



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	32.89	26.87	38.5	PASS
		MCH	32.9	26.85	38.5	PASS
		HCH	32.91	26.89	38.5	PASS
	GSM/TM2	LCH	27.21	21.15	38.5	PASS
		MCH	27.23	21.12	38.5	PASS
		HCH	27.19	21.17	38.5	PASS
WCDMA850	UMTS/TM1	LCH	23.6	17.55	38.5	PASS
		MCH	23.55	17.42	38.5	PASS
		HCH	23.51	17.48	38.5	PASS

Test Band	Test Mode	Test Channel	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
GSM1900	GSM/TM1	LCH	29.72	29.45	33	PASS
		MCH	29.68	29.33	33	PASS
		HCH	29.74	29.41	33	PASS
	GSM/TM2	LCH	25.89	25.53	33	PASS
		MCH	25.92	25.67	33	PASS
		HCH	25.89	25.55	33	PASS
WCDMA1900	UMTS/TM1	LCH	23.38	23.02	33	PASS
		MCH	23.43	23.11	33	PASS
		HCH	23.34	23.05	33	PASS
WCDMA1700	UMTS/TM1	LCH	23.48	24.85	33	PASS
		MCH	23.21	24.71	33	PASS
		HCH	23.29	24.81	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: $RBW > \text{emission bandwidth}$, $VBW > 3 \times RBW$.

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	0.17	13	PASS
		MCH	0.17	13	PASS
		HCH	0.16	13	PASS
	GSM/TM2	LCH	2.94	13	PASS
		MCH	2.95	13	PASS
		HCH	3.05	13	PASS
GSM1900	GSM/TM1	LCH	0.15	13	PASS
		MCH	0.14	13	PASS
		HCH	0.13	13	PASS
	GSM/TM2	LCH	3.31	13	PASS
		MCH	3.16	13	PASS
		HCH	3.27	13	PASS
Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
WCDMA850	UMTS/TM1	LCH	2.63	13	PASS
		MCH	2.63	13	PASS
		HCH	2.34	13	PASS
WCDMA1900	UMTS/TM1	LCH	2.93	13	PASS
		MCH	2.99	13	PASS
		HCH	2.84	13	PASS
WCDMA1700	UMTS/TM1	LCH	2.6	13	PASS
		MCH	2.79	13	PASS
		HCH	2.86	13	PASS

3Appendix_C: Modulation Characteristics

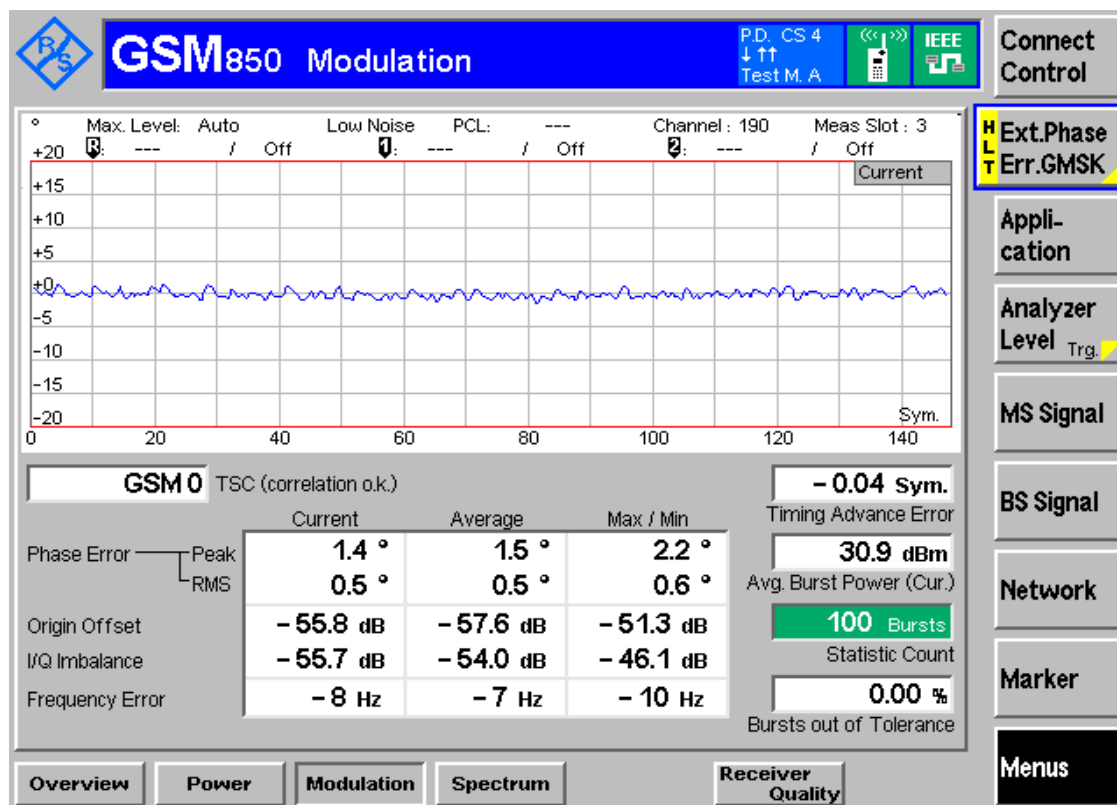
Part I - Test Plots

3.1 For GSM

3.1.1 Test Band = GSM850

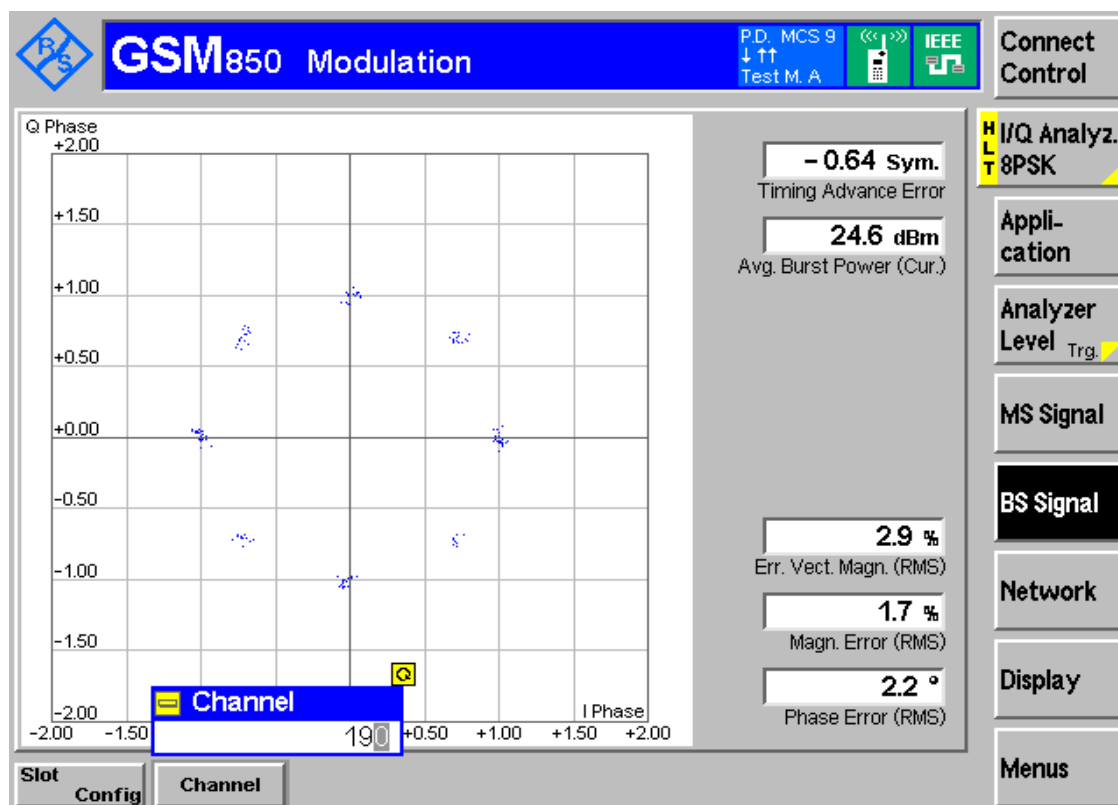
3.1.1.1 Test Mode = GSM/TM1

3.1.1.1.1 Test Channel = MCH



3.1.1.2 Test Mode = GSM/TM2

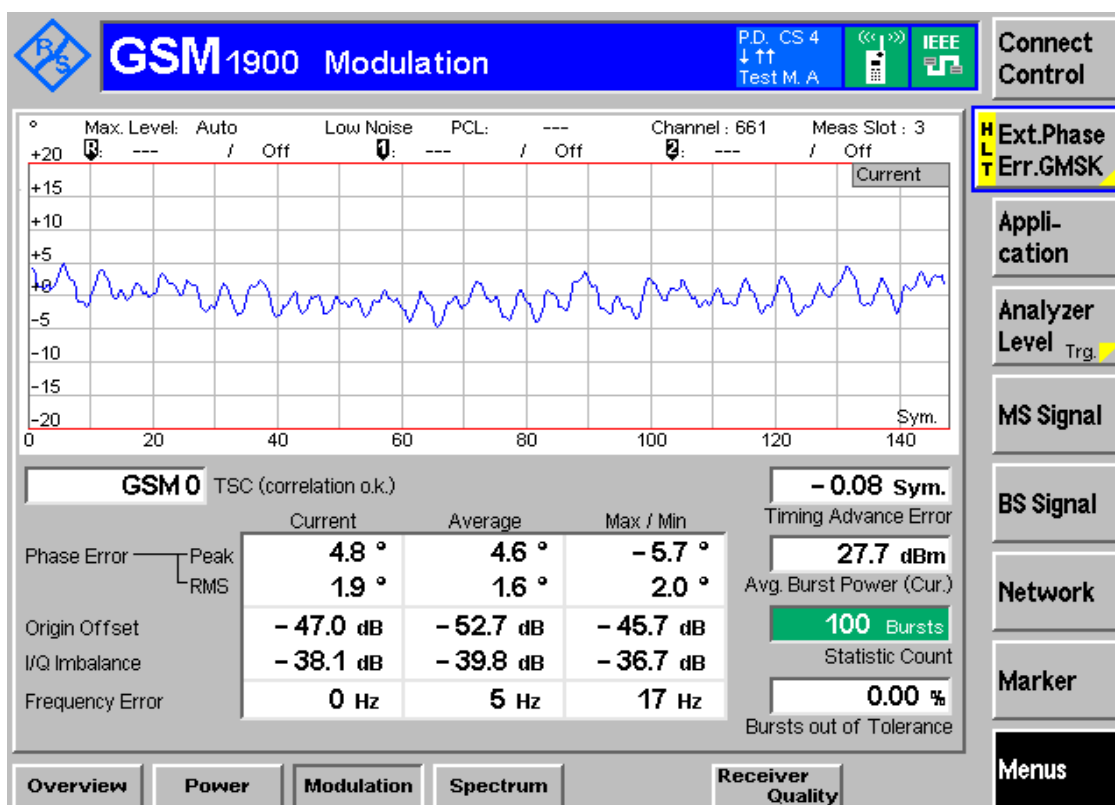
3.1.1.2.1 Test Channel = MCH



3.1.2 Test Band = GSM1900

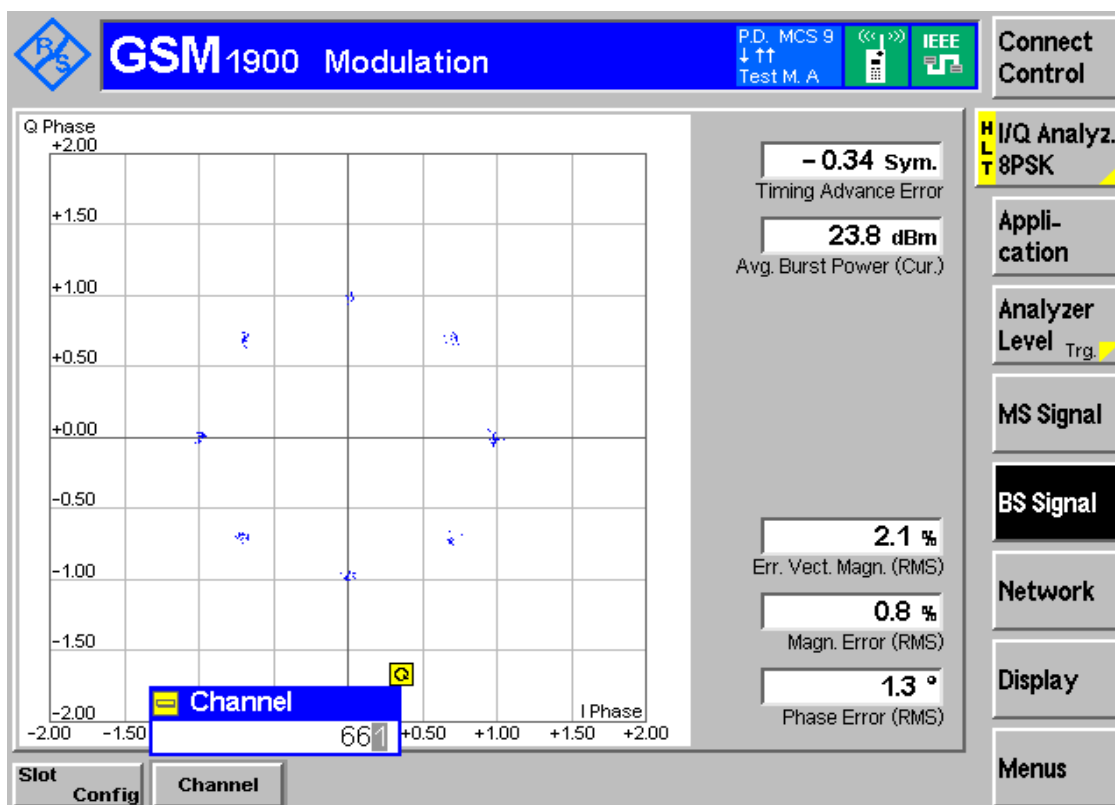
3.1.2.1 Test Mode = GSM/TM1

3.1.2.1.1 Test Channel = MCH



3.1.2.2 Test Mode = GSM/TM2

3.1.2.2.1 Test Channel = MCH

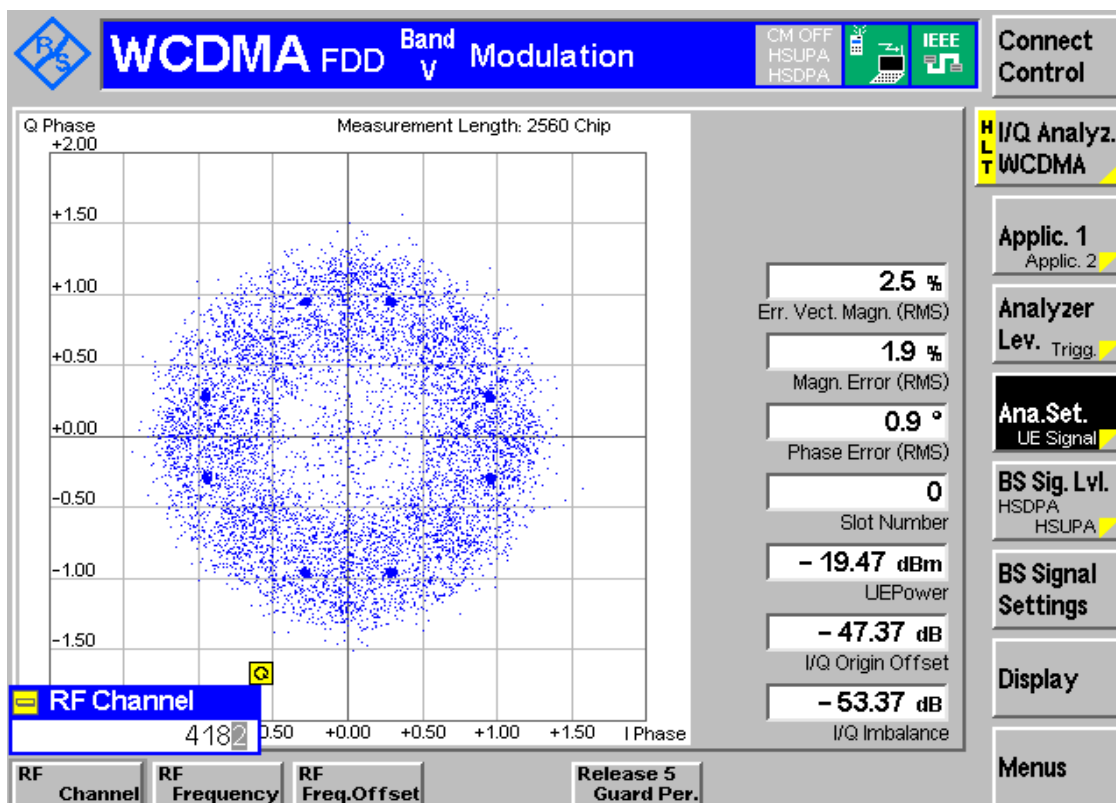


3.2 For UMTS

3.2.1 Test Band = WCDMA850

3.2.1.1 Test Mode = UMTS/TM1

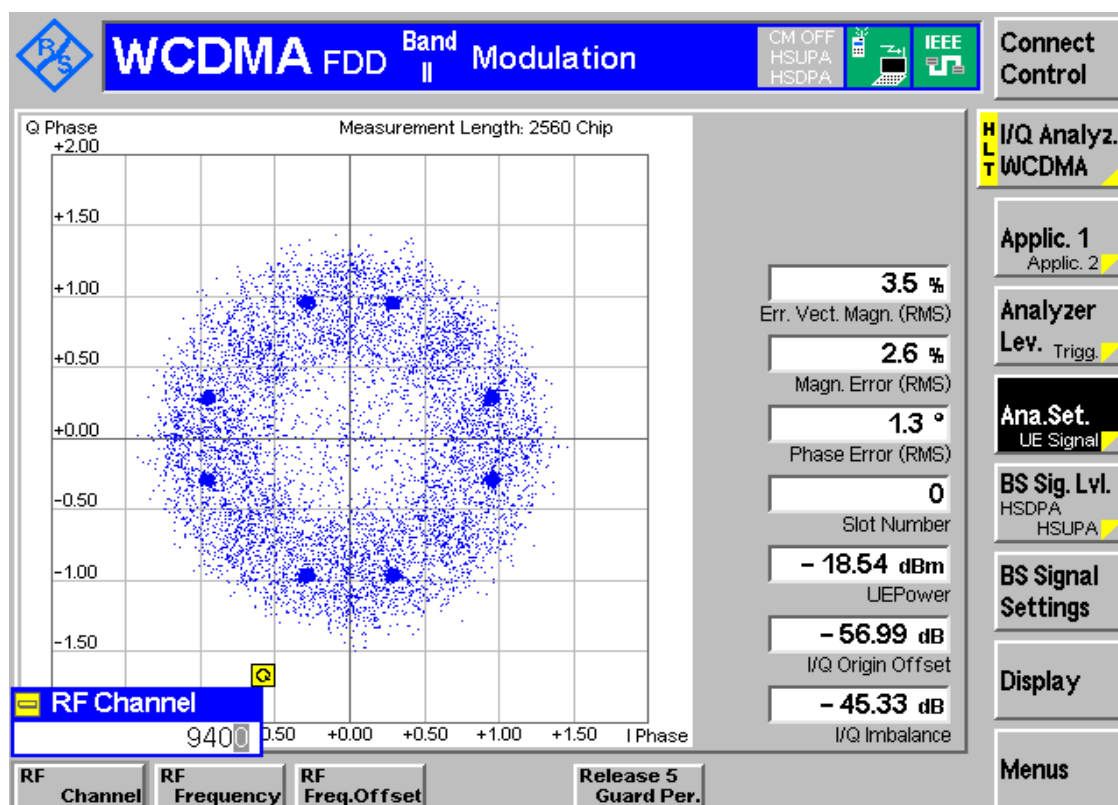
3.2.1.1.1 Test Channel = MCH



3.2.2 Test Band = WCDMA1900

3.2.2.1 Test Mode = UMTS/TM1

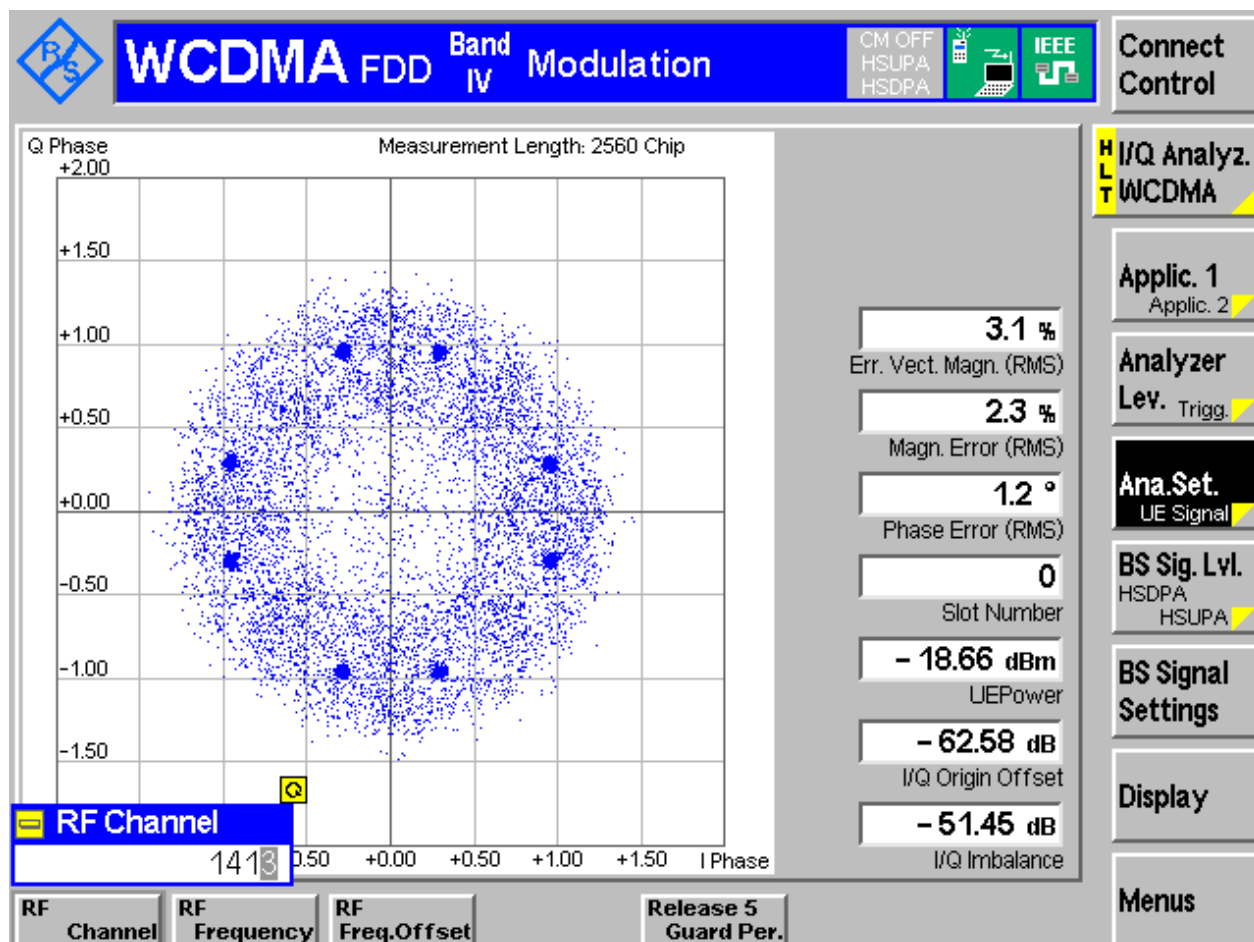
3.2.2.1.1 Test Channel = MCH



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	243.05	315.17	Pass
		MCH	244.55	314.62	Pass
		HCH	244.52	312.71	Pass
	GSM/TM2	LCH	248.80	322.03	Pass
		MCH	250.45	312.29	Pass
		HCH	248.79	317.37	Pass
GSM1900	GSM/TM1	LCH	244.64	316.27	Pass
		MCH	243.64	320.29	Pass
		HCH	242.73	312.68	Pass
	GSM/TM2	LCH	243.27	304.54	Pass
		MCH	245.37	318.86	Pass
		HCH	245.82	310.04	Pass
Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
WCDMA850	UMTS/TM1	LCH	4.17	4.74	Pass
		MCH	4.17	4.72	Pass
		HCH	4.16	4.73	Pass
WCDMA1900	UMTS/TM1	LCH	4.15	4.70	Pass
		MCH	4.15	4.69	Pass
		HCH	4.15	4.70	Pass
WCDMA1700	UMTS/TM1	LCH	4.16	4.72	Pass
		MCH	4.16	4.71	Pass
		HCH	4.16	4.70	Pass

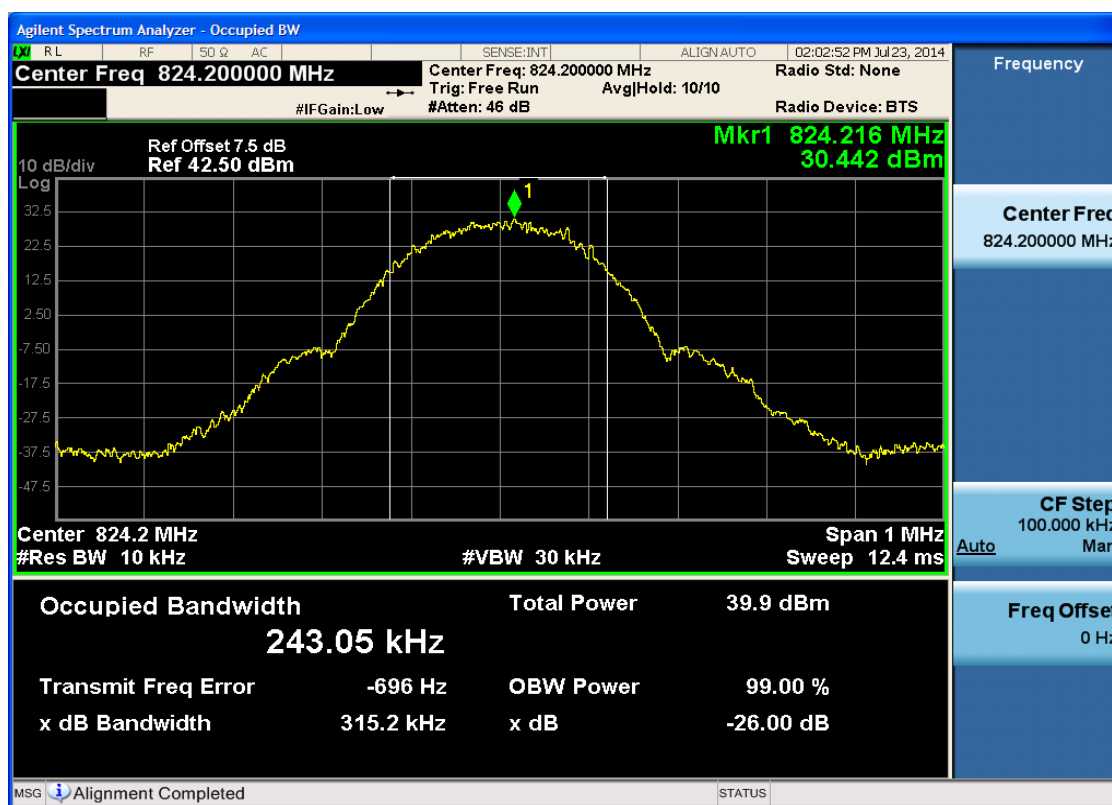
Part II - Test Plots

4.1 For GSM

4.1.1 Test Band = GSM850

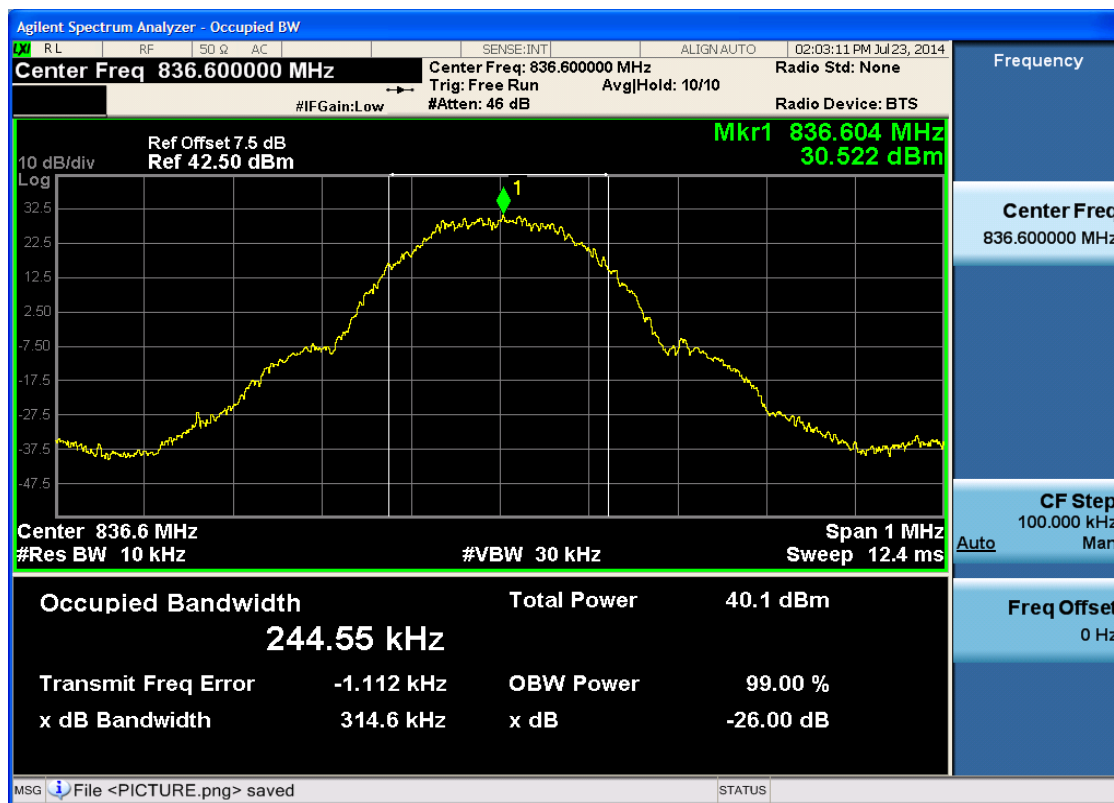
4.1.1.1 Test Mode = GSM/TM1

4.1.1.1.1 Test Channel = LCH



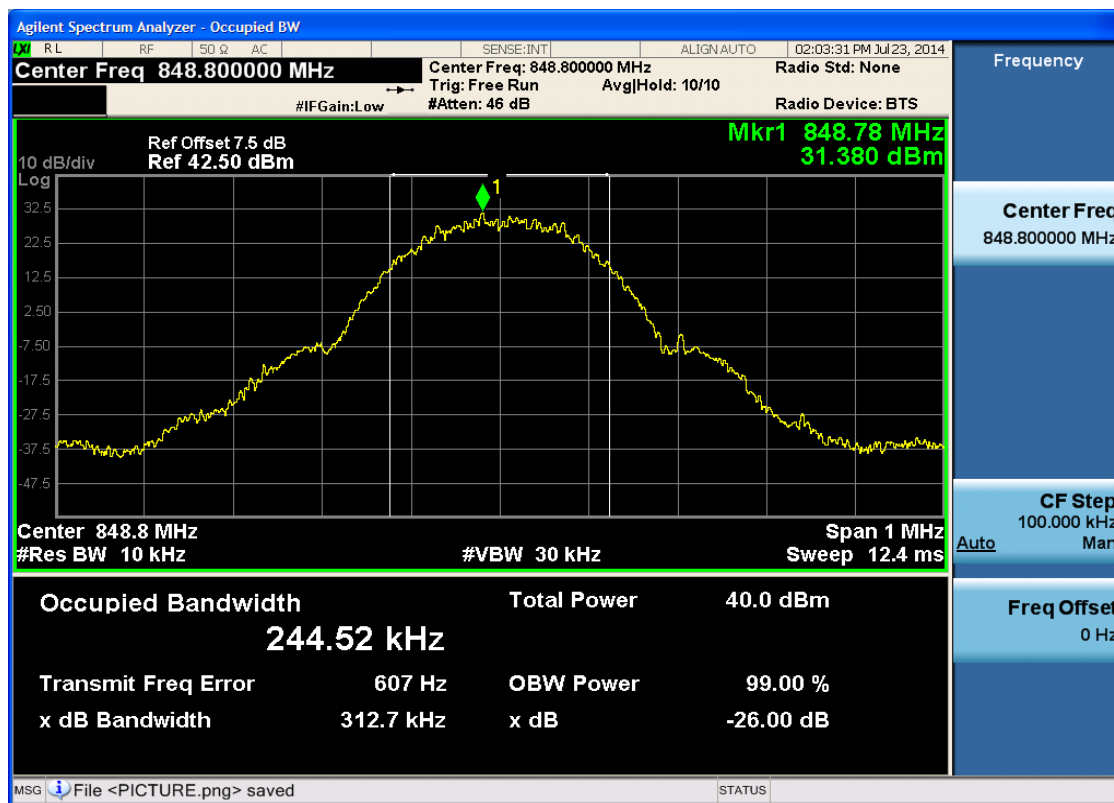


4.1.1.1.2 Test Channel = MCH





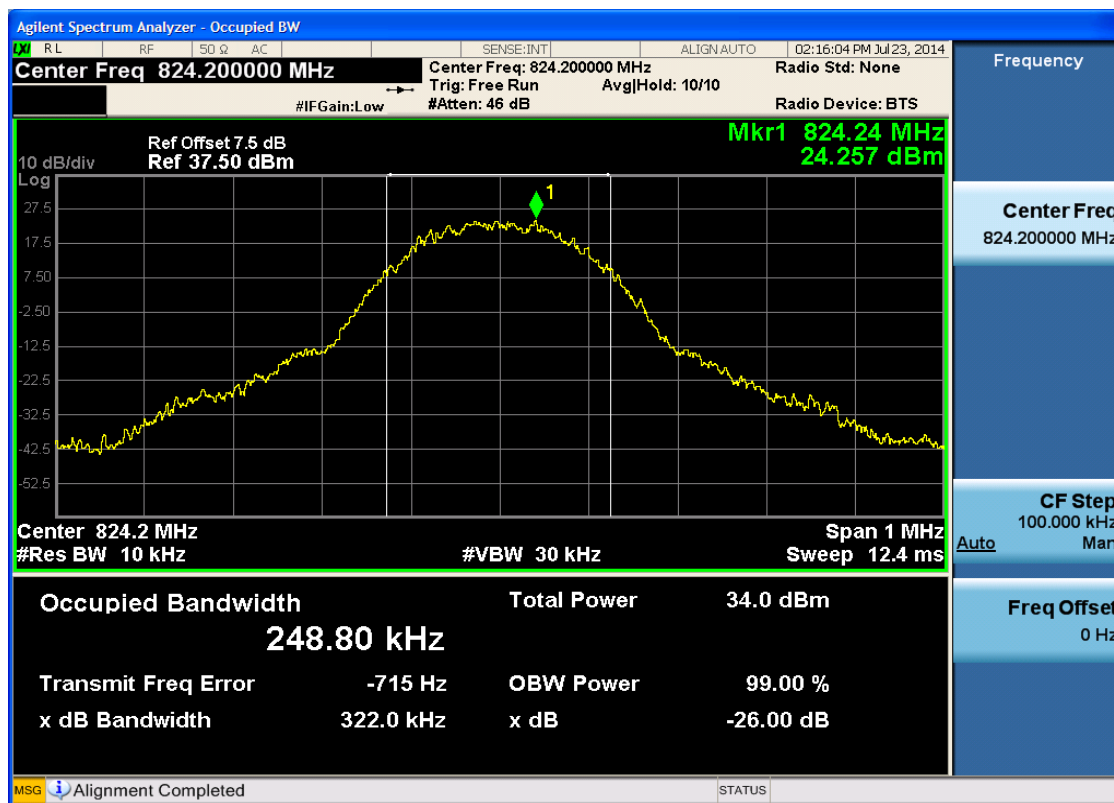
4.1.1.1.3 Test Channel = HCH





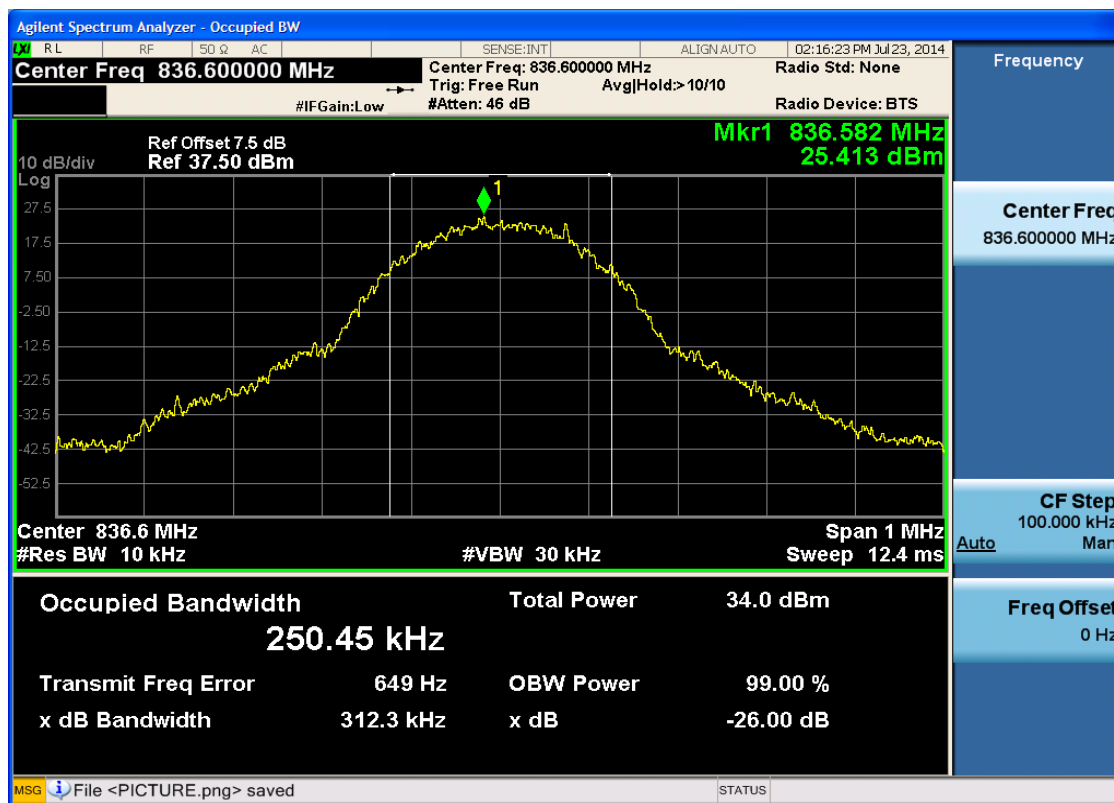
4.1.1.2 Test Mode = GSM/TM2

4.1.1.2.1 Test Channel = LCH



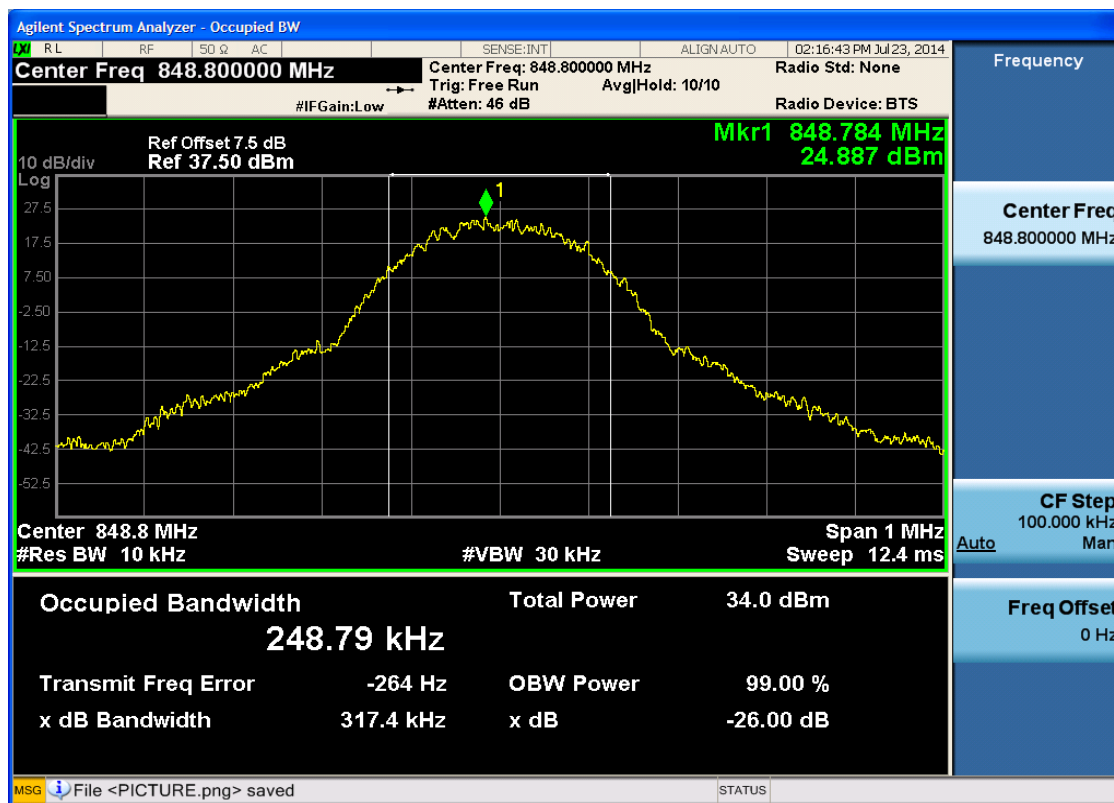


4.1.1.2.2 Test Channel = MCH





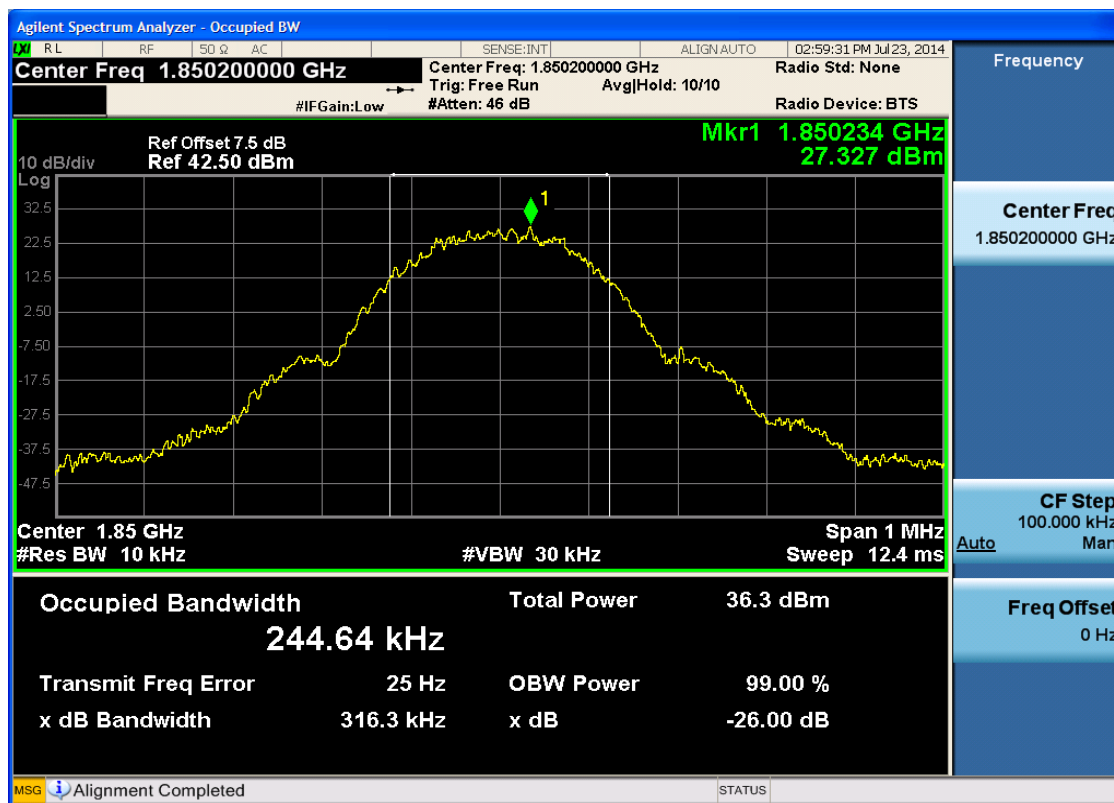
4.1.1.2.3 Test Channel = HCH



4.1.2 Test Band = GSM1900

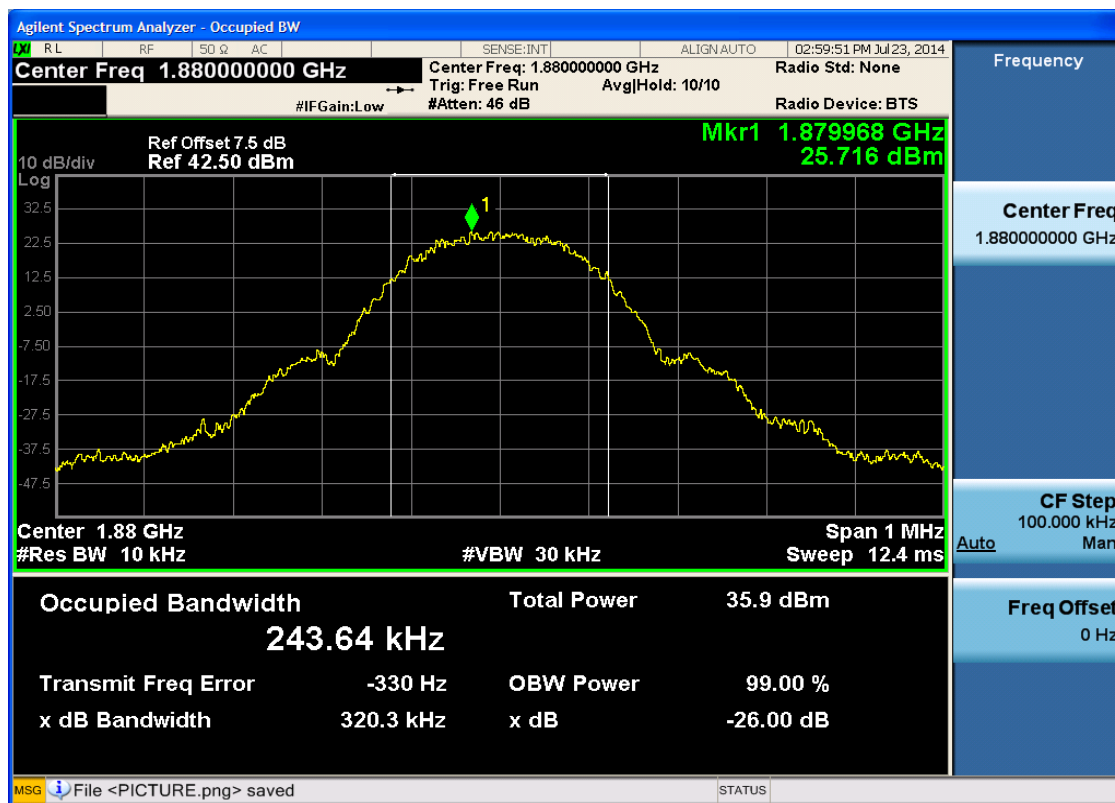
4.1.2.1 Test Mode = GSM/TM1

4.1.2.1.1 Test Channel = LCH



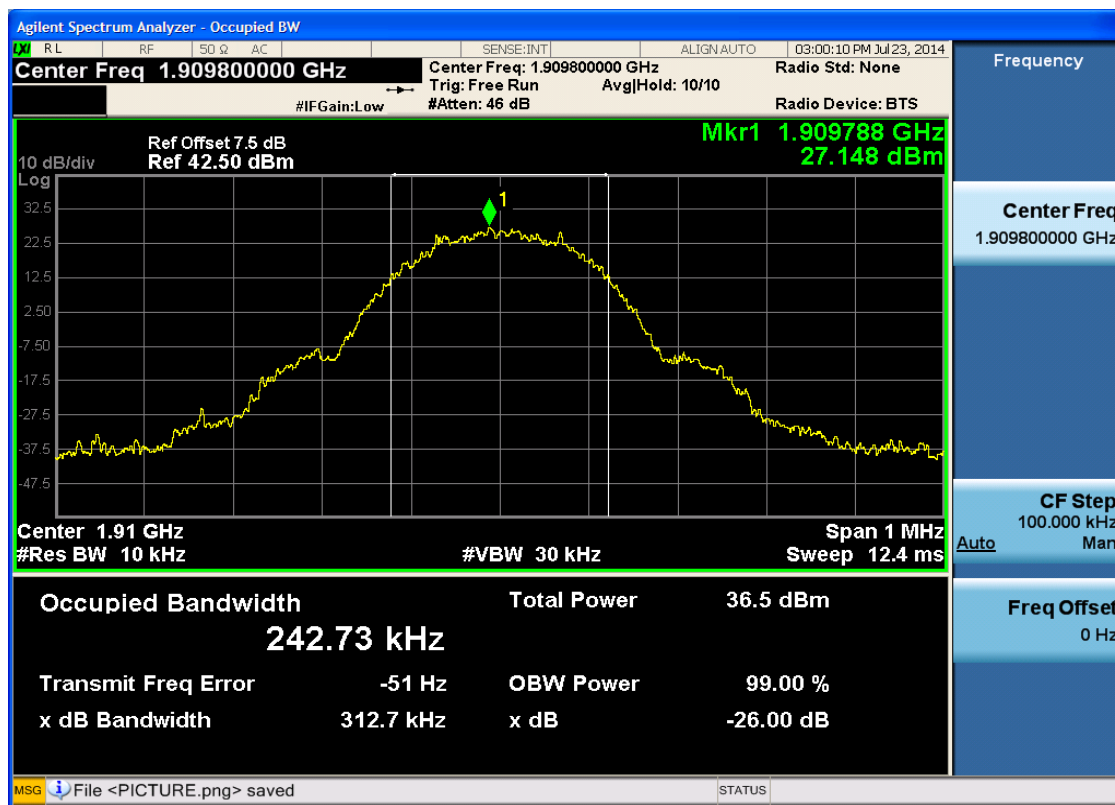


4.1.2.1.2 Test Channel = MCH





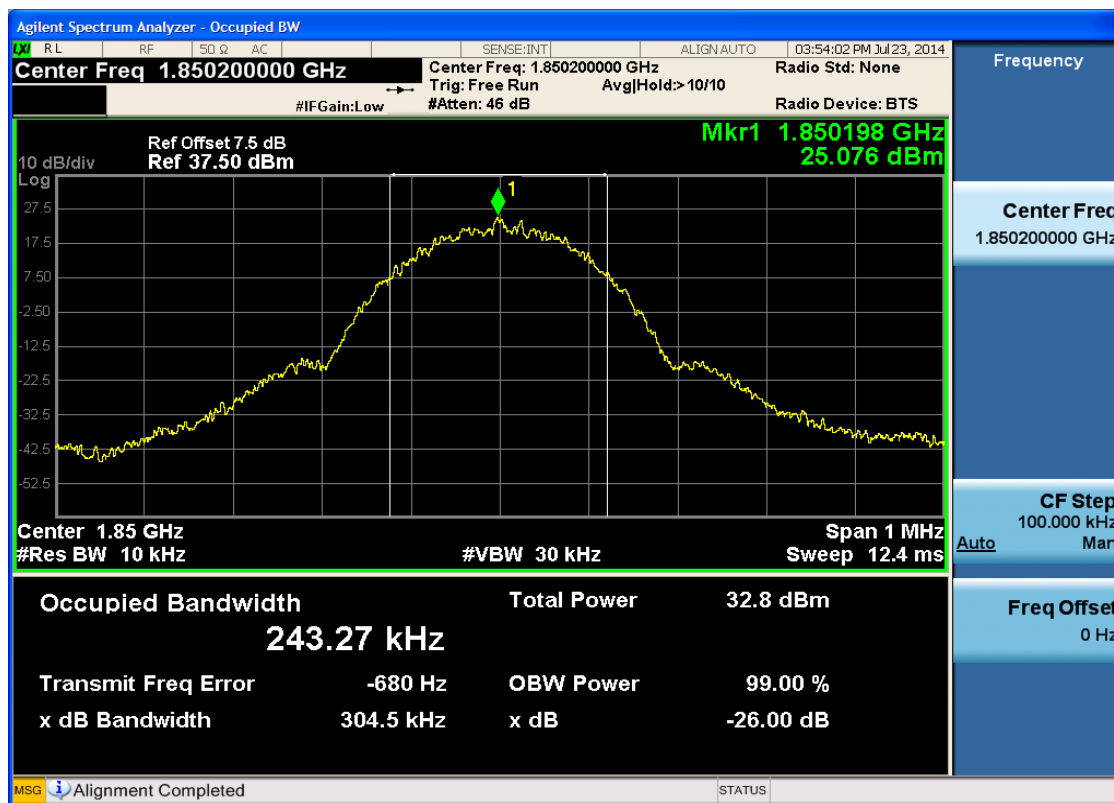
4.1.2.1.3 Test Channel = HCH





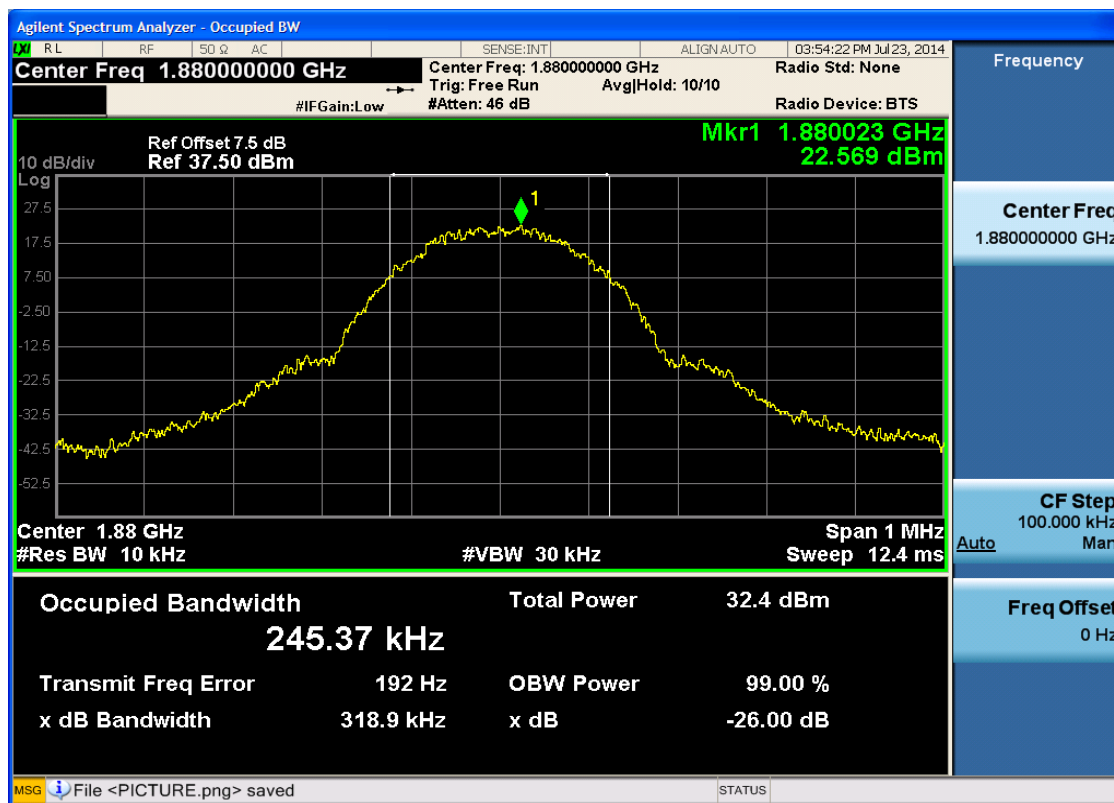
4.1.2.2 Test Mode = GSM/TM2

4.1.2.2.1 Test Channel = LCH



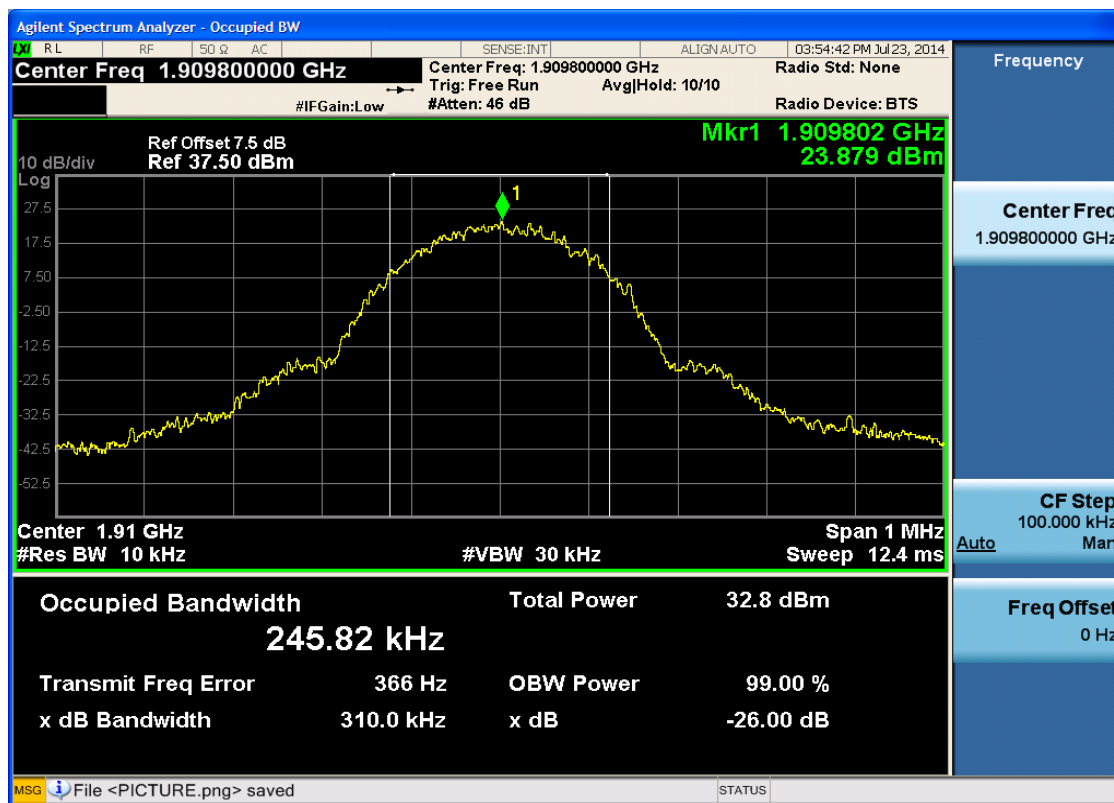


4.1.2.2.2 Test Channel = MCH





4.1.2.2.3 Test Channel = HCH

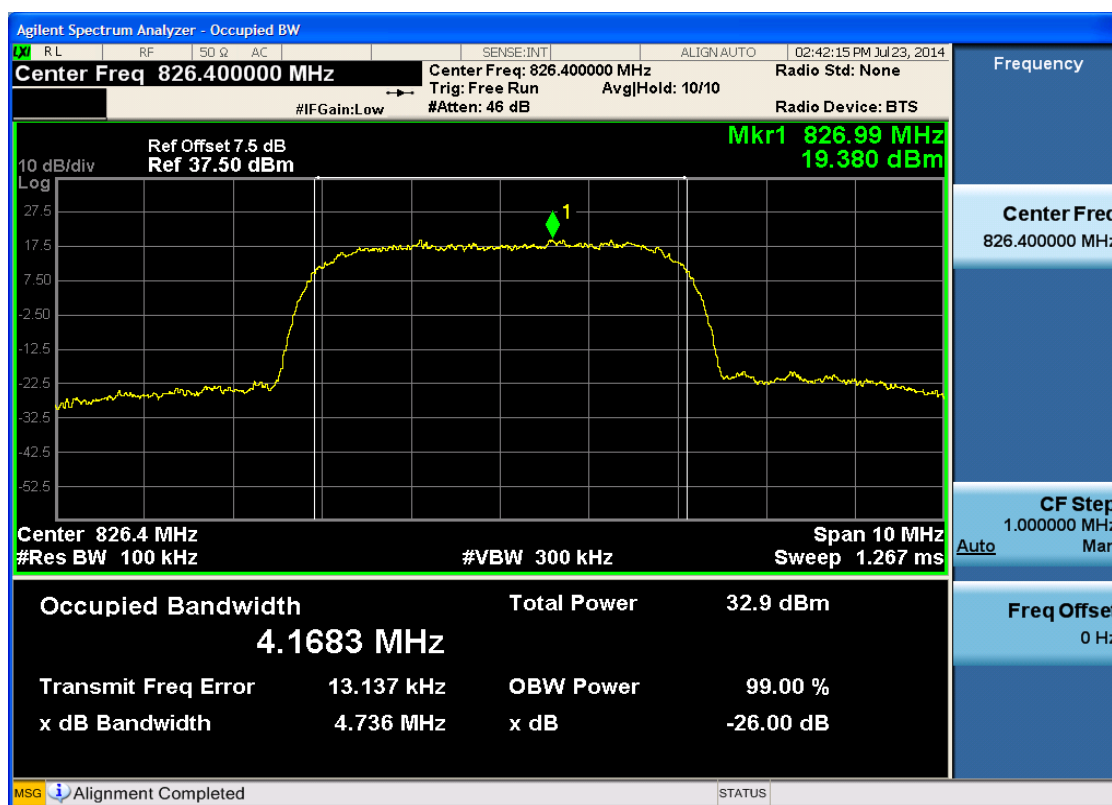


4.2 For UMTS

4.2.1 Test Band = WCDMA850

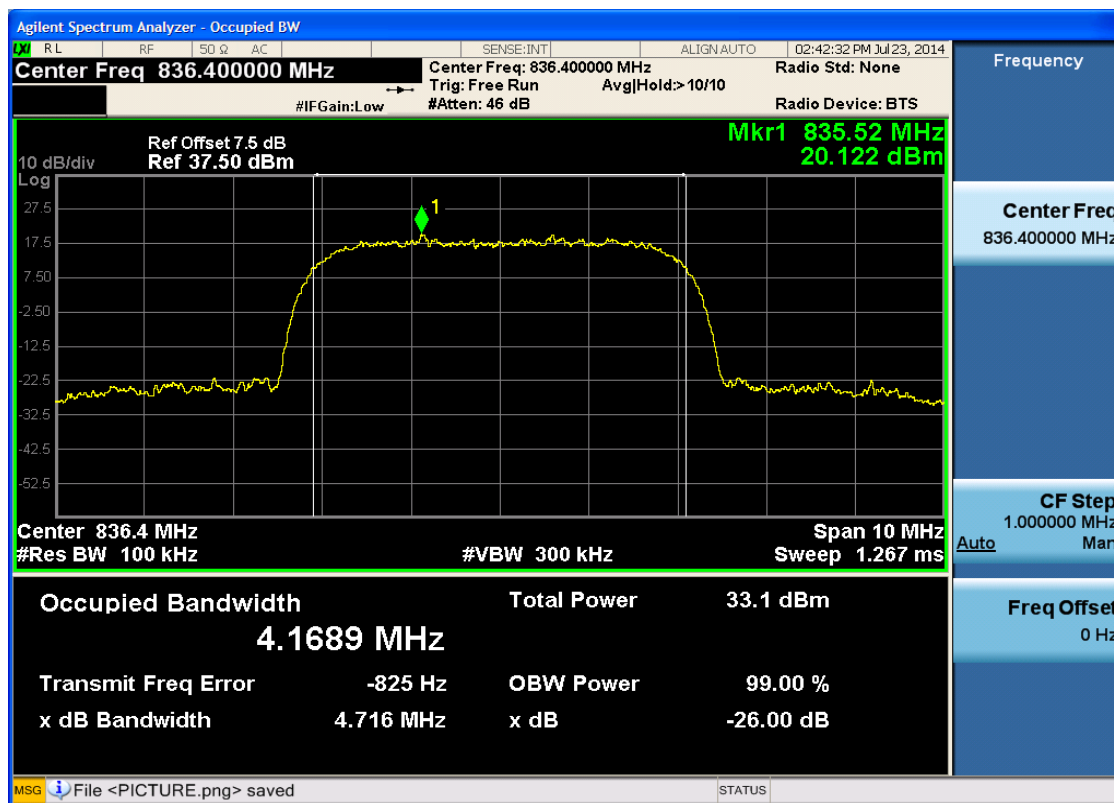
4.2.1.1 Test Mode = UMTS/TM1

4.2.1.1.1 Test Channel = LCH



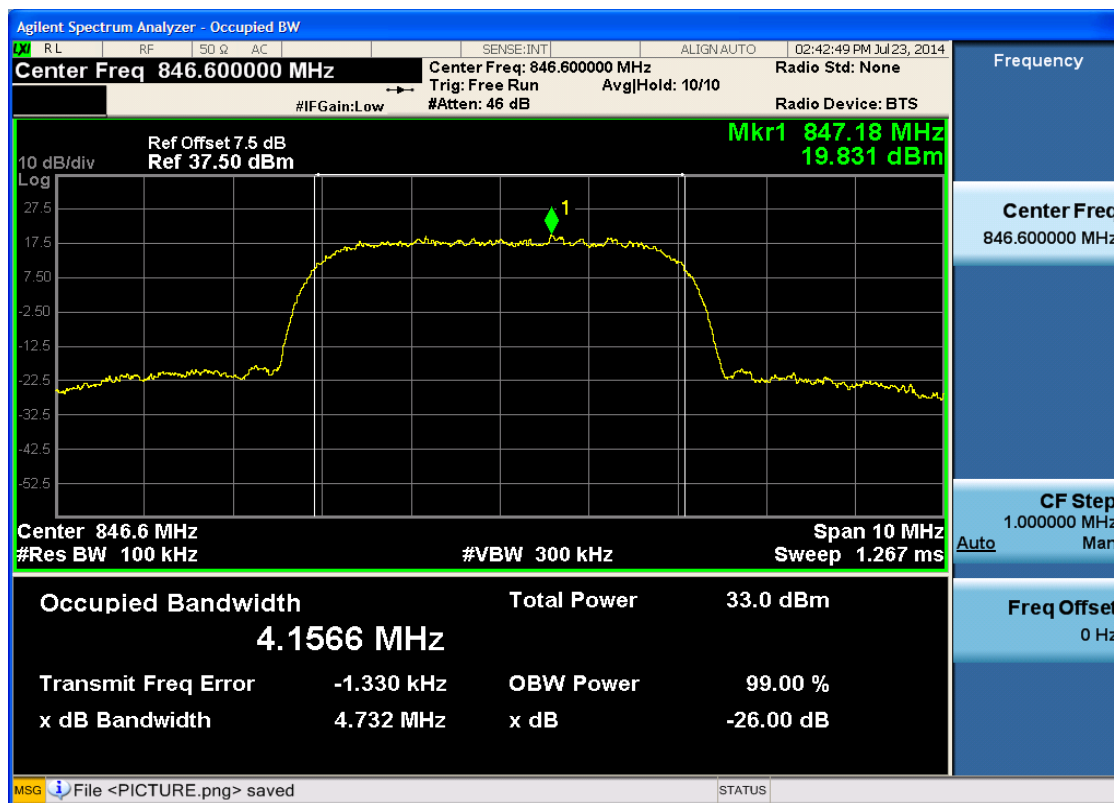


4.2.1.1.2 Test Channel = MCH





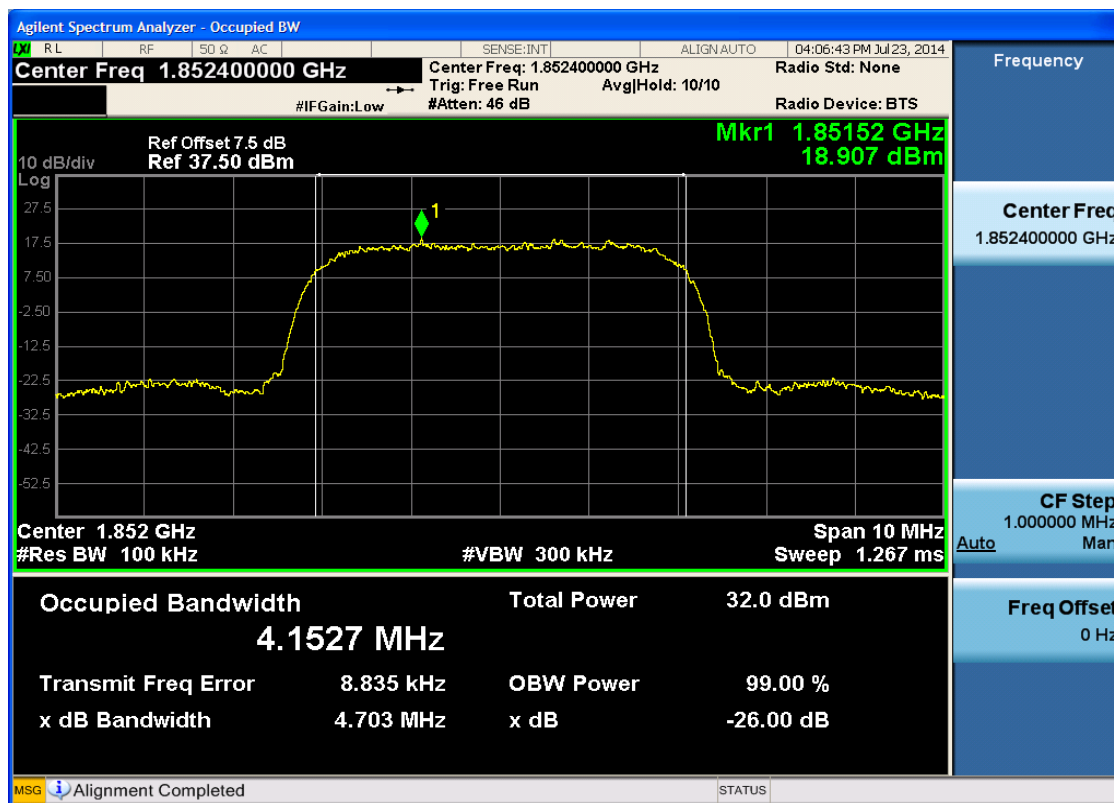
4.2.1.1.3 Test Channel = HCH



4.2.2 Test Band = WCDMA1900

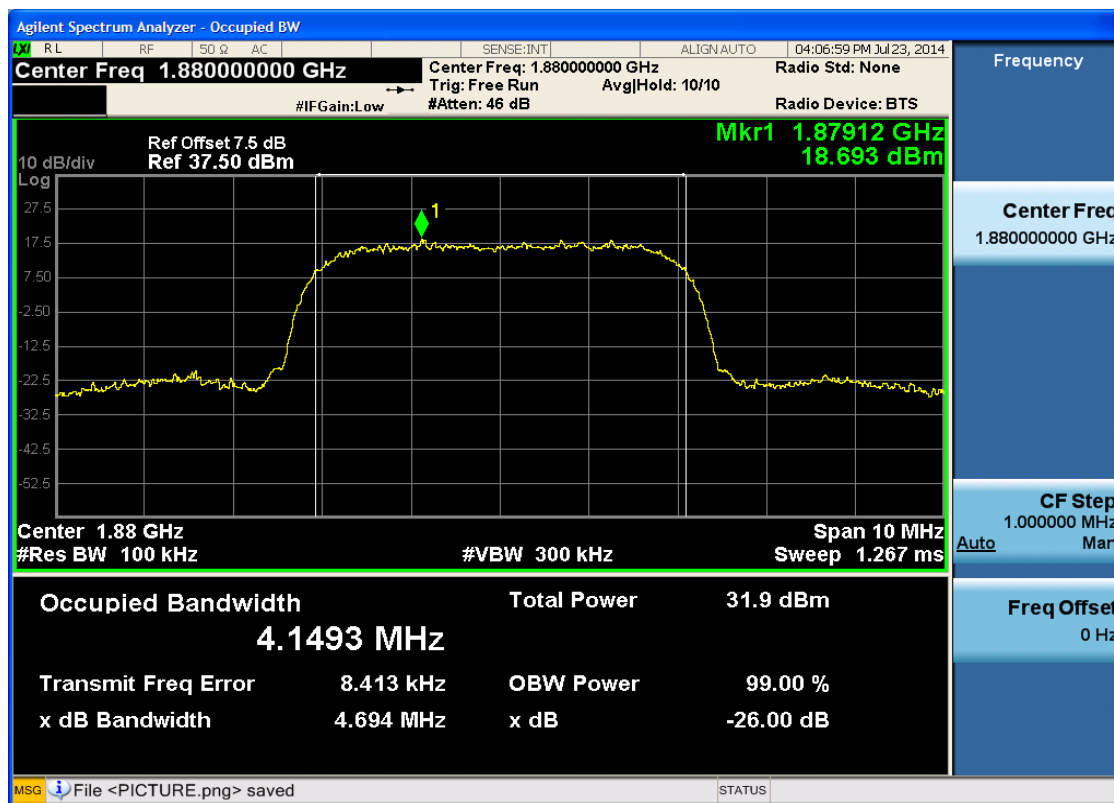
4.2.2.1 Test Mode = UMTS/TM1

4.2.2.1.1 Test Channel = LCH

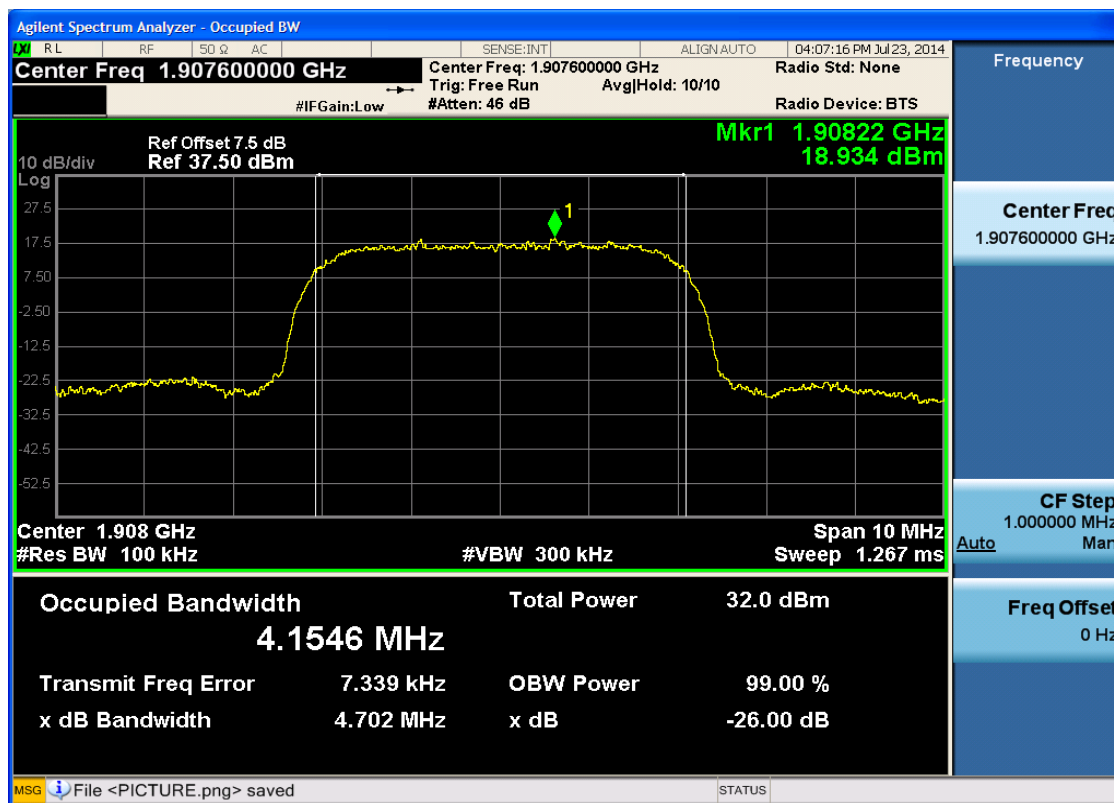




4.2.2.1.2 Test Channel = MCH



4.2.2.1.3 Test Channel = HCH

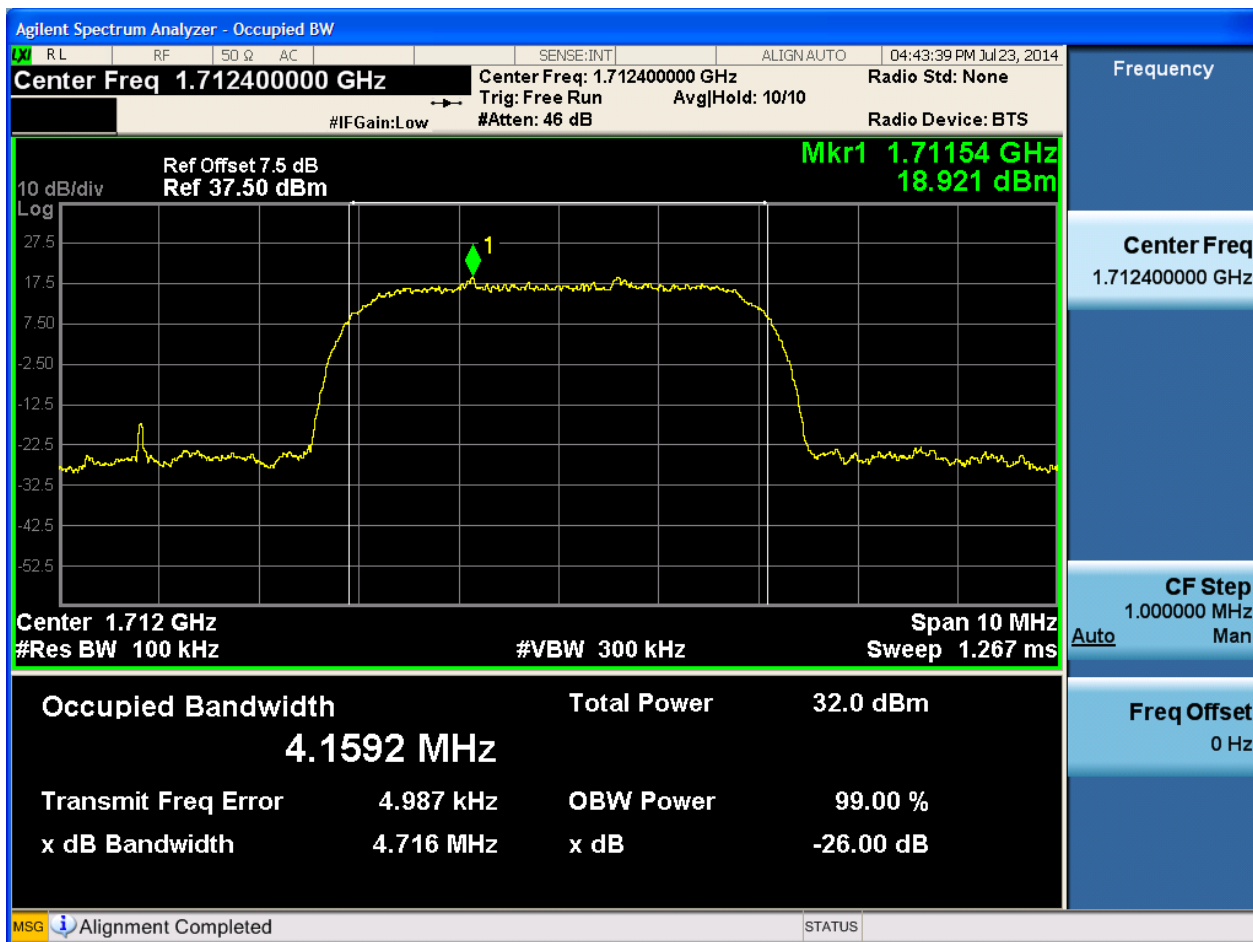




4.2.3 Test Band = WCDMA1700

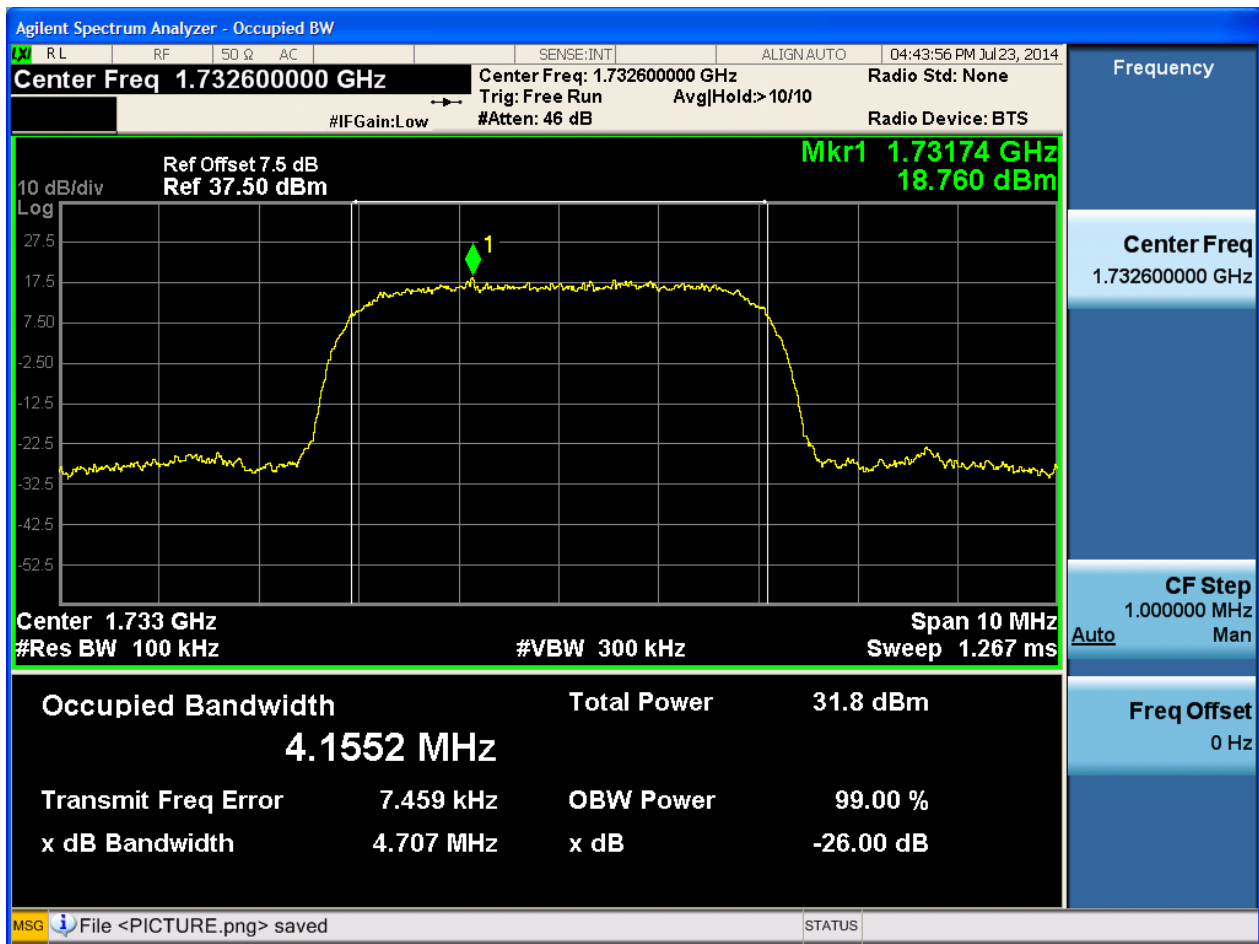
4.2.3.1 Test Mode = UMTS/TM1

4.2.3.1.1 Test Channel = LCH



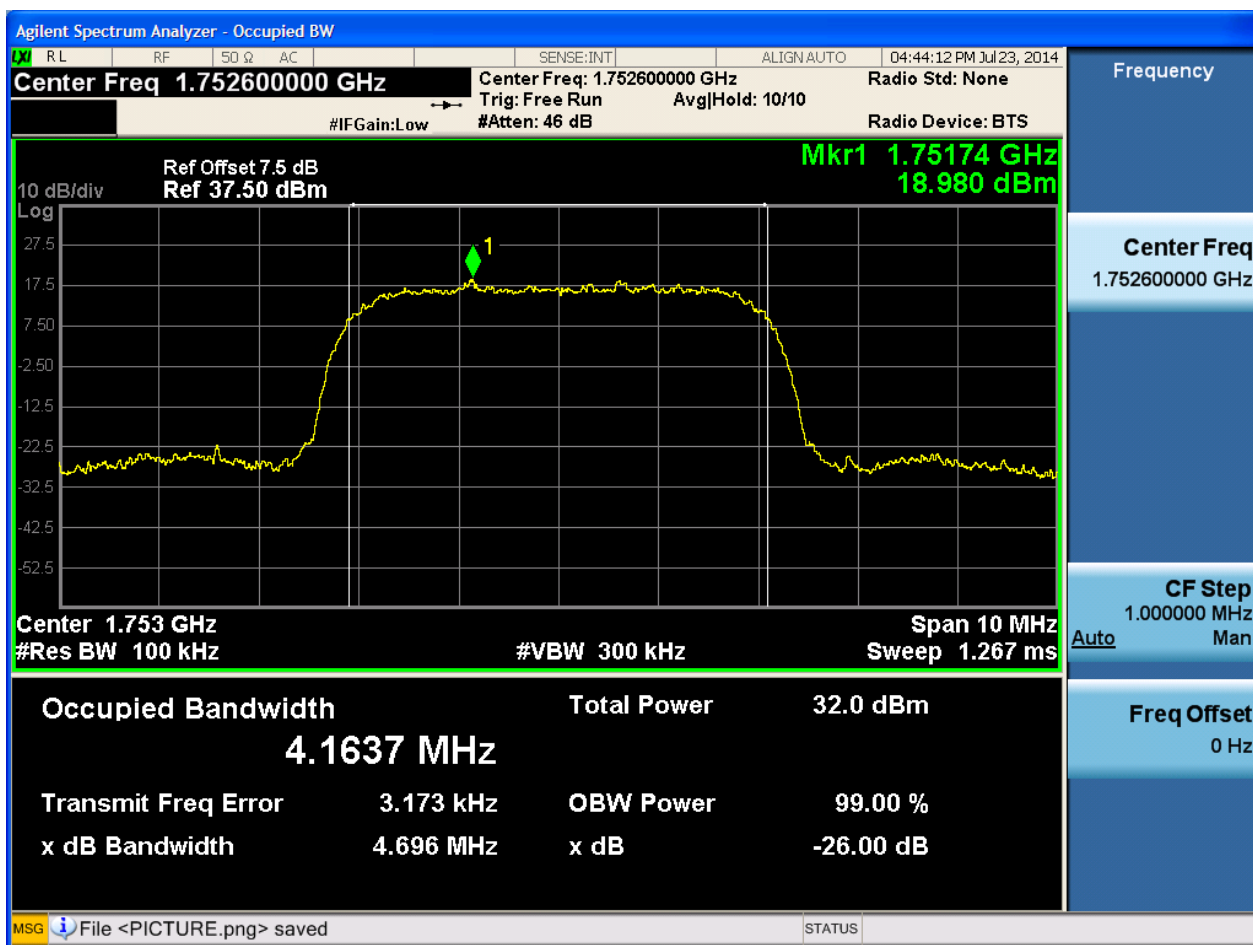


4.2.3.1.2 Test Channel = MCH





4.2.3.1.3 Test Channel = HCH



5Appendix_E: Band Edges Compliance

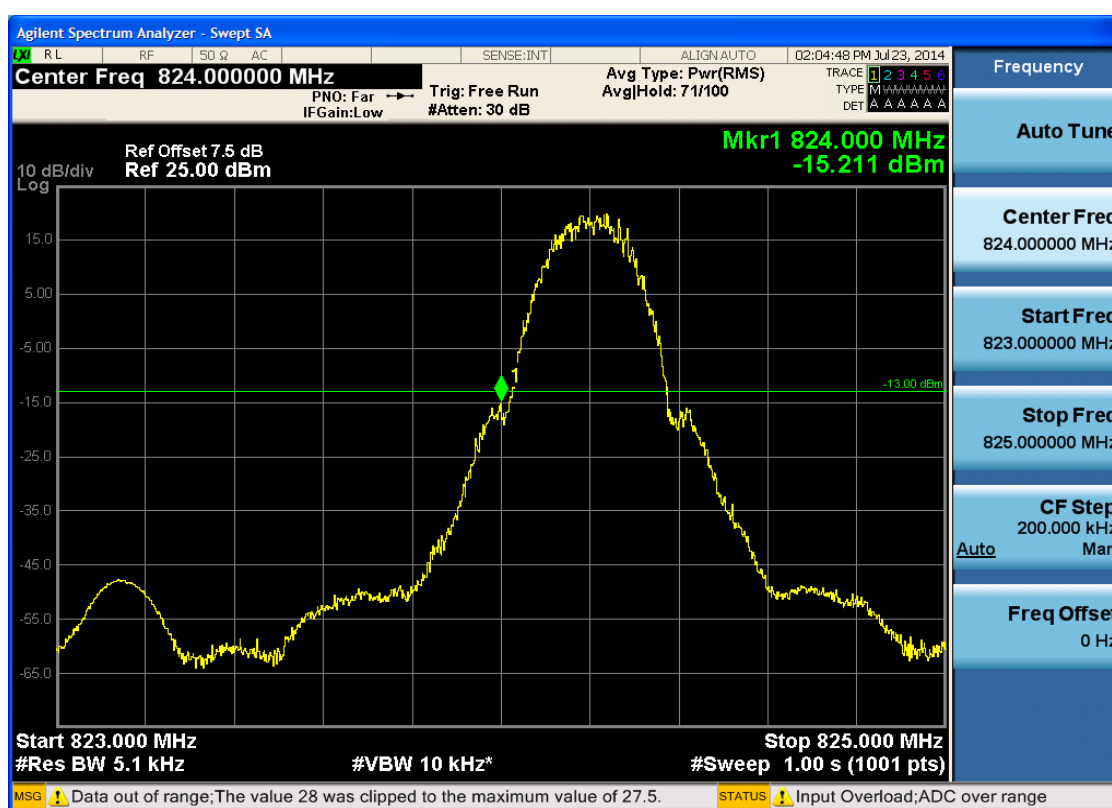
Part I - Test Plots

5.1 For GSM

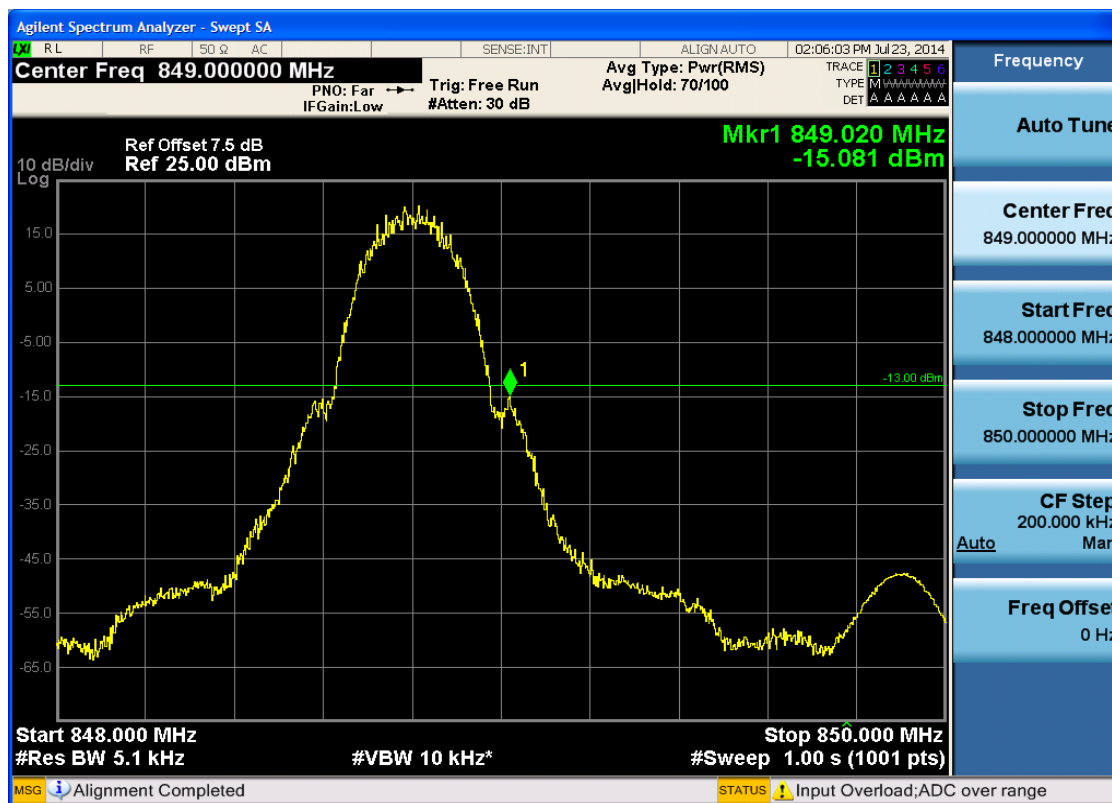
5.1.1 Test Band = GSM850

5.1.1.1 Test Mode = GSM/TM1

5.1.1.1.1 Test Channel = LCH

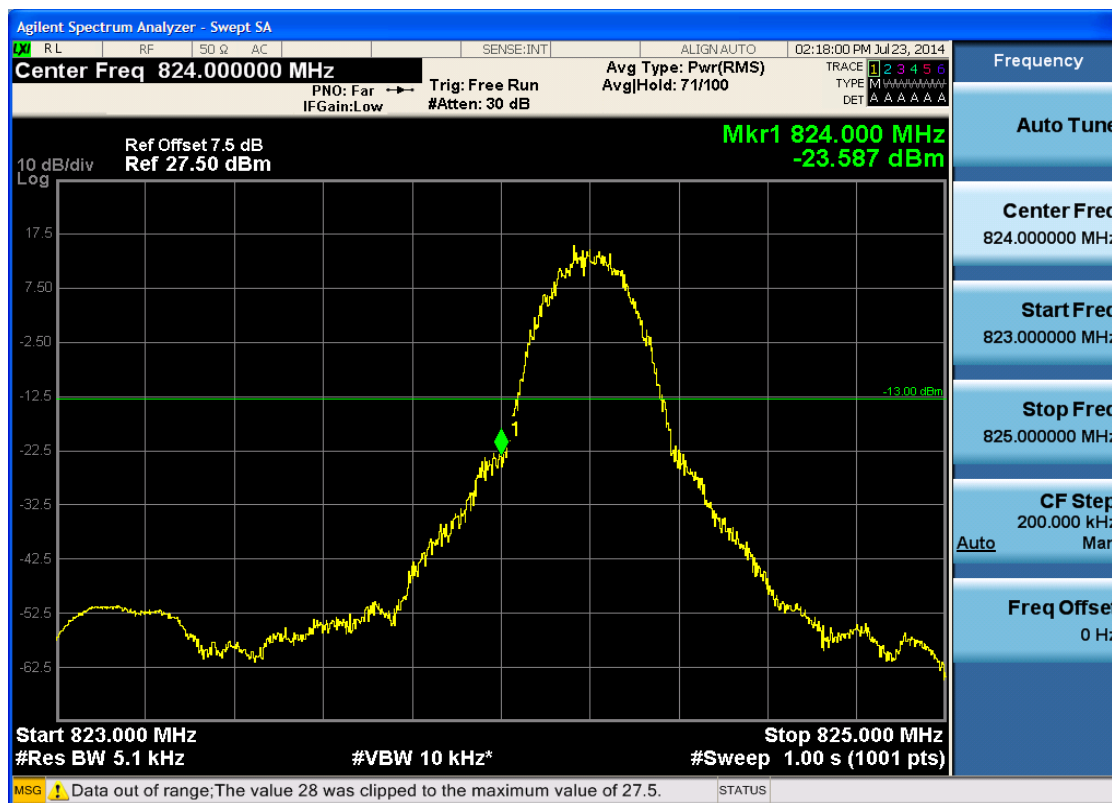


5.1.1.1.2 Test Channel = HCH

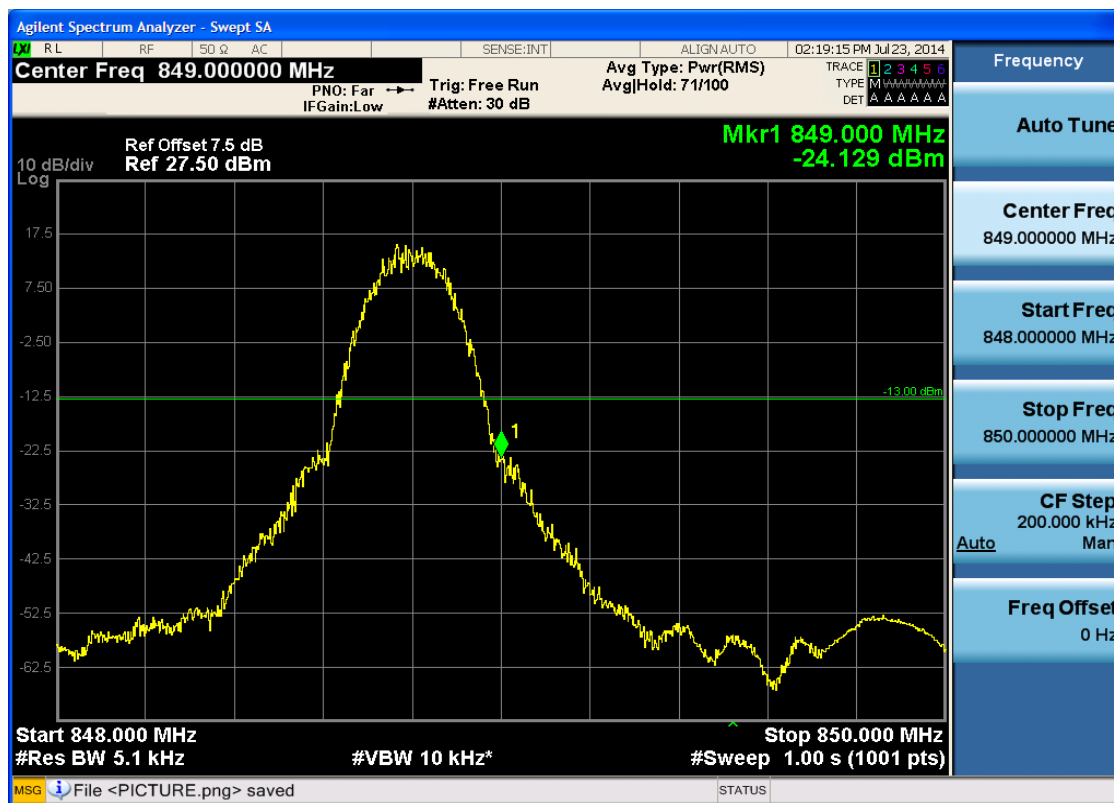


5.1.1.2 Test Mode = GSM/TM2

5.1.1.2.1 Test Channel = LCH



5.1.1.2.2 Test Channel = HCH

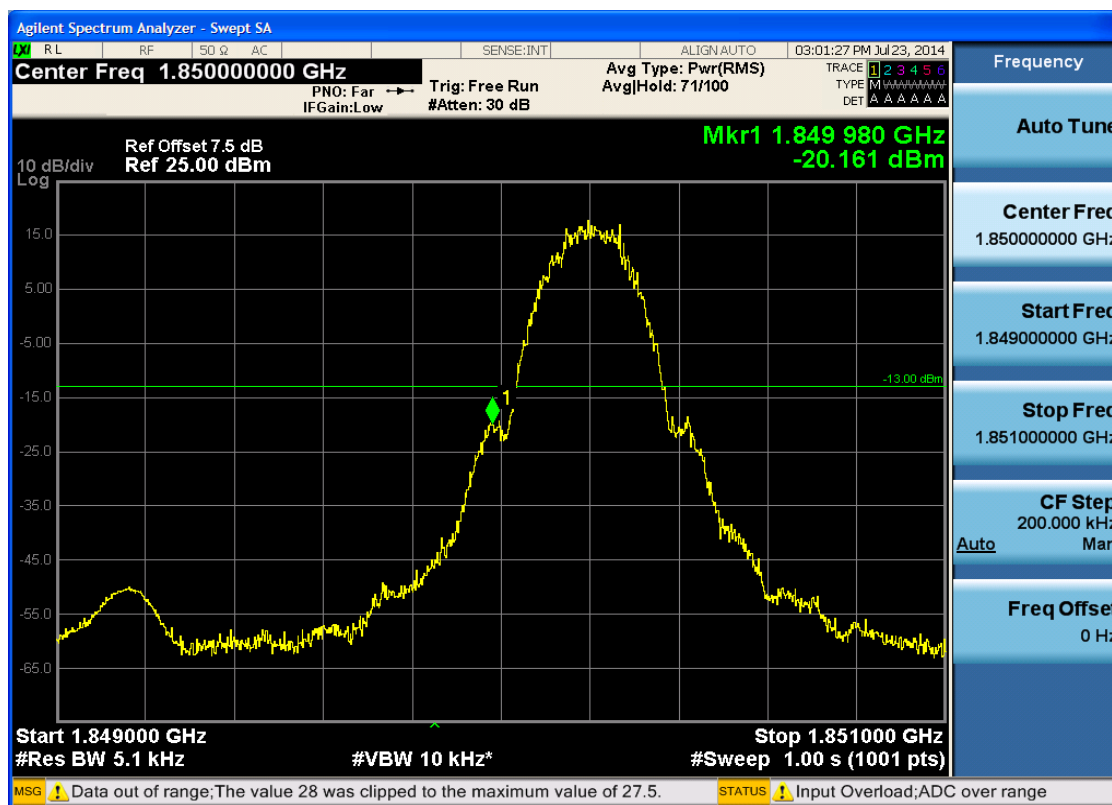




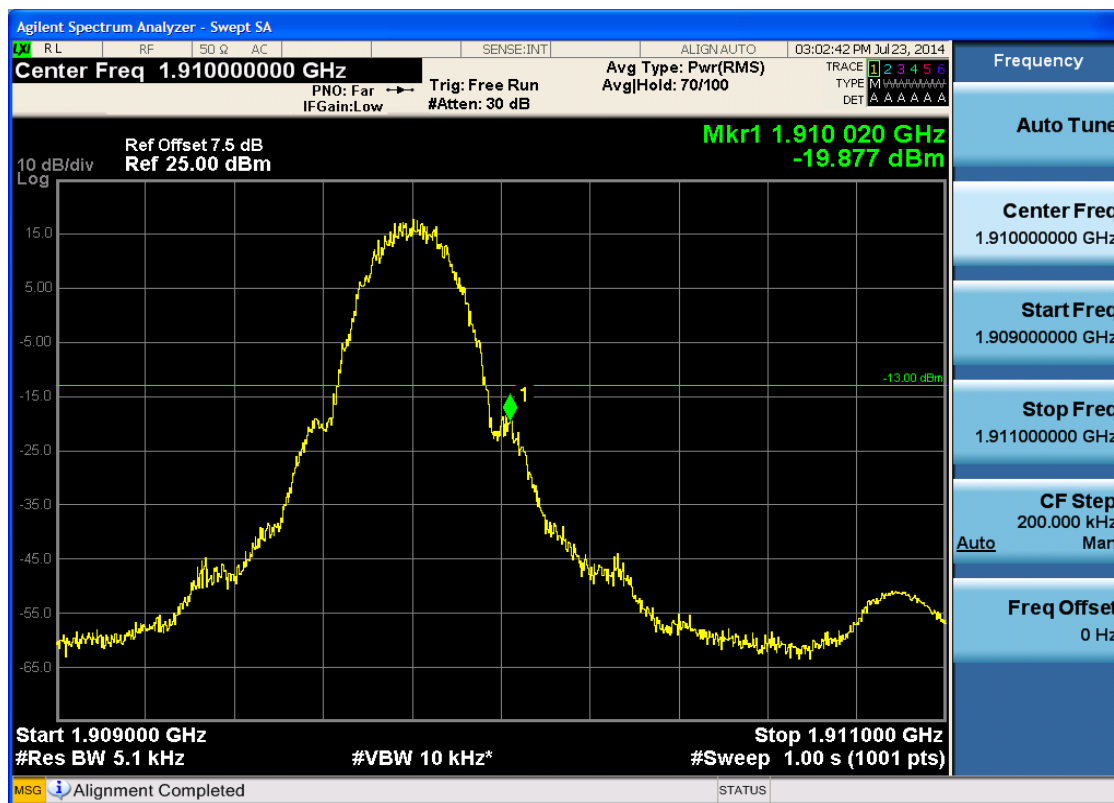
5.1.2 Test Band = GSM1900

5.1.2.1 Test Mode = GSM/TM1

5.1.2.1.1 Test Channel = LCH

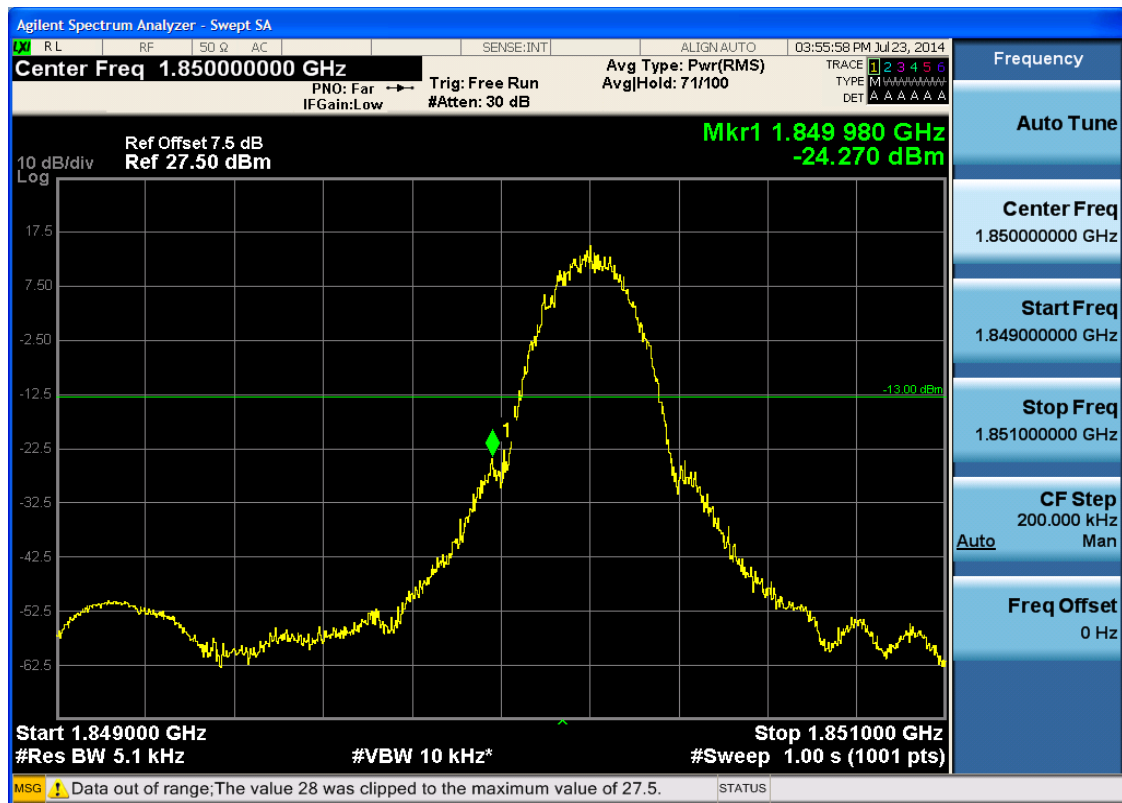


5.1.2.1.2 Test Channel = HCH

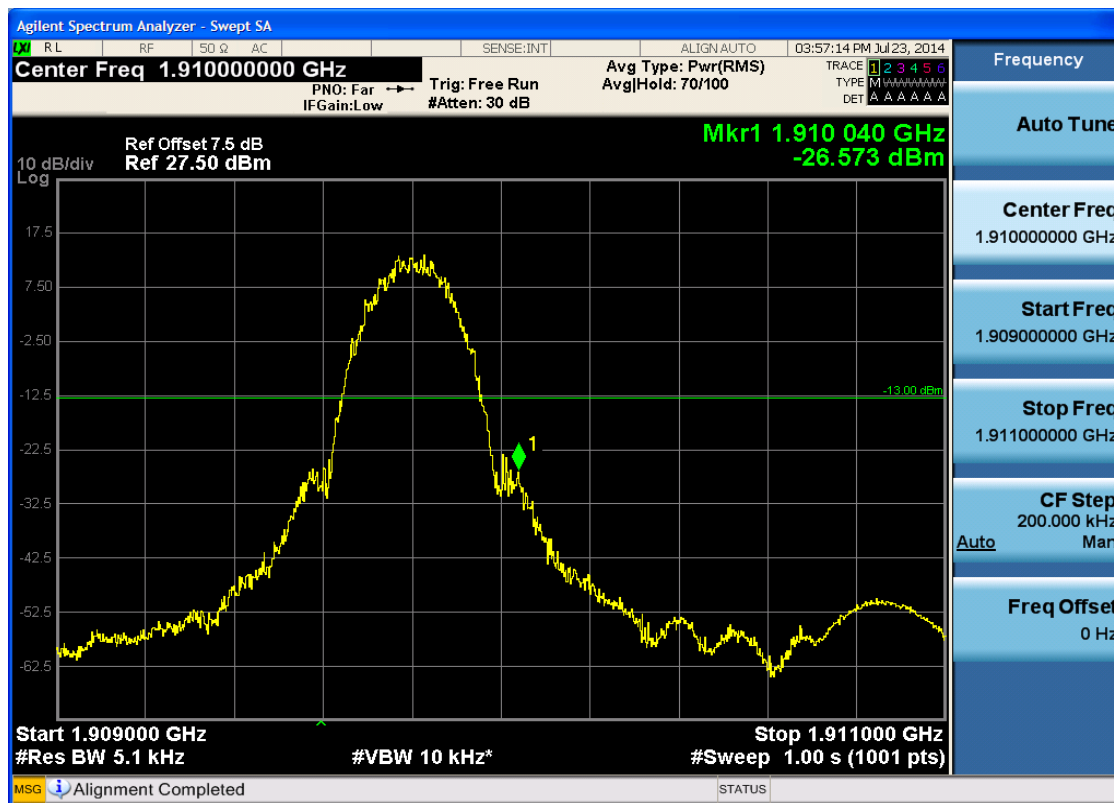


5.1.2.2 Test Mode = GSM/TM2

5.1.2.2.1 Test Channel = LCH



5.1.2.2.2 Test Channel = HCH

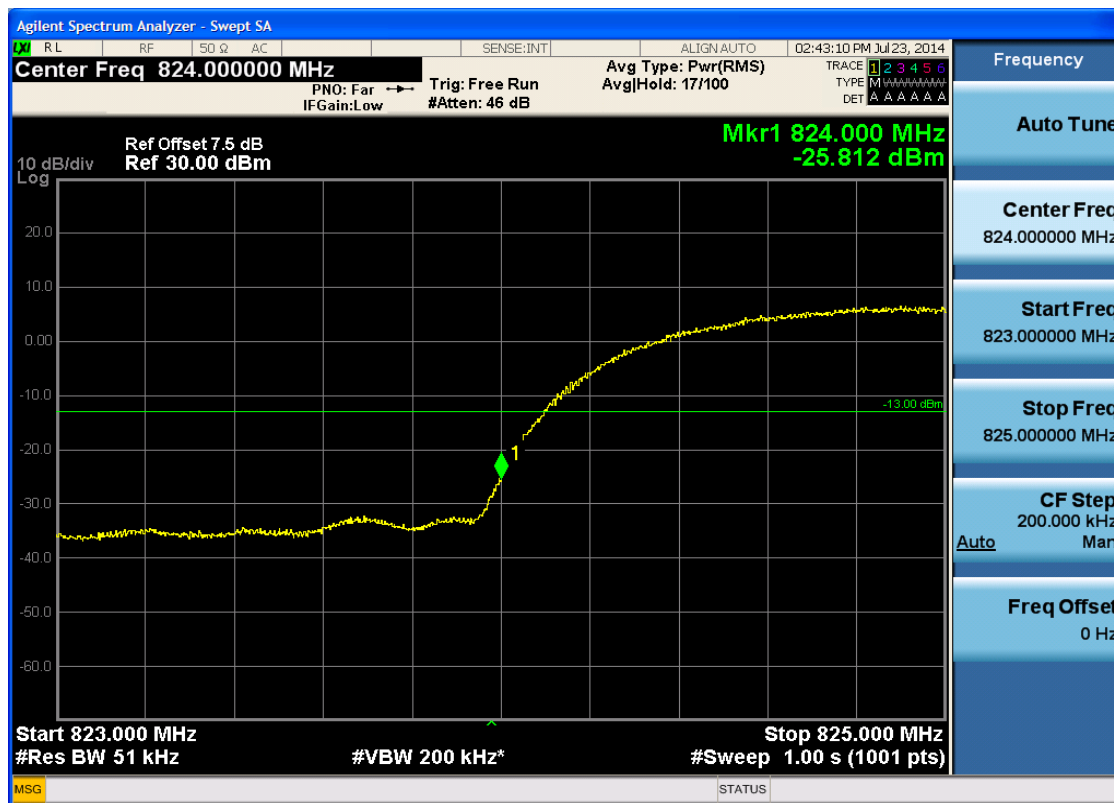


5.2 For UMTS

5.2.1 Test Band = WCDMA850

5.2.1.1 Test Mode = UMTS/TM1

5.2.1.1.1 Test Channel = LCH



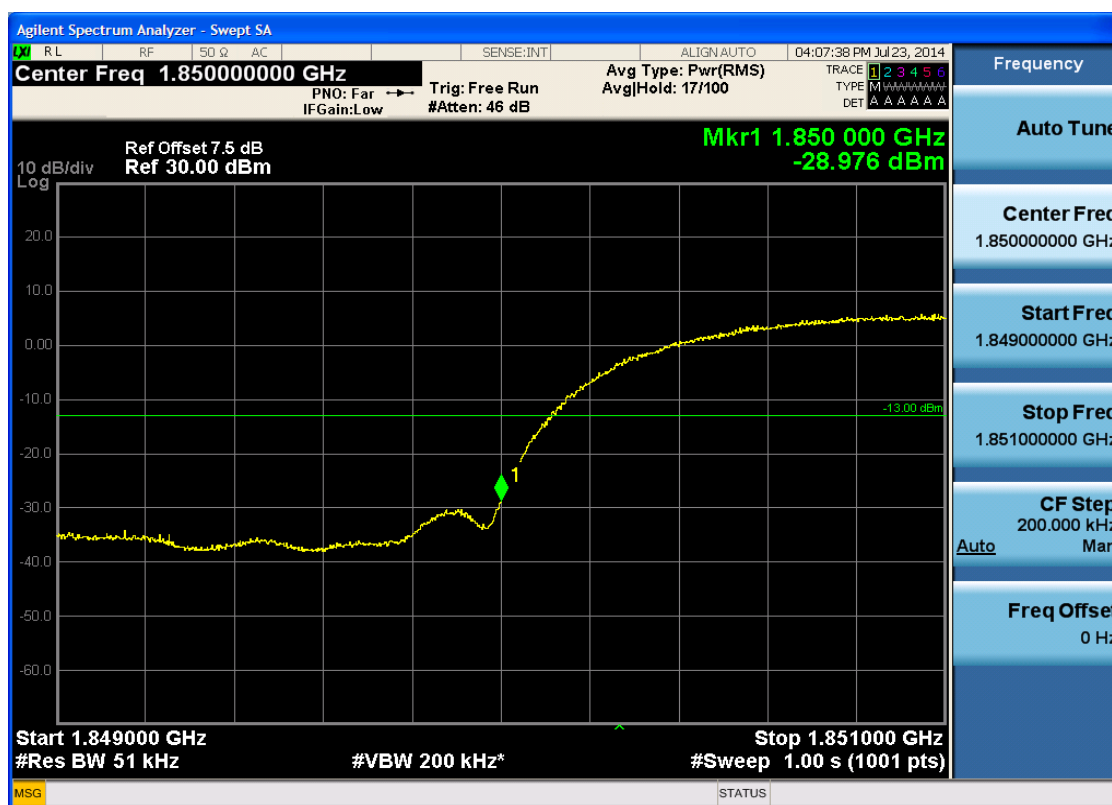
5.2.1.1.2 Test Channel = HCH



5.2.2 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

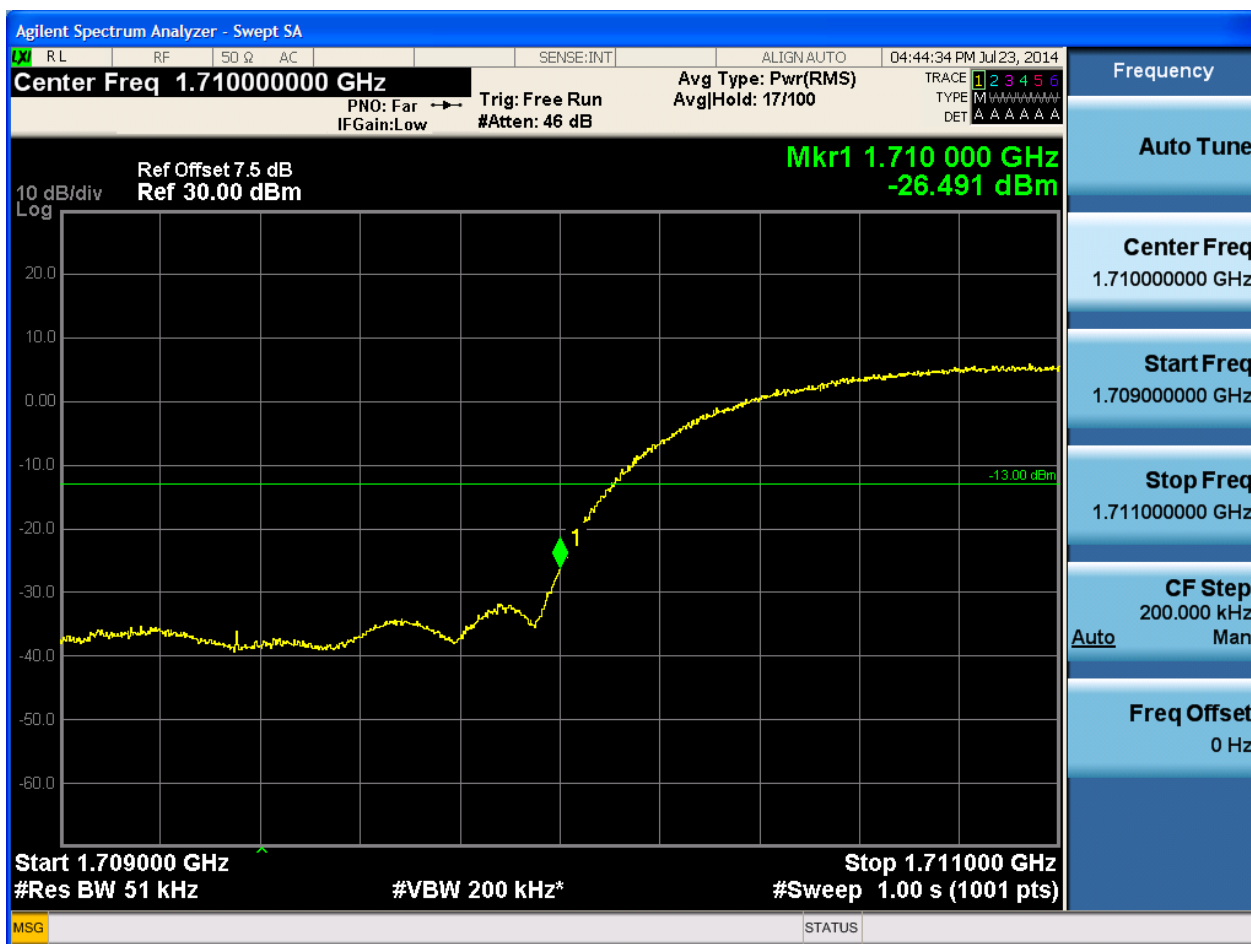




5.2.3 Test Band = WCDMA1700

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.

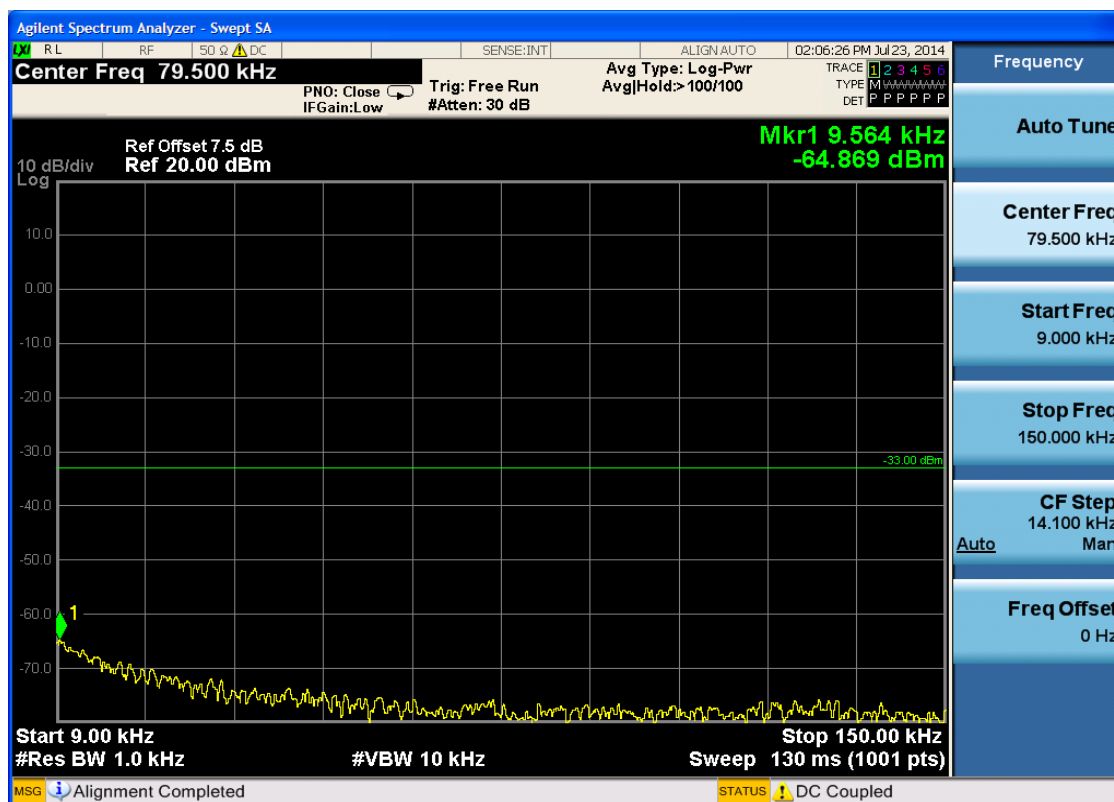
Part I - Test Plots

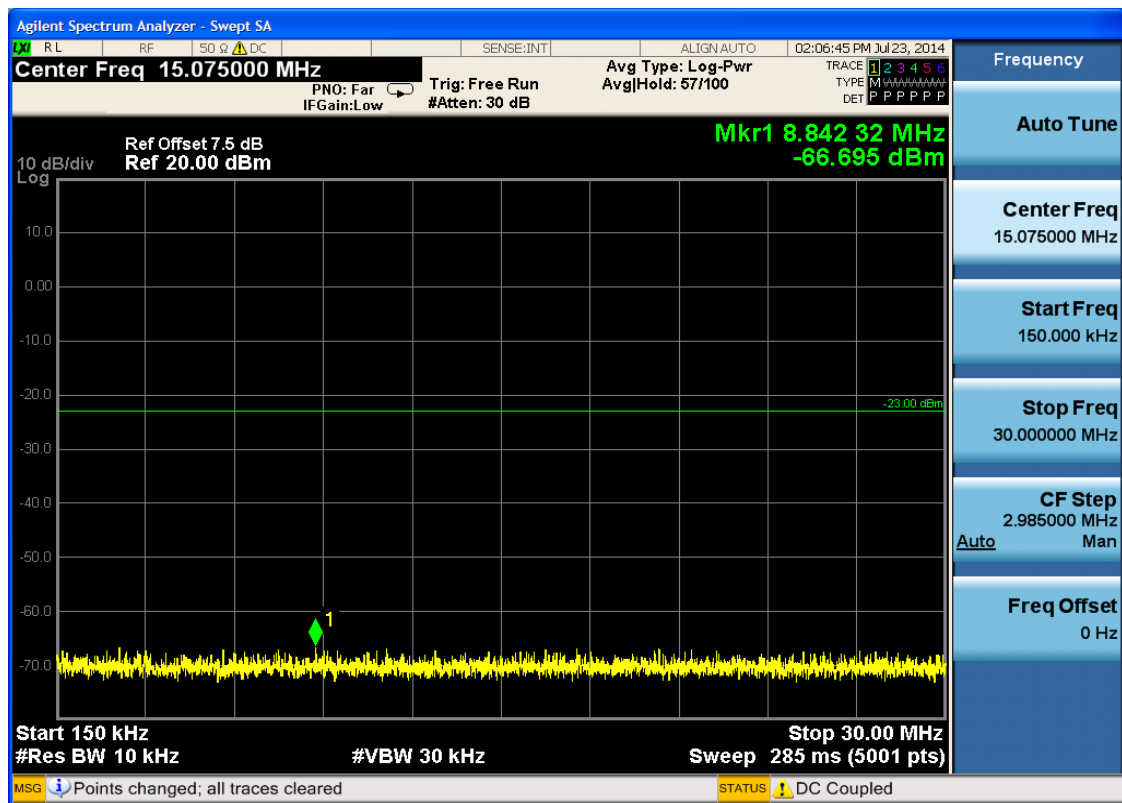
6.1 For GSM

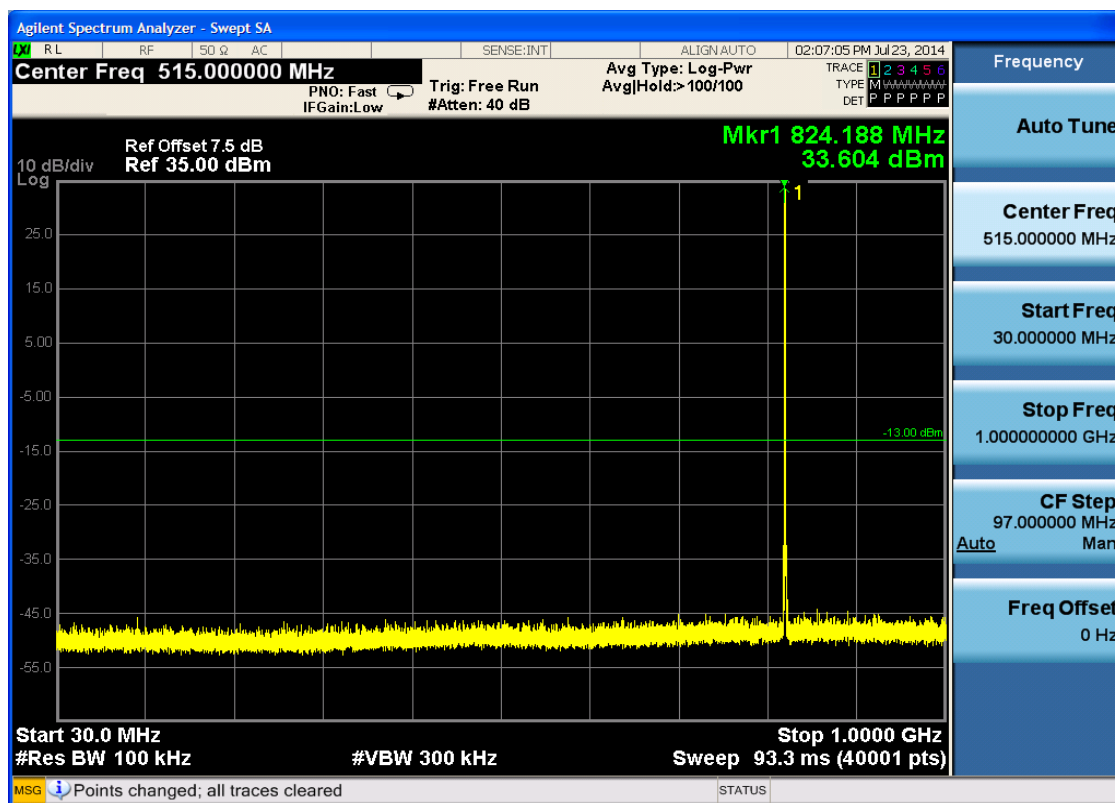
6.1.1 Test Band = GSM850

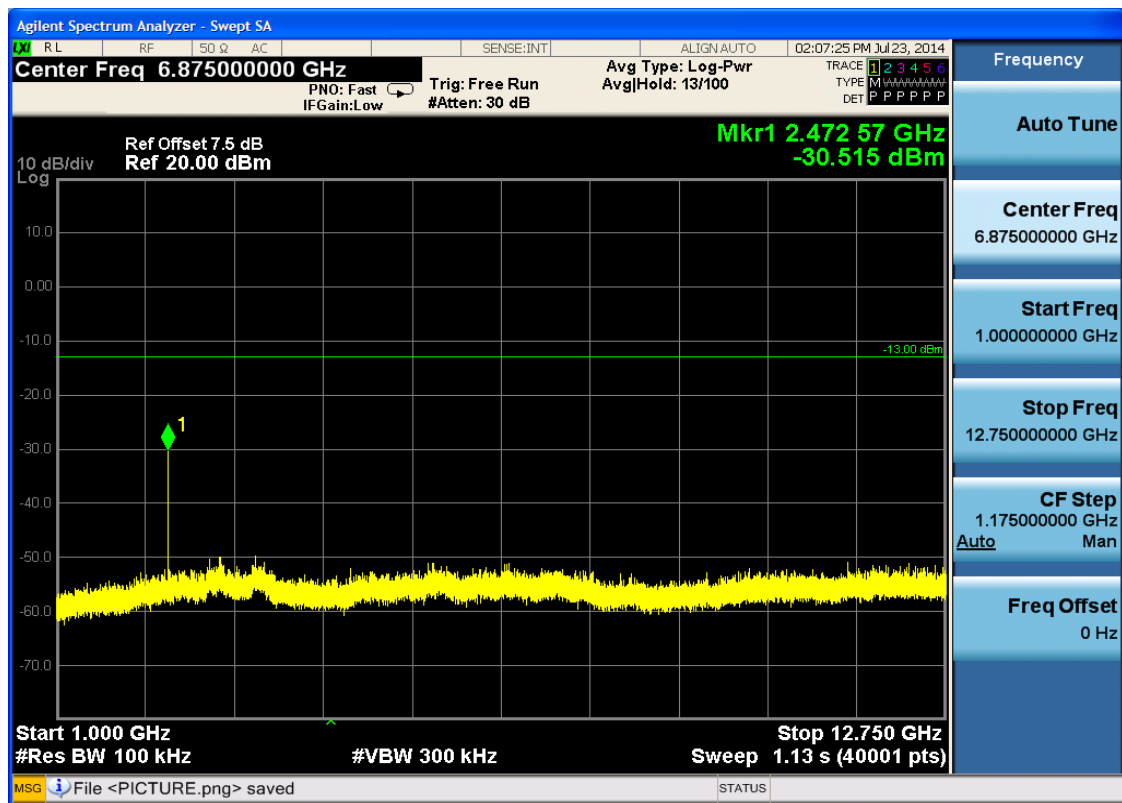
6.1.1.1 Test Mode = GSM/TM1

6.1.1.1.1 Test Channel = LCH

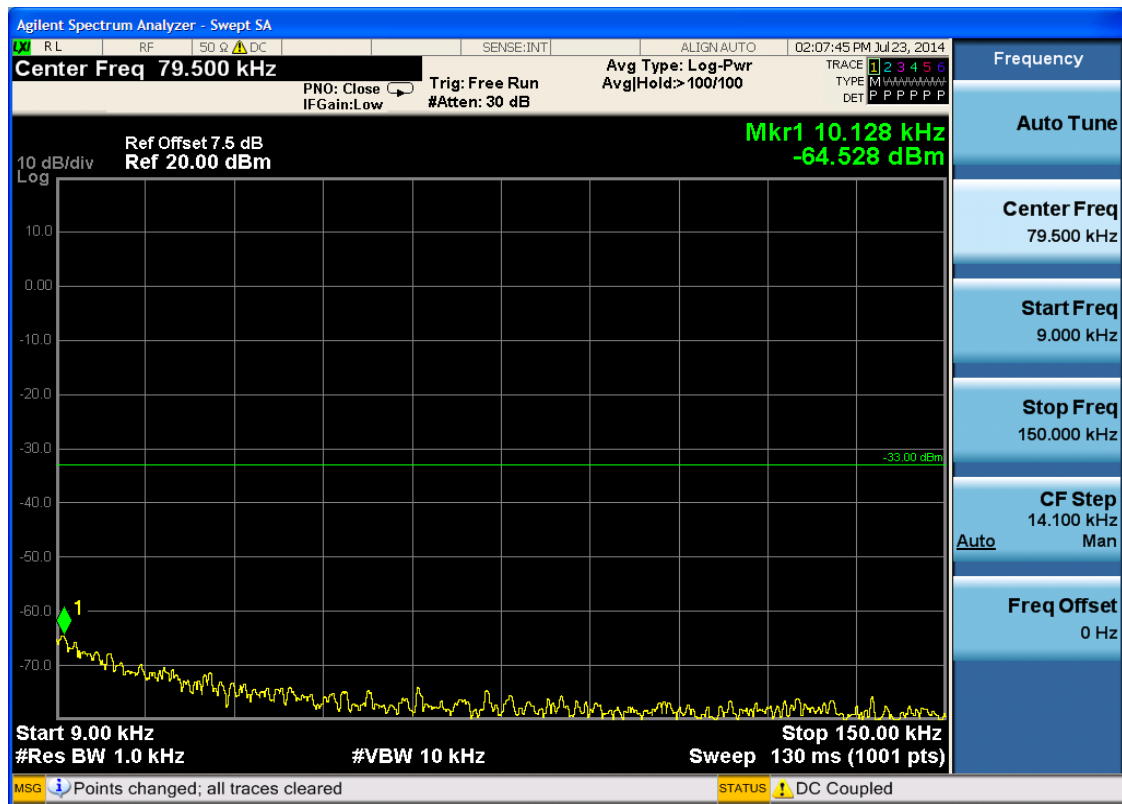


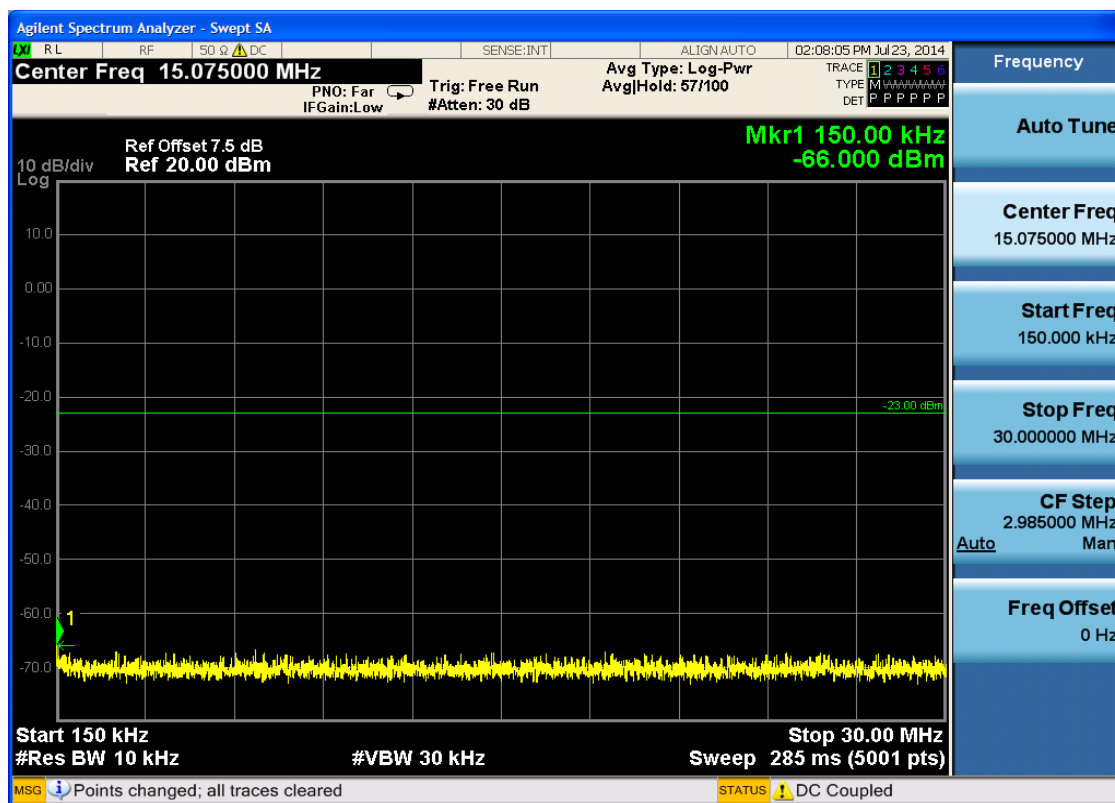


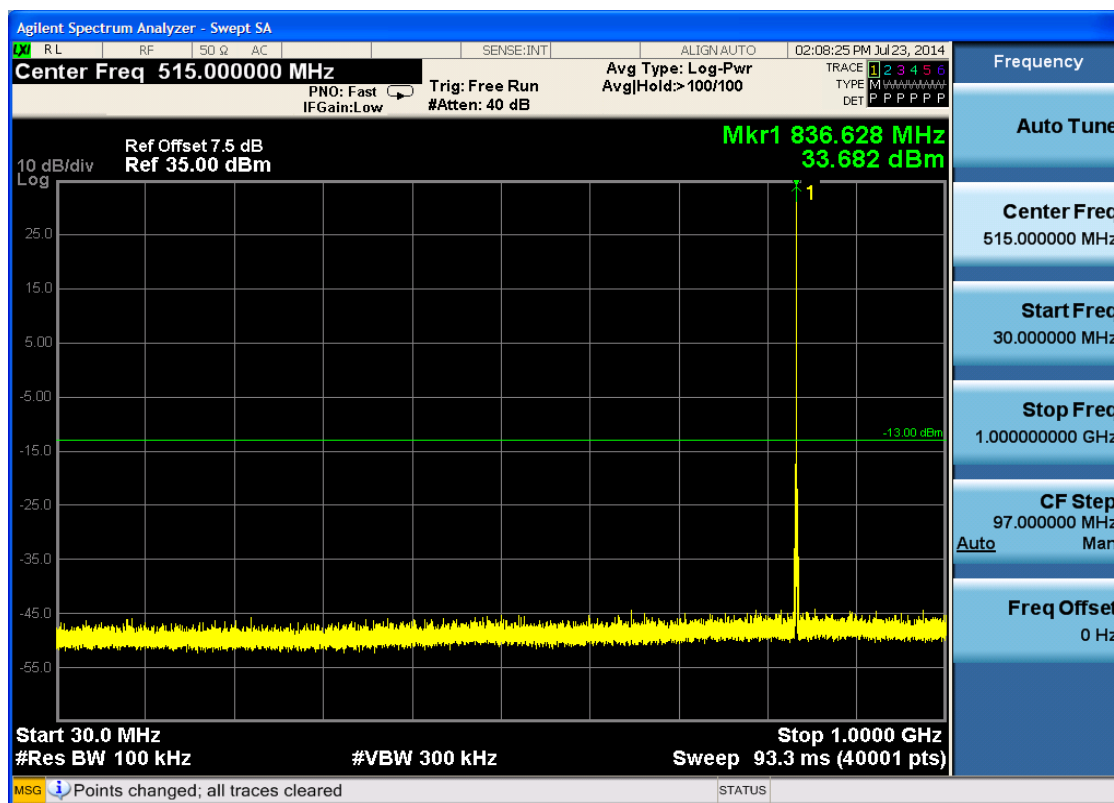


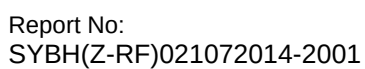


6.1.1.1.2 Test Channel = MCH

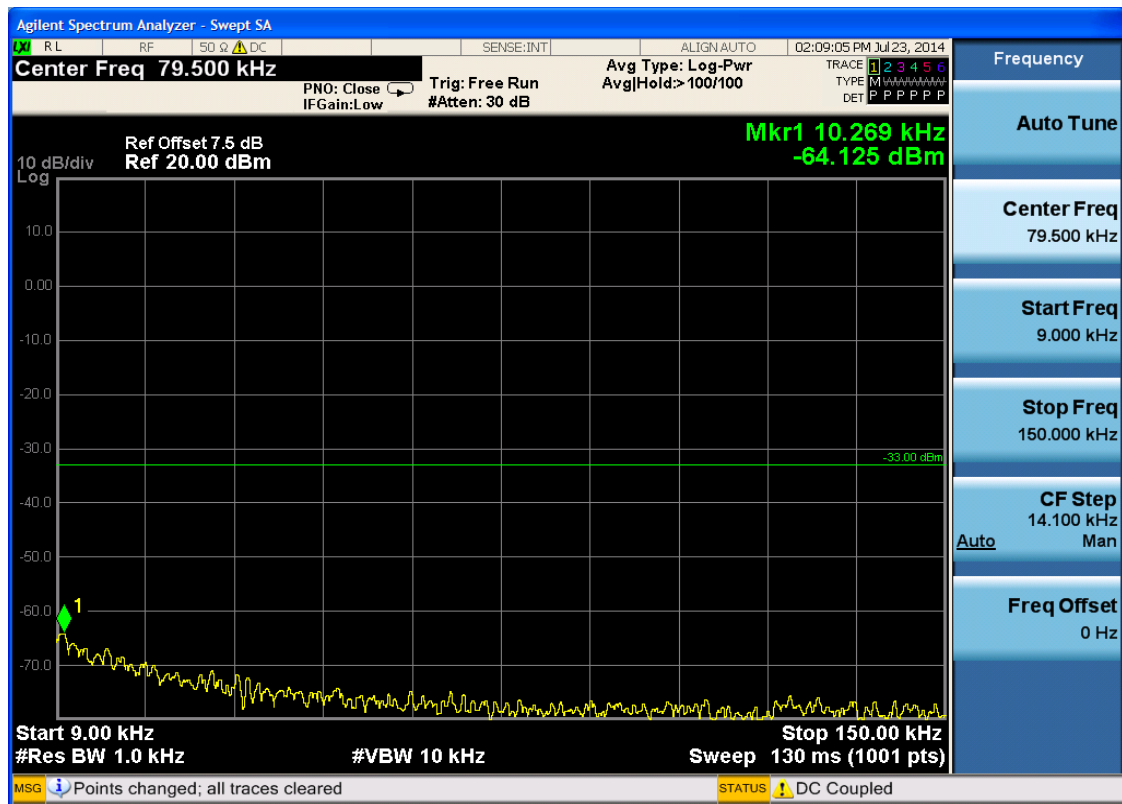


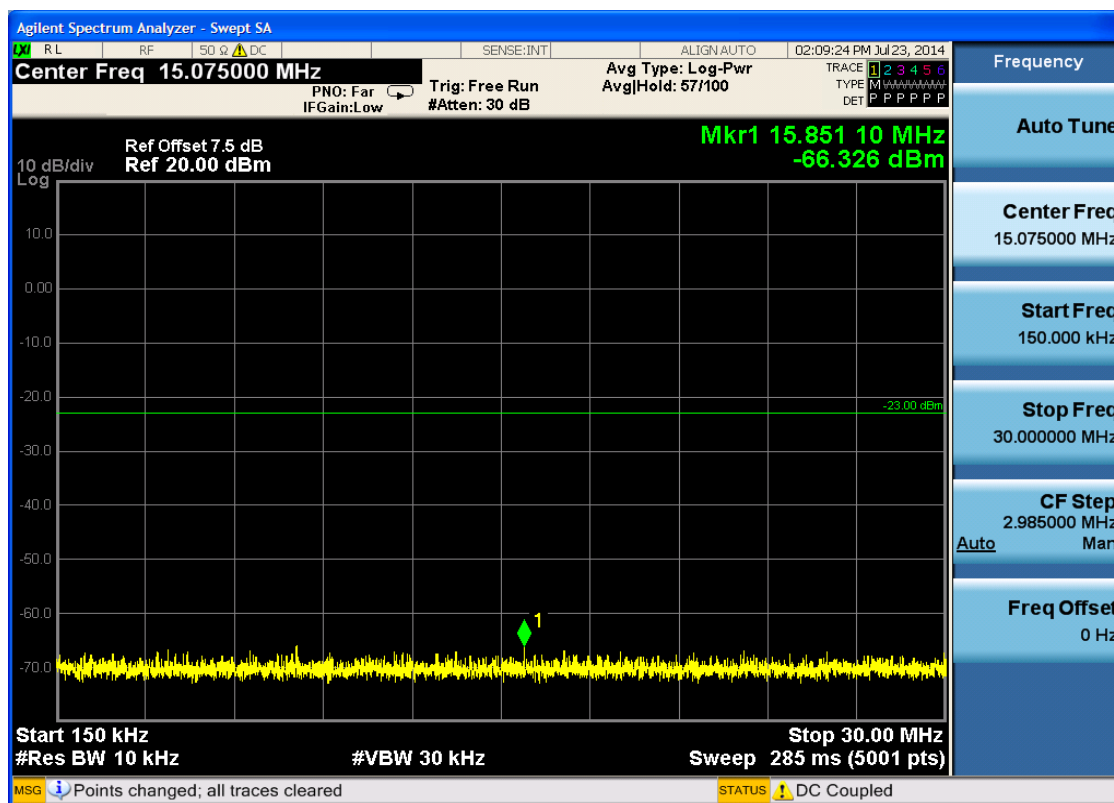


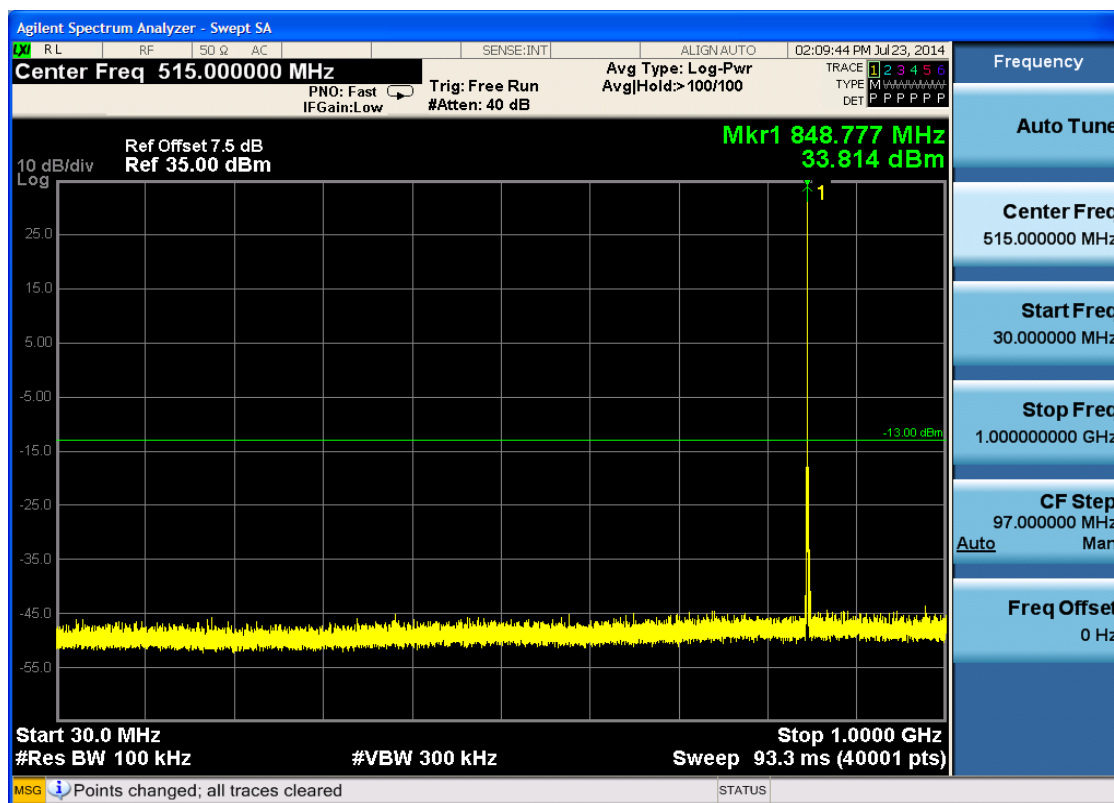


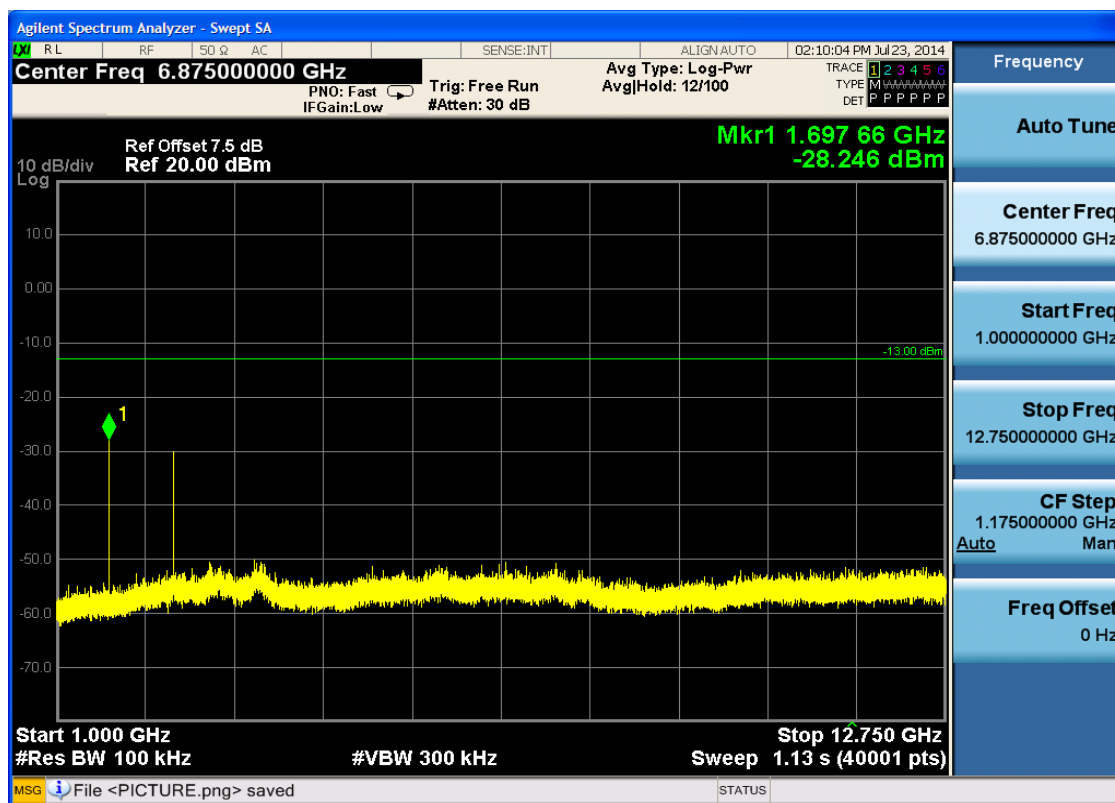


6.1.1.1.3 Test Channel = HCH



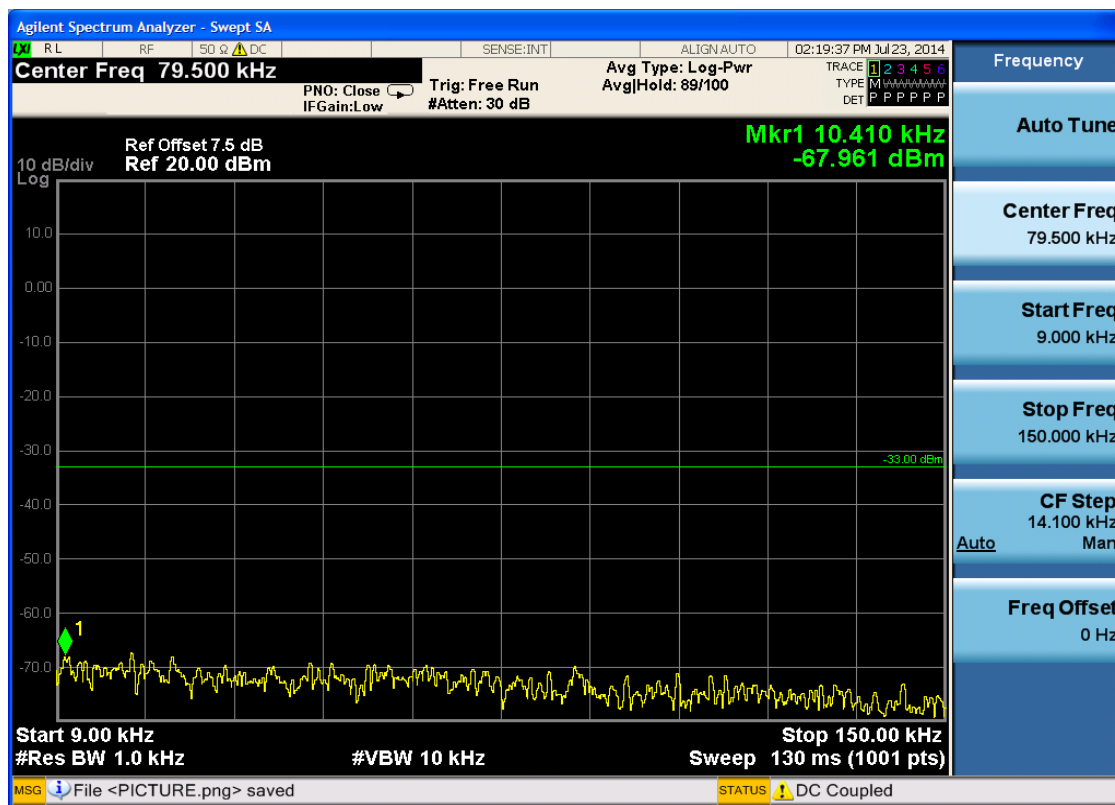


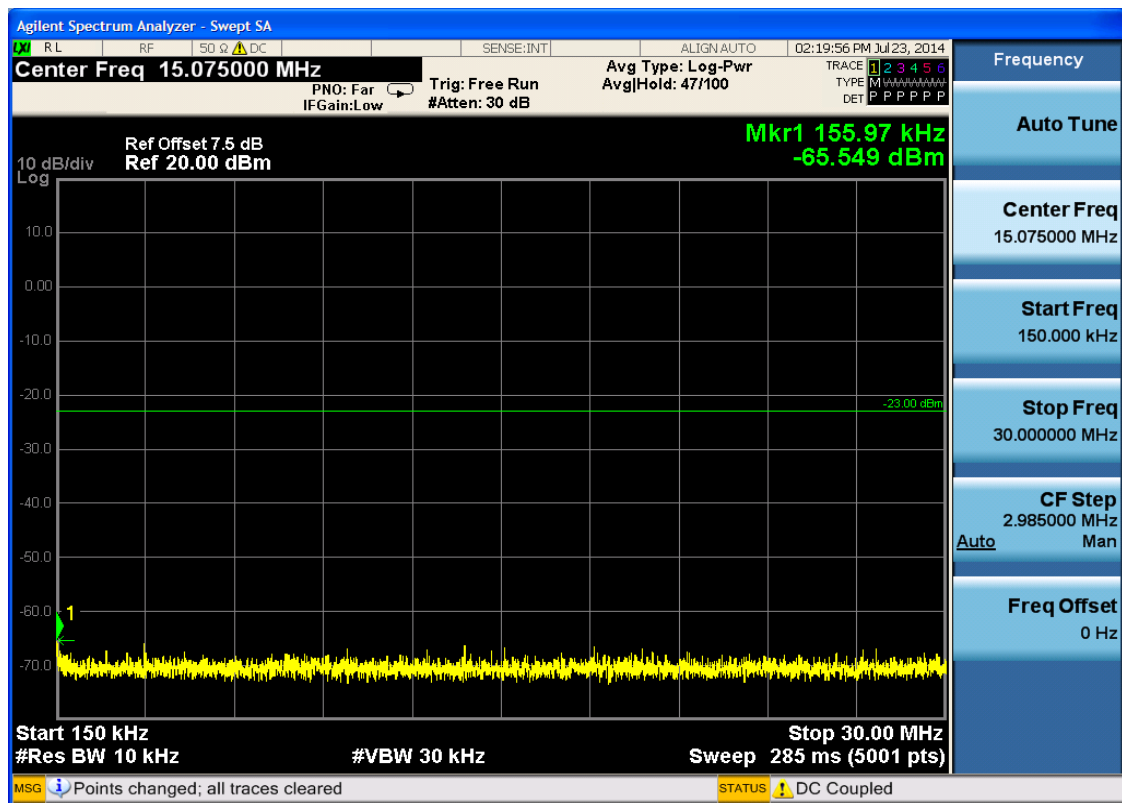


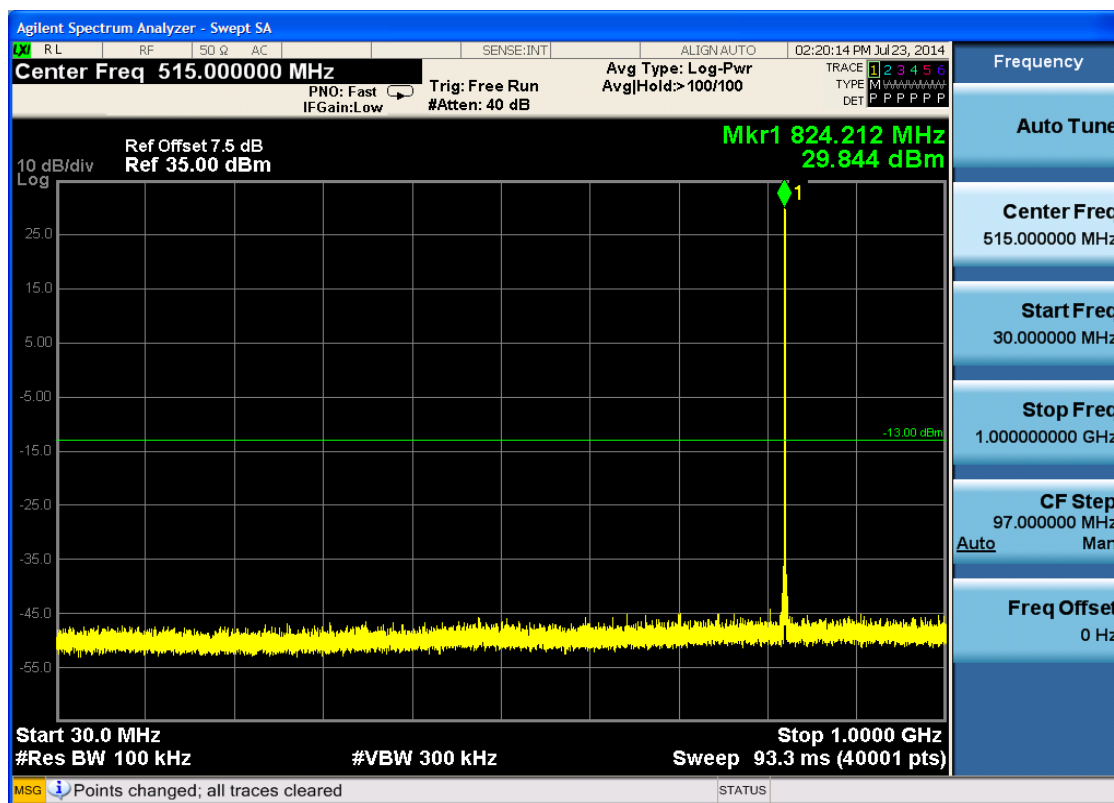


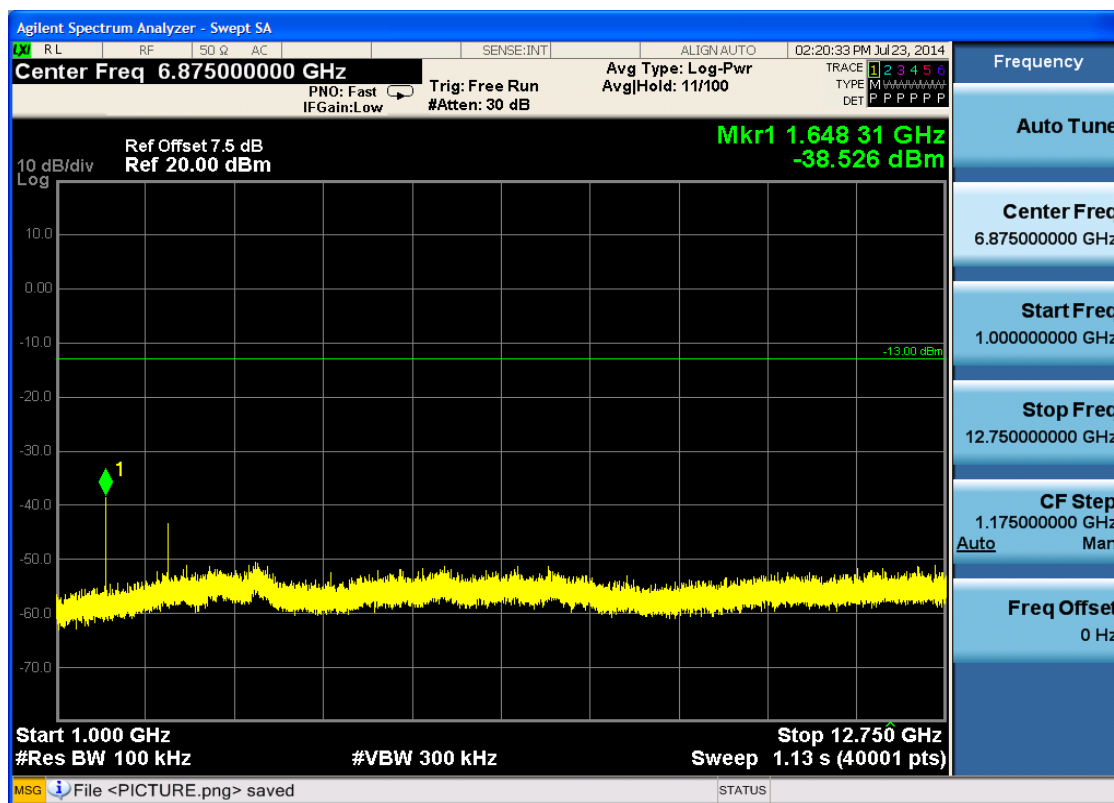
6.1.1.2 Test Mode = GSM/TM2

6.1.1.2.1 Test Channel = LCH

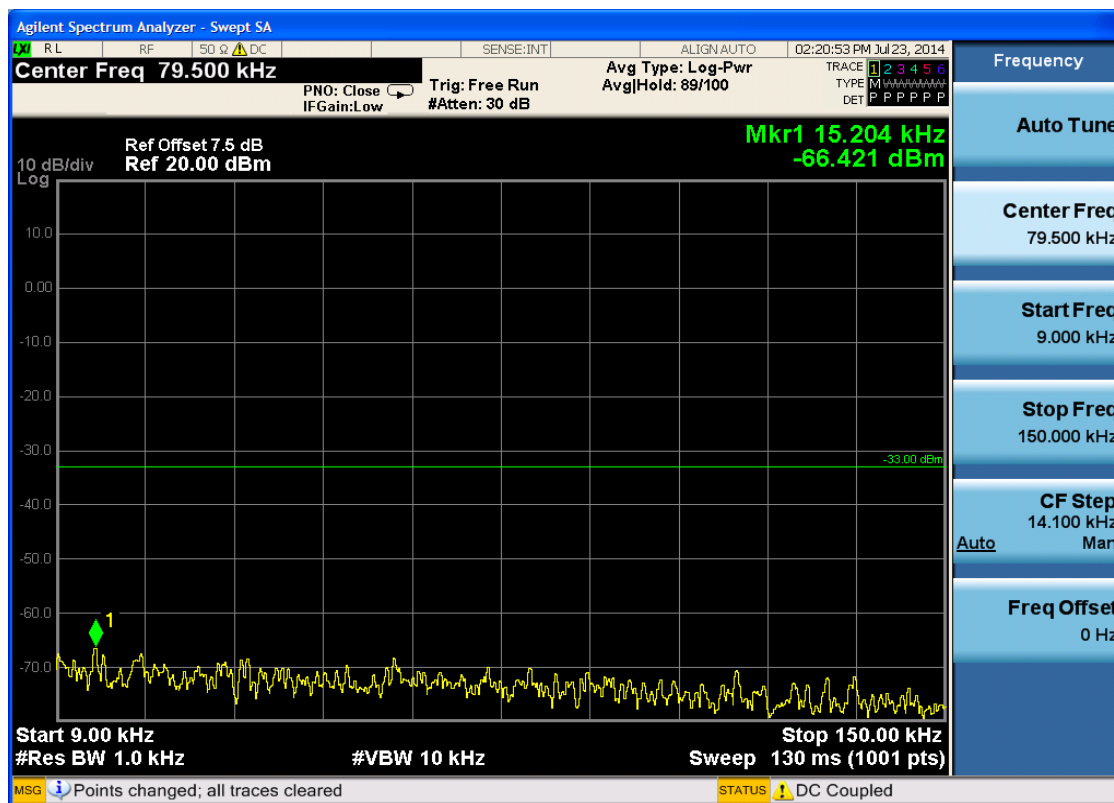


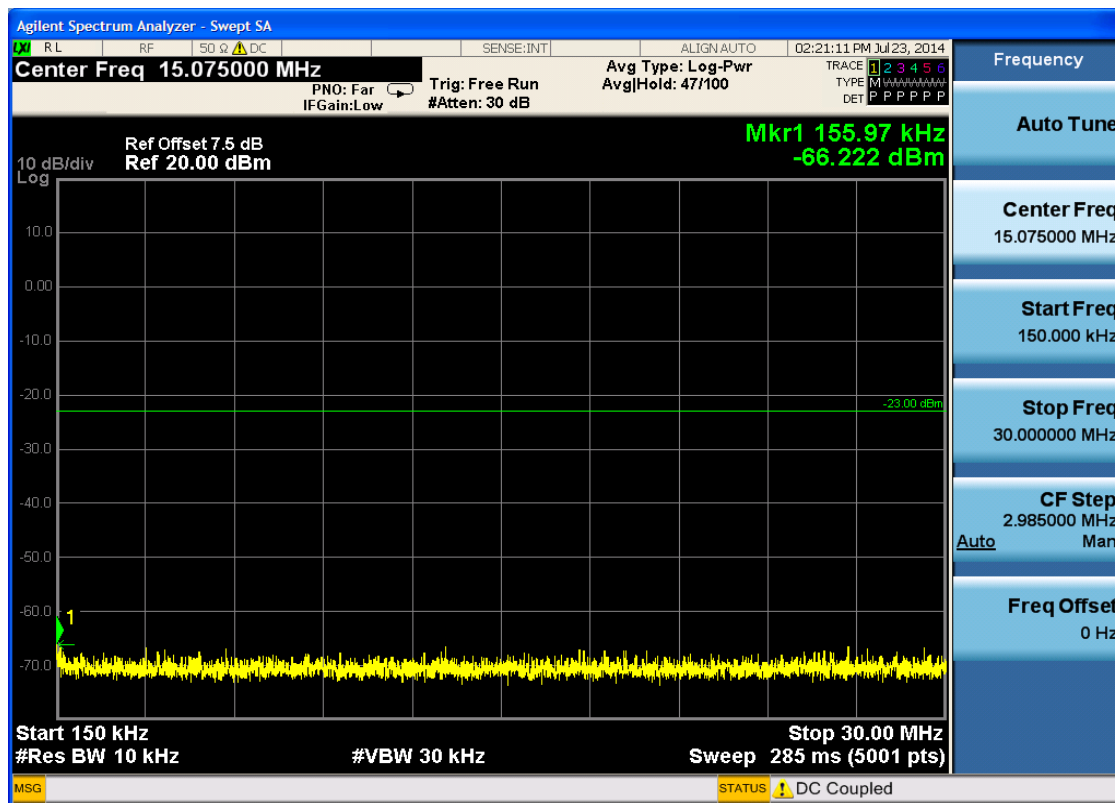


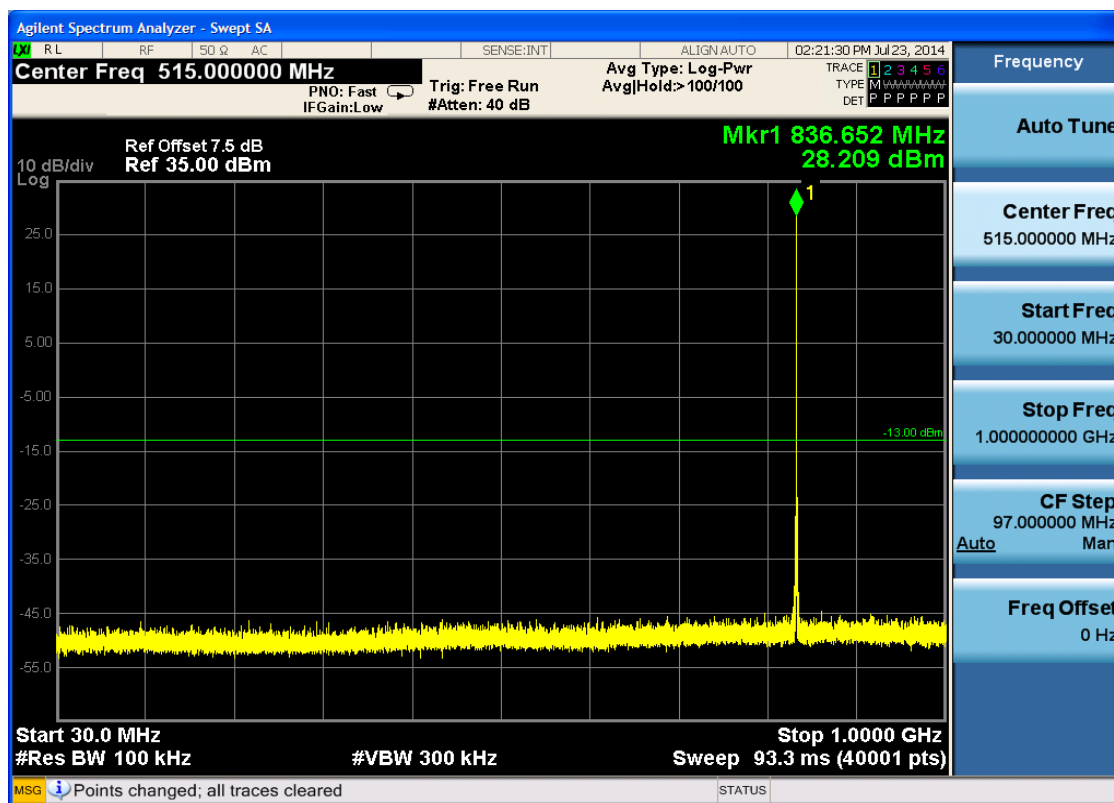


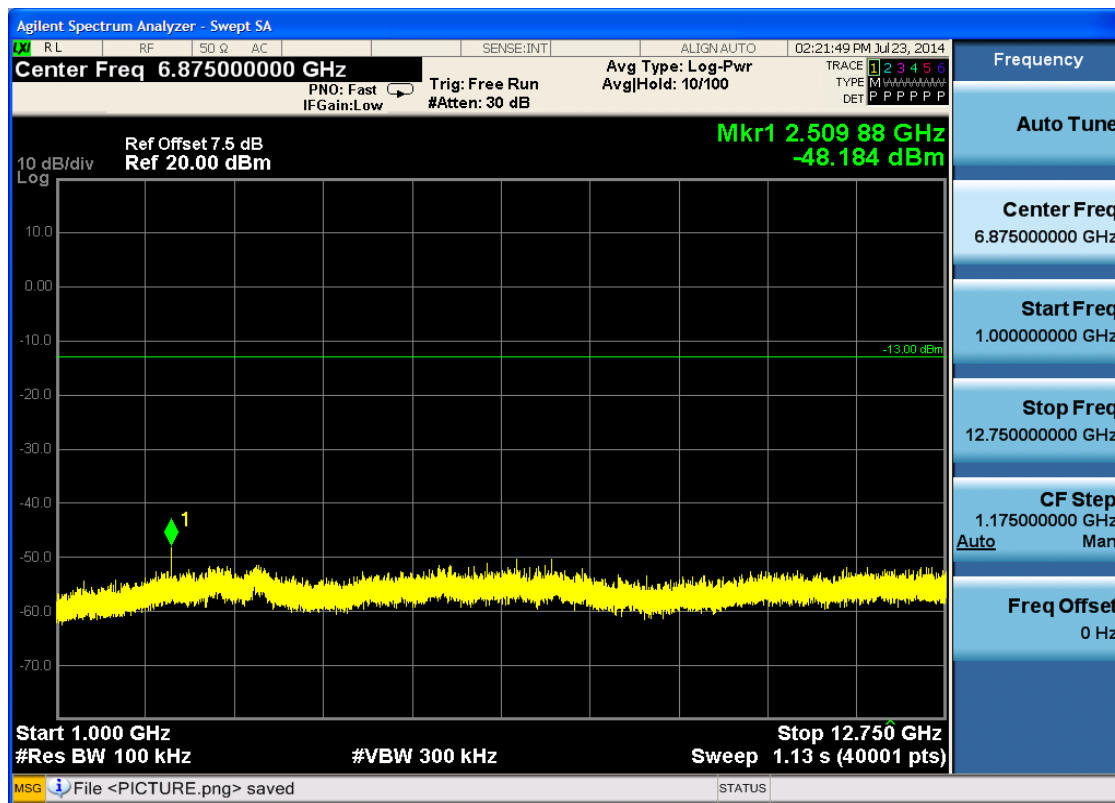


6.1.1.2.2 Test Channel = MCH

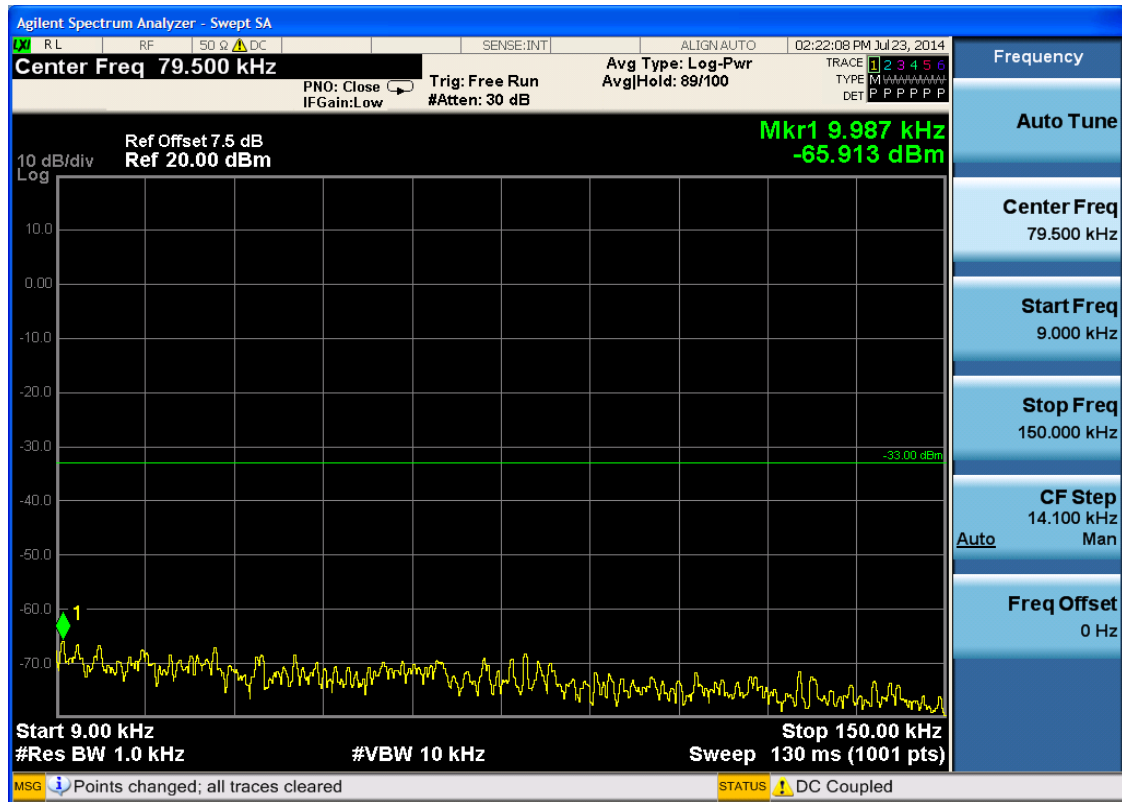


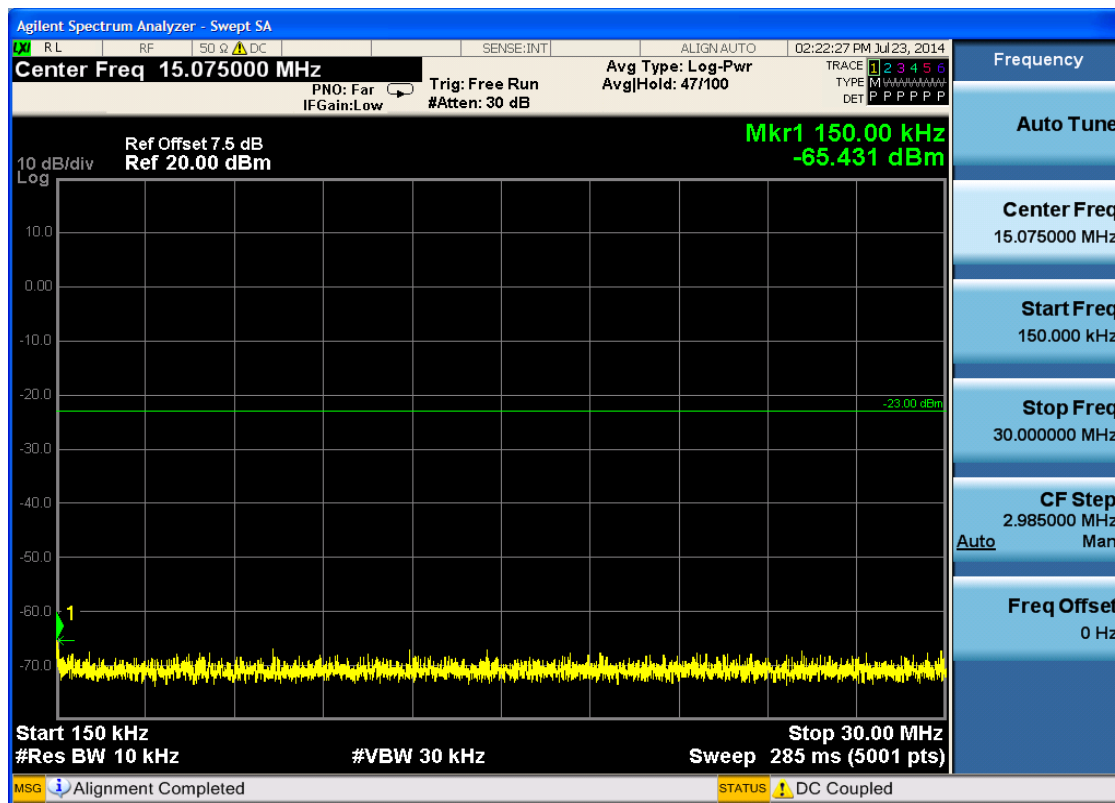


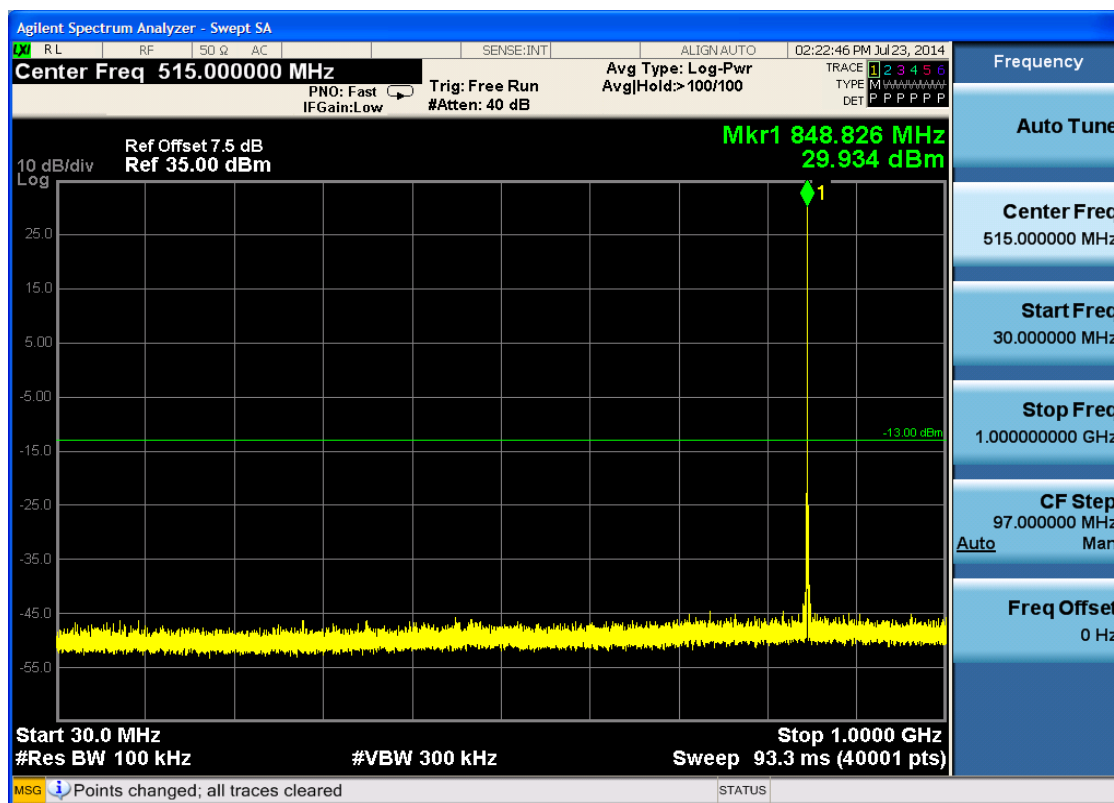


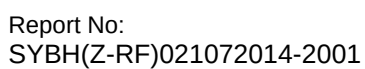


6.1.1.2.3 Test Channel = HCH





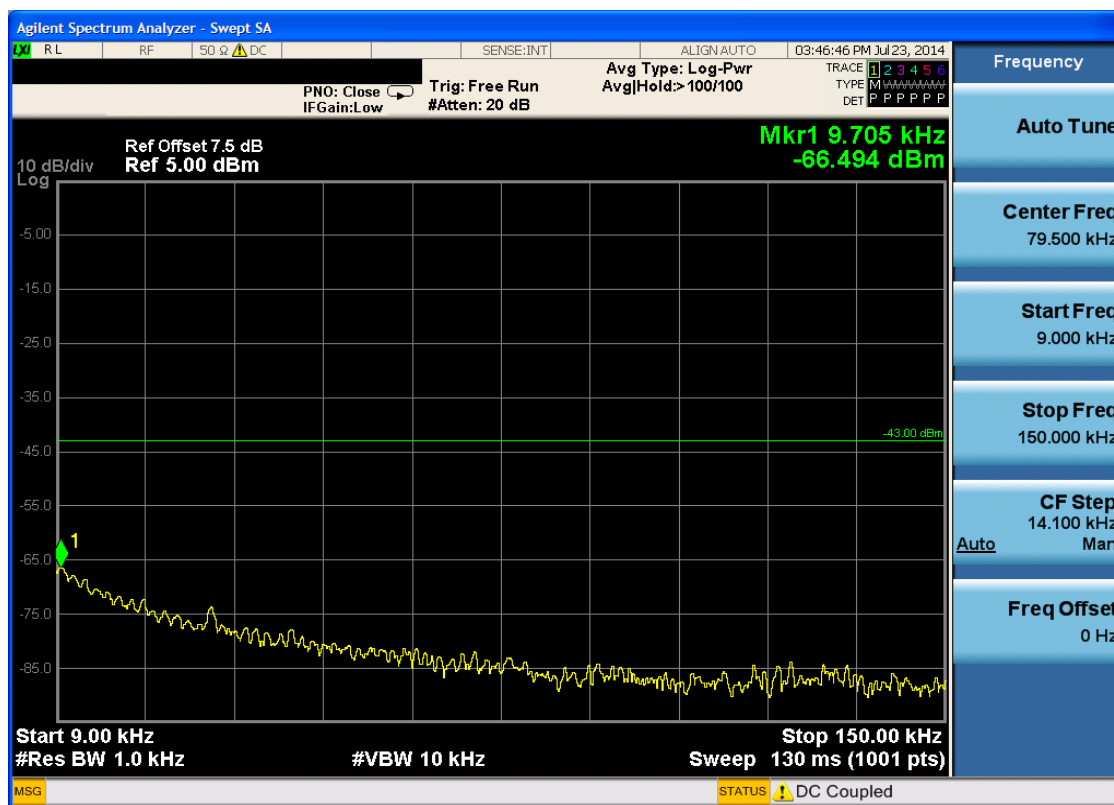


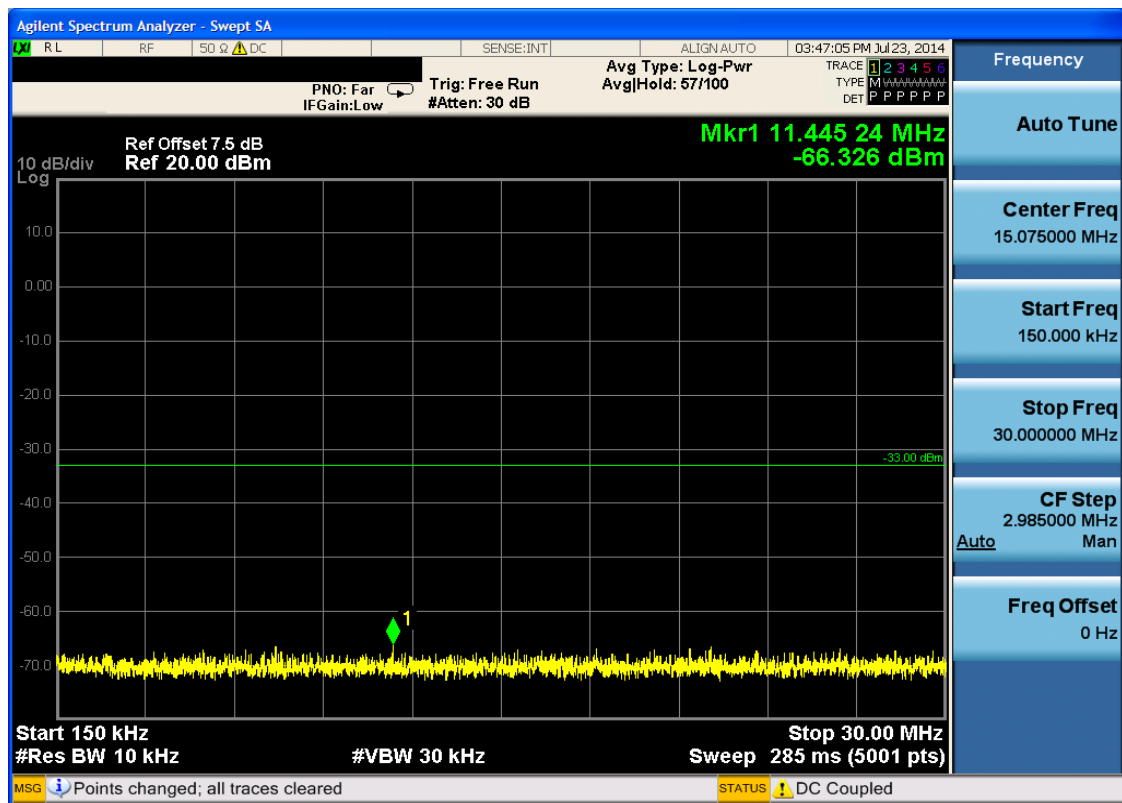


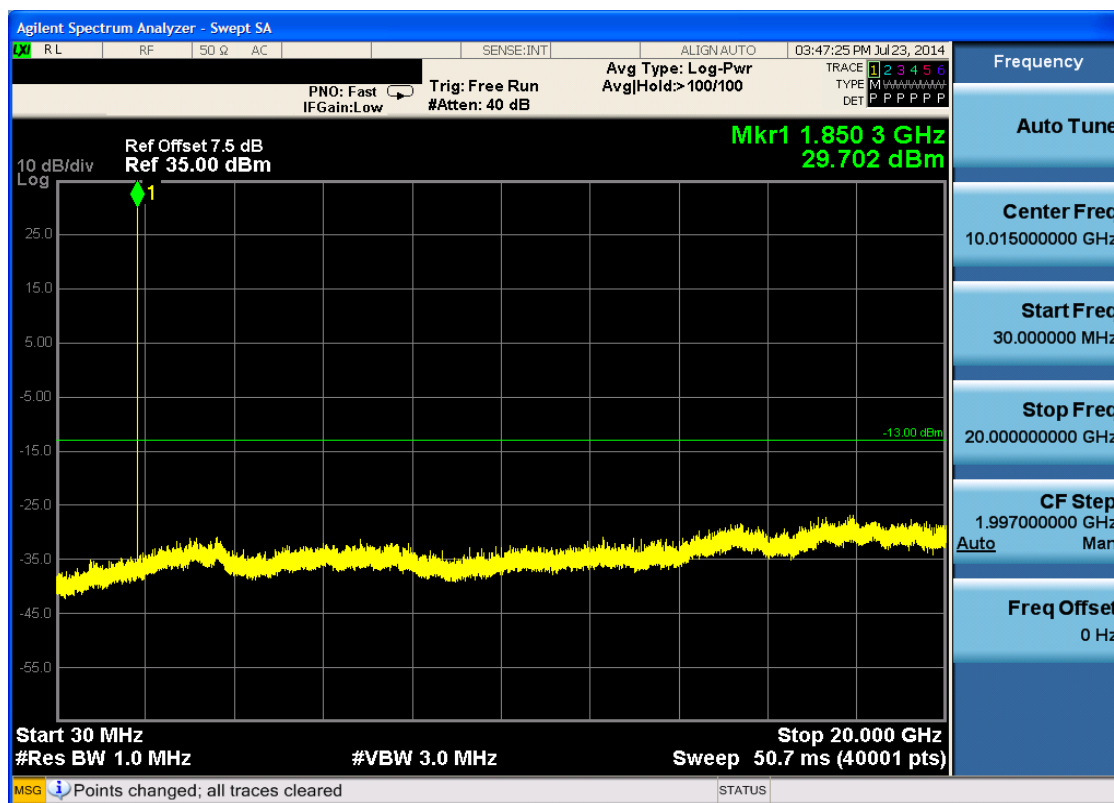
6.1.2 Test Band = GSM1900

6.1.2.1 Test Mode = GSM/TM1

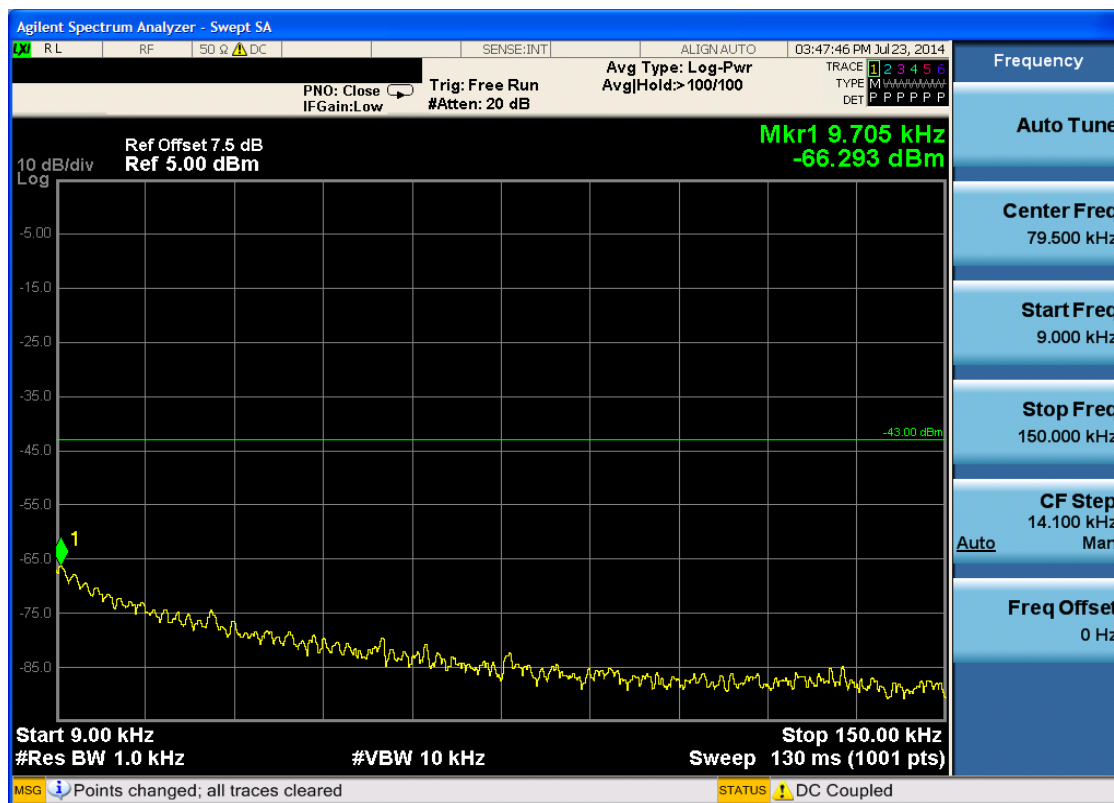
6.1.2.1.1 Test Channel = LCH

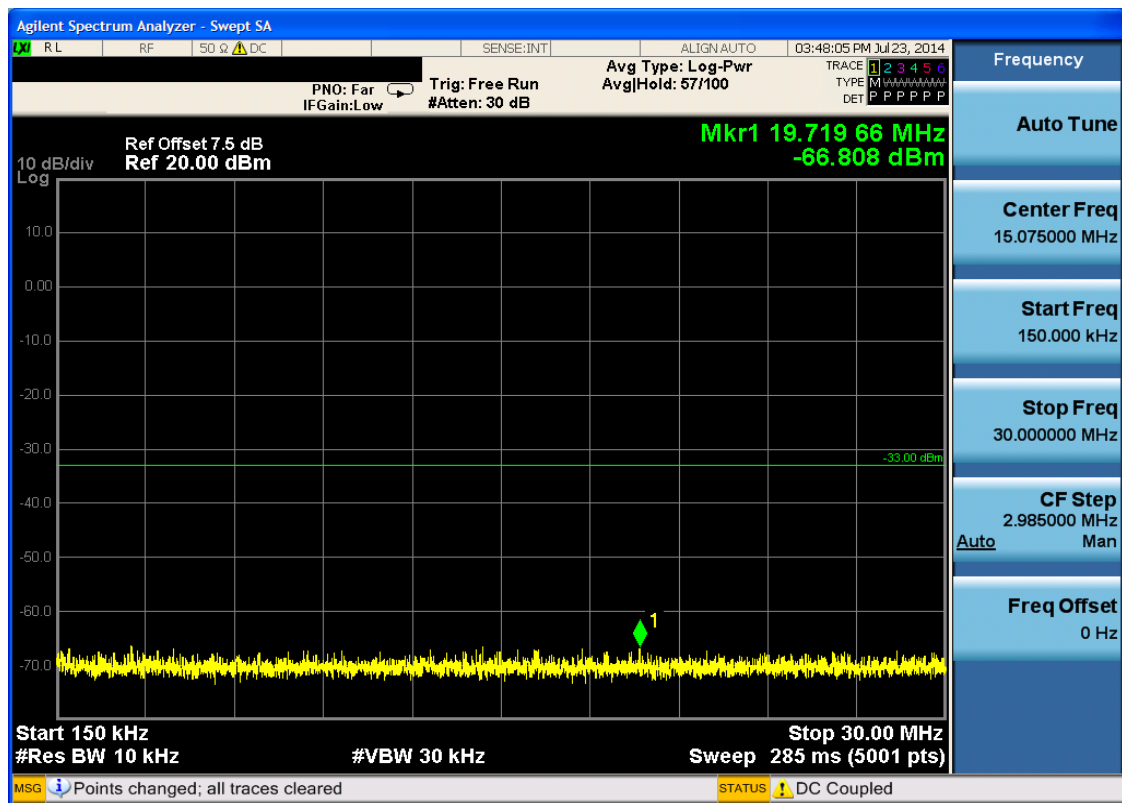


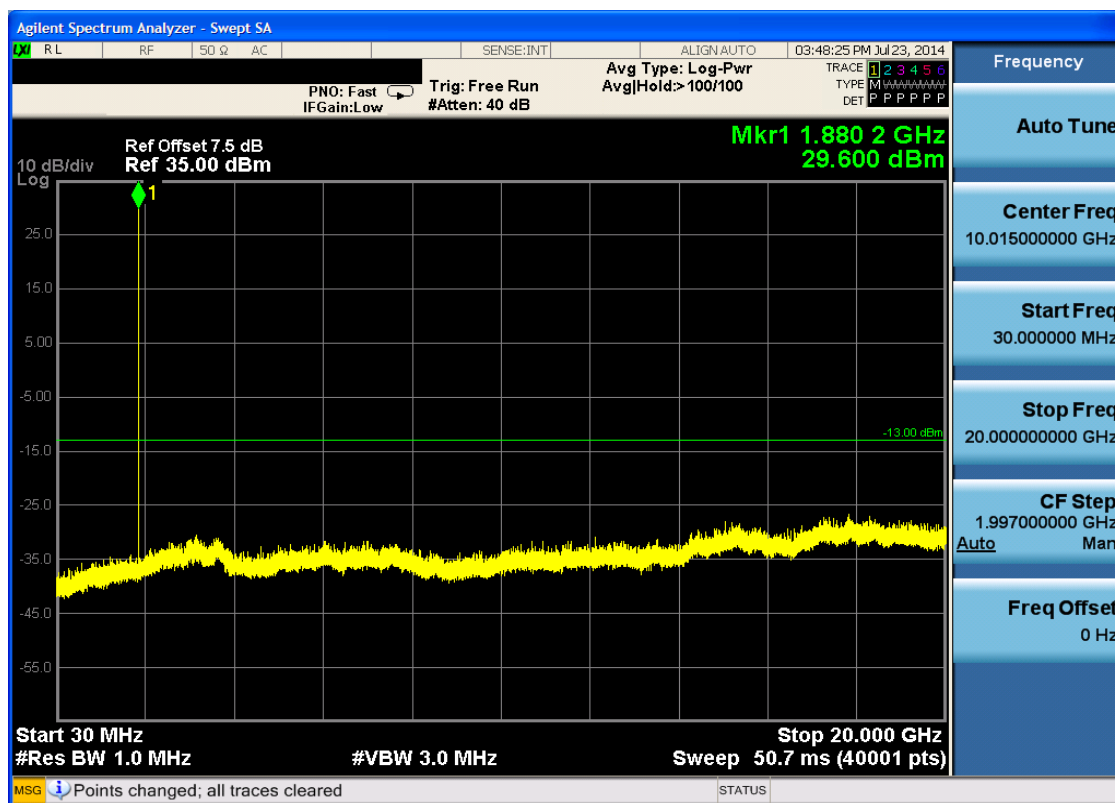




6.1.2.1.2 Test Channel = MCH

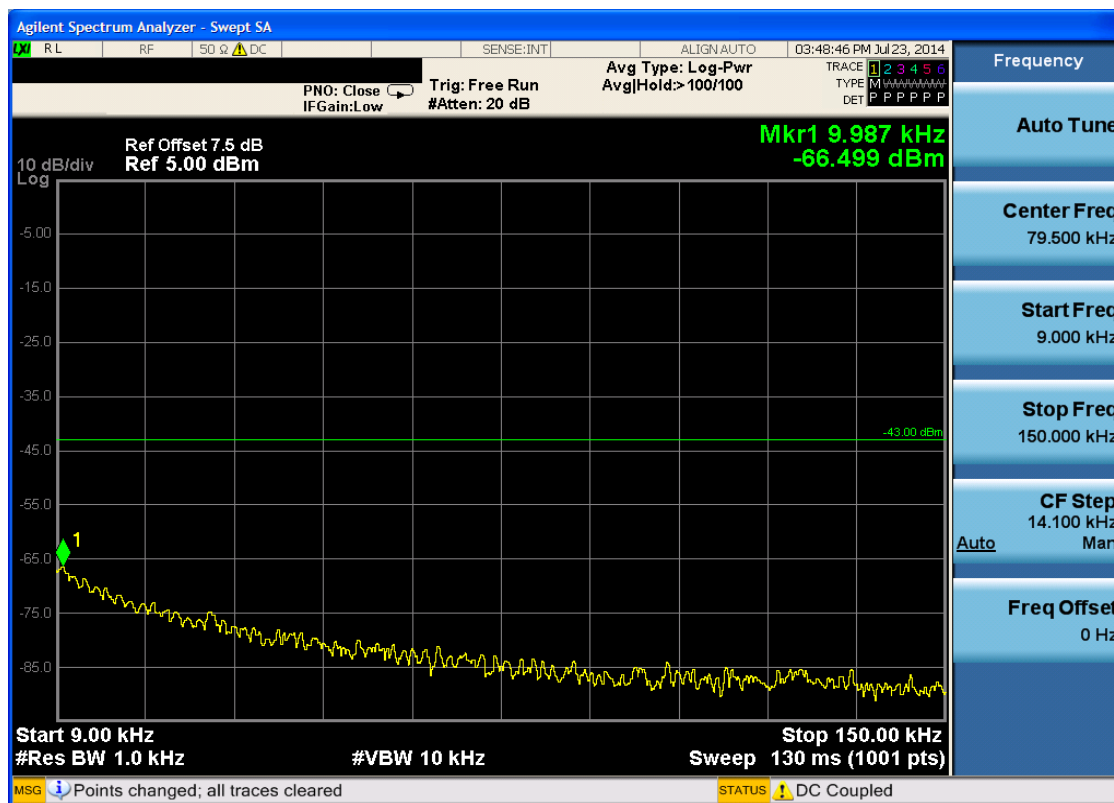


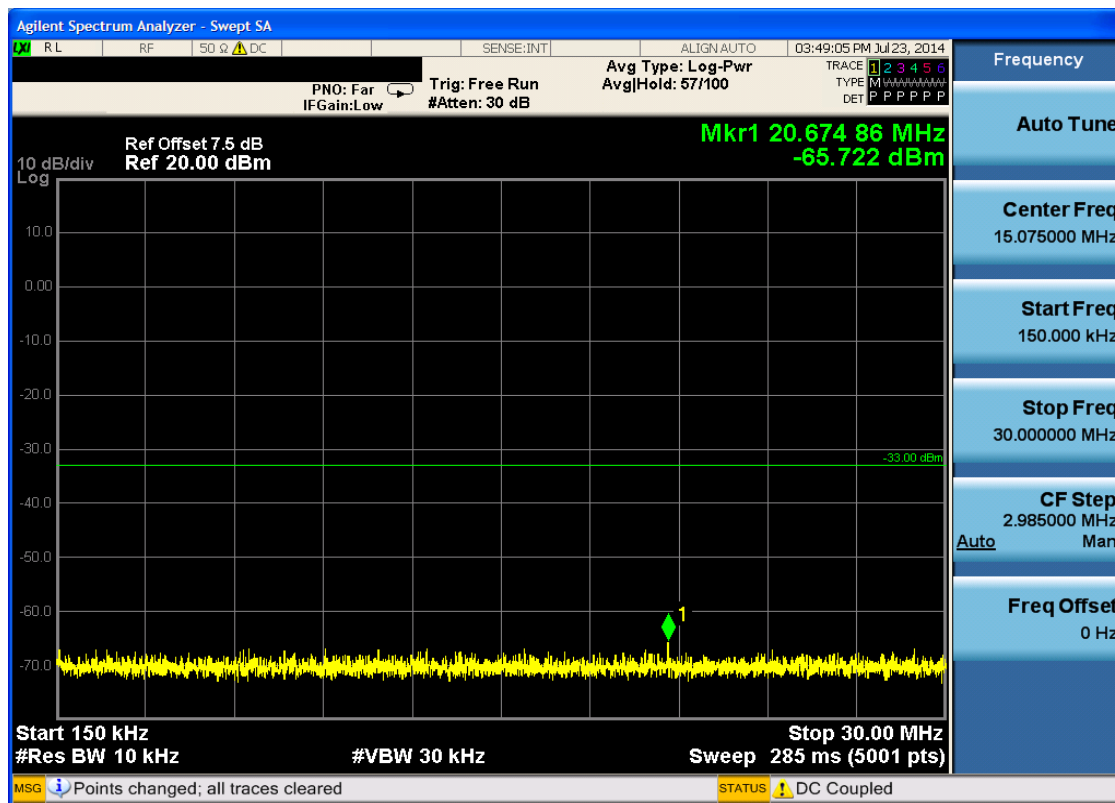


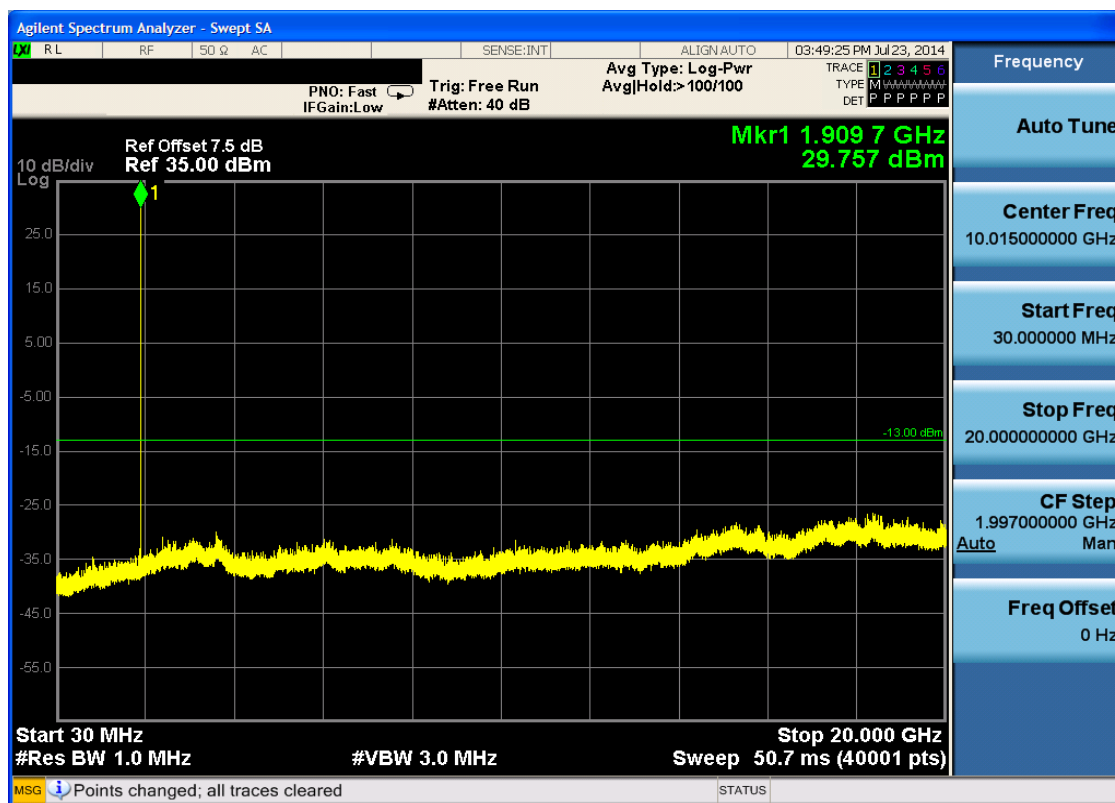




6.1.2.1.3 Test Channel = HCH

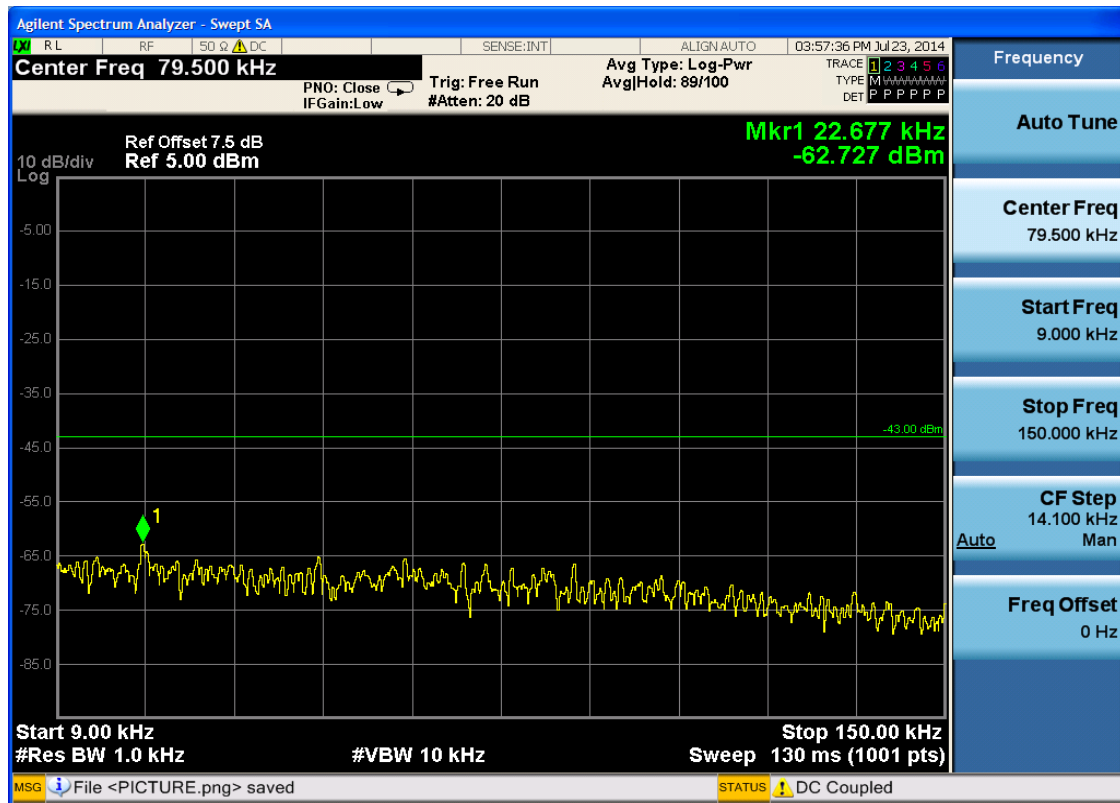


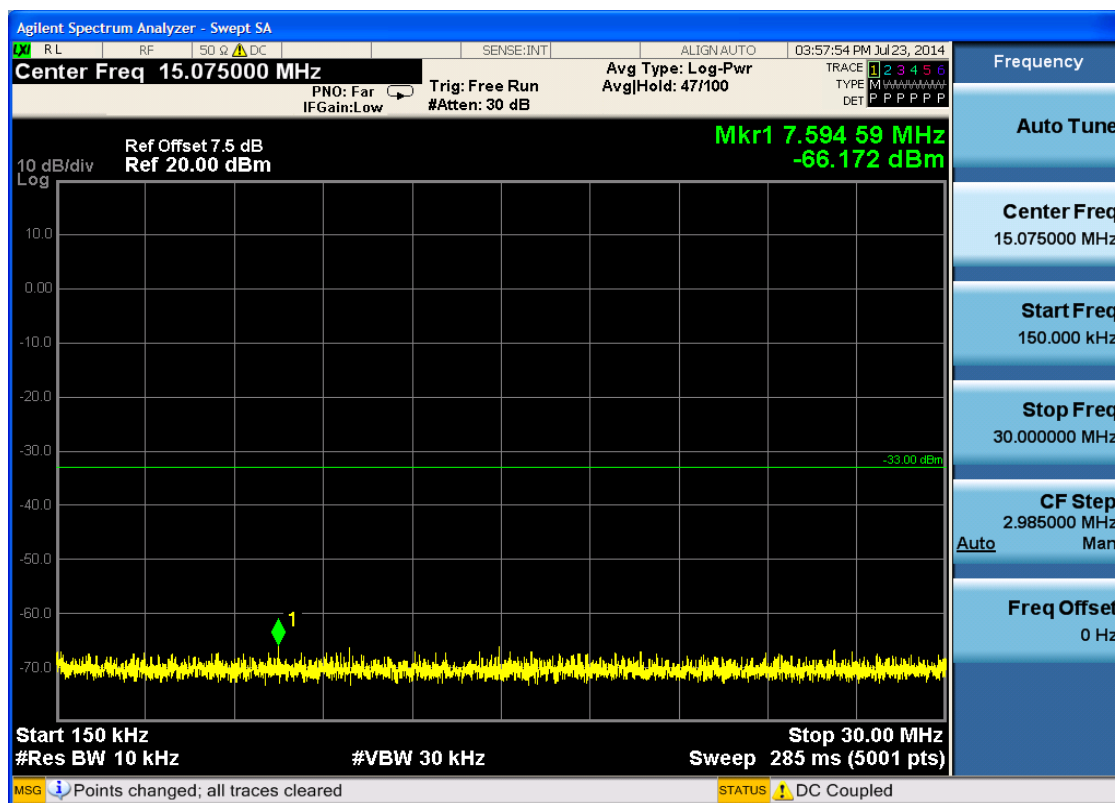


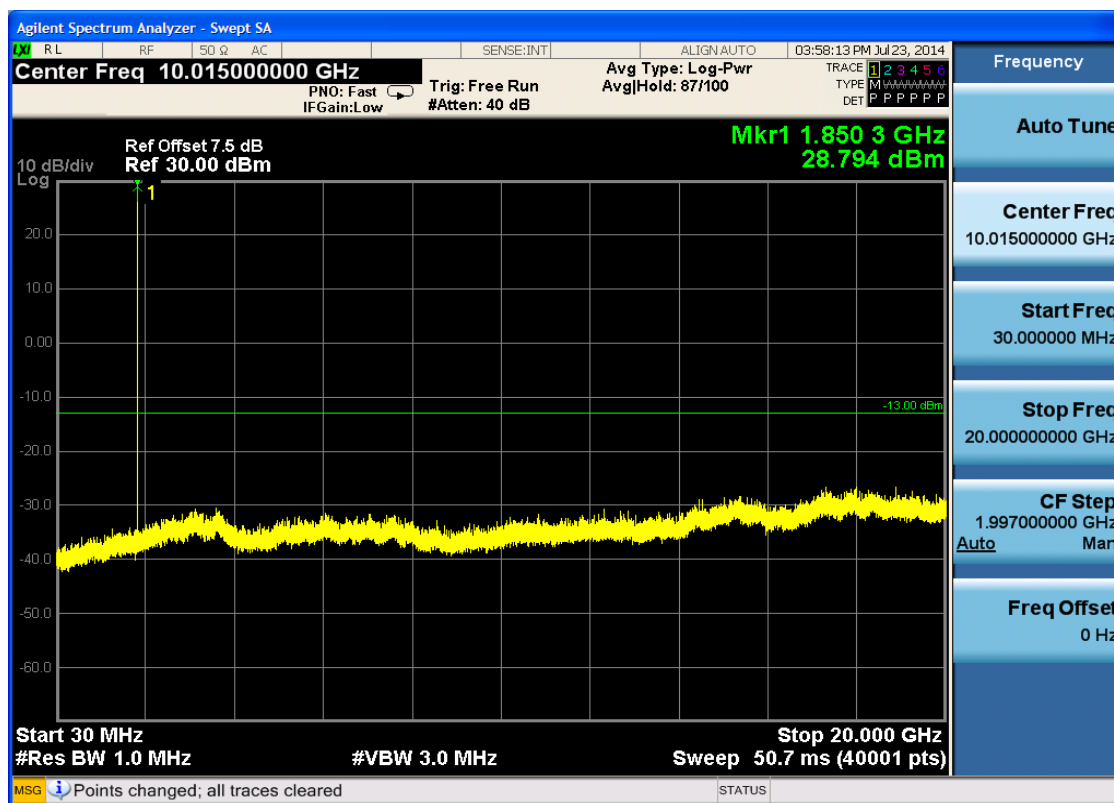


6.1.3.2 Test Mode = GSM/TM2

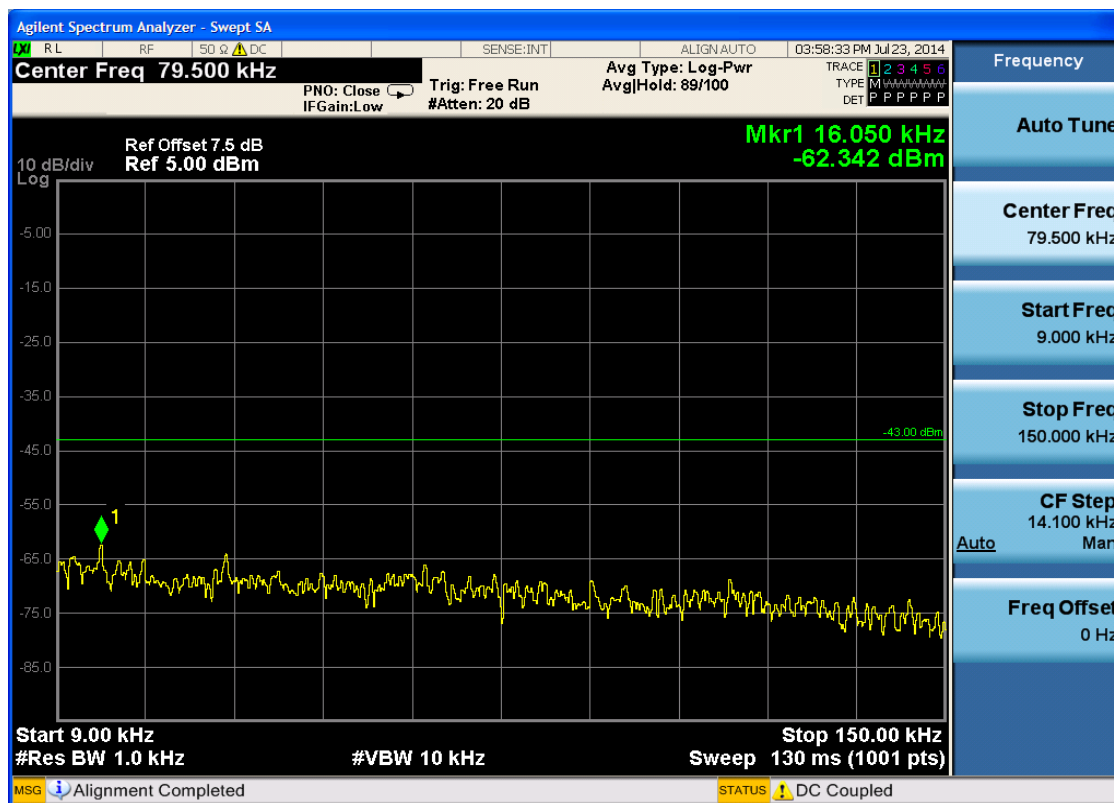
6.1.3.2.1 Test Channel = LCH

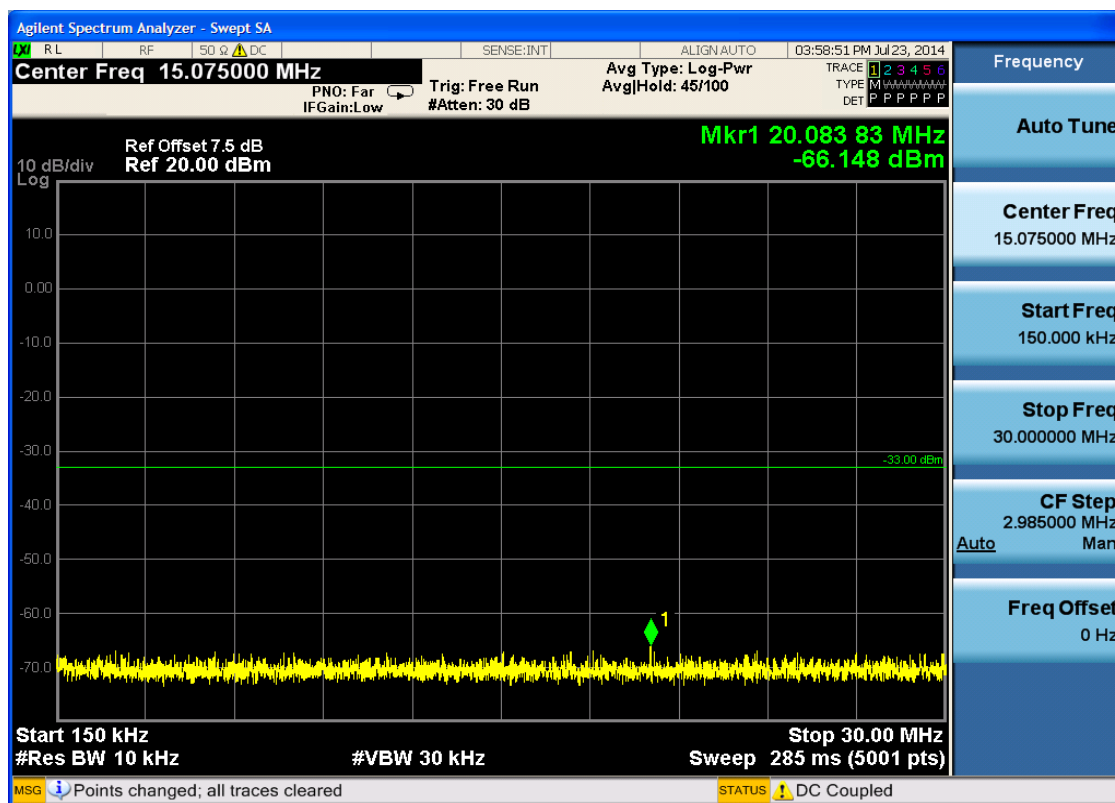


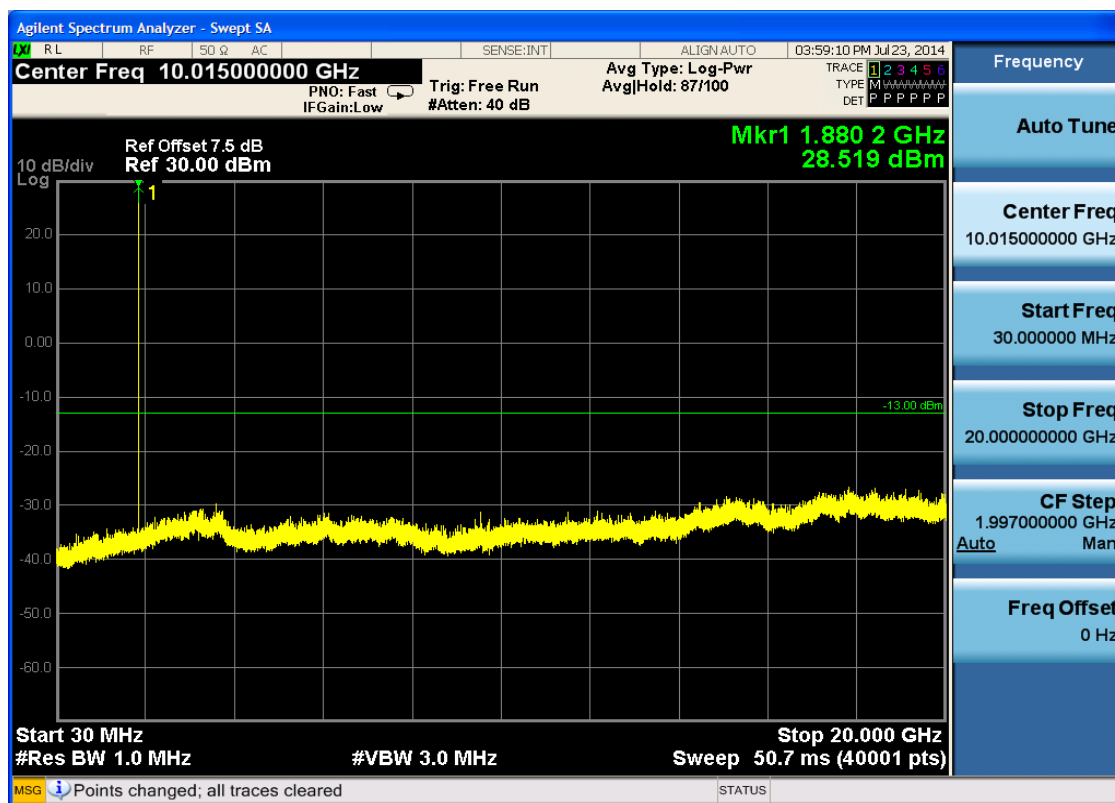




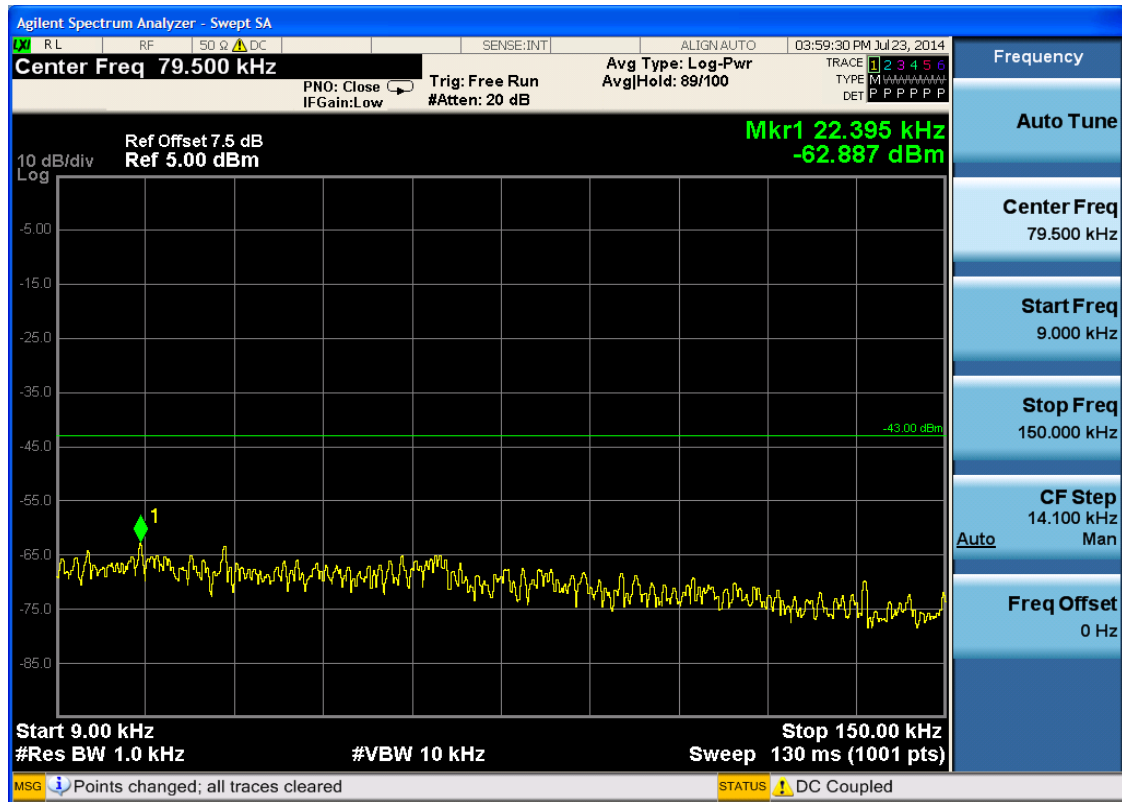
6.1.3.2.2 Test Channel = MCH

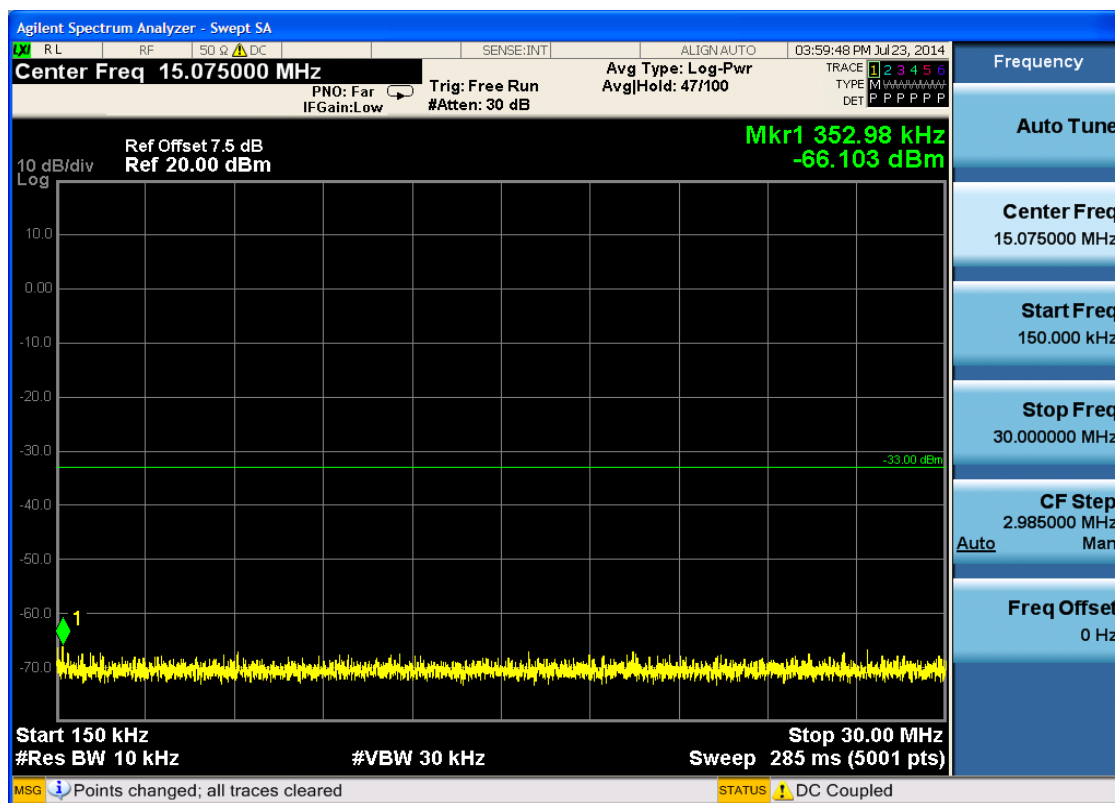


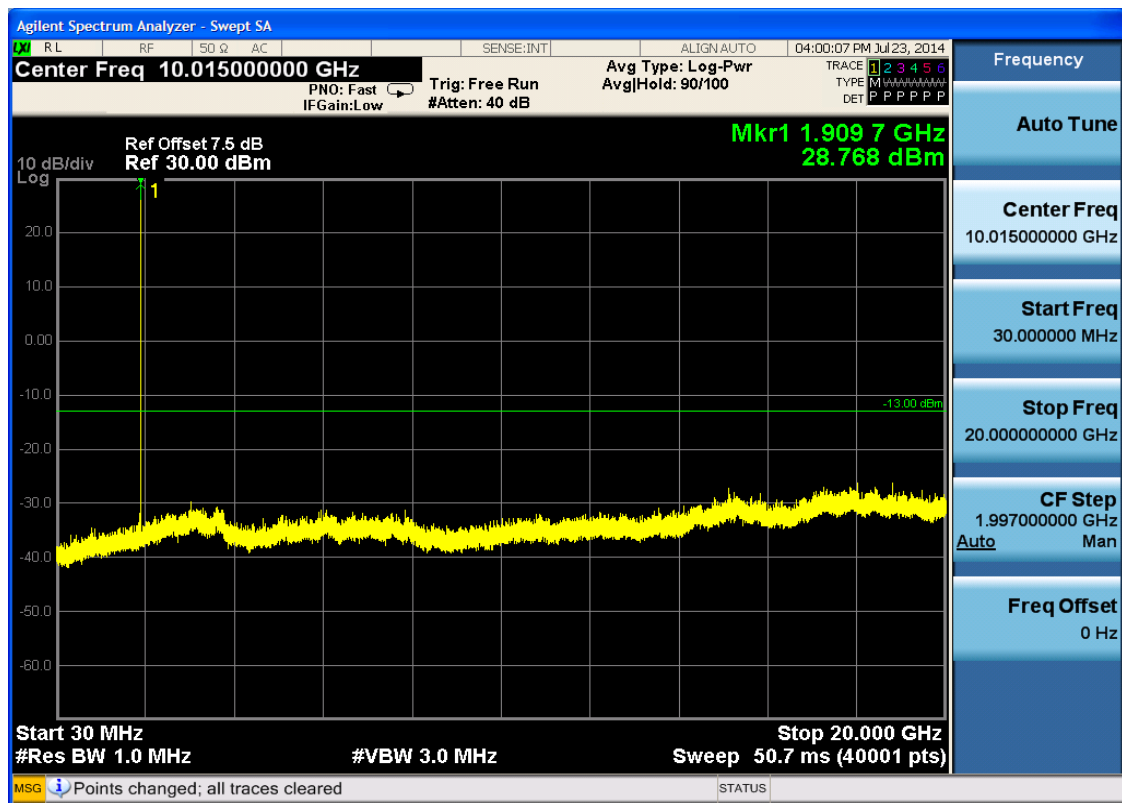




6.1.3.2.3 Test Channel = HCH





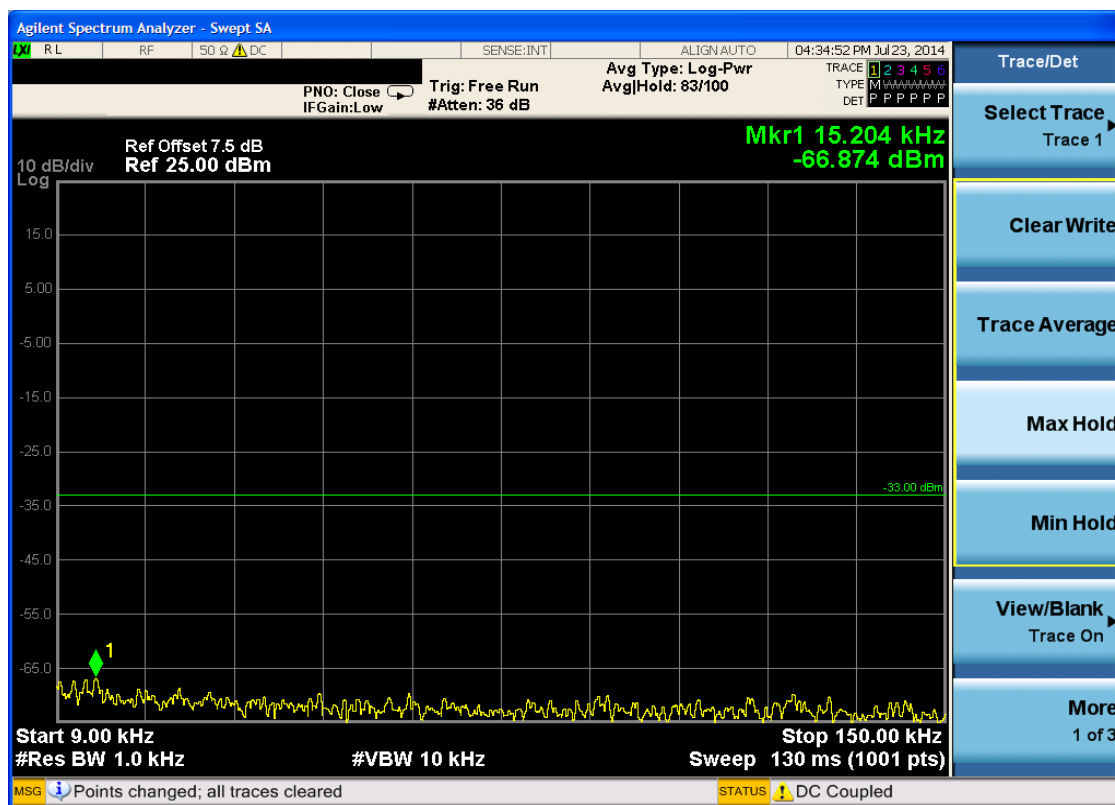


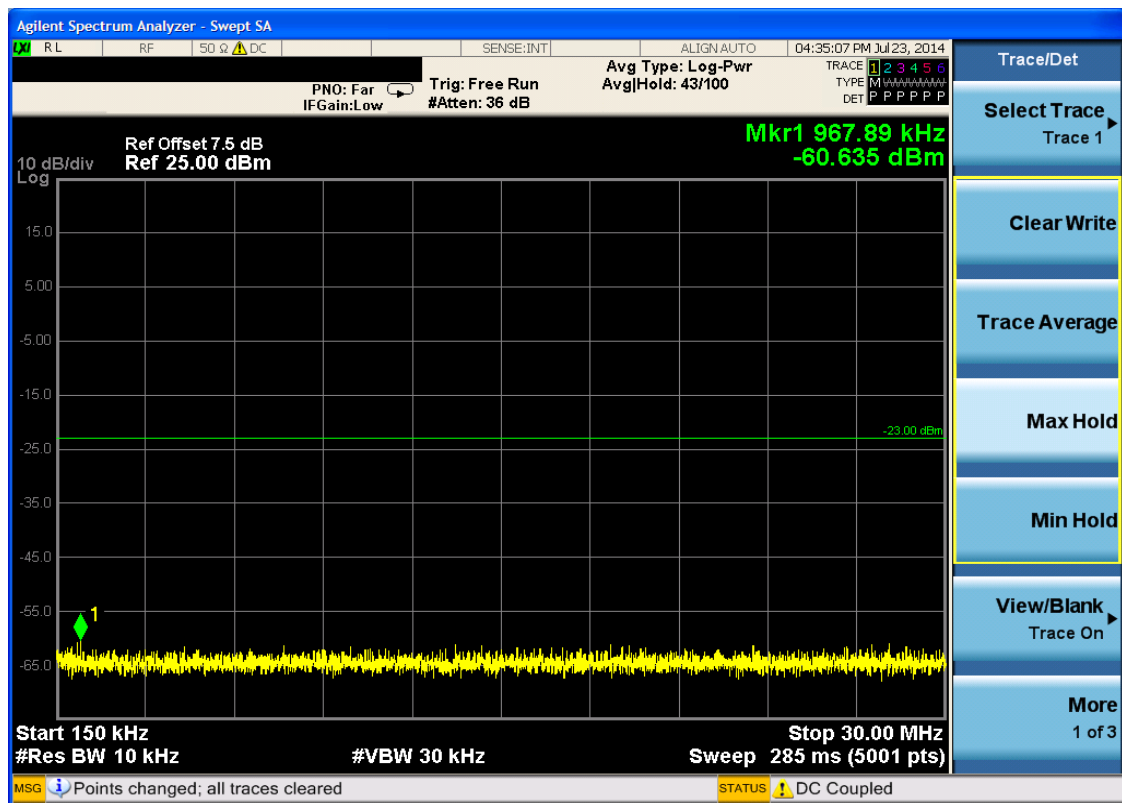
6.2 For UMTS

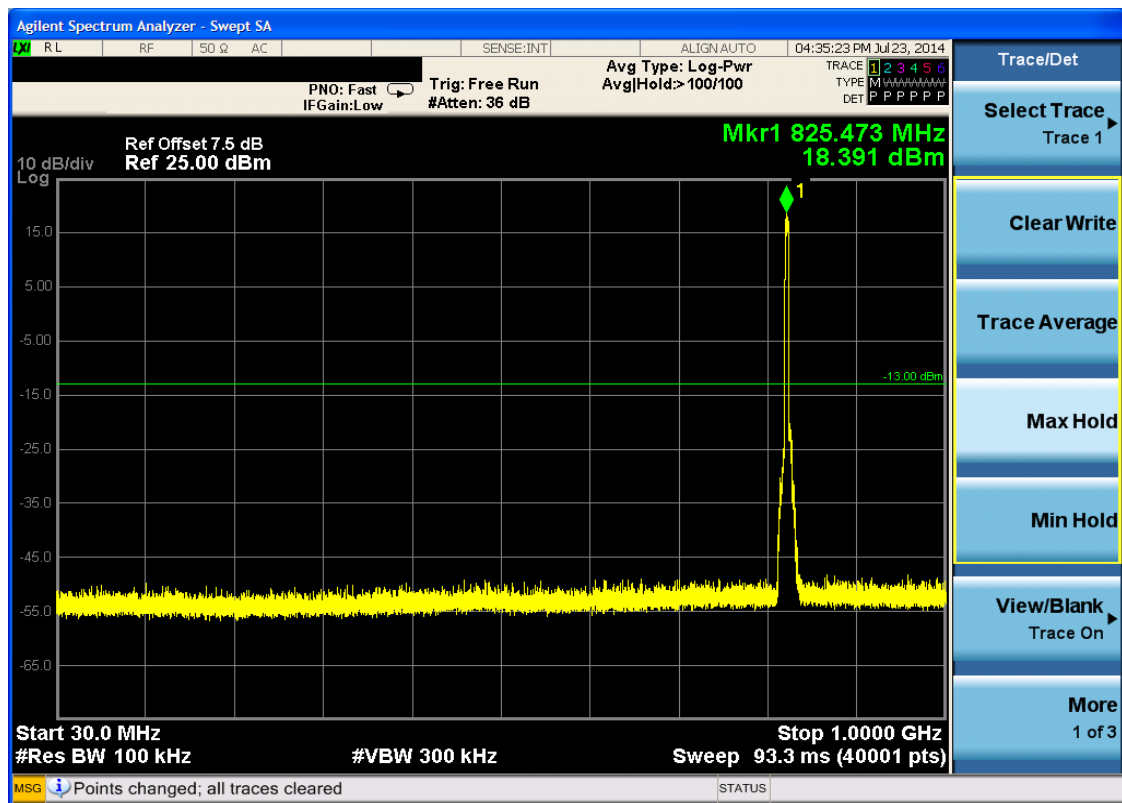
6.2.1 Test Band = WCDMA850

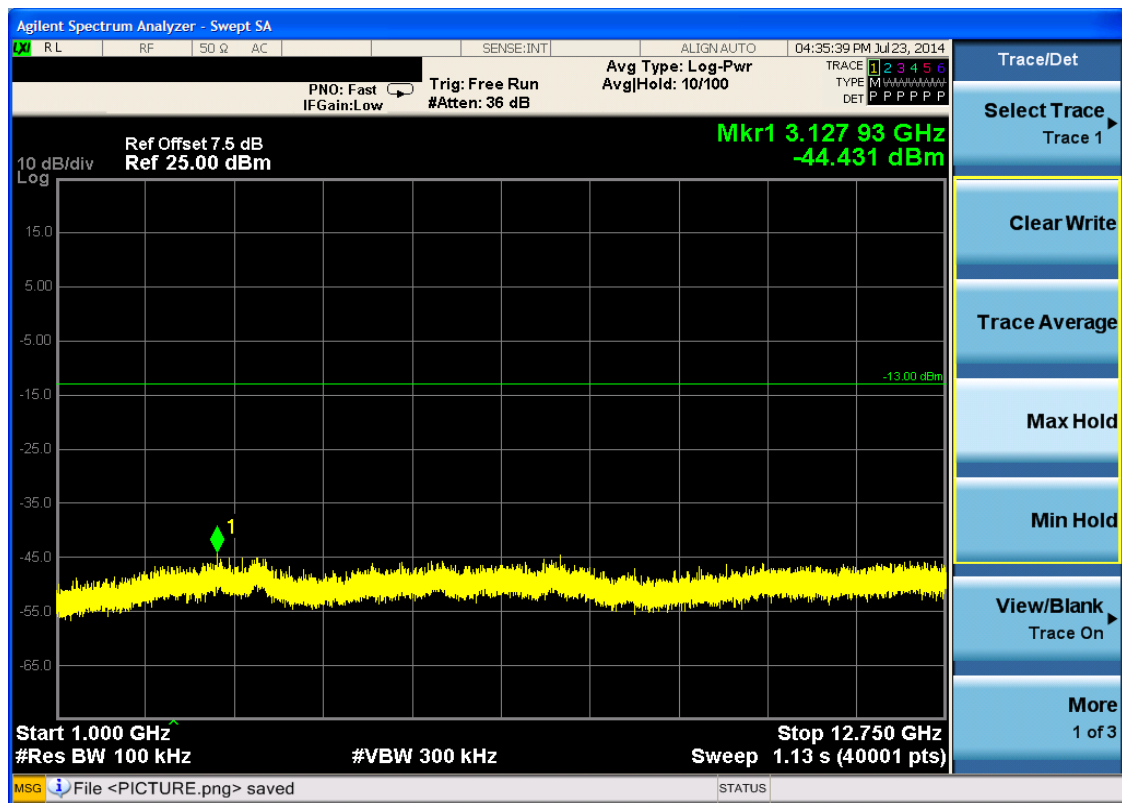
6.2.1.1 Test Mode = UMTS/TM1

6.2.1.1.1 Test Channel = LCH

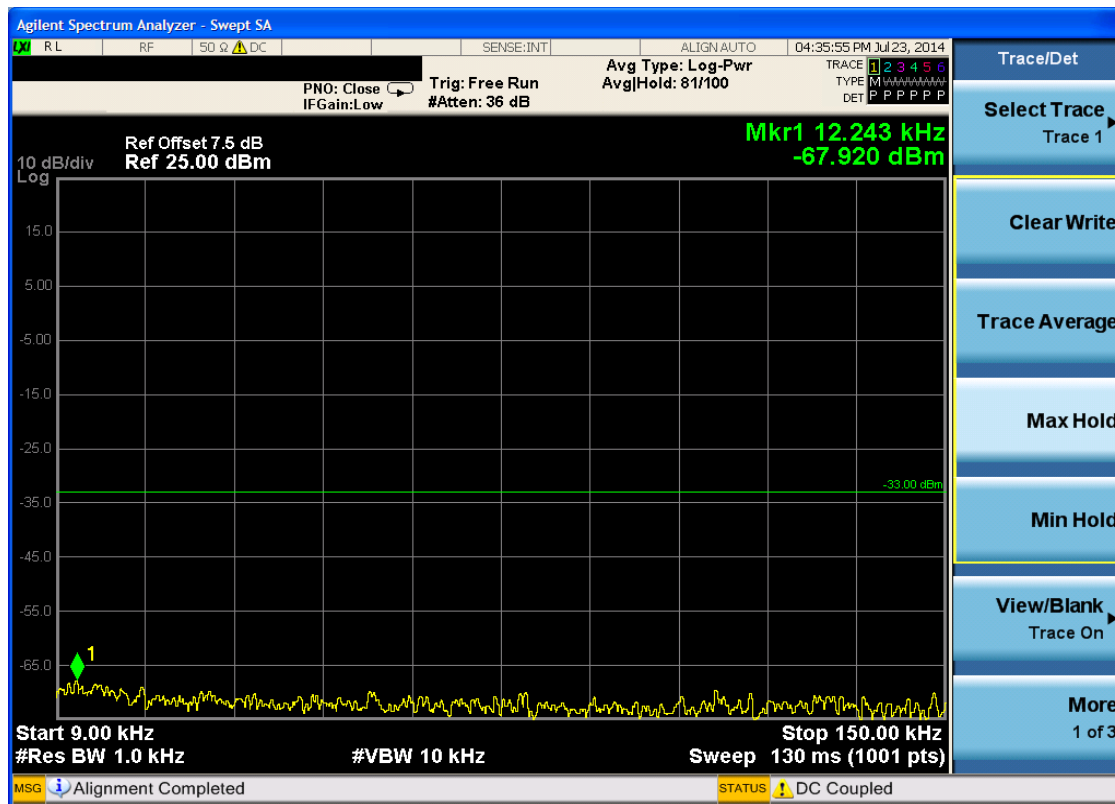


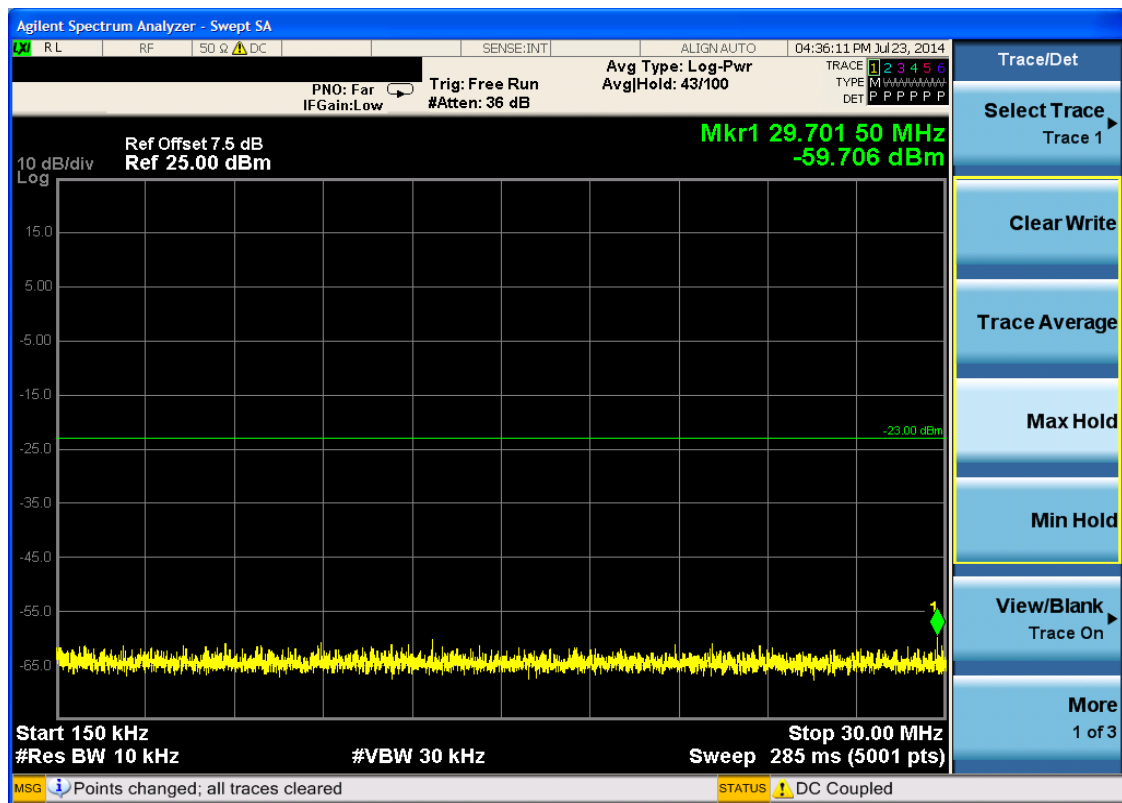


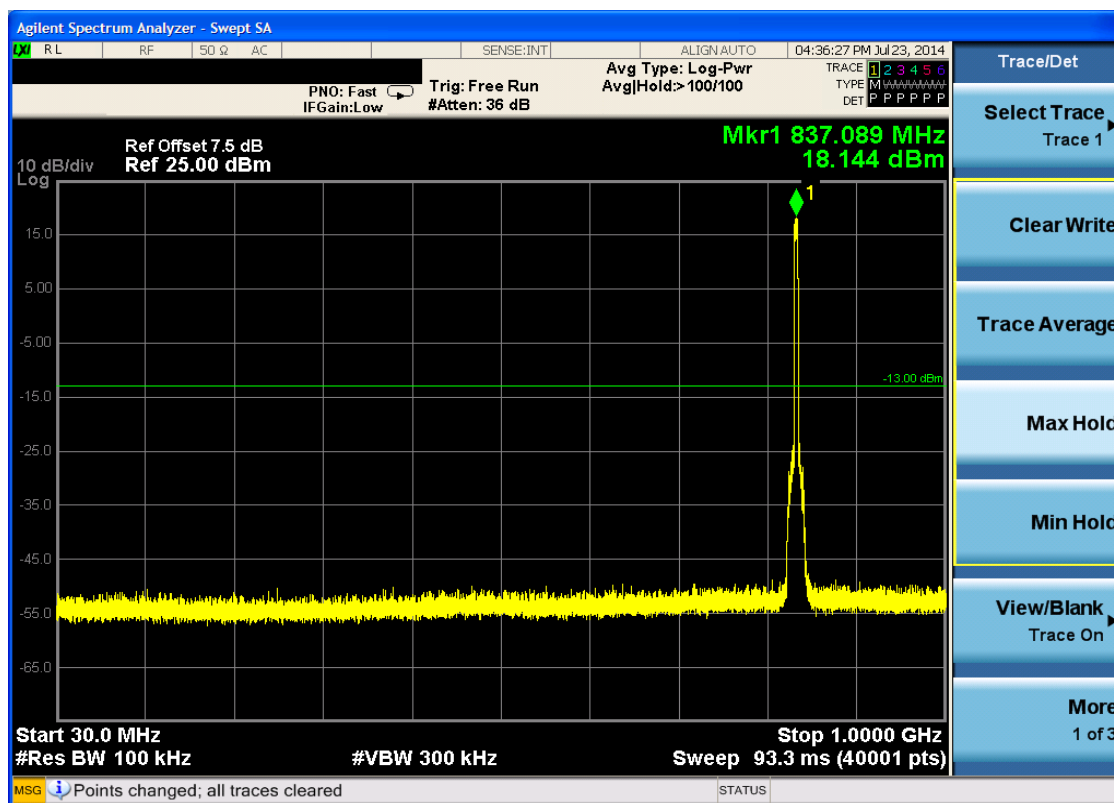


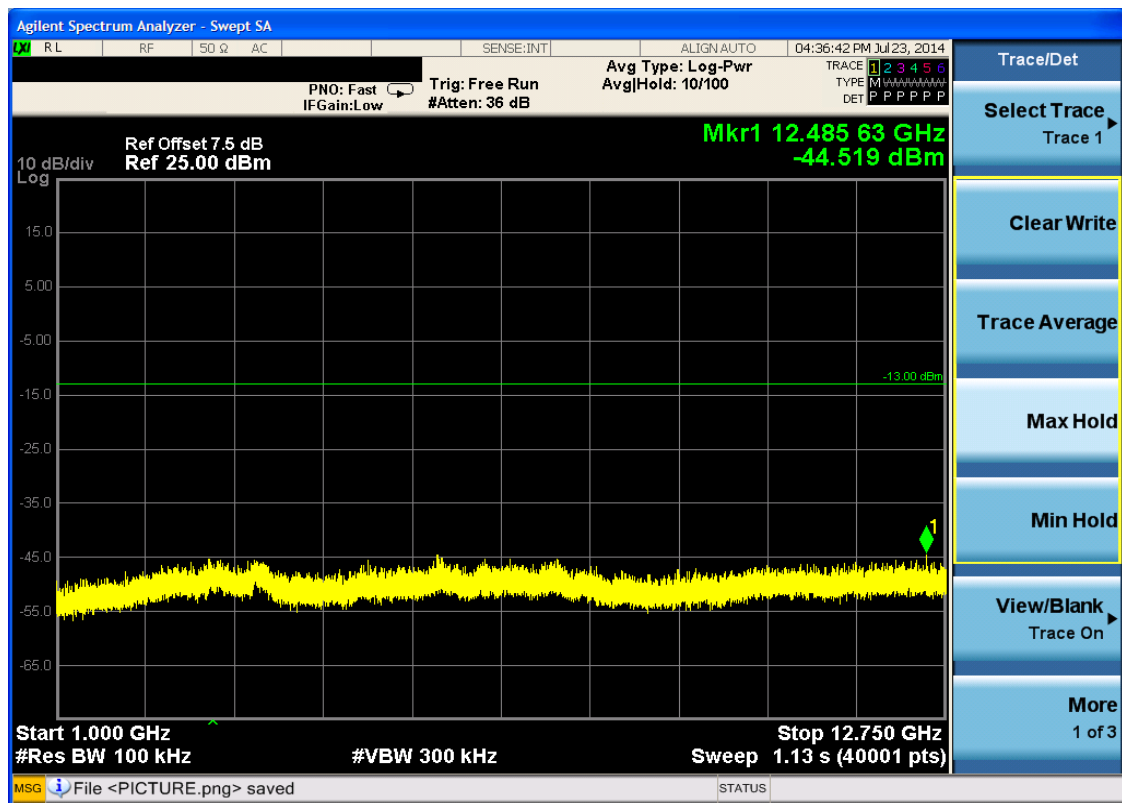


6.2.1.1.2 Test Channel = MCH

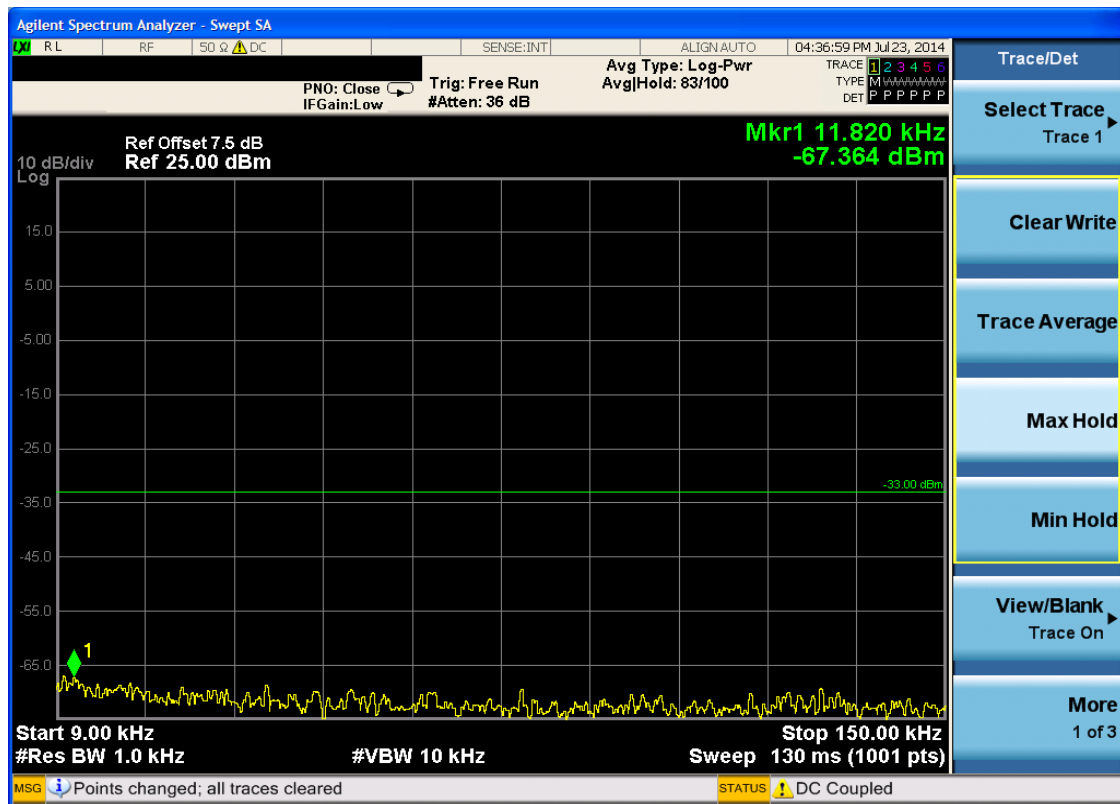


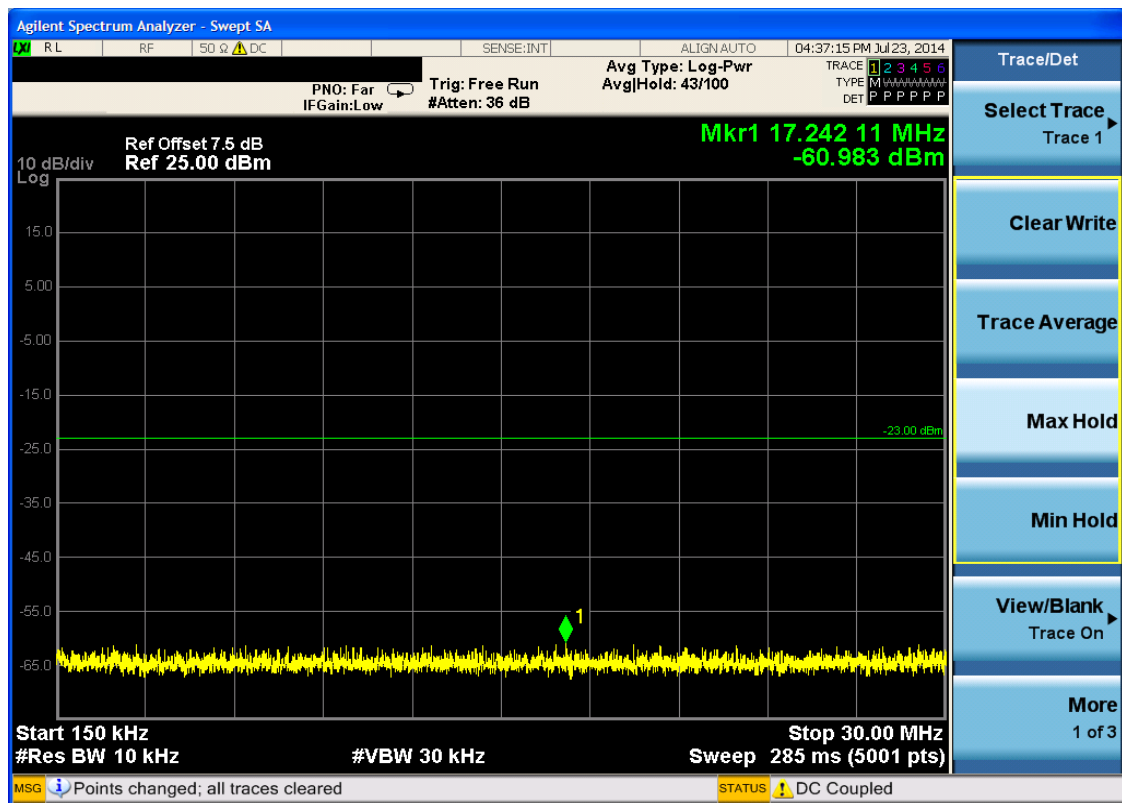


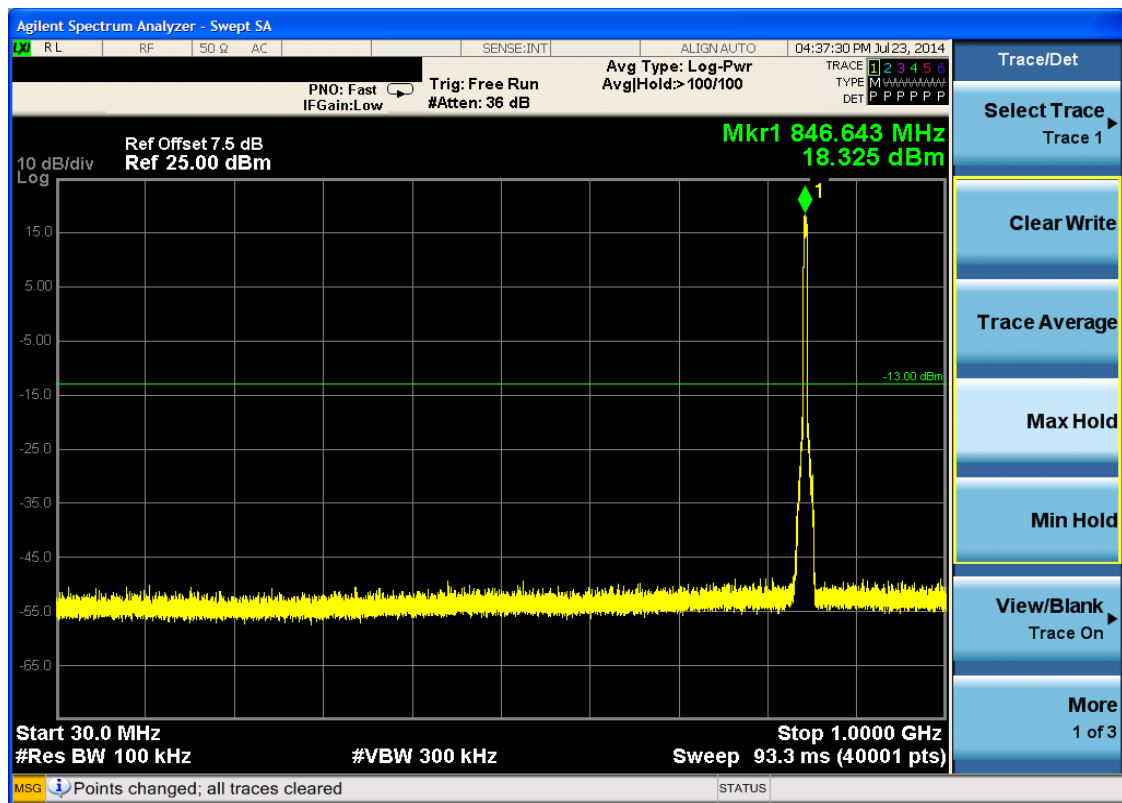


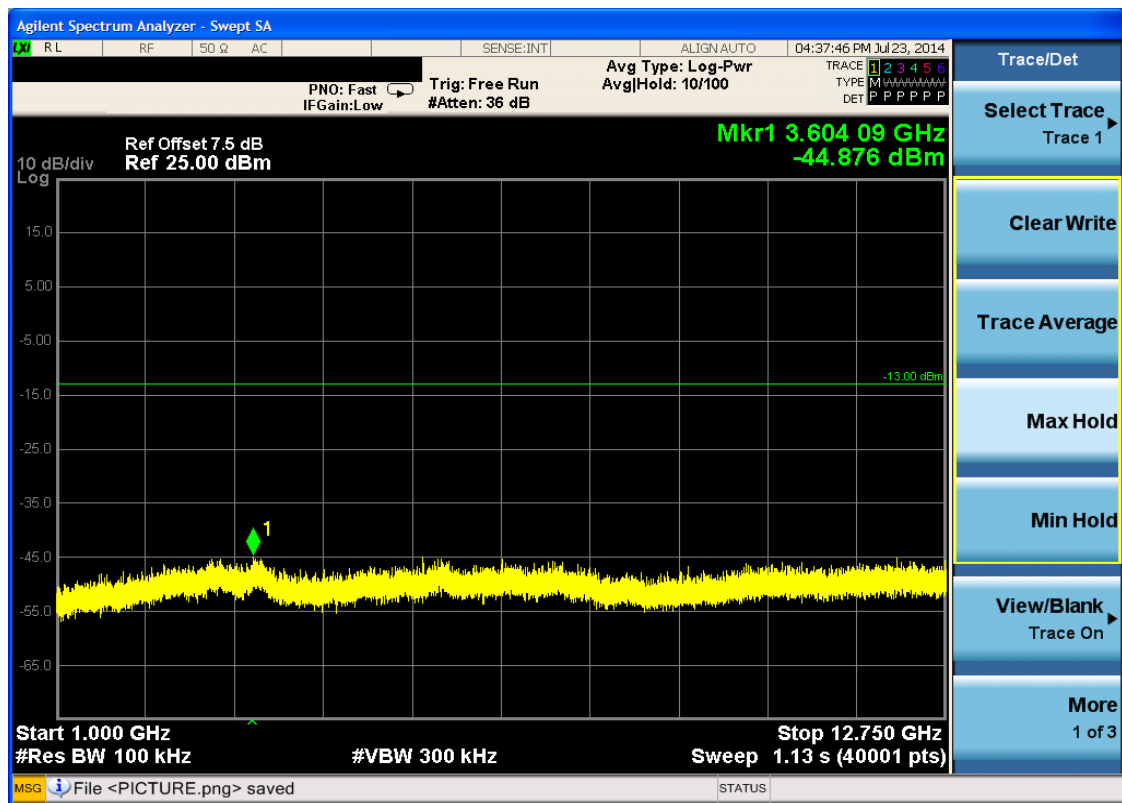


6.2.1.1.3 Test Channel = HCH





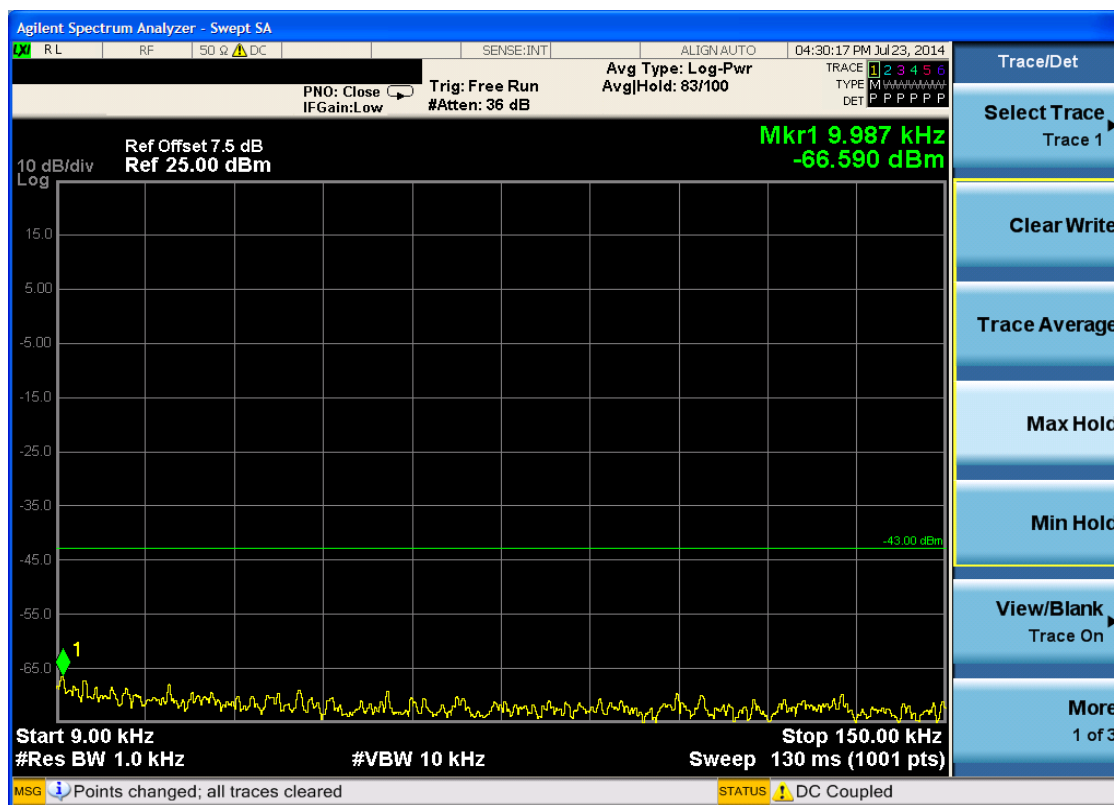


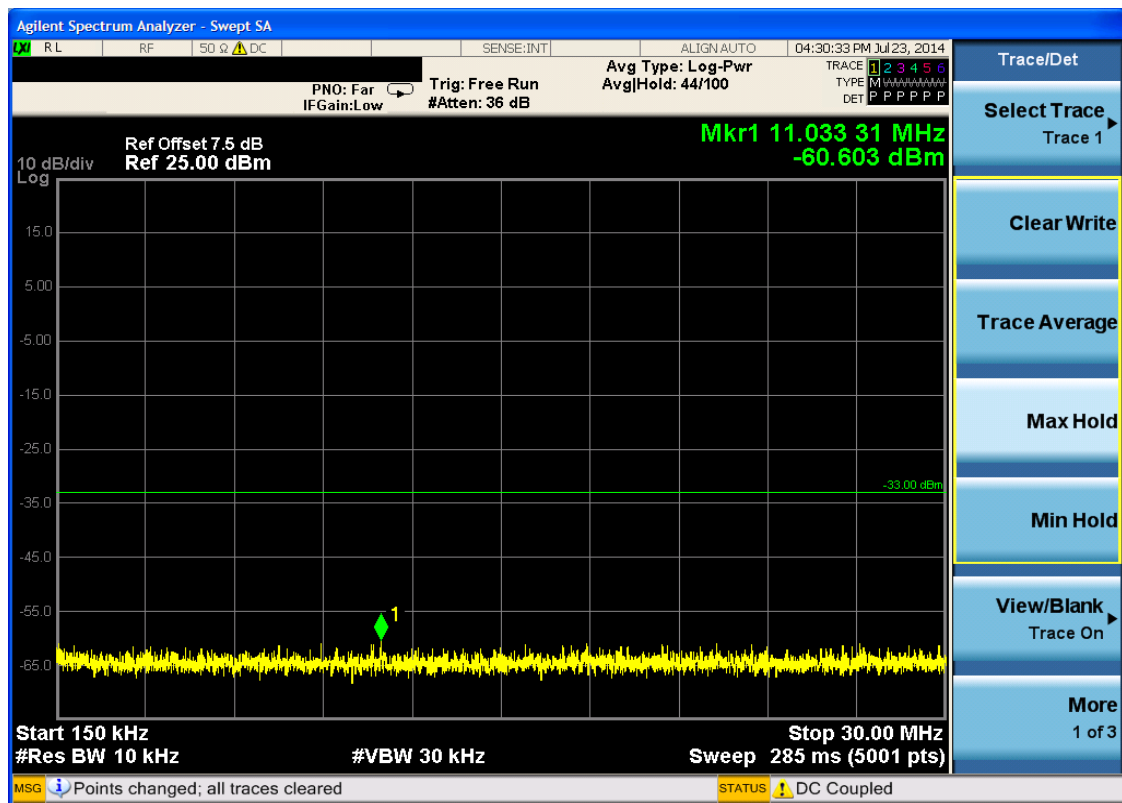


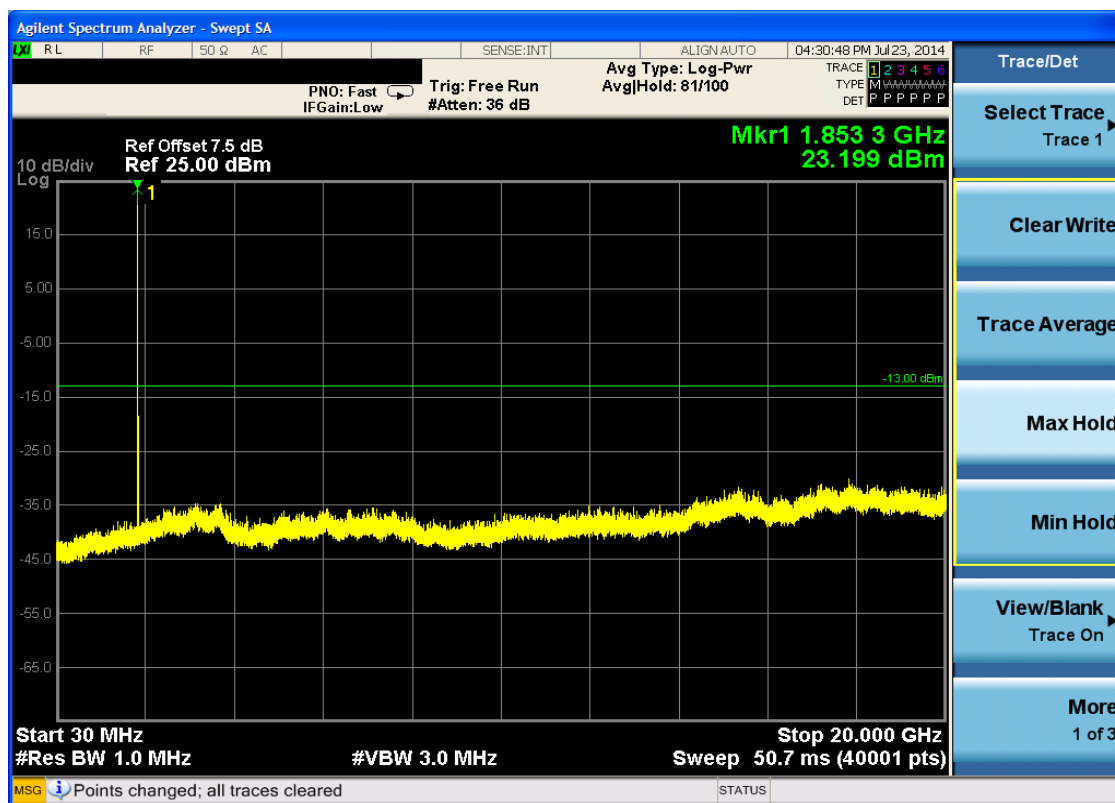
6.2.2 Test Band = WCDMA1900

6.2.2.1 Test Mode = UMTS/TM1

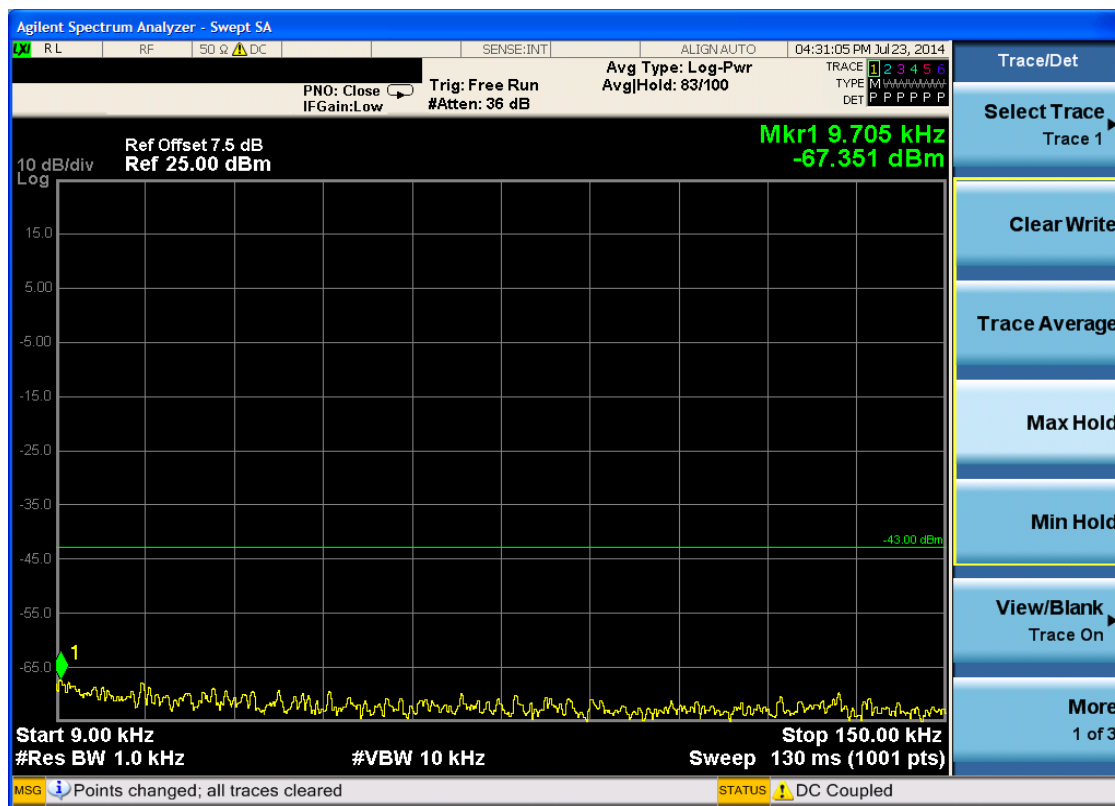
6.2.2.1.1 Test Channel = LCH

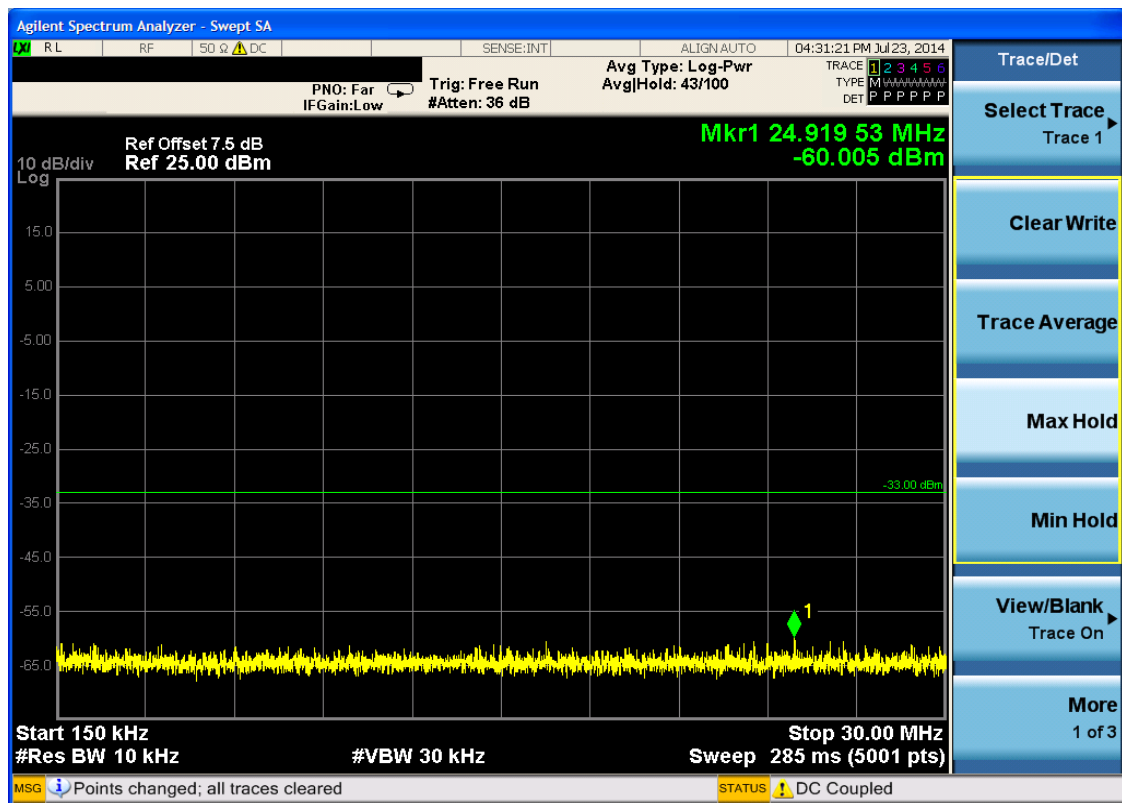


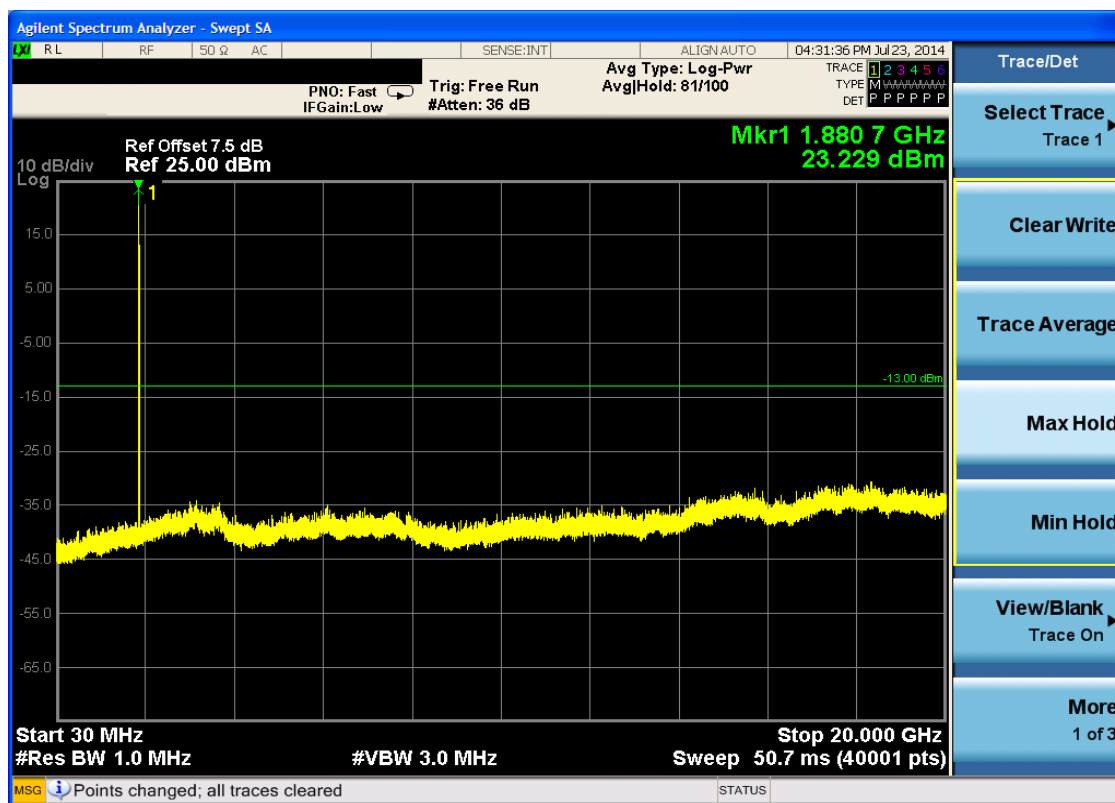




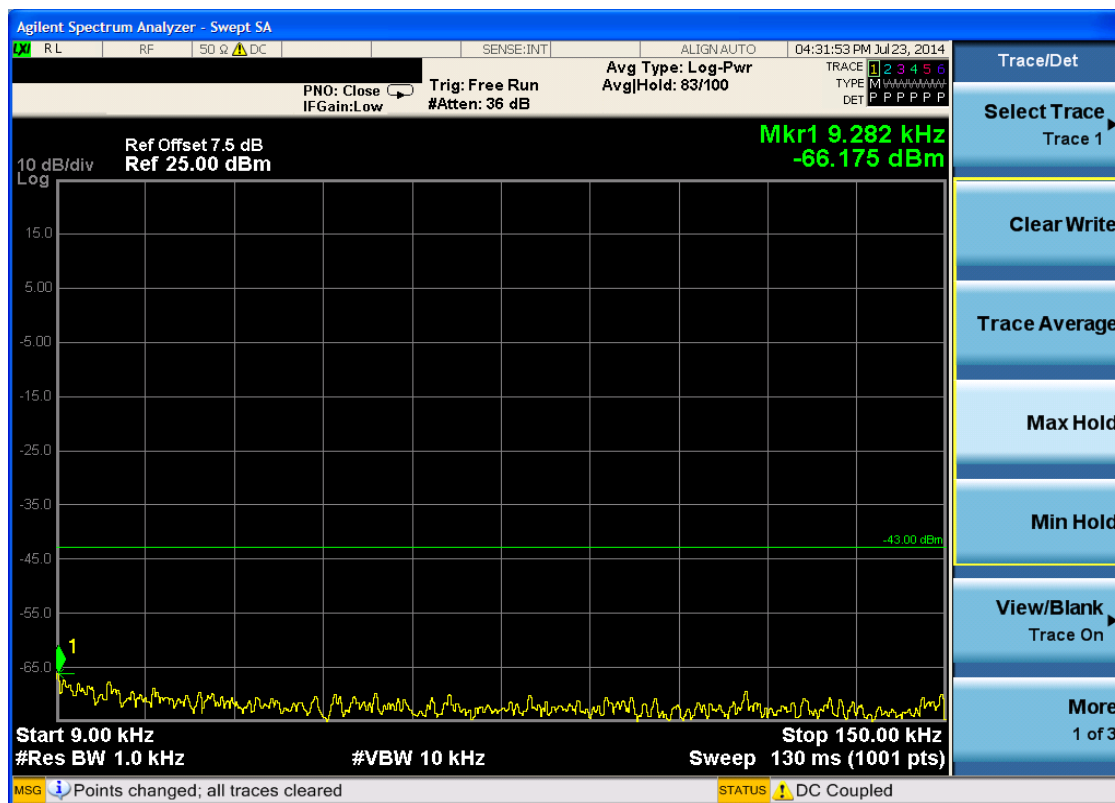
6.2.2.1.2 Test Channel = MCH

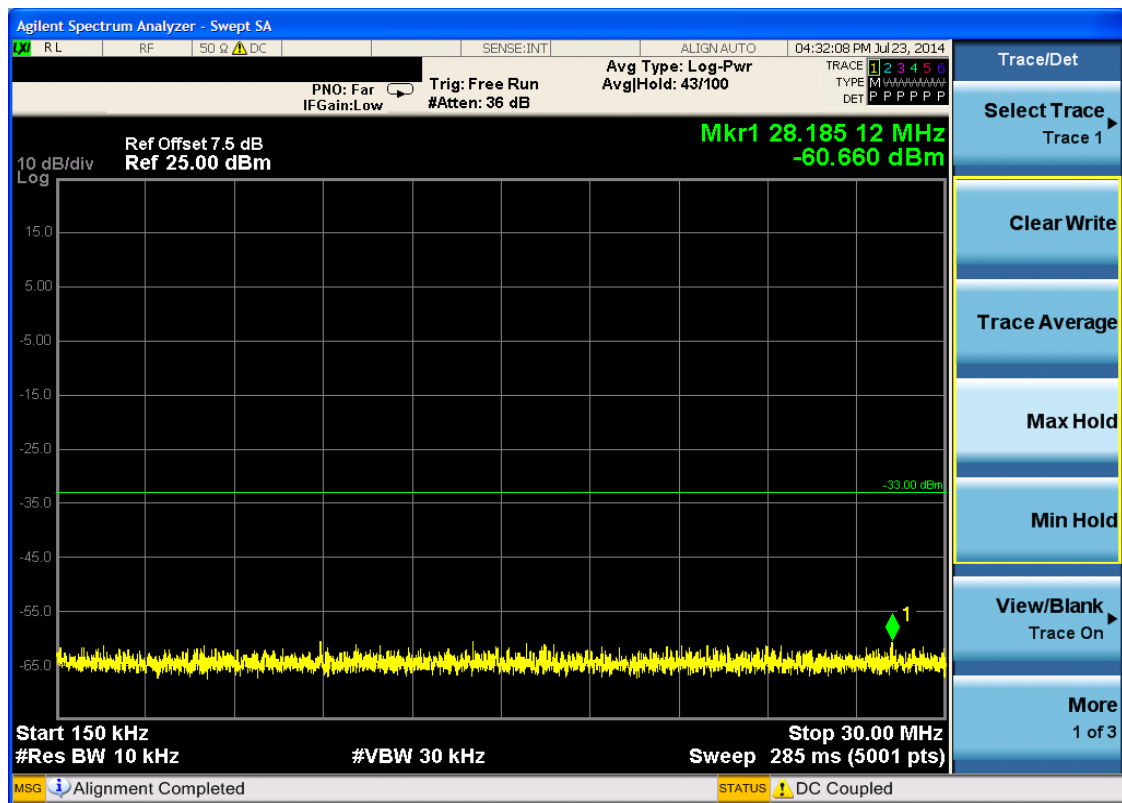


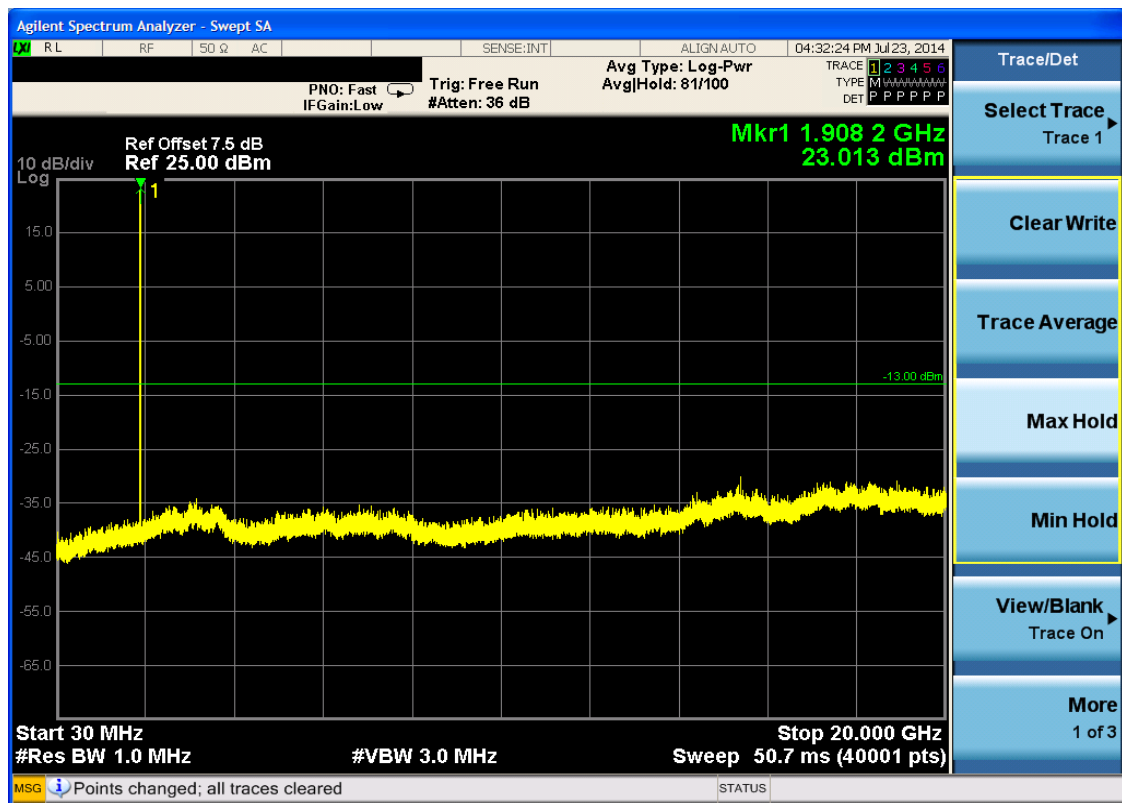




6.2.2.1.3 Test Channel = HCH





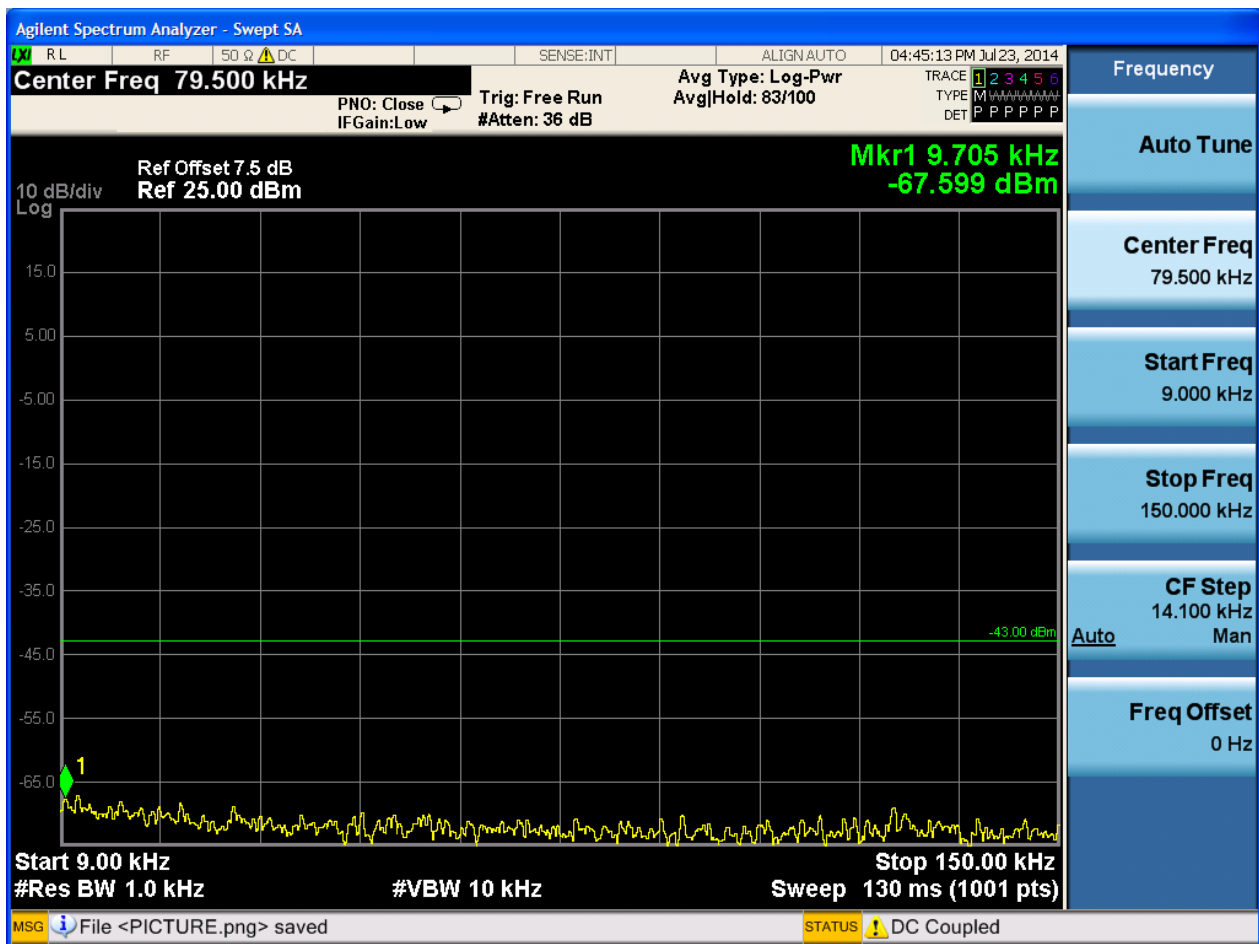


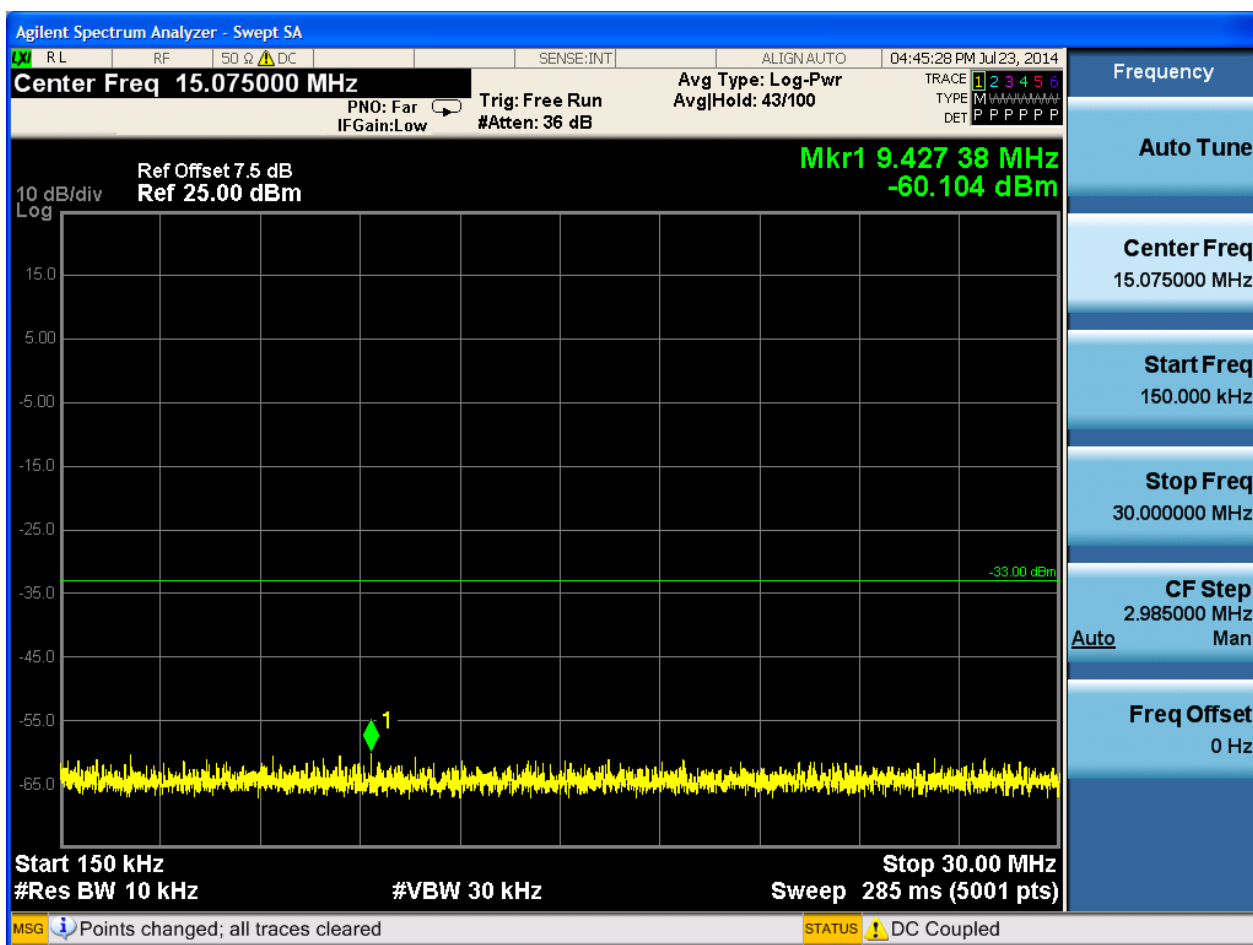


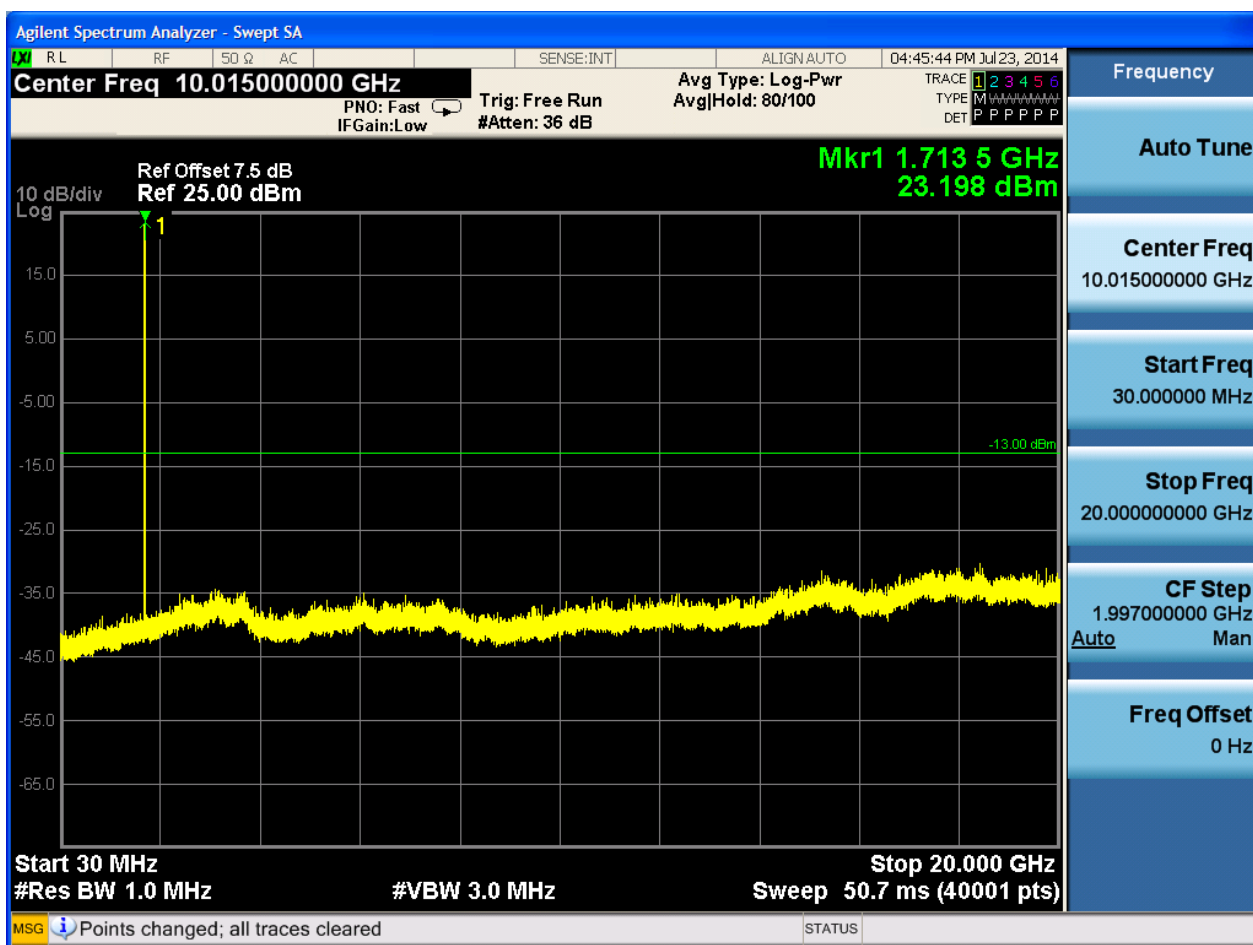
6.2.7 Test Band = WCDMA1700

6.2.7.1 Test Mode = UMTS/TM1

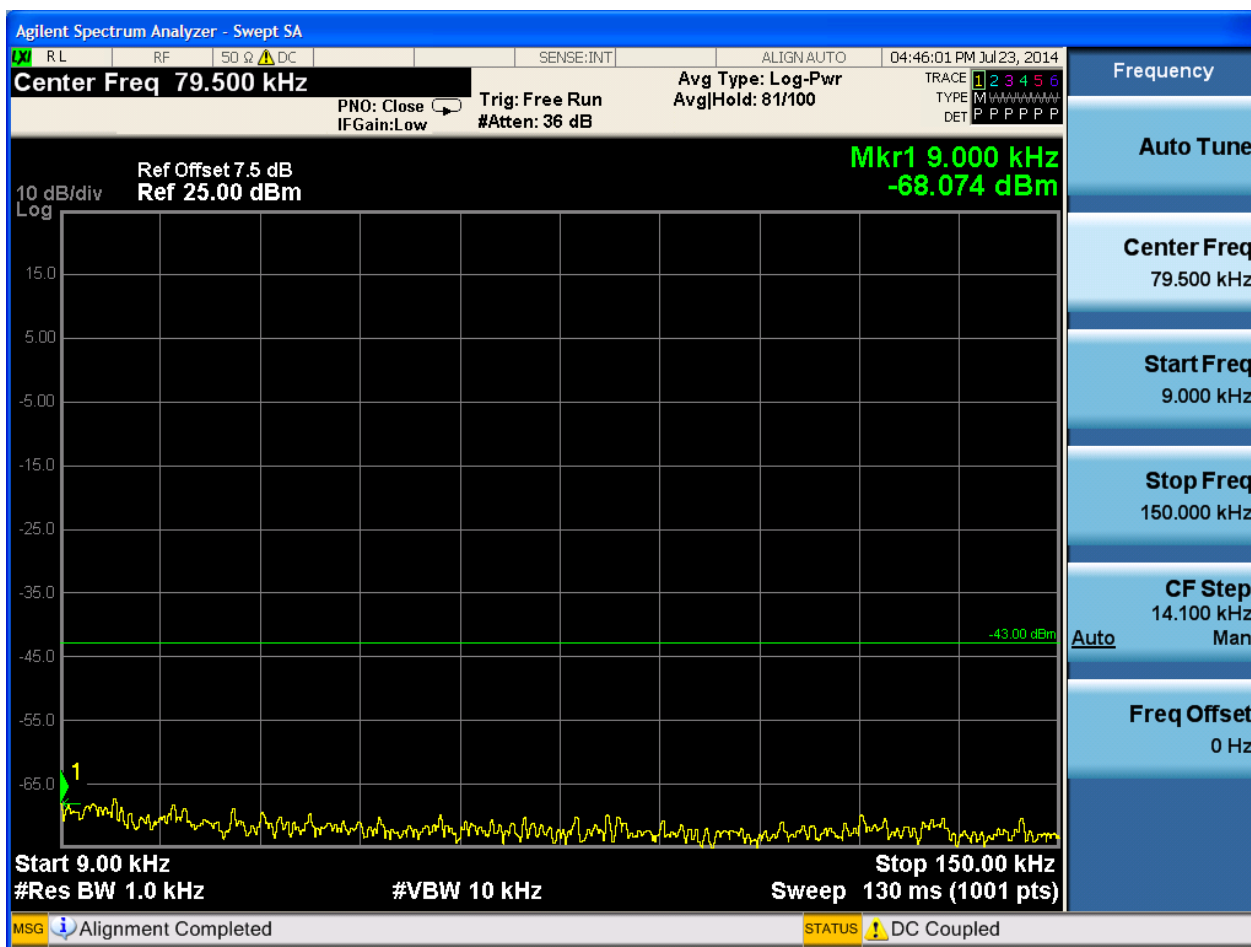
6.2.7.1.1 Test Channel = LCH

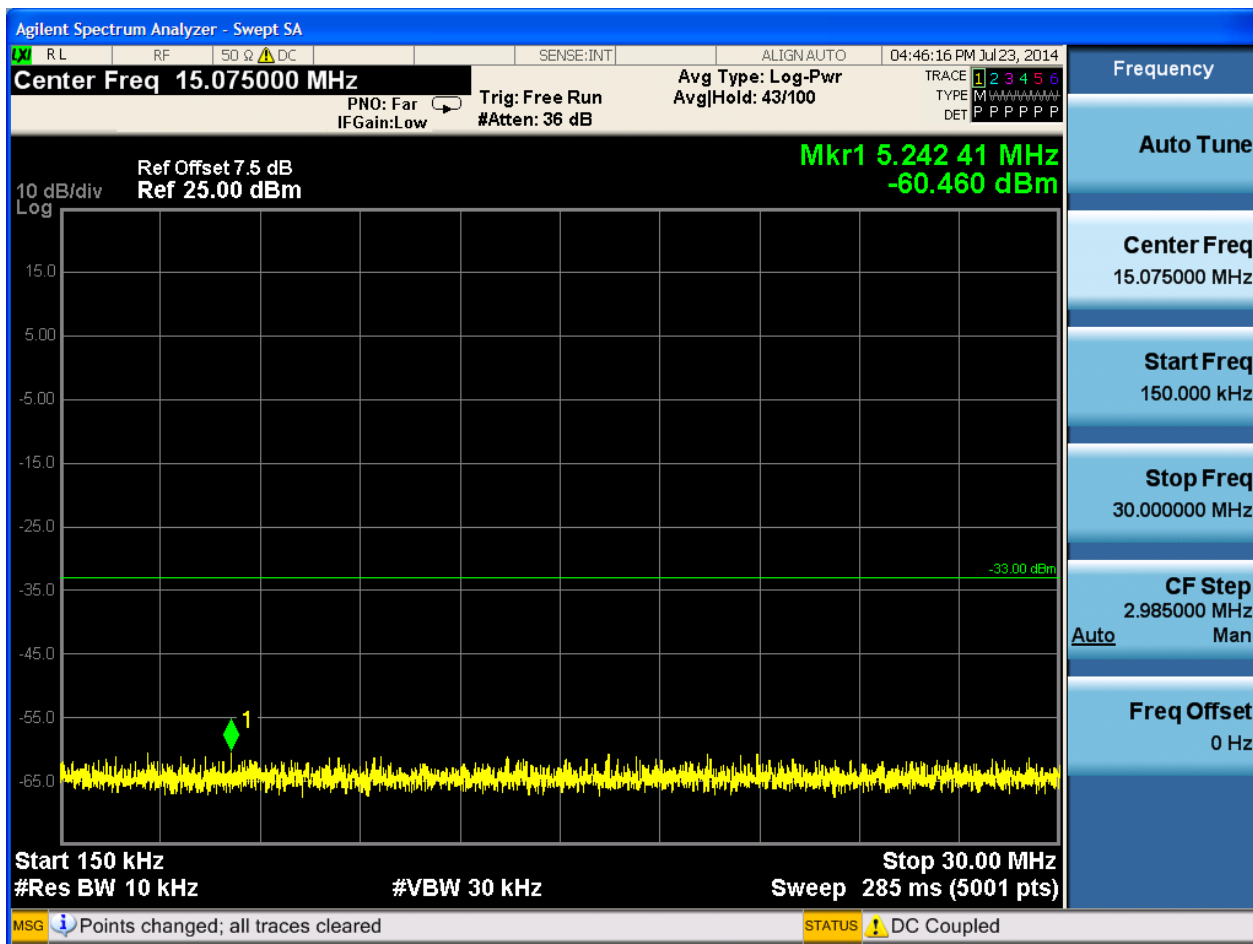


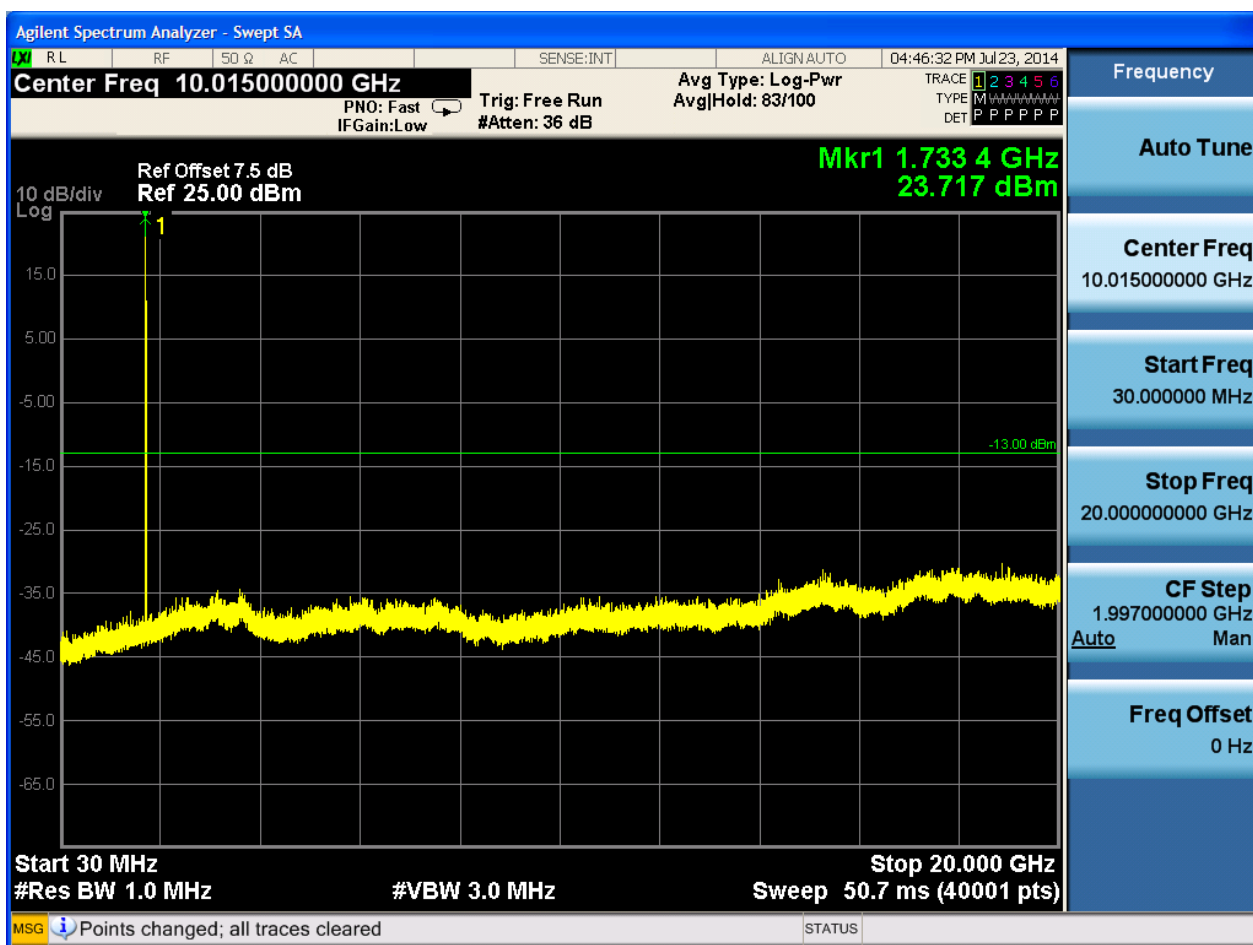




6.2.7.1.2 Test Channel = MCH

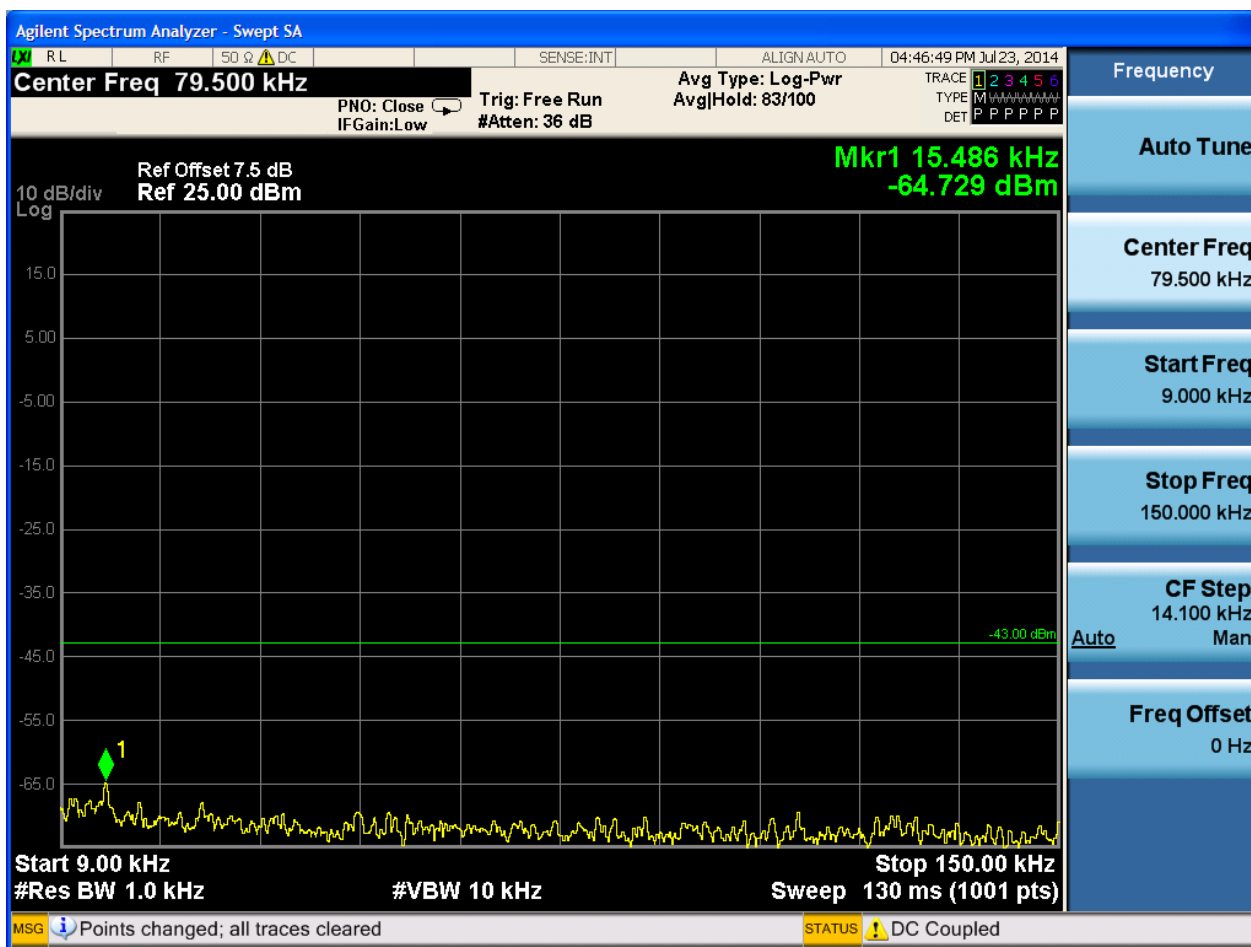


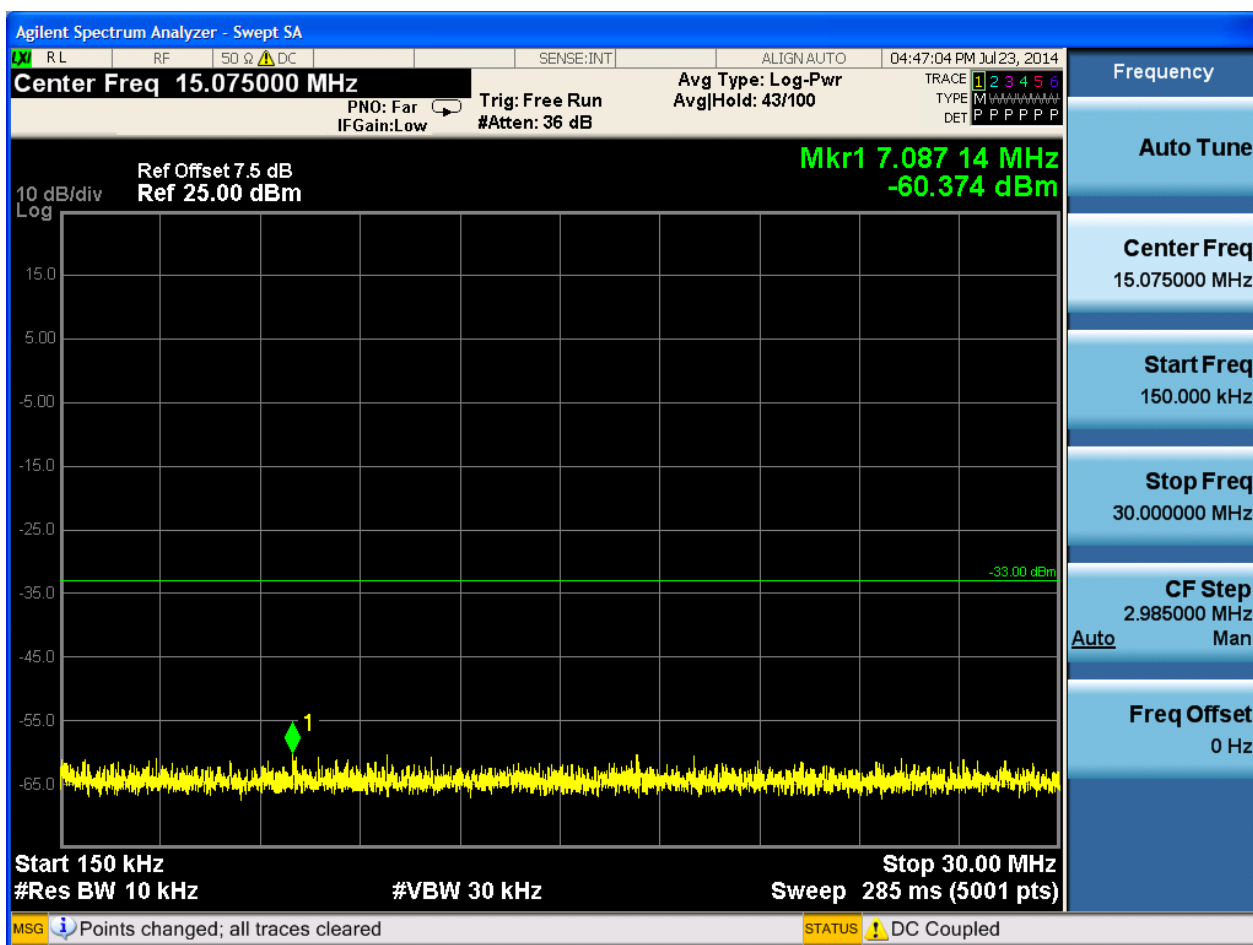


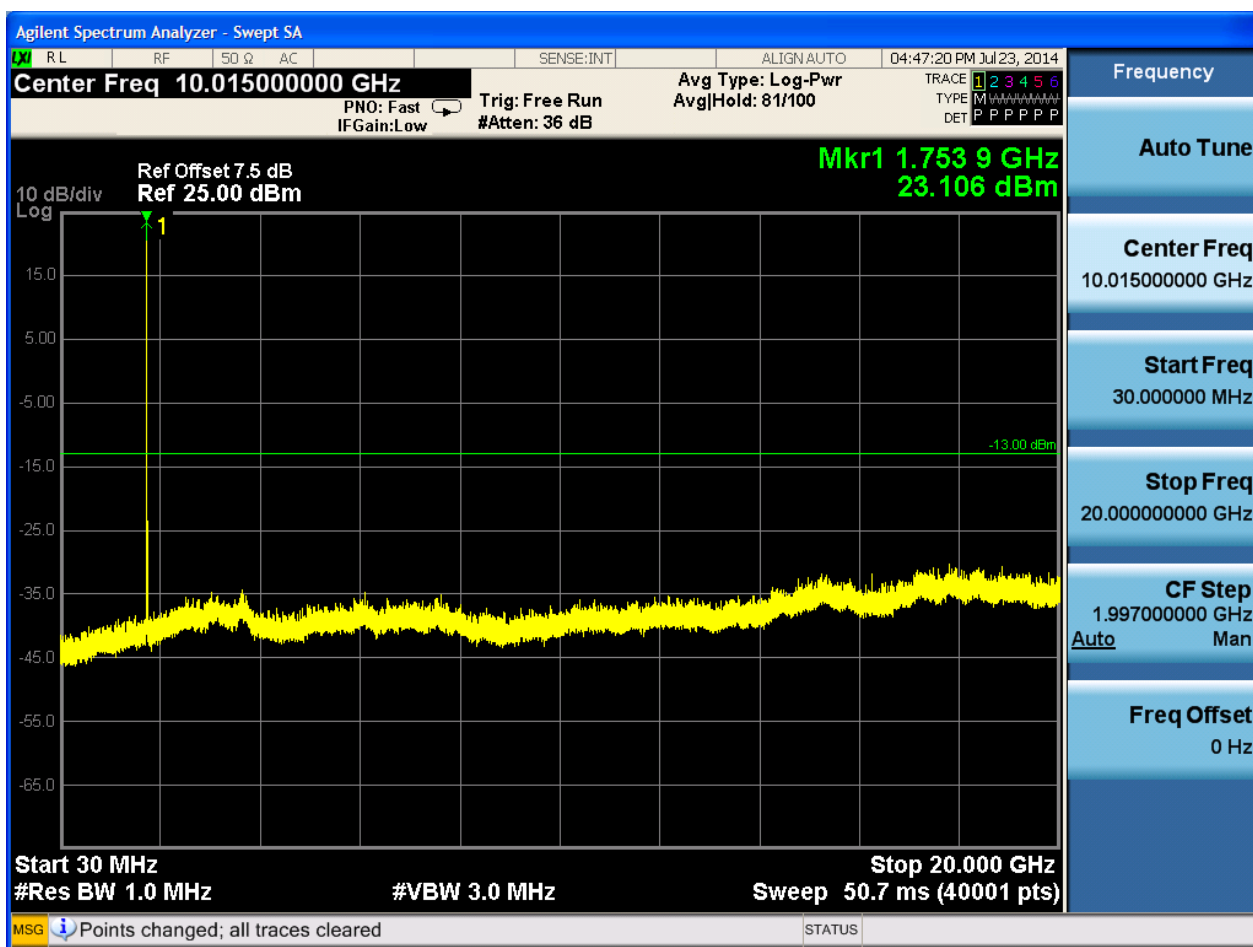




6.2.7.1.3 Test Channel = HCH







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

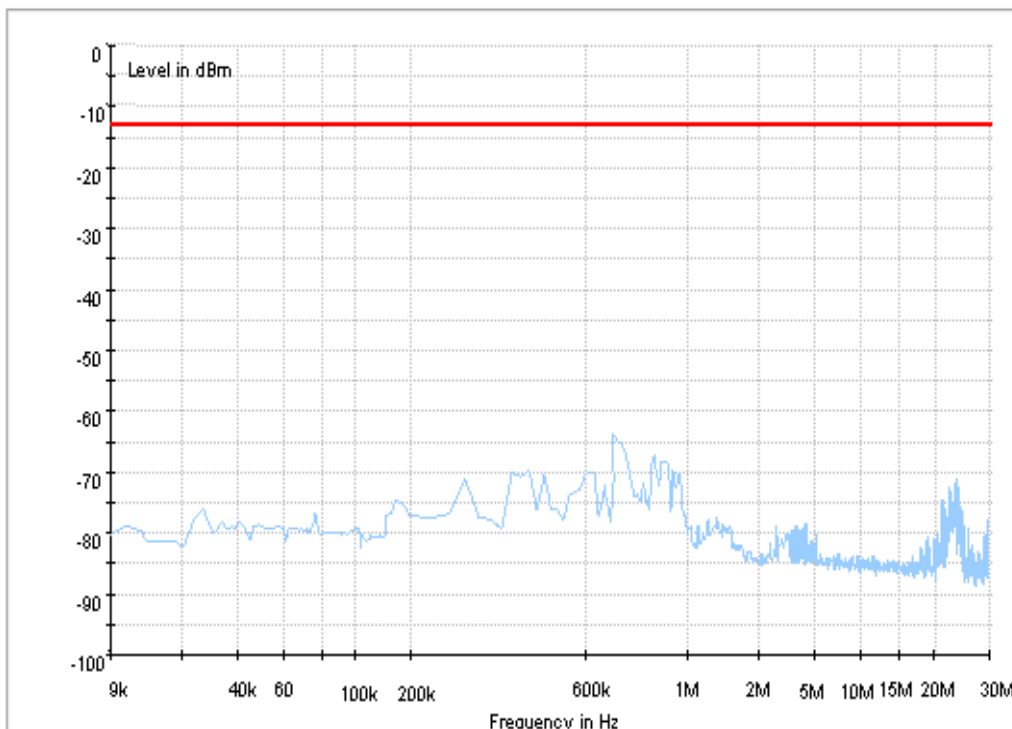
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Part I - Test Plots

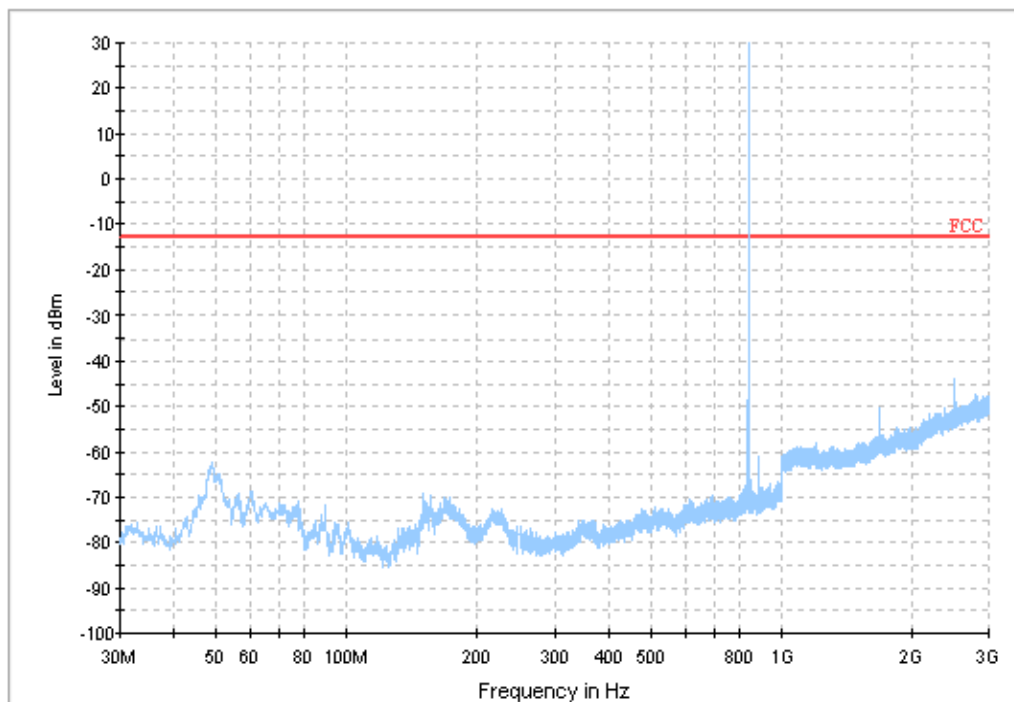
7.1 For GSM

7.1.1 Test Band = GSM850

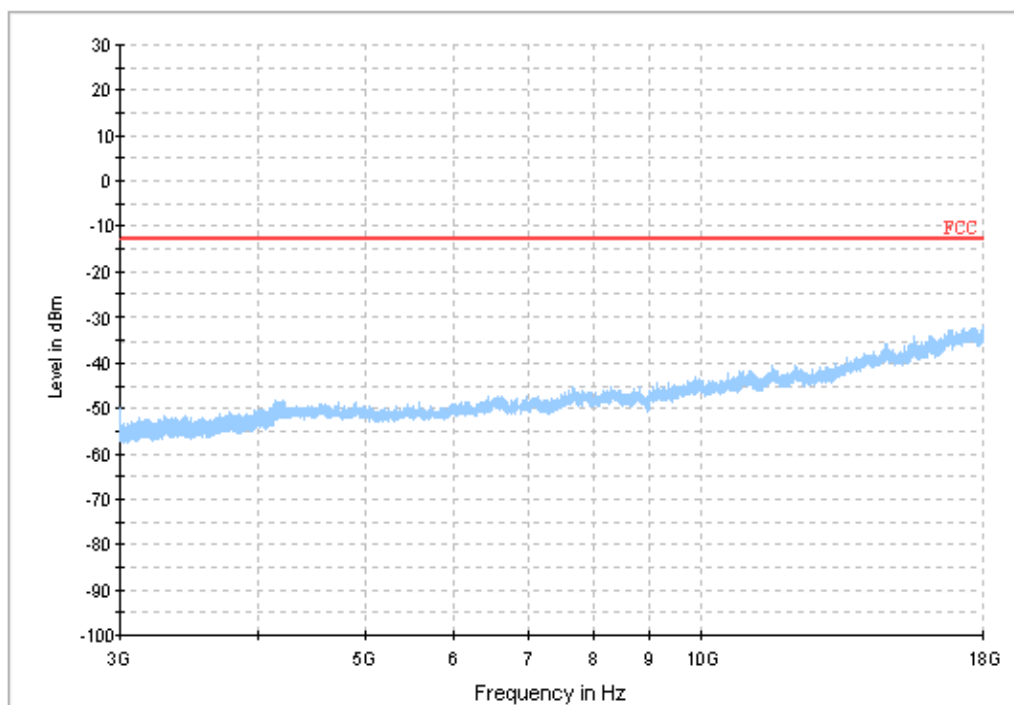
7.1.1.1 Test Mode = GSM/TM1



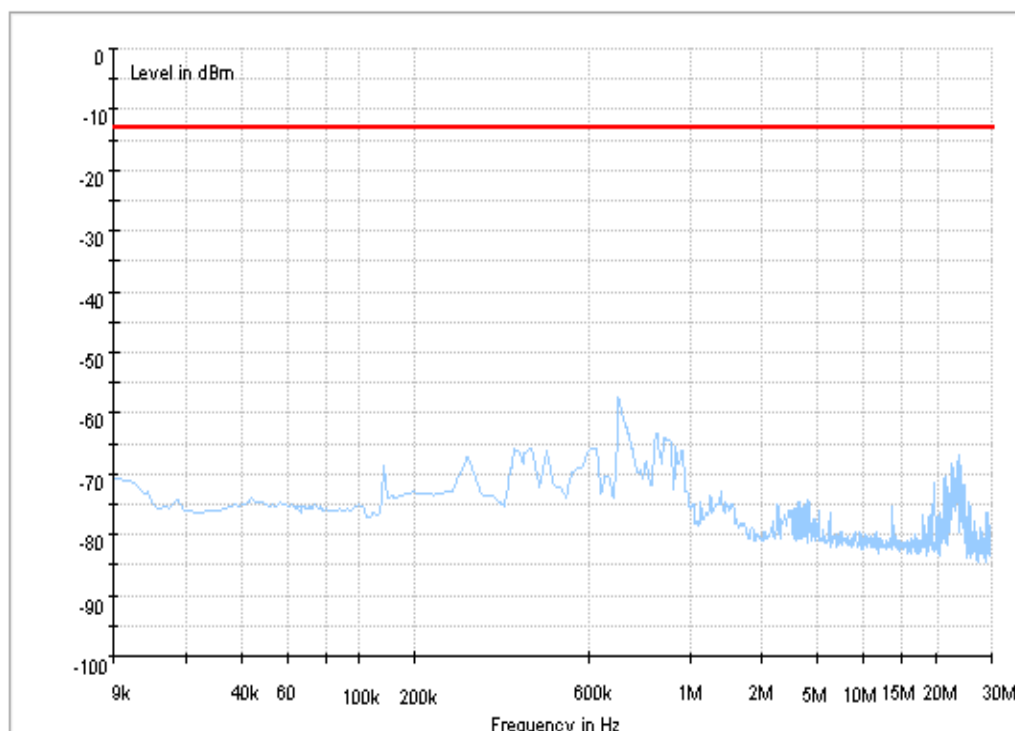
Copy of FCC PART22 GSM850_L



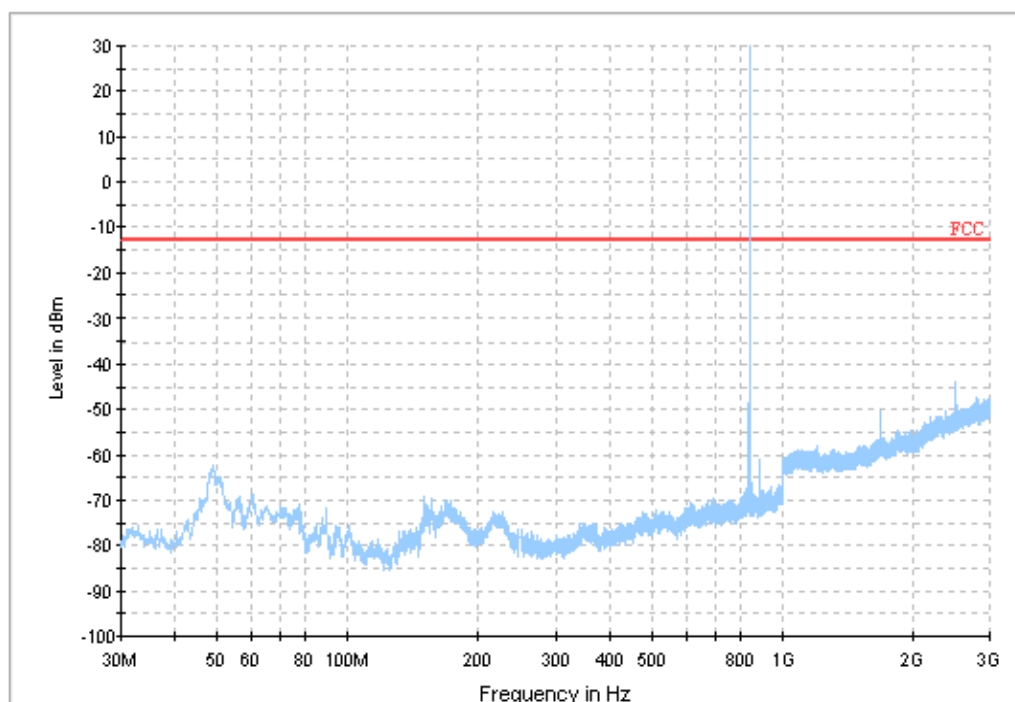
Copy of FCC PART22 GSM850_H



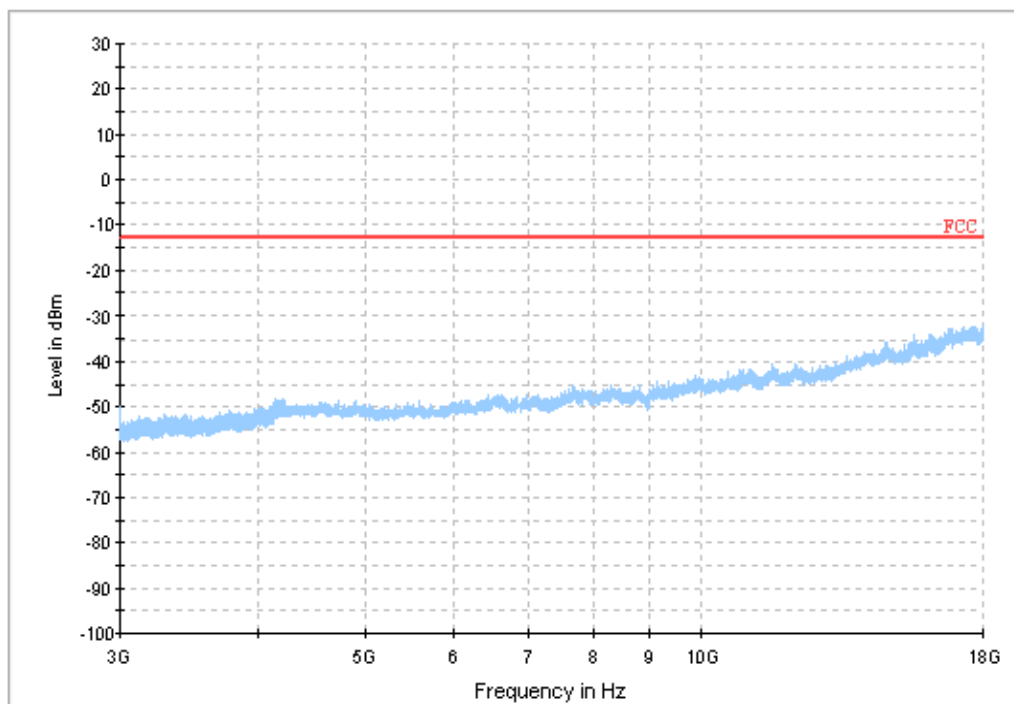
7.1.1.2 Test Mode = GSM/TM2



Copy of FCC PART22 GSM850_L

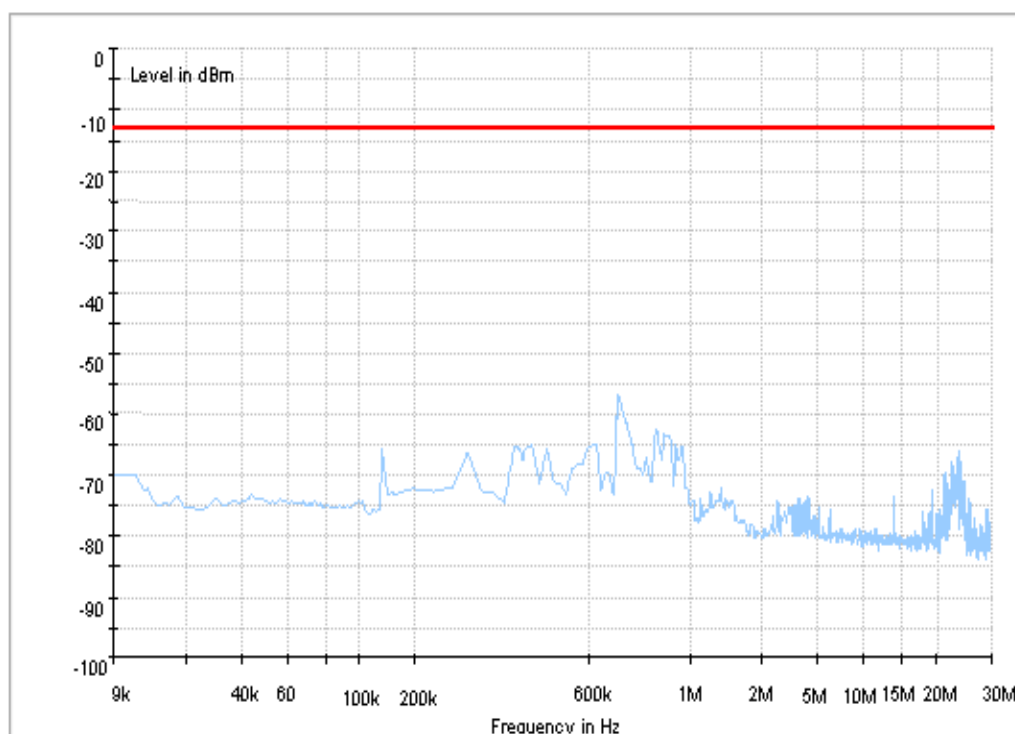


Copy of FCC PART22 GSM850_H

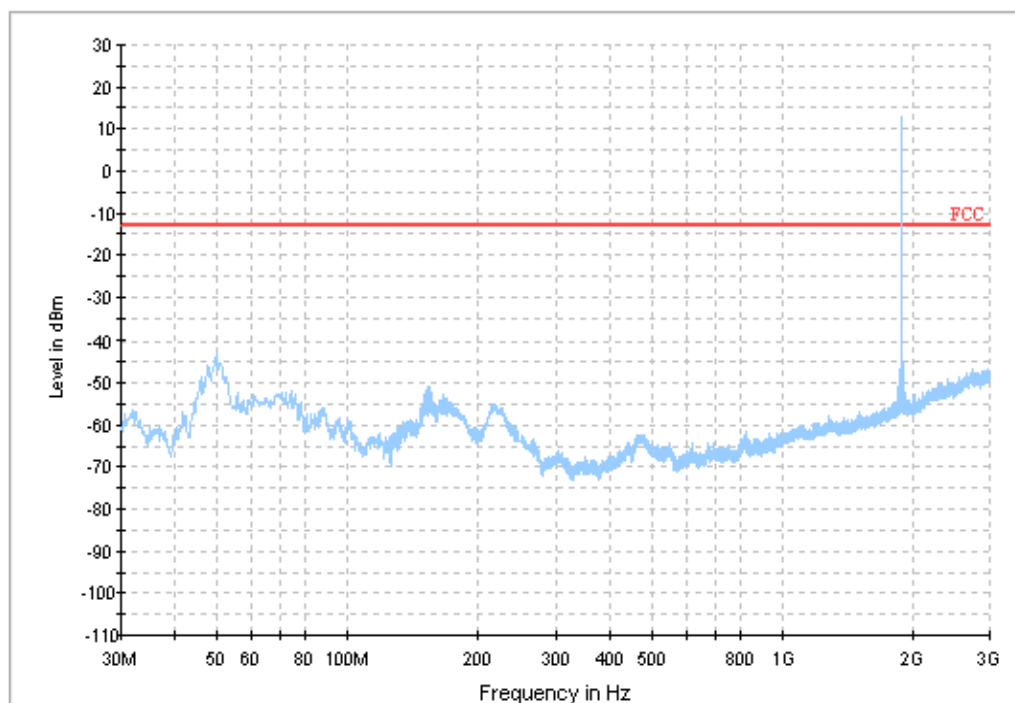


7.1.2 Test Band = GSM1900

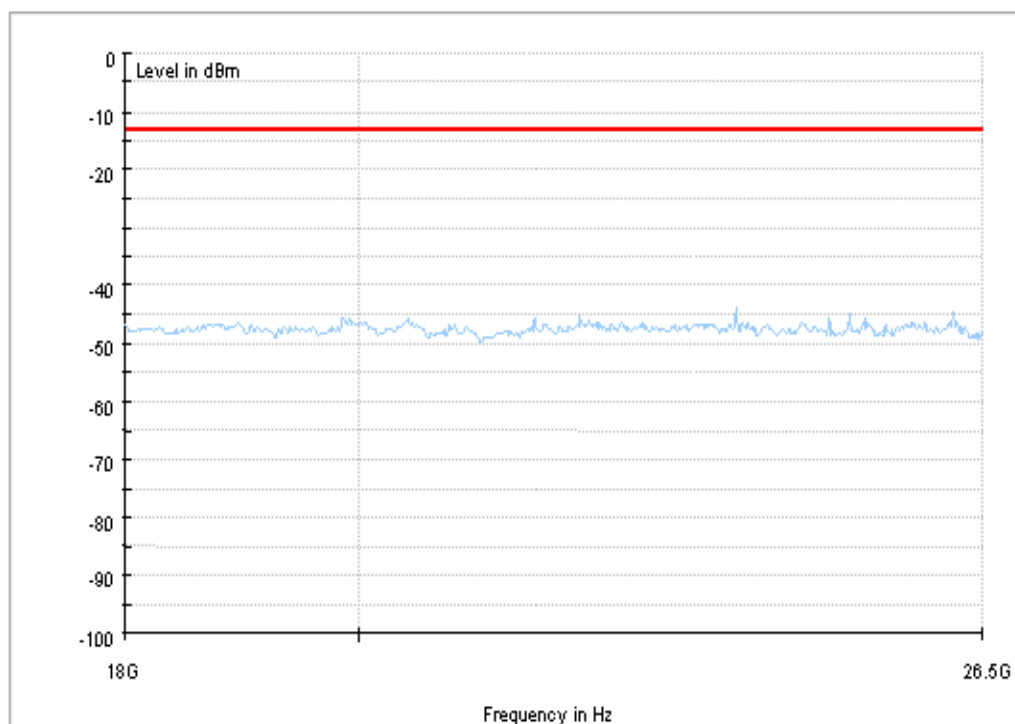
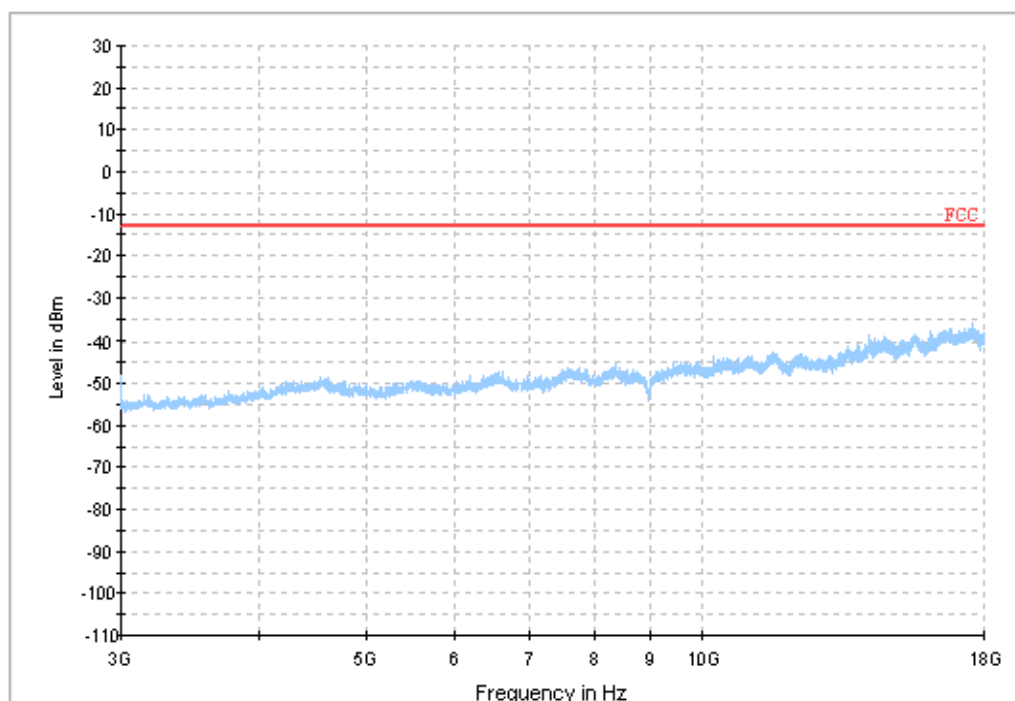
7.1.2.1 Test Mode = GSM/TM1



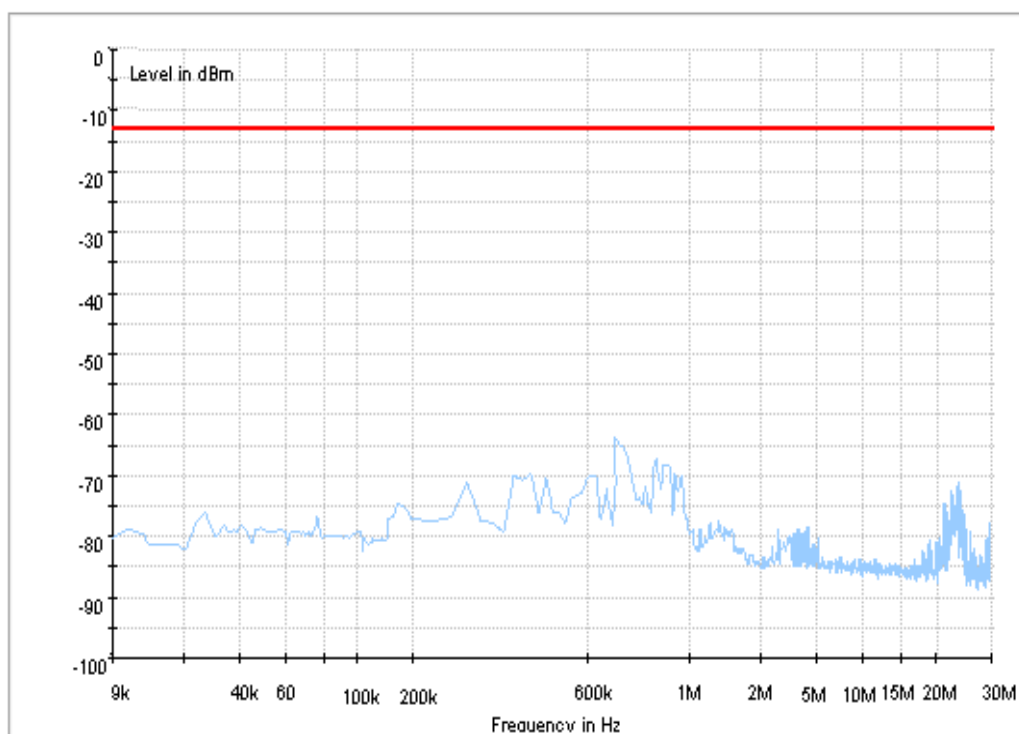
Copy of FCC PART24 GSM1900_L



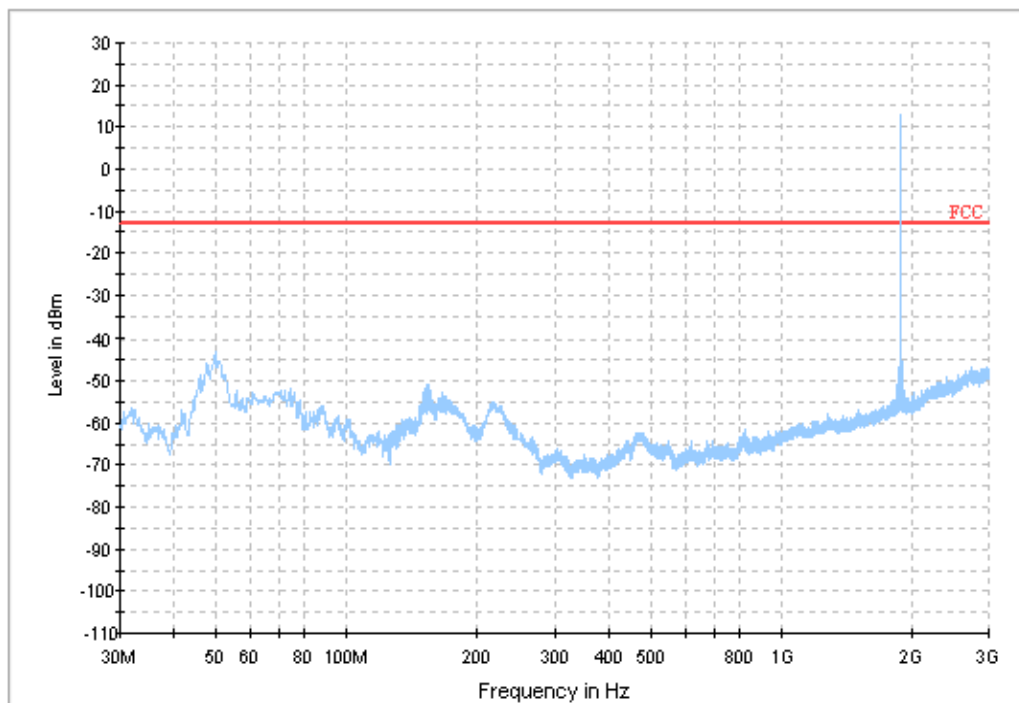
Copy of FCC PART24 GSM1900_H



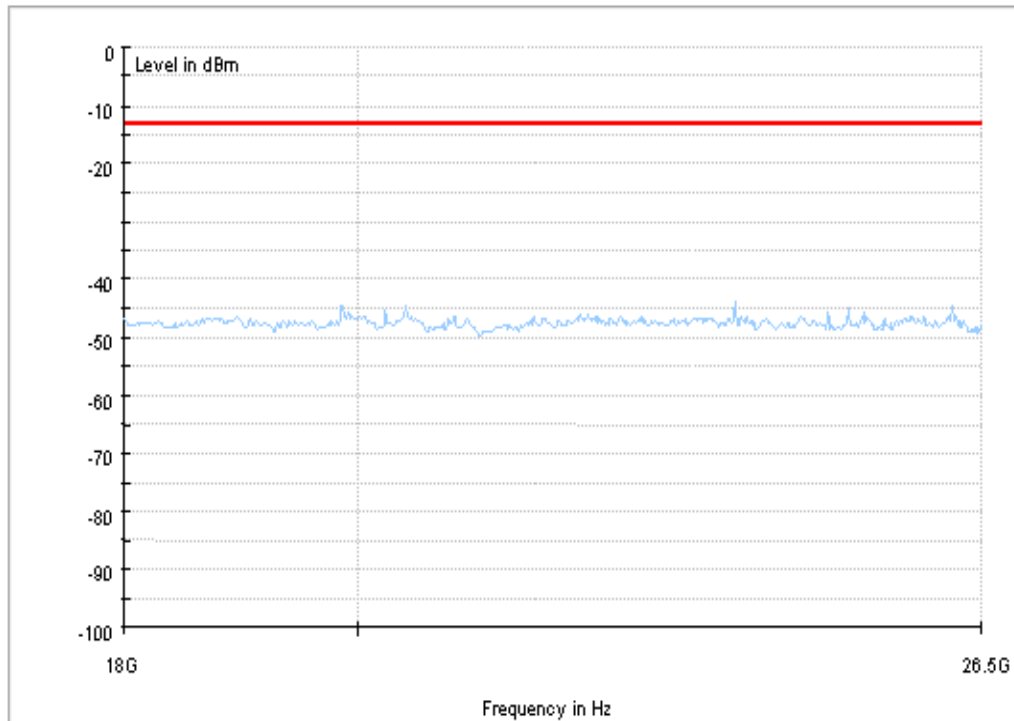
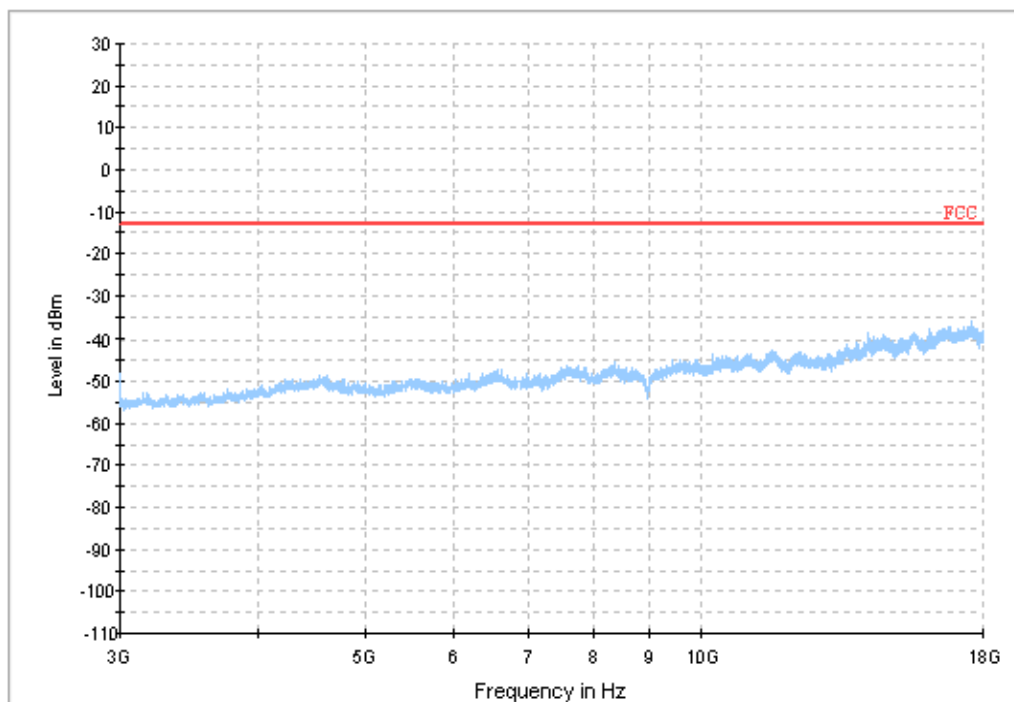
7.1.2.2 Test Mode = GSM/TM2



Copy of FCC PART24 GSM1900_L



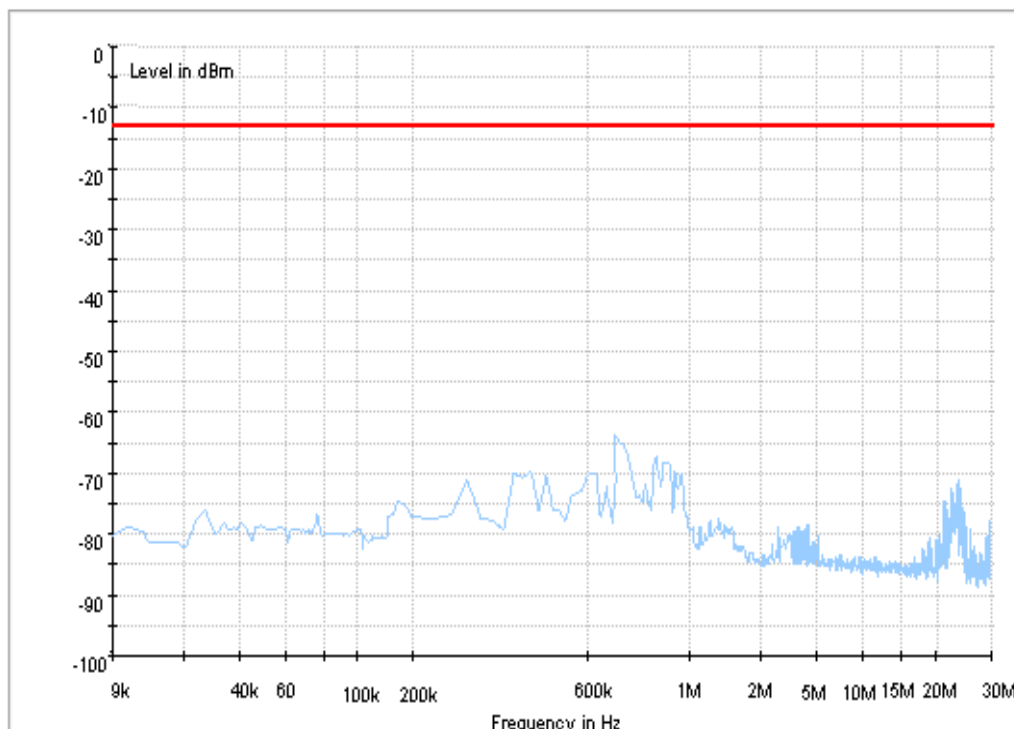
Copy of FCC PART24 GSM1900_H



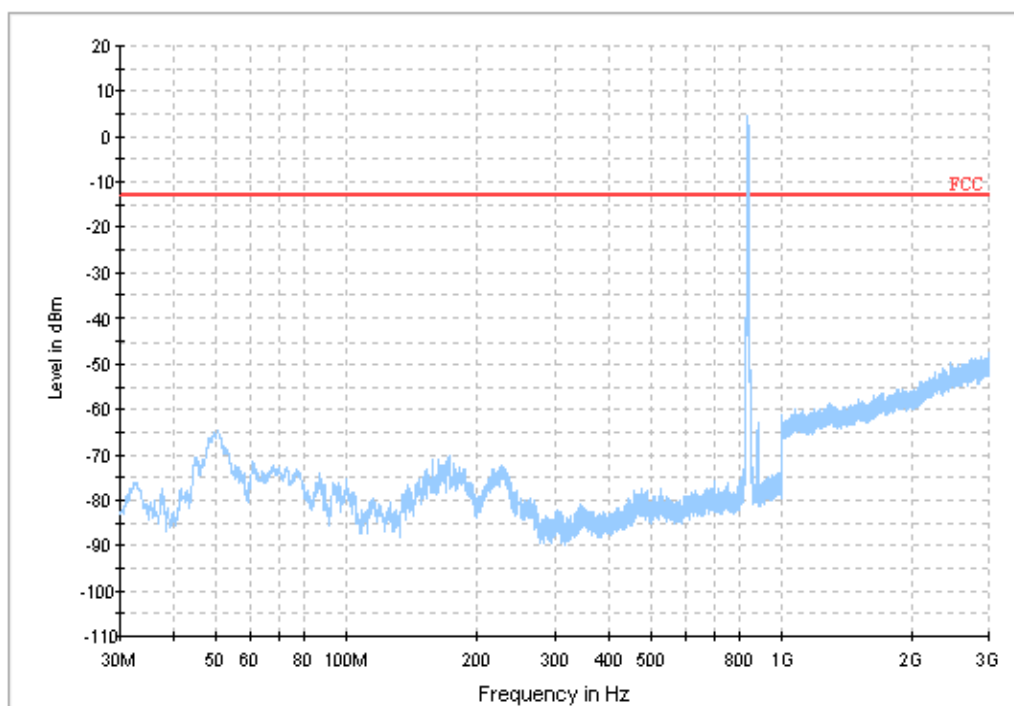
7.2 For UMTS

7.2.1 Test Band = WCDMA850

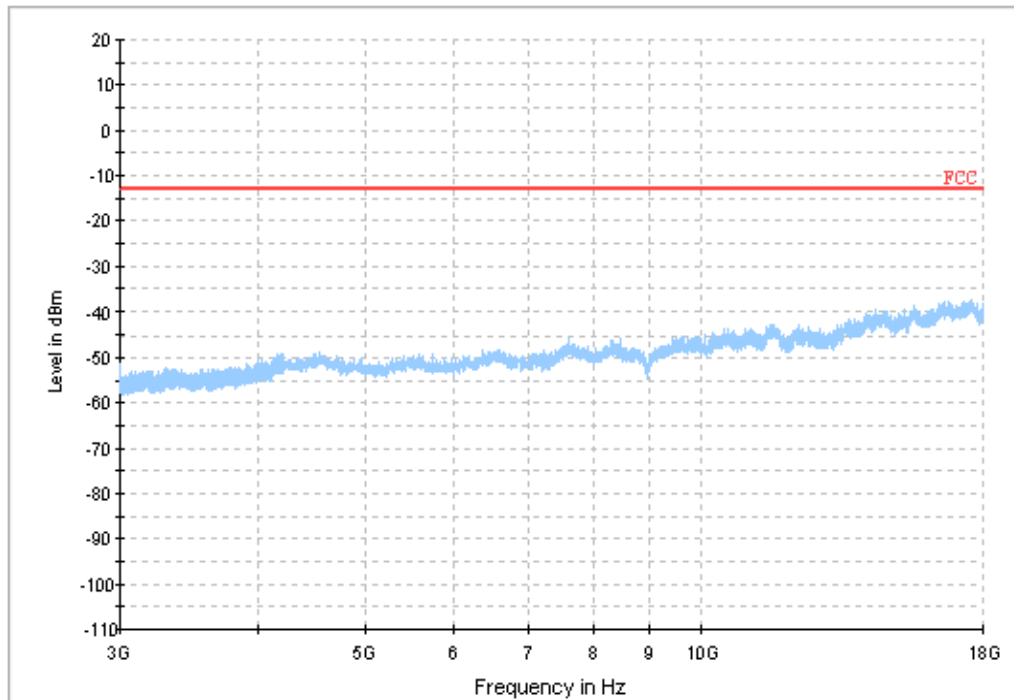
7.2.1.1 Test Mode = UMTS/TM1



Copy of FCC PART22 WCDMA850_L

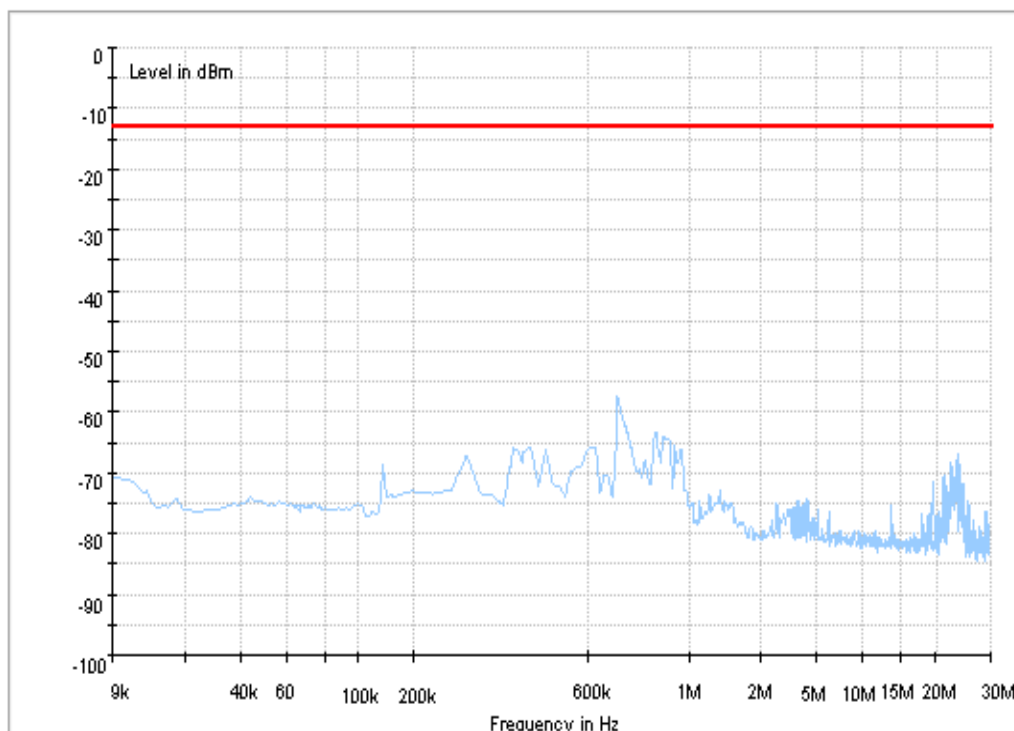


Copy of FCC PART22 WCDMA850_H

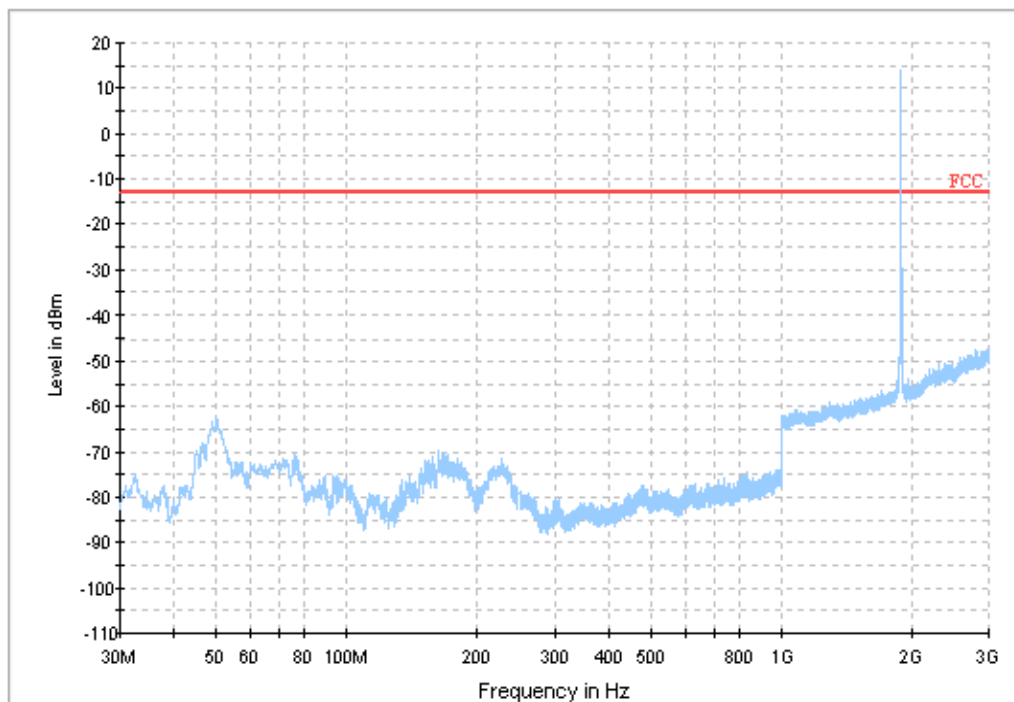


7.2.2 Test Band = WCDMA1900

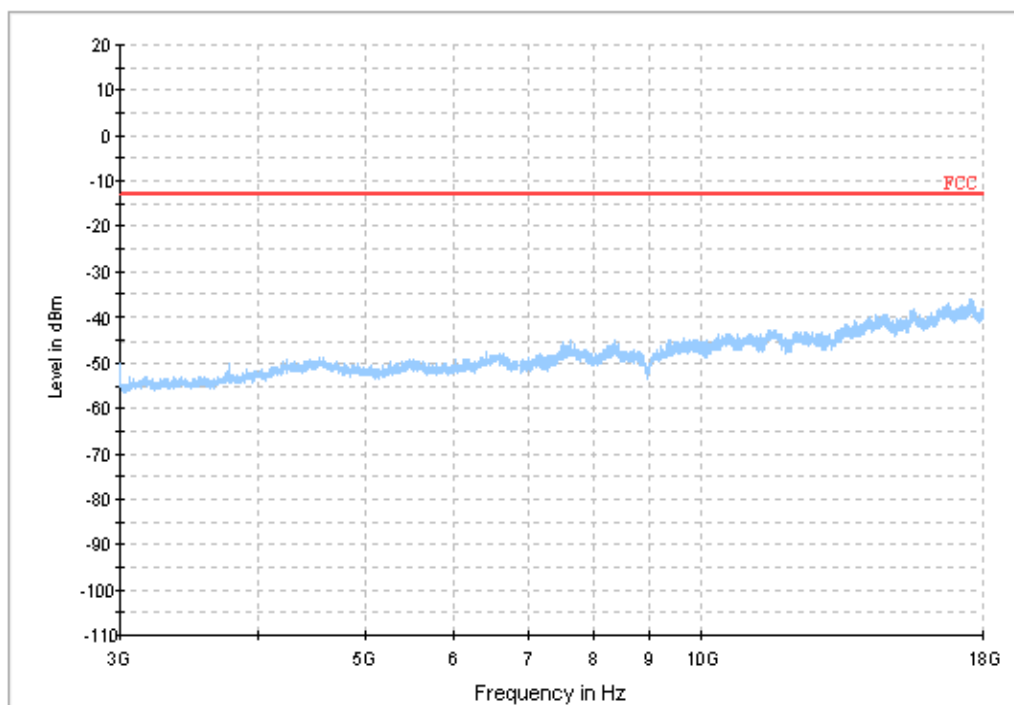
7.2.2.1 Test Mode = UMTS/TM1

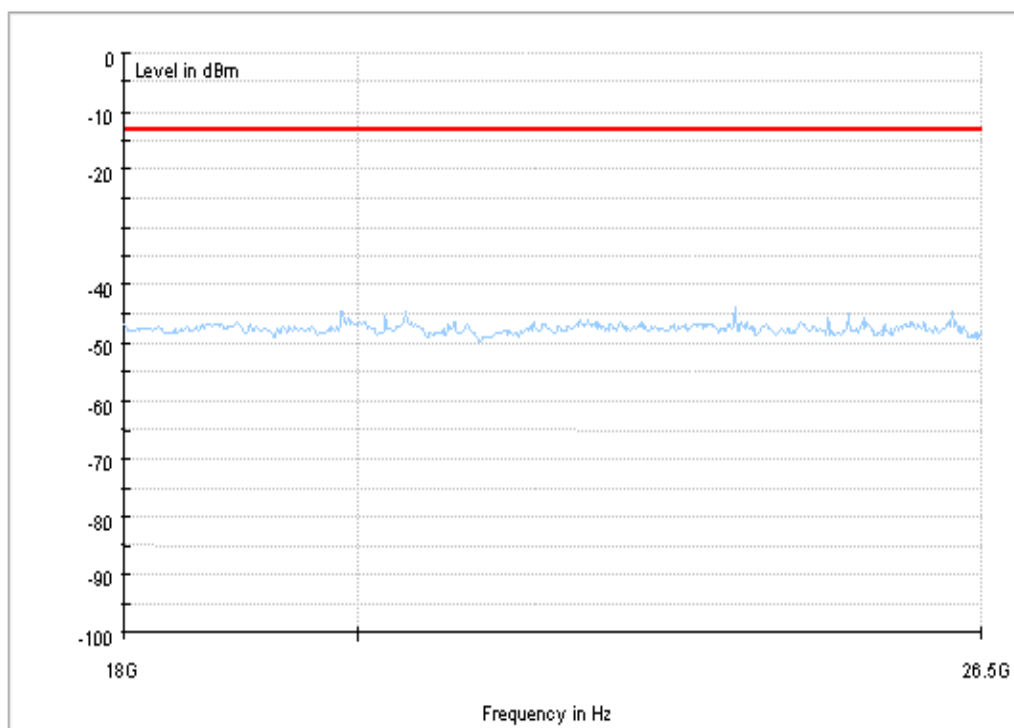


Copy of FCC PART24 WCDMA1900_L



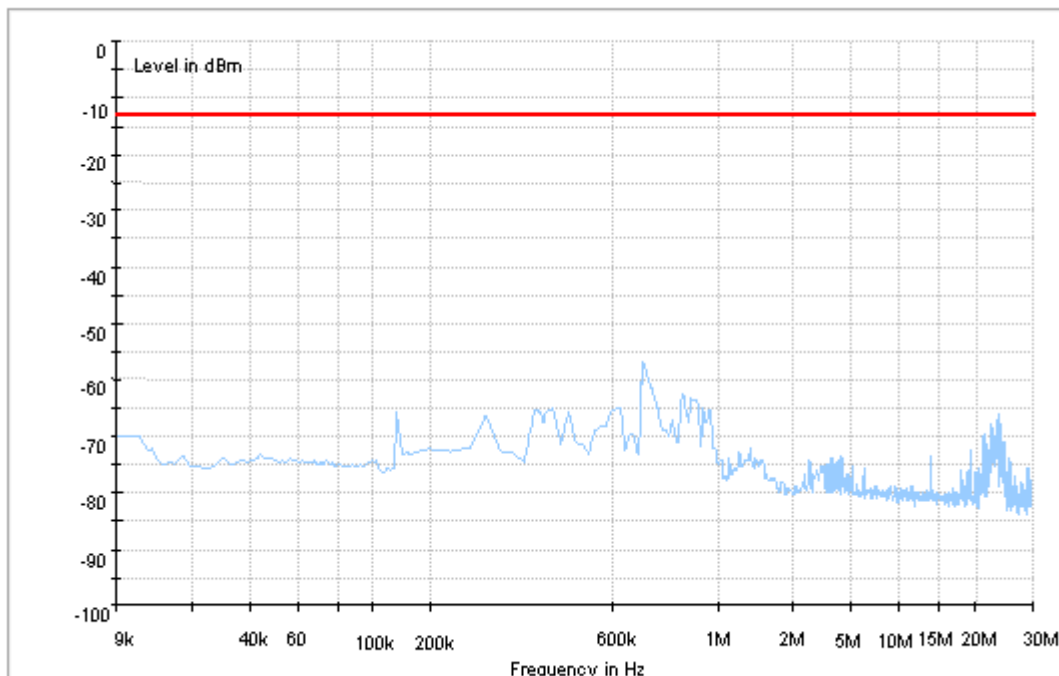
Copy of FCC PART24 WCDMA1900_H



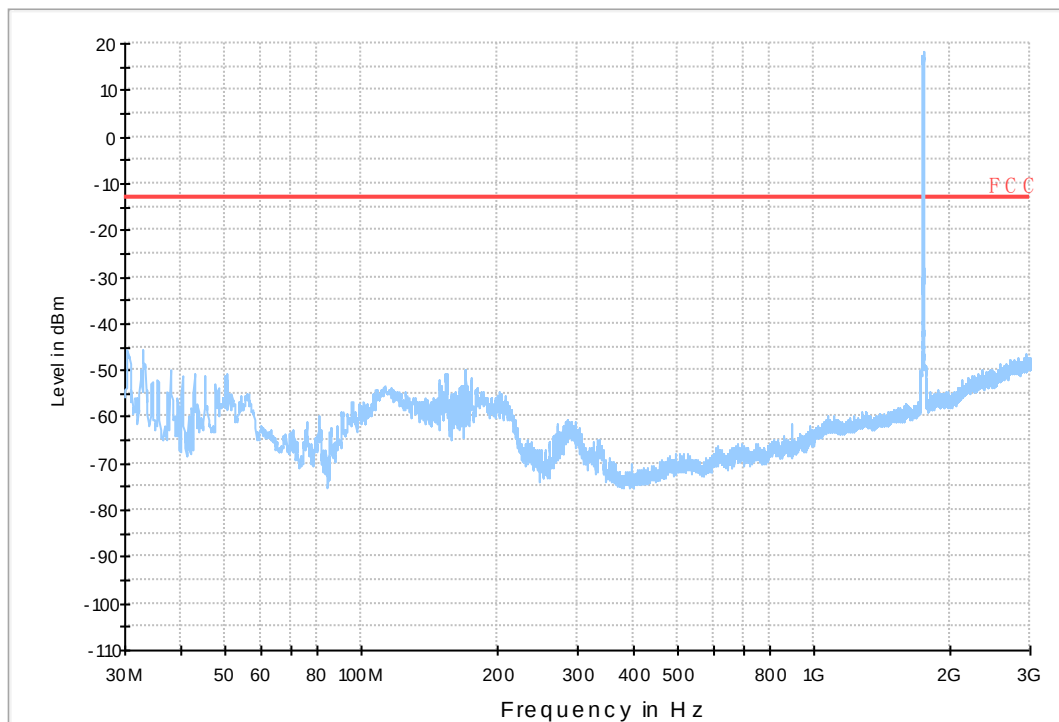


7.2.2 Test Band = WCDMA1700

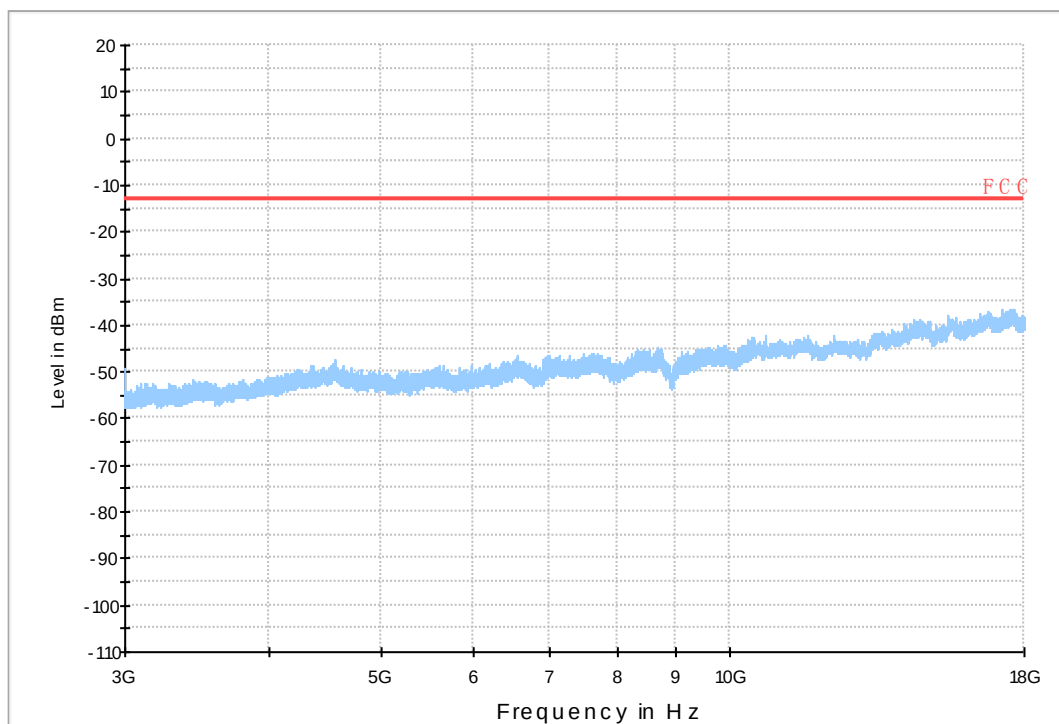
7.2.2.1 Test Mode = UMTS/TM1



Copy of FCC PART27 W CDMA1700_L



Copy of FCC PART27 W CDMA1700_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	11.95	0.0145	PASS
				VN	13.17	0.01598	PASS
				VH	10.53	0.01278	PASS
		MCH	TN	VL	7.43	0.00888	PASS
				VN	4.78	0.00571	PASS
				VH	4.71	0.00563	PASS
		HCH	TN	VL	9.1	0.01072	PASS
				VN	8.59	0.01012	PASS
				VH	9.49	0.01118	PASS
	GSM/TM2	LCH	TN	VL	-10.14	-0.0123	PASS
				VN	-6.23	-0.00756	PASS
				VH	-12.91	-0.01566	PASS
		MCH	TN	VL	-9.52	-0.01138	PASS
				VN	-19.57	-0.02339	PASS
				VH	-18.73	-0.02239	PASS
		HCH	TN	VL	-14.46	-0.01704	PASS
				VN	-15.17	-0.01787	PASS
				VH	-14.82	-0.01746	PASS
GSM1900	GSM/TM1	LCH	TN	VL	-1.61	-0.00087	PASS
				VN	3.49	0.00189	PASS
				VH	-2.65	-0.00143	PASS
		MCH	TN	VL	22.28	0.01185	PASS
				VN	4.26	0.00227	PASS
				VH	6.39	0.0034	PASS
		HCH	TN	VL	9.43	0.00494	PASS
				VN	5.75	0.00301	PASS
				VH	7.23	0.00379	PASS
	GSM/TM2	LCH	TN	VL	-8.07	-0.00436	PASS
				VN	-5.81	-0.00314	PASS
				VH	-11.14	-0.00602	PASS
		MCH	TN	VL	-4.65	-0.00247	PASS
				VN	-2.78	-0.00148	PASS
				VH	-2.78	-0.00148	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		HCH	TN	VH	-1.39	-0.00074	PASS
				VL	-2.1	-0.0011	PASS
				VN	-2.78	-0.00146	PASS
				VH	-2.94	-0.00154	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	10.2	0.01238	PASS
				-20	10.46	0.01269	PASS
				-10	9.75	0.01183	PASS
				0	7.49	0.00909	PASS
				10	7.23	0.00877	PASS
				20	5.88	0.00713	PASS
				30	6.78	0.00823	PASS
				40	7.75	0.0094	PASS
				50	5.04	0.00612	PASS
		MCH	VN	-30	4.71	0.00563	PASS
				-20	5.36	0.00641	PASS
				-10	1.03	0.00123	PASS
				0	3.49	0.00417	PASS
				10	0.32	0.00038	PASS
				20	0.19	0.00023	PASS
				30	0.06	0.00007	PASS
				40	3.68	0.0044	PASS
				50	5.23	0.00625	PASS
		HCH	VN	-30	9.49	0.01118	PASS
				-20	12.79	0.01507	PASS
				-10	10.07	0.01186	PASS
				0	6.84	0.00806	PASS
				10	9.36	0.01103	PASS
				20	10.2	0.01202	PASS
				30	7.62	0.00898	PASS
				40	8.78	0.01034	PASS
				50	8.72	0.01027	PASS
	GSM/TM2	LCH	VN	-30	-15.14	-0.01837	PASS
				-20	-10.82	-0.01313	PASS
				-10	-16.11	-0.01955	PASS
				0	-11.11	-0.01348	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				10	-12.4	-0.01504	PASS
				20	-15.66	-0.019	PASS
				30	-15.14	-0.01837	PASS
				40	-10.07	-0.01222	PASS
				50	-9.46	-0.01148	PASS
		MCH	VN	-30	-19.82	-0.02369	PASS
				-20	-17.37	-0.02076	PASS
				-10	-19.15	-0.02289	PASS
				0	-8.68	-0.01038	PASS
				10	-24.73	-0.02956	PASS
				20	-16.72	-0.01999	PASS
				30	-15.21	-0.01818	PASS
				40	-9.23	-0.01103	PASS
				50	-17.01	-0.02033	PASS
		HCH	VN	-30	-14.04	-0.01654	PASS
				-20	-21.11	-0.02487	PASS
				-10	-11.88	-0.014	PASS
				0	-12.33	-0.01453	PASS
				10	-11.62	-0.01369	PASS
				20	-14.24	-0.01678	PASS
				30	-11.33	-0.01335	PASS
				40	-15.56	-0.01833	PASS
				50	-15.66	-0.01845	PASS
GSM1900	GSM/TM1	LCH	VN	-30	4.33	0.00234	PASS
				-20	2.58	0.00139	PASS
				-10	7.1	0.00384	PASS
				0	4	0.00216	PASS
				10	-3.29	-0.00178	PASS
				20	-0.9	-0.00049	PASS
				30	3.03	0.00164	PASS
				40	-7.55	-0.00408	PASS
				50	-4.13	-0.00223	PASS
		MCH	VN	-30	11.43	0.00608	PASS
				-20	26.73	0.01422	PASS
				-10	16.98	0.00903	PASS
				0	5.94	0.00316	PASS
				10	15.82	0.00841	PASS
				20	15.17	0.00807	PASS
				30	17.05	0.00907	PASS
				40	12.72	0.00677	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		HCH	VN	50	15.76	0.00838	PASS
				-30	15.76	0.00825	PASS
				-20	13.04	0.00683	PASS
				-10	10.14	0.00531	PASS
				0	13.04	0.00683	PASS
				10	6.13	0.00321	PASS
				20	10.65	0.00558	PASS
				30	8.27	0.00433	PASS
				40	7.23	0.00379	PASS
				50	7.17	0.00375	PASS
	GSM/TM2	LCH	VN	-30	-12.4	-0.0067	PASS
				-20	-15.05	-0.00813	PASS
				-10	-8.78	-0.00475	PASS
				0	1.13	0.00061	PASS
				10	-6.01	-0.00325	PASS
				20	-10.98	-0.00593	PASS
				30	-17.05	-0.00922	PASS
				40	-12.62	-0.00682	PASS
				50	-1.32	-0.00071	PASS
		MCH	VN	-30	-2.39	-0.00127	PASS
				-20	-0.19	-0.0001	PASS
				-10	-4.46	-0.00237	PASS
				0	1.84	0.00098	PASS
				10	-6.26	-0.00333	PASS
				20	4.88	0.0026	PASS
				30	6.65	0.00354	PASS
				40	2.74	0.00146	PASS
				50	-0.23	-0.00012	PASS
		HCH	VN	-30	-1.1	-0.00058	PASS
				-20	6.59	0.00345	PASS
				-10	-1.1	-0.00058	PASS
				0	-5.42	-0.00284	PASS
				10	-5.33	-0.00279	PASS
				20	-5.65	-0.00296	PASS
				30	-1.19	-0.00062	PASS
				40	-3.68	-0.00193	PASS
				50	3.52	0.00184	PASS

8.2 For UMTS

8.2.1Frequency Error vs. Voltage:

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
WCDMA850	UMTS/TM1	LCH	TN	VL	3.72	0.0045	PASS
				VN	1.95	0.00236	PASS
				VH	0.56	0.00068	PASS
		MCH	TN	VL	-0.89	-0.00106	PASS
				VN	-1.97	-0.00236	PASS
				VH	-2.4	-0.00287	PASS
		HCH	TN	VL	2.53	0.00299	PASS
				VN	-1.53	-0.00181	PASS
				VH	0.87	0.00103	PASS
WCDMA1900	UMTS/TM1	LCH	TN	VL	11.38	0.00614	PASS
				VN	-11.95	-0.00645	PASS
				VH	1.45	0.00078	PASS
		MCH	TN	VL	0.11	0.00006	PASS
				VN	0.95	0.00051	PASS
				VH	3.74	0.00199	PASS
		HCH	TN	VL	-0.2	-0.0001	PASS
				VN	-3.69	-0.00193	PASS
				VH	6.29	0.0033	PASS
WCDMA1700	UMTS/TM1	LCH	TN	VL	6.42	0.00375	PASS
				VN	7.57	0.00442	PASS
				VH	-2.62	-0.00153	PASS
		MCH	TN	VL	4.47	0.00258	PASS
				VN	-5.71	-0.0033	PASS
				VH	0.72	0.00042	PASS
		HCH	TN	VL	-9.40	-0.00536	PASS
				VN	-1.19	-0.00068	PASS
				VH	8.07	0.0046	PASS

8.2.2Frequency Error vs. Temperature:

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
WCDMA850	UMTS/TM1	LCH	VN	-30	1.39	0.00168	PASS
				-20	0.55	0.00067	PASS
				-10	0.06	0.00007	PASS
				0	-2.23	-0.0027	PASS
				10	2.87	0.00347	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				20	1.51	0.00183	PASS
				30	-0.38	-0.00046	PASS
				40	5.45	0.00659	PASS
				50	0.38	0.00046	PASS
		MCH	VN	-30	2.15	0.00257	PASS
				-20	0.5	0.0006	PASS
				-10	-6.07	-0.00726	PASS
				0	-6.42	-0.00768	PASS
				10	2.58	0.00308	PASS
				20	2.98	0.00356	PASS
				30	1.6	0.00191	PASS
				40	3.68	0.0044	PASS
				50	1.98	0.00237	PASS
		HCH	VN	-30	0.15	0.00018	PASS
				-20	-3.05	-0.0036	PASS
				-10	1.4	0.00165	PASS
				0	-1.69	-0.002	PASS
				10	0.93	0.0011	PASS
				20	1.45	0.00171	PASS
				30	3.45	0.00408	PASS
				40	-1.04	-0.00123	PASS
				50	-6.06	-0.00716	PASS
WCDMA1900	UMTS/TM1	LCH	VN	-30	-0.26	-0.00014	PASS
				-20	0.2	0.00011	PASS
				-10	7.32	0.00395	PASS
				0	6.13	0.00331	PASS
				10	-4.17	-0.00225	PASS
				20	-6.13	-0.00331	PASS
				30	4.33	0.00234	PASS
				40	7.87	0.00425	PASS
				50	-3.33	-0.0018	PASS
		MCH	VN	-30	-3.57	-0.0019	PASS
				-20	-2.67	-0.00142	PASS
				-10	-6.48	-0.00345	PASS
				0	0.81	0.00043	PASS
				10	4.44	0.00236	PASS
				20	1.75	0.00093	PASS
				30	-0.75	-0.0004	PASS
				40	-1.5	-0.0008	PASS
				50	-2.9	-0.00154	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		HCH	VN	-30	1.59	0.00083	PASS
				-20	7.92	0.00415	PASS
				-10	-6.2	-0.00325	PASS
				0	1.07	0.00056	PASS
				10	-3.1	-0.00163	PASS
				20	3.28	0.00172	PASS
				30	9.03	0.00473	PASS
				40	-4.47	-0.00234	PASS
				50	-1.33	-0.0007	PASS
WCDMA1700	UMTS/TM1	LCH	VN	-30	-2.47	-0.00144	PASS
				-20	4.36	0.00255	PASS
				-10	-6.52	-0.00381	PASS
				0	5.54	0.00324	PASS
				10	-0.06	-0.00004	PASS
				20	-1.57	-0.00092	PASS
				30	-0.43	-0.00025	PASS
				40	0.89	0.00052	PASS
				50	5.83	0.0034	PASS
		MCH	VN	-30	-3.71	-0.00214	PASS
				-20	5.77	0.00333	PASS
				-10	-3.30	-0.0019	PASS
				0	8.53	0.00492	PASS
				10	-1.07	-0.00062	PASS
				20	0.87	0.0005	PASS
				30	1.05	0.00061	PASS
				40	6.41	0.0037	PASS
				50	0.89	0.00051	PASS
		HCH	VN	-30	-1.25	-0.00071	PASS
				-20	7.23	0.00413	PASS
				-10	9.22	0.00526	PASS
				0	-3.56	-0.00203	PASS
				10	-2.09	-0.00119	PASS
				20	0.92	0.00052	PASS
				30	1.13	0.00064	PASS
				40	8.93	0.0051	PASS
				50	5.17	0.00295	PASS

END