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	33.15	29.18	38.5	PASS
		MCH	33.1	29.13	38.5	PASS
		HCH	32.88	28.91	38.5	PASS
	GSM/TM2	LCH	26.76	22.79	38.5	PASS
		MCH	26.81	22.84	38.5	PASS
		HCH	26.84	22.87	38.5	PASS
WCDMA850	UMTS/TM1	LCH	23.89	19.92	38.5	PASS
		MCH	23.85	19.88	38.5	PASS
		HCH	23.8	19.83	38.5	PASS
Test Band	**Test Mode**	**Test Channel**	**Conducted Power [dBm]**	**EIRP [dBm]**	**Limit [dBm]**	**Verdict**
GSM1900	GSM/TM1	LCH	30.25	31.64	33	PASS
		MCH	29.92	31.31	33	PASS
		HCH	30.09	31.48	33	PASS
	GSM/TM2	LCH	25.64	27.03	33	PASS
		MCH	25.72	27.11	33	PASS
		HCH	25.66	27.05	33	PASS
WCDMA1900	UMTS/TM1	LCH	22.56	23.95	33	PASS
		MCH	22.78	24.17	33	PASS
		HCH	22.36	23.75	33	PASS
WCDMA1700	UMTS/TM1	LCH	22.75	24.14	33	PASS
		MCH	22.86	24.25	33	PASS
		HCH	22.33	23.72	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,

ERP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBd]

EIRP [dBm] = SGP [dBm] - Cable Loss [dB] + 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
GSM850	GSM/TM1	LCH	0.35	13	PASS
		MCH	0.33	13	PASS
		HCH	0.32	13	PASS
	GSM/TM2	LCH	3.28	13	PASS
		MCH	3.25	13	PASS
		HCH	3.24	13	PASS
GSM1900	GSM/TM1	LCH	0.33	13	PASS
		MCH	0.33	13	PASS
		HCH	0.36	13	PASS
	GSM/TM2	LCH	3.18	13	PASS
		MCH	3.32	13	PASS
		HCH	3.28	13	PASS

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
WCDMA850	UMTS/TM1	LCH	2.99	13	PASS
		MCH	3.37	13	PASS
		HCH	3.15	13	PASS
WCDMA1900	UMTS/TM1	LCH	3.36	13	PASS
		MCH	3.6	13	PASS
		HCH	3.53	13	PASS
WCDMA1700	UMTS/TM1	LCH	3.26	13	PASS
		MCH	3.17	13	PASS
		HCH	3.22	13	PASS

3Appendix_C: Modulation Characteristics

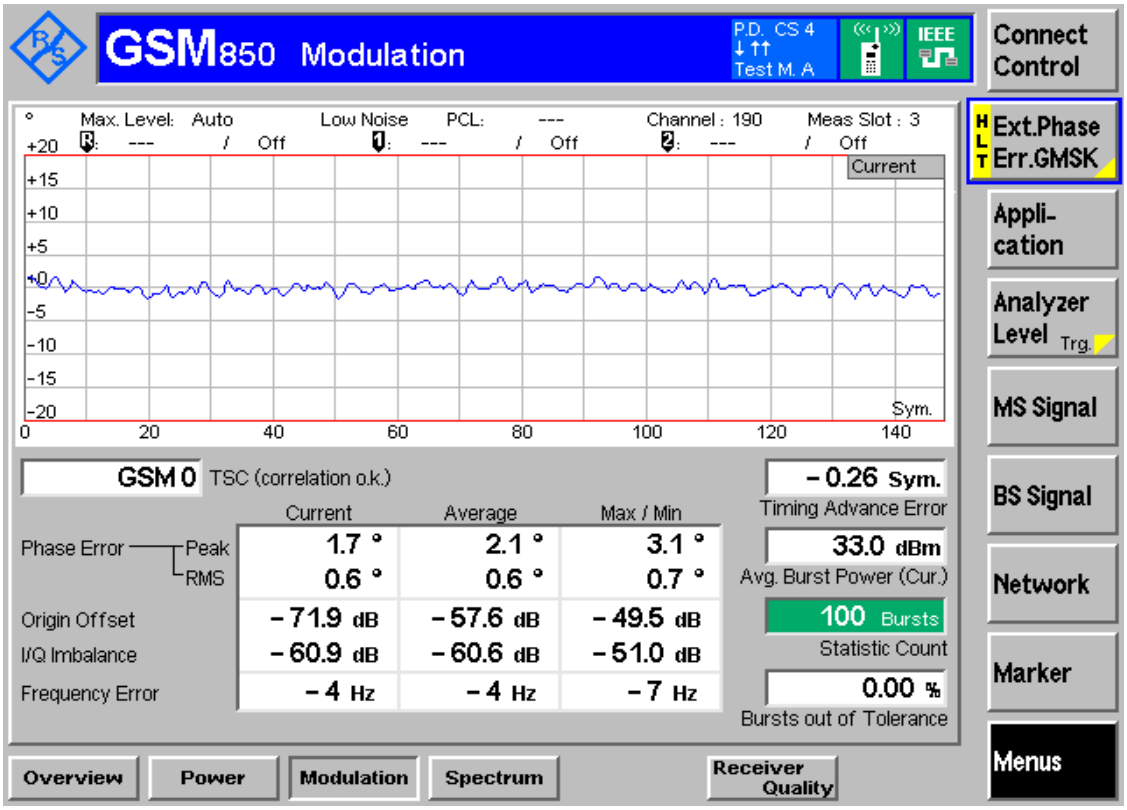
Part I - Test Plots

3.1 For GSM

3.1.1 Test Band = GSM850

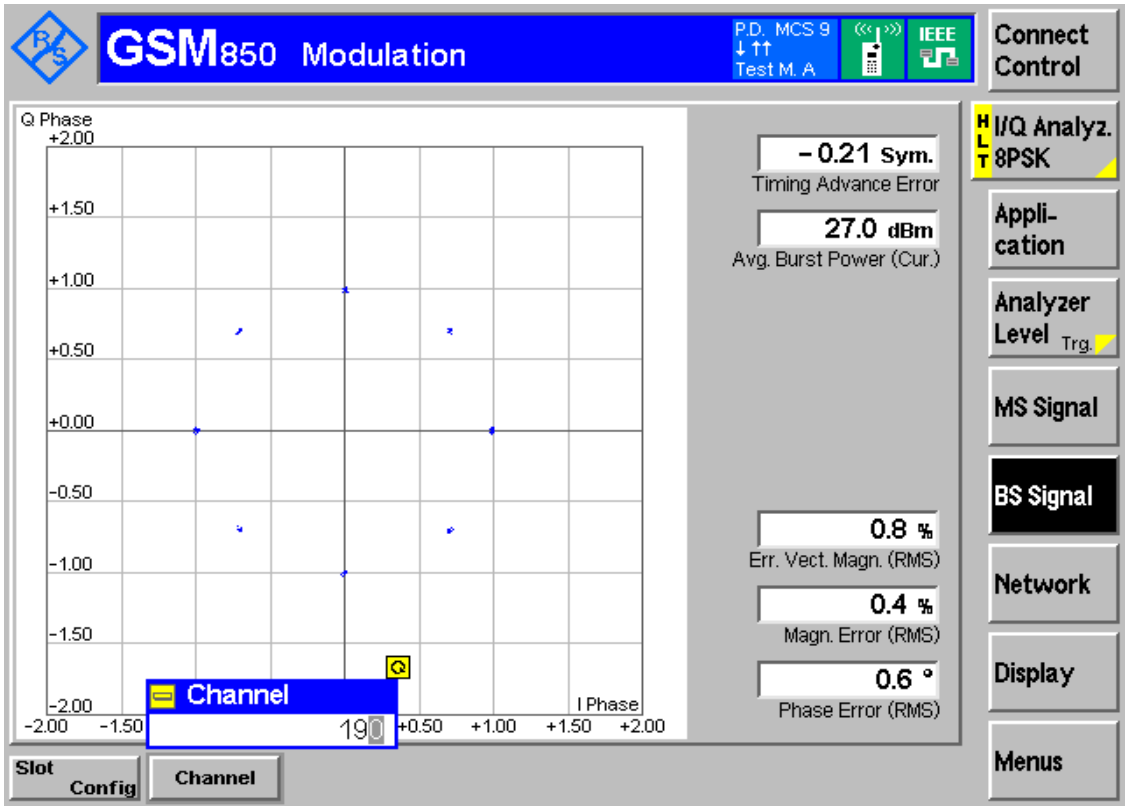
3.1.1.1 Test Mode = GSM/TM1

3.1.1.1.1 Test Channel = MCH



3.1.1.2 Test Mode = GSM/TM2

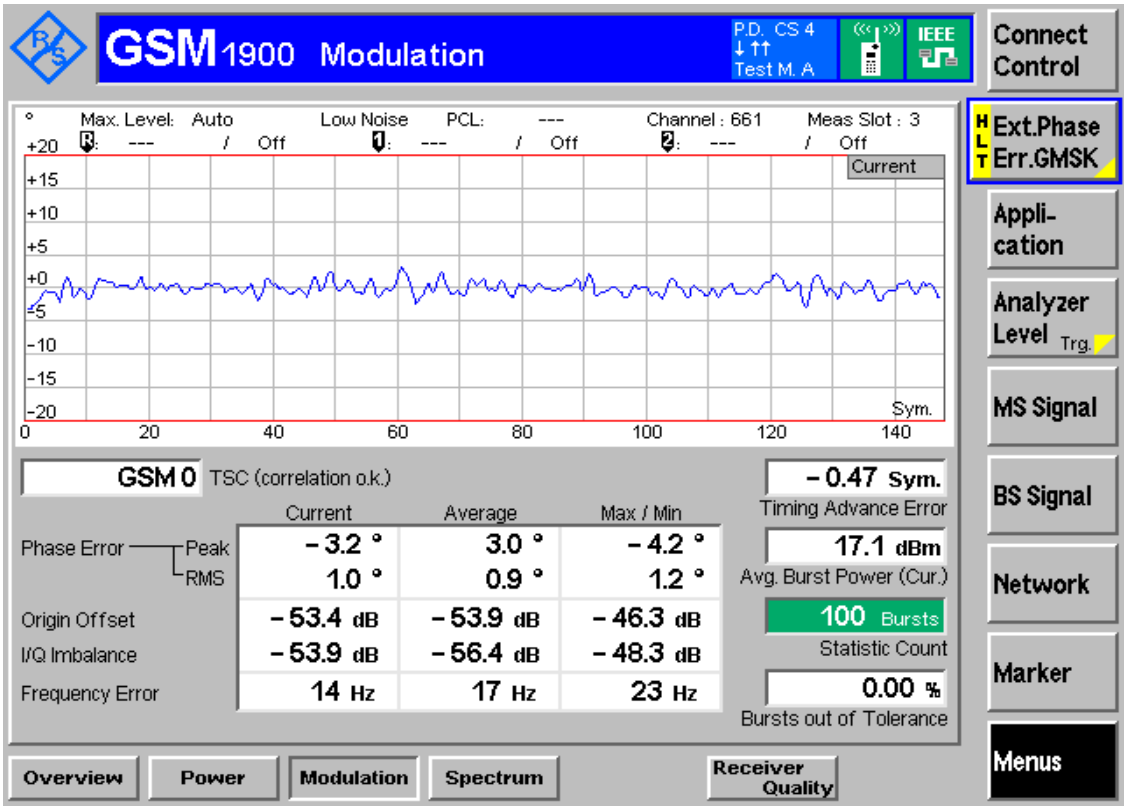
3.1.1.2.1 Test Channel = MCH



3.1.2 Test Band = GSM1900

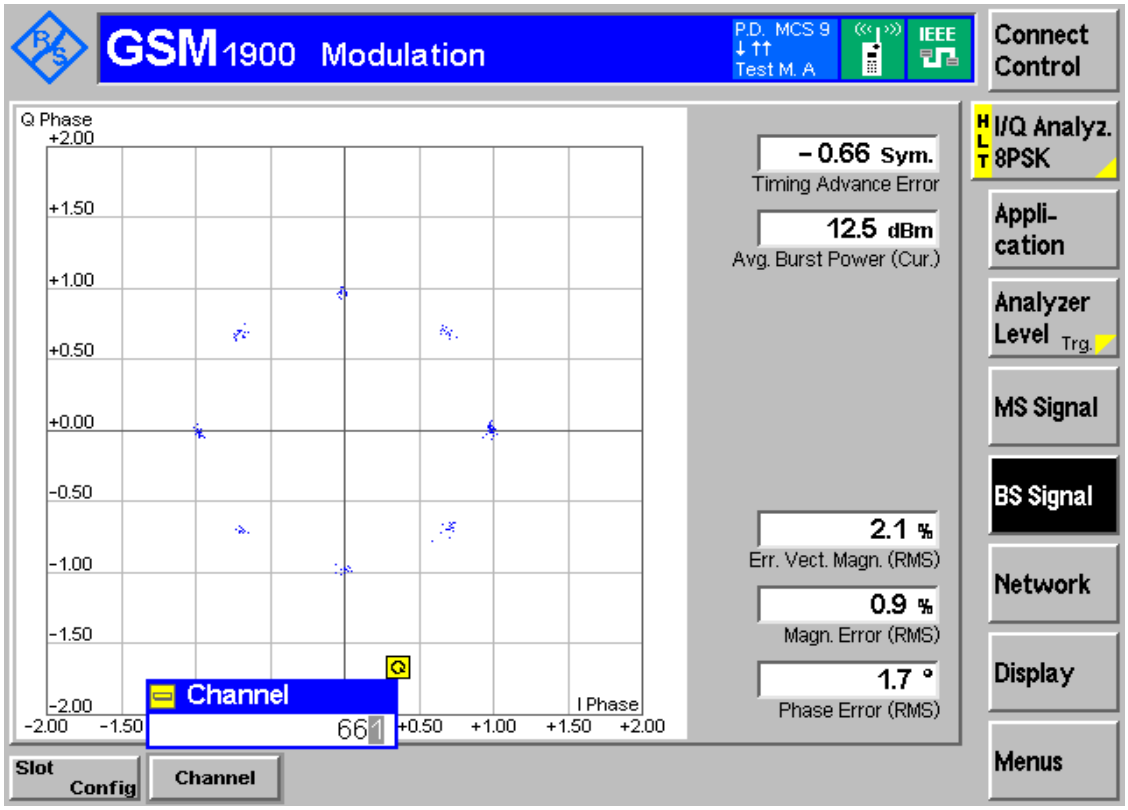
3.1.2.1 Test Mode = GSM/TM1

3.1.2.1.1 Test Channel = MCH



3.1.2.2 Test Mode = GSM/TM2

3.1.2.2.1 Test Channel = MCH

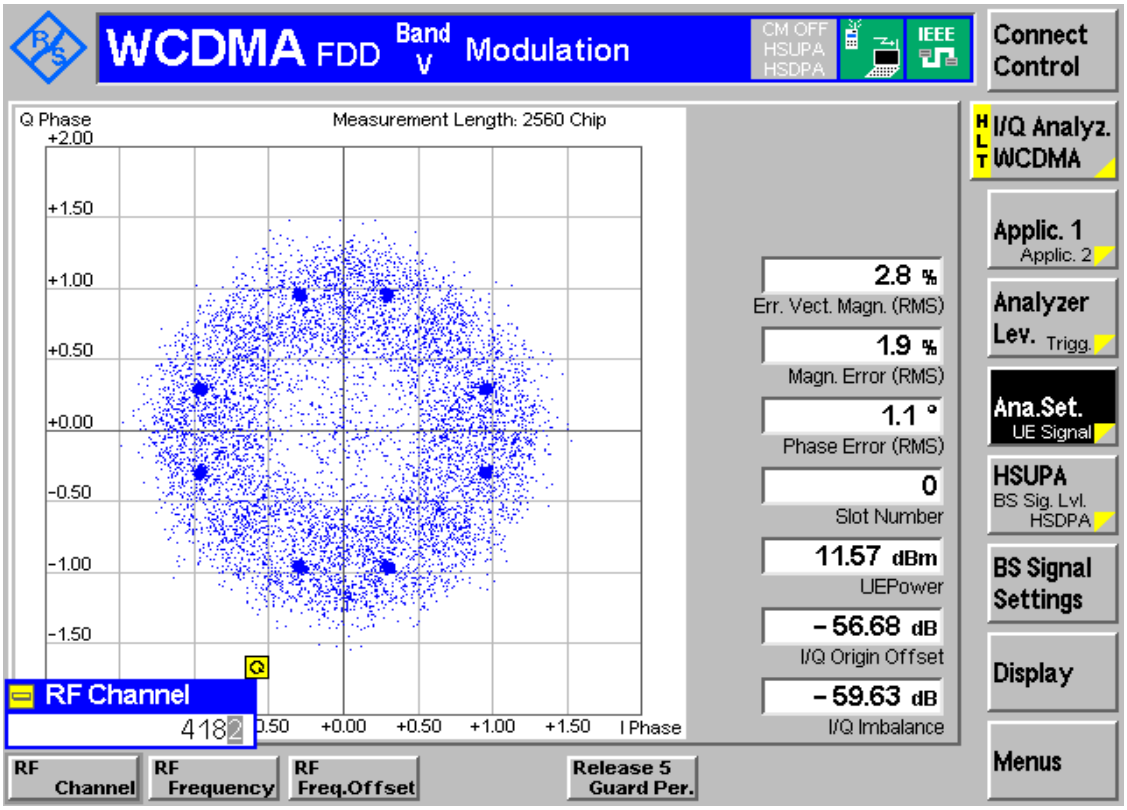


3.2 For UMTS

3.2.1 Test Band = WCDMA850

3.2.1.1 Test Mode = UMTS/TM1

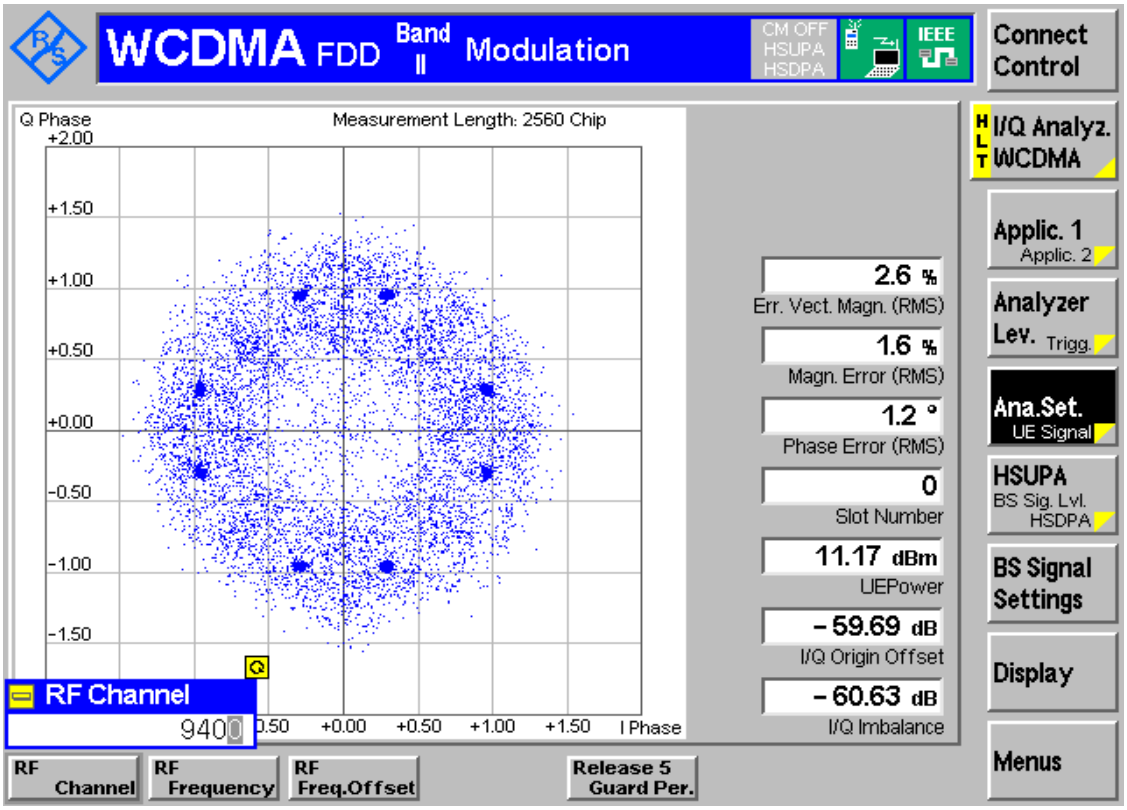
3.2.1.1.1 Test Channel = MCH



3.2.2 Test Band = WCDMA1900

3.2.2.1 Test Mode = UMTS/TM1

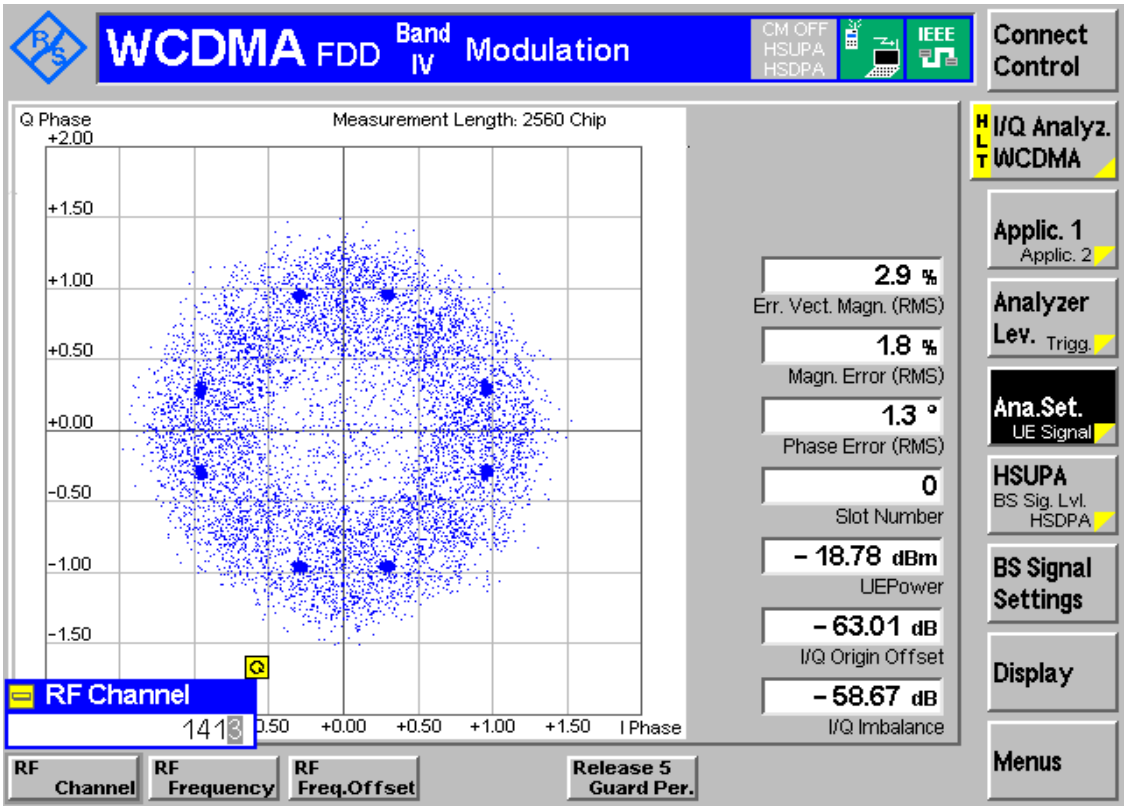
3.2.2.1.1 Test Channel = MCH



3.2.3 Test Band = WCDMA1700

3.2.3.1 Test Mode = UMTS/TM1

3.2.3.1.1 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	245.90	313.51	Pass
		MCH	242.64	316.67	Pass
		HCH	242.53	313.77	Pass
	GSM/TM2	LCH	241.30	292.05	Pass
		MCH	248.53	311.55	Pass
		HCH	244.57	302.23	Pass
GSM1900	GSM/TM1	LCH	244.31	312.52	Pass
		MCH	243.60	316.56	Pass
		HCH	243.45	311.44	Pass
	GSM/TM2	LCH	245.00	314.13	Pass
		MCH	243.81	310.65	Pass
		HCH	241.93	303.88	Pass

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
WCDMA850	UMTS/TM1	LCH	4.16	4.74	Pass
		MCH	4.16	4.73	Pass
		HCH	4.16	4.74	Pass
WCDMA1900	UMTS/TM1	LCH	4.16	4.75	Pass
		MCH	4.16	4.74	Pass
		HCH	4.17	4.73	Pass
WCDMA1700	UMTS/TM1	LCH	4.17	4.73	Pass
		MCH	4.17	4.74	Pass
		HCH	4.16	4.73	Pass

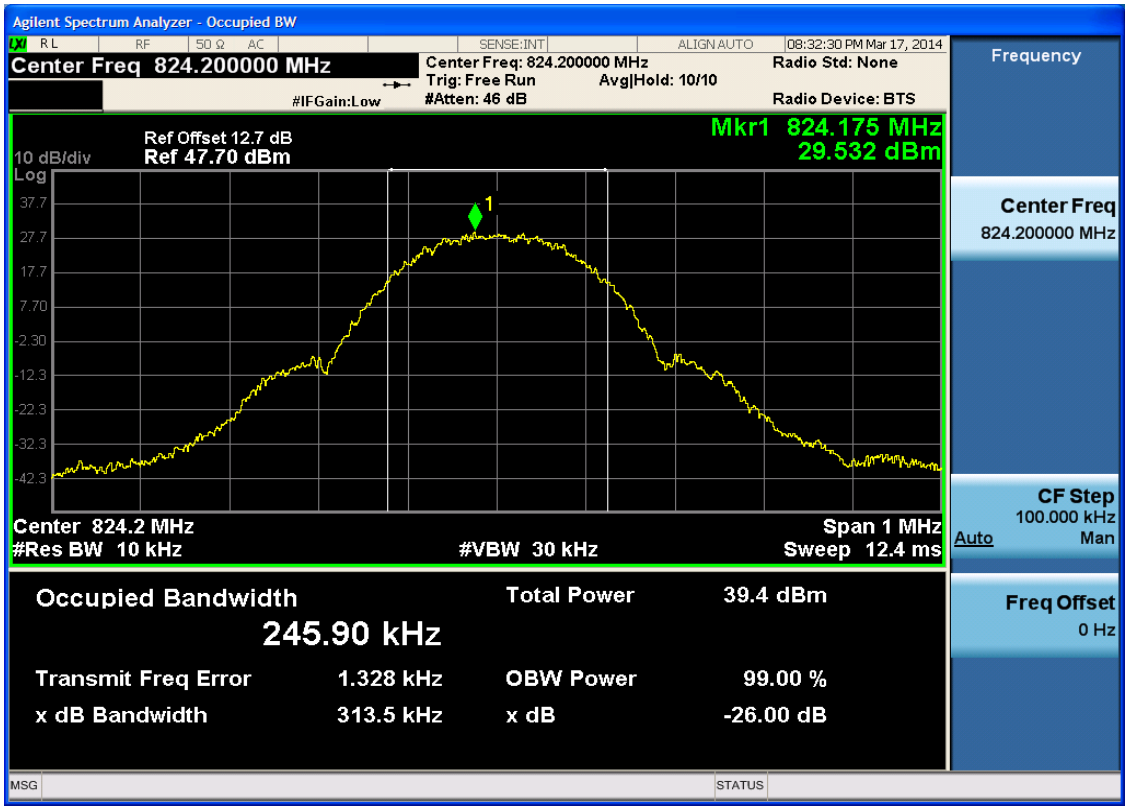
Part II - Test Plots

4.1 For GSM

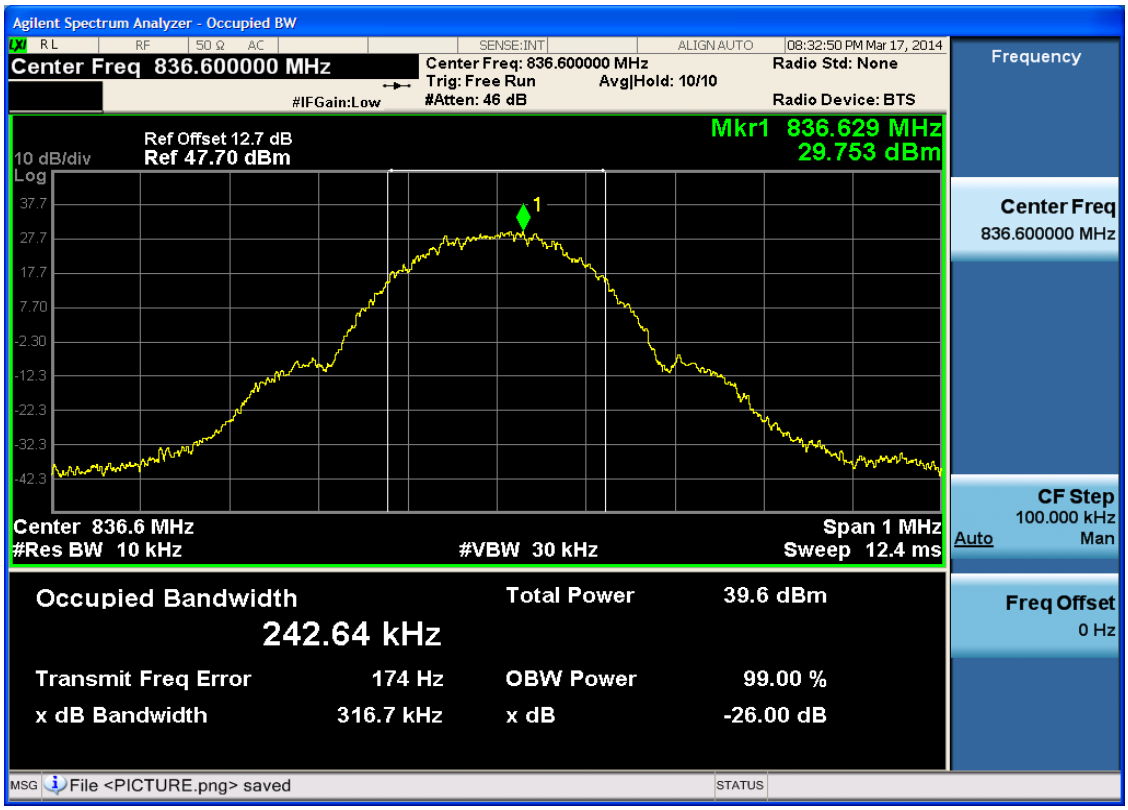
4.1.1 Test Band = GSM850

4.1.1.1 Test Mode = GSM/TM1

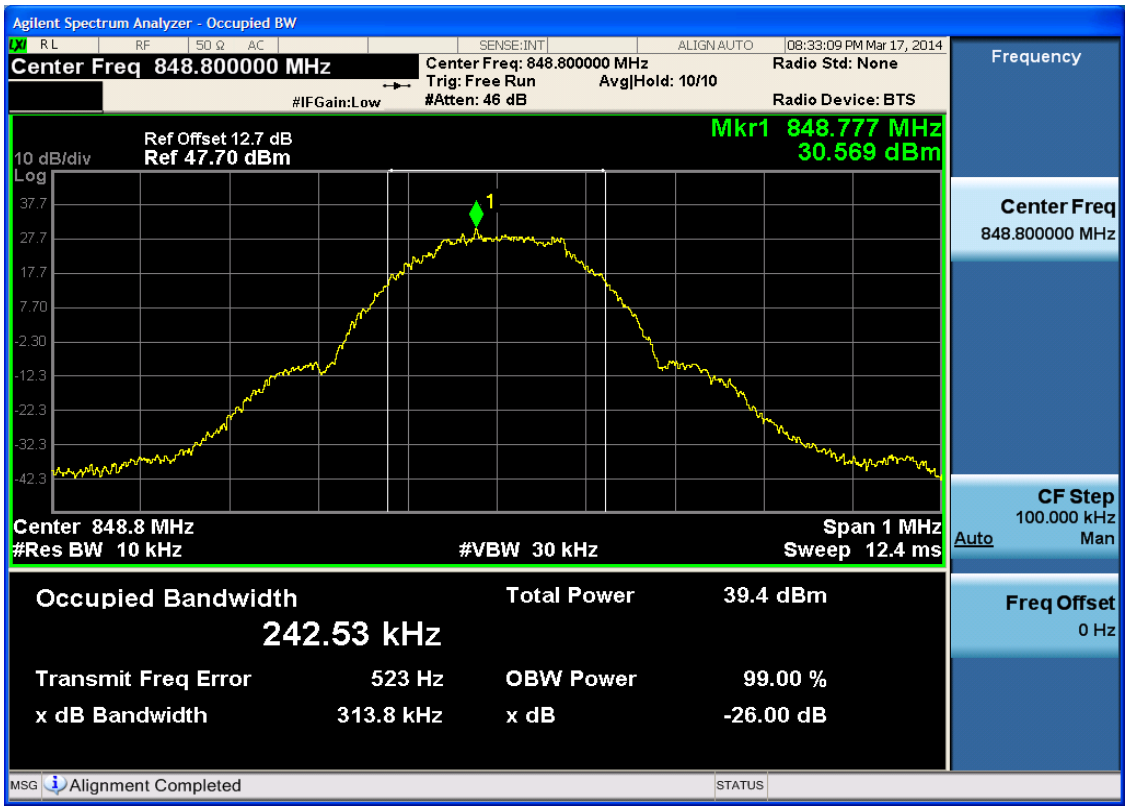
4.1.1.1.1 Test Channel = LCH



4.1.1.1.2 Test Channel = MCH

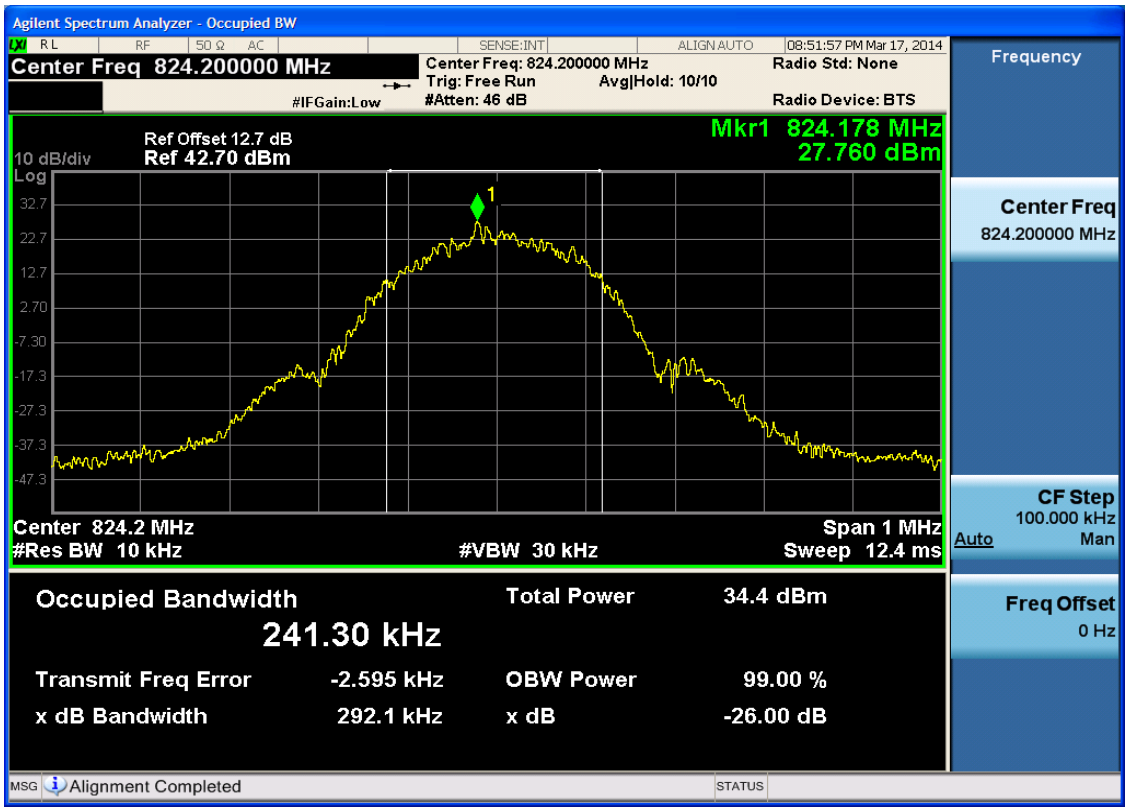


4.1.1.1.3 Test Channel = HCH

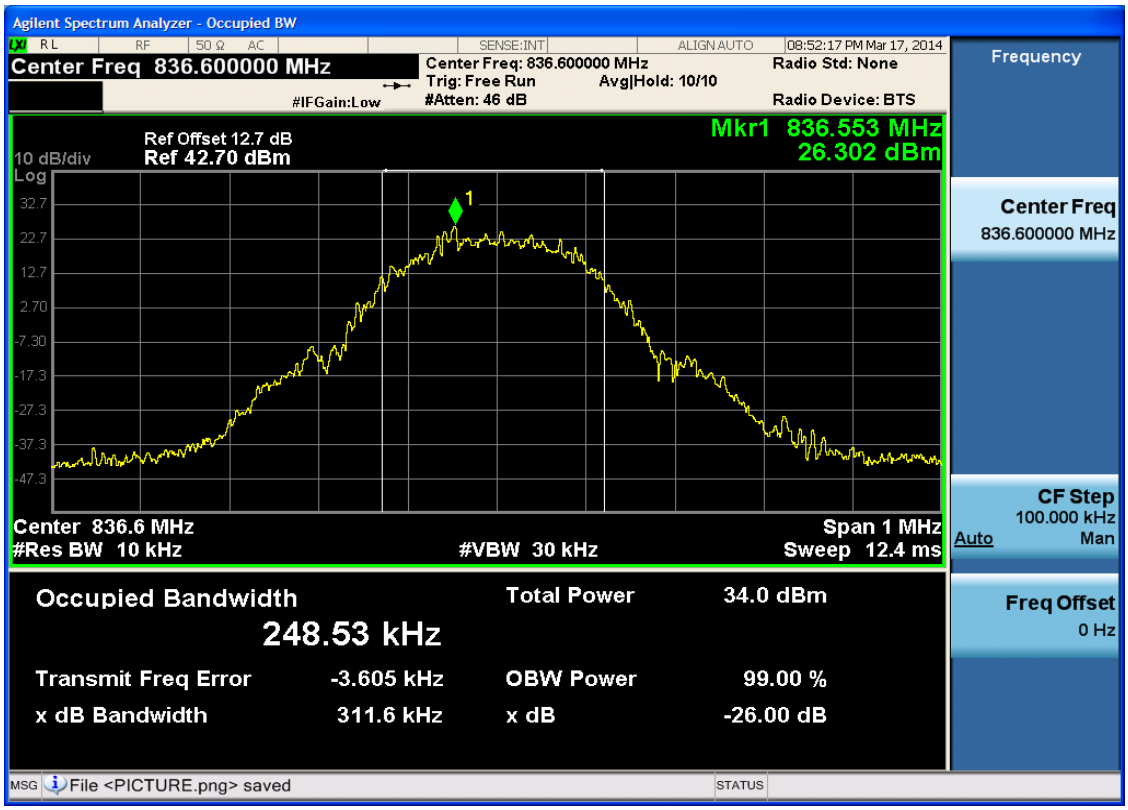


4.1.1.2 Test Mode = GSM/TM2

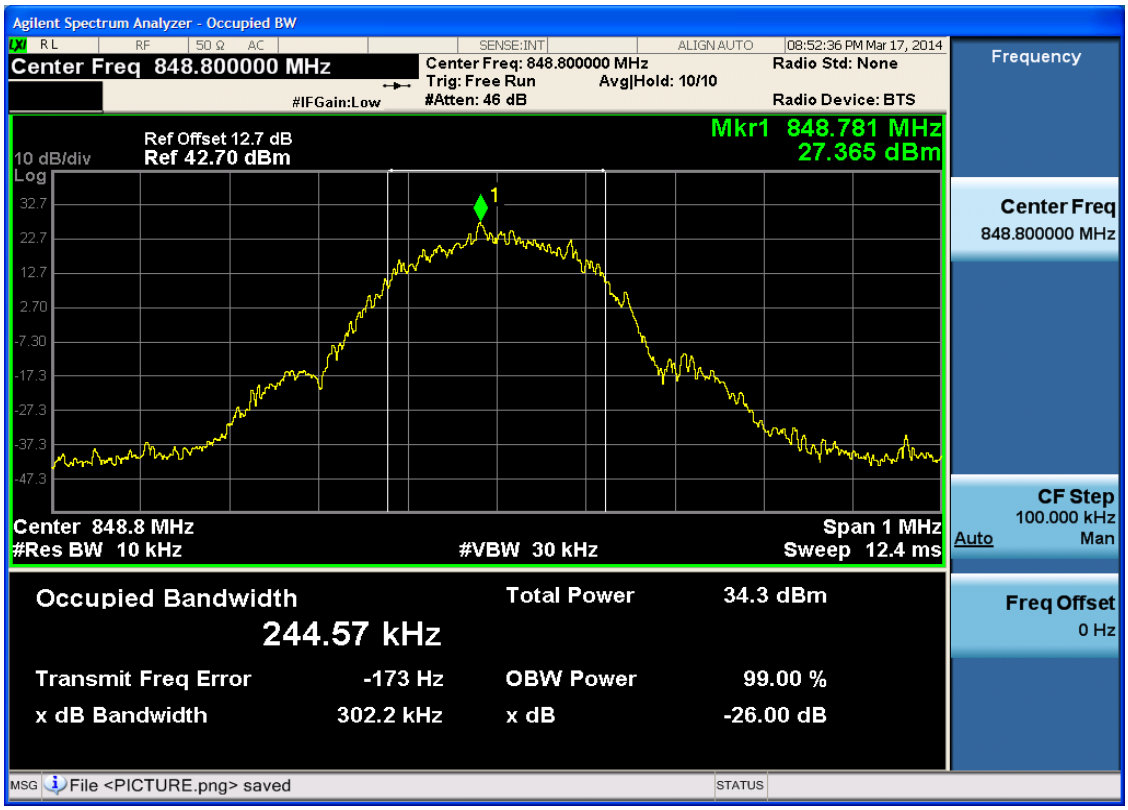
4.1.1.2.1 Test Channel = LCH



4.1.1.2.2 Test Channel = MCH



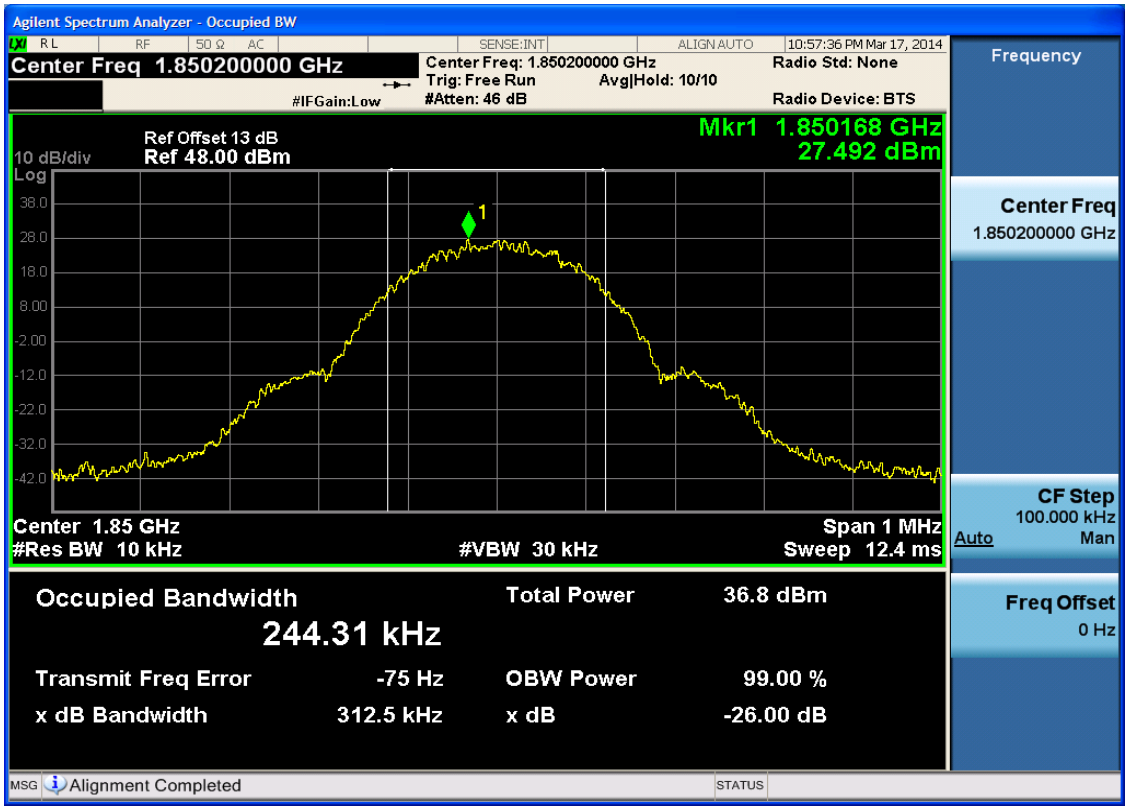
4.1.1.2.3 Test Channel = HCH



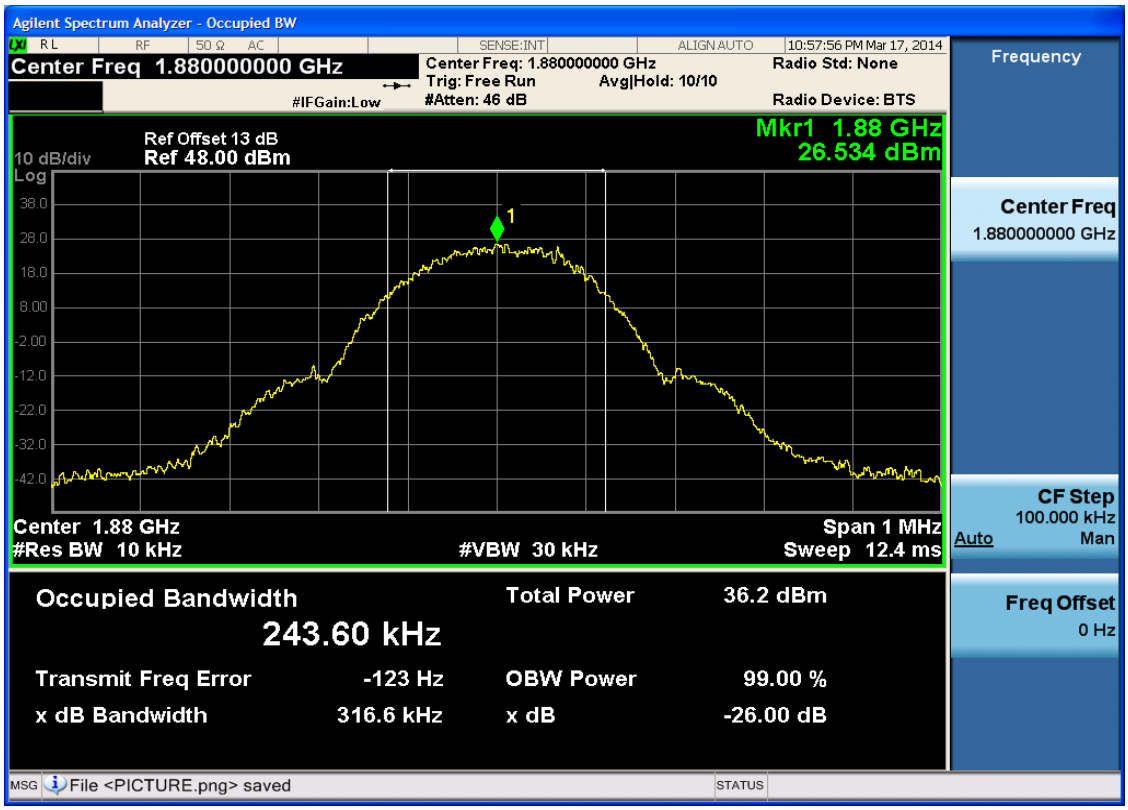
4.1.2 Test Band = GSM1900

4.1.2.1 Test Mode = GSM/TM1

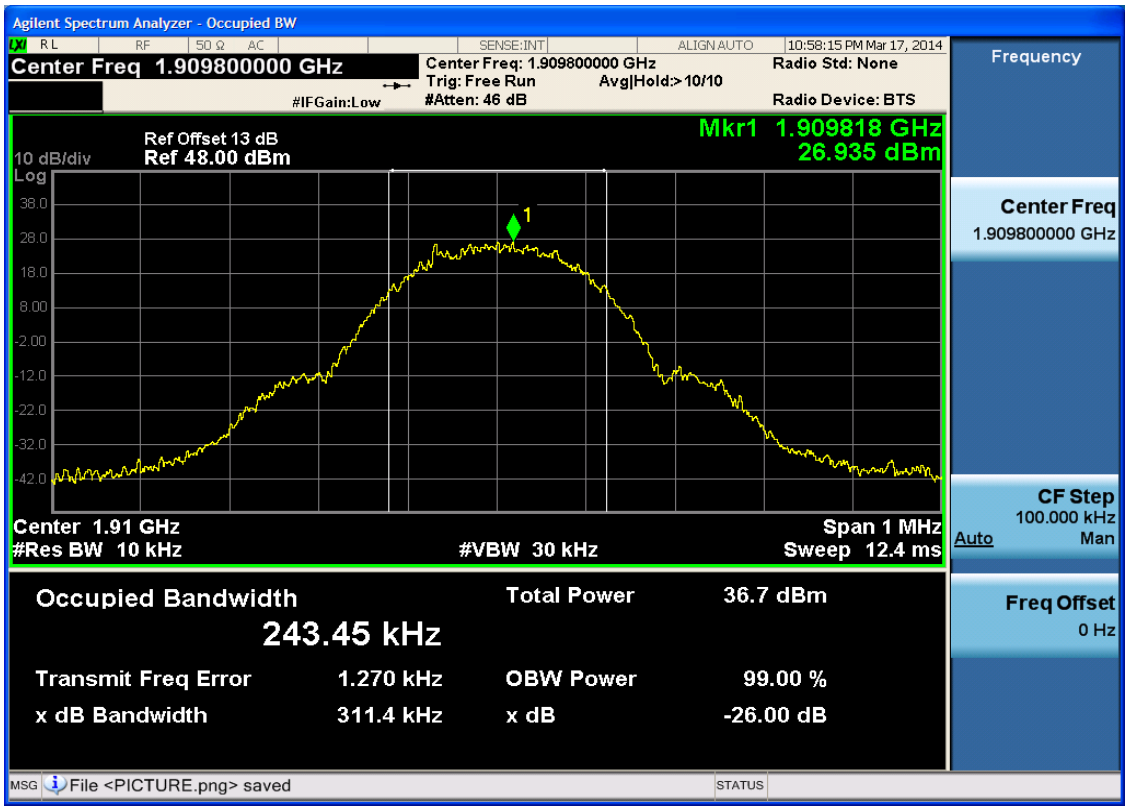
4.1.2.1.1 Test Channel = LCH



4.1.2.1.2 Test Channel = MCH

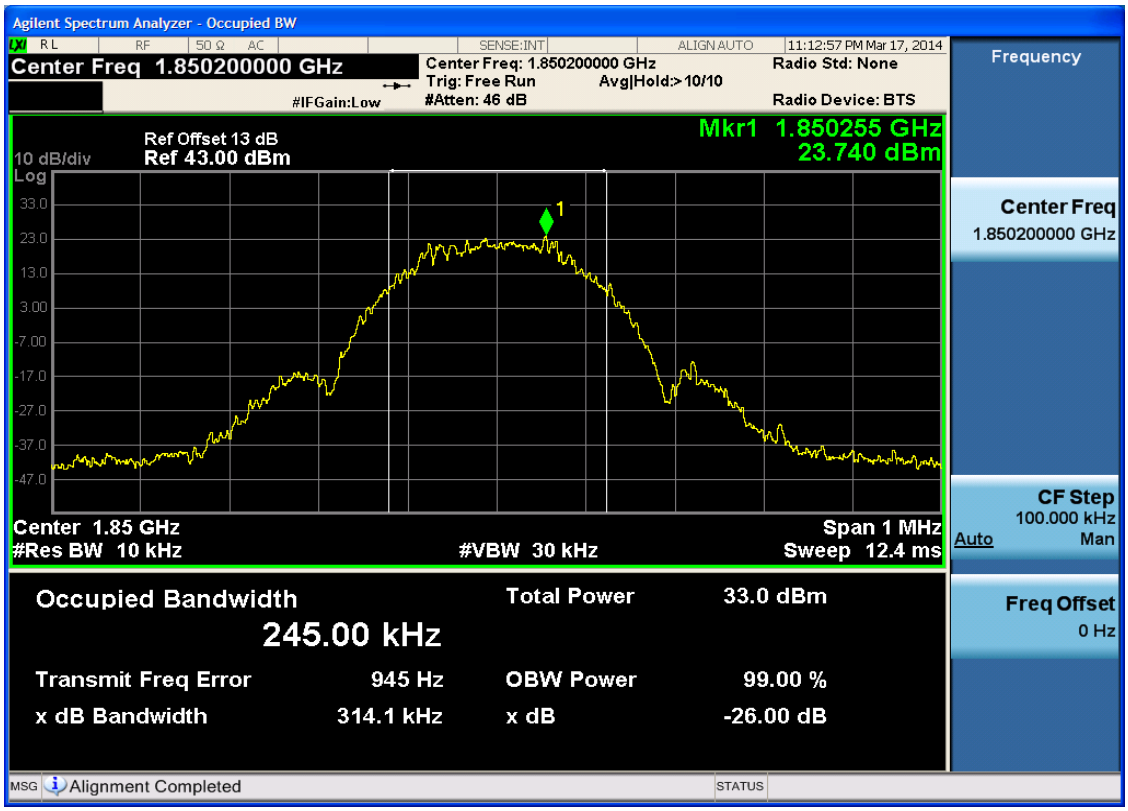


4.1.2.1.3 Test Channel = HCH

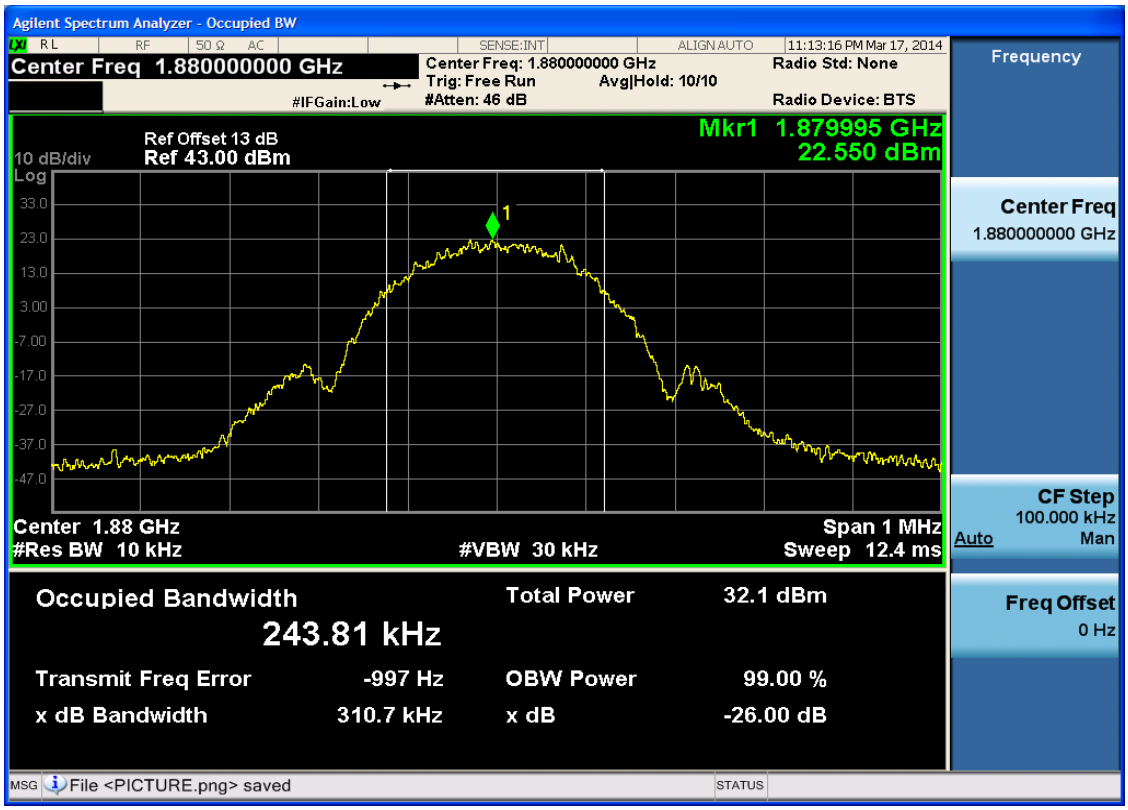


4.1.2.2 Test Mode = GSM/TM2

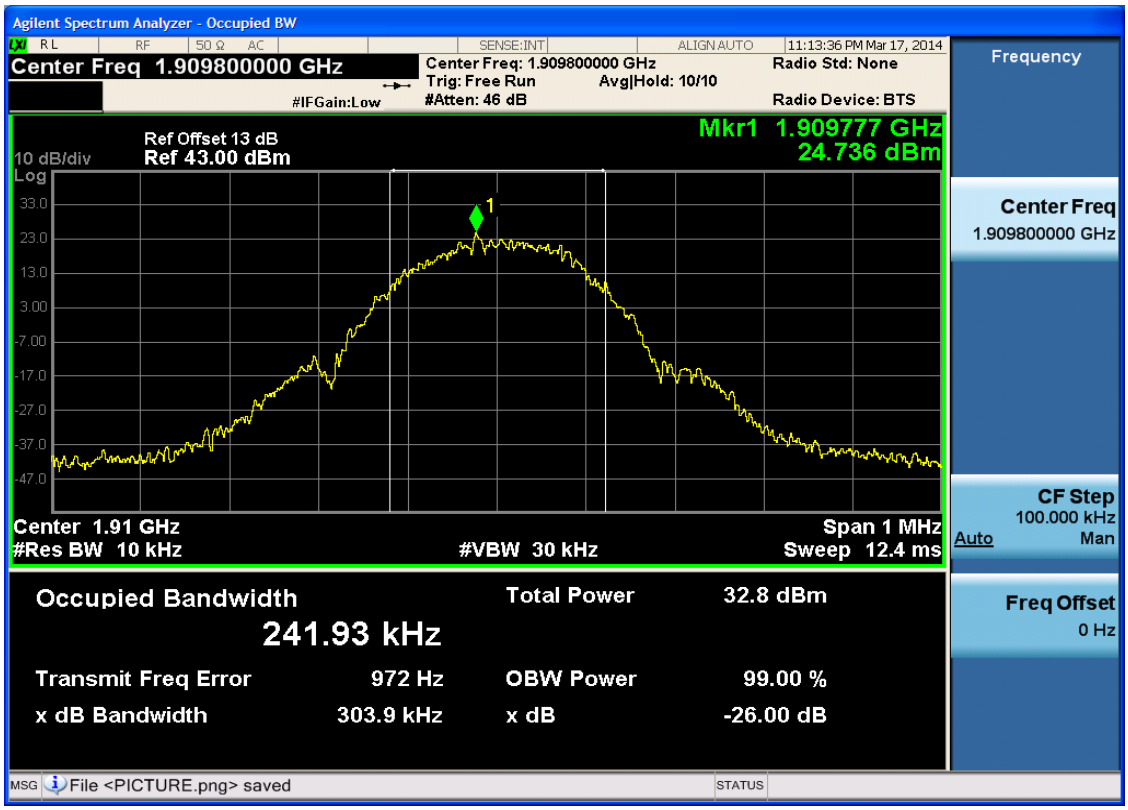
4.1.2.2.1 Test Channel = LCH



4.1.2.2.2 Test Channel = MCH



4.1.2.2.3 Test Channel = HCH

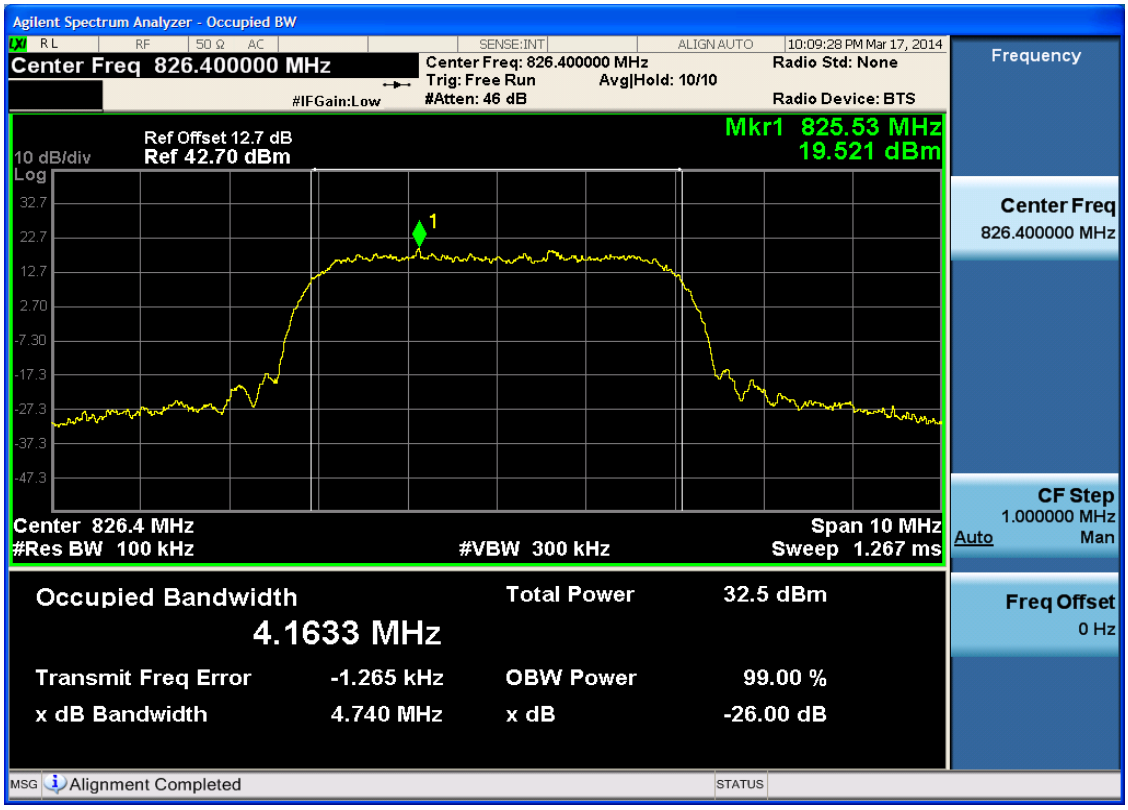


4.2 For UMTS

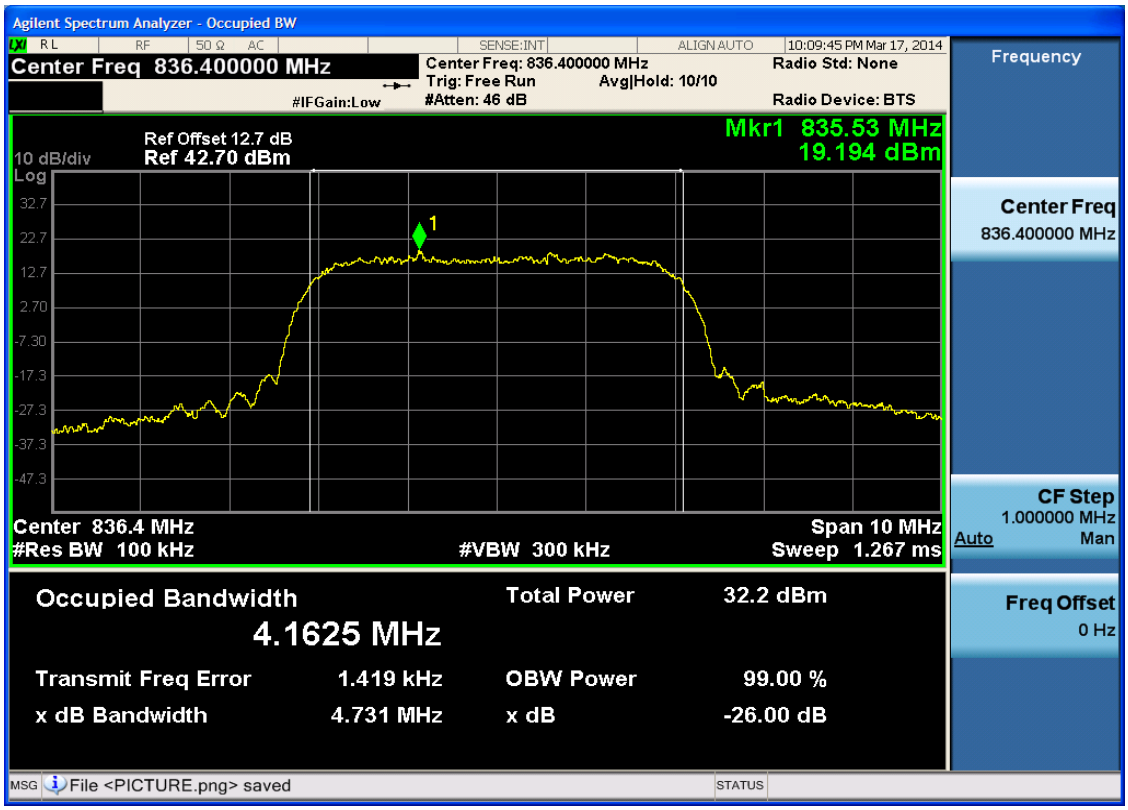
4.2.1 Test Band = WCDMA850

4.2.1.1 Test Mode = UMTS/TM1

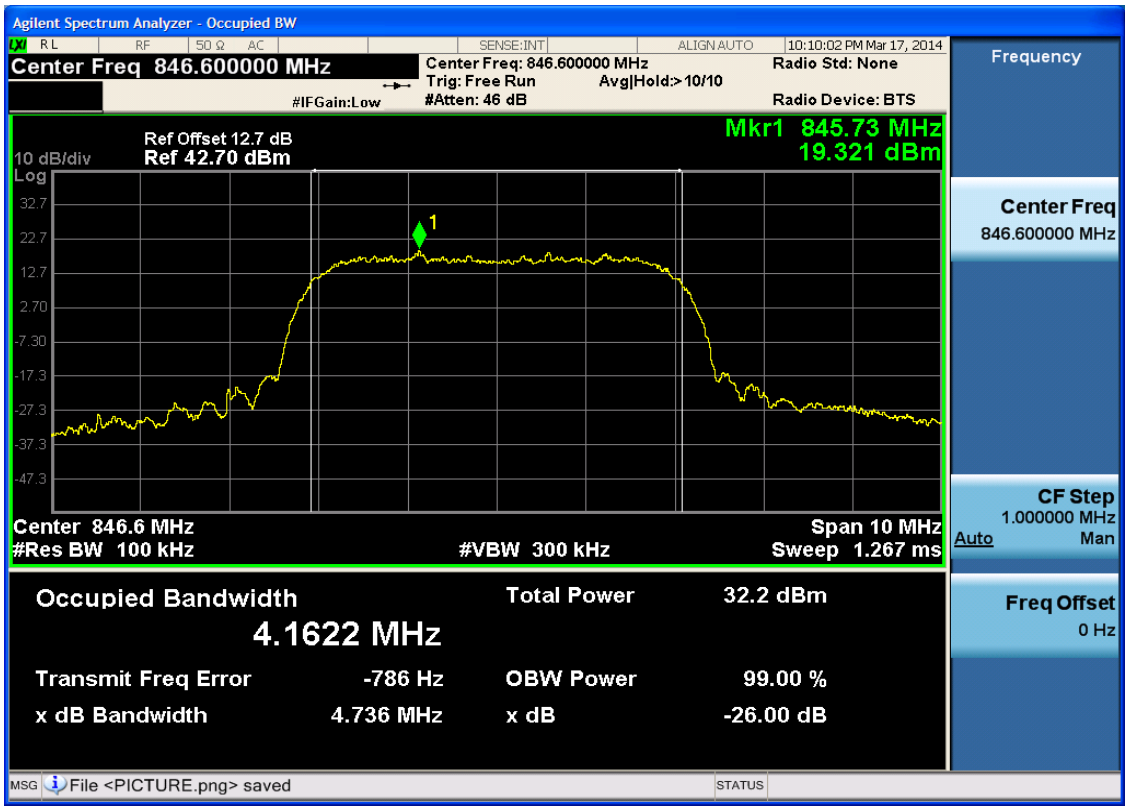
4.2.1.1.1 Test Channel = LCH



4.2.1.1.2 Test Channel = MCH



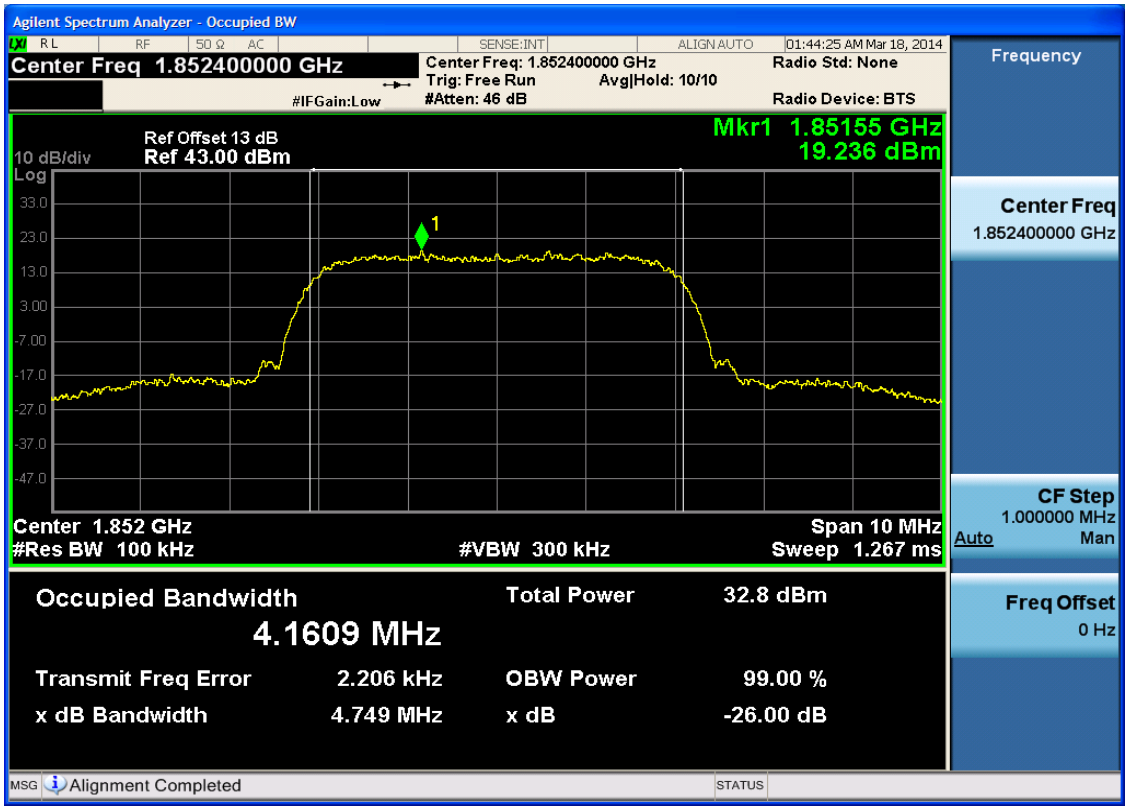
4.2.1.1.3 Test Channel = HCH



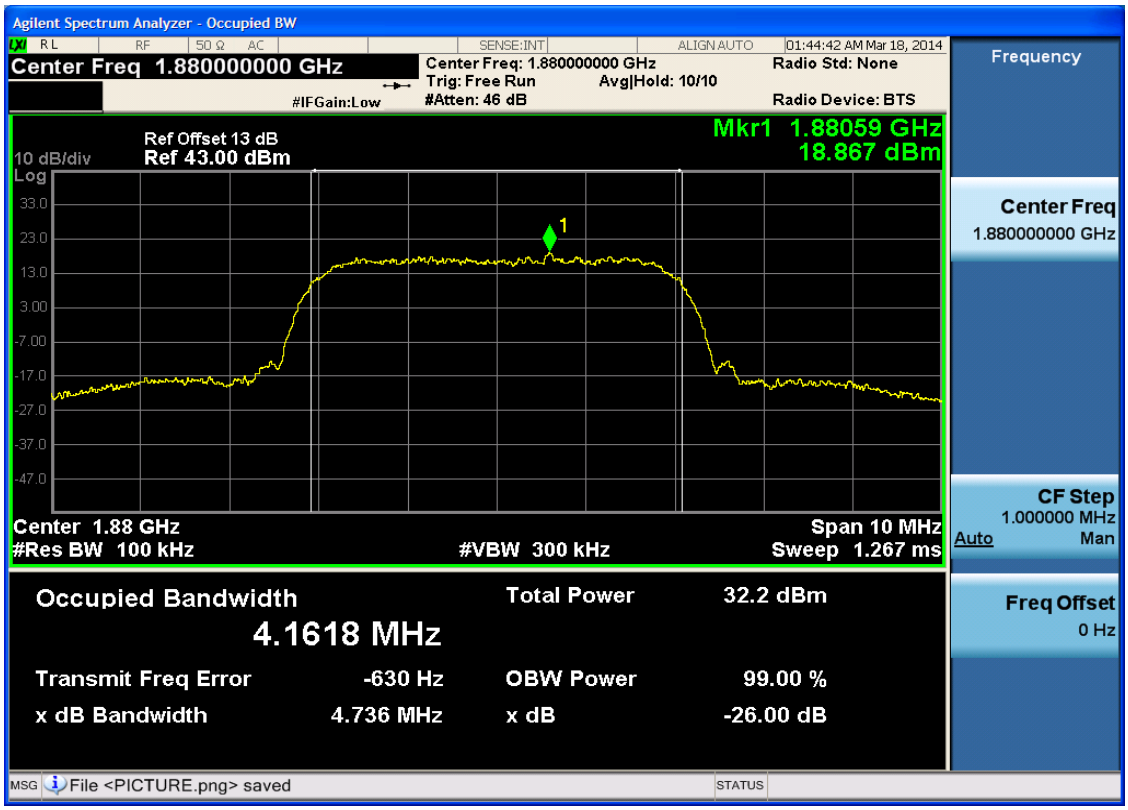
4.2.2 Test Band = WCDMA1900

4.2.2.1 Test Mode = UMTS/TM1

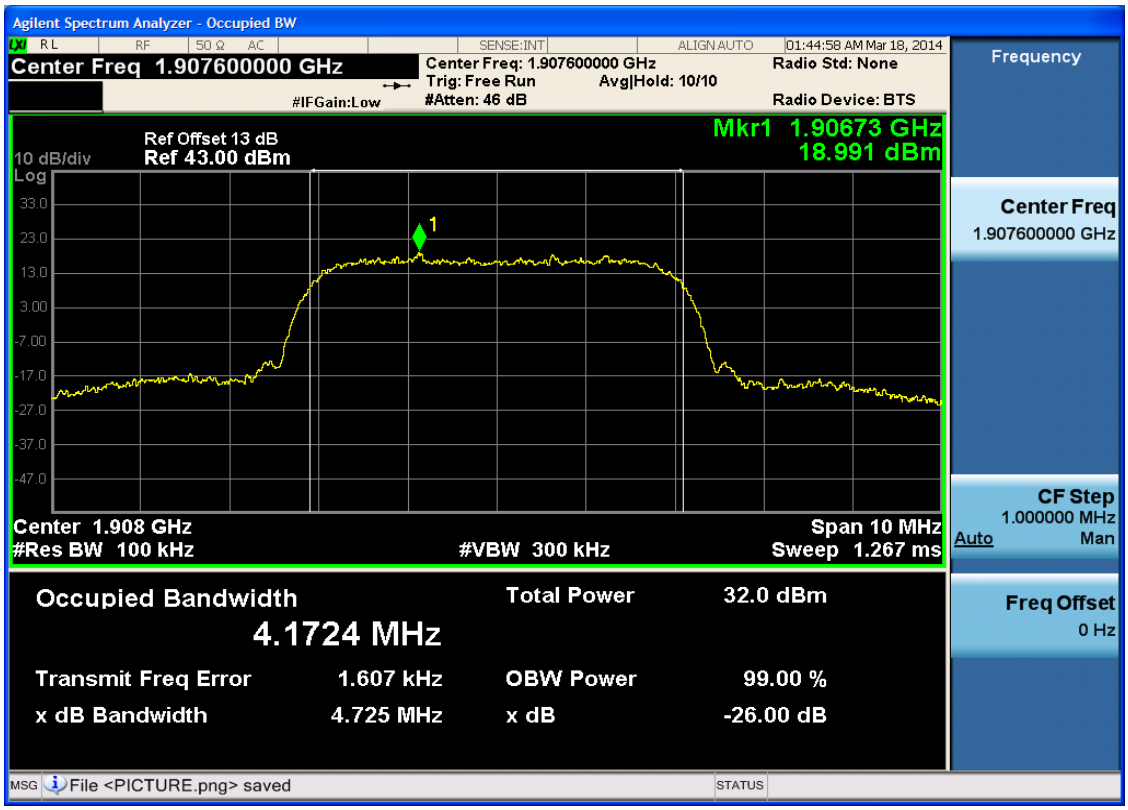
4.2.2.1.1 Test Channel = LCH



4.2.2.1.2 Test Channel = MCH



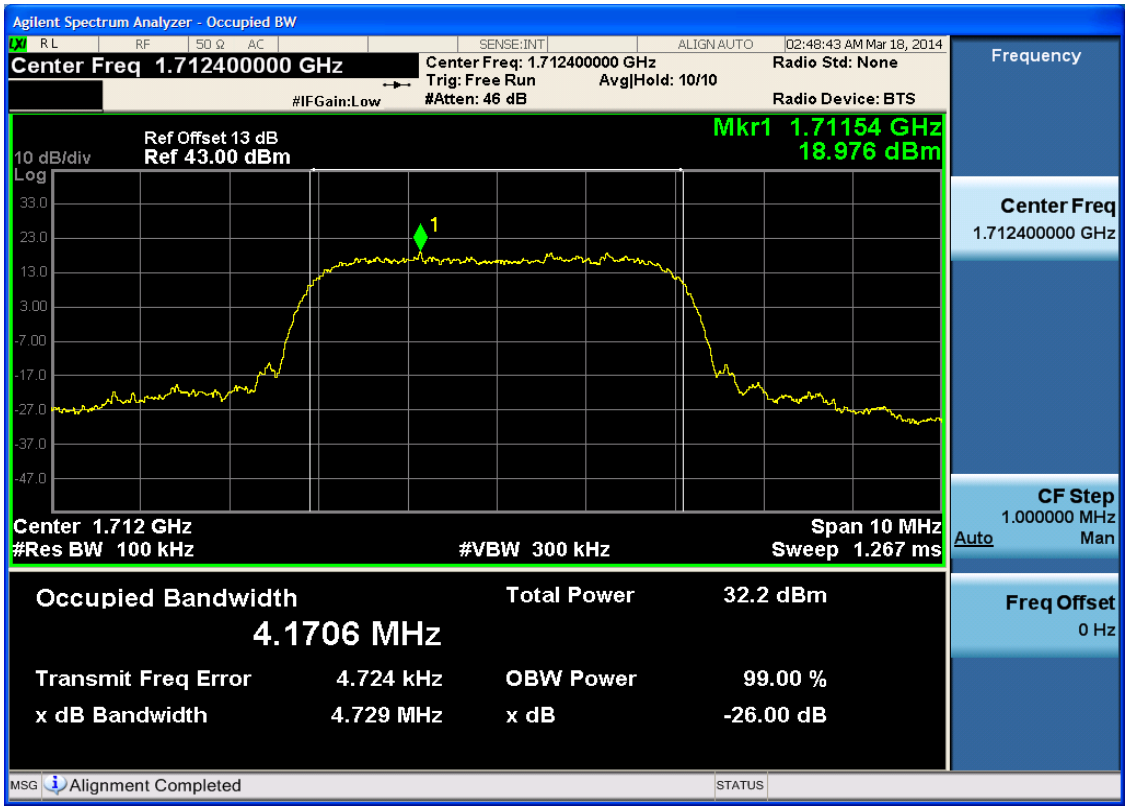
4.2.2.1.3 Test Channel = HCH



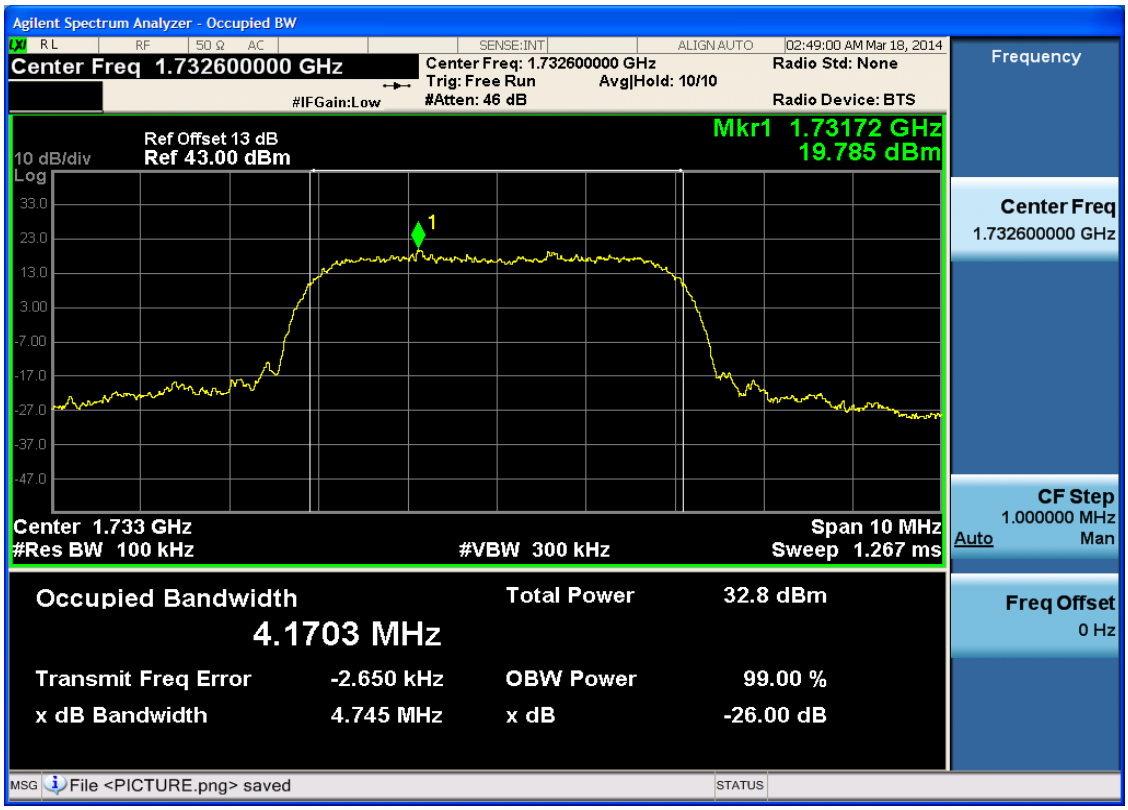
4.2.4 Test Band = WCDMA1700

4.2.4.1 Test Mode = UMTS/TM1

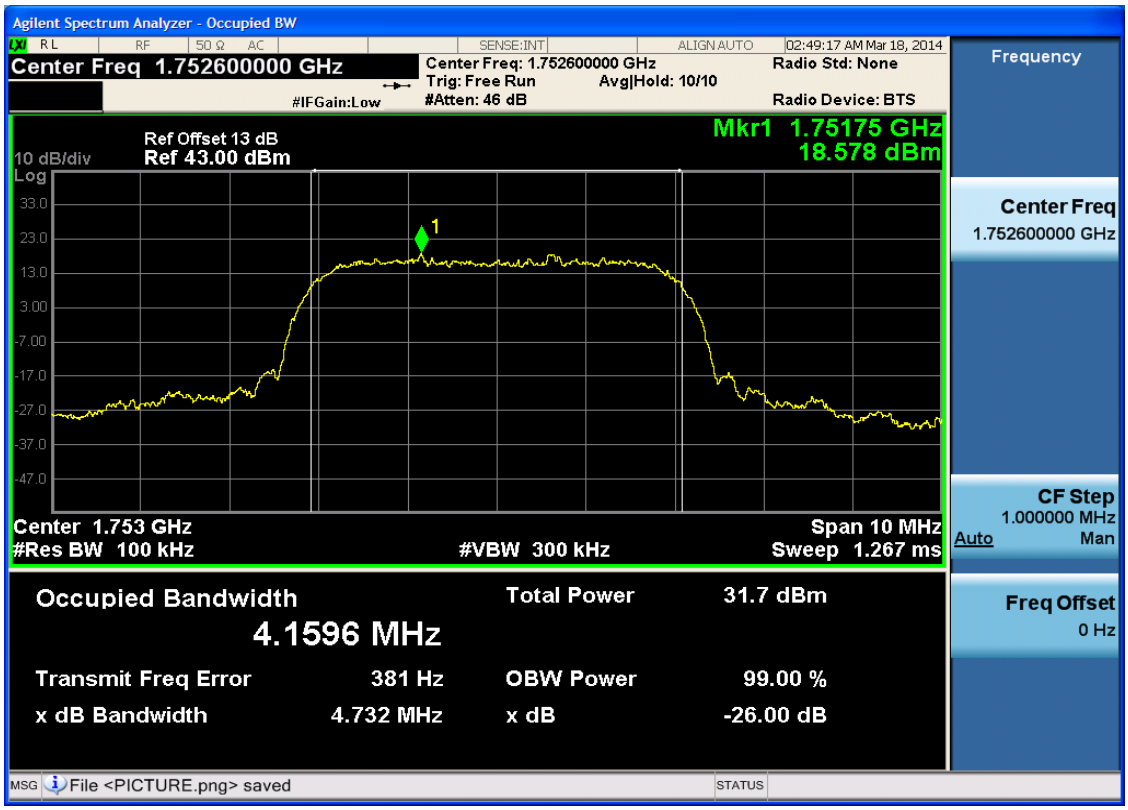
4.2.4.1.1 Test Channel = LCH



4.2.4.1.2 Test Channel = MCH



4.2.4.1.3 Test Channel = HCH



5Appendix_E: Band Edges Compliance

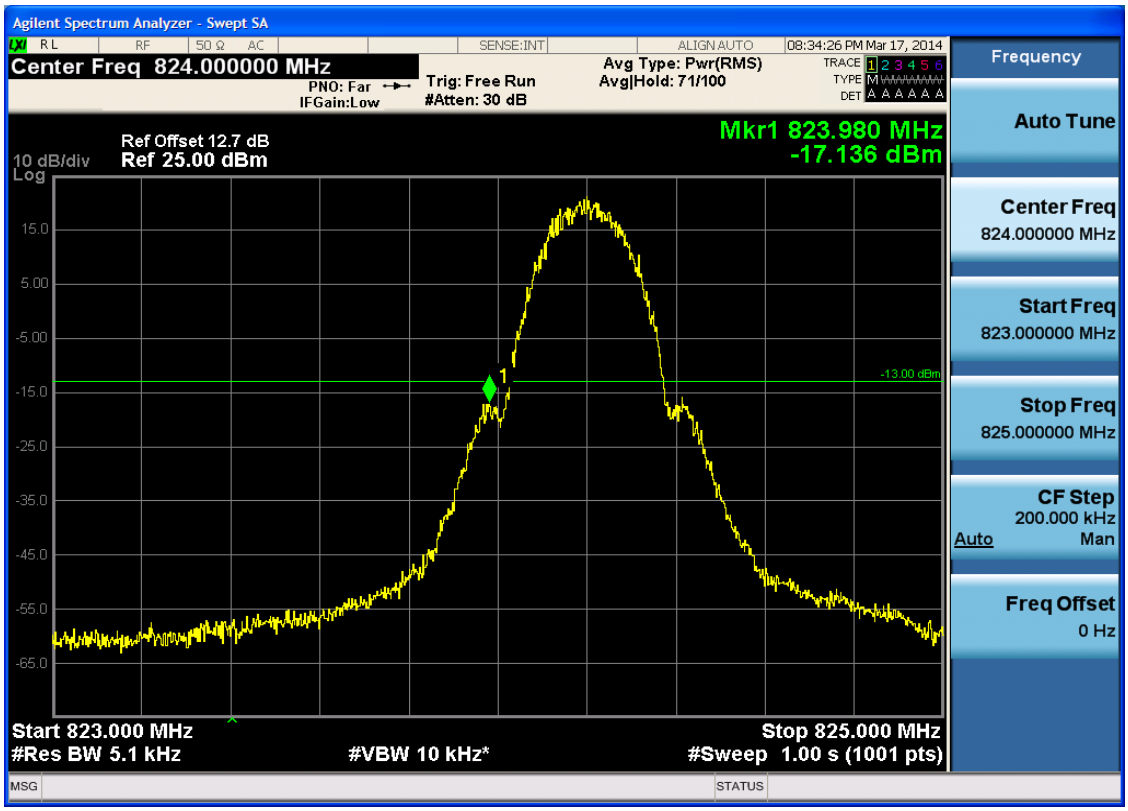
Part I - Test Plots

5.1 For GSM

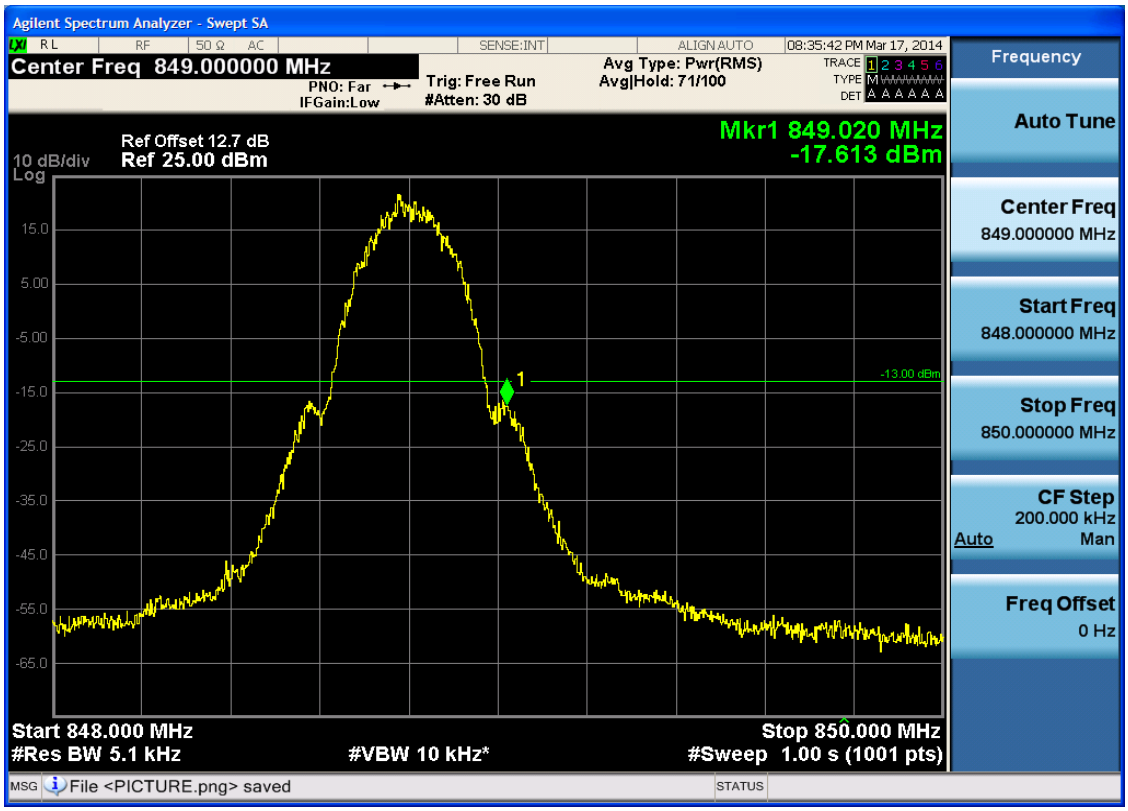
5.1.1 Test Band = GSM850

5.1.1.1 Test Mode = GSM/TM1

5.1.1.1.1 Test Channel = LCH

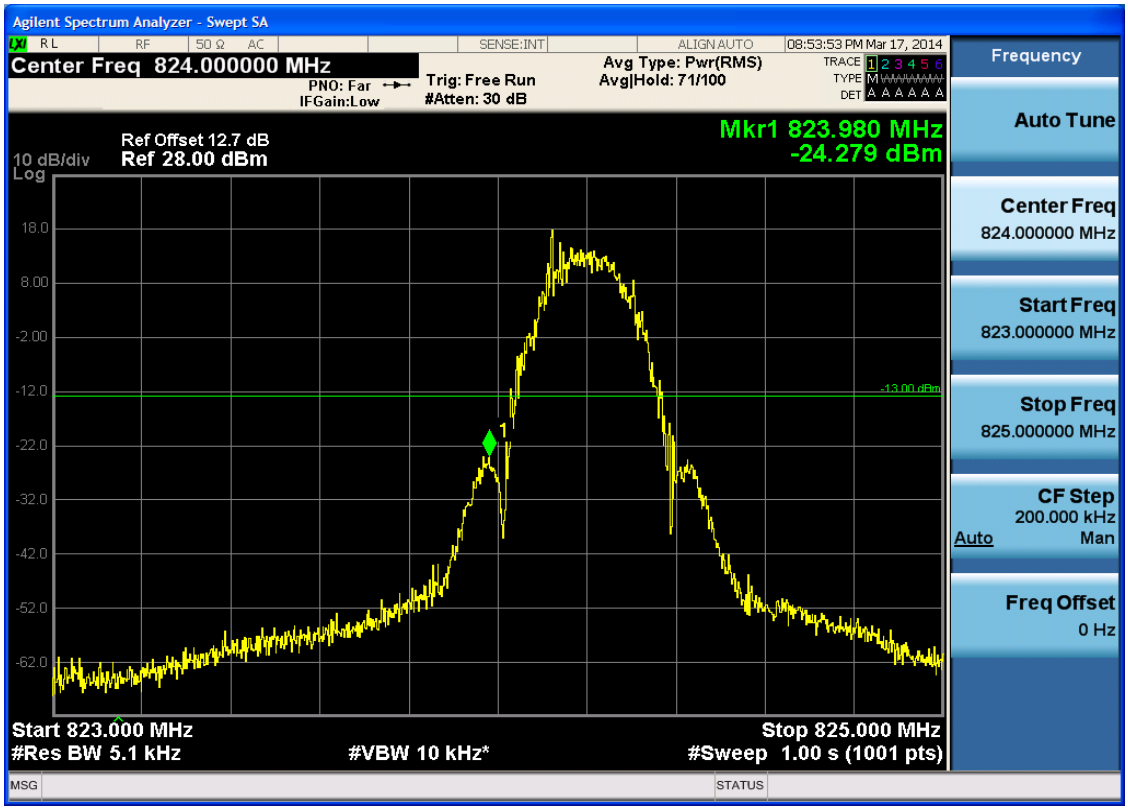


5.1.1.1.2 Test Channel = HCH

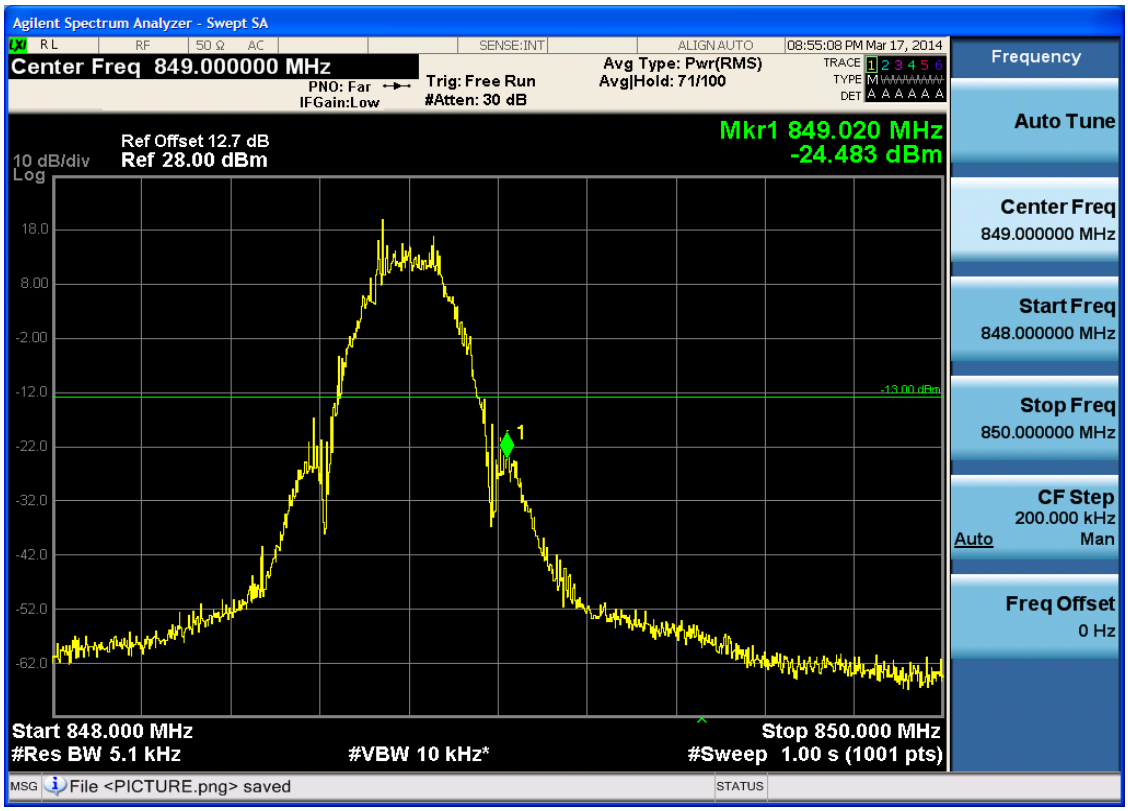


5.1.1.2 Test Mode = GSM/TM2

5.1.1.2.1 Test Channel = LCH



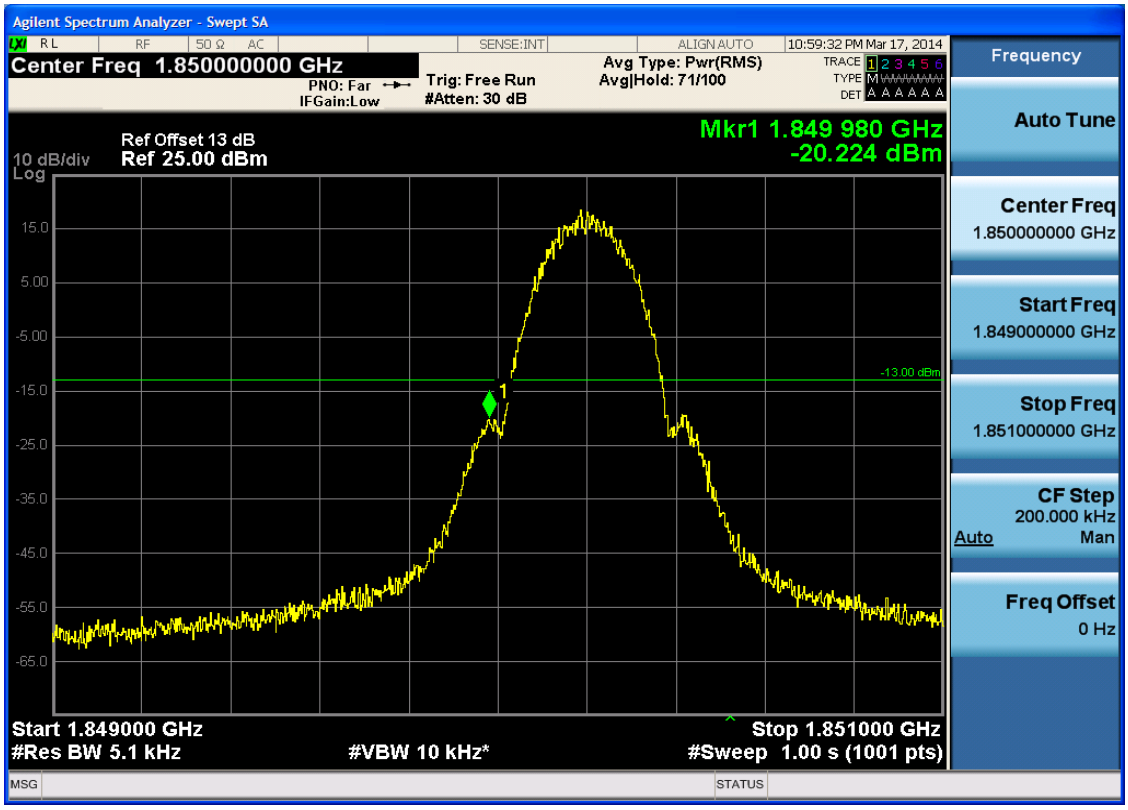
5.1.1.2.2 Test Channel = HCH



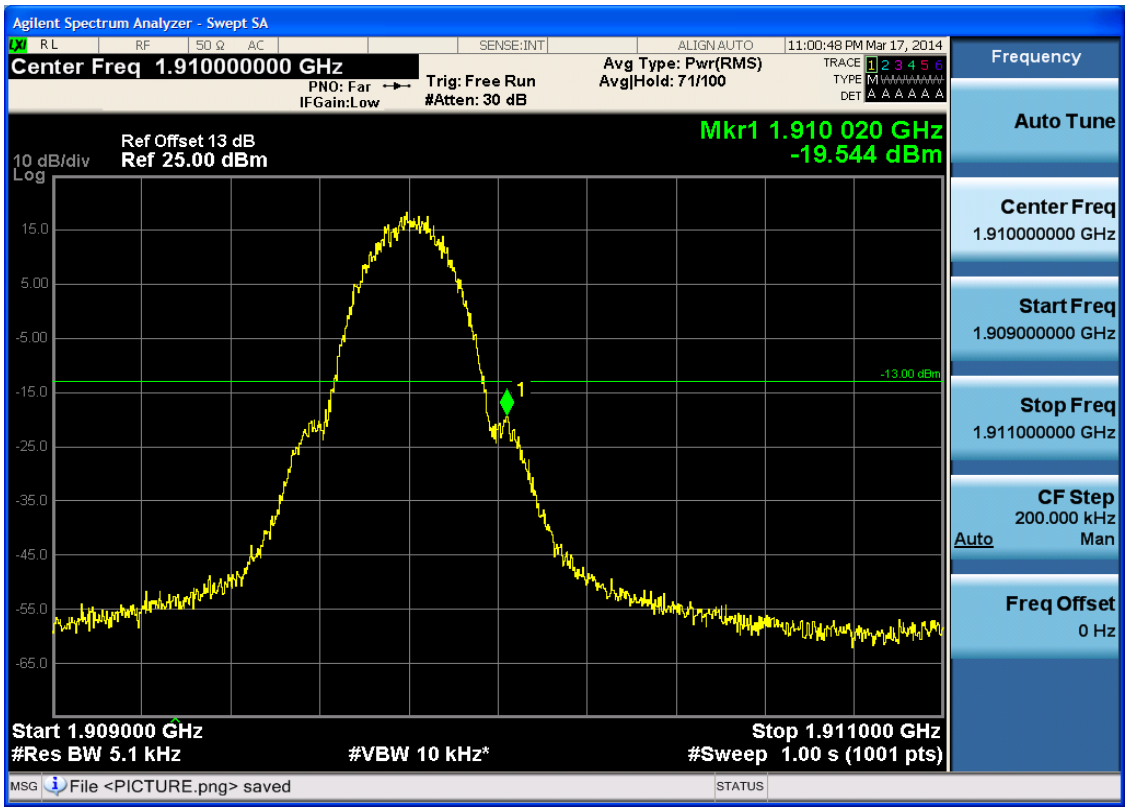
5.1.2 Test Band = GSM1900

5.1.2.1 Test Mode = GSM/TM1

5.1.2.1.1 Test Channel = LCH

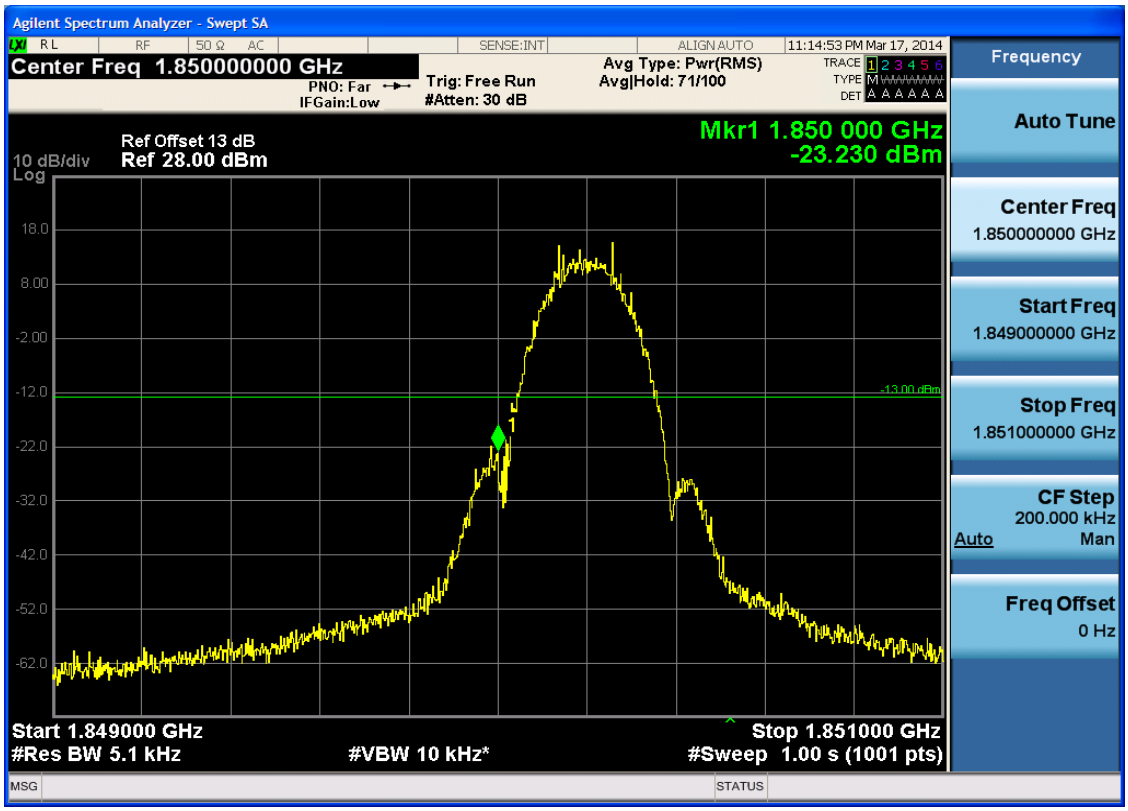


5.1.2.1.2 Test Channel = HCH

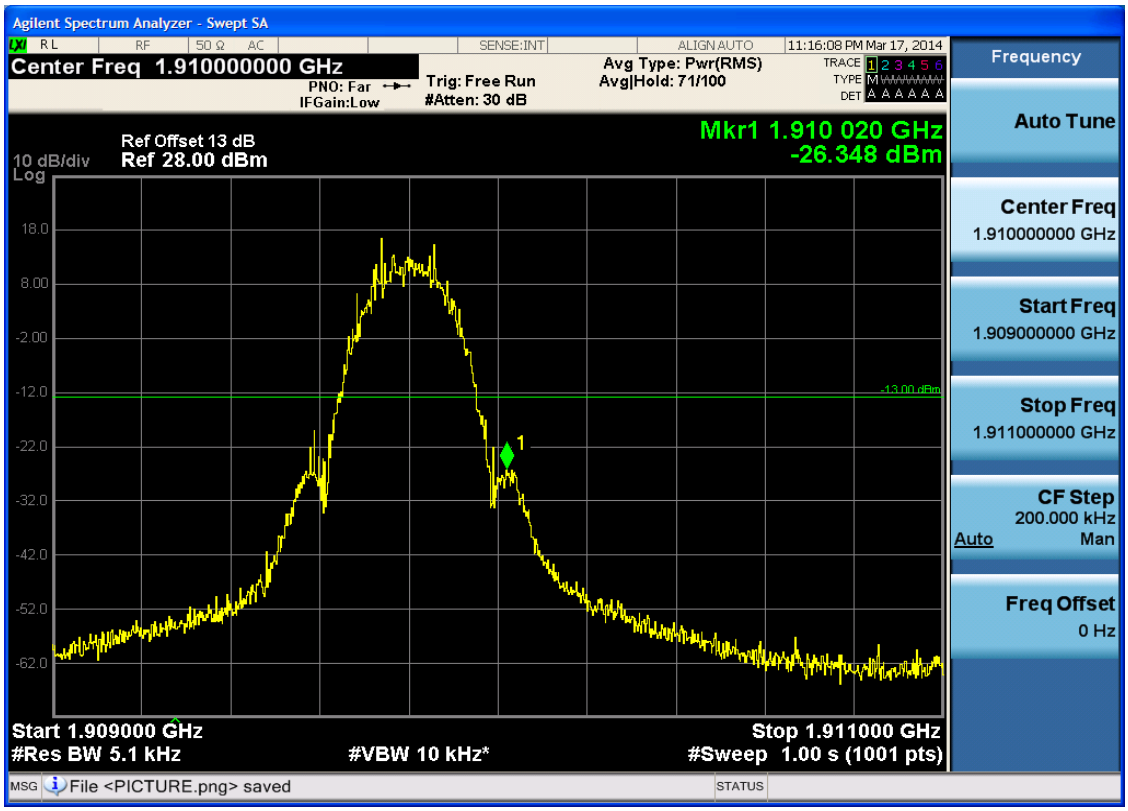


5.1.2.2 Test Mode = GSM/TM2

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

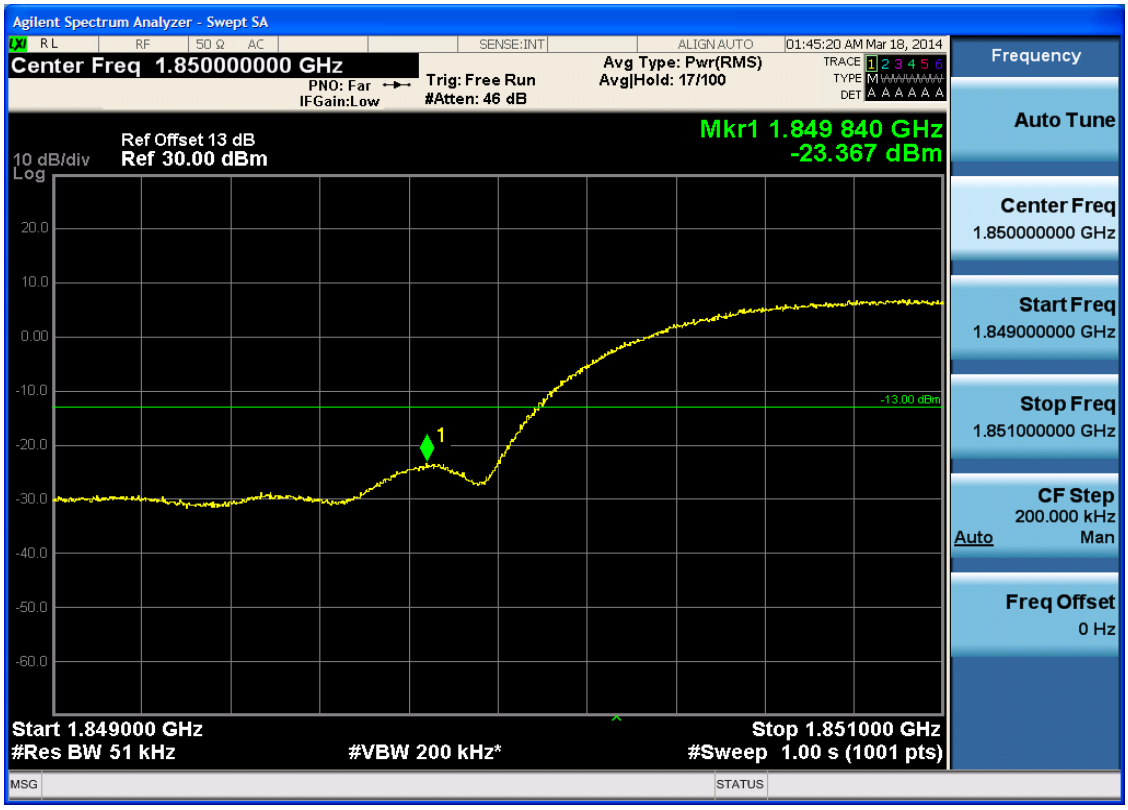
5.2.1.1.1 Test Channel = LCH

5.2.1.1.2 Test Channel = HCH

5.2.2 Test Band = WCDMA1900

5.2.2.1 Test Mode = UMTS/TM1

5.2.2.1.1 Test Channel = LCH

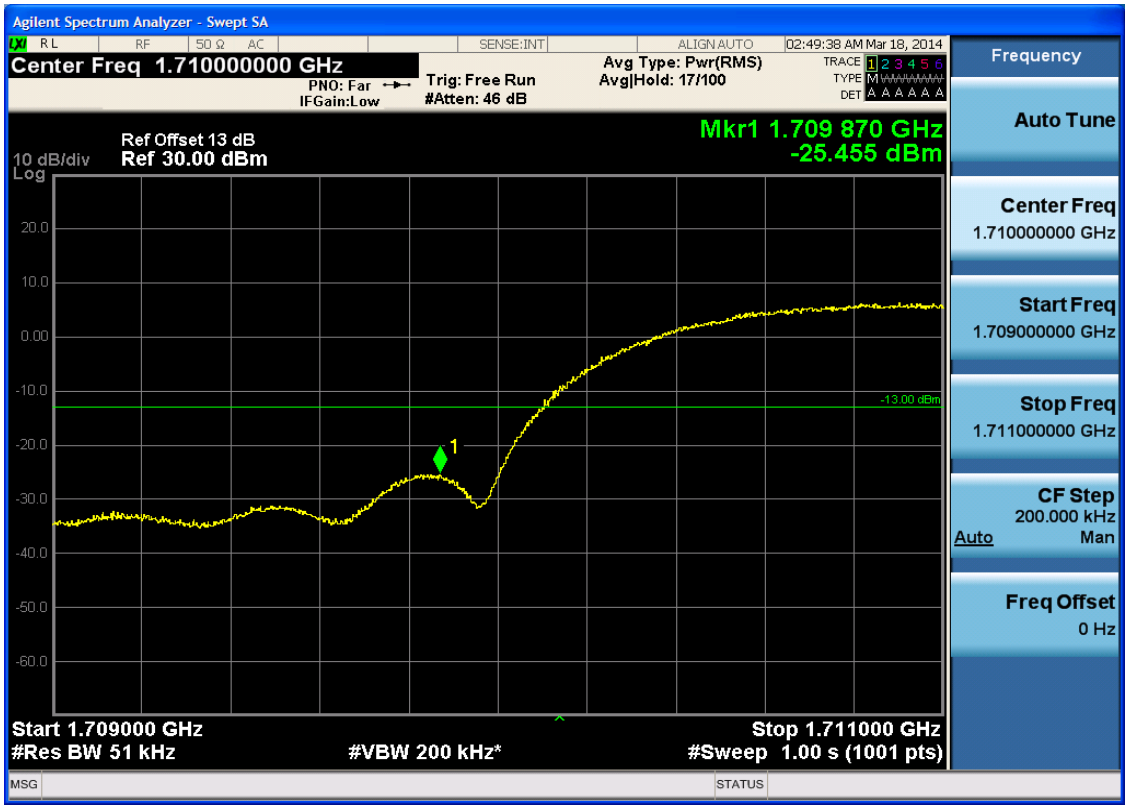


5.2.2.1.2 Test Channel = HCH

5.2.3 Test Band = WCDMA1700

5.2.3.1 Test Mode = UMTS/TM1

5.2.3.1.1 Test Channel = LCH



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.

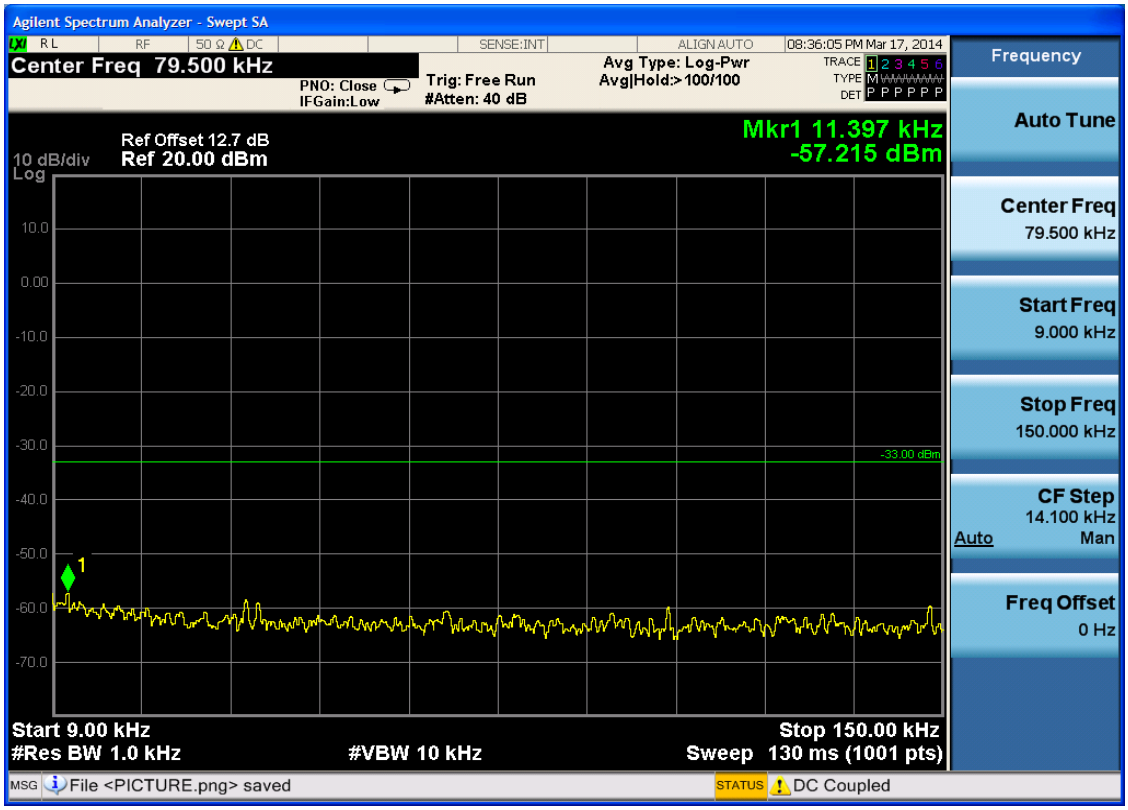
Part I - Test Plots

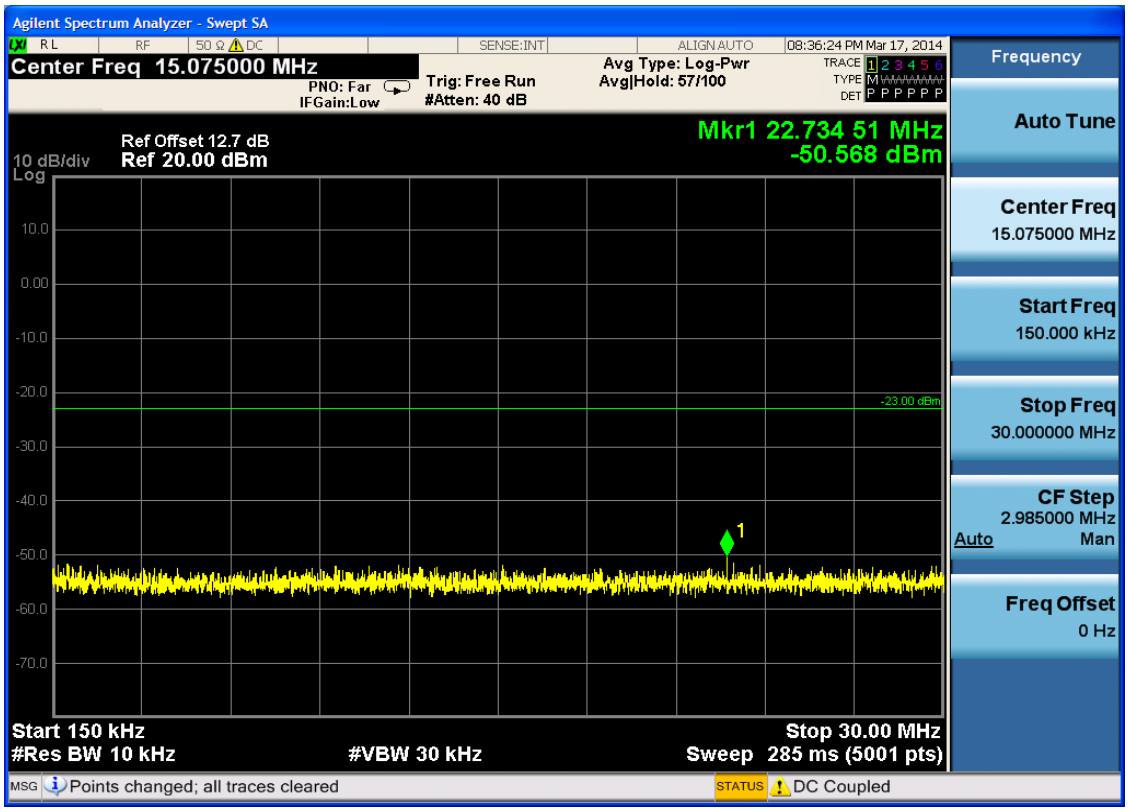
6.1 For GSM

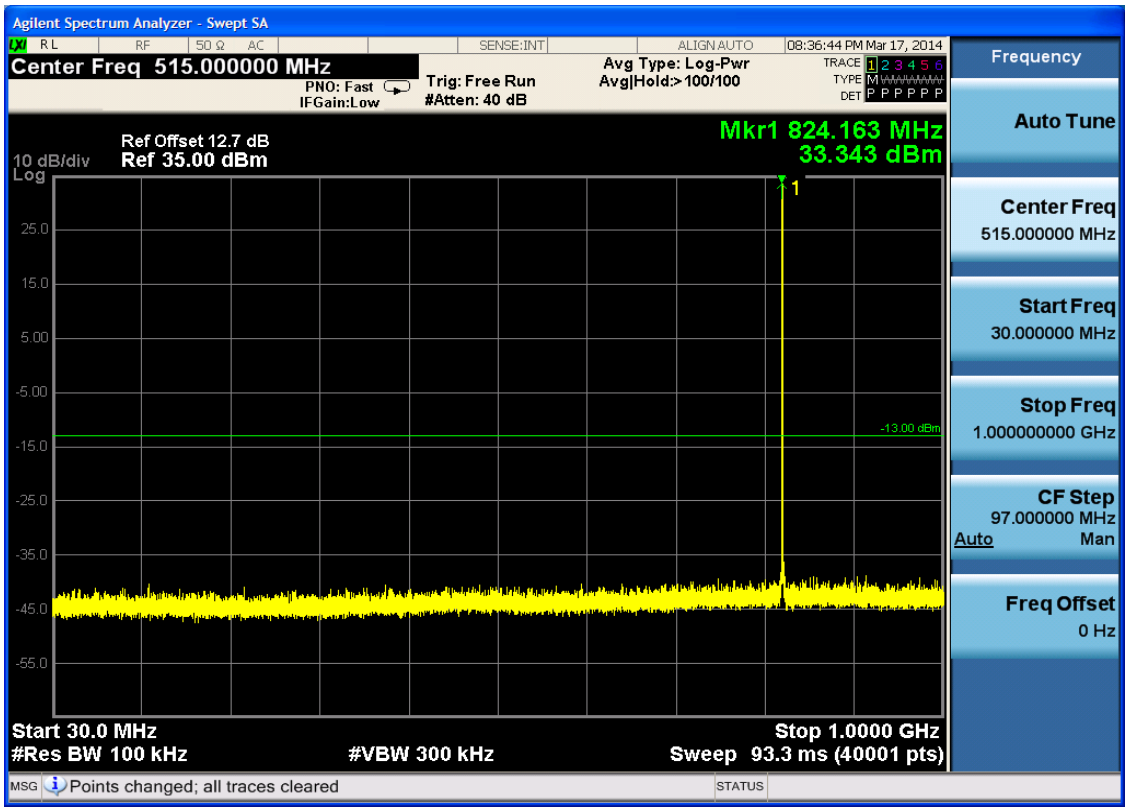
6.1.1 Test Band = GSM850

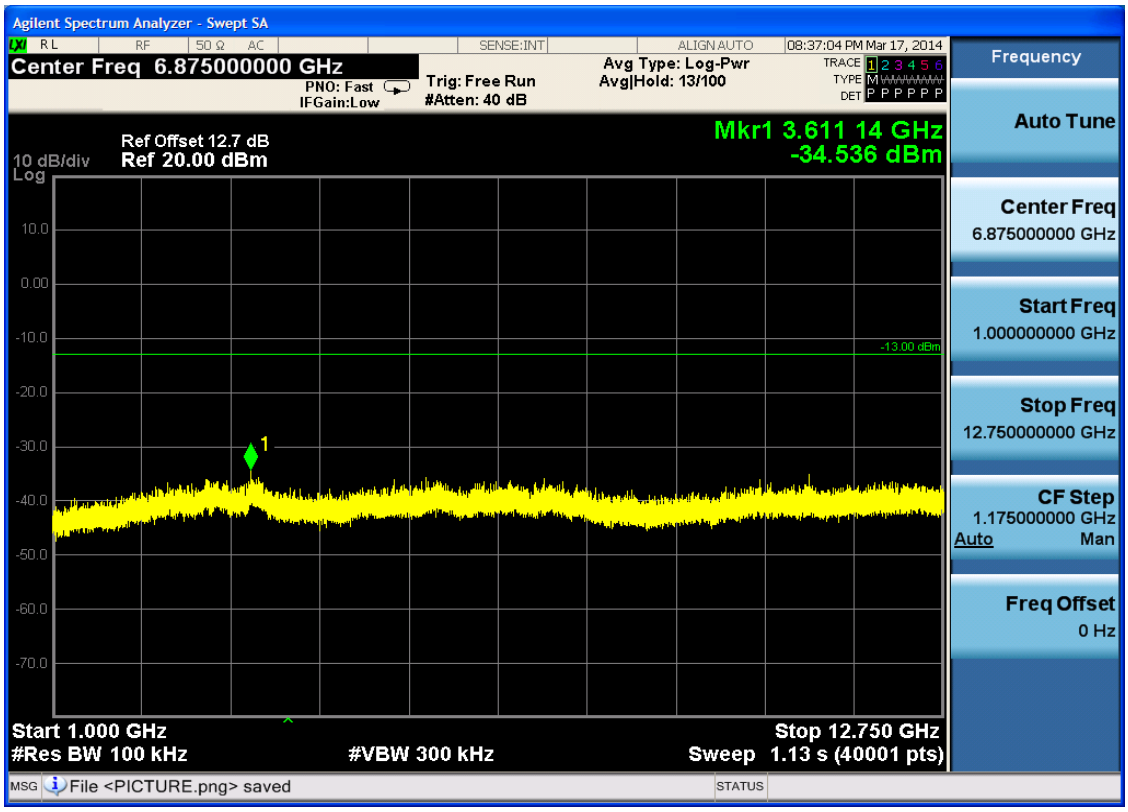
6.1.1.1 Test Mode = GSM/TM1

6.1.1.1.1 Test Channel = LCH

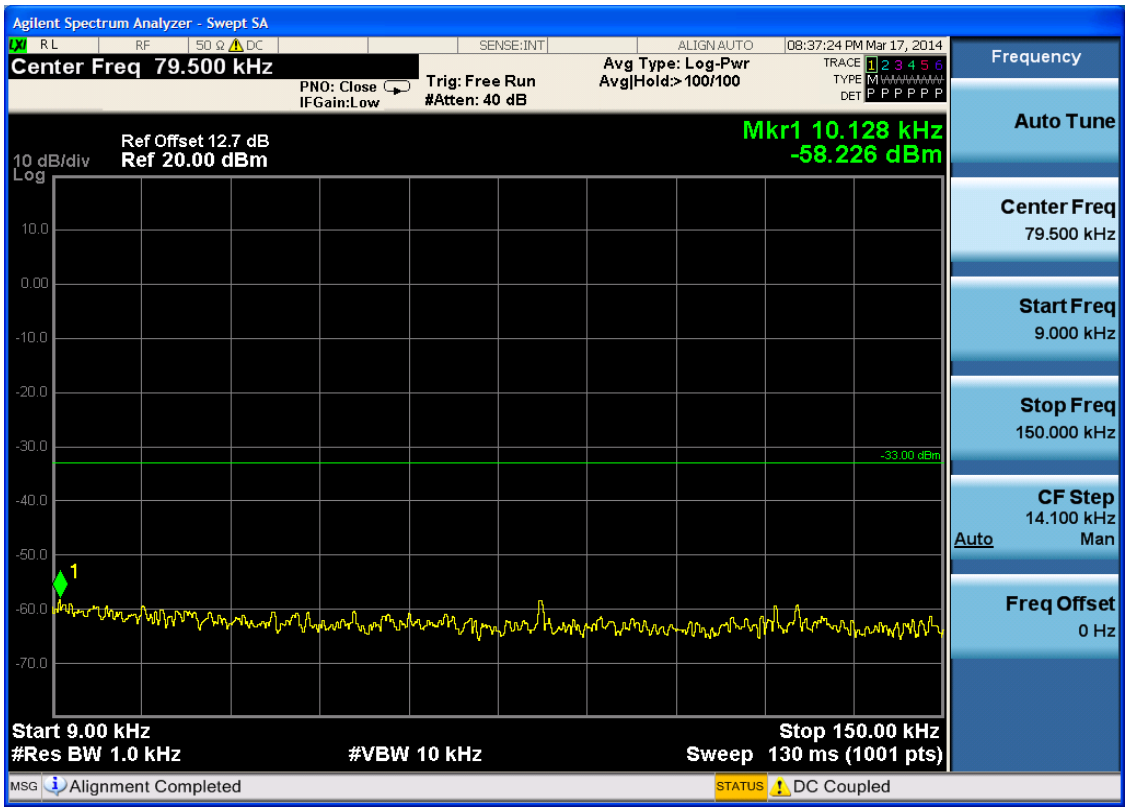


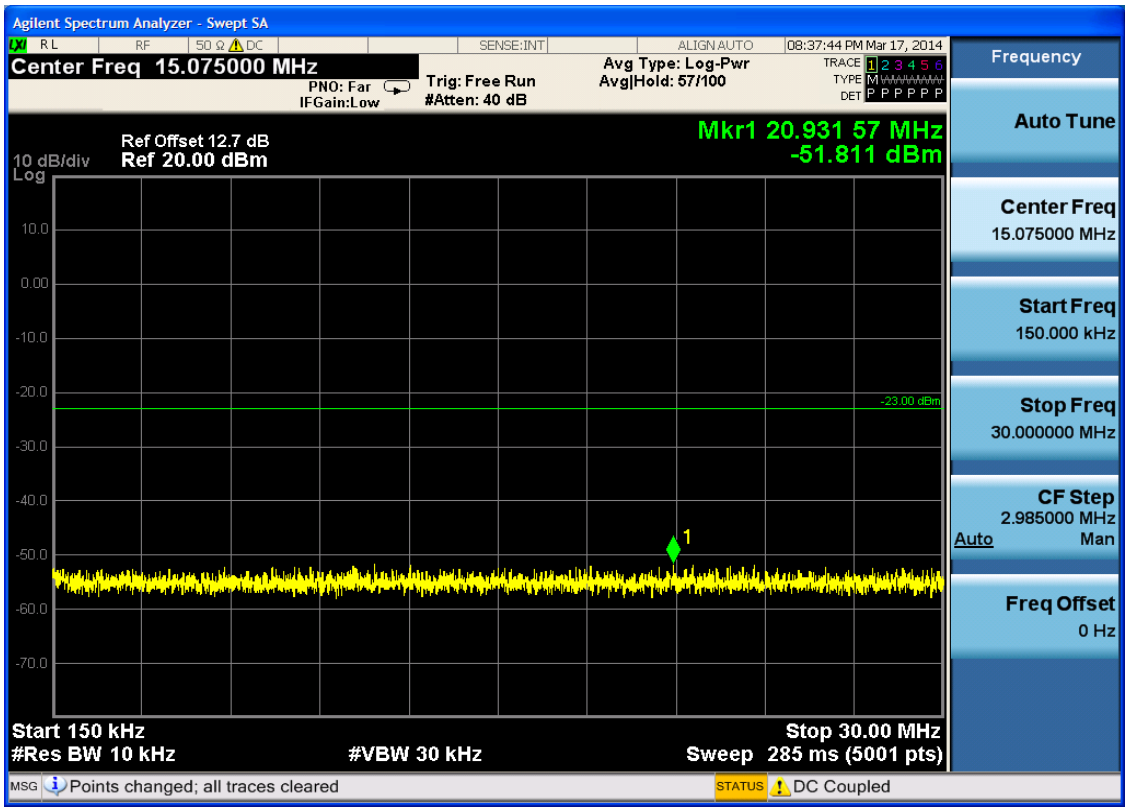


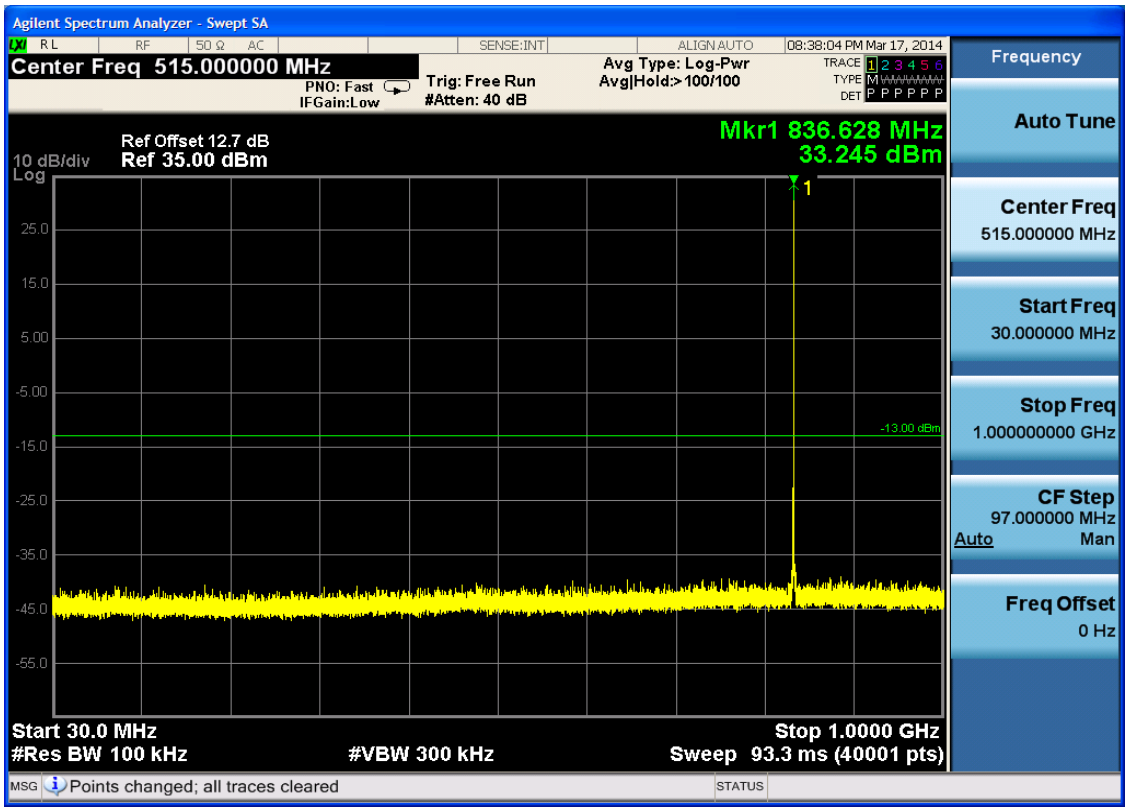


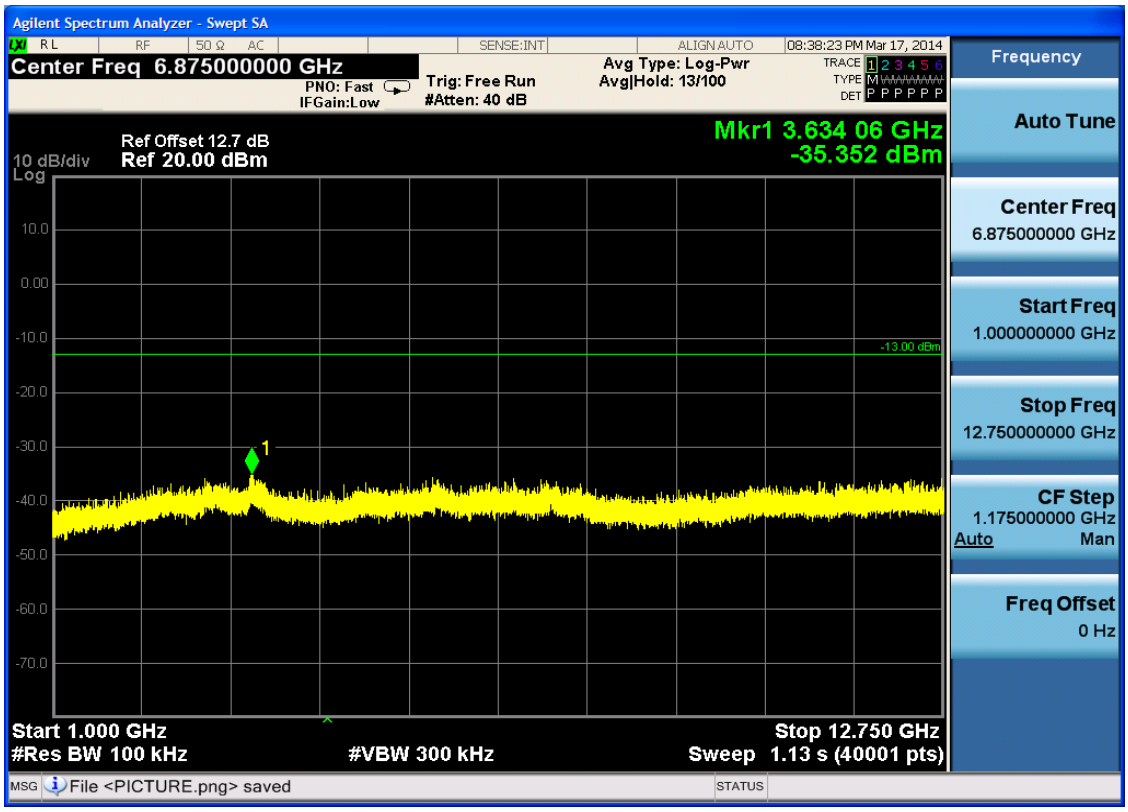


6.1.1.1.2 Test Channel = MCH

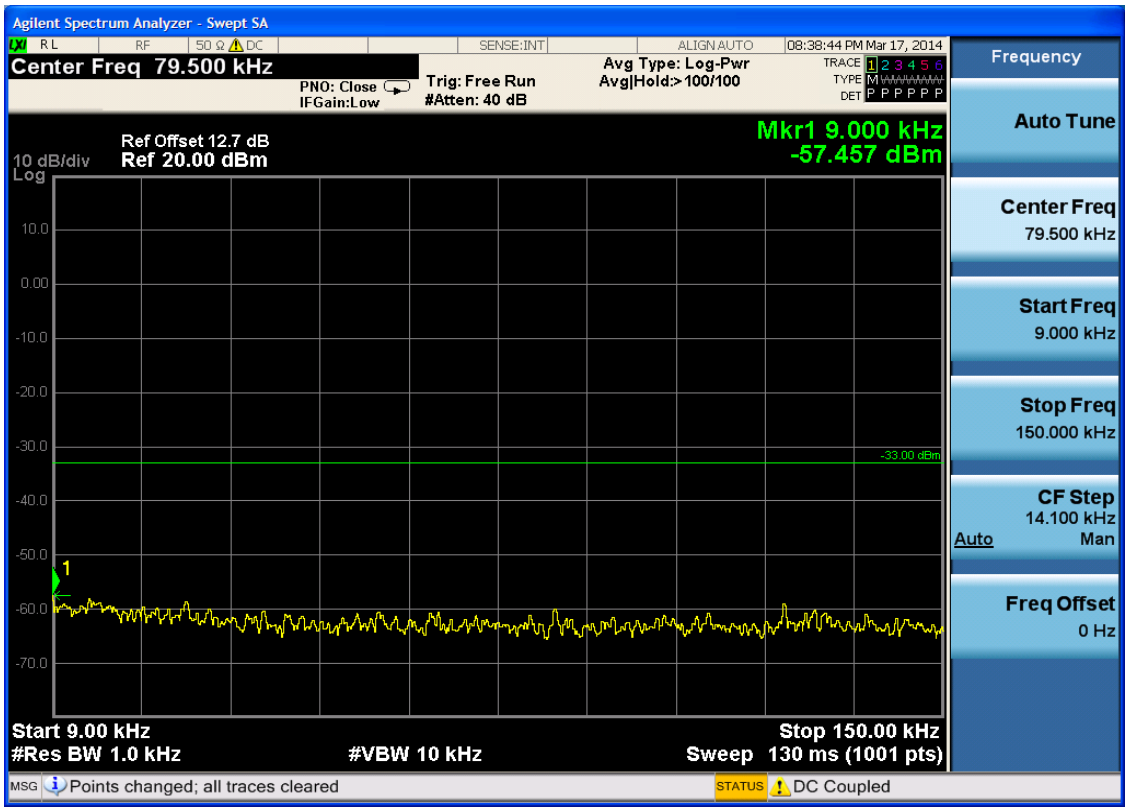


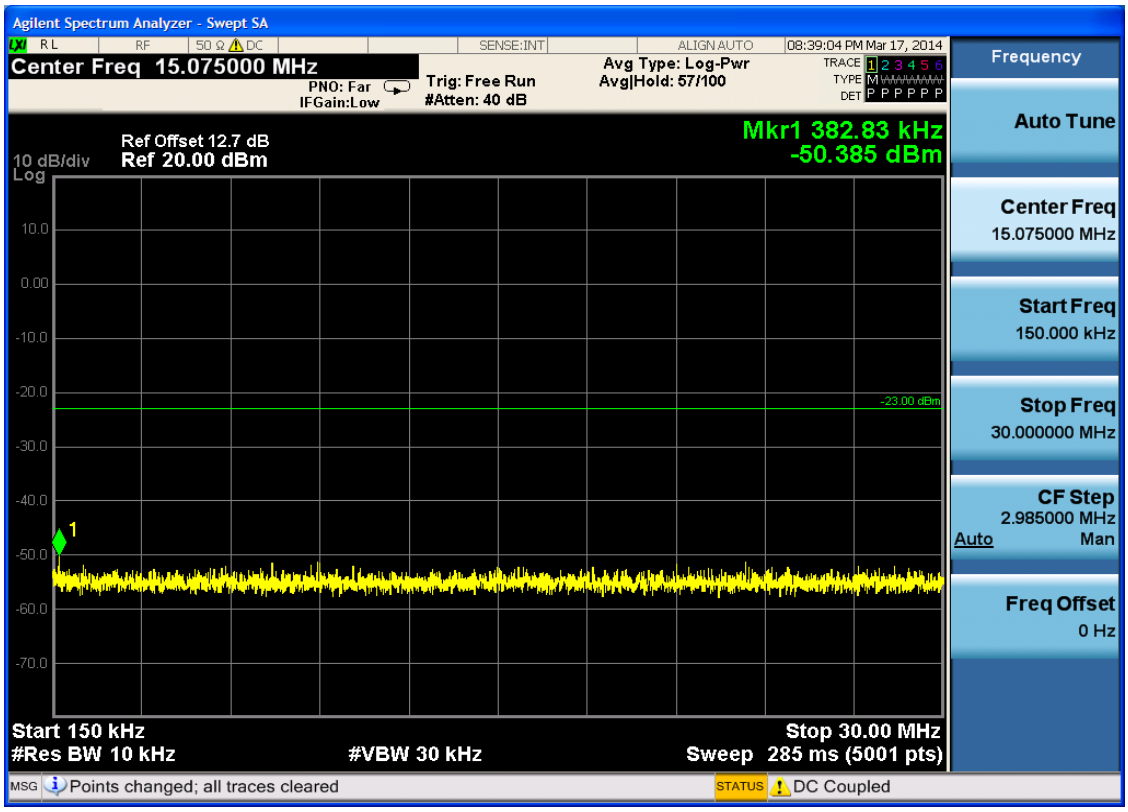


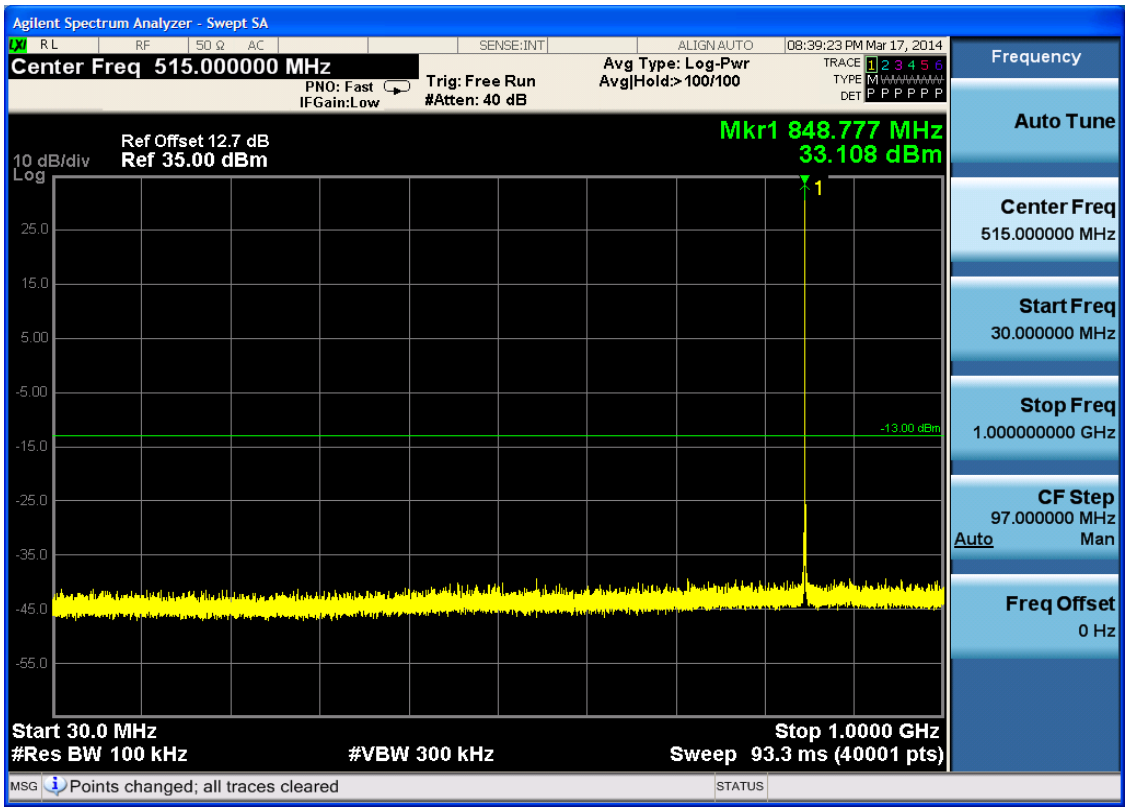


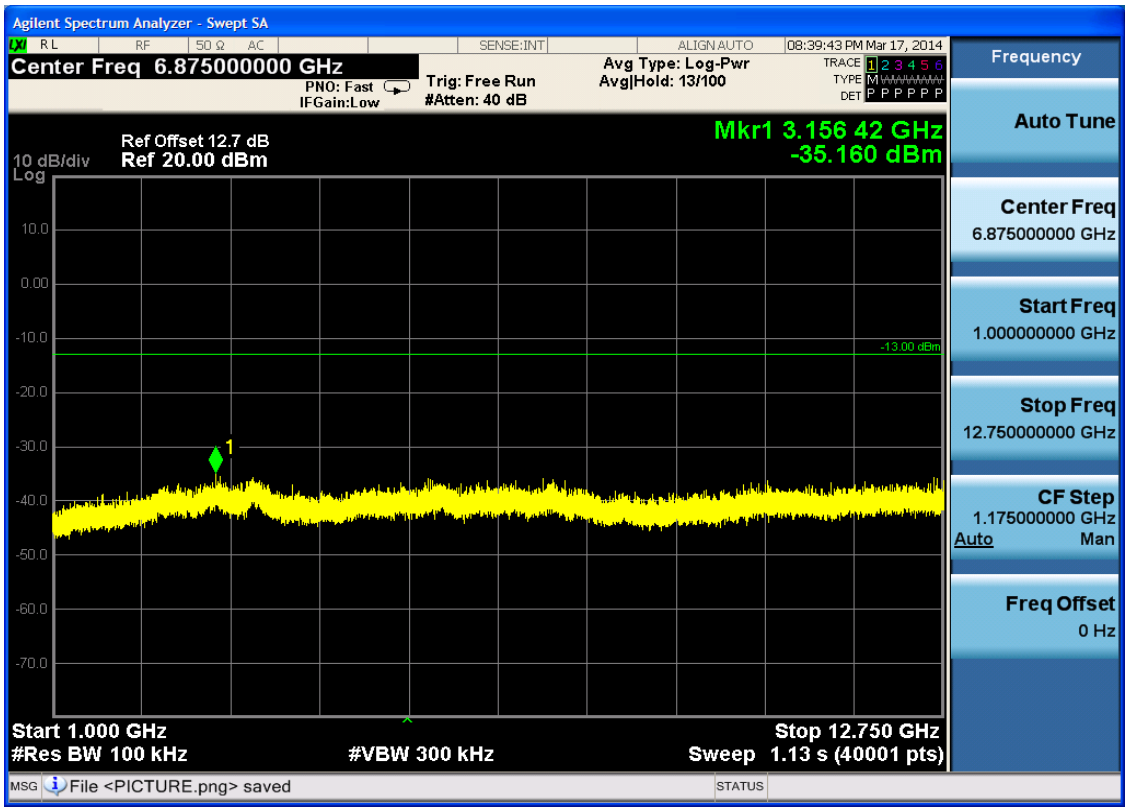


6.1.1.1.3 Test Channel = HCH



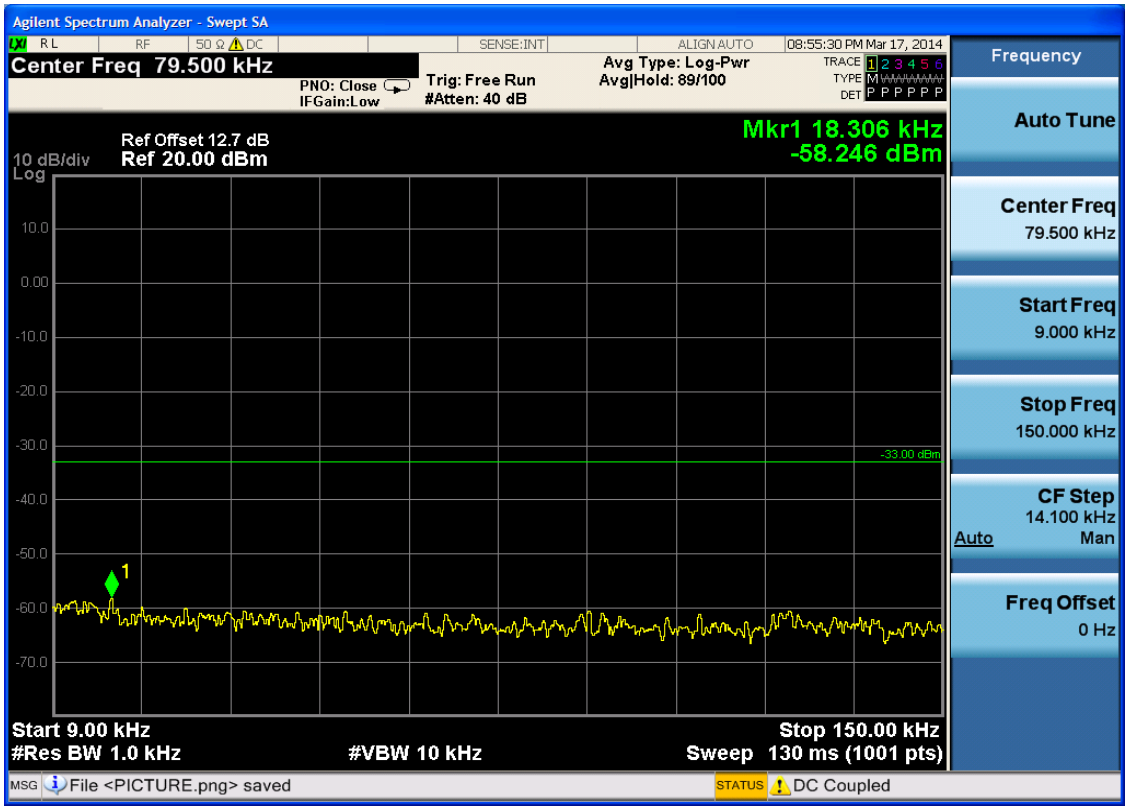


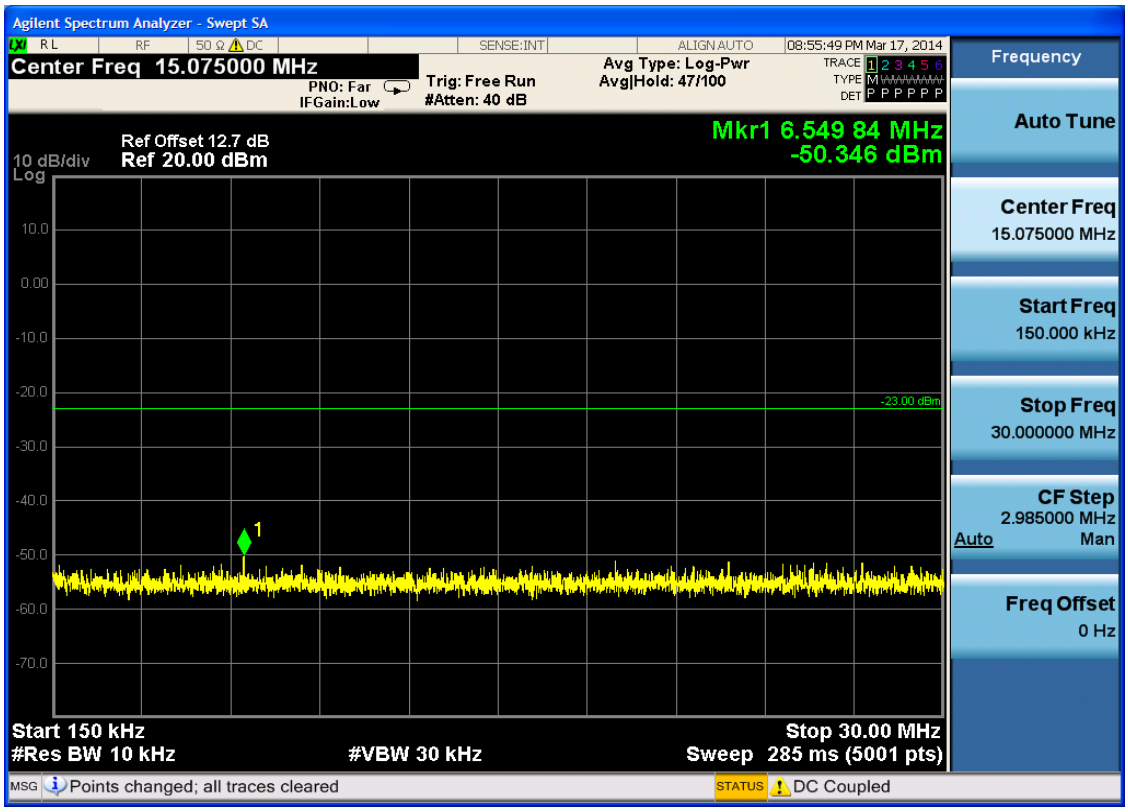


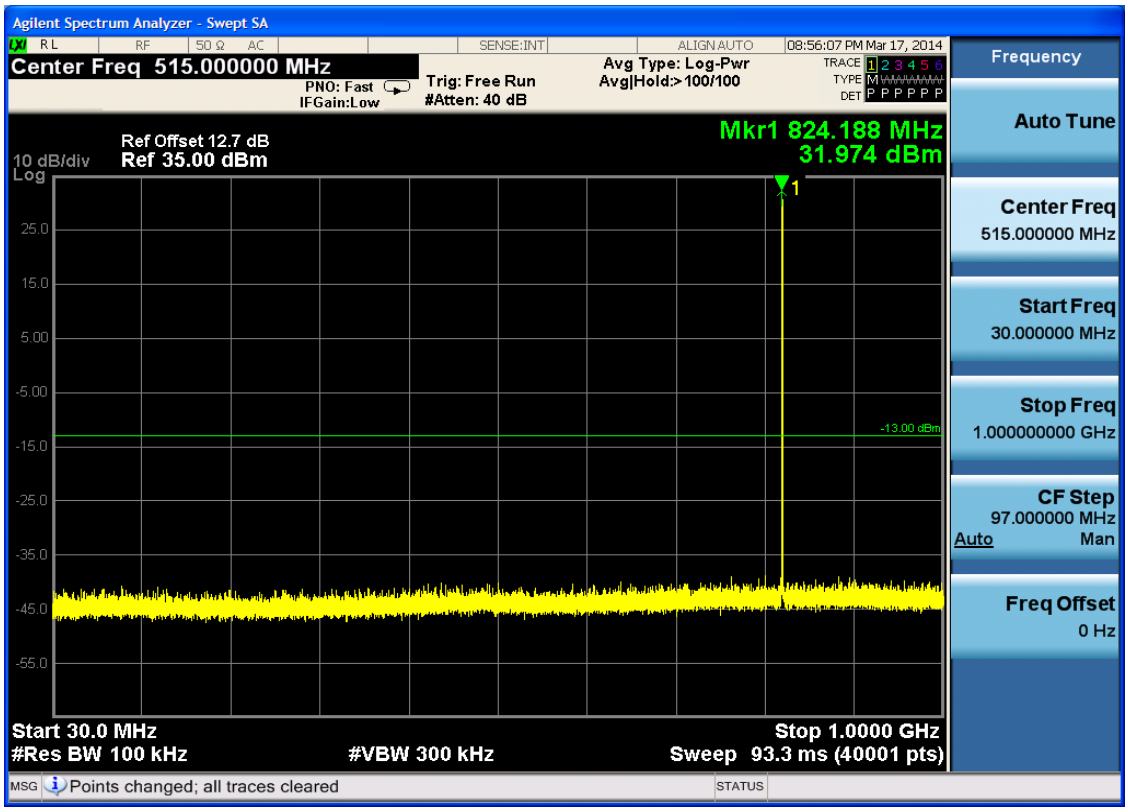


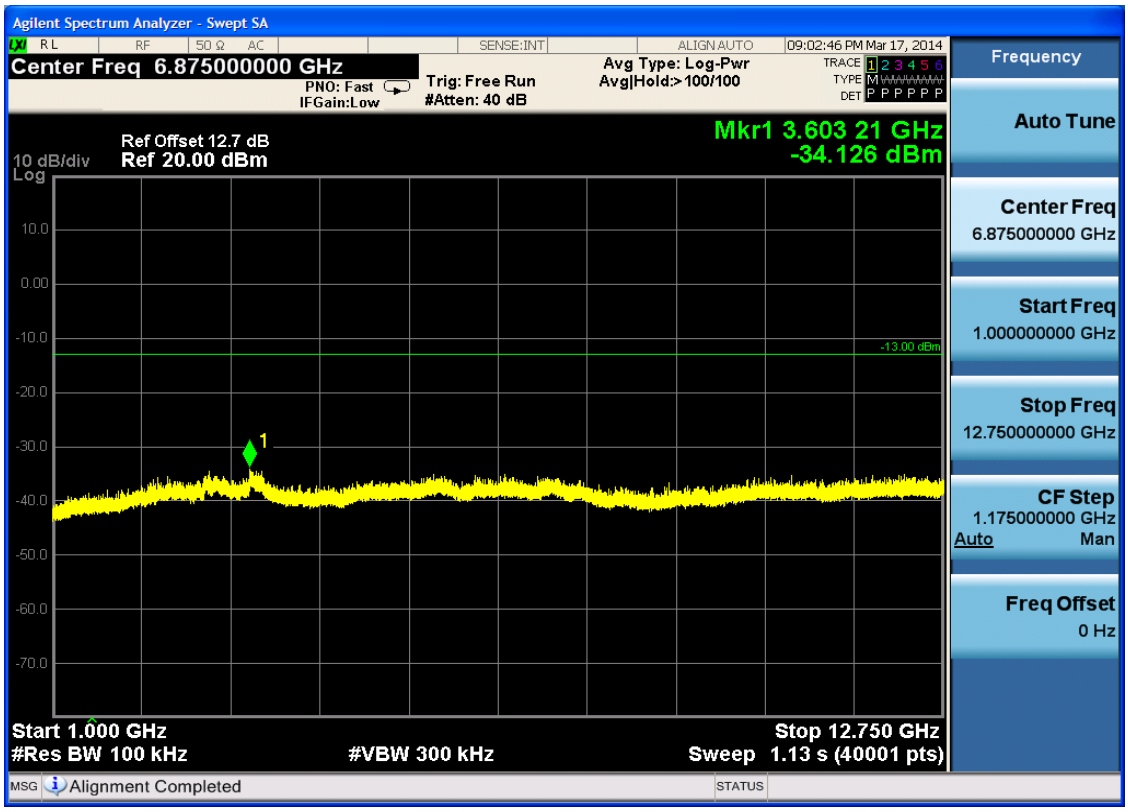
6.1.1.2 Test Mode = GSM/TM2

6.1.1.2.1 Test Channel = LCH

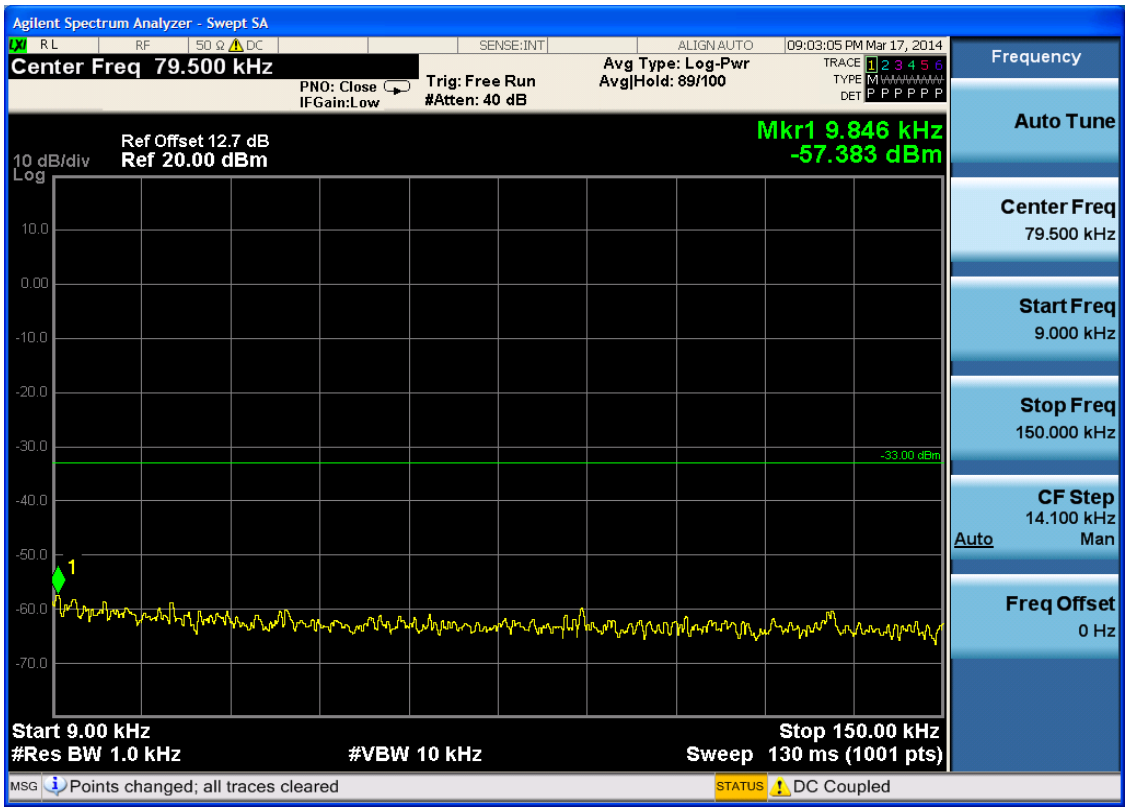


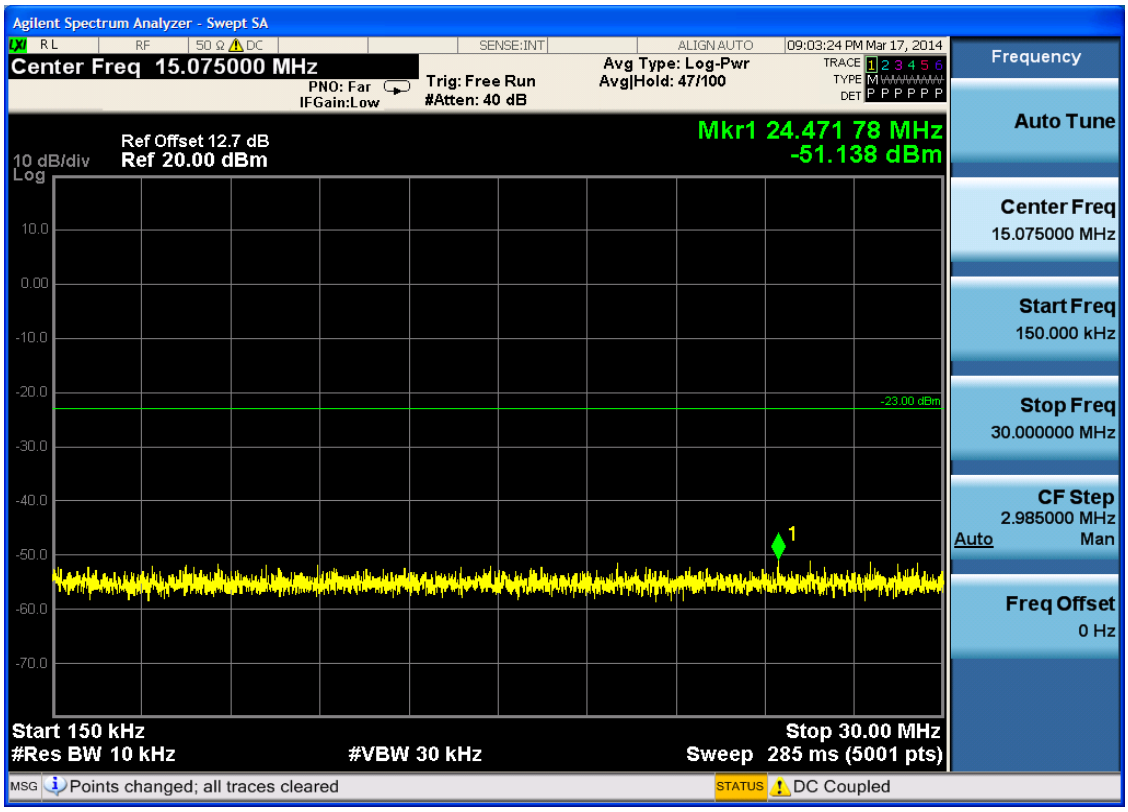


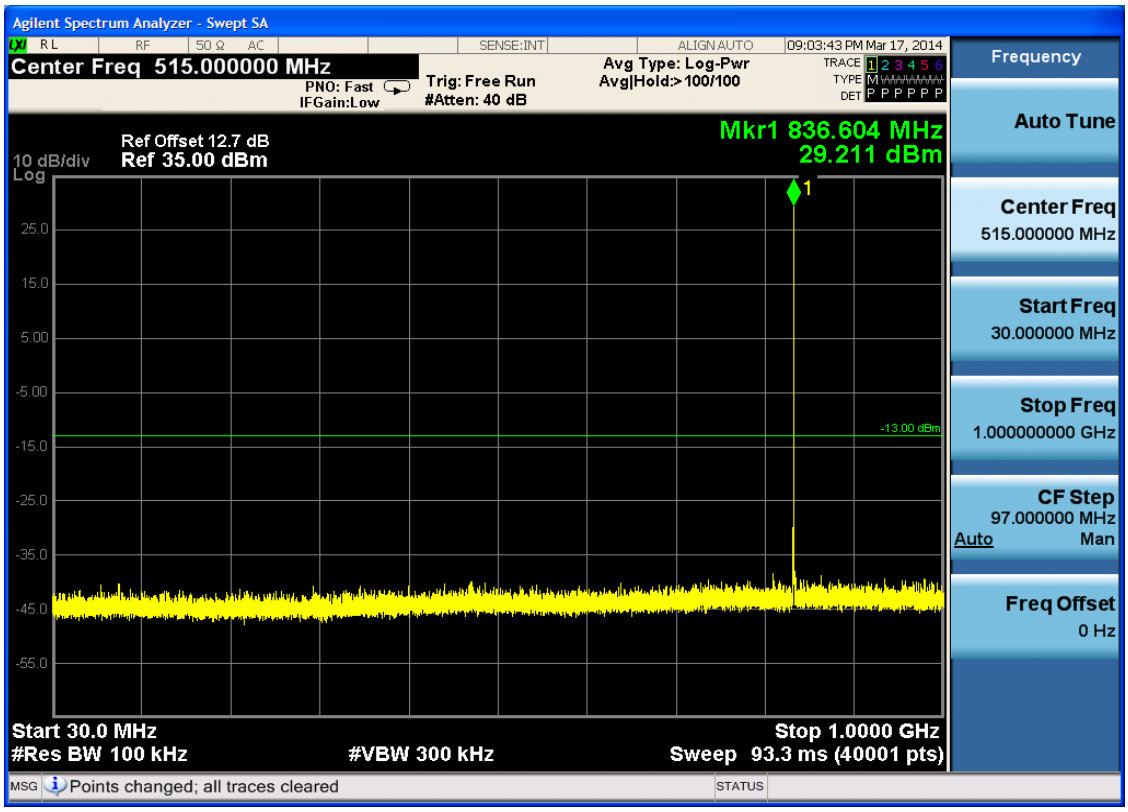


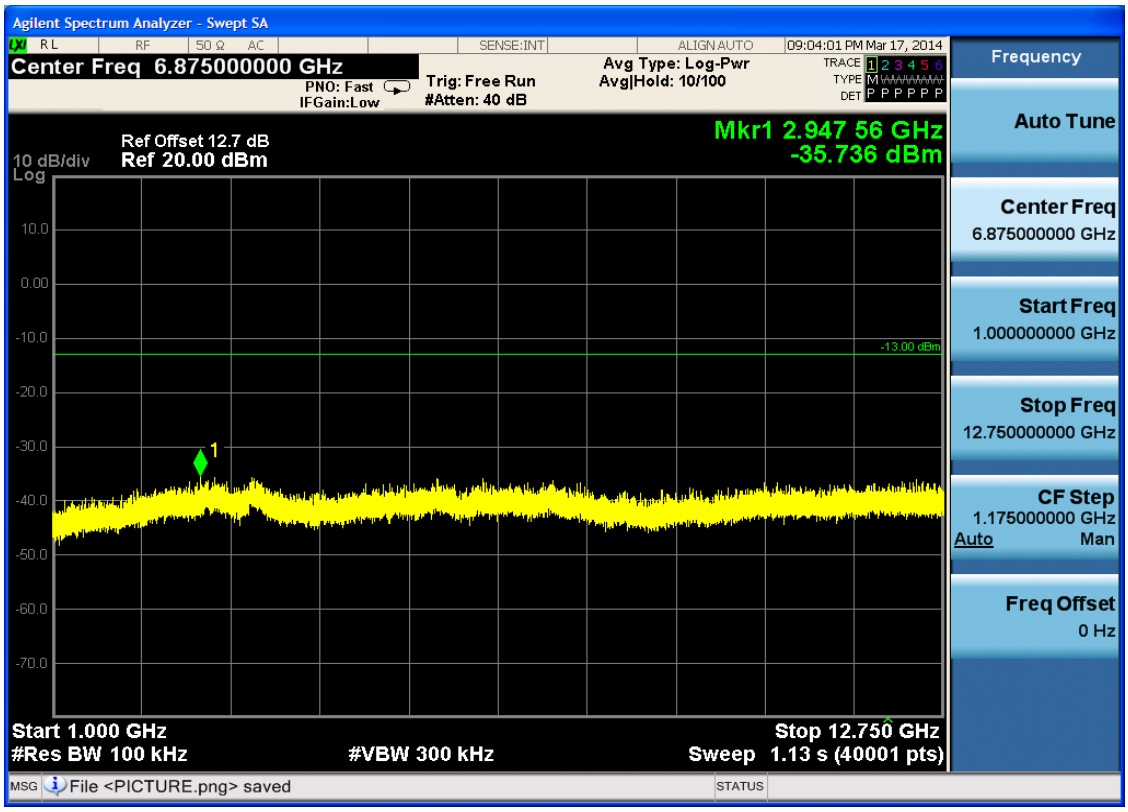


6.1.1.2.2 Test Channel = MCH

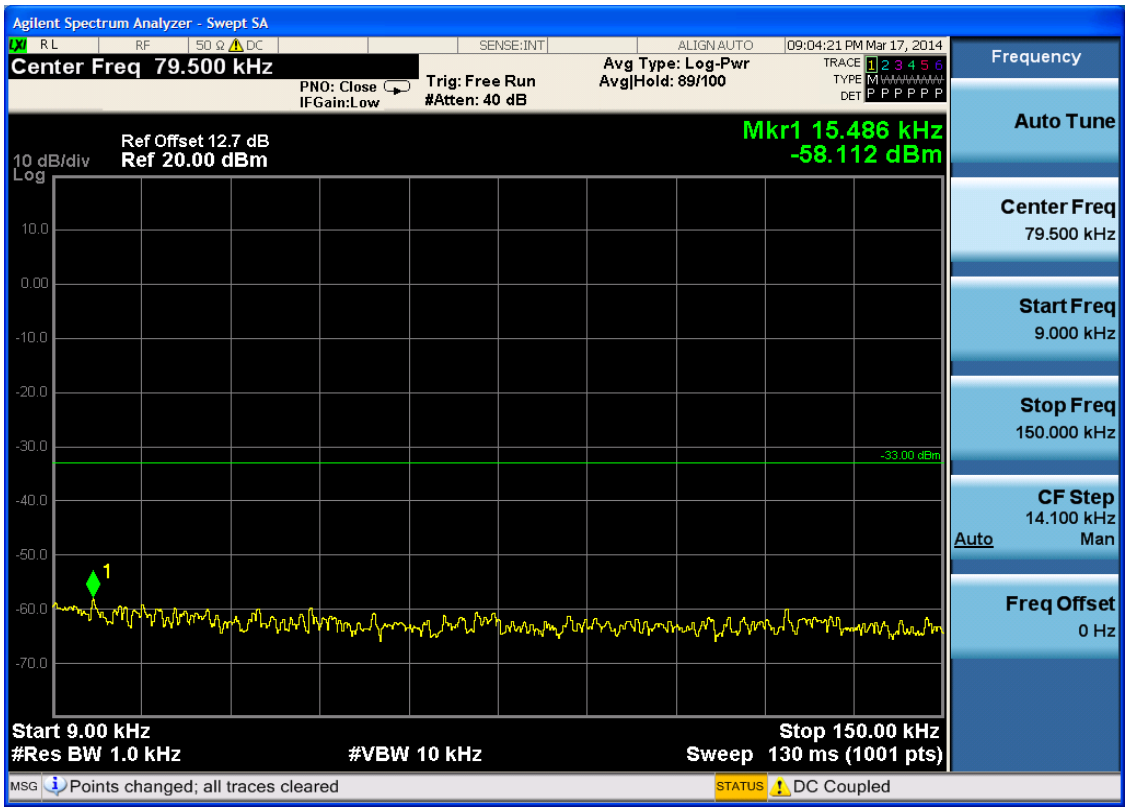


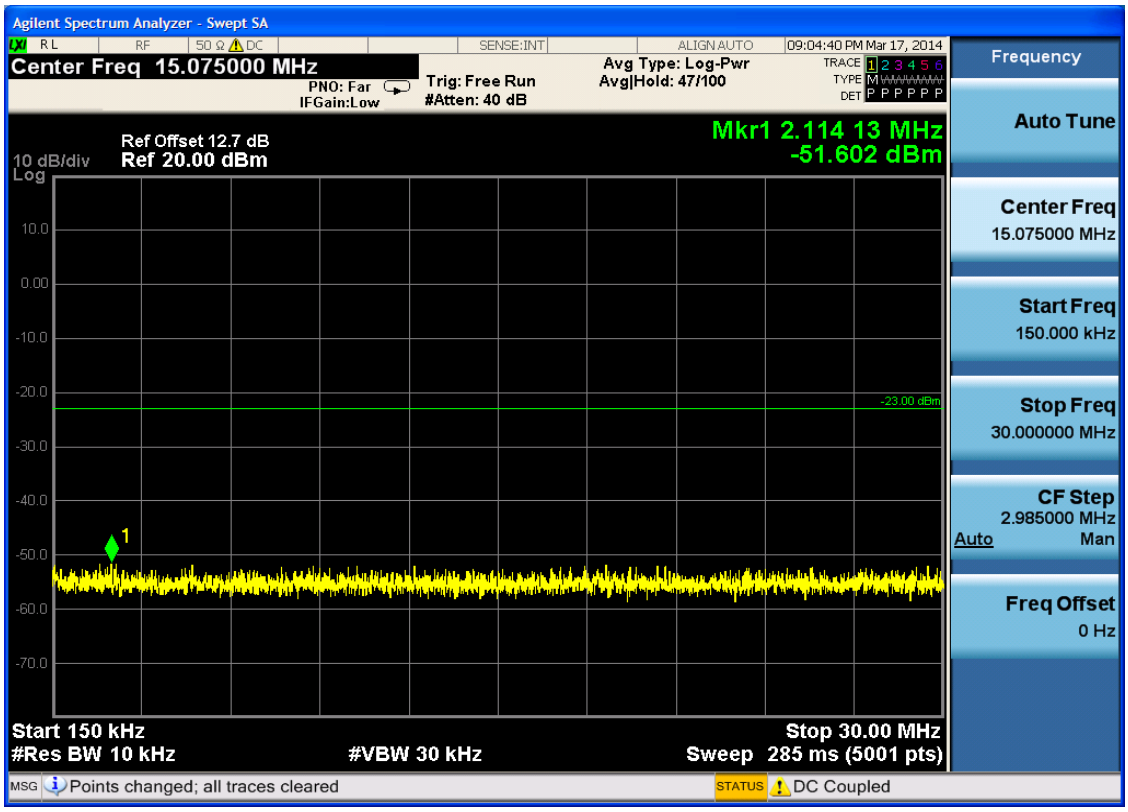


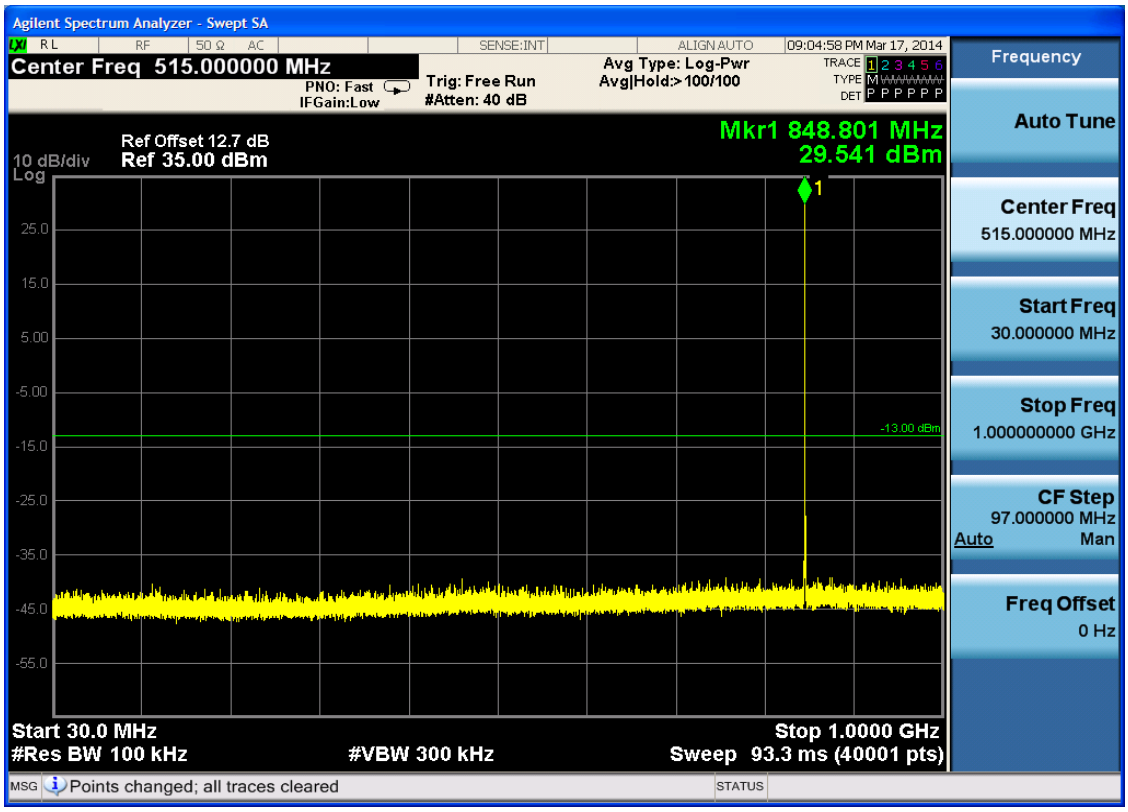


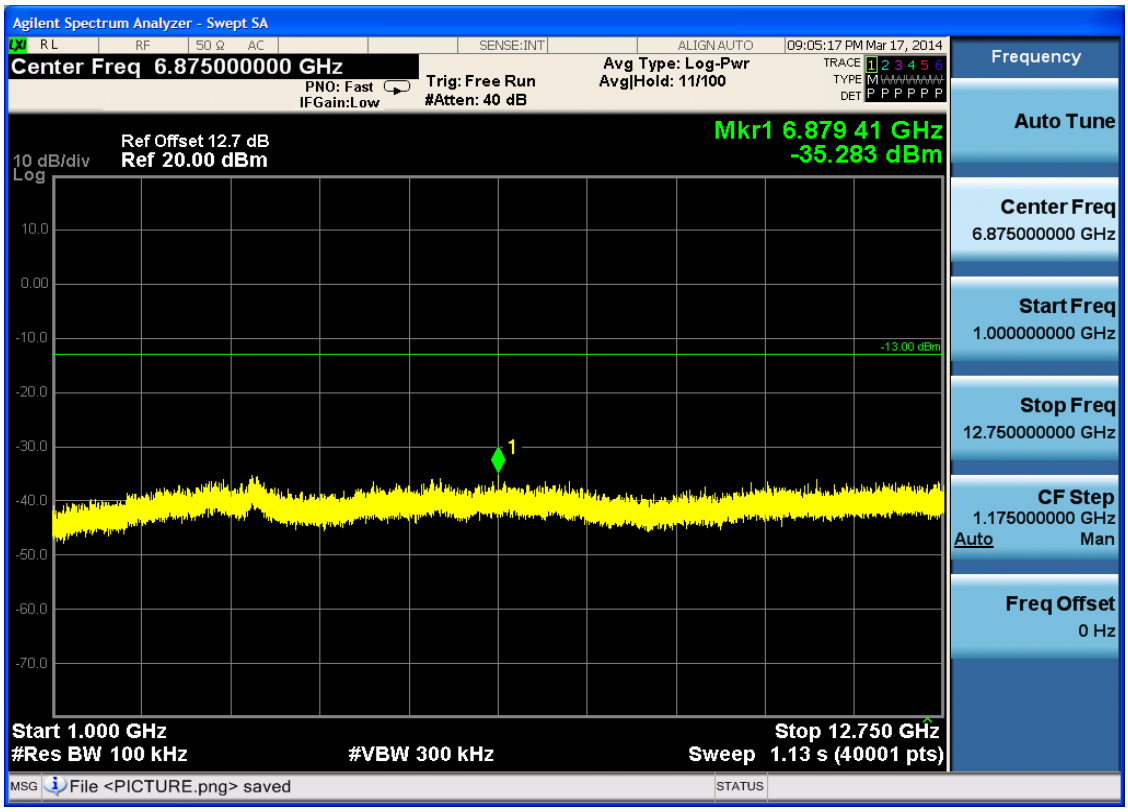


6.1.1.2.3 Test Channel = HCH





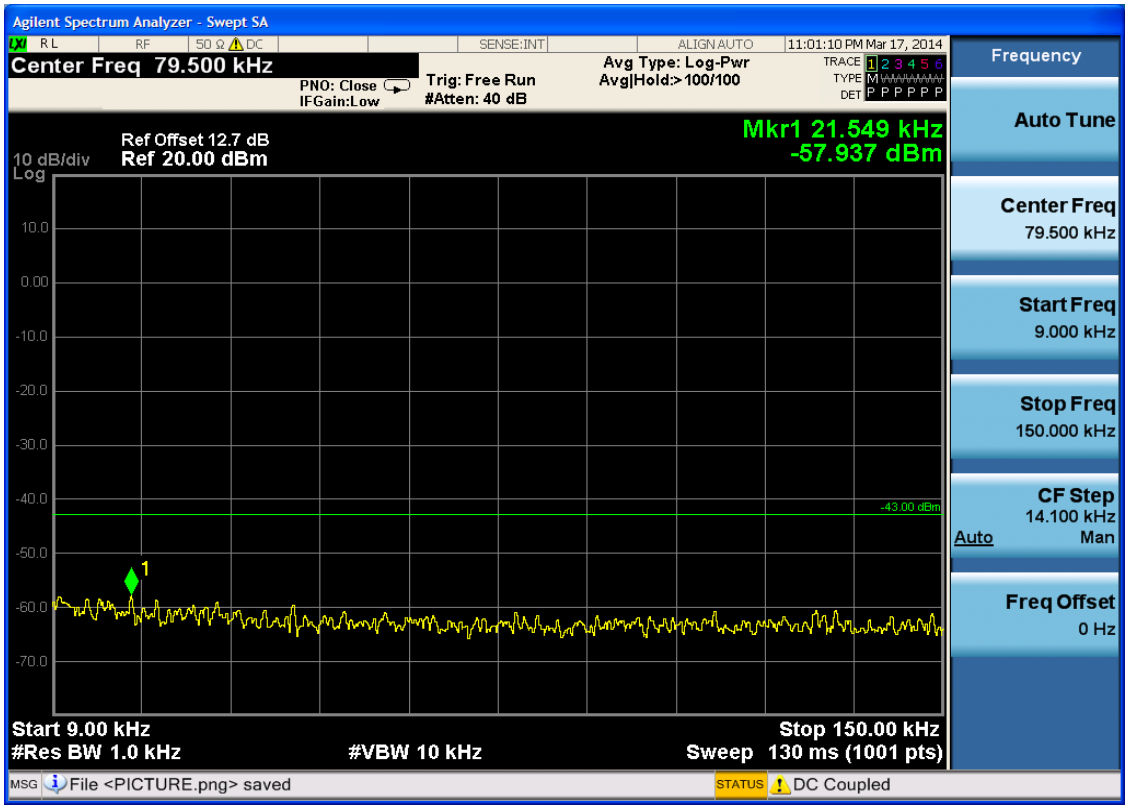


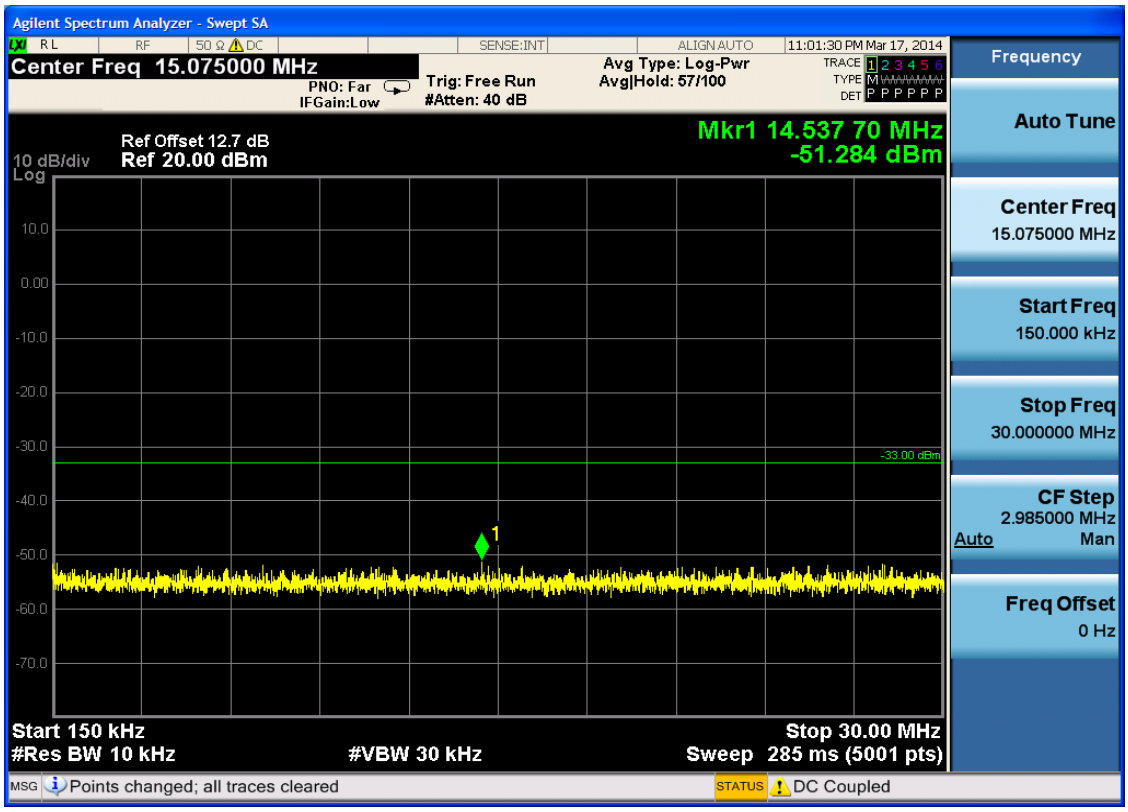


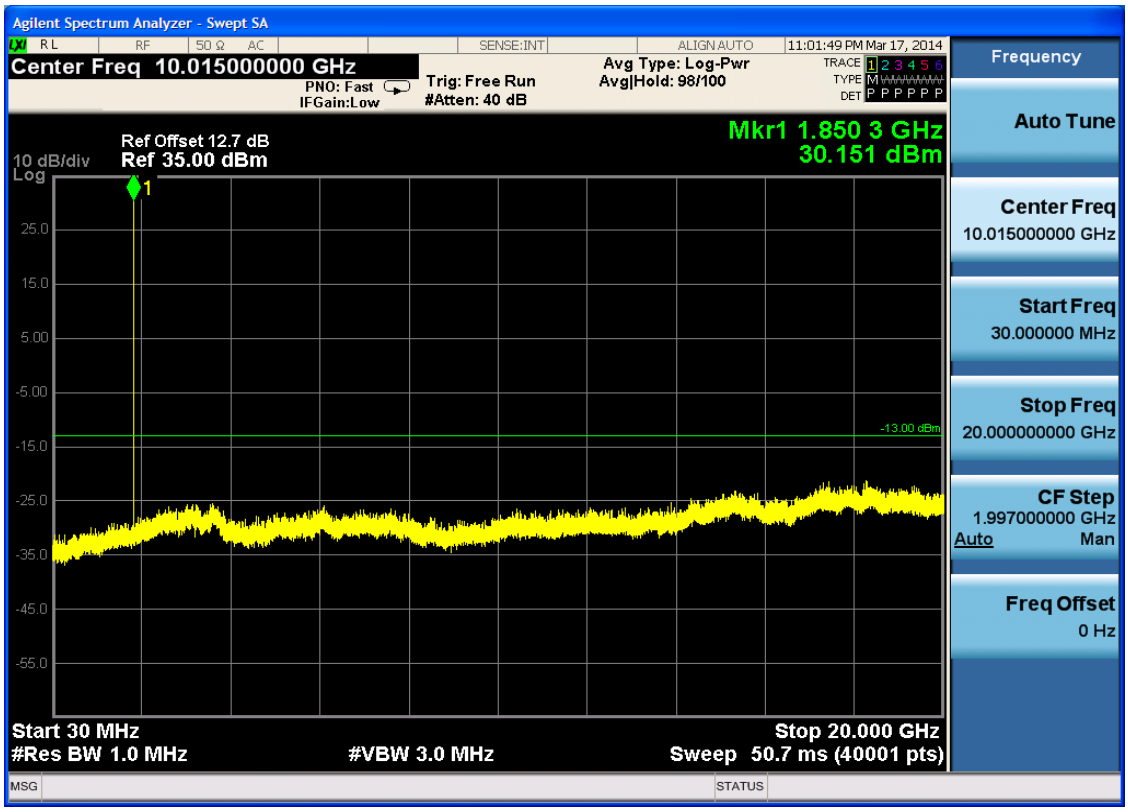
6.1.2 Test Band = GSM1900

6.1.2.1 Test Mode = GSM/TM1

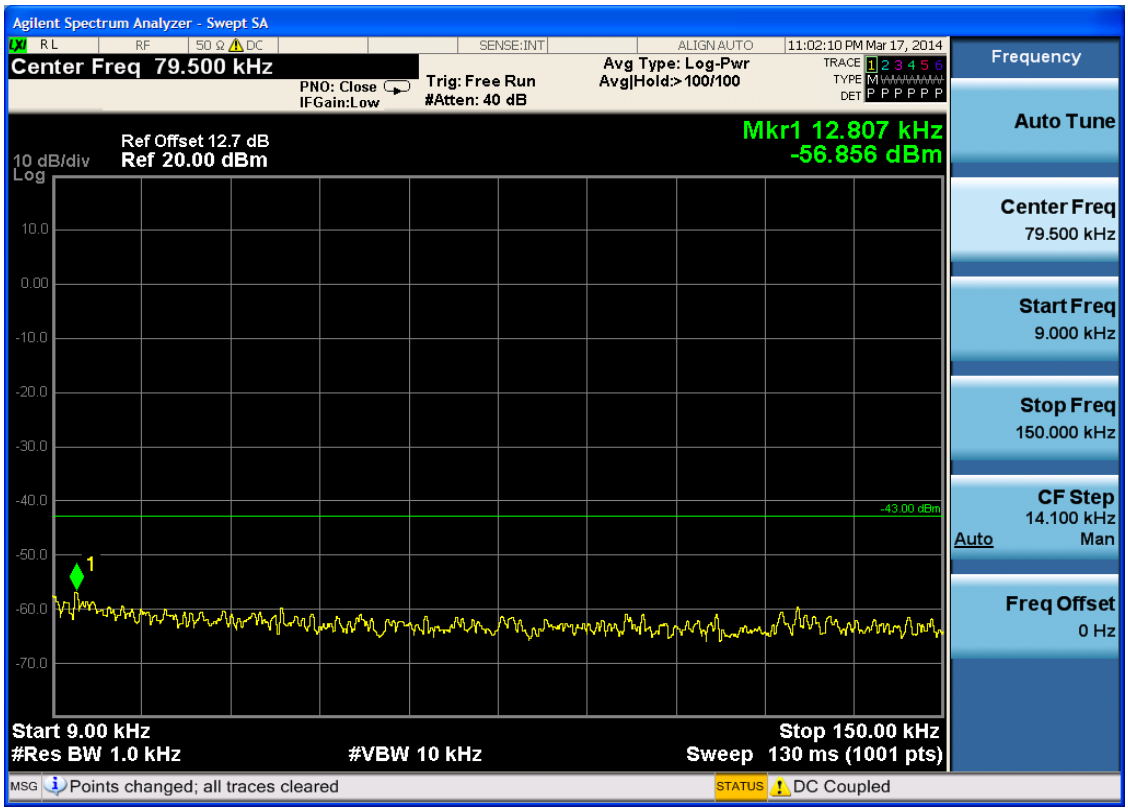
6.1.2.1.1 Test Channel = LCH

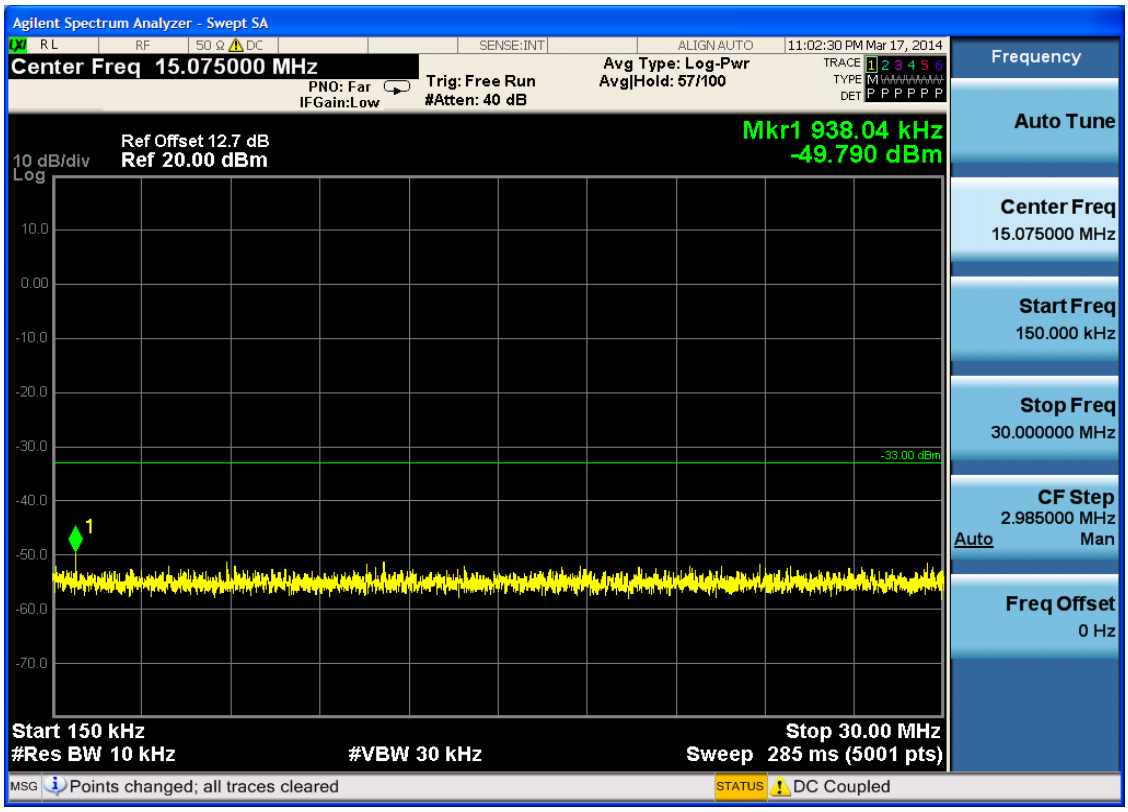




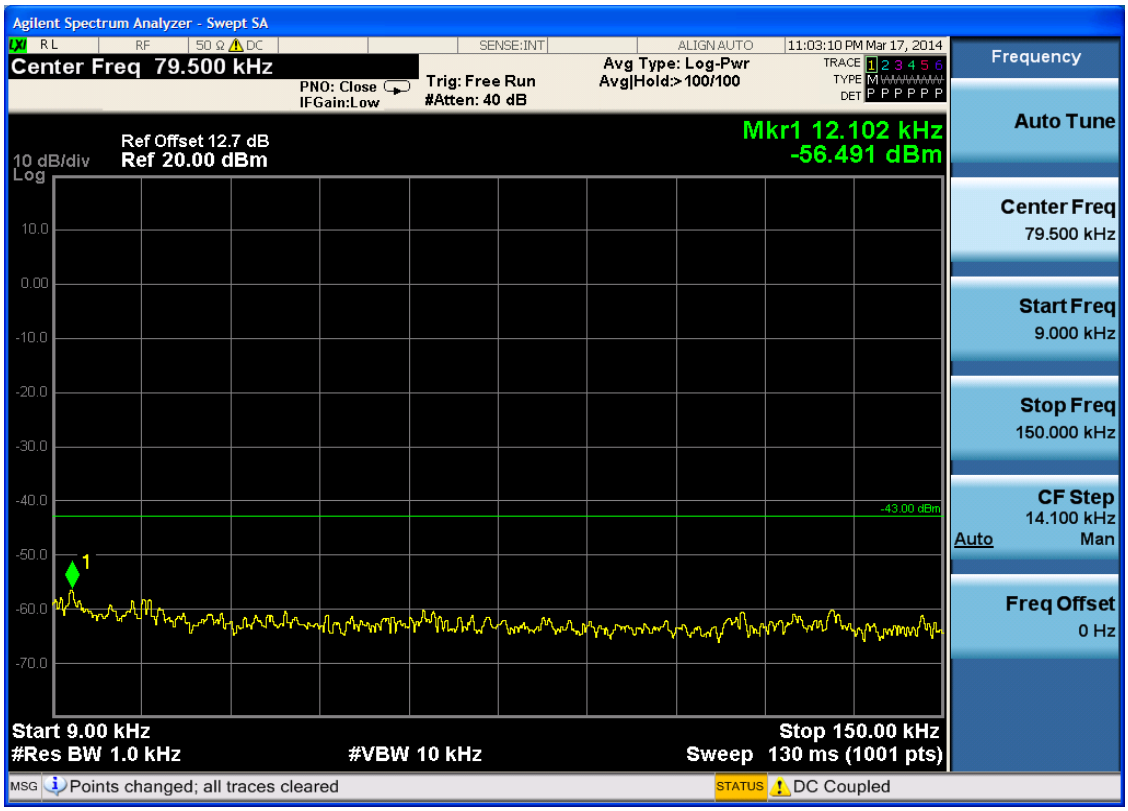


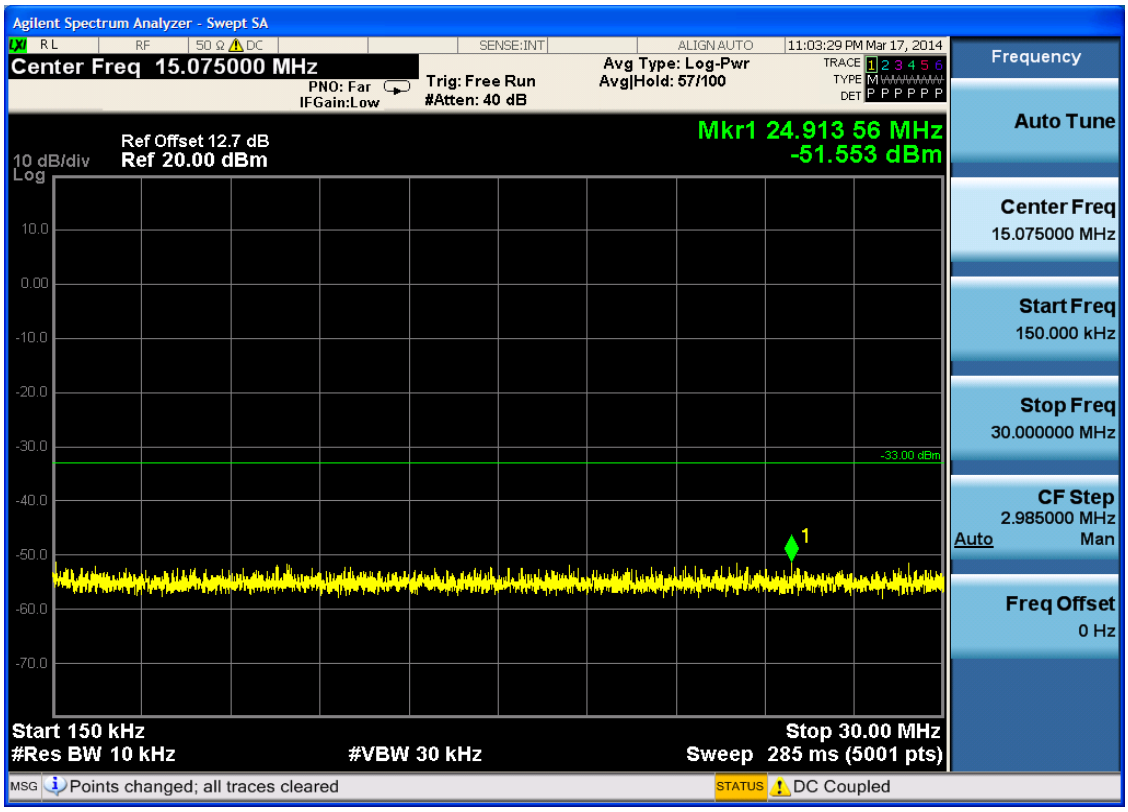
6.1.2.1.2 Test Channel = MCH

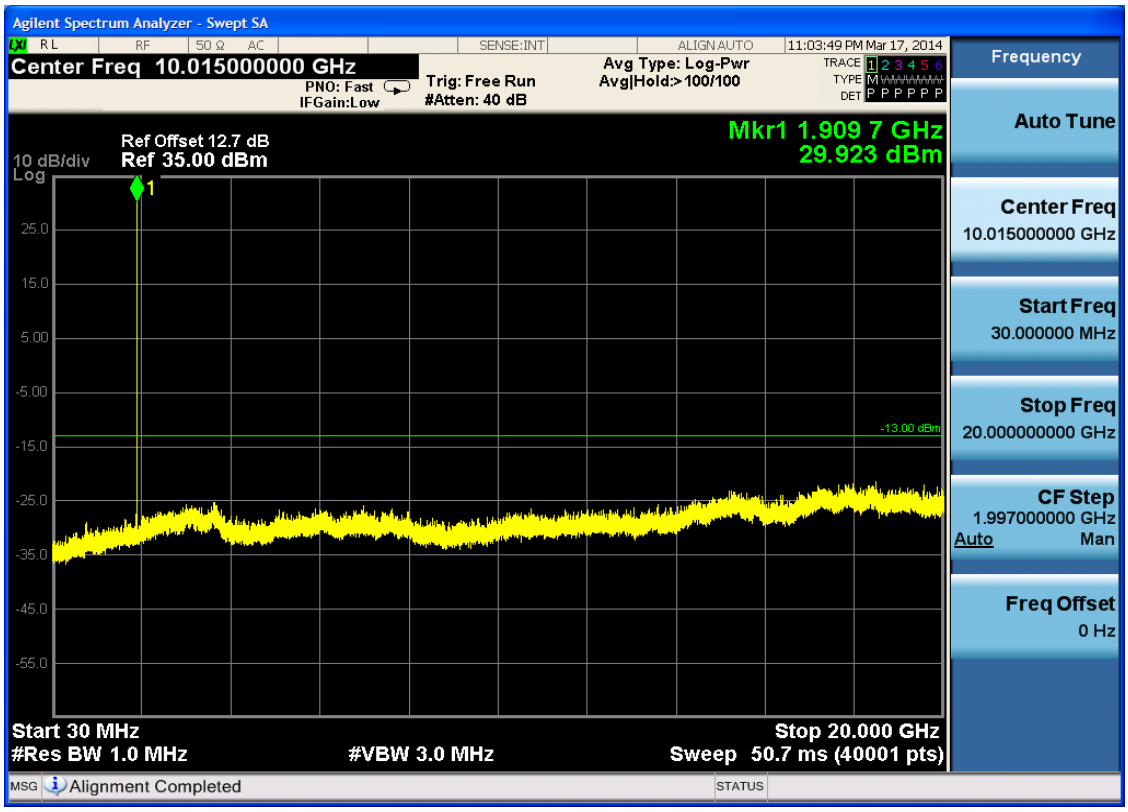




6.1.2.1.3 Test Channel = HCH

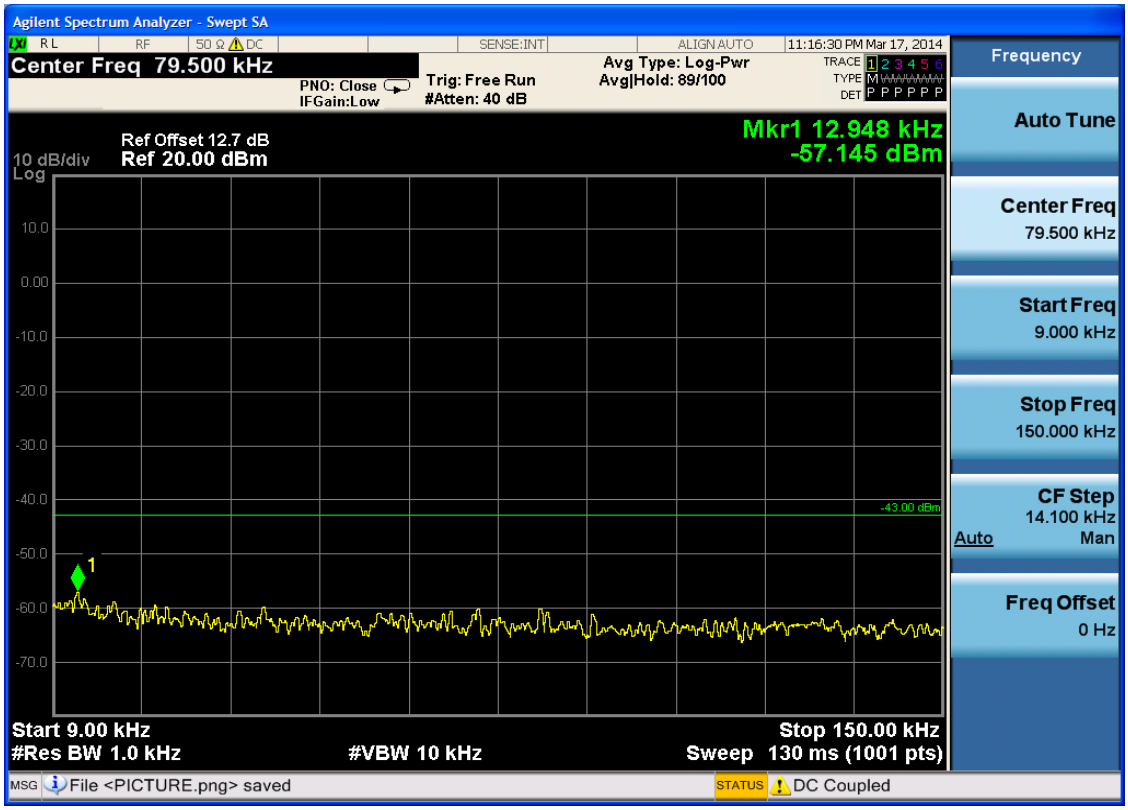


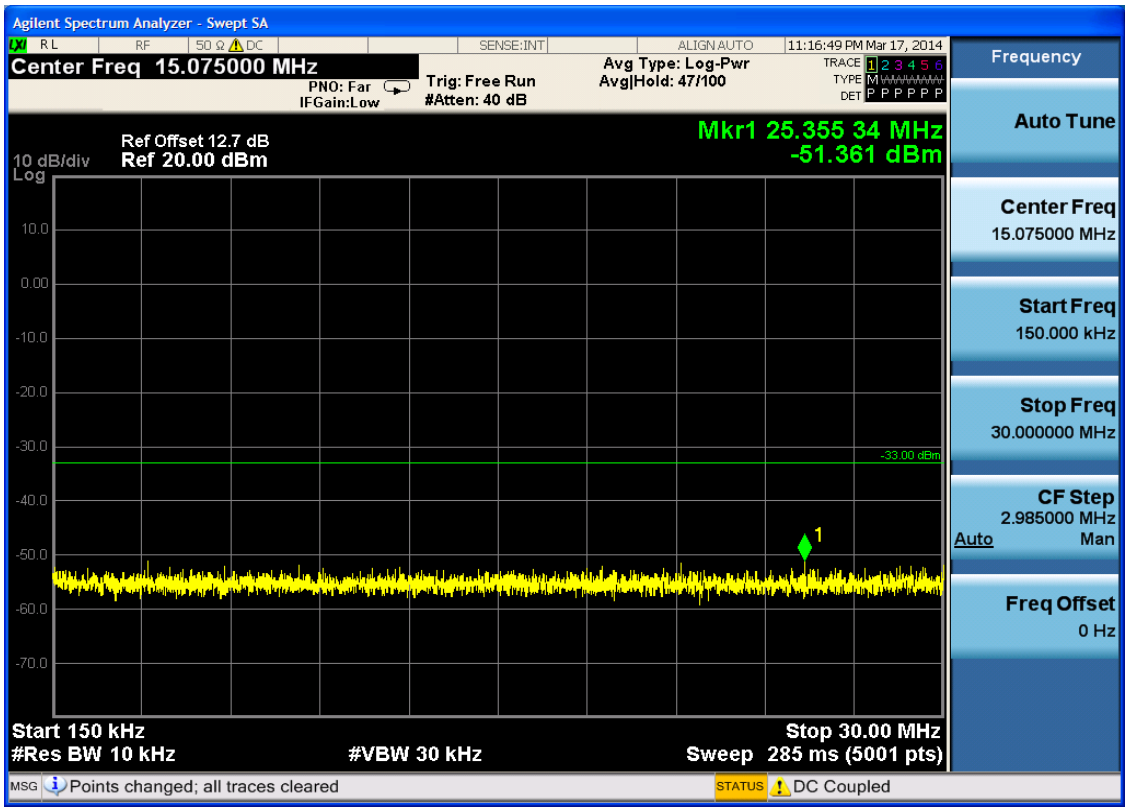


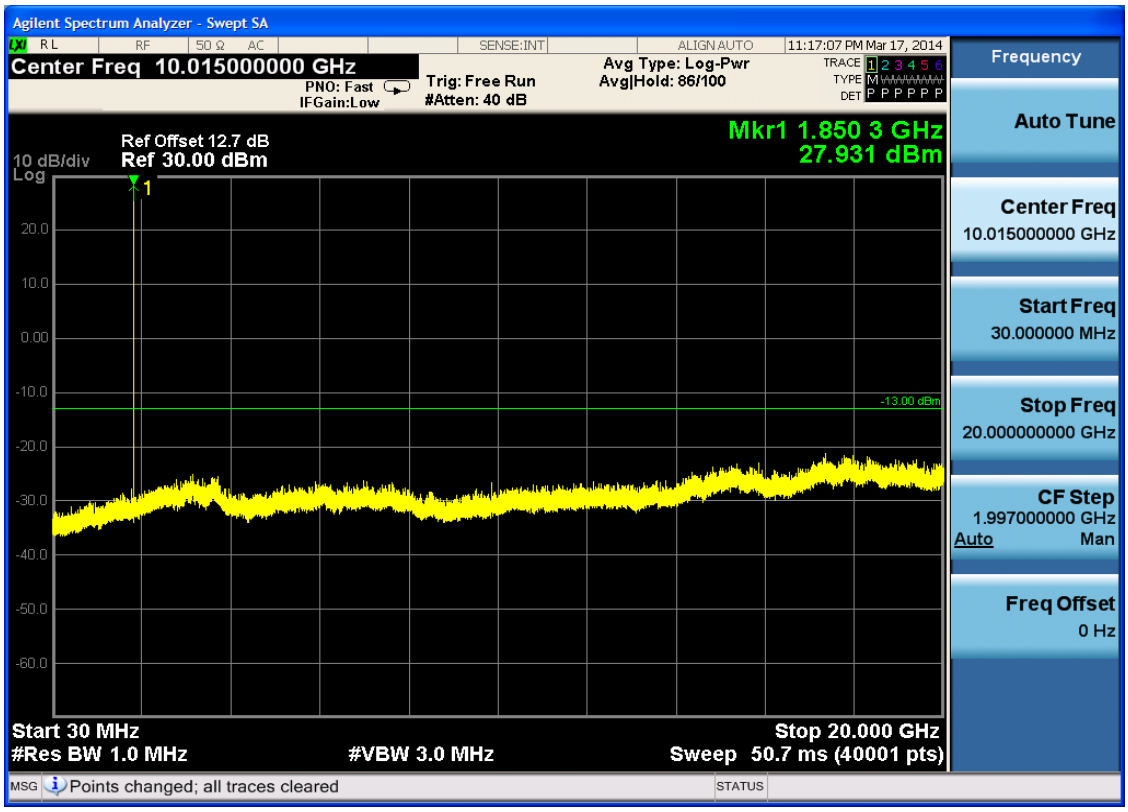


6.1.2.2 Test Mode = GSM/TM2

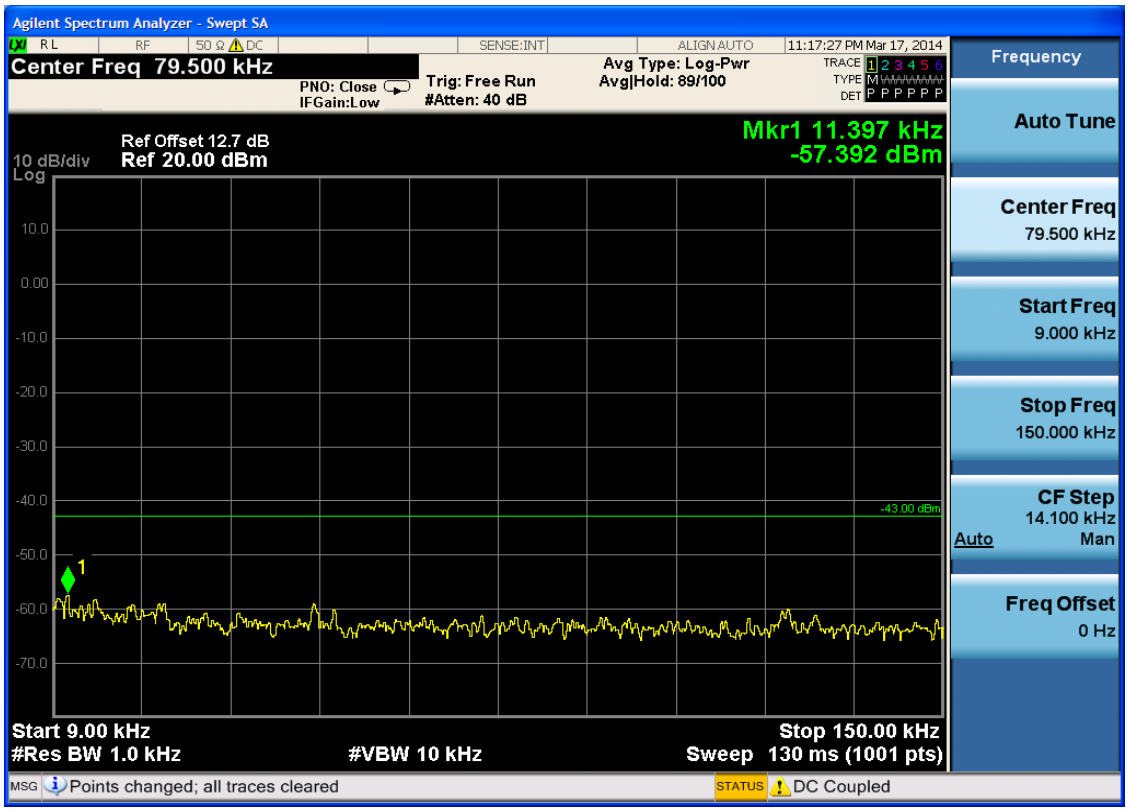
6.1.2.2.1 Test Channel = LCH

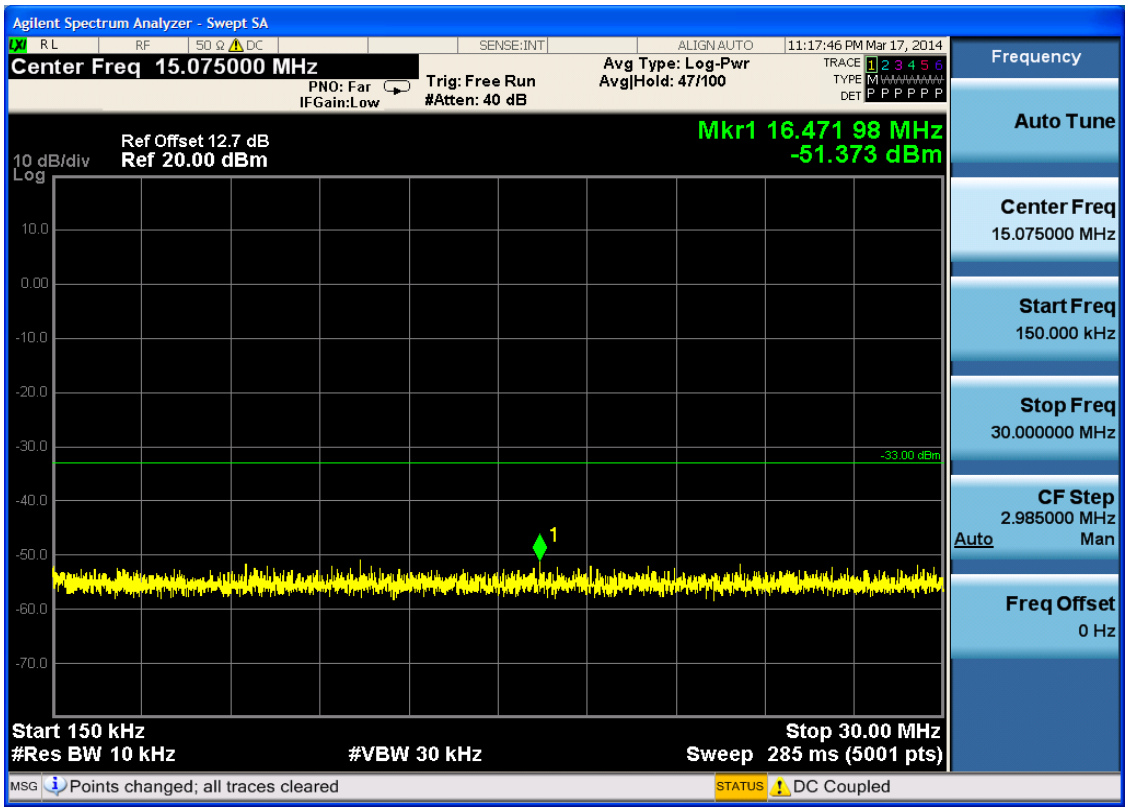


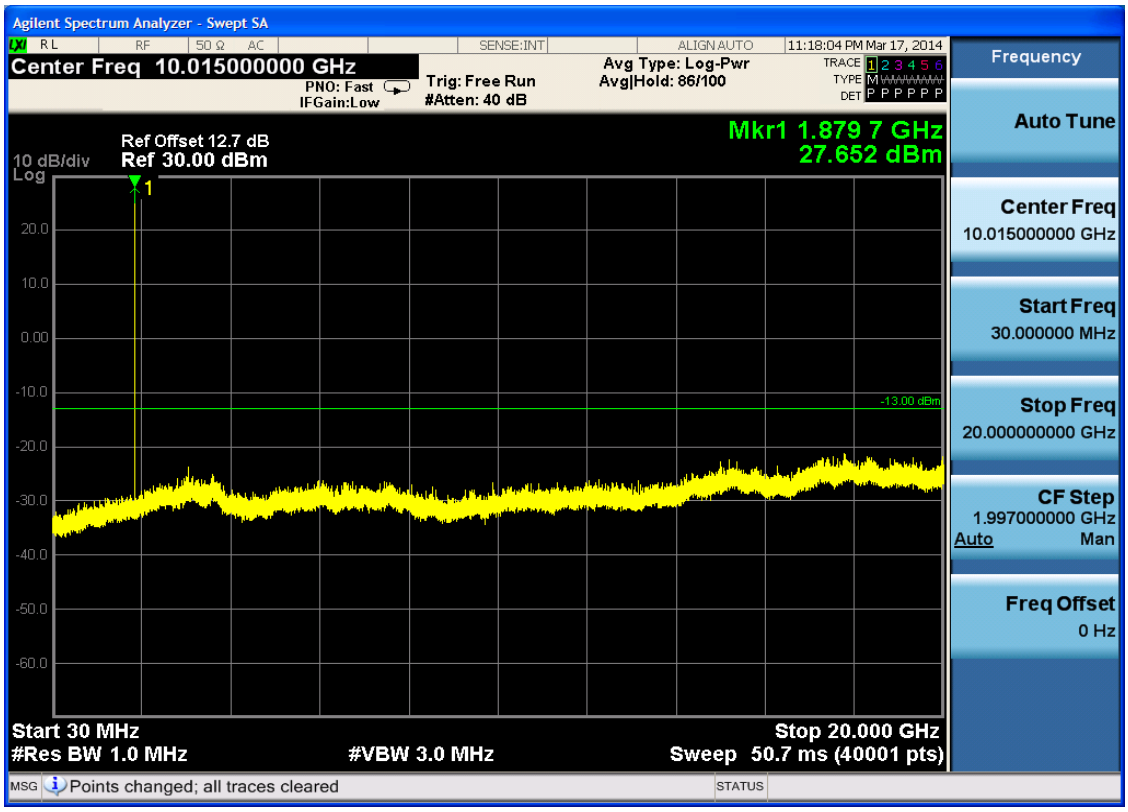




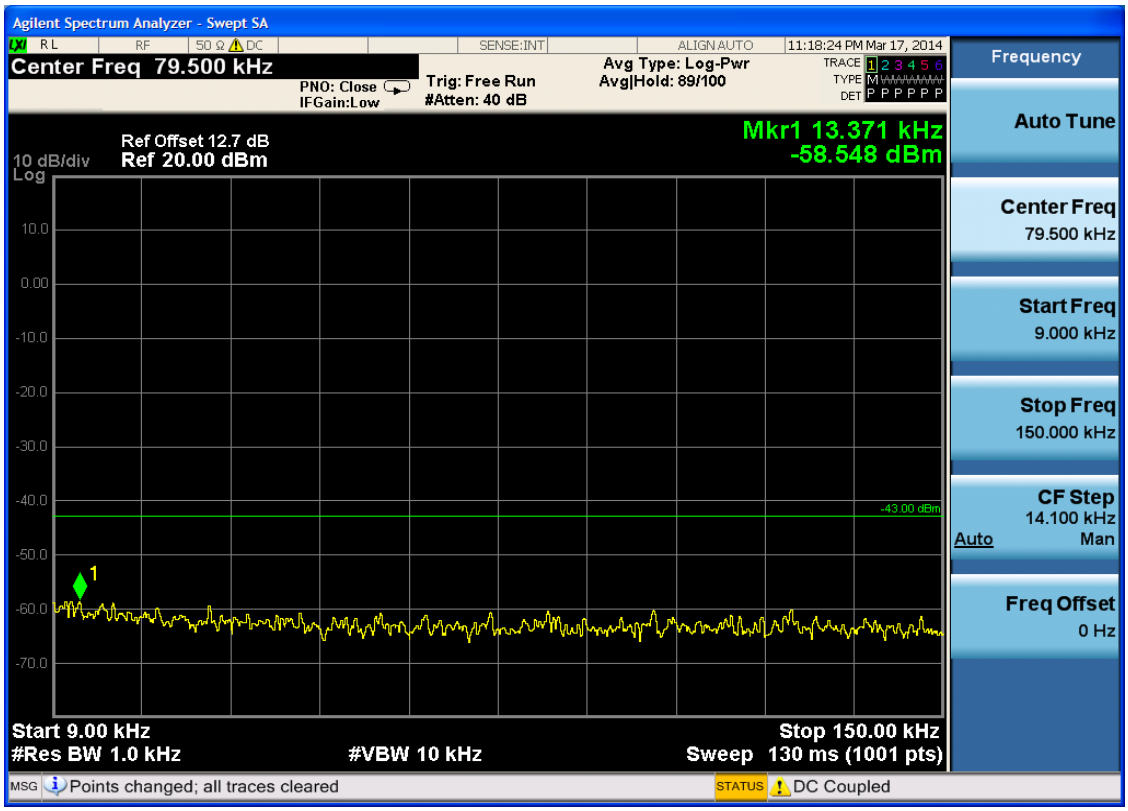
6.1.2.2.2 Test Channel = MCH

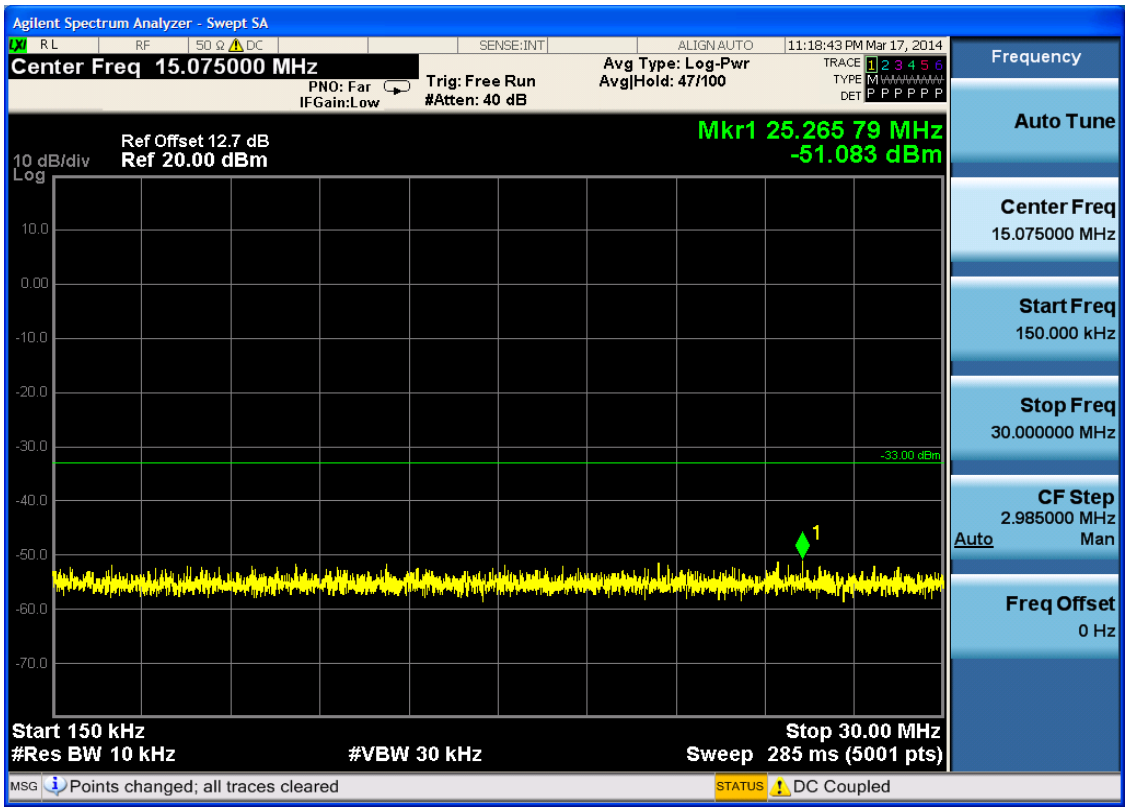


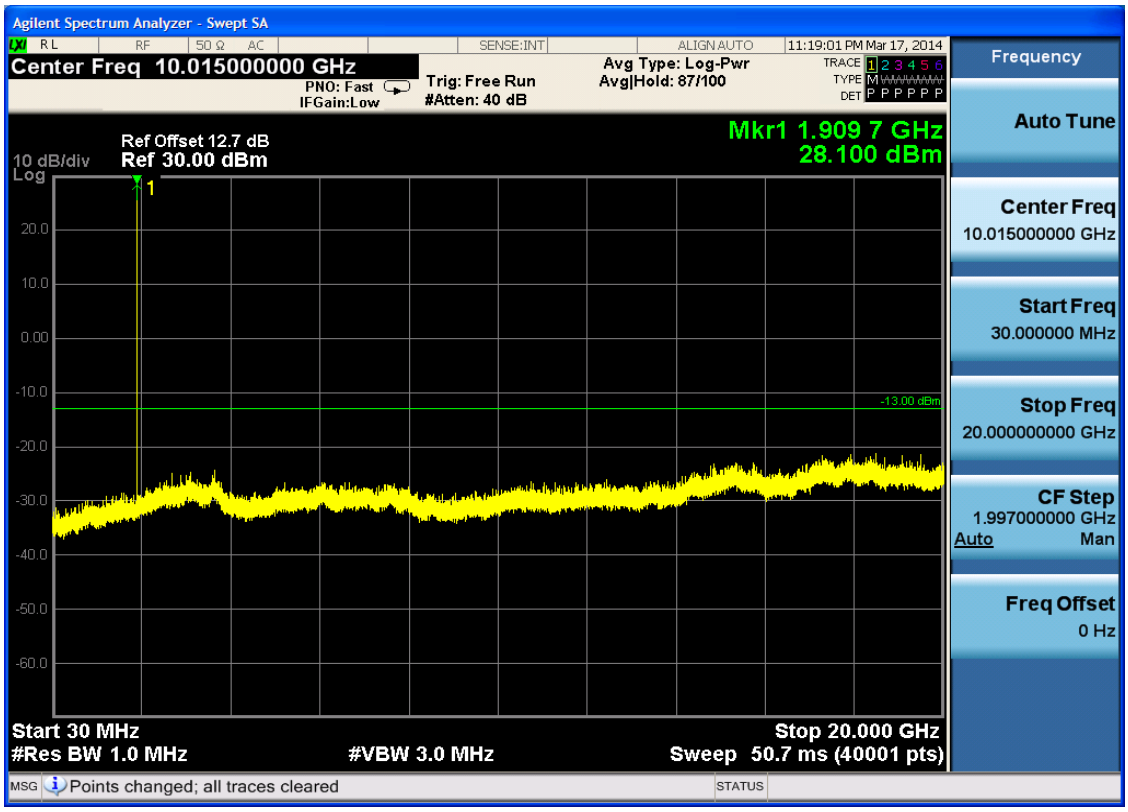




6.1.2.2.3 Test Channel = HCH





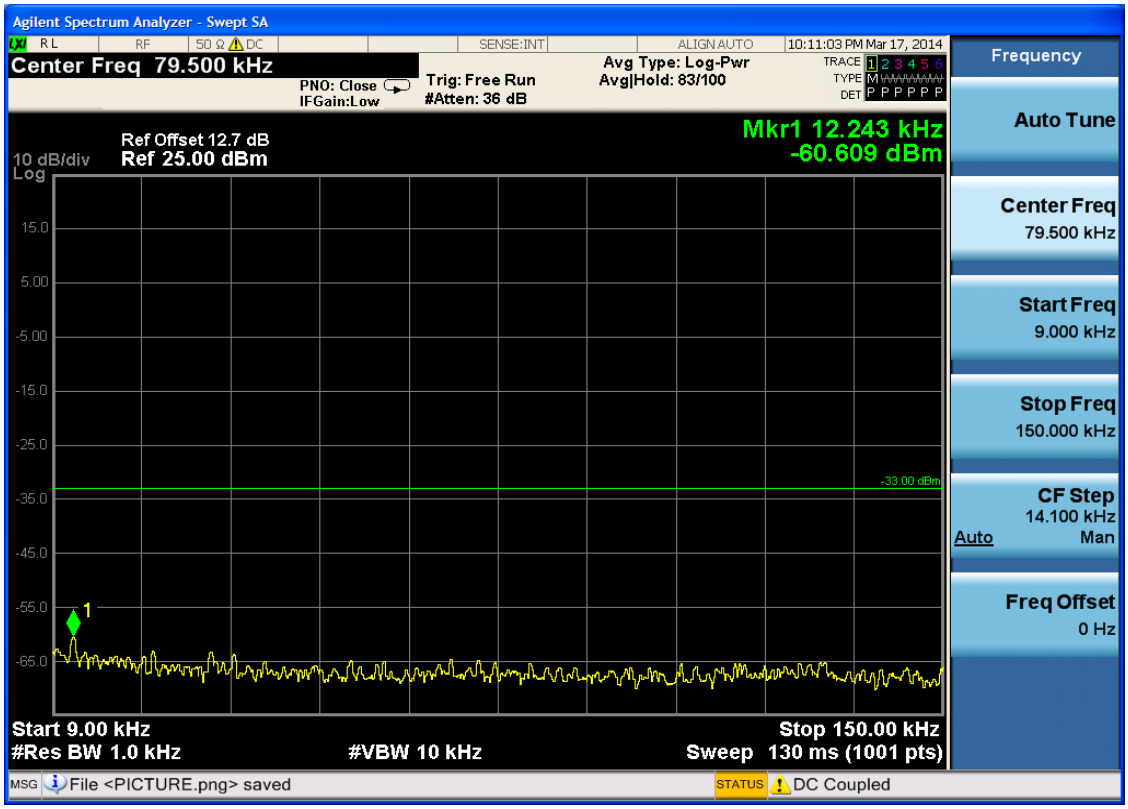


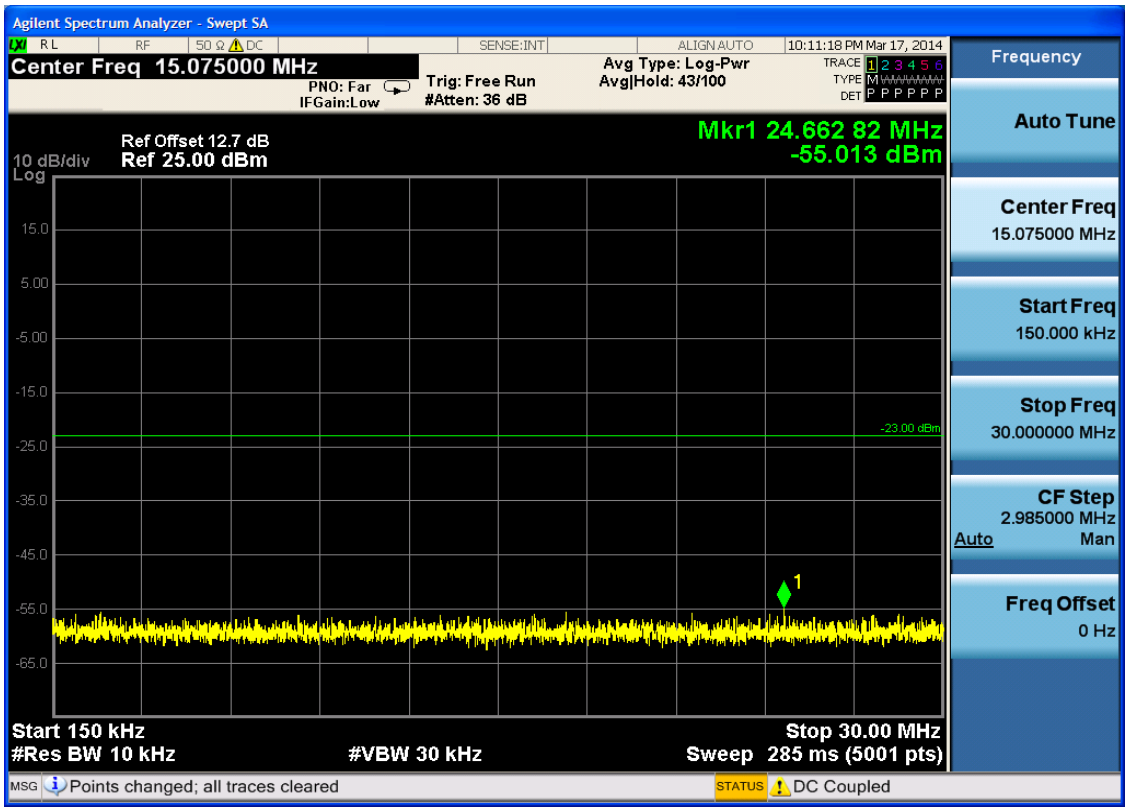
6.2 For UMTS

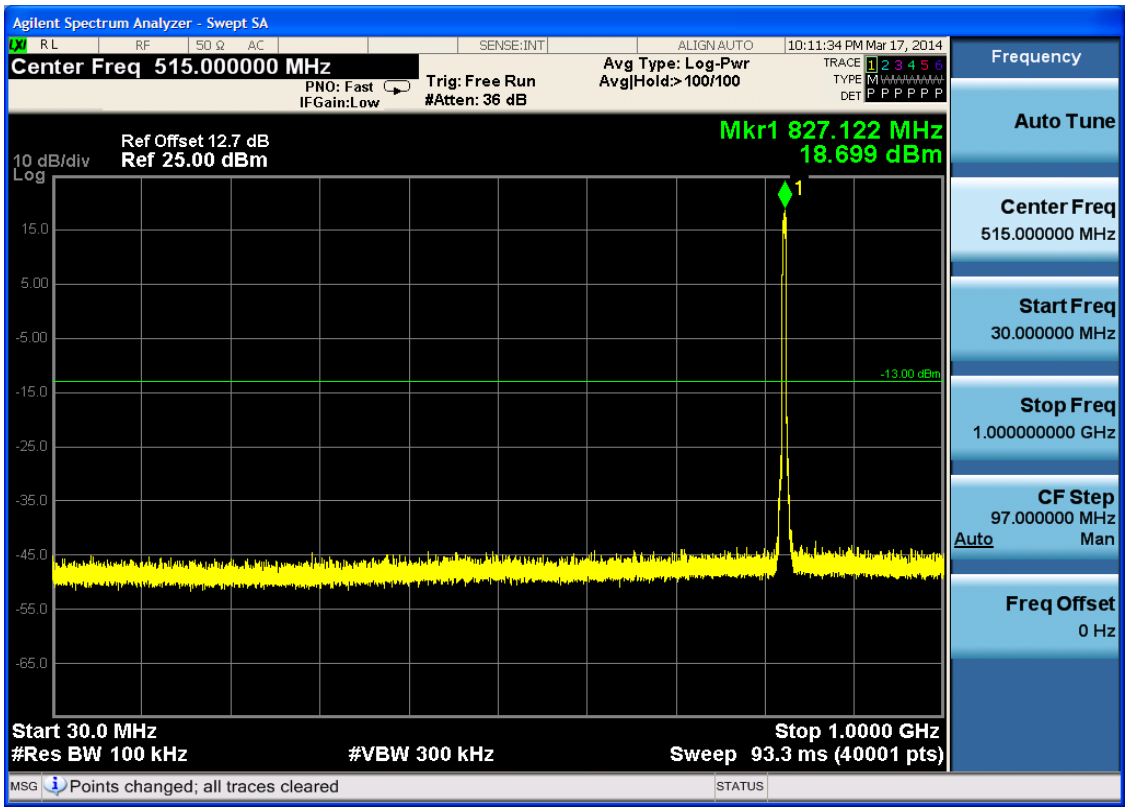
6.2.1 Test Band = WCDMA850

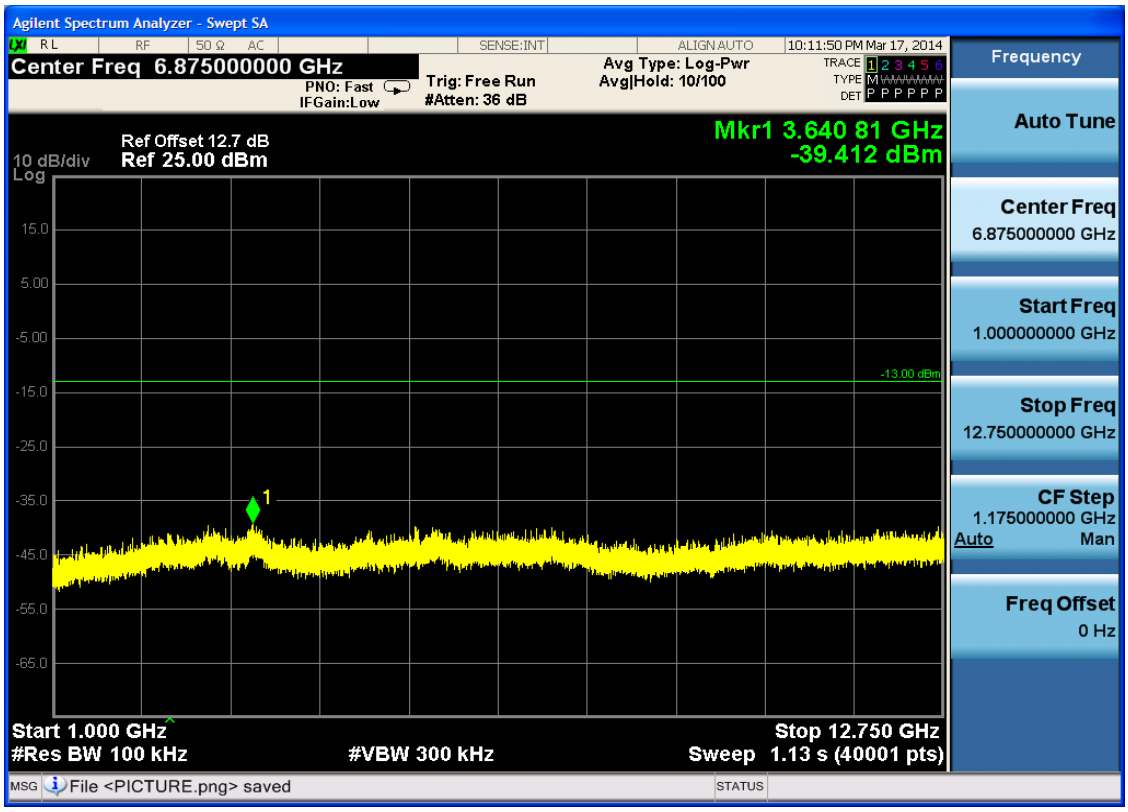
6.2.1.1 Test Mode = UMTS/TM1

6.2.1.1.1 Test Channel = LCH

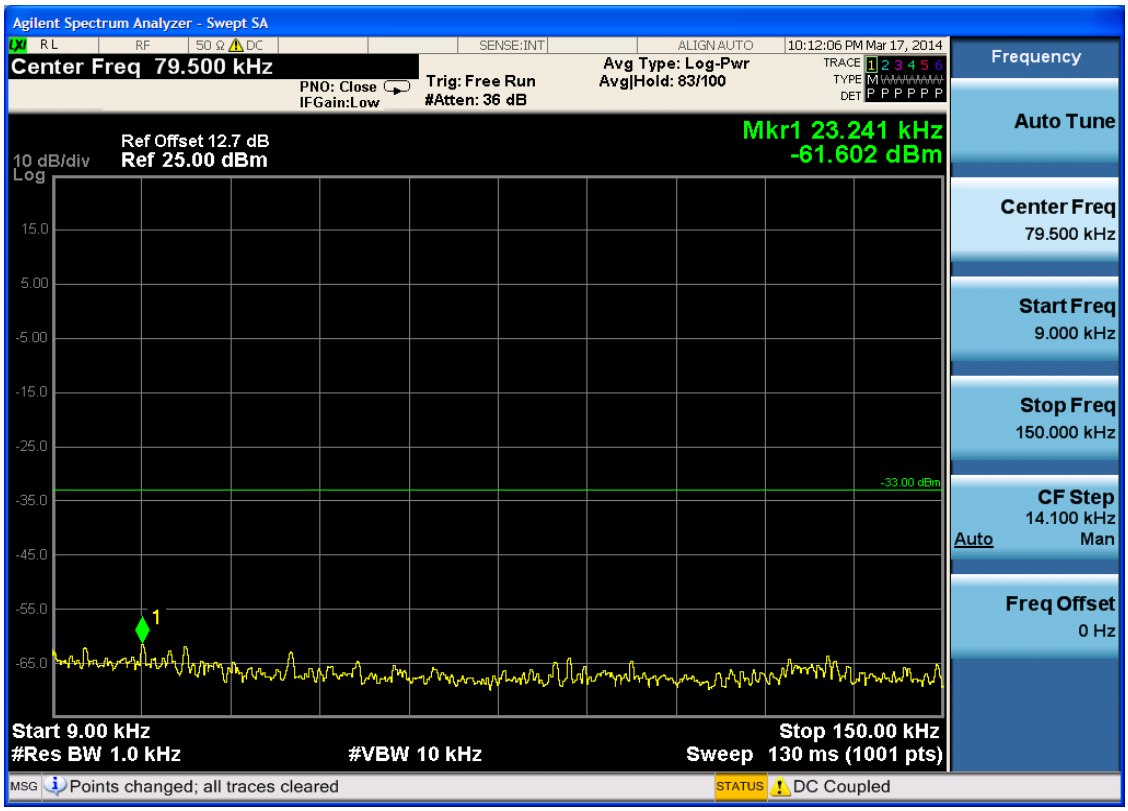


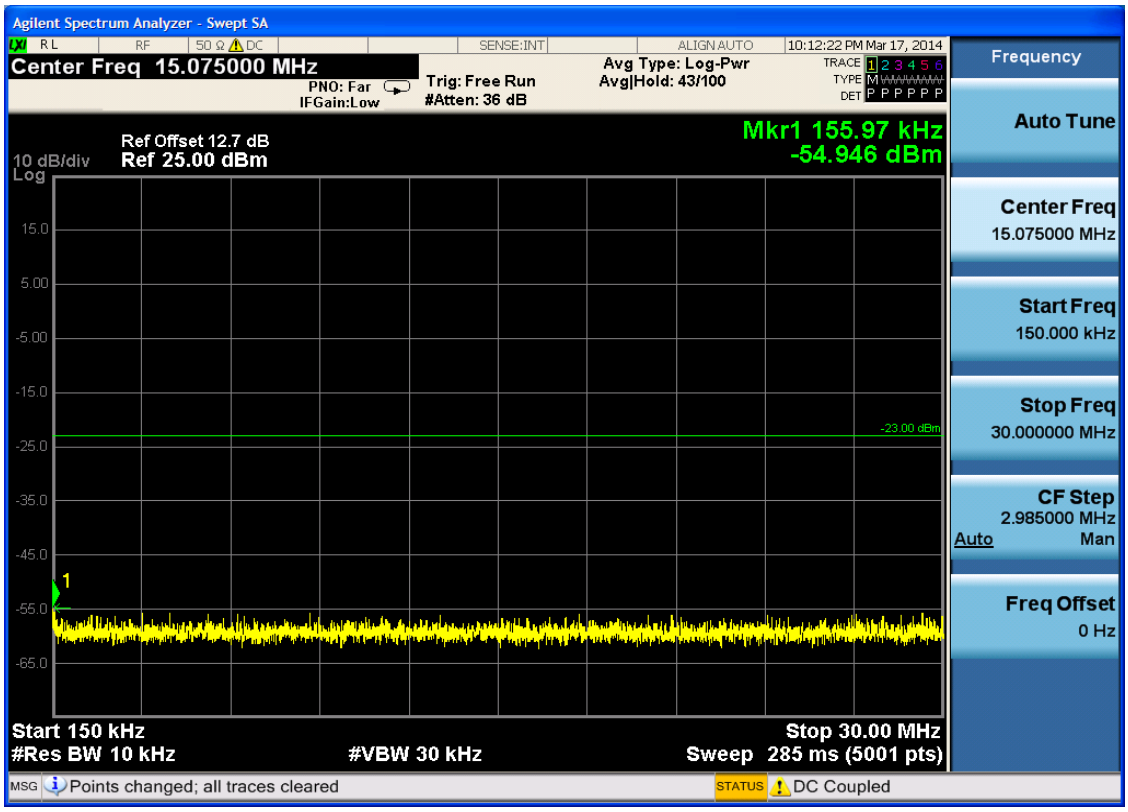


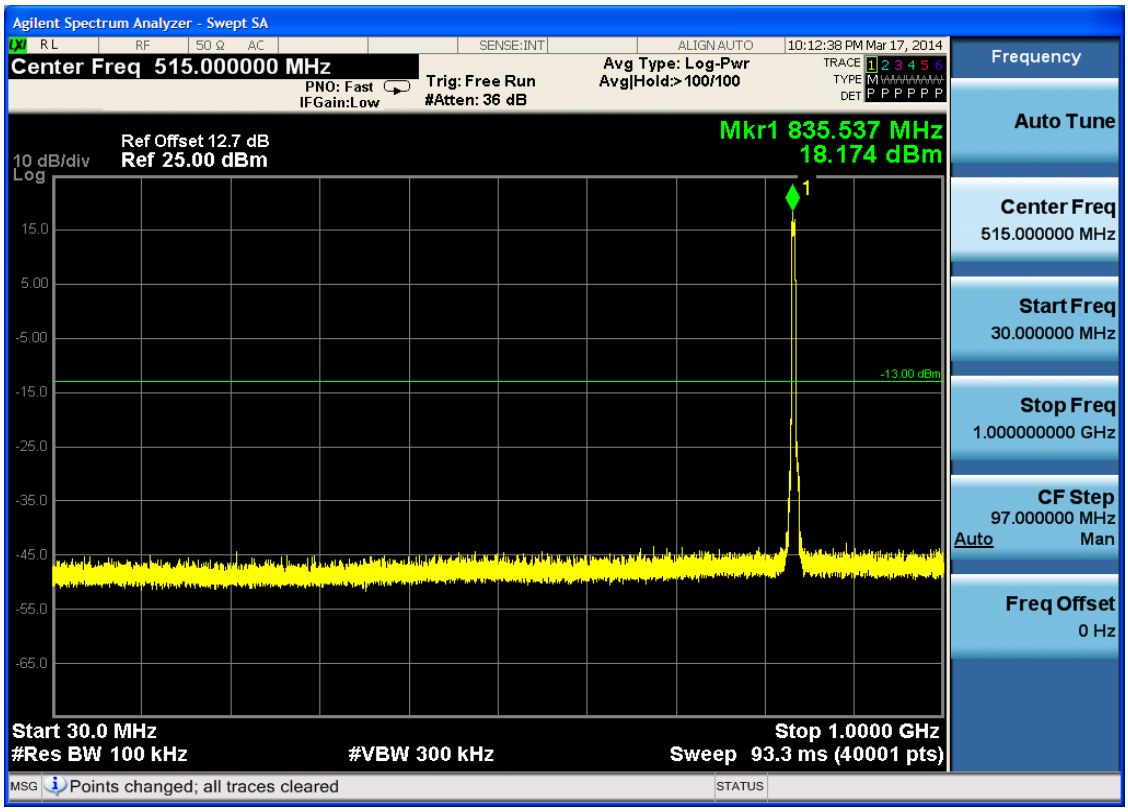


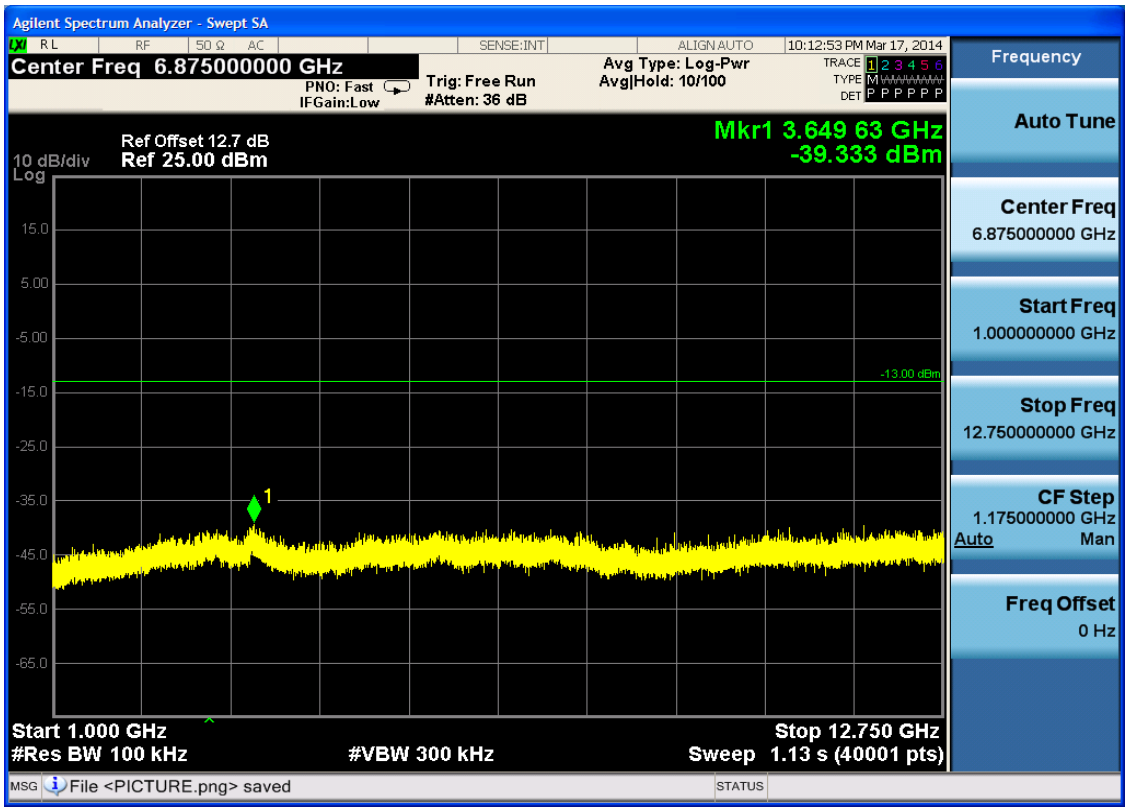


6.2.1.1.2 Test Channel = MCH









6.2.1.1.3 Test Channel = HCH