



Appendix for test report

1Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured [dBm]	ERP/EIRP [dBm]	Limit [dBm]	Verdict
BC0	CDMA/1X/TM1	LCH	23.55	18.7	38.5	PASS
		MCH	23.75	18.9	38.5	PASS
		HCH	23.55	18.7	38.5	PASS
	CDMA/1X/TM3	LCH	23.61	18.76	38.5	PASS
		MCH	23.72	18.87	38.5	PASS
		HCH	23.51	18.66	38.5	PASS
BC0	CDMA/EV-DO/ Subtype0	LCH	23.46	18.61	38.5	PASS
		MCH	23.56	18.71	38.5	PASS
		HCH	23.28	18.43	38.5	PASS
	CDMA/EV-DO/ Subtype2	LCH	23.56	18.71	38.5	PASS
		MCH	23.59	18.74	38.5	PASS
		HCH	23.34	18.49	38.5	PASS
BC1	CDMA/1X/TM1	LCH	24.49	24.39	33	PASS

Test Band	Test Mode	Test Channel	Measured [dBm]	ERP/EIRP [dBm]	Limit [dBm]	Verdict
		MCH	24.65	24.55	33	PASS
		HCH	24.52	24.42	33	PASS
	CDMA/1X/TM3	LCH	24.49	24.39	33	PASS
		MCH	24.65	24.55	33	PASS
		HCH	24.54	24.44	33	PASS
BC1	CDMA/EV-DO/ Subtype0	LCH	23.96	23.86	33	PASS
		MCH	23.9	23.8	33	PASS
		HCH	23.76	23.66	33	PASS
	CDMA/EV-DO/ Subtype2	LCH	23.9	23.8	33	PASS
		MCH	23.89	23.79	33	PASS
		HCH	23.67	23.57	33	PASS

Note1:

a, For getting the ERP (Efficient Radiated Power) or EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b, SGP=Signal Generator Level

Note2:

$$\text{SET Span} = 1.5 \times \text{OBW}$$

$$\text{SET RBW} = 1\% \text{ of the OBW, not to exceed 1MHz}$$



SET VBW $\geq$ 3*RBW

SET Sweep time=auto-couple.

Detector:RMS

2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
BC1	CDMA/1X/TM1	LCH	3.35	13	PASS
		MCH	3.01	13	PASS
		HCH	2.96	13	PASS
	CDMA/1X/TM3	LCH	2.6	13	PASS
		MCH	2.71	13	PASS
		HCH	2.66	13	PASS
BC1	CDMA/EV-DO/Subtype0	LCH	3.34	13	PASS
		MCH	3.4	13	PASS
		HCH	3.41	13	PASS
	CDMA/EV-DO/Subtype2	LCH	4.06	13	PASS
		MCH	4.25	13	PASS
		HCH	4.32	13	PASS

3Appendix_C: Modulation Characteristics

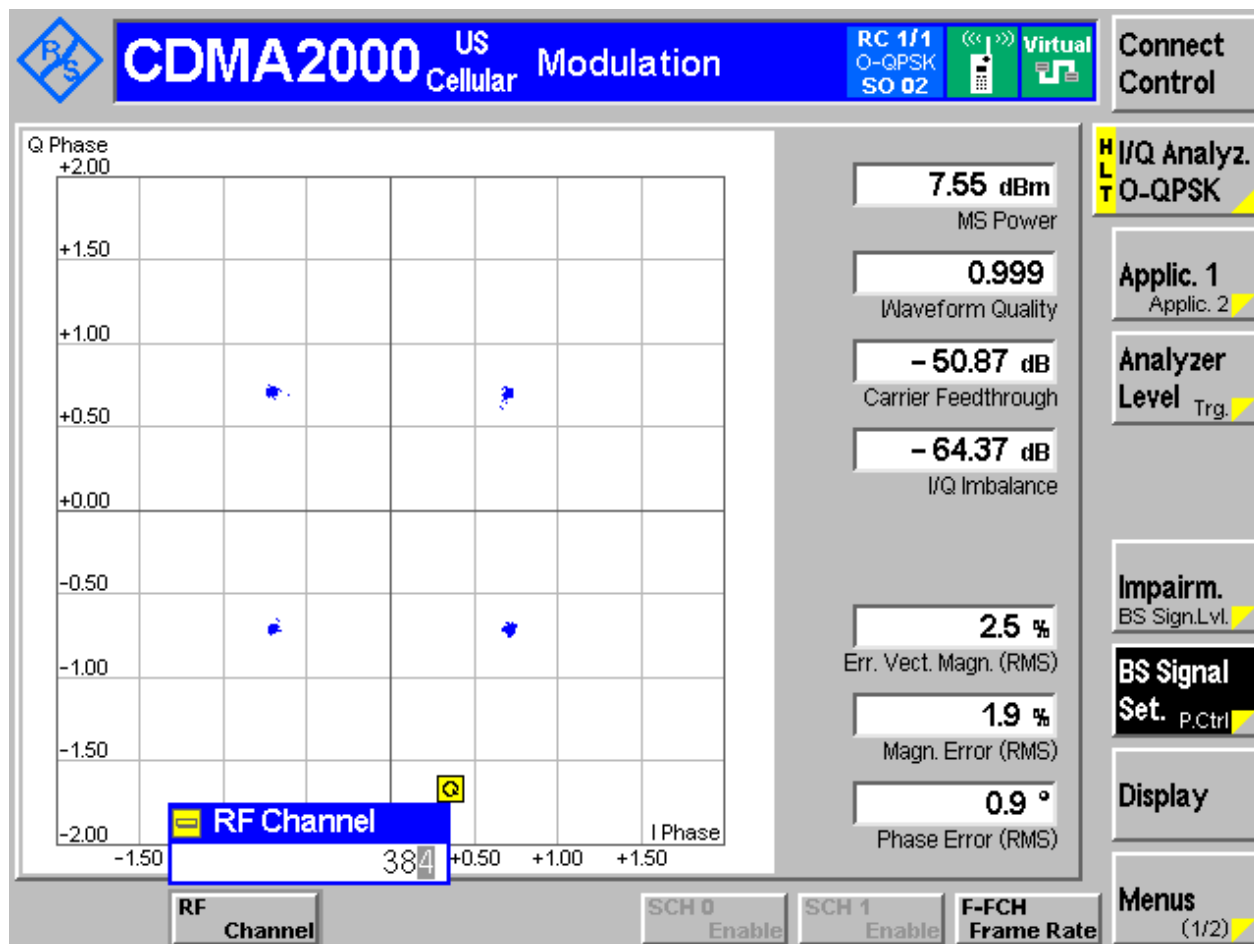
Part I - Test Plots

3.1 For CDMA

3.1.1 Test Band = BC0

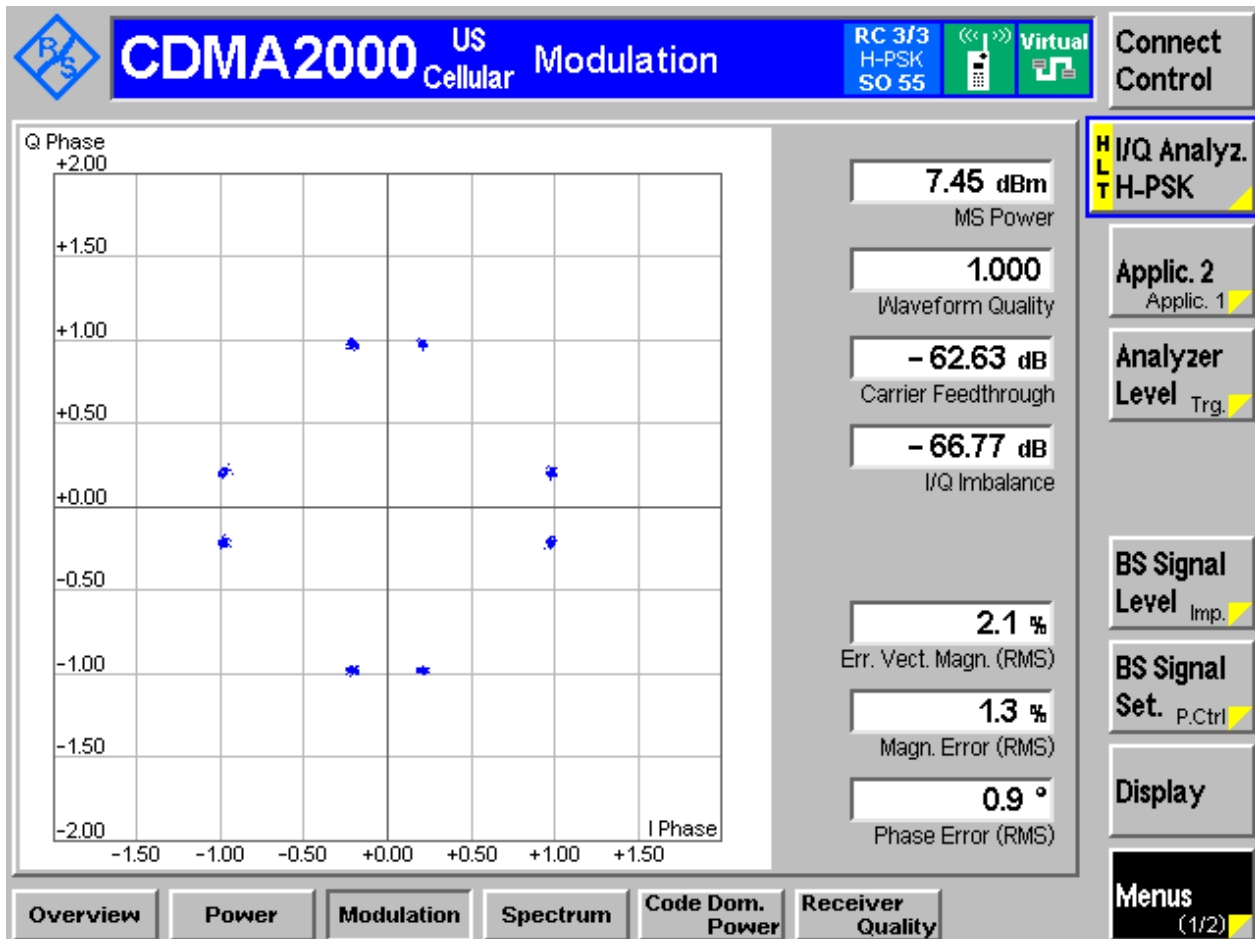
3.1.1.1 Test Mode = CDMA/1X/TM1

3.1.1.1.1 Test Channel = MCH



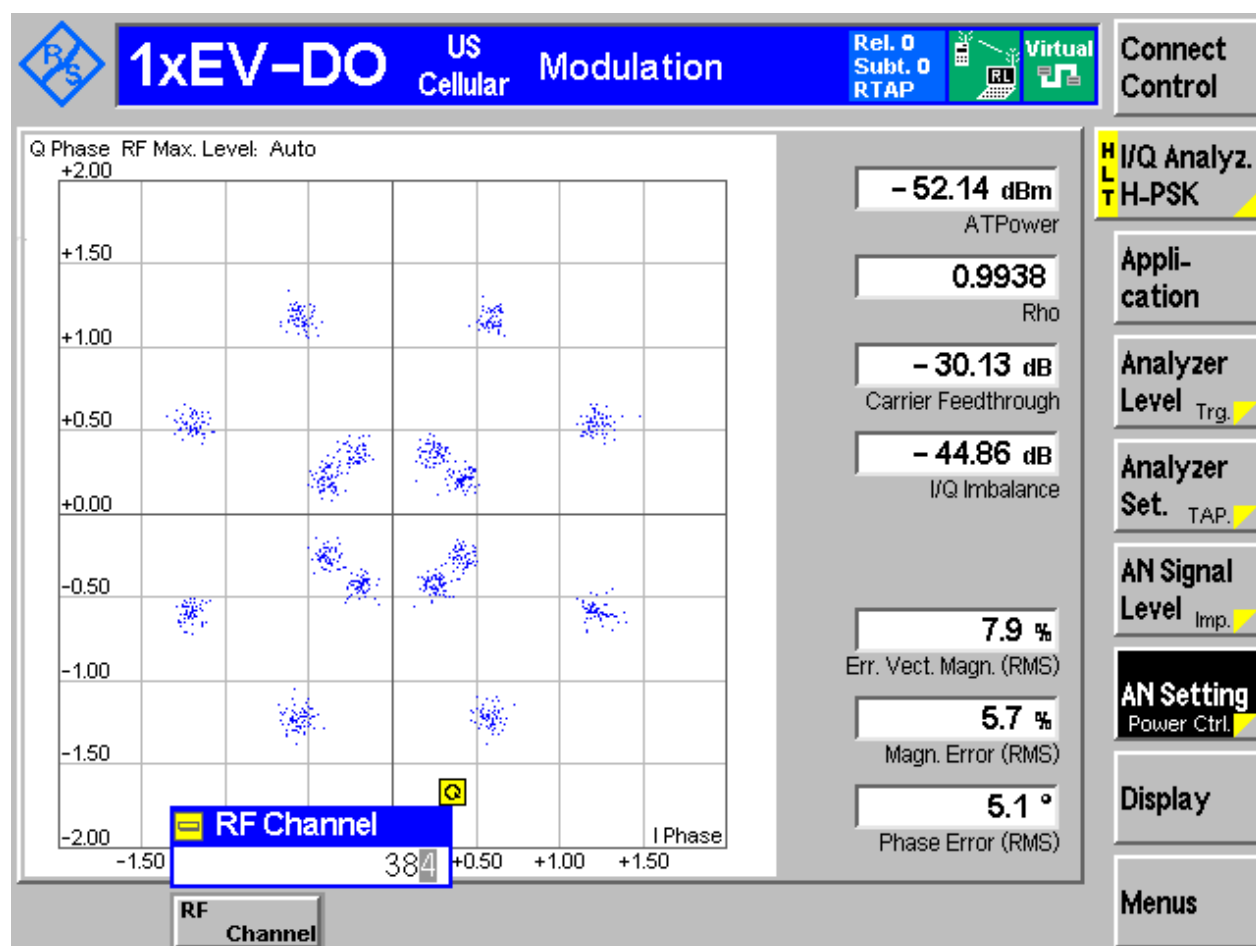
3.1.1.2 Test Mode = CDMA/1X/TM3

3.1.1.2.1 Test Channel = MCH



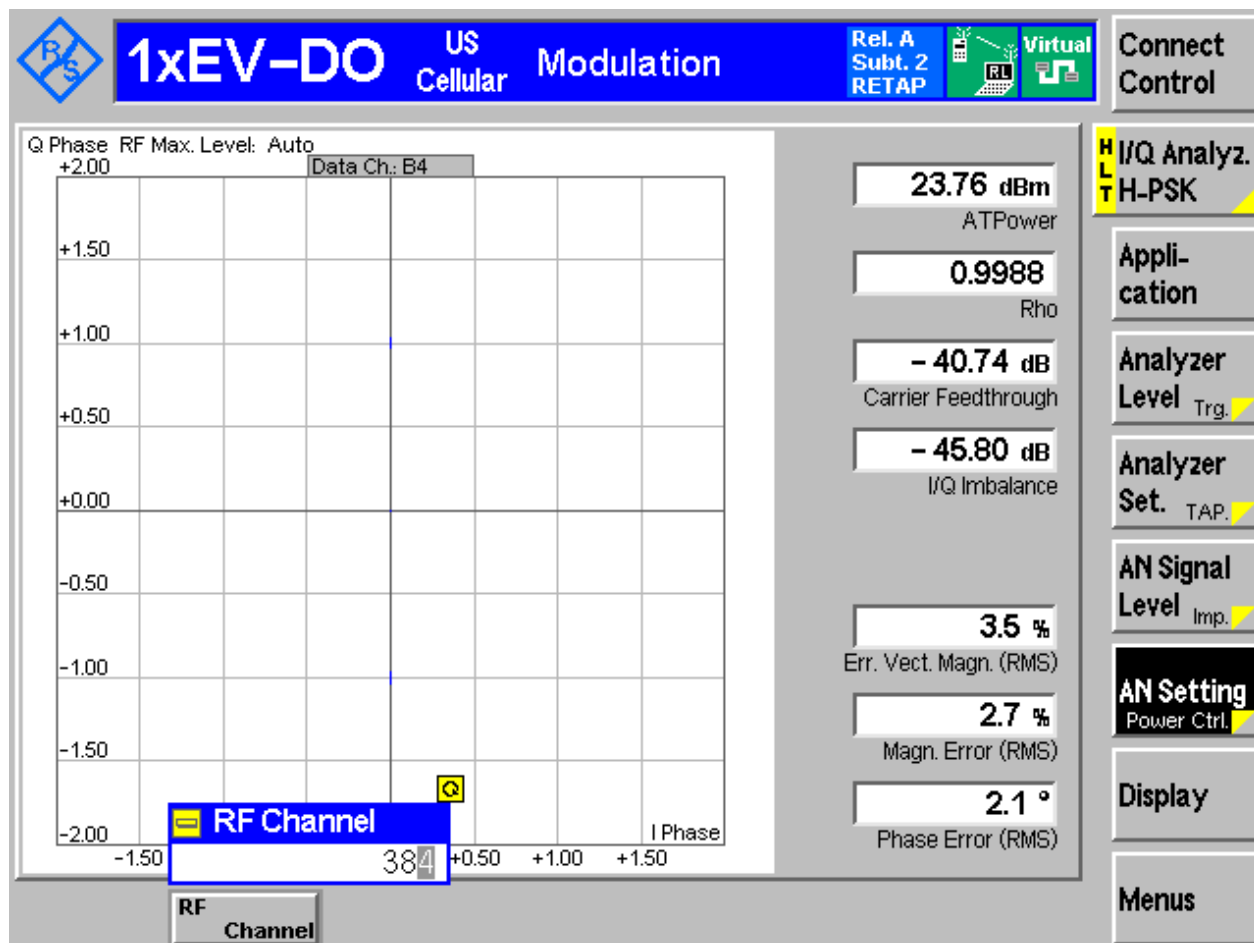
3.1.1.3 Test Mode = CDMA/EV-DO/Subtype0

3.1.1.3.1 Test Channel = MCH



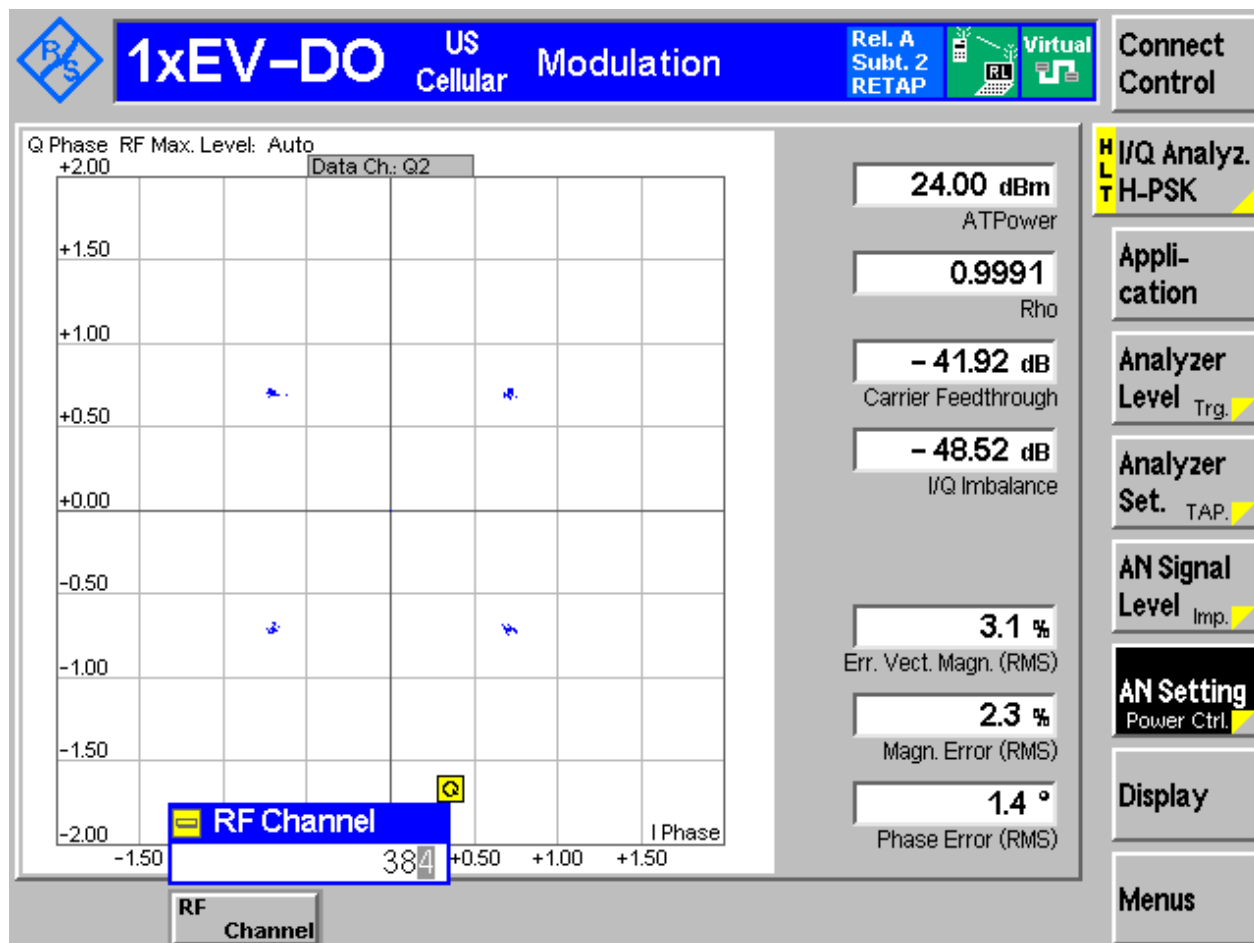
3.1.1.4 Test Mode = CDMA/EV-DO/Subtype2/256

3.1.1.4.1 Test Channel = MCH



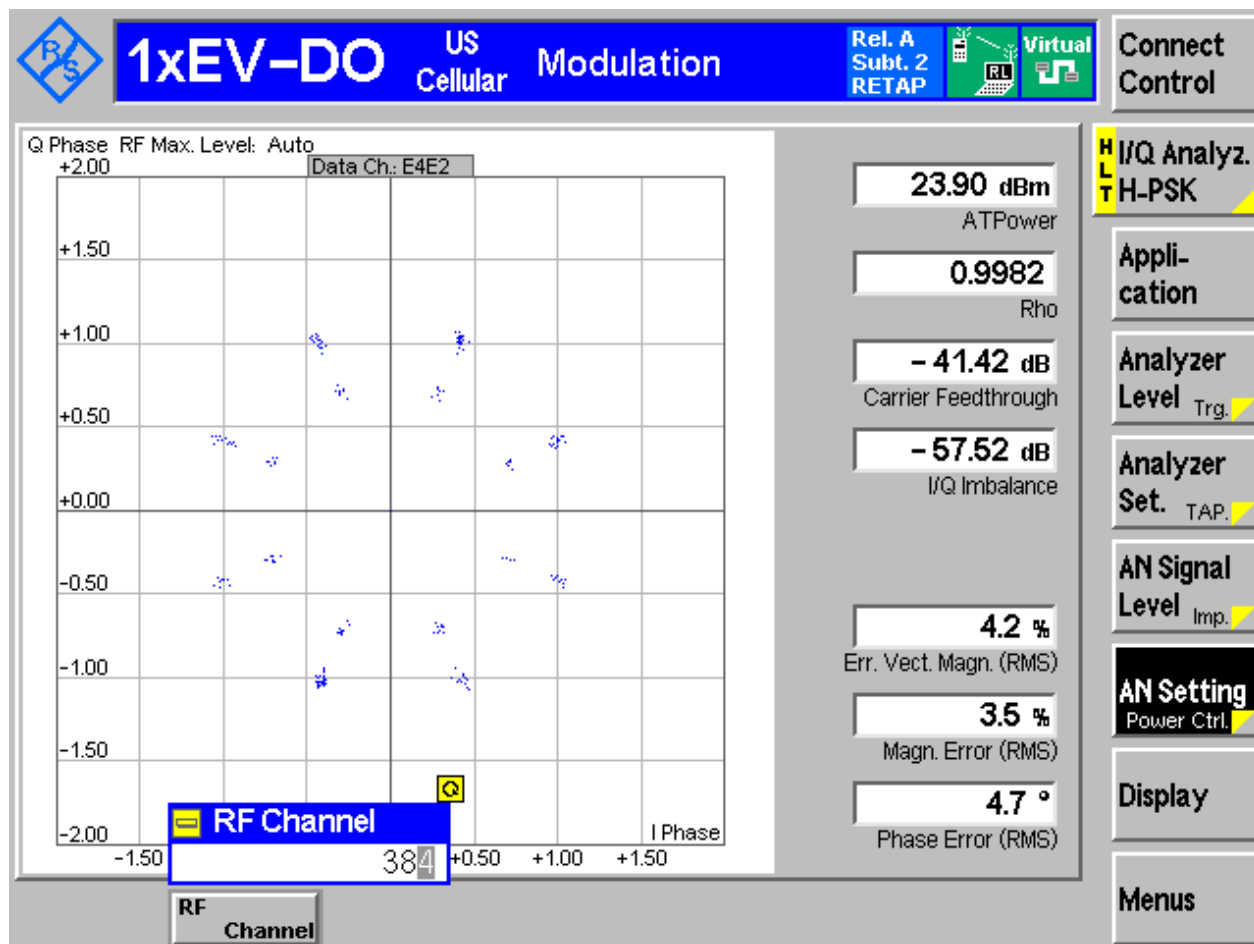
3.1.1.5 Test Mode = CDMA/EV-DO/Subtype2/4096

3.1.1.5.1 Test Channel = MCH



3.1.1.6 Test Mode = CDMA/EV-DO/Subtype2/12288

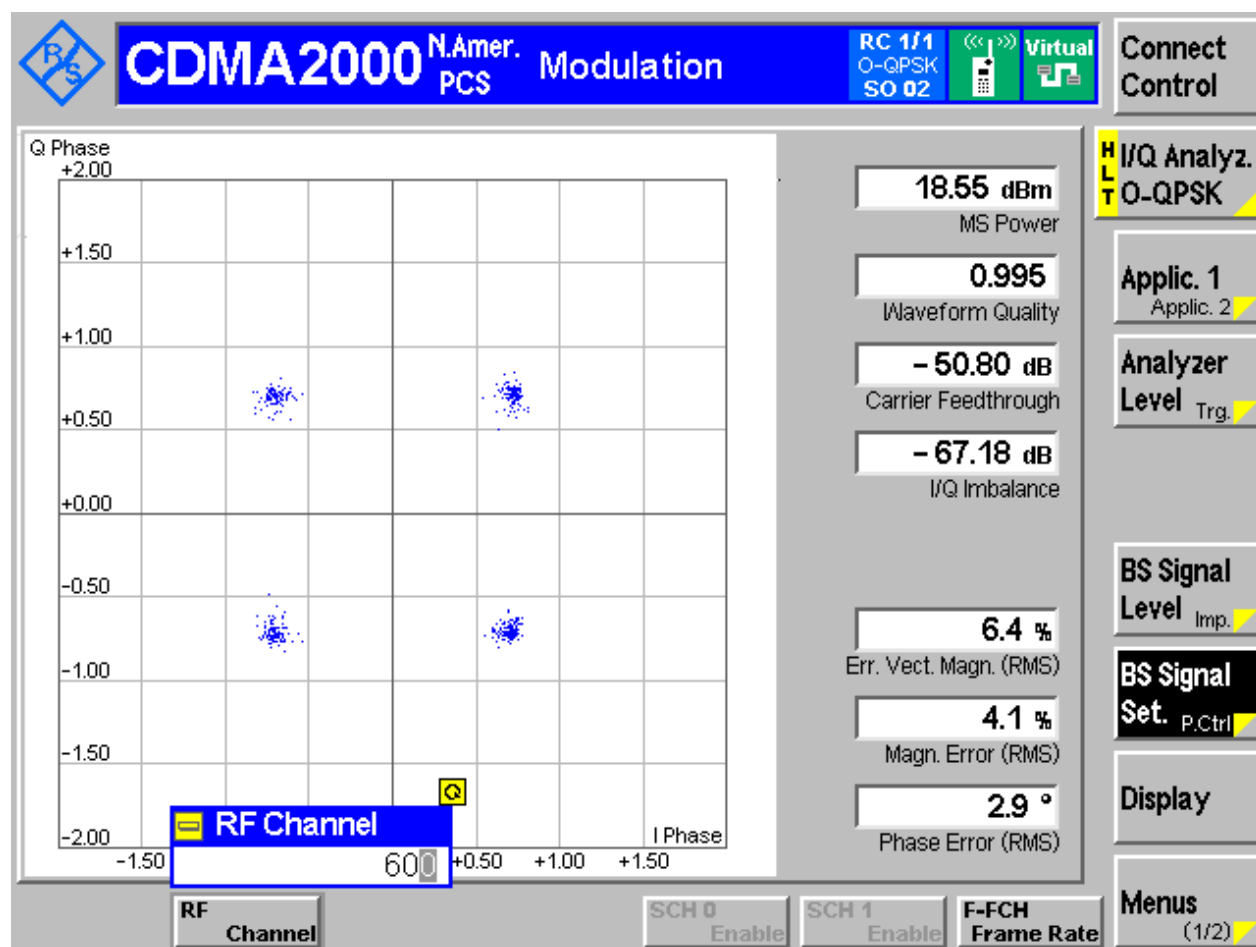
3.1.1.6.1 Test Channel = MCH



3.1.2 Test Band = BC1

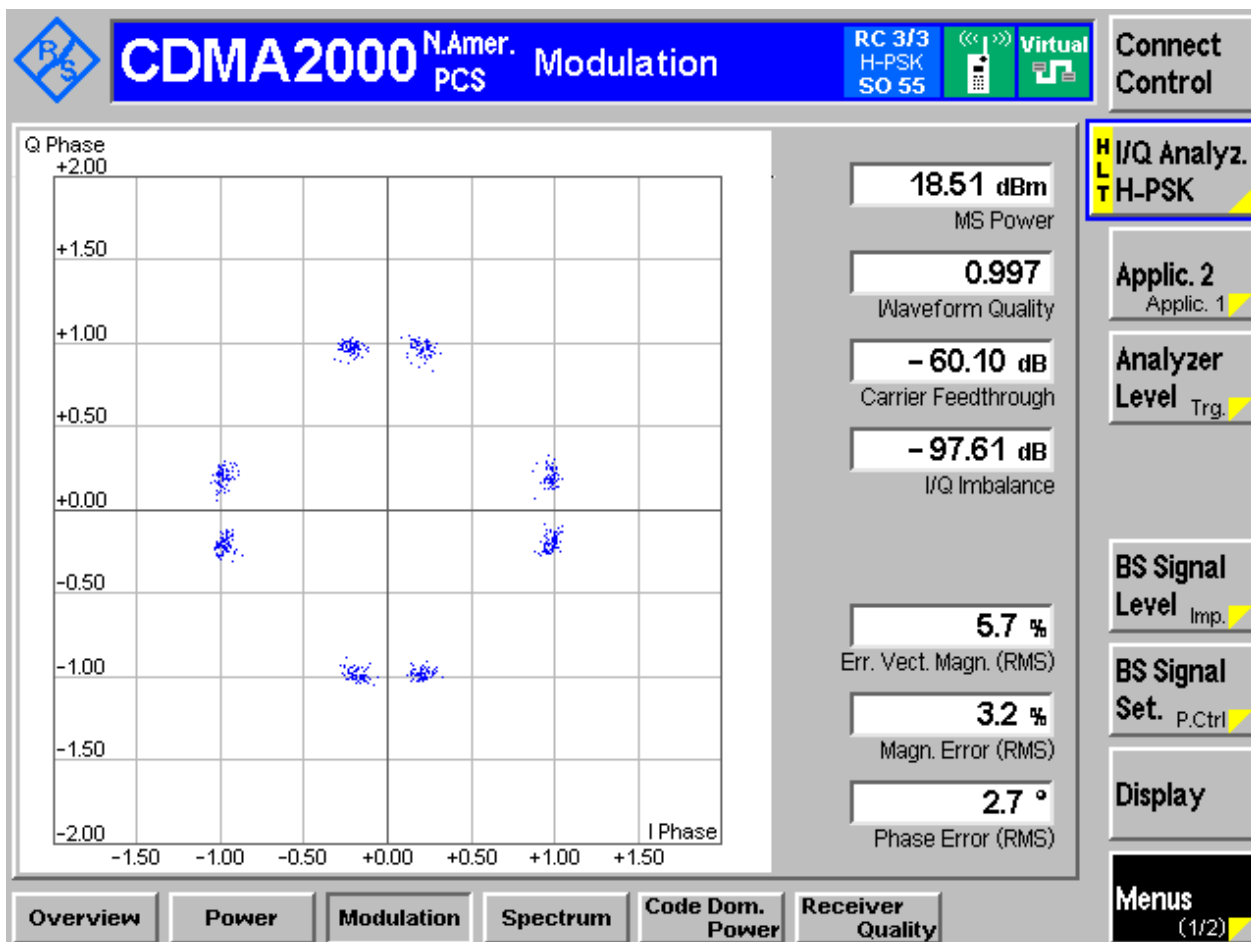
3.1.2.1 Test Mode = CDMA/1X/TM1

3.1.2.2.1 Test Channel = MCH



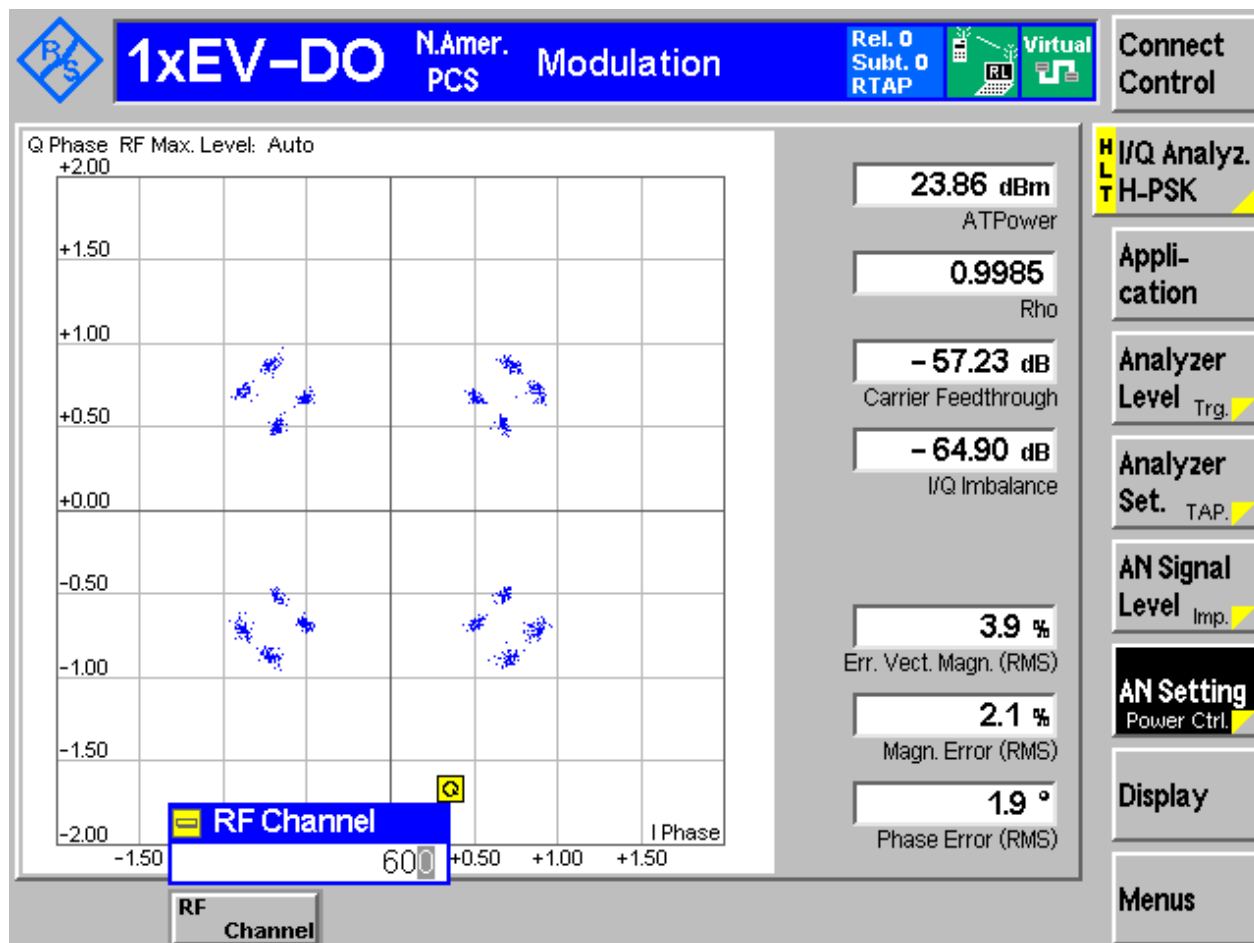
3.1.2.2 Test Mode = CDMA/1X/TM3

3.1.2.2.1 Test Channel = MCH



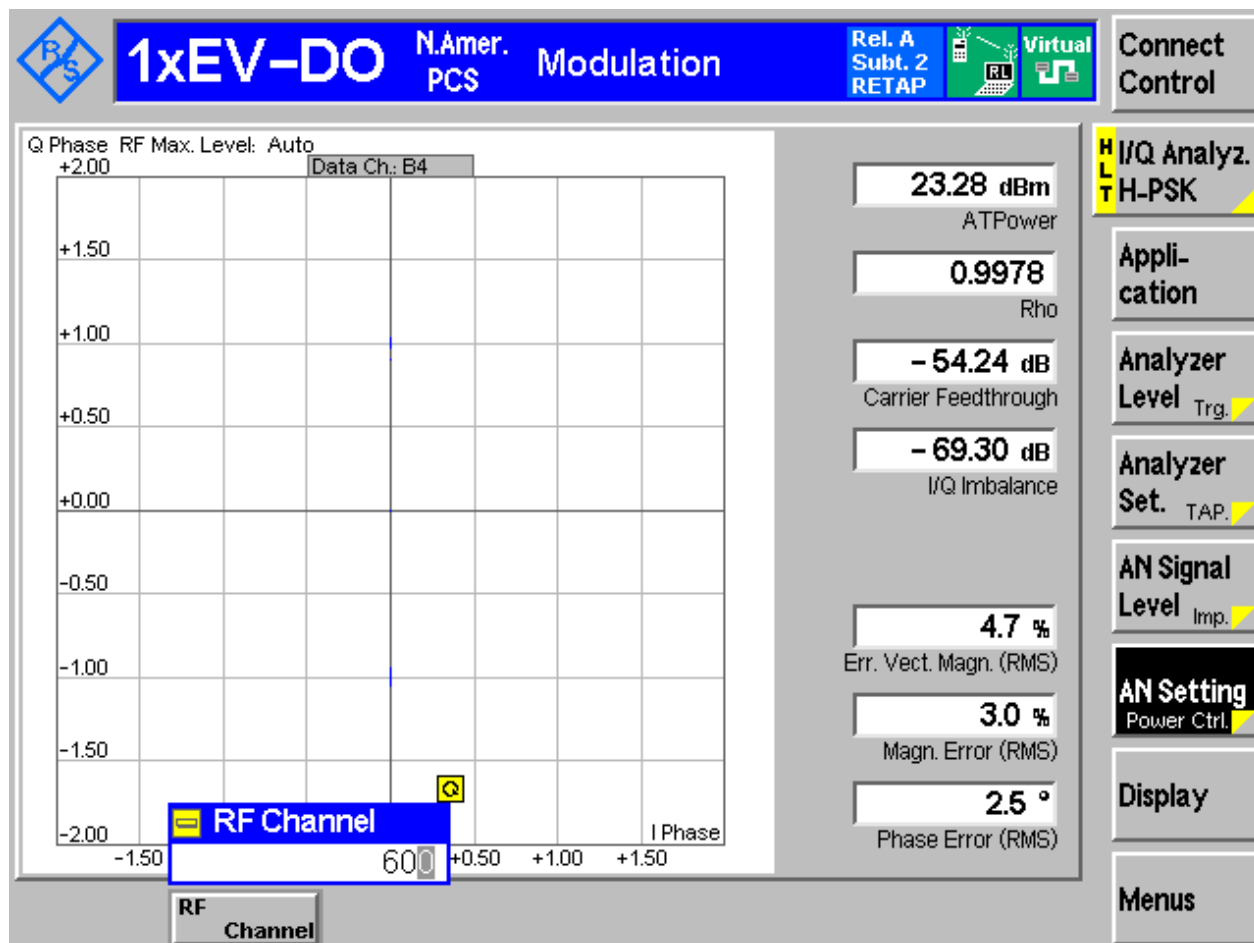
3.1.2.3 Test Mode = CDMA/EV-DO/Subtype0

3.1.2.3.1 Test Channel = MCH



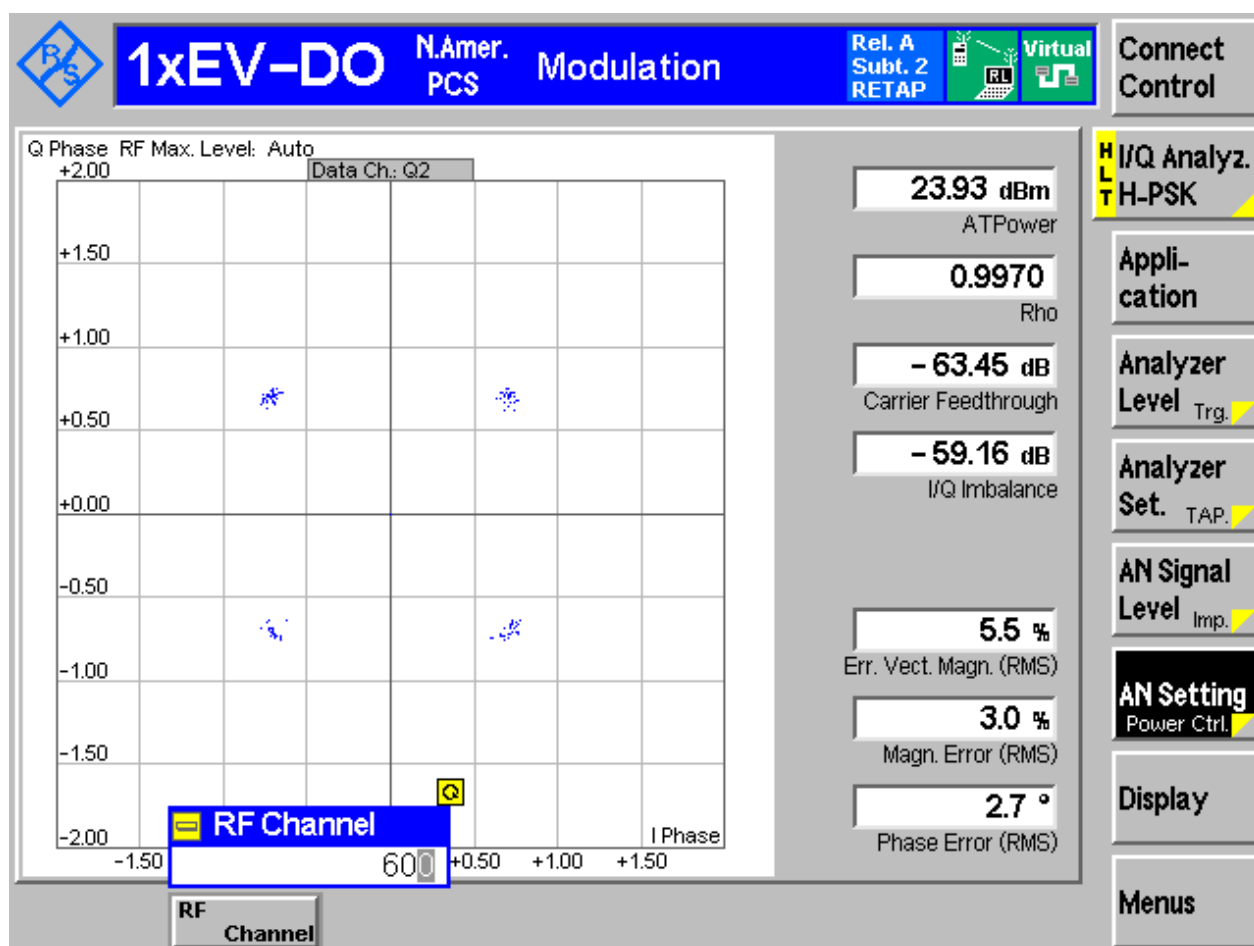
3.1.2.4 Test Mode = CDMA/EV-DO/Subtype2/256

3.1.2.4.1 Test Channel = MCH



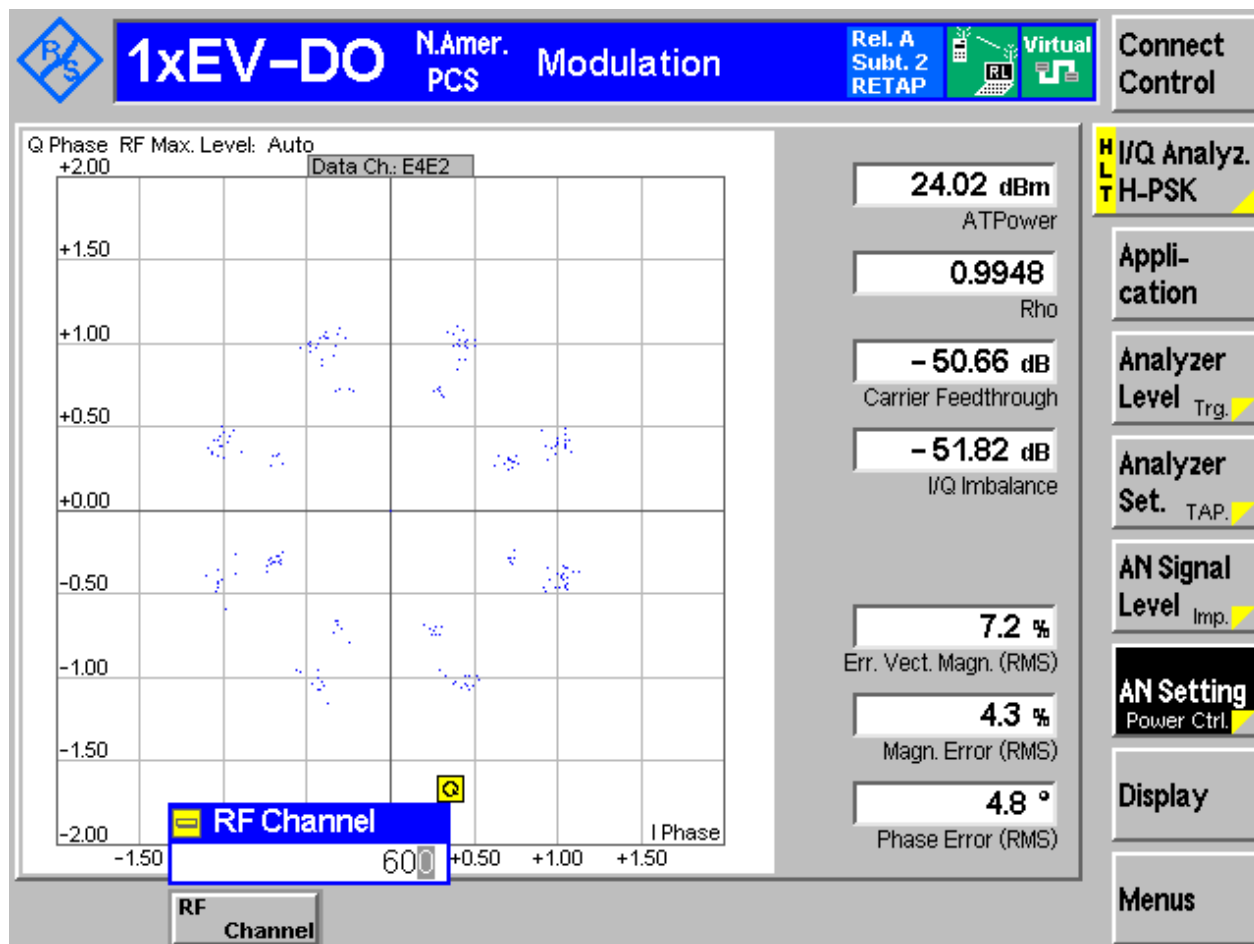
3.1.2.5 Test Mode = CDMA/EV-DO/Subtype2/4096

3.1.2.5.1 Test Channel = MCH



3.1.2.6 Test Mode = CDMA/EV-DO/Subtype2/12288

3.1.2.6.1 Test Channel = MCH



4Appendix_D: Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
BC0	CDMA/1X/TM1	LCH	1.30	1.47	Pass
		MCH	1.30	1.46	Pass
		HCH	1.30	1.46	Pass
	CDMA/1X/TM3	LCH	1.28	1.45	Pass
		MCH	1.28	1.46	Pass
		HCH	1.28	1.45	Pass
BC0	CDMA/EV-DO/Su btype0	LCH	1.28	1.45	Pass
		MCH	1.29	1.45	Pass
		HCH	1.28	1.44	Pass
	CDMA/EV-DO/Su btype2/256	LCH	1.28	1.45	Pass
		MCH	1.28	1.46	Pass
		HCH	1.28	1.47	Pass
	CDMA/EV-DO/Su btype2/4096	LCH	1.28	1.45	Pass
		MCH	1.28	1.45	Pass
		HCH	1.28	1.46	Pass
	CDMA/EV-DO/Su btype2/12288	LCH	1.28	1.45	Pass
		MCH	1.29	1.45	Pass
		HCH	1.29	1.46	Pass
BC1	CDMA/1X/TM1	LCH	1.31	1.52	Pass
		MCH	1.31	1.50	Pass
		HCH	1.32	1.65	Pass
	CDMA/1X/TM3	LCH	1.29	1.46	Pass
		MCH	1.29	1.47	Pass
		HCH	1.29	1.49	Pass
BC1	CDMA/EV-DO/Su btype0	LCH	1.29	1.46	Pass
		MCH	1.29	1.46	Pass
		HCH	1.29	1.46	Pass
	CDMA/EV-DO/Su btype2/256	LCH	1.32	2.15	Pass
		MCH	1.30	2.08	Pass
		HCH	1.32	2.26	Pass
	CDMA/EV-DO/Su btype2/4096	LCH	1.32	2.20	Pass
		MCH	1.30	1.83	Pass

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
	CDMA/EV-DO/Su btype2/12288	HCH	1.32	1.94	Pass
		LCH	1.33	2.29	Pass
		MCH	1.30	2.02	Pass
		HCH	1.31	2.13	Pass

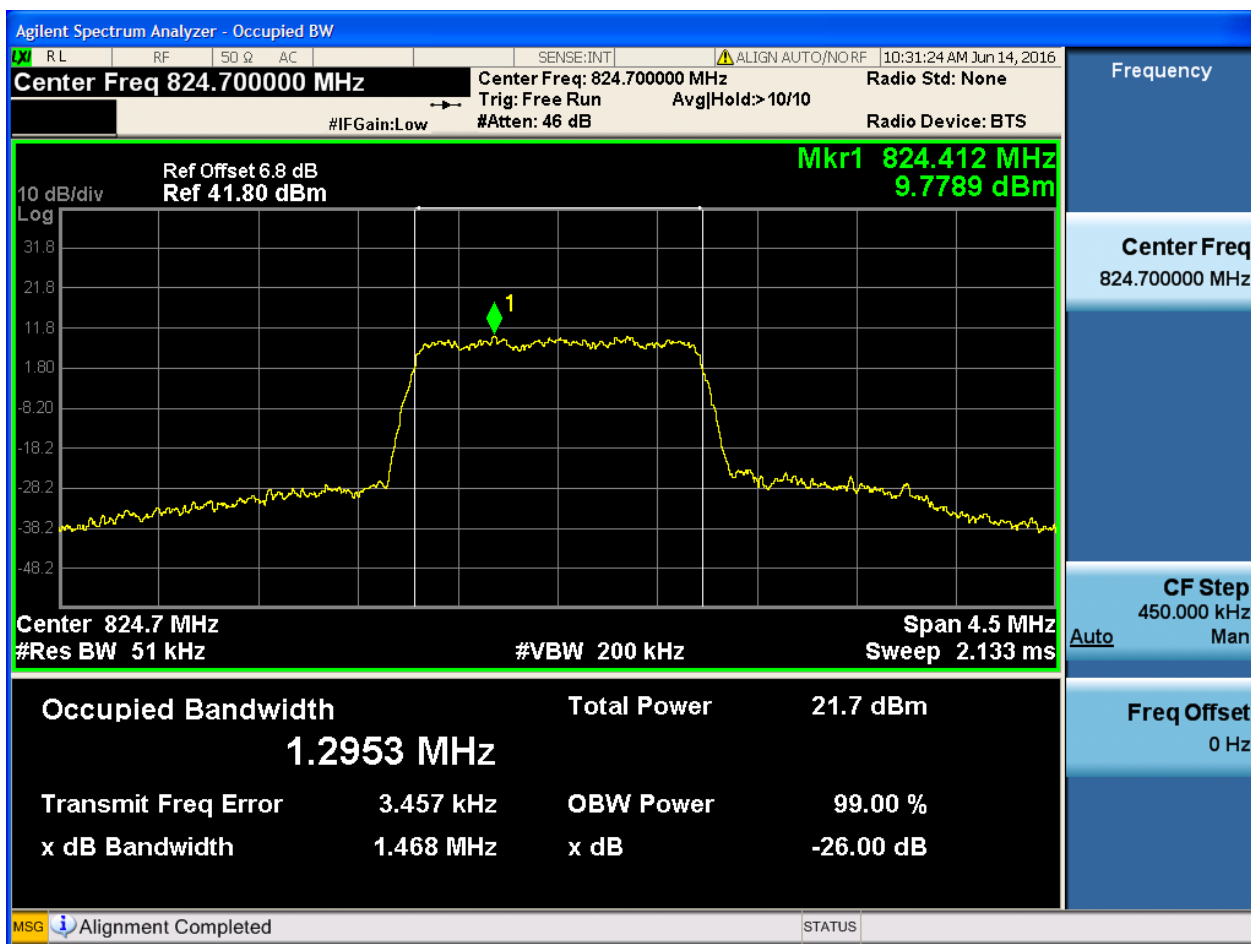
Part II - Test Plots

4.1 For CDMA

4.1.1 Test Band = BC0

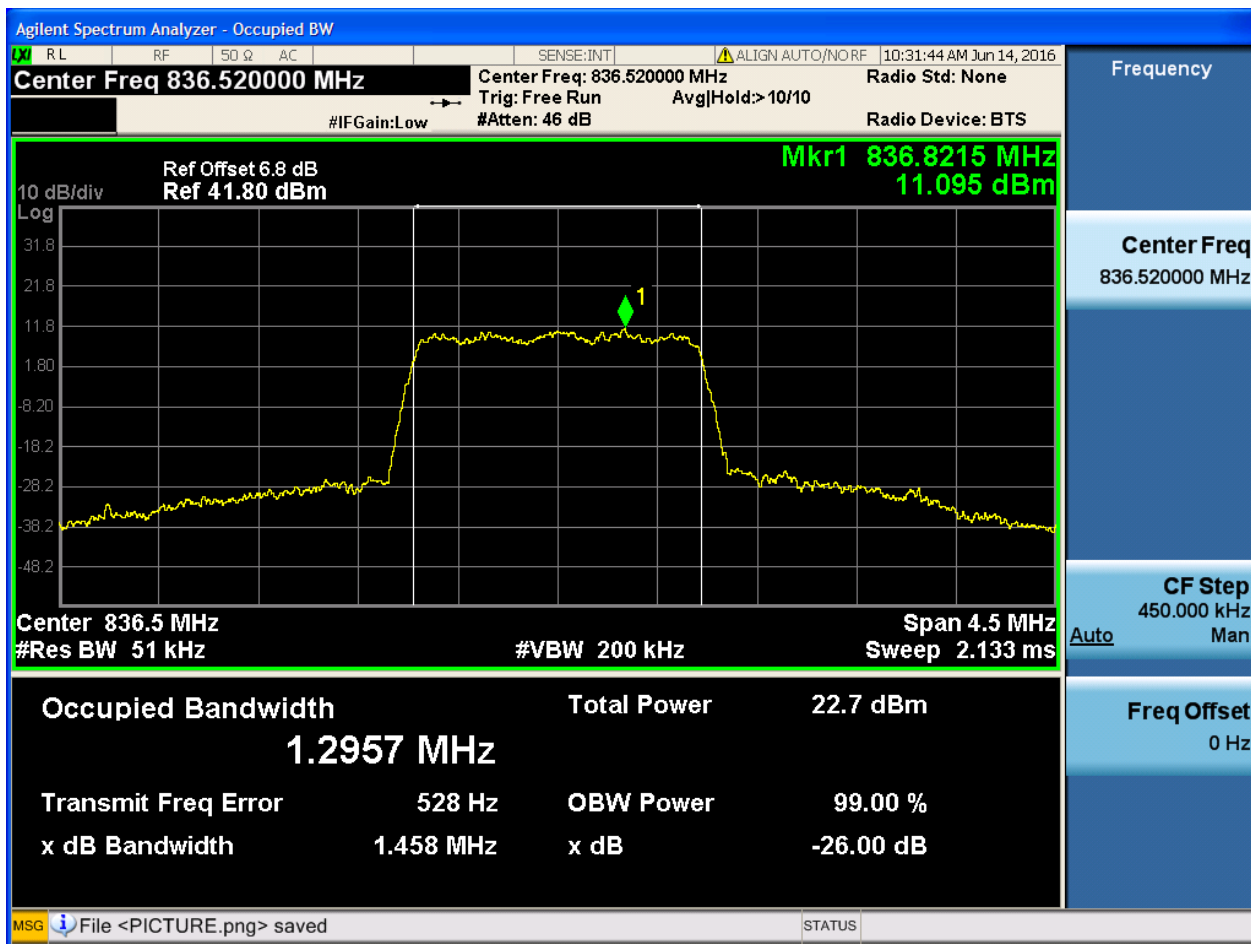
4.1.1.1 Test Mode = CDMA/1X/TM1

4.1.1.1.1 Test Channel = LCH



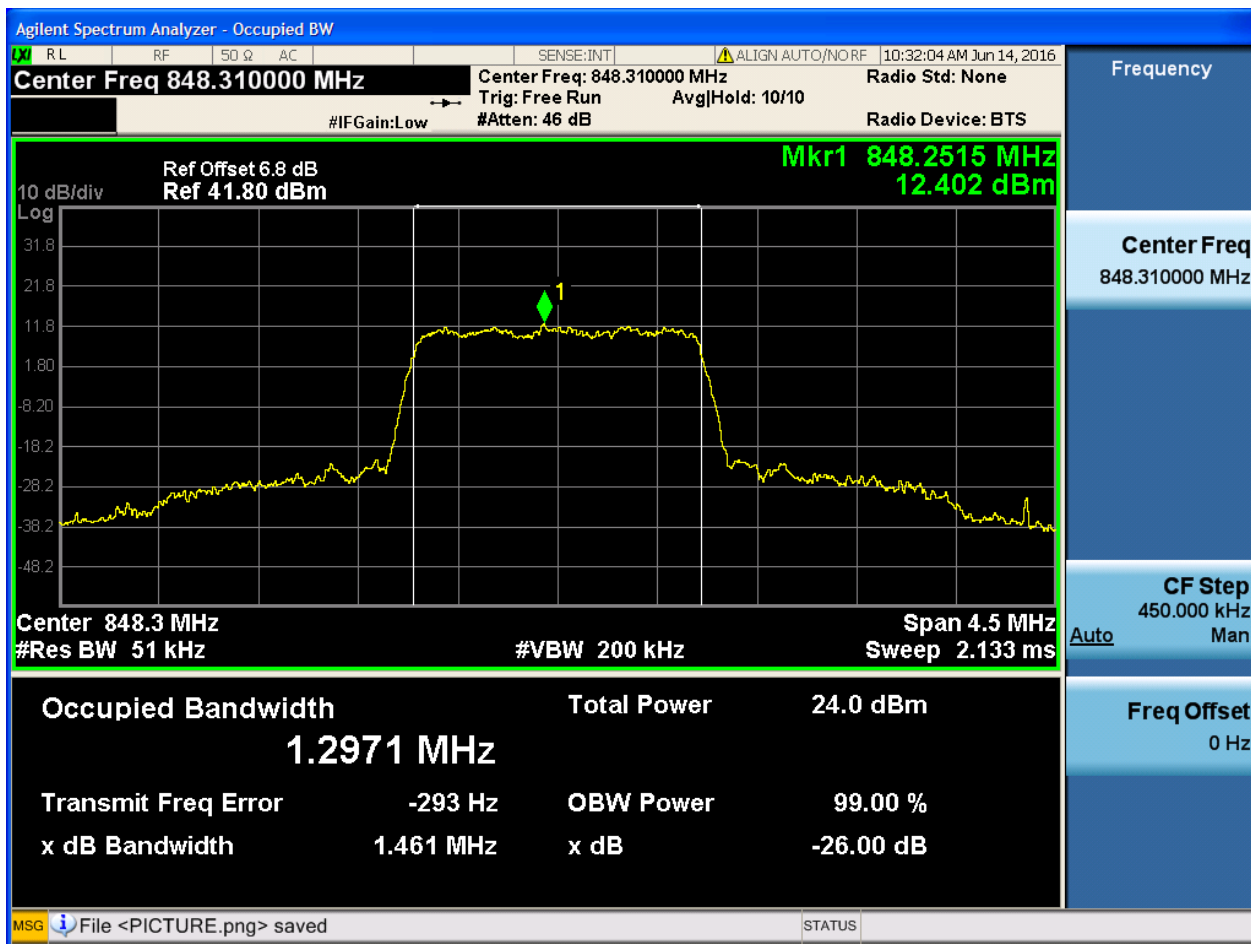


4.1.1.1.2 Test Channel = MCH





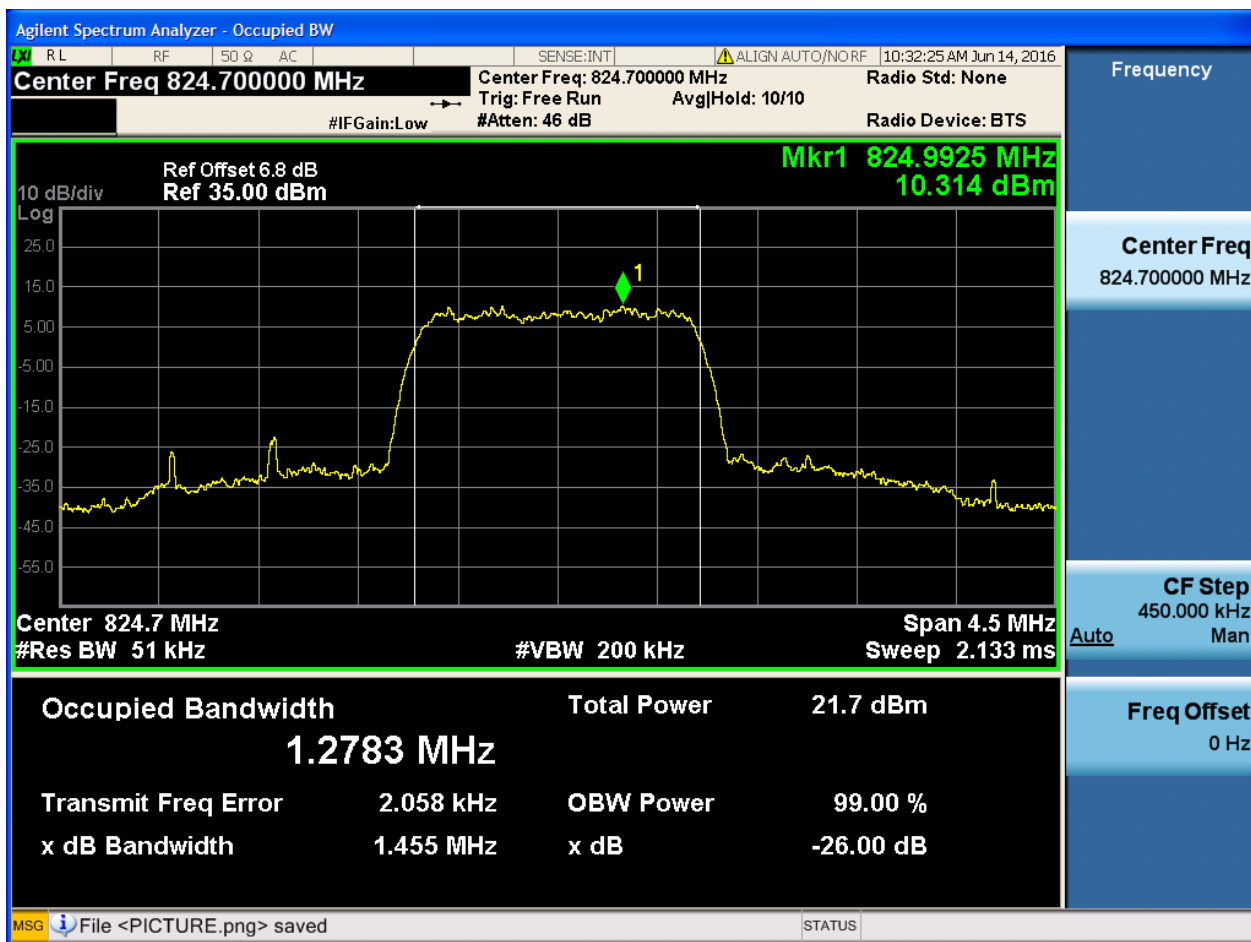
4.1.1.1.3 Test Channel = HCH





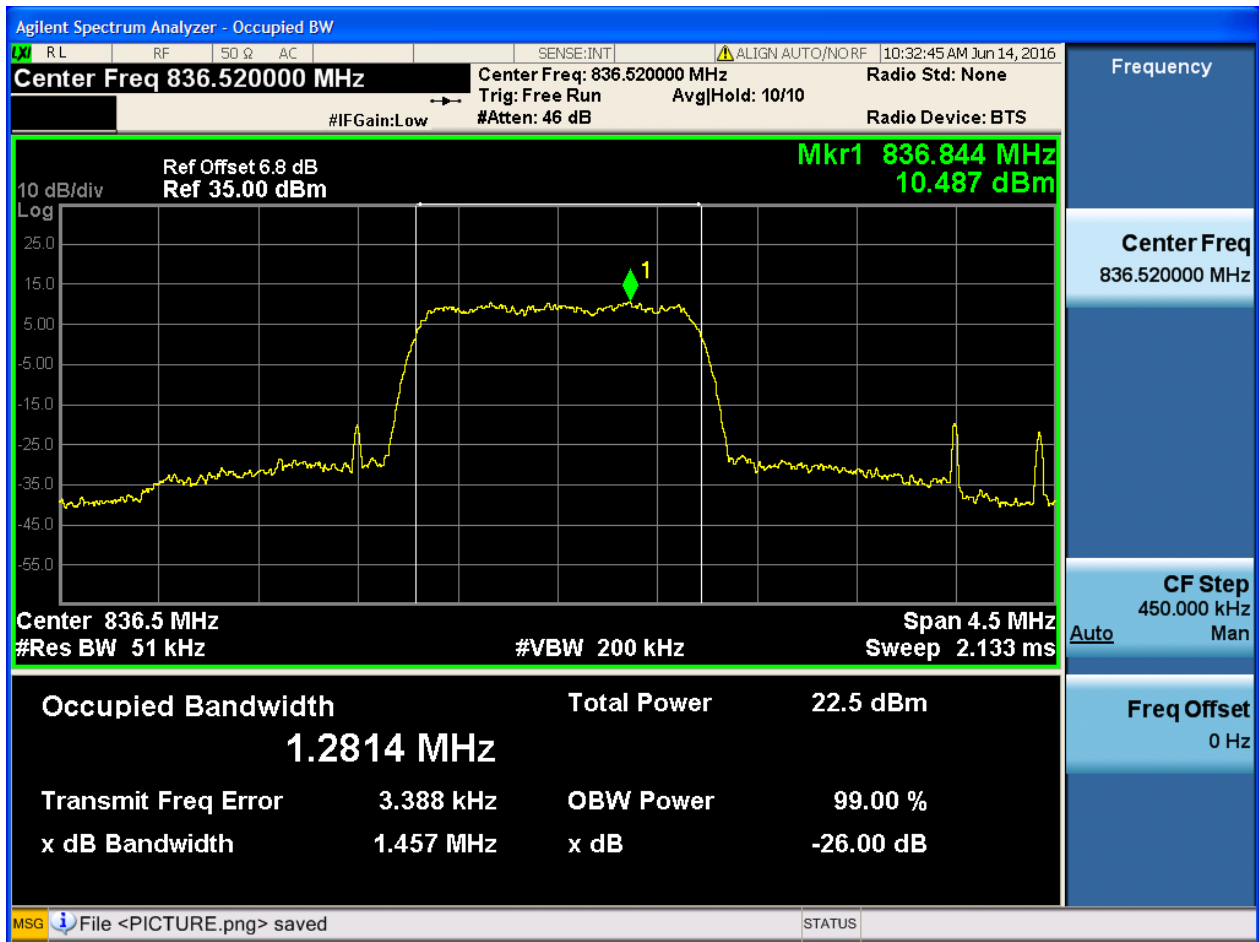
4.1.1.2 Test Mode = CDMA/1X/TM3

4.1.1.2.1 Test Channel = LCH



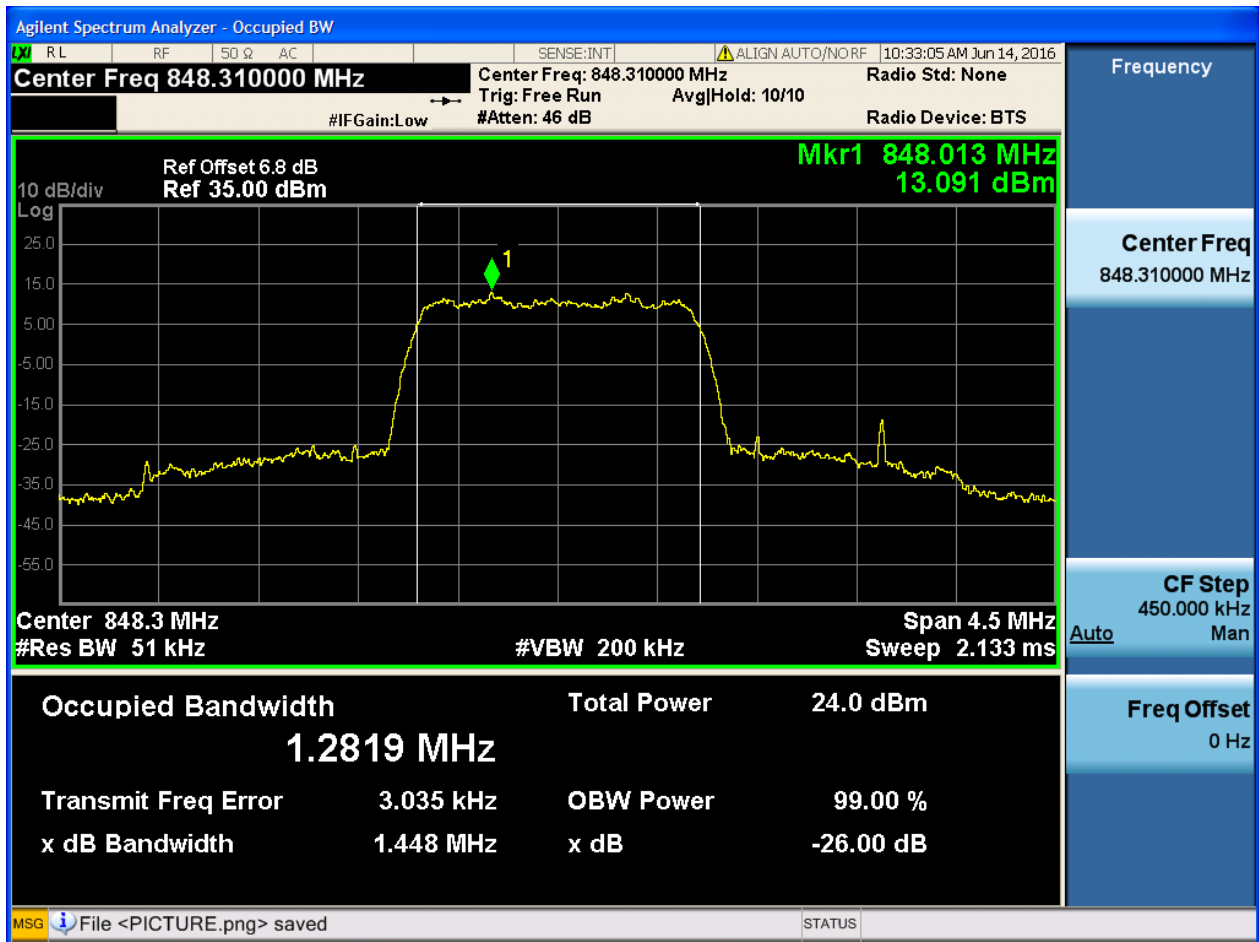


4.1.1.2.2 Test Channel = MCH



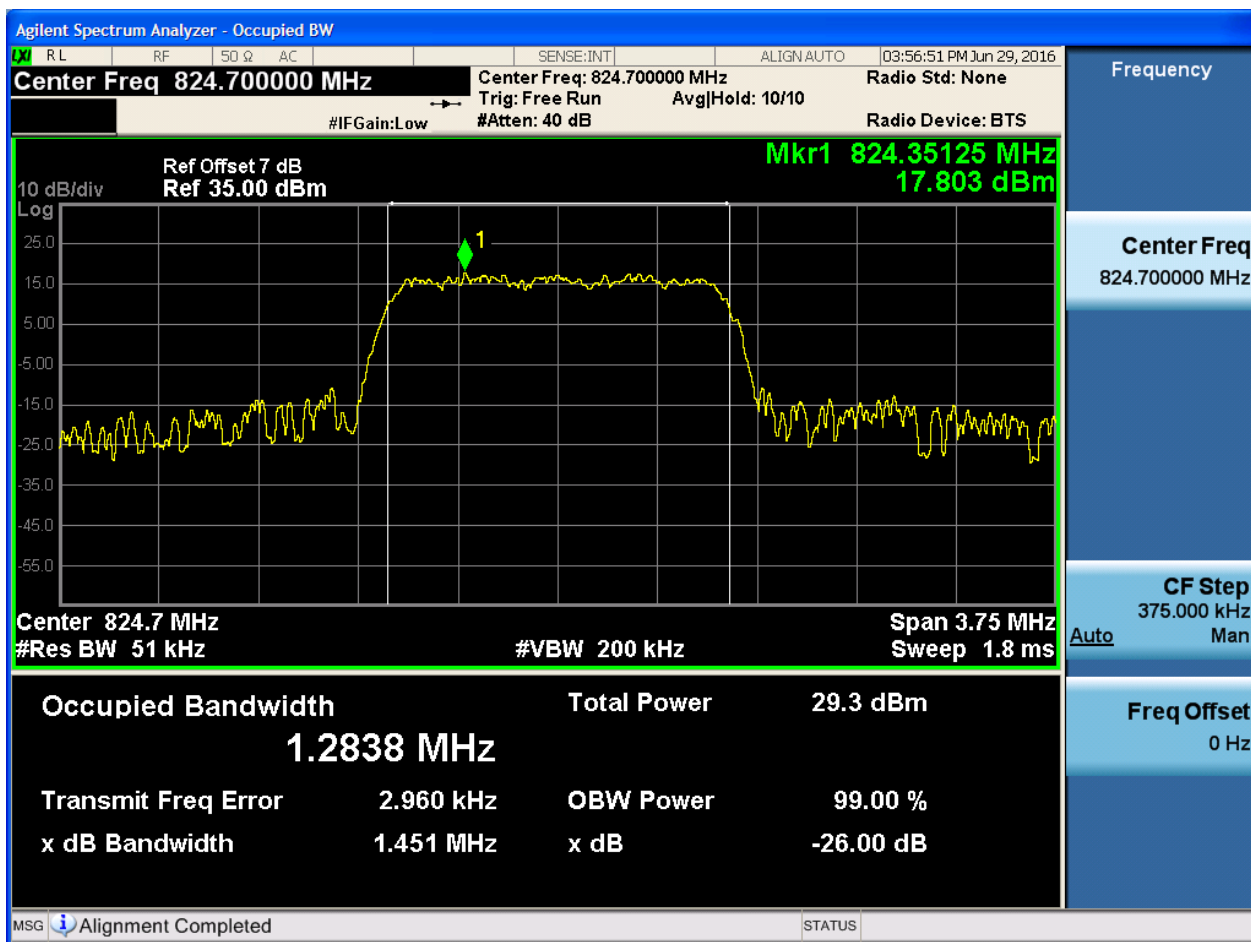


4.1.1.2.3 Test Channel = HCH

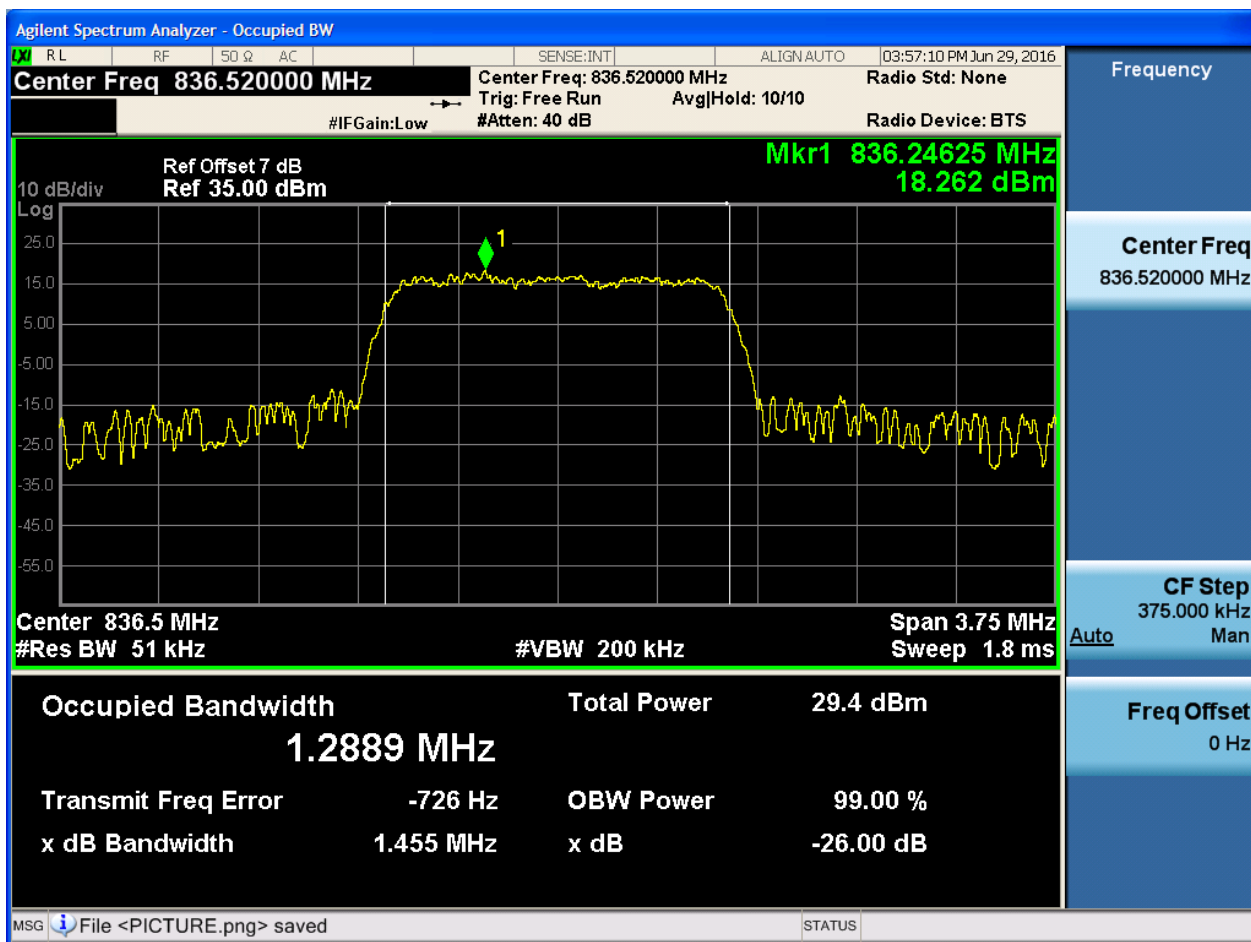


4.1.1.3 Test Mode = CDMA/EV-DO/Subtype0

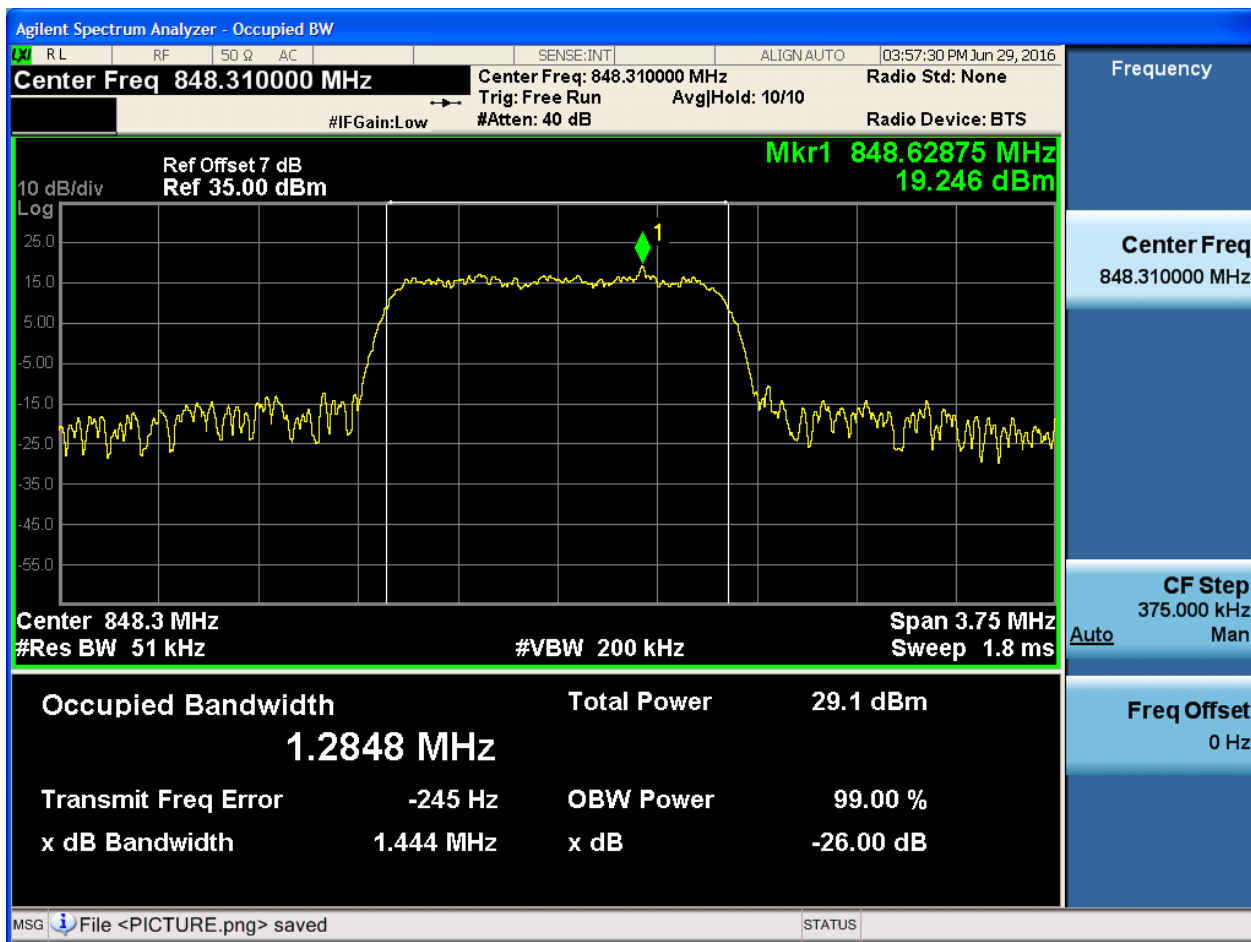
4.1.1.3.1 Test Channel = LCH



4.1.1.3.2 Test Channel = MCH



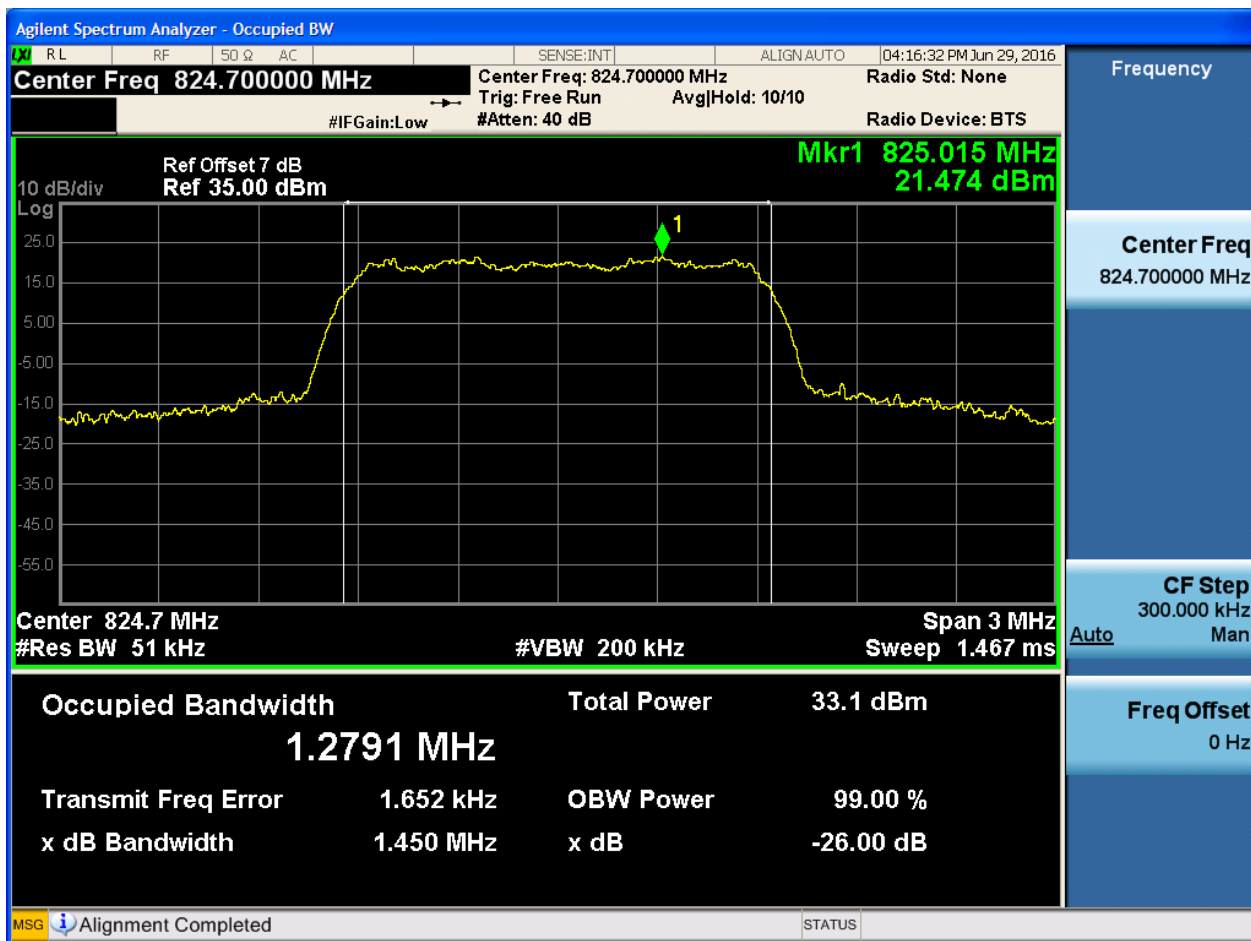
4.1.1.3.3 Test Channel = HCH



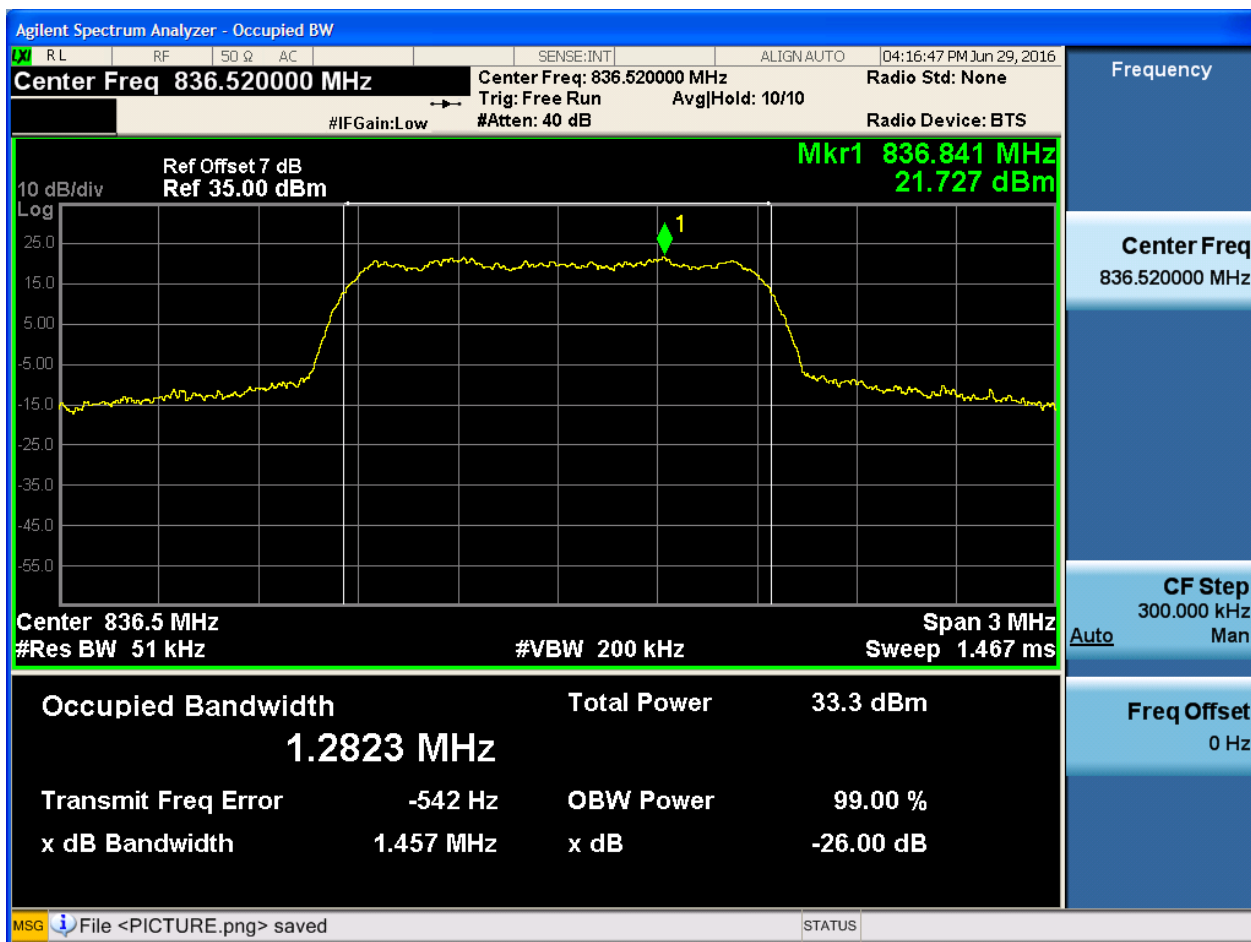


4.1.1.4 Test Mode = CDMA/EV-DO/Subtype2/256

4.1.1.4.1 Test Channel = LCH

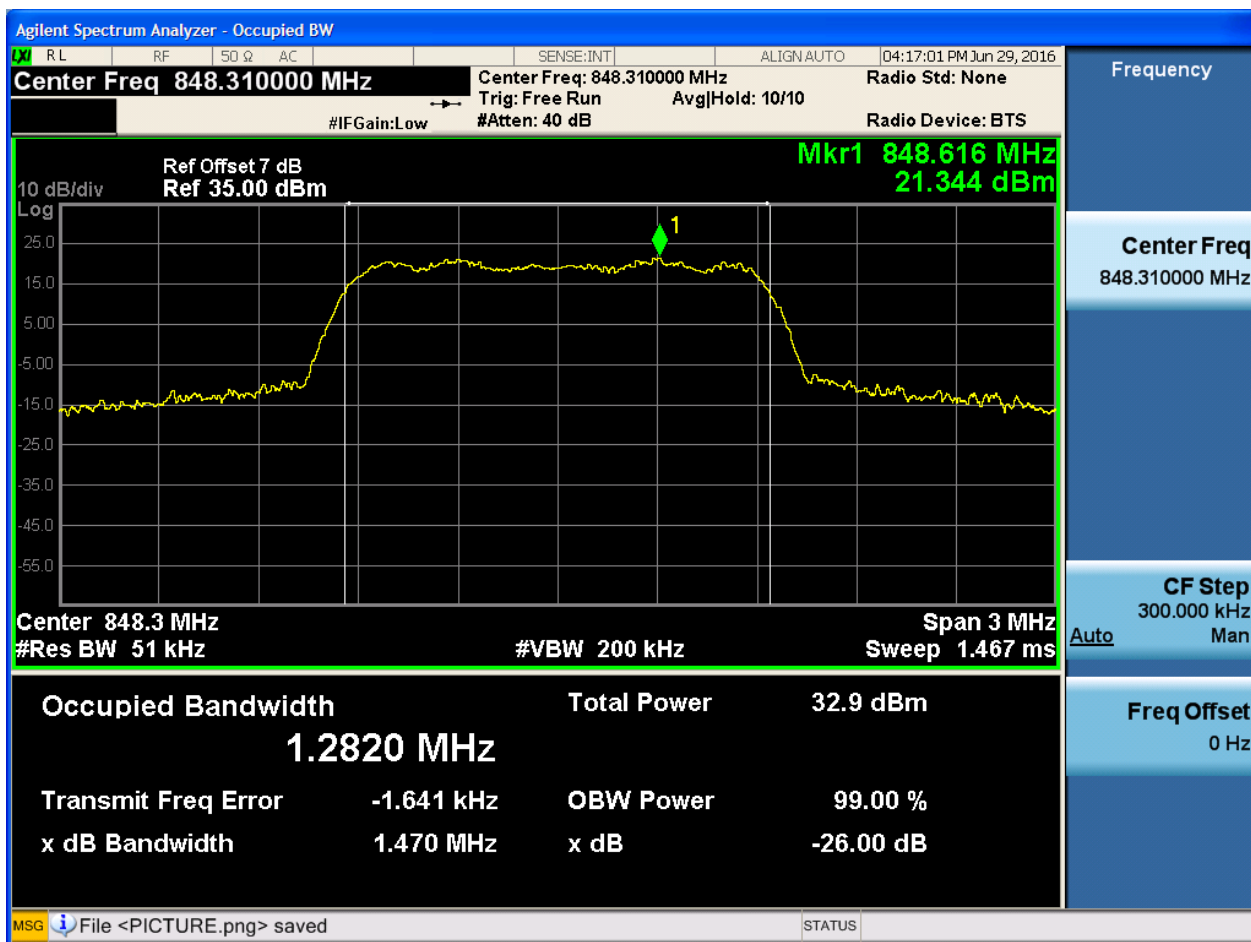


4.1.1.4.2 Test Channel = MCH





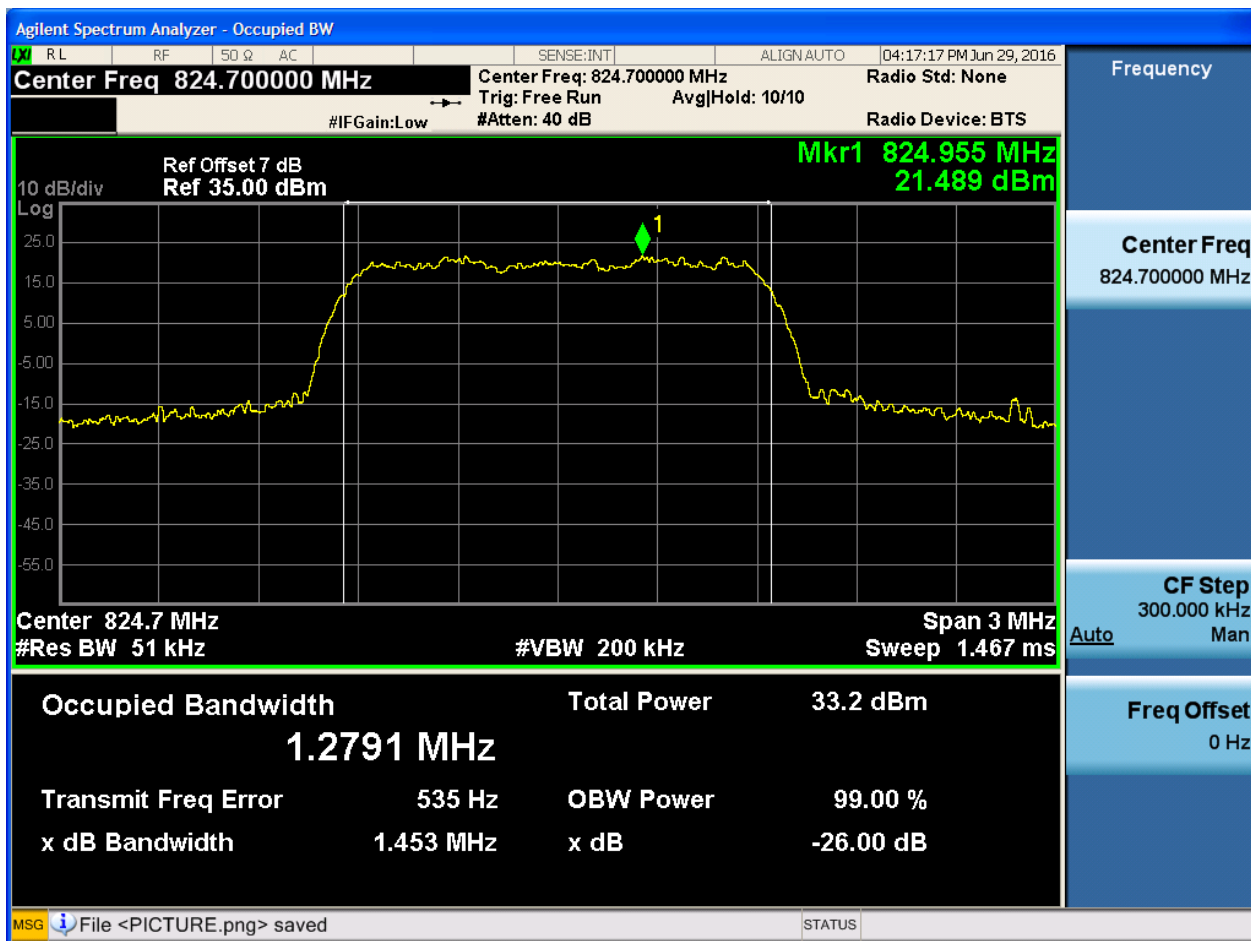
4.1.1.4.3 Test Channel = HCH





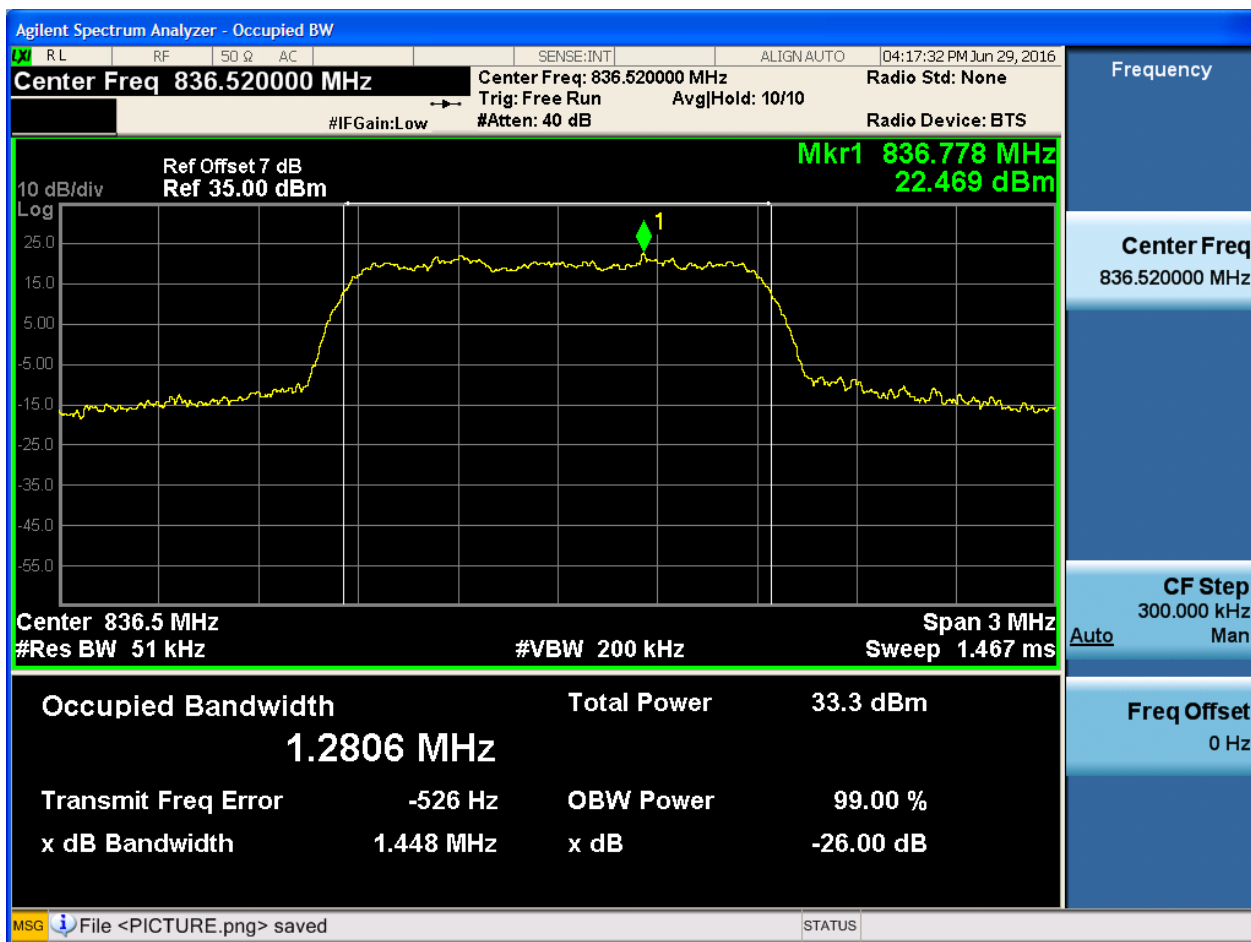
4.1.1.5 Test Mode = CDMA/EV-DO/Subtype2/4096

4.1.1.5.1 Test Channel = LCH

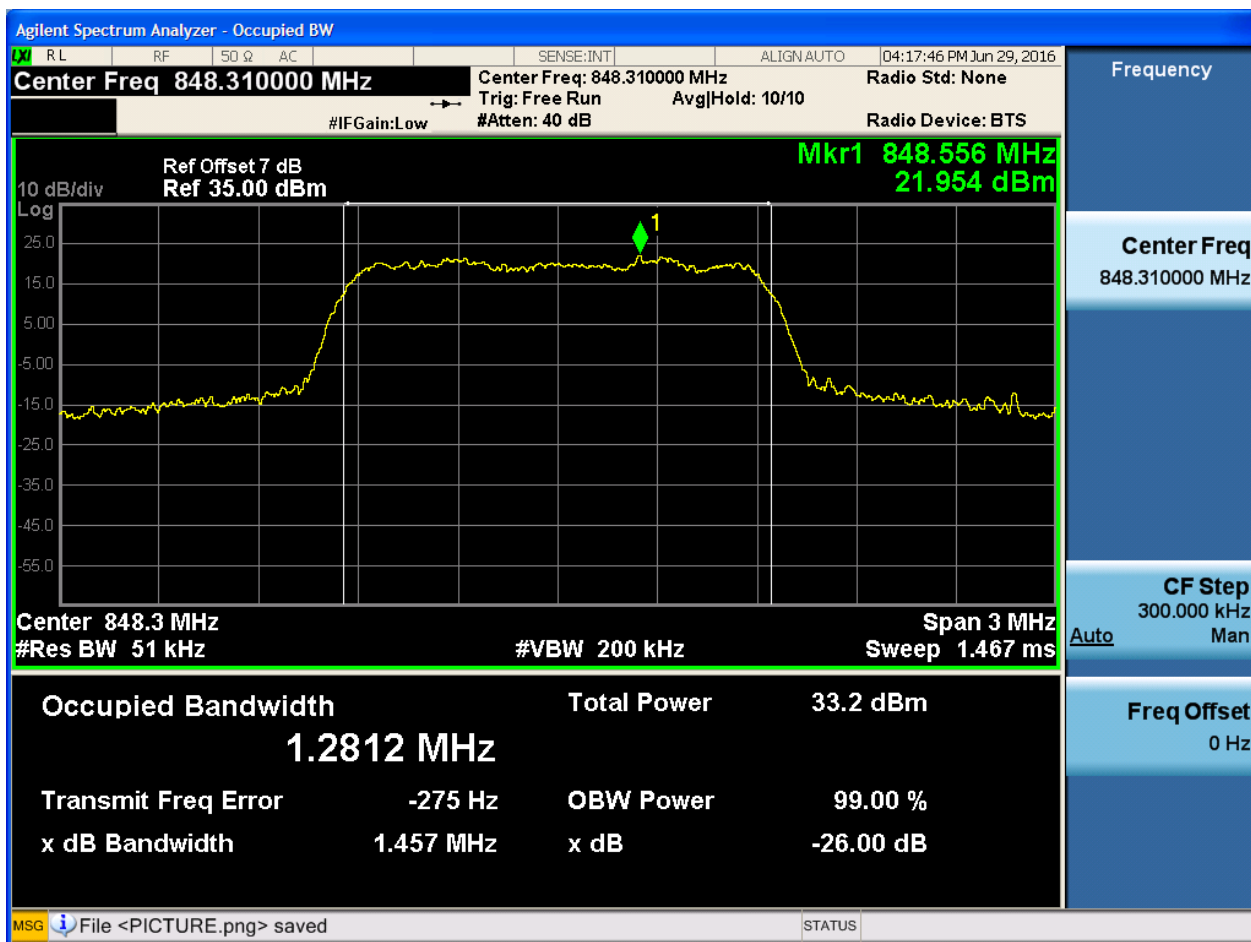




4.1.1.5.2 Test Channel = MCH

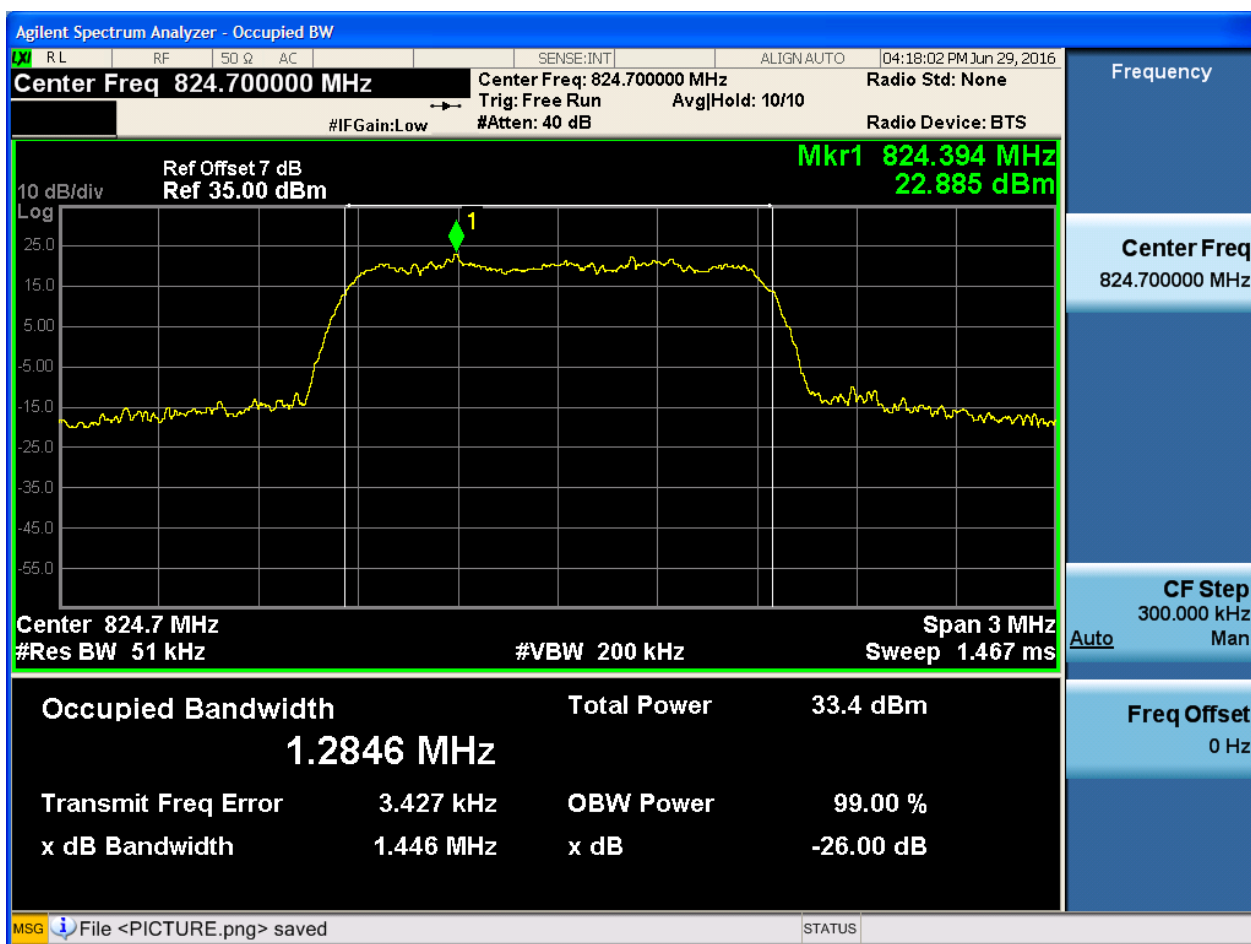


4.1.1.5.3 Test Channel = HCH

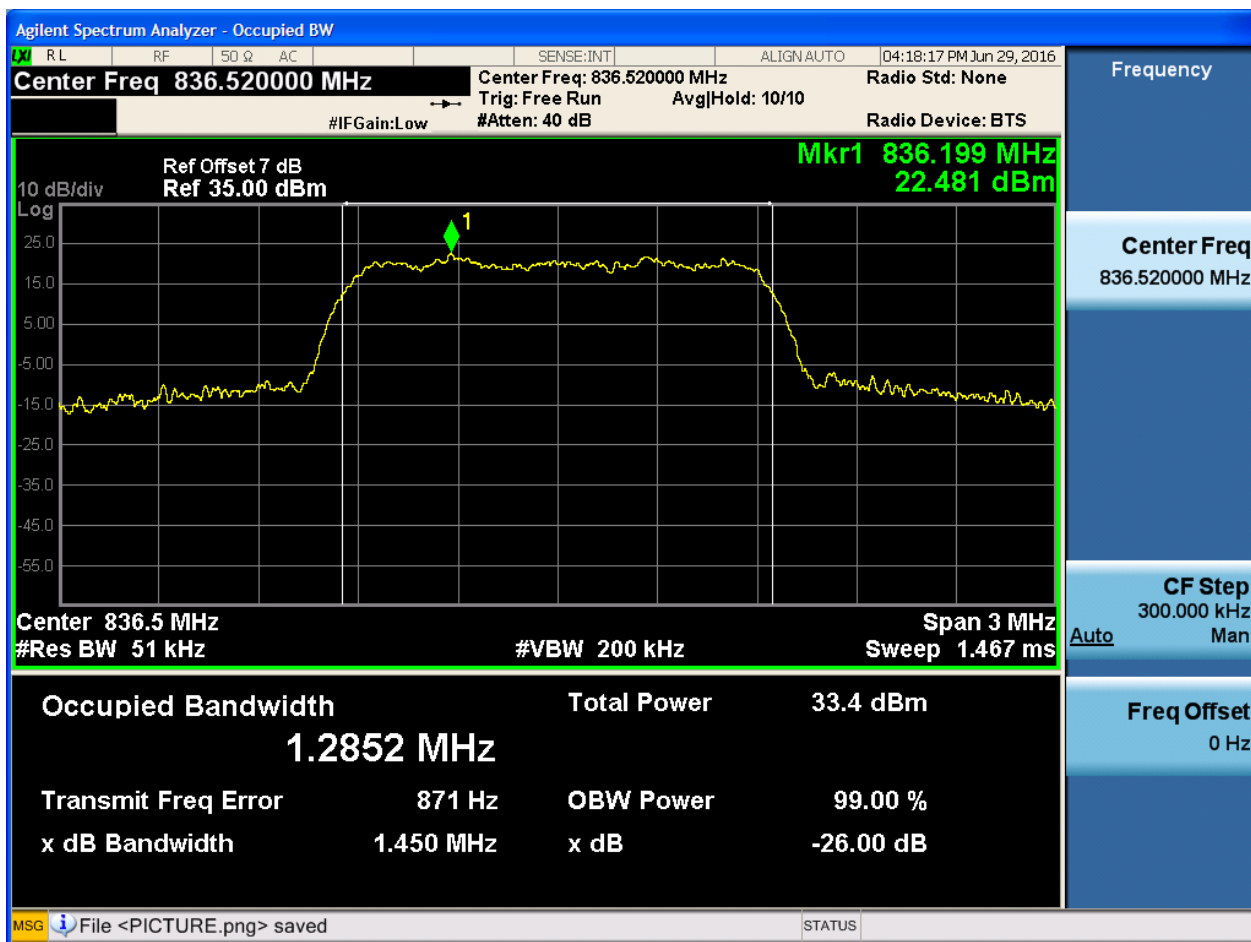


4.1.1.6 Test Mode = CDMA/EV-DO/Subtype2/12288

4.1.1.6.1 Test Channel = LCH

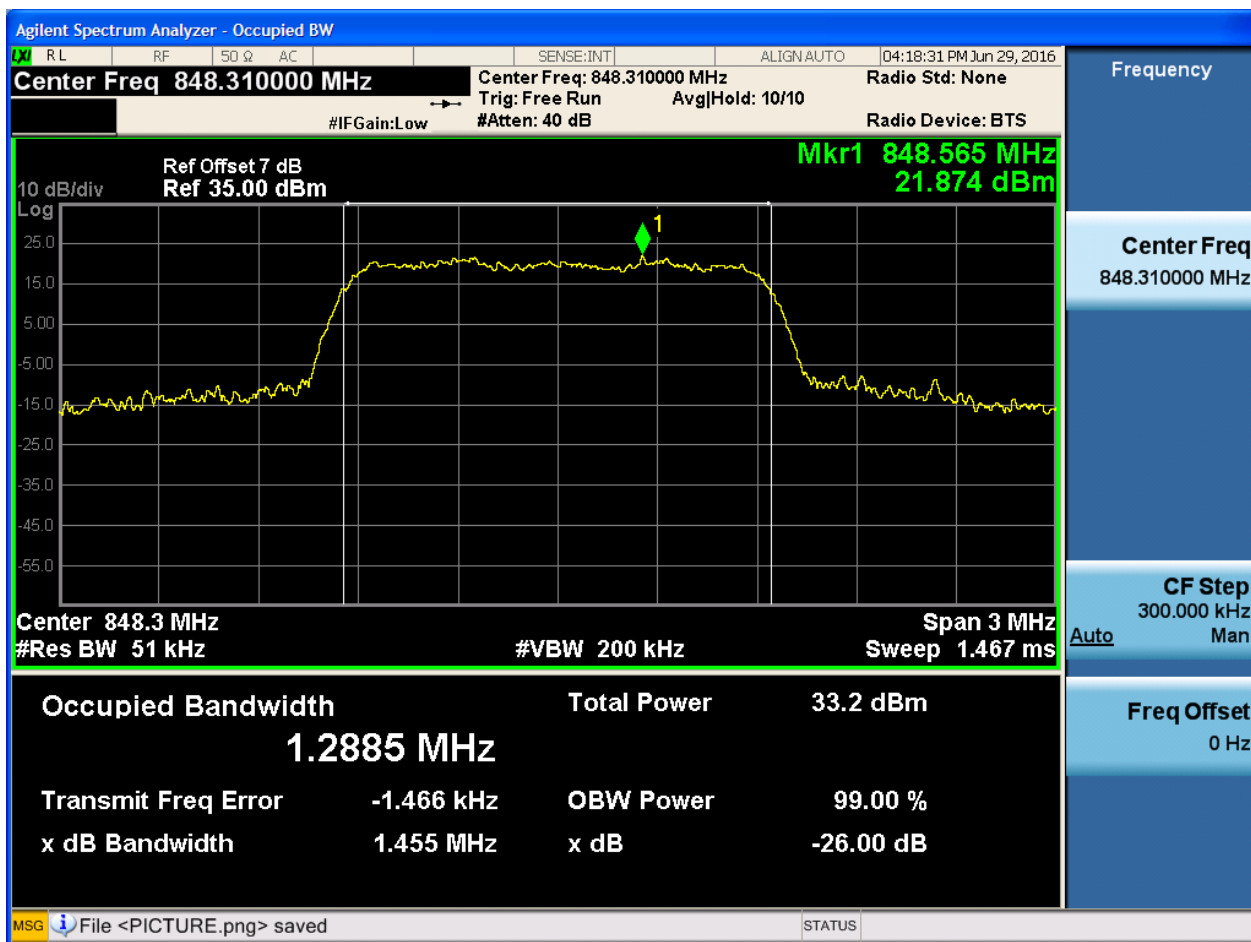


4.1.1.6.2 Test Channel = MCH





4.1.1.6.3 Test Channel = HCH

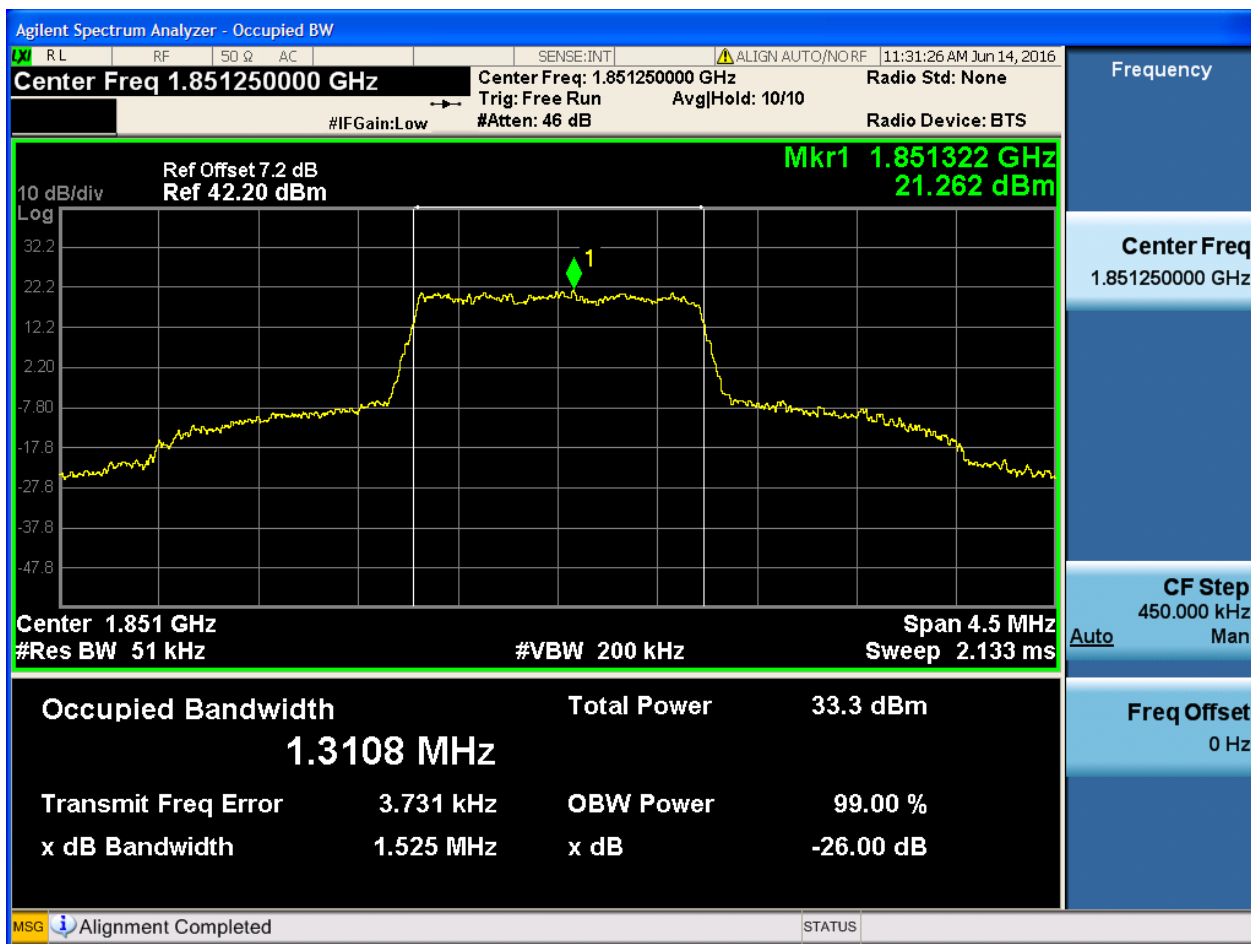




4.1.2 Test Band = BC1

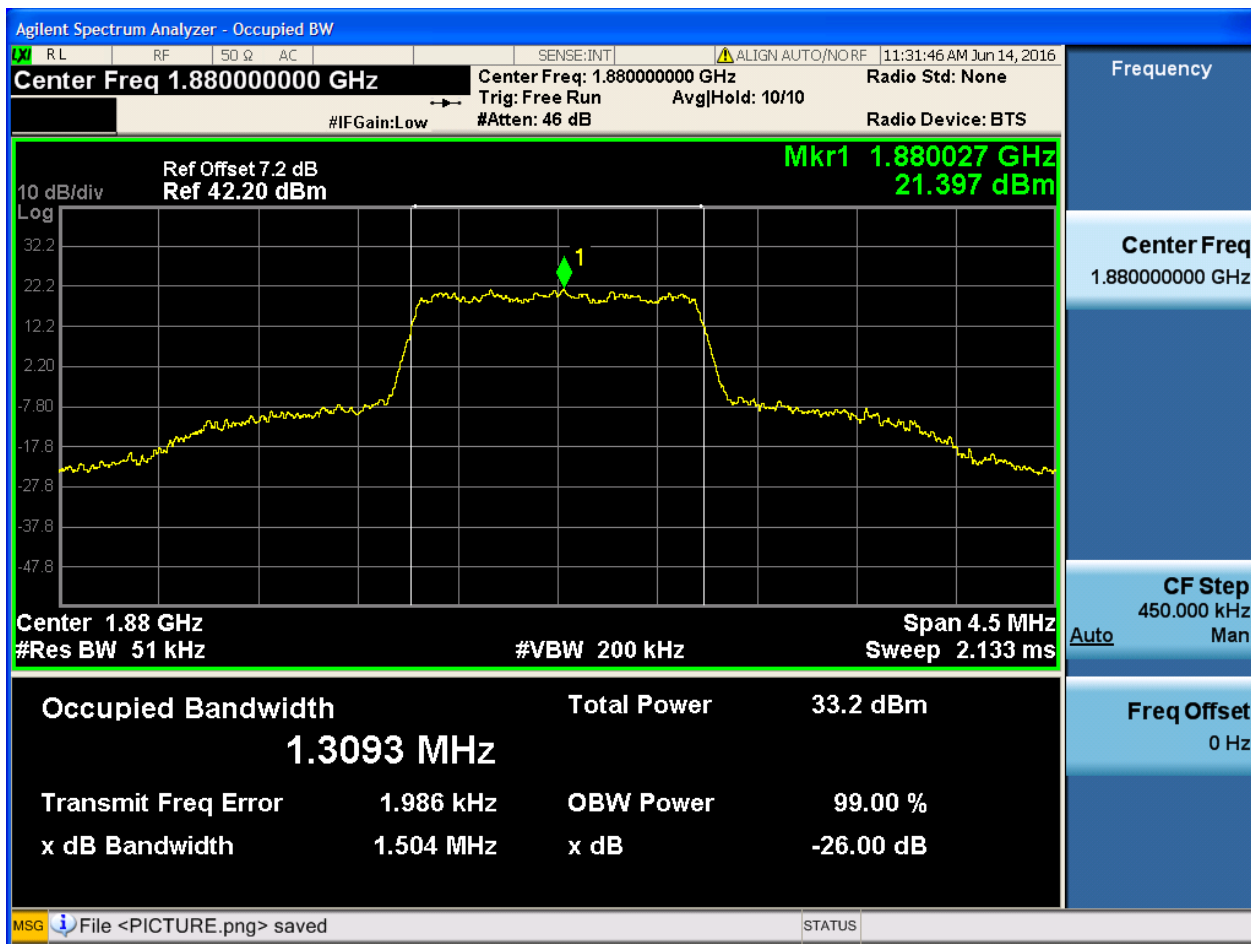
4.1.2.1 Test Mode = CDMA/1X/TM1

4.1.2.1.1 Test Channel = LCH



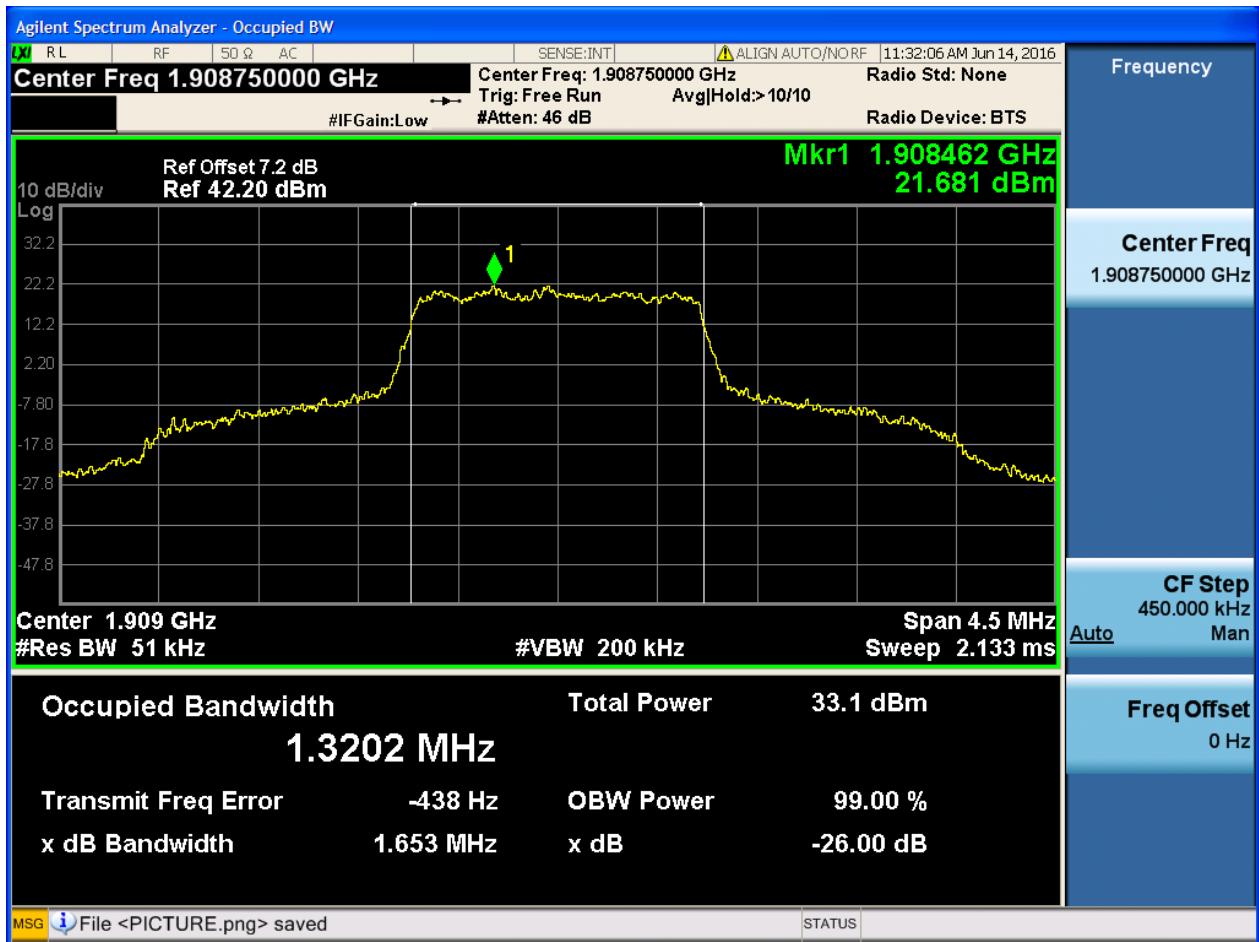


4.1.2.1.2 Test Channel = MCH





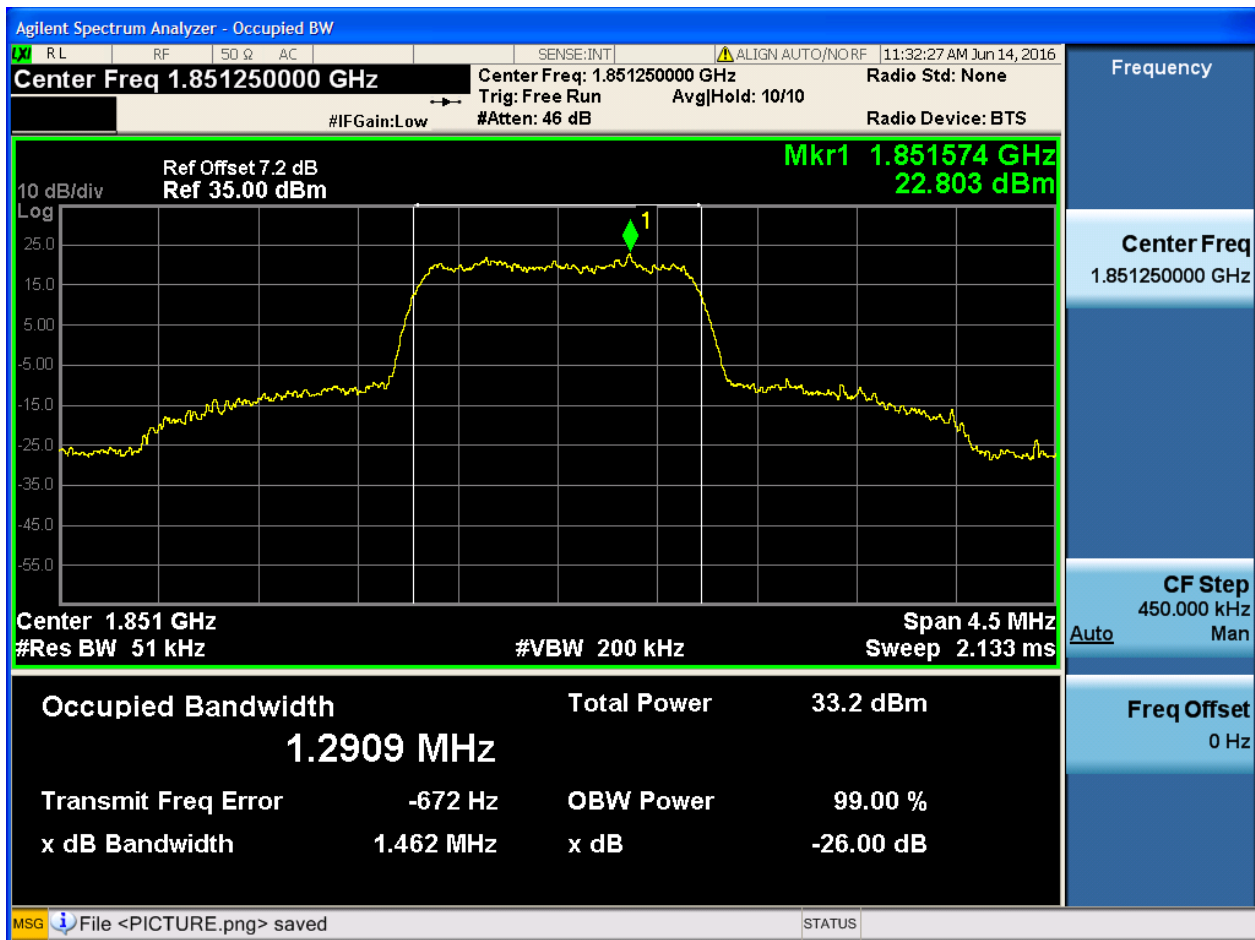
4.1.2.1.3 Test Channel = HCH





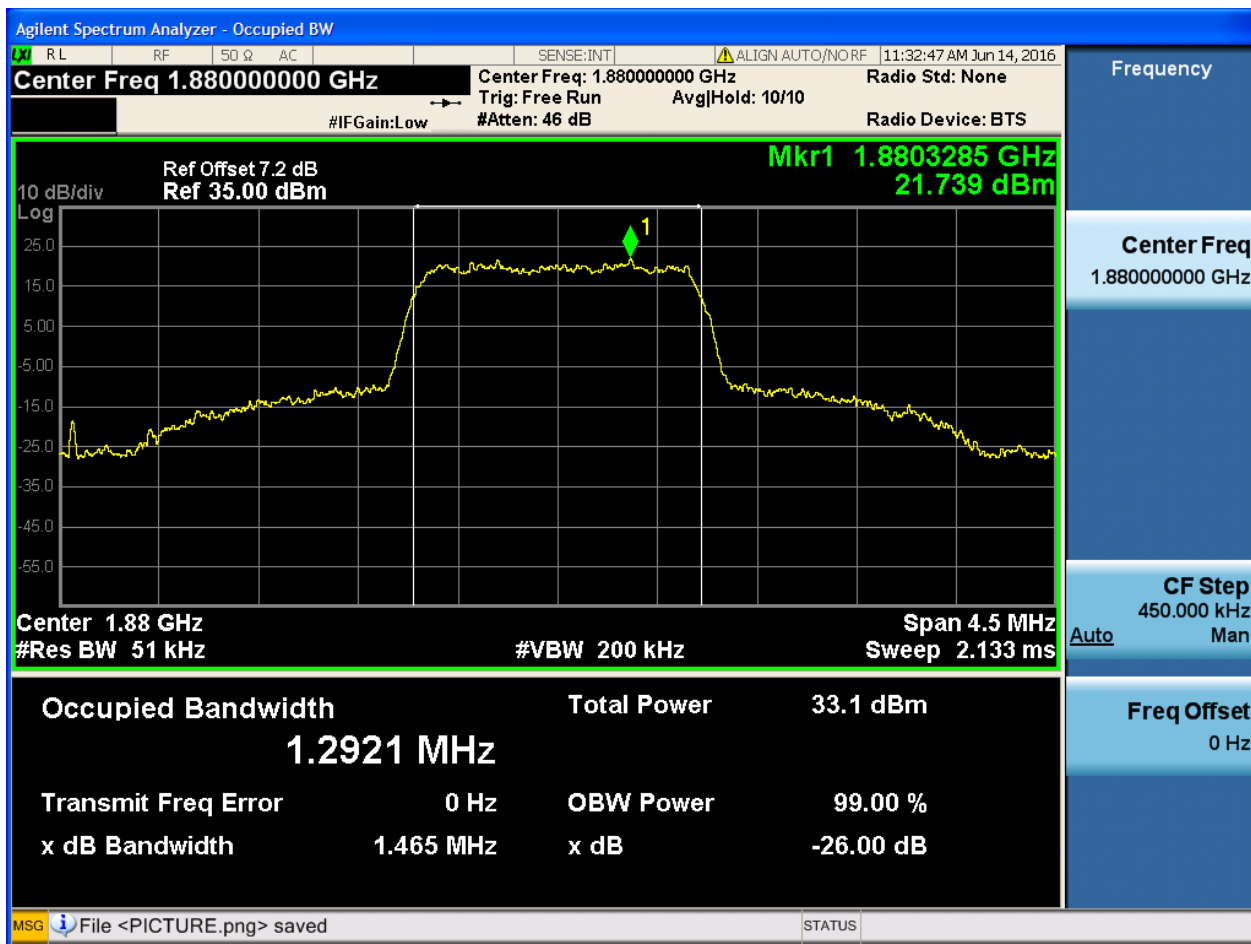
4.1.2.2 Test Mode = CDMA/1X/TM3

4.1.2.2.1 Test Channel = LCH



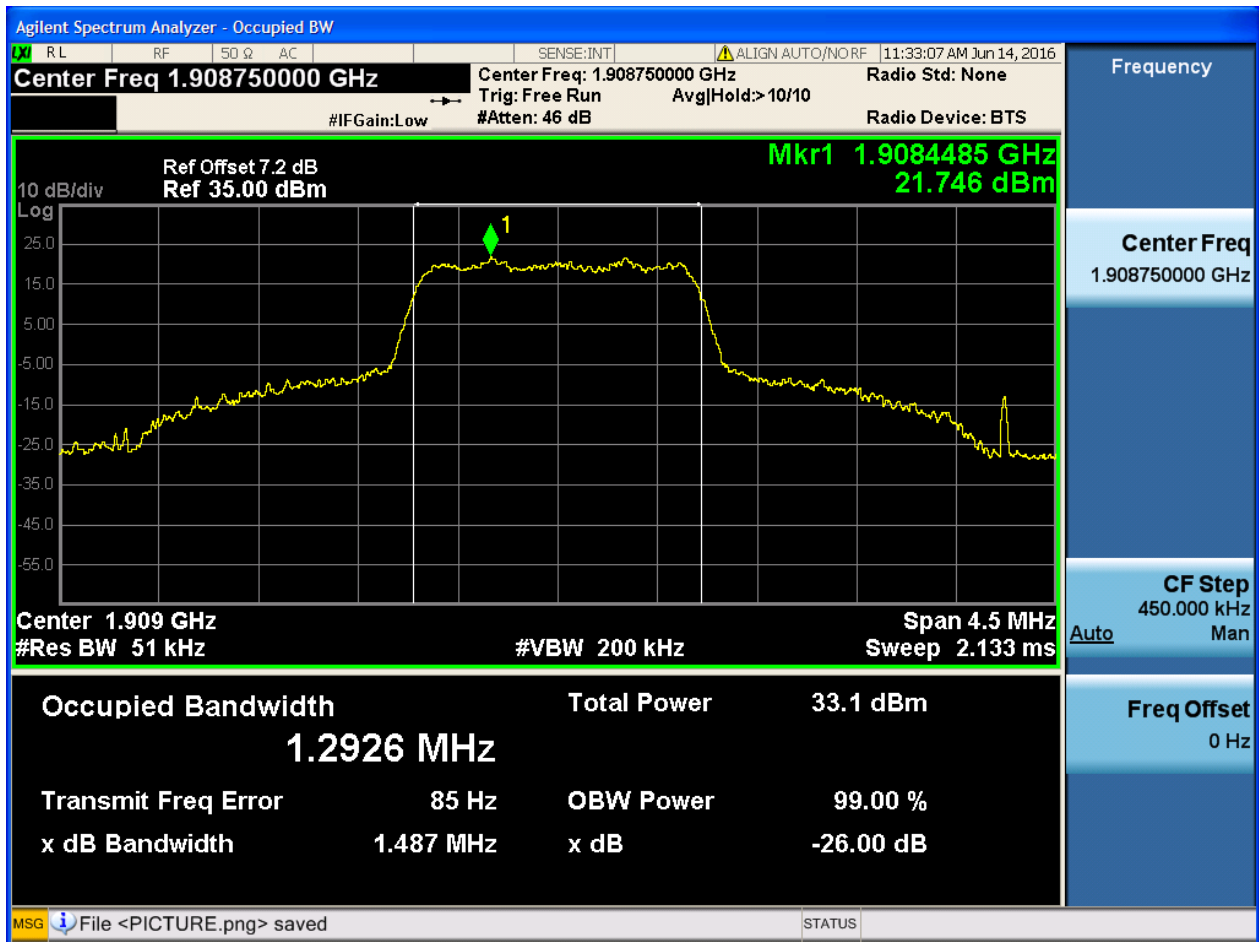


4.1.2.2.2 Test Channel = MCH





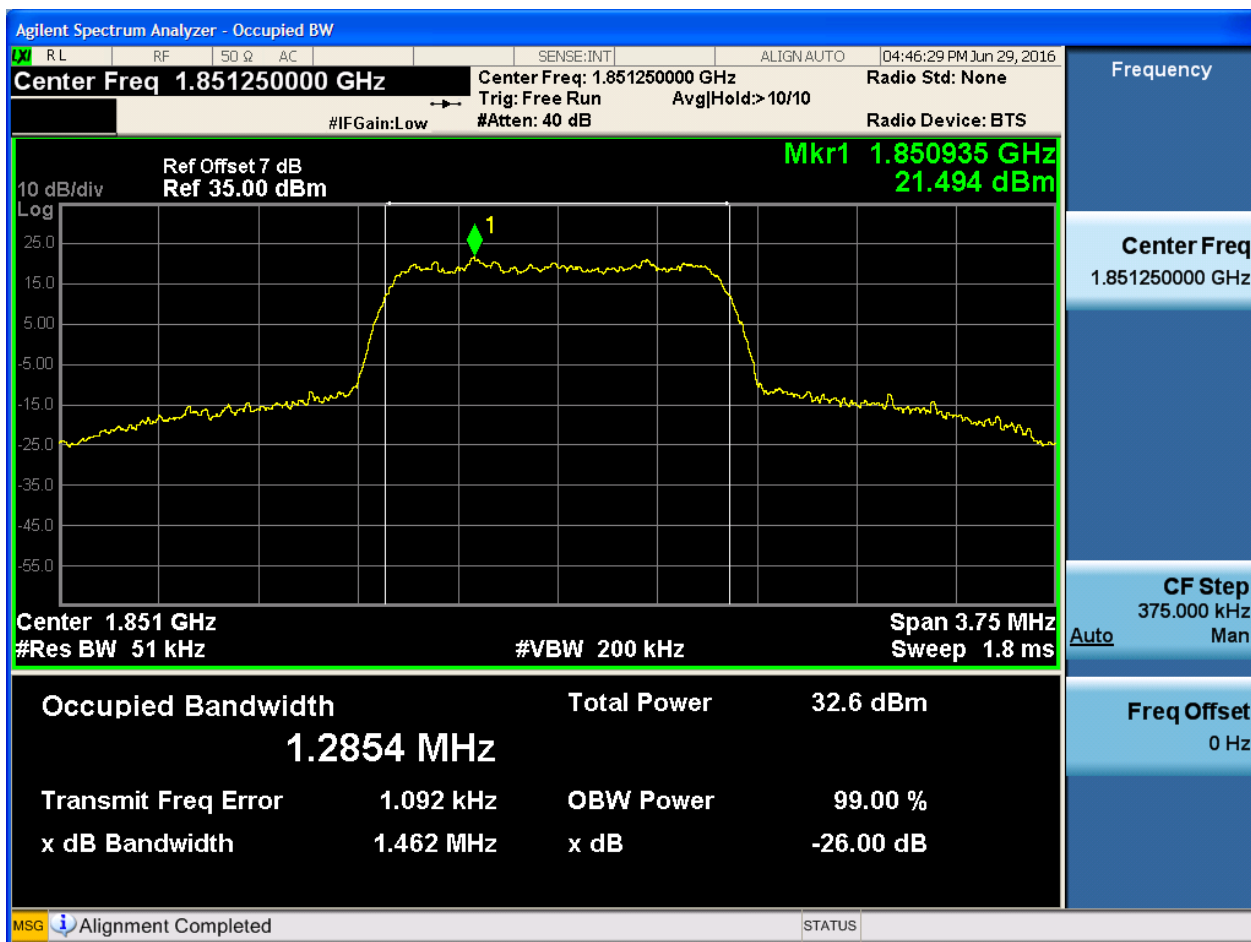
4.1.2.2.3 Test Channel = HCH



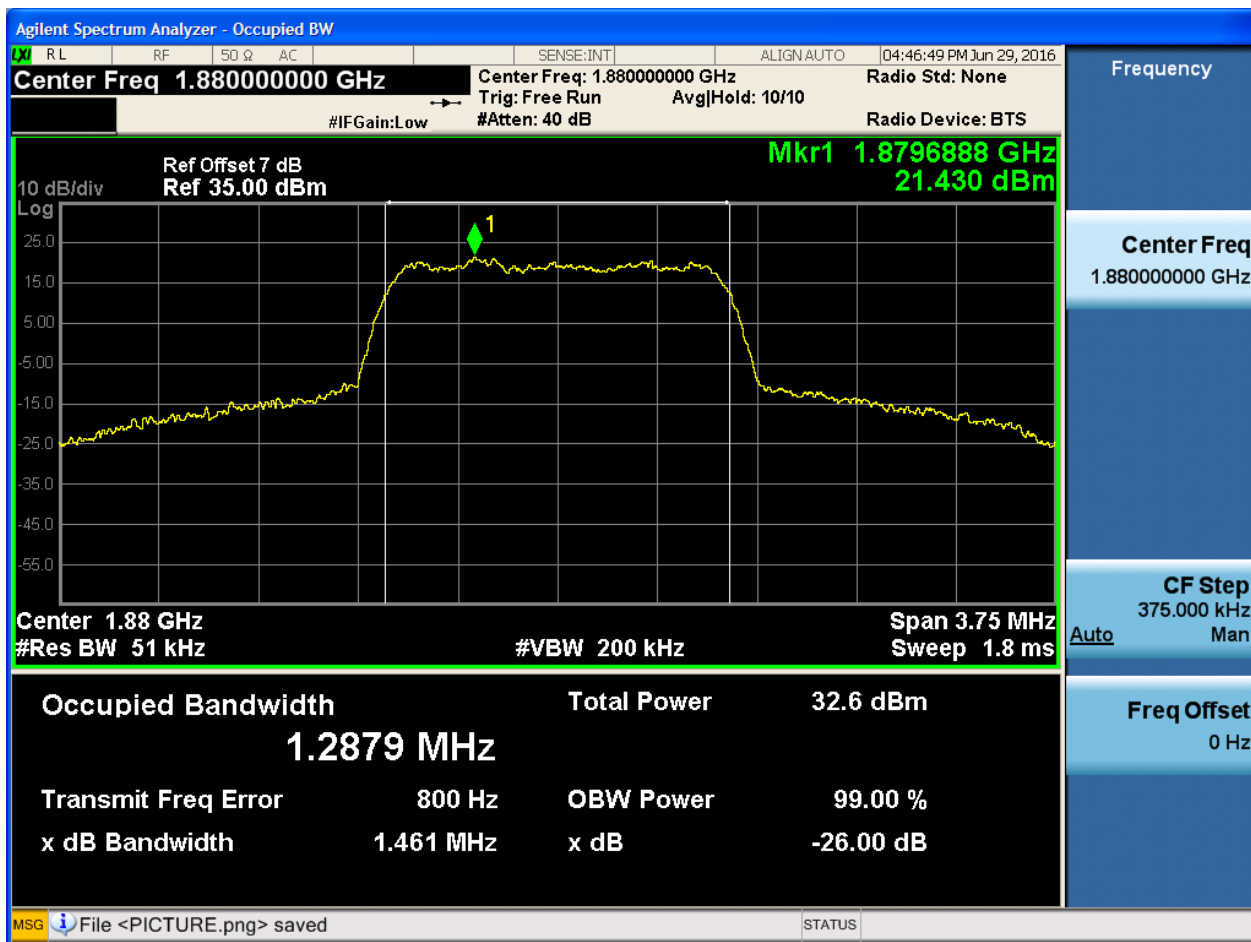


4.1.2.3 Test Mode = CDMA/EV-DO/Subtype0

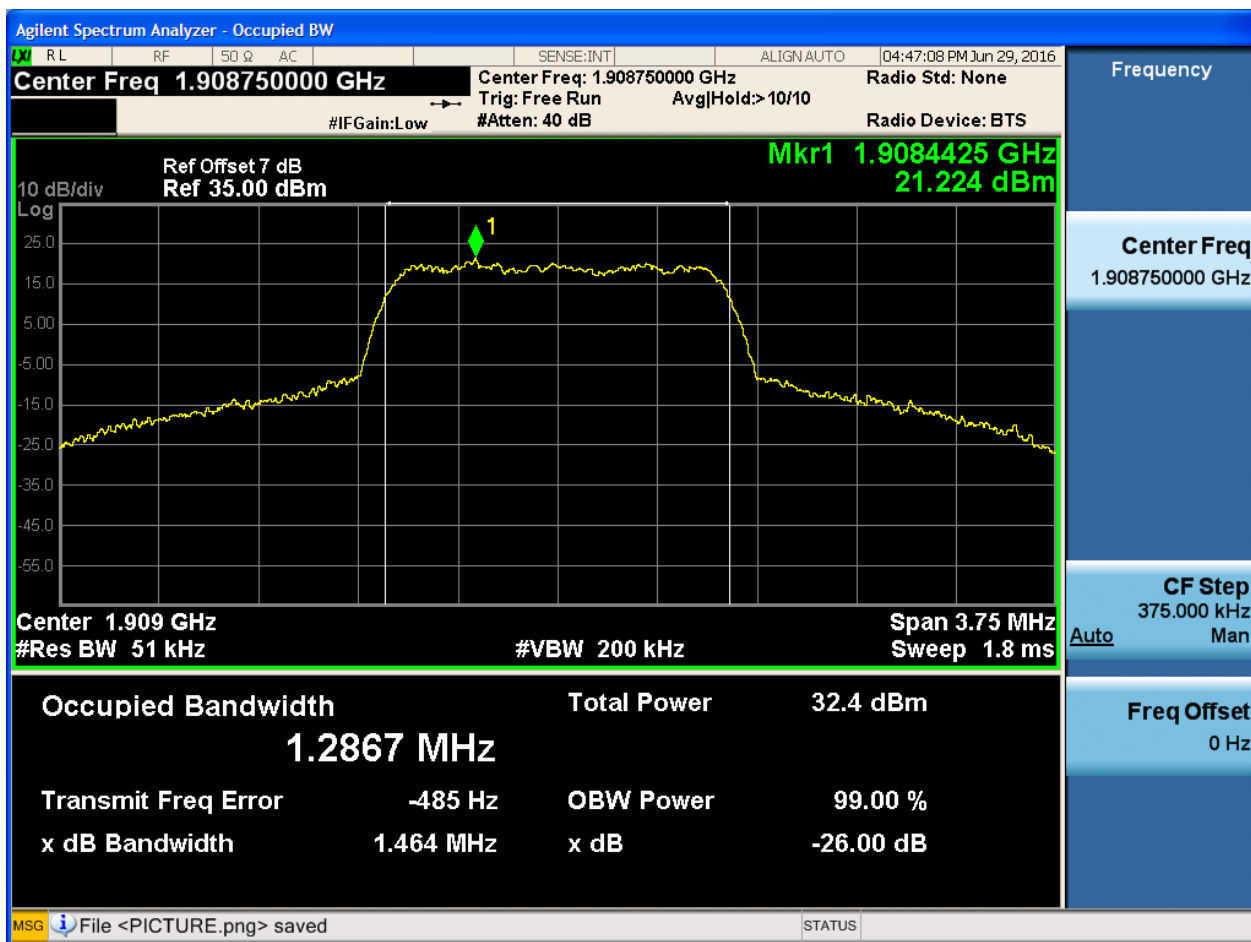
4.1.2.3.1 Test Channel = LCH



4.1.2.3.2 Test Channel = MCH



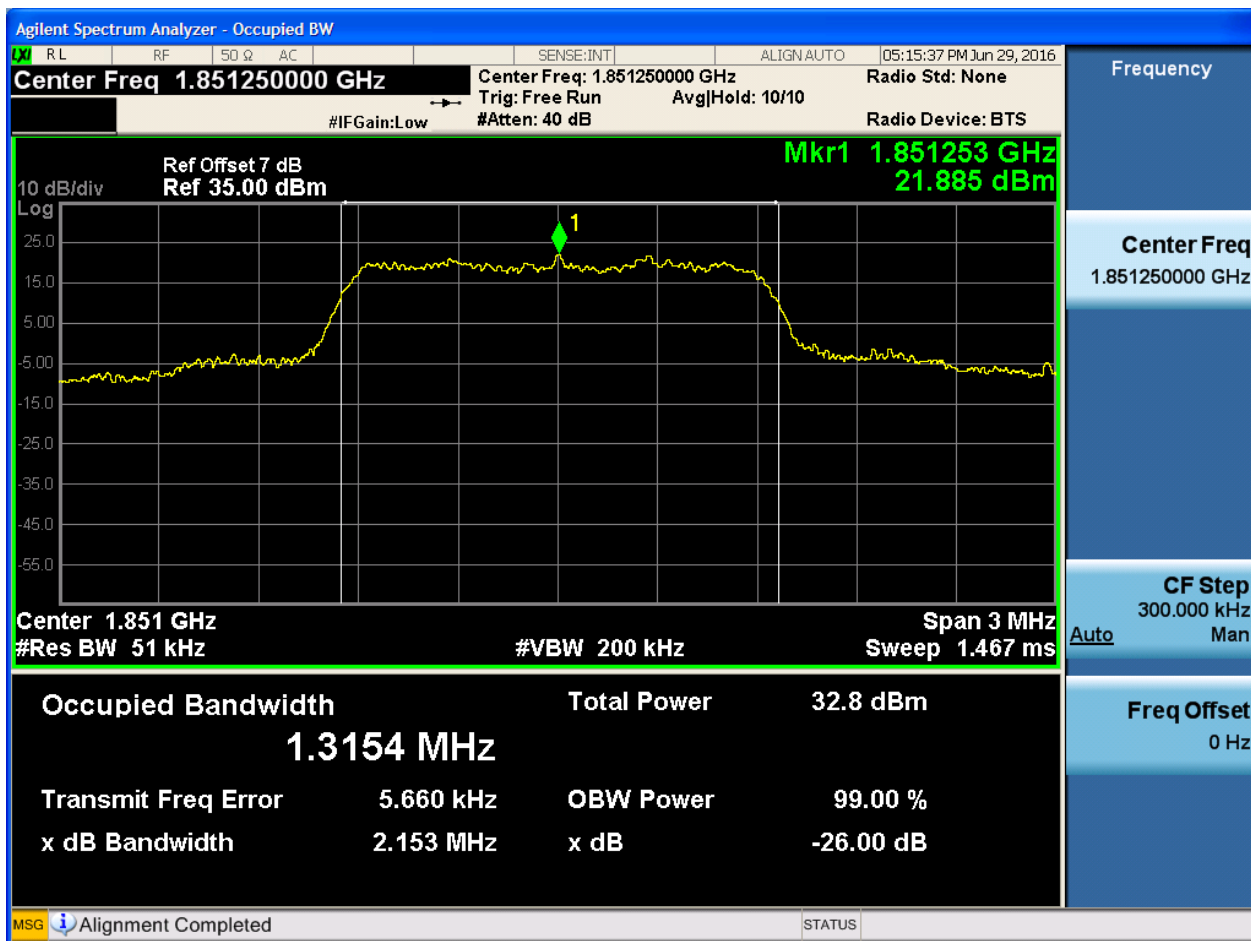
4.1.2.3.3 Test Channel = HCH





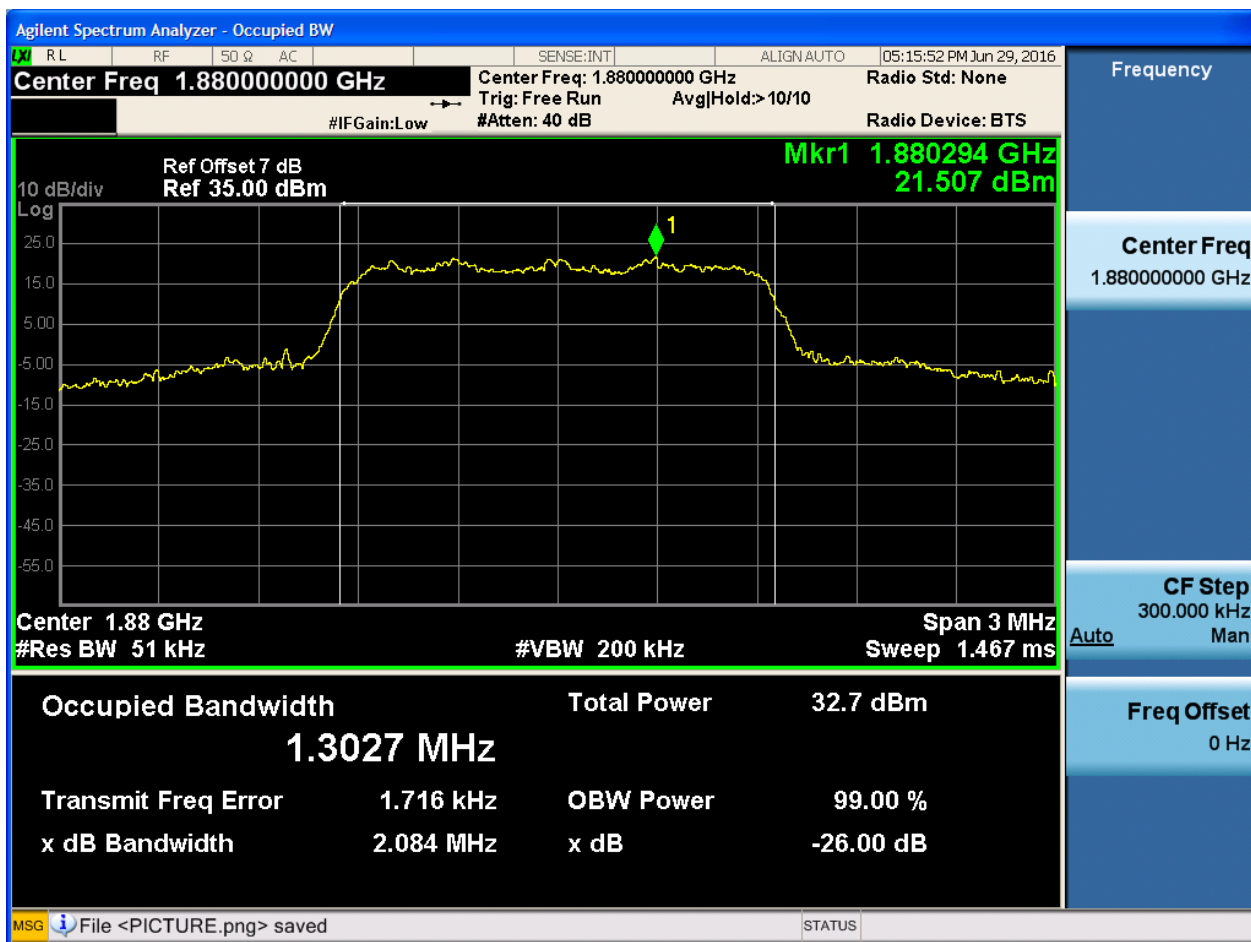
4.1.2.4 Test Mode = CDMA/EV-DO/Subtype2/256

4.1.2.4.1 Test Channel = LCH

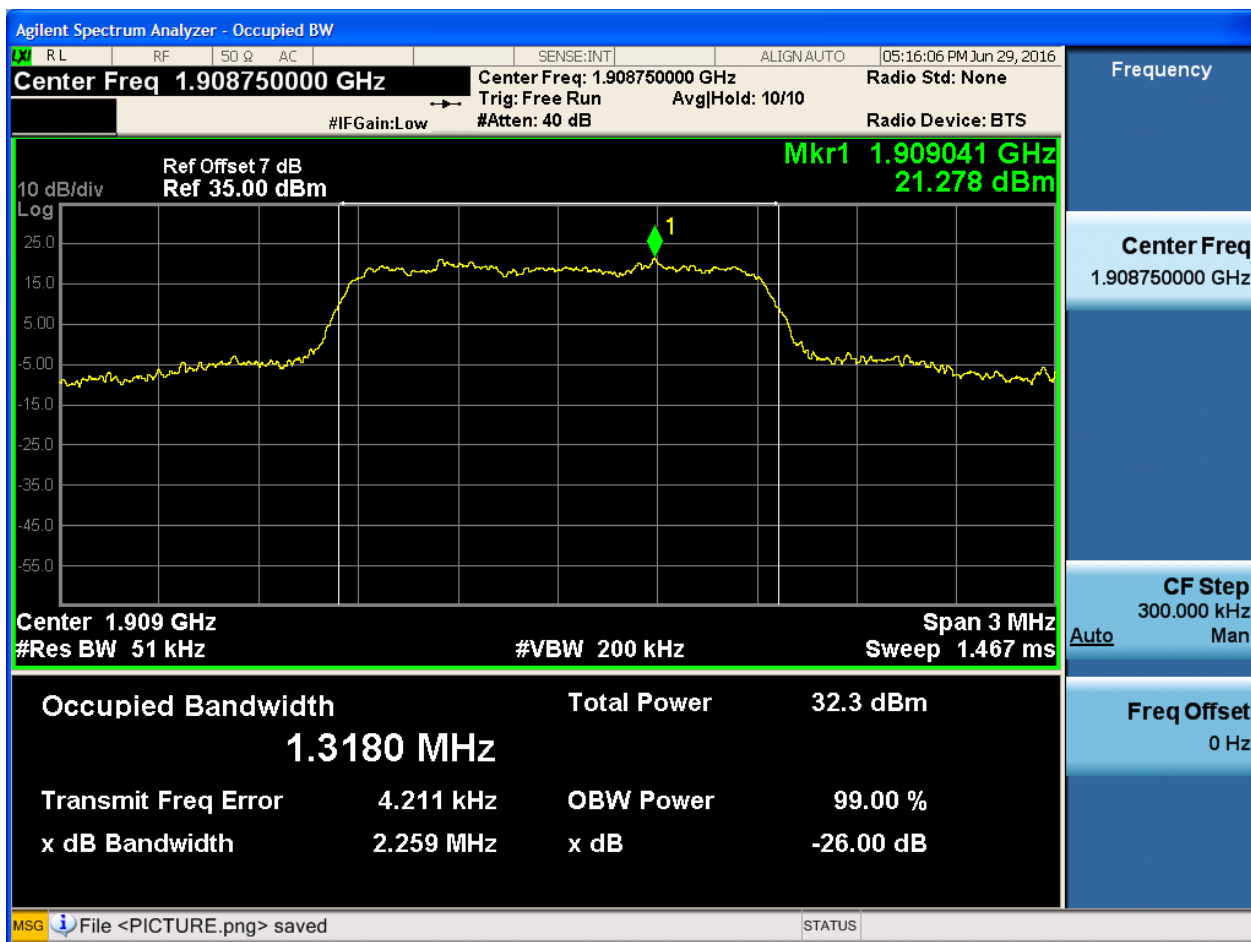




4.1.2.4.2 Test Channel = MCH



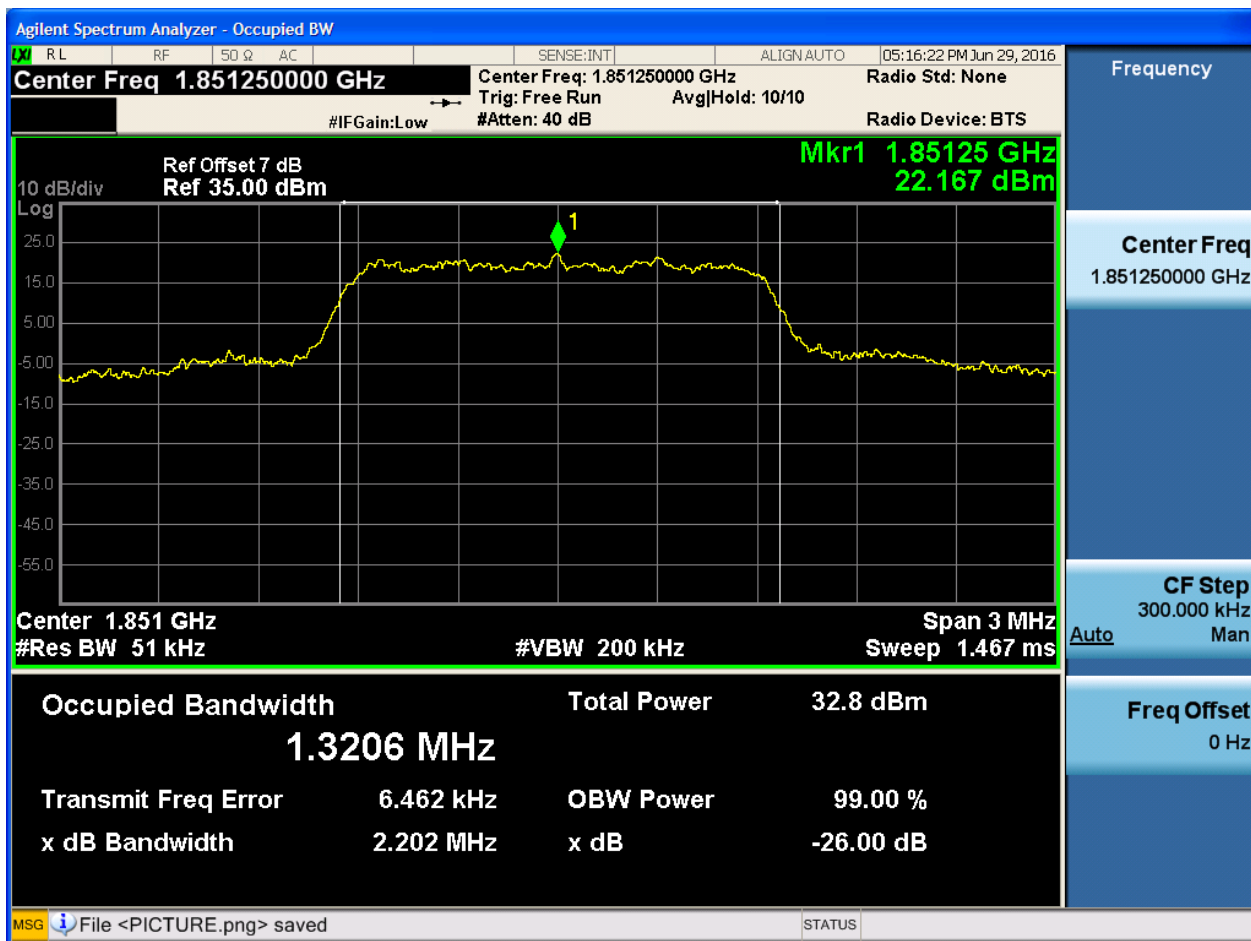
4.1.2.4.3 Test Channel = HCH





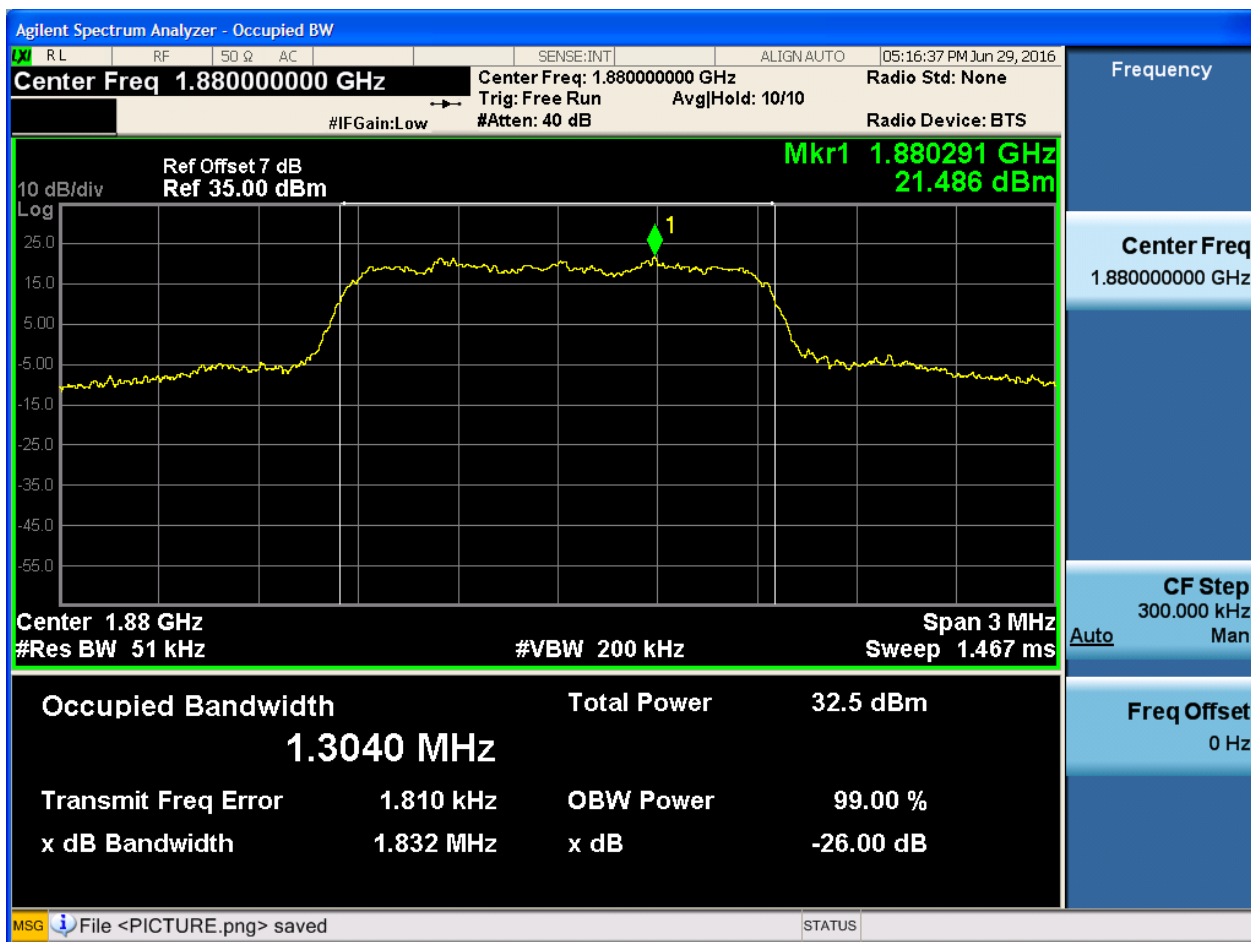
4.1.2.5 Test Mode = CDMA/EV-DO/Subtype2/24096

4.1.2.5.1 Test Channel = LCH

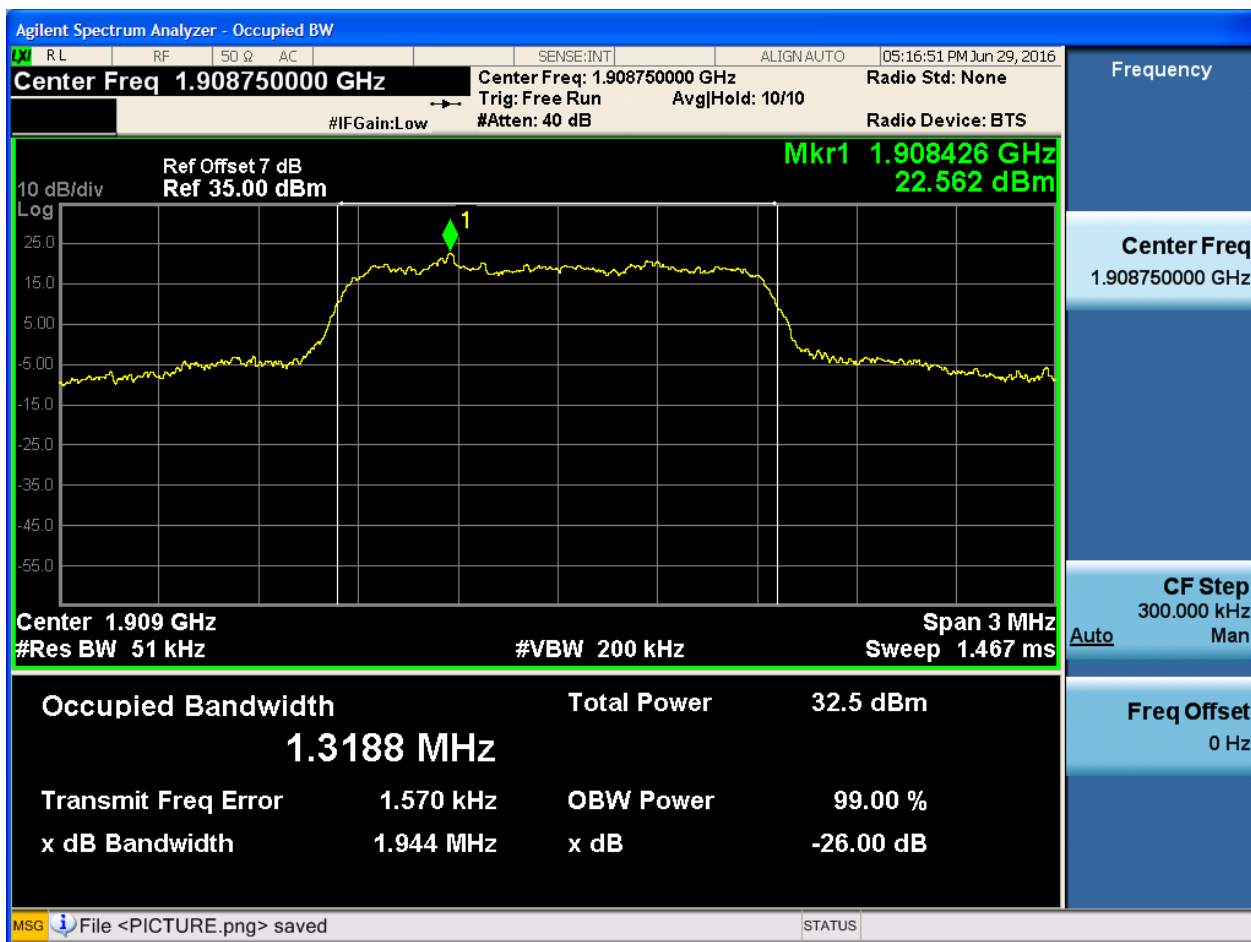




4.1.2.5.2 Test Channel = MCH



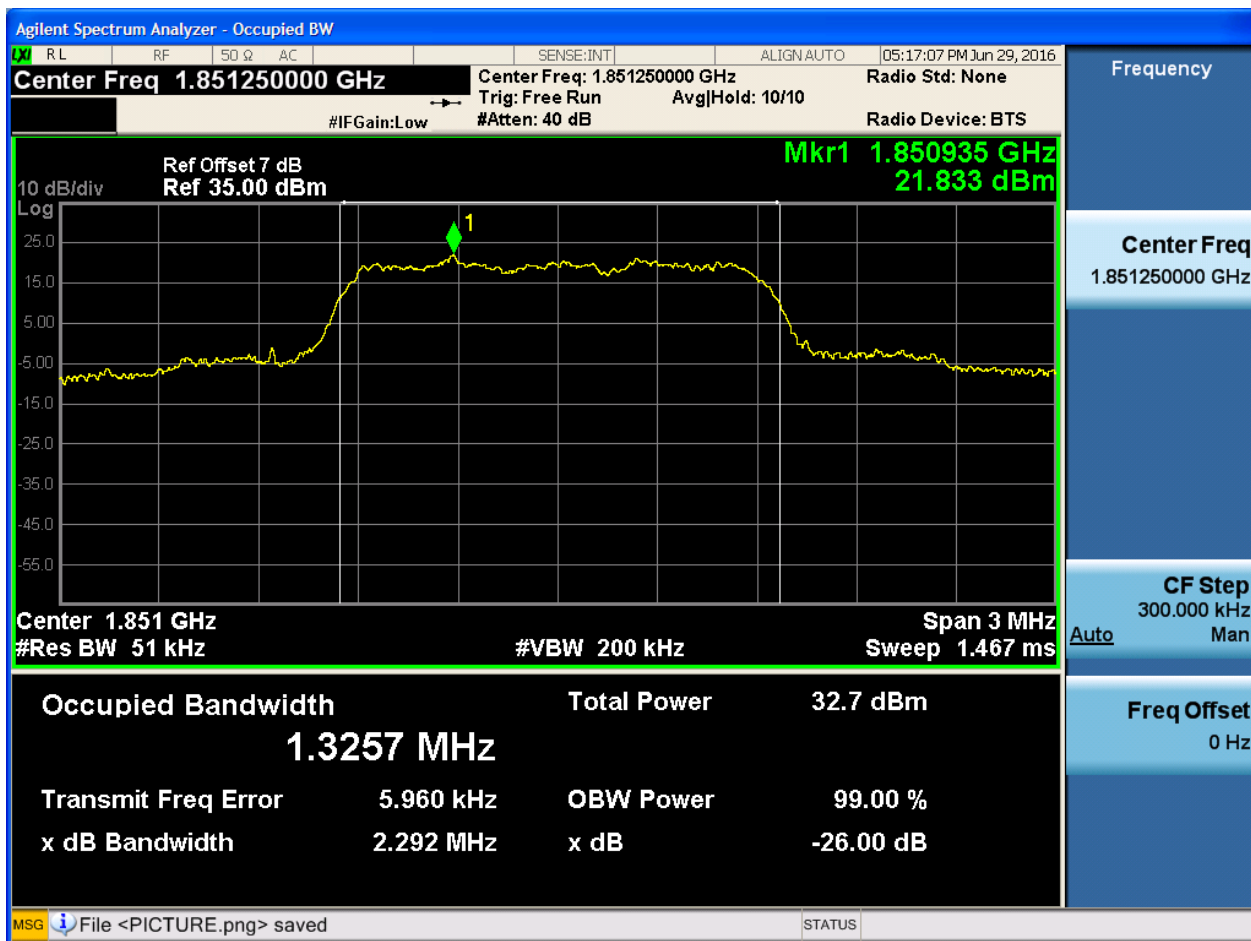
4.1.2.5.3 Test Channel = HCH





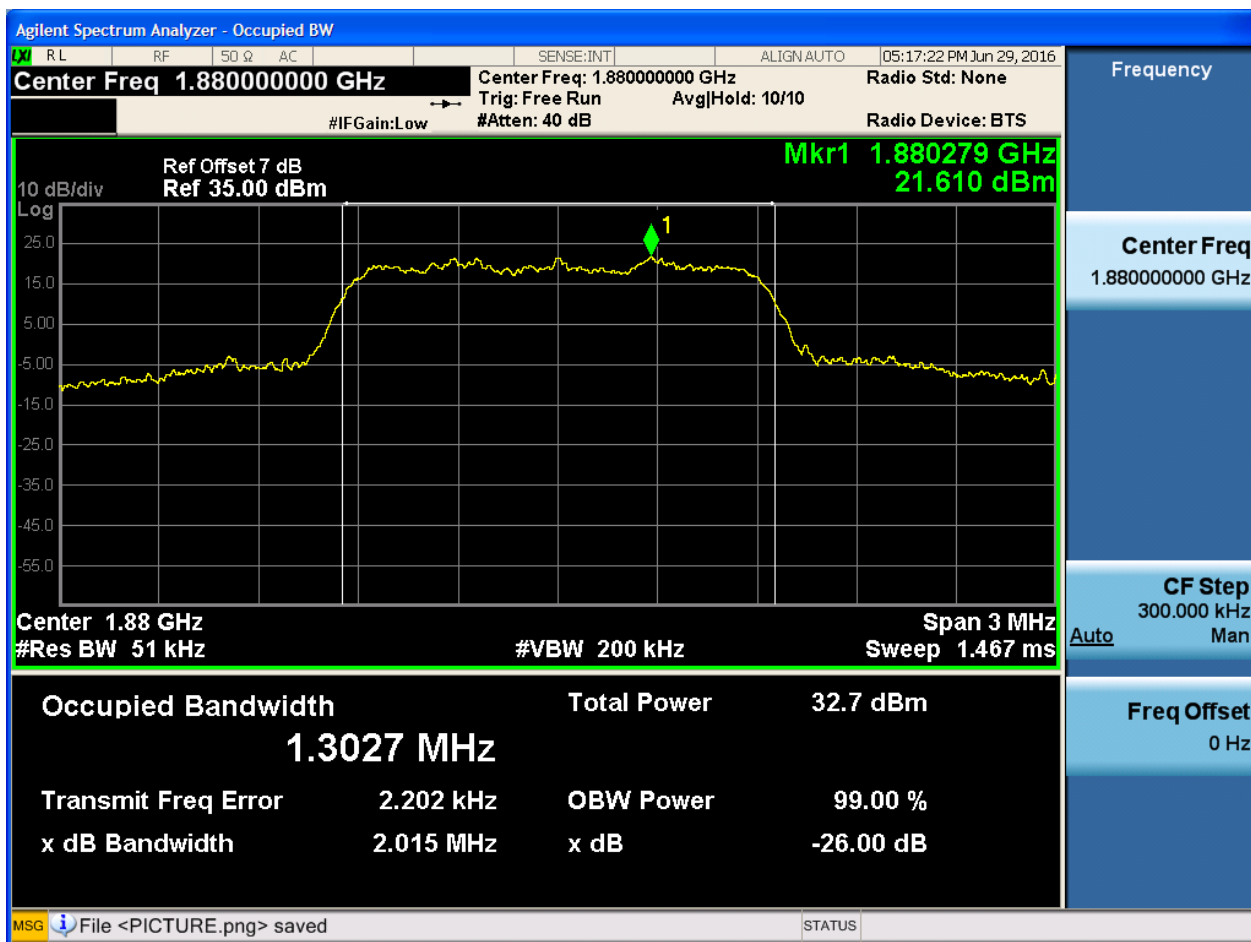
4.1.2.6 Test Mode = CDMA/EV-DO/Subtype2/12288

4.1.2.6.1 Test Channel = LCH



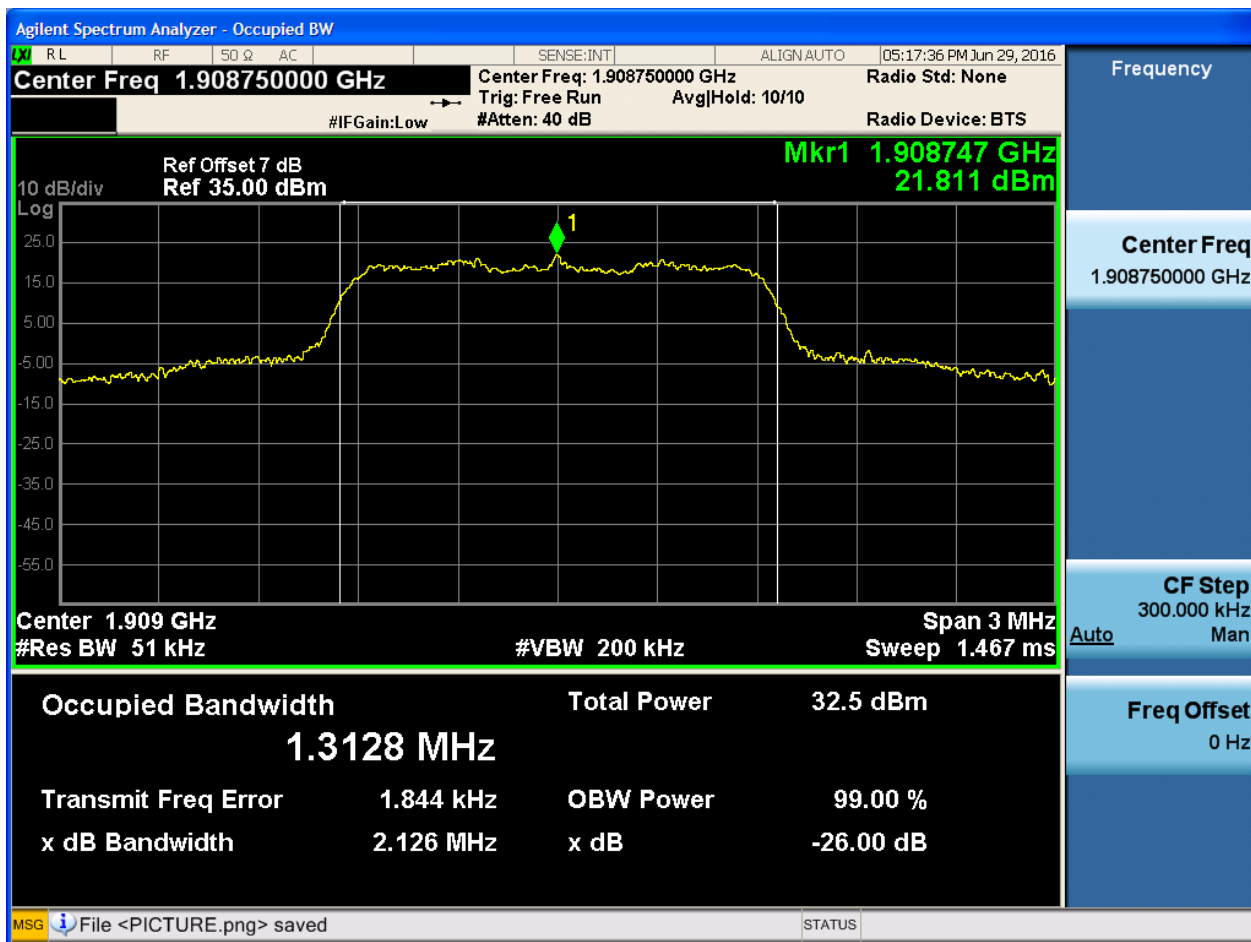


4.1.2.6.2 Test Channel = MCH





4.1.2.6.3 Test Channel = HCH



5Appendix_E: Band Edges Compliance

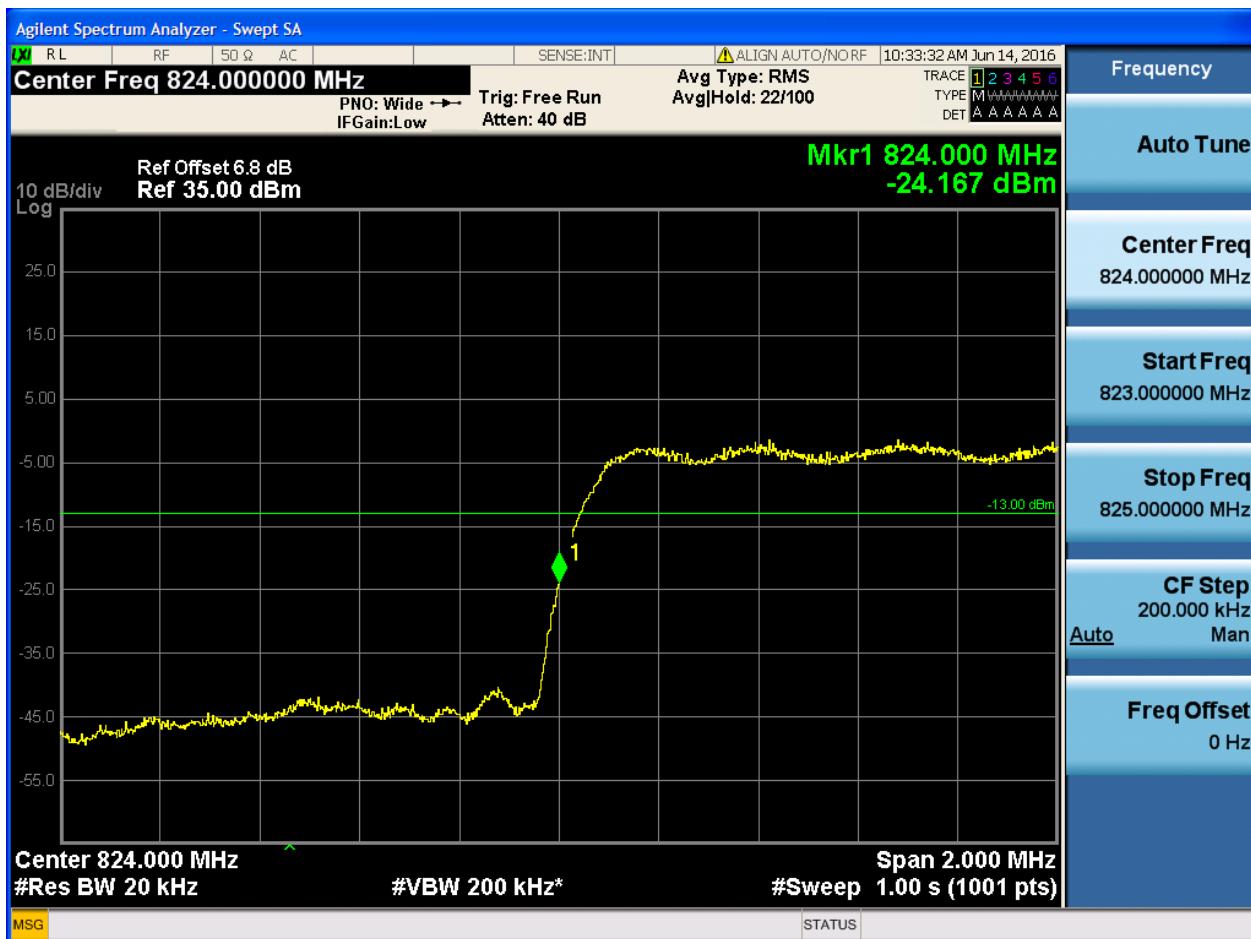
Part I - Test Plots

5.1 For CDMA

5.1.1 Test Band = BC0

5.1.1.1 Test Mode = CDMA/1X/TM1

5.1.1.1.1 Test Channel = LCH



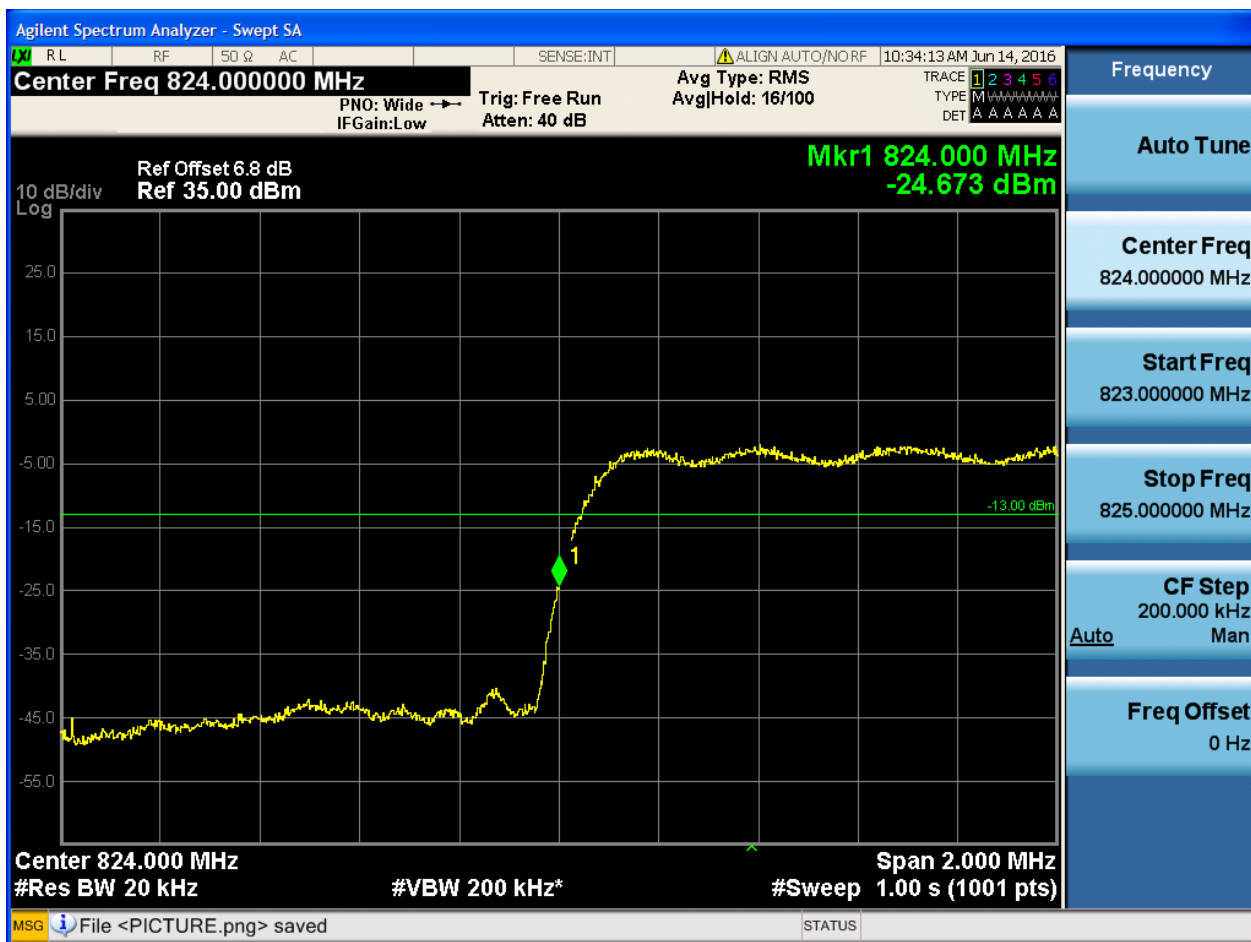
5.1.1.1.2 Test Channel = HCH





5.1.1.2 Test Mode = CDMA/1X/TM3

5.1.1.2.1 Test Channel = LCH



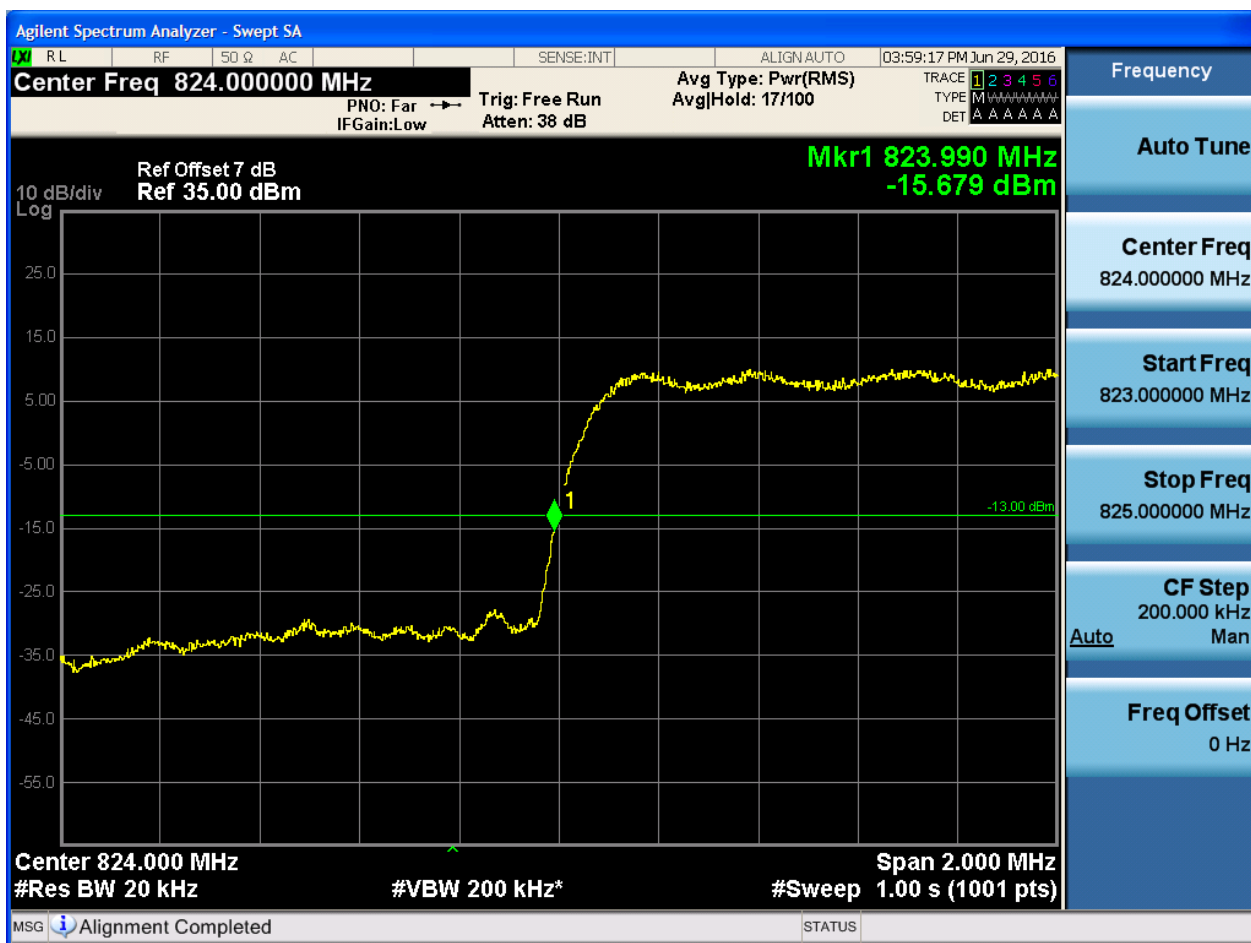
5.1.1.2.2 Test Channel = HCH





5.1.1.3 Test Mode = CDMA/EV-DO/Subtype0

5.1.1.3.1 Test Channel = LCH



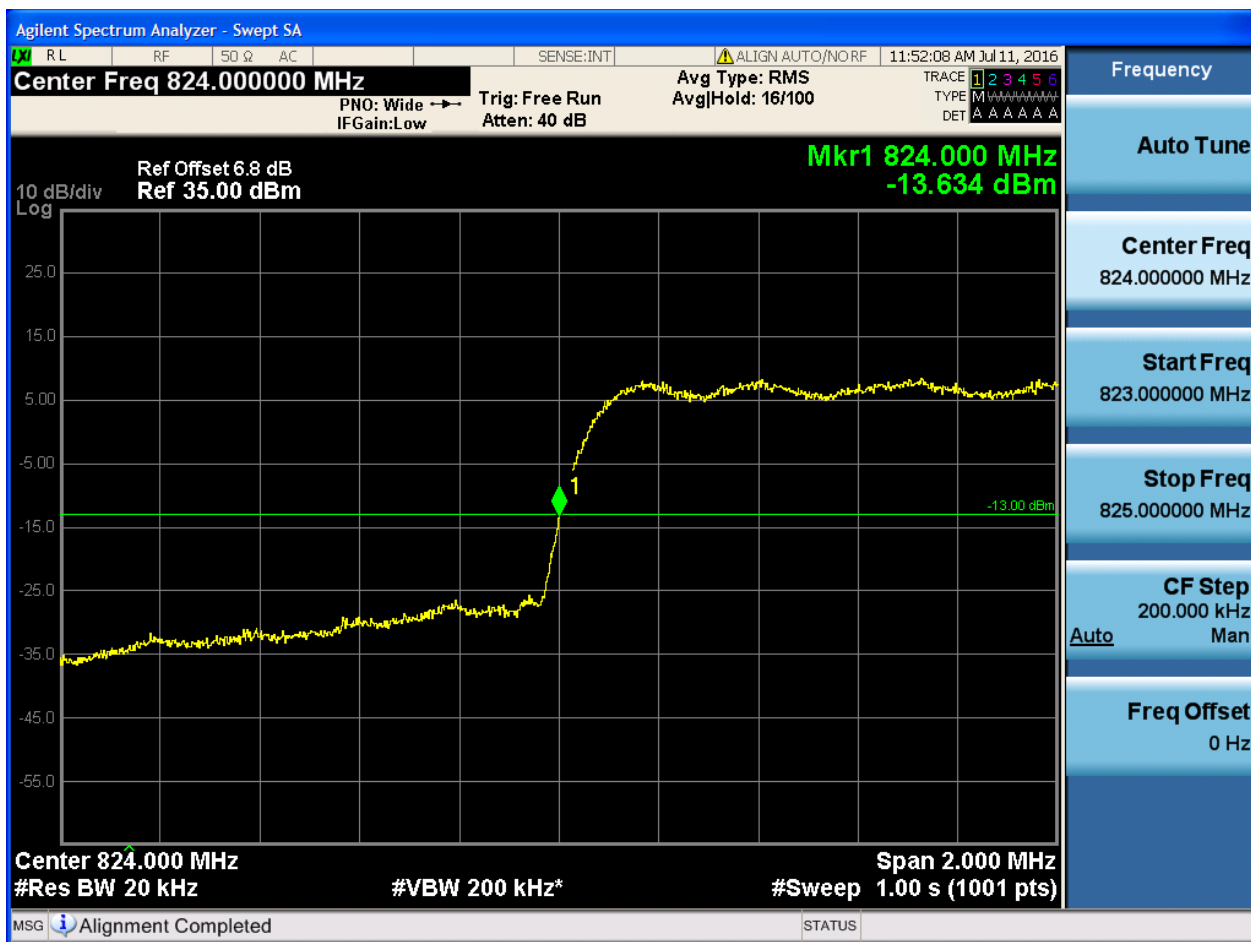


5.1.1.3.2 Test Channel = HCH



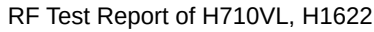
5.1.1.4 Test Mode = CDMA/EV-DO/Subtype2/256

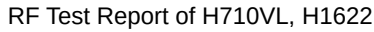
5.1.1.4.1 Test Channel = LCH



5.1.1.4.2 Test Channel = HCH







Agilent Spectrum Analyzer - Swept SA

Center Freq 849.000000 MHz

Ref Offset 6.8 dB
Ref 35.00 dBm

10 dB/div
Log

Span 2.000 MHz
#Res BW 20 kHz
#VBW 200 kHz*
#Sweep 1.00 s (1001 pts)

Mkr1 849.010 MHz
-13.557 dBm

Trig: Free Run
Atten: 40 dB

ALIGN AUTO/NORF

11:53:07 AM Jul 11, 2016

Frequency

Auto Tune

Center Freq
849.000000 MHz

Start Freq
848.000000 MHz

Stop Freq
850.000000 MHz

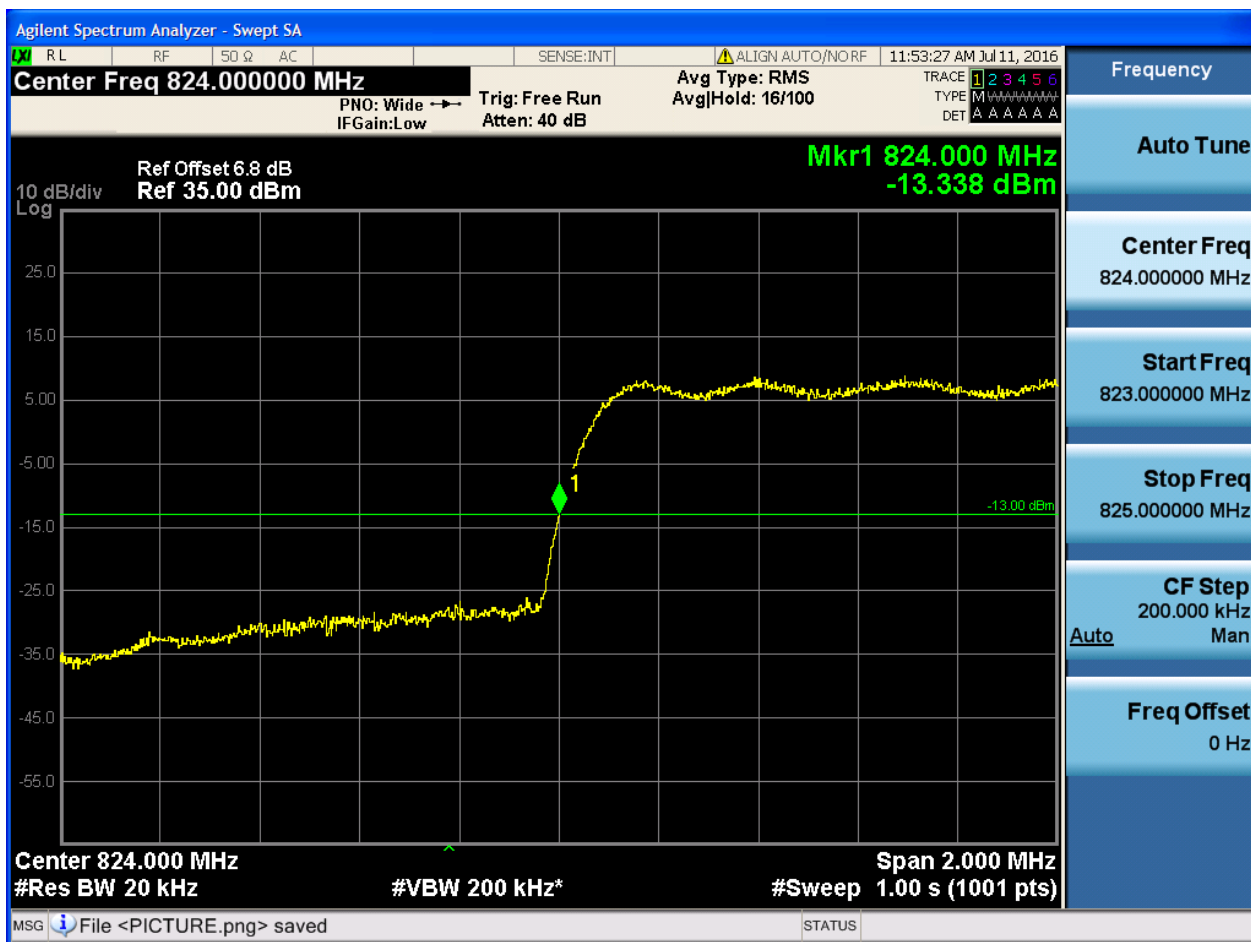
CF Step
200.000 kHz
Man

Freq Offset
0 Hz

The image shows a screenshot of an Agilent Spectrum Analyzer in swept mode. The main display is a log-scale plot of power (dBm) versus frequency (MHz). The y-axis ranges from -55.0 dBm to 25.0 dBm, and the x-axis ranges from 848.000000 MHz to 850.000000 MHz. A yellow trace shows the spectrum, which is relatively flat around -10 dBm until approximately 849.0 MHz, where it drops sharply to about -25 dBm. A green horizontal line is drawn at -13.00 dBm. A yellow marker labeled '1' is placed on the trace at 849.010 MHz, indicating a power level of -13.557 dBm. The top of the screen displays various settings: Center Freq 849.000000 MHz, Ref Offset 6.8 dB, Ref 35.00 dBm, Span 2.000 MHz, #Res BW 20 kHz, #VBW 200 kHz*, #Sweep 1.00 s (1001 pts), Trig: Free Run, Atten: 40 dB, and ALIGN AUTO/NORF. The right side of the screen shows a control panel with buttons for Frequency, Auto Tune, Center Freq, Start Freq, Stop Freq, CF Step, and Freq Offset.

5.1.1.6 Test Mode = CDMA/EV-DO/Subtype2/12288

5.1.1.6.1 Test Channel = LCH



5.1.1.6.1 Test Channel = HCH





5.1.2 Test Band = BC1

5.1.2.1 Test Mode = CDMA/1X/TM1

5.1.2.1.1 Test Channel = LCH



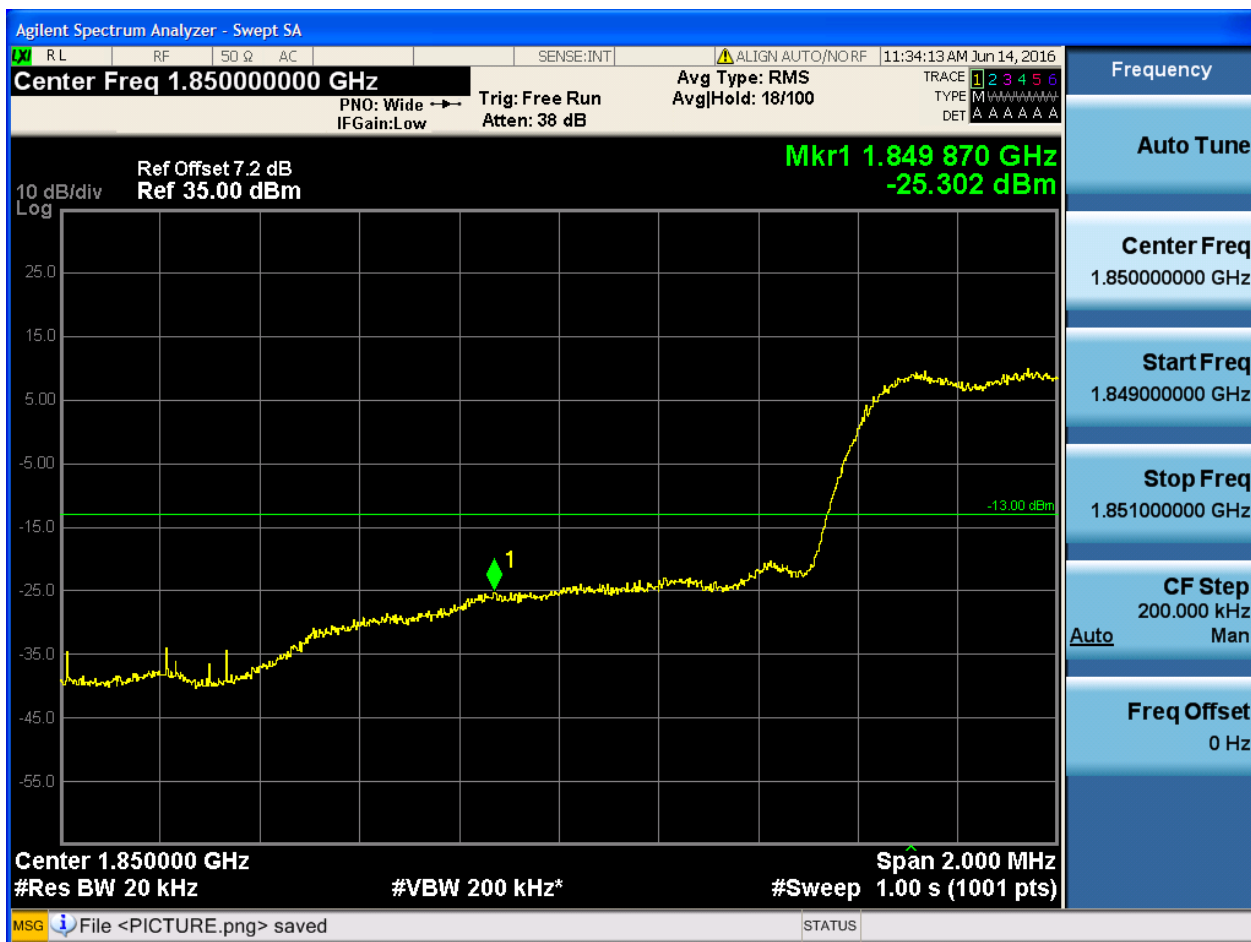
5.1.2.1.2 Test Channel = HCH





5.1.2.2 Test Mode = CDMA/1X/TM3

5.1.2.2.1 Test Channel = LCH

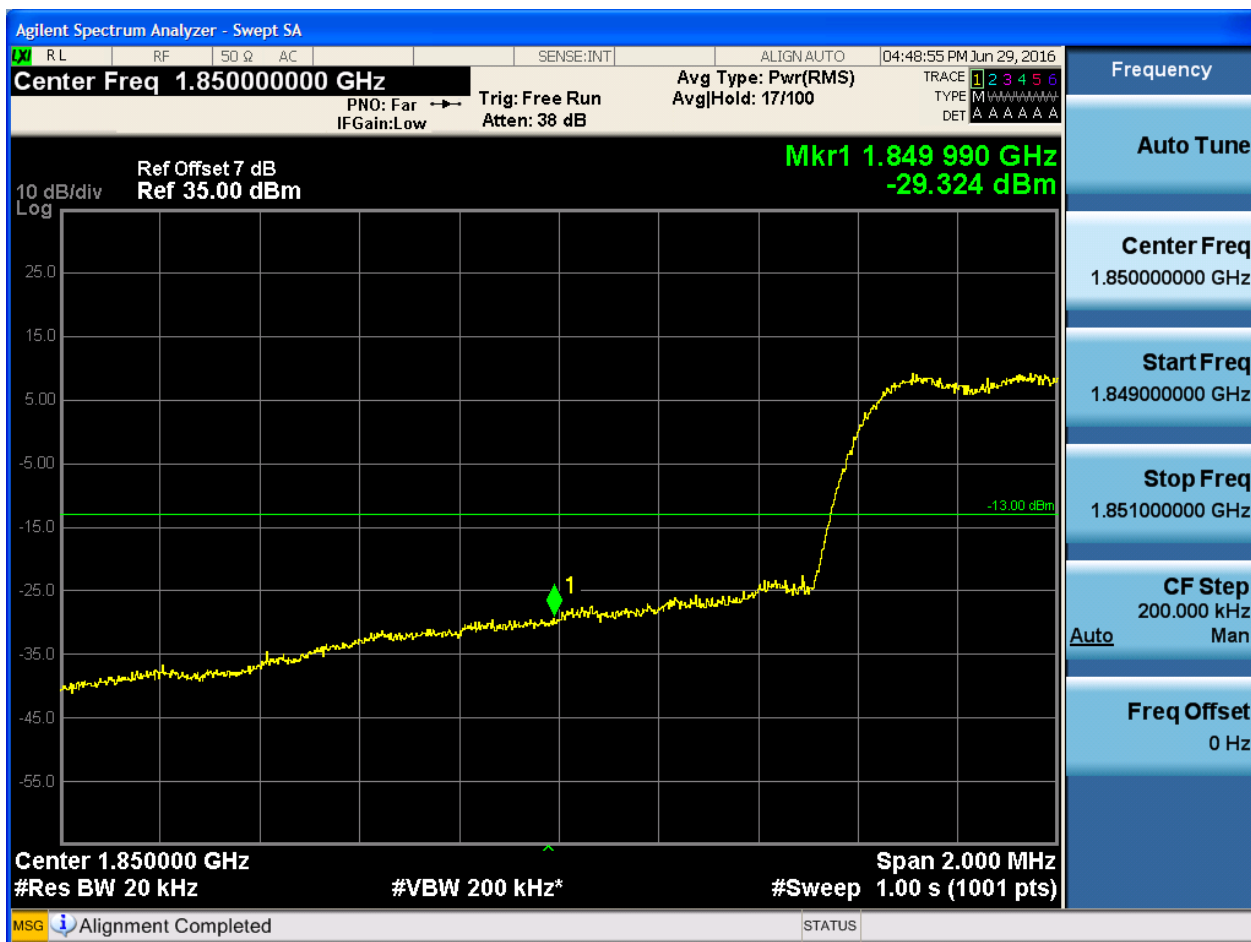


5.1.2.2.2 Test Channel = HCH



5.1.2.3 Test Mode = CDMA/EV-DO/Subtype0

5.1.2.3.1 Test Channel = LCH



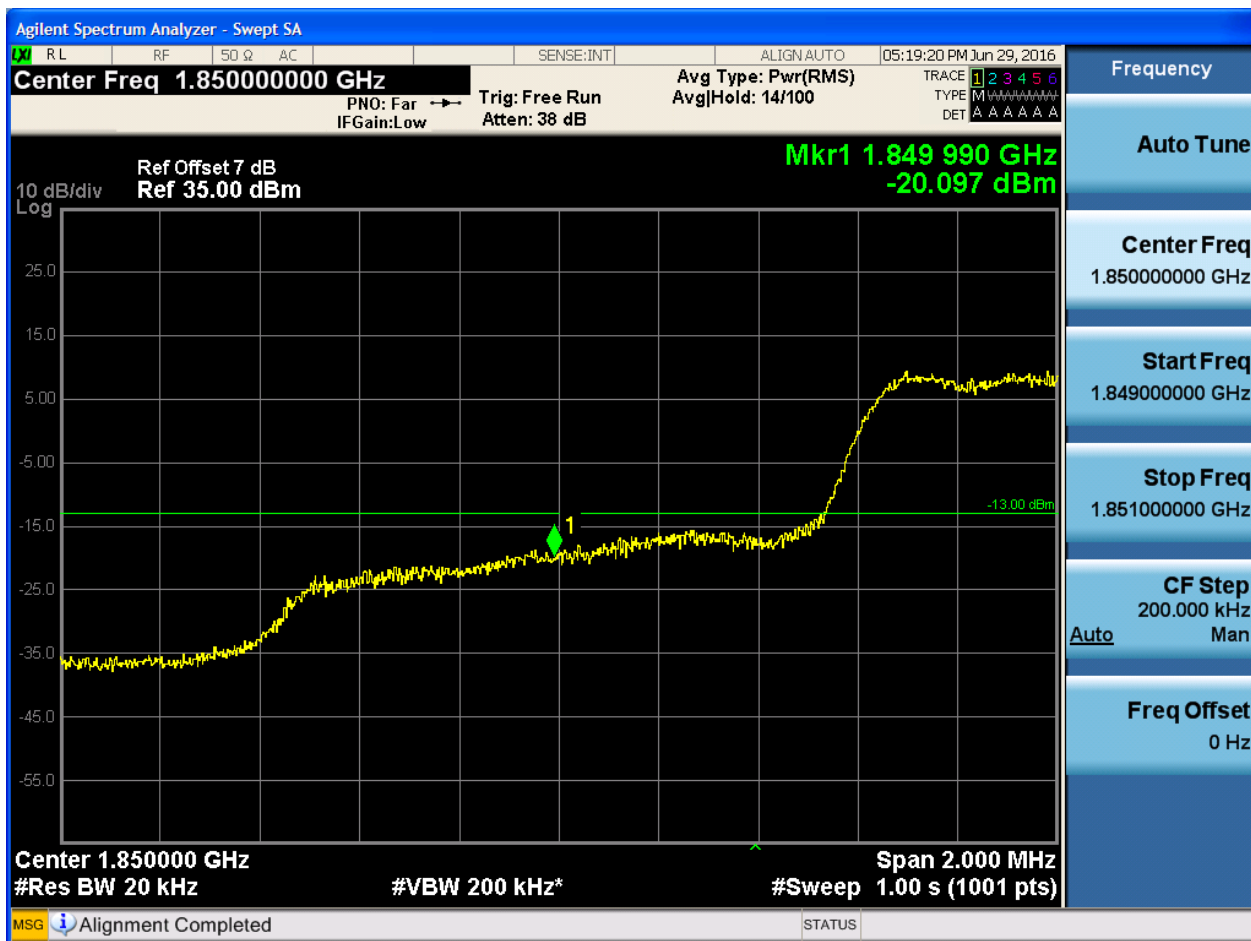
5.1.2.3.2 Test Channel = HCH





5.1.2.4 Test Mode = CDMA/EV-DO/Subtype2/256

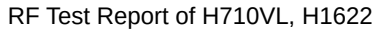
5.1.2.4.1 Test Channel = LCH



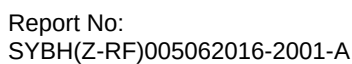


5.1.2.4.2 Test Channel = HCH



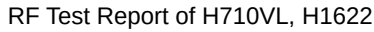


5.1.2.5.1 Test Channel = LCH



5.1.2.5.2 Test Channel = HCH





5.1.2.6.2 Test Channel = HCH



6Appendix_F: Spurious Emission at Antenna Terminal

NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (Span / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

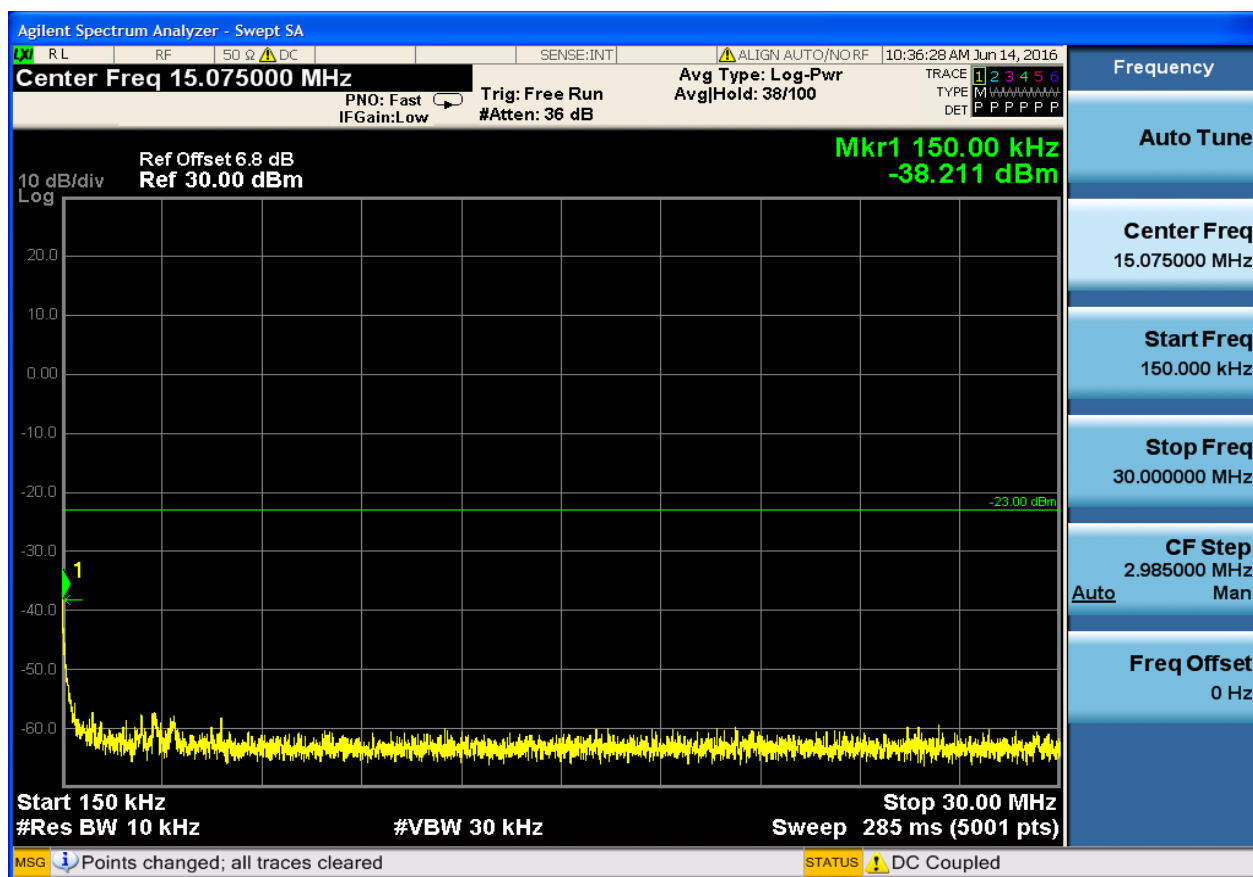
Part I - Test Plots

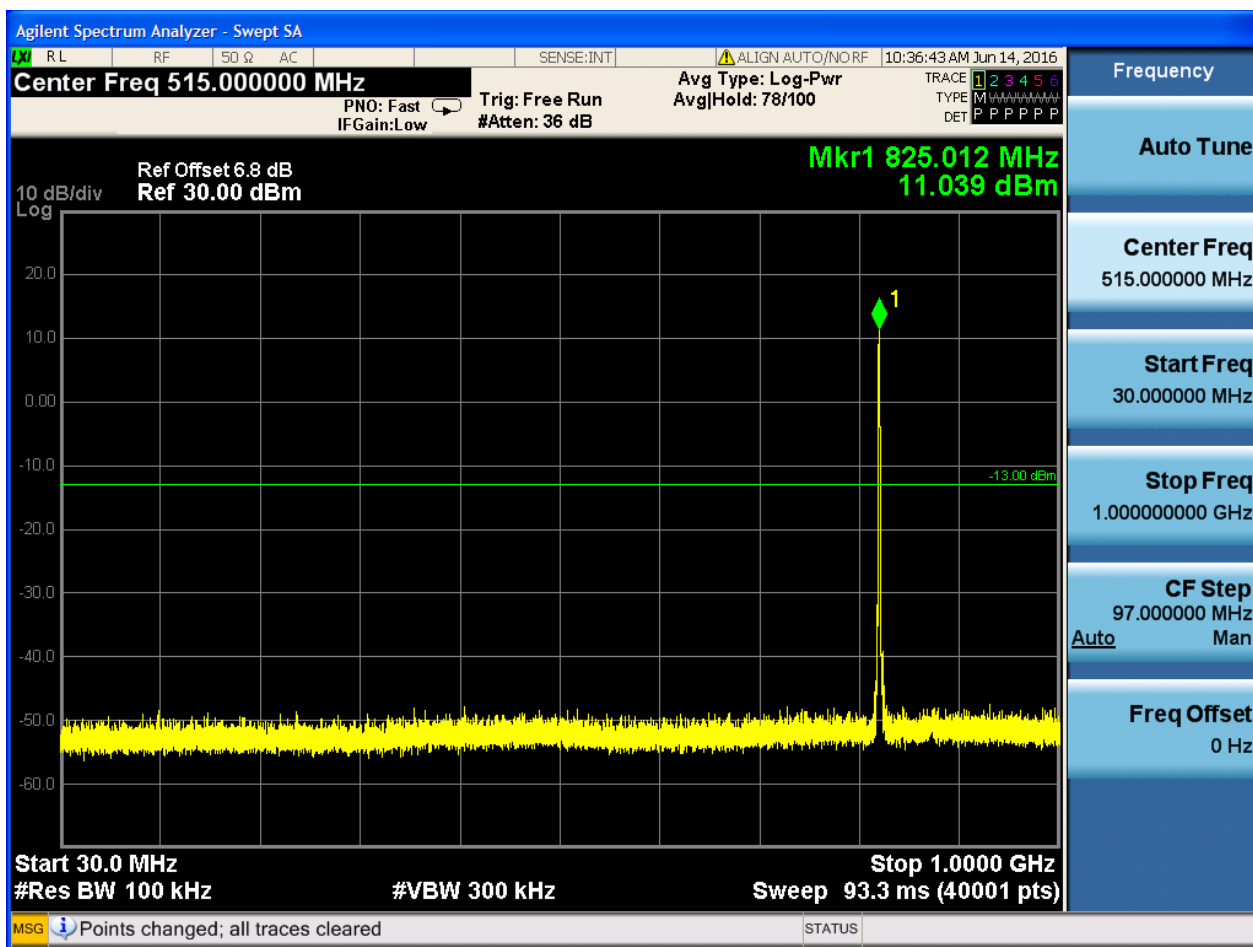
6.1 For CDMA/1X

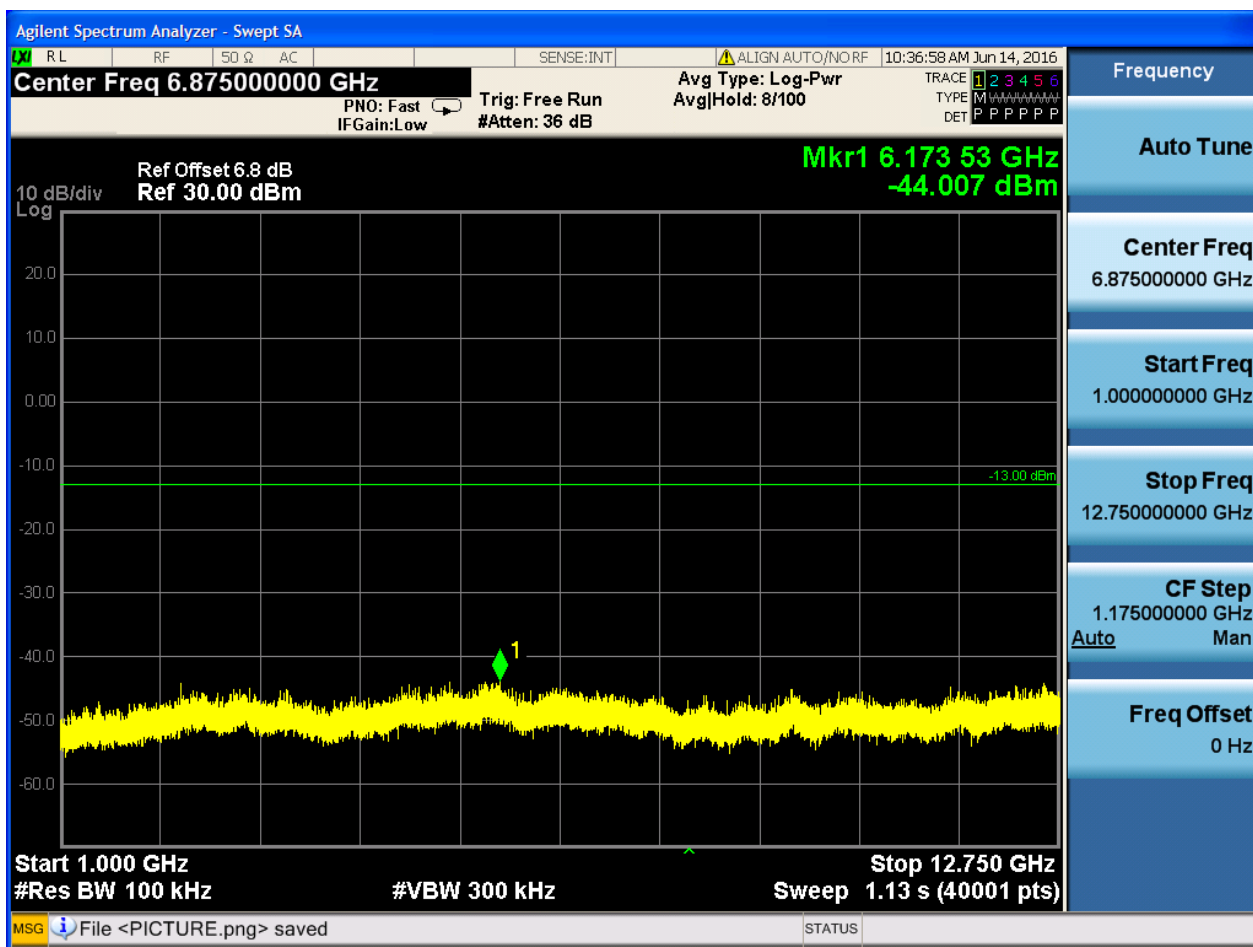
6.1.1 Test Band = BC0

6.1.1.1 Test Mode = CDMA/1X/TM1

6.1.1.1.1 Test Channel = LCH

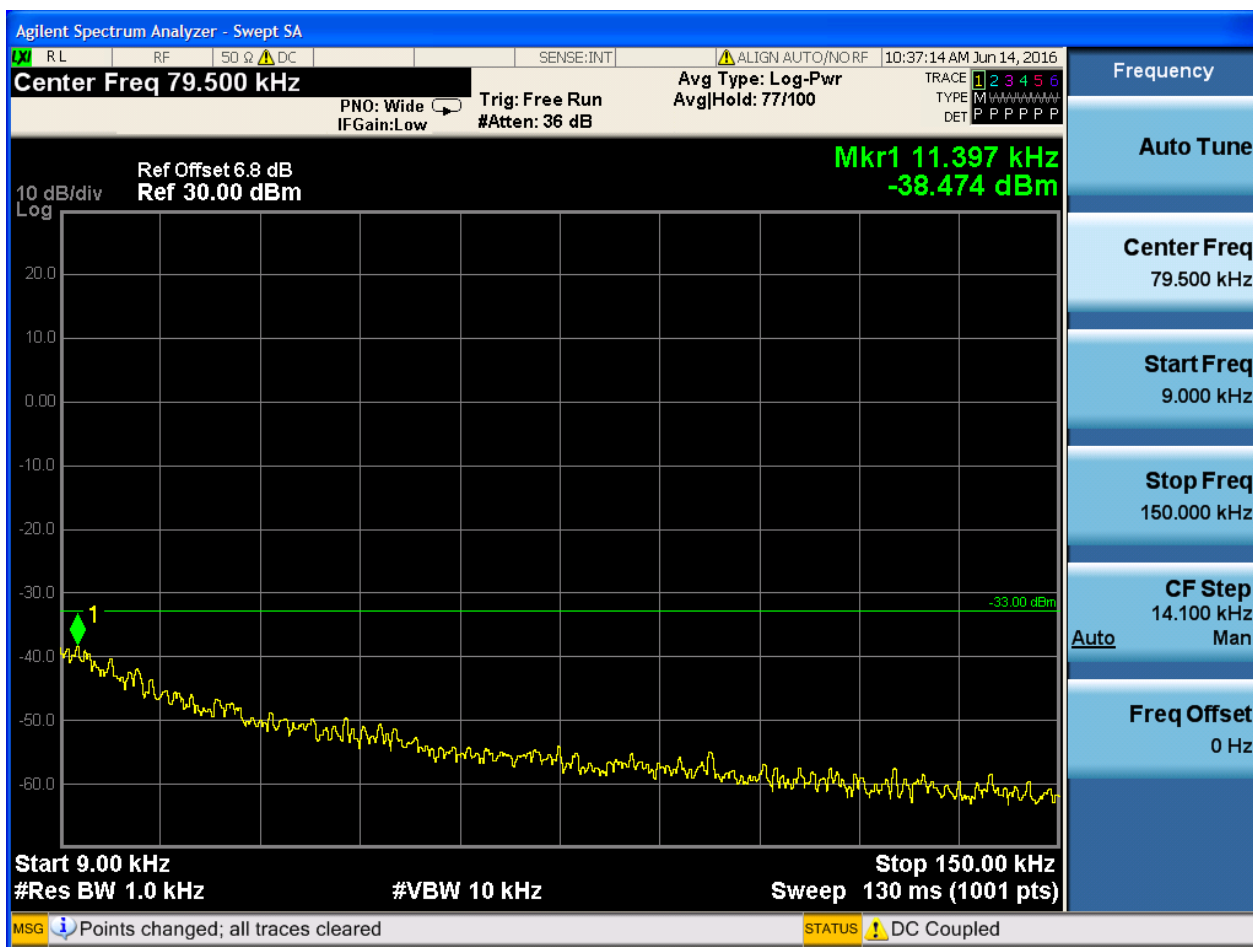


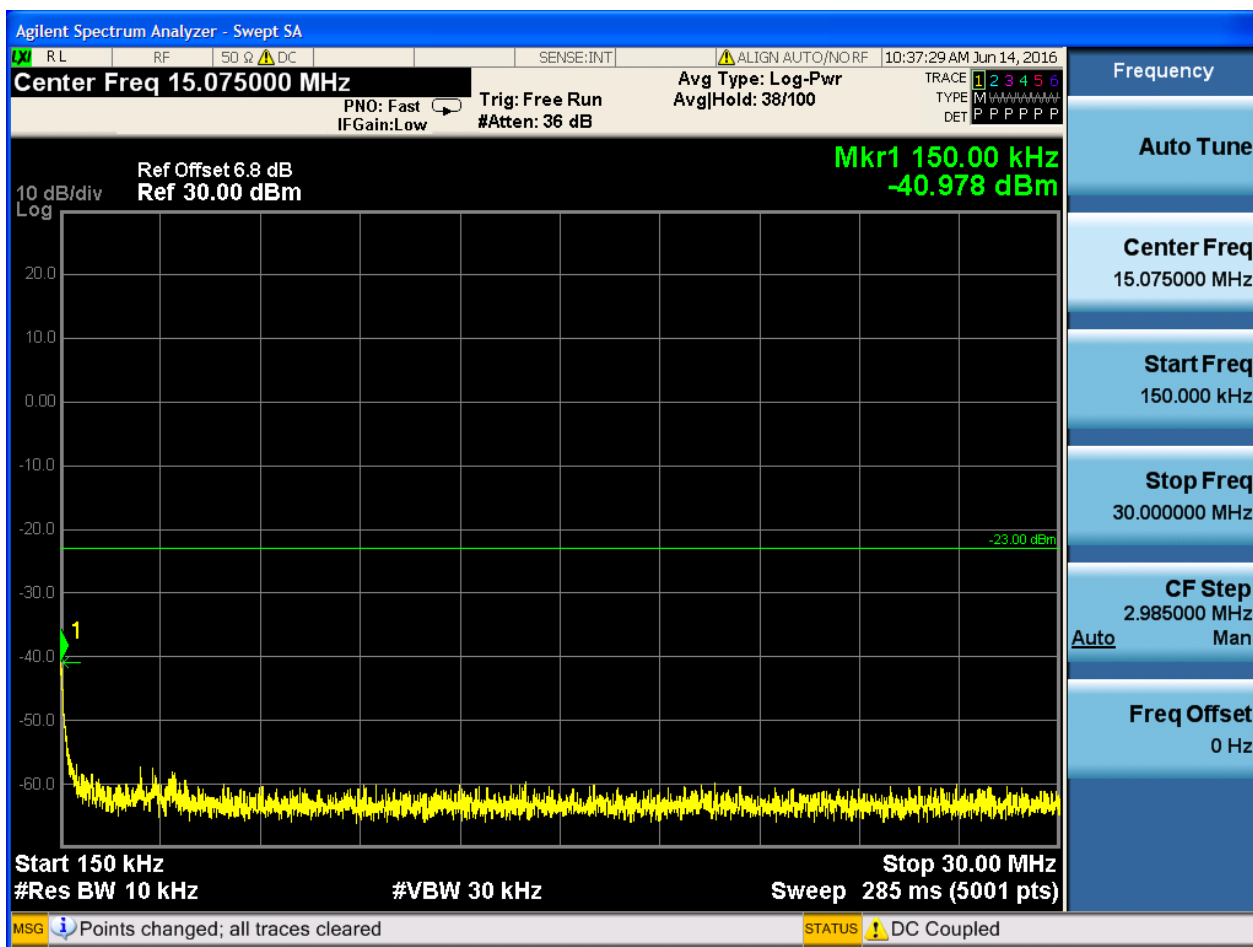


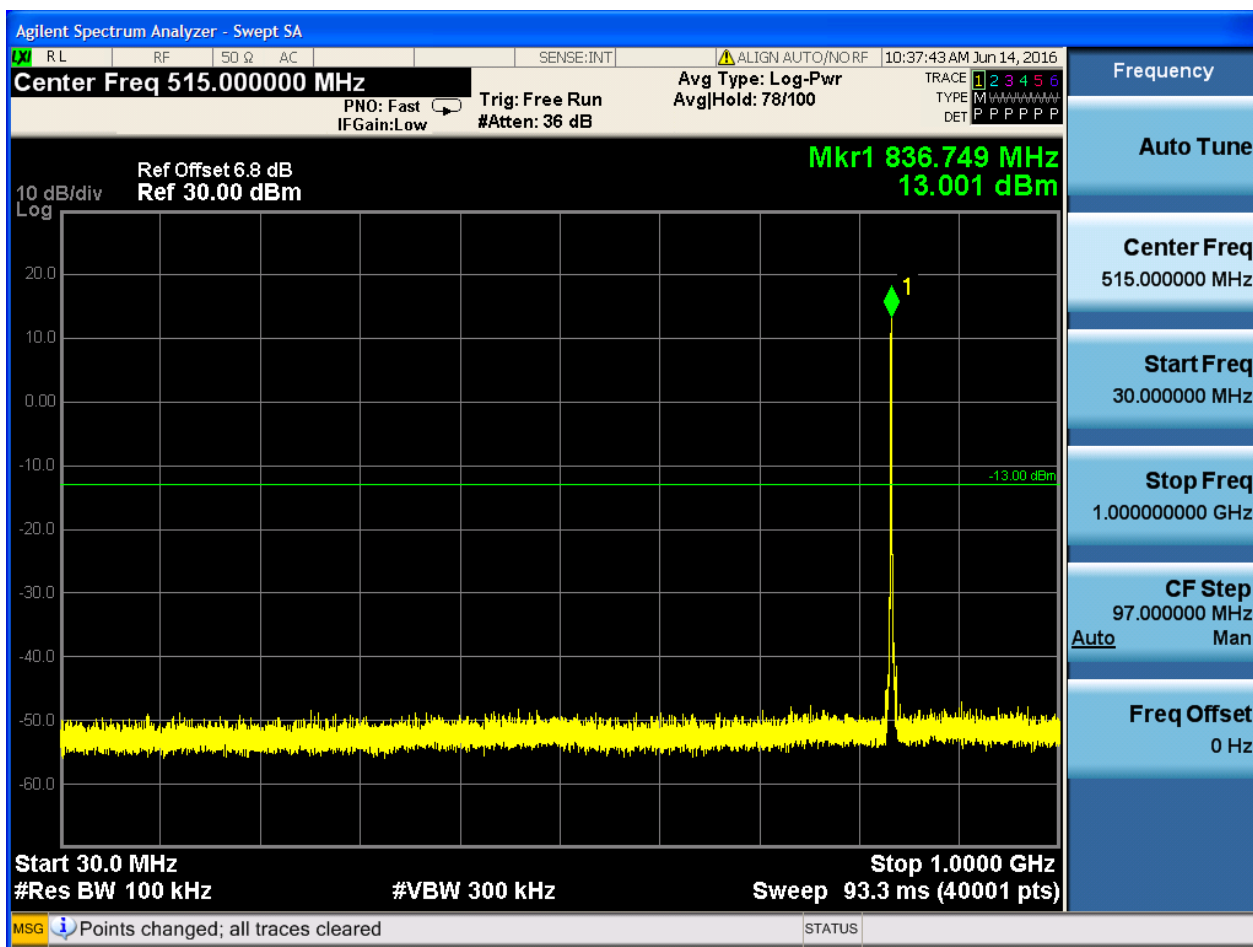


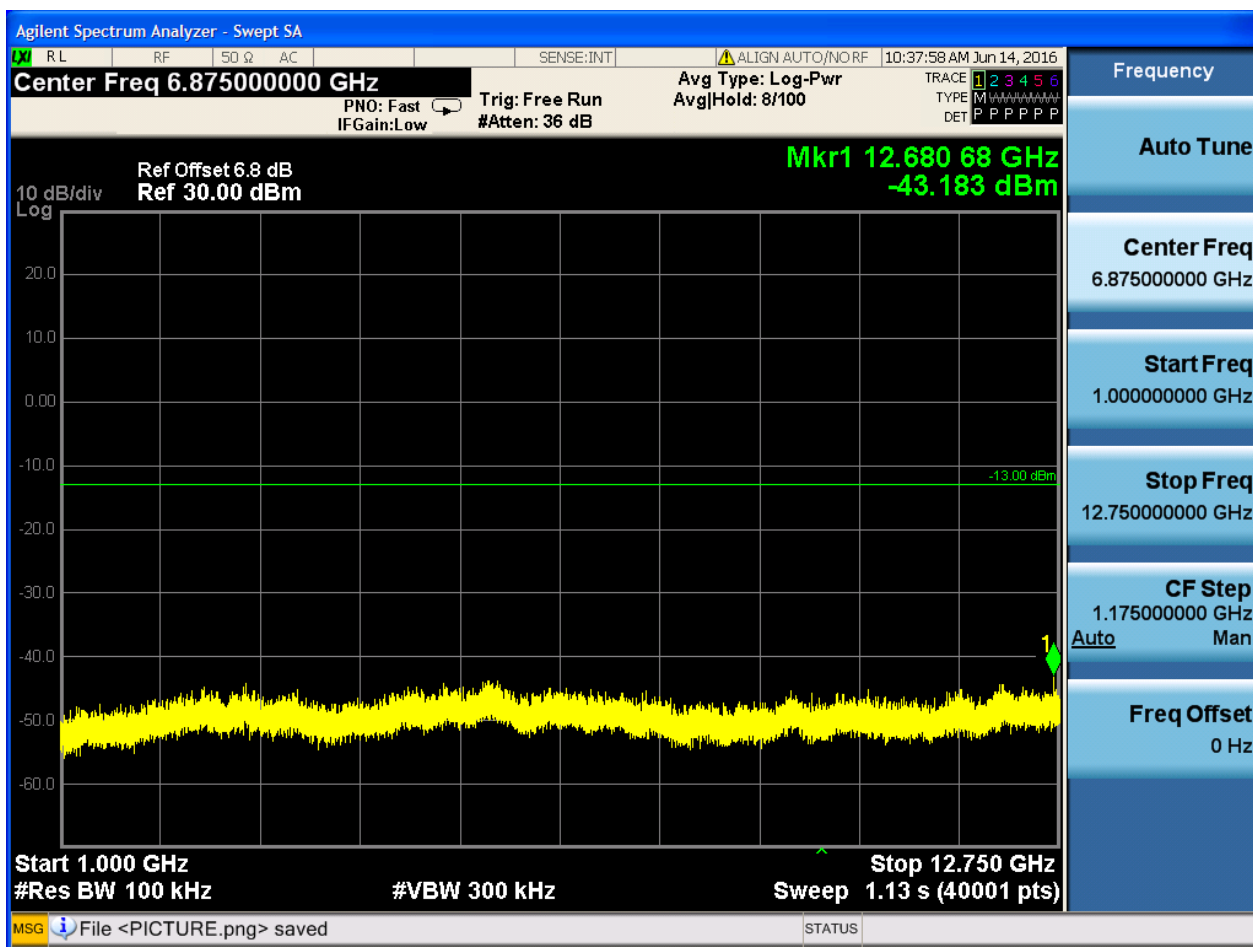


6.1.1.1.2 Test Channel = MCH





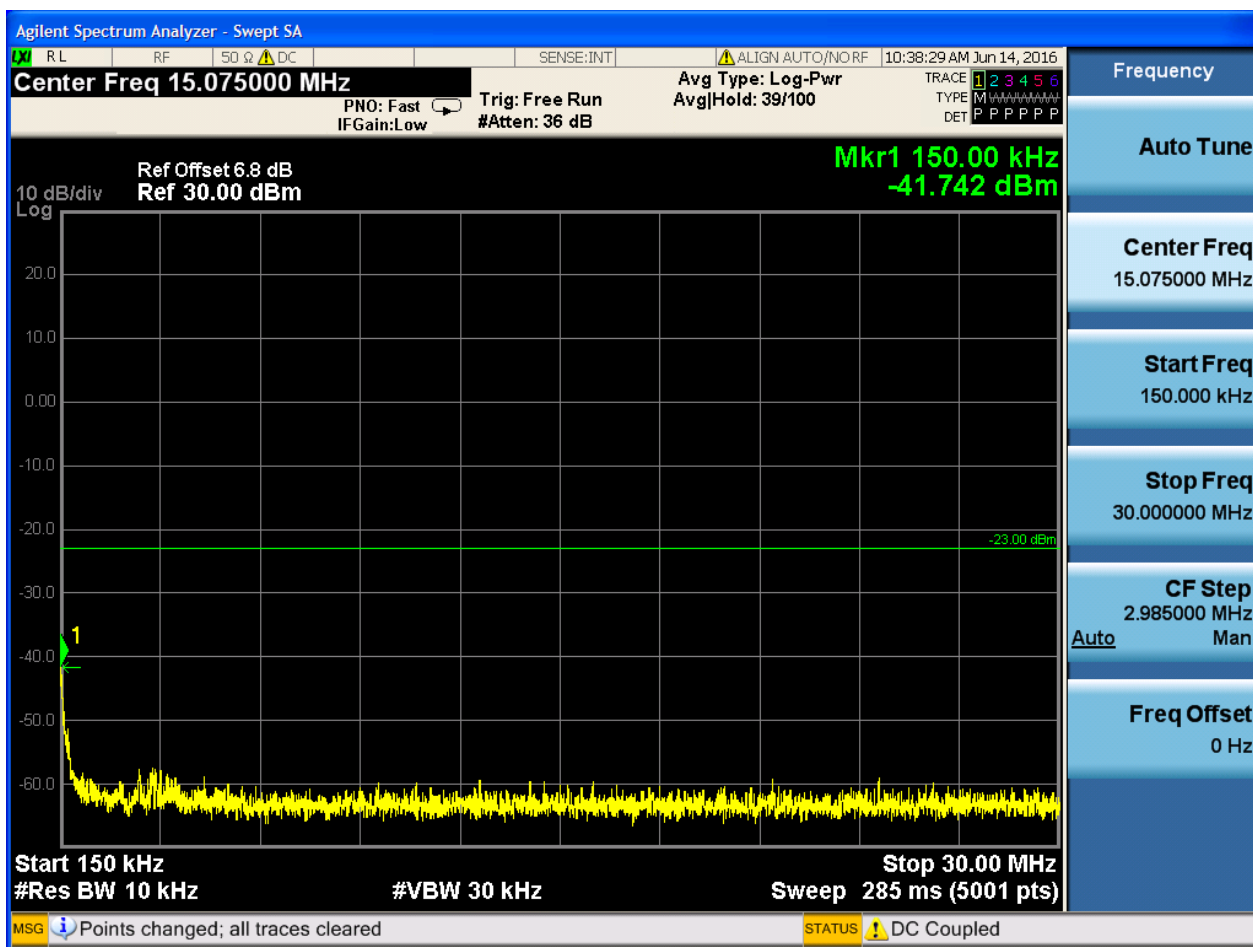


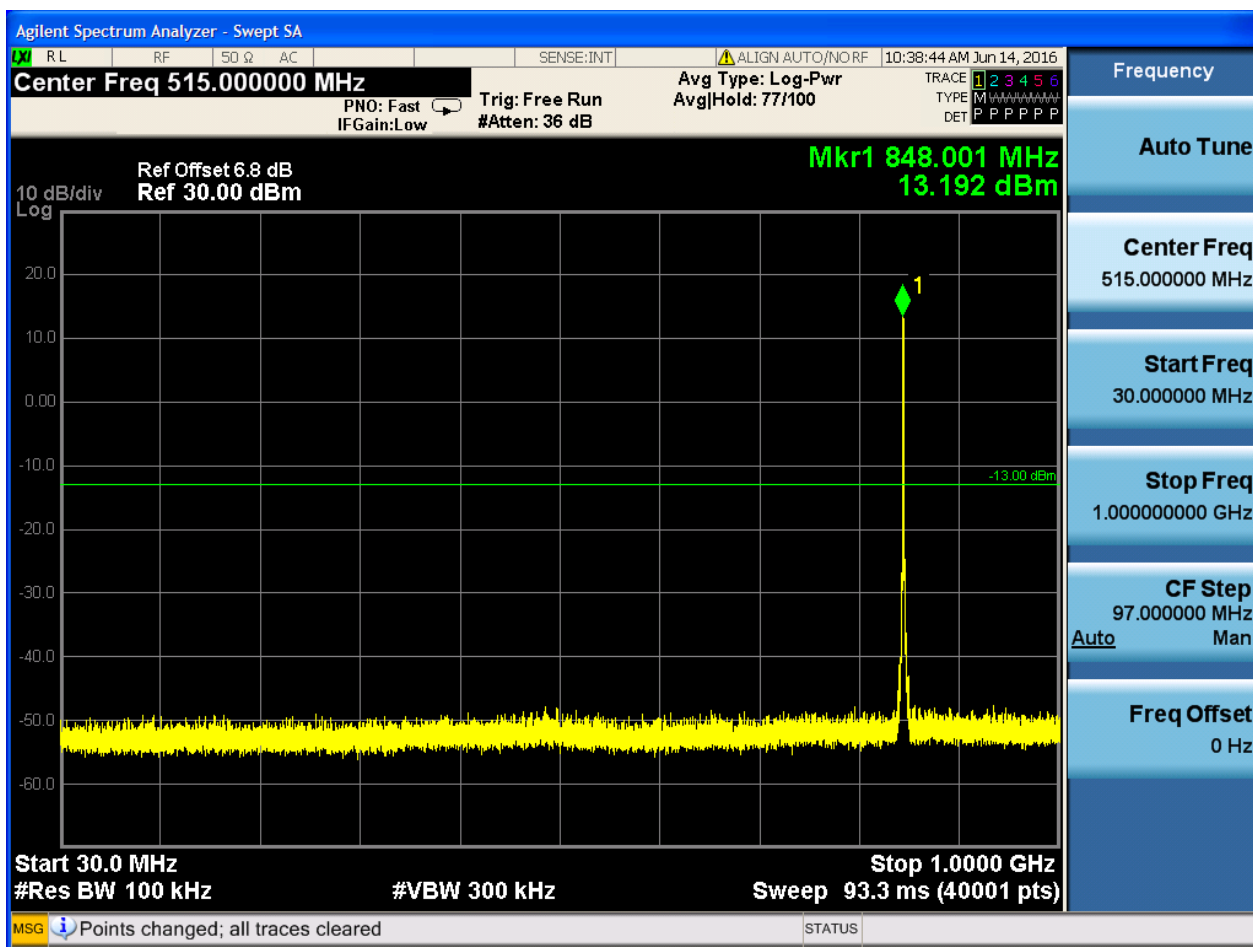


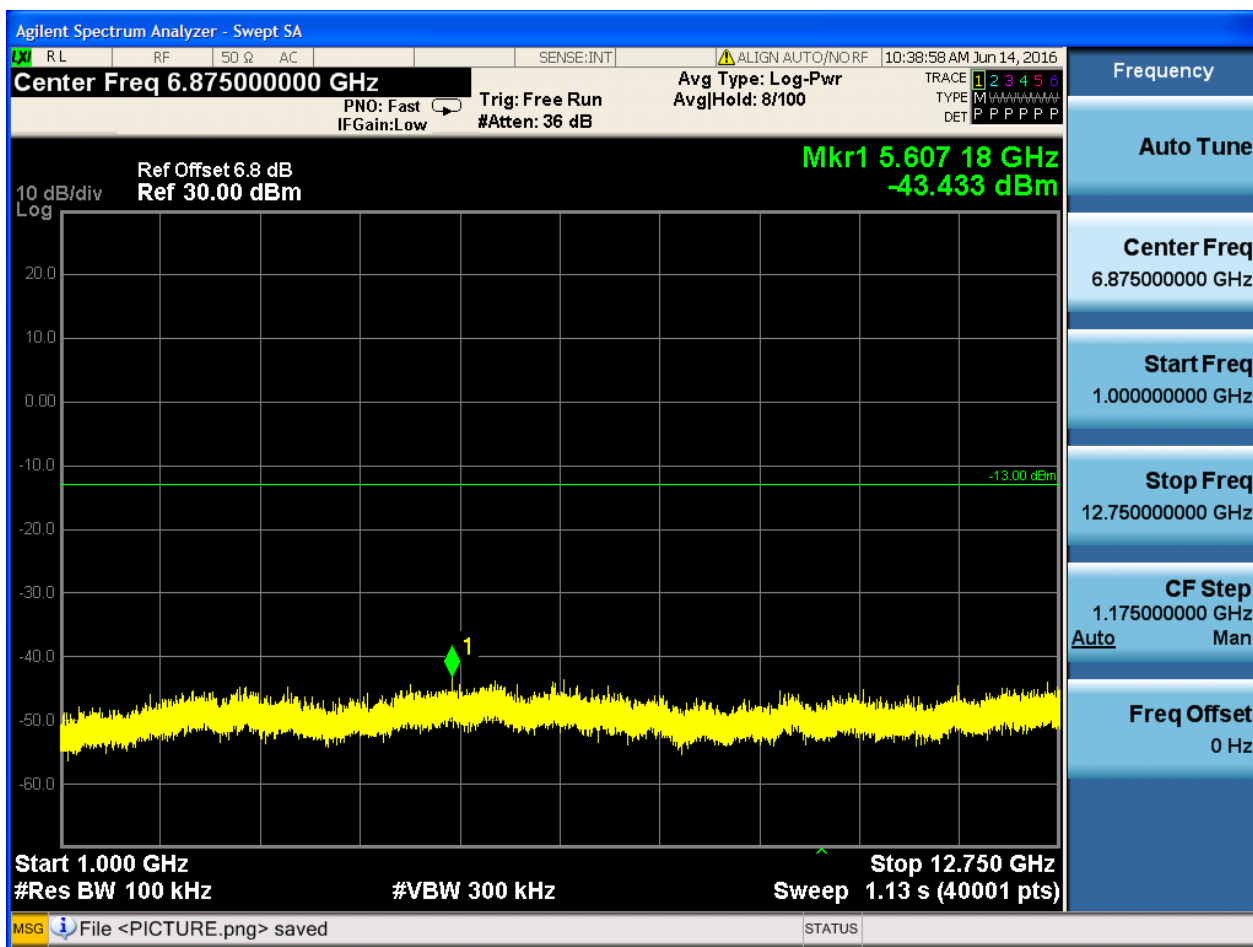


6.1.1.1.3 Test Channel = HCH





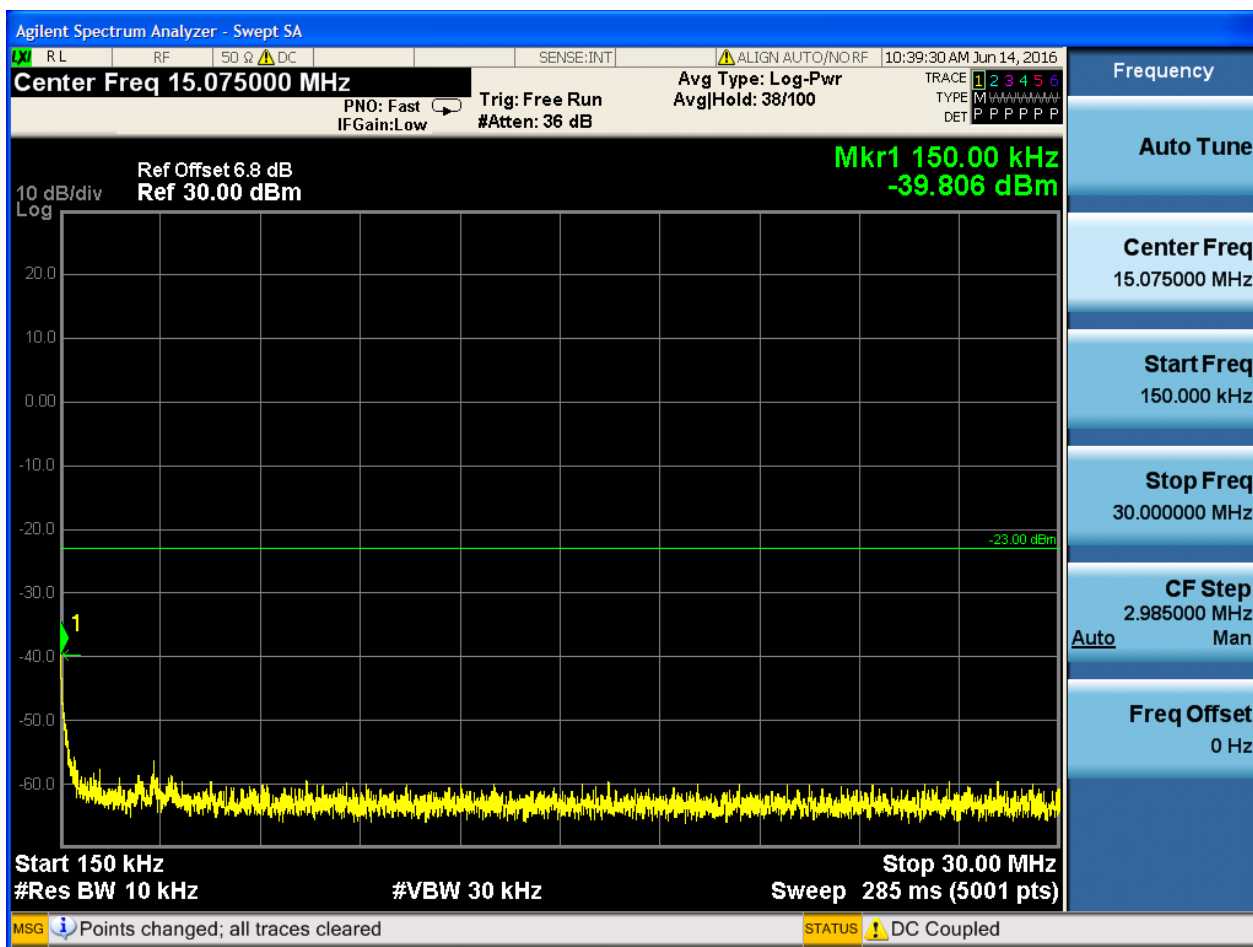


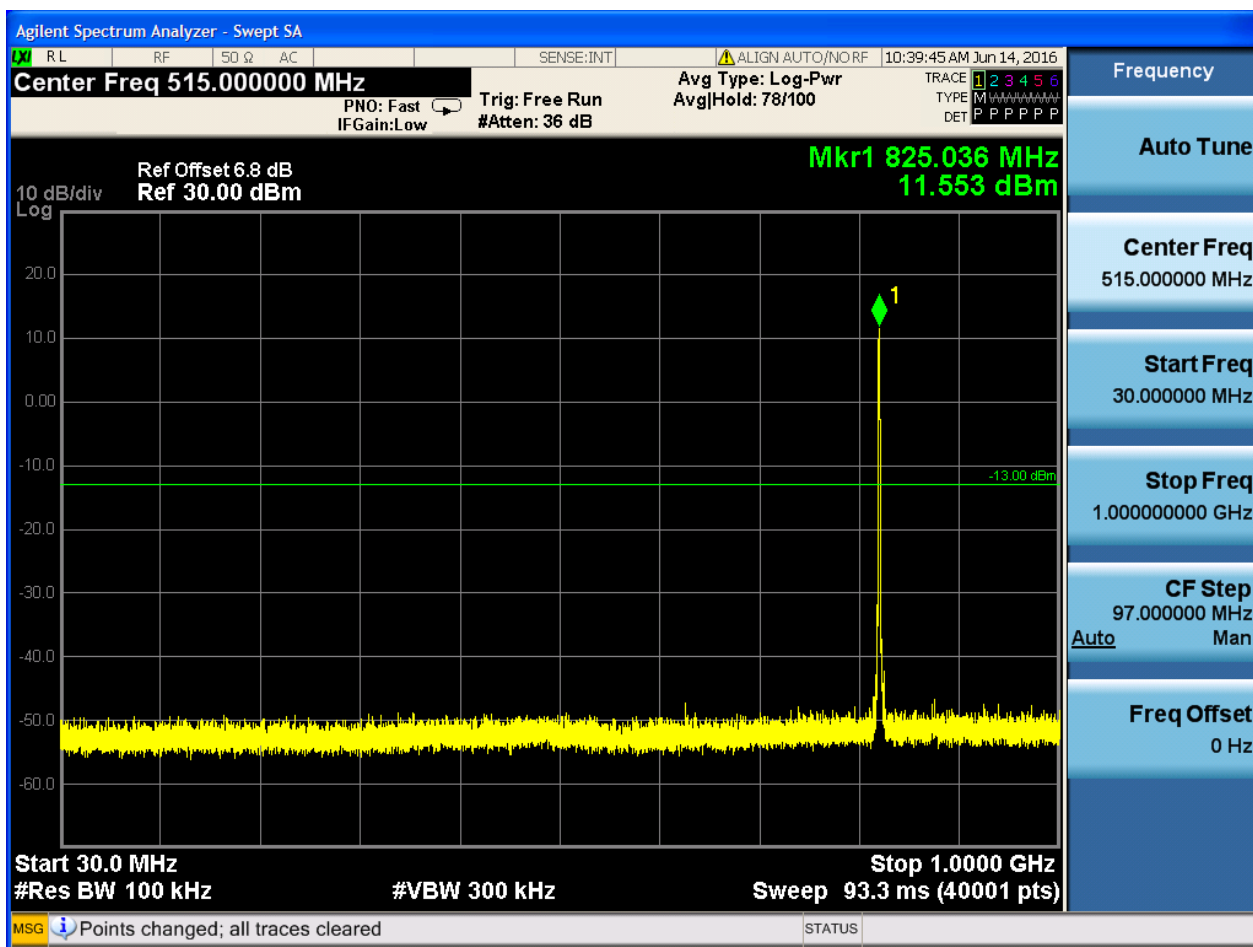


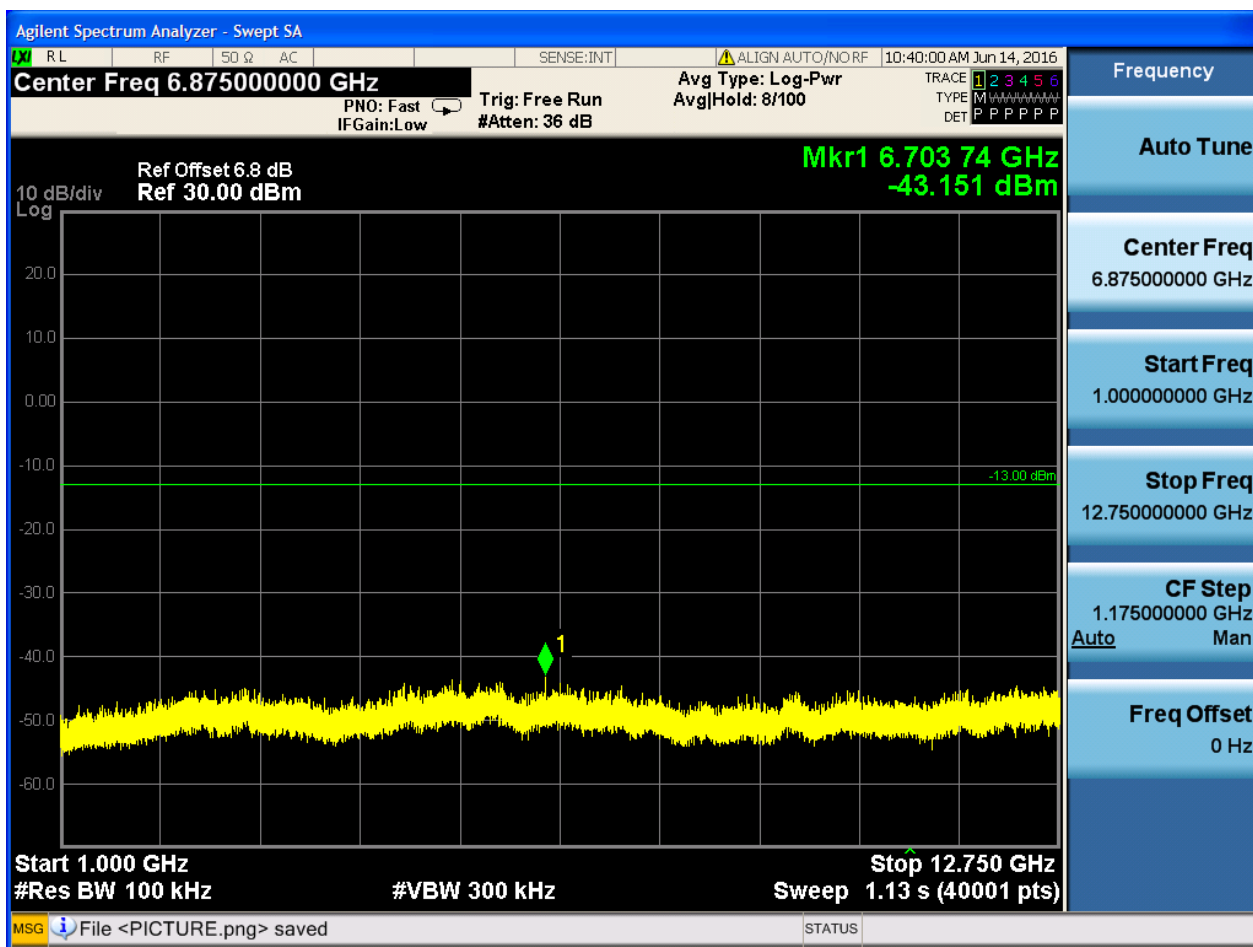
6.1.1.2 Test Mode = CDMA/1X/TM3

6.1.1.2.1 Test Channel = LCH



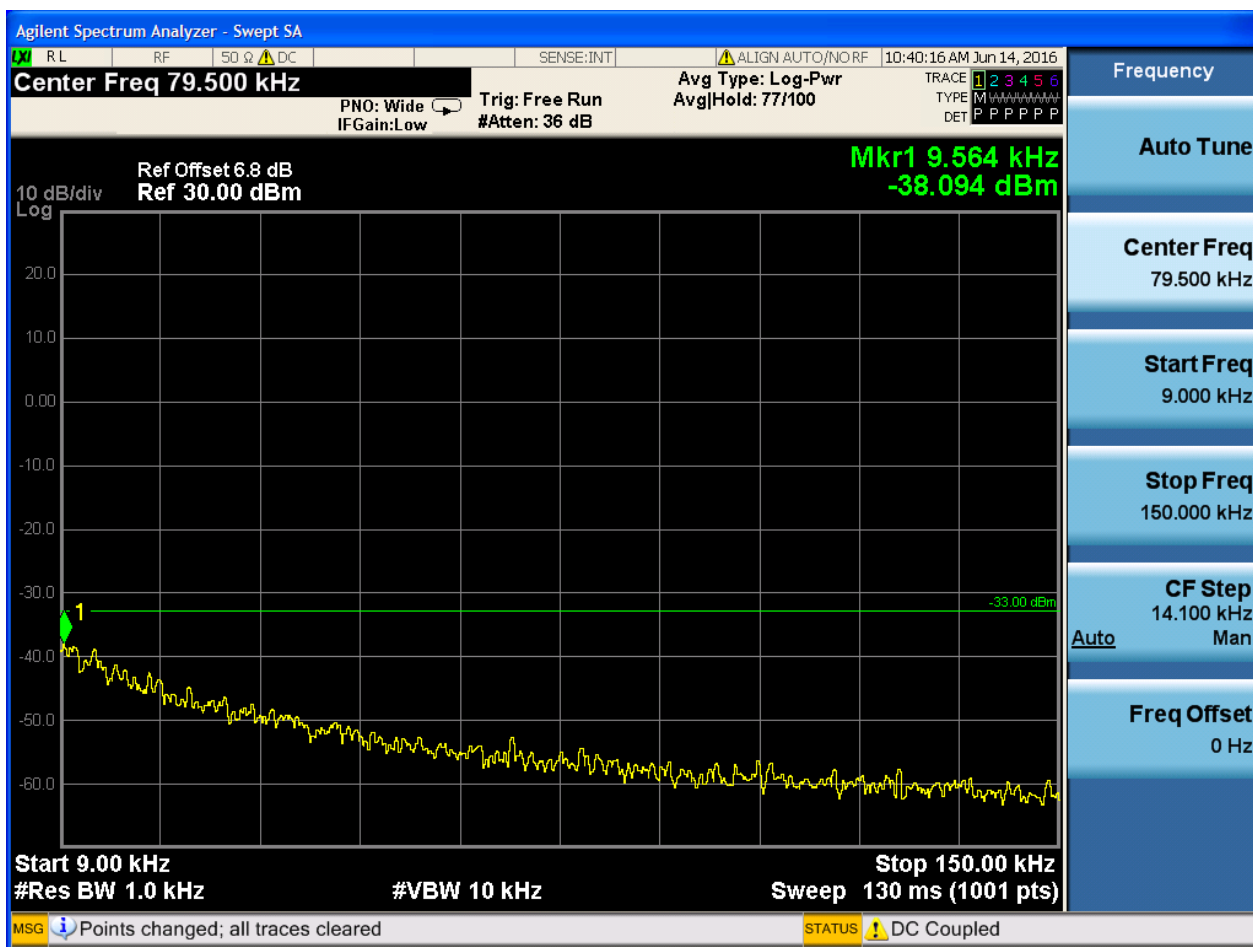


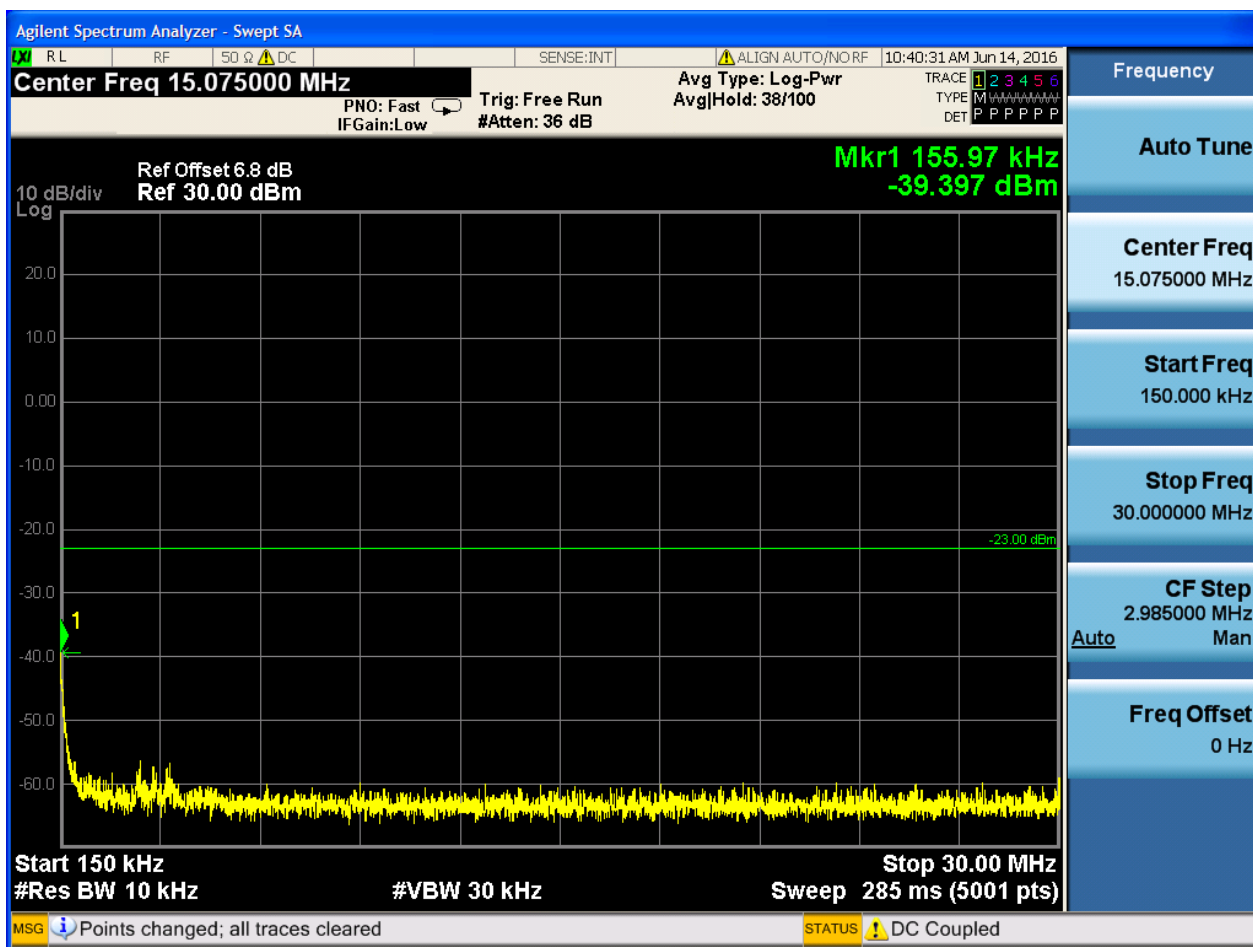


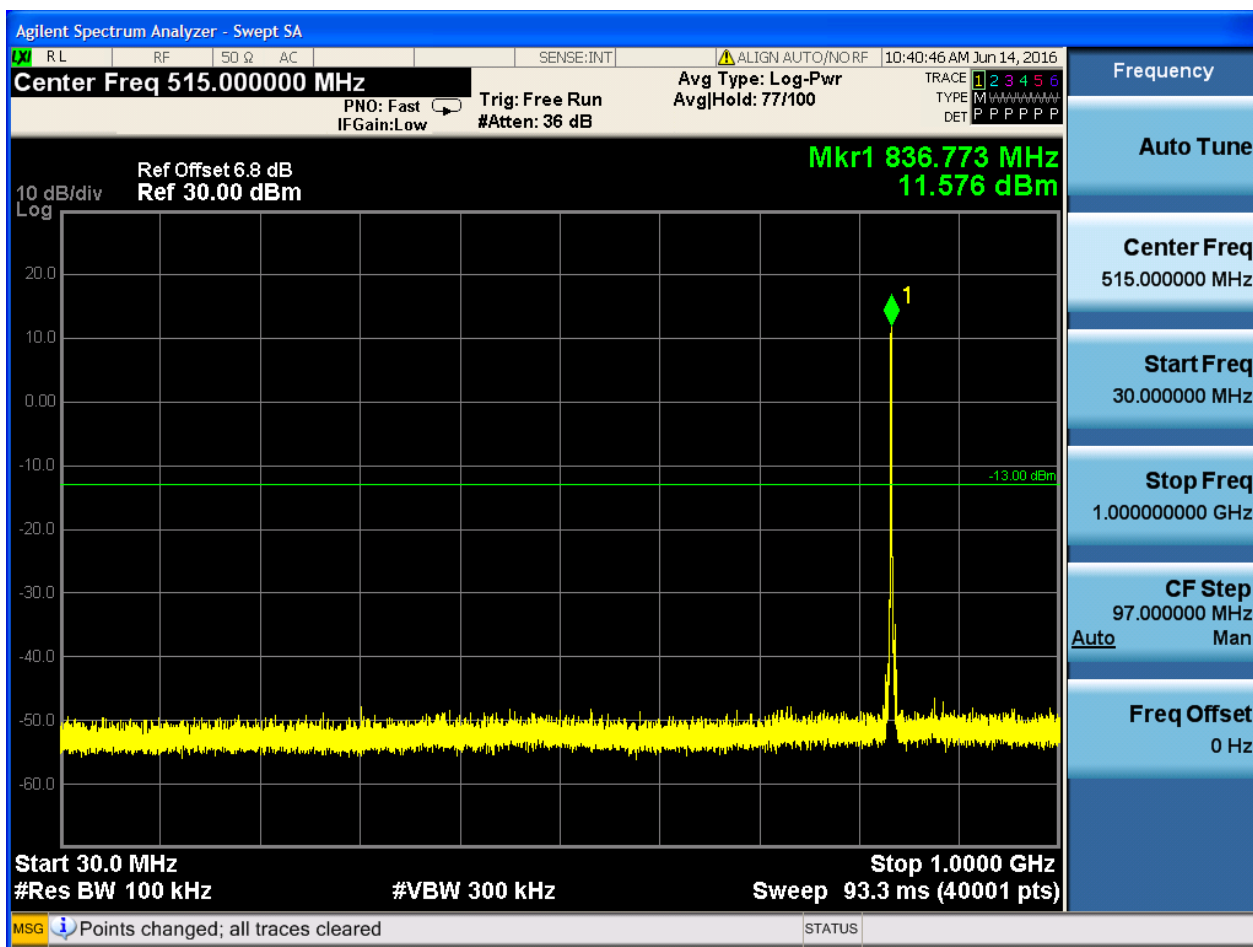


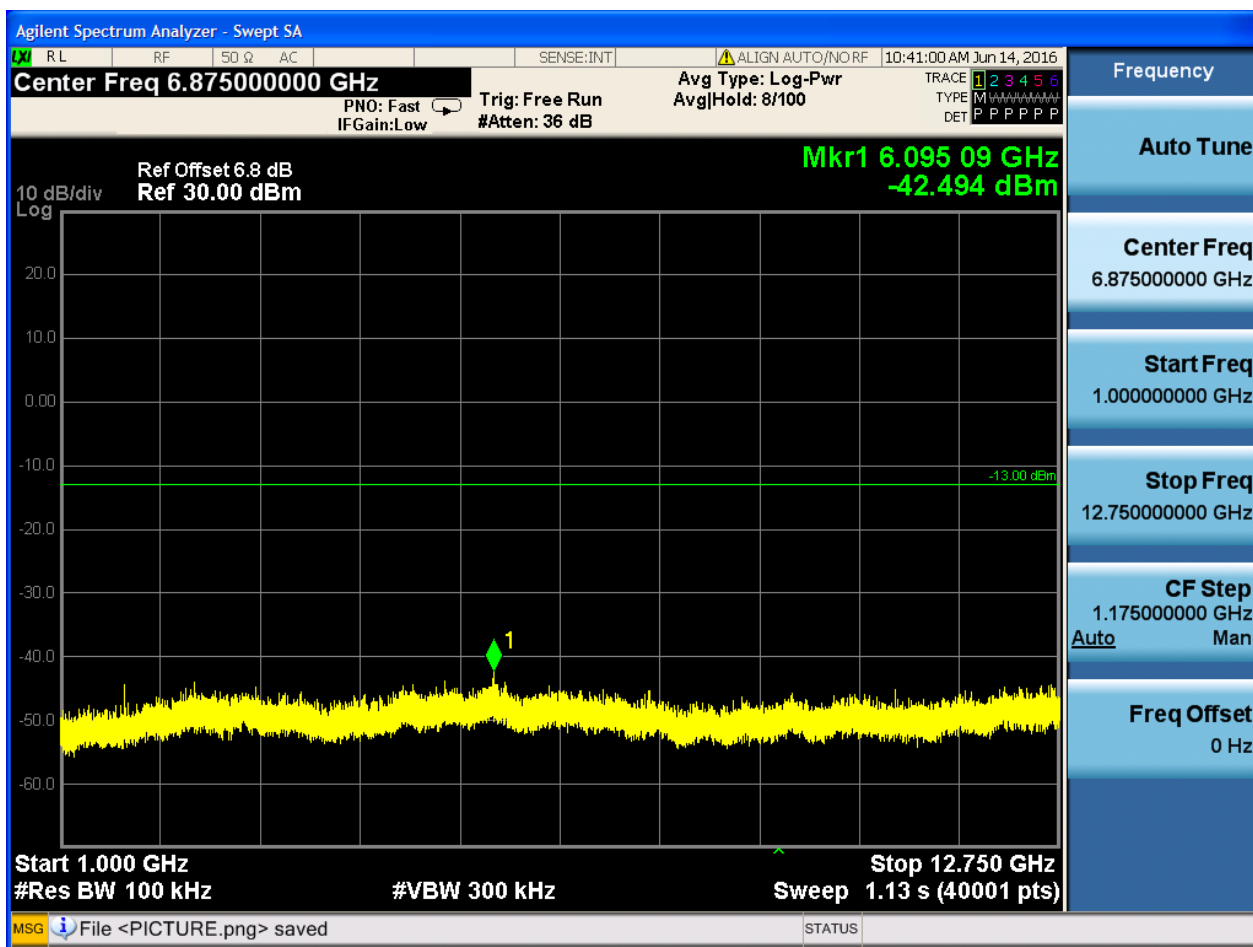


6.1.1.2.2 Test Channel = MCH



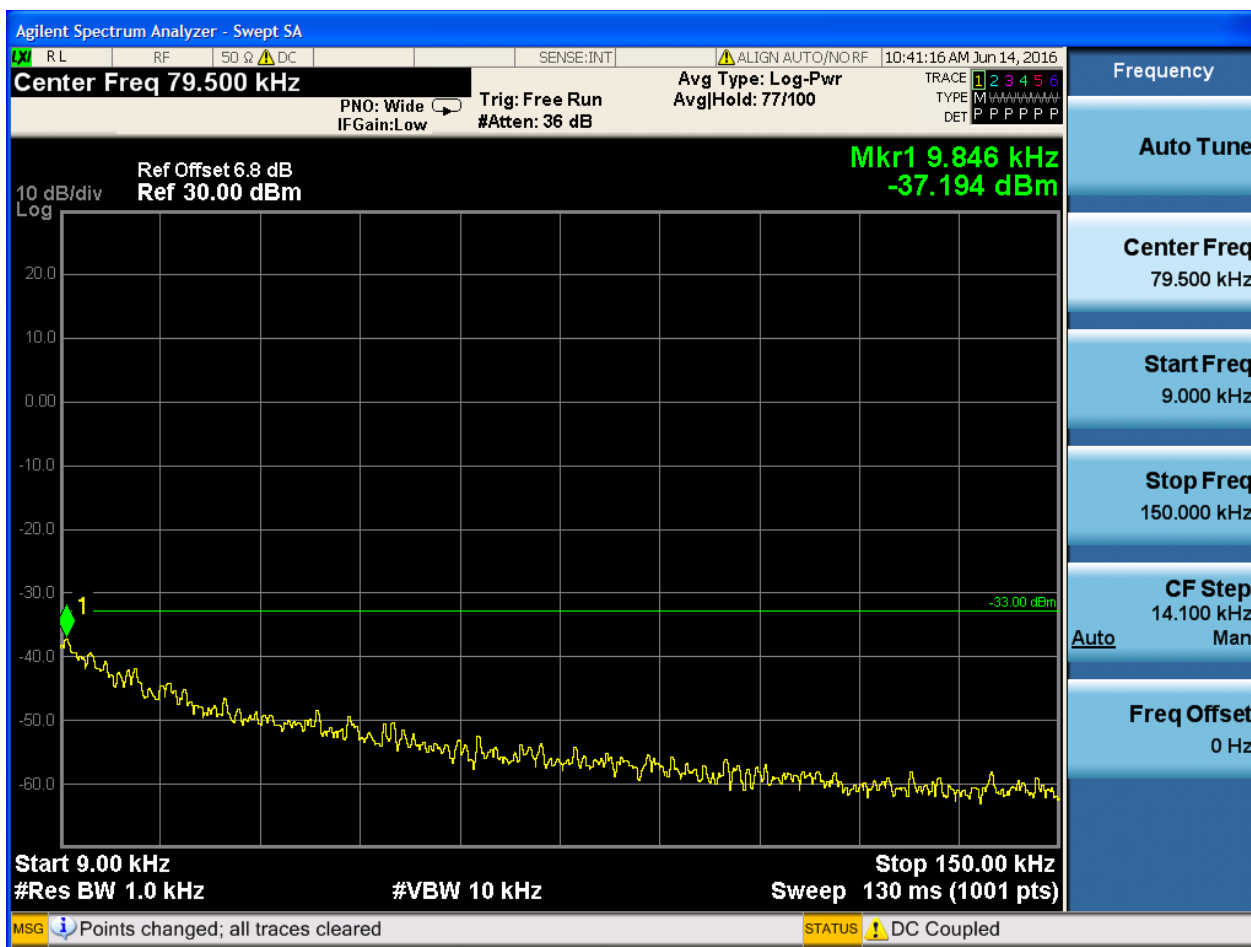


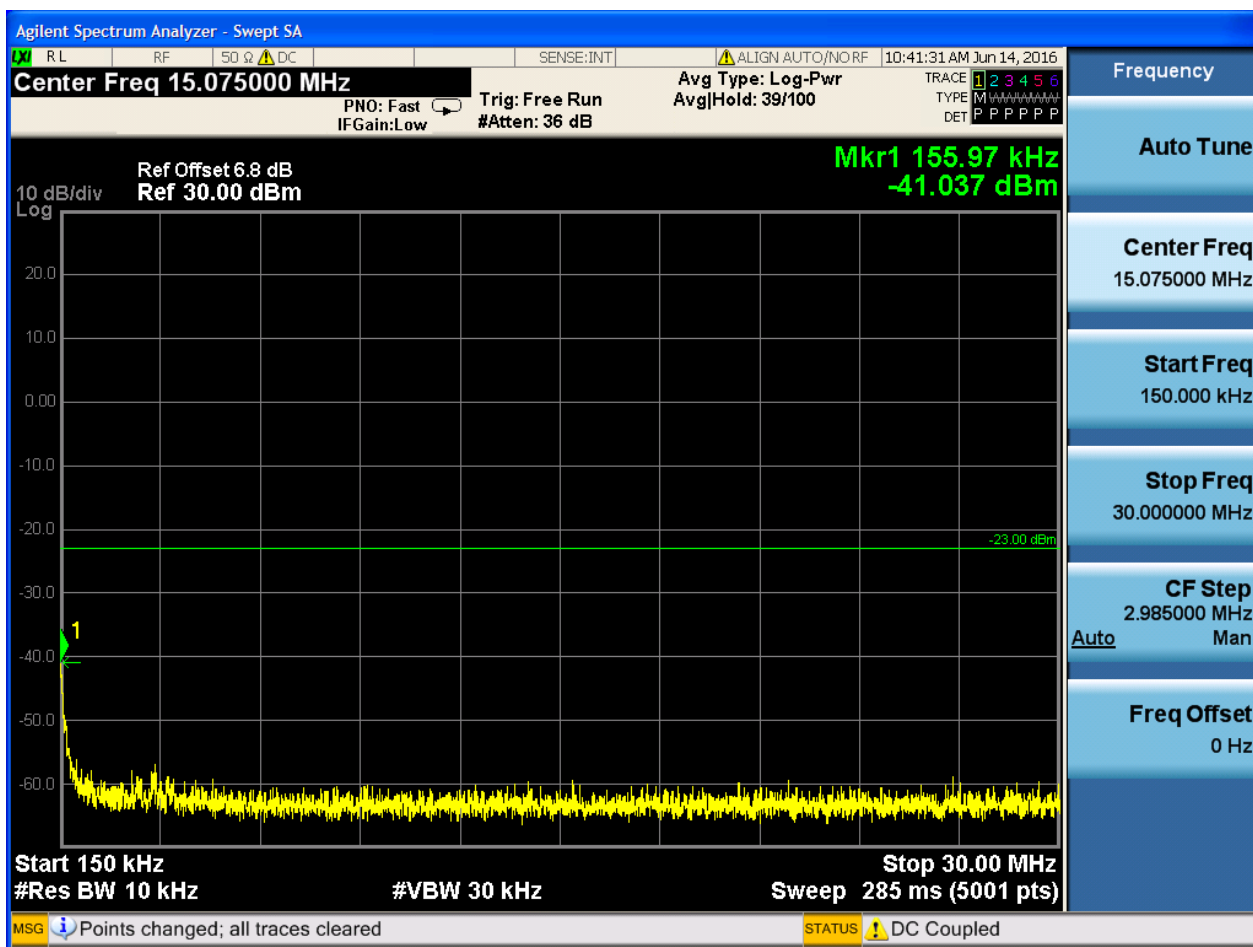


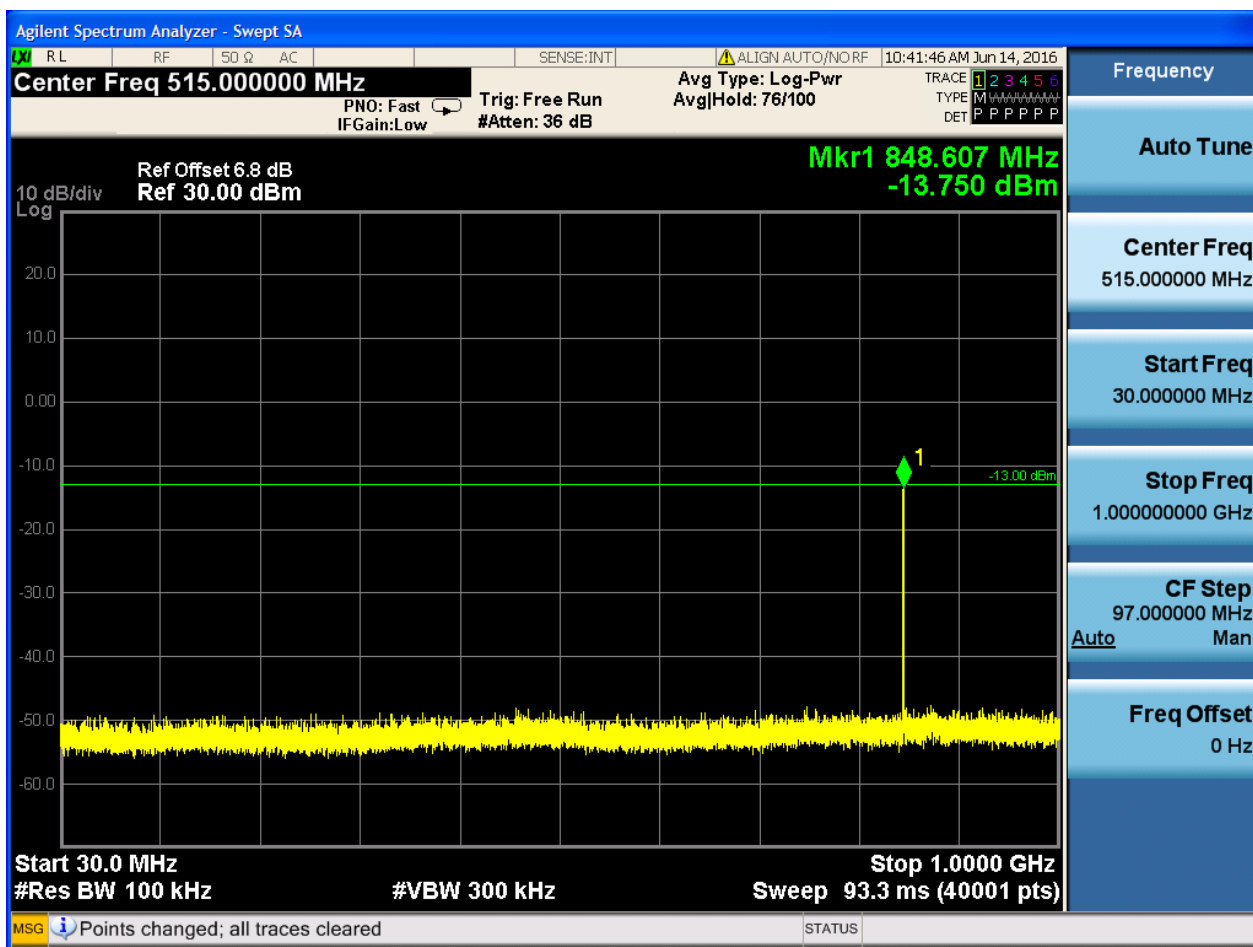


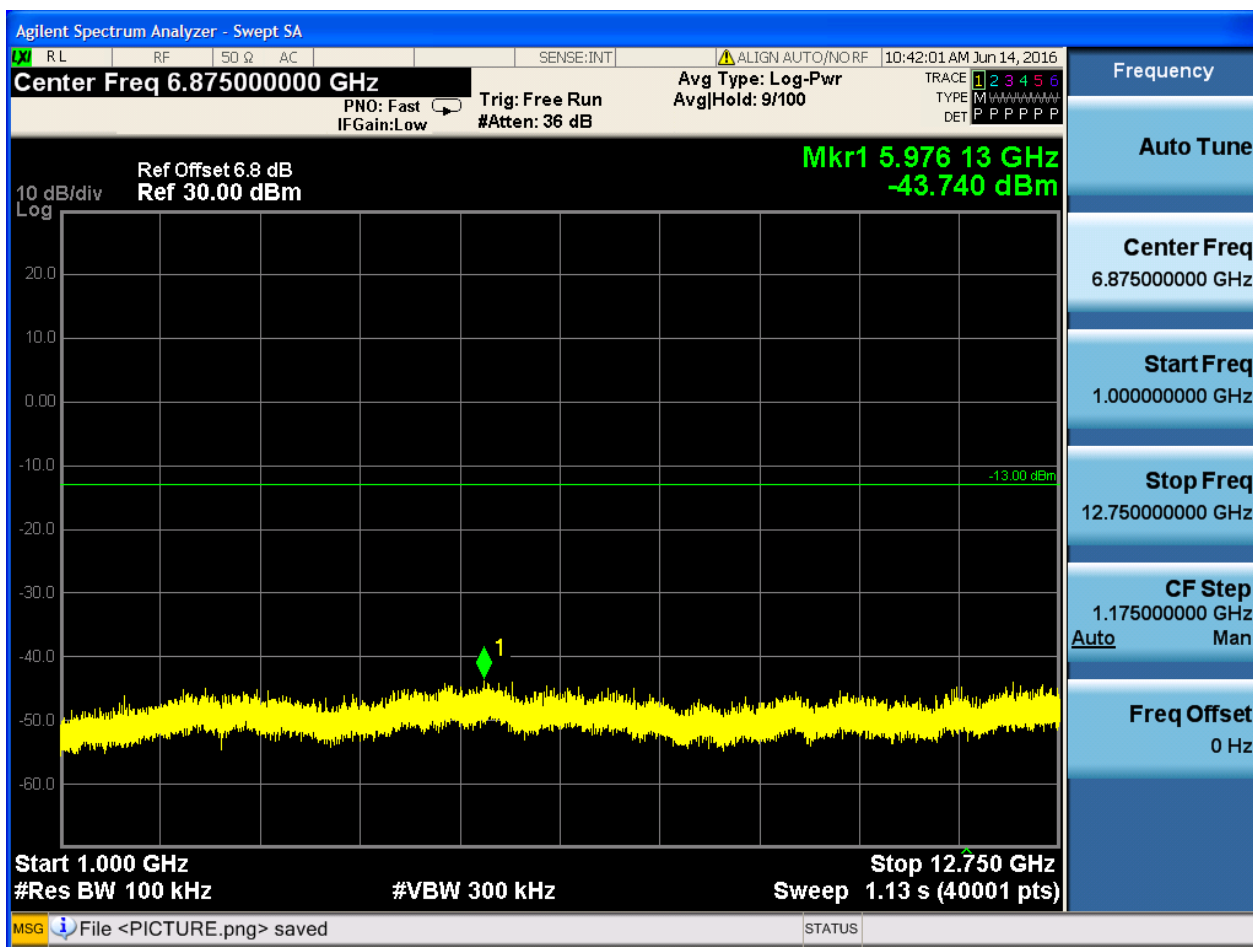


6.1.1.2.3 Test Channel = HCH



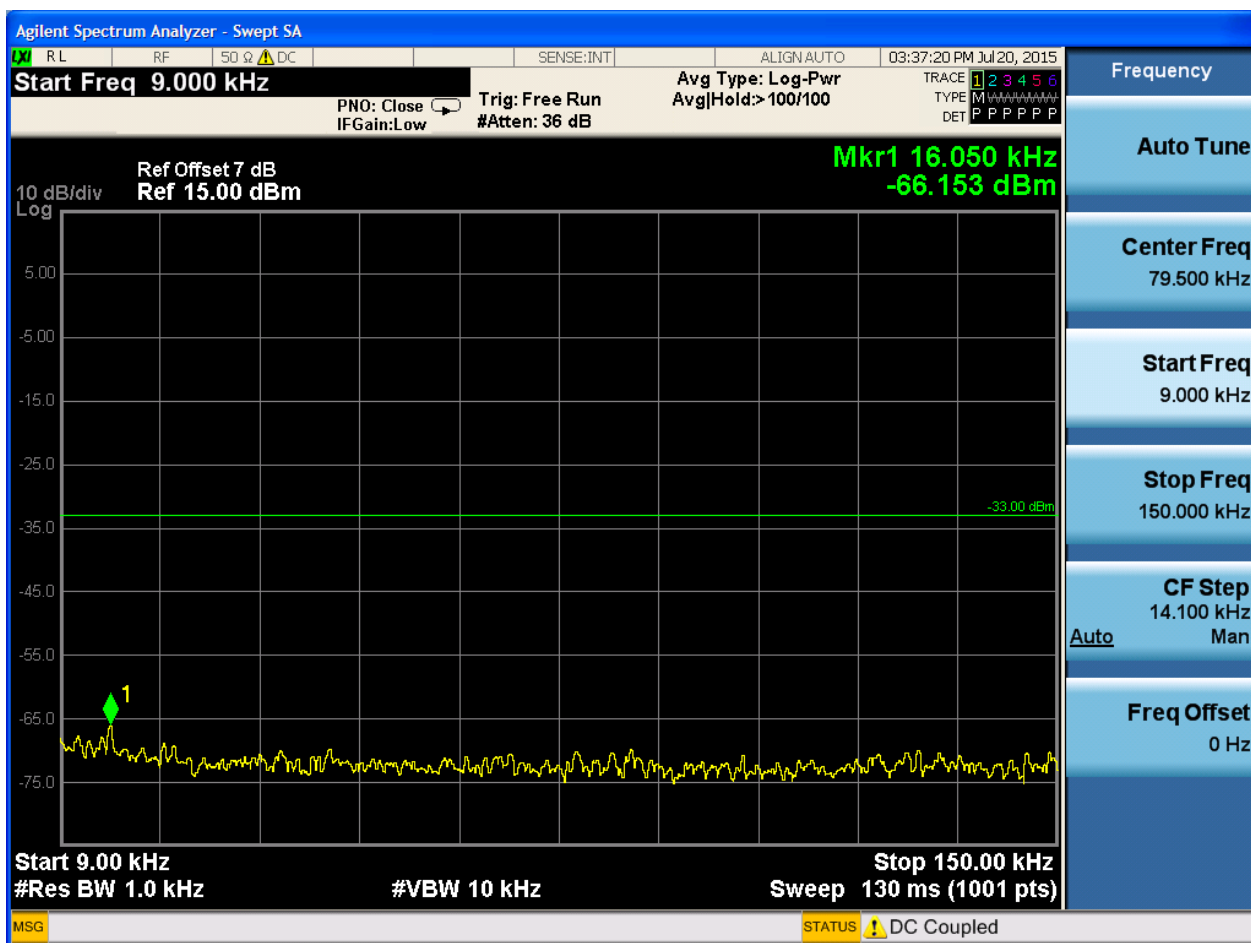


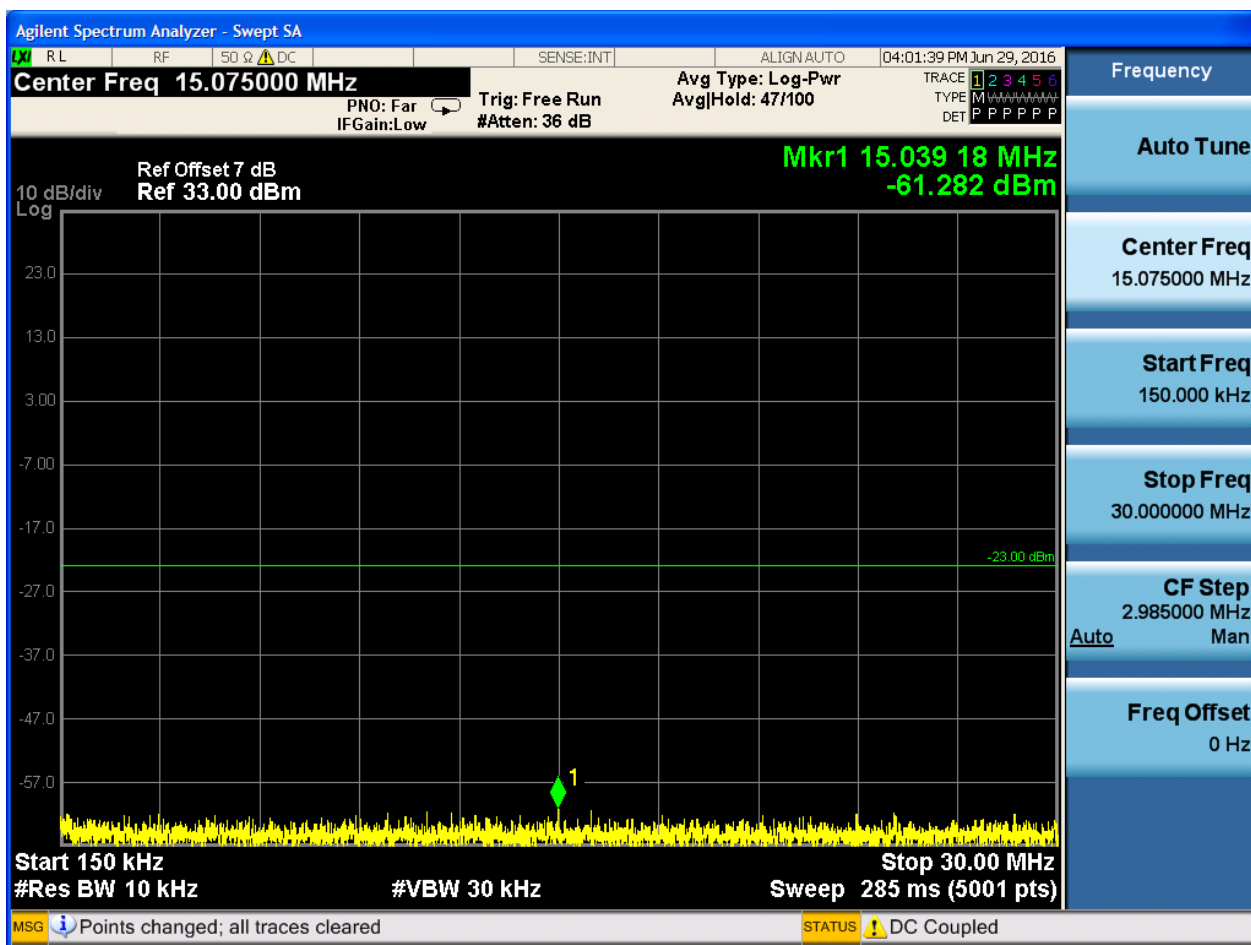


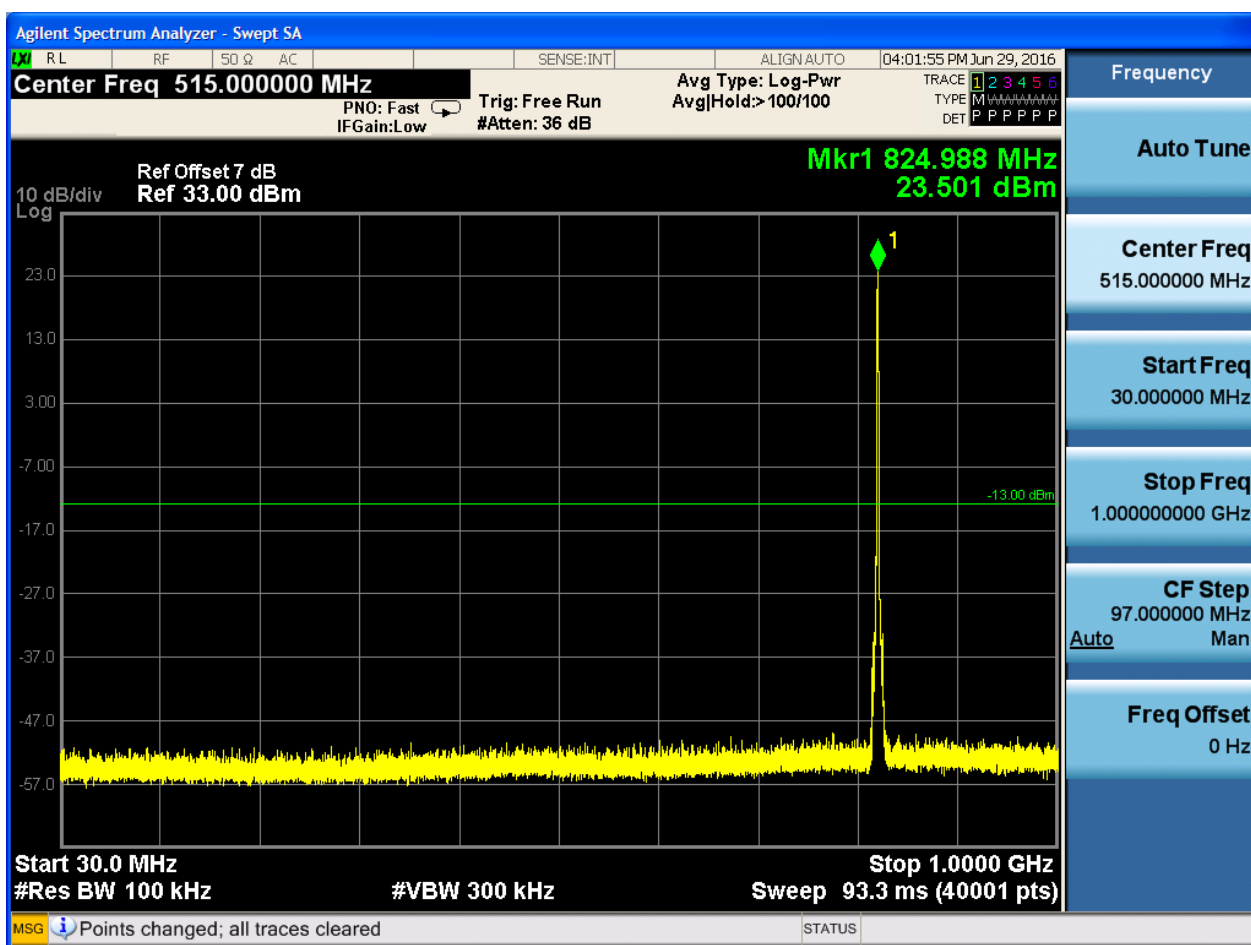


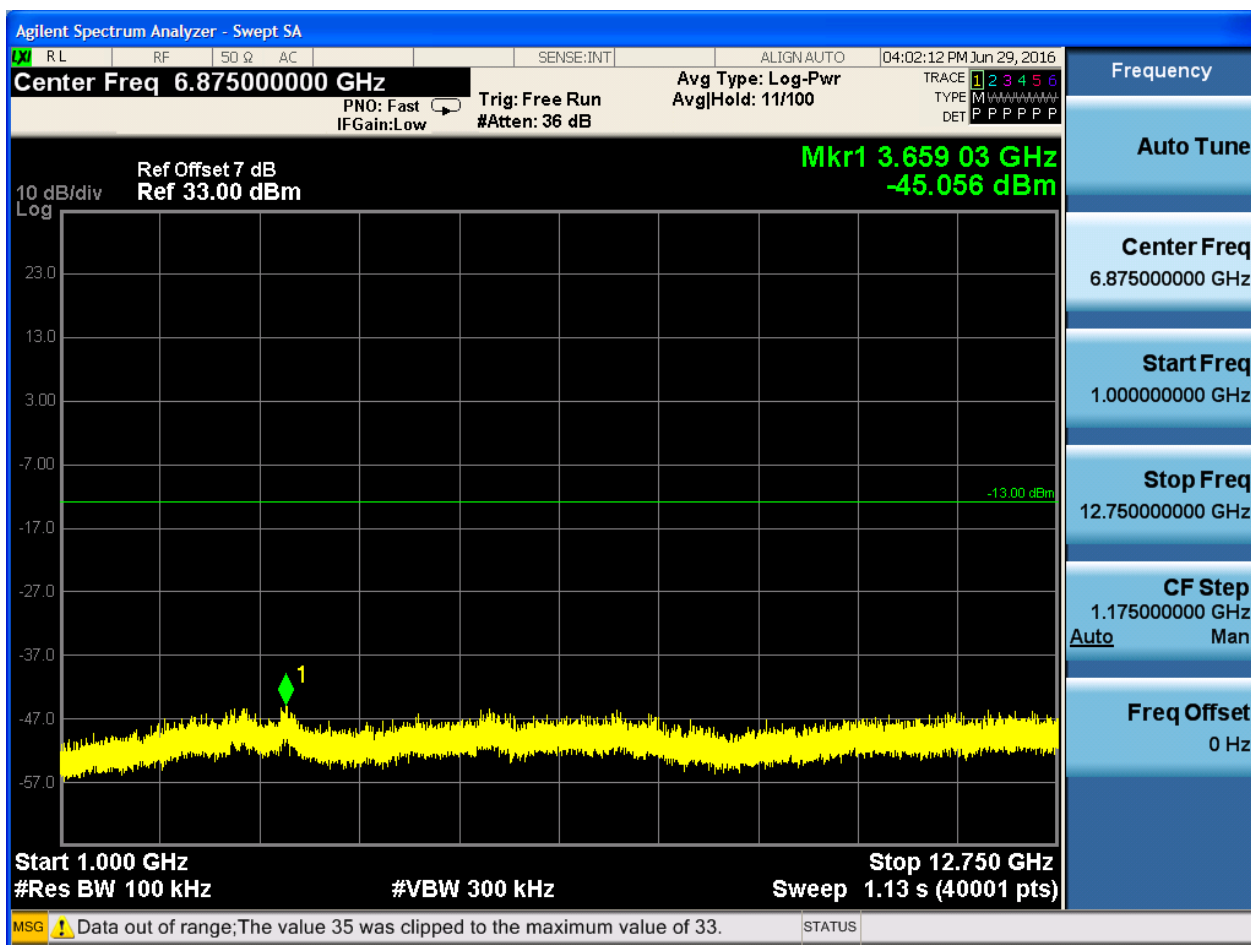
6.1.1.3 Test Mode = CDMA/EV-DO/Subtype0

6.1.1.3.1 Test Channel = LCH

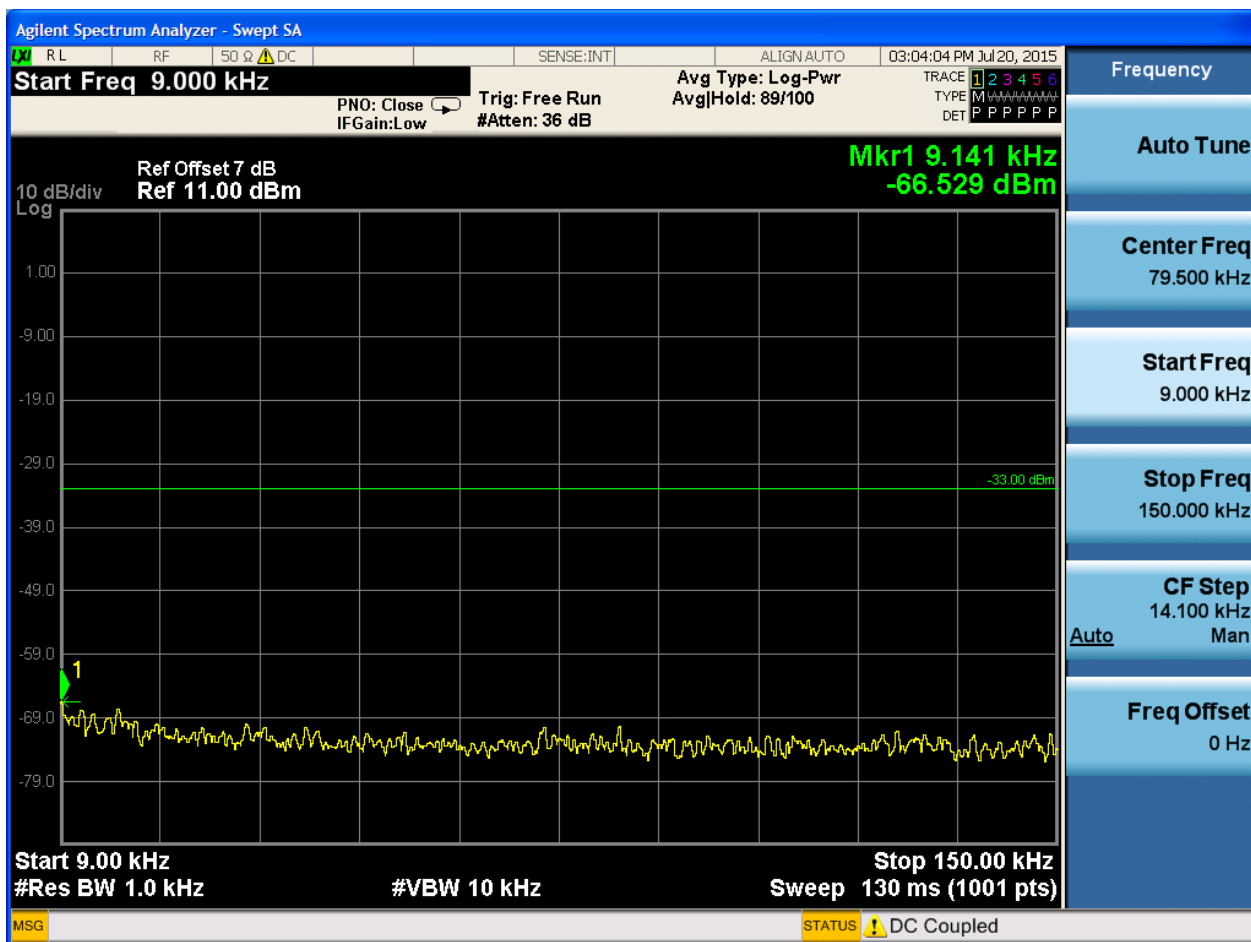


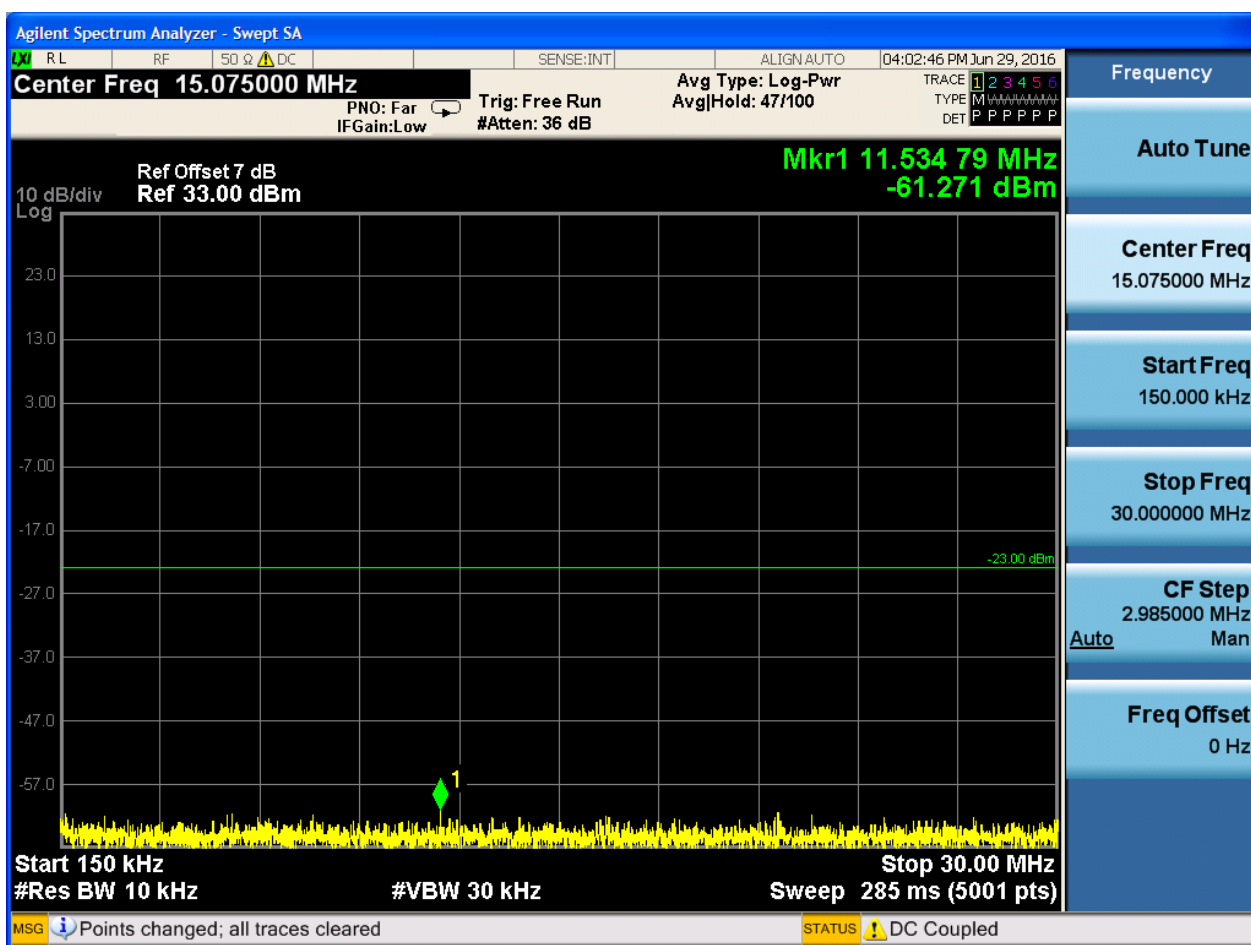


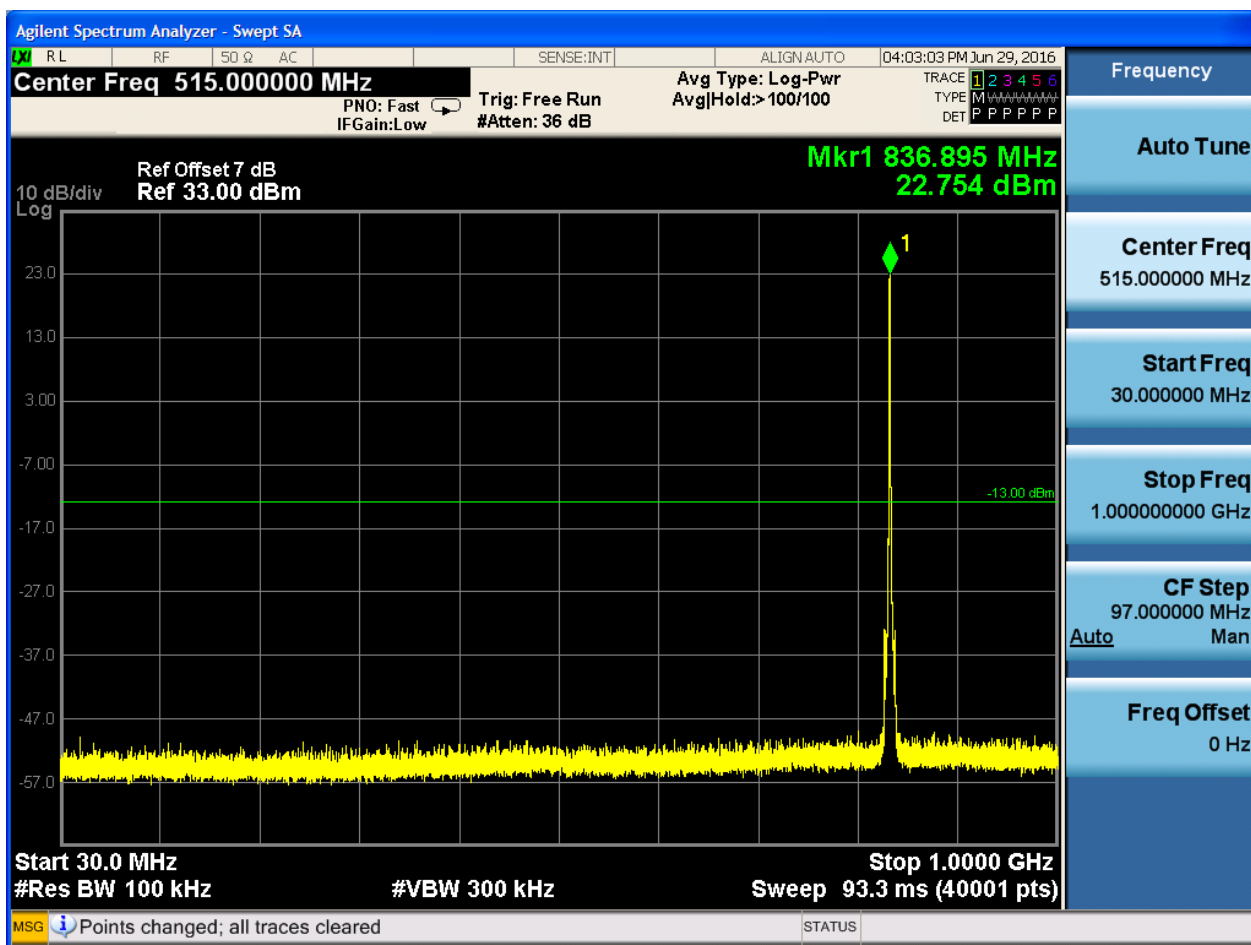


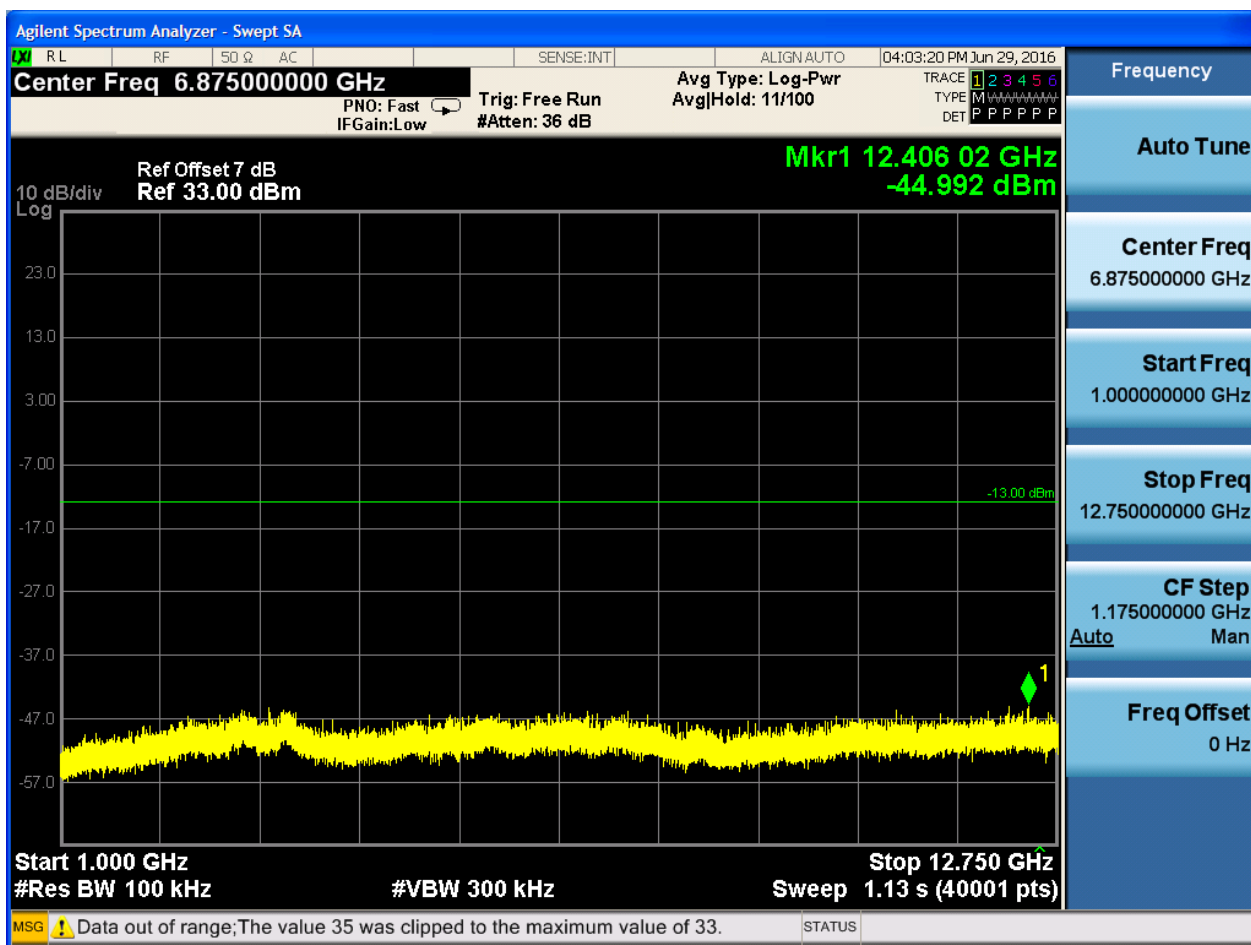


6.1.1.3.2 Test Channel = MCH

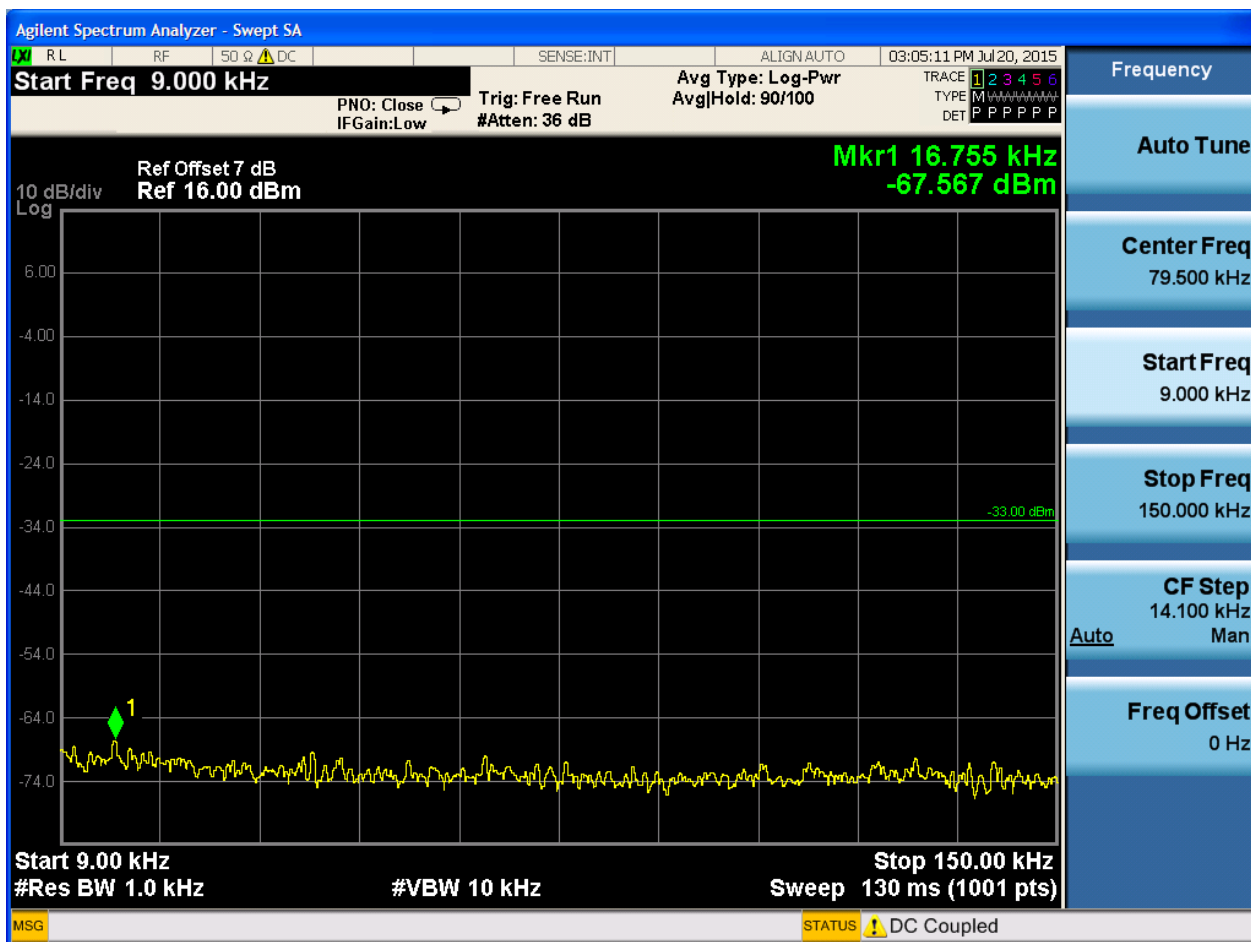


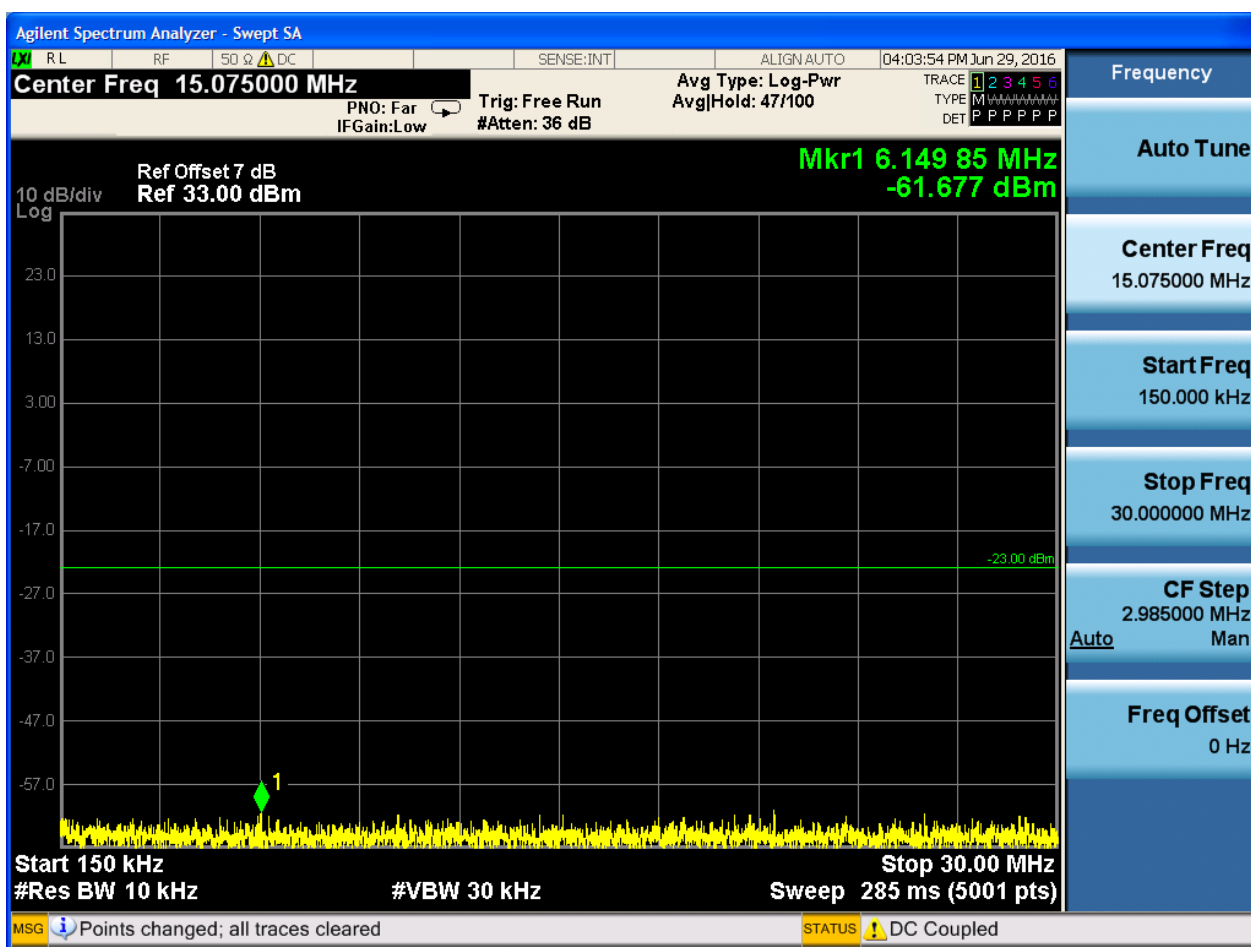


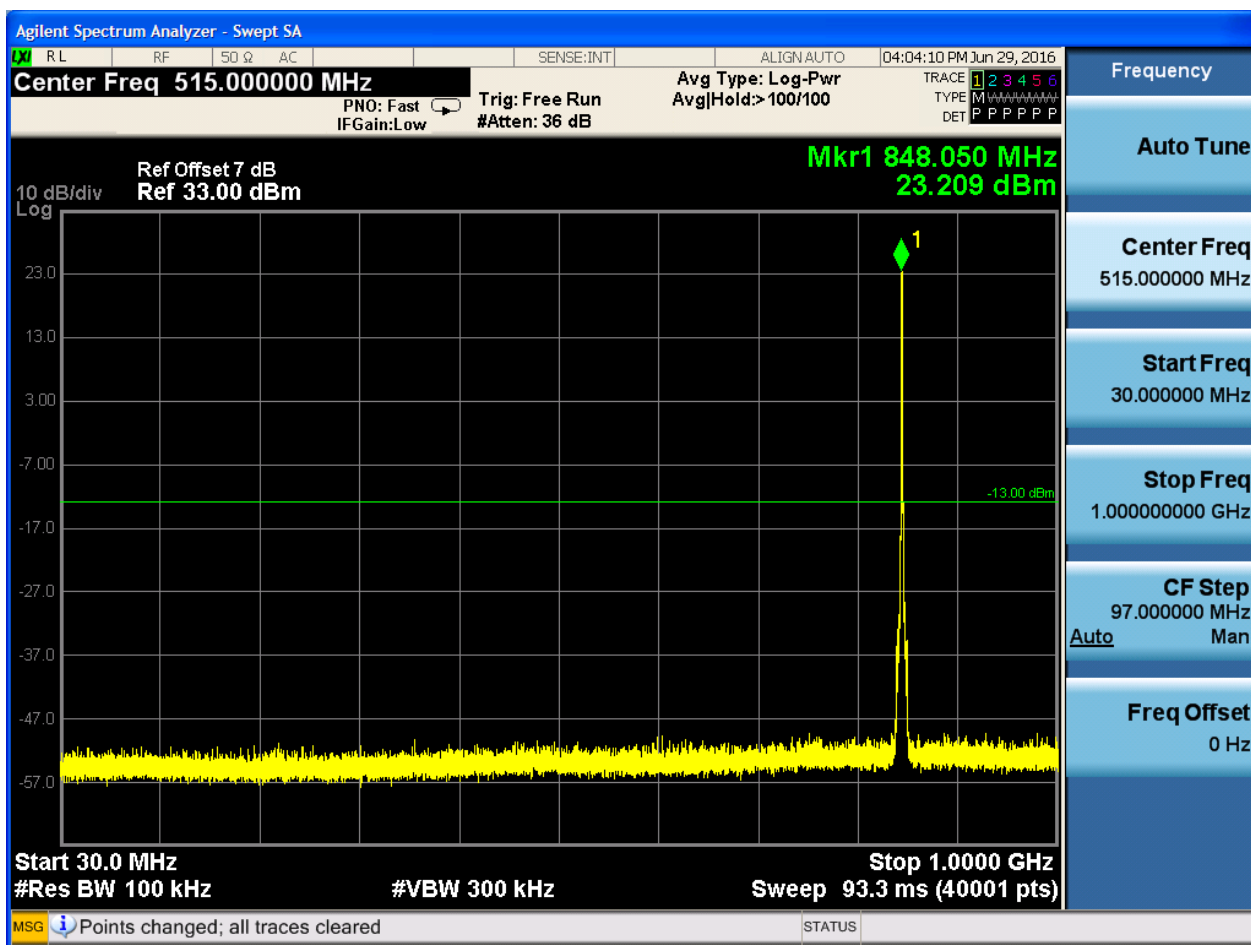


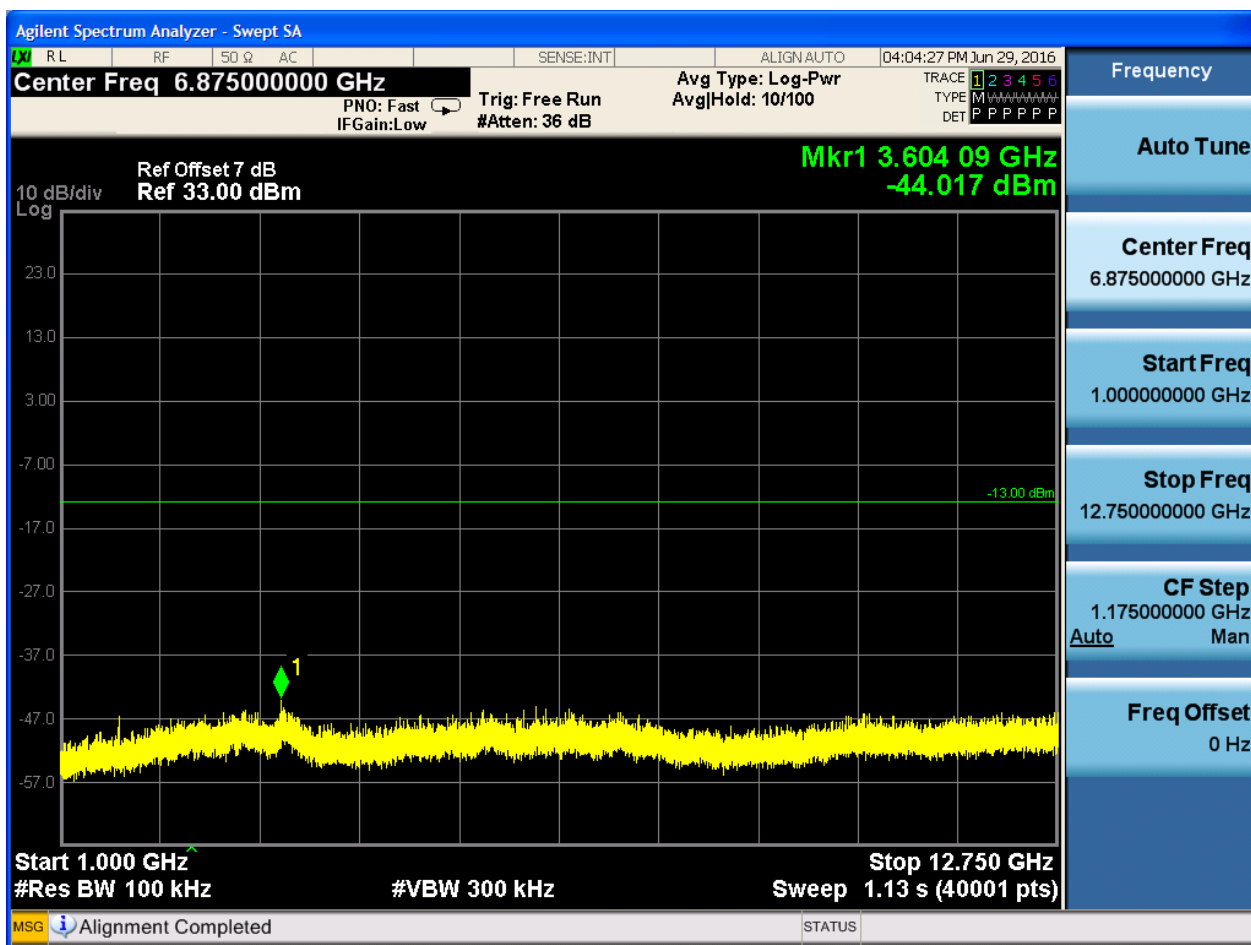


6.1.1.3.3 Test Channel = HCH



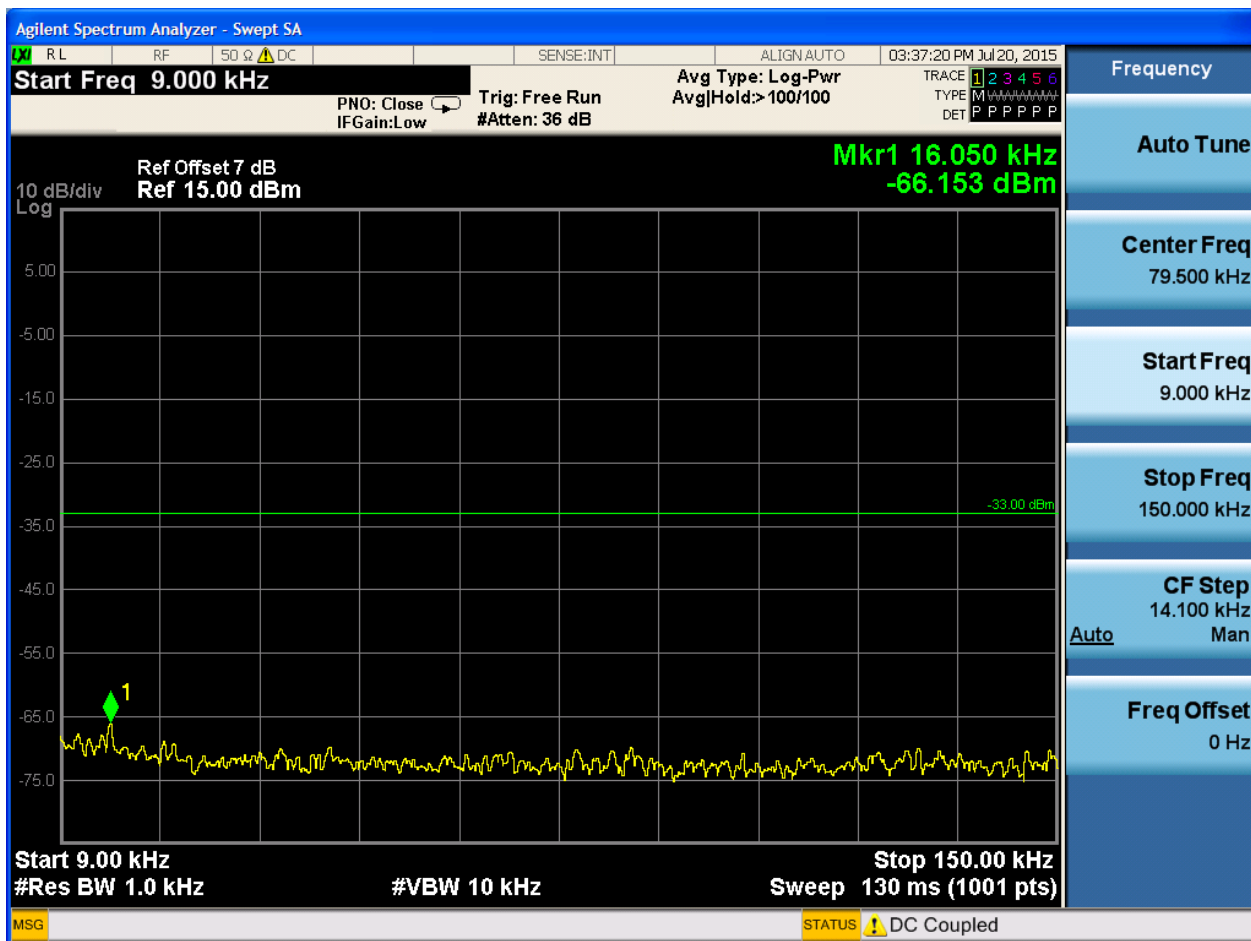




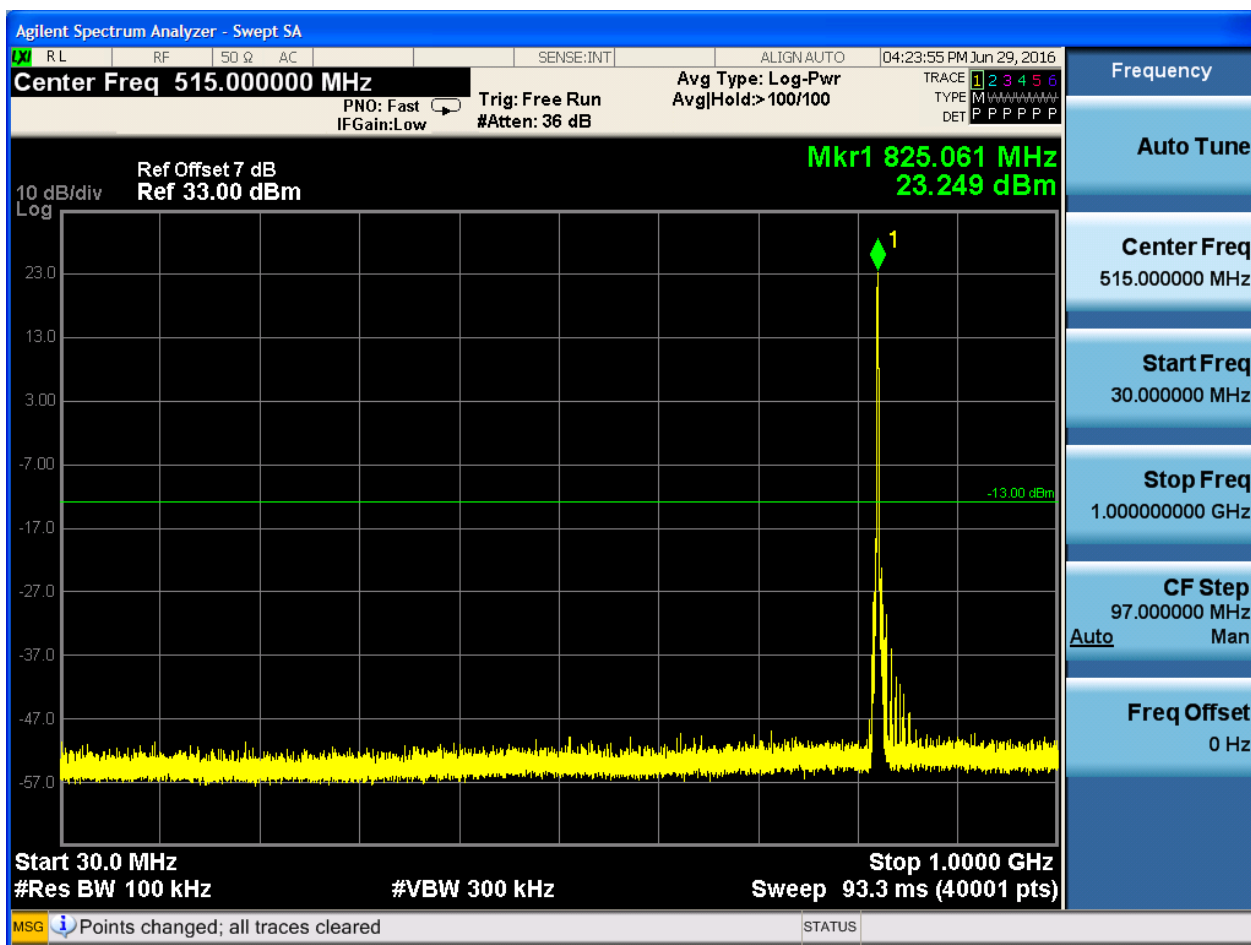


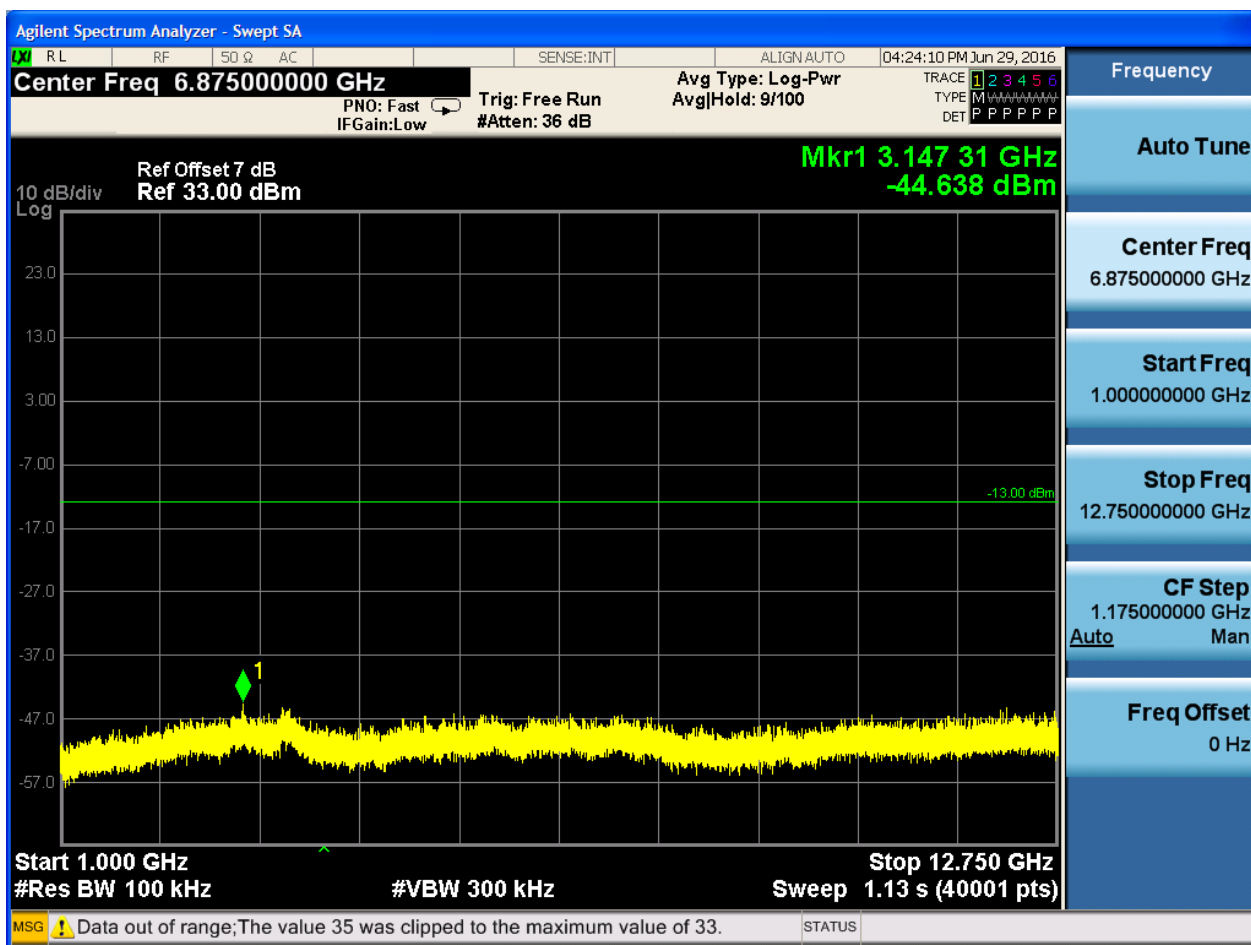
6.1.1.4 Test Mode = CDMA/EV-DO/Subtype2/256

6.1.1.4.1 Test Channel = LCH



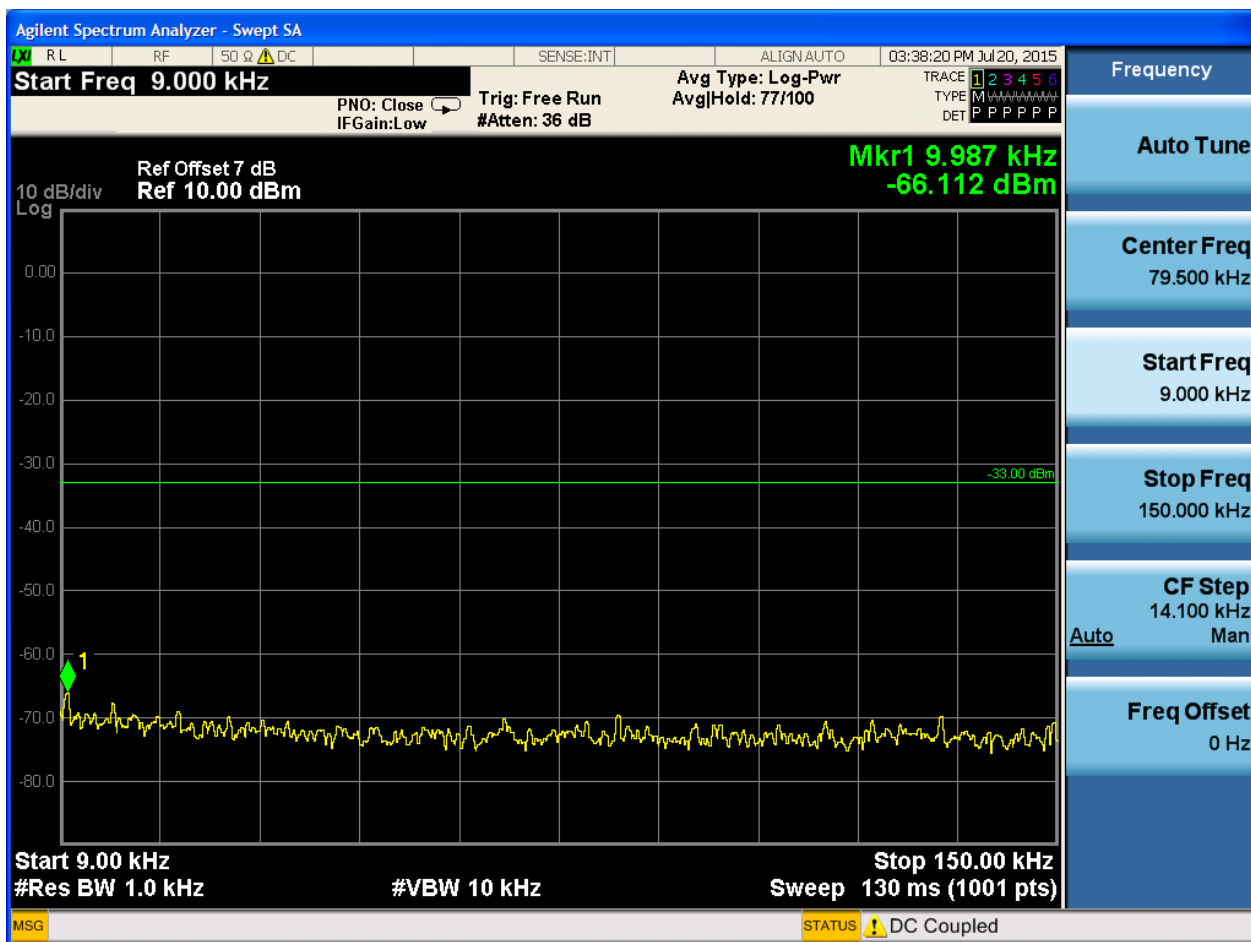




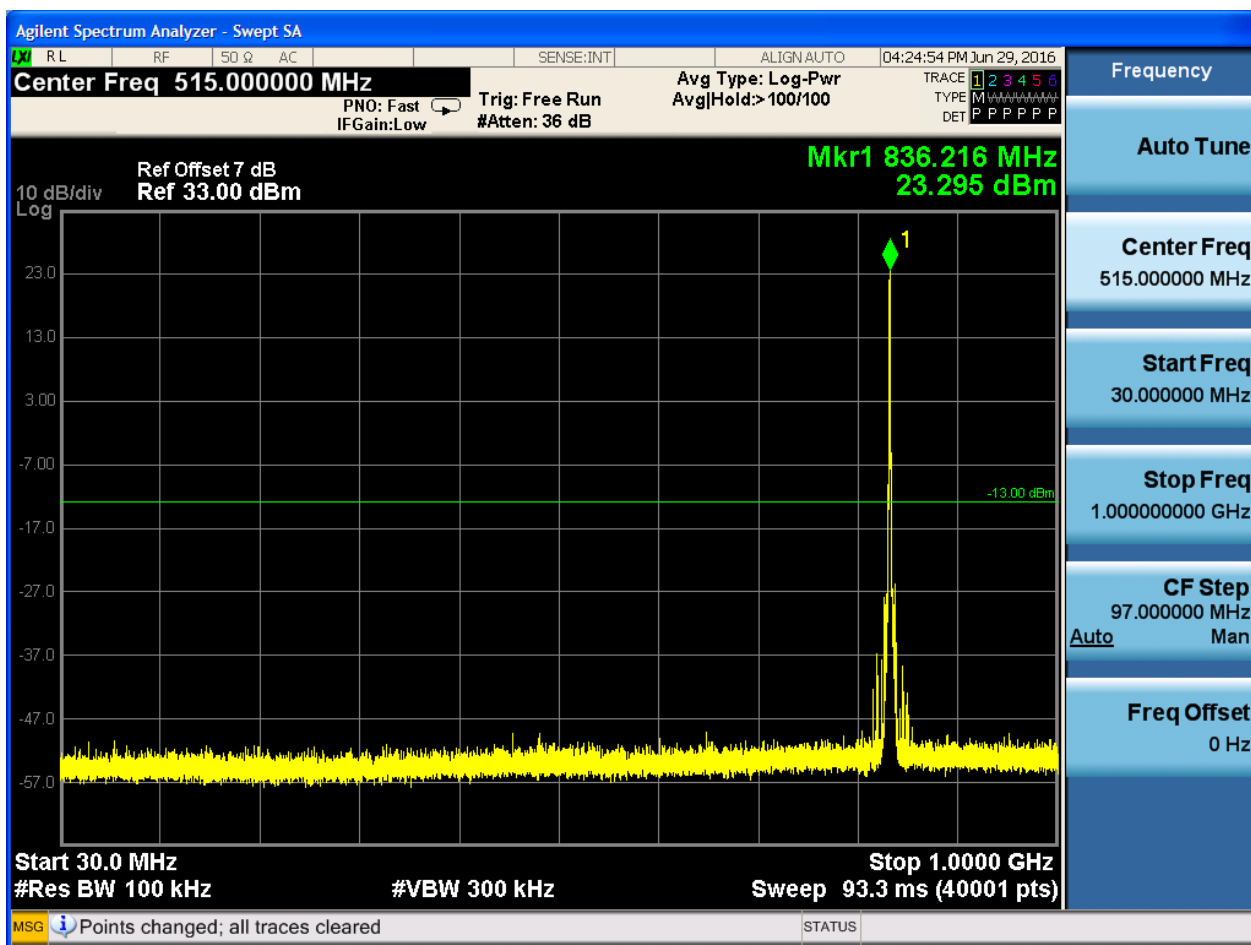


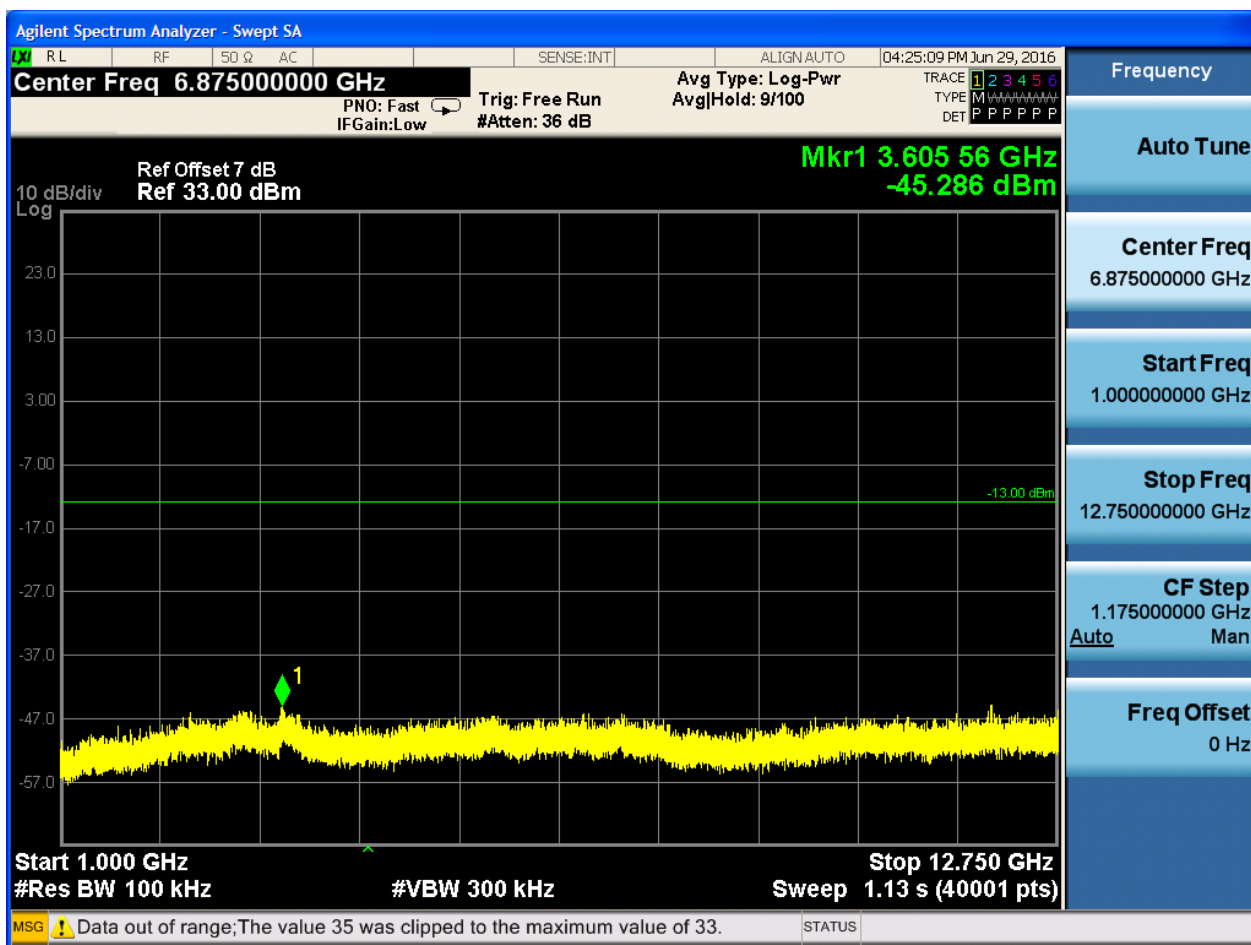


6.1.1.4.2 Test Channel = MCH









6.1.1.4.3 Test Channel = HCH

