



Appendix for test report



1 Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band	Test Mode	Test Channel	Measure d[dBm]	ERP/EIRP(dBm)	Limit [dBm]	Verdict
GSM850	GSM/TM1	LCH	32.15	31	38.5	PASS
		MCH	32.18	31.03	38.5	PASS
		HCH	32.12	30.97	38.5	PASS
GSM1900	GSM/TM1	LCH	28.88	29.88	33	PASS
		MCH	28.83	29.83	33	PASS
		HCH	29.1	30.1	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
GSM850	GSM/TM1	LCH	0.14	13	PASS
		MCH	0.14	13	PASS
		HCH	0.15	13	PASS
GSM1900	GSM/TM1	LCH	0.1	13	PASS
		MCH	0.13	13	PASS
		HCH	0.14	13	PASS

3Appendix_C: Modulation Characteristics

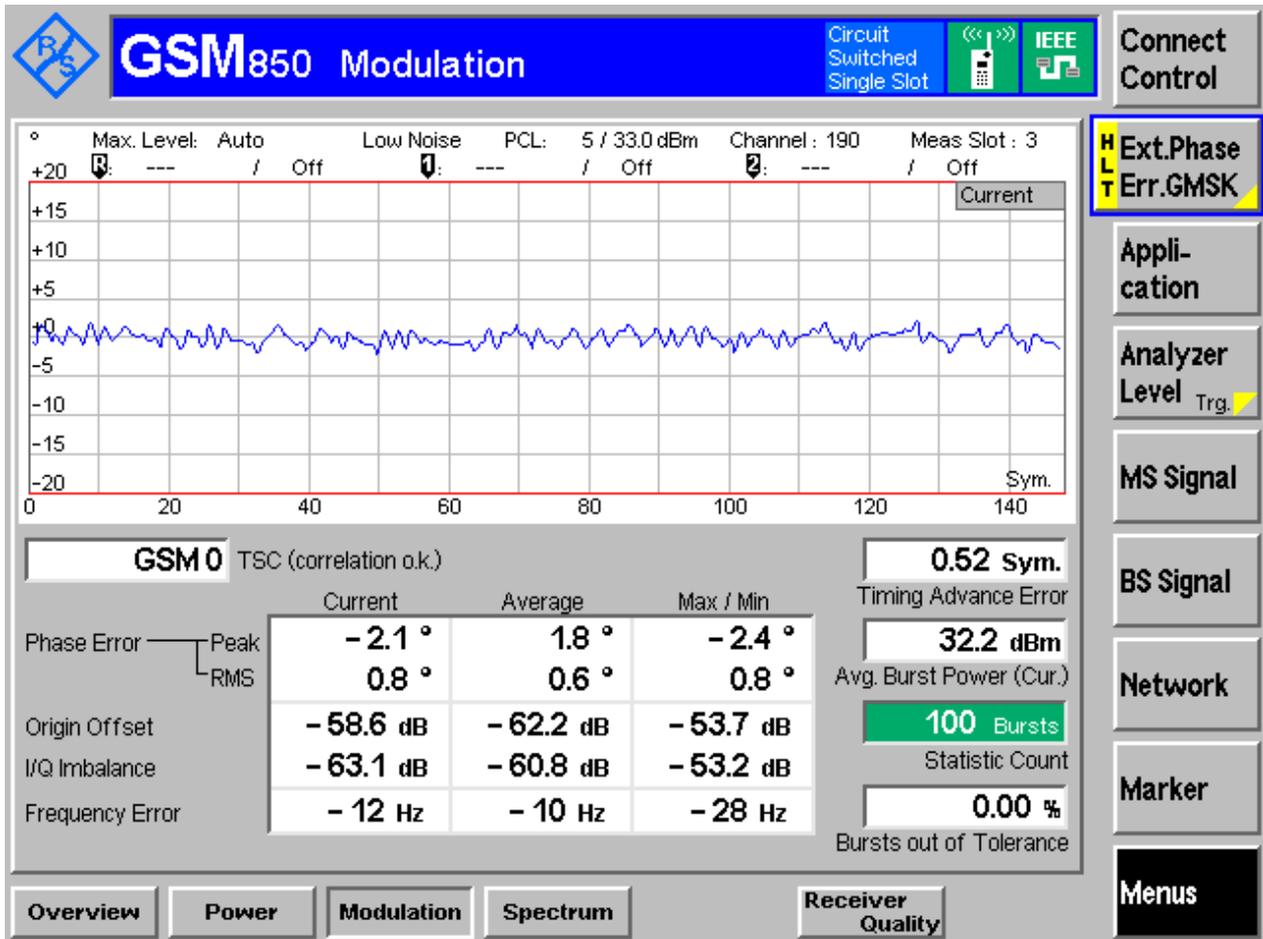
Part I - Test Plots

3.1 For GSM

3.1.1 Test Band = GSM850

3.1.1.1 Test Mode = GSM/TM1

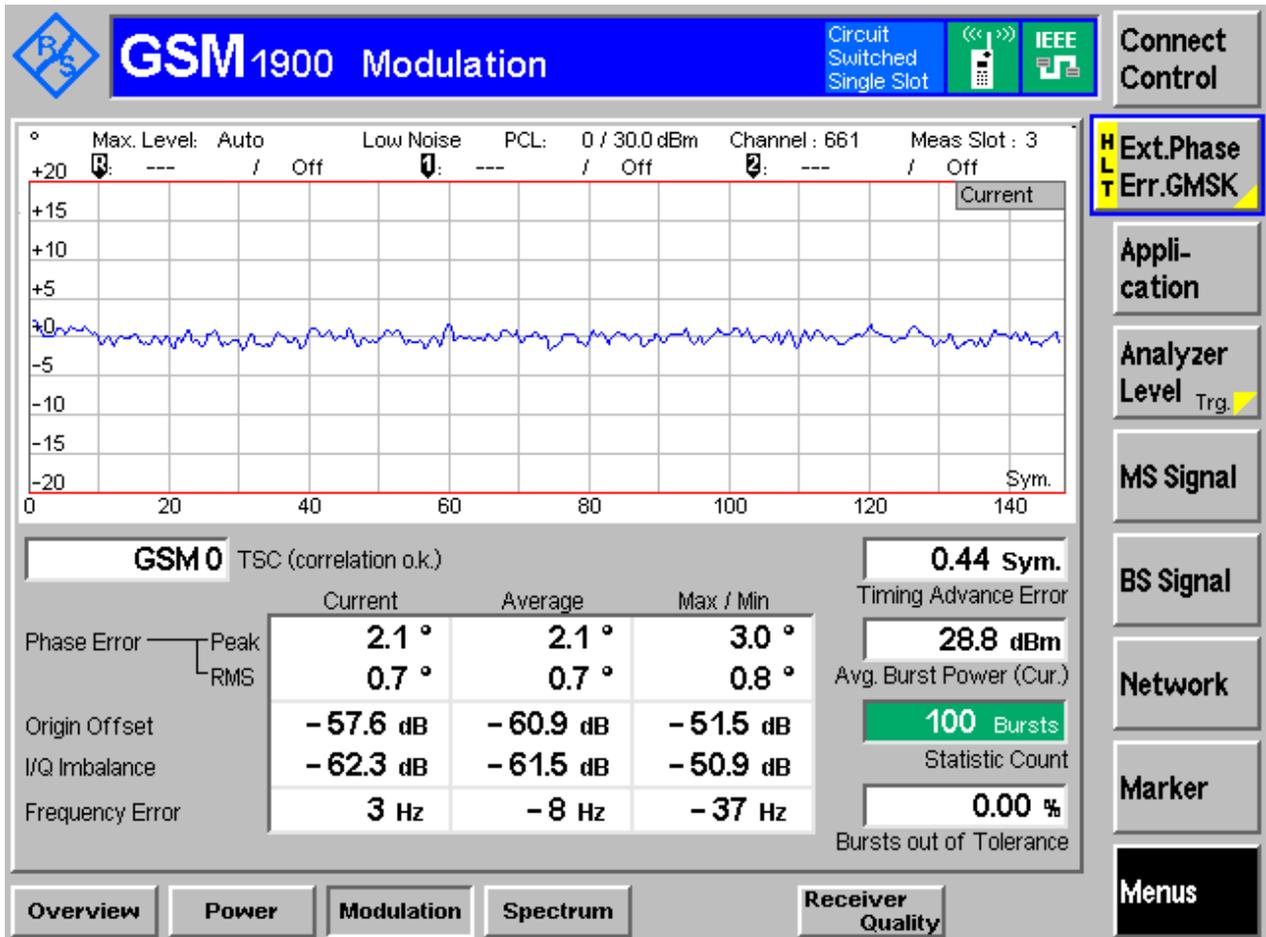
3.1.1.1.1 Test Channel = MCH



3.1.2 Test Band = GSM1900

3.1.2.1 Test Mode = GSM/TM1

3.1.2.1.1 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	244.98	315.58	Pass
		MCH	245.21	316.36	Pass
		HCH	251.25	317.89	Pass
GSM1900	GSM/TM1	LCH	245.47	323.18	Pass
		MCH	244.40	319.64	Pass
		HCH	245.22	313.96	Pass



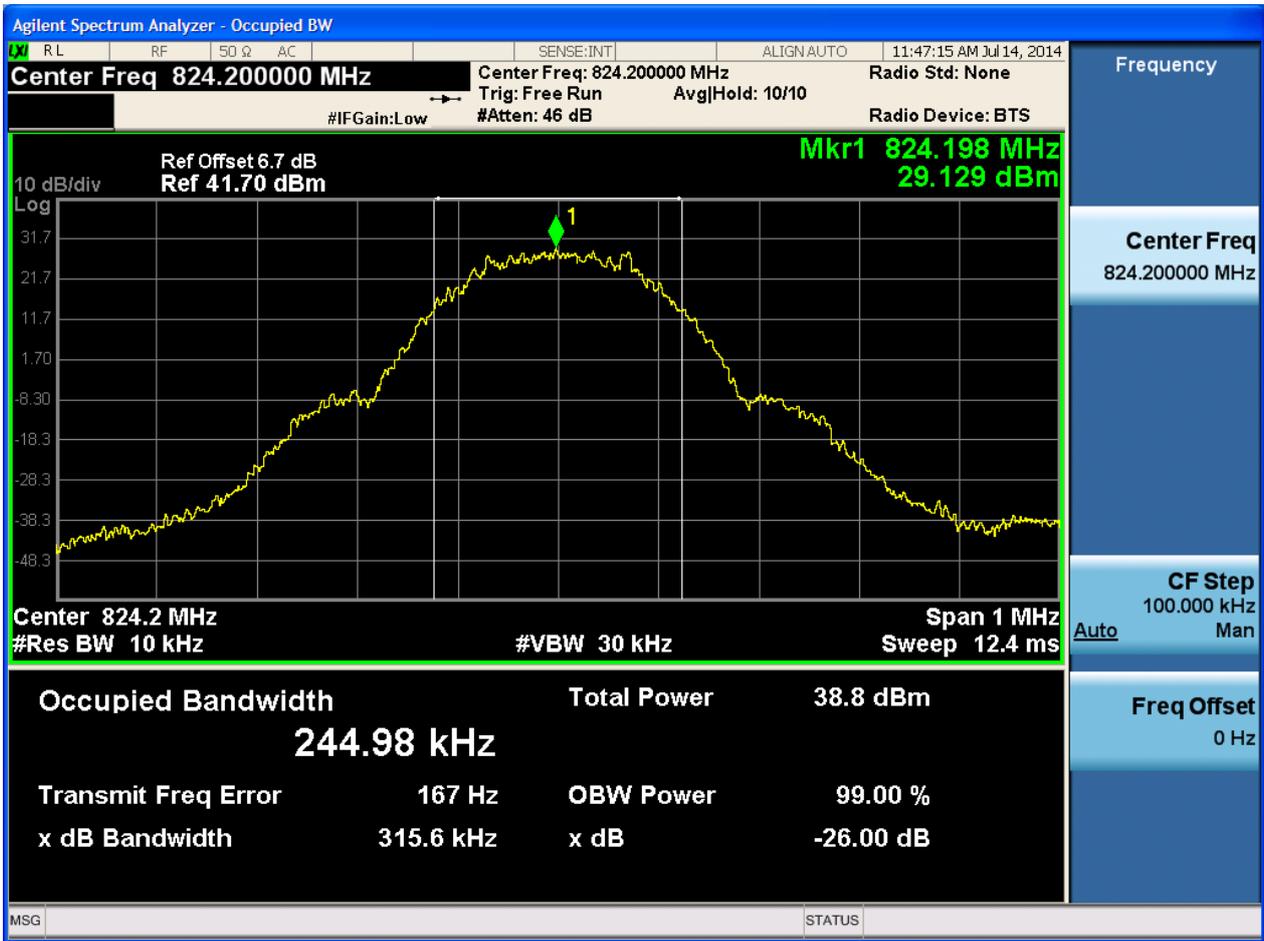
Part II - Test Plots

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



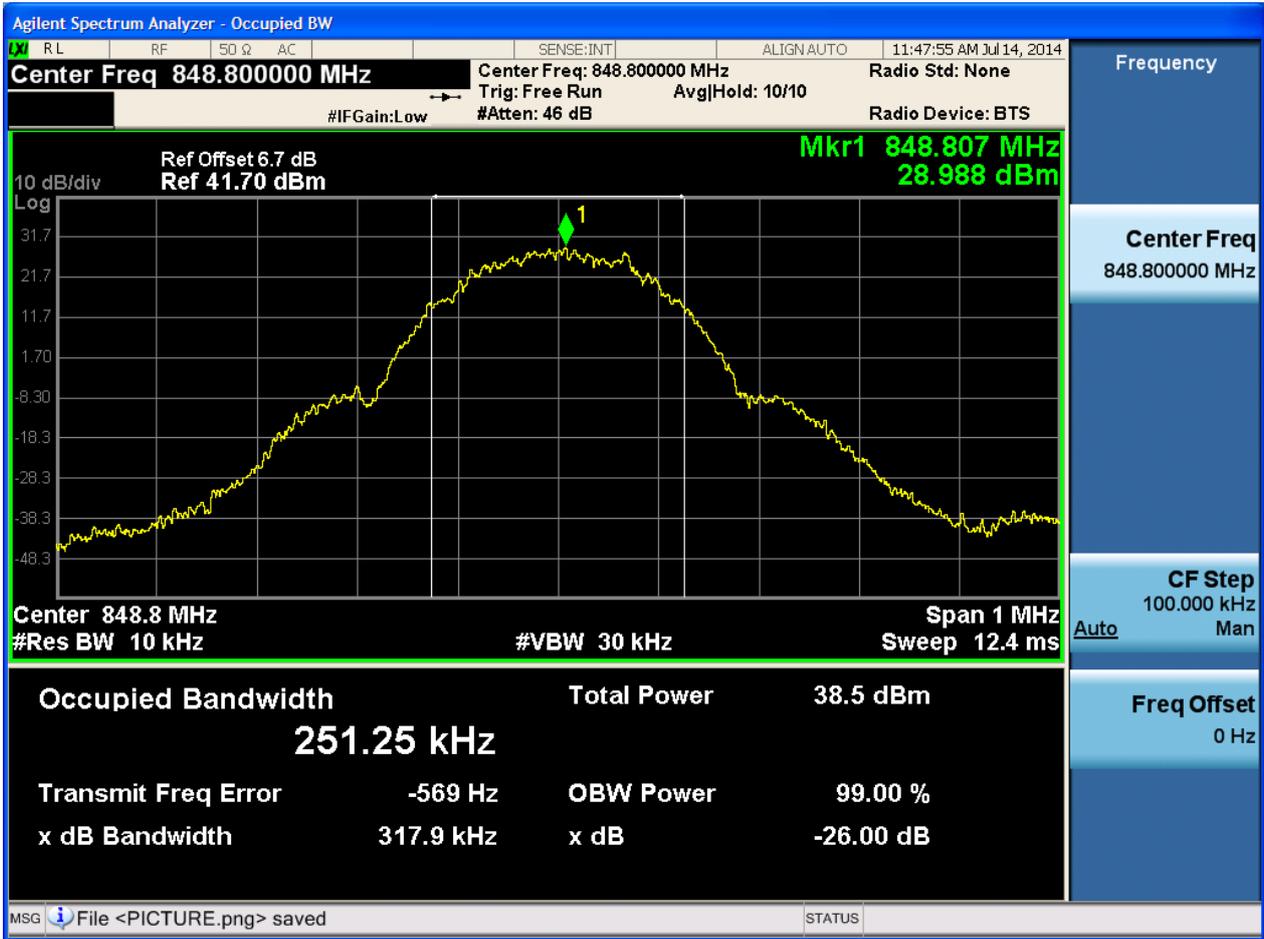


4.1.1.1.2 Test Channel = MCH





4.1.1.1.3 Test Channel = HCH

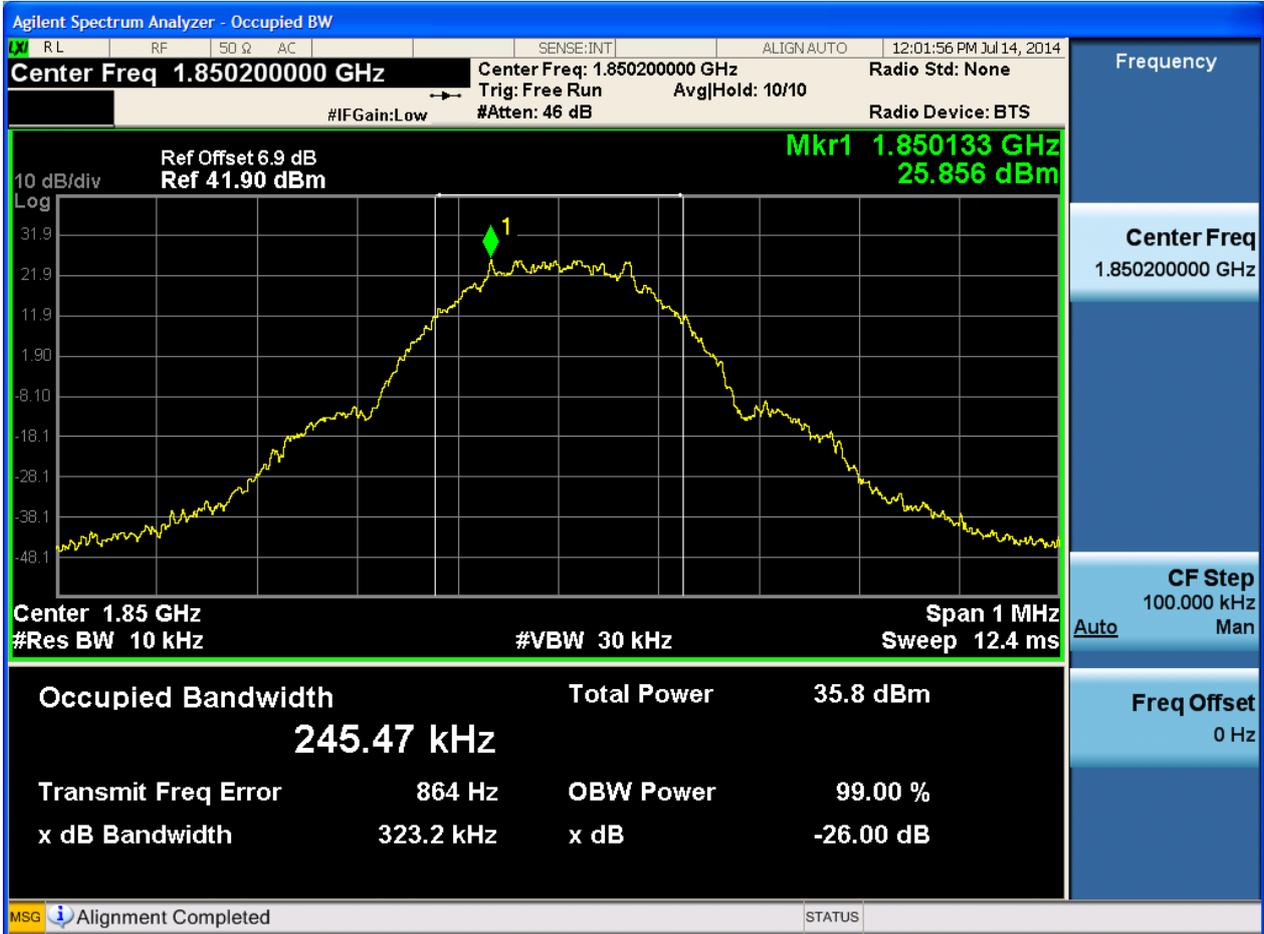




4.1.2 Test Band = GSM1900

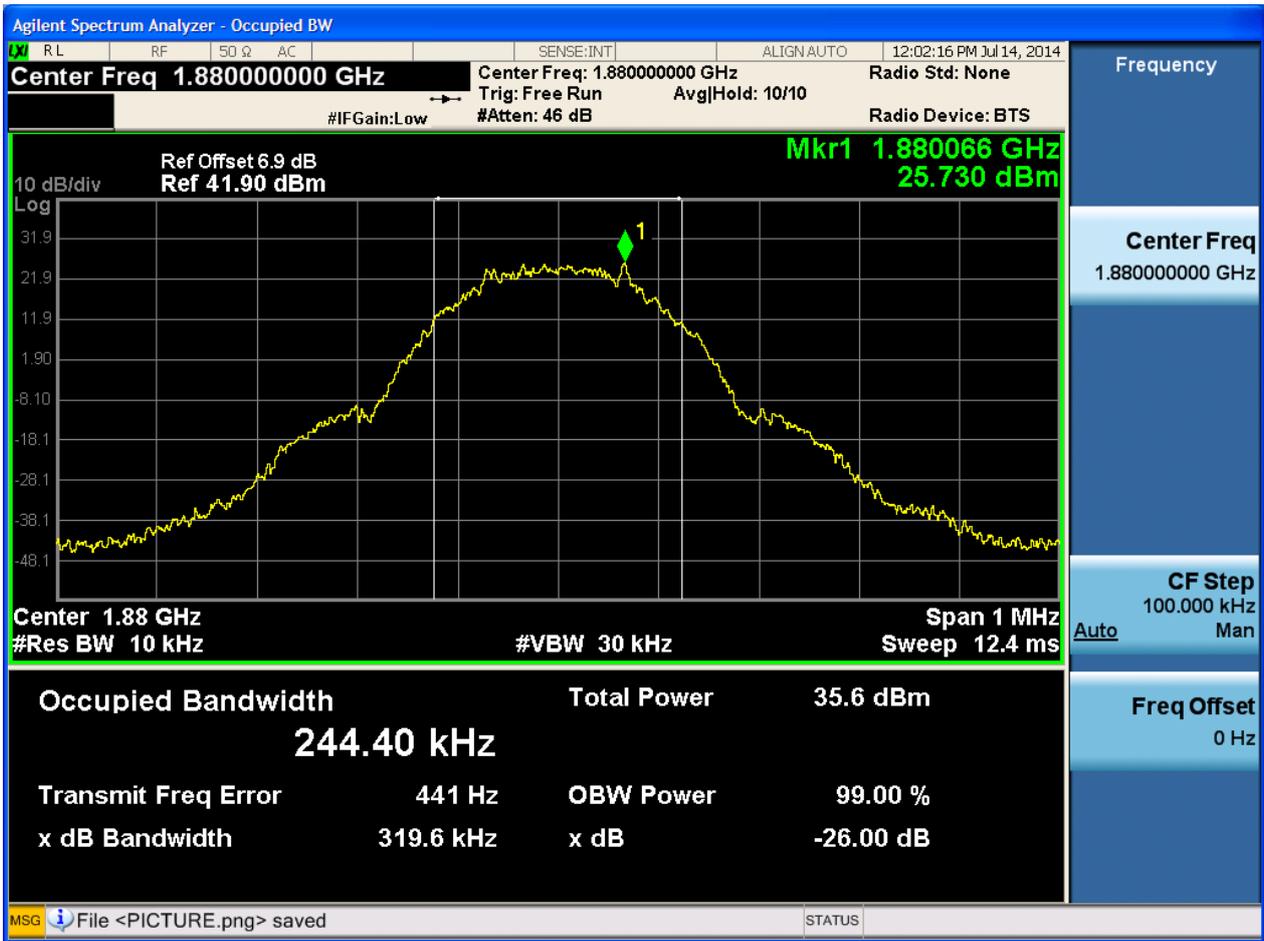
4.1.2.1 Test Mode = GSM/TM1

4.1.2.1.1 Test Channel = LCH



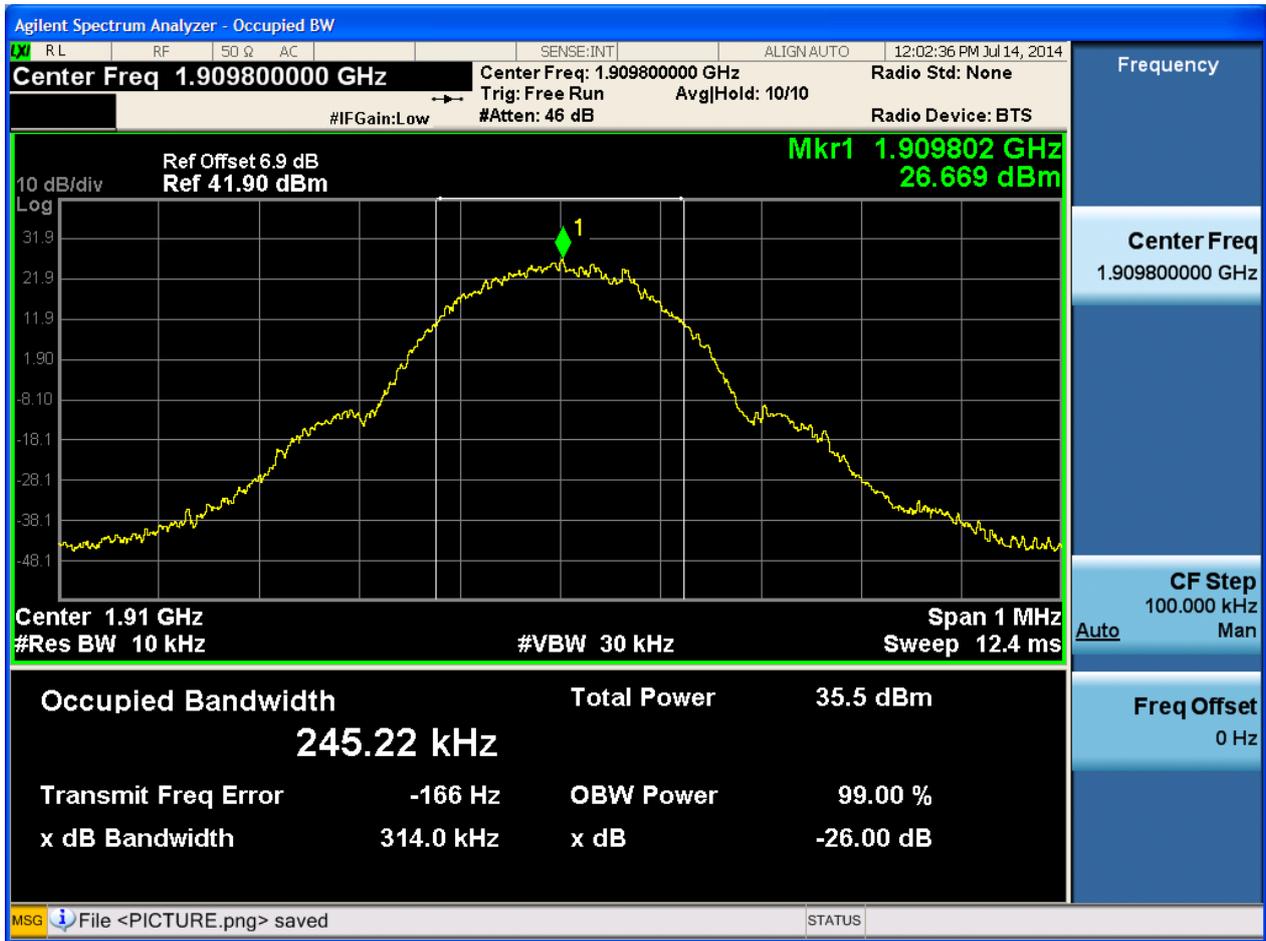


4.1.2.1.2 Test Channel = MCH

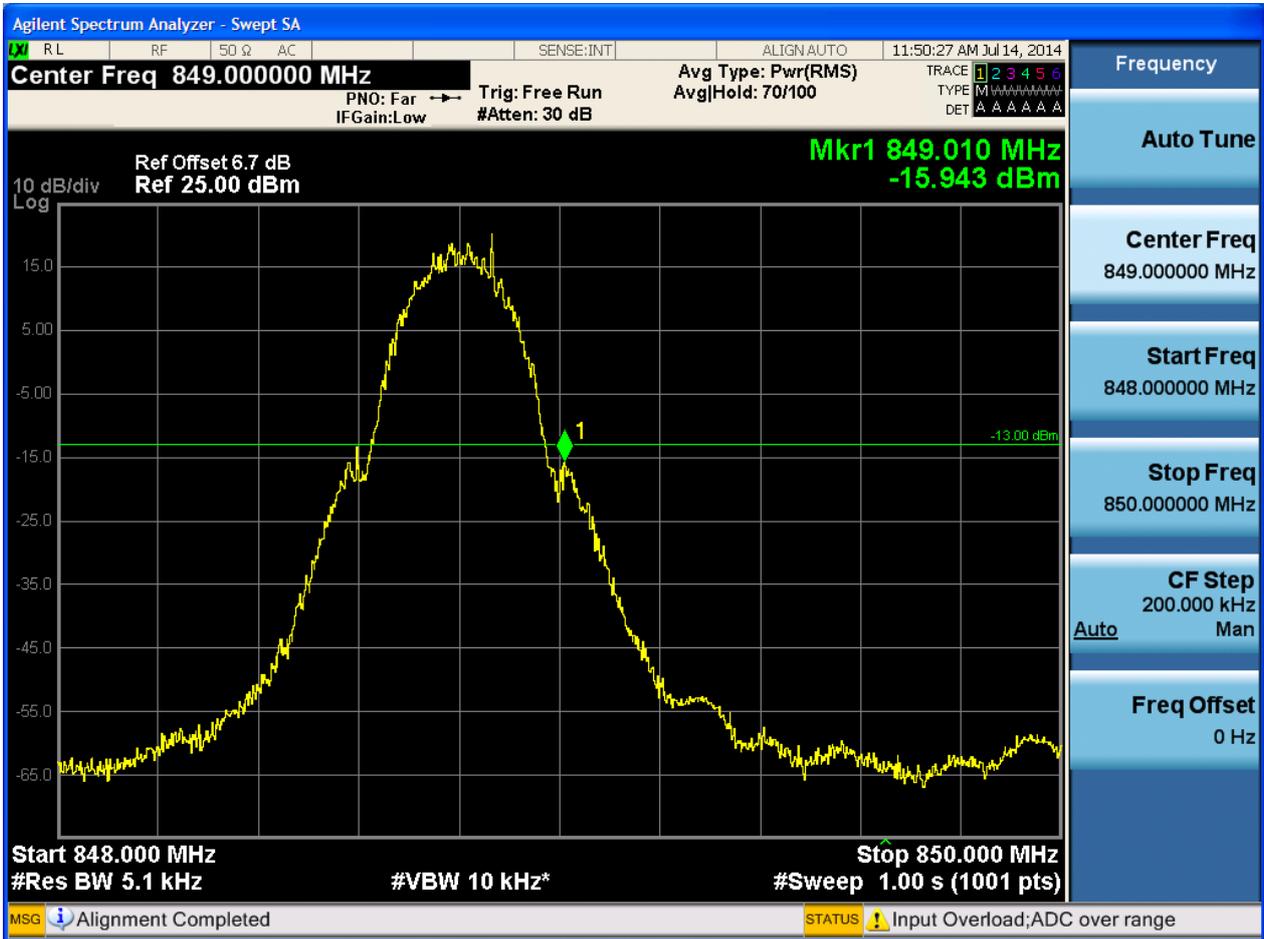




4.1.2.1.3 Test Channel = HCH



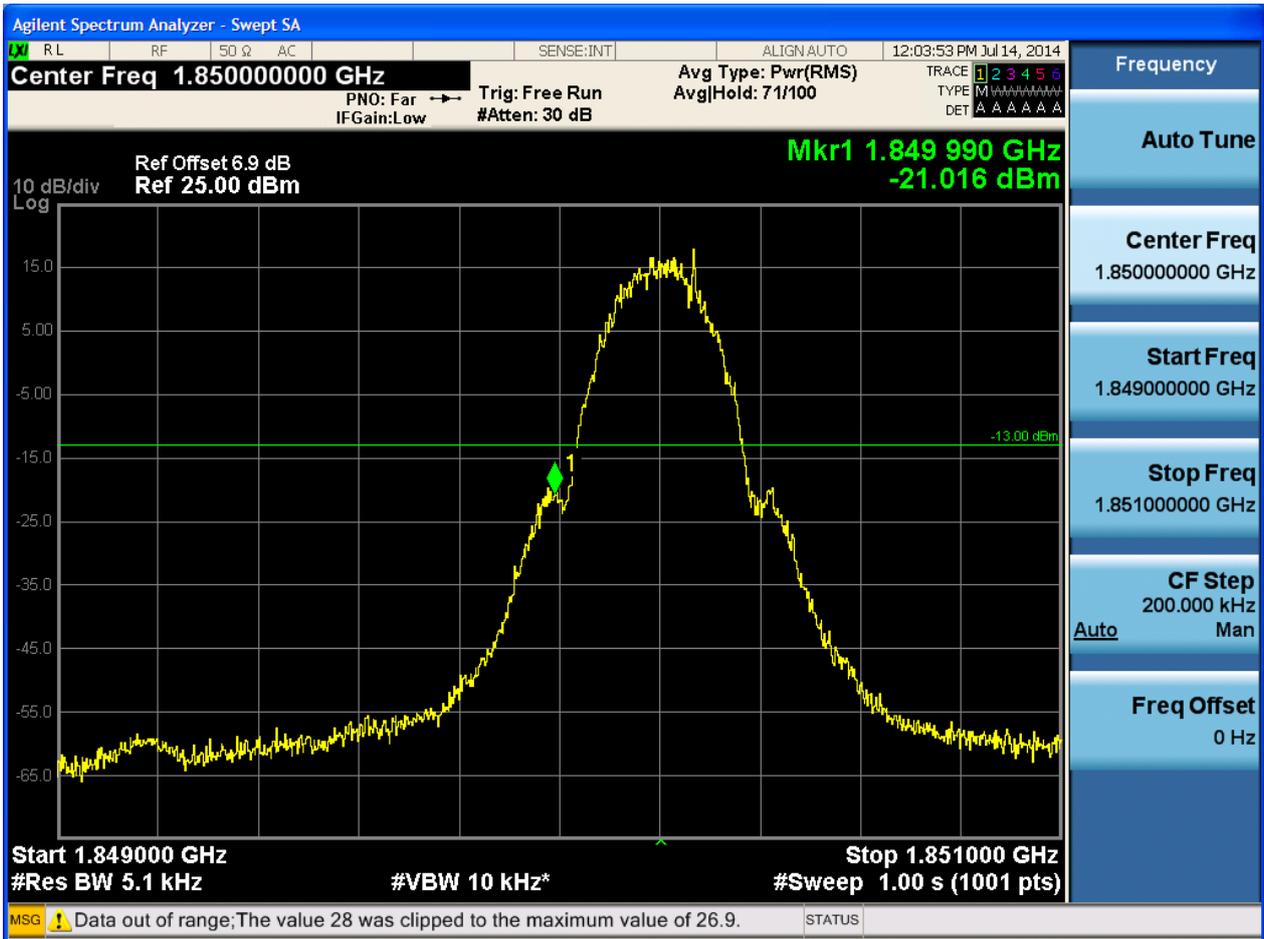
5.1.1.1.2 Test Channel = HCH



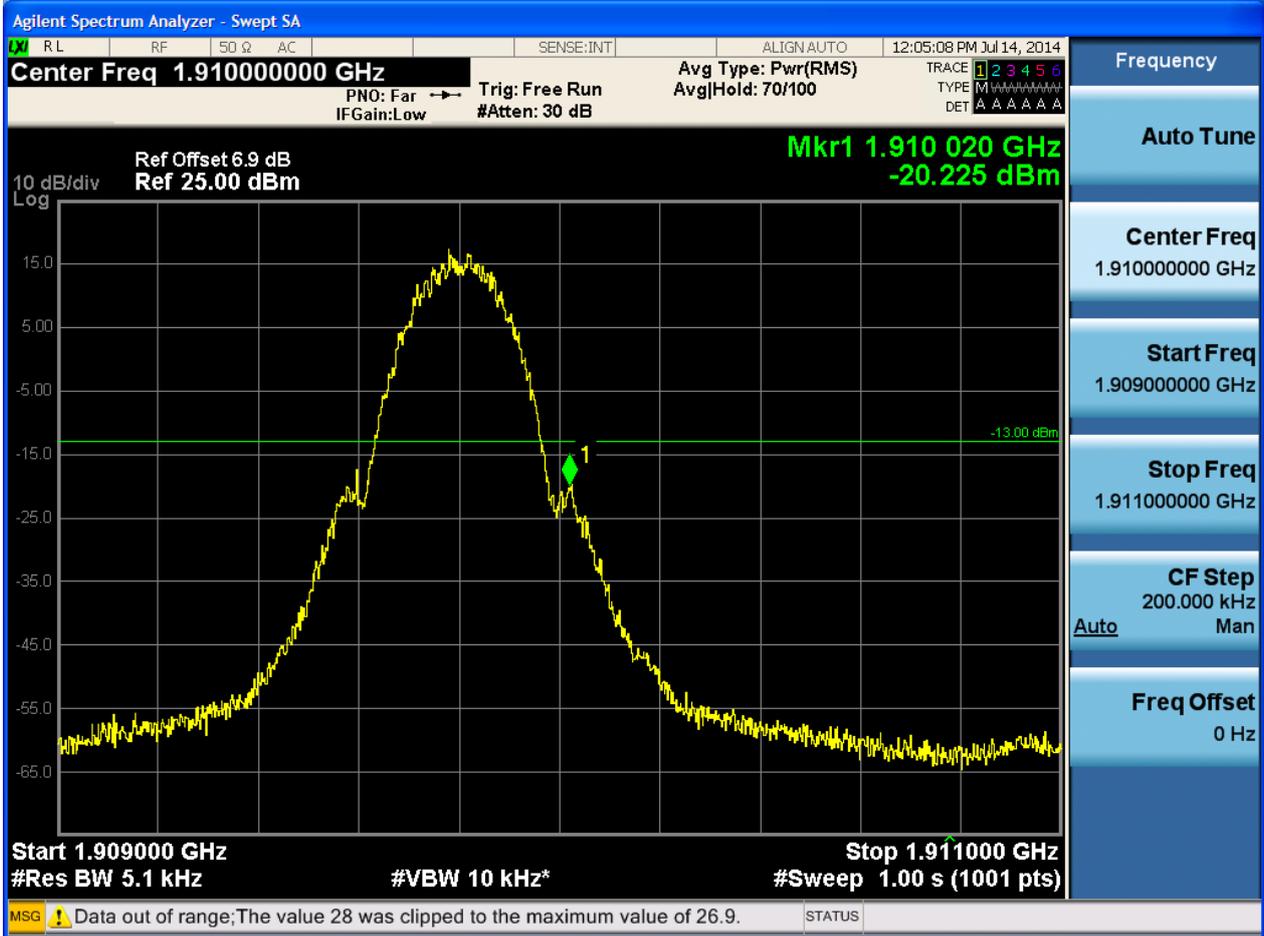
5.1.2 Test Band = GSM1900

5.1.2.1 Test Mode = GSM/TM1

5.1.2.1.1 Test Channel = LCH



5.1.2.1.2 Test Channel = HCH



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.

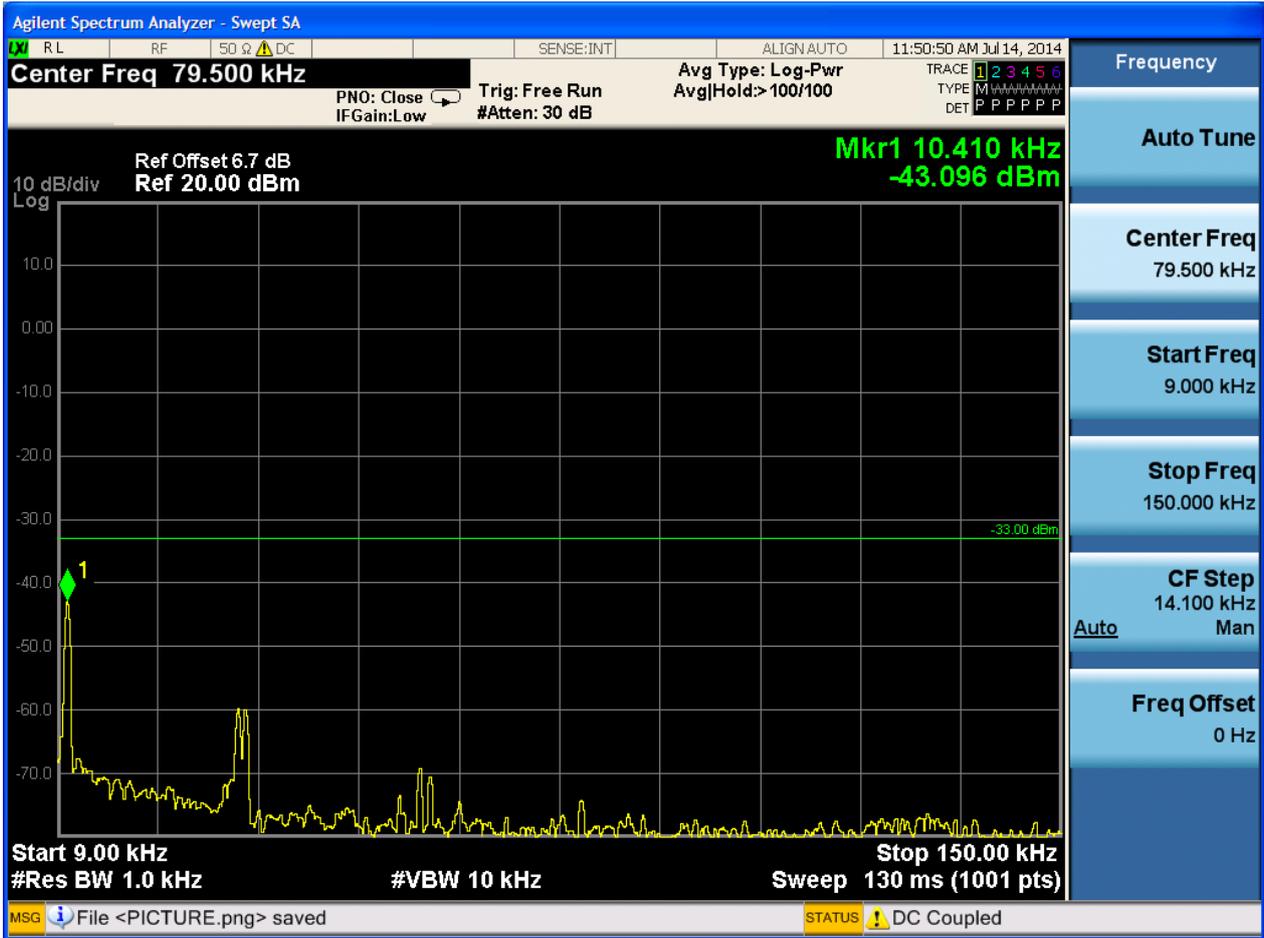
Part I - Test Plots

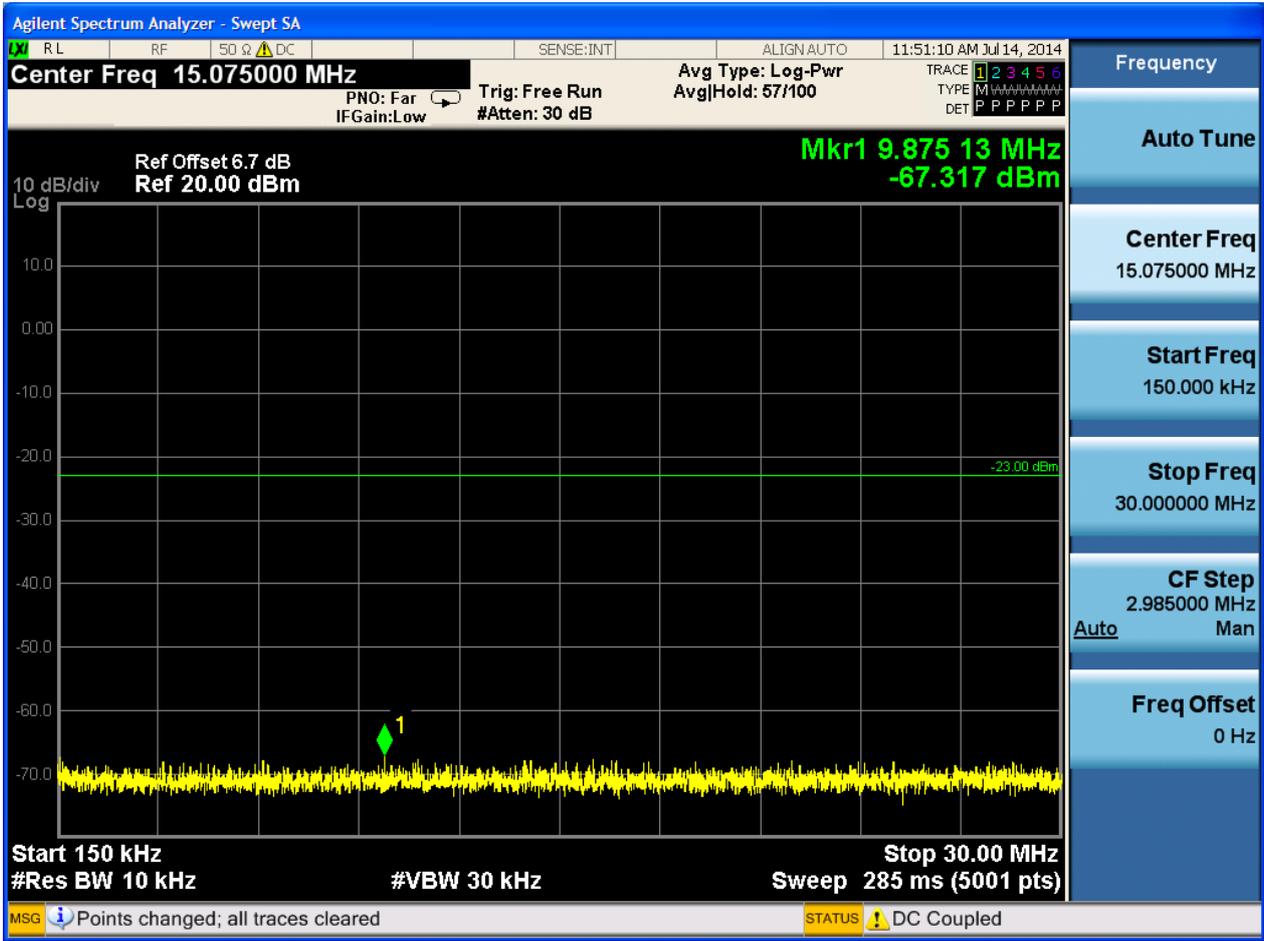
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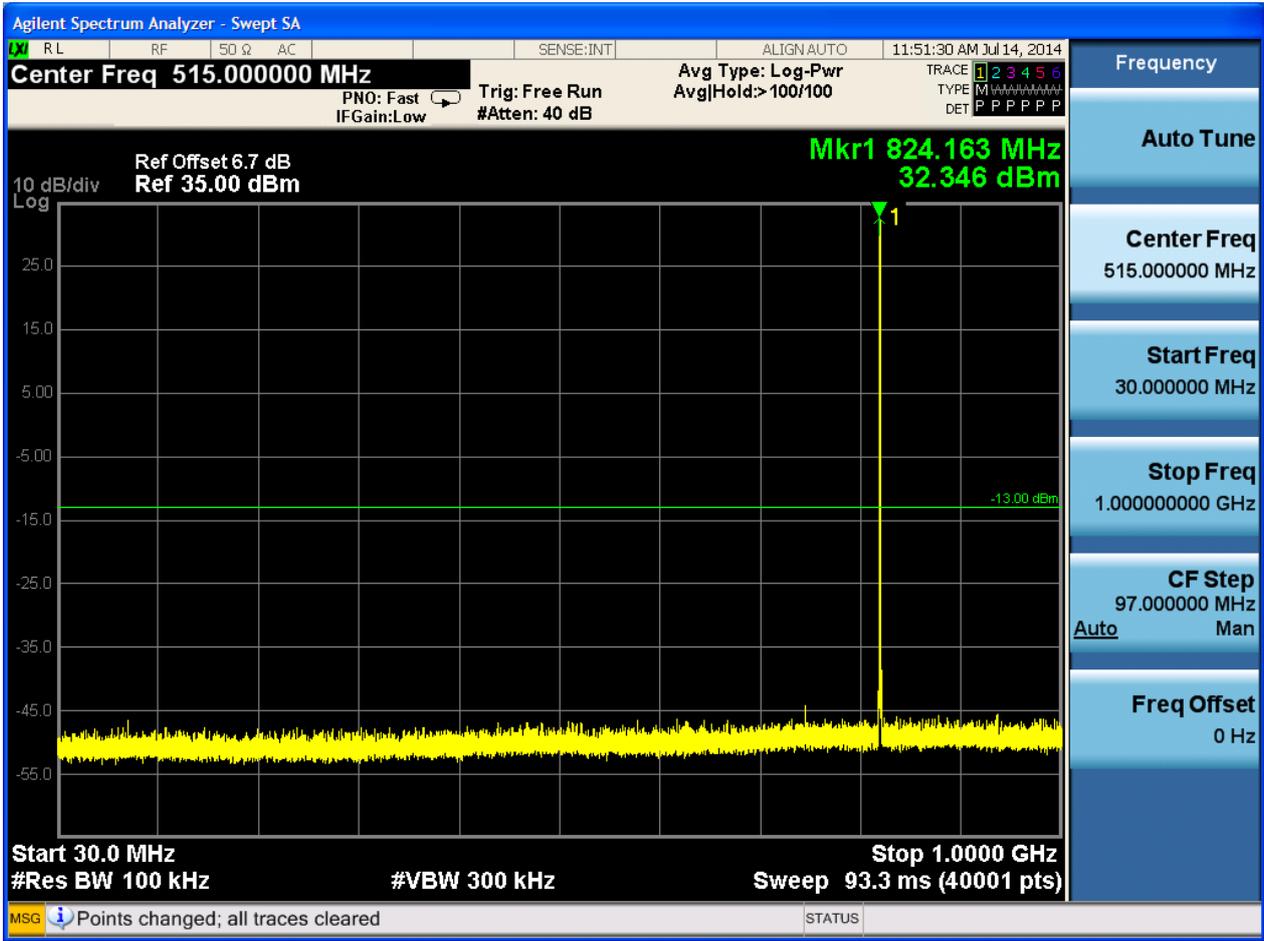
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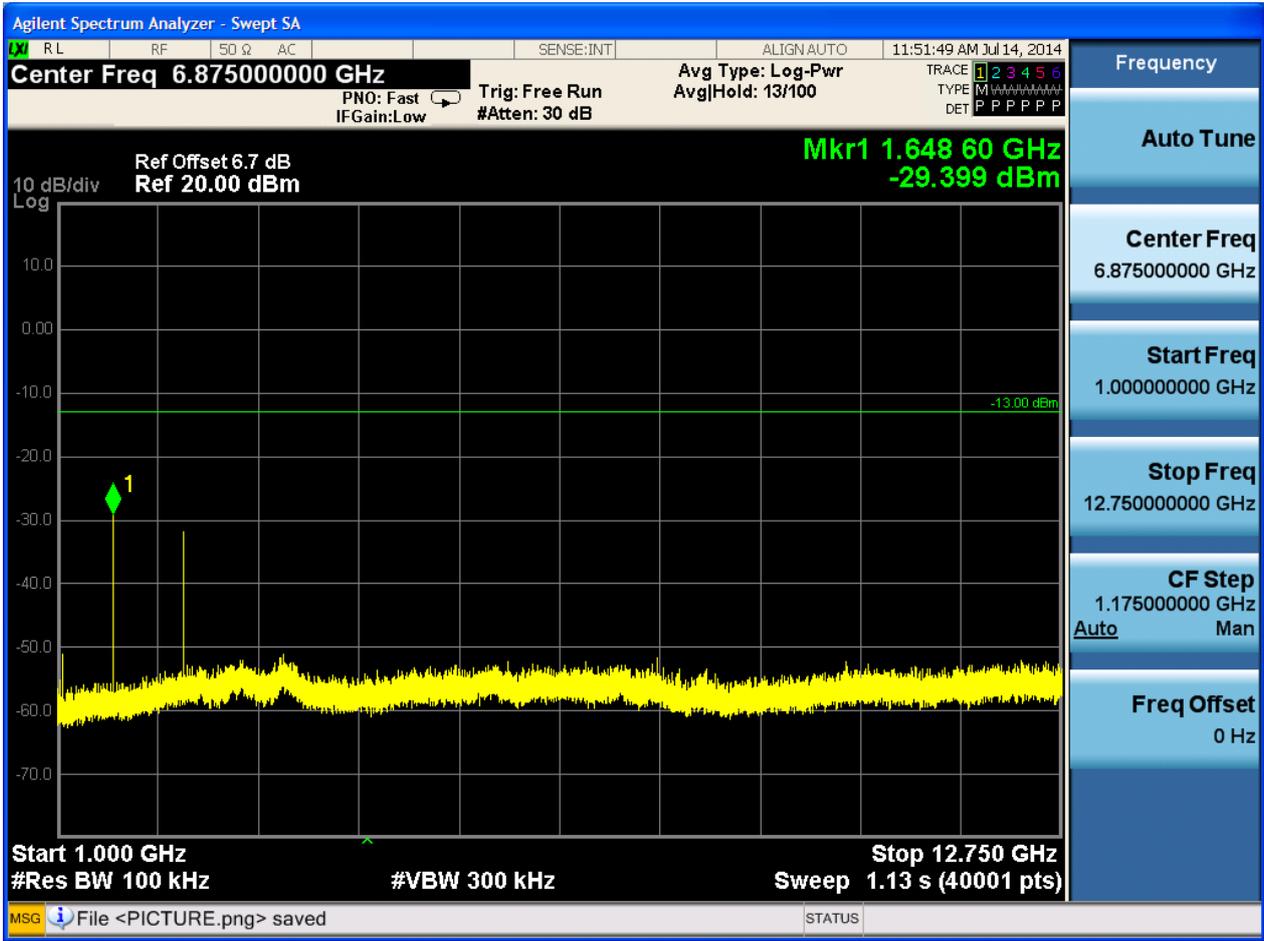
6.1.1.1 Test Mode = GSM/TM1

6.1.1.1.1 Test Channel = LCH

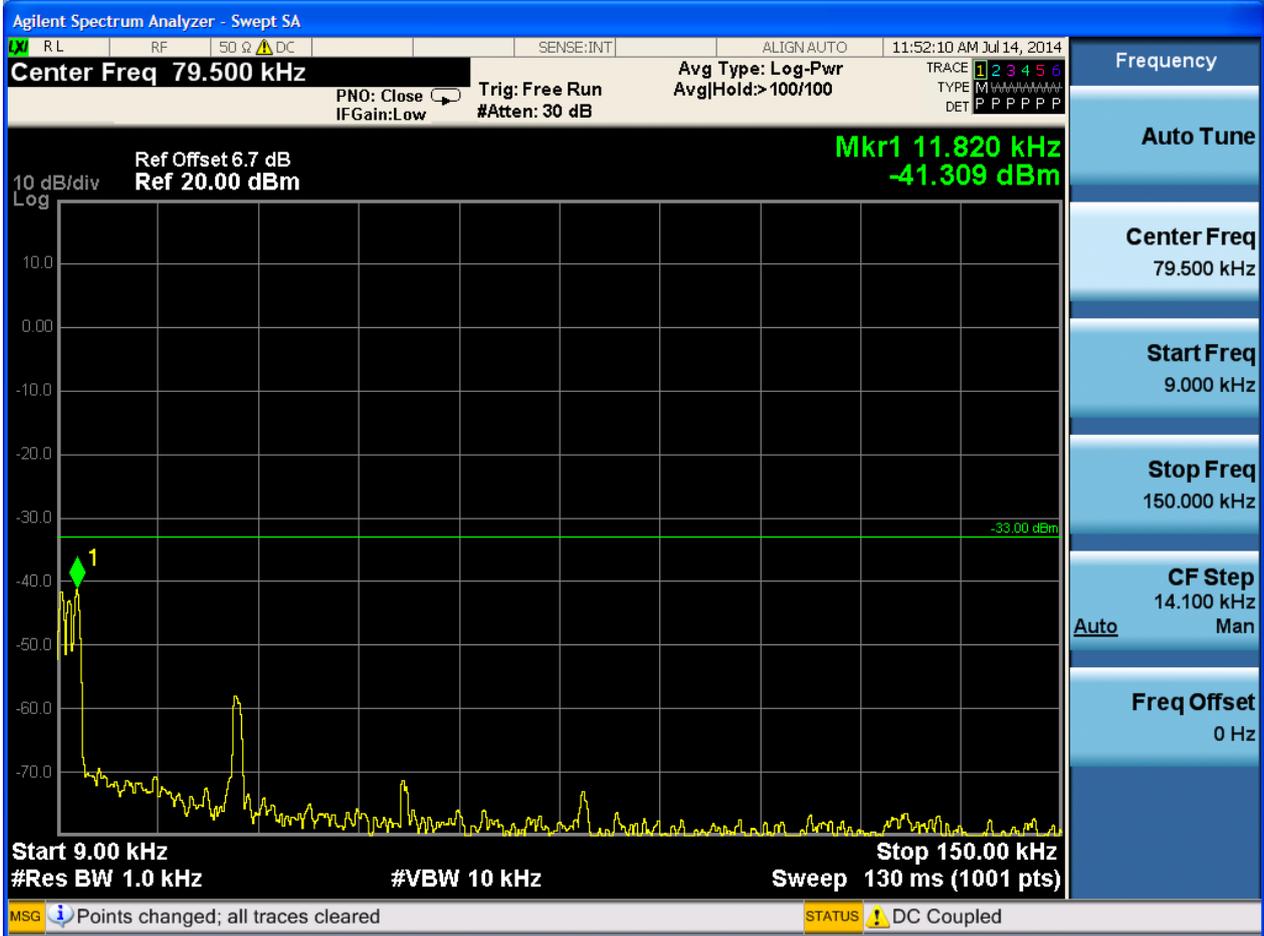


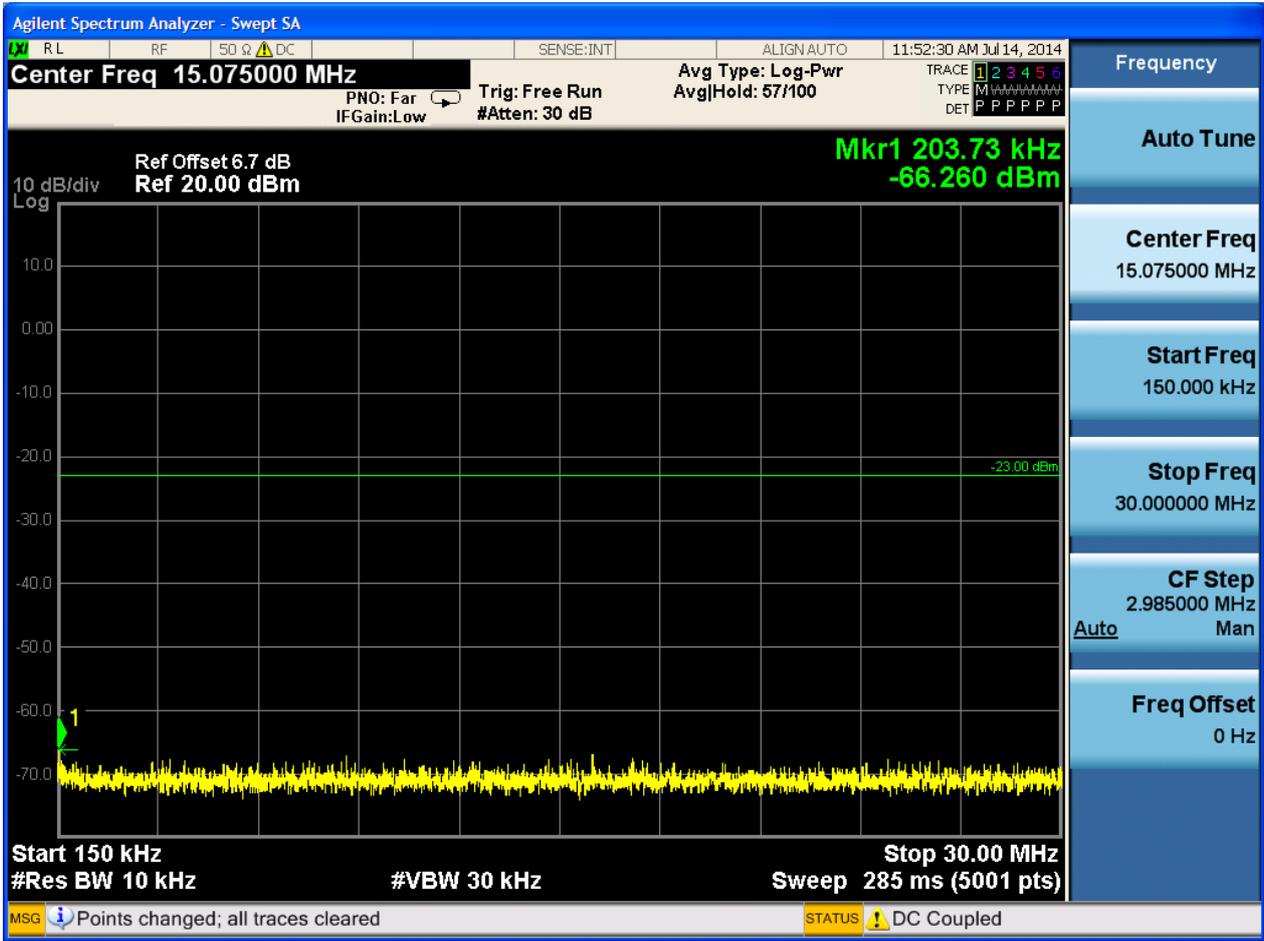


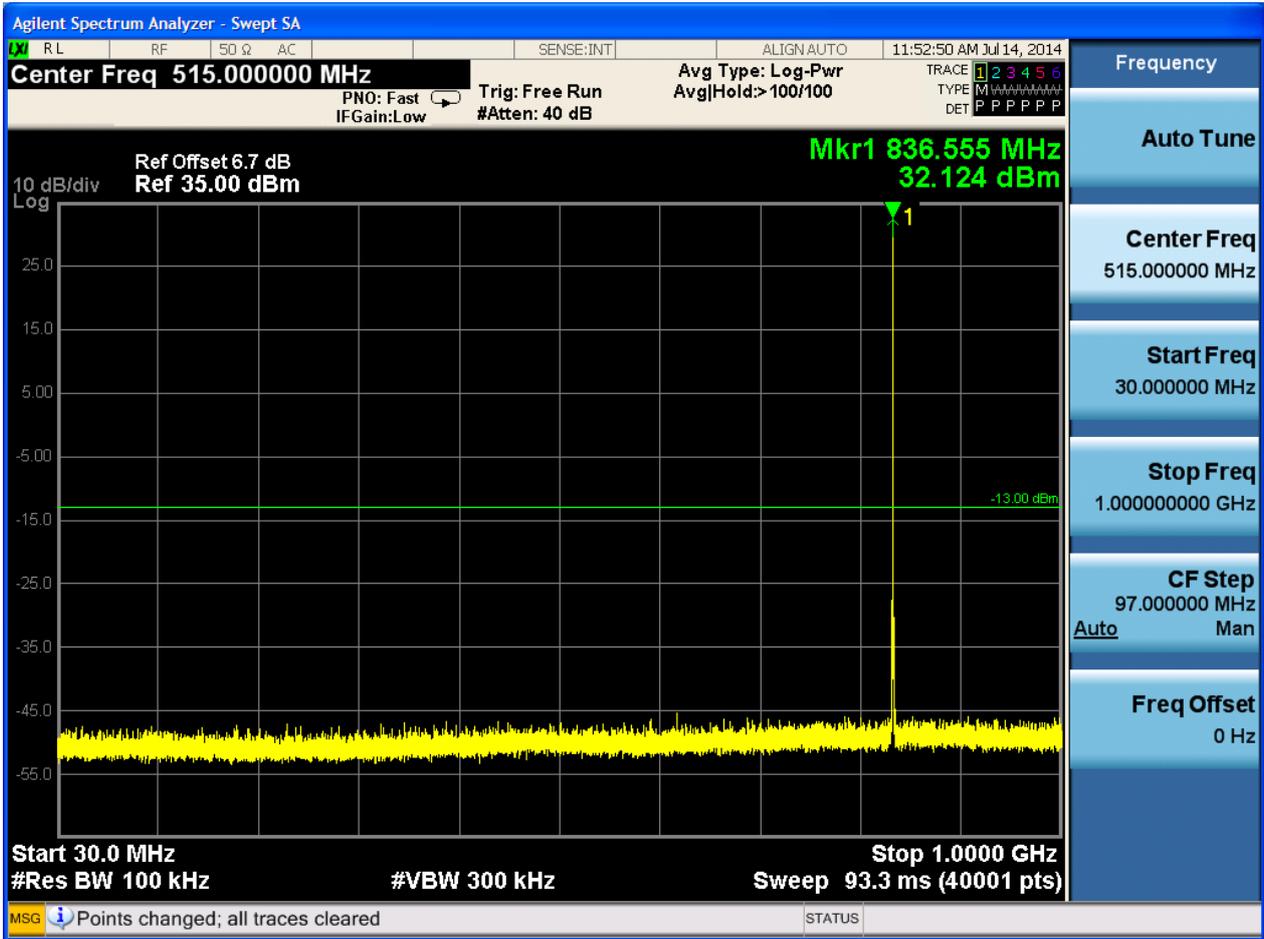


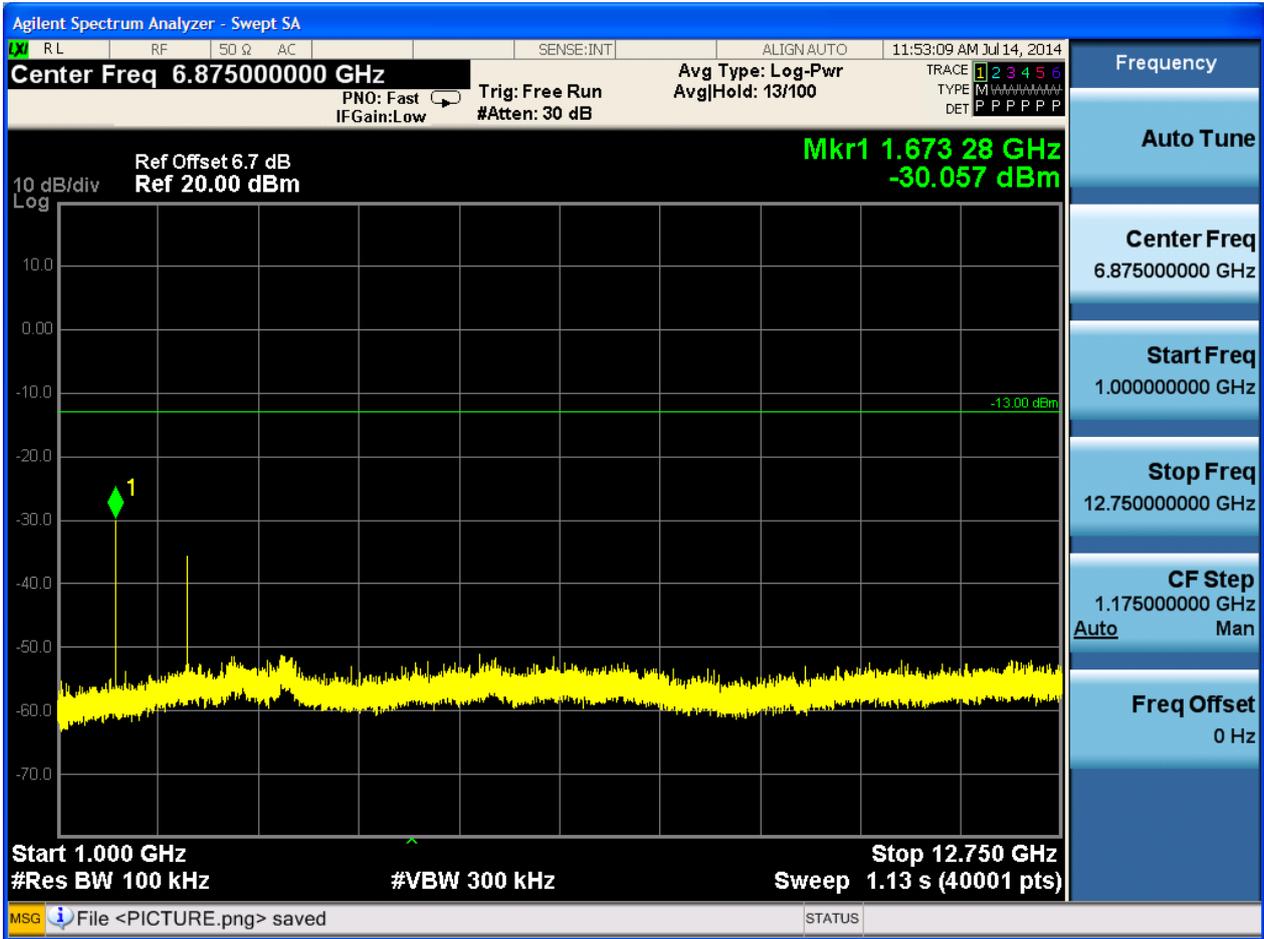


6.1.1.1.2 Test Channel = MCH

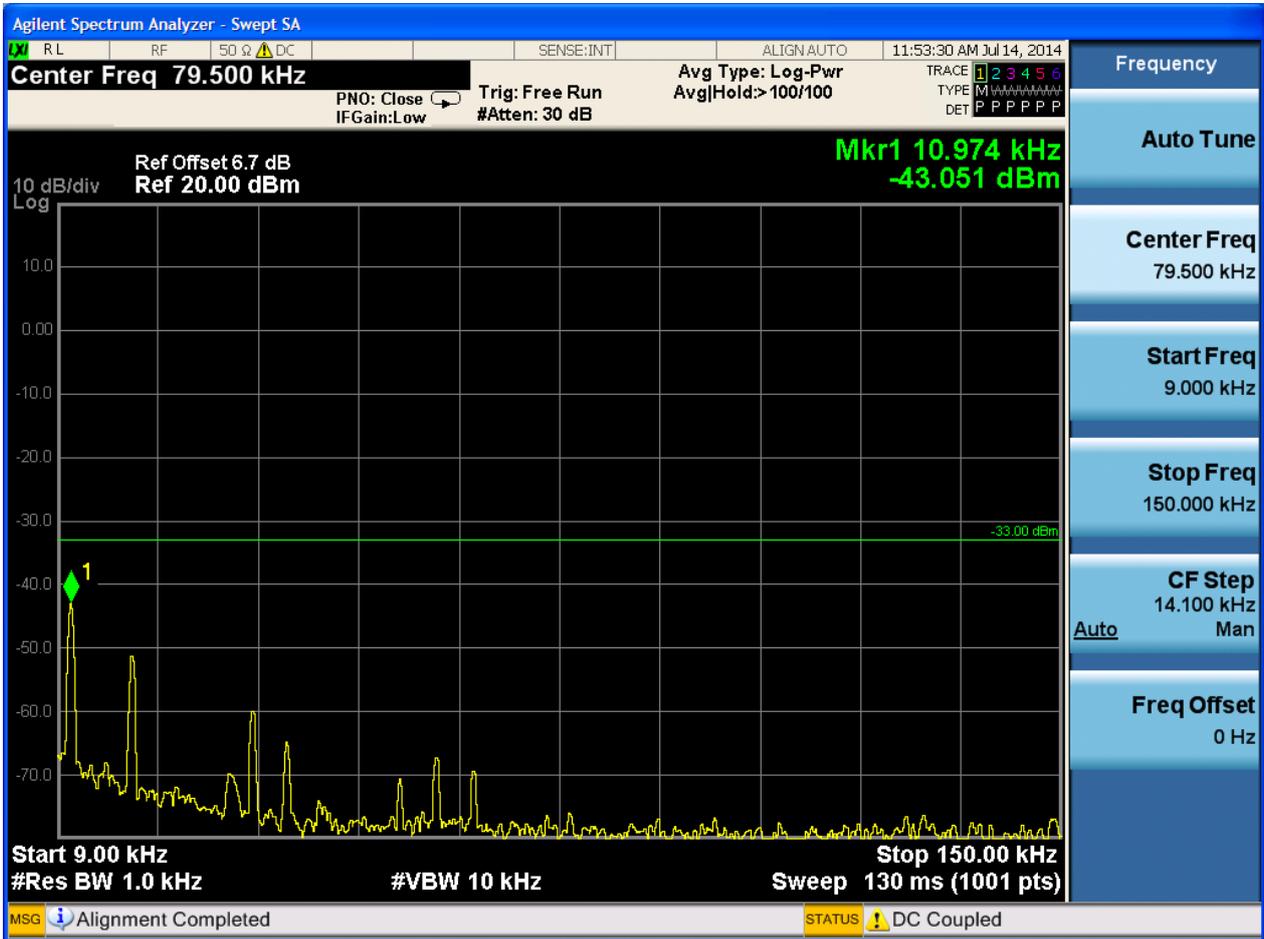


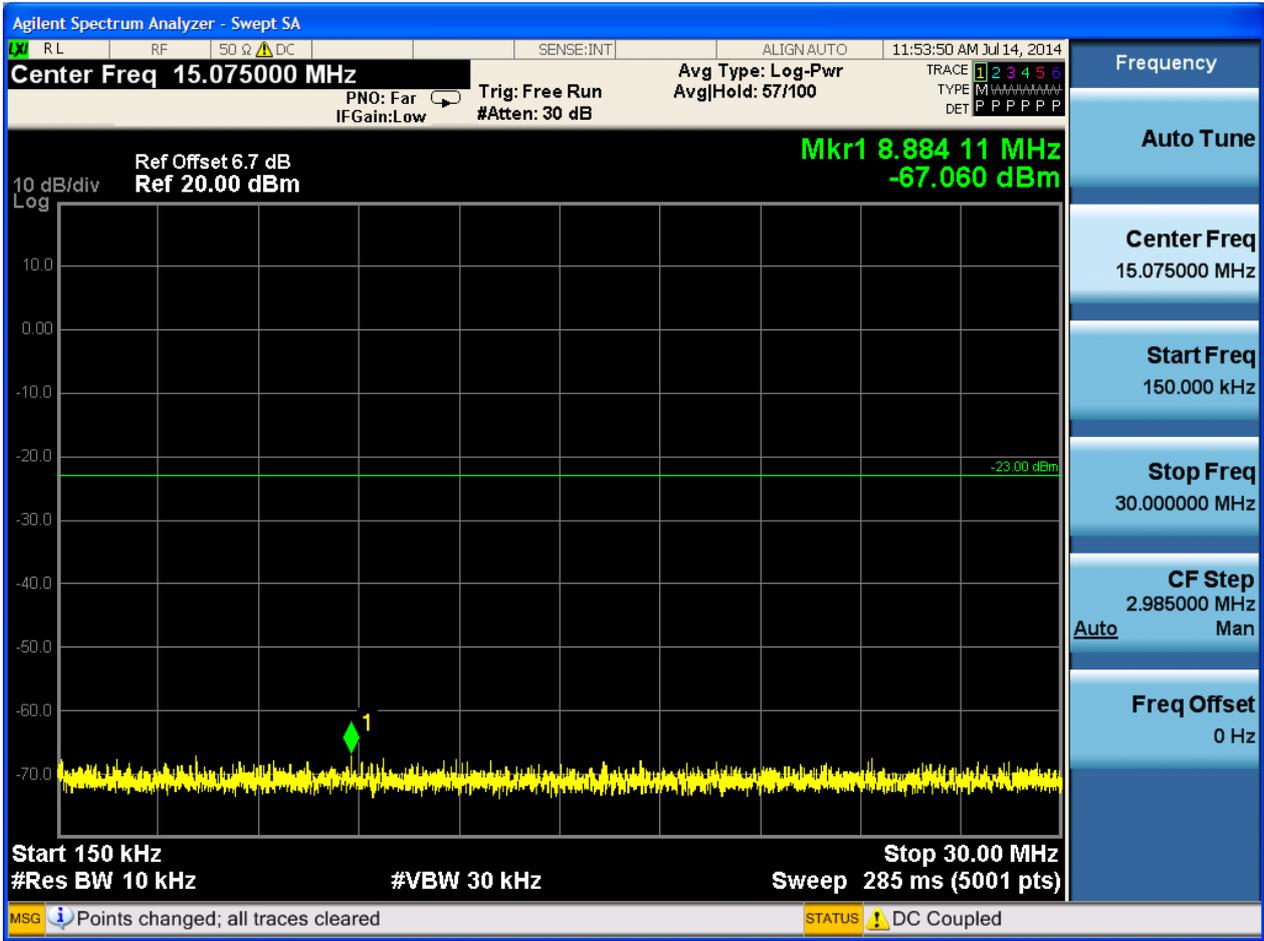


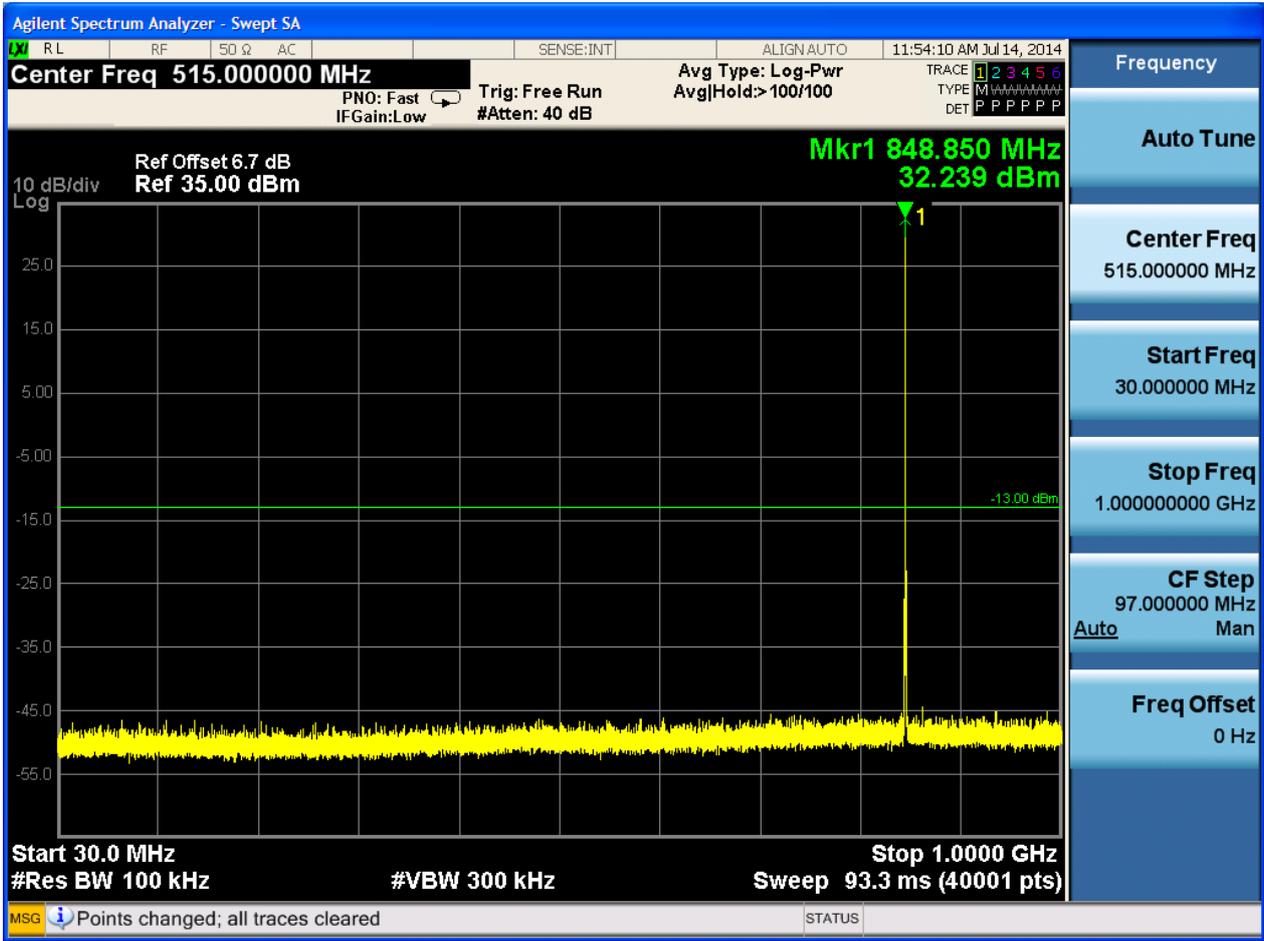


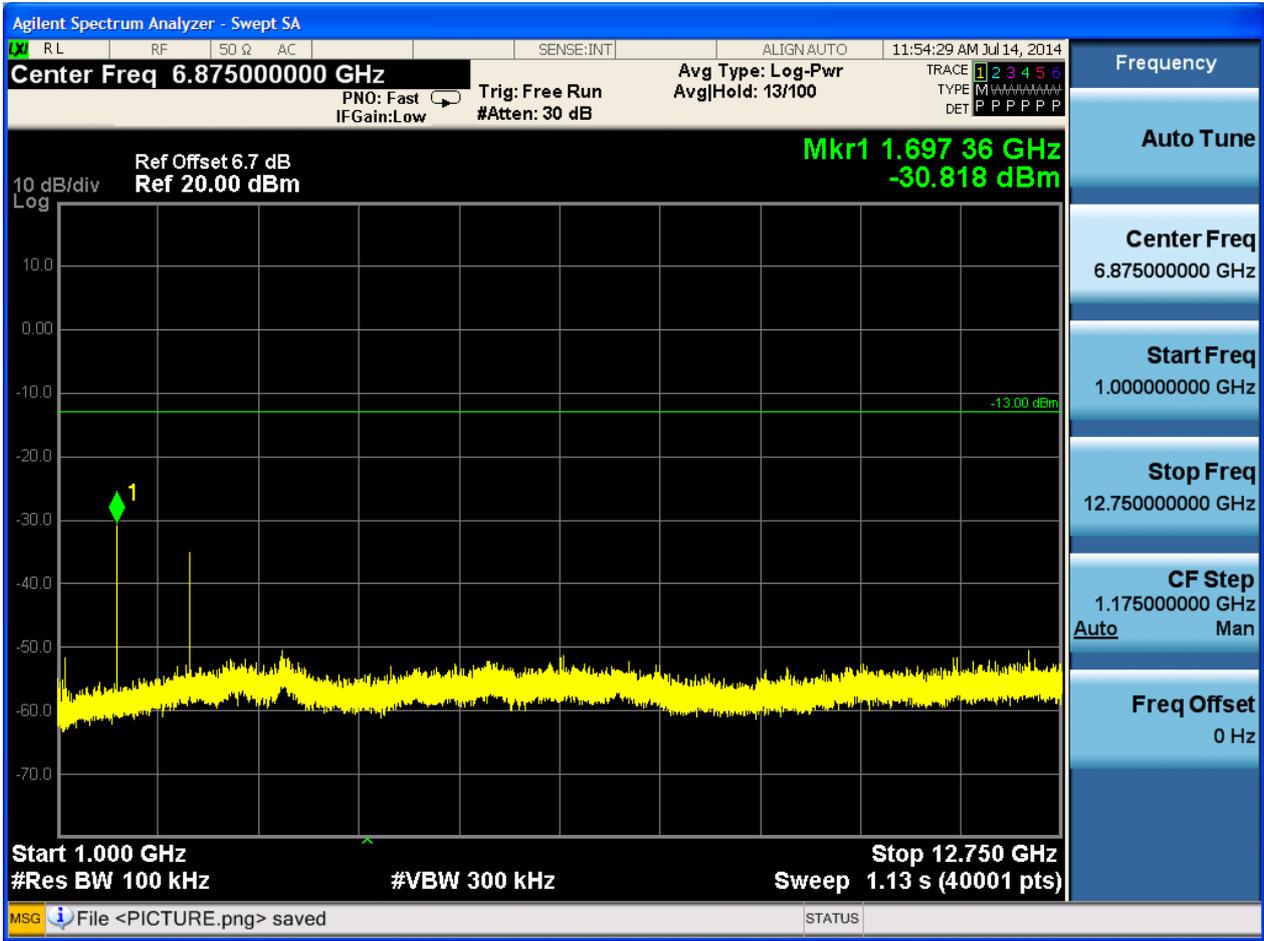


6.1.1.1.3 Test Channel = HCH









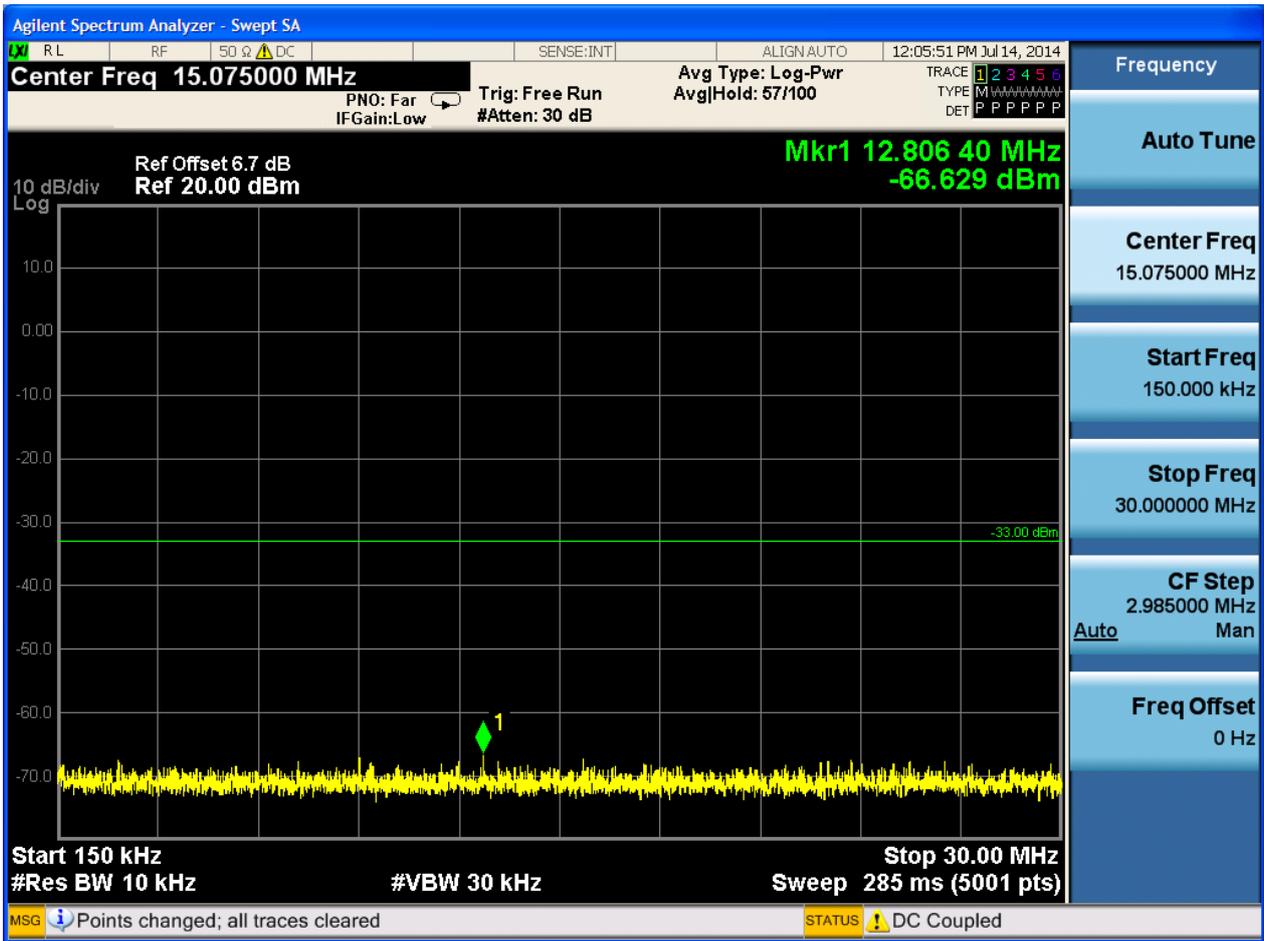


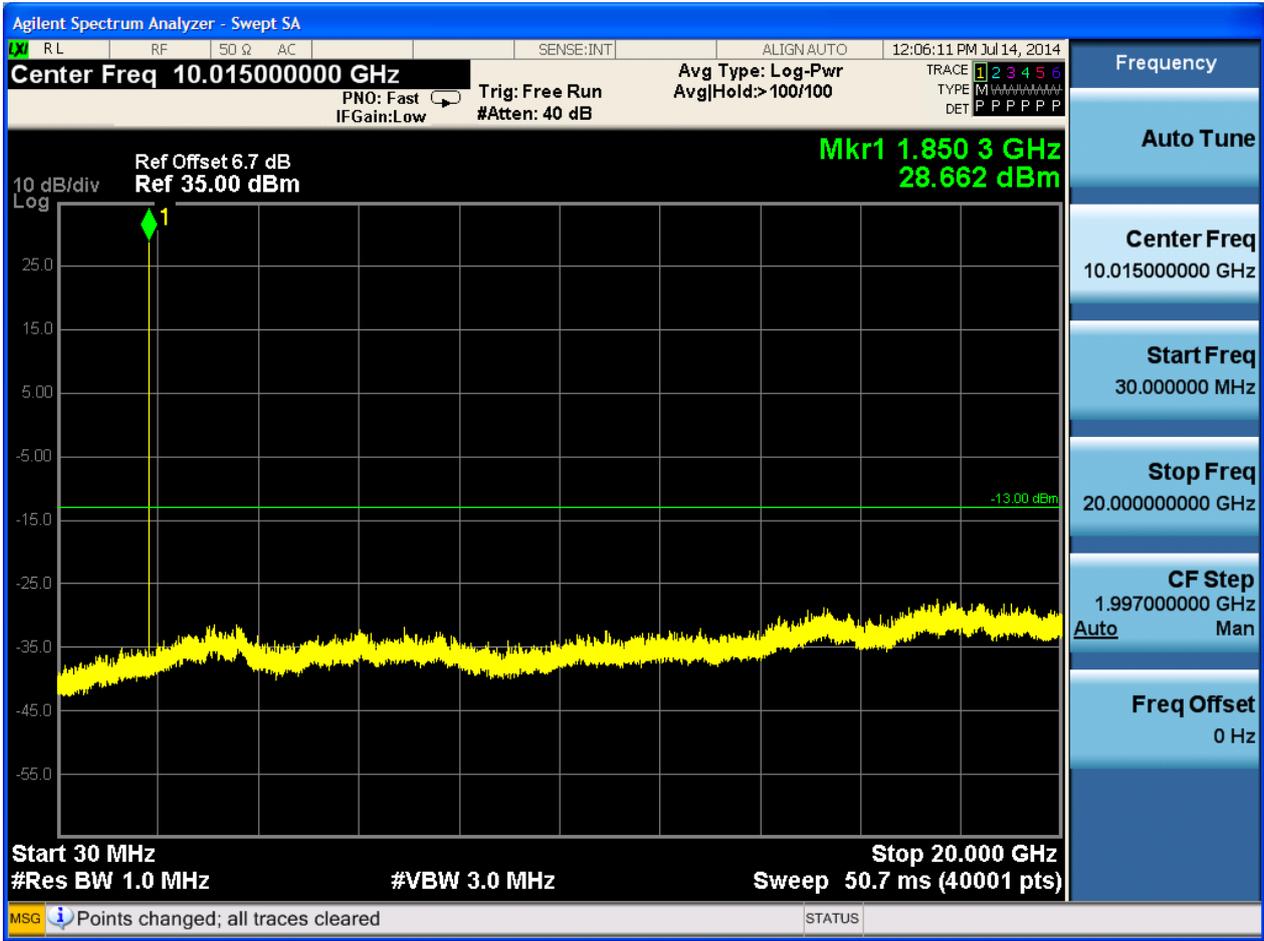
6.1.2 Test Band = GSM1900

6.1.2.1 Test Mode = GSM/TM1

6.1.2.1.1 Test Channel = LCH

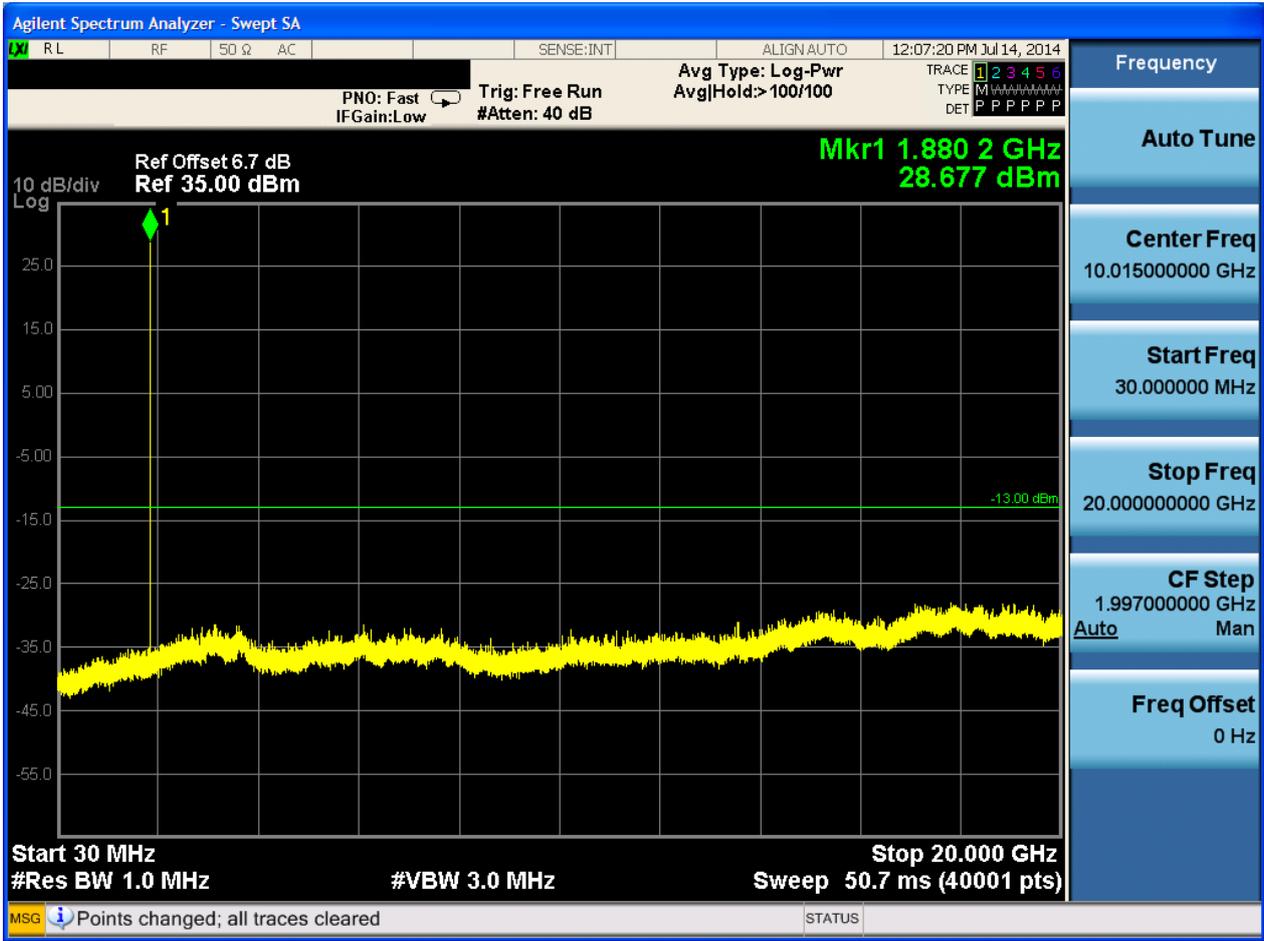






6.1.2.1.2 Test Channel = MCH







7Appendix_G: Field Strength of Spurious Radiation

Note:

9kHz~150kHz, VBW = 200Hz, VBW = 600 Hz, Detector: PK

150kHz~30MHz, VBW = 9kHz, VBW = 30k Hz, Detector: PK

30MHz~1GHz, RBW = 100 kHz, VBW = 300 kHz. Detector: PK

Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

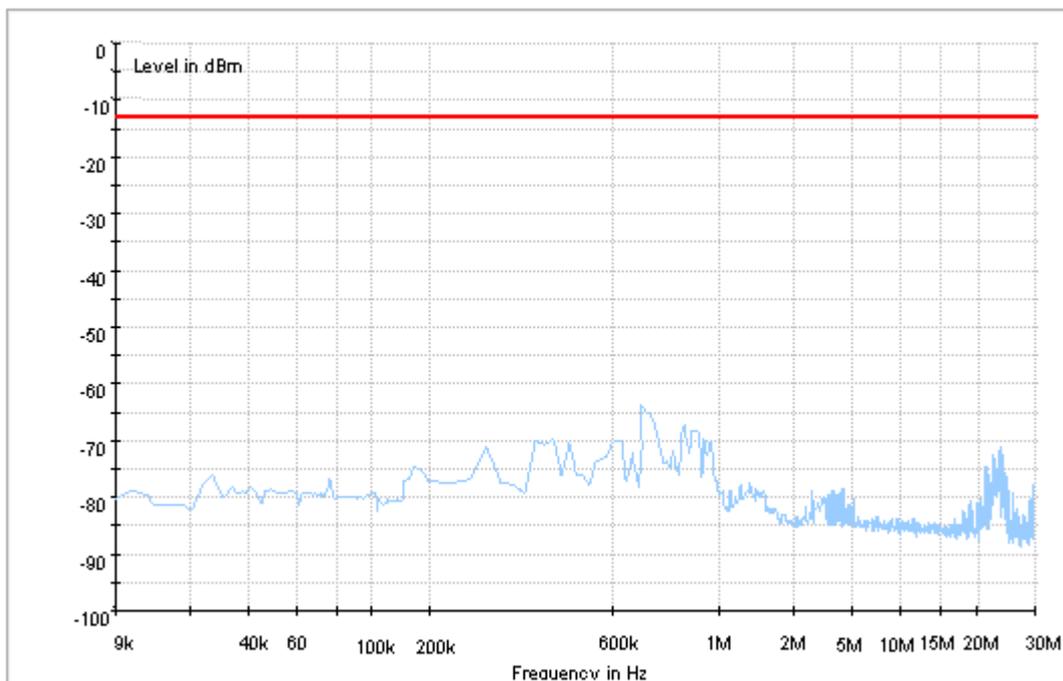
The F362 with FM and F362 without FM both tested , only the worst case show below:

Part I - Test Plots

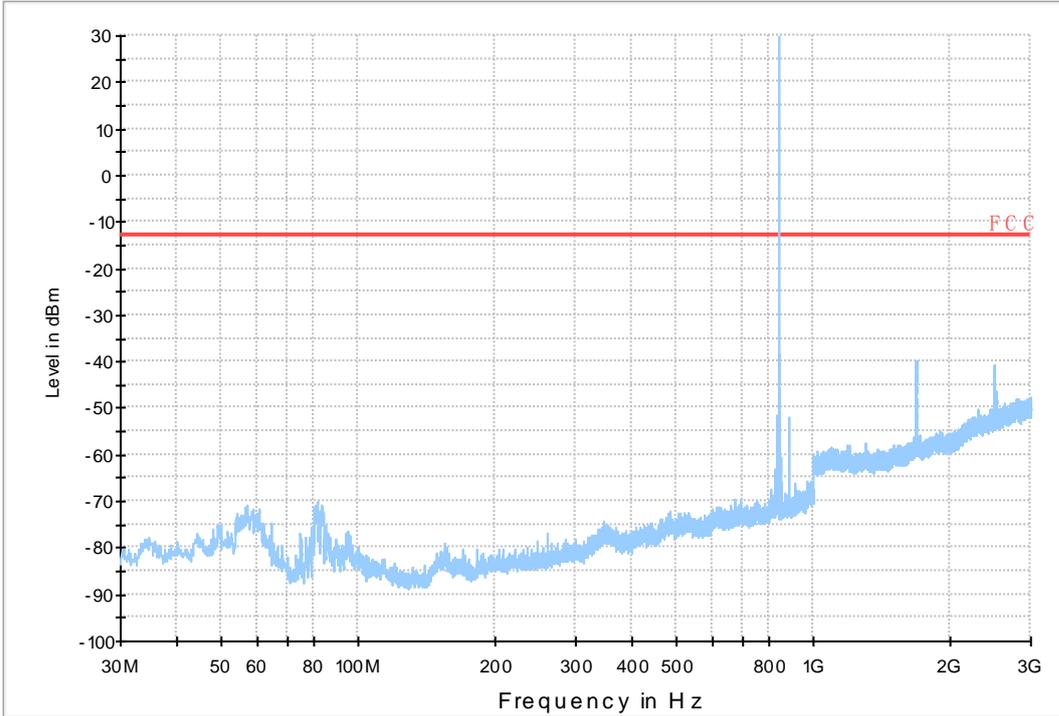
7.1 For GSM

7.1.1 Test Band = GSM850

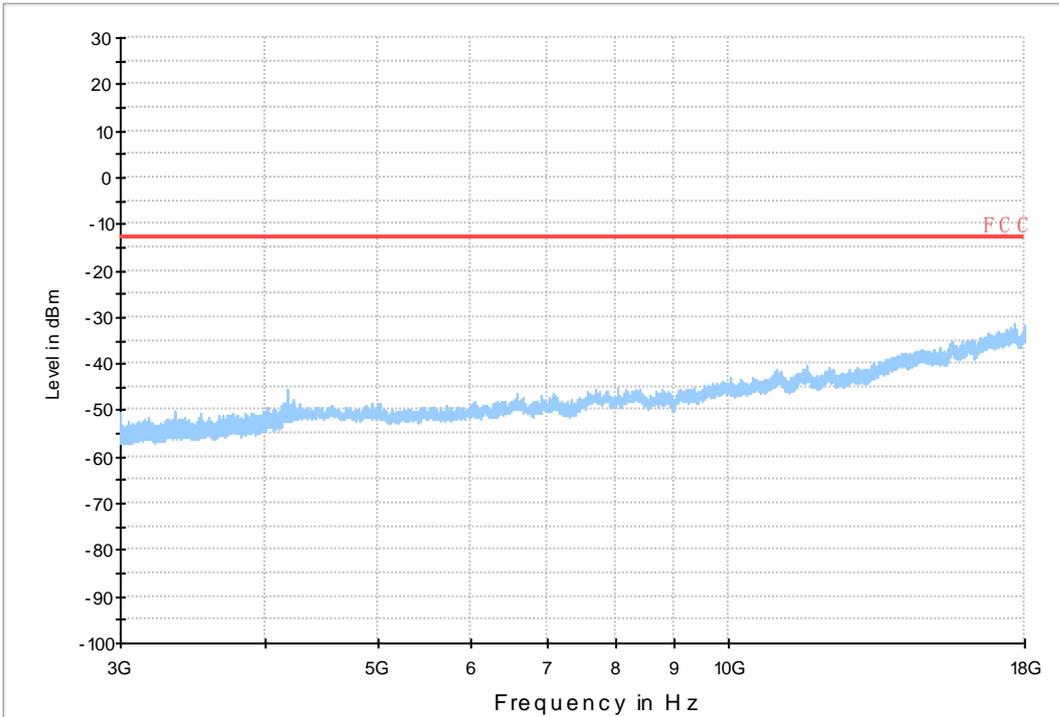
7.1.1.1 Test Mode = GSM/TM1



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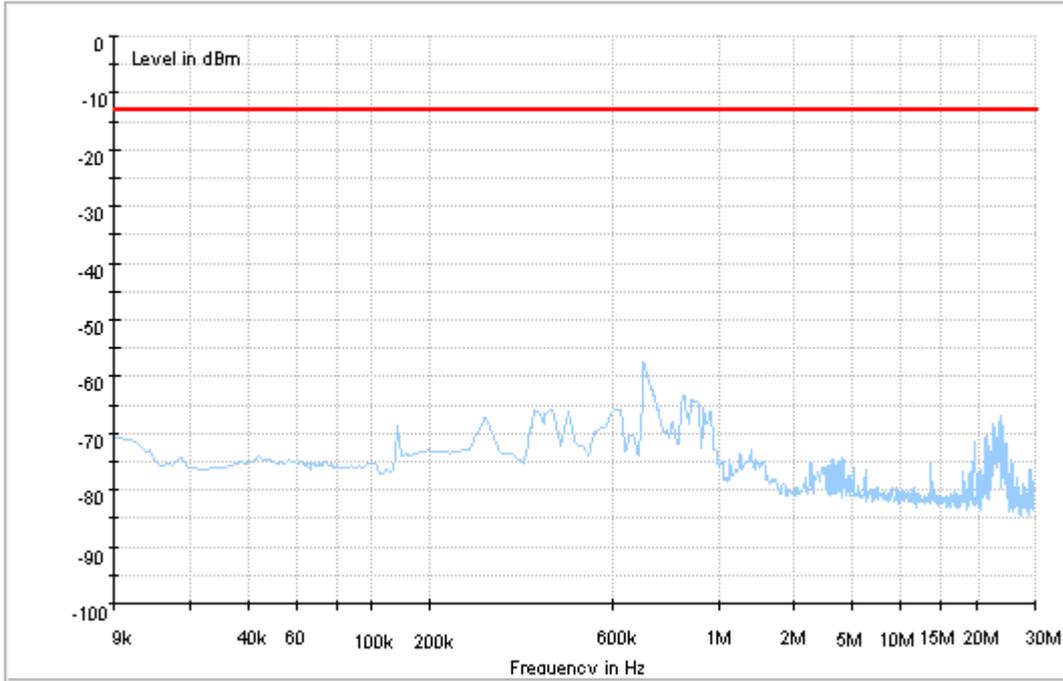


Copy of FCC PART22 GSM850_H

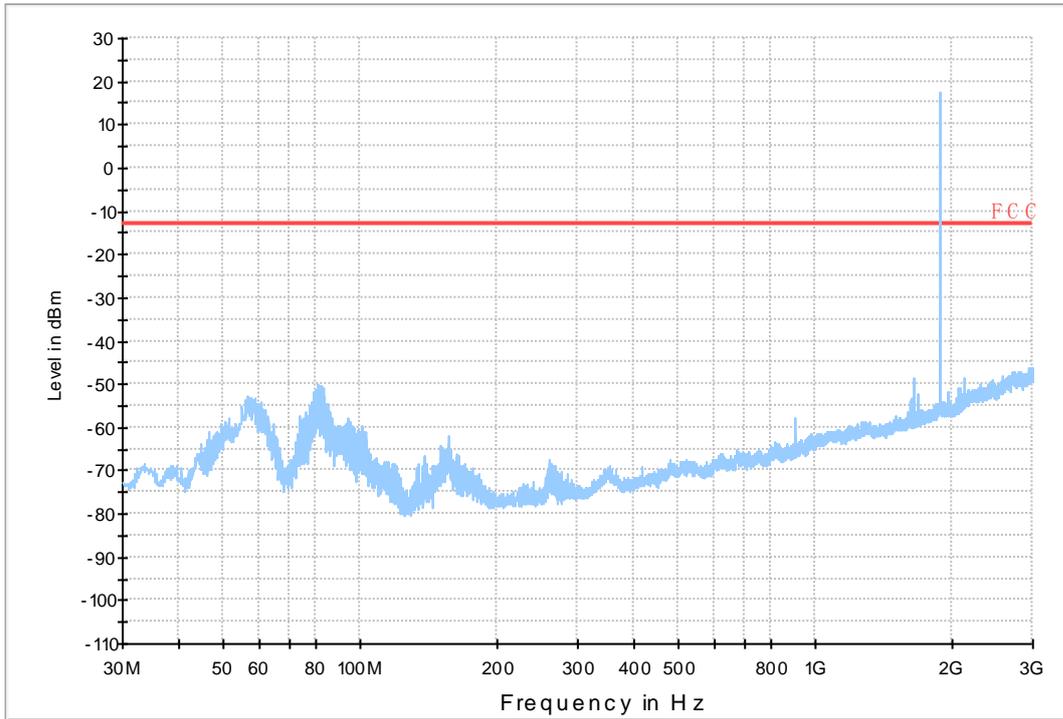


7.1.2 Test Band = GSM1900

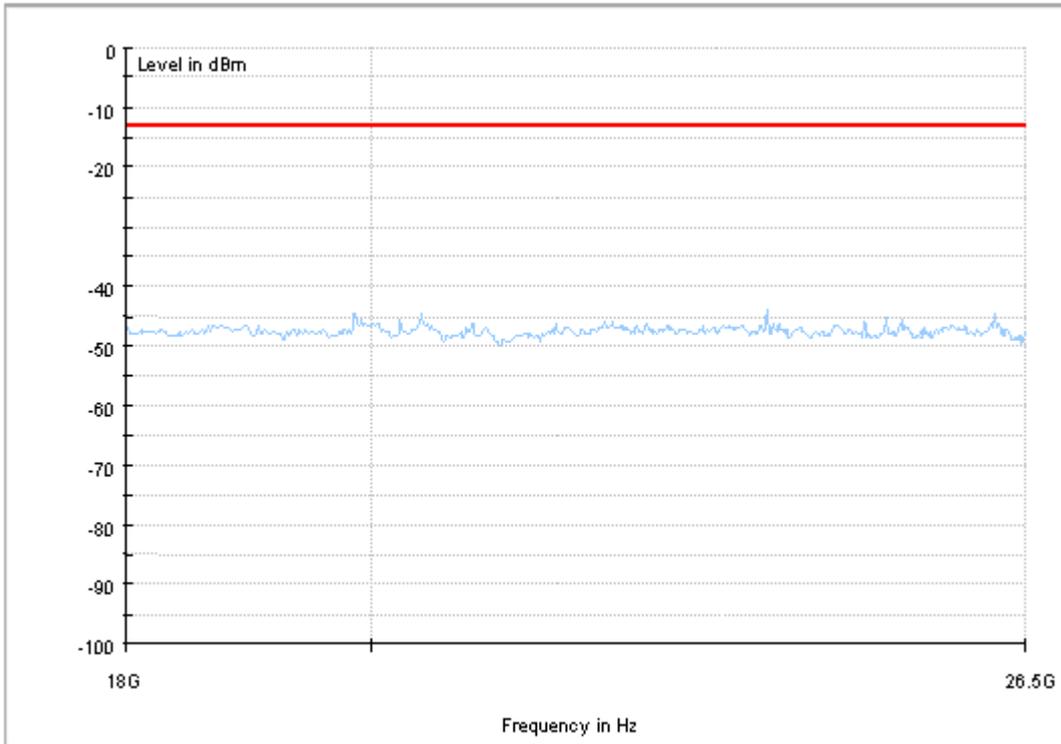
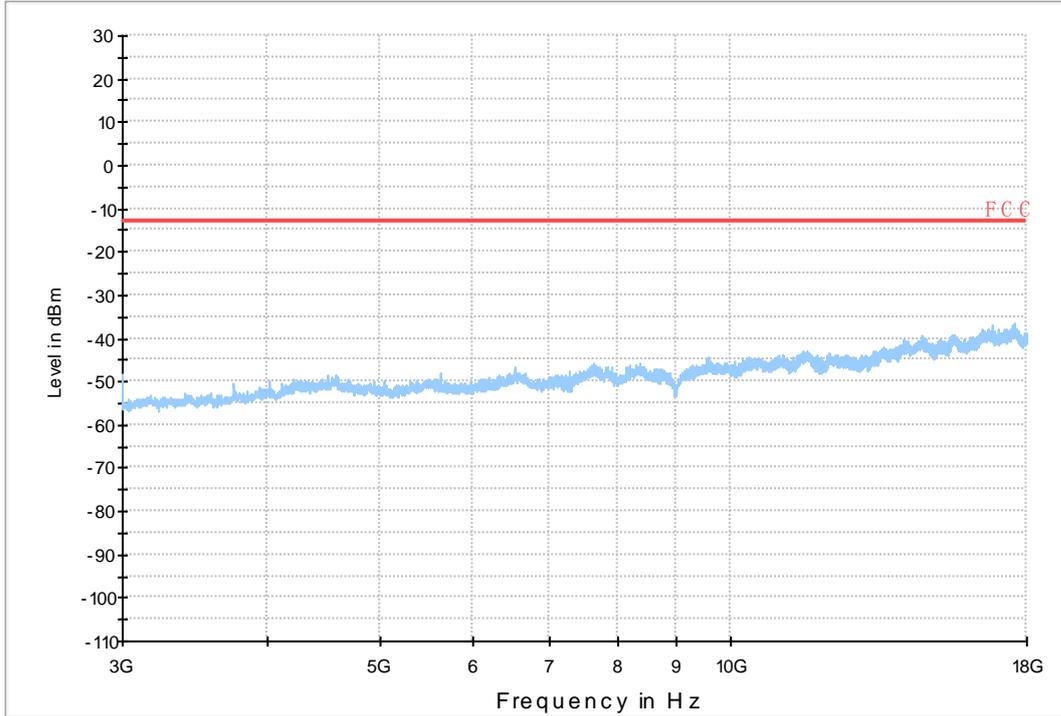
7.1.2.1 Test Mode = GSM/TM1



Copy of FCC PART 24 GSM1900_L



Copy of FCC PART24 GSM1900_H



8Appendix_H: Frequency Stability

8.1 For GSM

8.1.1Frequency Error vs. Voltage:

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
GSM850	GSM/TM1	LCH	TN	VL	-7.75	-0.0094	PASS
				VN	-7.1	-0.00861	PASS
				VH	17.31	0.021	PASS
		MCH	TN	VL	-22.6	-0.02701	PASS
				VN	-29.83	-0.03566	PASS
				VH	-0.32	-0.00038	PASS
		HCH	TN	VL	3.29	0.00388	PASS
				VN	0.39	0.00046	PASS
				VH	-6.72	-0.00792	PASS
GSM1900	GSM/TM1	LCH	TN	VL	6.72	0.00363	PASS
				VN	6.78	0.00366	PASS
				VH	-11.56	-0.00625	PASS
		MCH	TN	VL	-16.66	-0.00886	PASS
				VN	-5.36	-0.00285	PASS
				VH	-21.11	-0.01123	PASS
		HCH	TN	VL	3.81	0.00199	PASS
				VN	-37.19	-0.01947	PASS
				VH	-36.35	-0.01903	PASS

8.1.2Frequency Error vs. Temperature:

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
GSM850	GSM/TM1	LCH	VN	-30	3.49	0.00423	PASS
				-20	3.55	0.00431	PASS
				-10	-5.81	-0.00705	PASS
				0	-8.33	-0.01011	PASS
				10	-9.94	-0.01206	PASS
				20	-7.81	-0.00948	PASS
				30	-4.39	-0.00533	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				40	3.29	0.00399	PASS
				50	-28.15	-0.03415	PASS
		MCH	VN	-30	6.59	0.00788	PASS
				-20	-4.71	-0.00563	PASS
				-10	-7.49	-0.00895	PASS
				0	-3.81	-0.00455	PASS
				10	-11.56	-0.01382	PASS
				20	-9.04	-0.01081	PASS
				30	-0.13	-0.00016	PASS
				40	-16.98	-0.0203	PASS
				50	-11.3	-0.01351	PASS
				HCH	VN	-30	-9.36
		-20	-14.79			-0.01742	PASS
		-10	-16.66			-0.01963	PASS
		0	-5.94			-0.007	PASS
		10	-2.91			-0.00343	PASS
		20	9.75			0.01149	PASS
		30	11.24			0.01324	PASS
		40	-7.62			-0.00898	PASS
		50	-2.65	-0.00312	PASS		
GSM1900	GSM/TM1	LCH	VN	-30	5.36	0.0029	PASS
				-20	32.03	0.01731	PASS
				-10	-37.45	-0.02024	PASS
				0	-8.98	-0.00485	PASS
				10	7.88	0.00426	PASS
				20	-15.82	-0.00855	PASS
				30	-45.2	-0.02443	PASS
				40	-28.09	-0.01518	PASS
		50	-1.49	-0.00081	PASS		
		MCH	VN	-30	-12.98	-0.0069	PASS
				-20	-11.04	-0.00587	PASS
				-10	-6.01	-0.0032	PASS
				0	-28.54	-0.01518	PASS
				10	-20.79	-0.01106	PASS
				20	-26.86	-0.01429	PASS
				30	-1.23	-0.00065	PASS
				40	-47.59	-0.02531	PASS
		50	-16.27	-0.00865	PASS		
		HCH	VN	-30	-29.25	-0.01532	PASS
				-20	-33.96	-0.01778	PASS



Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				-10	-33.13	-0.01735	PASS
				0	-50.69	-0.02654	PASS
				10	-28.67	-0.01501	PASS
				20	-30.03	-0.01572	PASS
				30	-29.06	-0.01522	PASS
				40	-20.79	-0.01089	PASS
				50	-32.41	-0.01697	PASS

END