



Appendix for Test Report

1Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band	Test Mode	Test Channel	Conducted Power [dBm]	ERP [dBm]	Limit [dBm]	Verdict
GSM850	GSM/TM1	LCH	31.7	30.07	38.5	PASS
		MCH	31.83	30.2	38.5	PASS
		HCH	31.91	30.28	38.5	PASS
	GSM/TM2	LCH	25.23	23.6	38.5	PASS
		MCH	25.2	23.57	38.5	PASS
		HCH	25.11	23.48	38.5	PASS
WCDMA850	UMTS/TM1	LCH	21.97	20.34	38.5	PASS
		MCH	21.94	20.31	38.5	PASS
		HCH	21.96	20.33	38.5	PASS

Test Band	Test Mode	Test Channel	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
GSM1900	GSM/TM1	LCH	29.03	31.61	33	PASS
		MCH	28.84	31.42	33	PASS
		HCH	28.69	31.27	33	PASS
	GSM/TM2	LCH	24.71	27.29	33	PASS
		MCH	24.72	27.3	33	PASS
		HCH	24.59	27.17	33	PASS
WCDMA1900	UMTS/TM1	LCH	22.04	24.62	33	PASS
		MCH	21.74	24.32	33	PASS
		HCH	22.15	24.73	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: RBW > emission bandwidth, VBW > 3 x RBW.

Detector: RMS

2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
GSM1900	GSM/TM1	LCH	0.13	13	PASS
		MCH	0.13	13	PASS
		HCH	0.14	13	PASS
	GSM/TM2	LCH	3.15	13	PASS
		MCH	3.13	13	PASS
		HCH	3.15	13	PASS

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
WCDMA1900	UMTS/TM1	LCH	2.77	13	PASS
		MCH	3.15	13	PASS
		HCH	3.09	13	PASS

3Appendix_C: Modulation Characteristics

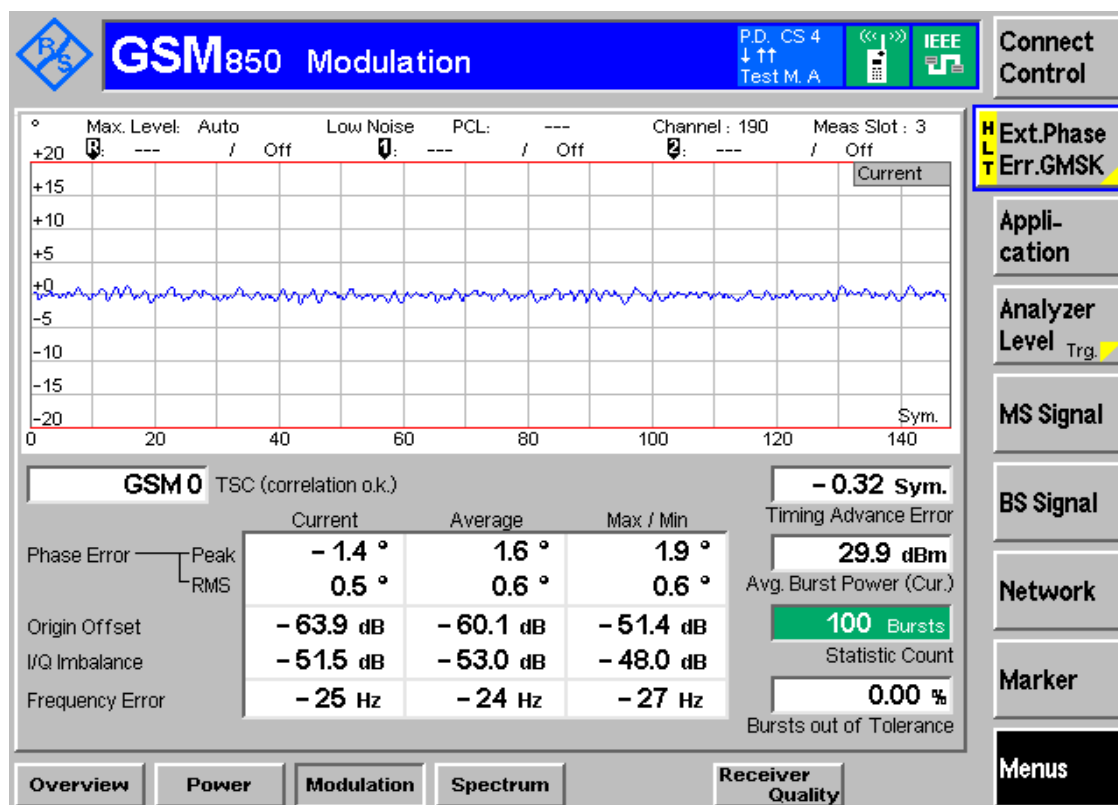
Part I - Test Plots

3.1 For GSM

3.1.1 Test Band = GSM850

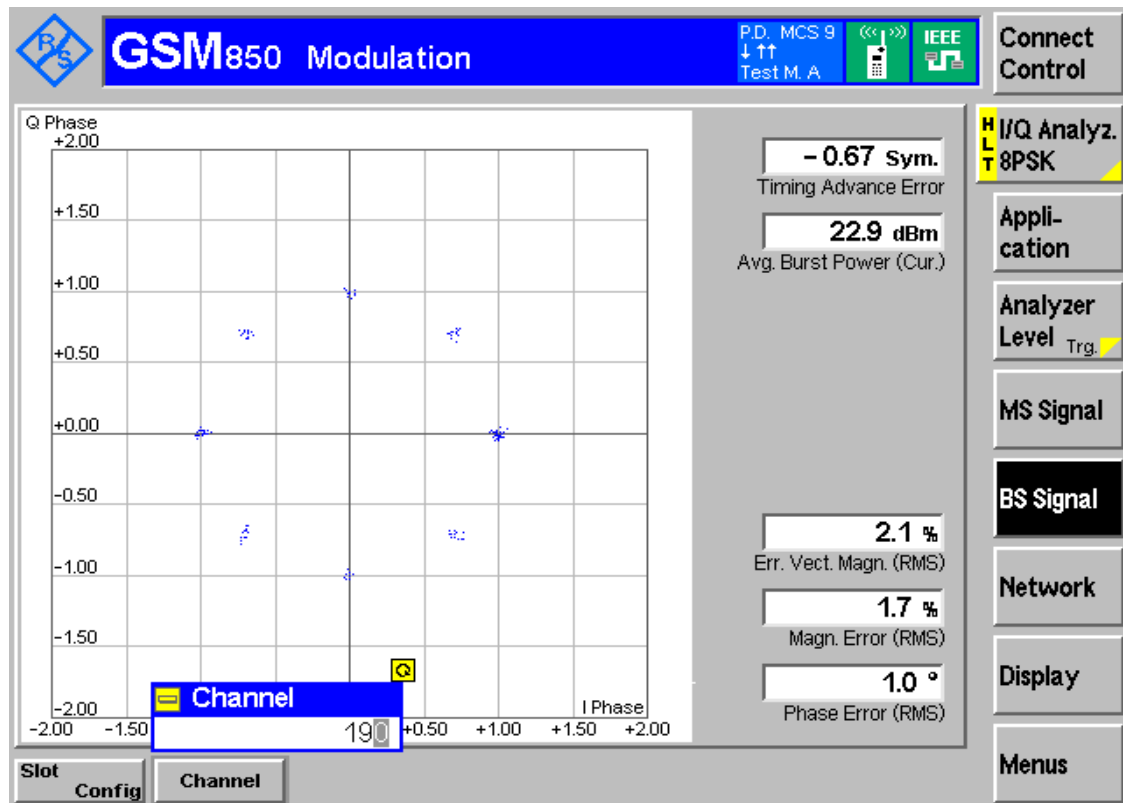
3.1.1.1 Test Mode = GSM/TM1

3.1.1.1.1 Test Channel = MCH



3.1.1.2 Test Mode = GSM/TM2

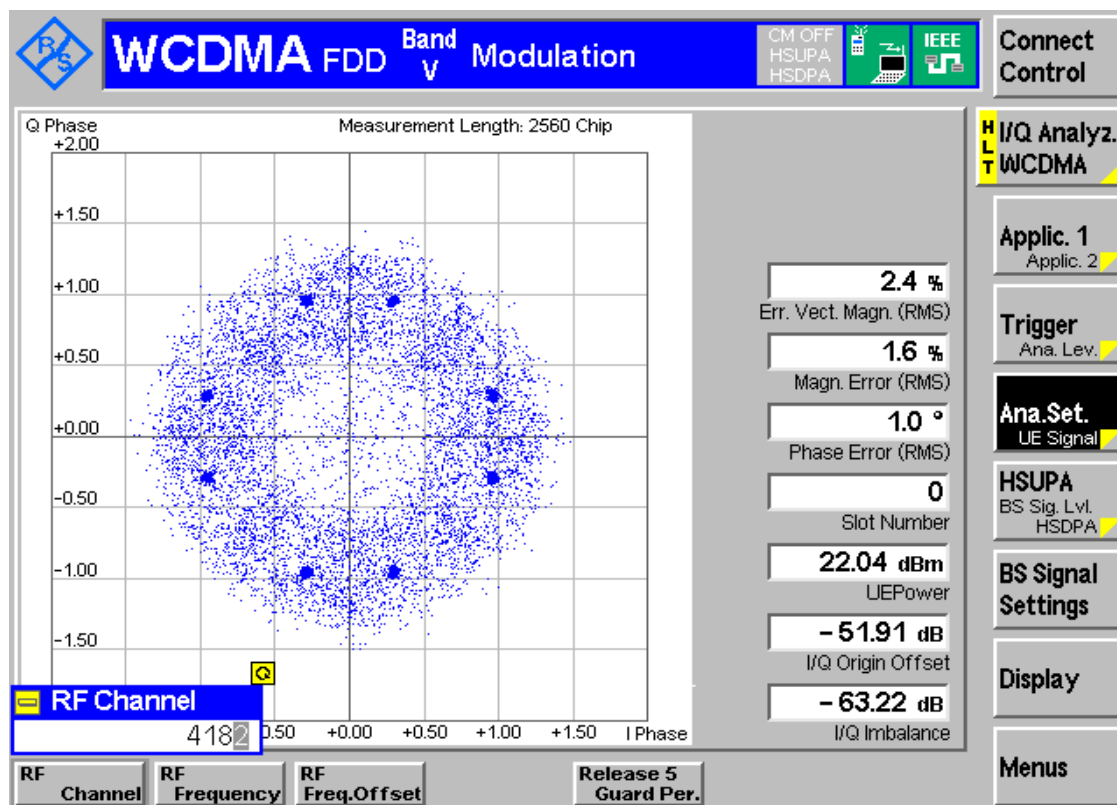
3.1.1.2.1 Test Channel = MCH



3.1.2 Test Band = WCDMA850

3.1.2.1 Test Mode = UMTS/TM1

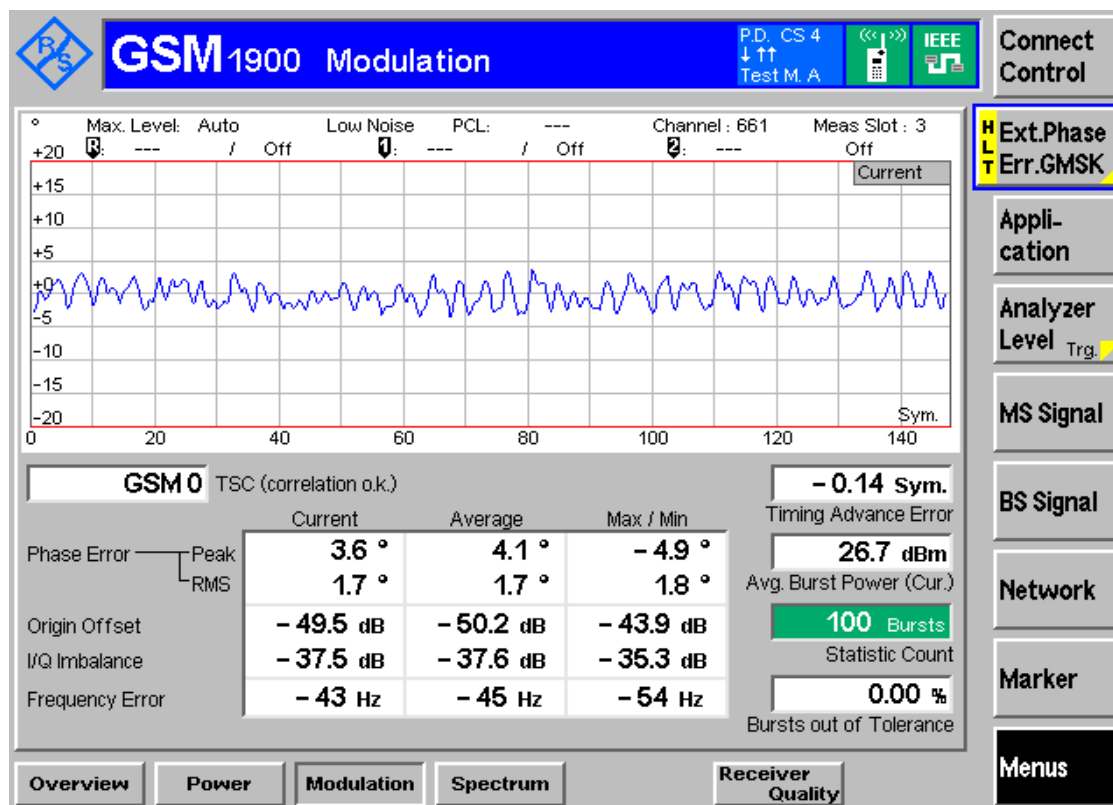
3.1.2.1.1 Test Channel = MCH



3.1.3 Test Band = GSM1900

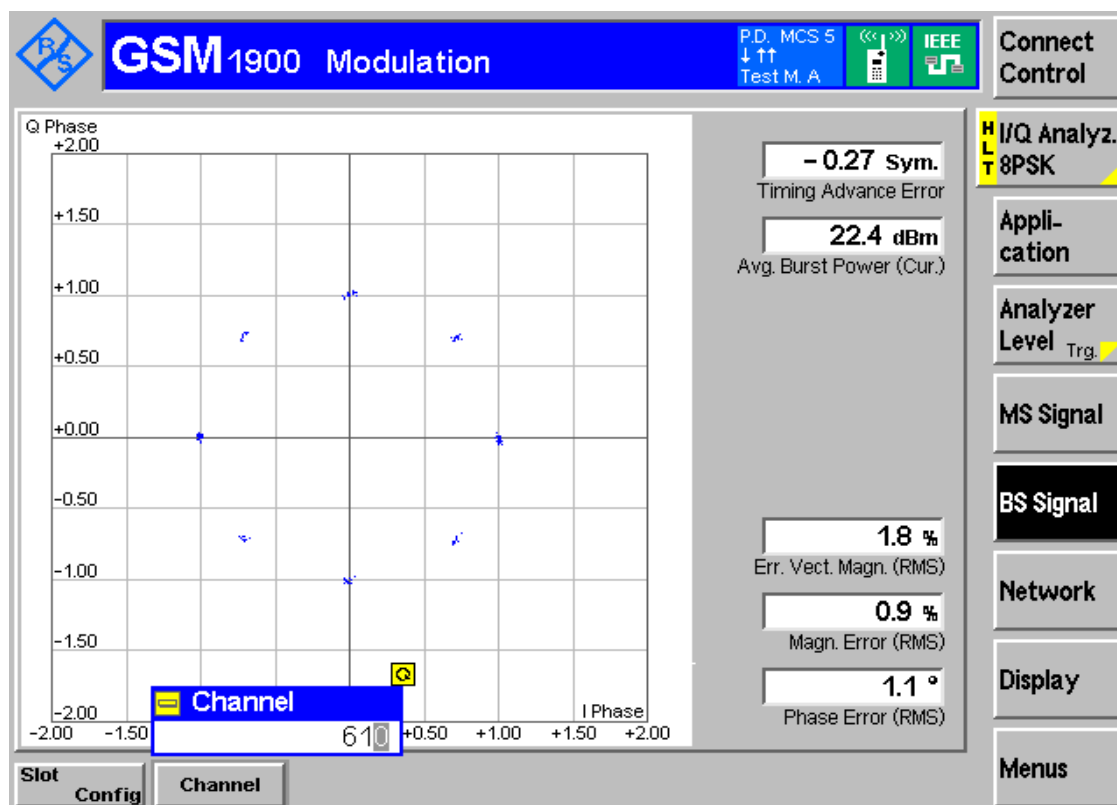
3.1.3.1 Test Mode = GSM/TM1

3.1.3.1.1 Test Channel = MCH



3.1.3.2 Test Mode = GSM/TM2

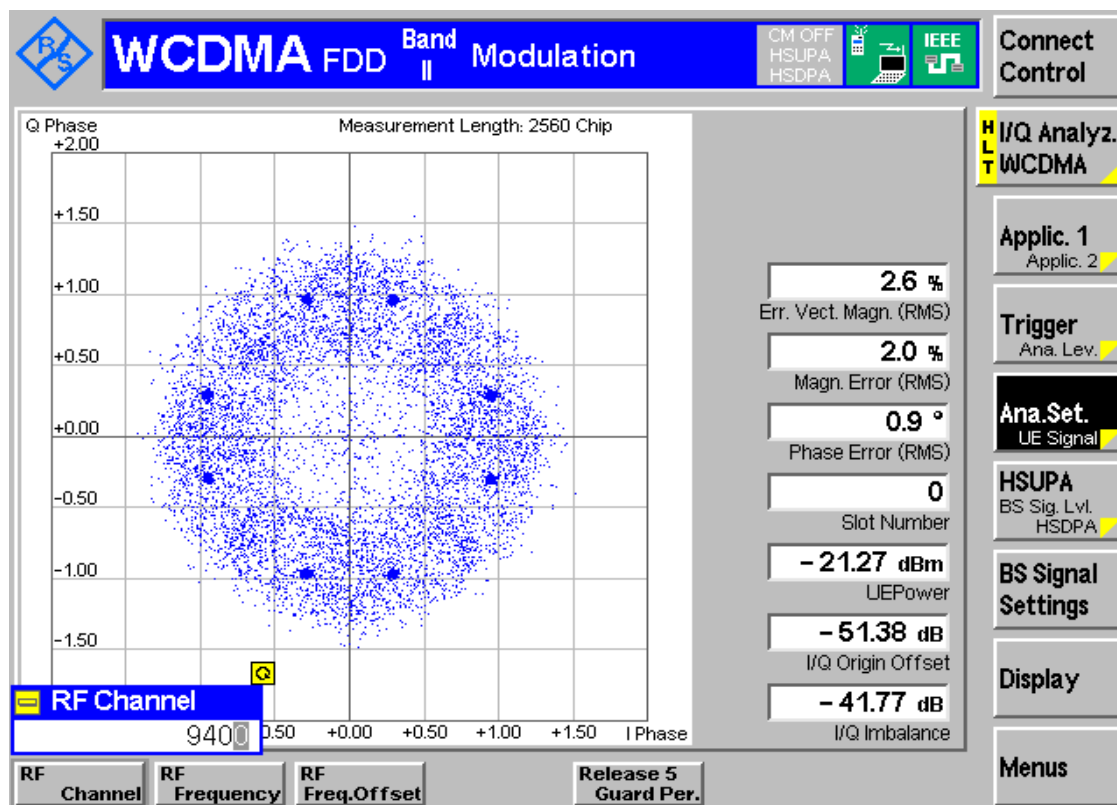
3.1.3.2.1 Test Channel = MCH



3.1.4 Test Band = WCDMA1900

3.1.4.1 Test Mode = UMTS/TM1

3.1.4.1.1 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	240.11	311.35	Pass
		MCH	243.01	317.34	Pass
		HCH	242.52	311.18	Pass
	GSM/TM2	LCH	244.92	308.88	Pass
		MCH	235.71	305.48	Pass
		HCH	233.20	294.99	Pass
WCDMA850	UMTS/TM1	LCH	4.18	4.83	Pass
		MCH	4.17	4.71	Pass
		HCH	4.18	4.78	Pass
GSM1900	GSM/TM1	LCH	242.69	310.44	Pass
		MCH	244.86	316.74	Pass
		HCH	241.97	311.89	Pass
	GSM/TM2	LCH	245.12	317.34	Pass
		MCH	248.40	313.20	Pass
		HCH	245.01	318.58	Pass
WCDMA1900	UMTS/TM1	LCH	4.16	4.72	Pass
		MCH	4.17	4.72	Pass
		HCH	4.15	4.72	Pass

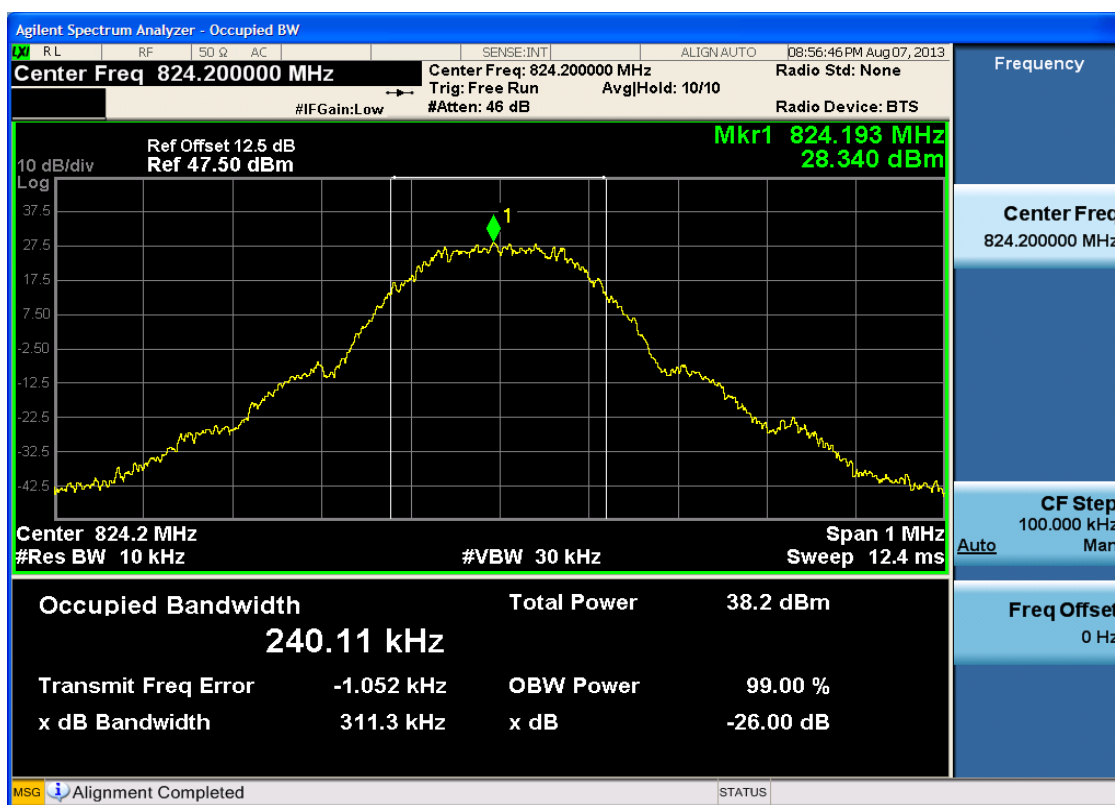
Part II - Test Plots

4.1 For GSM

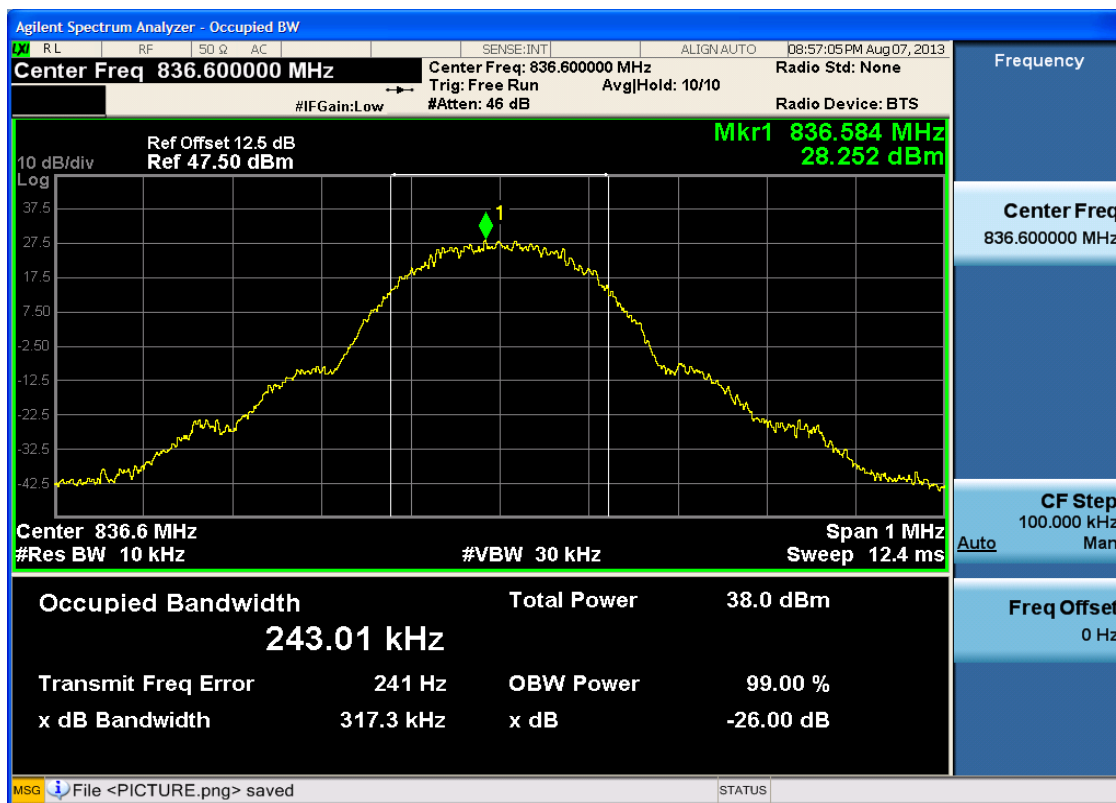
4.1.1 Test Band = GSM850

4.1.1.1 Test Mode = GSM/TM1

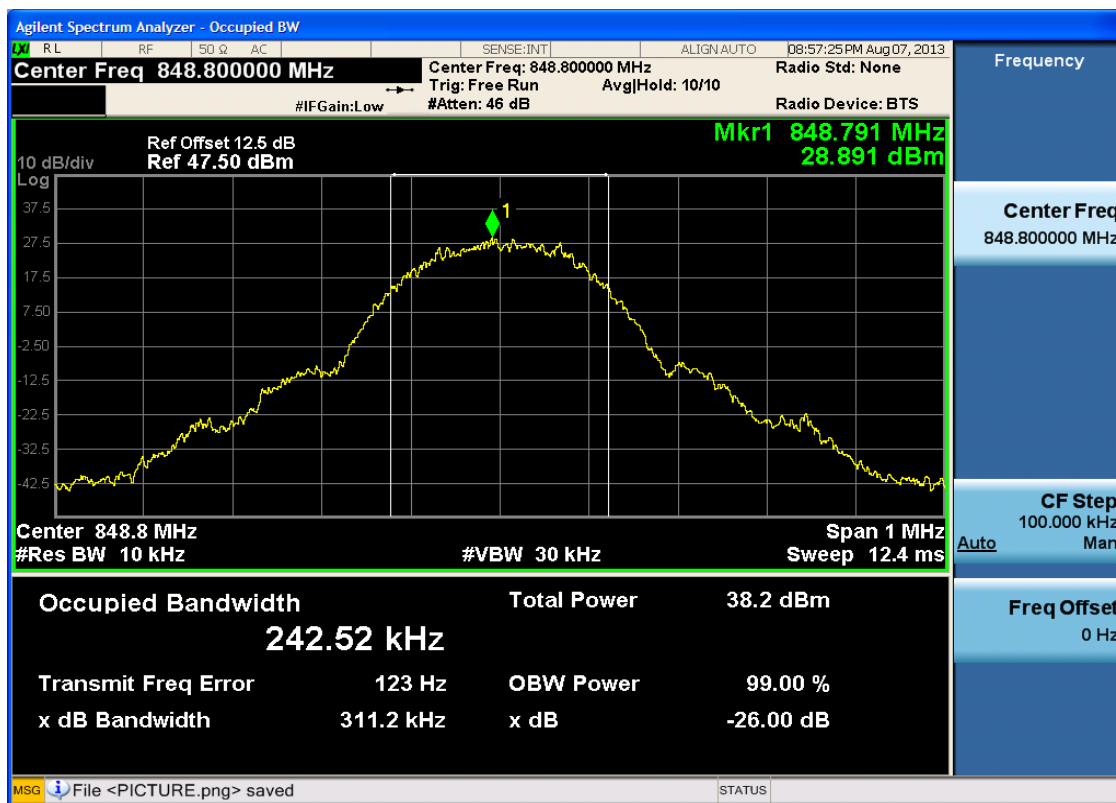
4.1.1.1.1 Test Channel = LCH



4.1.1.1.2 Test Channel = MCH

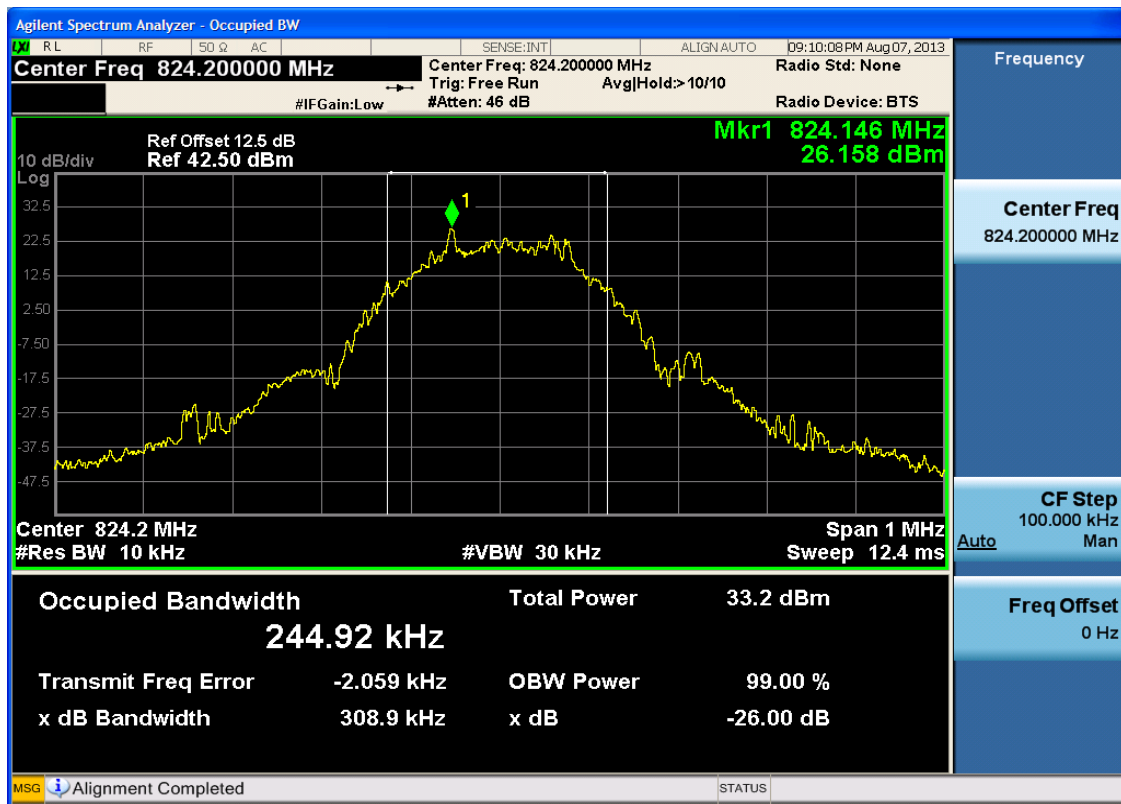


4.1.1.1.3 Test Channel = HCH



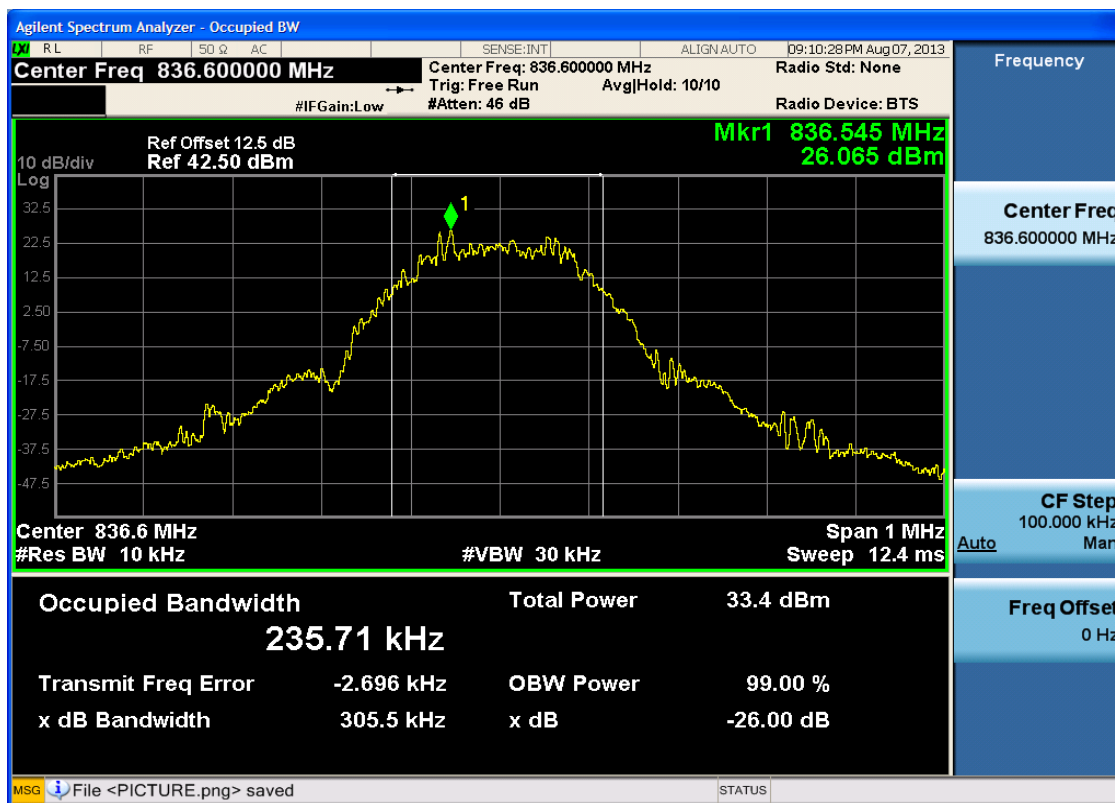
4.1.1.2 Test Mode = GSM/TM2

4.1.1.2.1 Test Channel = LCH

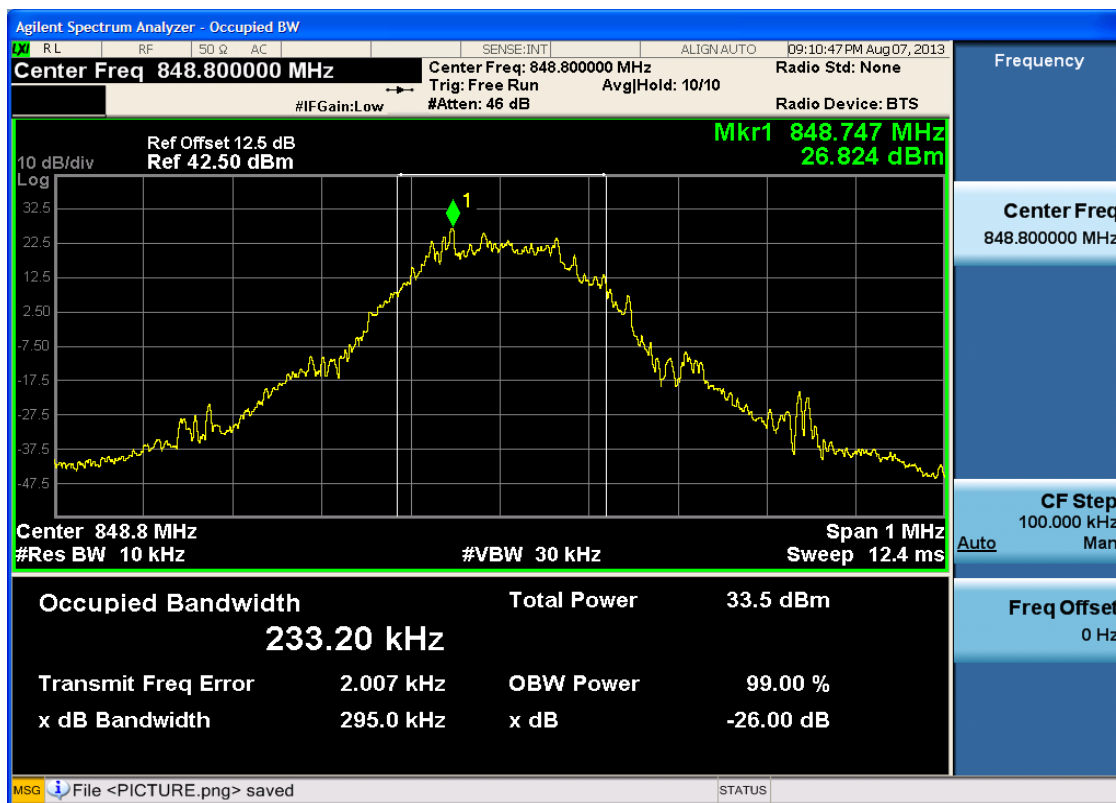




4.1.1.2.2 Test Channel = MCH



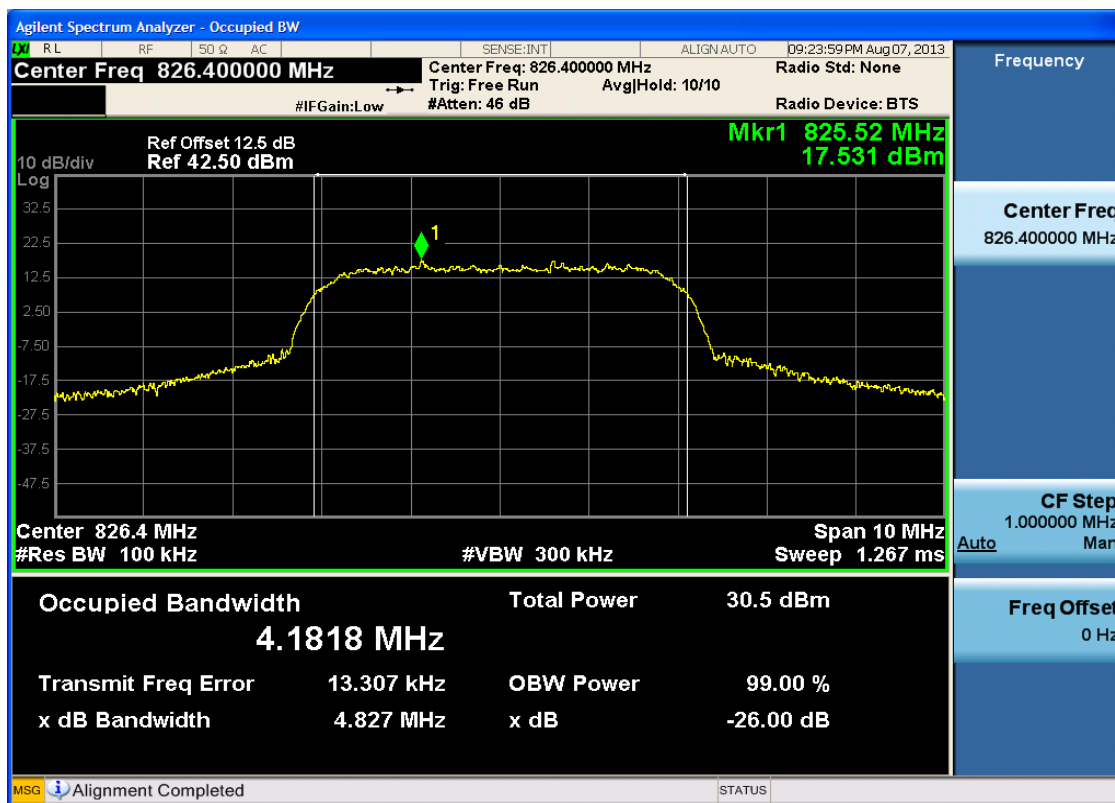
4.1.1.2.3 Test Channel = HCH



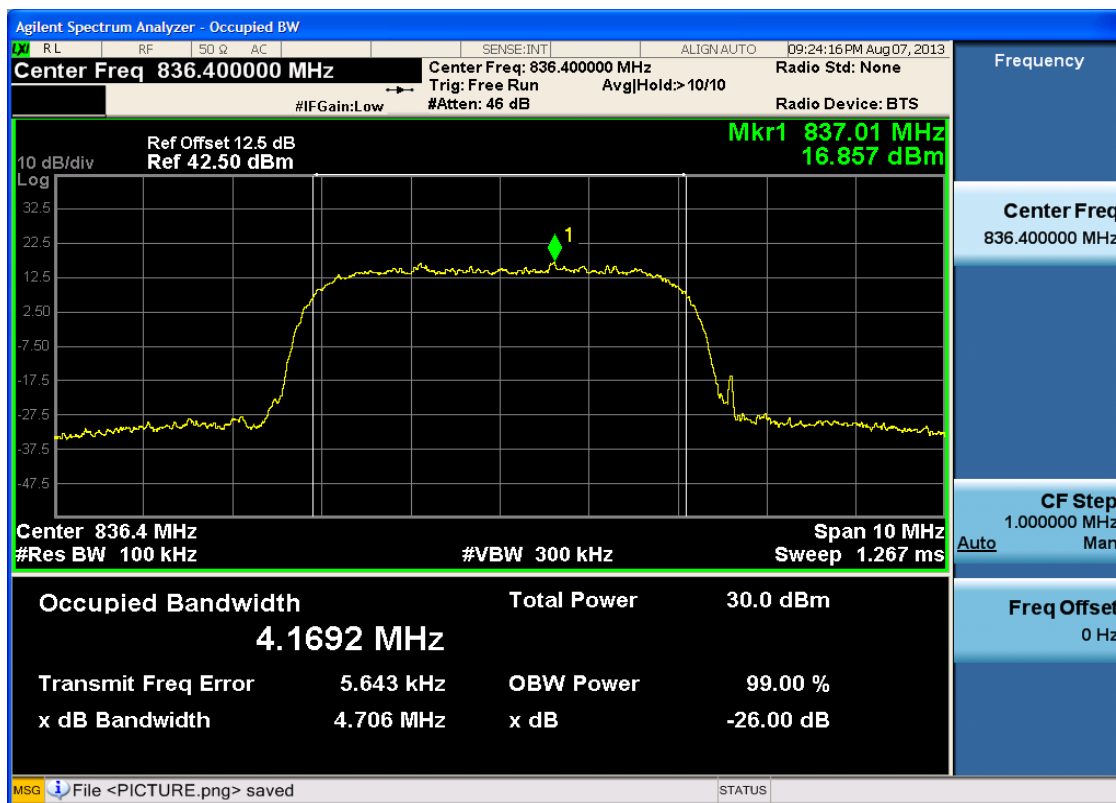
4.1.2 Test Band = WCDMA850

4.1.2.1 Test Mode = UMTS/TM1

4.1.2.1.1 Test Channel = LCH

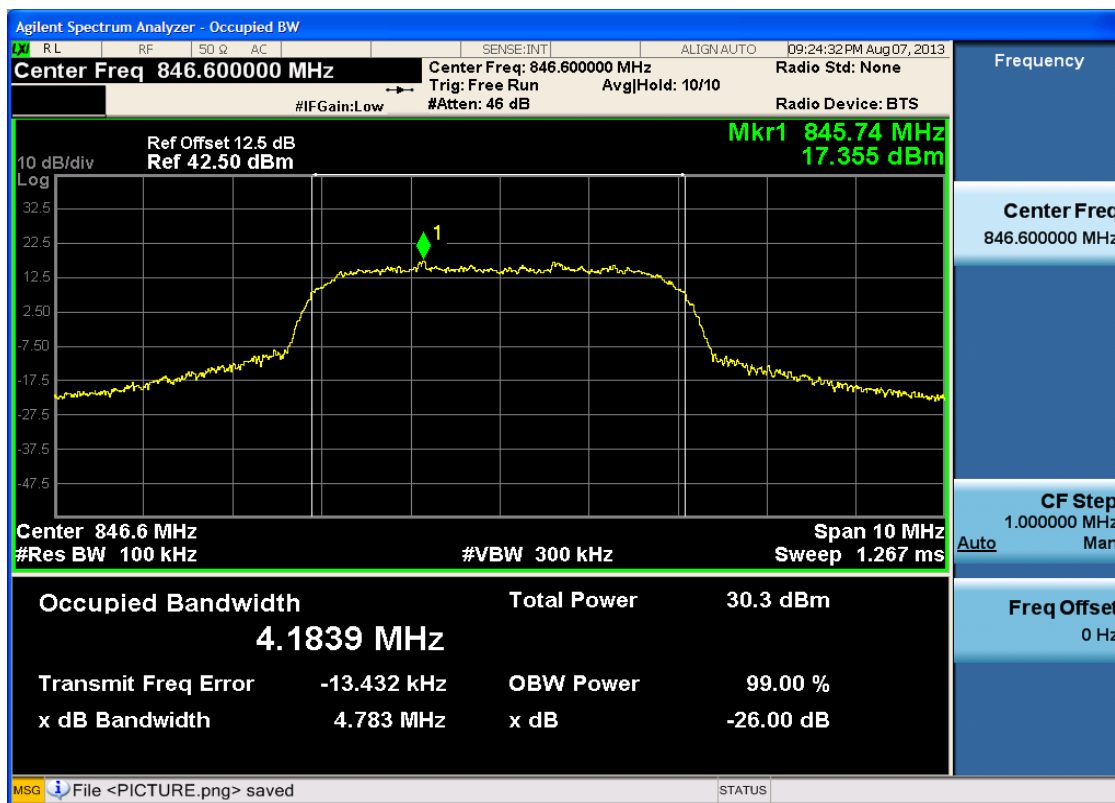


4.1.2.1.2 Test Channel = MCH





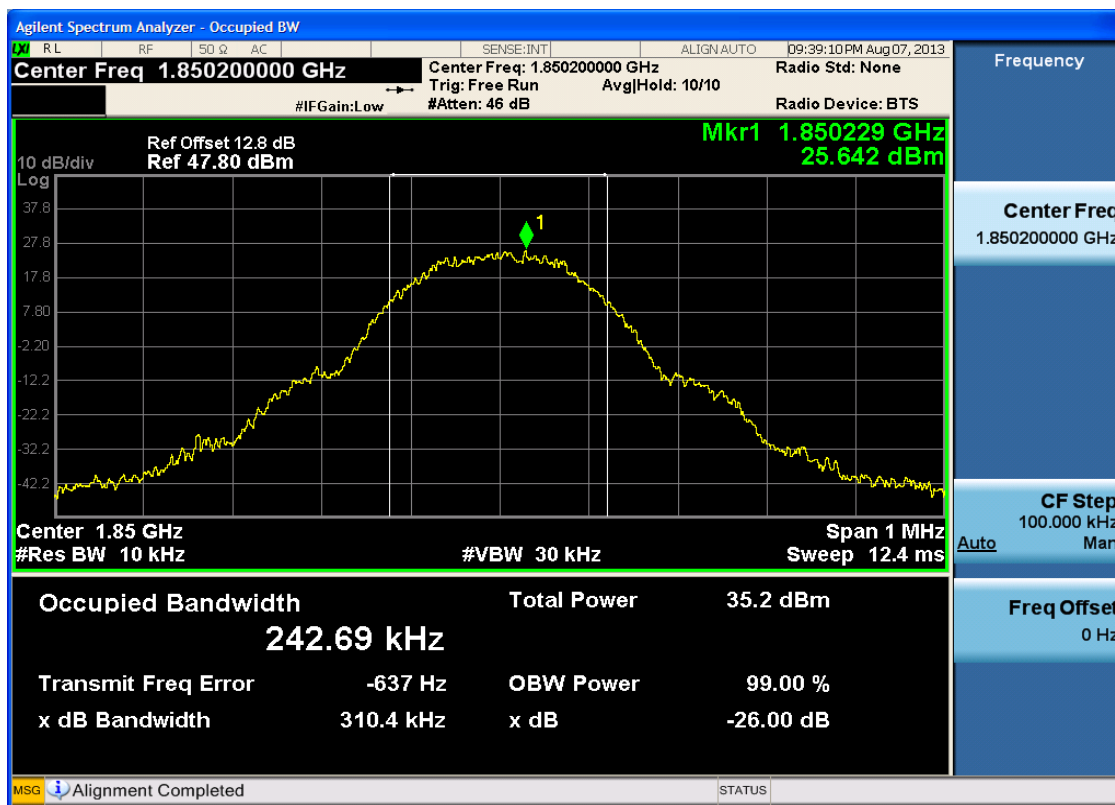
4.1.2.1.3 Test Channel = HCH



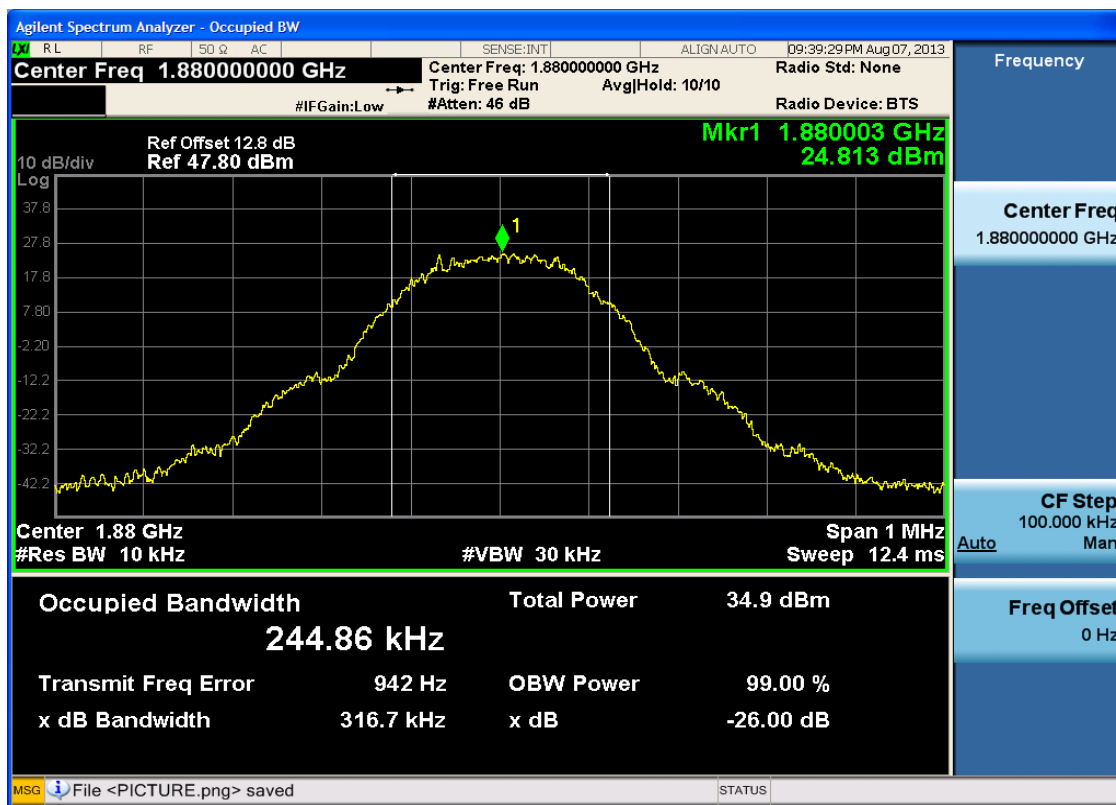
4.1.3 Test Band = GSM1900

4.1.3.1 Test Mode = GSM/TM1

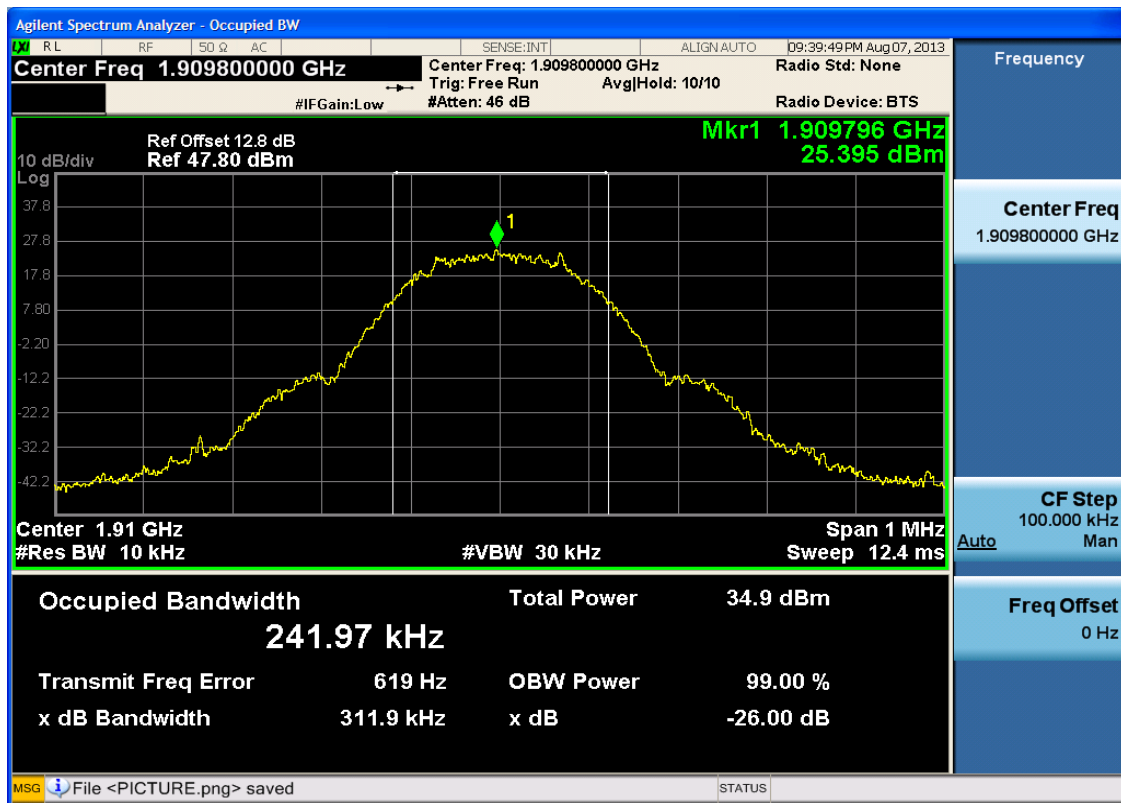
4.1.3.1.1 Test Channel = LCH



4.1.3.1.2 Test Channel = MCH

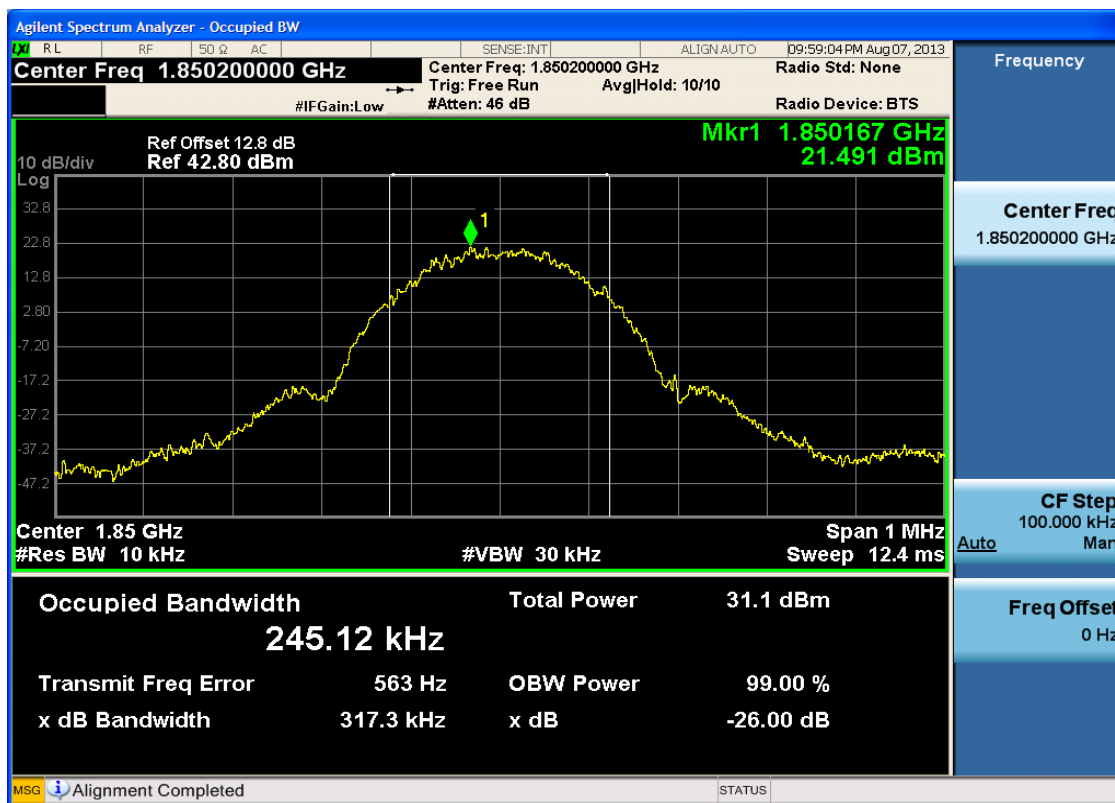


4.1.3.1.3 Test Channel = HCH

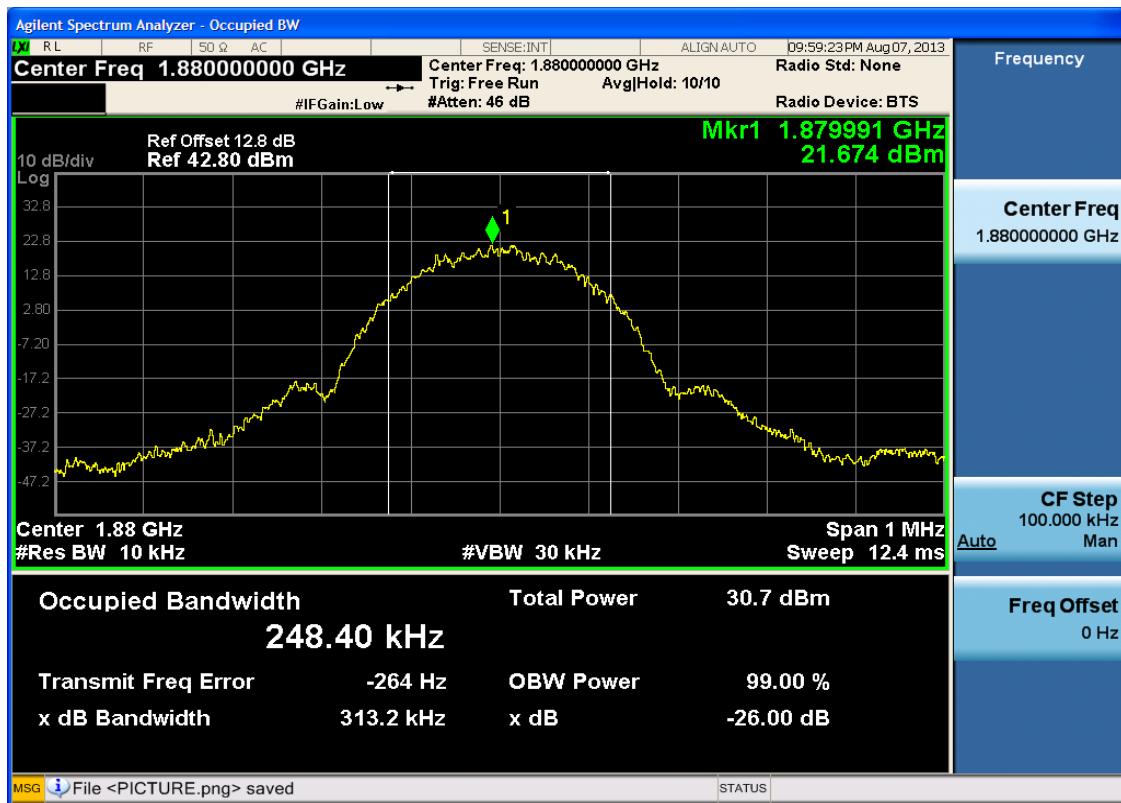


4.1.3.2 Test Mode = GSM/TM2

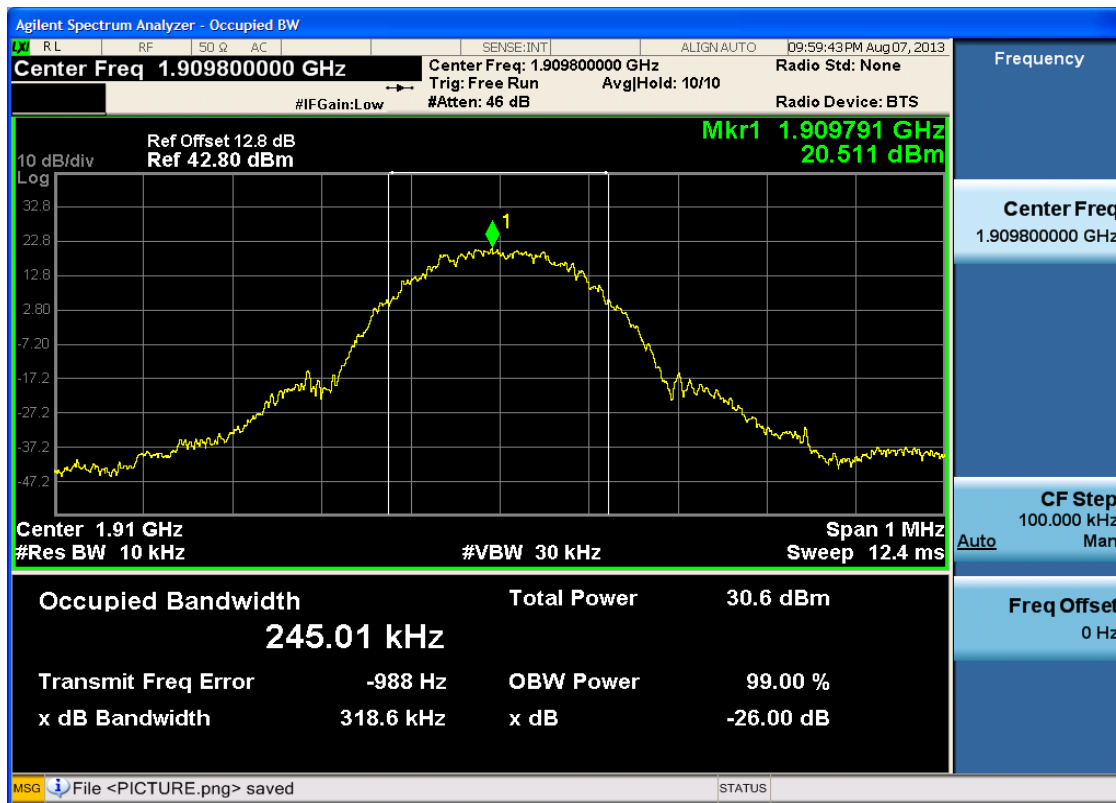
4.1.3.2.1 Test Channel = LCH



4.1.3.2.2 Test Channel = MCH



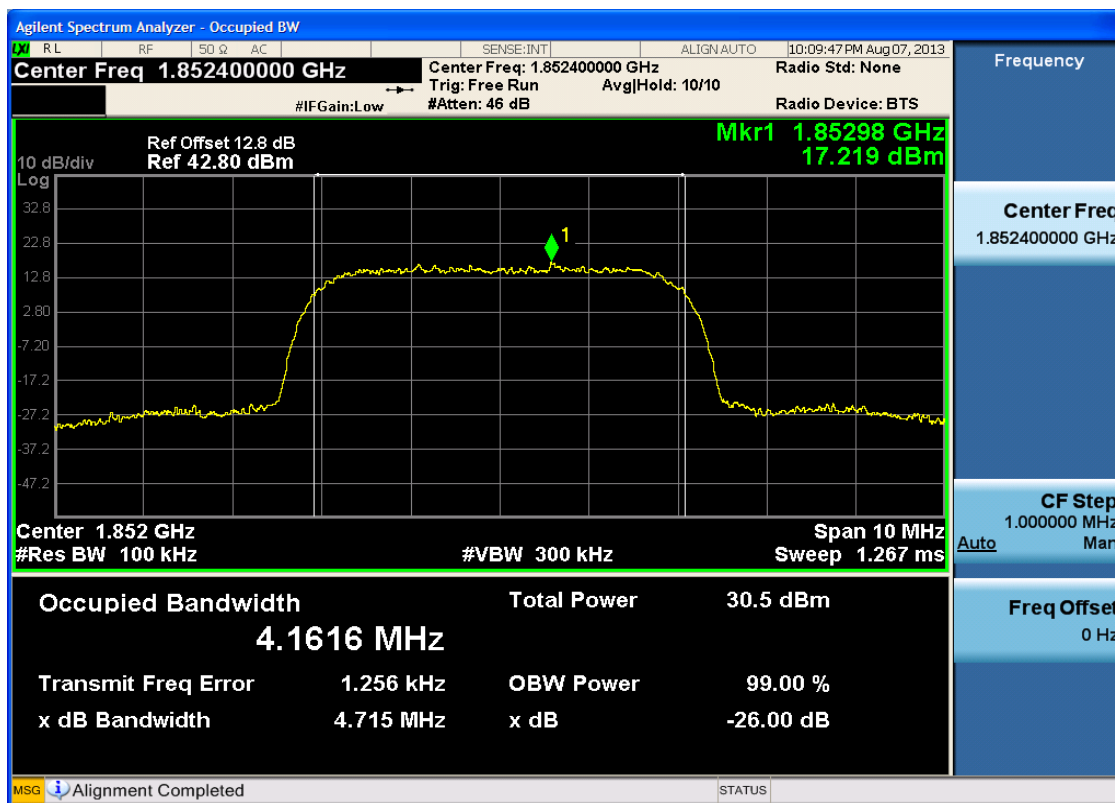
4.1.3.2.3 Test Channel = HCH



4.1.4 Test Band = WCDMA1900

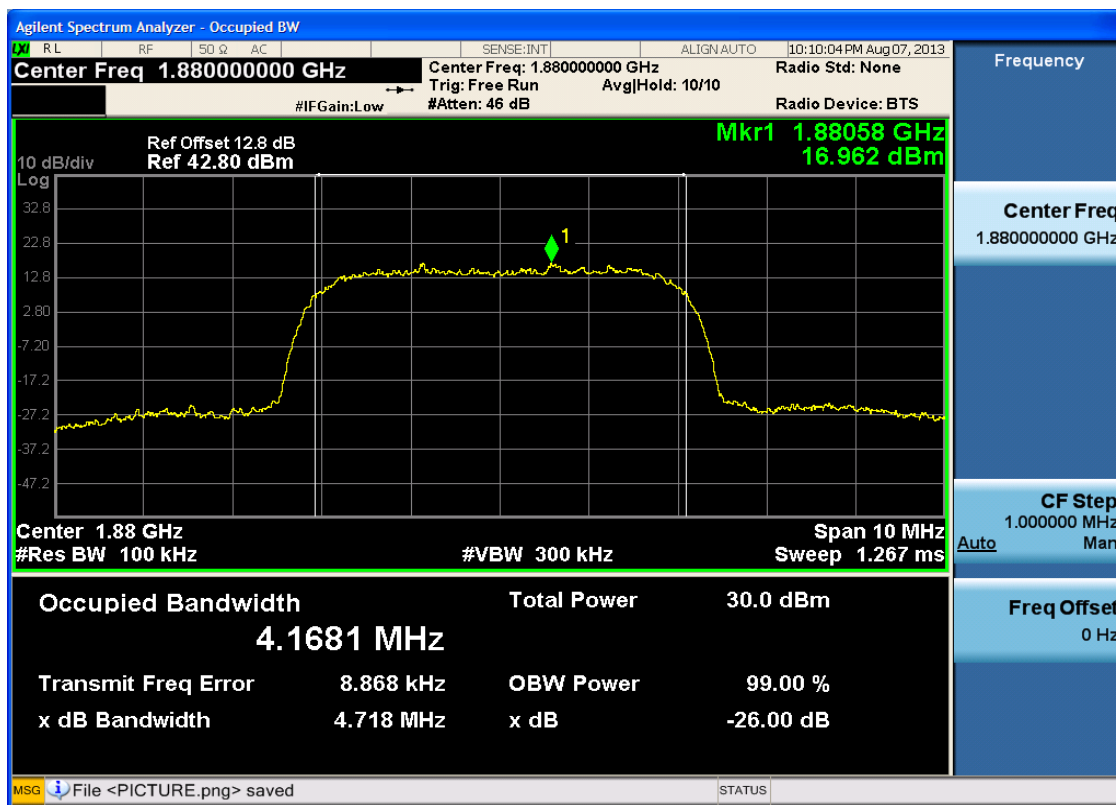
4.1.4.1 Test Mode = UMTS/TM1

4.1.4.1.1 Test Channel = LCH

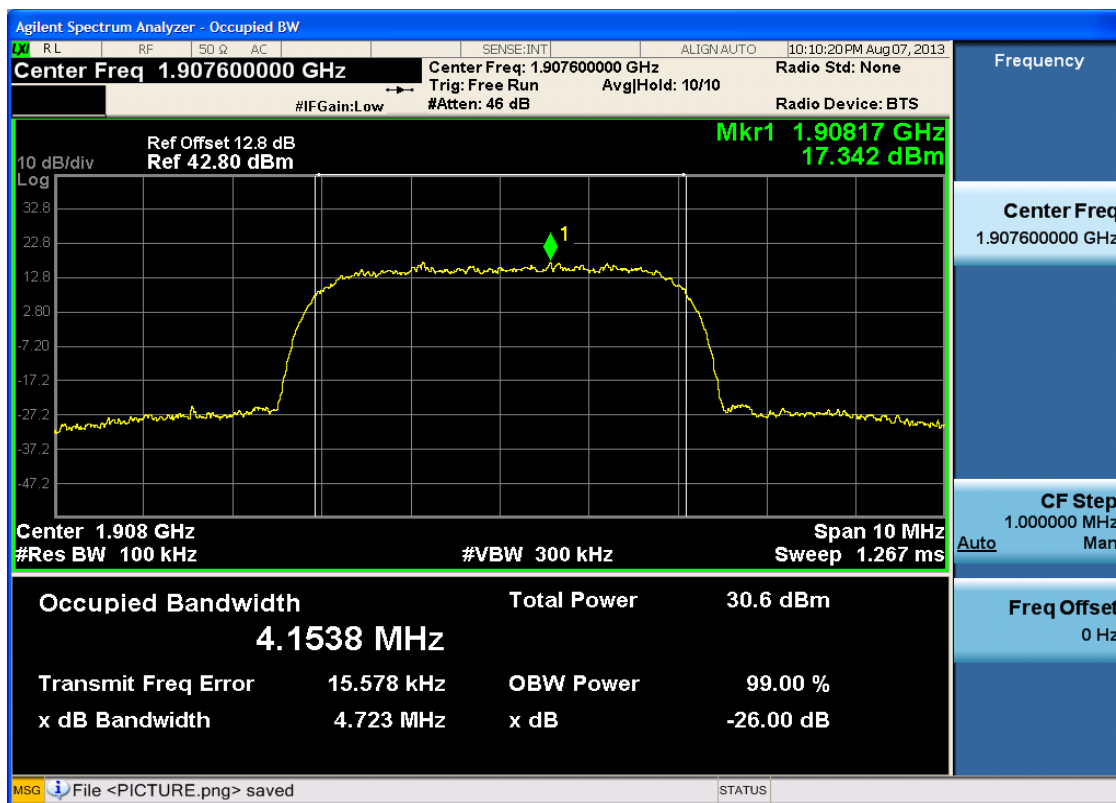




4.1.4.1.2 Test Channel = MCH



4.1.4.1.3 Test Channel = HCH



5Appendix_E: Band Edges Compliance

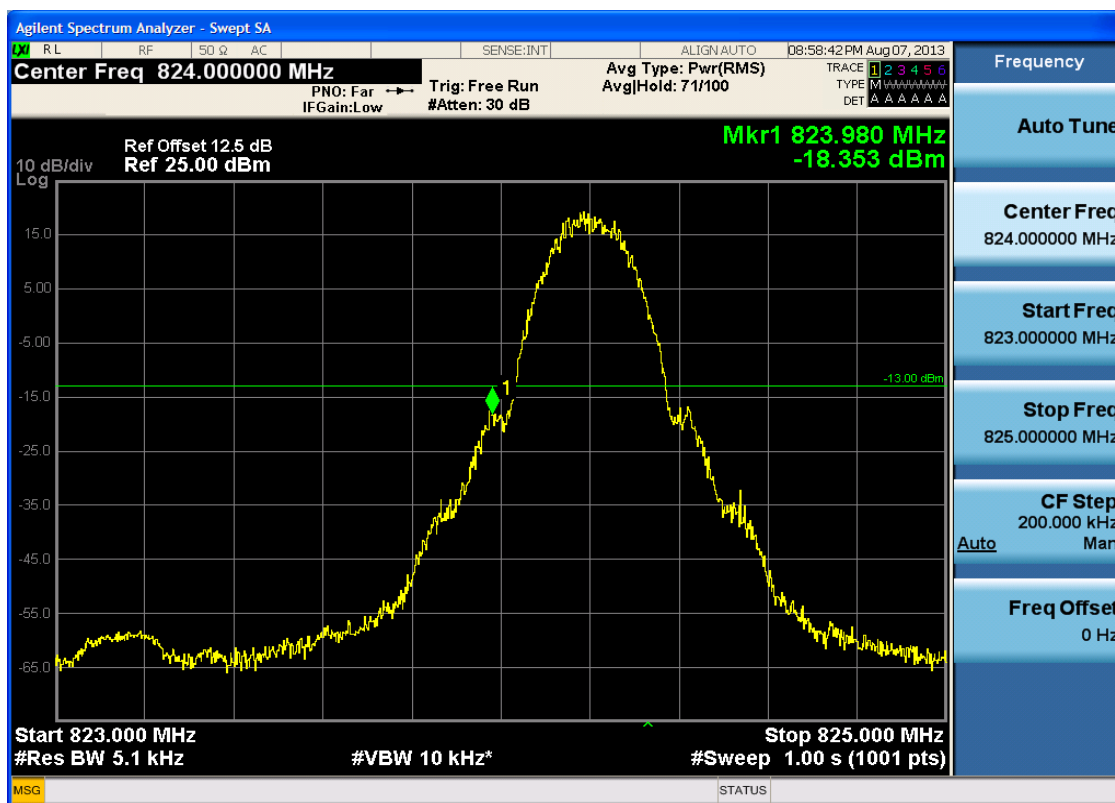
Part I - Test Plots

5.1 For GSM

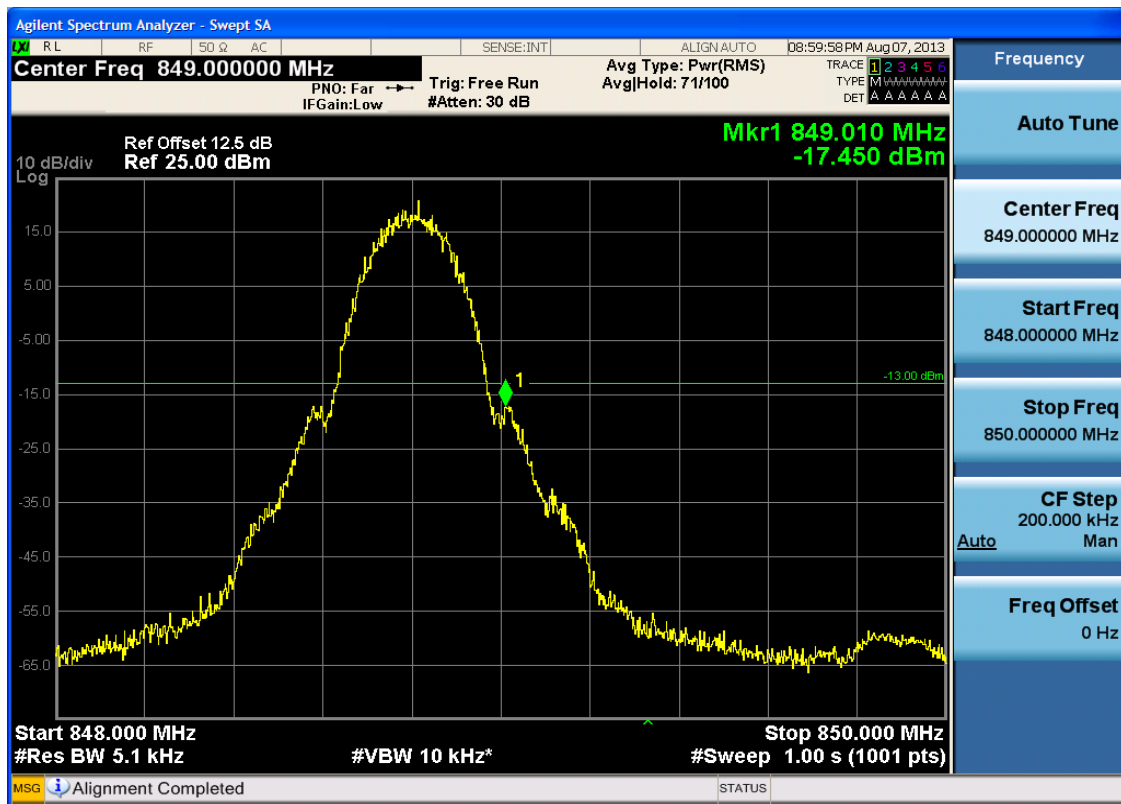
5.1.1 Test Band = GSM850

5.1.1.1 Test Mode = GSM/TM1

5.1.1.1.1 Test Channel = LCH

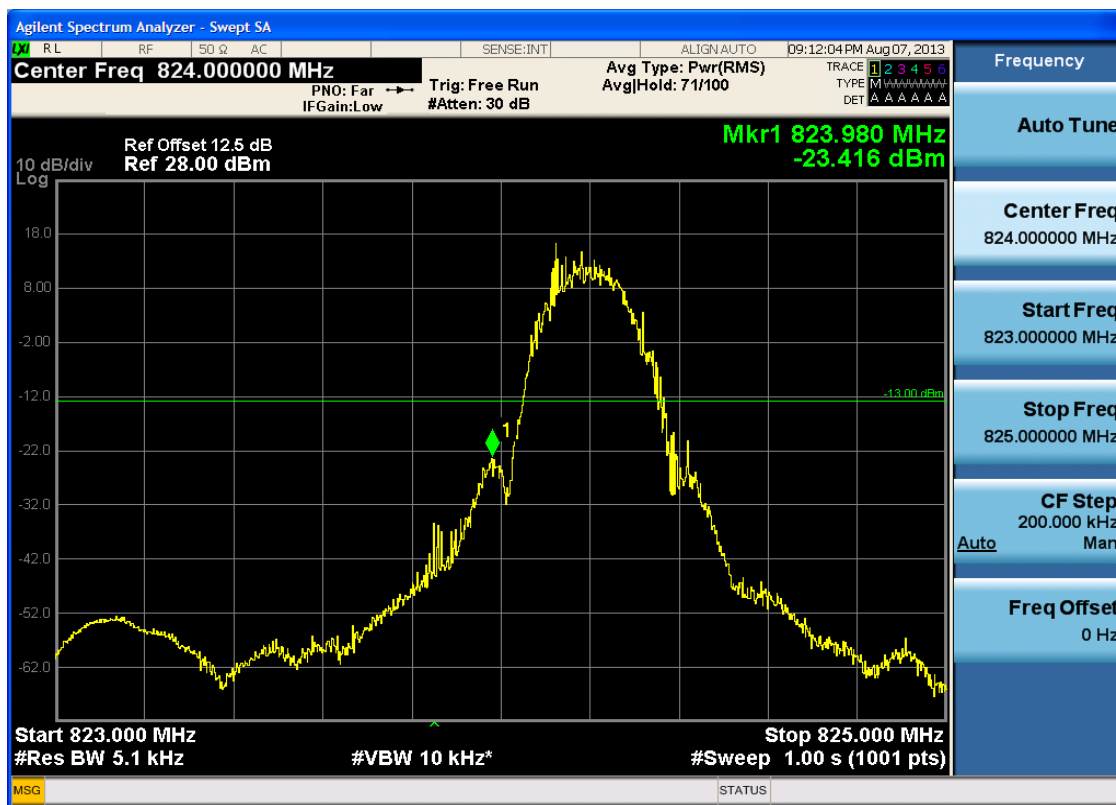


5.1.1.1.2 Test Channel = HCH

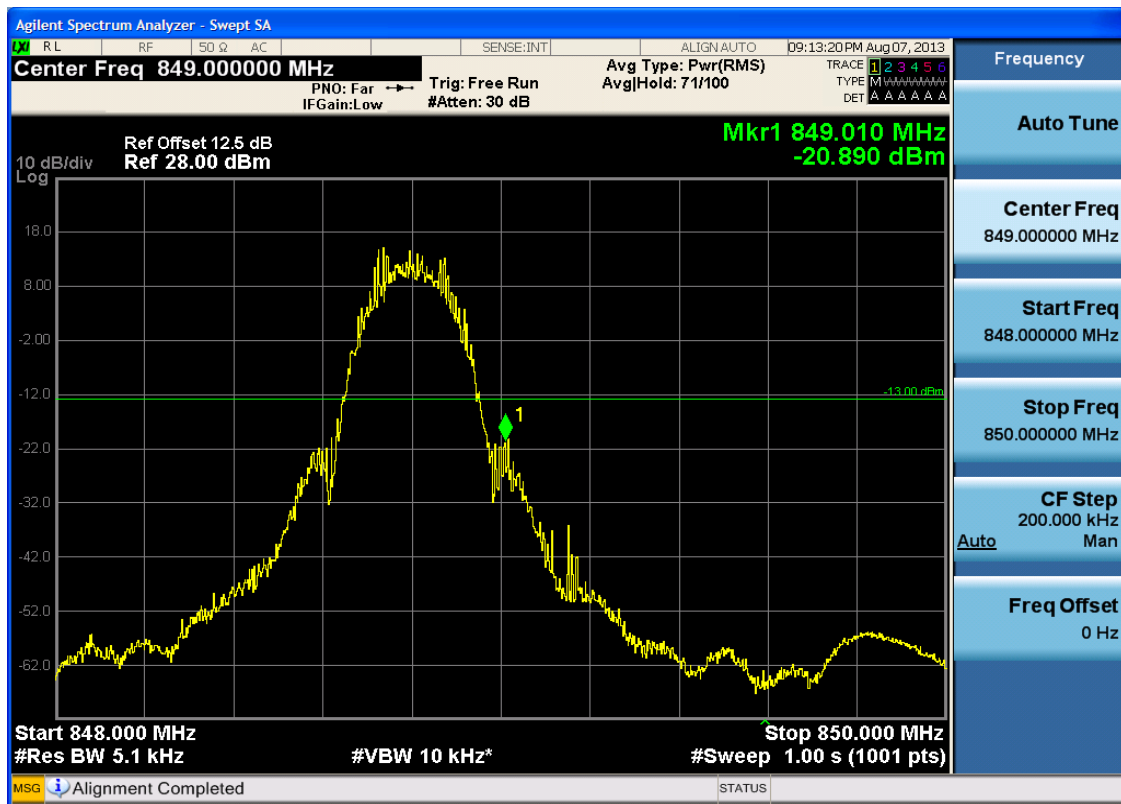


5.1.1.2 Test Mode = GSM/TM2

5.1.1.2.1 Test Channel = LCH



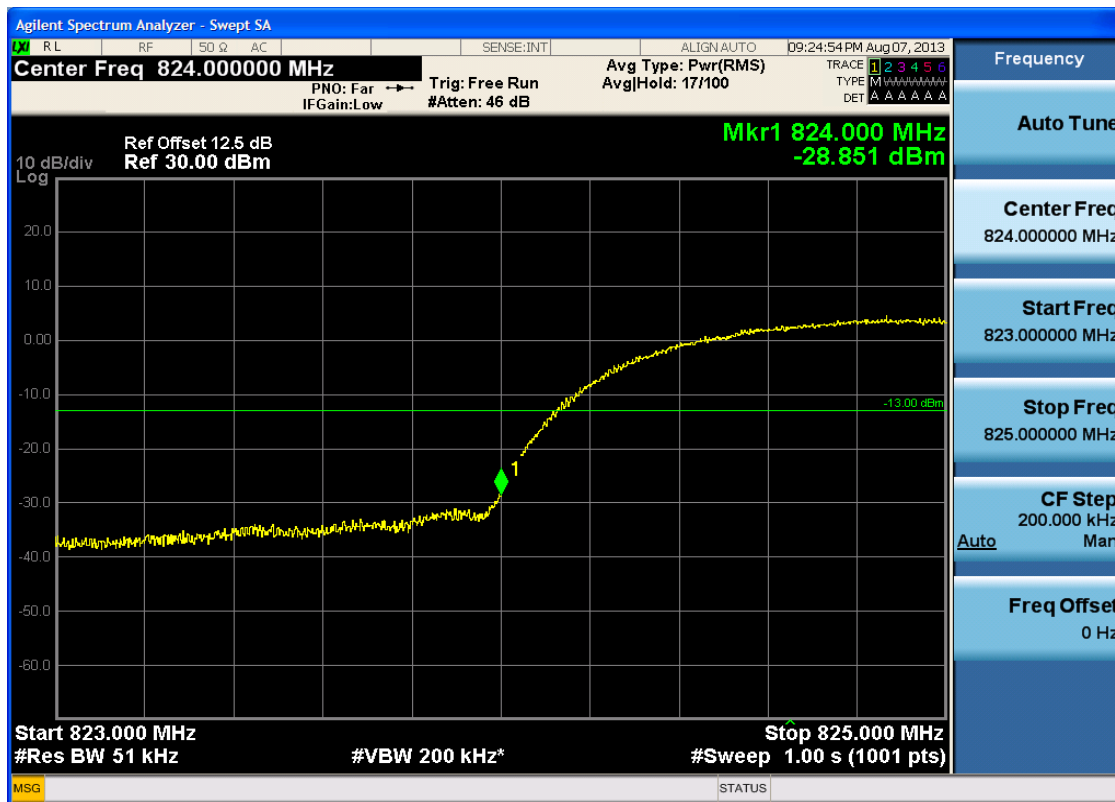
5.1.1.2.2 Test Channel = HCH



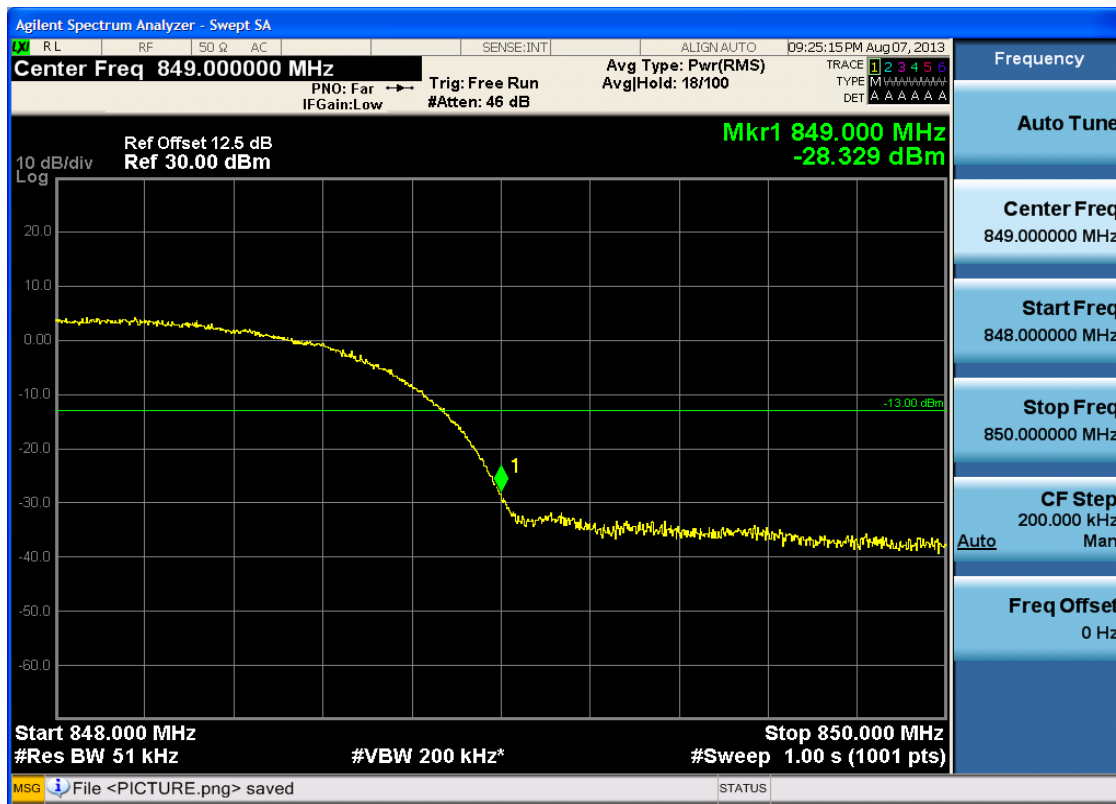
5.1.2 Test Band = WCDMA850

5.1.2.1 Test Mode = UMTS/TM1

5.1.2.1.1 Test Channel = LCH



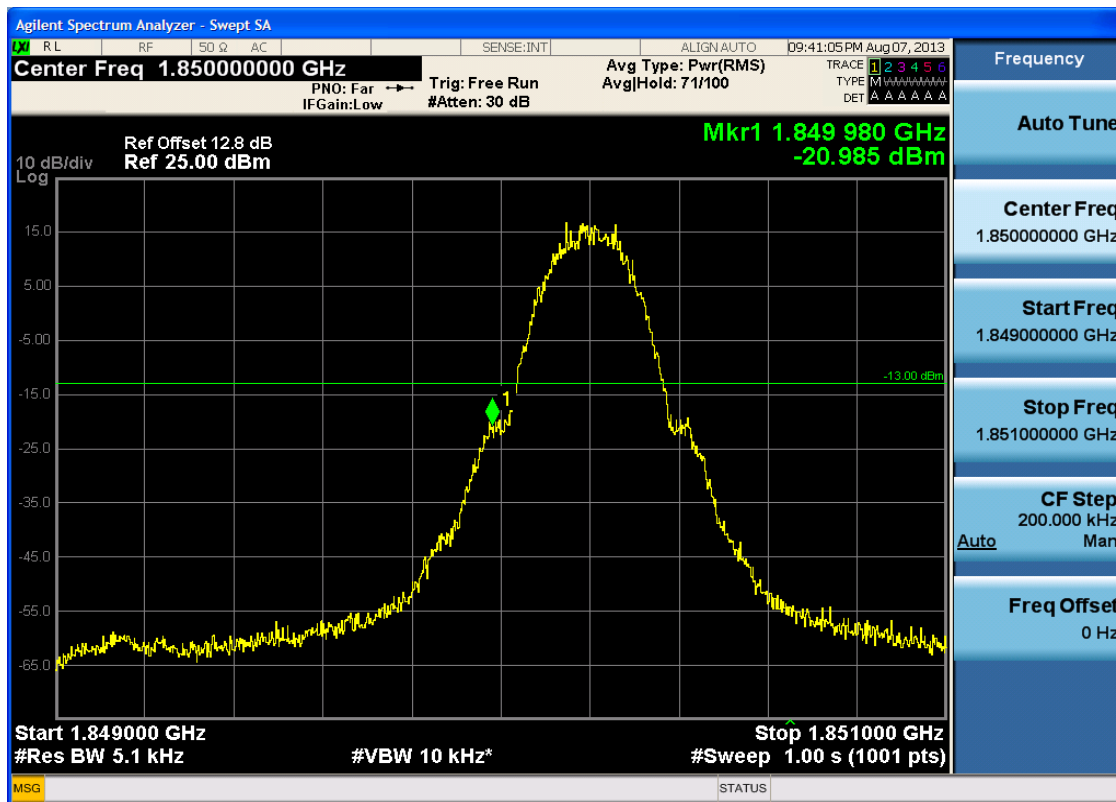
5.1.2.1.2 Test Channel = HCH



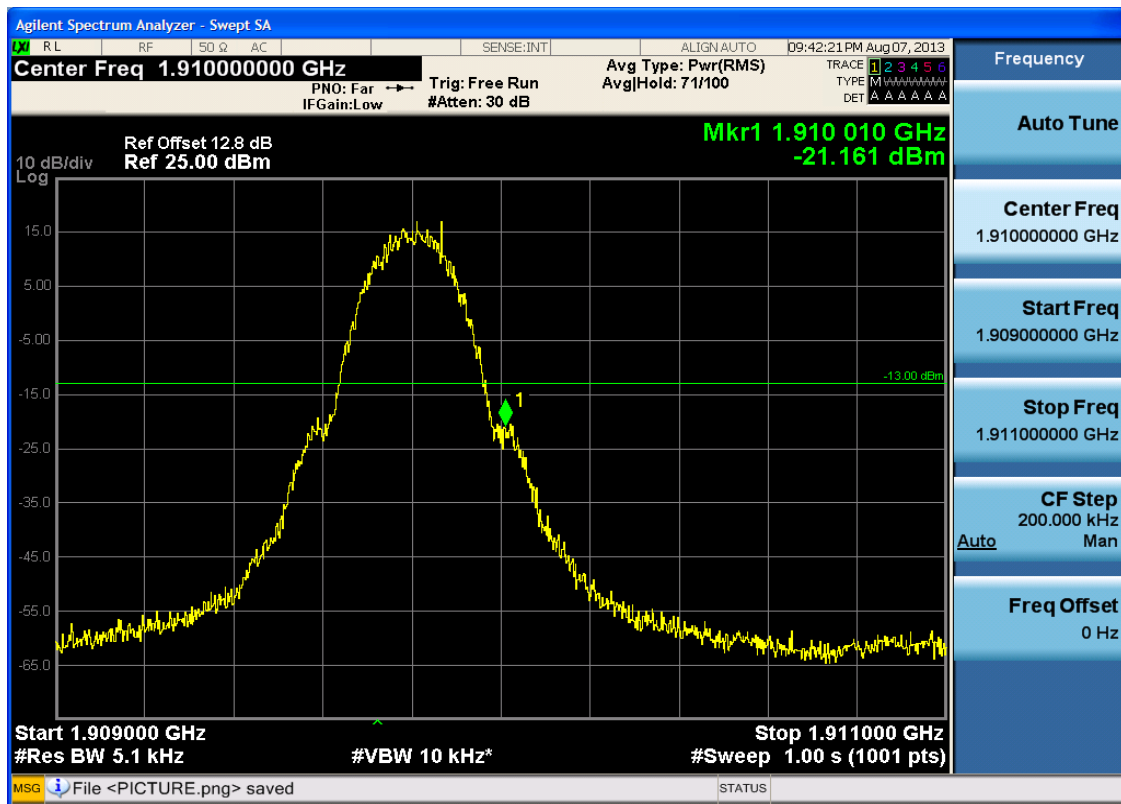
5.1.3 Test Band = GSM1900

5.1.3.1 Test Mode = GSM/TM1

5.1.3.1.1 Test Channel = LCH

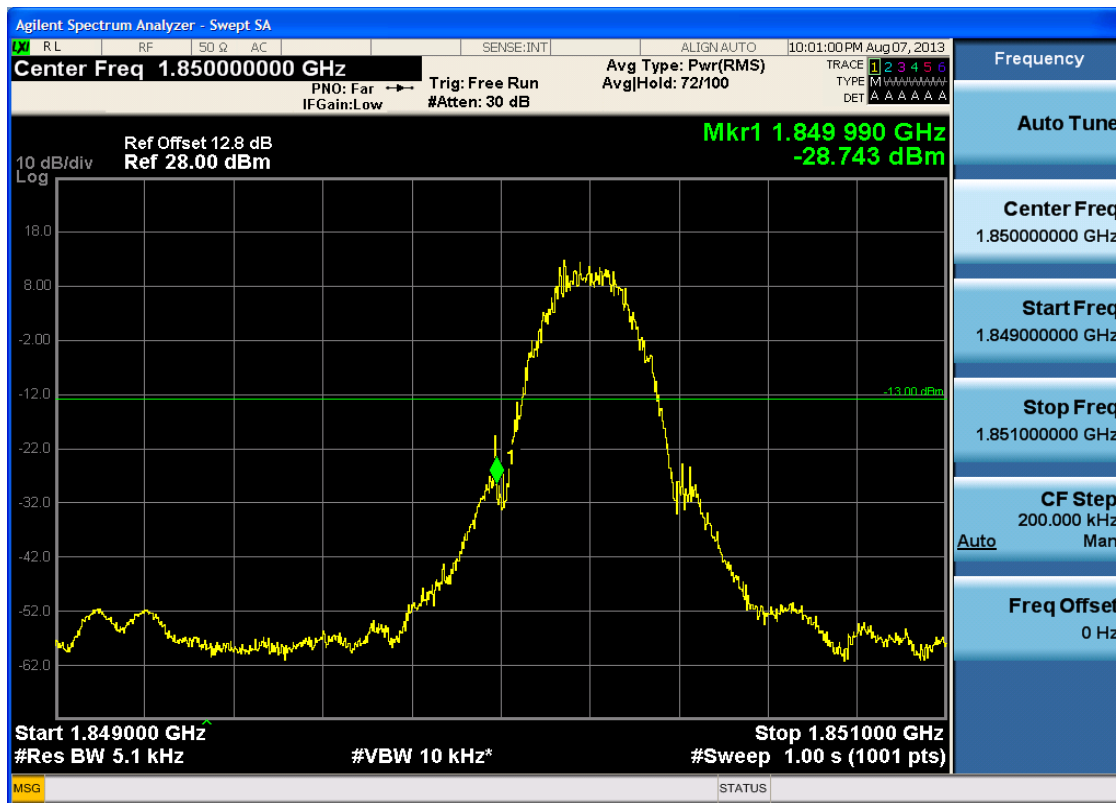


5.1.3.1.2 Test Channel = HCH

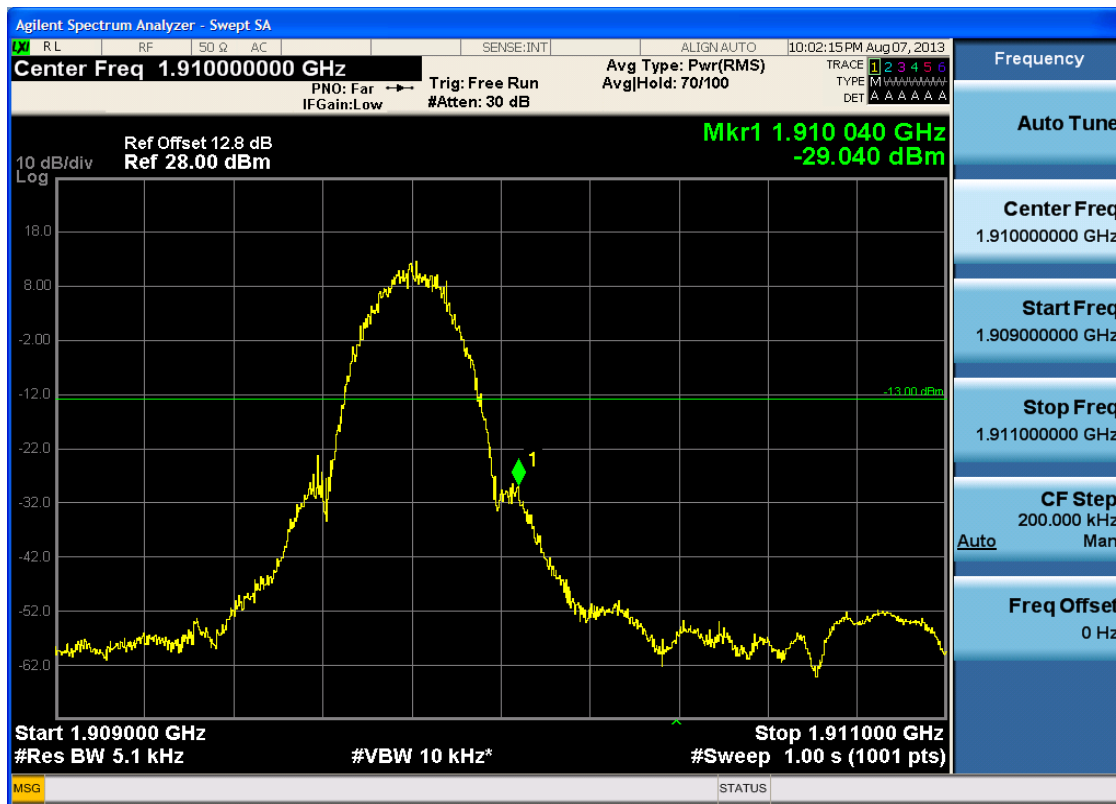


5.1.3.2 Test Mode = GSM/TM2

5.1.3.2.1 Test Channel = LCH



5.1.3.2.2 Test Channel = HCH



5.1.4 Test Band = WCDMA1900

5.1.4.1 Test Mode = UMTS/TM1

5.1.4.1.1 Test Channel = LCH



5.1.4.1.2 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.

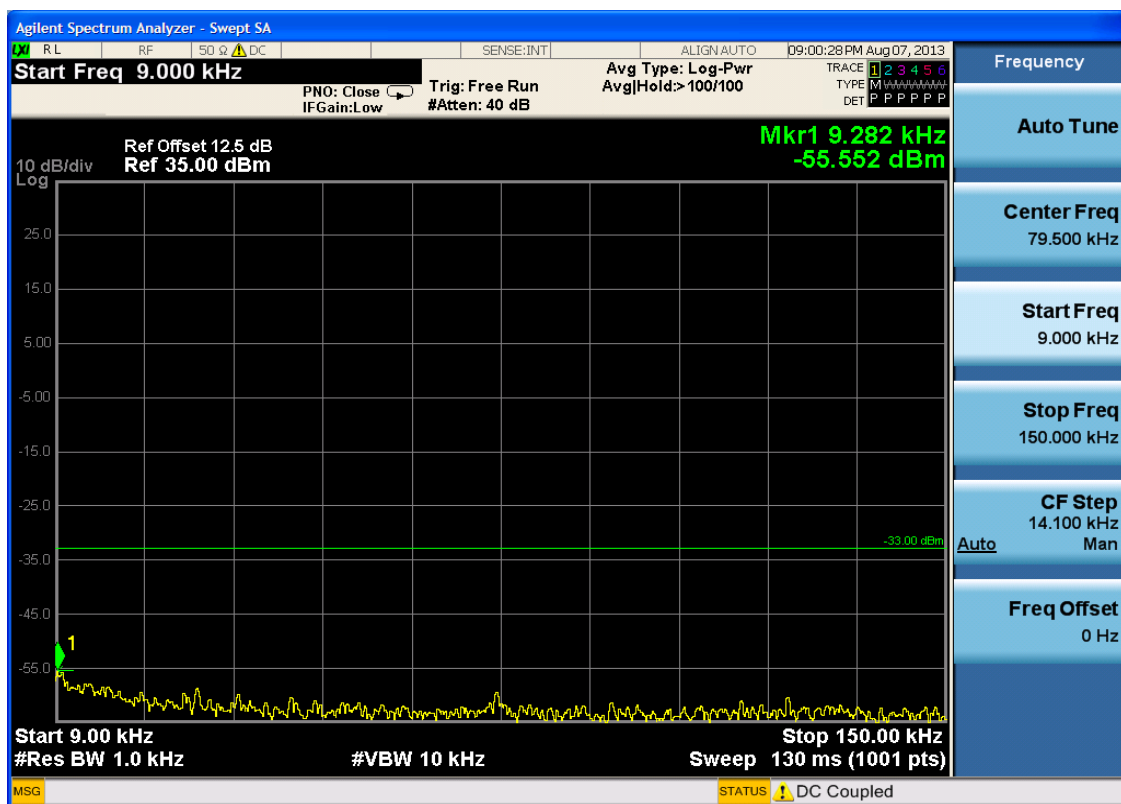
Part I - Test Plots

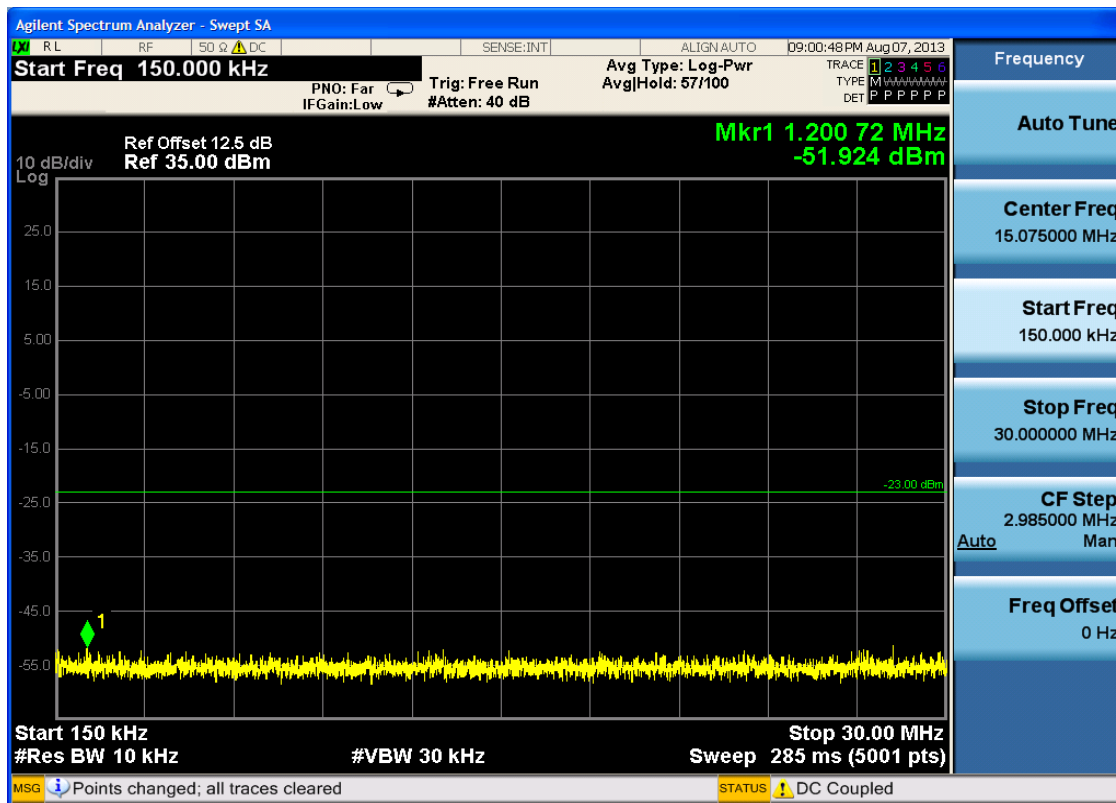
6.1 For GSM

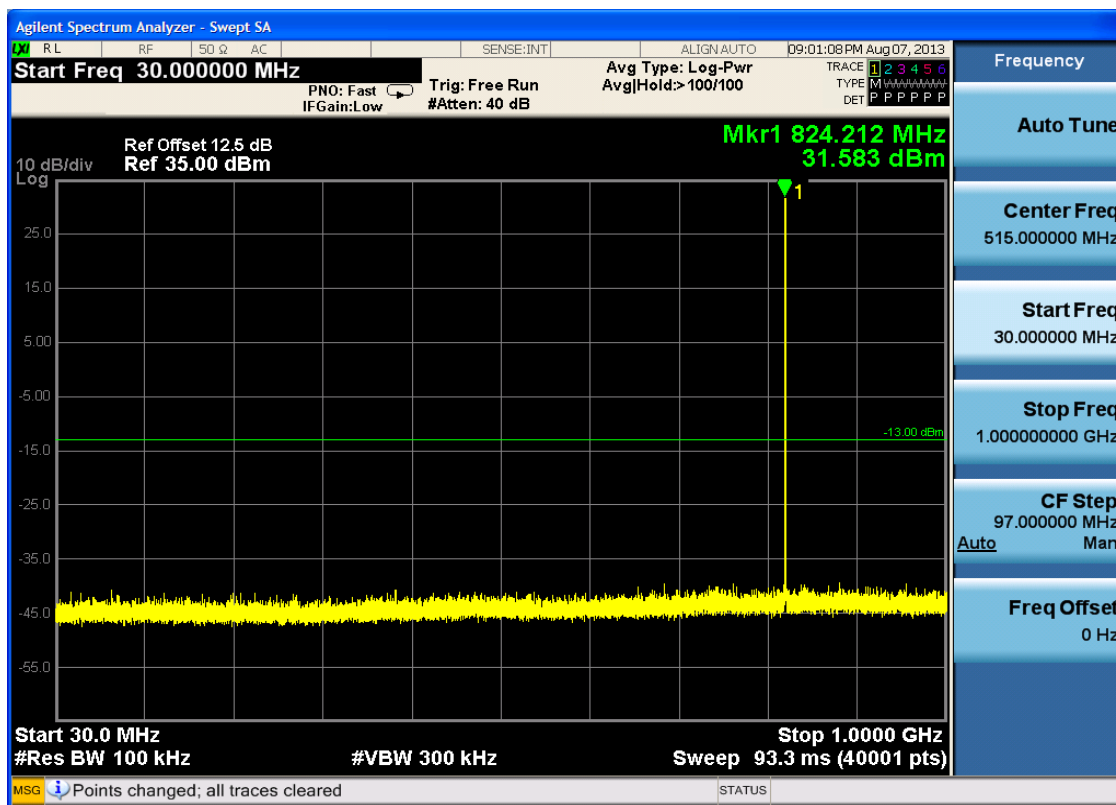
6.1.1 Test Band = GSM850

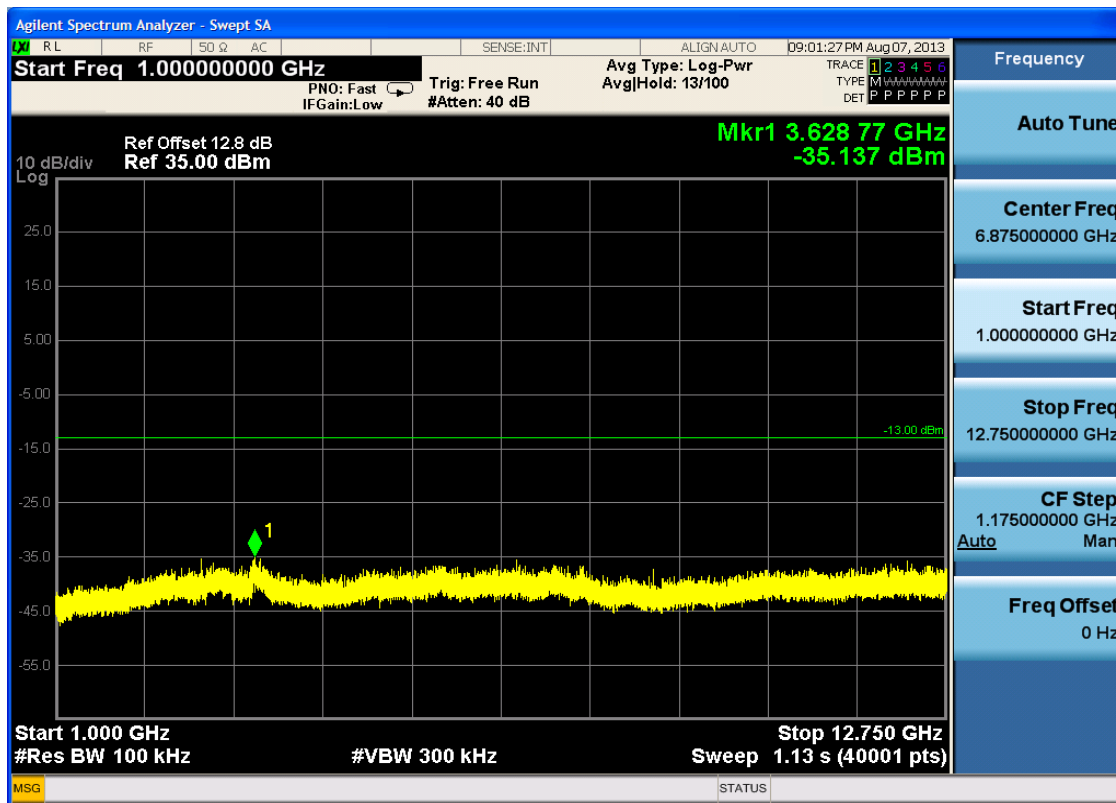
6.1.1.1 Test Mode = GSM/TM1

6.1.1.1.1 Test Channel = LCH

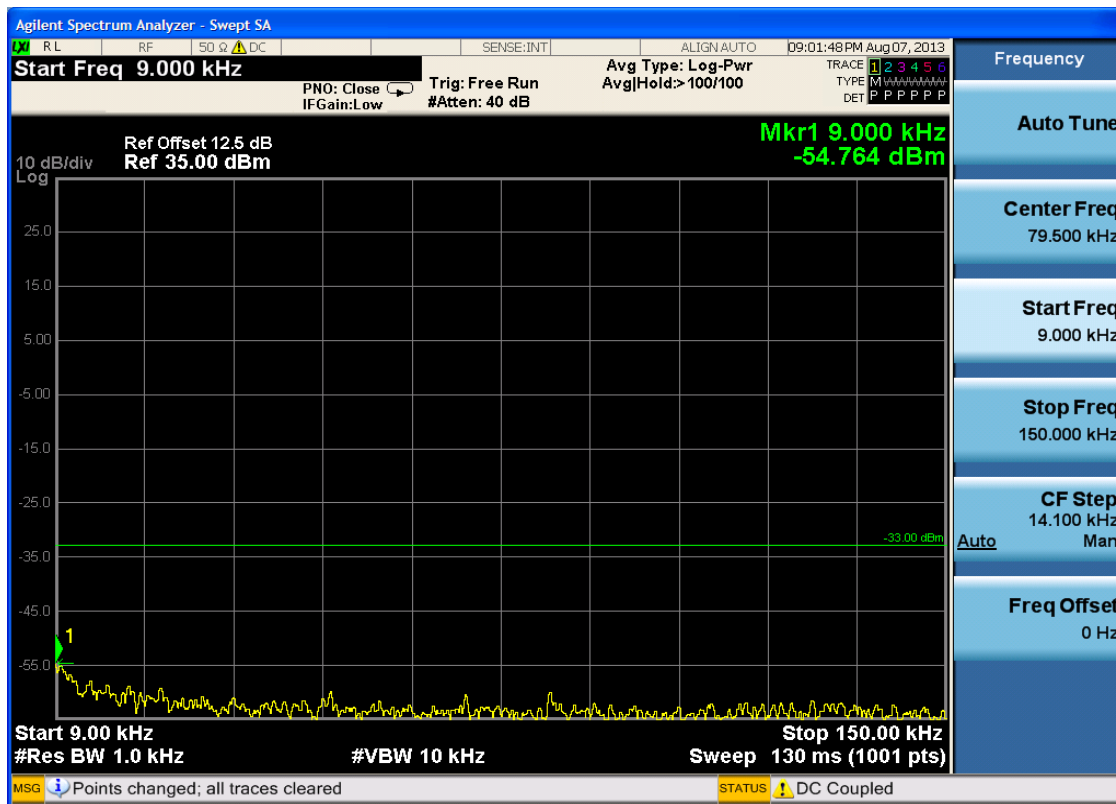


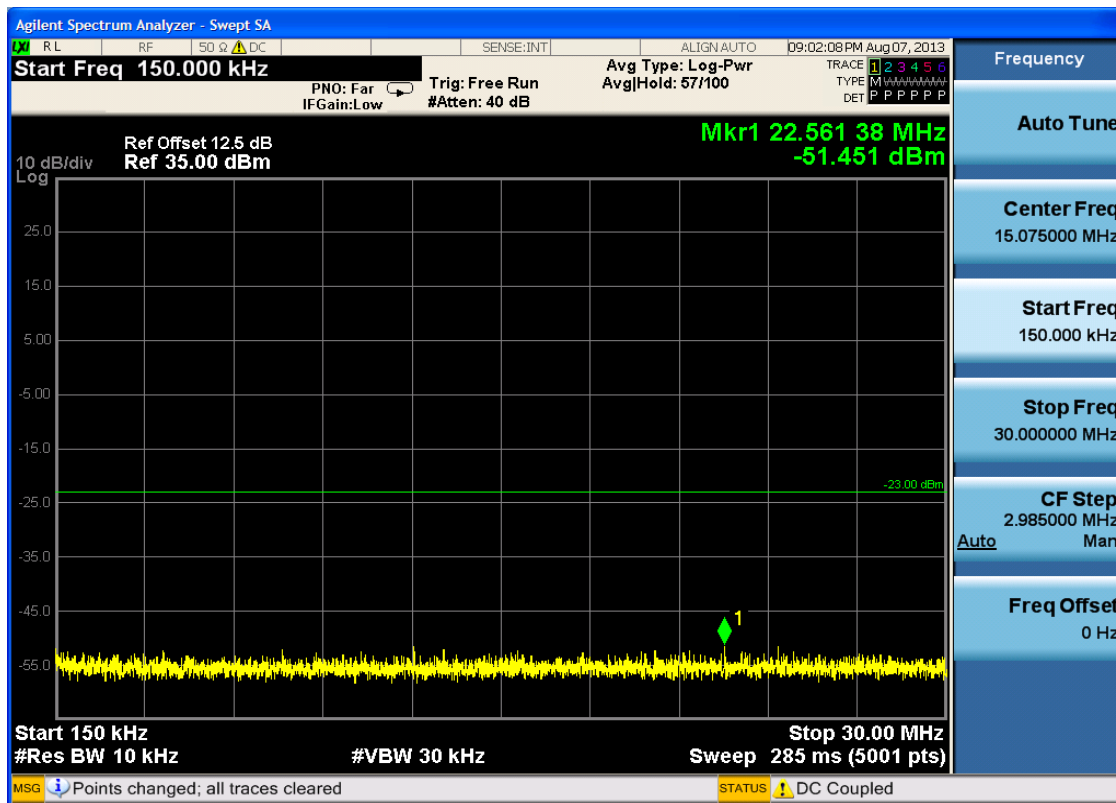


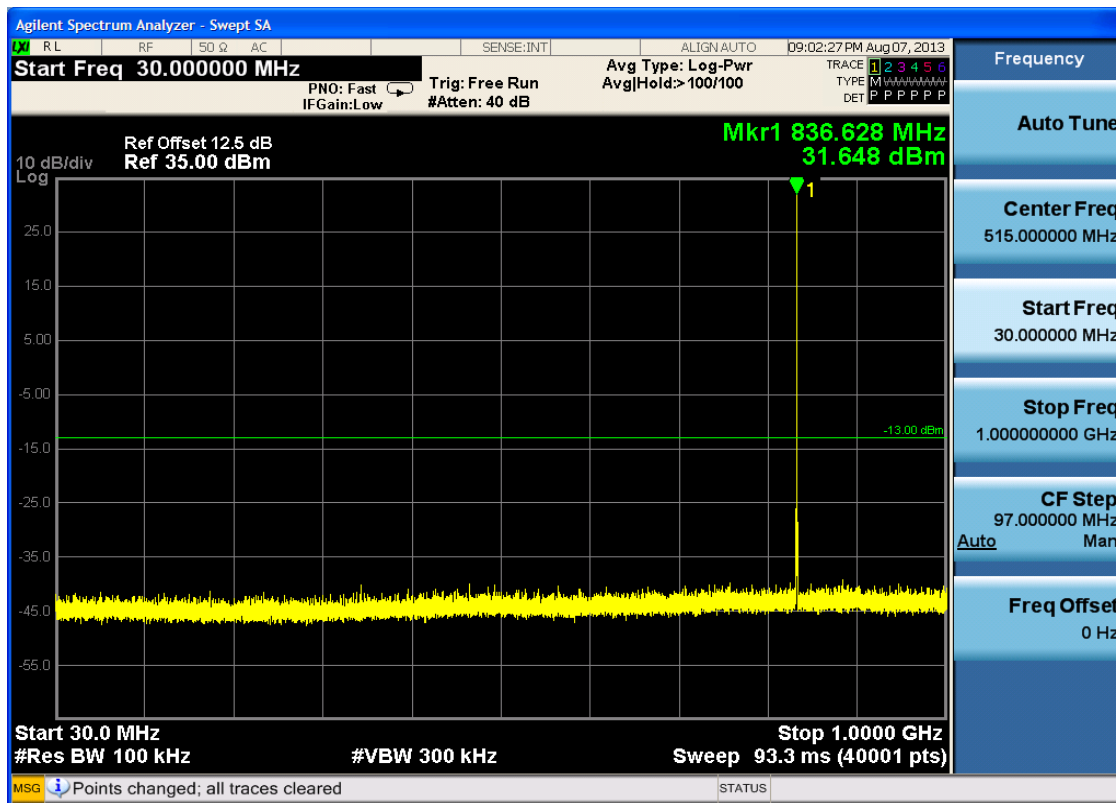


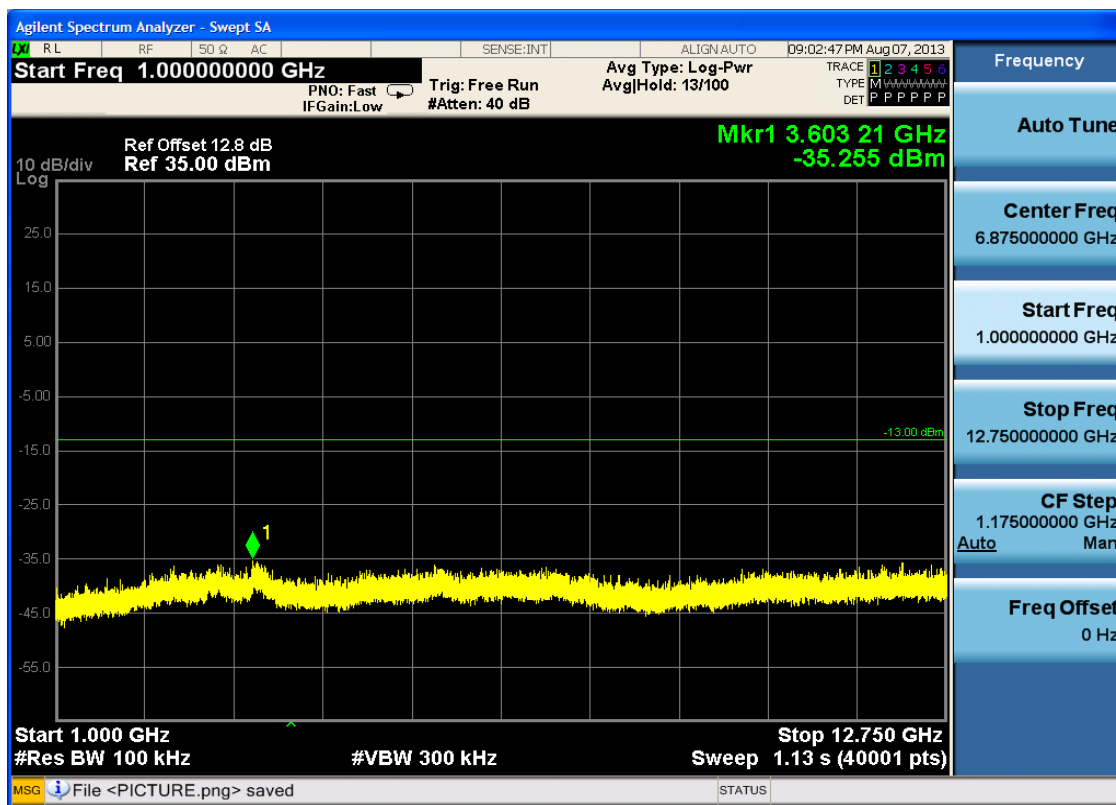


6.1.1.1.2 Test Channel = MCH

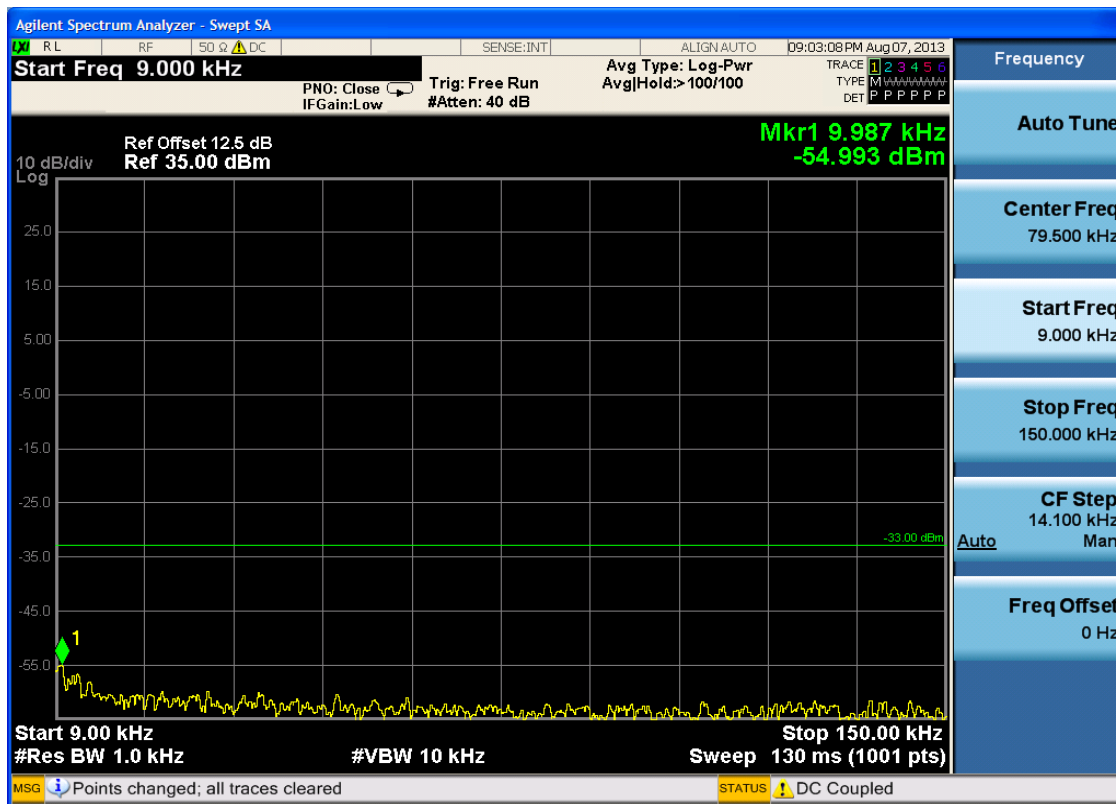


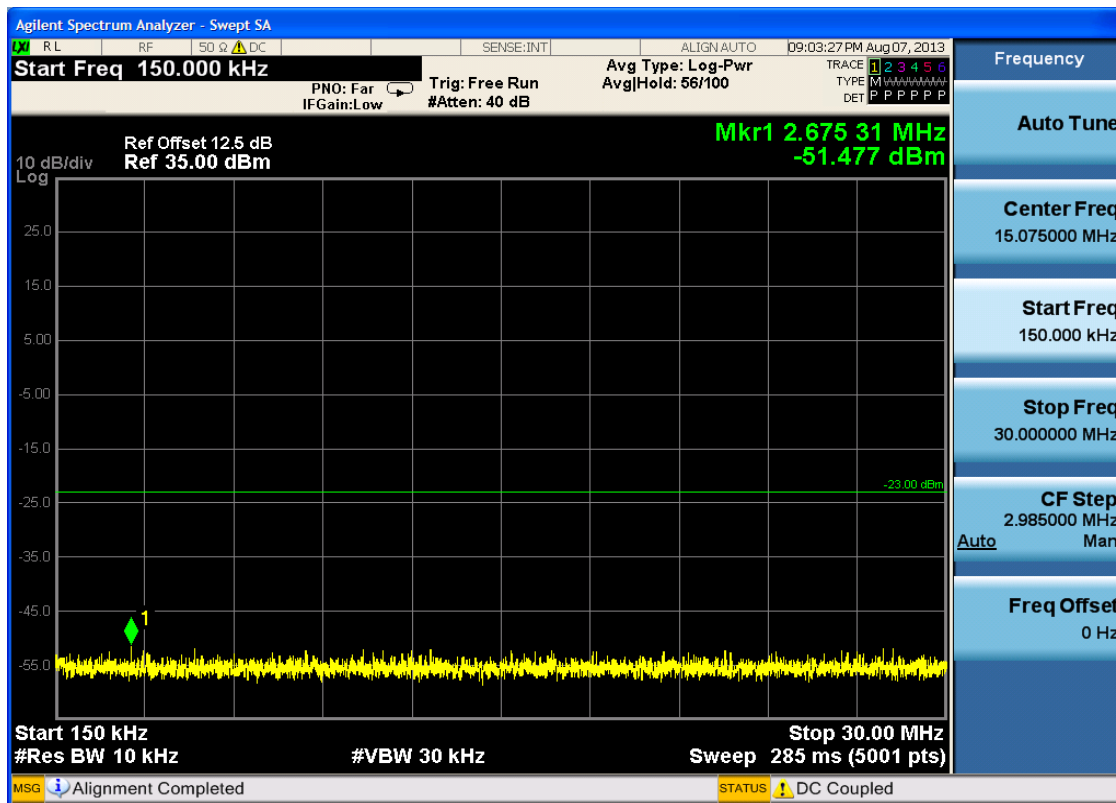


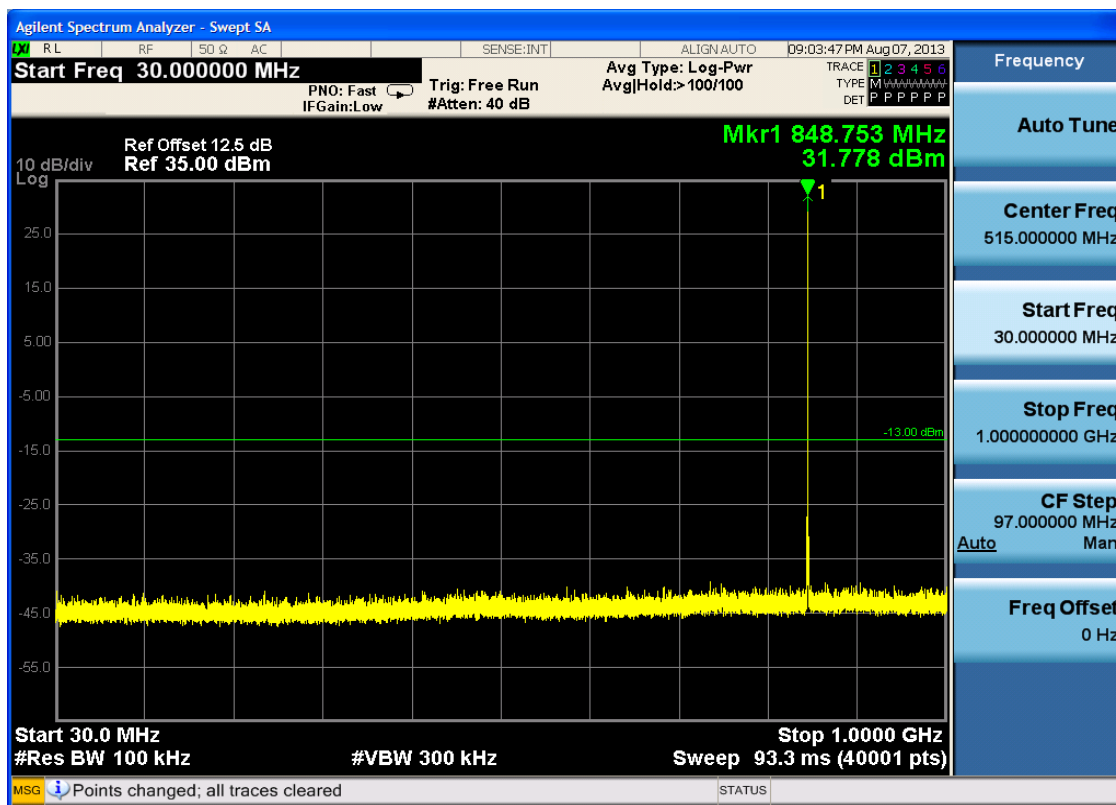


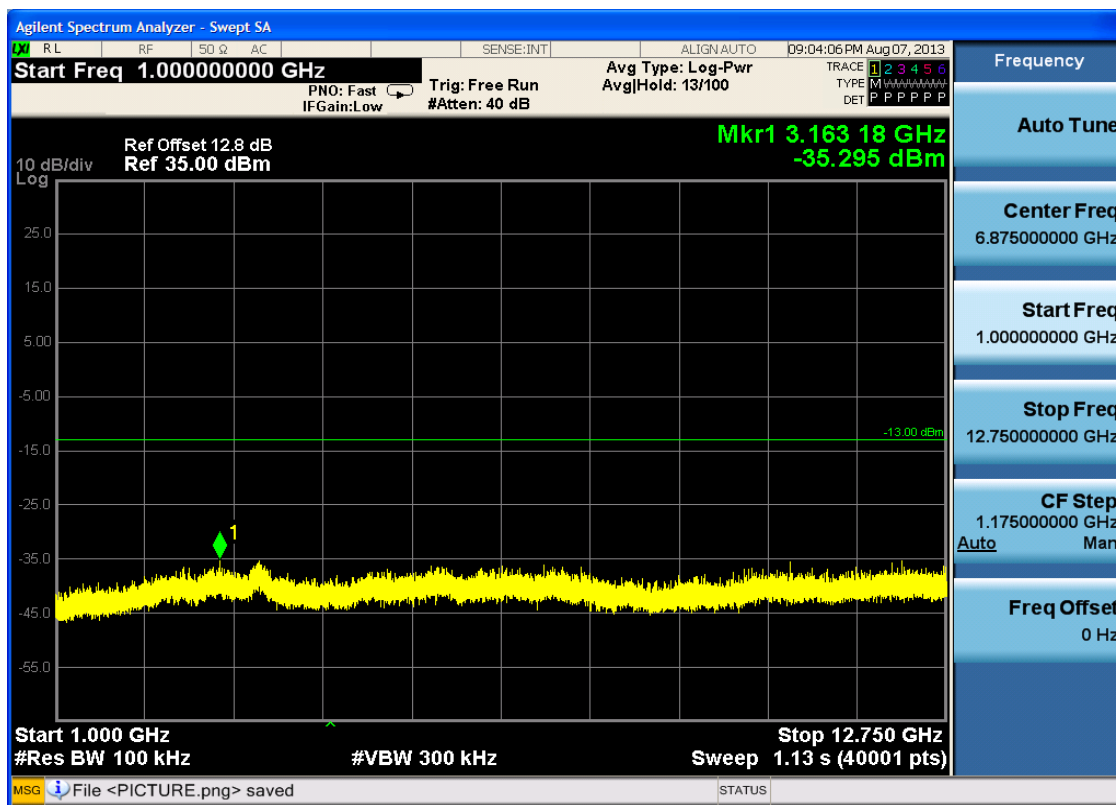


6.1.1.1.3 Test Channel = HCH



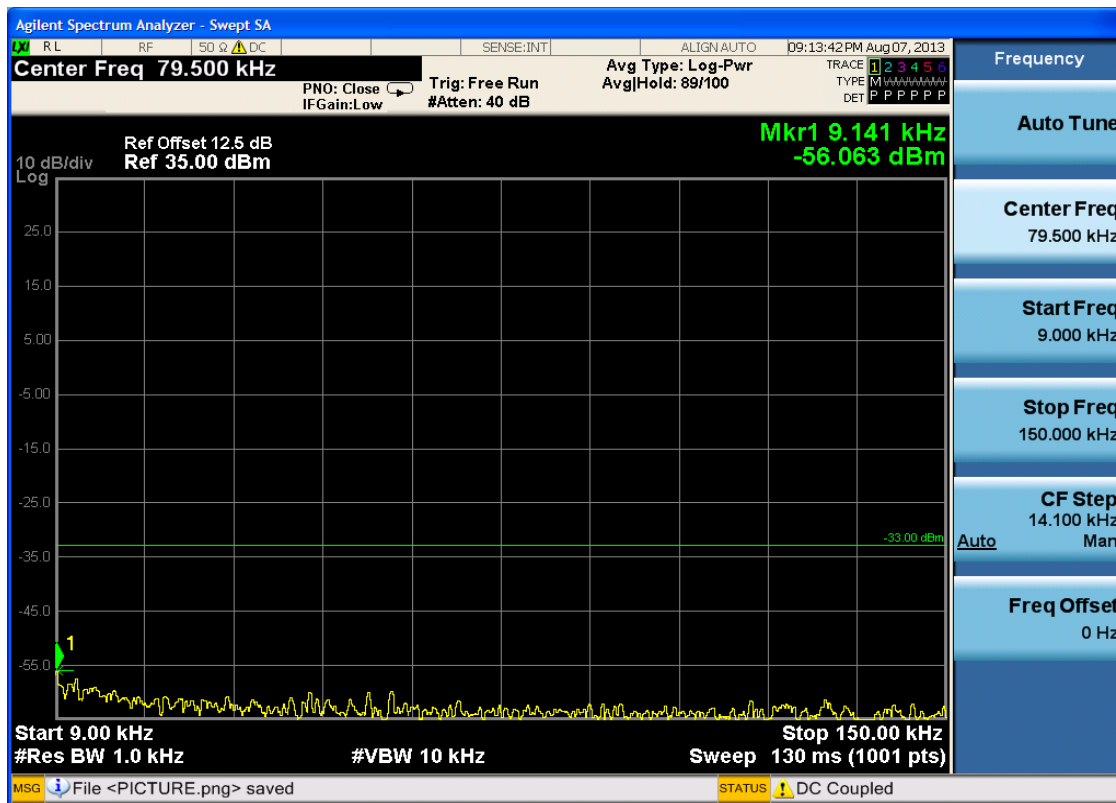


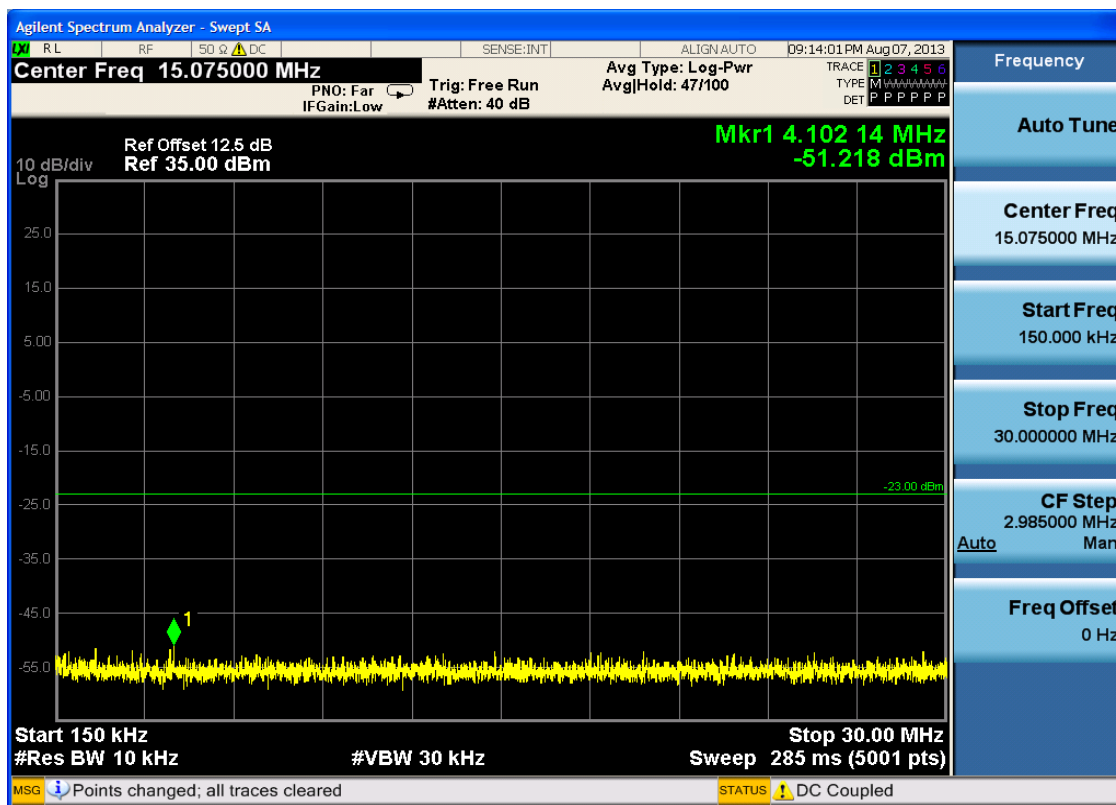


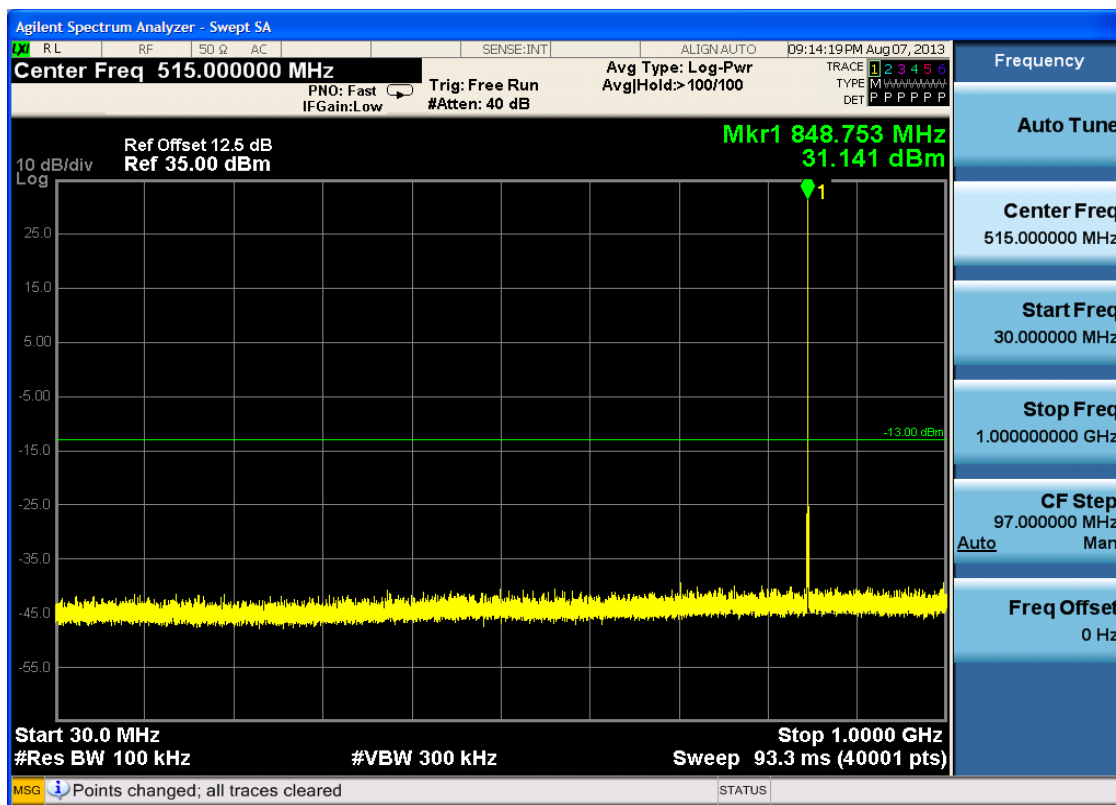


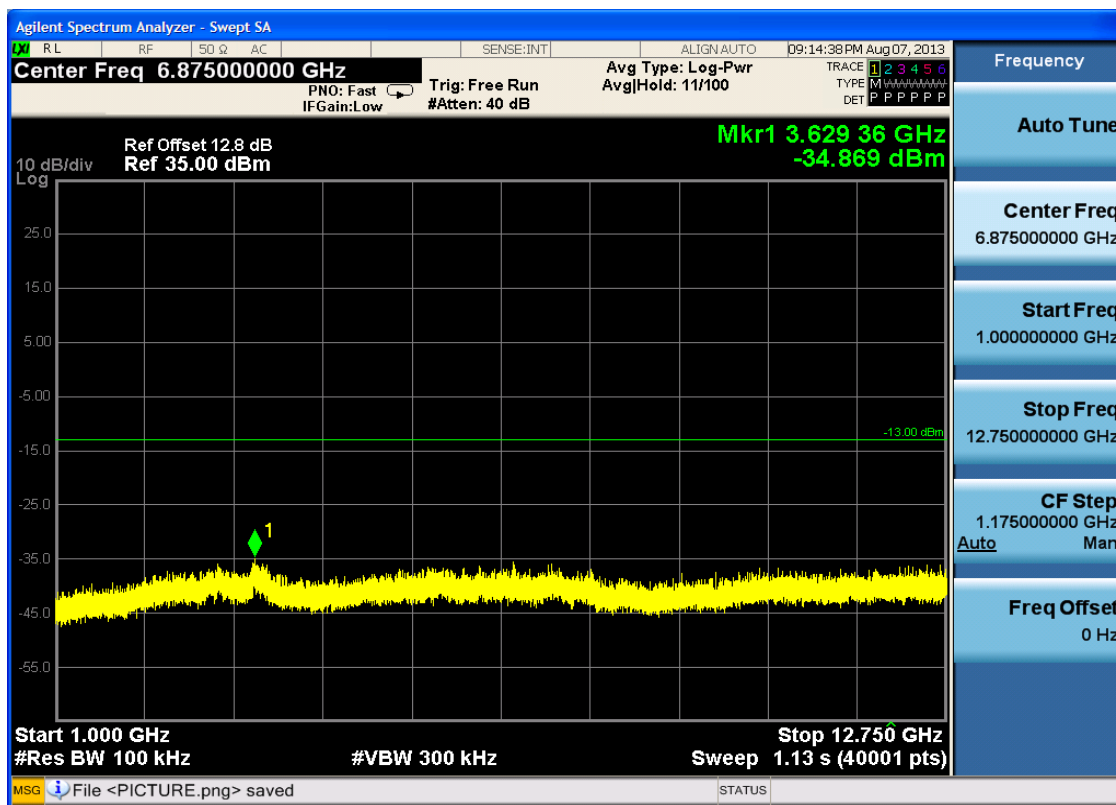
6.1.1.2 Test Mode = GSM/TM2

6.1.1.2.1 Test Channel = LCH









6.1.1.2.2 Test Channel = MCH

