



Appendix for test report

1 Appendix_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
GSM850	GSM/TM1	LCH	31.79	28.34	38.5	PASS
		MCH	32.09	28.64	38.5	PASS
		HCH	32.06	28.61	38.5	PASS
	GSM/TM2	LCH	25.4	21.95	38.5	PASS
		MCH	25.37	21.92	38.5	PASS
		HCH	25.39	21.94	38.5	PASS
GSM1900	GSM/TM1	LCH	29.75	30.25	33	PASS
		MCH	29.61	30.11	33	PASS
		HCH	29.46	29.96	33	PASS
	GSM/TM2	LCH	25.26	25.76	33	PASS
		MCH	25.27	25.77	33	PASS
		HCH	25.27	25.77	33	PASS



Test Band	Test Mode	Test Channel	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
WCDMA850	UMTS/TM1	LCH	23.95	20.5	38.5	PASS
		MCH	23.76	20.31	38.5	PASS
		HCH	23.78	20.33	38.5	PASS
WCDMA1900	UMTS/TM1	LCH	23.5	24	33	PASS
		MCH	23.42	23.92	33	PASS
		HCH	23.51	24.01	33	PASS
WCDMA1700	UMTS/TM1	LCH	23.64	24.14	30	PASS
		MCH	23.63	24.13	30	PASS
		HCH	23.58	24.08	30	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:

SET Span=1.5*OBW

SET RBW=1%of the OBW,not to wxceed 1MHz

SET VBW>= 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
GSM850	GSM/TM1	LCH	0.26	13	PASS
		MCH	0.26	13	PASS
		HCH	0.23	13	PASS
	GSM/TM2	LCH	2.79	13	PASS
		MCH	2.96	13	PASS
		HCH	3.03	13	PASS
GSM1900	GSM/TM1	LCH	0.33	13	PASS
		MCH	0.35	13	PASS
		HCH	0.38	13	PASS
	GSM/TM2	LCH	3	13	PASS
		MCH	2.98	13	PASS
		HCH	2.92	13	PASS



Test Band	Test Mode	Test Channel	Measured[dB]
WCDMA850	UMTS/TM1	LCH	3.01
		MCH	2.89
		HCH	3.12
WCDMA1900	UMTS/TM1	LCH	2.96
		MCH	3.11
		HCH	3.05
WCDMA1900	UMTS/TM1	LCH	1.78
		MCH	2.12
		HCH	1.96

3Appendix_C: Modulation Characteristics

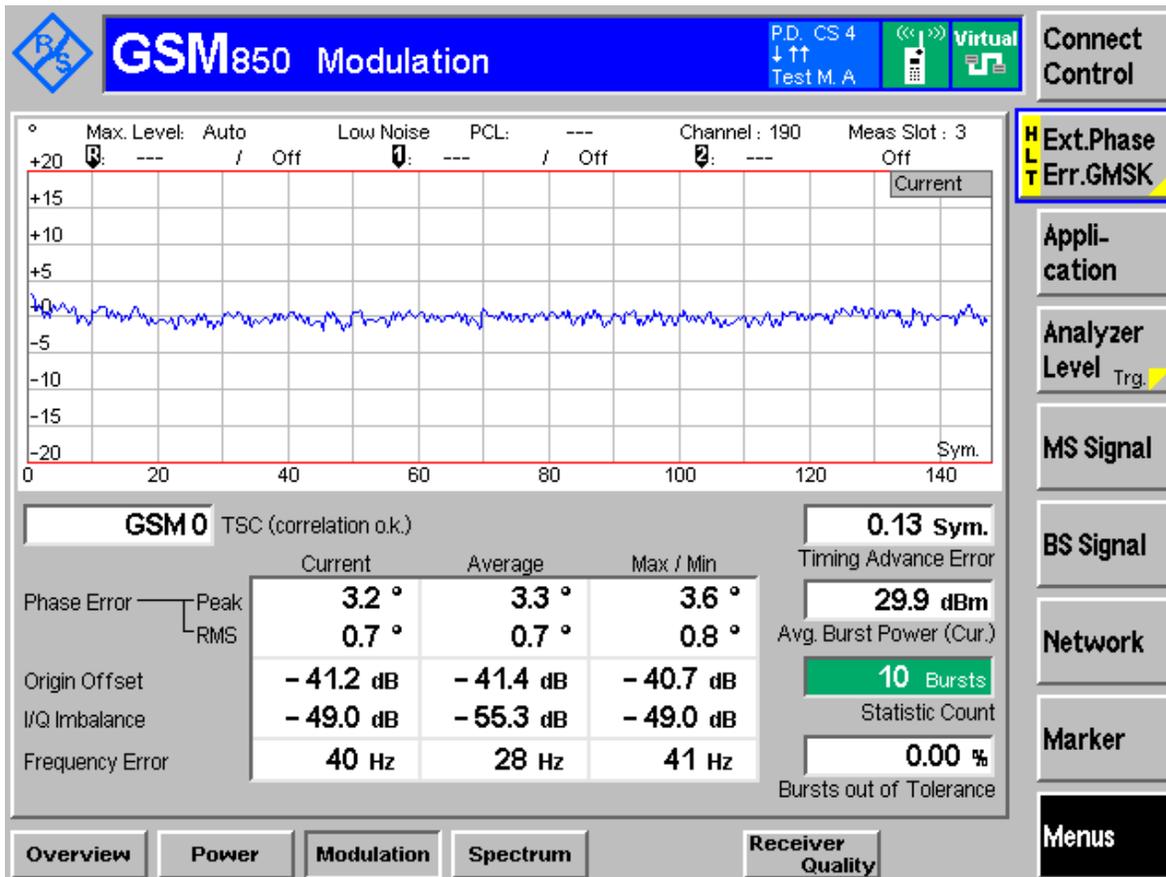
Part I - Test Plots

3.1 For GSM

3.1.1 Test Band = GSM850

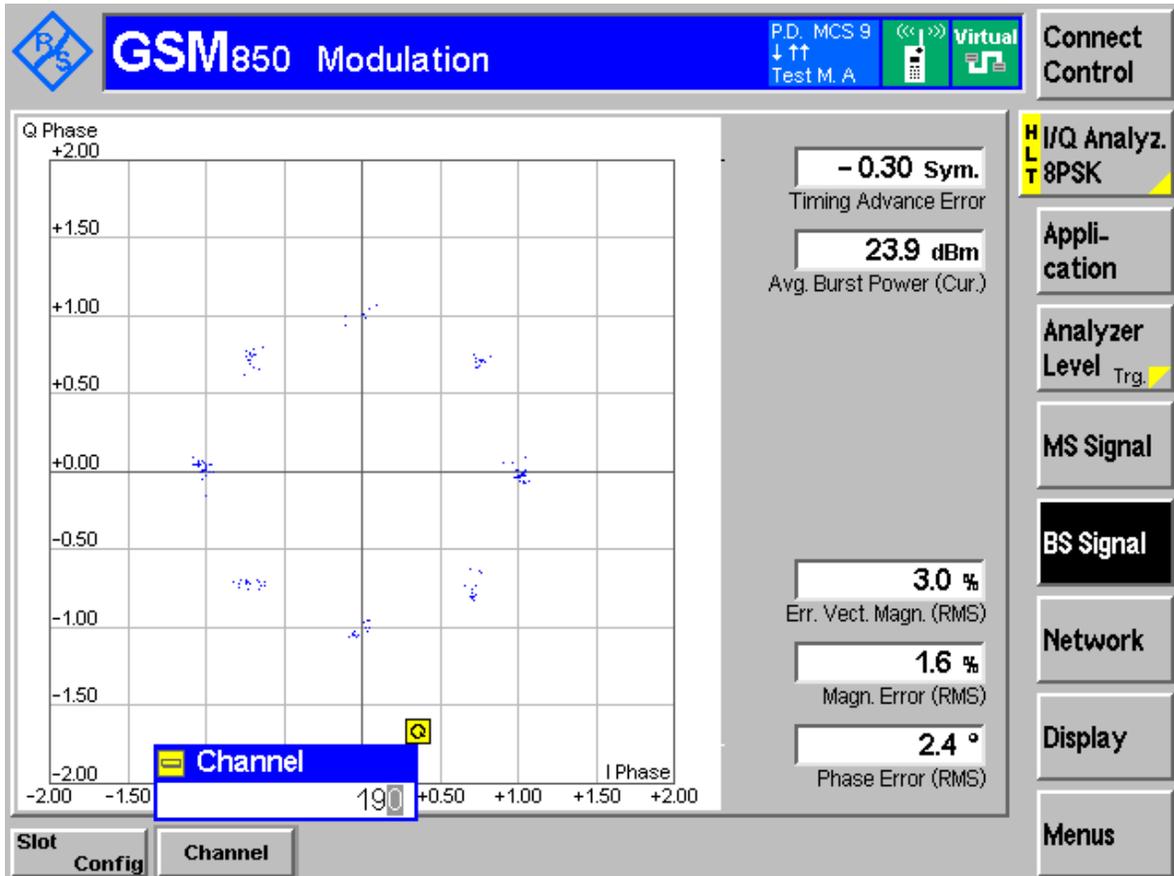
3.1.1.1 Test Mode = GSM/TM1

3.1.1.1.1 Test Channel = MCH



3.1.1.2 Test Mode = GSM/TM2

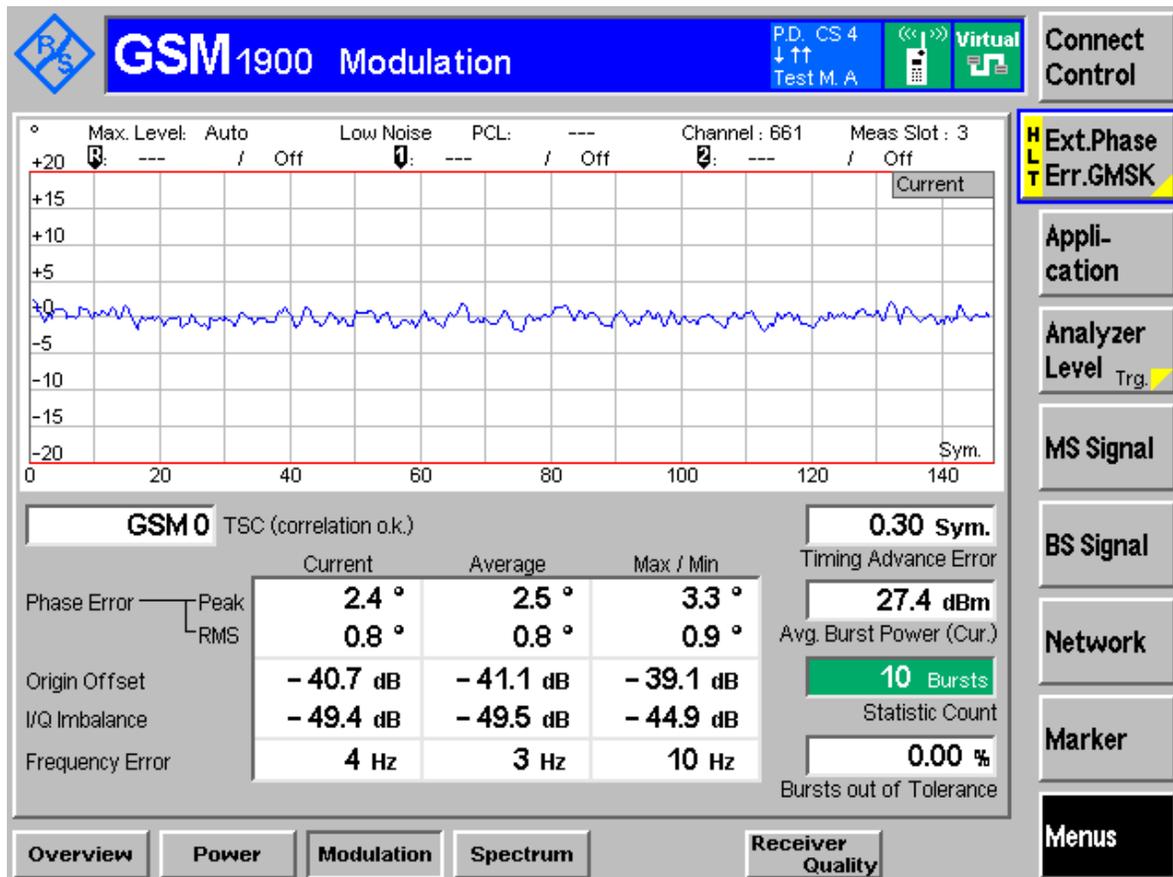
3.1.1.2.1 Test Channel = MCH



3.1.2 Test Band = GSM1900

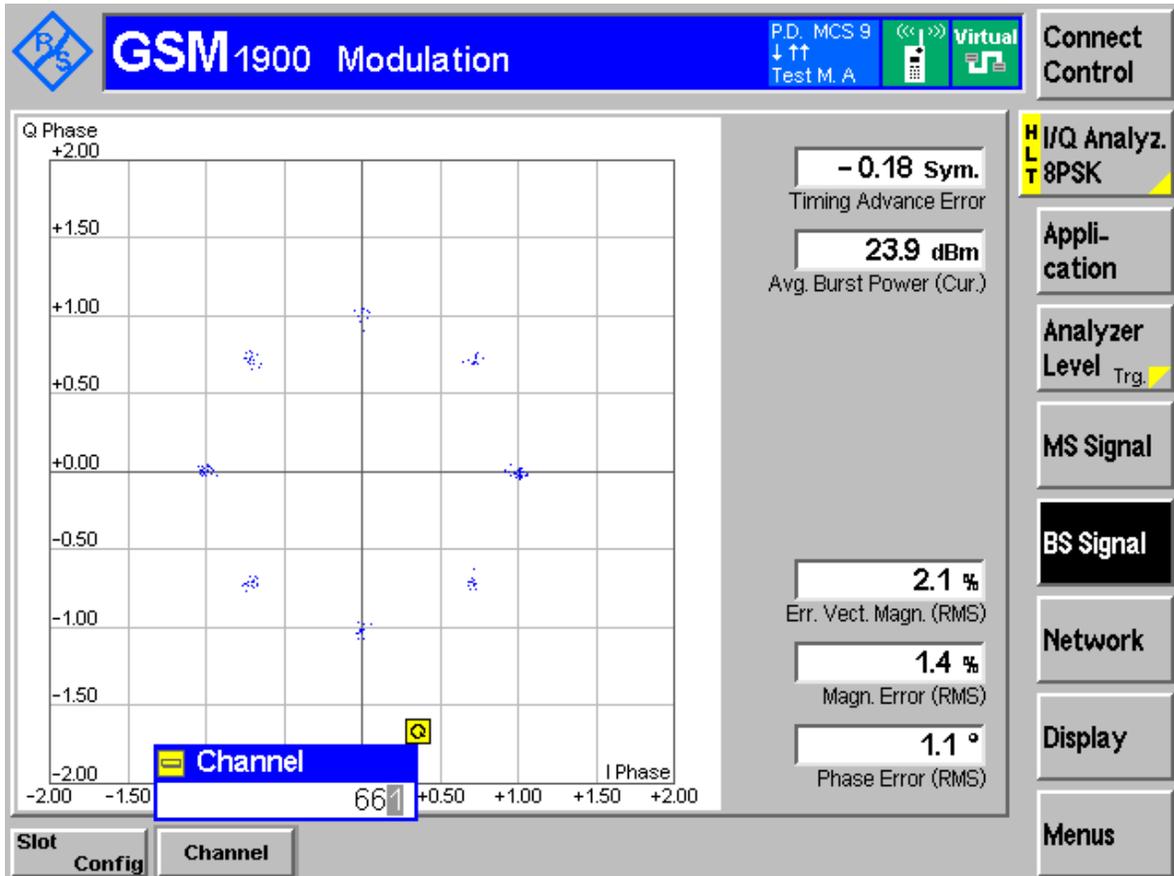
3.1.2.1 Test Mode = GSM/TM1

3.1.2.1.1 Test Channel = MCH



3.1.2.2 Test Mode = GSM/TM2

3.1.2.2.1 Test Channel = MCH



4Appendix_D: Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [kHz]	Emission Bandwidth [kHz]	Verdict
GSM850	GSM/TM1	LCH	247.75	319.40	Pass
		MCH	244.85	308.35	Pass
		HCH	245.54	307.06	Pass
	GSM/TM2	LCH	255.36	325.95	Pass
		MCH	253.85	323.15	Pass
		HCH	248.07	323.28	Pass
GSM1900	GSM/TM1	LCH	244.83	316.69	Pass
		MCH	244.95	306.76	Pass
		HCH	244.36	313.27	Pass
	GSM/TM2	LCH	250.28	317.05	Pass
		MCH	252.34	314.86	Pass
		HCH	252.14	320.97	Pass
Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
WCDMA850	UMTS/TM1	LCH	4.15	4.72	Pass
		MCH	4.14	4.71	Pass
		HCH	4.12	4.70	Pass
WCDMA1900	UMTS/TM1	LCH	4.14	4.72	Pass
		MCH	4.14	4.71	Pass
		HCH	4.14	4.69	Pass
WCDMA1700	UMTS/TM1	LCH	4.15	4.73	Pass
		MCH	4.15	4.71	Pass
		HCH	4.15	4.73	Pass

Part II - Test Plots

4.1 For GSM

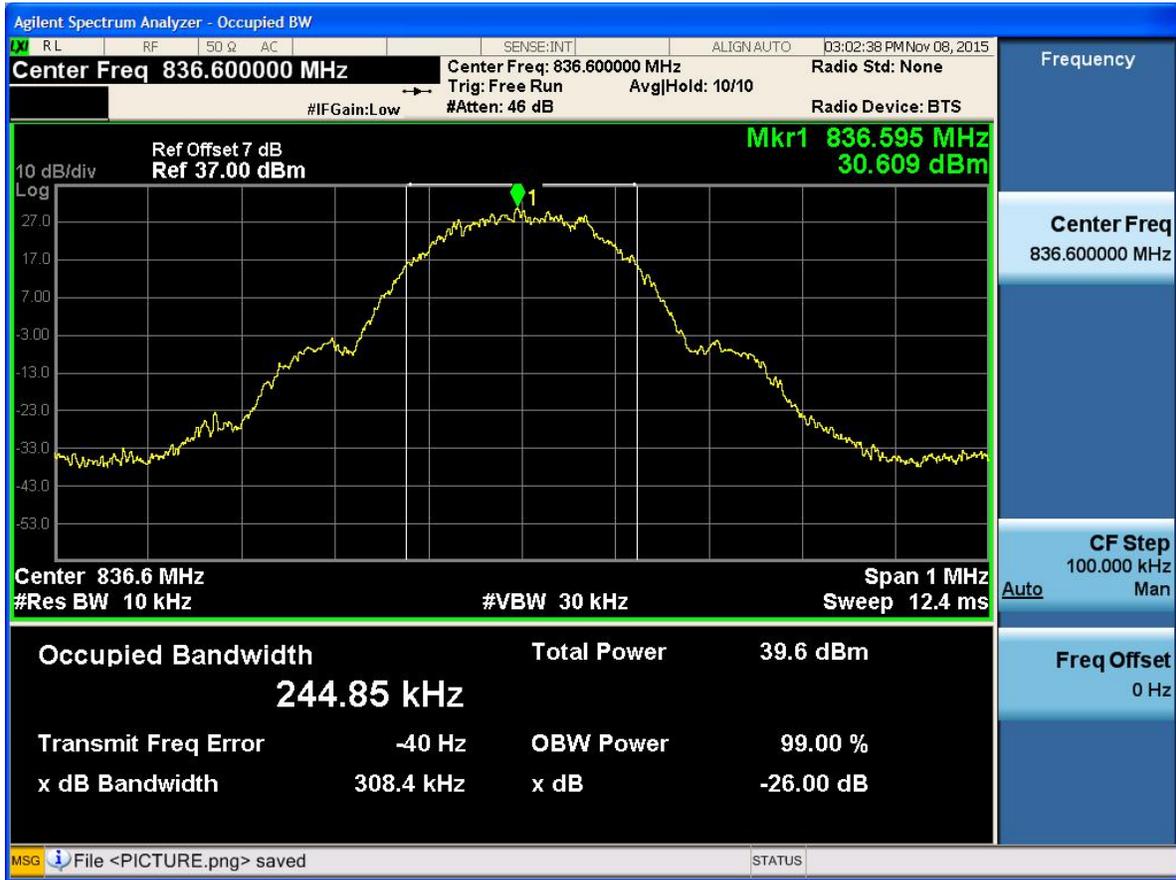
4.1.1 Test Band = GSM850

4.1.1.1 Test Mode = GSM/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 = GSM/TM2

4.1.1.2.1 Test Channel = LCH



4.1.1.2.2 Test Channel = MCH



4.1.1.2.3 Test Channel = HCH



4.1.2 Test Band = GSM1900

4.1.2.1 Test Mode = GSM/TM1

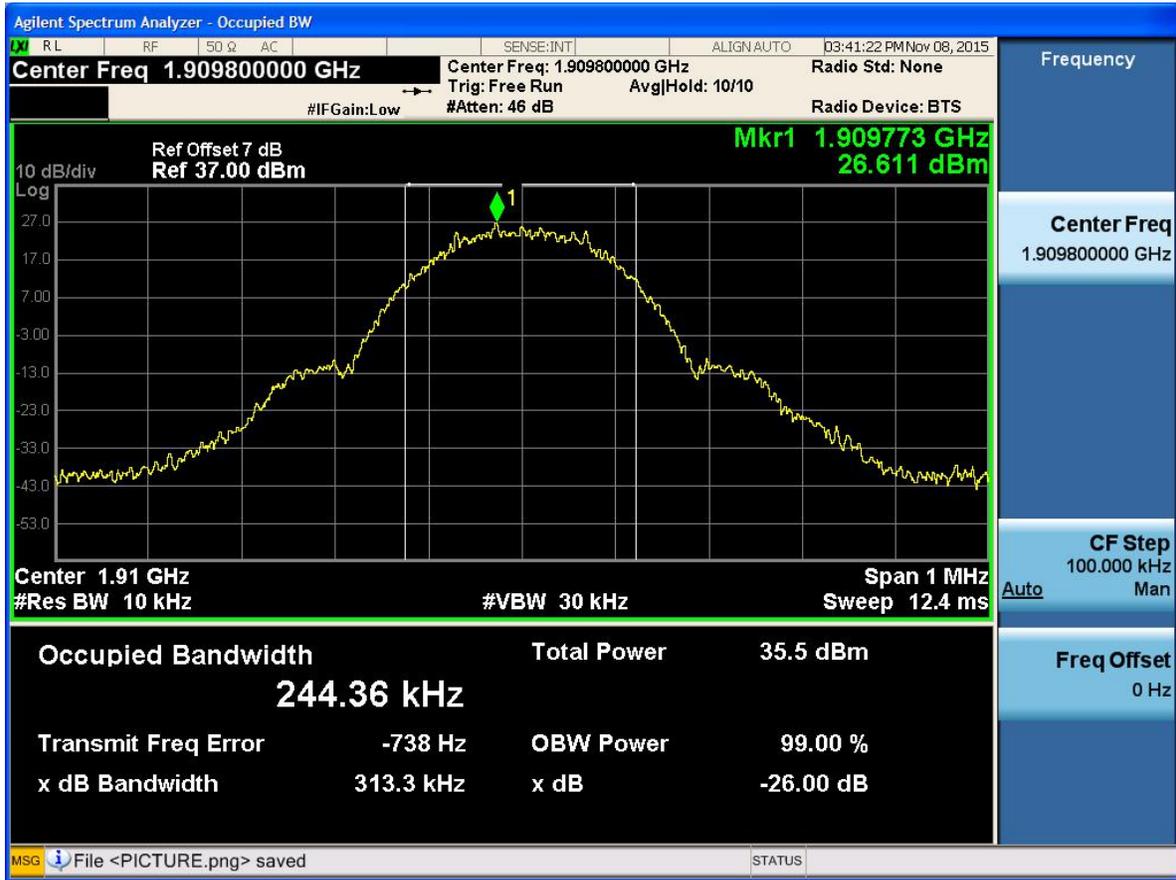
4.1.2.1.1 Test Channel = LCH



4.1.2.1.2 Test Channel = MCH



4.1.2.1.3 Test Channel = HCH



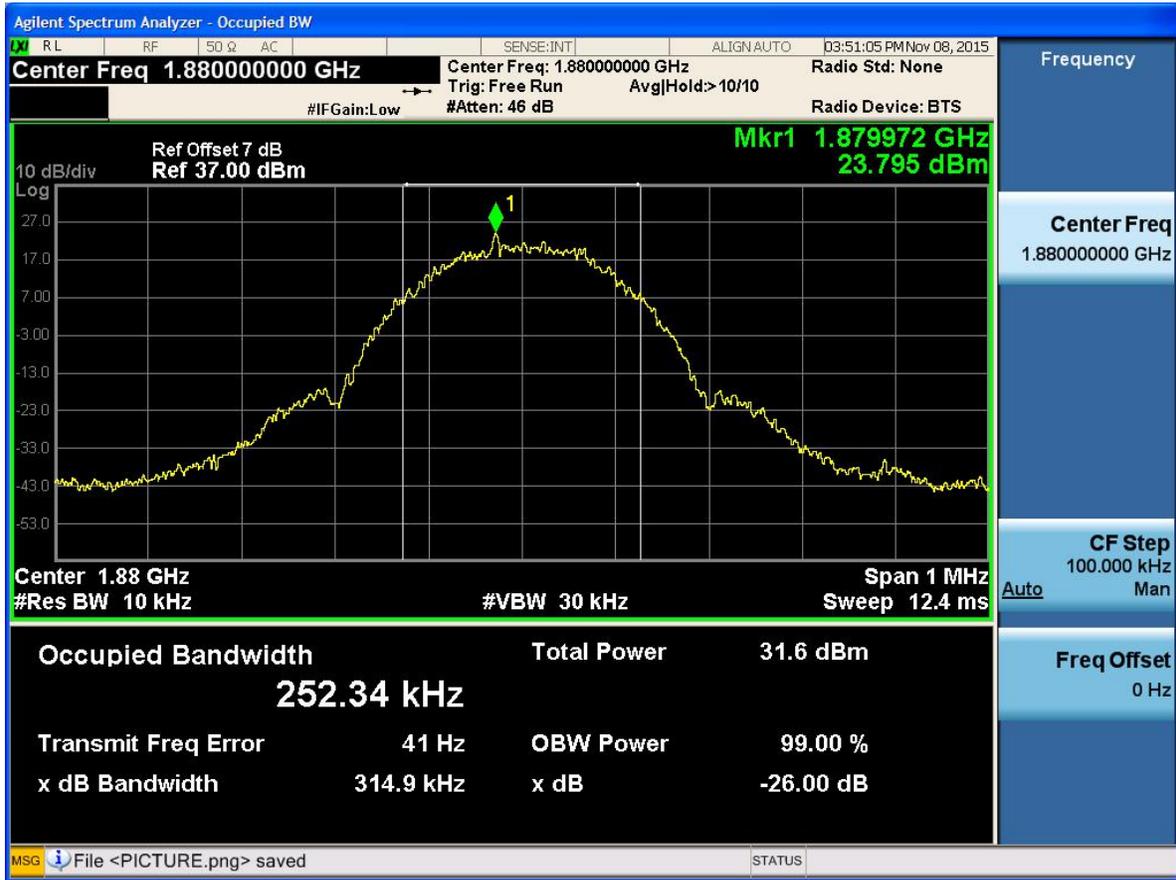


4.1.2.2 Test Mode = GSM/TM2

4.1.2.2.1 Test Channel = LCH



4.1.2.2.2 Test Channel = MCH



4.1.2.2.3 Test Channel = HCH

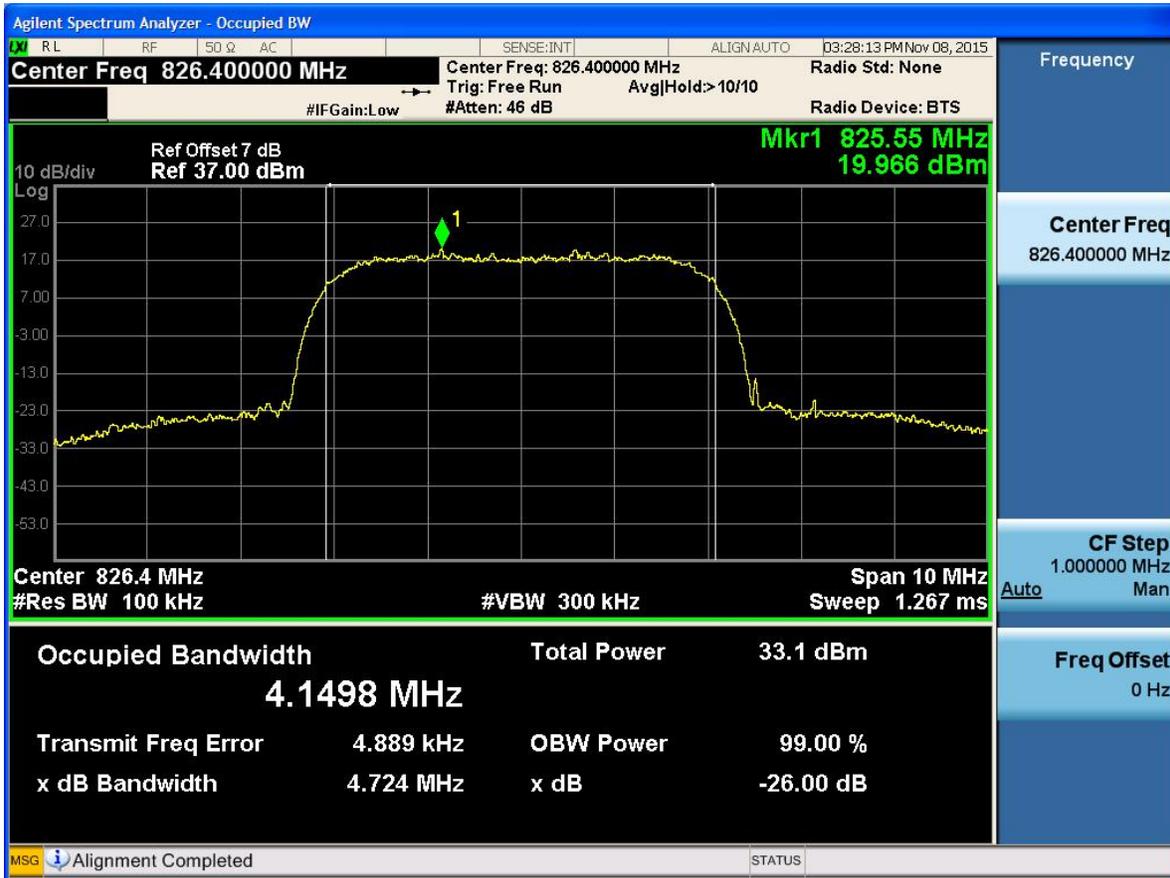


4.2 For UMTS

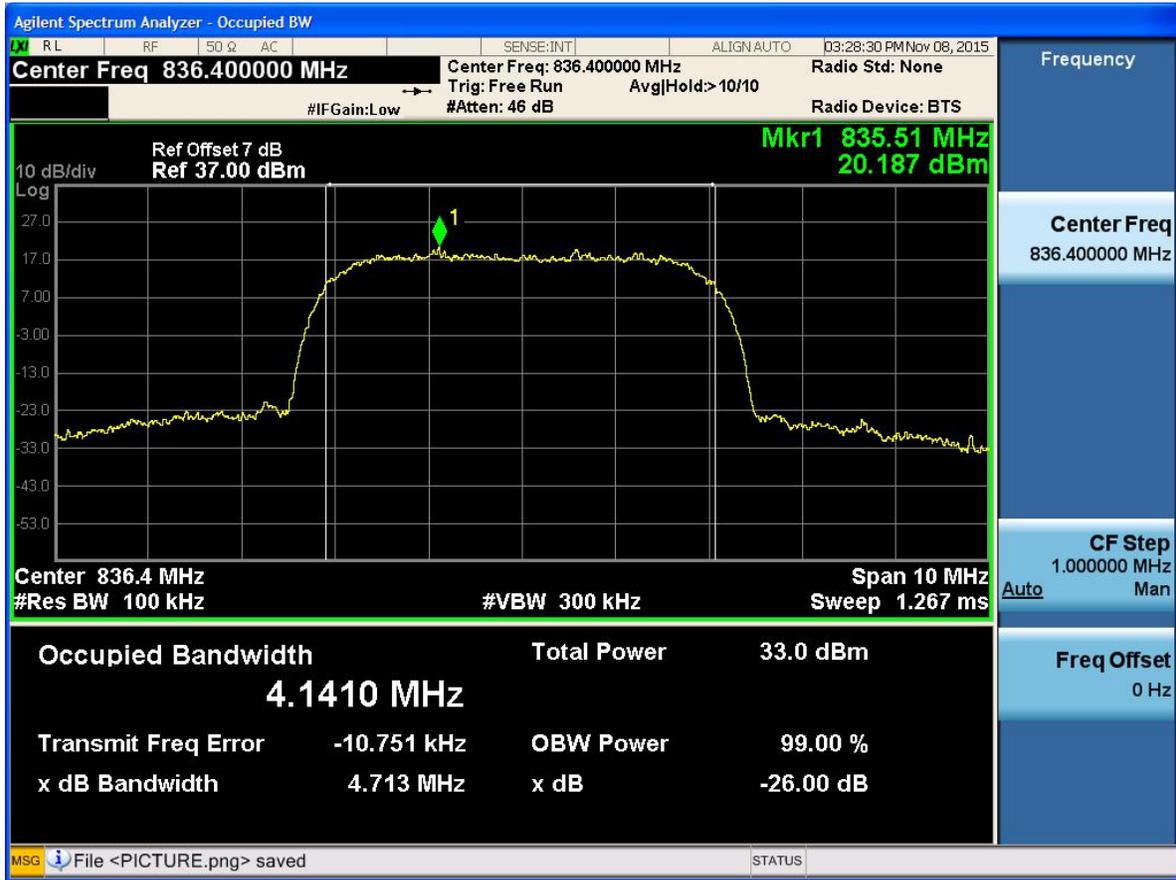
4.2.1 Test Band = WCDMA850

4.2.1.1 Test Mode = UMTS/TM1

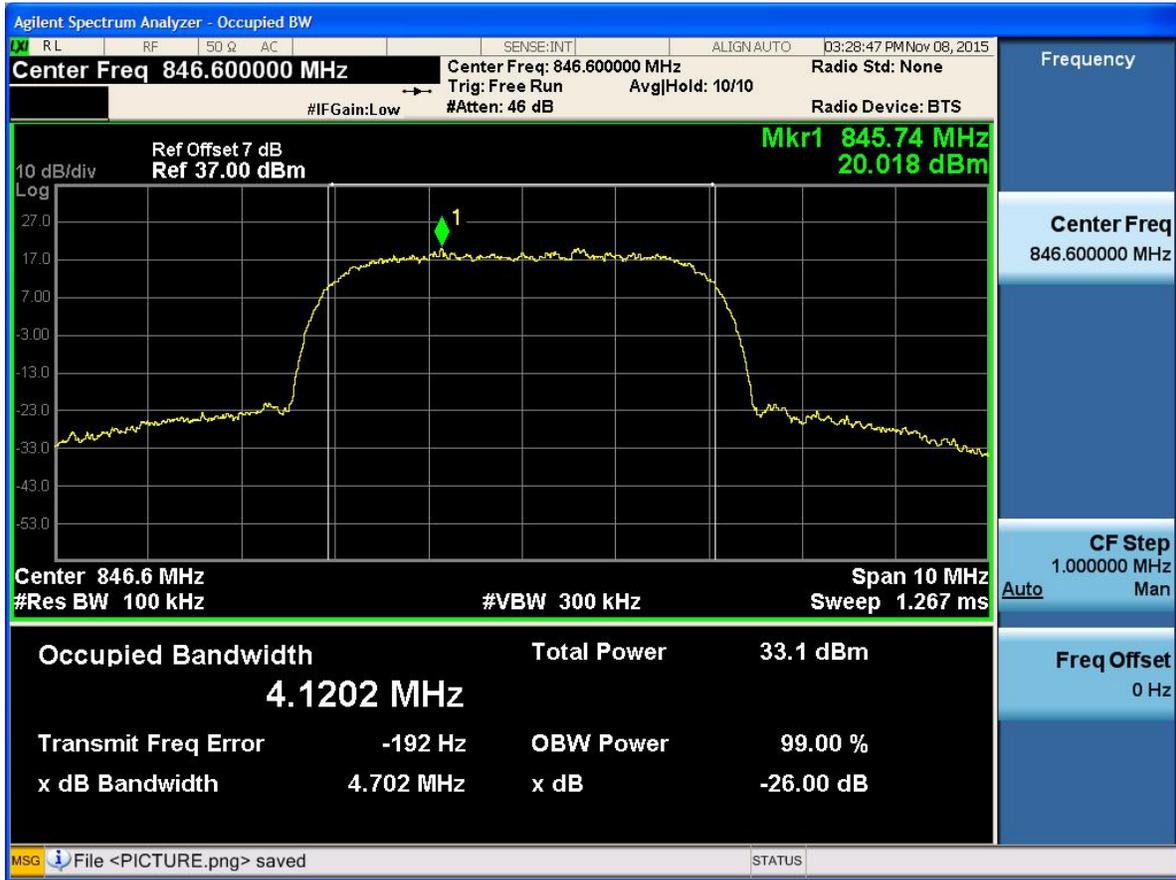
4.2.1.1.1 Test Channel = LCH



4.2.1.1.2 Test Channel = MCH



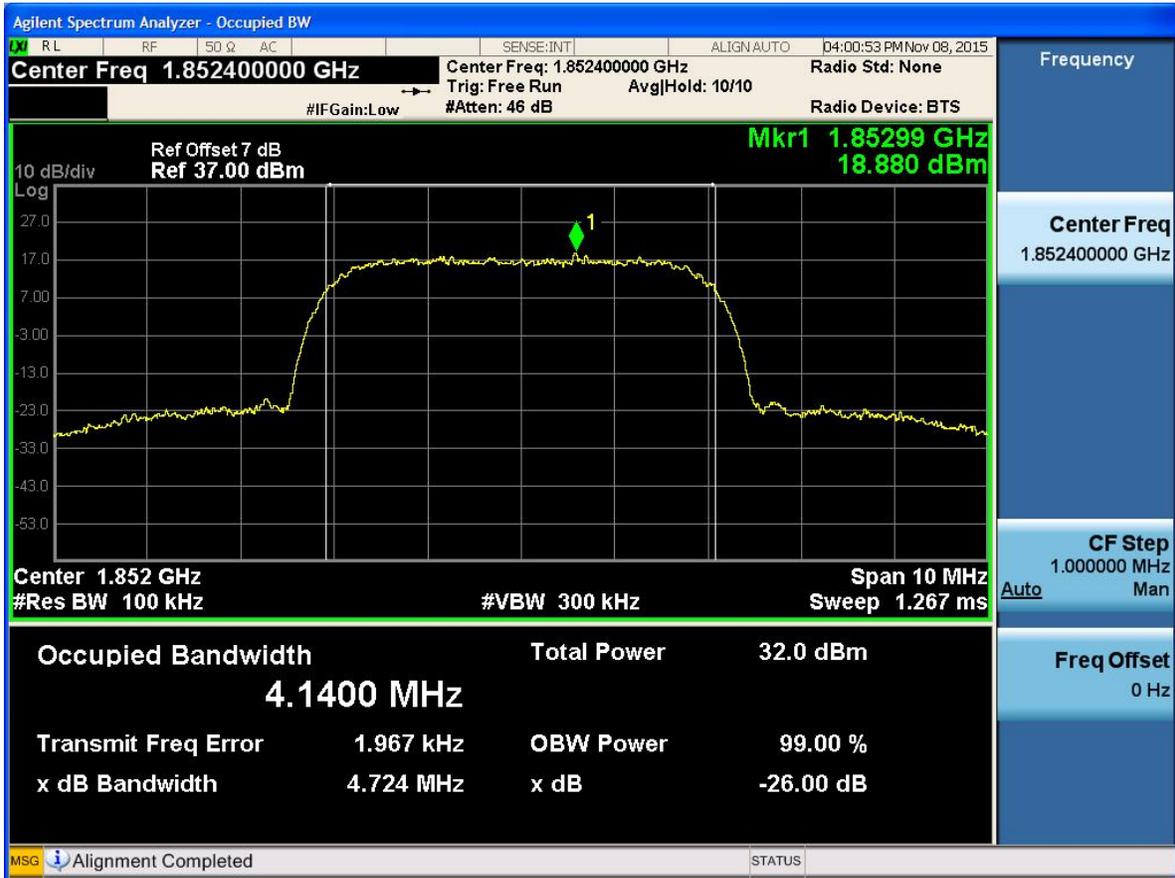
4.2.1.1.3 Test Channel = HCH



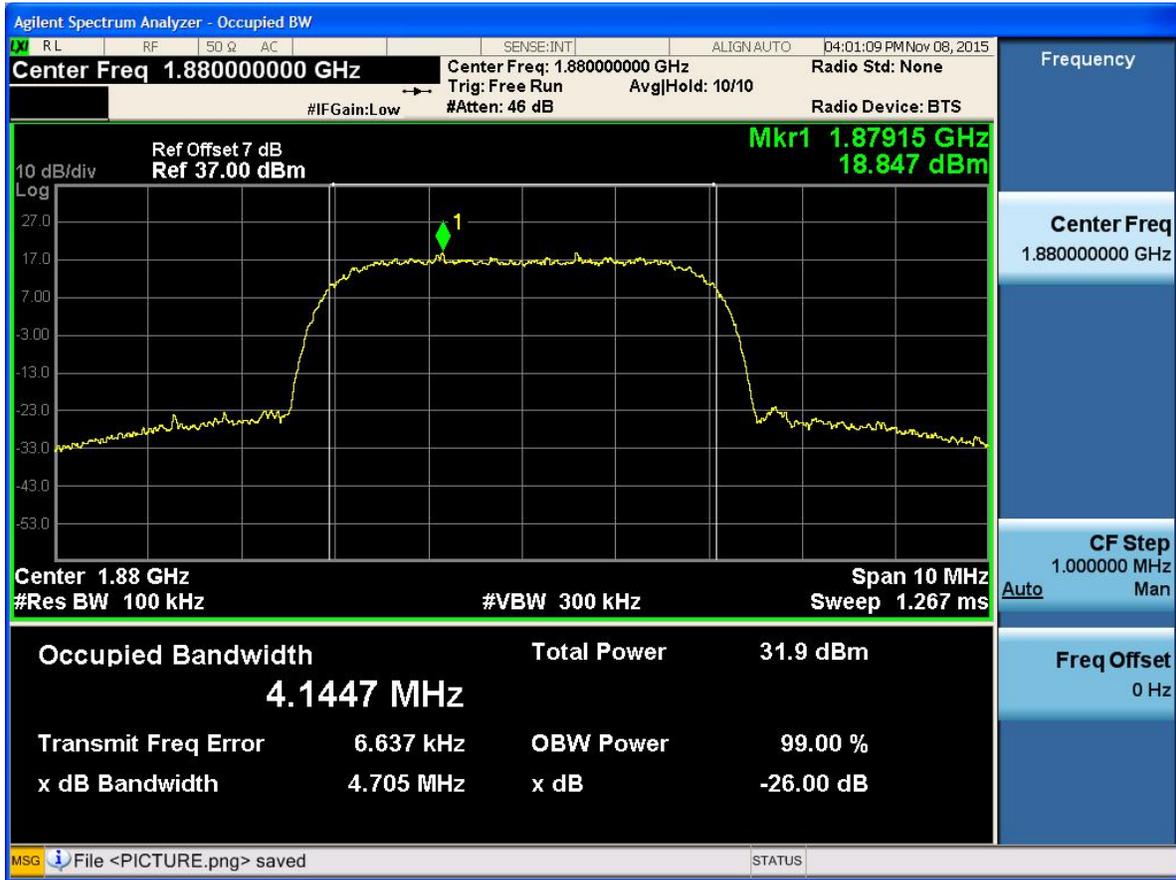
4.2.2 Test Band = WCDMA1900

4.2.2.1 Test Mode = UMTS/TM1

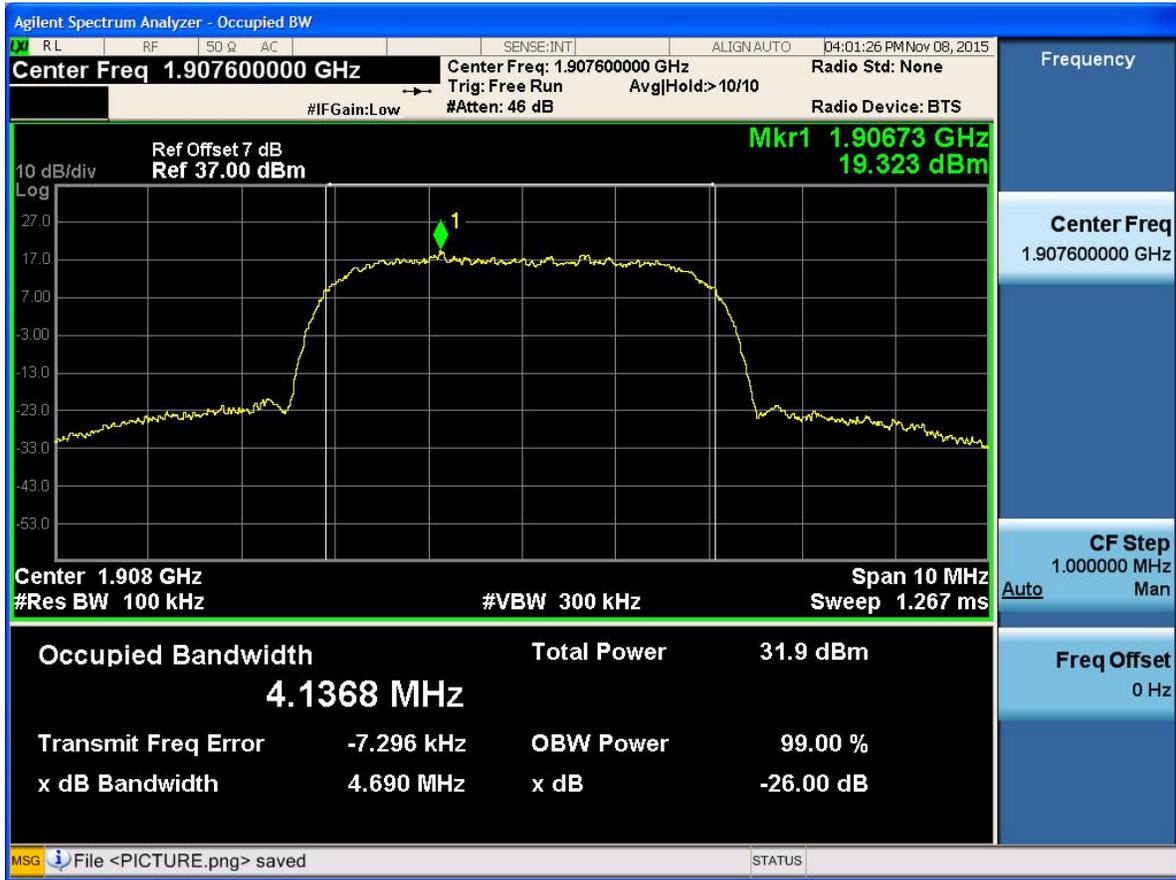
4.2.2.1.1 Test Channel = LCH



4.2.2.1.2 Test Channel = MCH



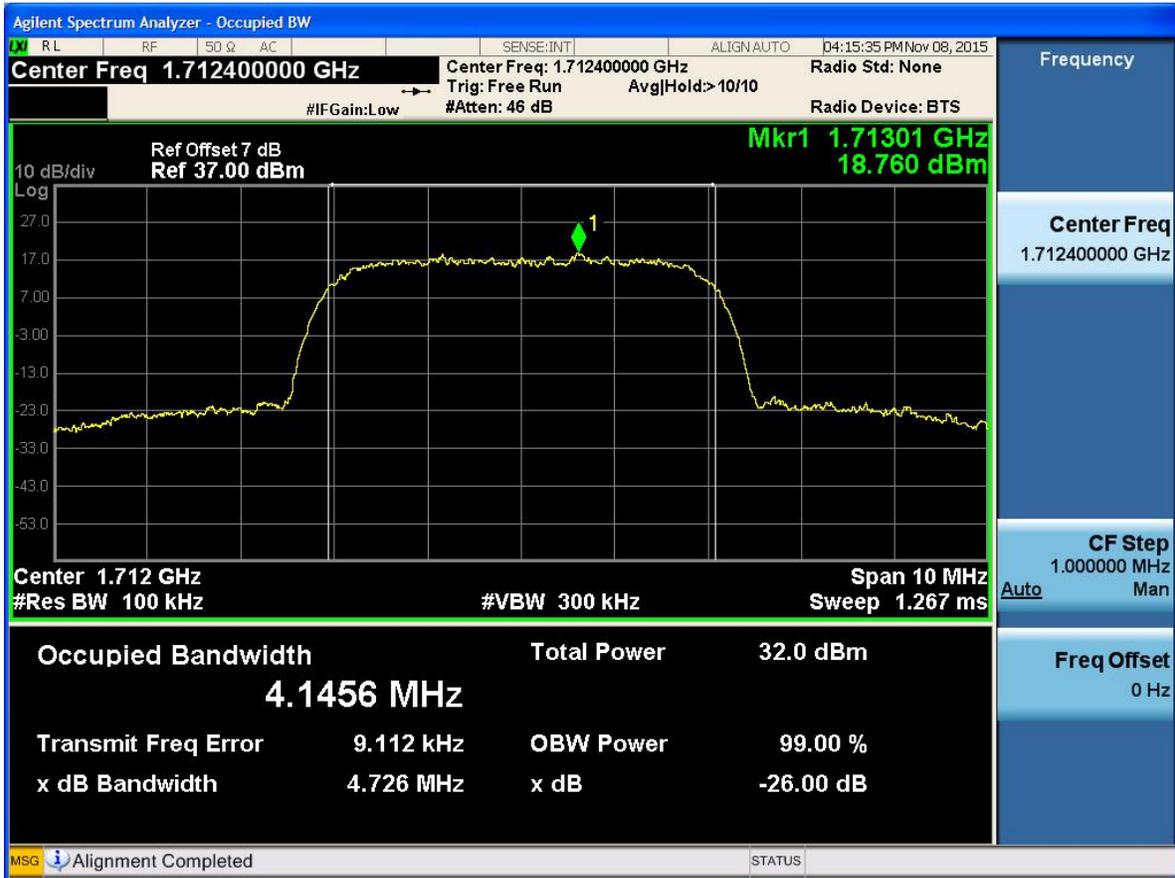
4.2.2.1.3 Test Channel = HCH



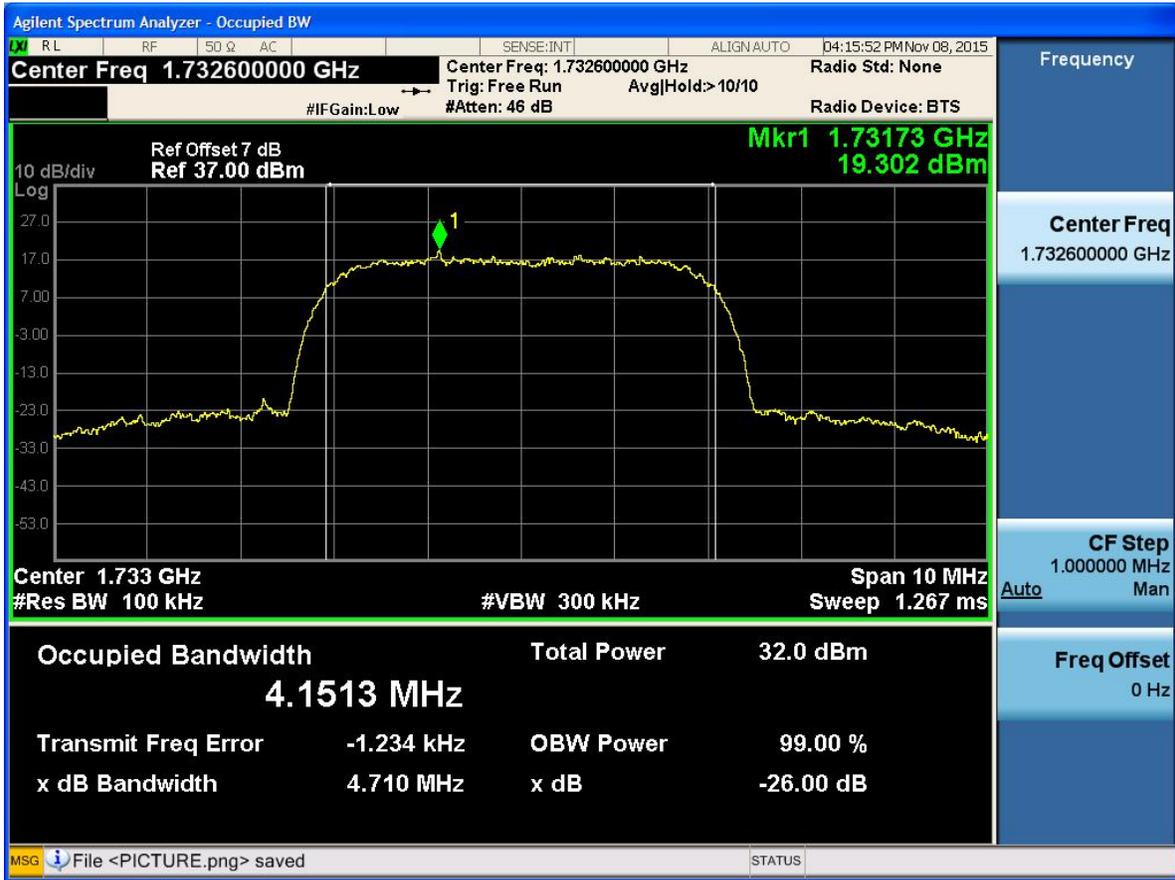
4.2.3 Test Band = WCDMA1700

4.2.3.1 Test Mode = UMTS/TM1

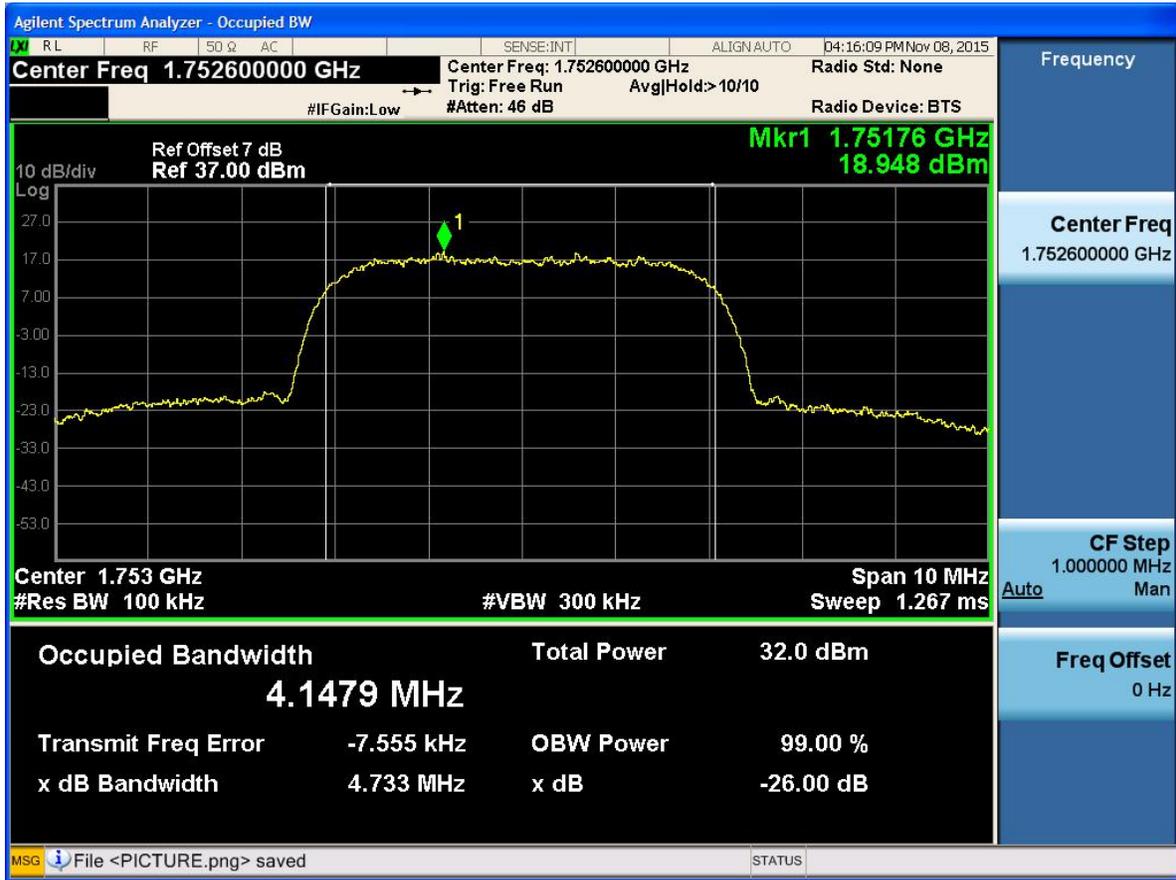
4.2.3.1.1 Test Channel = LCH



4.2.3.1.2 Test Channel = MCH



4.2.3.1.3 Test Channel = HCH



5Appendix_E: Band Edges Compliance

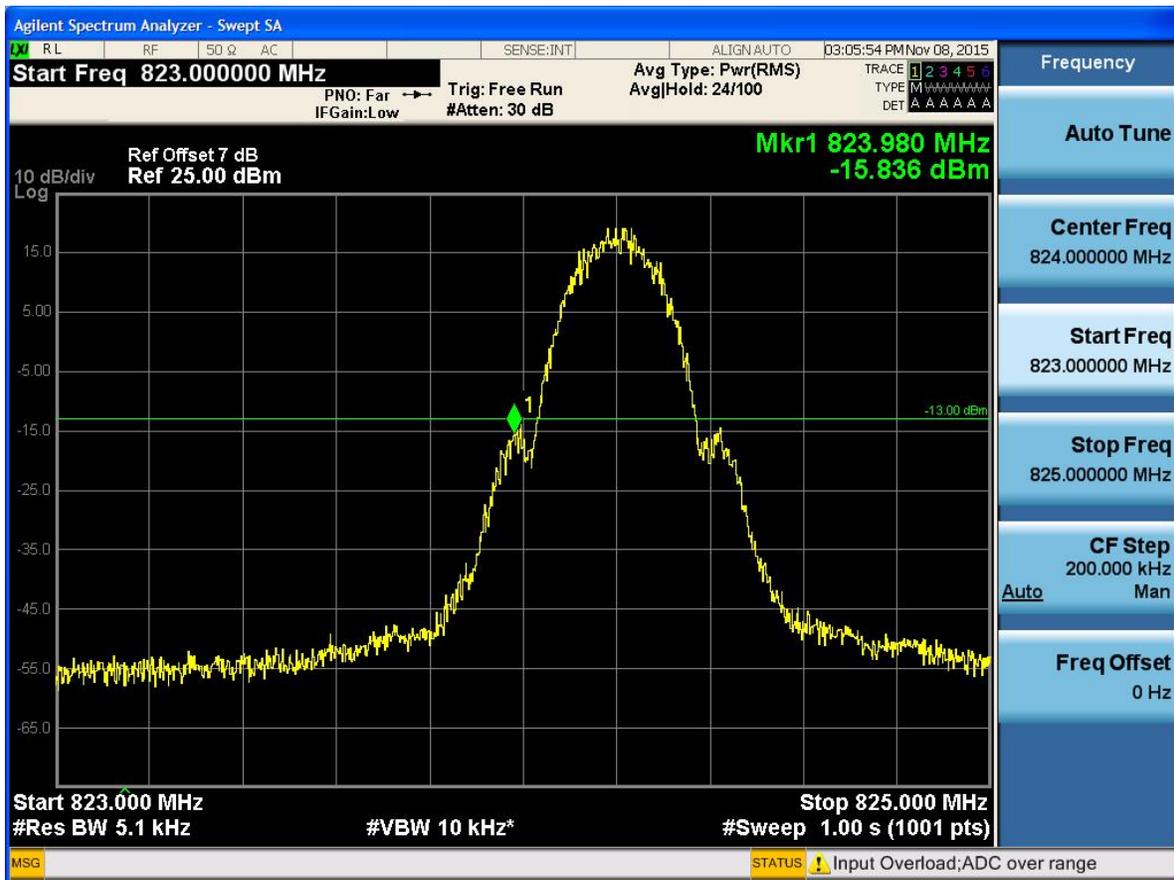
Part I - Test Plots

5.1 For GSM

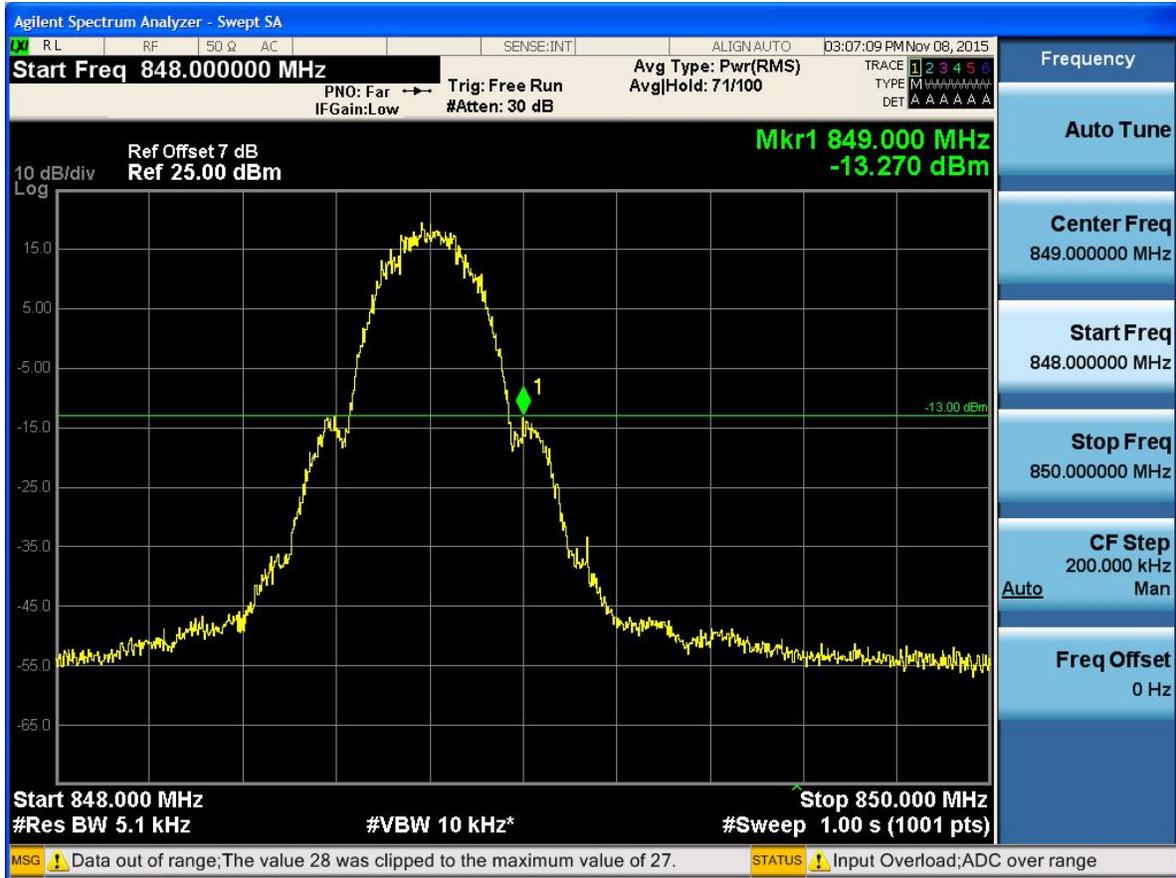
5.1.1 Test Band = GSM850

5.1.1.1 Test Mode = GSM/TM1

5.1.1.1.1 Test Channel = LCH



5.1.1.1.2 Test Channel = HCH

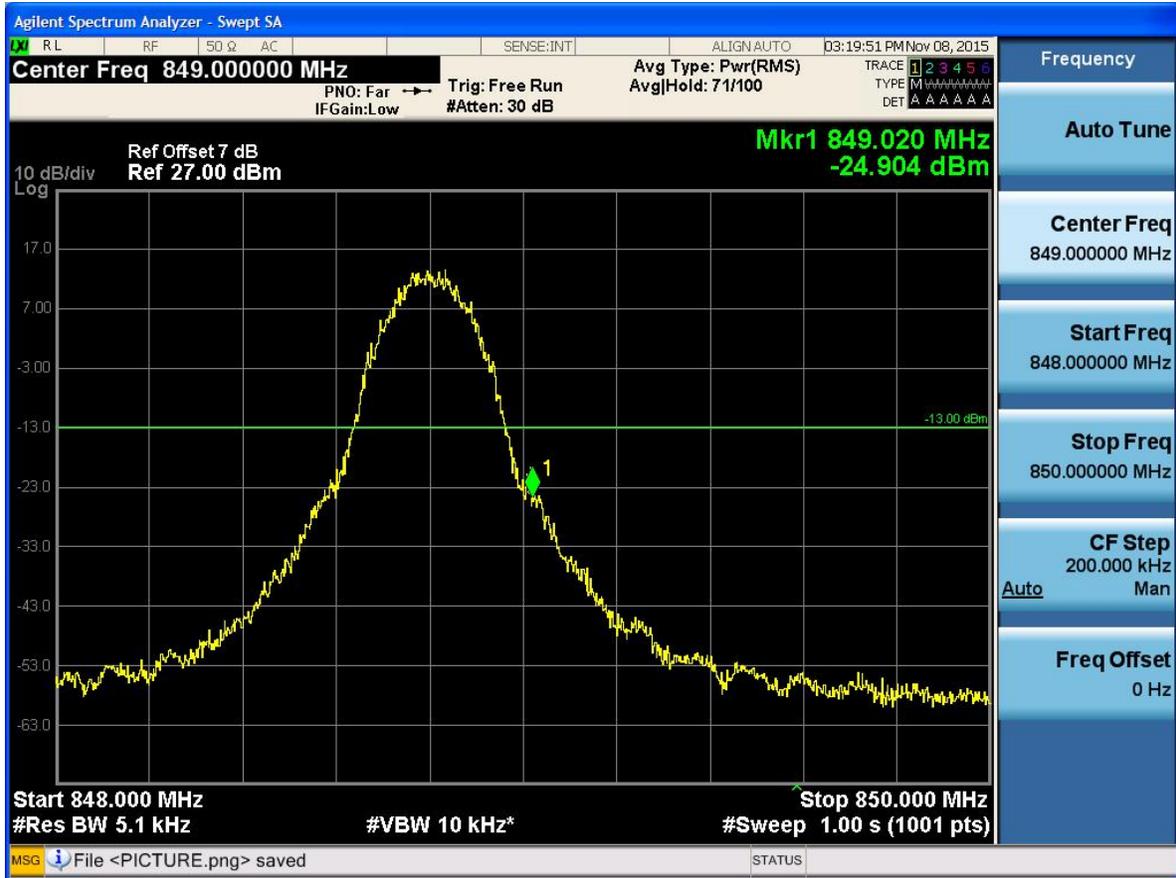


5.1.1.2 Test Mode = GSM/TM2

5.1.1.2.1 Test Channel = LCH



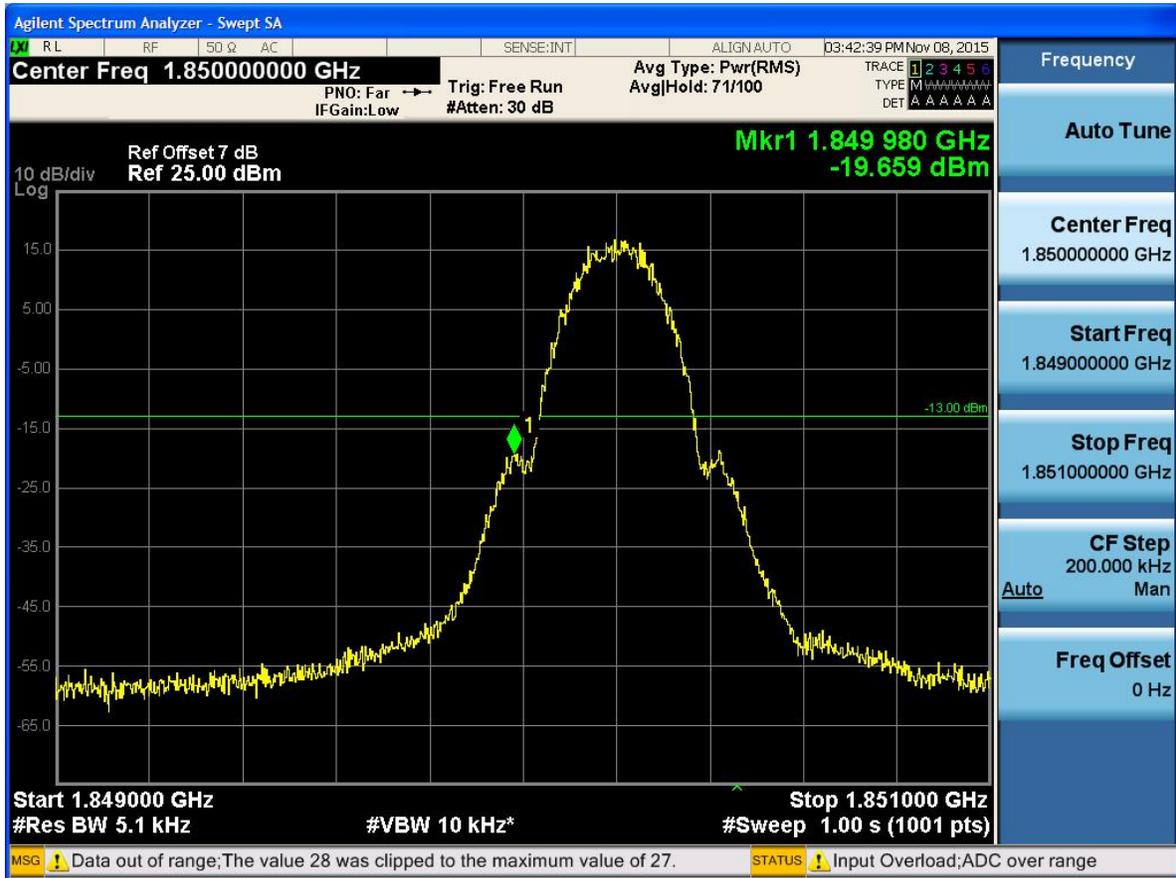
5.1.1.2.2 Test Channel = HCH



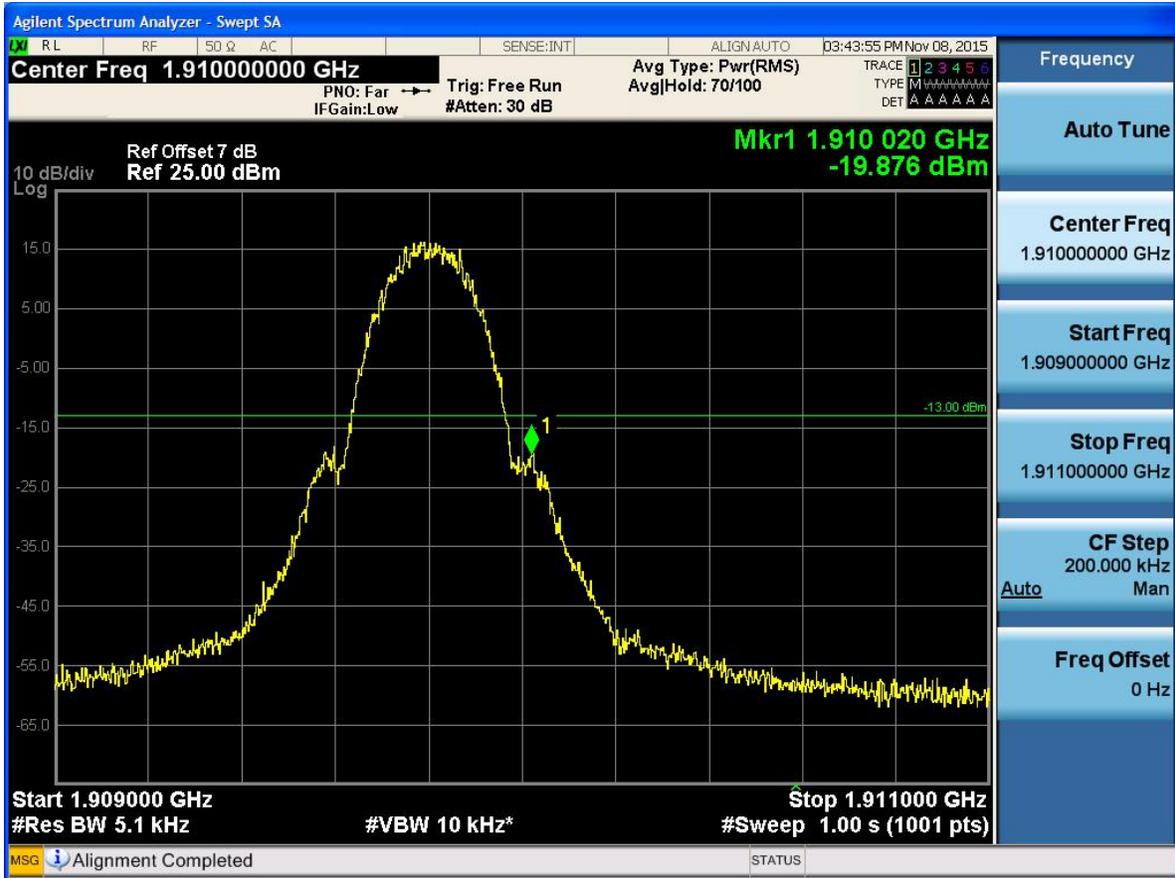
5.1.2 Test Band = GSM1900

5.1.2.1 Test Mode = GSM/TM1

5.1.2.1.1 Test Channel = LCH

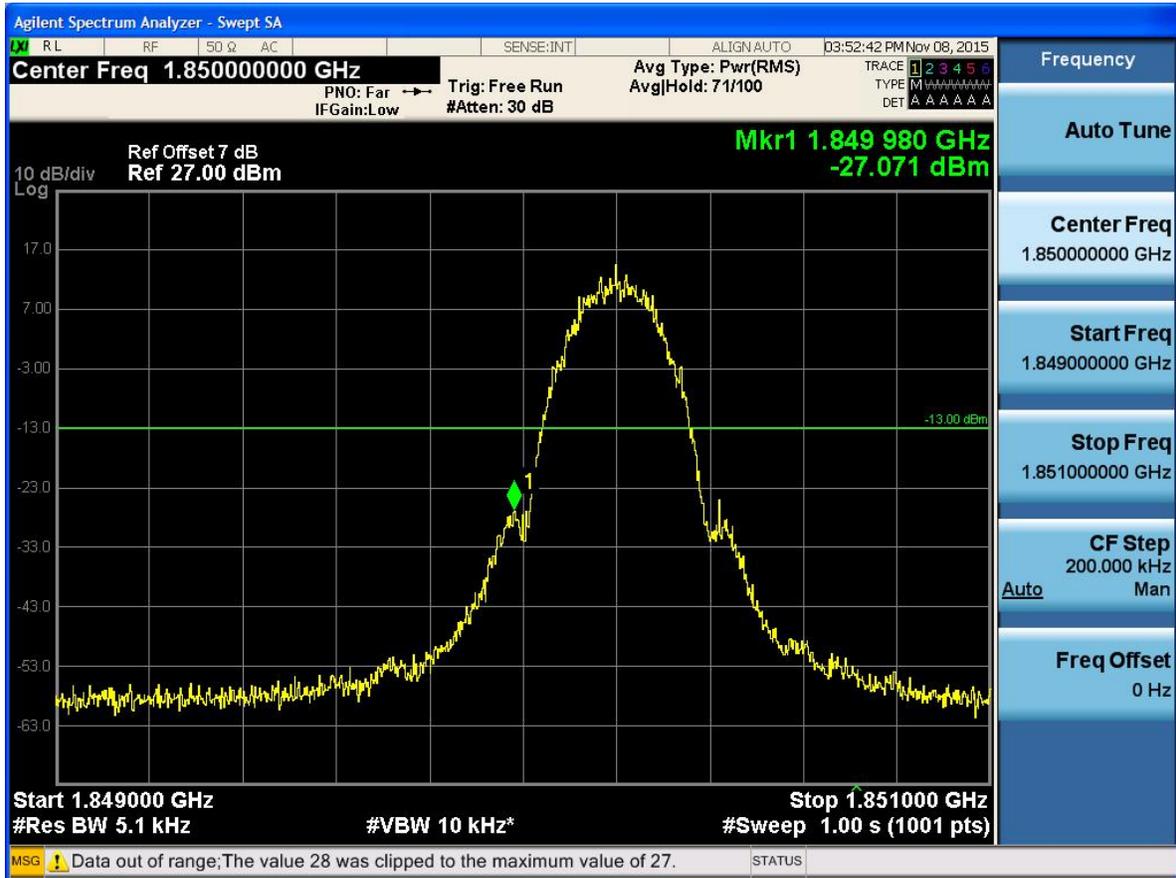


5.1.2.1.2 Test Channel = HCH

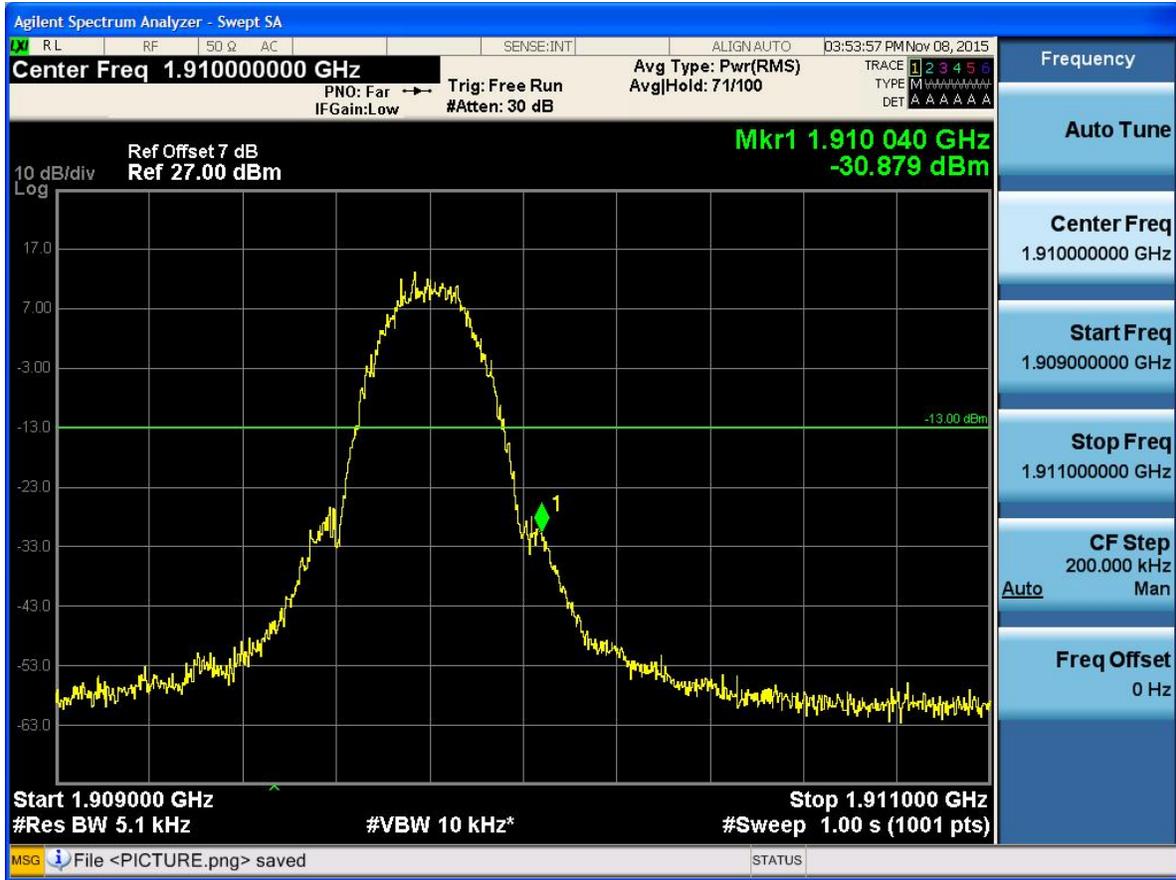


5.1.2.2 Test Mode = GSM/TM2

5.1.2.2.1 Test Channel = LCH



5.1.2.2.2 Test Channel = HCH



5.2 For UMTS

5.2.1 Test Band = WCDMA850

5.2.1.1 Test Mode = UMTS/TM1

5.2.1.1.1 Test Channel = LCH



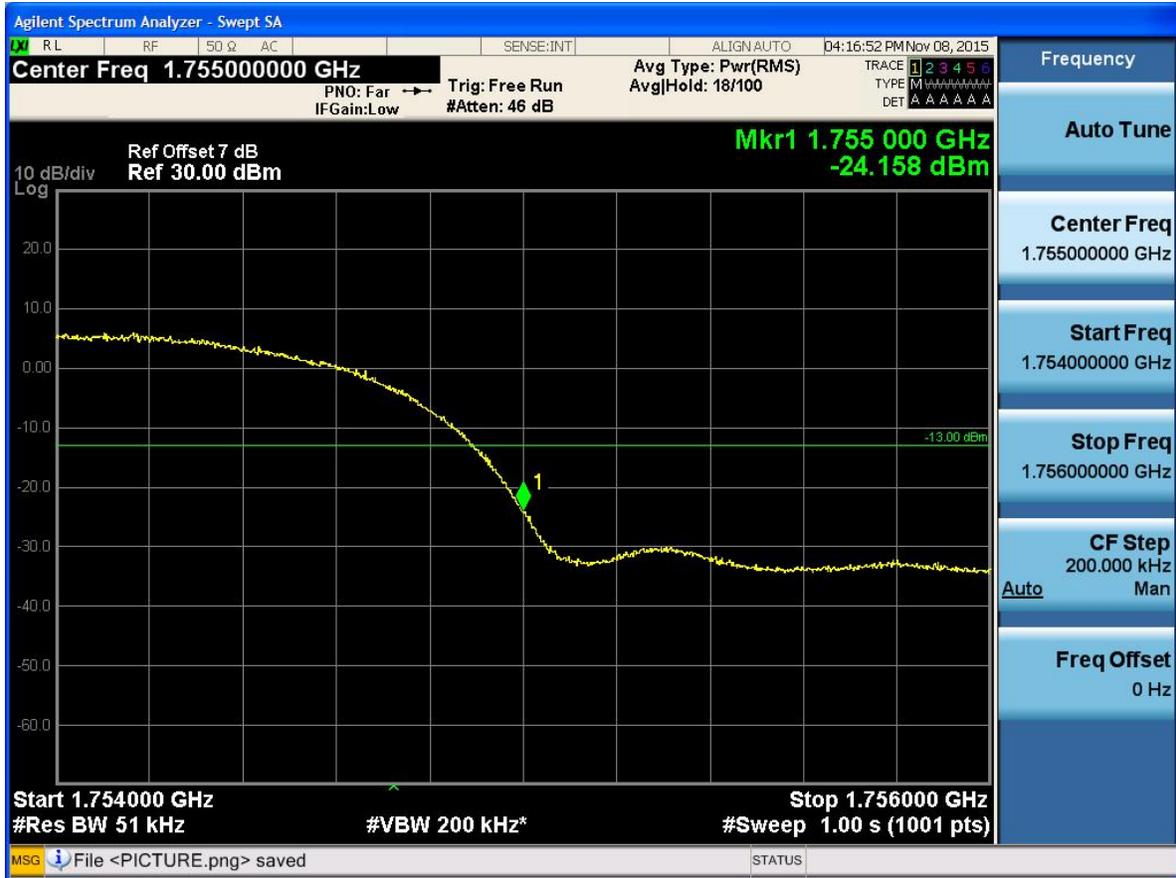
5.2.1.1.2 Test Channel = HCH



5.2.2.1.2 Test Channel = HCH



5.2.3.1.2 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.

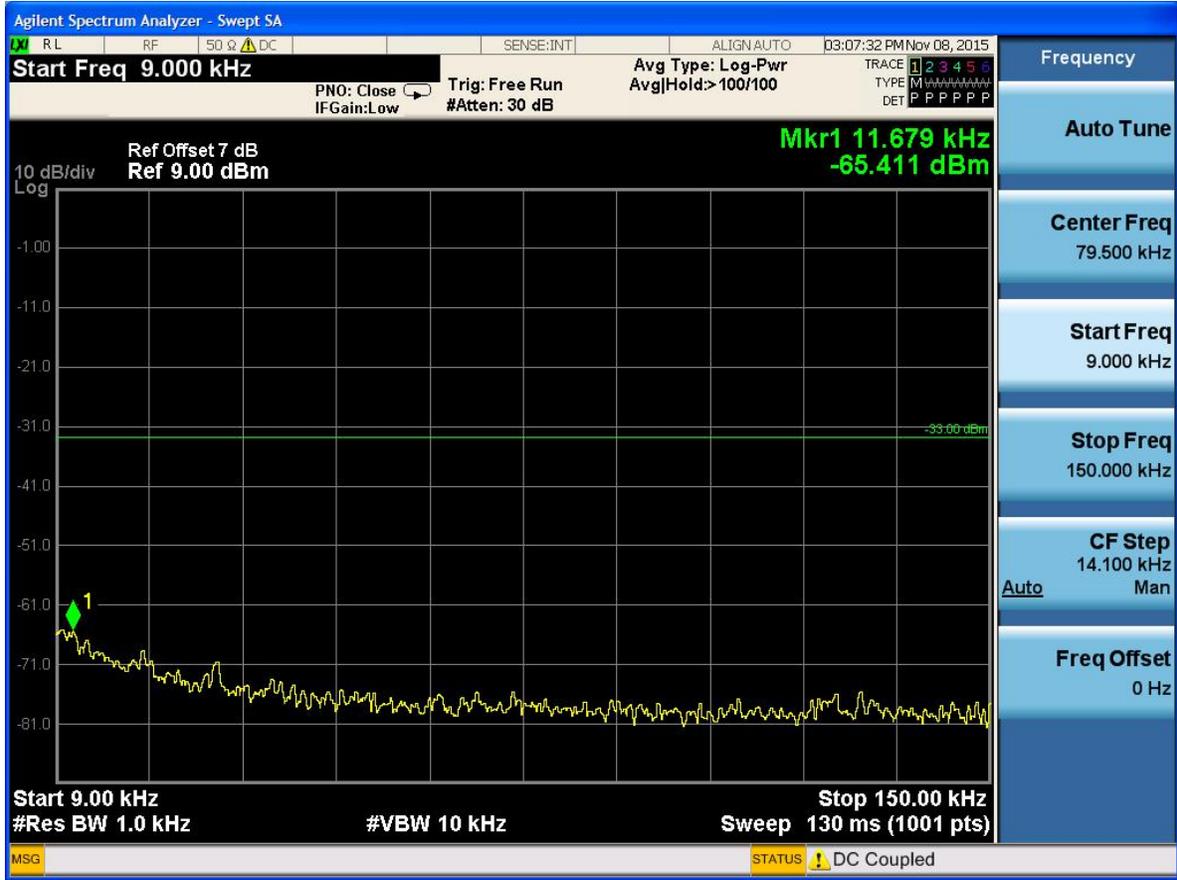
Part I - Test Plots

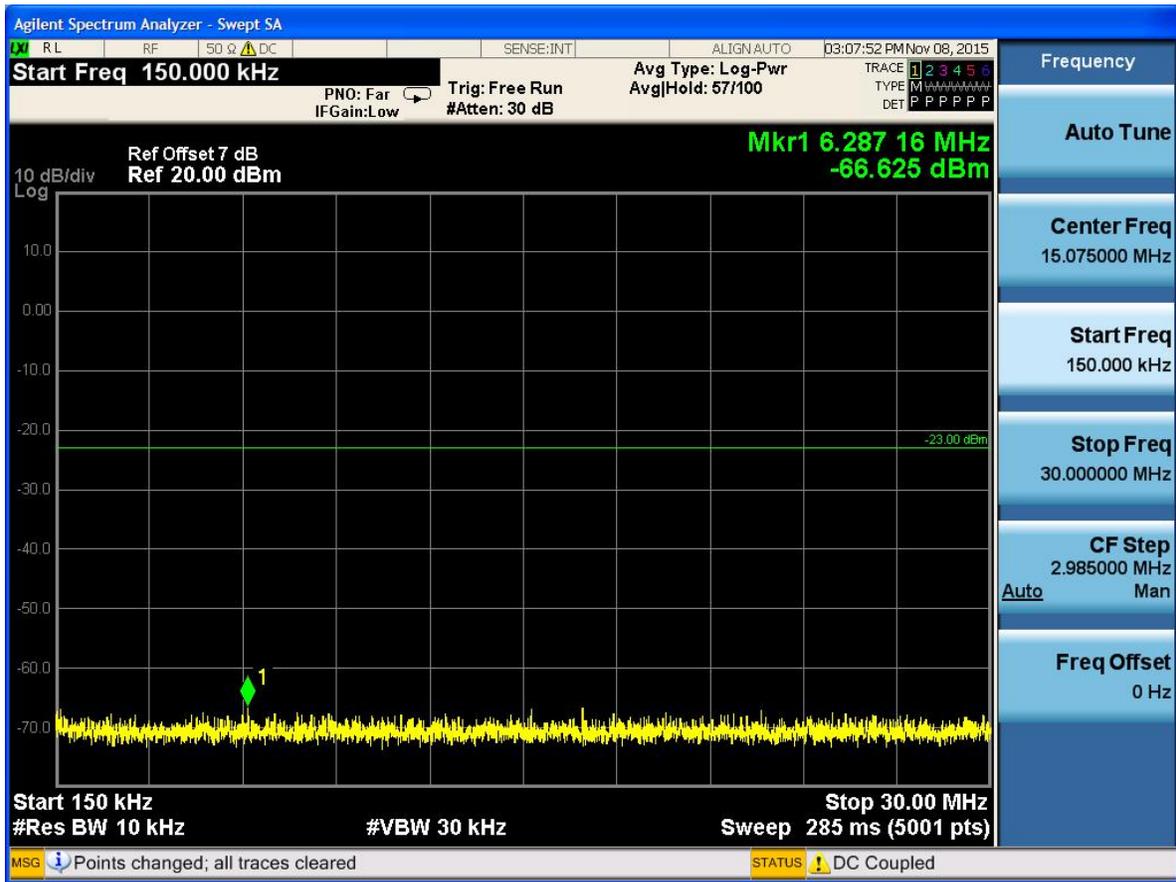
6.1 For GSM

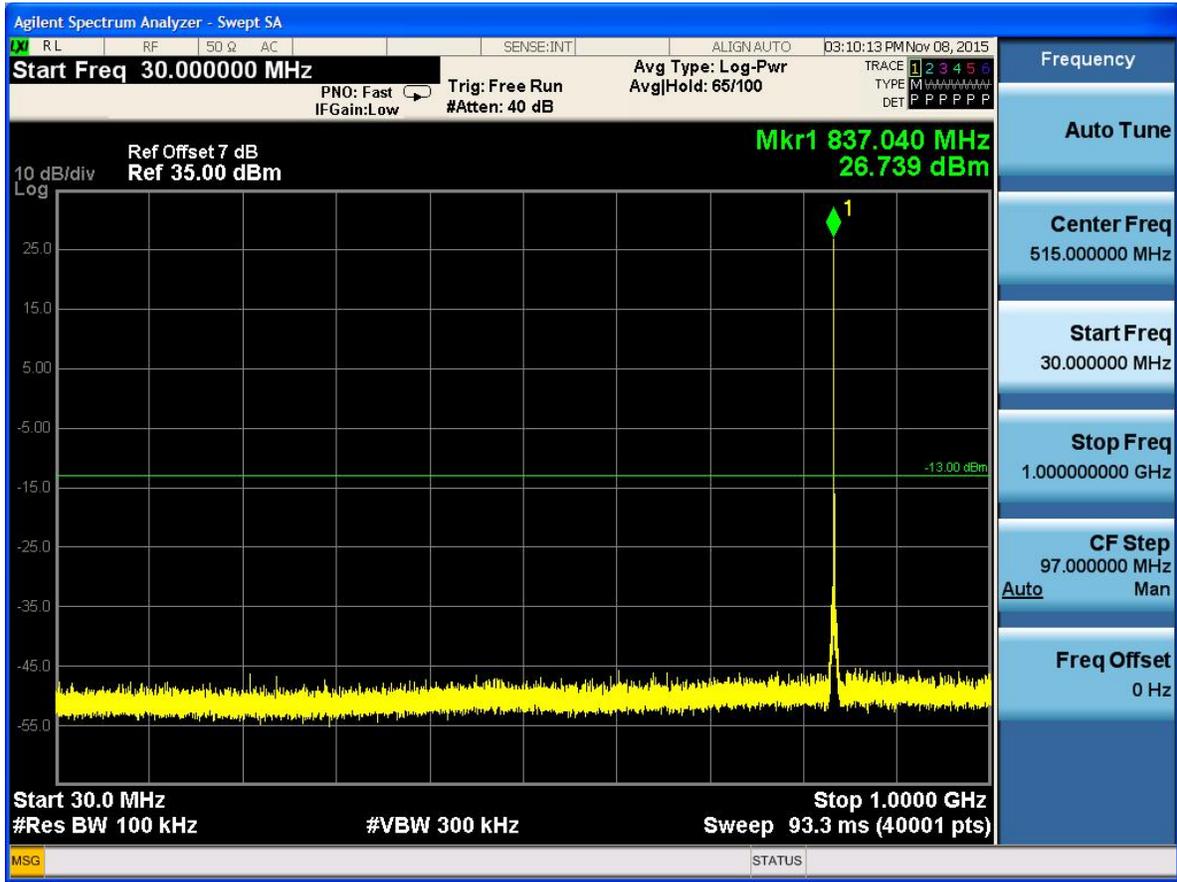
6.1.1 Test Band = GSM850

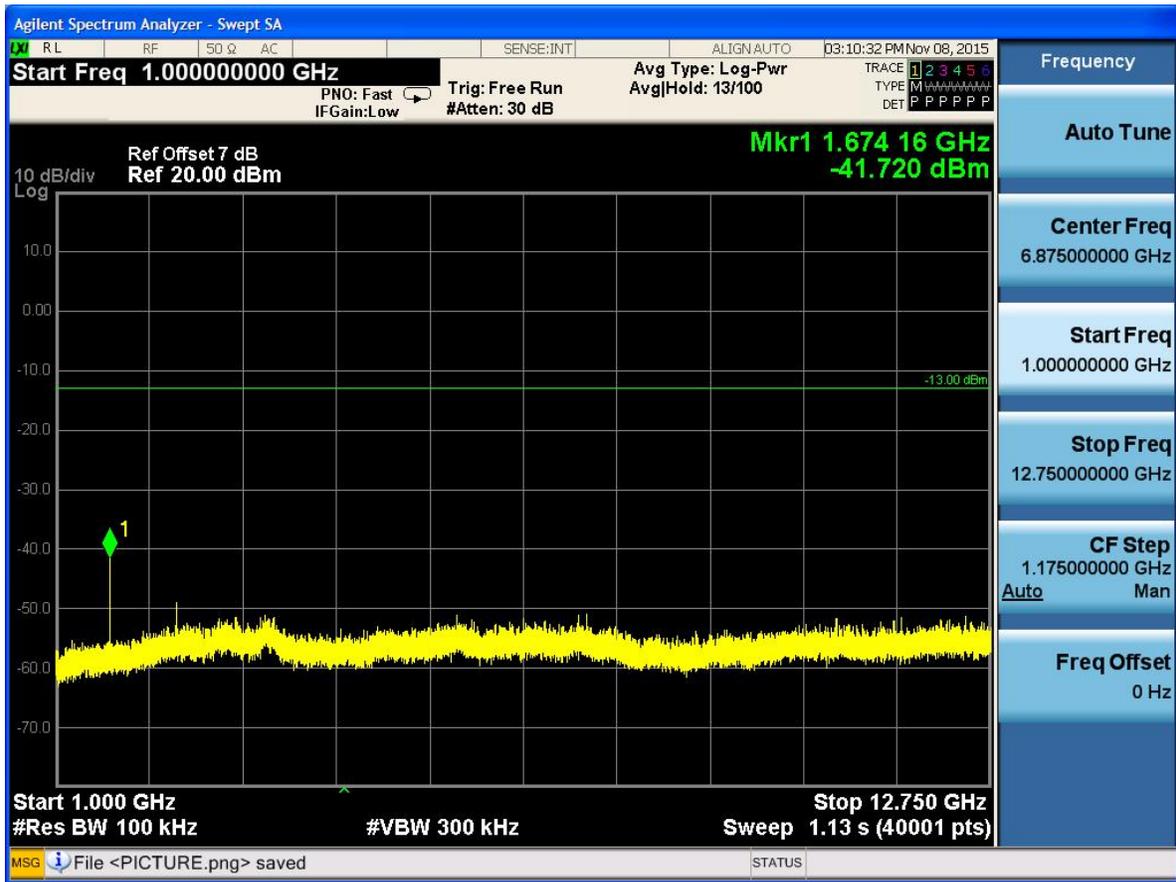
6.1.1.1 Test Mode = GSM/TM1

6.1.1.1.1 Test Channel = LCH

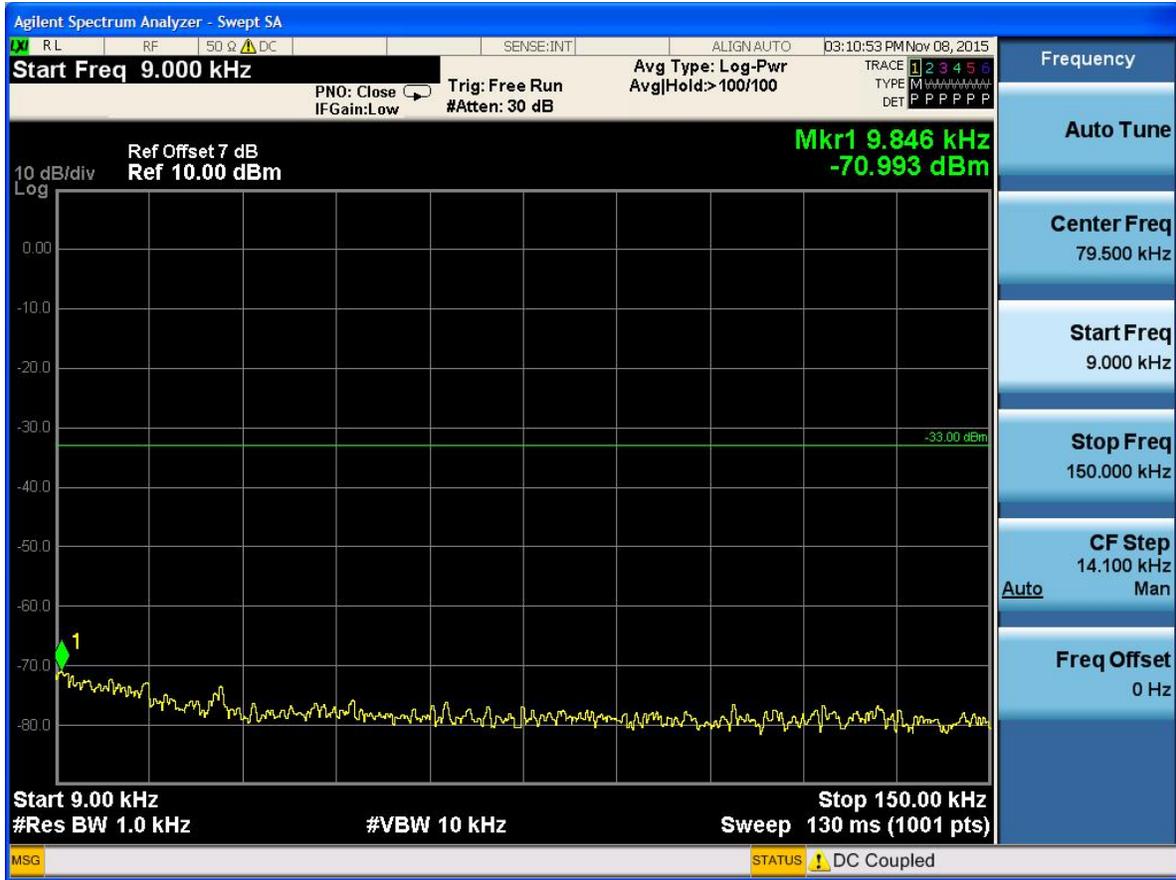


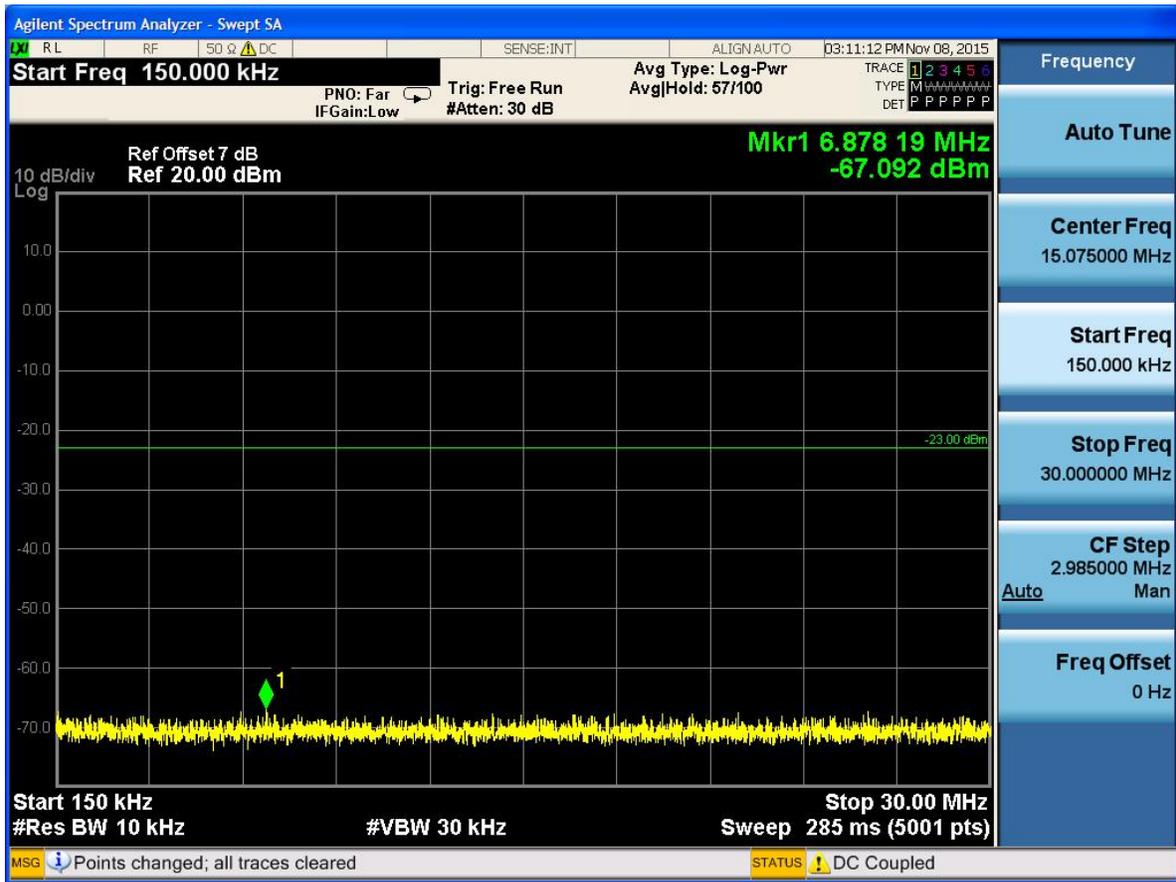


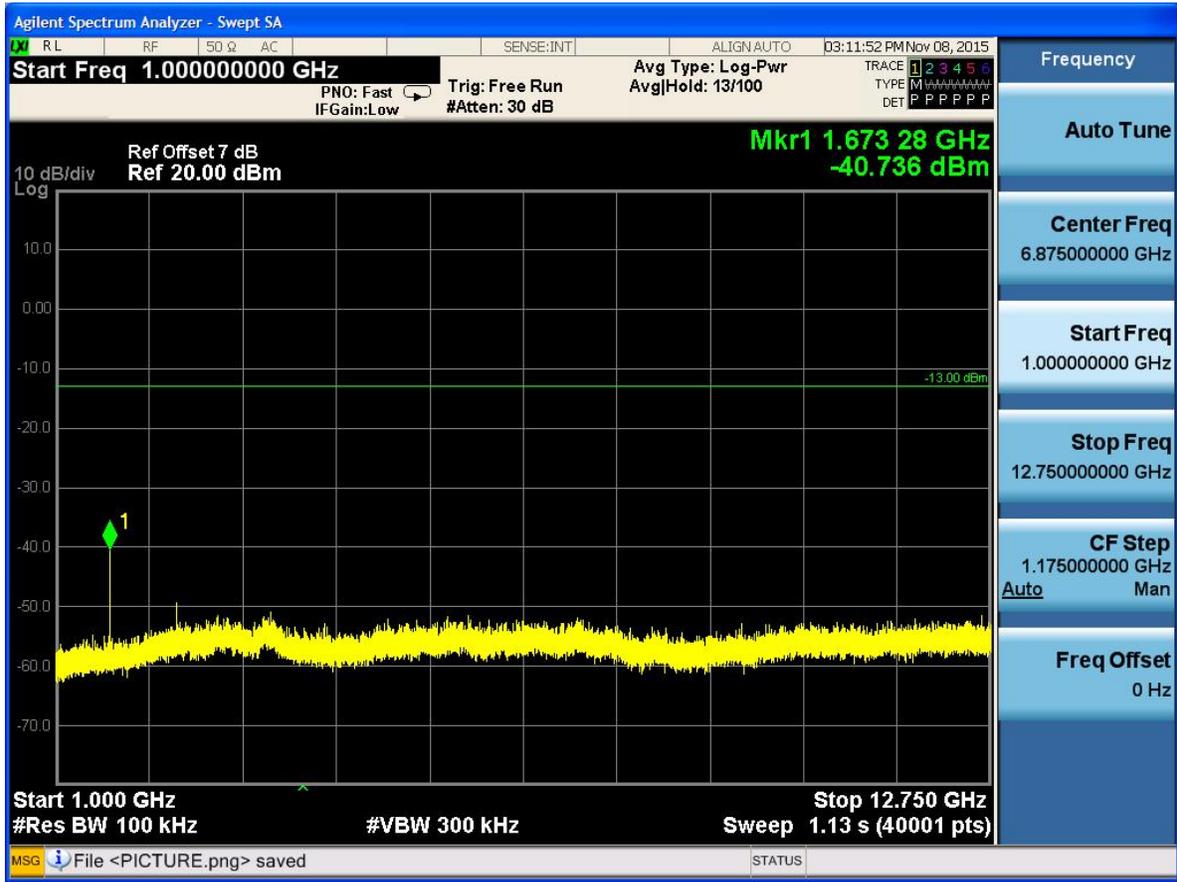




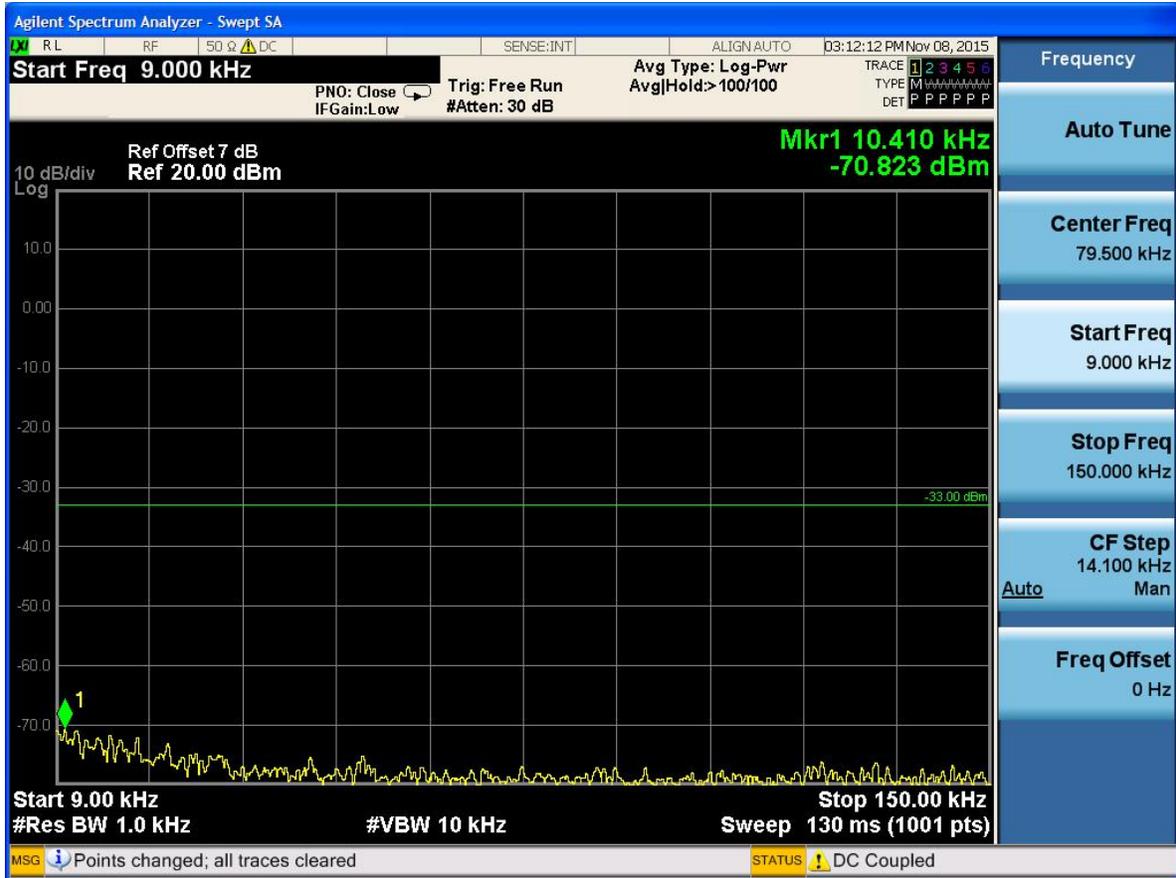
6.1.1.1.2 Test Channel = MCH

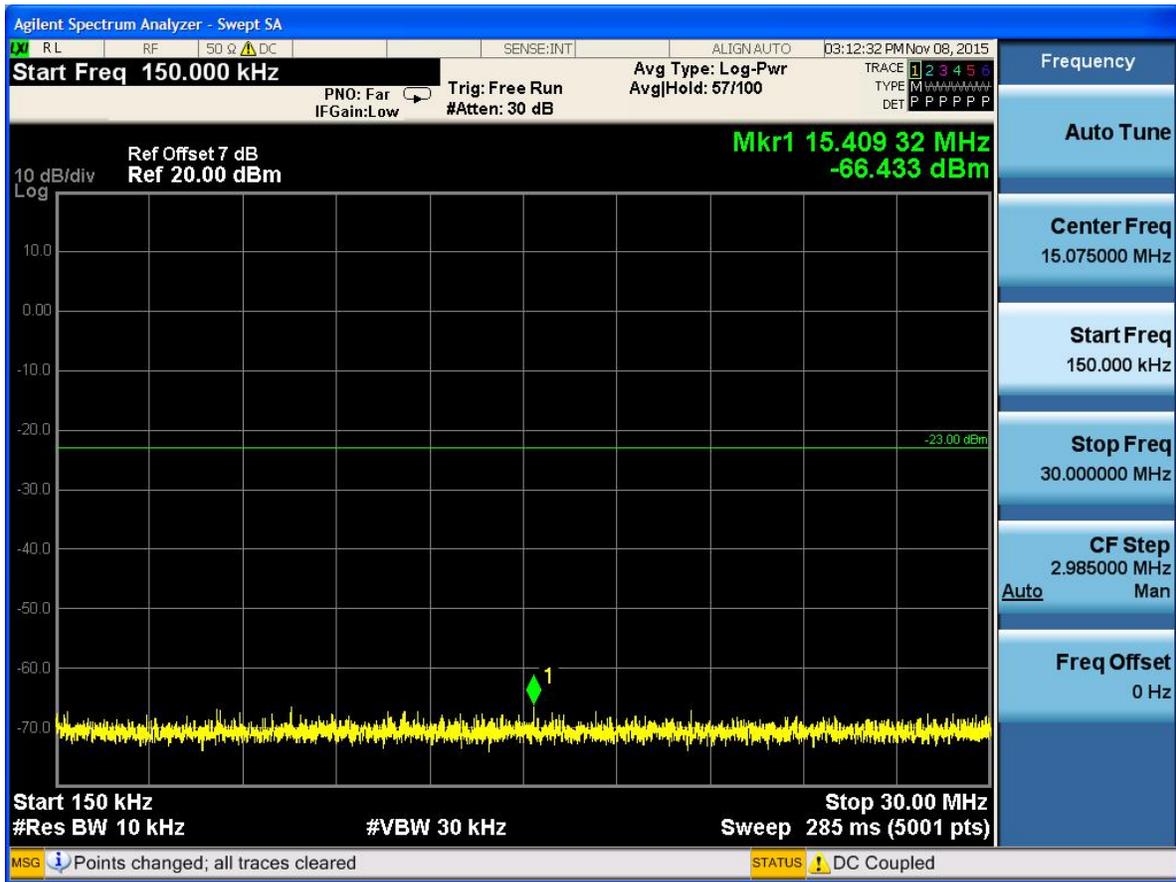


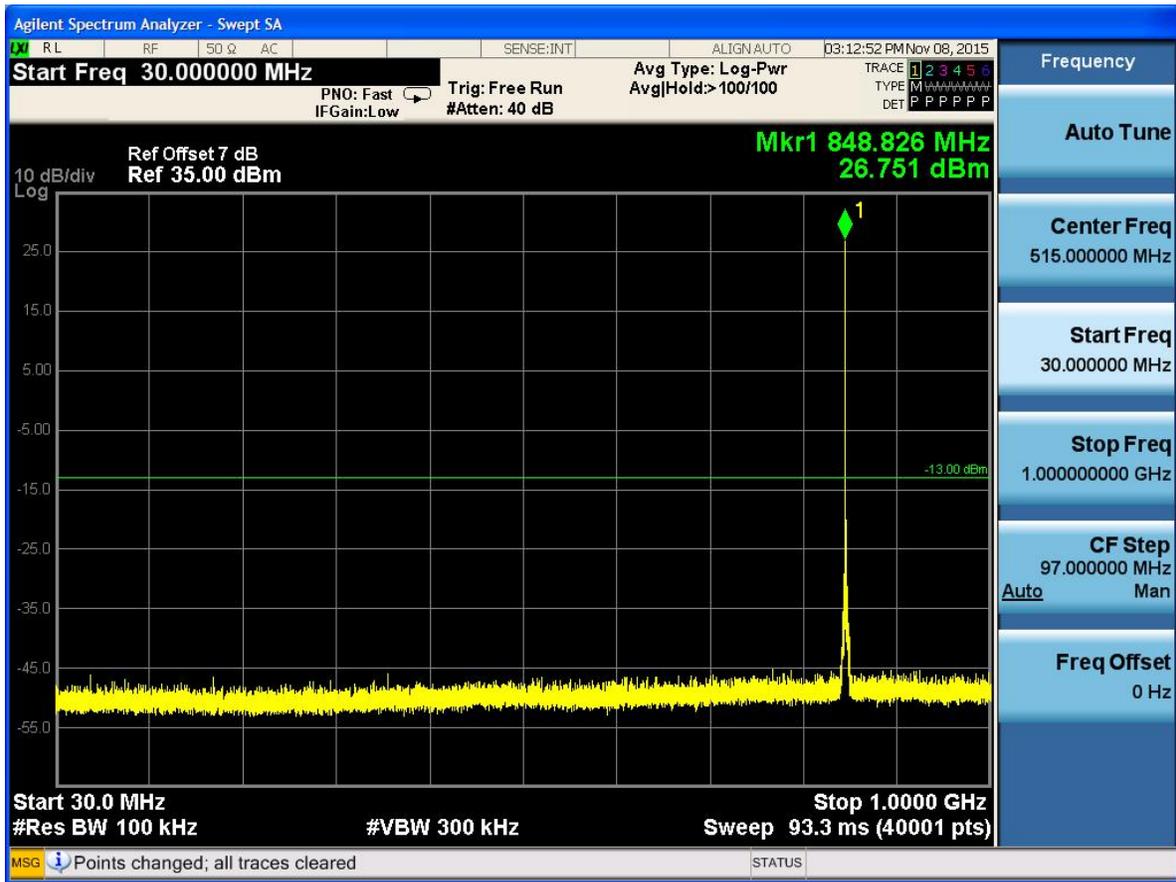


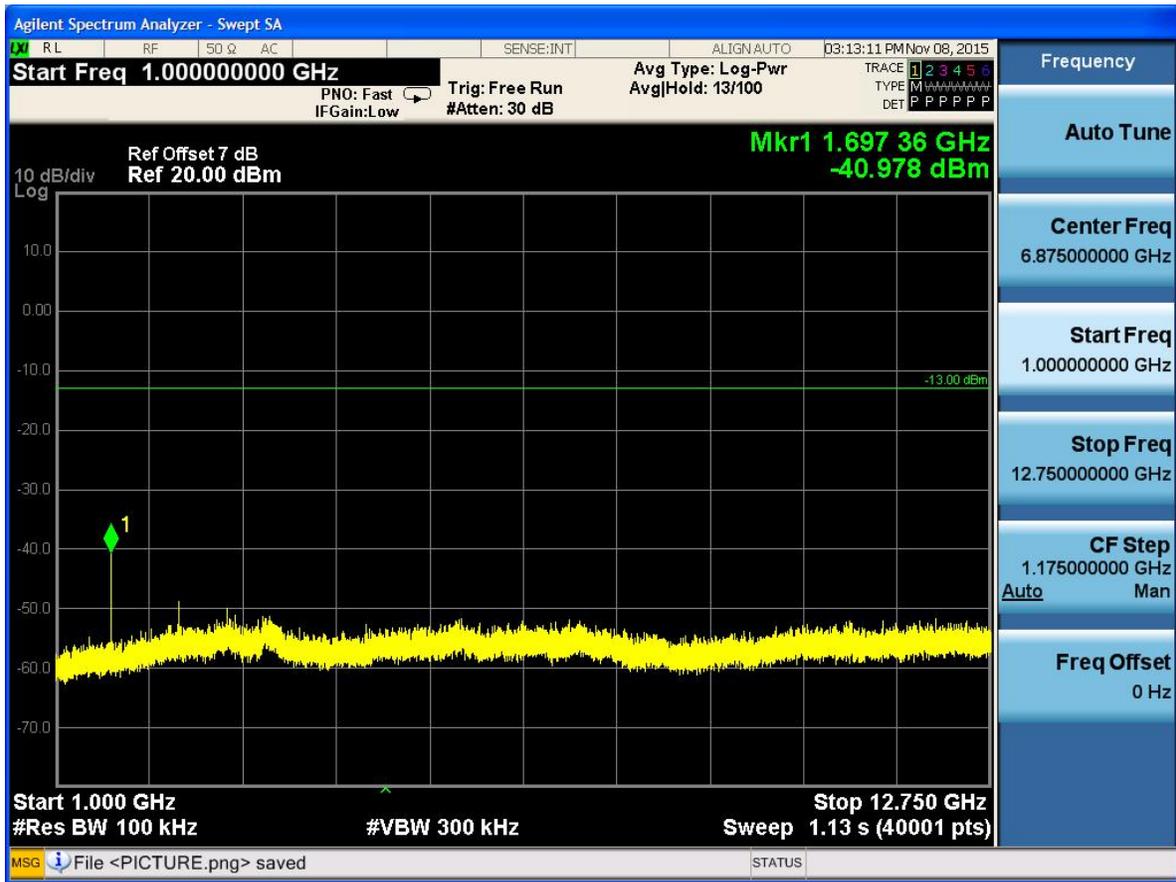


6.1.1.1.3 Test Channel = HCH



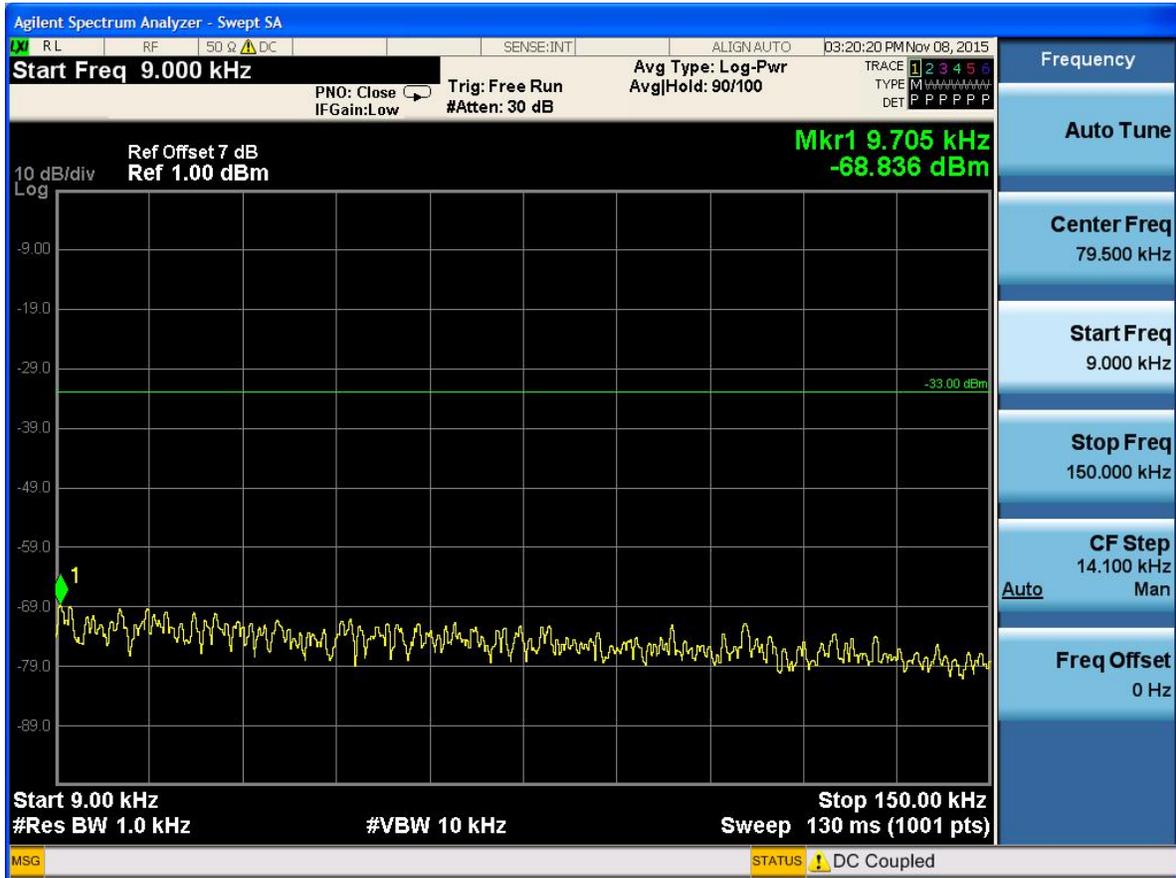


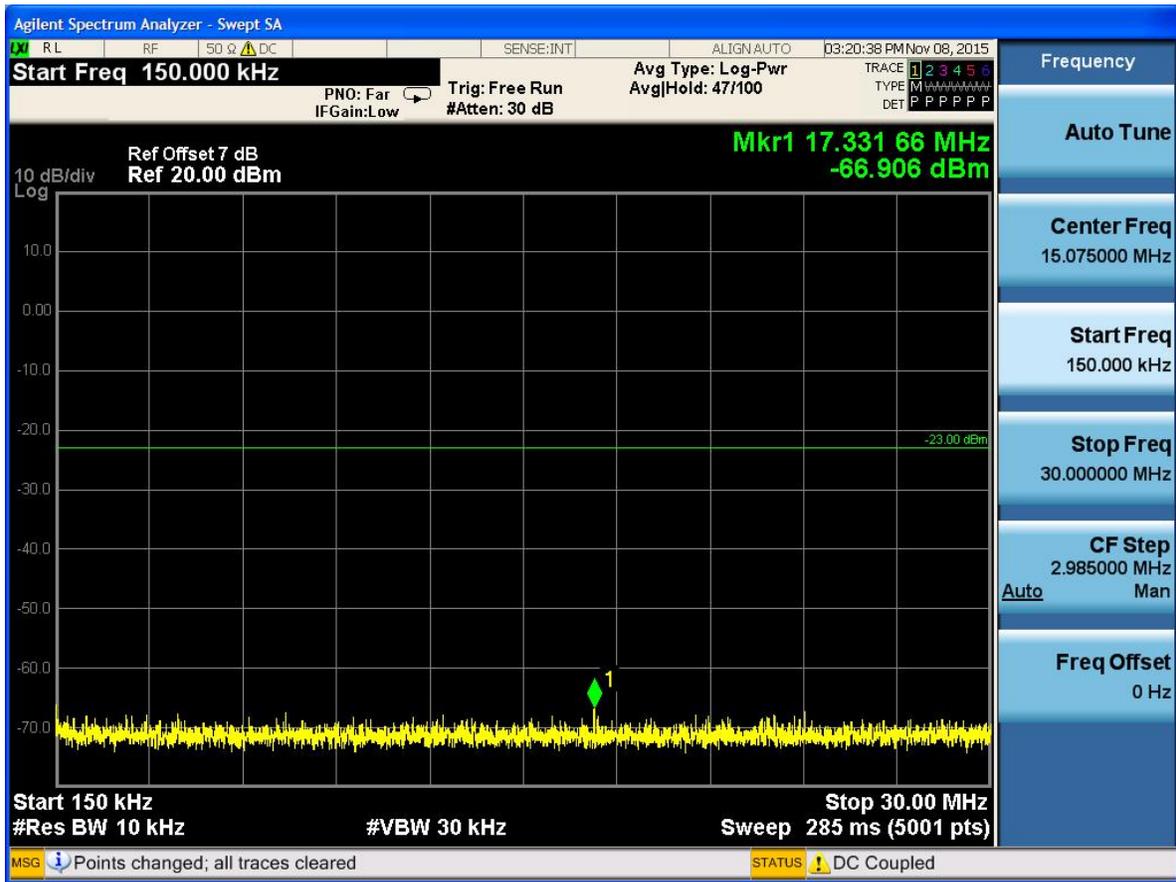


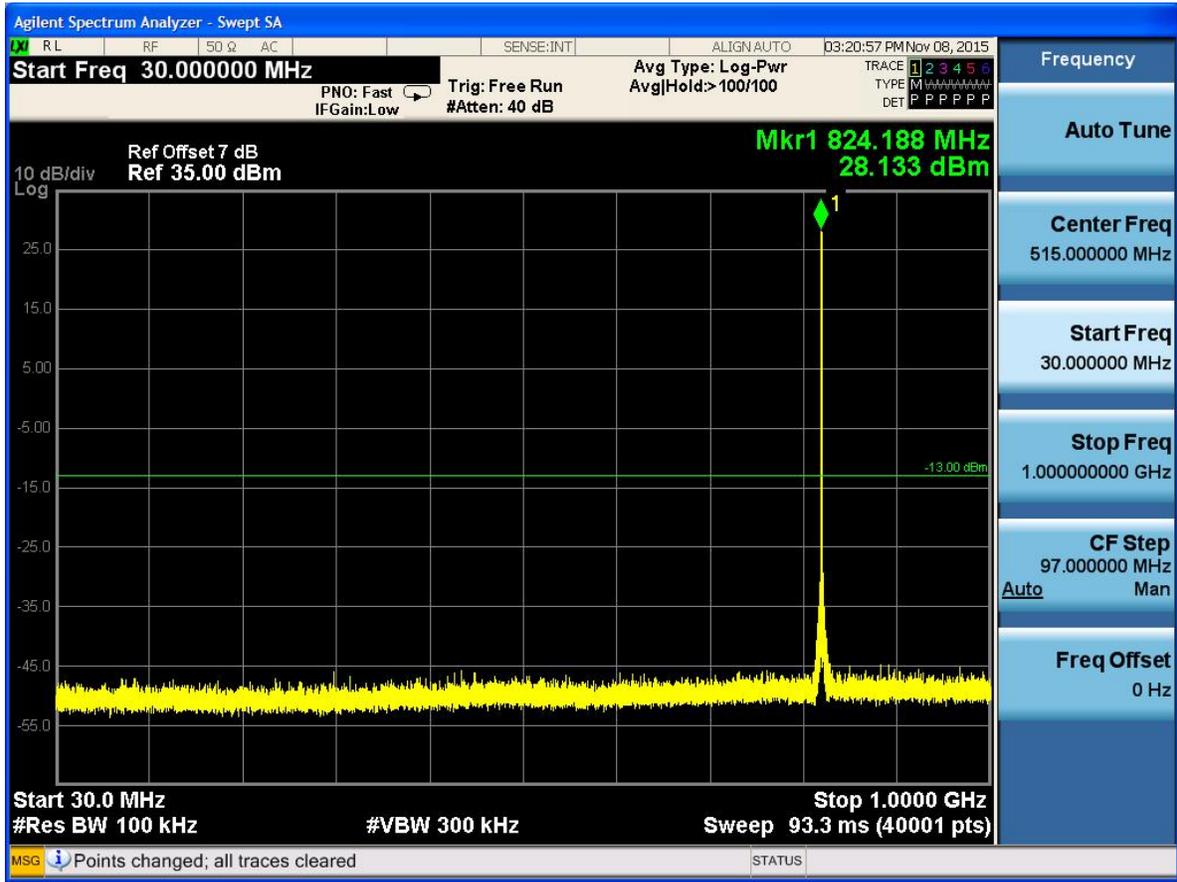


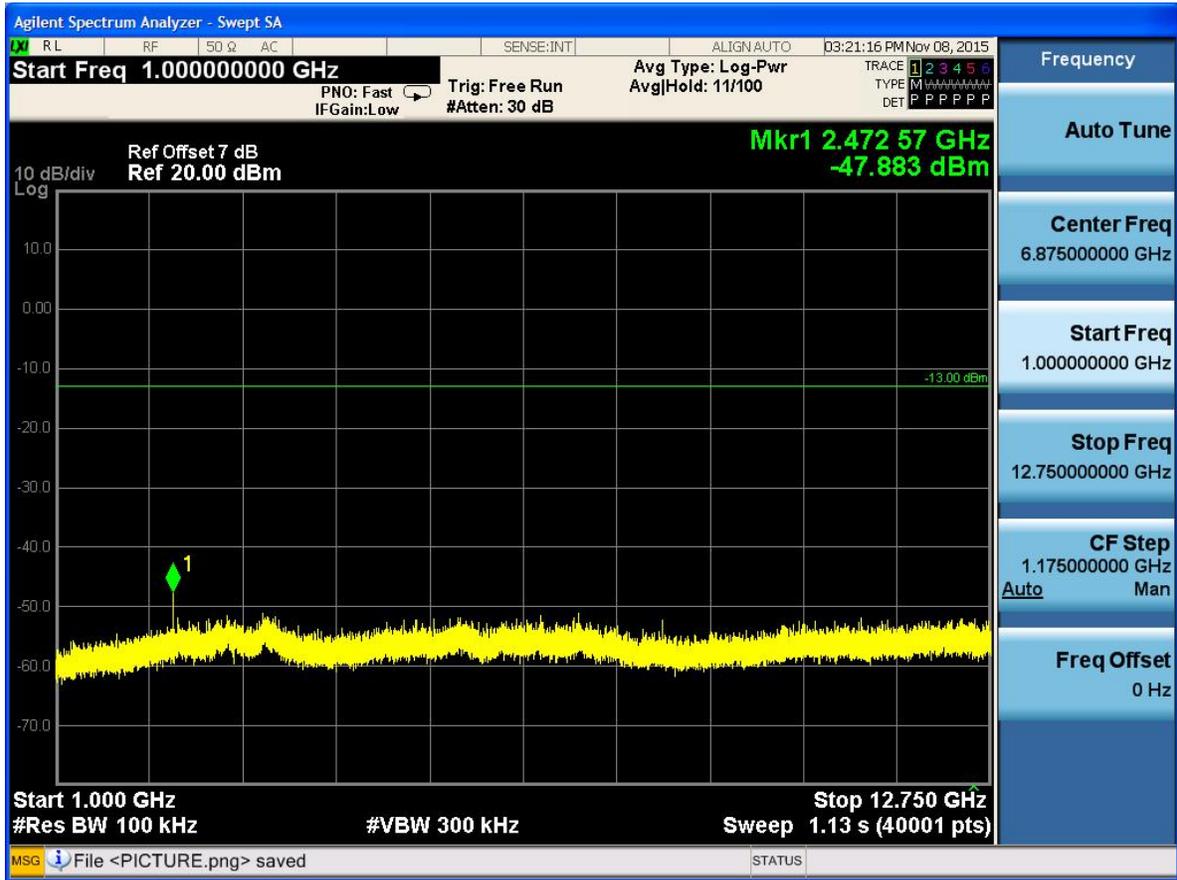
6.1.1.2 Test Mode = GSM/TM2

6.1.1.2.1 Test Channel = LCH

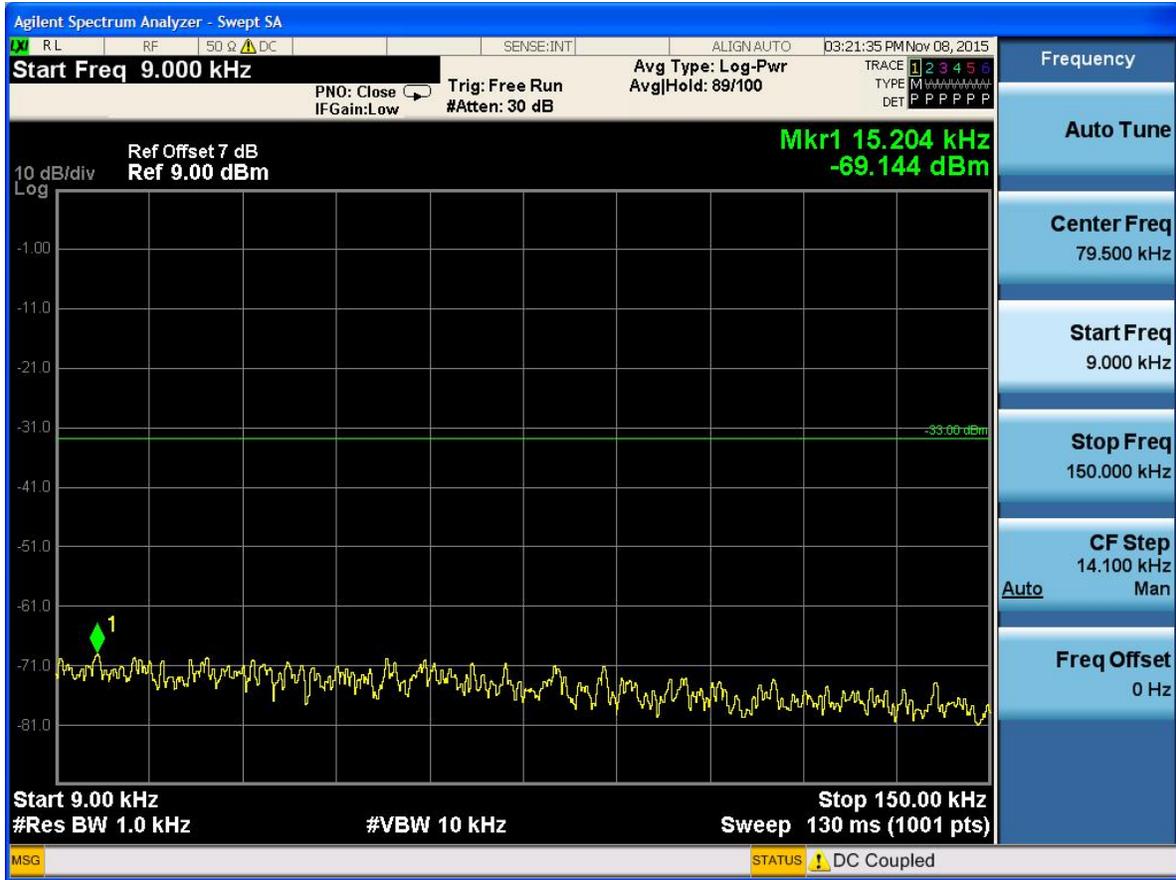


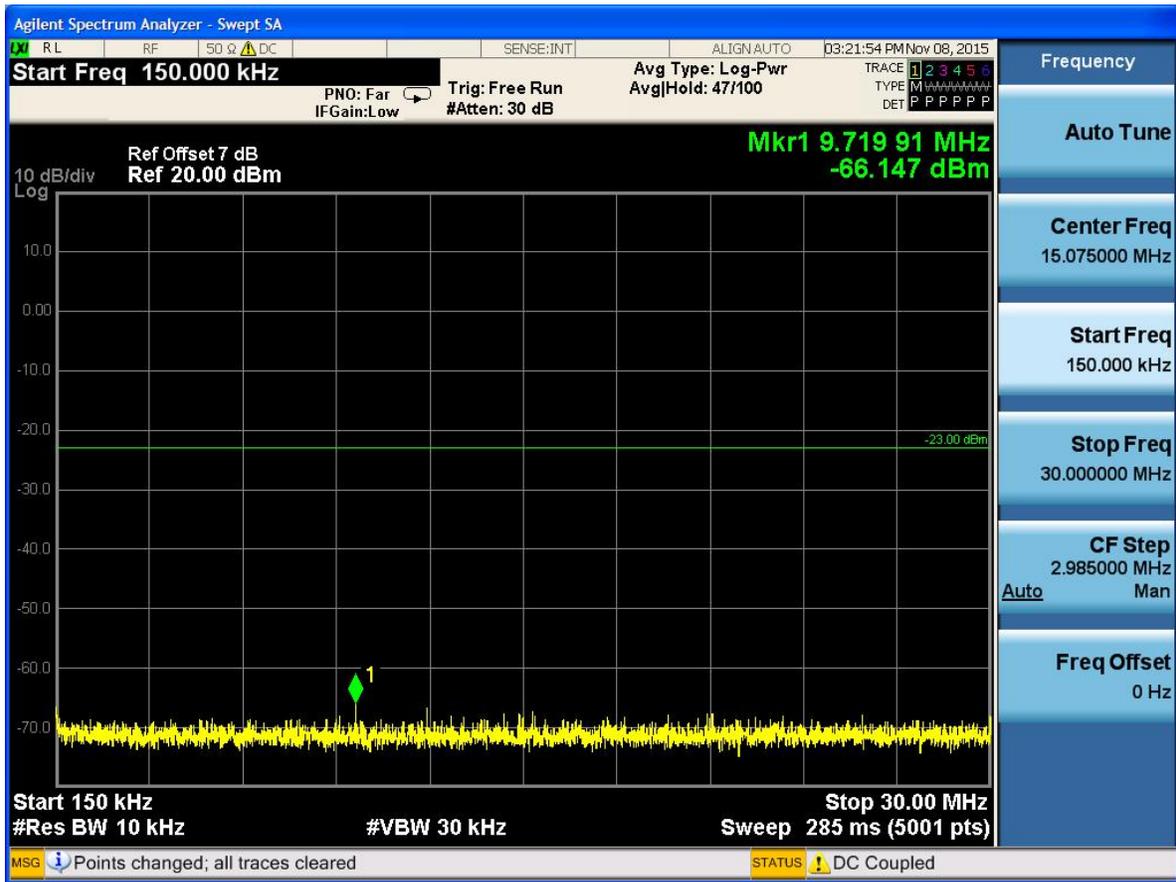


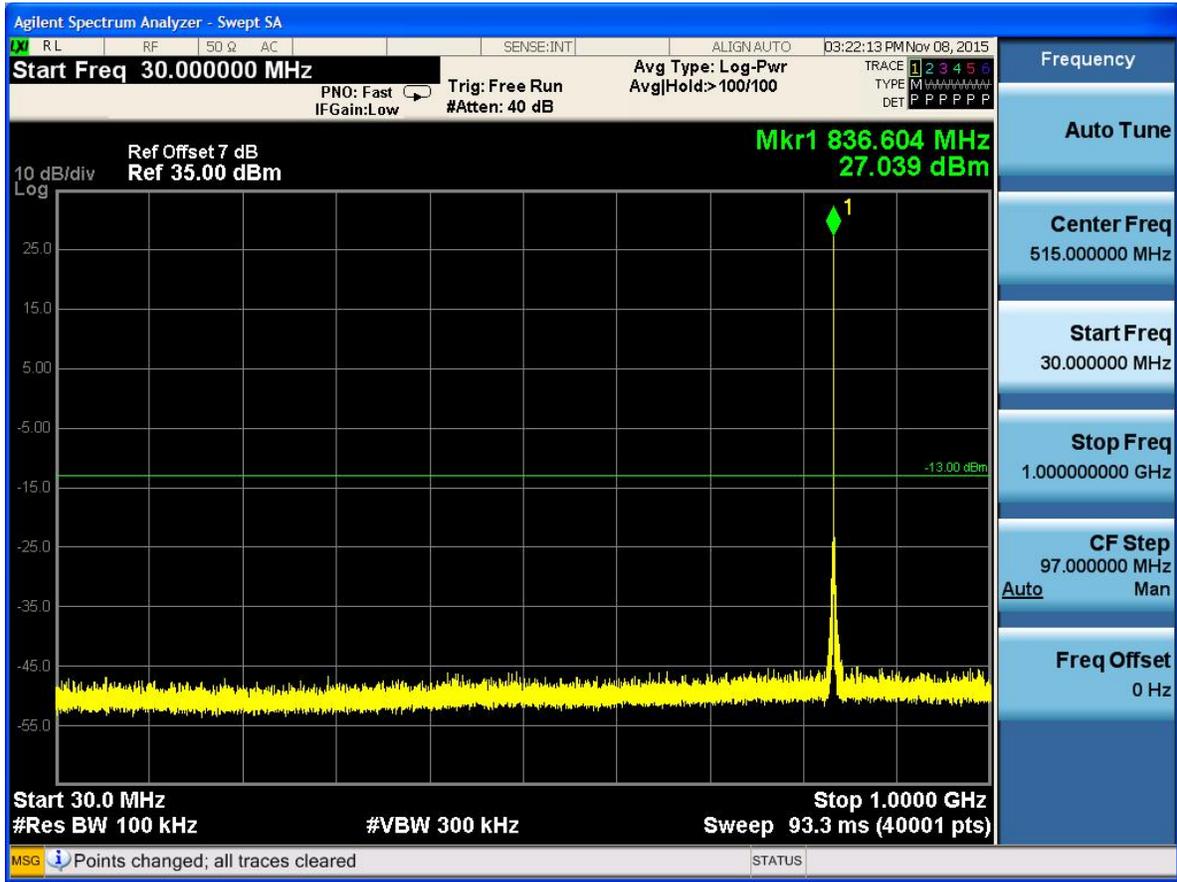


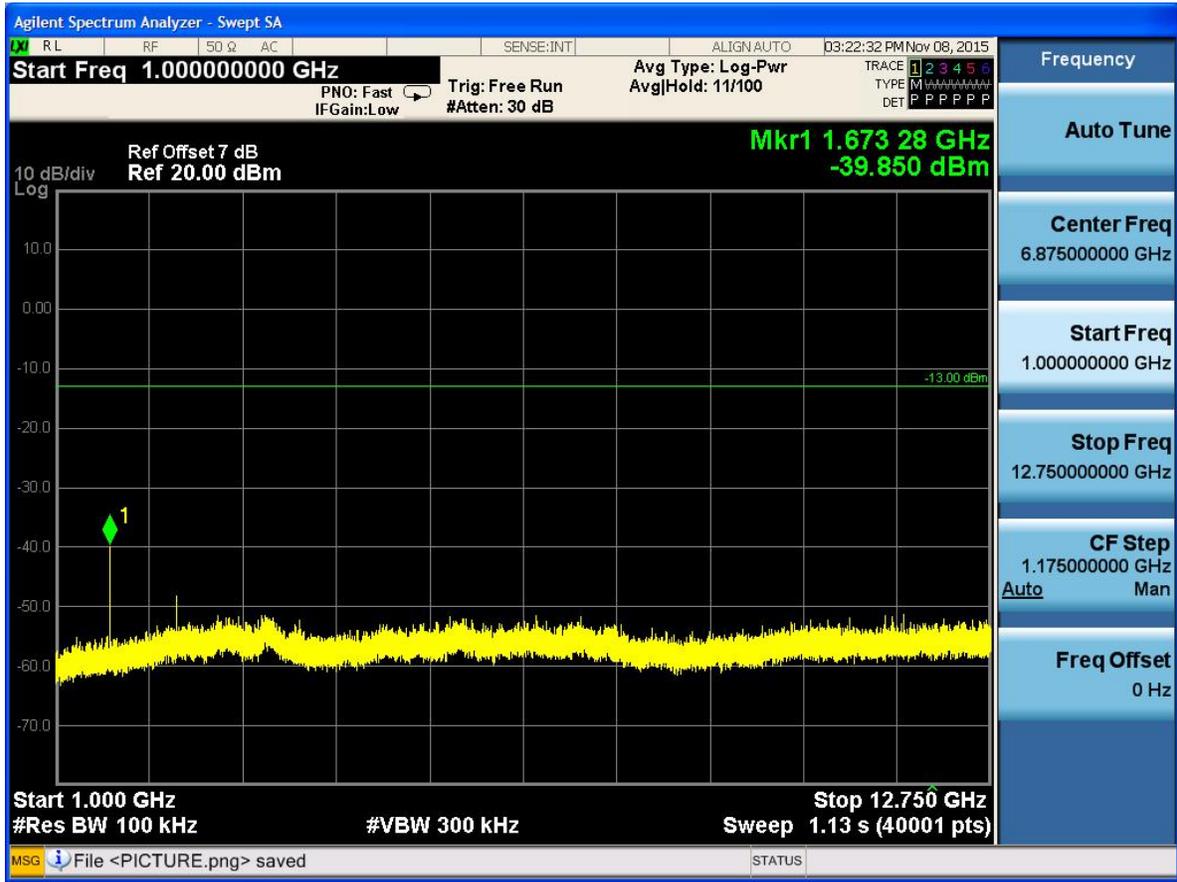


6.1.1.2.2 Test Channel = MCH









6.1.1.2.3 Test Channel = HCH

