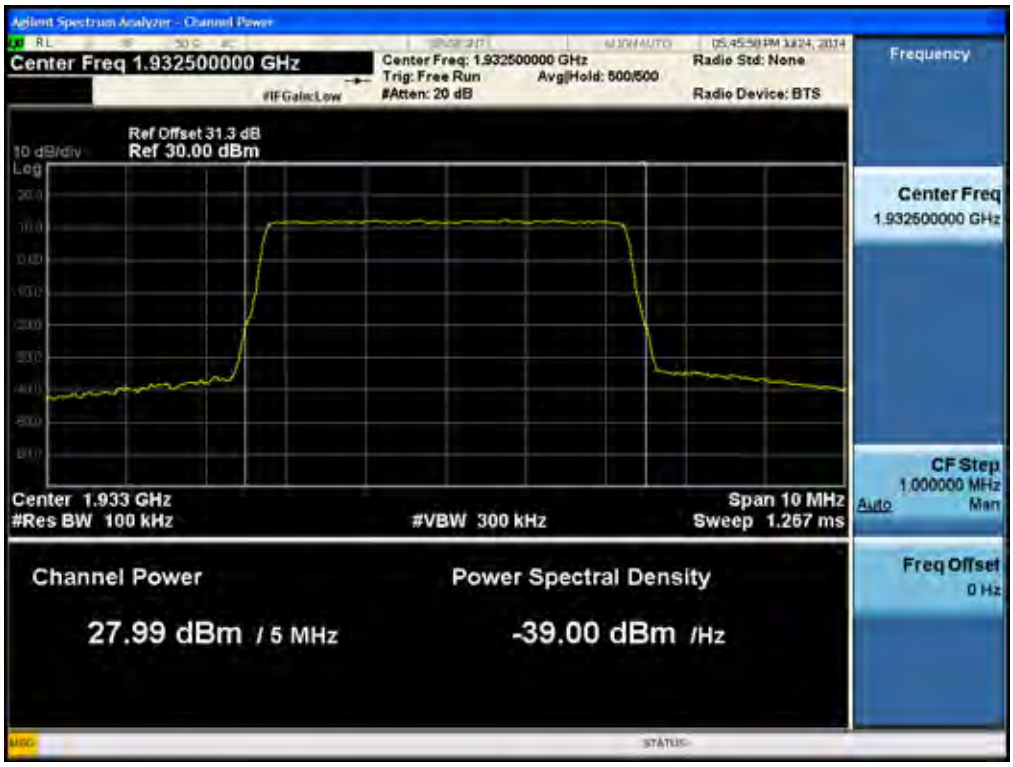
[GSM EDGE Downlink Middle]



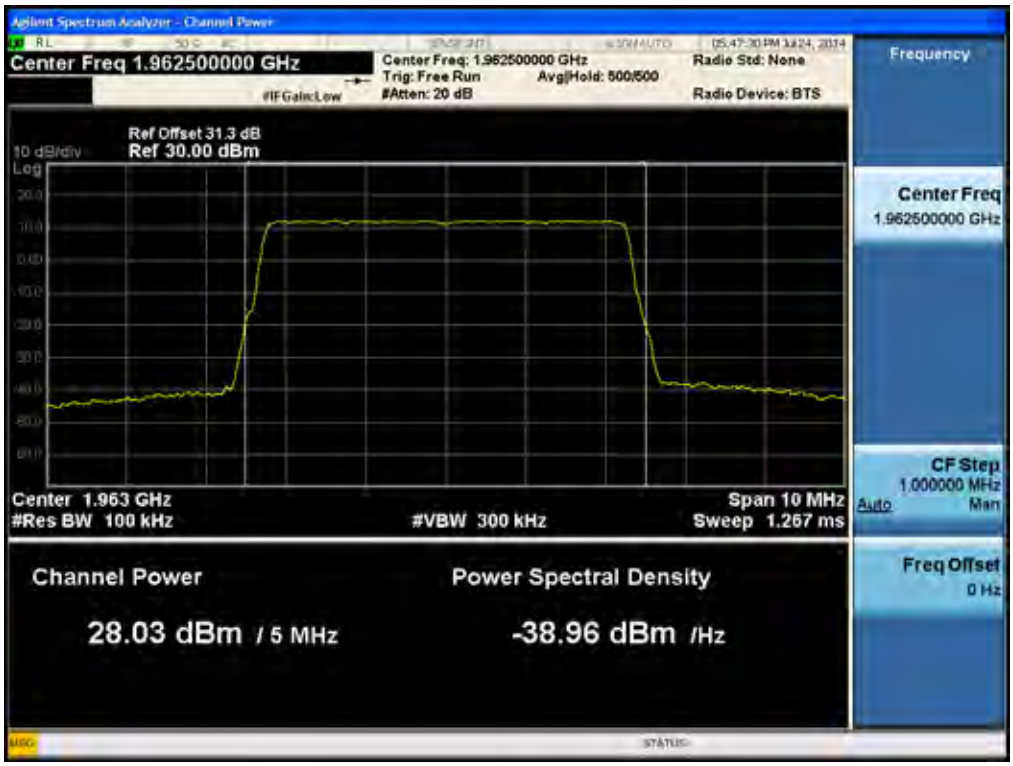
[GSM EDGE Downlink High]



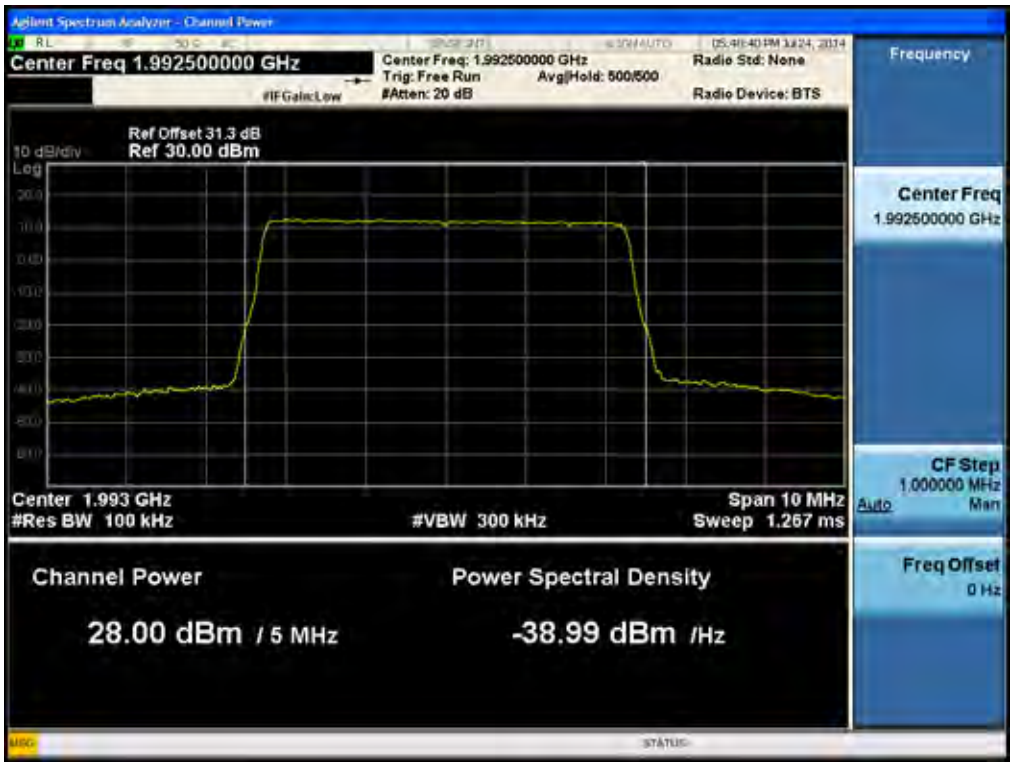
[LTE Downlink 5 MHz Low]



[LTE Downlink 5 MHz Middle]



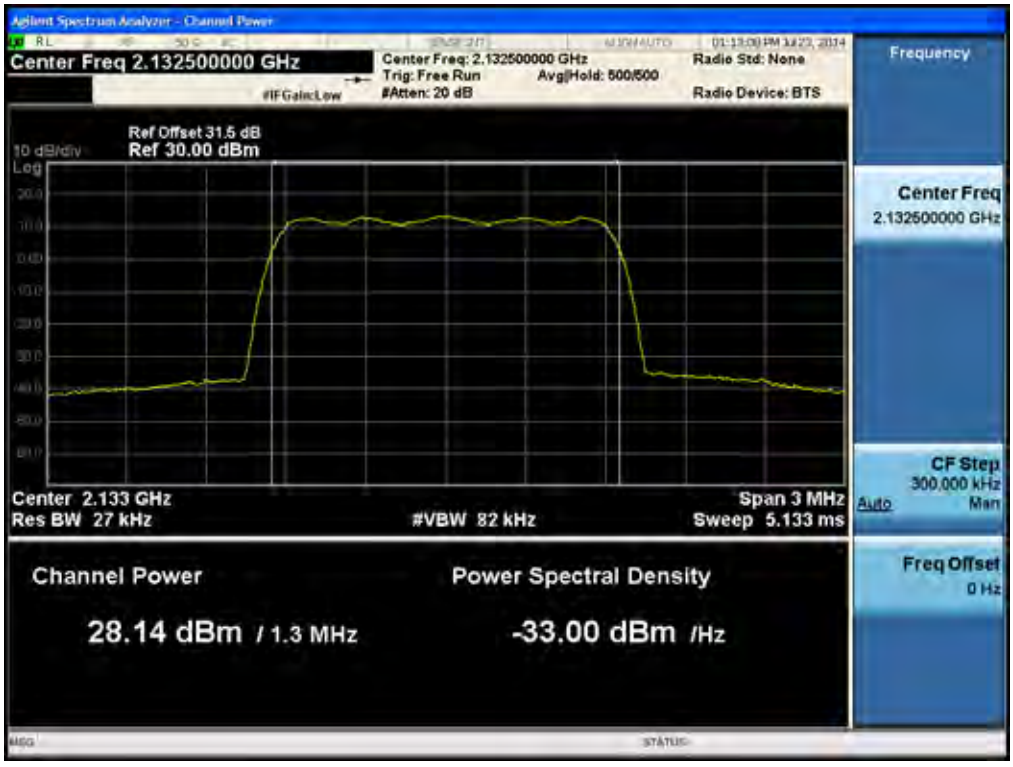
[LTE Downlink 5 MHz High]



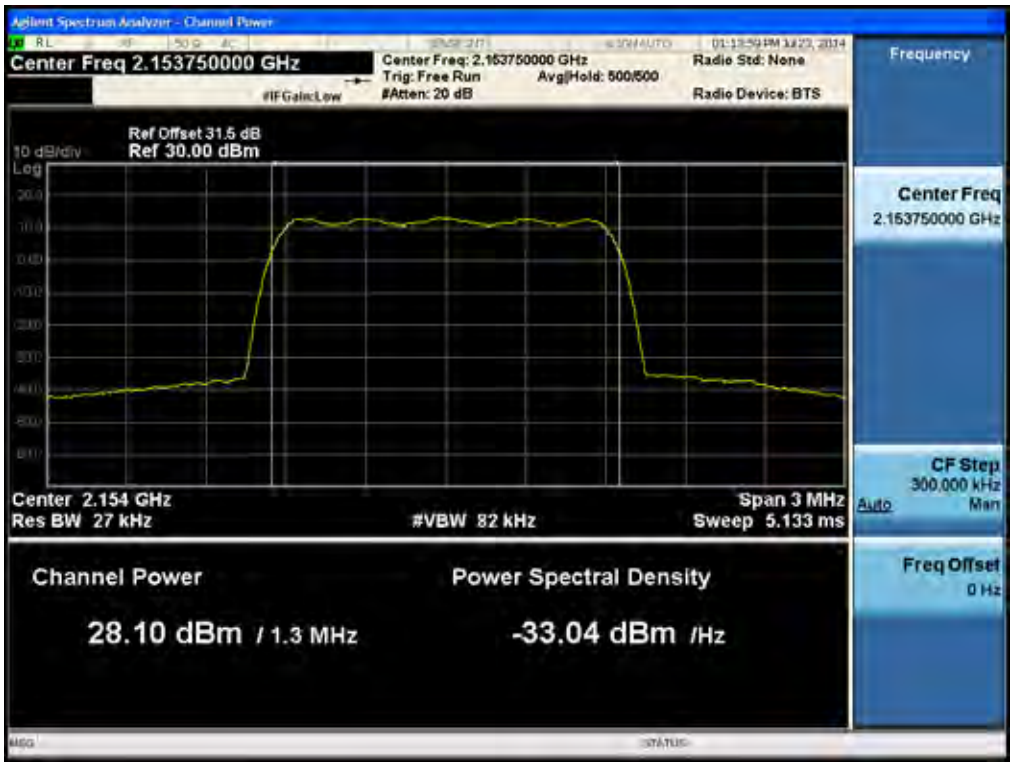
AWS Band Plots of RF Output Power

[CDMA Downlink Low]

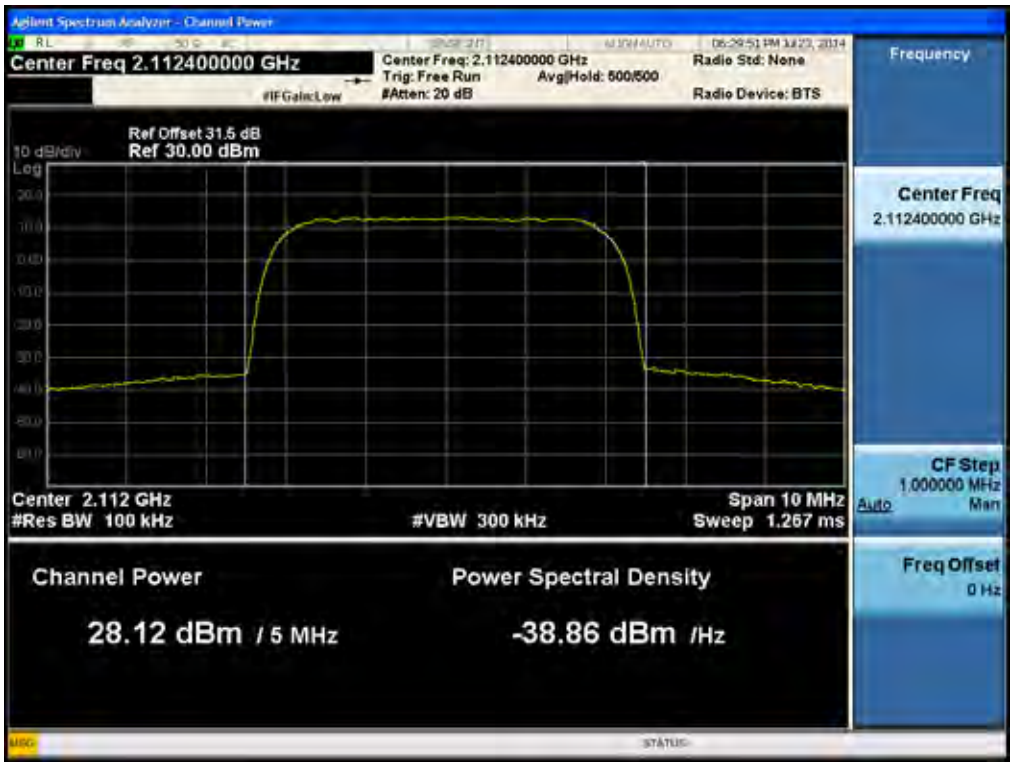
[CDMA Downlink Middle]



[CDMA Downlink High]

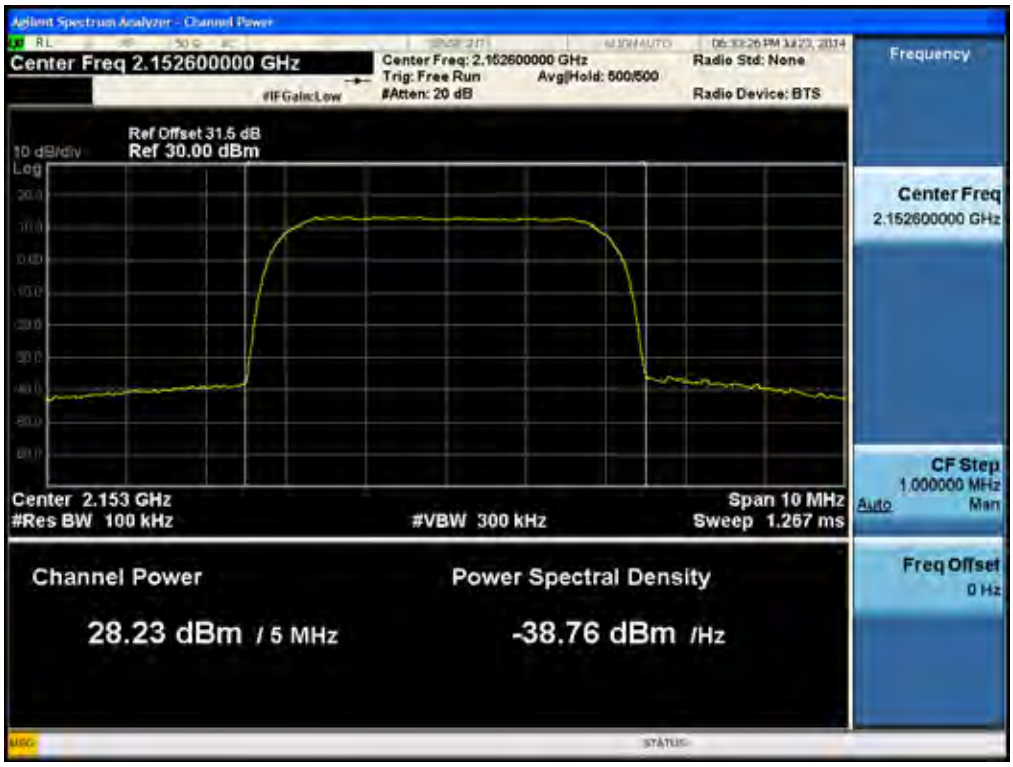


[WCDMA Downlink Low]

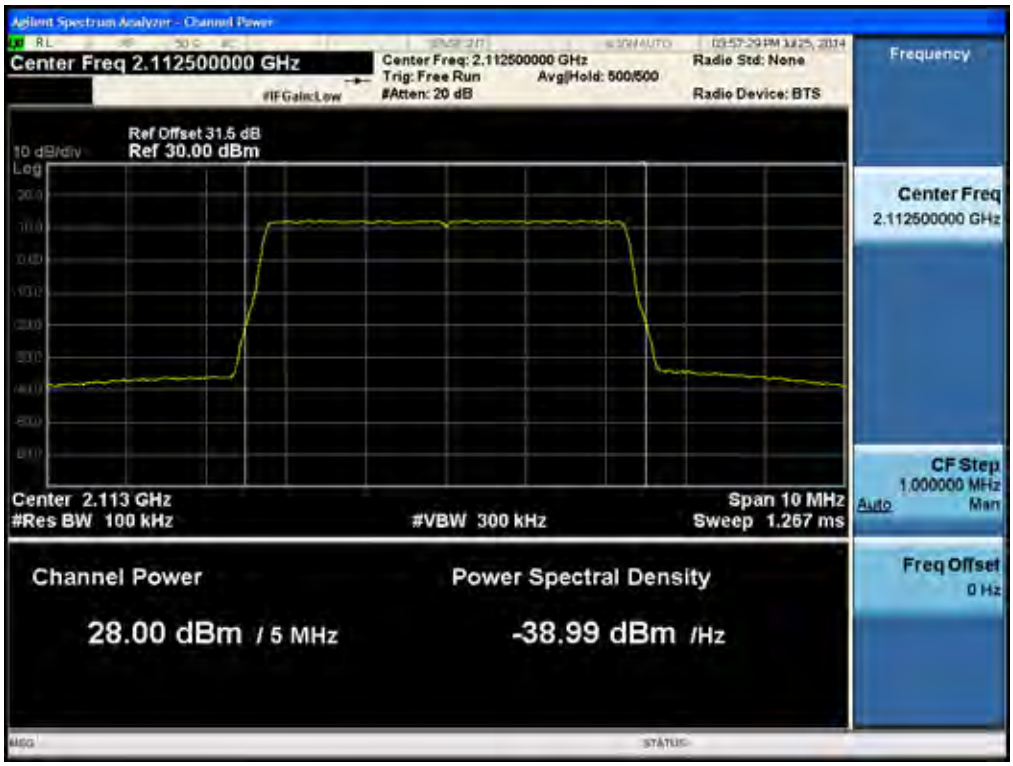


[WCDMA Downlink Middle]

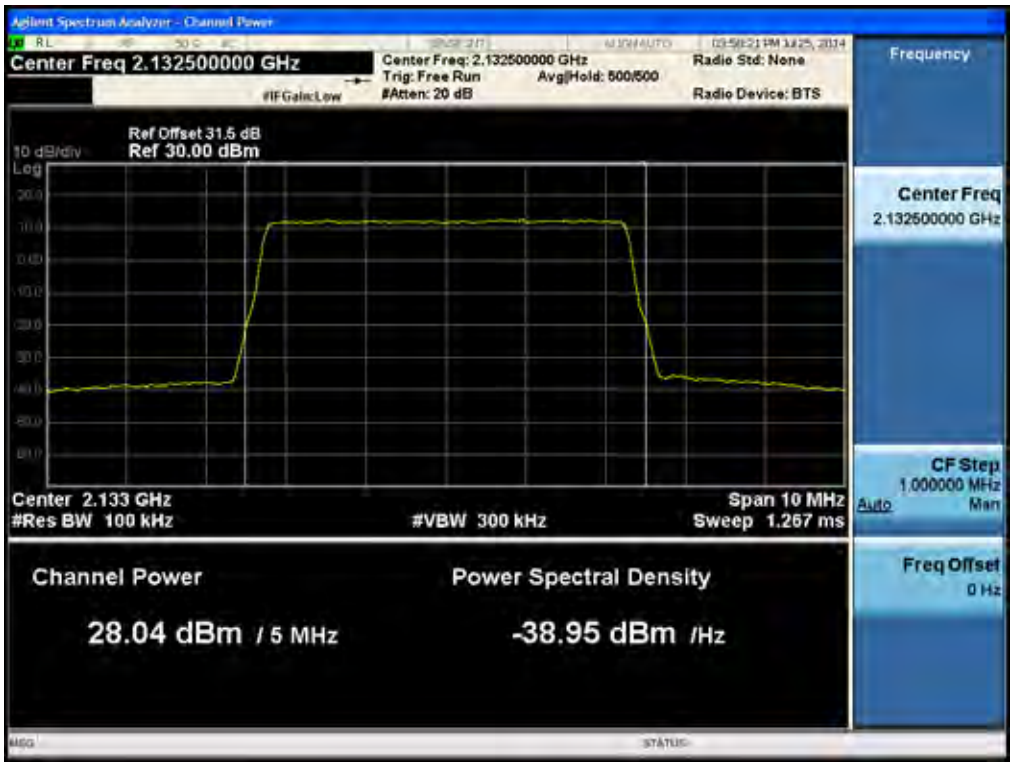
[WCDMA Downlink High]



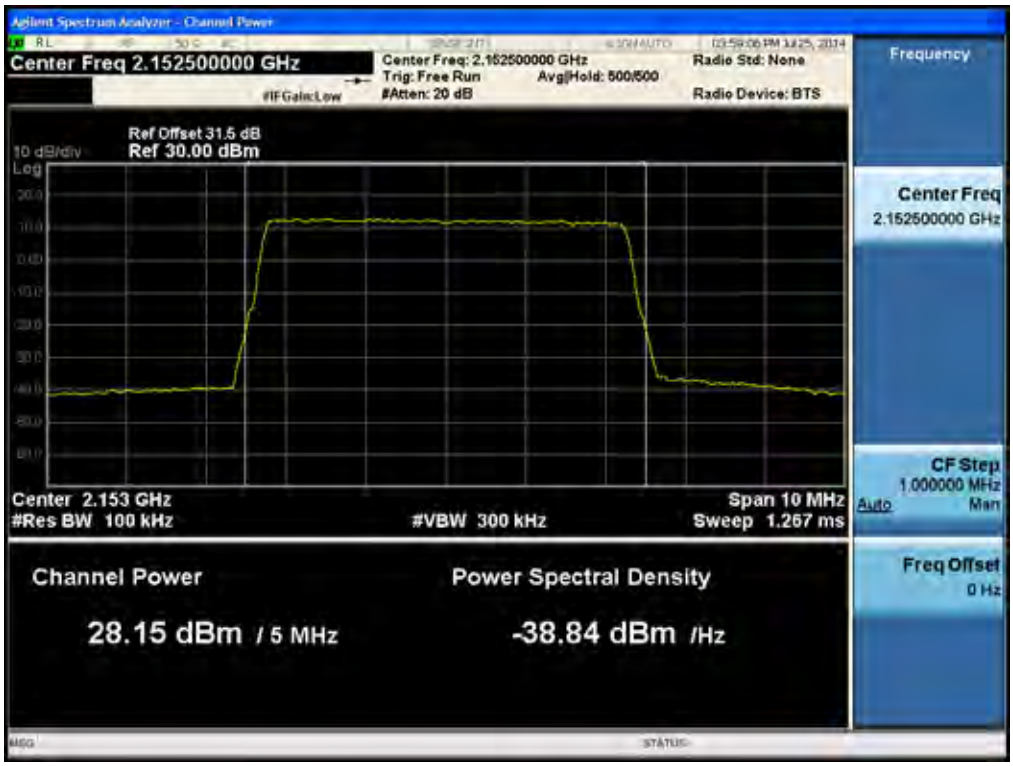
[LTE Downlink 5 MHz Low]



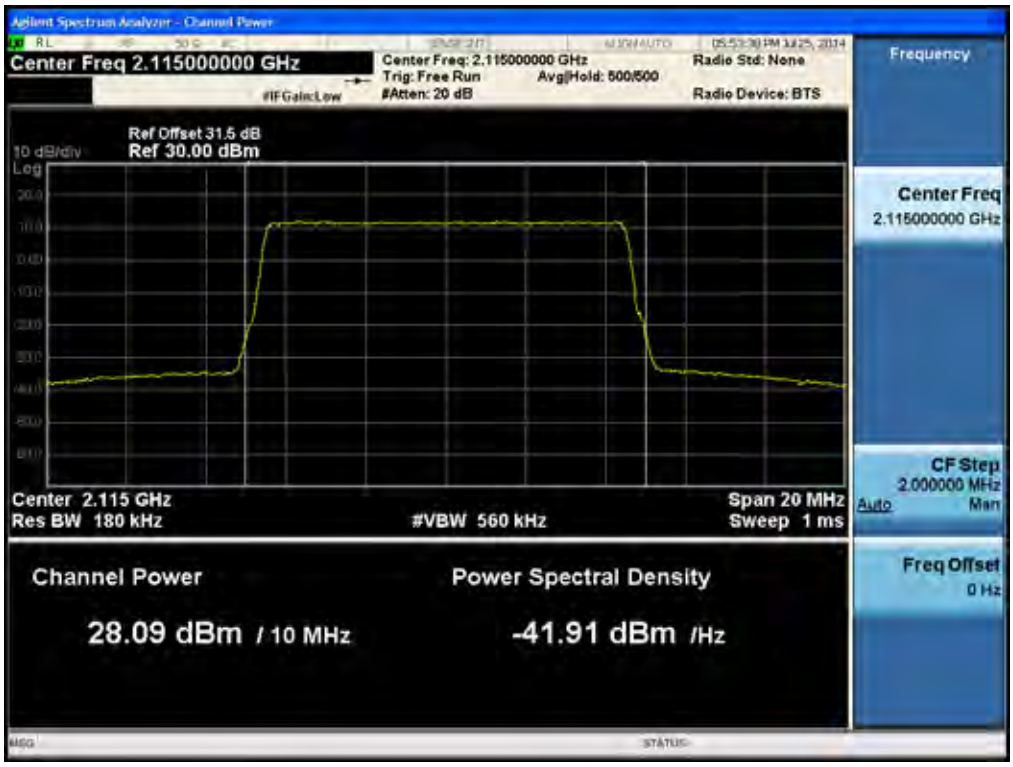
[LTE Downlink 5 MHz Middle]



[LTE Downlink 5 MHz High]



[LTE Downlink 10 MHz Low]



[LTE Downlink 10 MHz Middle]

[LTE Downlink 10 MHz High]

7. OCCUPIED BANDWIDTH

Test Requirement(s): § 2.1049 Measurements required: Occupied bandwidth:

The occupied bandwidth, that 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 shall be measured under the specified conditions of § 2.1049 (a) through (i) as applicable.

Test Procedures: As required by 47 CFR 2.1049, *occupied bandwidth measurements* were made with a Spectrum Analyzer connected to the RF ports for both Uplink and Downlink The modulation characteristics of signal generator's carrier was measured first at a maximum RF level prescribed by the OEM. The signal generator was then connected to either the Uplink or Downlink input at the appropriate RF level. The resulting modulated signal through the EUT was measured and compared against the original signal.

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

700 MHz LTE Band

Input Signal	Input Level (dBm)	Maximum Amp Gain
LTE 5 MHz	DL : -20.5 dBm	DL : 45 dB
LTE 10 MHz		

Cellular Band

Input Signal	Input Level (dBm)	Maximum Amp Gain
CDMA	DL : -20.5 dBm	DL : 44.5 dB
WCDMA		
GSM		
LTE 5 MHz		

PCS Band

Input Signal	Input Level (dBm)	Maximum Amp Gain
CDMA	DL : -20.5 dBm	DL : 48.5 dB
WCDMA		
GSM		
LTE 5 MHz		

AWS Band

Input Signal	Input Level (dBm)	Maximum Amp Gain
CDMA	DL : -21.0 dBm	DL : 49 dB
WCDMA		
LTE 5 MHz	DL : -20.5 dBm	
LTE 10 MHz		

Cellular Band

[Downlink Output]

	Channel	Frequency (MHz)	OBW (MHz)
CDMA	Low	869.73	1.260
	Middle	881.52	1.265
	High	893.28	1.262
CDMA EVDO	Low	869.73	1.266
	Middle	881.52	1.263
	High	893.28	1.264
WCDMA	Low	871.40	4.170
	Middle	881.40	4.143
	High	891.60	4.161

[Downlink Input]

	Channel	Frequency (MHz)	OBW (MHz)
CDMA	Low	869.73	1.262
	Middle	881.52	1.262
	High	893.28	1.262
CDMA EVDO	Low	869.73	1.262
	Middle	881.52	1.266
	High	893.28	1.263
WCDMA	Low	871.40	4.183
	Middle	881.40	4.199
	High	891.60	4.180

[Downlink Output]

	Channel	Frequency (MHz)	OBW (MHz)
GSM	Low	869.20	0.260
	Middle	881.40	0.260
	High	893.80	0.260
GSM EDGE	Low	869.20	0.256
	Middle	881.40	0.255
	High	893.80	0.256
LTE 5 MHz	Low	871.50	4.521
	Middle	881.50	4.513
	High	891.50	4.514

[Downlink Input]

	Channel	Frequency (MHz)	OBW (MHz)
GSM	Low	869.20	0.259
	Middle	881.40	0.258
	High	893.80	0.260
GSM EDGE	Low	869.20	0.256
	Middle	881.40	0.256
	High	893.80	0.256
LTE 5 MHz	Low	871.50	4.518
	Middle	881.50	4.510
	High	891.50	4.523

PCS Band

[Downlink Output]

	Channel	Frequency (MHz)	OBW (MHz)
CDMA	Low	1931.25	1.268
	Middle	1962.50	1.263
	High	1993.75	1.265
CDMA EVDO	Low	1931.25	1.267
	Middle	1962.50	1.269
	High	1993.75	1.267
WCDMA	Low	1932.40	4.149
	Middle	1962.40	4.188
	High	1992.60	4.171

[Downlink Input]

	Channel	Frequency (MHz)	OBW (MHz)
CDMA	Low	1931.25	1.262
	Middle	1962.50	1.259
	High	1993.75	1.261
CDMA EVDO	Low	1931.25	1.262
	Middle	1962.50	1.260
	High	1993.75	1.266
WCDMA	Low	1932.40	4.146
	Middle	1962.40	4.164
	High	1992.60	4.187

[Downlink Output]

	Channel	Frequency (MHz)	OBW (MHz)
GSM	Low	1930.20	0.261
	Middle	1962.40	0.258
	High	1994.80	0.262
GSM EDGE	Low	1930.20	0.257
	Middle	1962.40	0.259
	High	1994.80	0.257
LTE 5 MHz	Low	1932.50	4.514
	Middle	1962.50	4.513
	High	1992.50	4.514

[Downlink Input]

	Channel	Frequency (MHz)	OBW (MHz)
GSM	Low	1930.20	0.261
	Middle	1962.40	0.259
	High	1994.80	0.260
GSM EDGE	Low	1930.20	0.256
	Middle	1962.40	0.257
	High	1994.80	0.258
LTE 5 MHz	Low	1932.50	4.521
	Middle	1962.50	4.517
	High	1992.50	4.516

AWS Band

[Downlink Output]

	Channel	Frequency (MHz)	OBW (MHz)
CDMA	Low	2111.25	1.262
	Middle	2132.50	1.263
	High	2153.75	1.267
WCDMA	Low	2112.40	4.171
	Middle	2132.40	4.170
	High	2152.60	4.167

[Downlink Input]

	Channel	Frequency (MHz)	OBW (MHz)
CDMA	Low	2111.25	1.260
	Middle	2132.50	1.266
	High	2153.75	1.265
CDMA EVDO	Low	2111.25	1.264
	Middle	2132.50	1.264
	High	2153.75	1.262
WCDMA	Low	2112.40	4.193
	Middle	2132.40	4.157
	High	2152.60	4.181

[Downlink Output]

	Channel	Frequency (MHz)	OBW (MHz)
LTE 5 MHz	Low	2112.50	4.507
	Middle	2132.50	4.507
	High	2152.50	4.503
LTE 10 MHz	Low	2115.00	9.000
	Middle	2132.50	9.010
	High	2150.00	9.000

[Downlink Input]

	Channel	Frequency (MHz)	OBW (MHz)
LTE 5 MHz	Low	2112.50	4.518
	Middle	2132.50	4.517
	High	2152.50	4.516
LTE 10 MHz	Low	2115.00	8.981
	Middle	2132.50	9.010
	High	2150.00	8.991

700 MHz LTE Band

[Downlink Output]

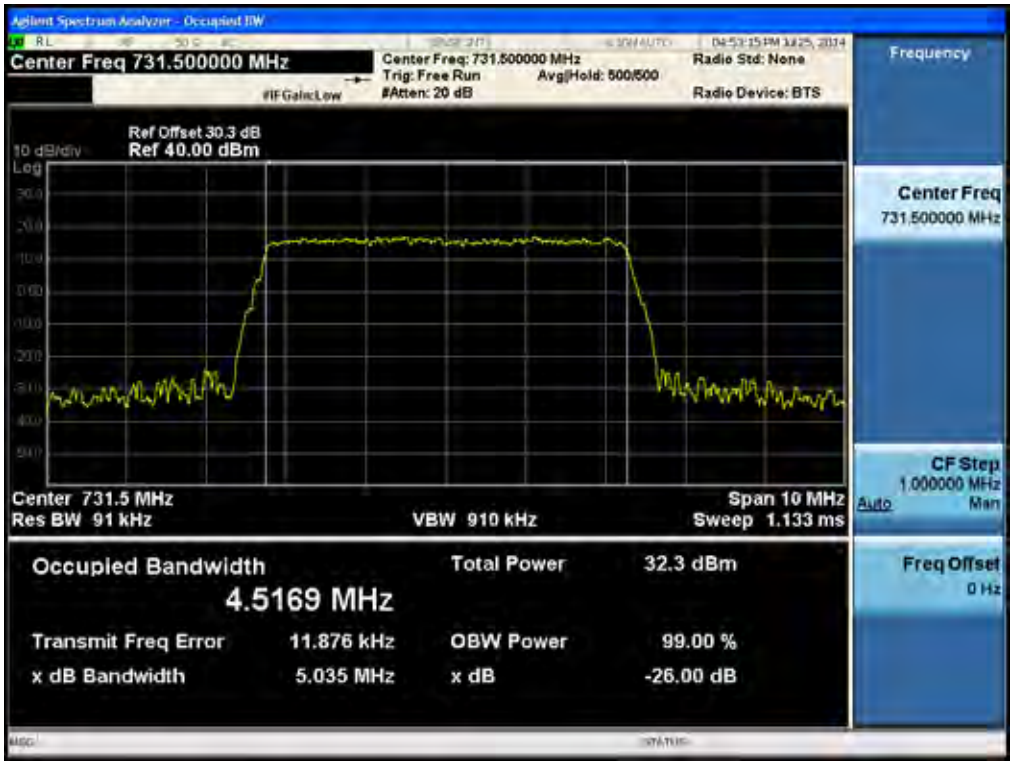
	Channel	Frequency (MHz)	OBW (MHz)
LTE 5 MHz	Low	731.50	4.517
	Middle	742.50	4.515
	High	753.50	4.514
LTE 10 MHz	Low	734.00	8.991
	Middle	741.00	9.017
	High	751.00	8.978

[Downlink Input]

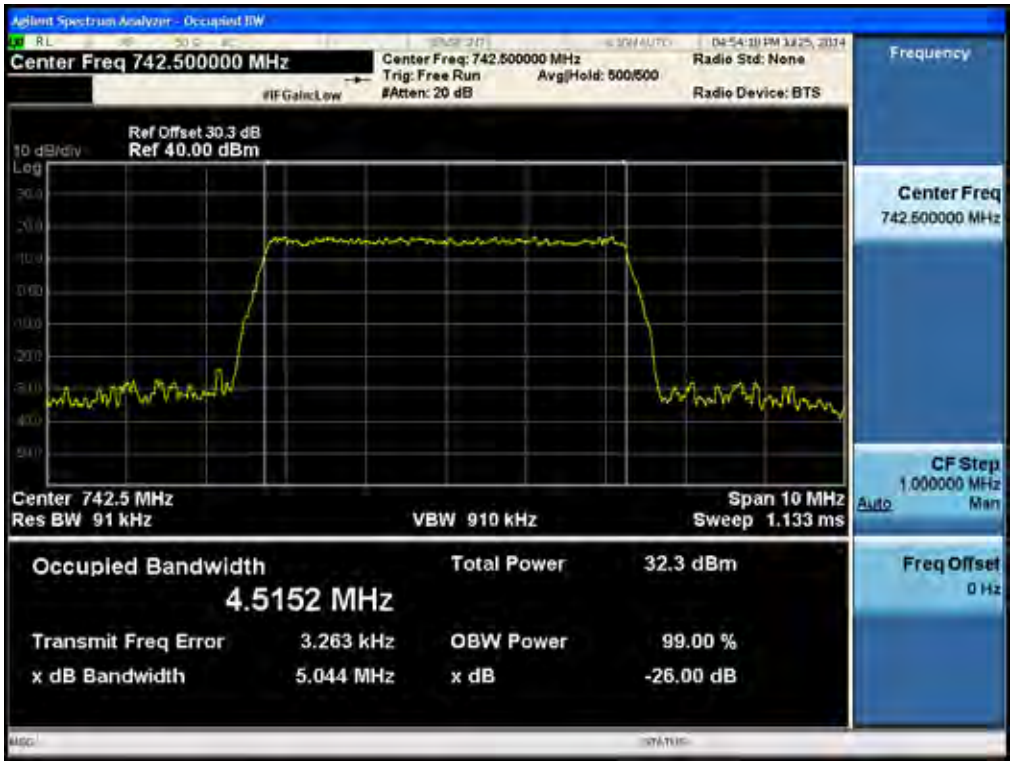
	Channel	Frequency (MHz)	OBW (MHz)
LTE 5 MHz	Low	731.50	4.515
	Middle	742.50	4.515
	High	753.50	4.518
LTE 10 MHz	Low	734.00	9.000
	Middle	741.00	9.001
	High	751.00	8.986

700 MHz LTE Band Plots of Occupied Bandwidth

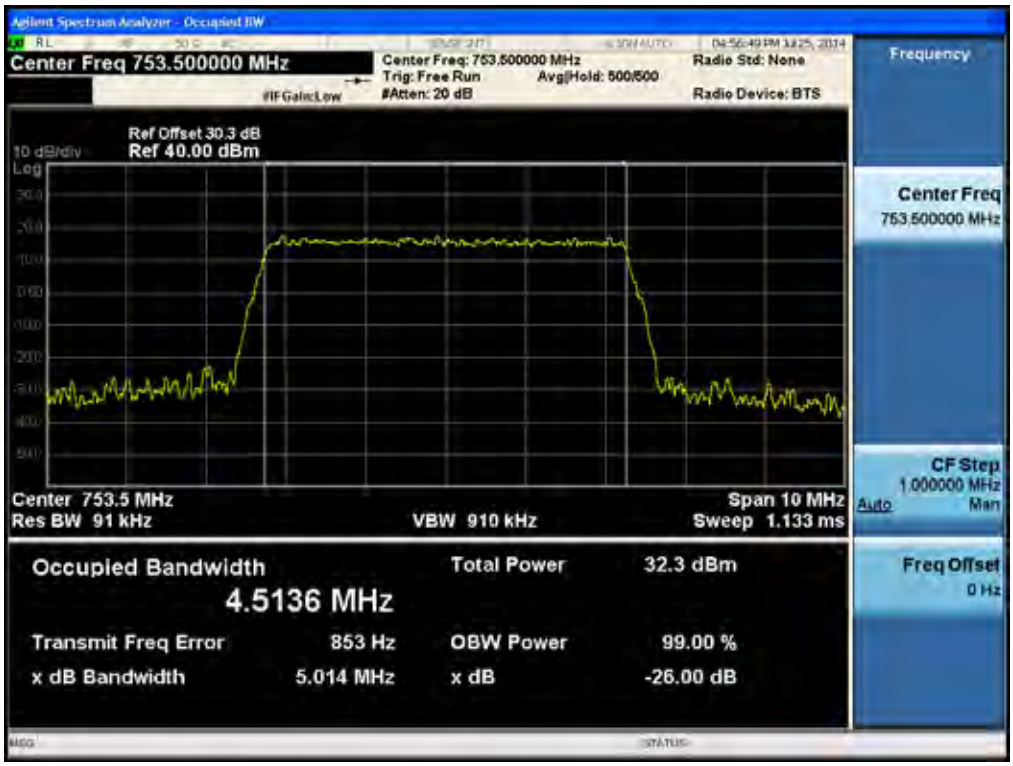
[Output LTE Downlink 5 MHz Low]



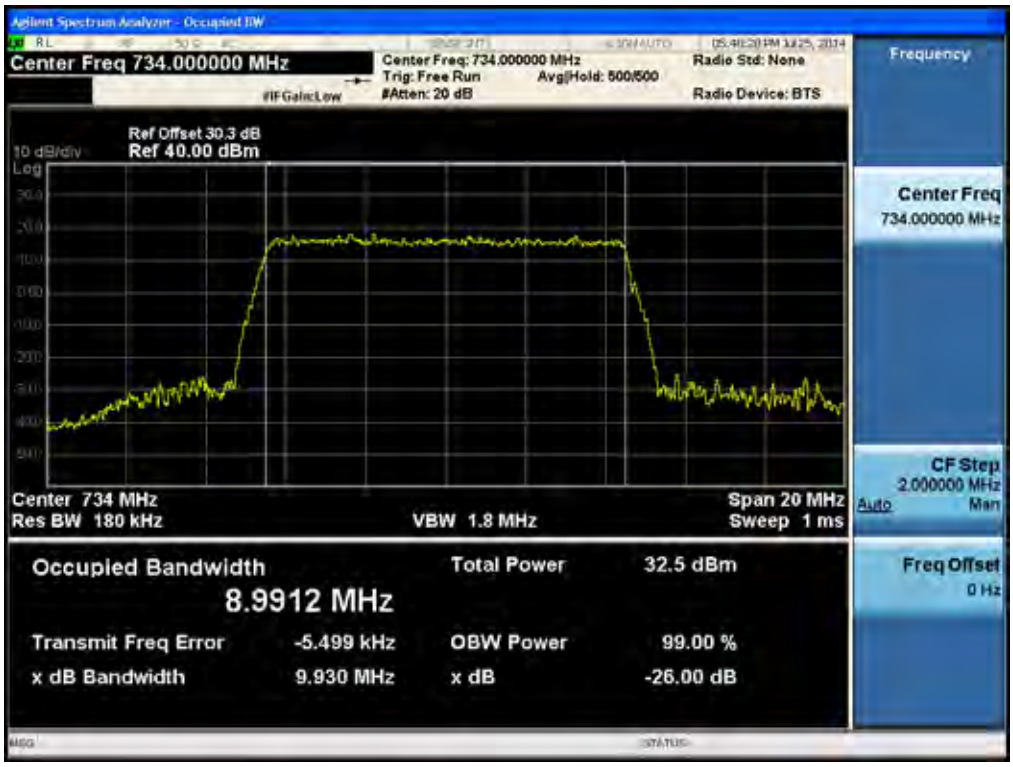
[Output LTE Downlink 5 MHz Middle]



[Output LTE Downlink 5 MHz High]

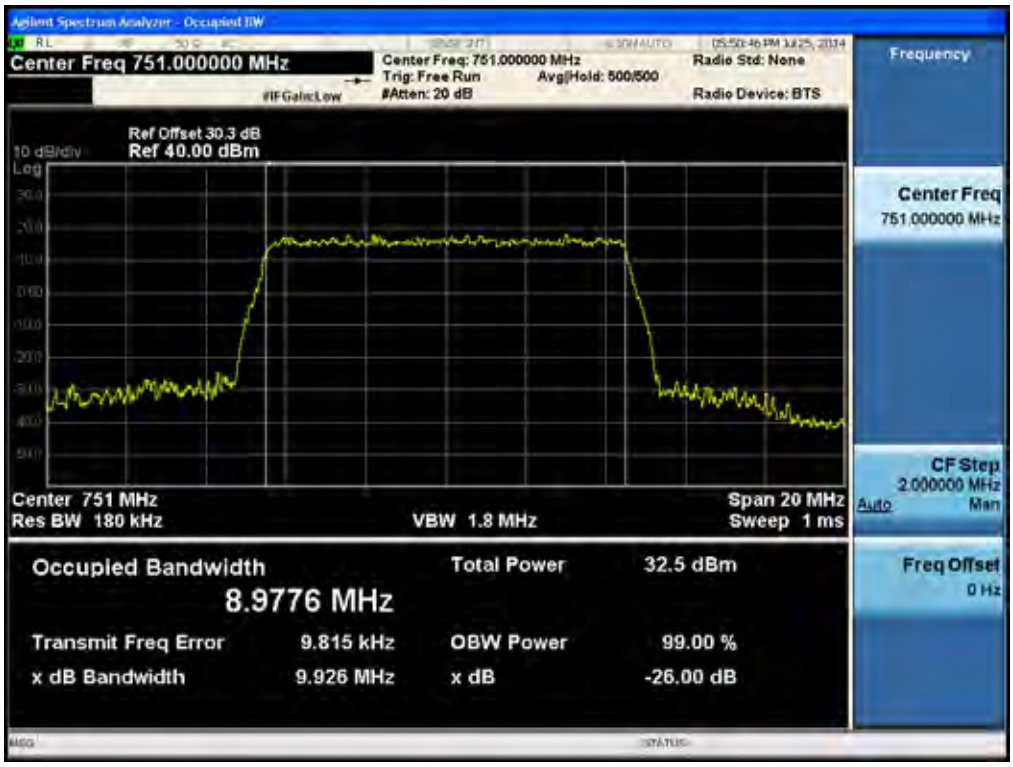


[Output LTE Downlink 10 MHz Low]

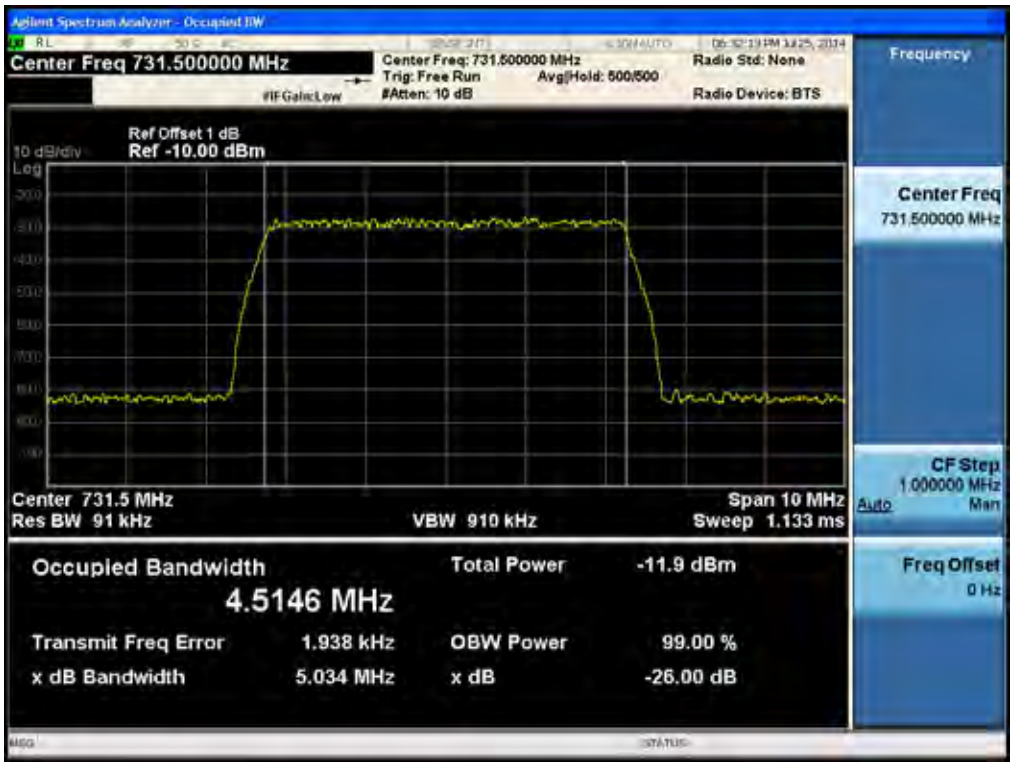


[Output LTE Downlink 10 MHz Middle]

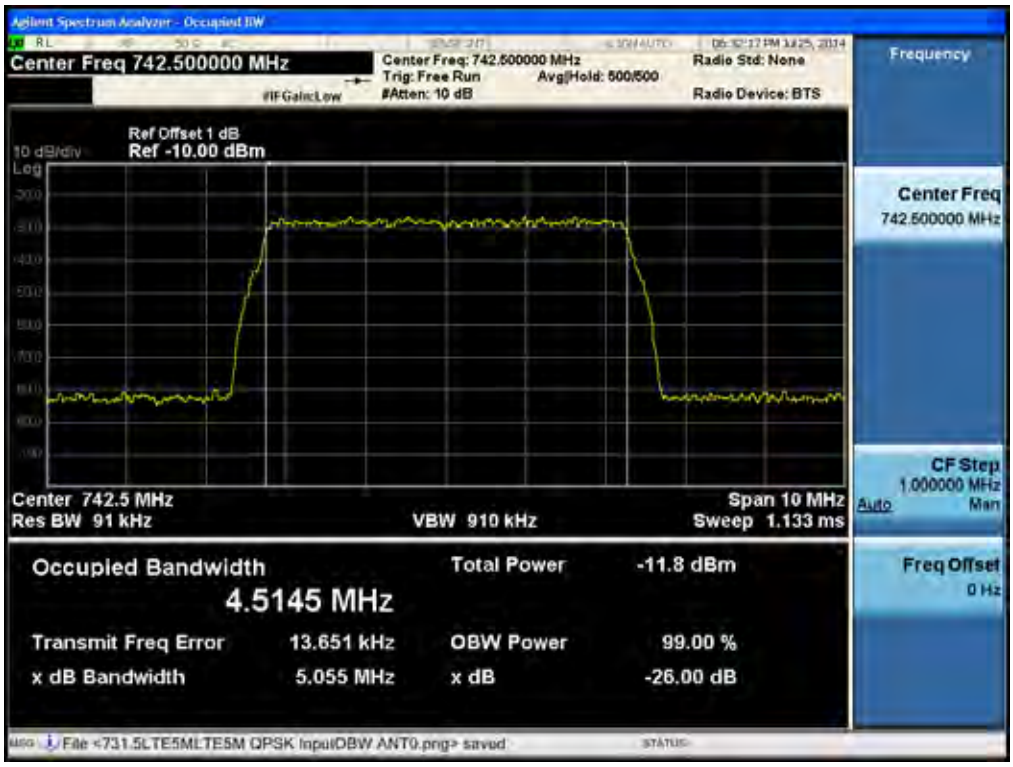
[Output LTE Downlink 10 MHz High]



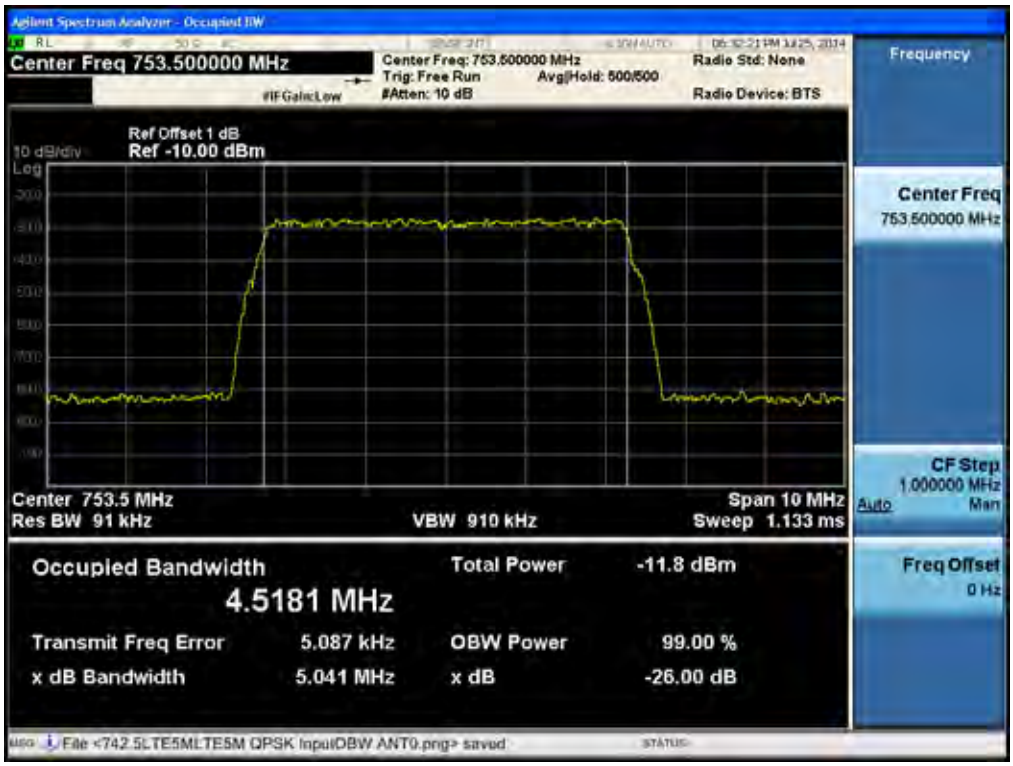
[Input LTE Downlink 5 MHz Low]



[Input LTE Downlink 5 MHz Middle]

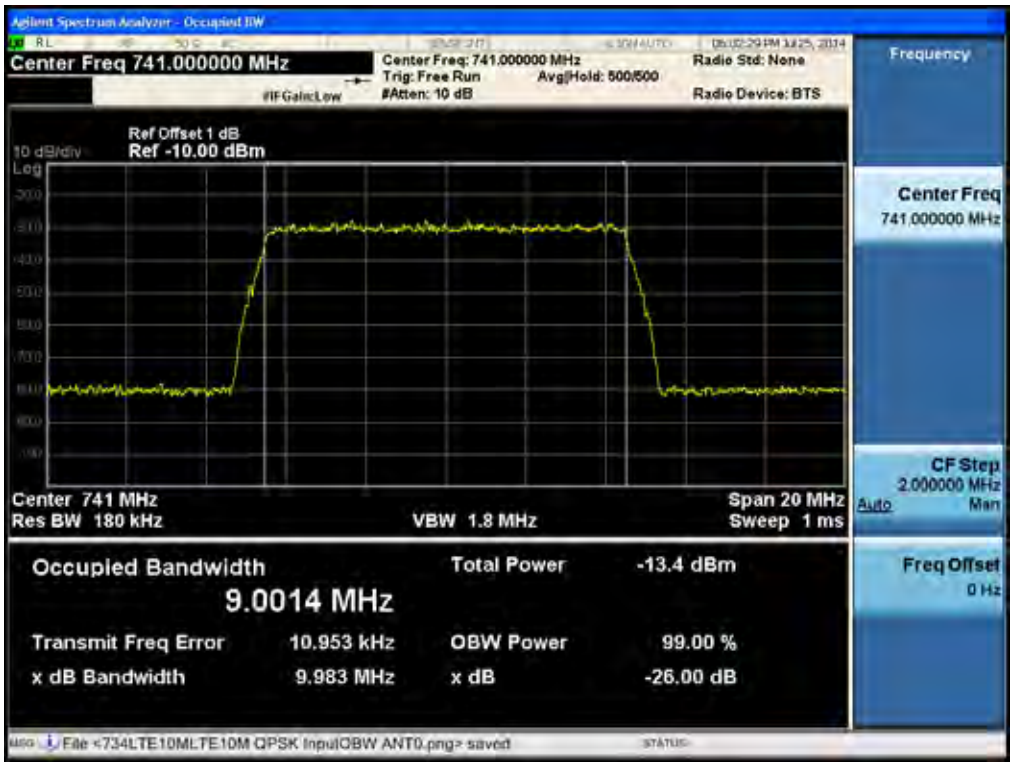


[Input LTE Downlink 5 MHz High]

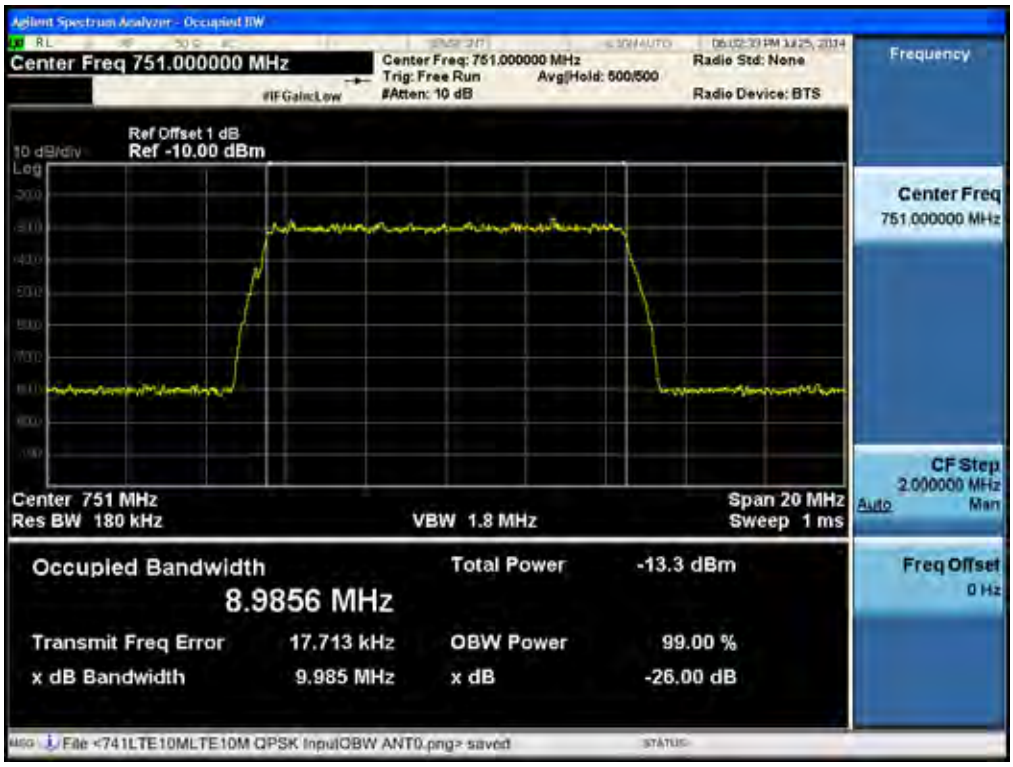


[Input LTE Downlink 10 MHz Low]

[Input LTE Downlink 10 MHz Middle]

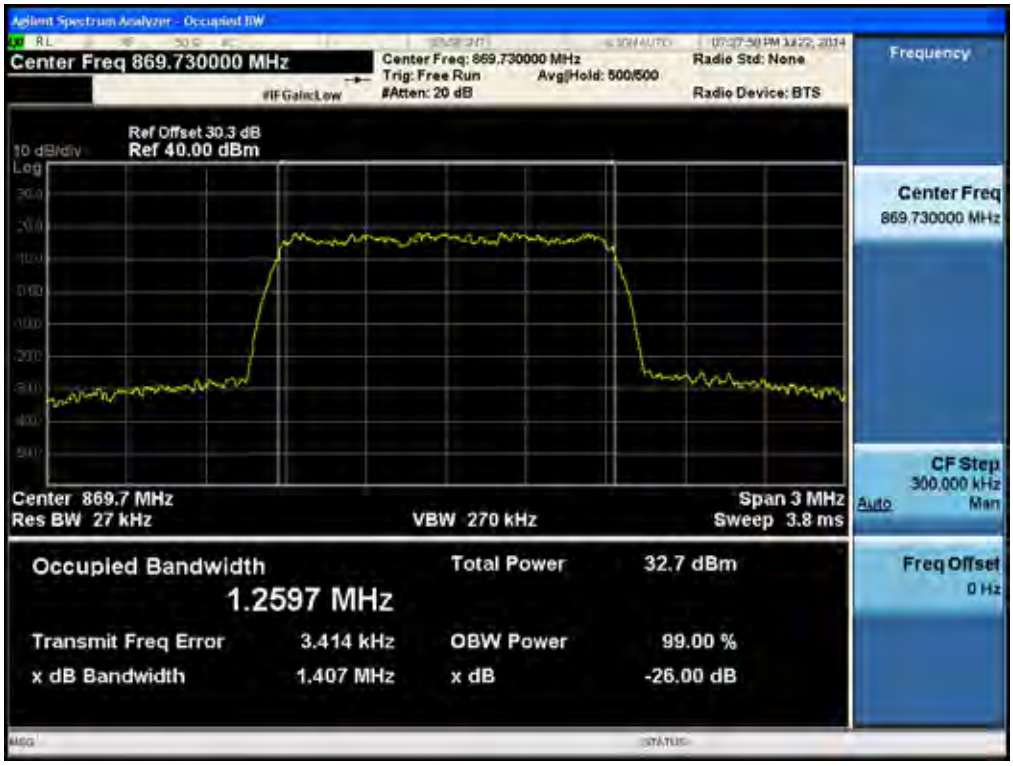


[Input LTE Downlink 10 MHz High]

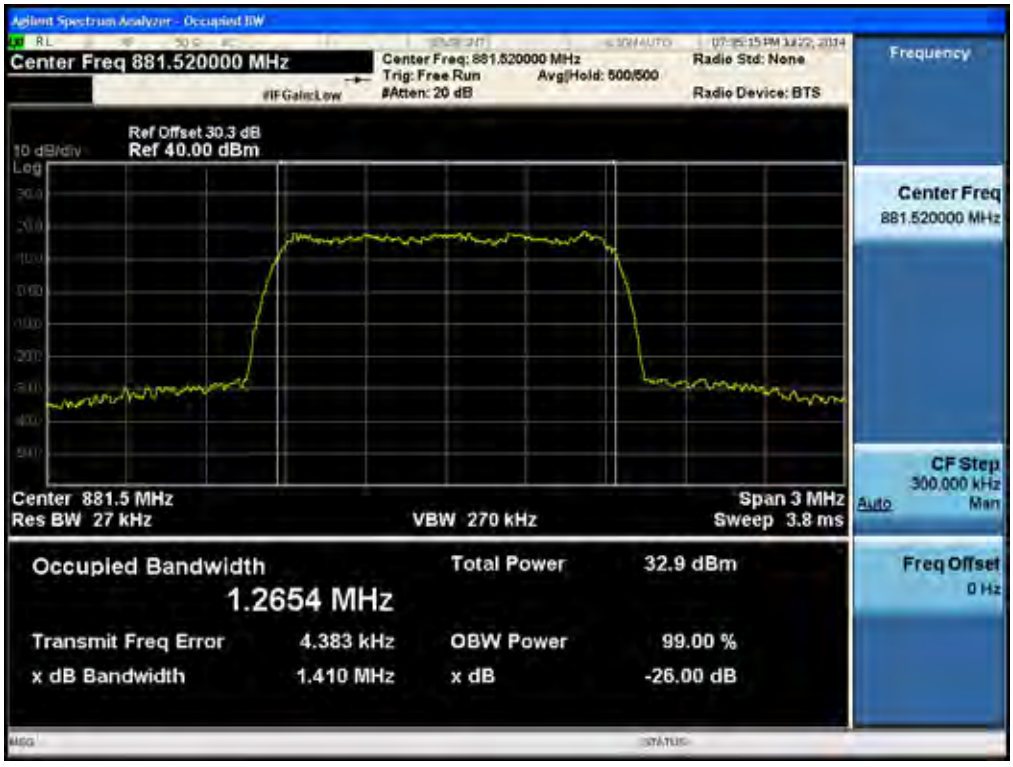


Cellular Band Plots of Occupied Bandwidth

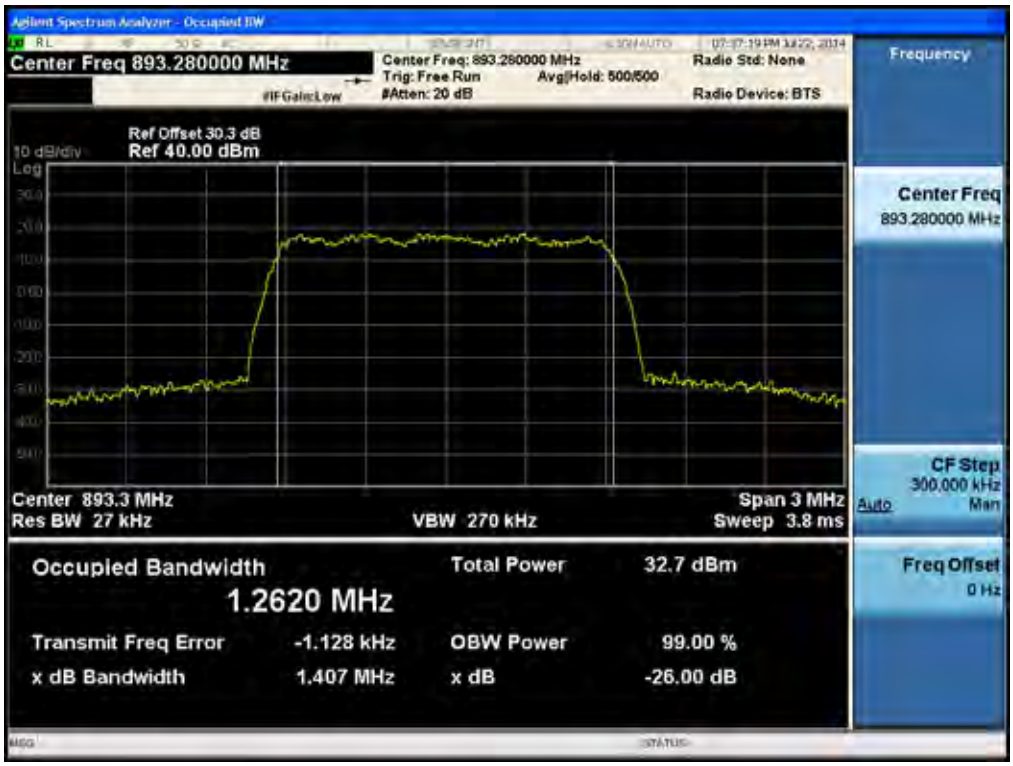
[Output CDMA Downlink Low]



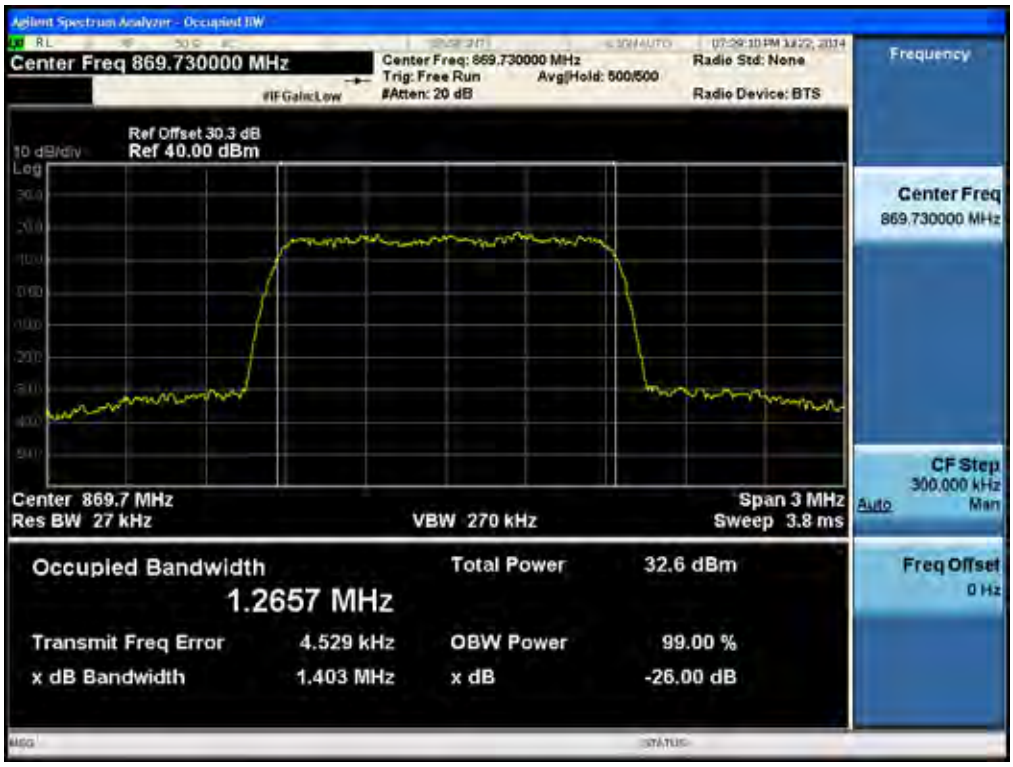
[Output CDMA Downlink Middle]



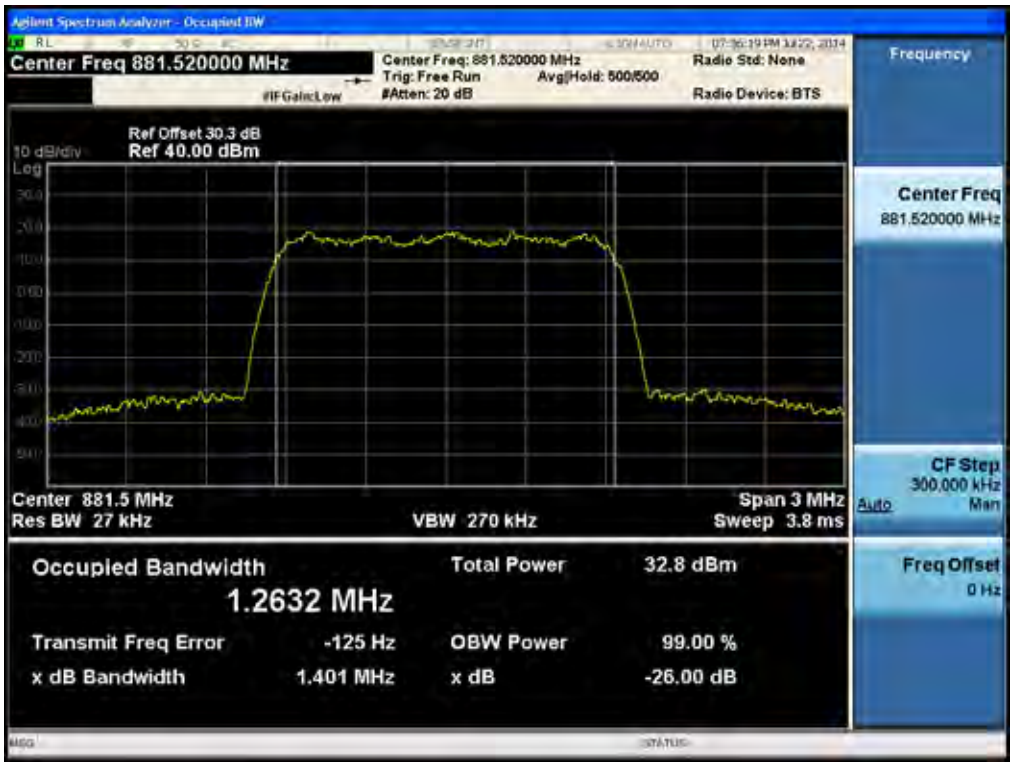
[Output CDMA Downlink High]



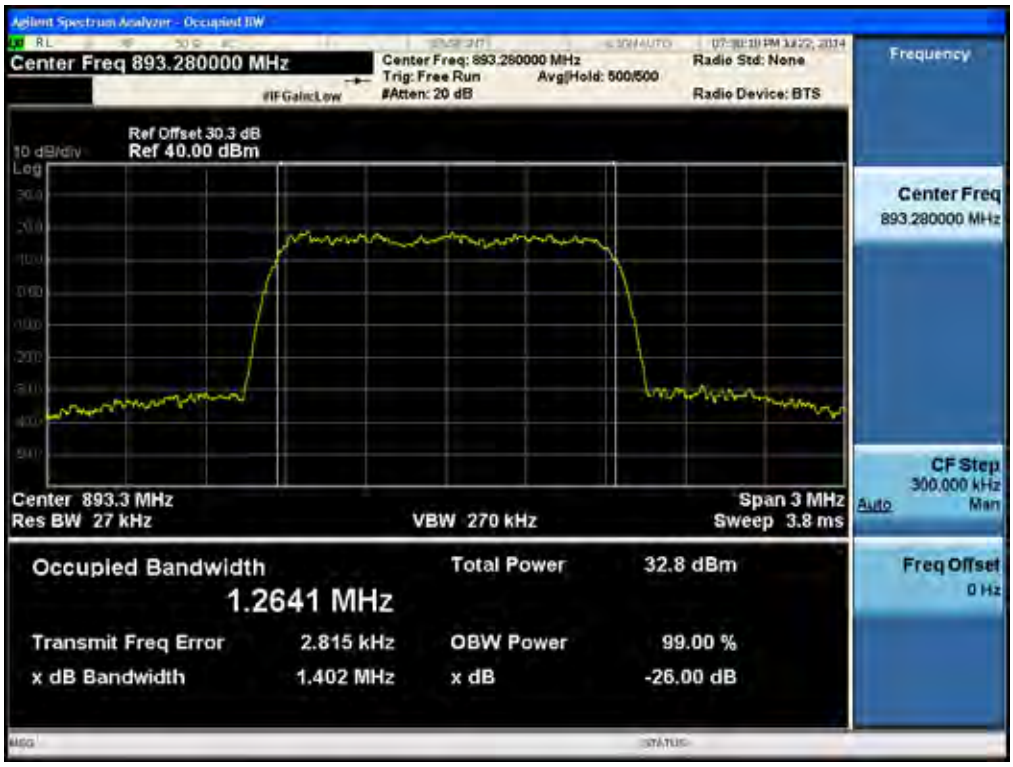
[Output CDMA EVDO Downlink Low]



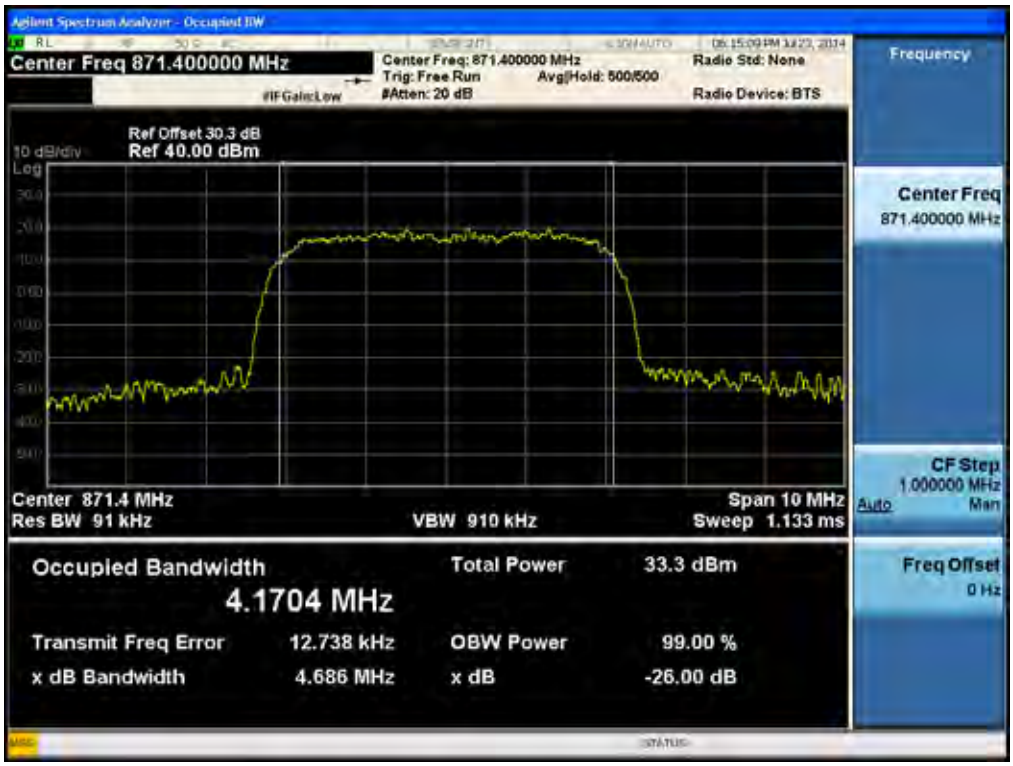
[Output CDMA EVDO Downlink Middle]



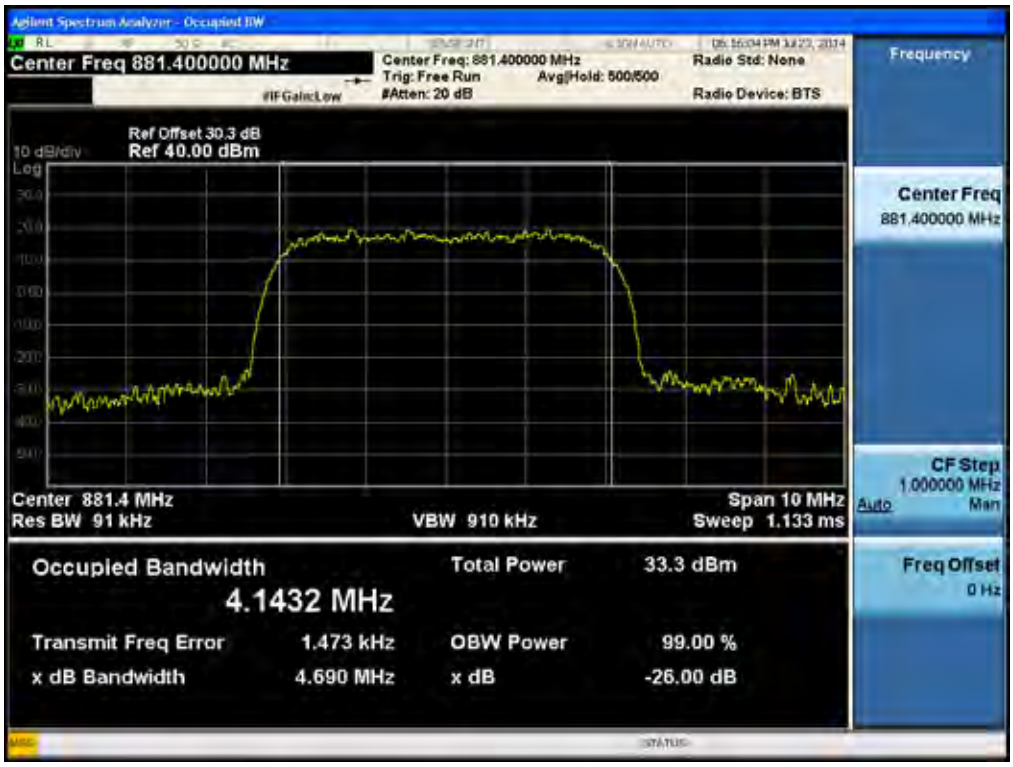
[Output CDMA EVDO Downlink High]



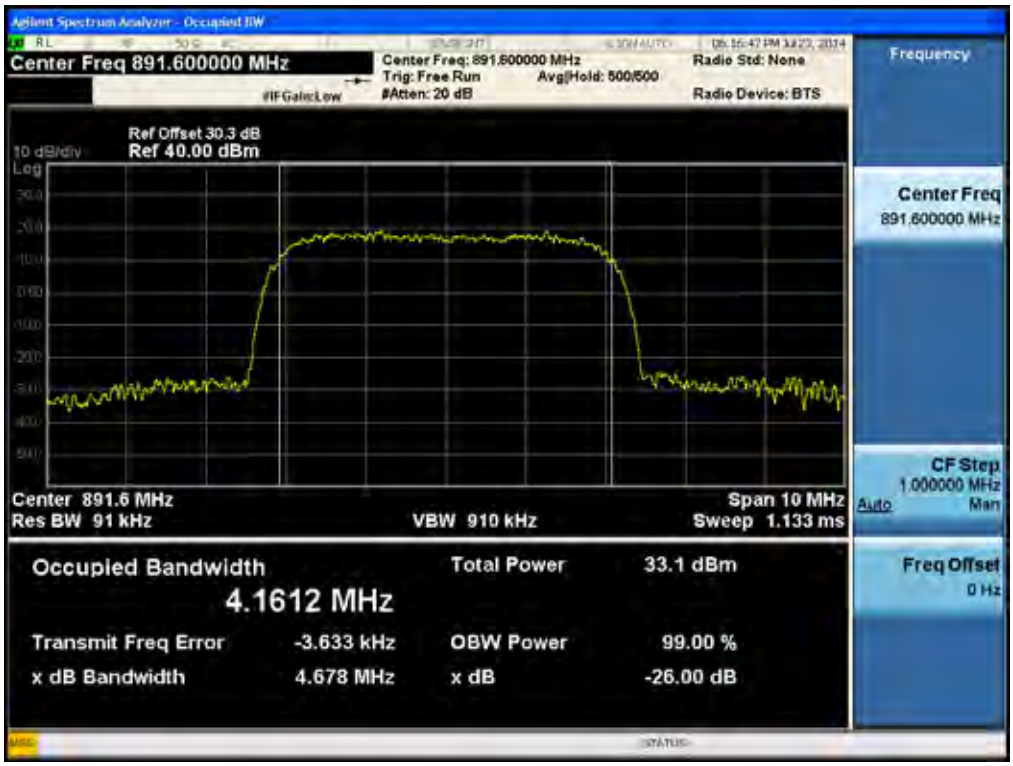
[Output WCDMA Downlink Low]



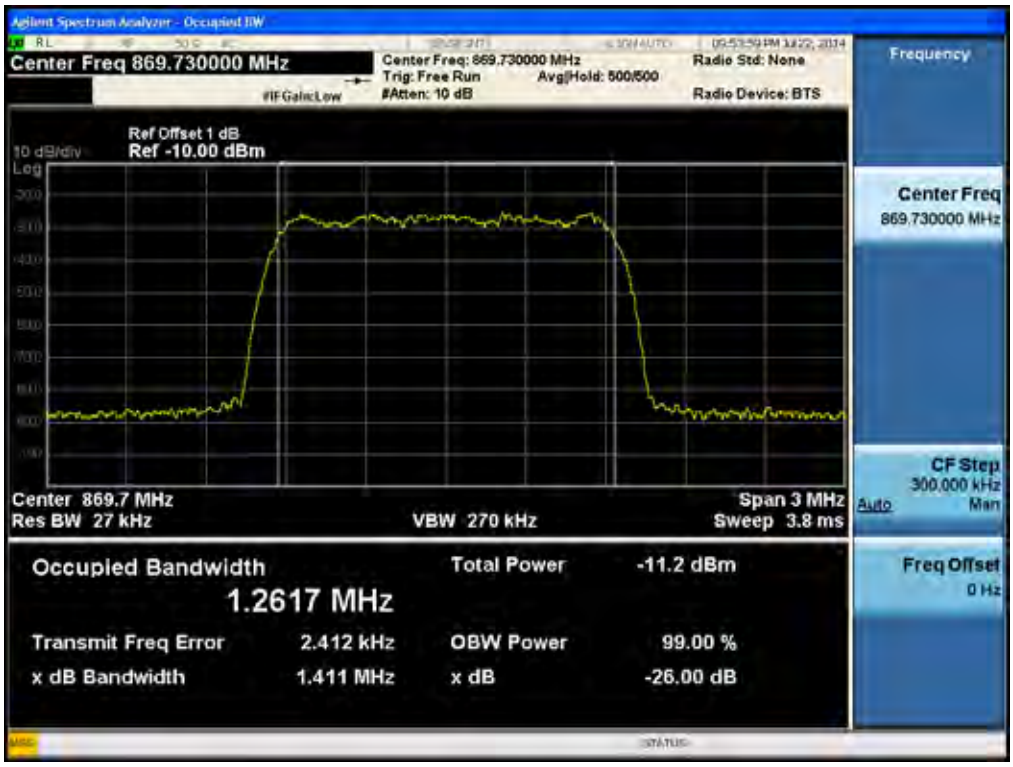
[Output WCDMA Downlink Middle]



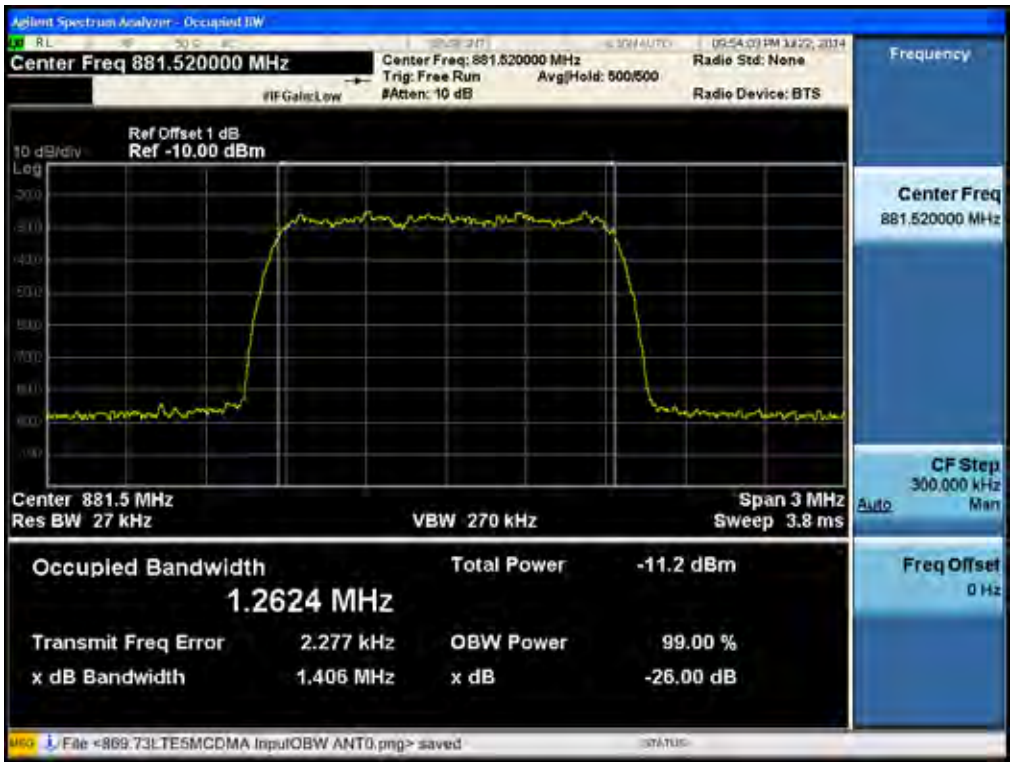
[Output WCDMA Downlink High]



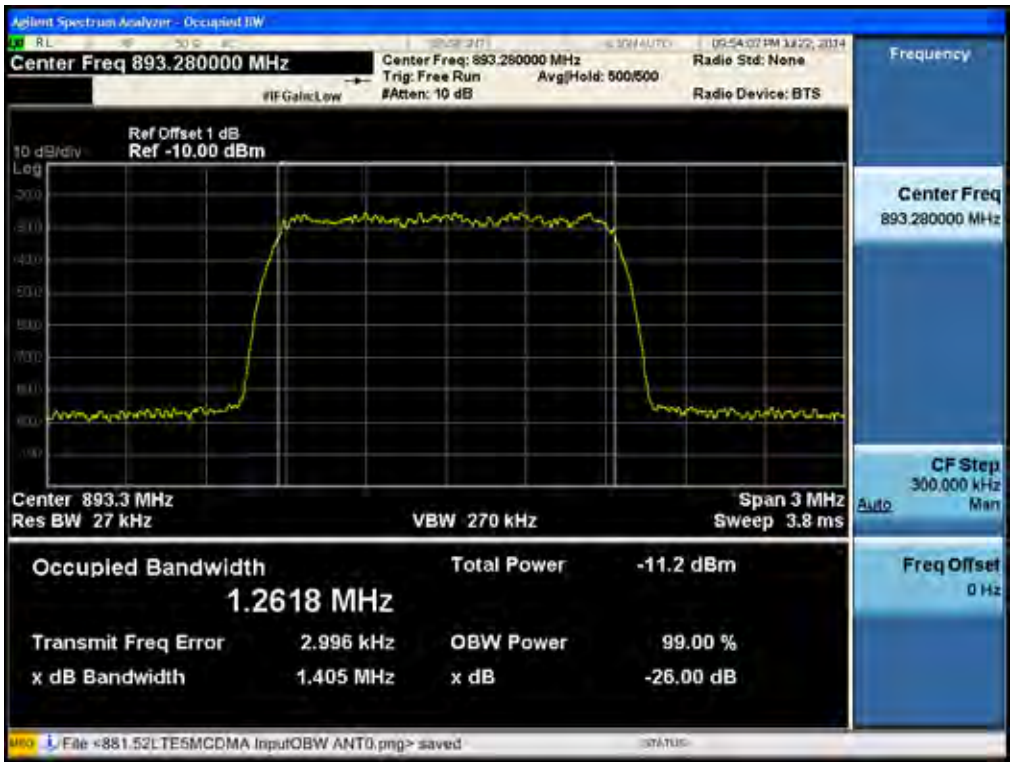
[Input CDMA Downlink Low]



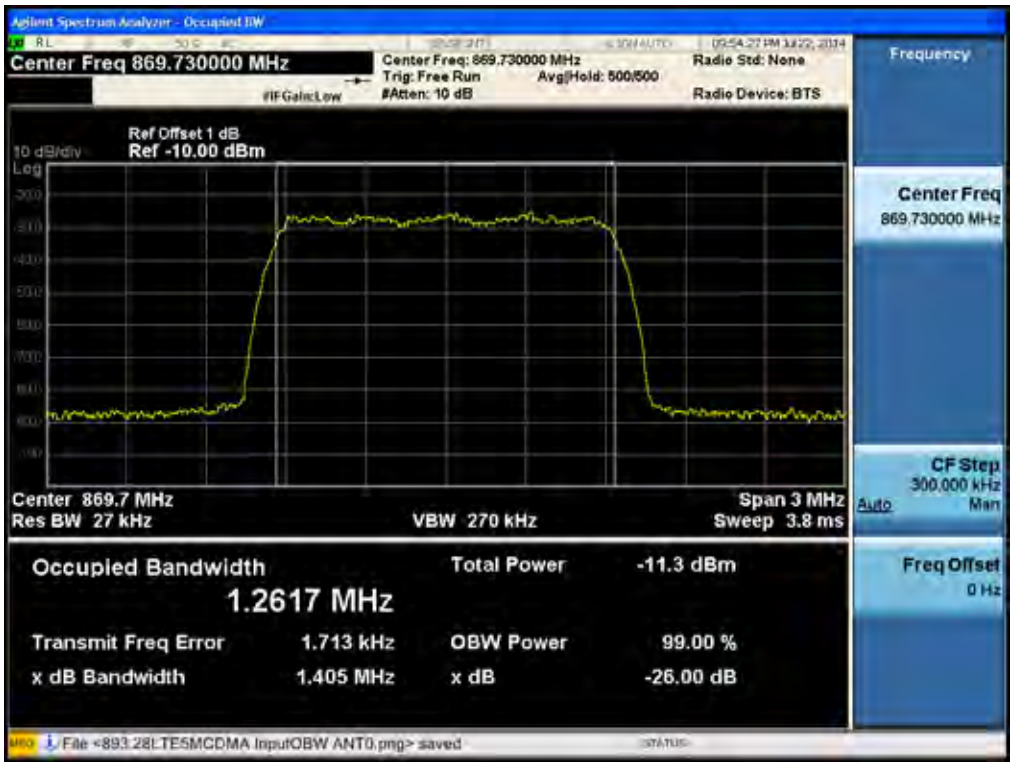
[Input CDMA Downlink Middle]



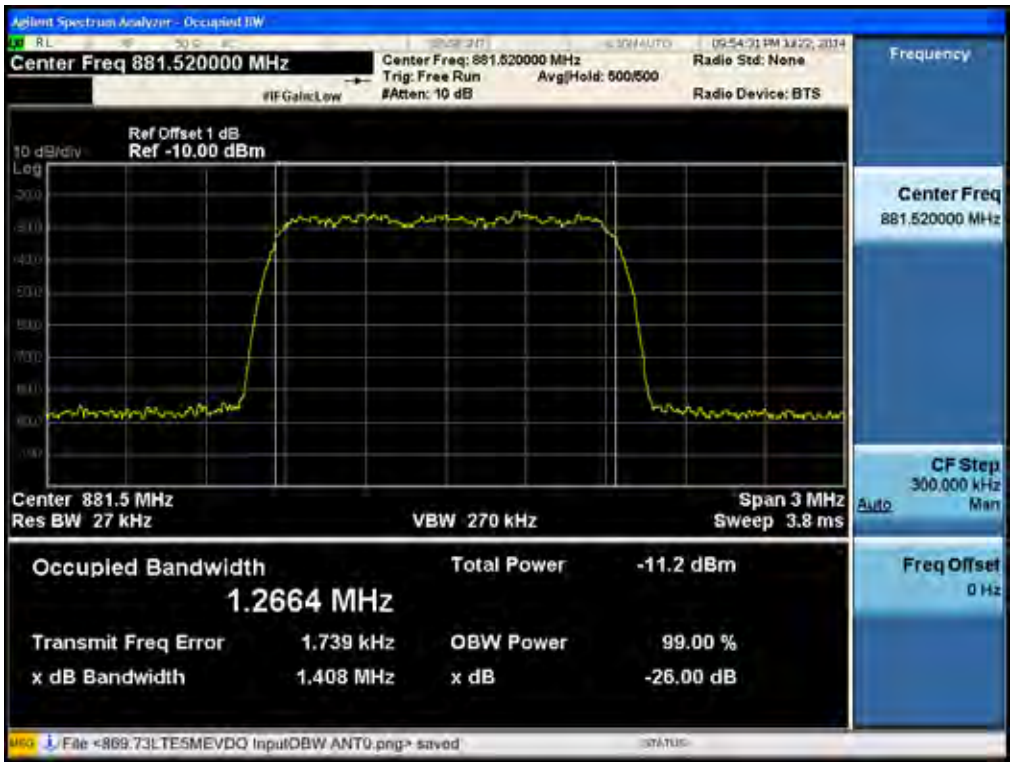
[Input CDMA Downlink High]



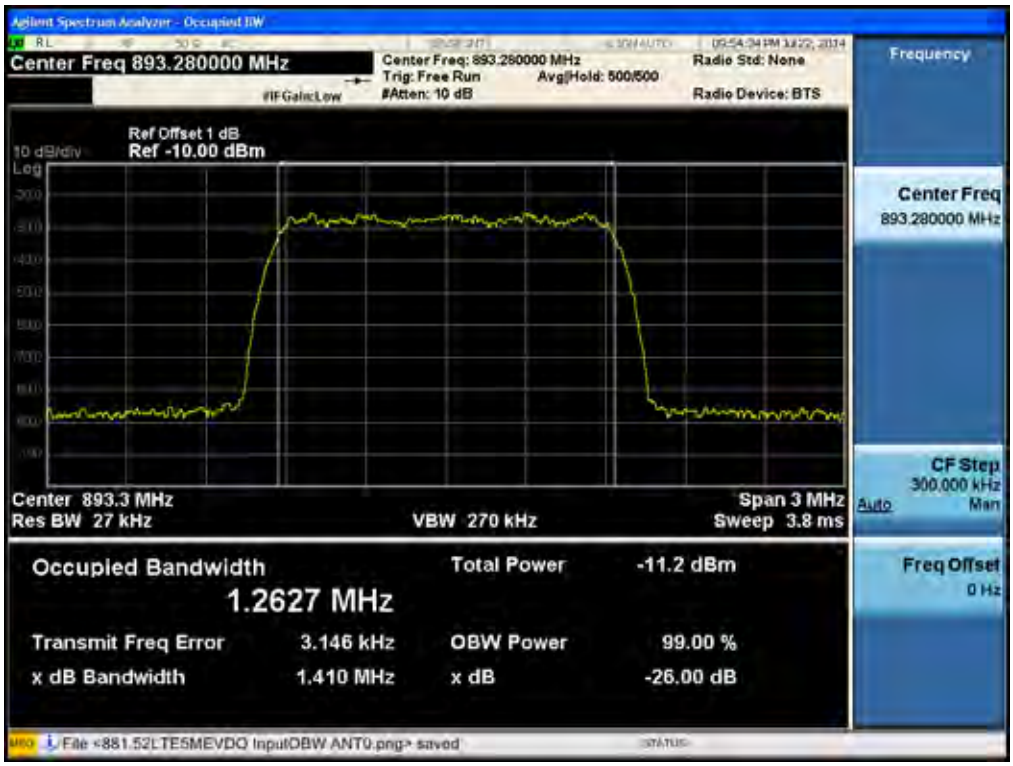
[Input CDMA EVDO Downlink Low]



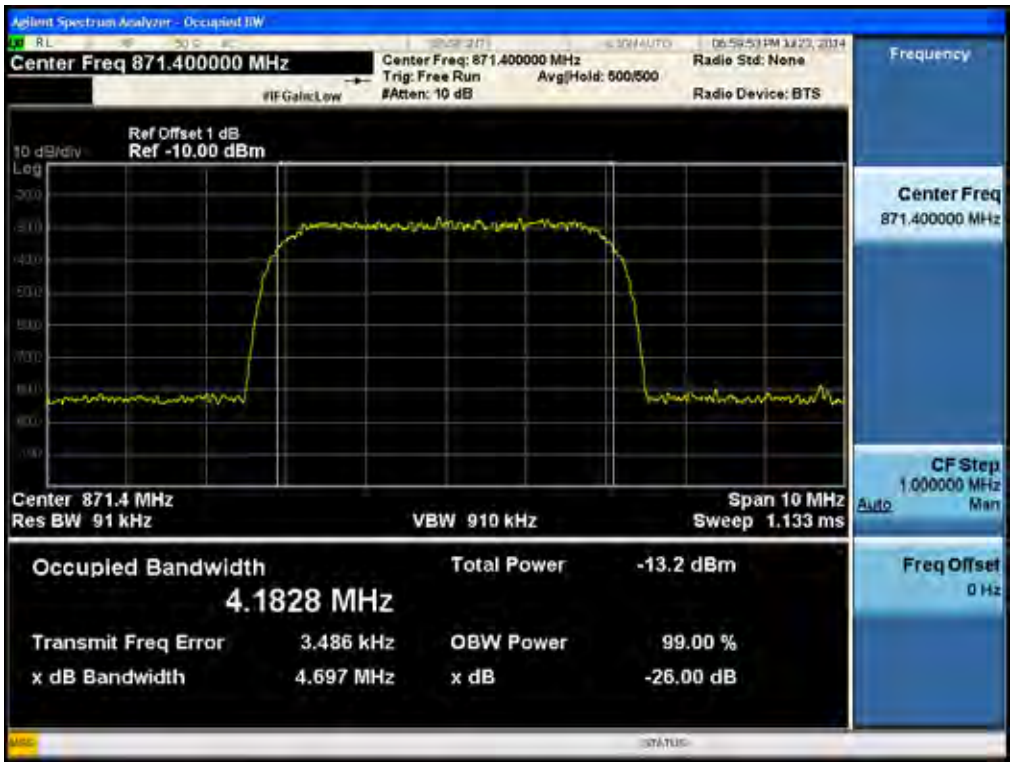
[Input CDMA EVDO Downlink Middle]



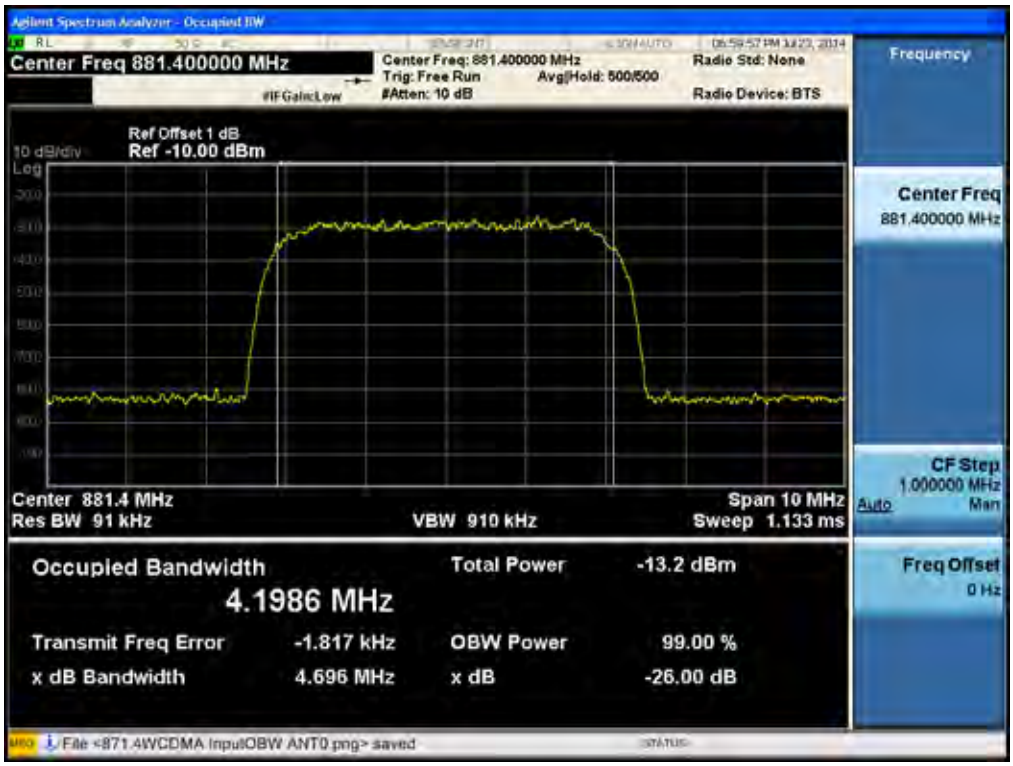
[Input CDMA EVDO Downlink High]



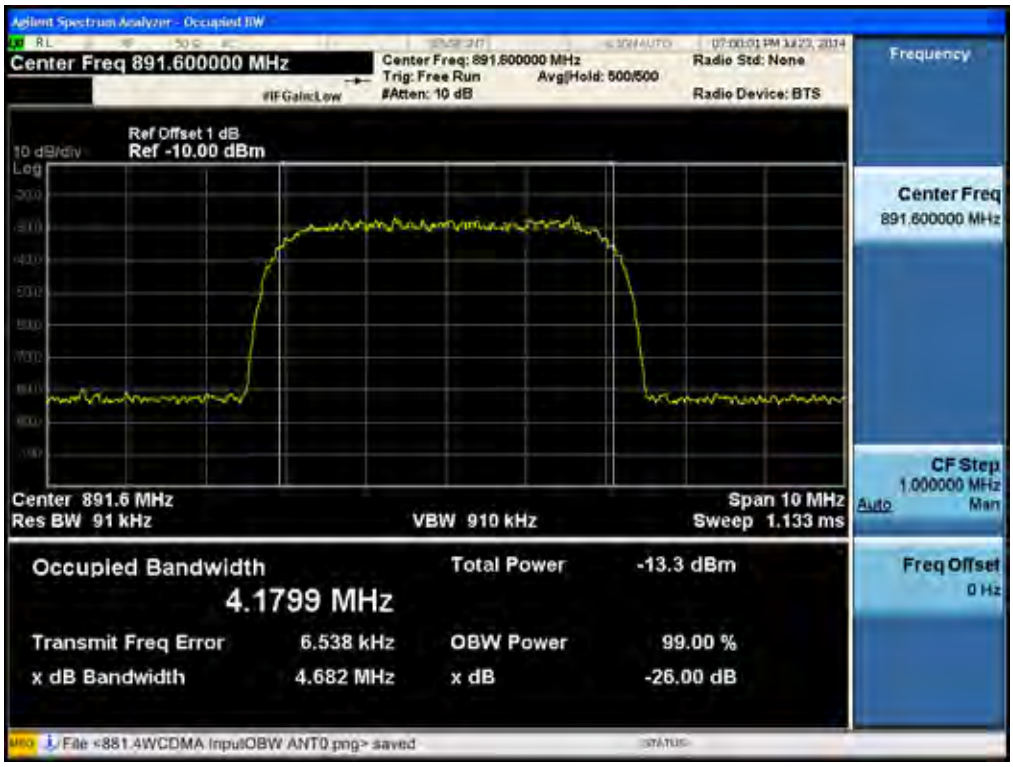
[Input WCDMA Downlink Low]



[Input WCDMA Downlink Middle]



[Input WCDMA Downlink High]



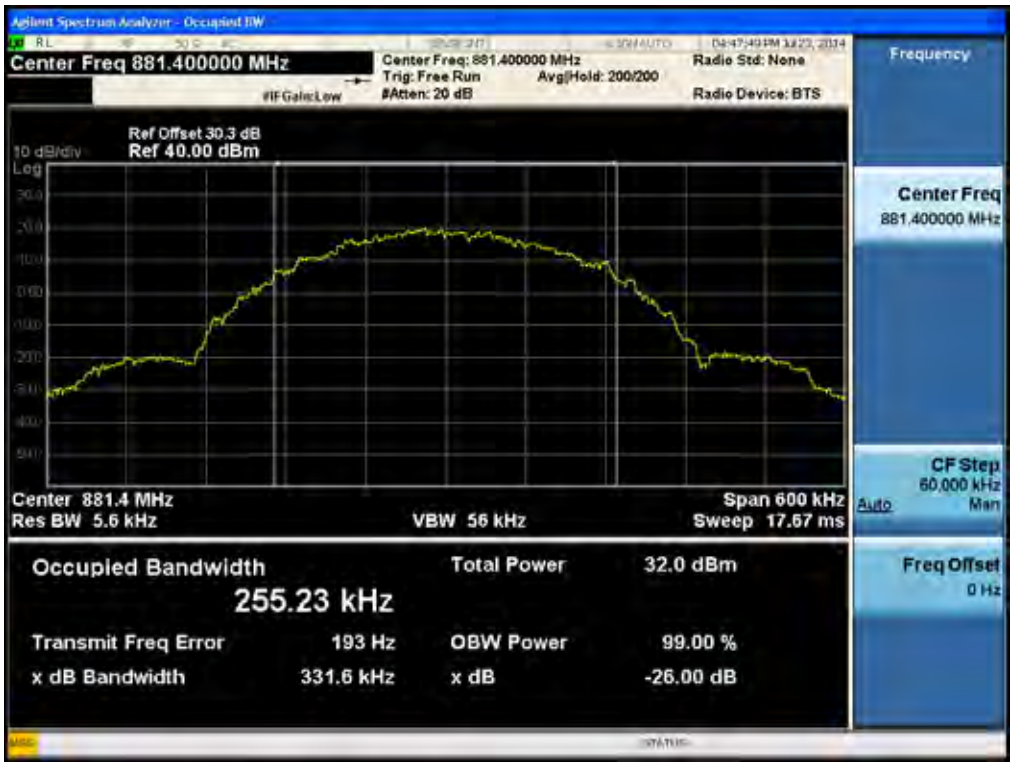
[Output GSM Downlink Low]

[Output GSM Downlink Middle]

[Output GSM Downlink High]

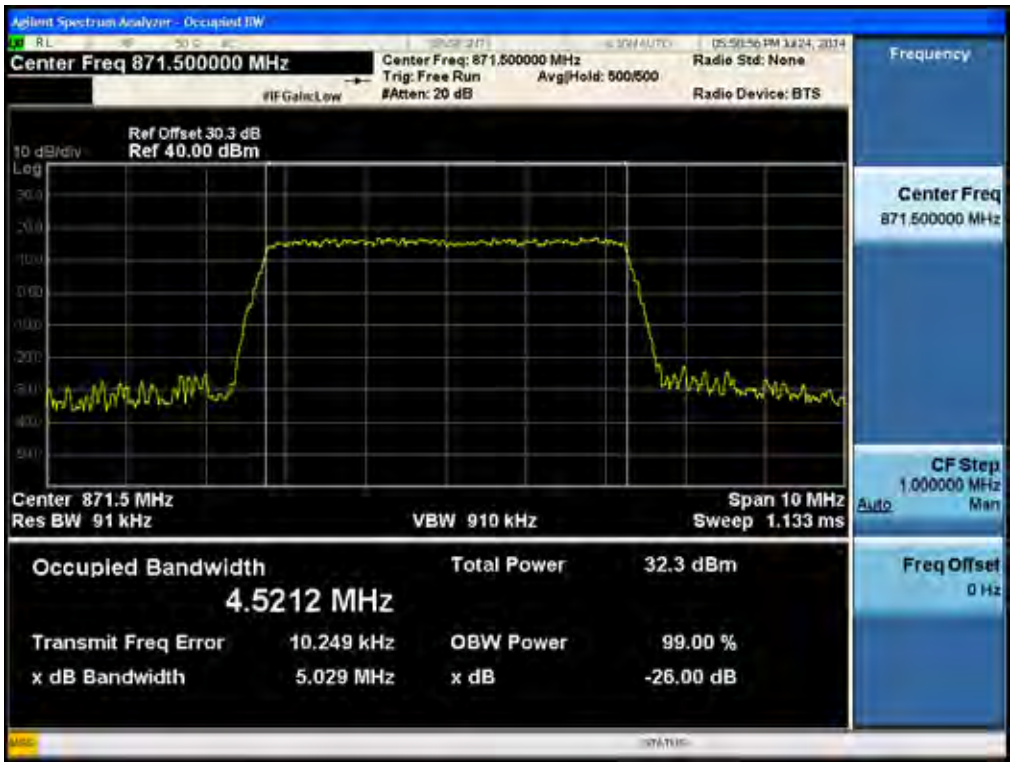
[Output GSM EDGE Downlink Low]

[Output GSM EDGE Downlink Middle]

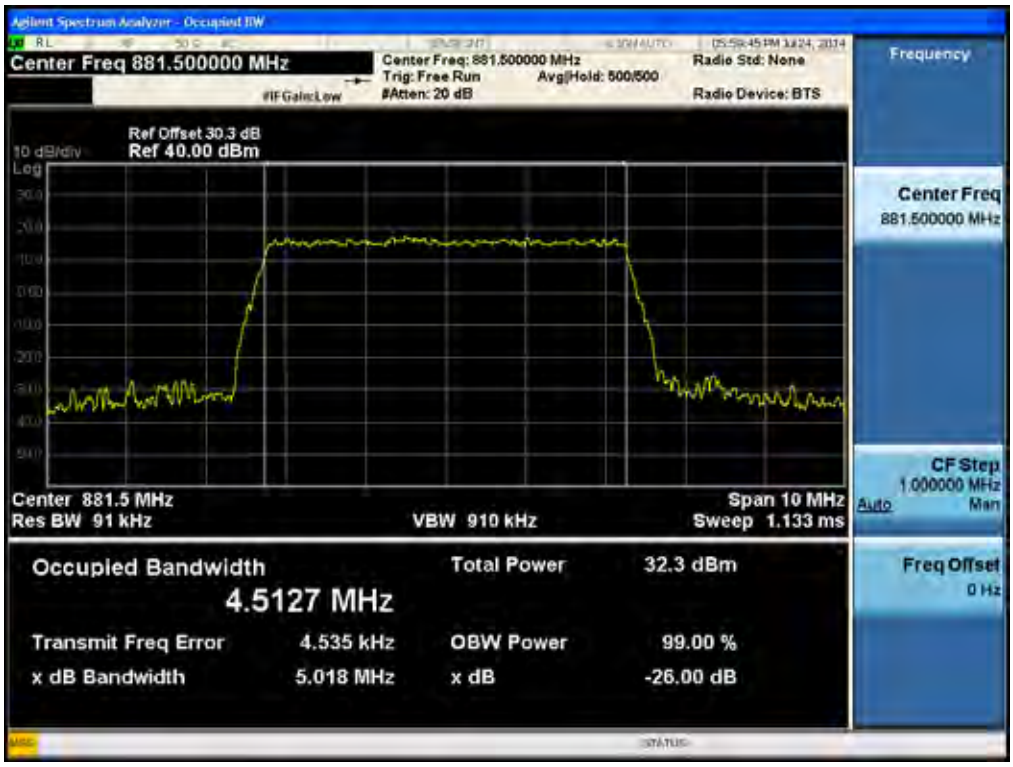


[Output GSM EDGE Downlink High]

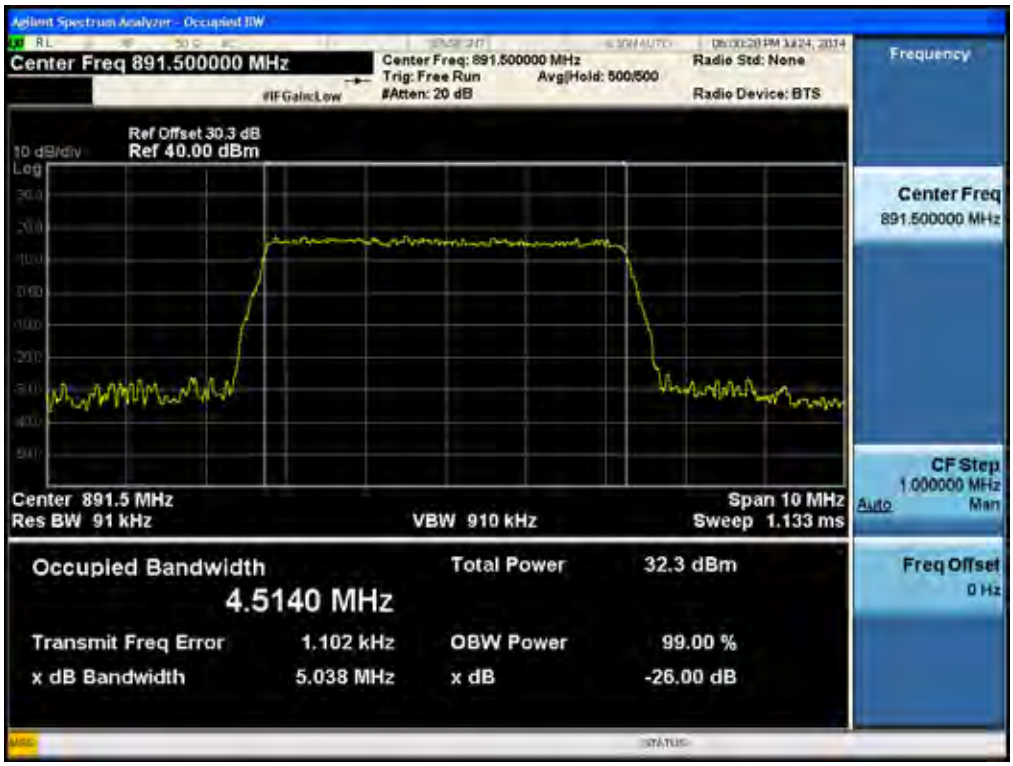
[Output LTE Downlink 5 MHz Low]



[Output LTE Downlink 5 MHz Middle]



[Output LTE Downlink 5 MHz High]



[Input GSM Downlink Low]

[Input GSM Downlink Middle]

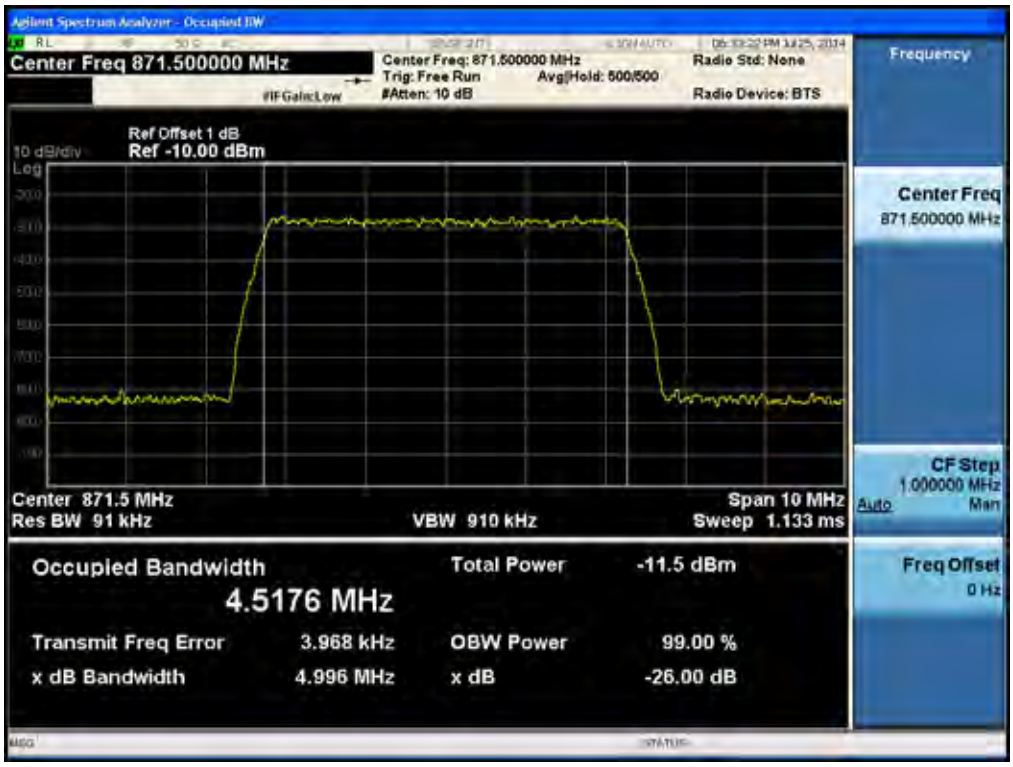
[Input GSM Downlink High]

[Input GSM EDGE Downlink Low]

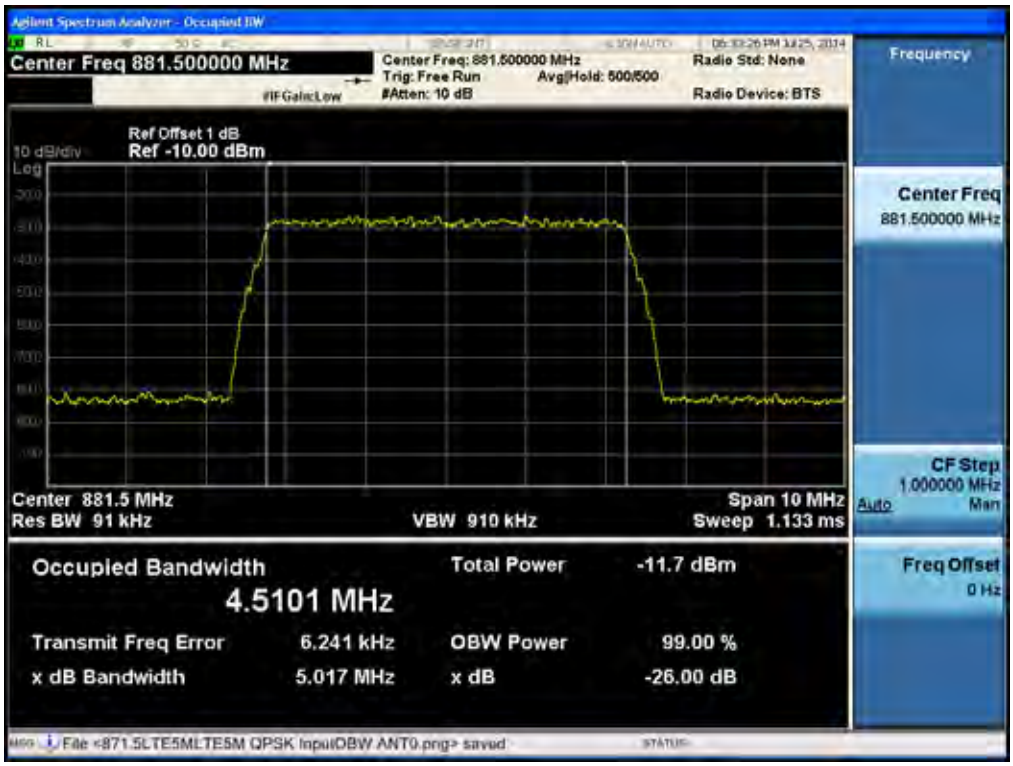
[Input GSM EDGE Downlink Middle]

[Input GSM EDGE Downlink High]

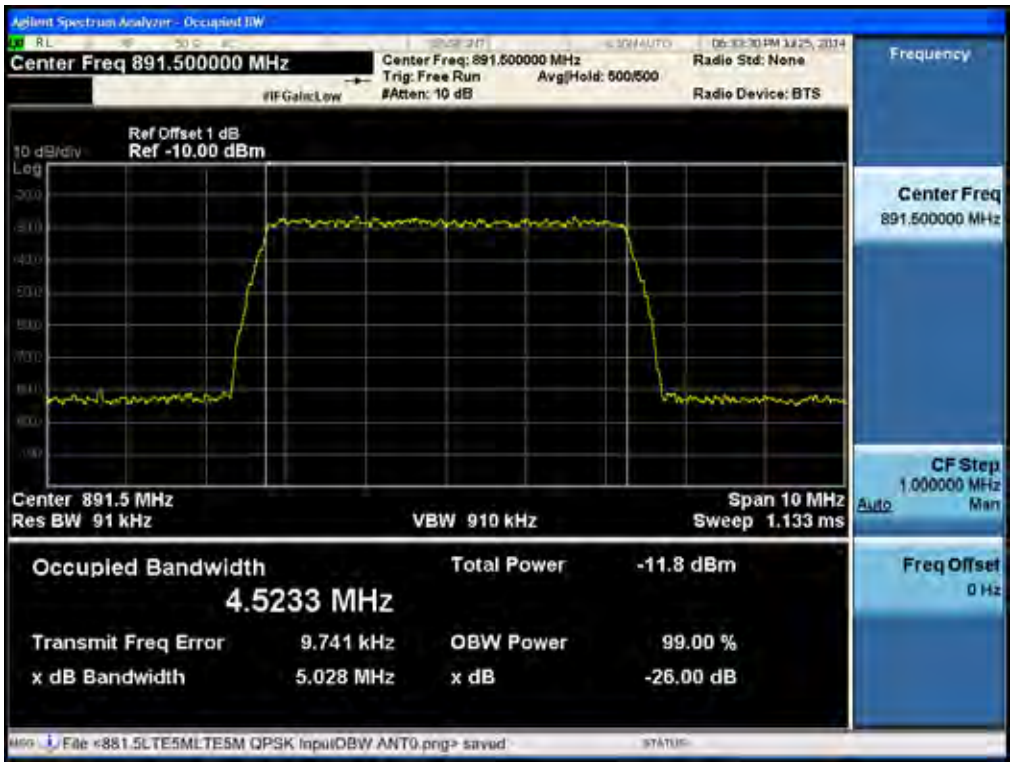
[Input LTE Downlink 5 MHz Low]



[Input LTE Downlink 5 MHz Middle]

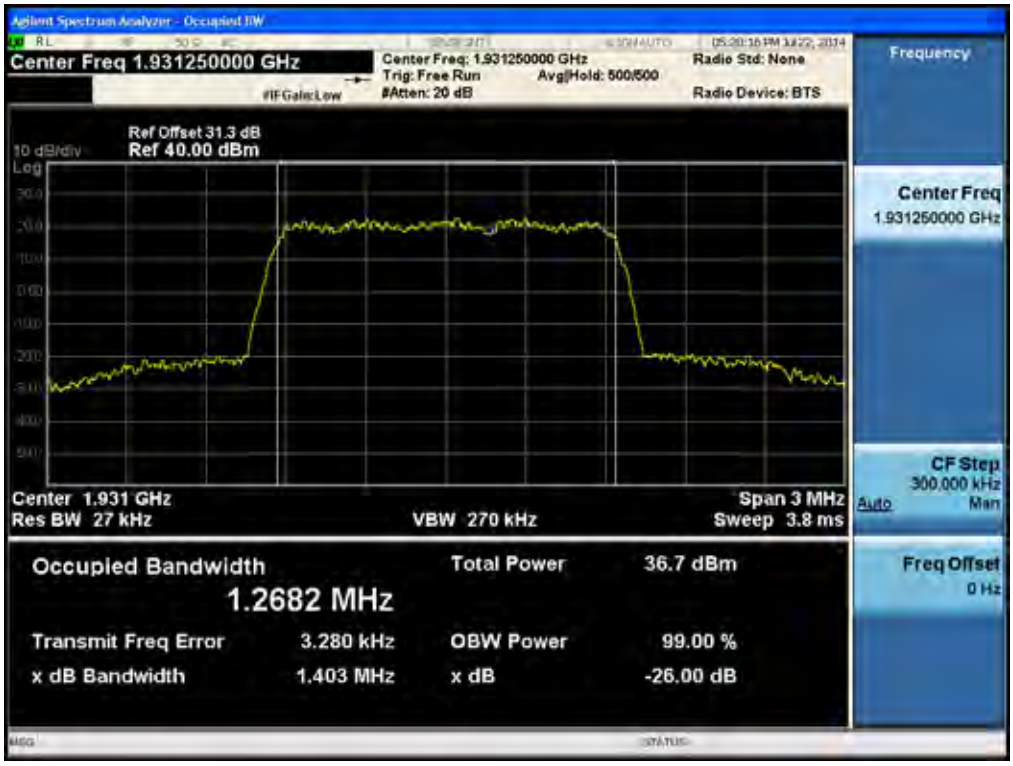


[Input LTE Downlink 5 MHz High]

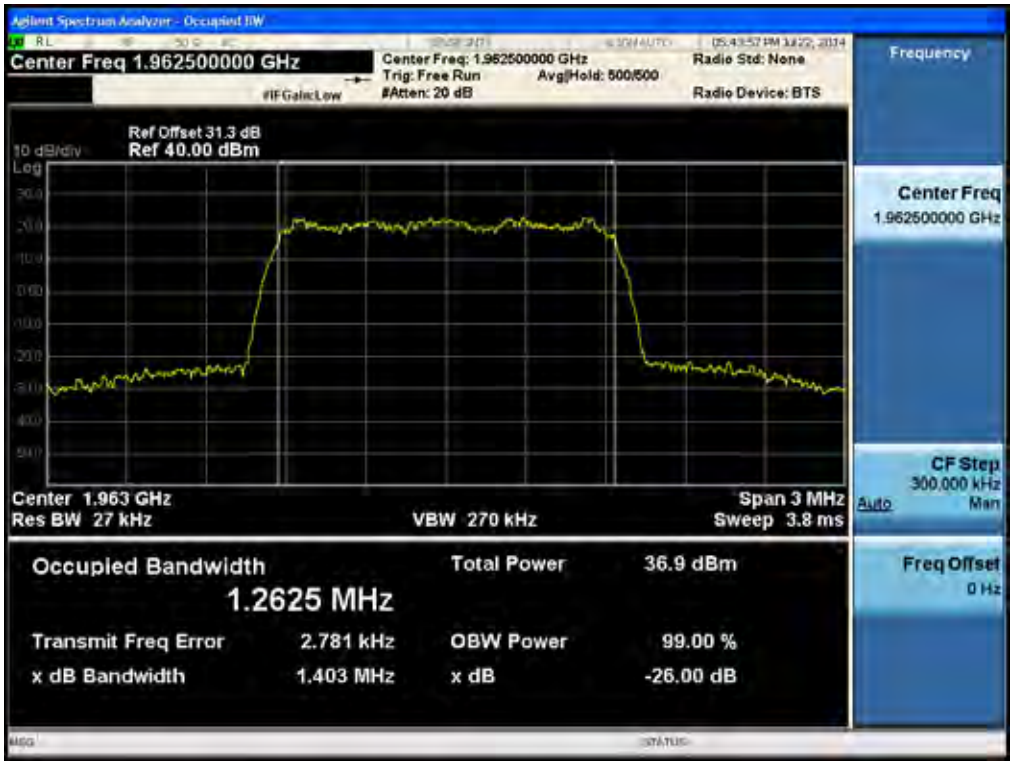


PCS Band Plots of Occupied Bandwidth

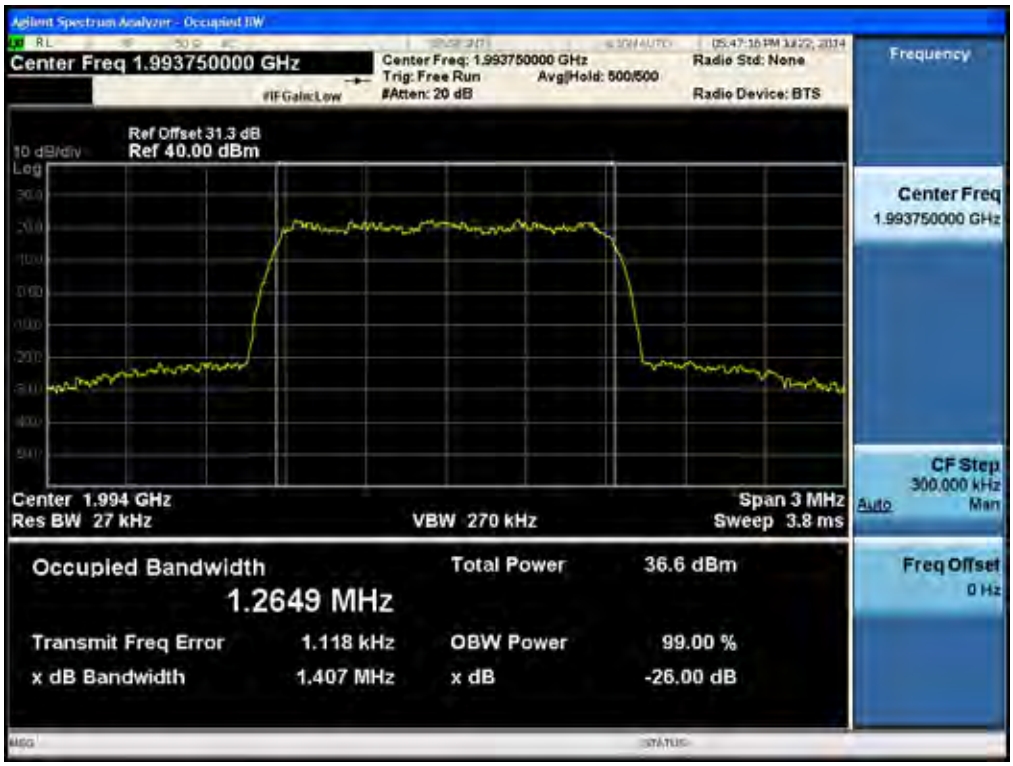
[Output CDMA Downlink Low]



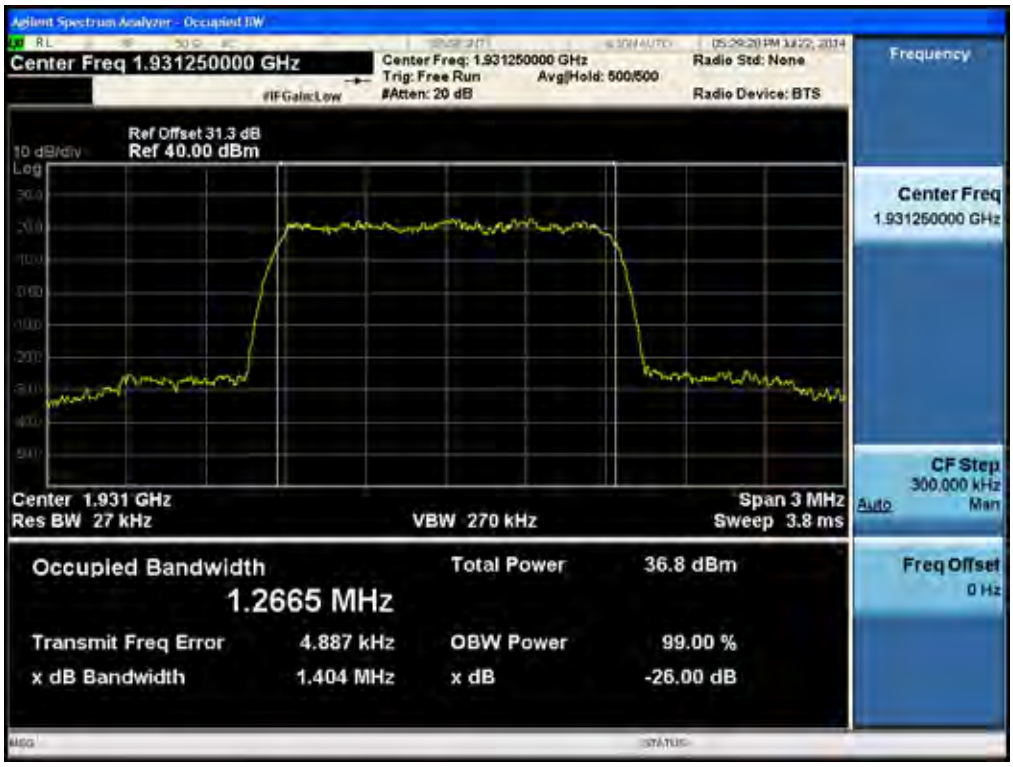
[Output CDMA Downlink Middle]



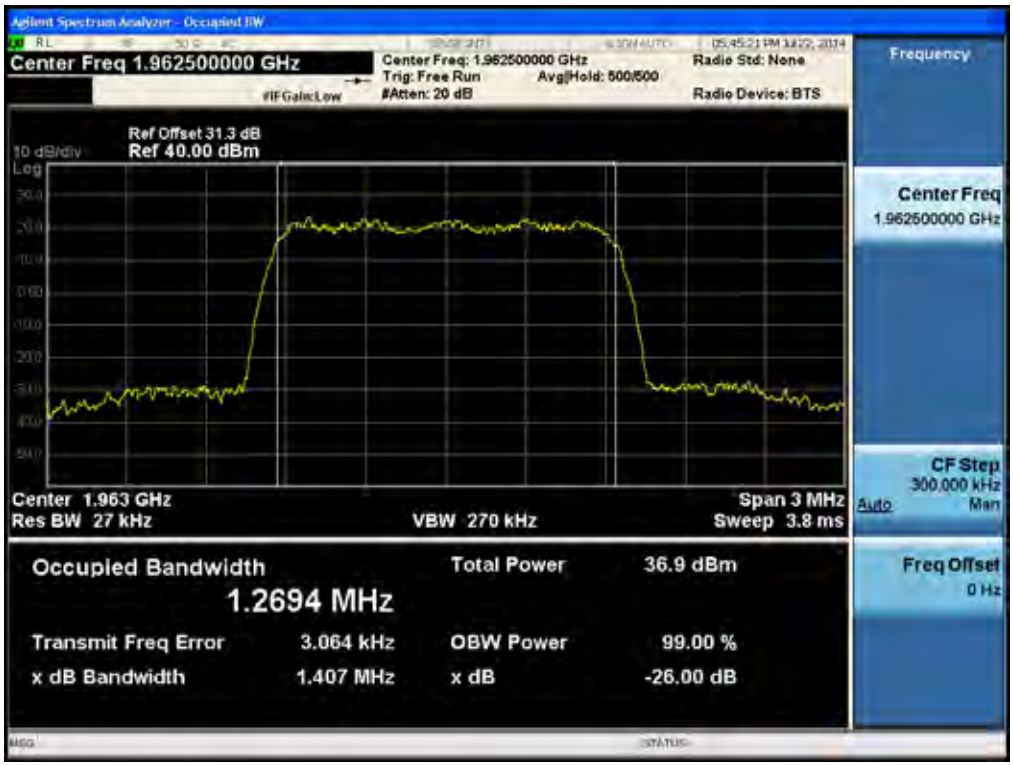
[Output CDMA Downlink High]



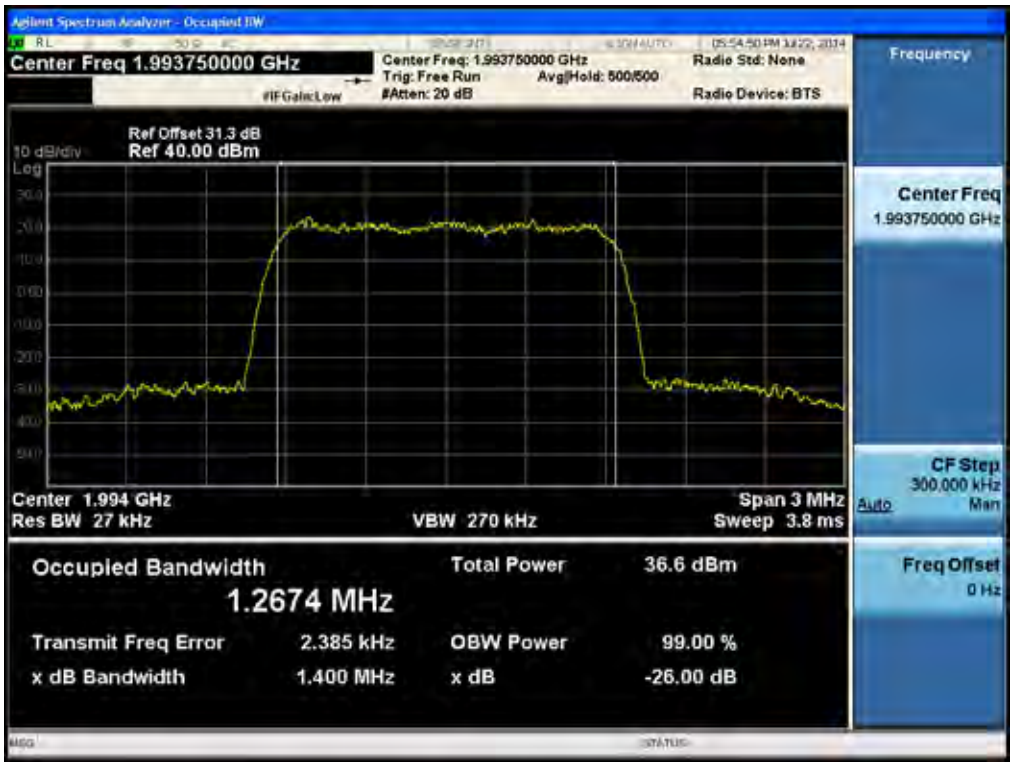
[Output CDMA EVDO Downlink Low]



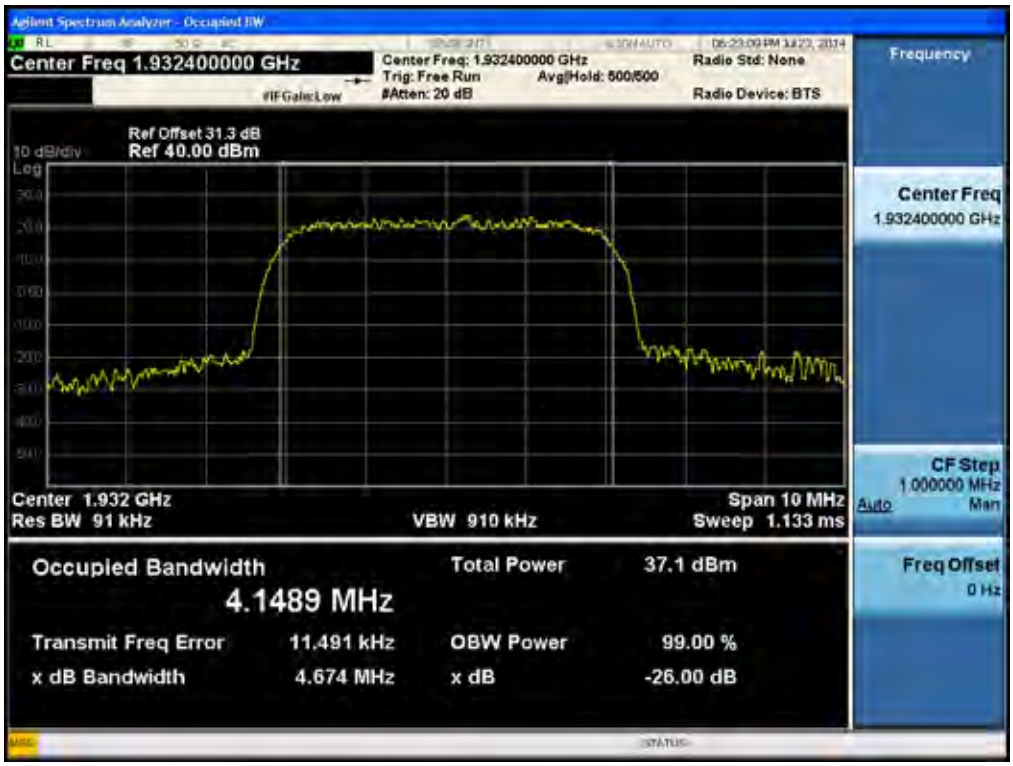
[Output CDMA EVDO Downlink Middle]



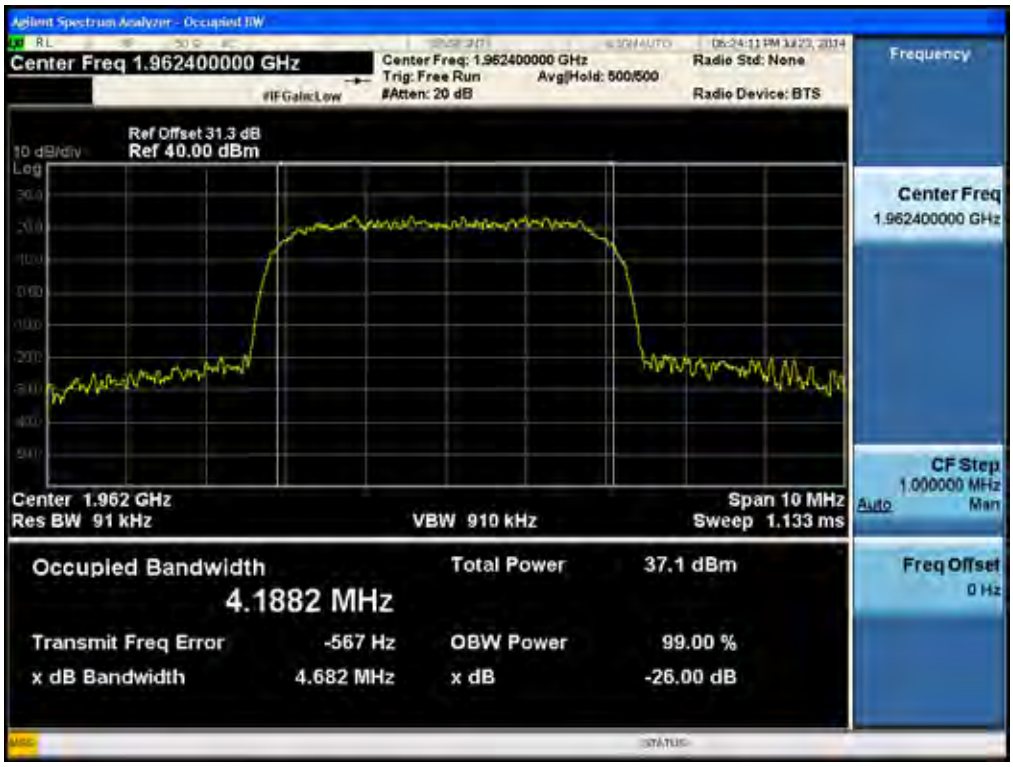
[Output CDMA EVDO Downlink High]



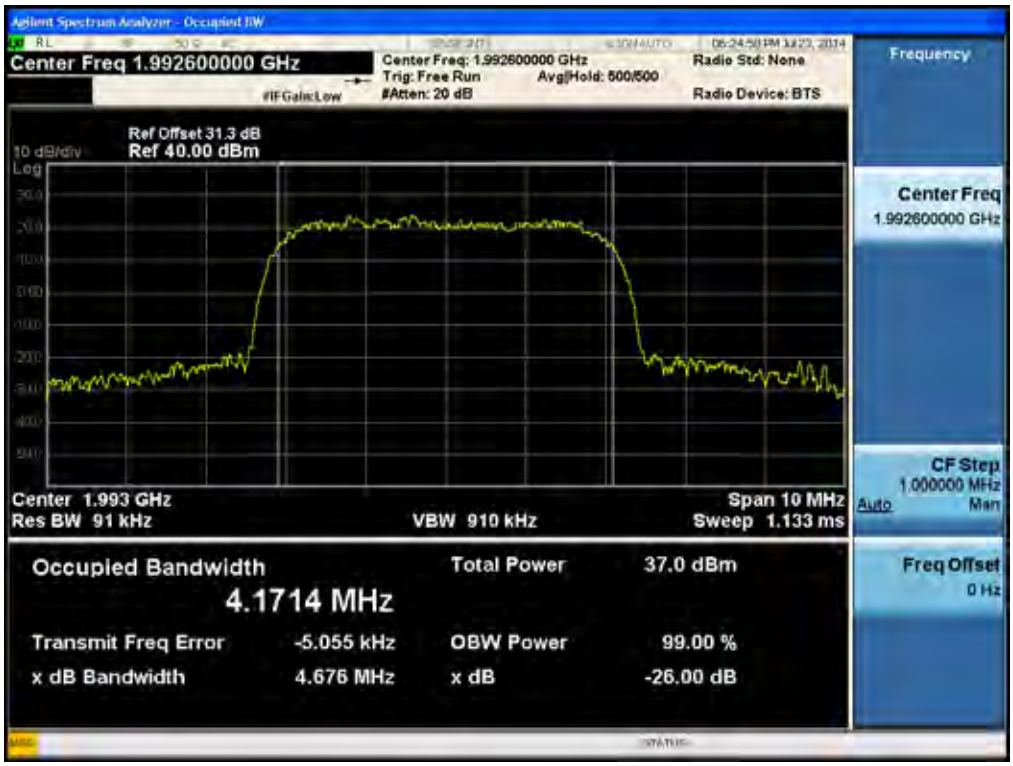
[Output WCDMA Downlink Low]



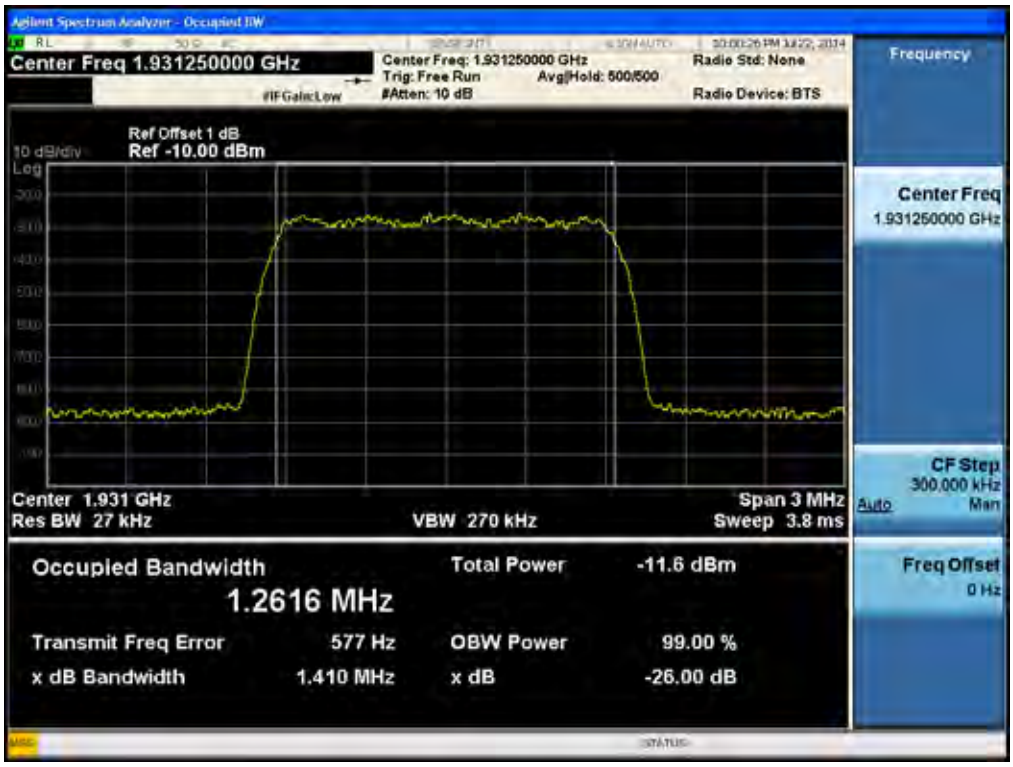
[Output WCDMA Downlink Middle]



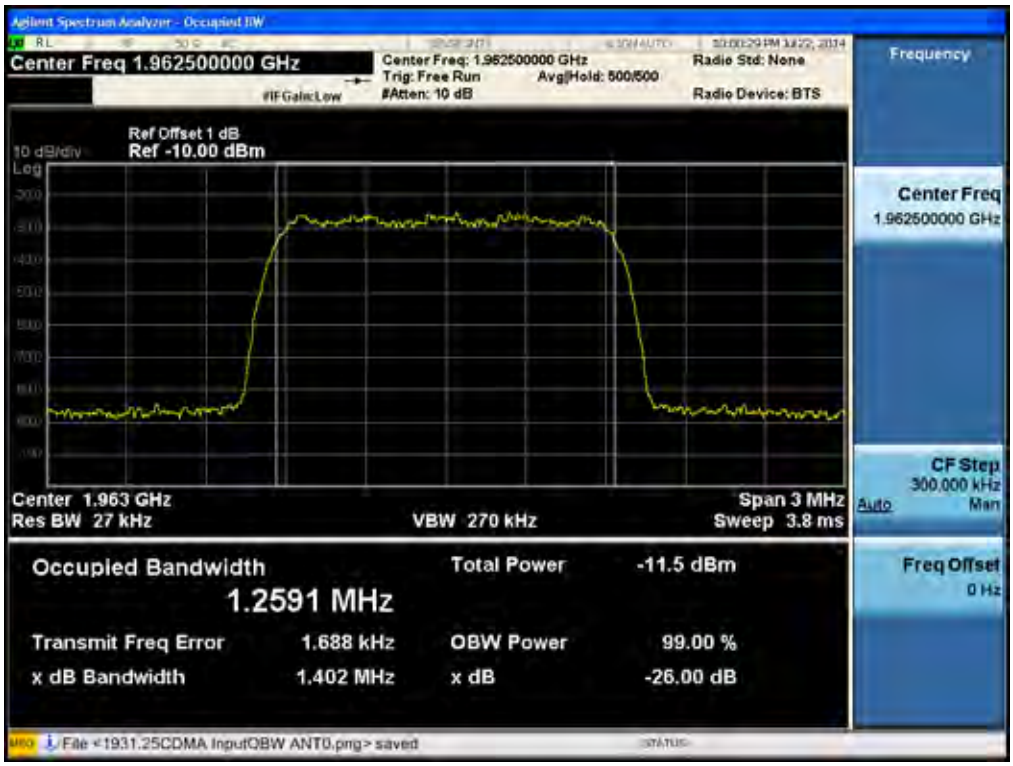
[Output WCDMA Downlink High]



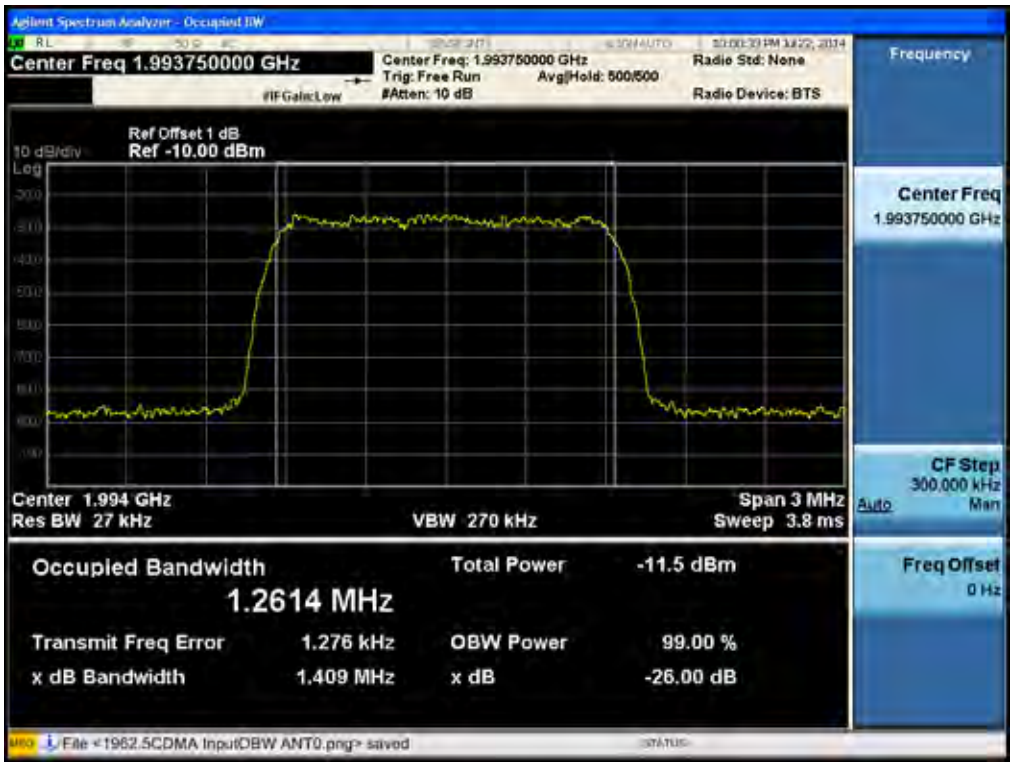
[Input CDMA Downlink Low]



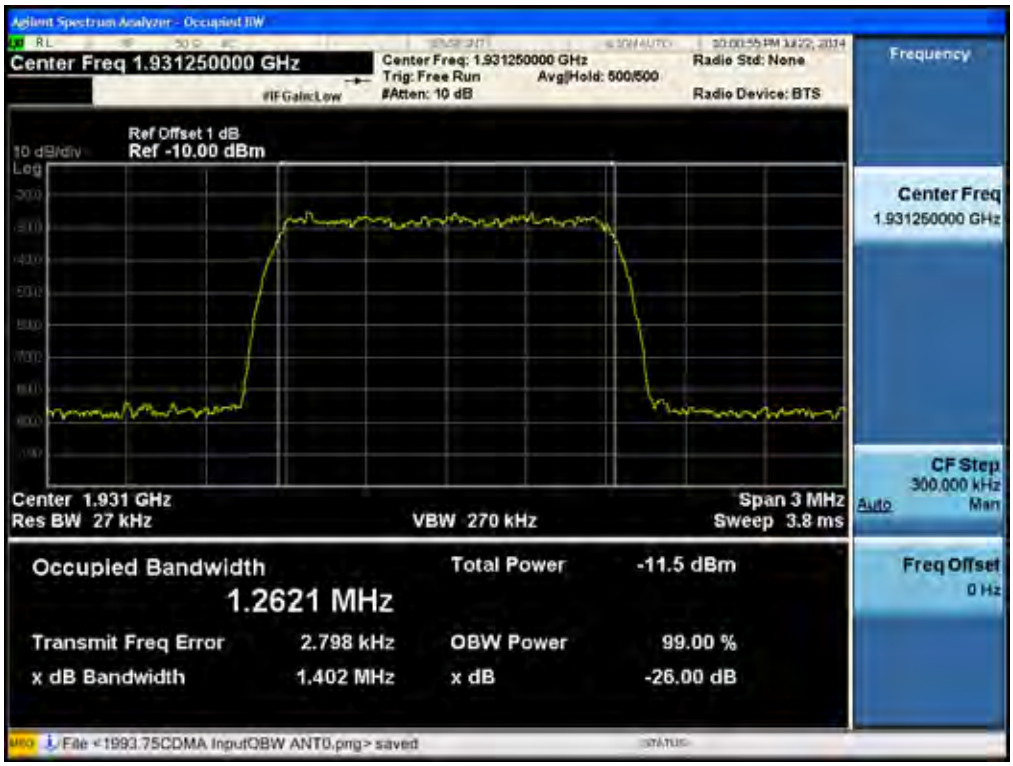
[Input CDMA Downlink Middle]



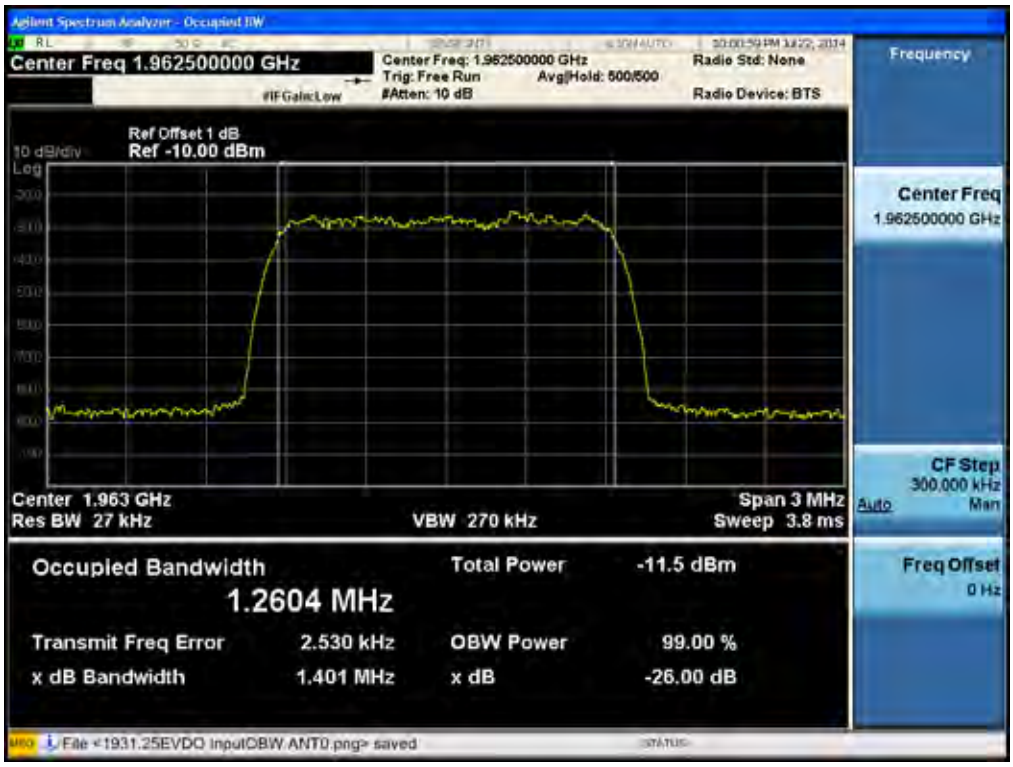
[Input CDMA Downlink High]



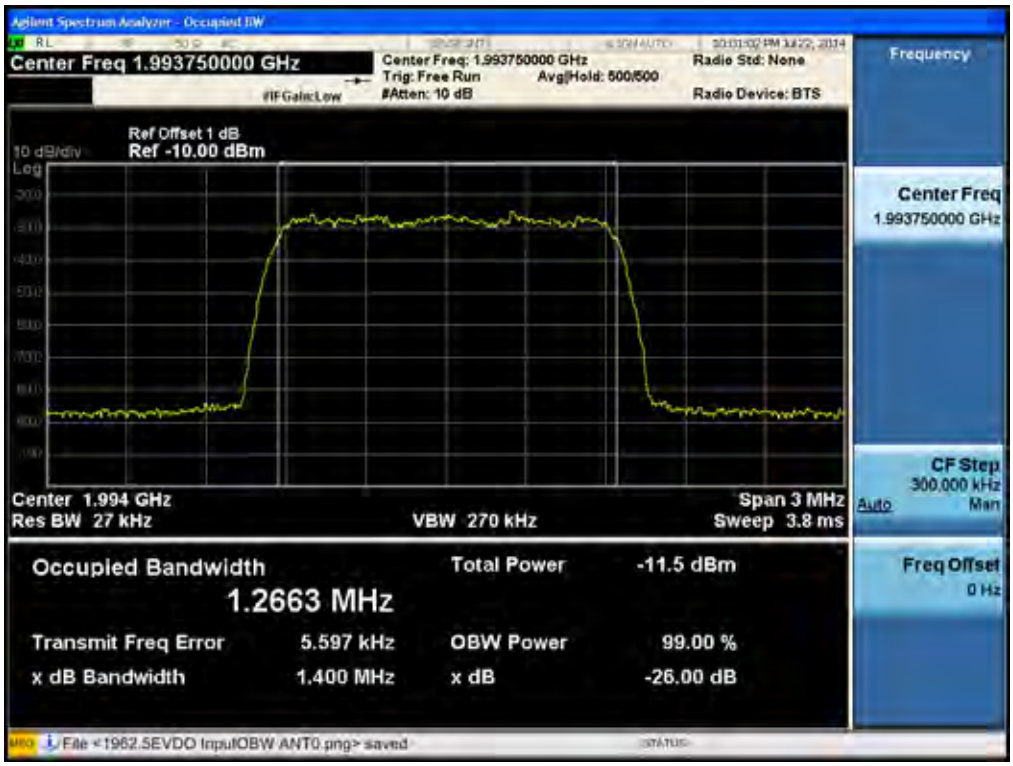
[Input CDMA EVDO Downlink Low]



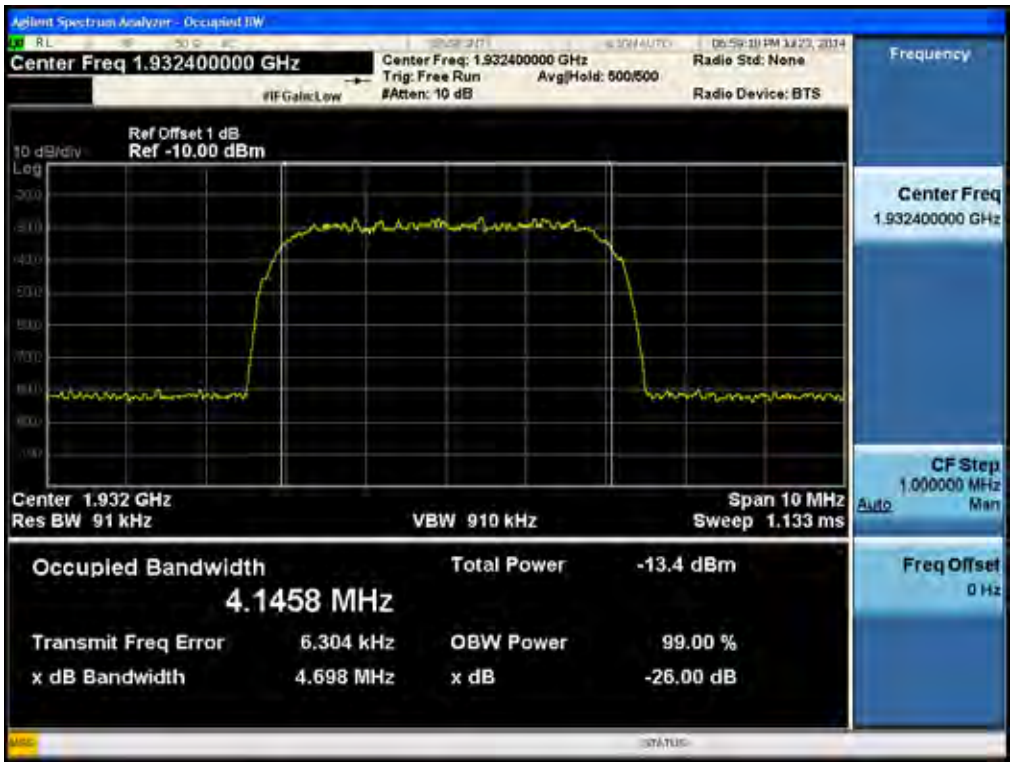
[Input CDMA EVDO Downlink Middle]



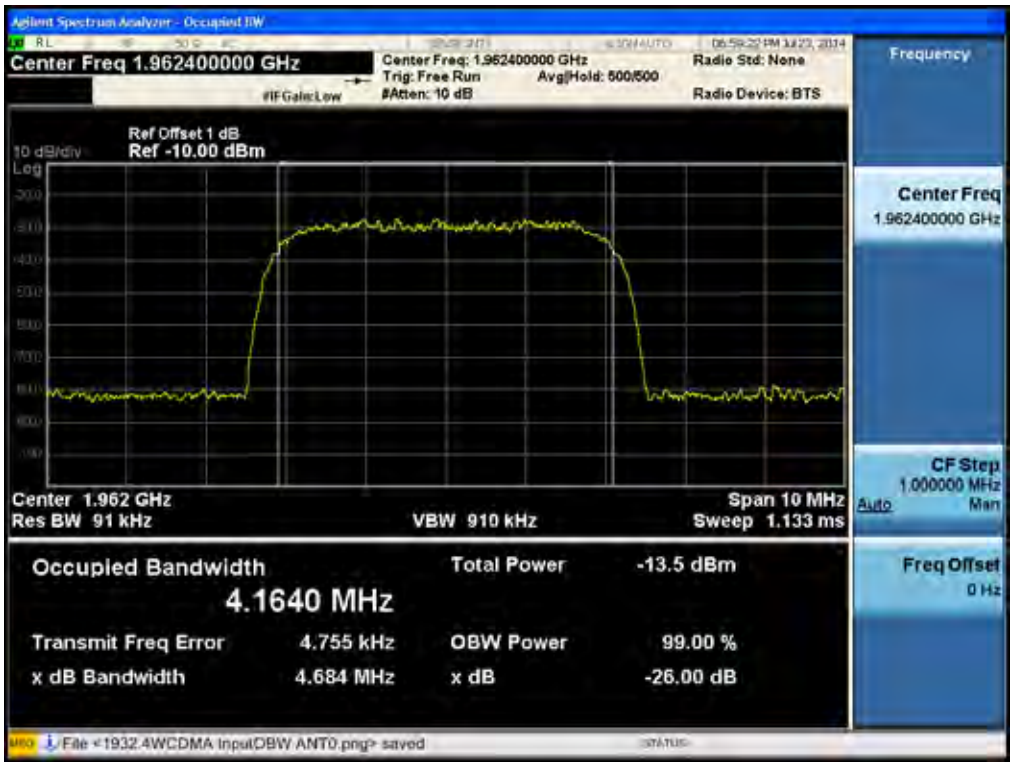
[Input CDMA EVDO Downlink High]



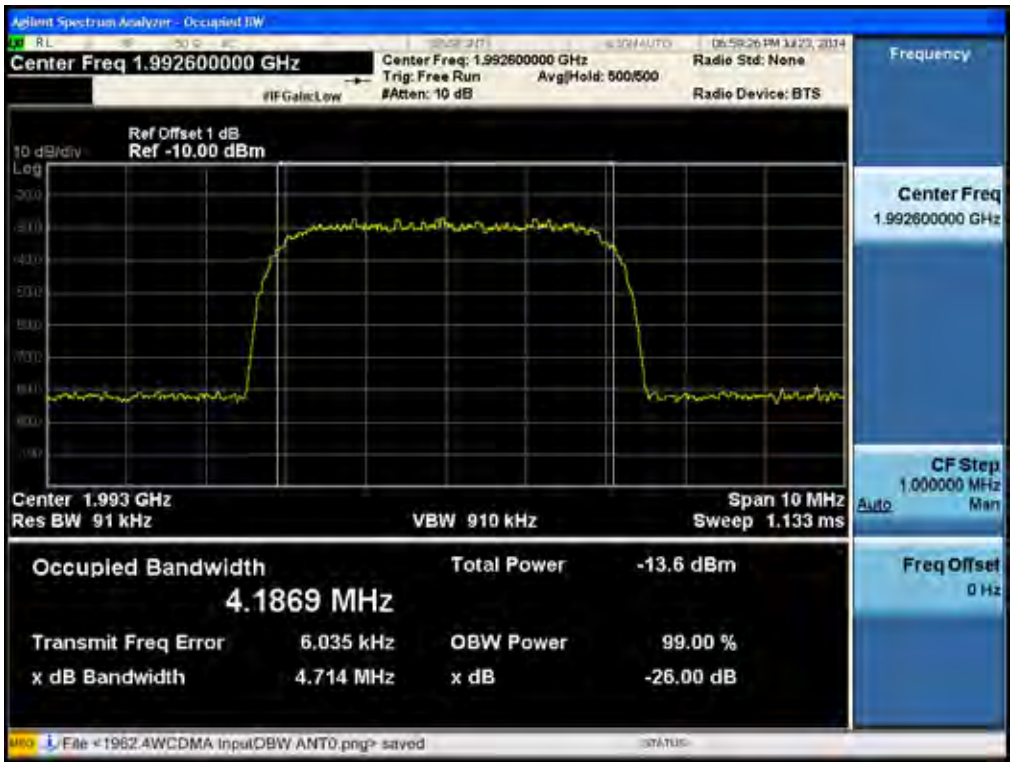
[Input WCDMA Downlink Low]



[Input WCDMA Downlink Middle]



[Input WCDMA Downlink High]



[Output GSM Downlink Low]

[Output GSM Downlink Middle]

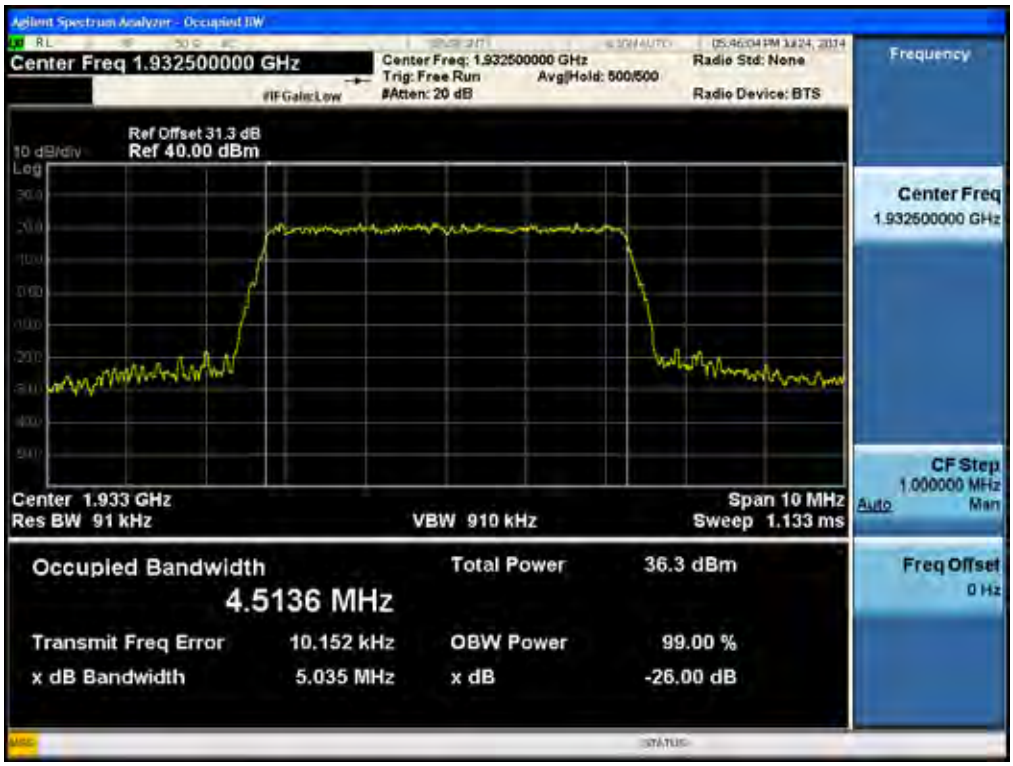
[Output GSM Downlink High]

[Output GSM EDGE Downlink Low]

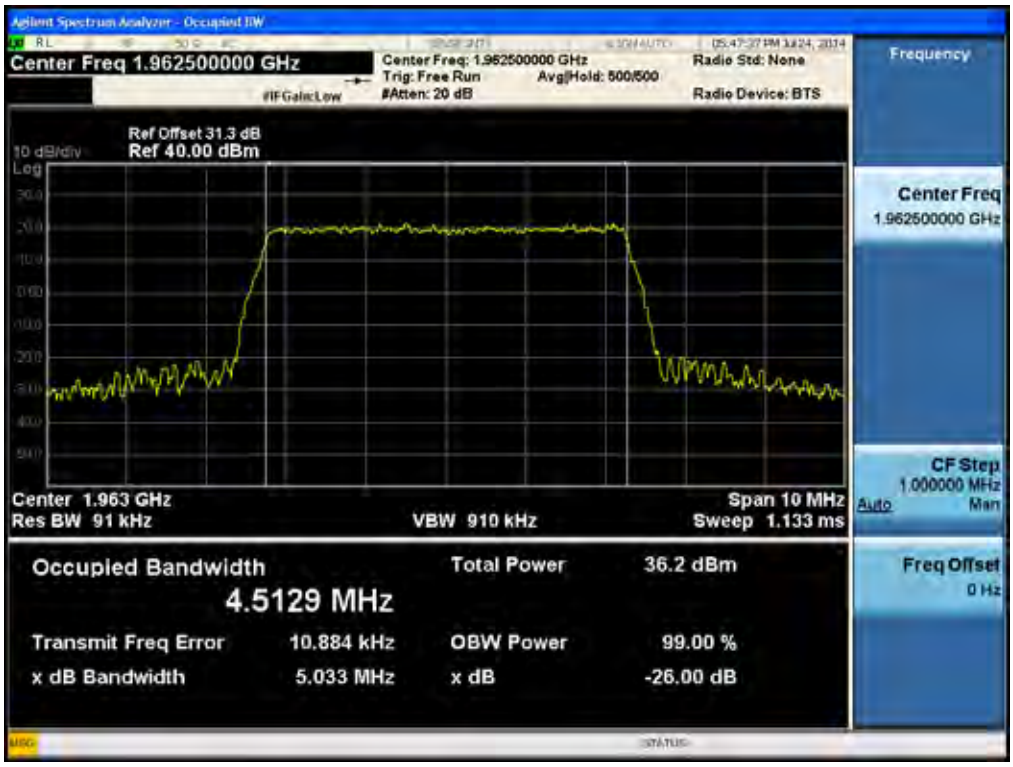
[Output GSM EDGE Downlink Middle]

[Output GSM EDGE Downlink High]

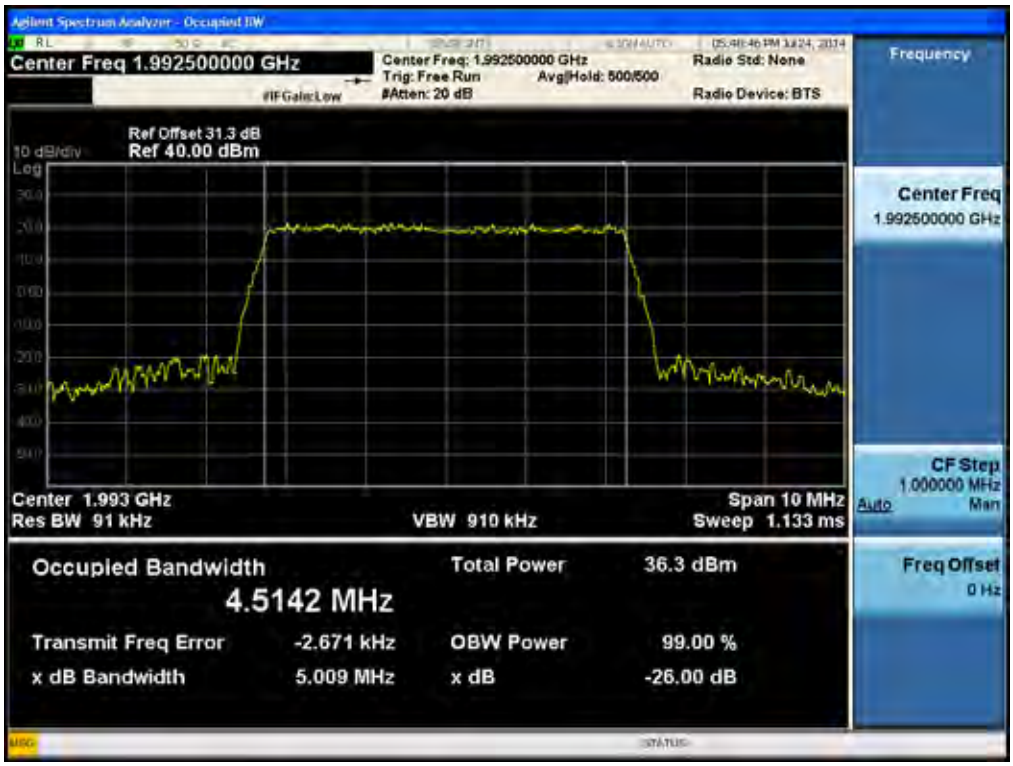
[Output LTE Downlink 5 MHz Low]



[Output LTE Downlink 5 MHz Middle]

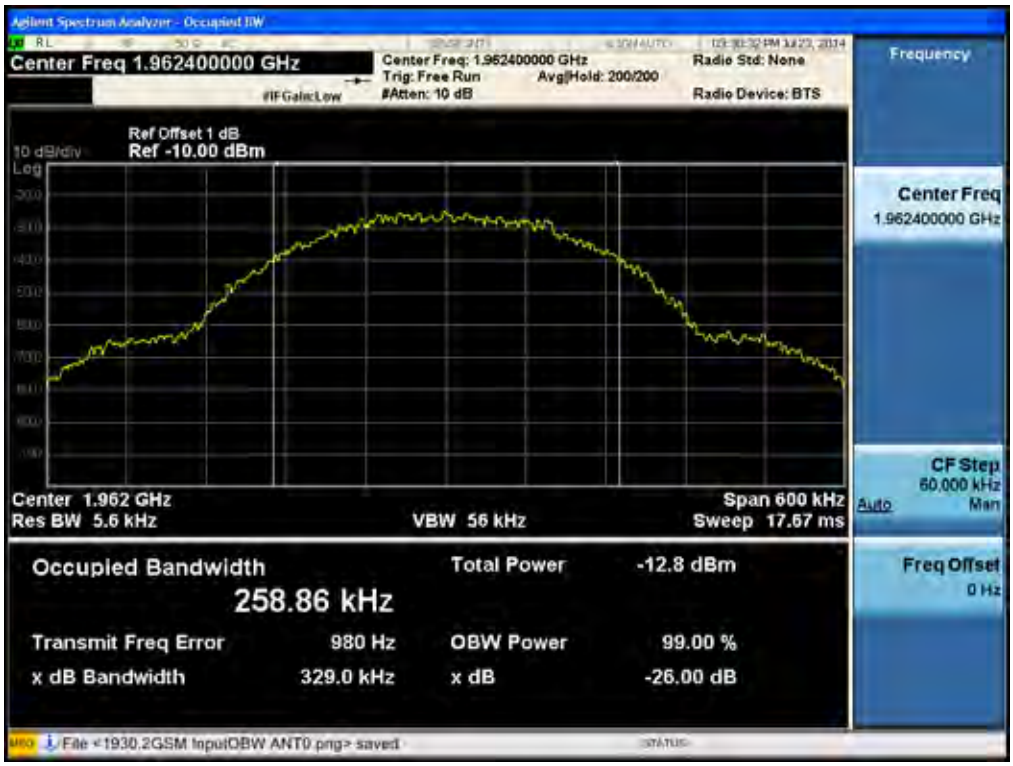


[Output LTE Downlink 5 MHz High]



[Input GSM Downlink Low]

[Input GSM Downlink Middle]



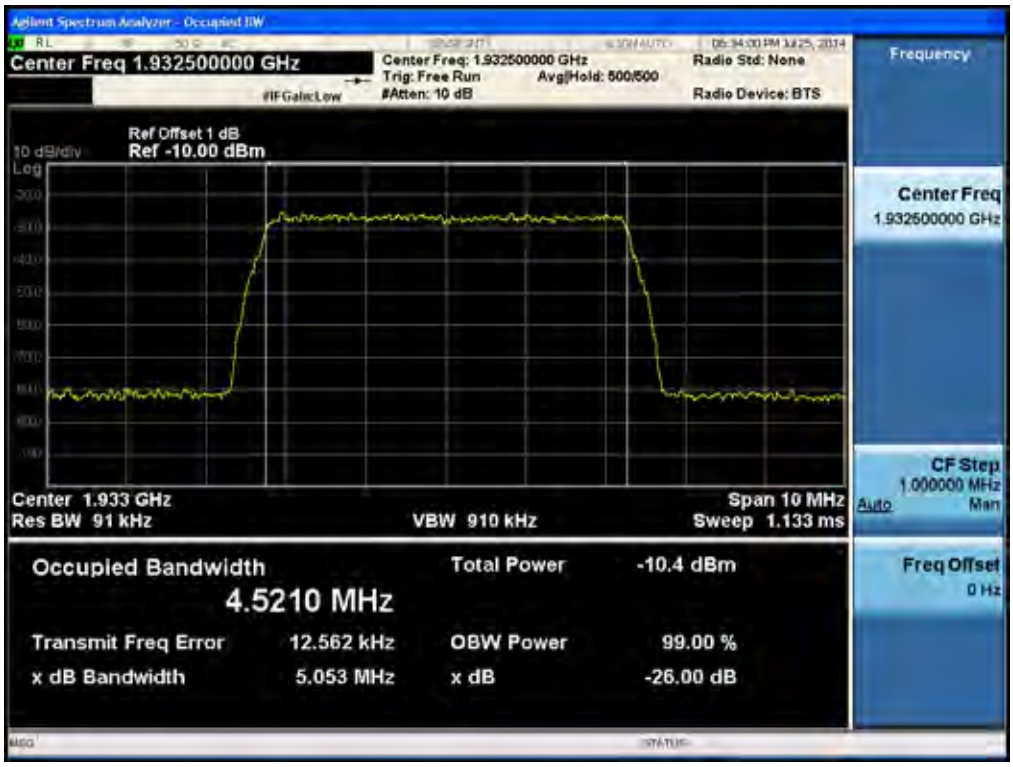
[Input GSM Downlink High]

[Input GSM EDGE Downlink Low]

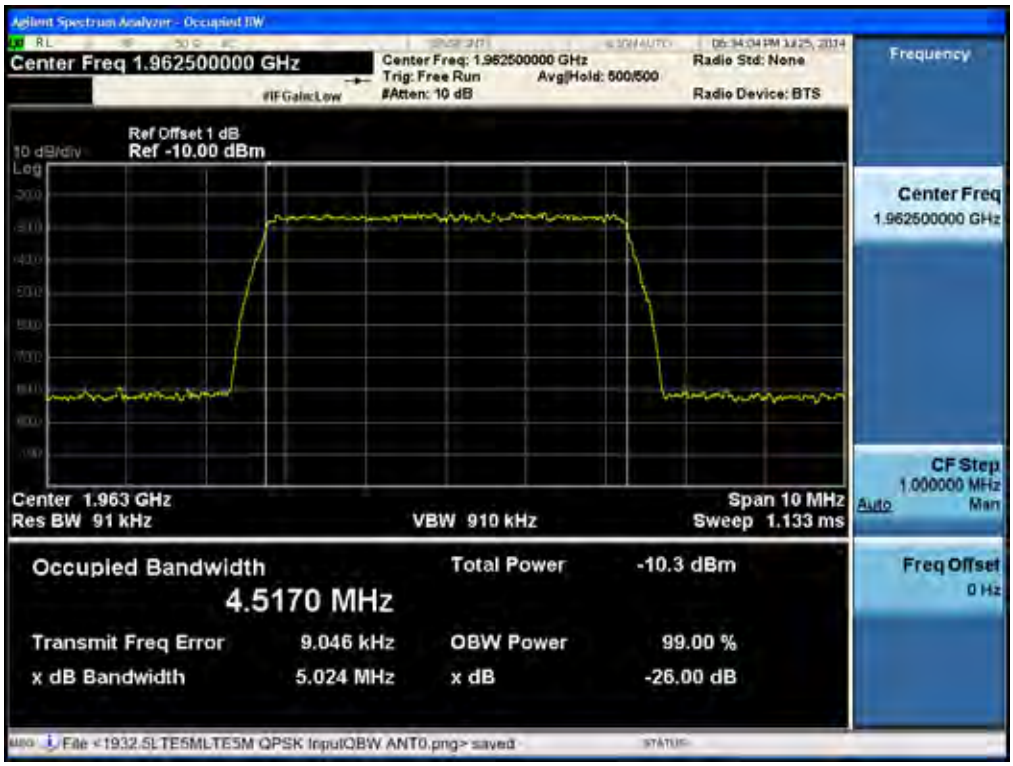
[Input GSM EDGE Downlink Middle]

[Input GSM EDGE Downlink High]

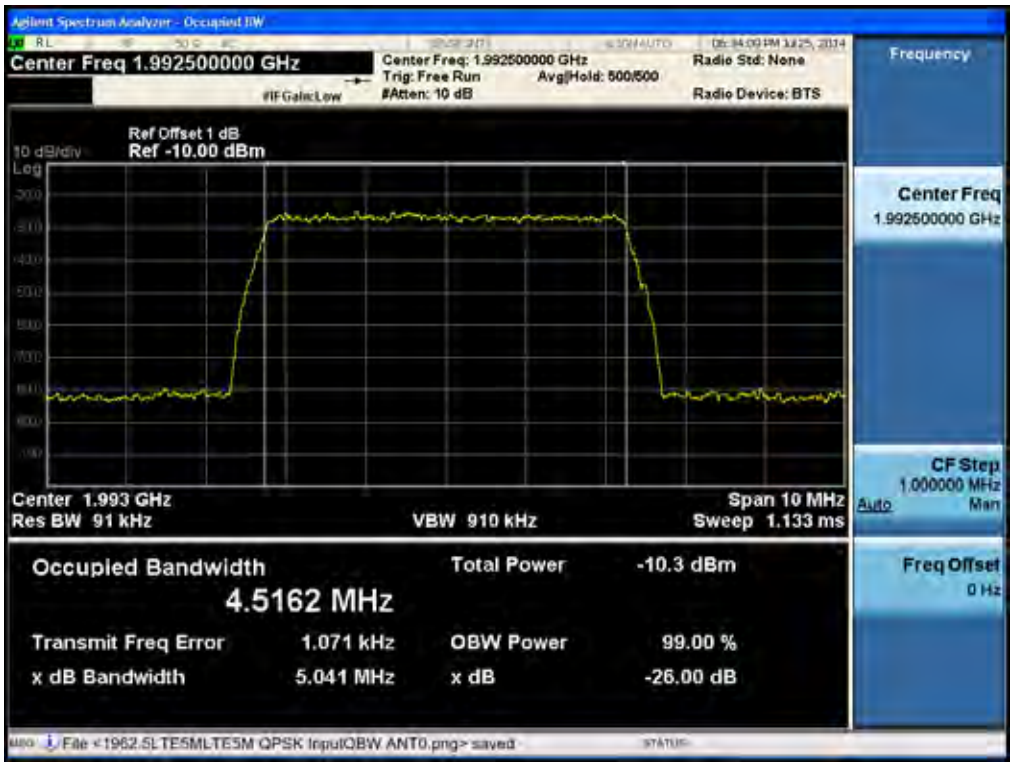
[Input LTE Downlink 5 MHz Low]



[Input LTE Downlink 5 MHz Middle]

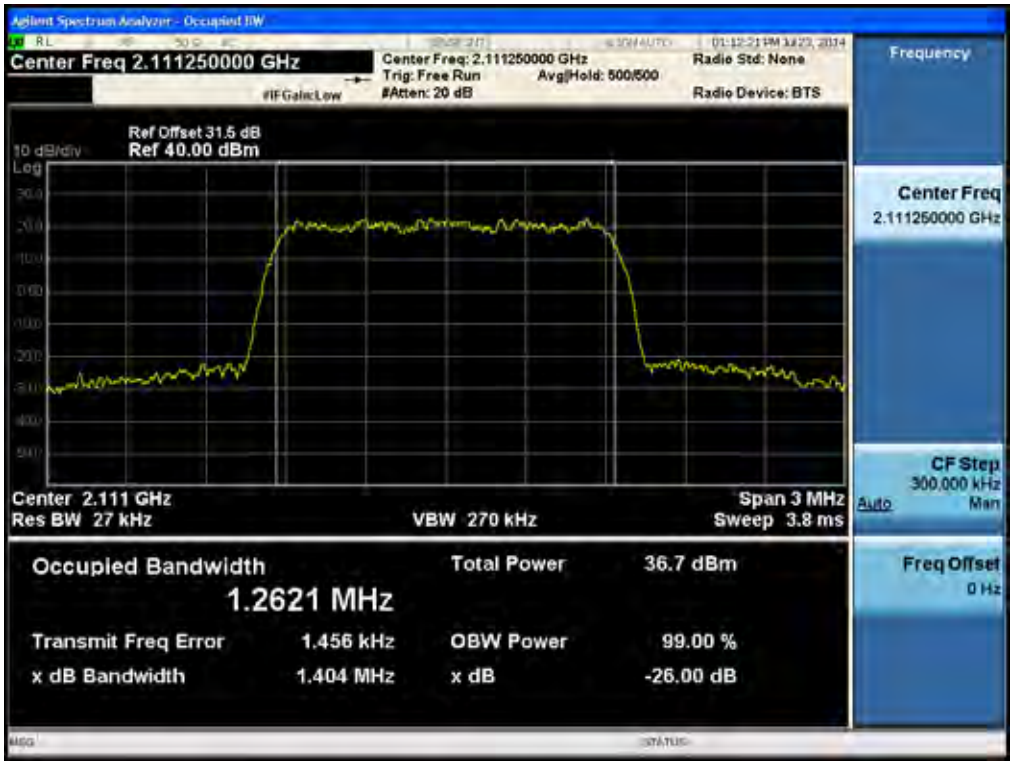


[Input LTE Downlink 5 MHz High]

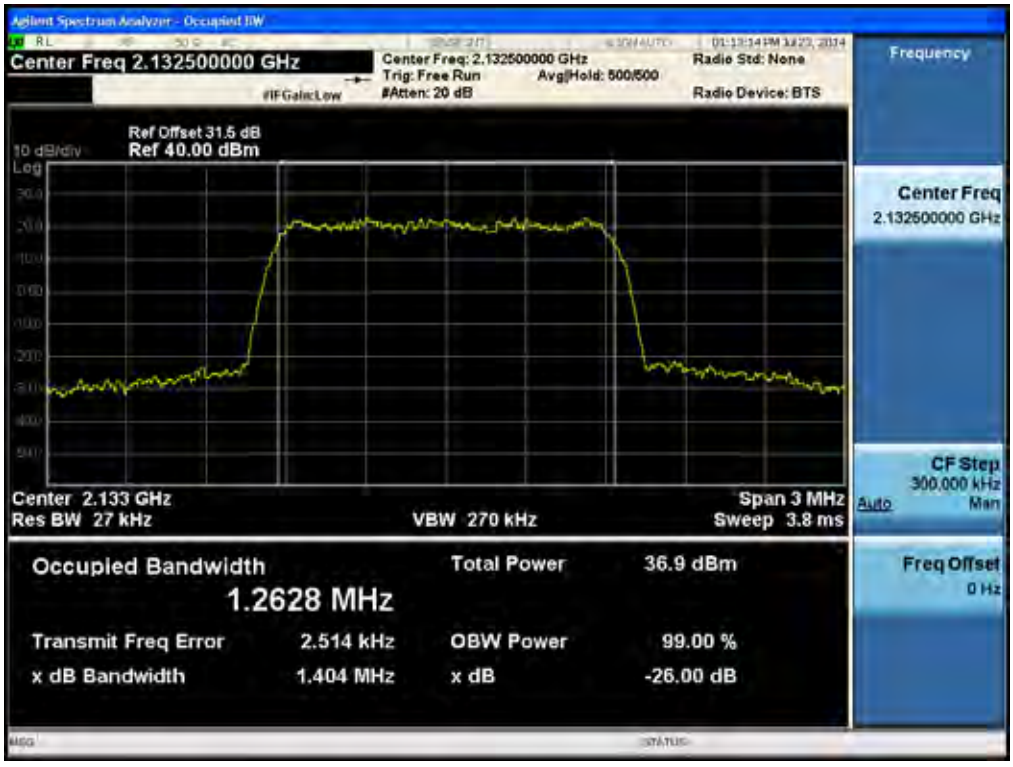


AWS Band Plots of Occupied Bandwidth

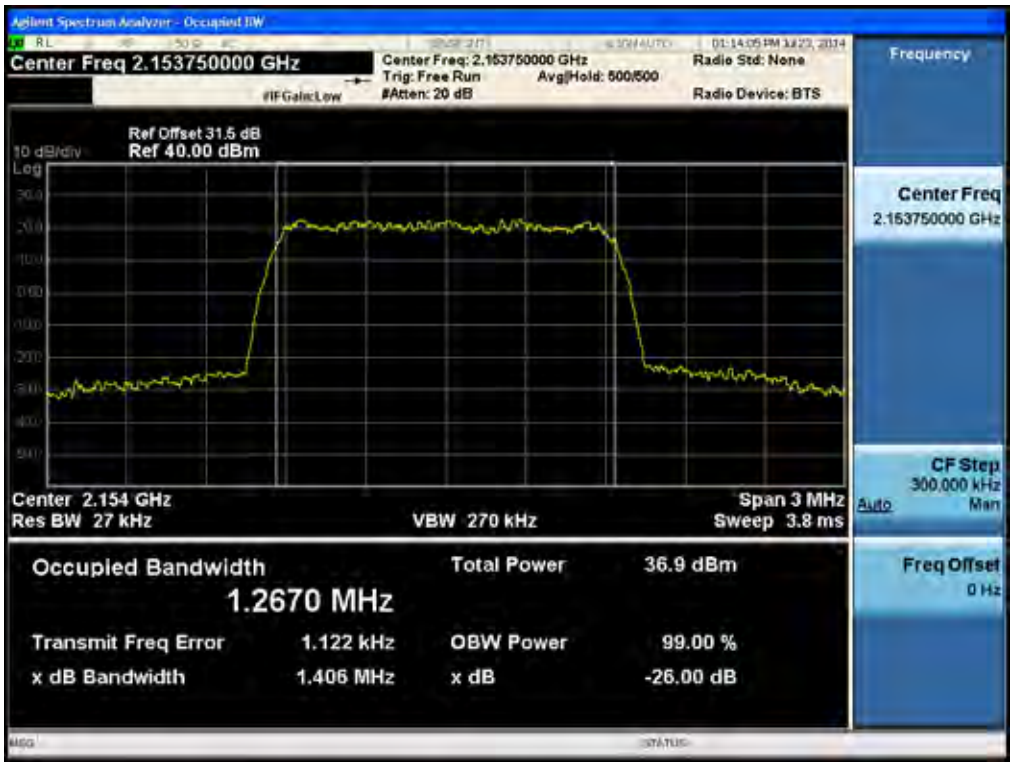
[Output CDMA Downlink Low]



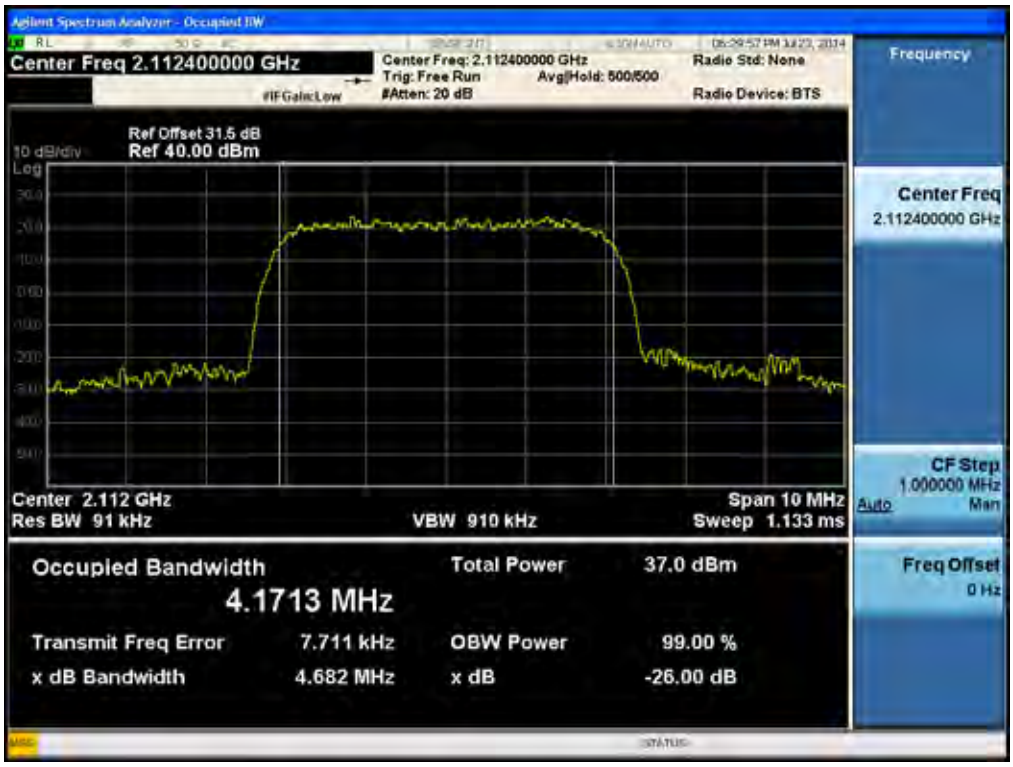
[Output CDMA Downlink Middle]



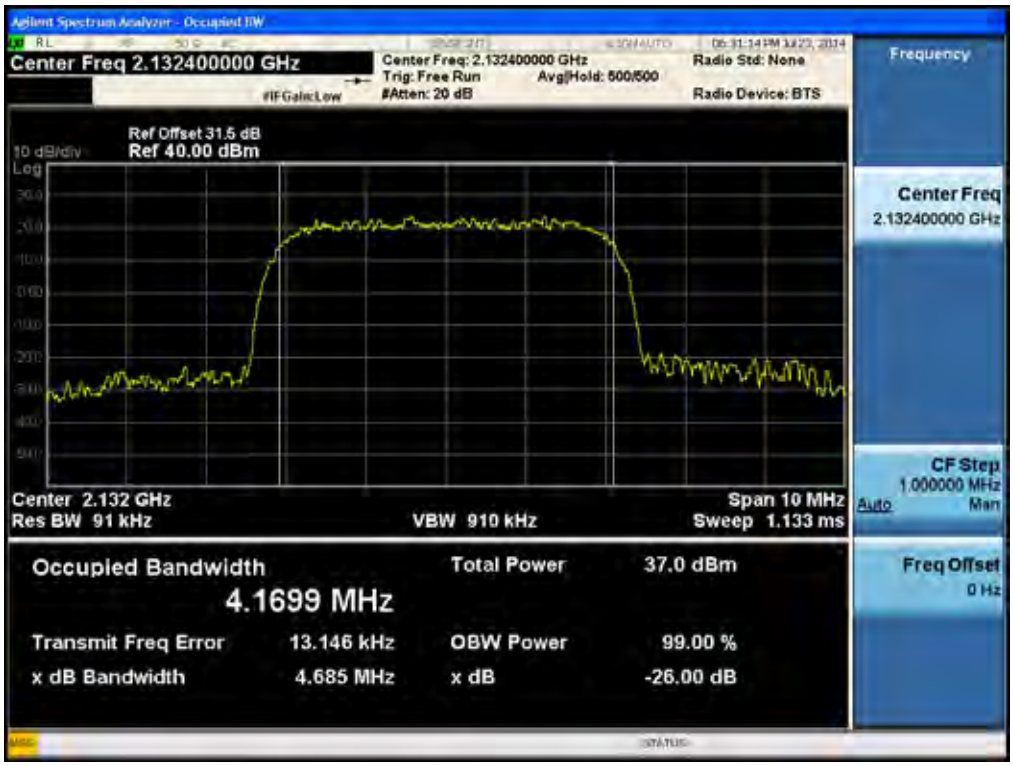
[Output CDMA Downlink High]



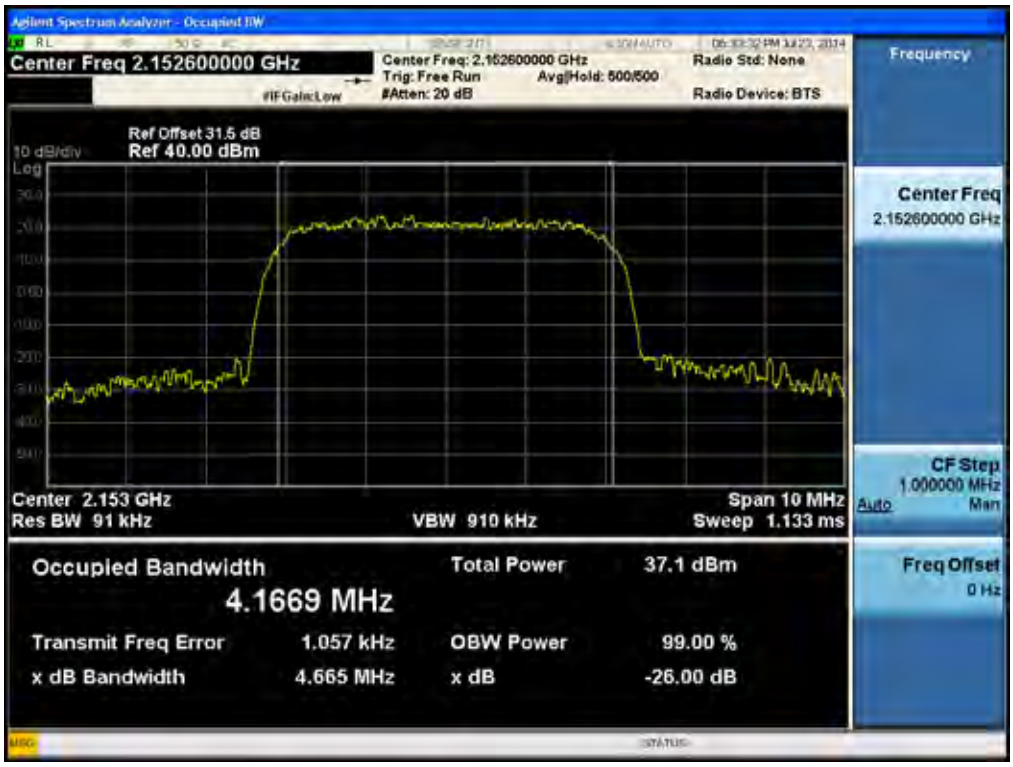
[Output WCDMA Downlink Low]



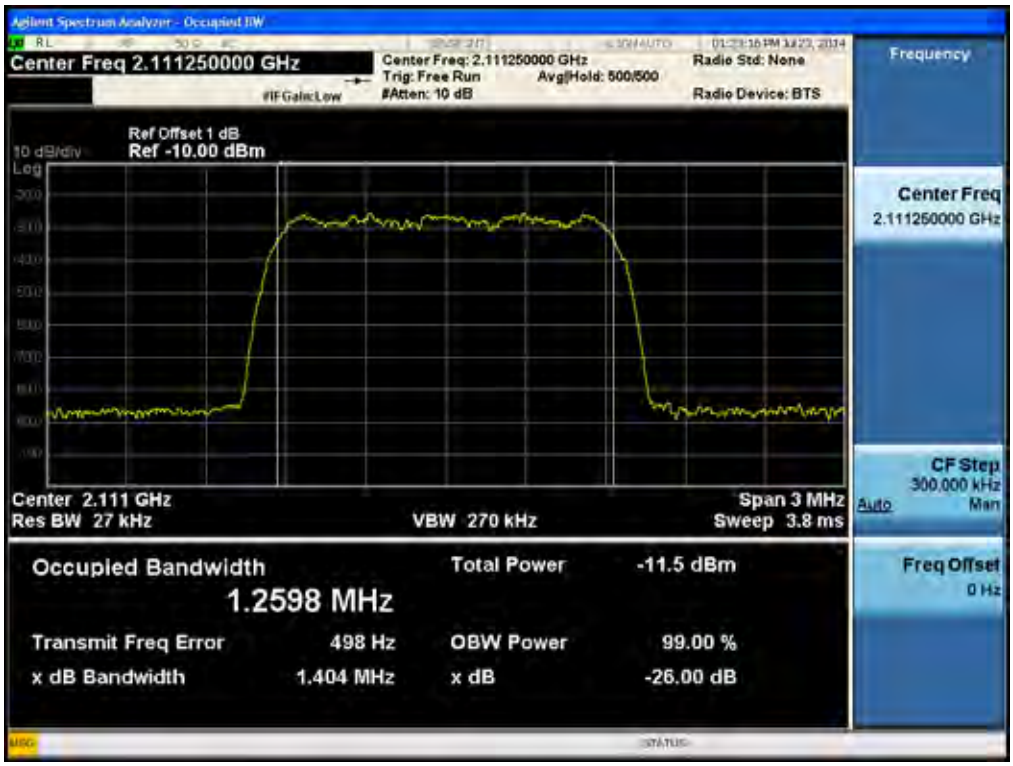
[Output WCDMA Downlink Middle]



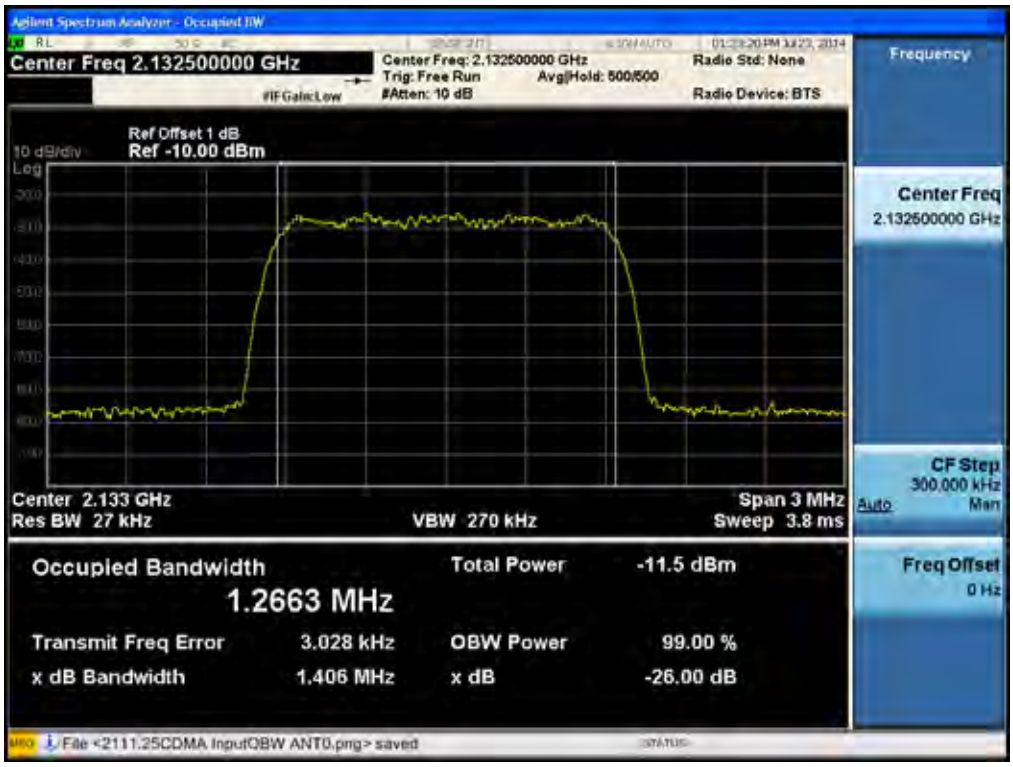
[Output WCDMA Downlink High]



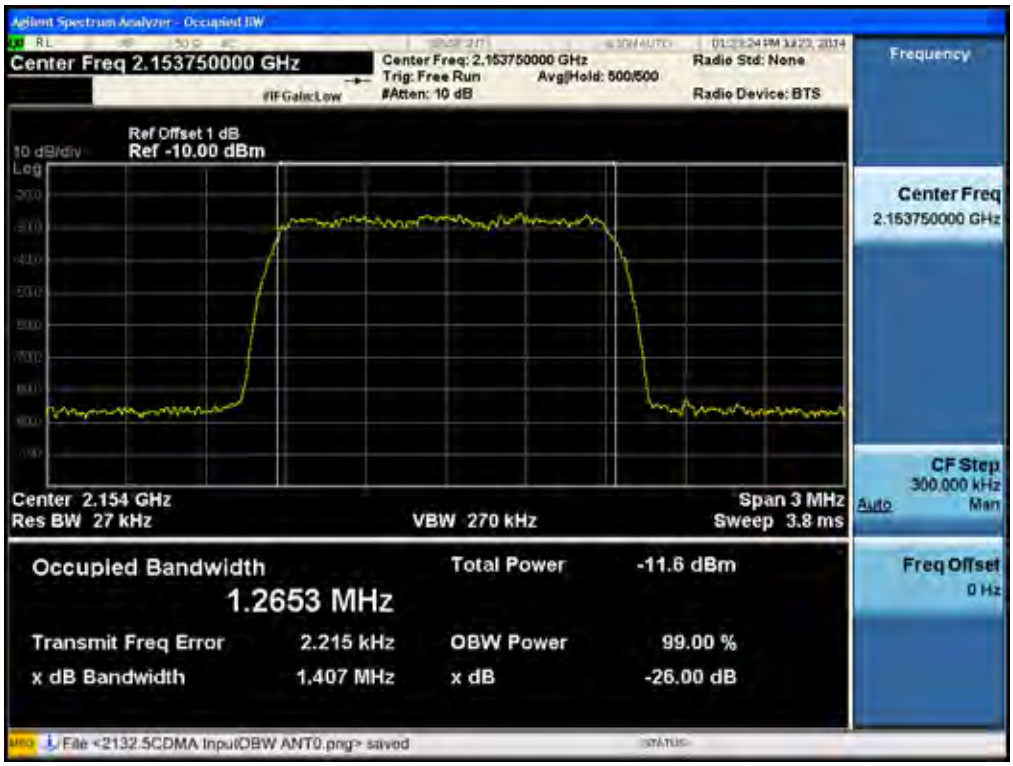
[Input CDMA Downlink Low]



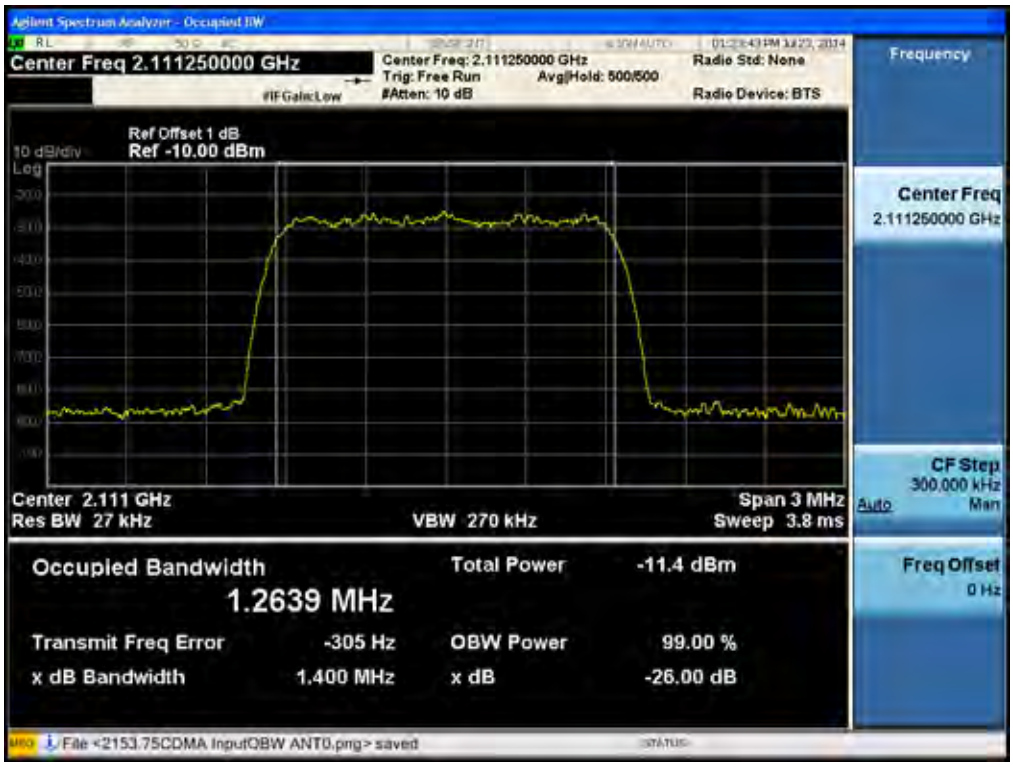
[Input CDMA Downlink Middle]



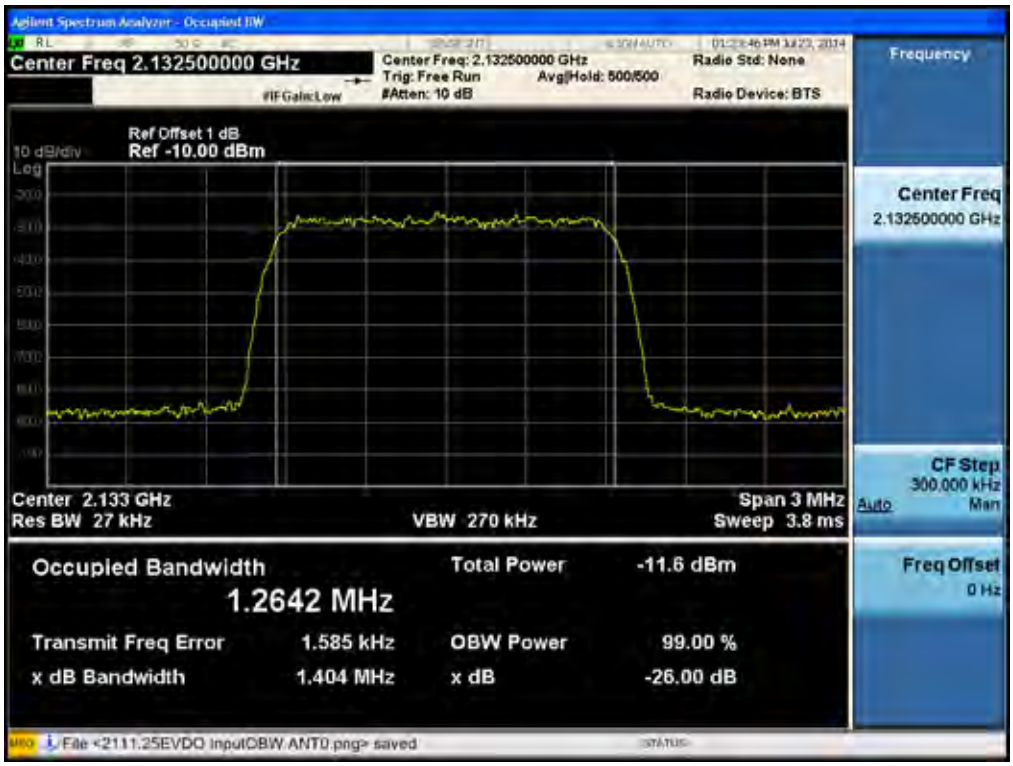
[Input CDMA Downlink High]



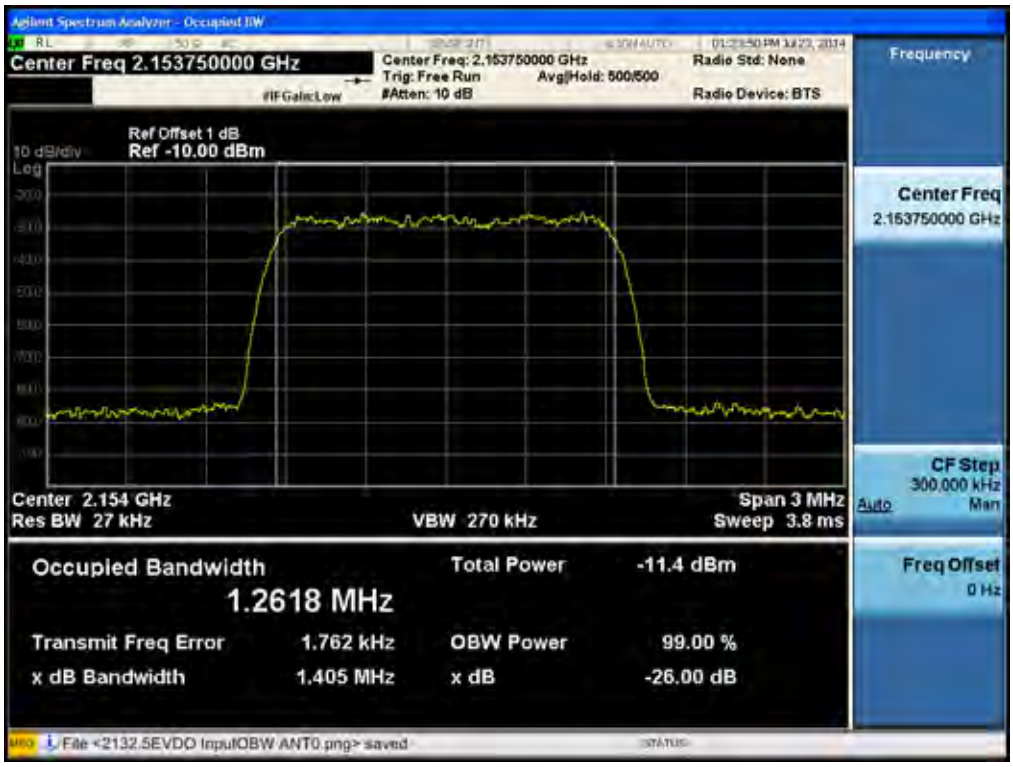
[Input CDMA EVDO Downlink Low]



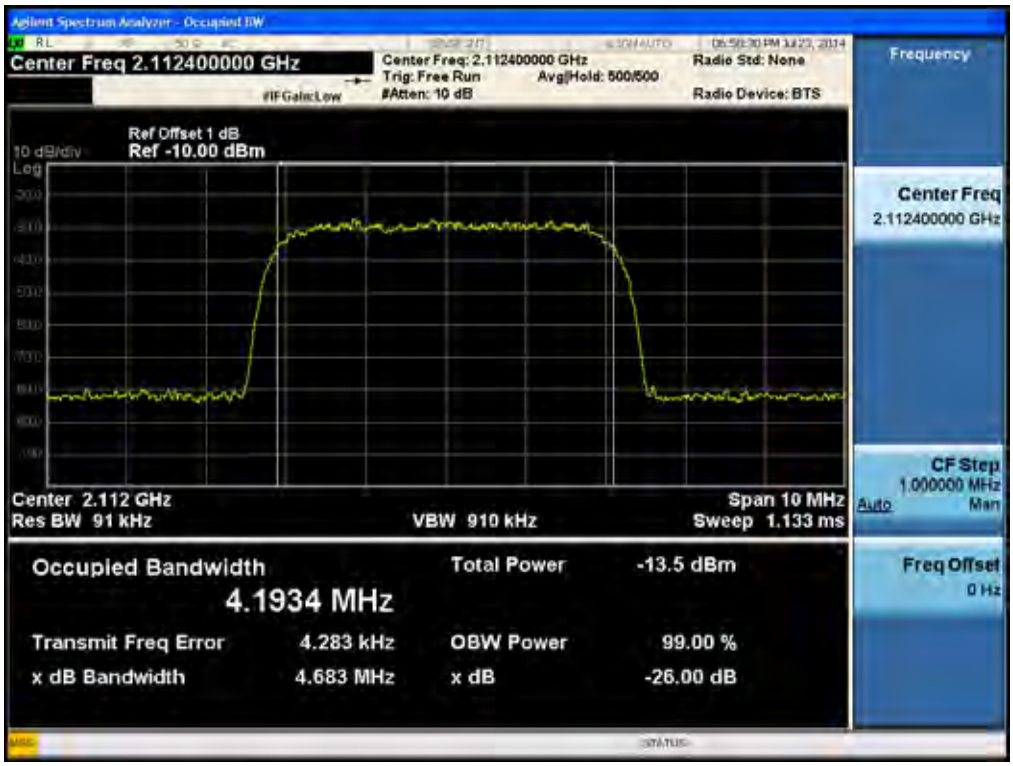
[Input CDMA EVDO Downlink Middle]



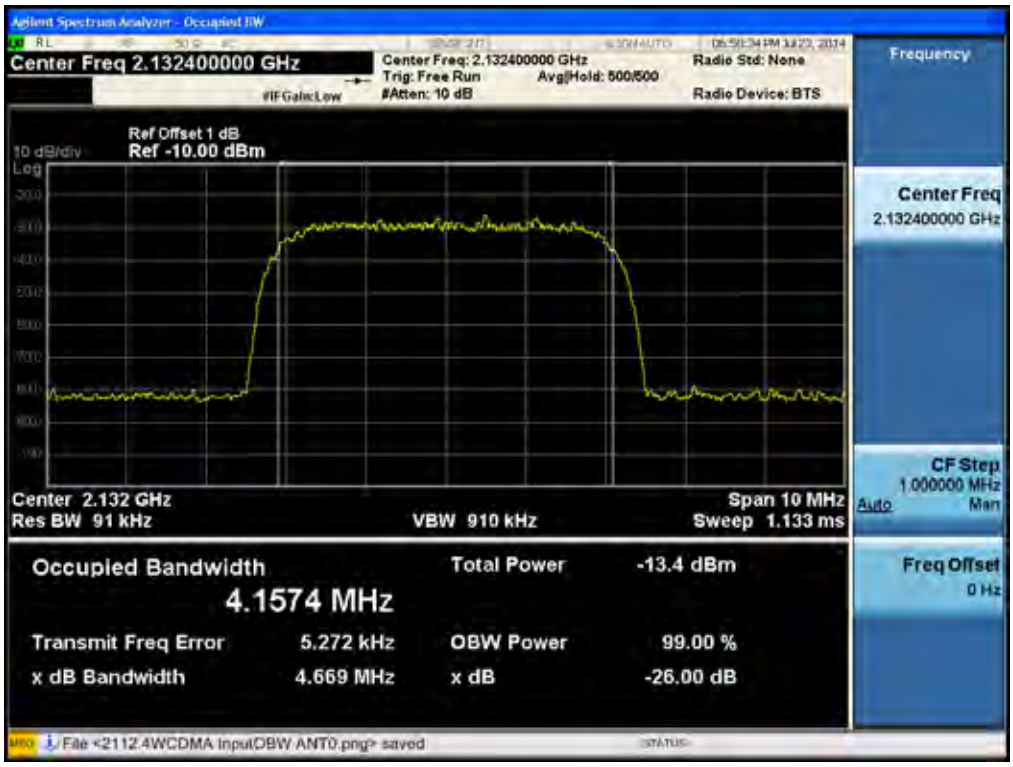
[Input CDMA EVDO Downlink High]



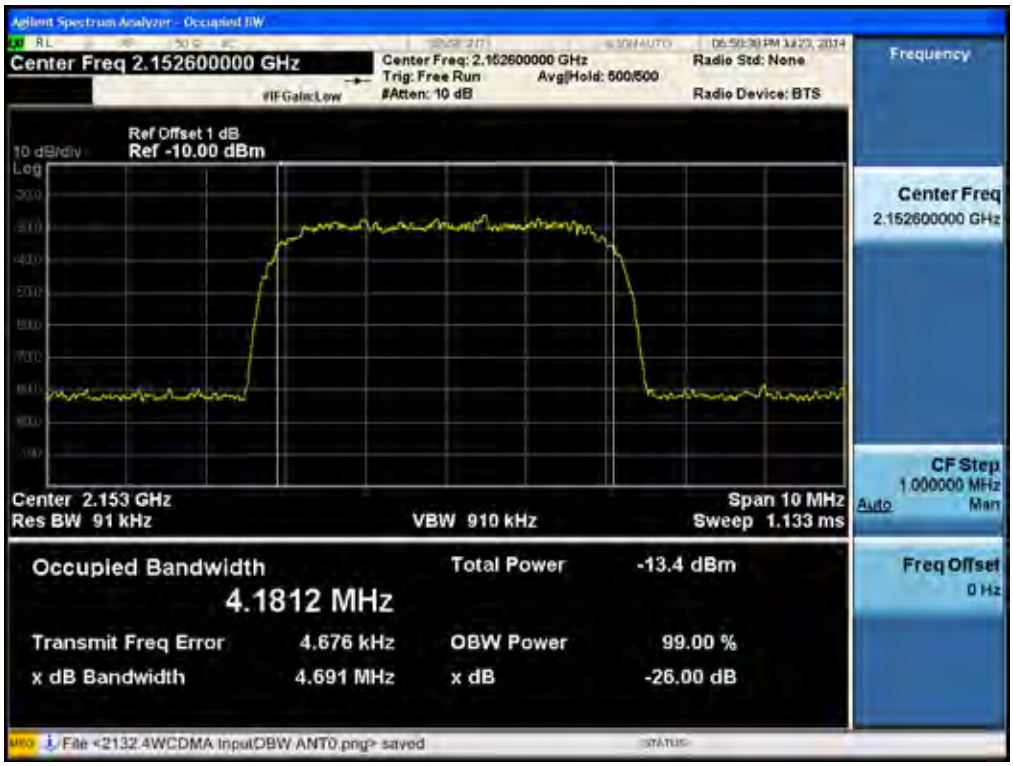
[Input WCDMA Downlink Low]



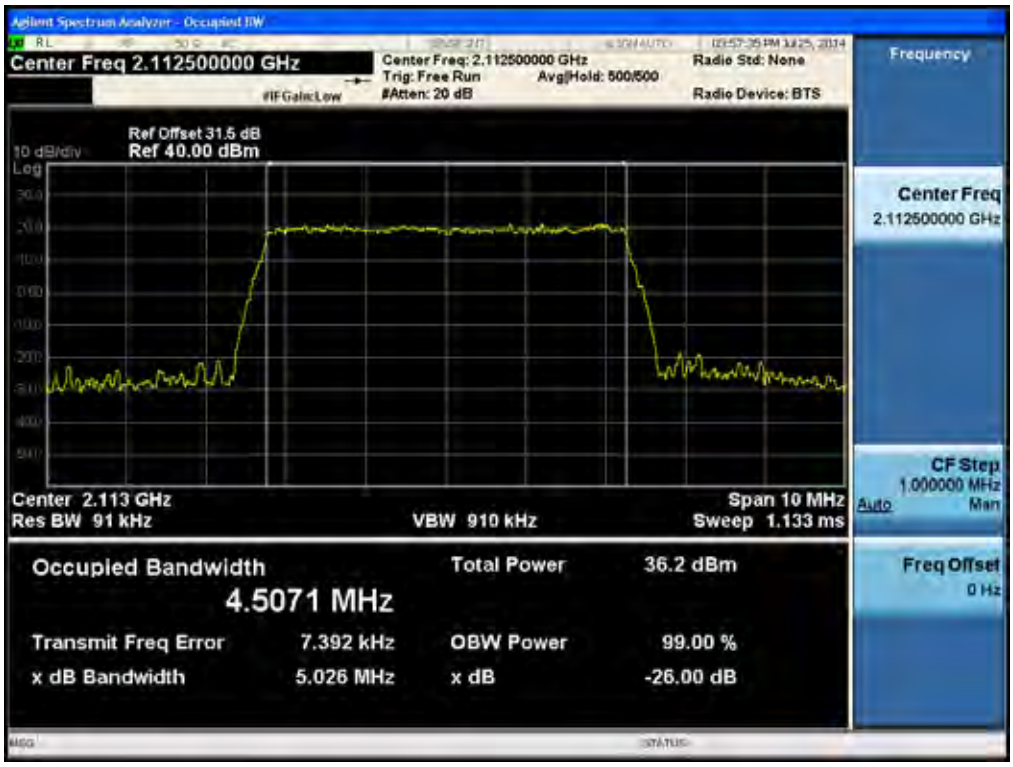
[Input WCDMA Downlink Middle]



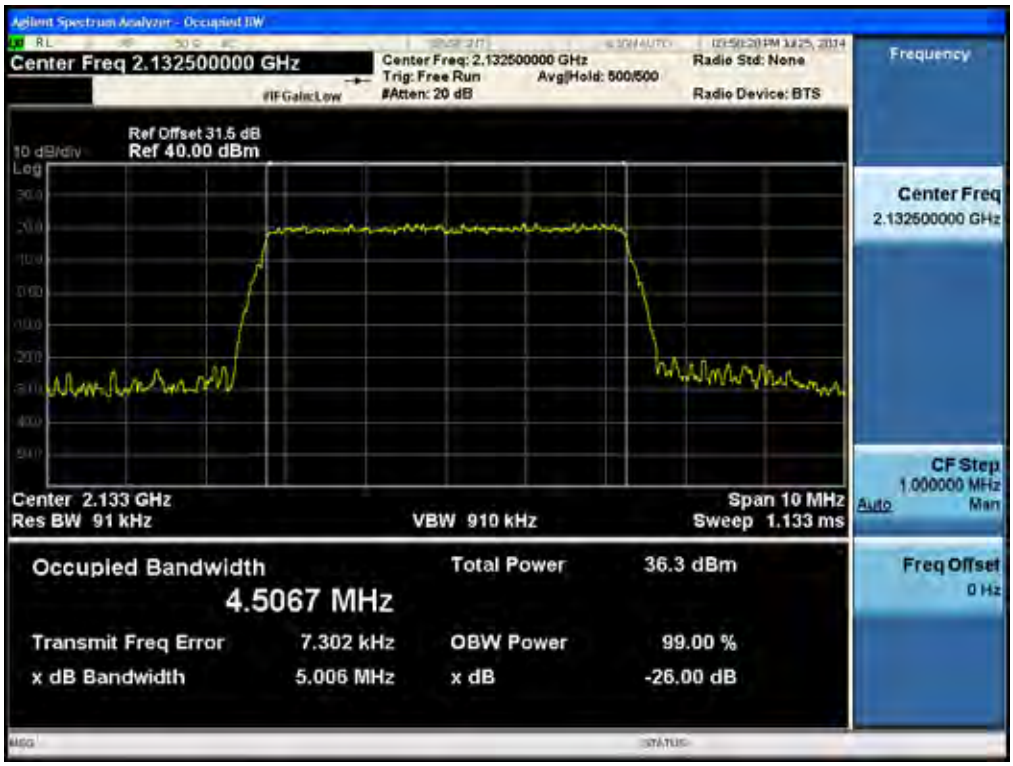
[Input WCDMA Downlink High]



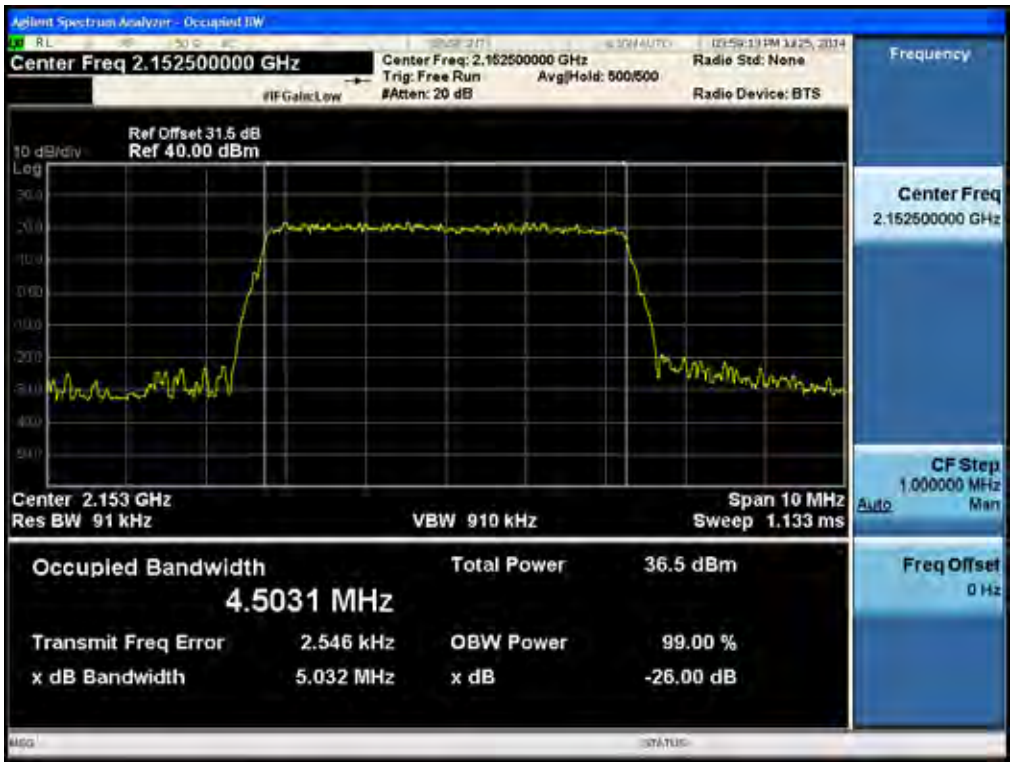
[Output LTE Downlink 5 MHz Low]



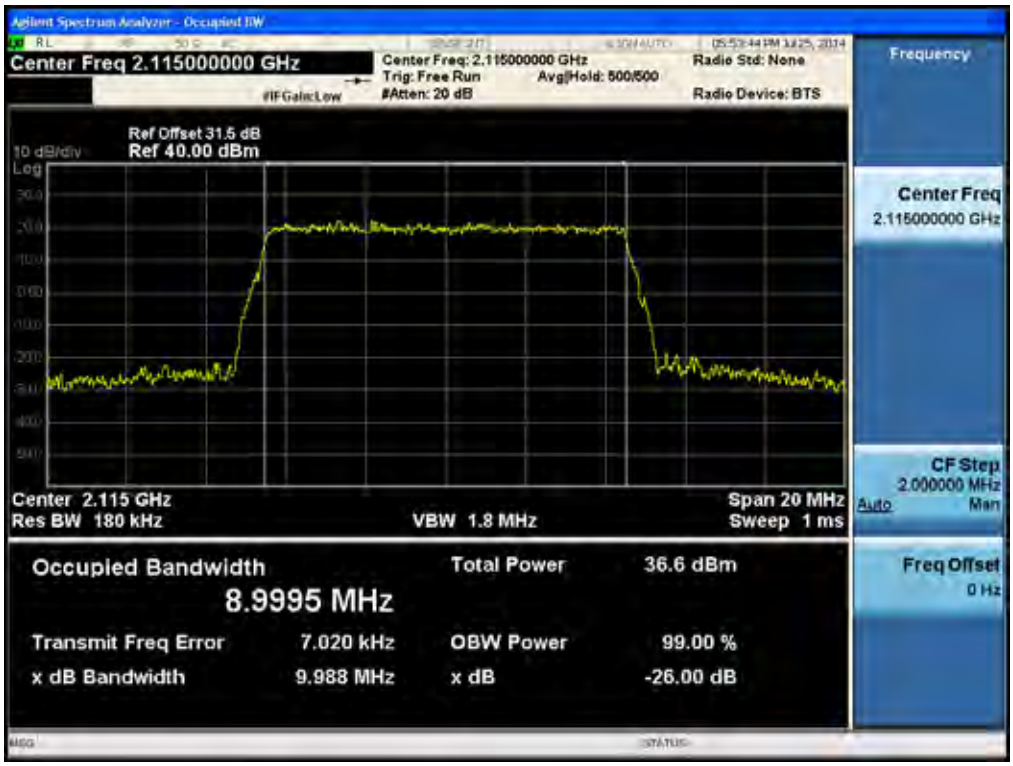
[Output LTE Downlink 5 MHz Middle]



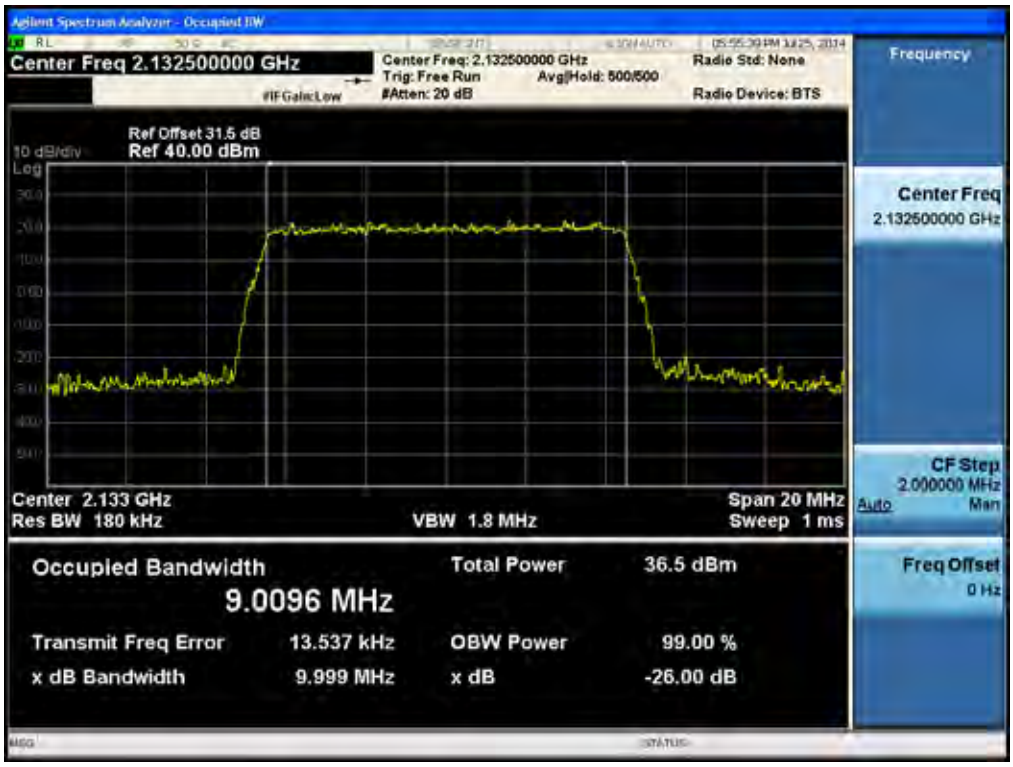
[Output LTE Downlink 5 MHz High]



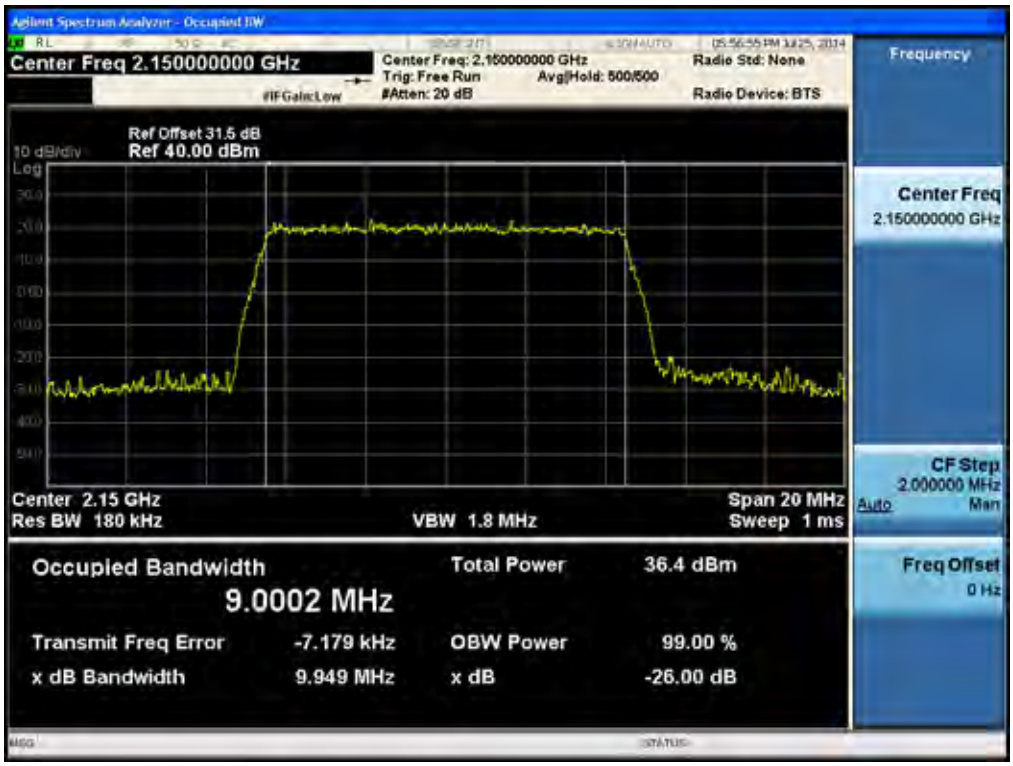
[Output LTE Downlink 10 MHz Low]



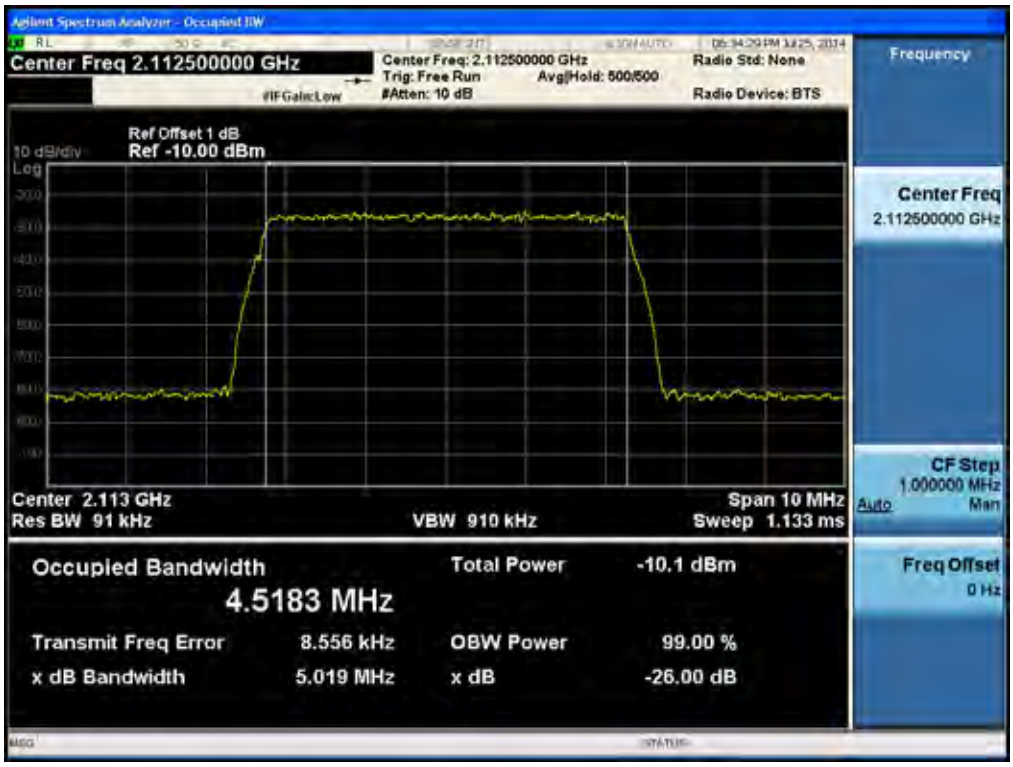
[Output LTE Downlink 10 MHz Middle]



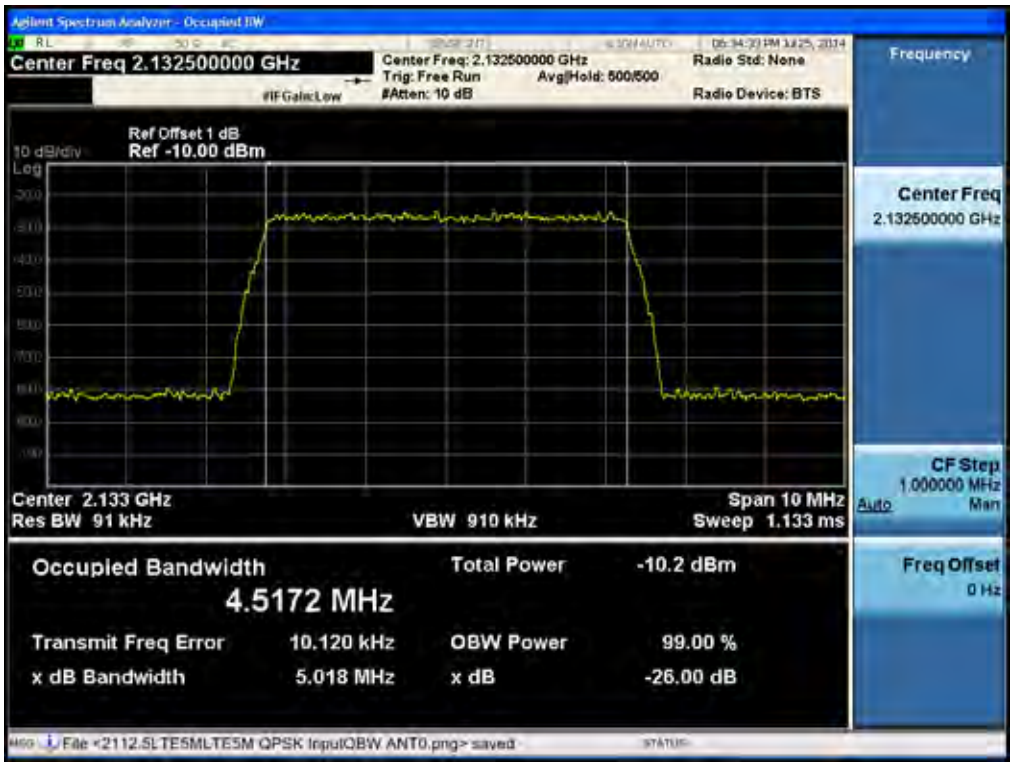
[Output LTE Downlink 10 MHz High]



[Input LTE Downlink 5 MHz Low]



[Input LTE Downlink 5 MHz Middle]



[Input LTE Downlink 5 MHz High]