Appendix for test report

1Appendix_A: Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dBm]	ERP/EIRP [dBm]	Limit [dBm]	Verdict
GSM850	GSM/TM1	LCH	32.86	26.93	38.5	PASS
		MCH	32.88	26.95	38.5	PASS
		HCH	32.93	27	38.5	PASS
	GSM/TM2	LCH	26.29	20.36	38.5	PASS
		MCH	26.28	20.35	38.5	PASS
		HCH	26.23	20.3	38.5	PASS
GSM1900	GSM/TM1	LCH	29.86	30.78	33	PASS
		MCH	29.62	30.54	33	PASS
		HCH	29.68	30.6	33	PASS
	GSM/TM2	LCH	25.56	26.48	33	PASS
		MCH	25.47	26.39	33	PASS
		HCH	25.38	26.3	33	PASS

Test Band	Test Mode	Test Channel	Measured[dBm]	ERP [dBm]	Limit [dBm]	Verdict
WCDMA850	UMTS/TM1	LCH	23.99	18.06	38.5	PASS
		MCH	24.06	18.13	38.5	PASS
		HCH	24.11	18.18	38.5	PASS
WCDMA1900	UMTS/TM1	LCH	23.47	24.39	33	PASS
		MCH	23.35	24.27	33	PASS
		HCH	23.39	24.31	33	PASS
WCDMA1700	UMTS/TM1	LCH	23.4	24.32	30	PASS
		MCH	23.34	24.26	30	PASS
		HCH	23.39	24.31	30	PASS

Note1:

a, For getting the ERP (Efficient Radiated Power) or EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

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

EIRP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBi]

b, SGP=Signal Generator Level

Note2:

SET Span=1.5*OBW

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

SET VBW>= 3*RBW

SET Sweep time=auto-couple.

Detector: RMS

2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
GSM1900	GSM/TM1	LCH	0.13	13	PASS
		MCH	0.11	13	PASS
		HCH	0.14	13	PASS
	GSM/TM2	LCH	2.98	13	PASS
		MCH	3	13	PASS
		HCH	3.13	13	PASS
Test Band	**Test Mode**	**Test Channel**	**Measured[dB]**	**Limit [dB]**	**Verdict**
WCDMA1900	UMTS/TM1	LCH	2.47	13	PASS
		MCH	2.35	13	PASS
		HCH	2.33	13	PASS
WCDMA1700	UMTS/TM1	LCH	2.77	13	PASS
		MCH	2.48	13	PASS
		HCH	2.61	13	PASS

3Appendix_C: Modulation Characteristics

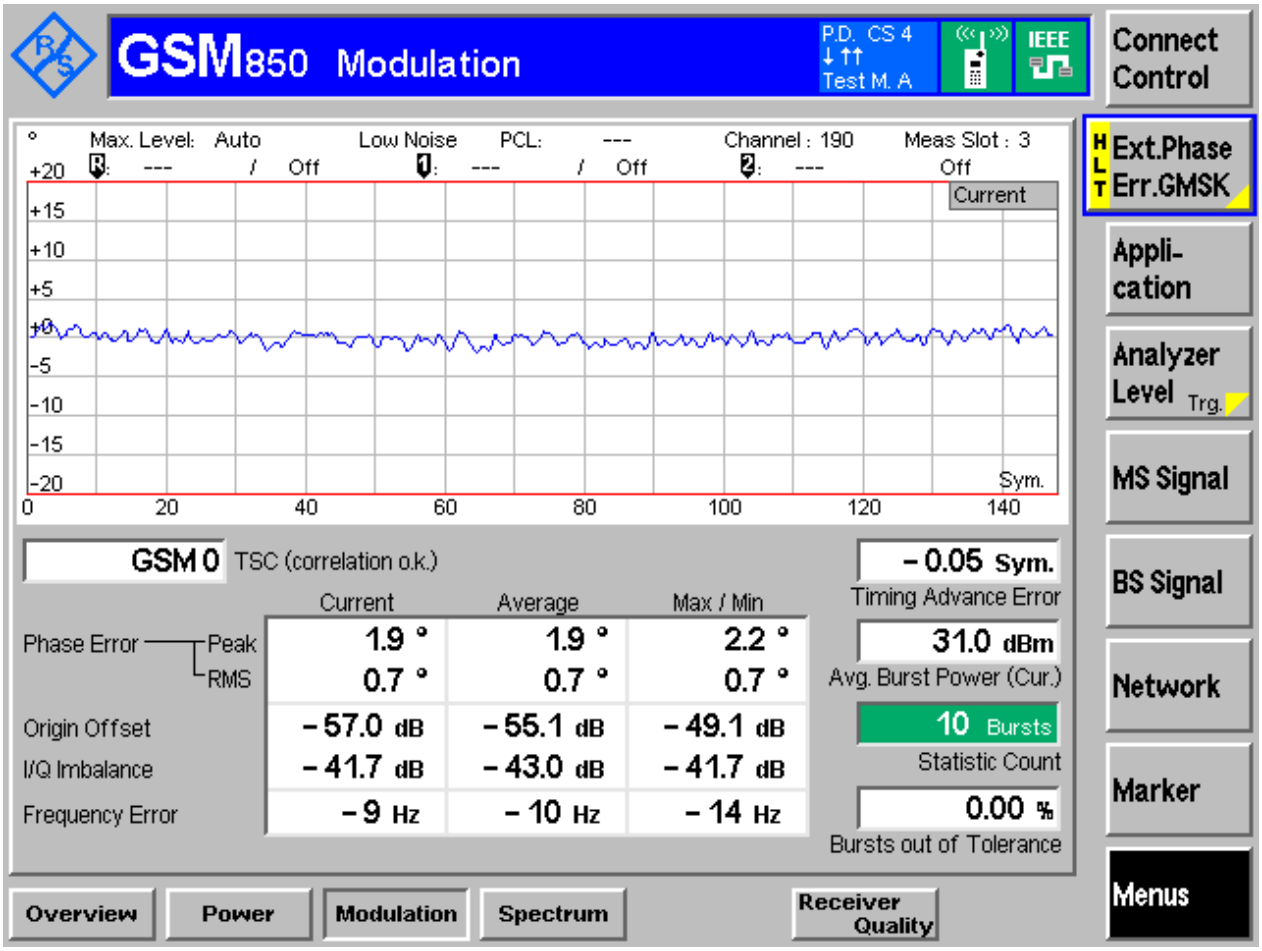
Part I - Test Plots

3.1 For GSM

3.1.1 Test Band = GSM850

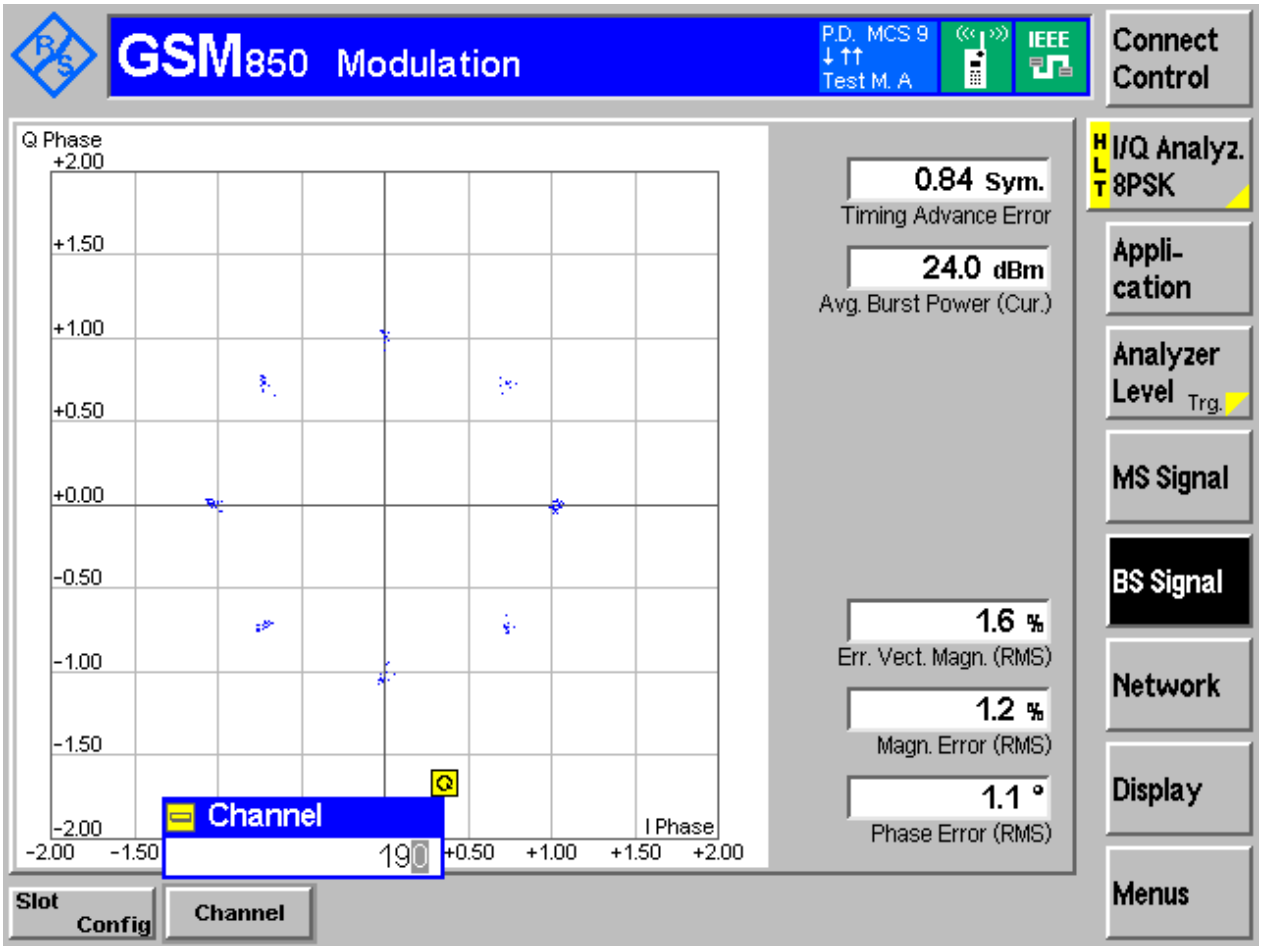
3.1.1.1 Test Mode = GSM/TM1

3.1.1.1.1 Test Channel = MCH



3.1.1.2 Test Mode = GSM/TM2

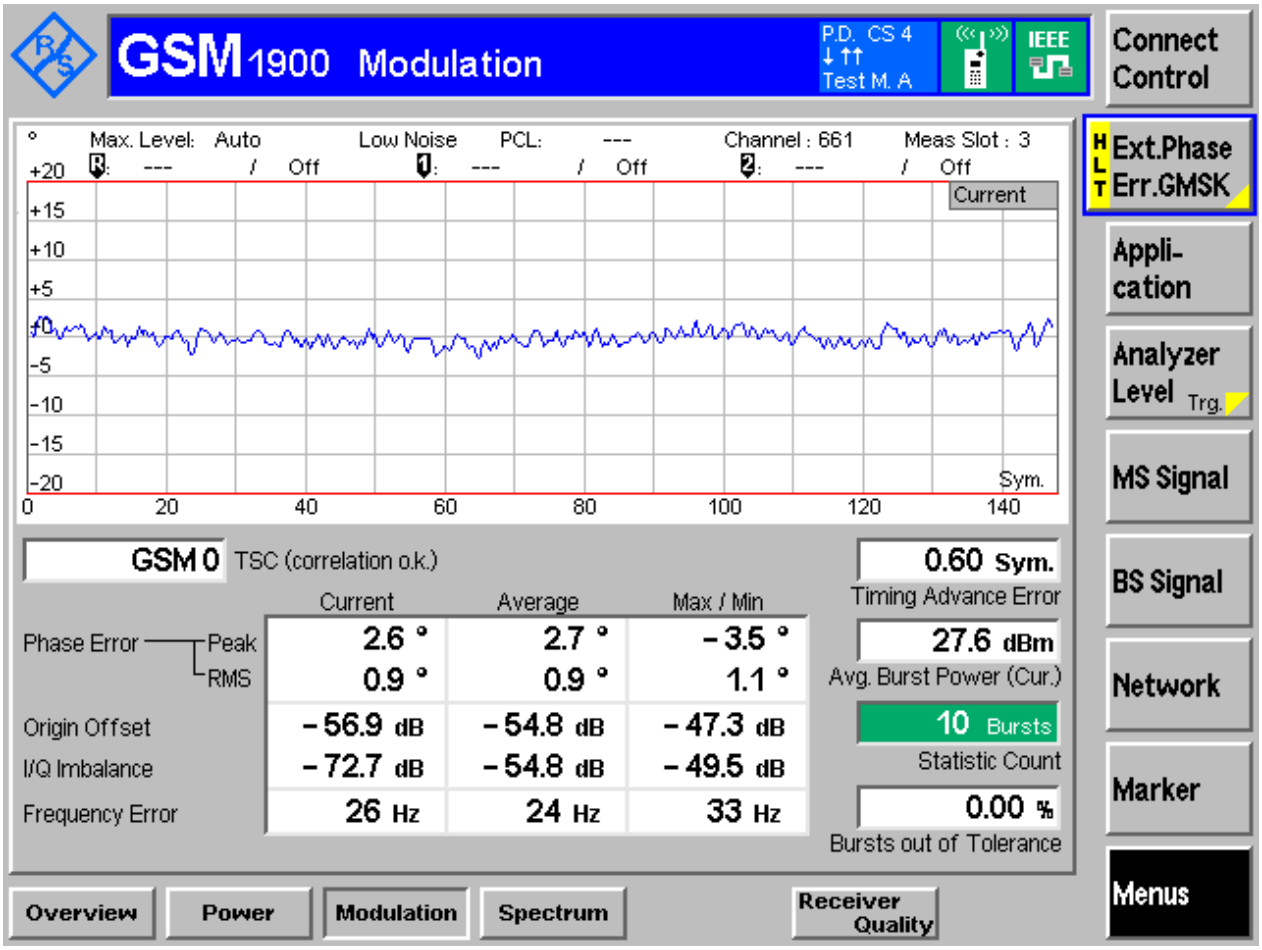
3.1.1.2.1 Test Channel = MCH



3.1.2 Test Band = GSM1900

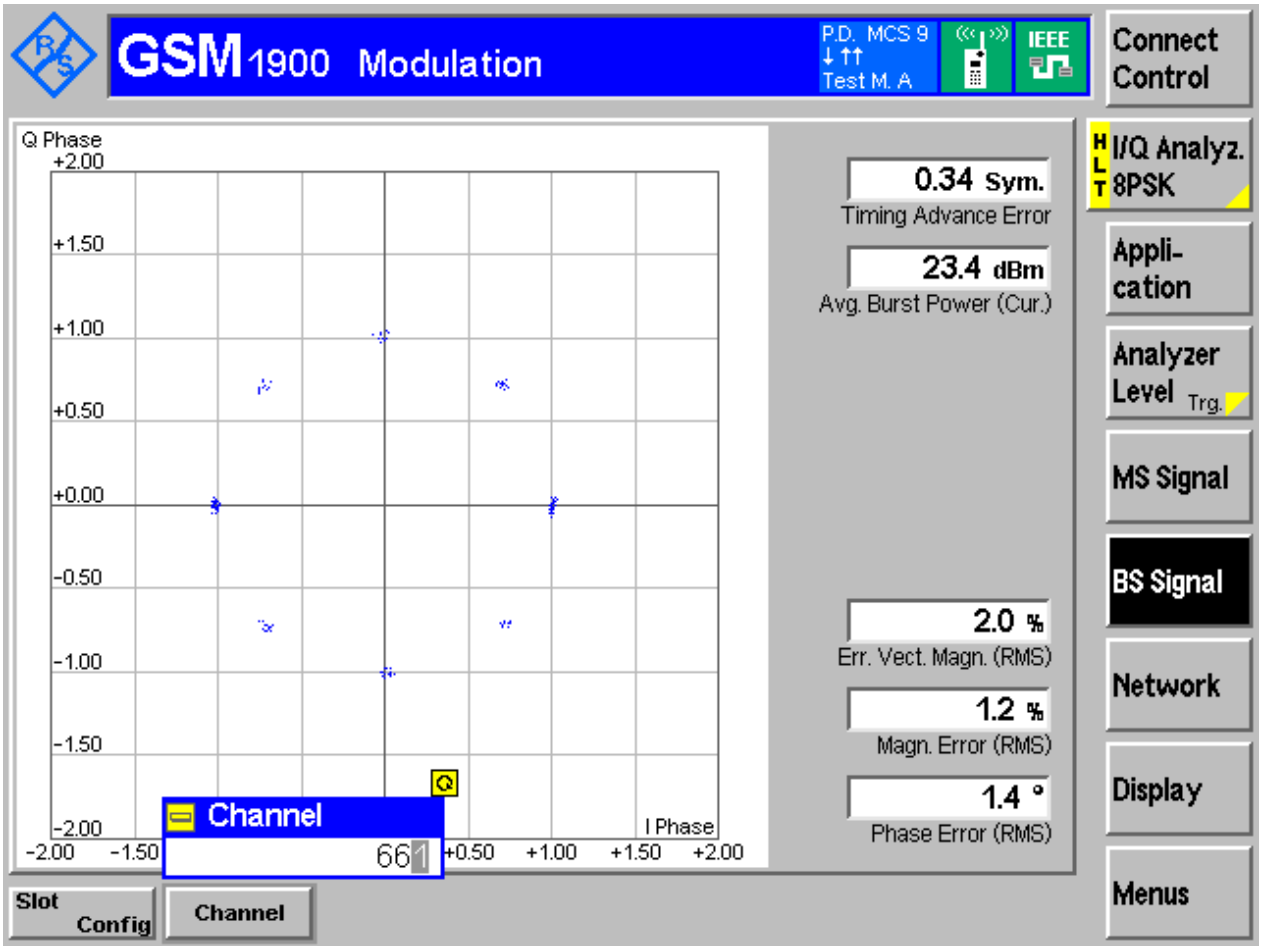
3.1.2.1 Test Mode = GSM/TM1

3.1.2.1.1 Test Channel = MCH



3.1.2.2 Test Mode = GSM/TM2

3.1.2.2.1 Test Channel = MCH

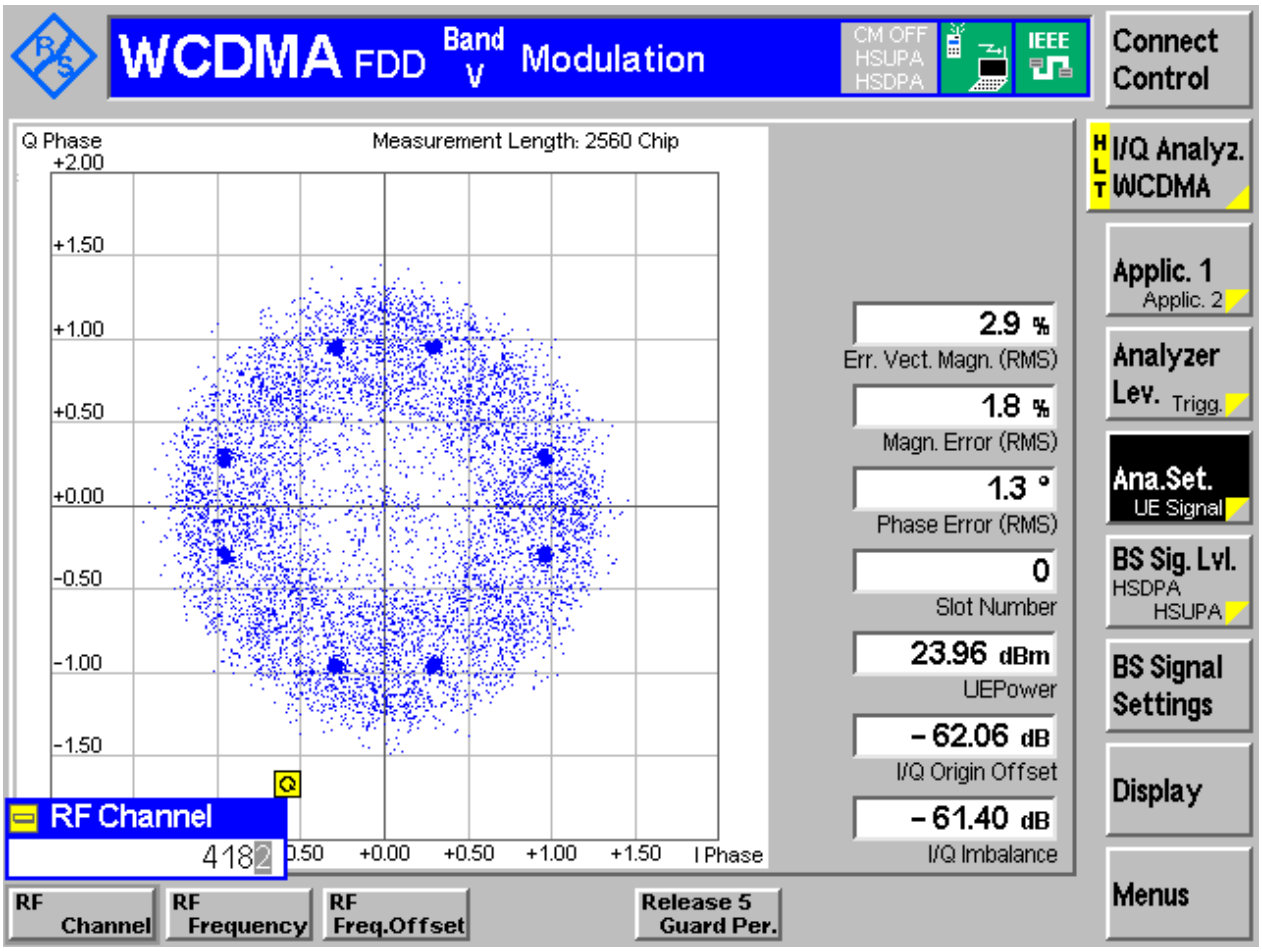


3.2 For UMTS

3.2.1 Test Band = WCDMA850

3.2.1.1 Test Mode = UMTS/TM1

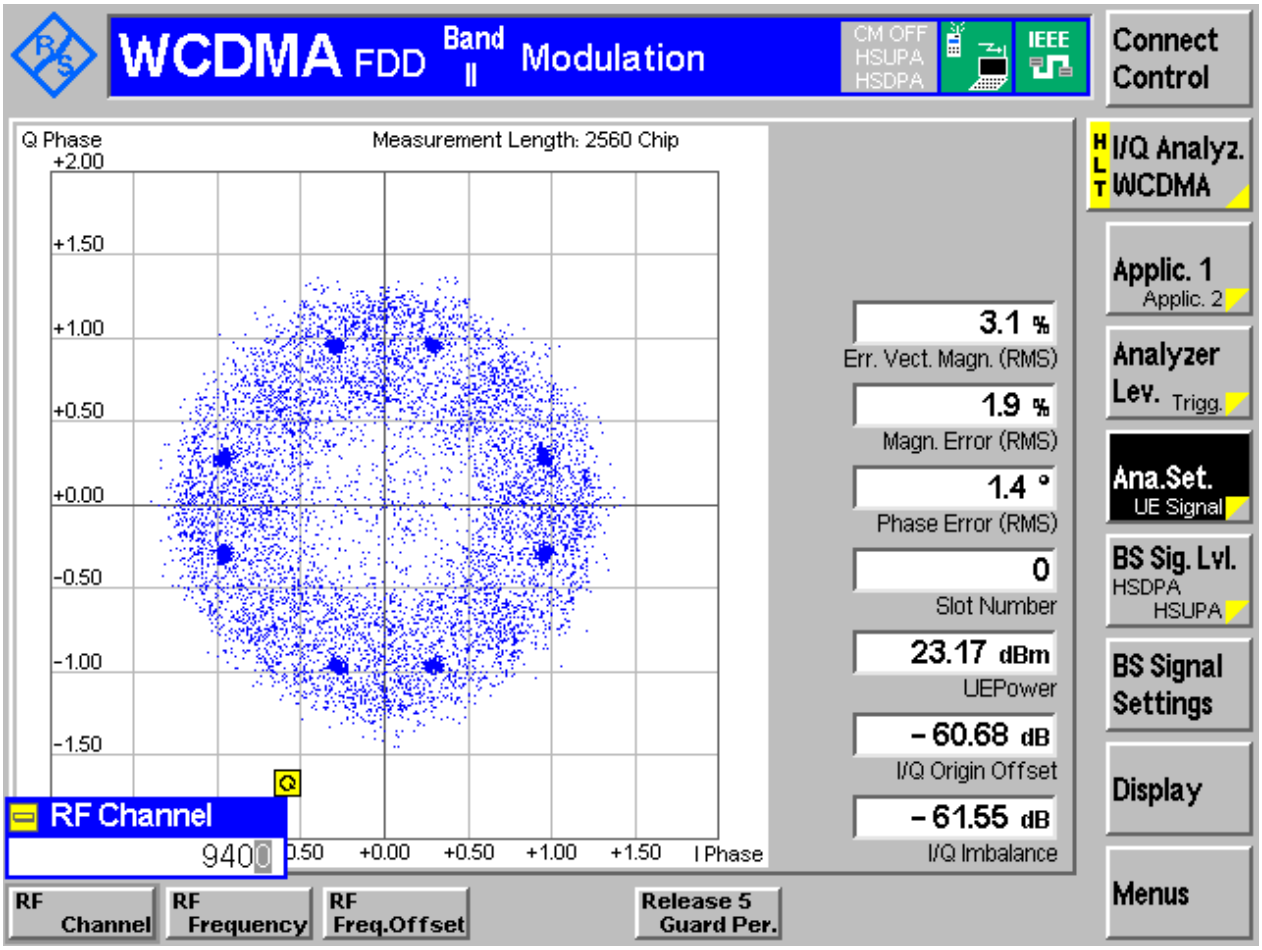
3.2.1.1.1 Test Channel = MCH



3.2.2 Test Band = WCDMA1900

3.2.2.1 Test Mode = UMTS/TM1

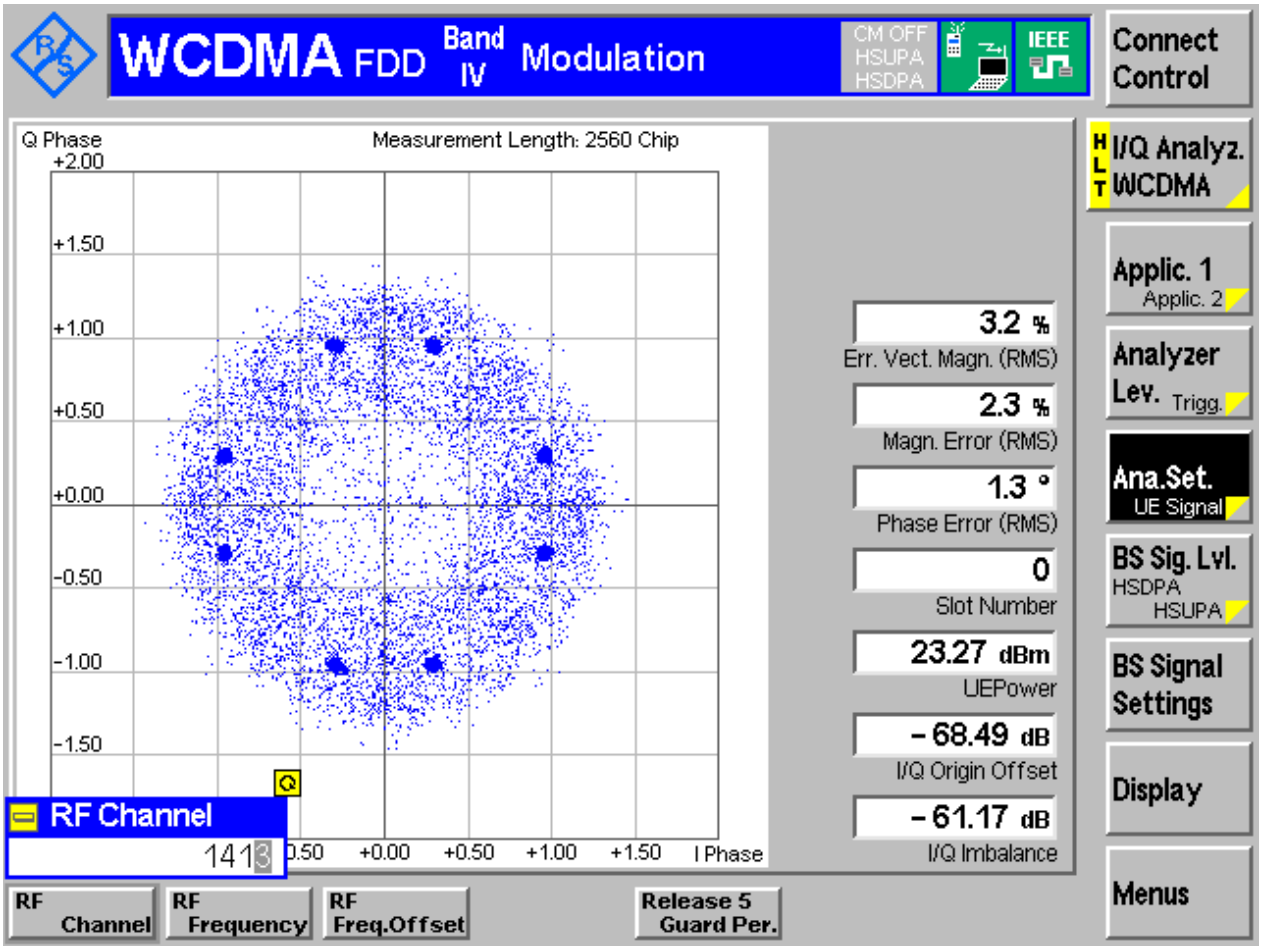
3.2.2.1.1 Test Channel = MCH



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	244.97	324.92	Pass
		MCH	245.23	319.89	Pass
		HCH	244.86	319.95	Pass
	GSM/TM2	LCH	251.99	323.23	Pass
		MCH	248.25	323.80	Pass
		HCH	248.84	318.95	Pass
GSM1900	GSM/TM1	LCH	246.09	320.79	Pass
		MCH	245.97	315.34	Pass
		HCH	244.32	320.16	Pass
	GSM/TM2	LCH	249.51	315.22	Pass
		MCH	249.82	317.23	Pass
		HCH	243.35	315.94	Pass

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
WCDMA850	UMTS/TM1	LCH	4.16	4.74	Pass
		MCH	4.17	4.72	Pass
		HCH	4.15	4.73	Pass
WCDMA1900	UMTS/TM1	LCH	4.17	4.75	Pass
		MCH	4.17	4.76	Pass
		HCH	4.18	4.80	Pass
WCDMA1700	UMTS/TM1	LCH	4.15	4.73	Pass
		MCH	4.15	4.73	Pass
		HCH	4.16	4.73	Pass

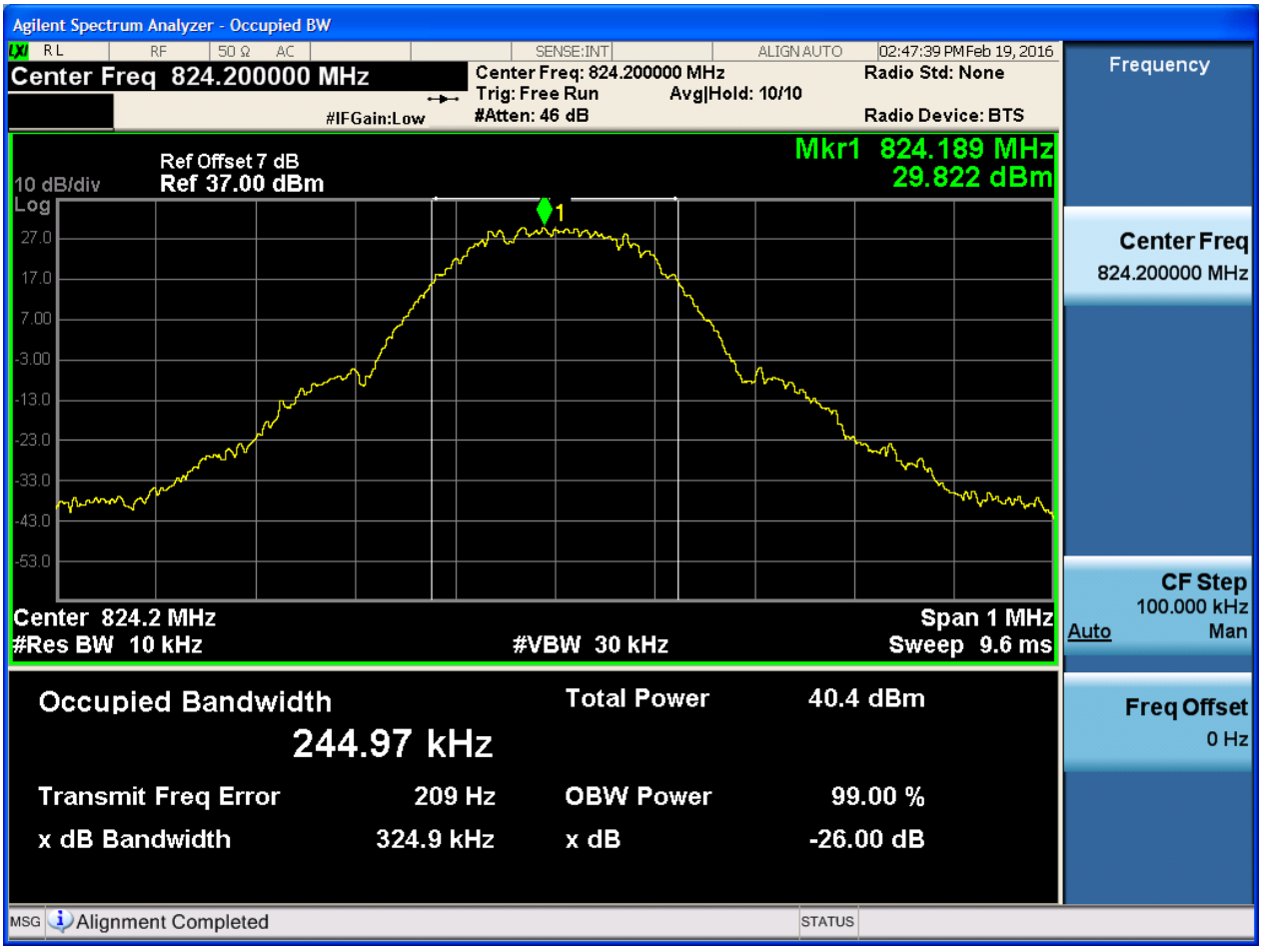
Part II - Test Plots

4.1 For GSM

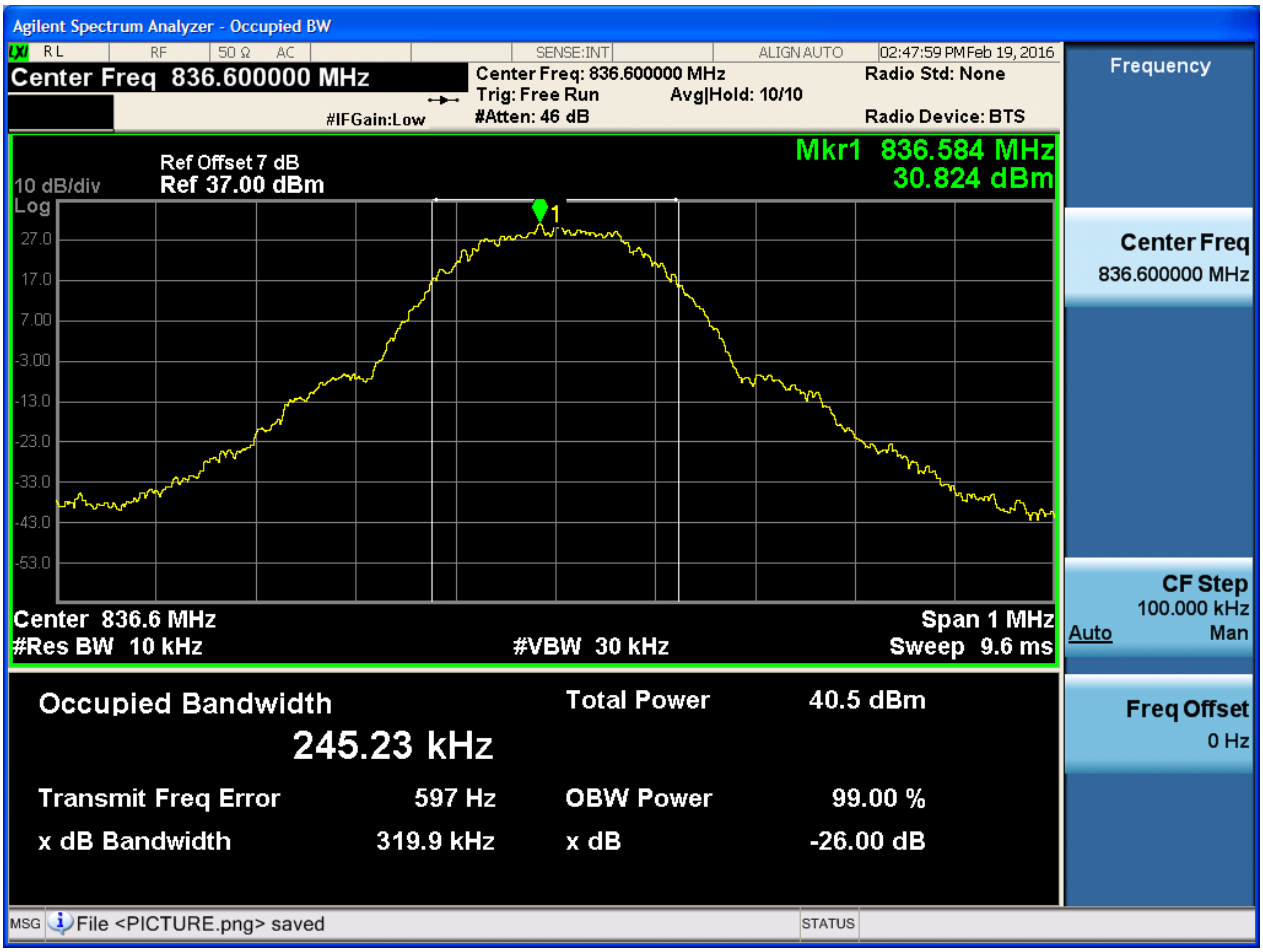
4.1.1 Test Band = GSM850

4.1.1.1 Test Mode = GSM/TM1

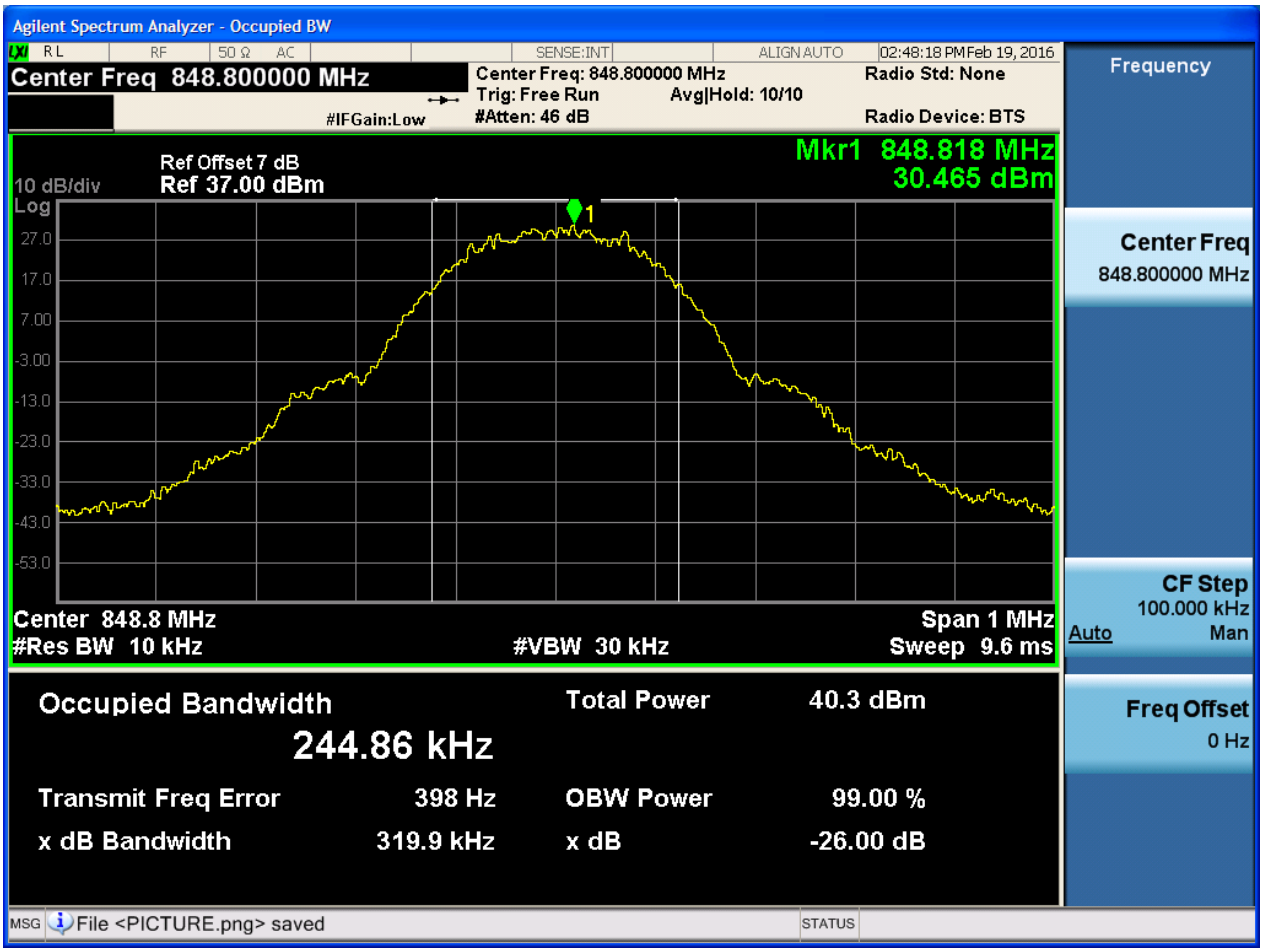
4.1.1.1.1 Test Channel = LCH



4.1.1.1.2 Test Channel = MCH

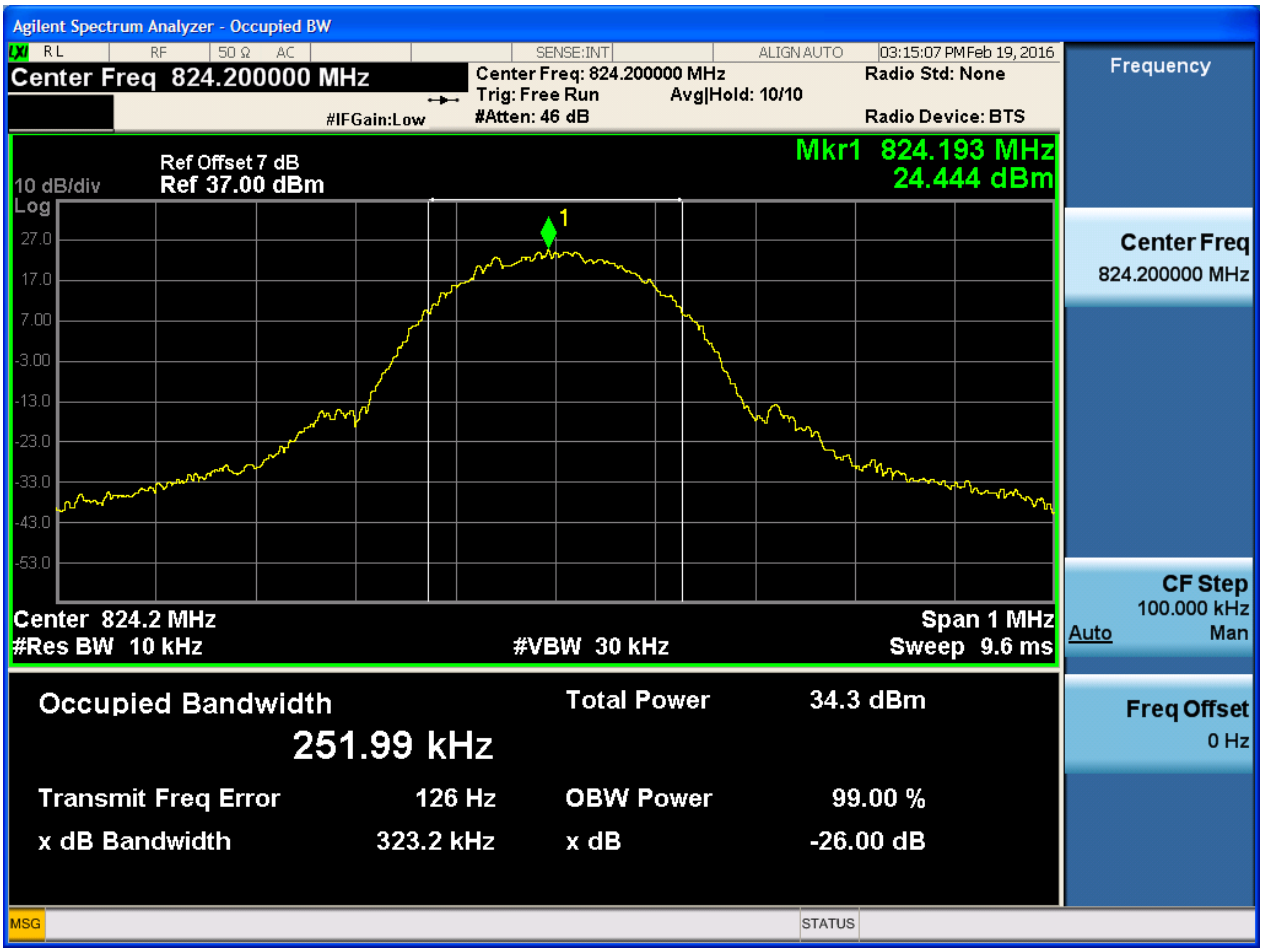


4.1.1.1.3 Test Channel = HCH

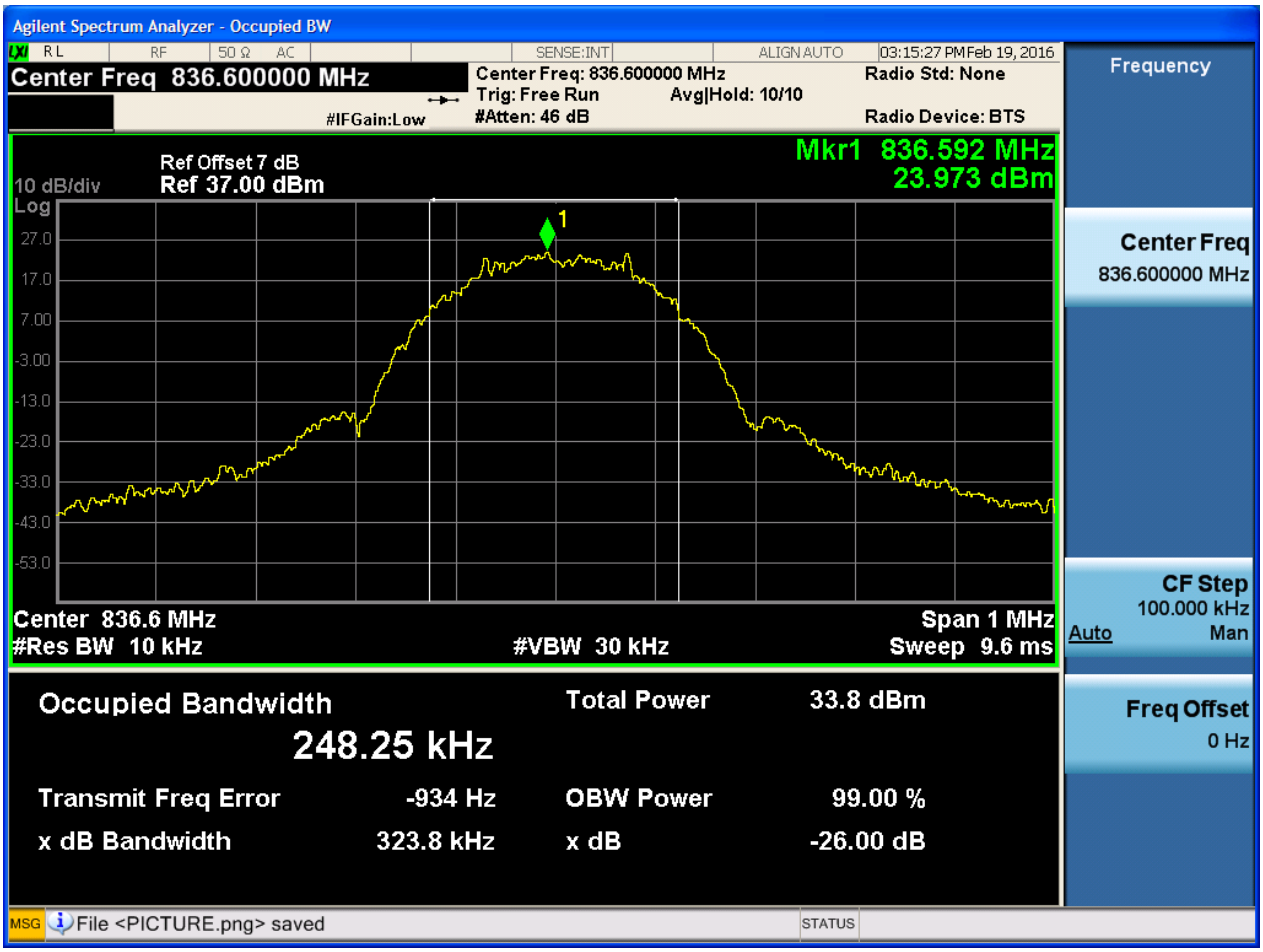


4.1.1.2 Test Mode = GSM/TM2

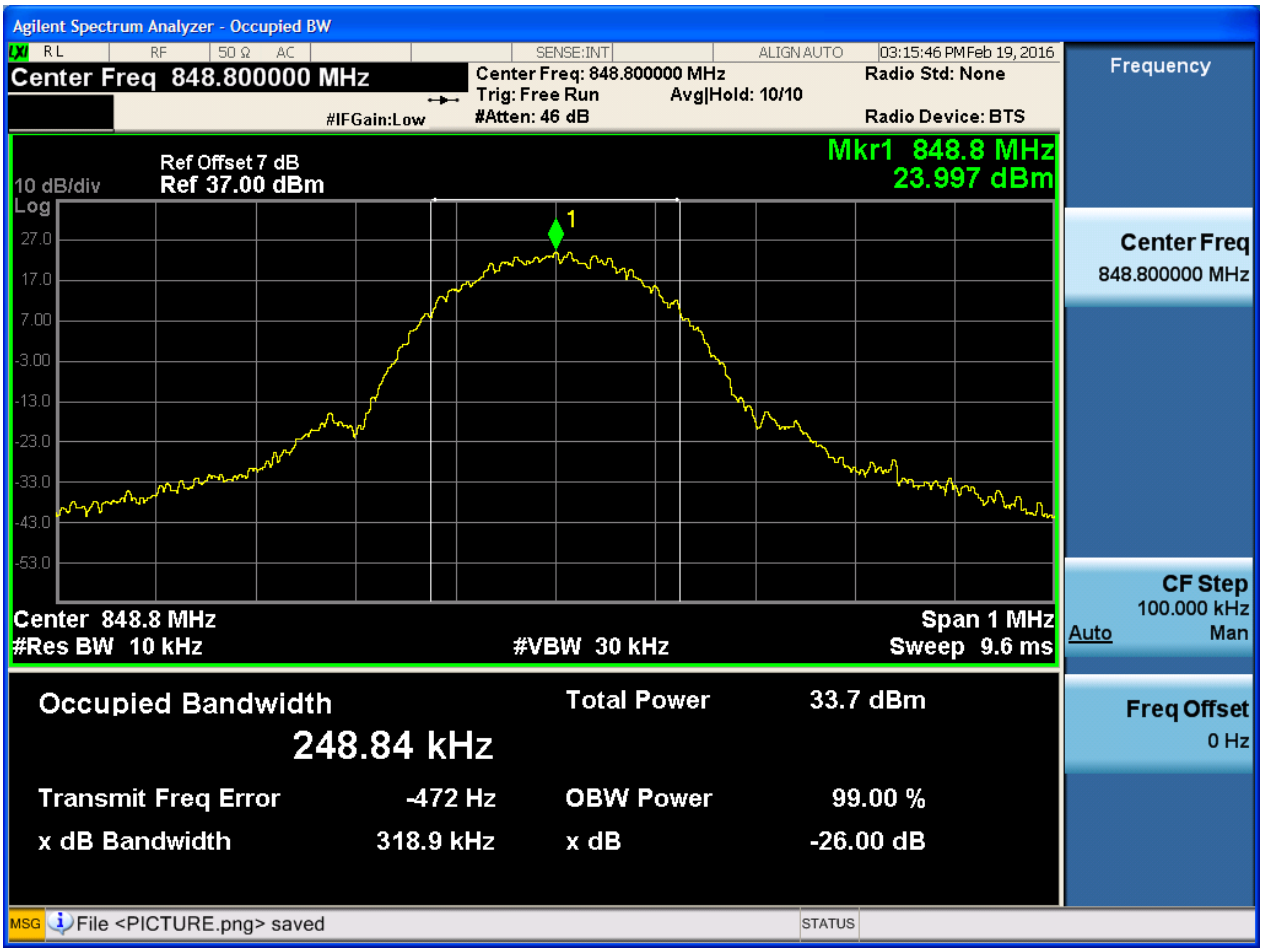
4.1.1.2.1 Test Channel = LCH



4.1.1.2.2 Test Channel = MCH



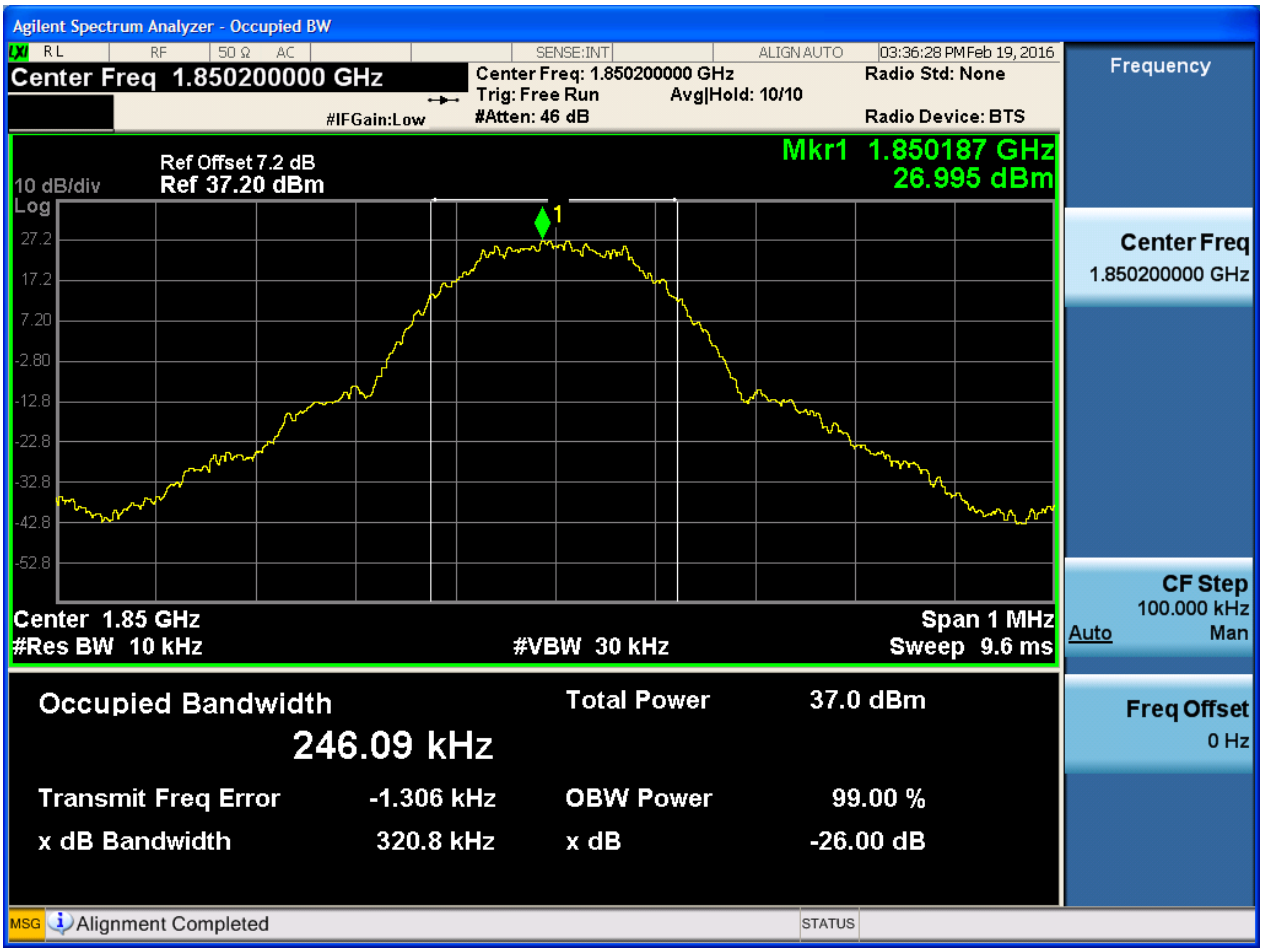
4.1.1.2.3 Test Channel = HCH



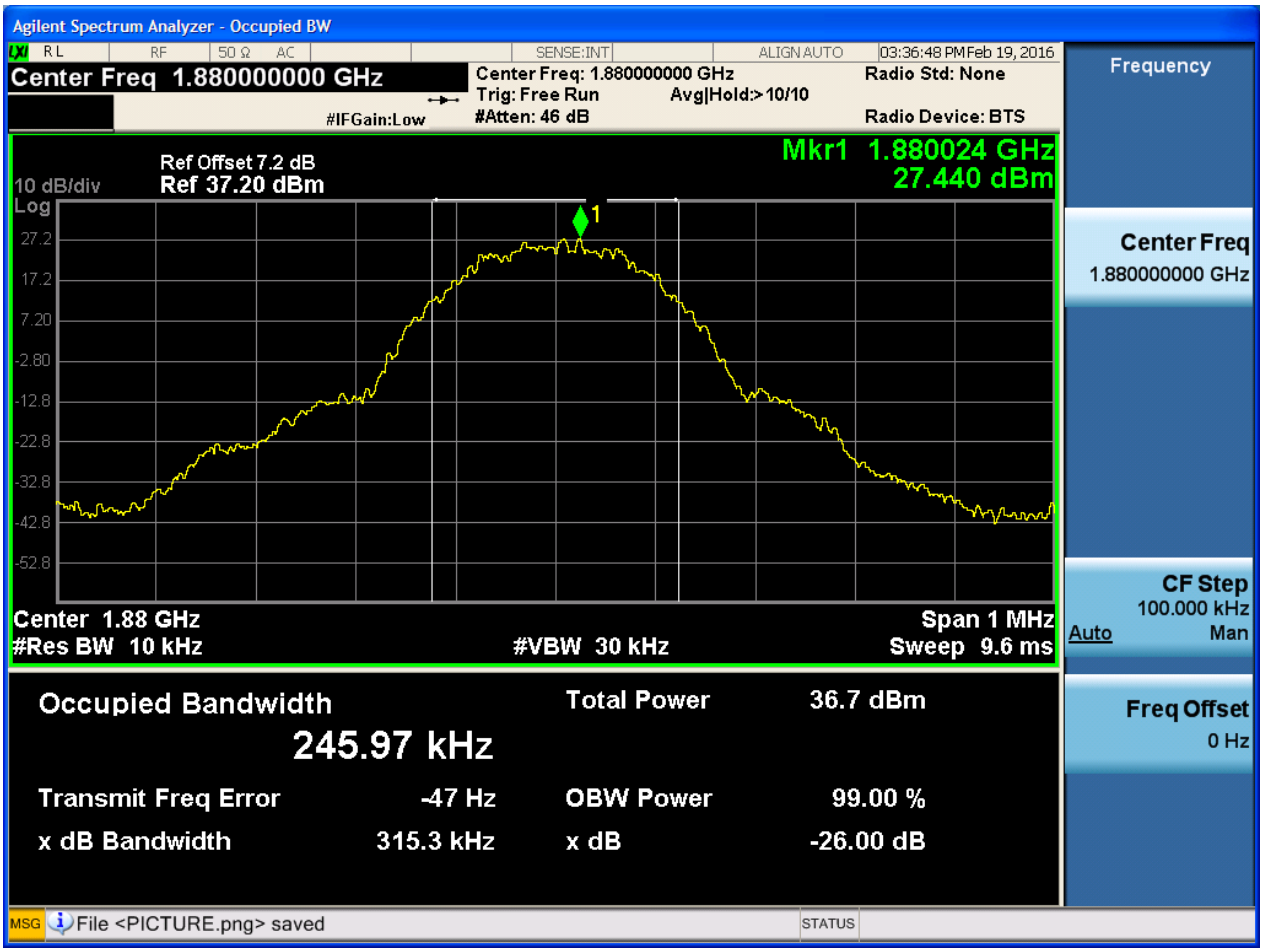
4.1.2 Test Band = GSM1900

4.1.2.1 Test Mode = GSM/TM1

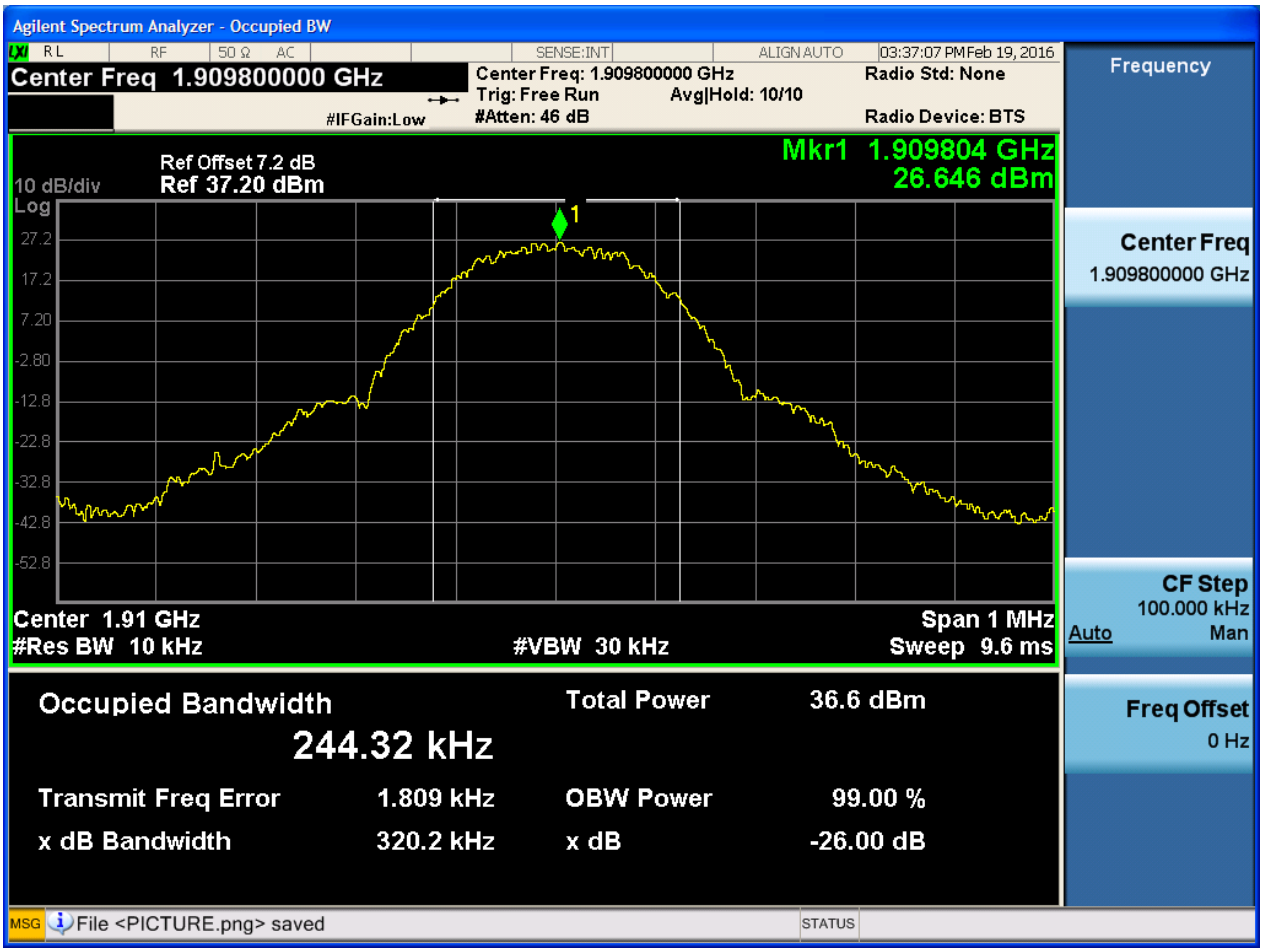
4.1.2.1.1 Test Channel = LCH



4.1.2.1.2 Test Channel = MCH

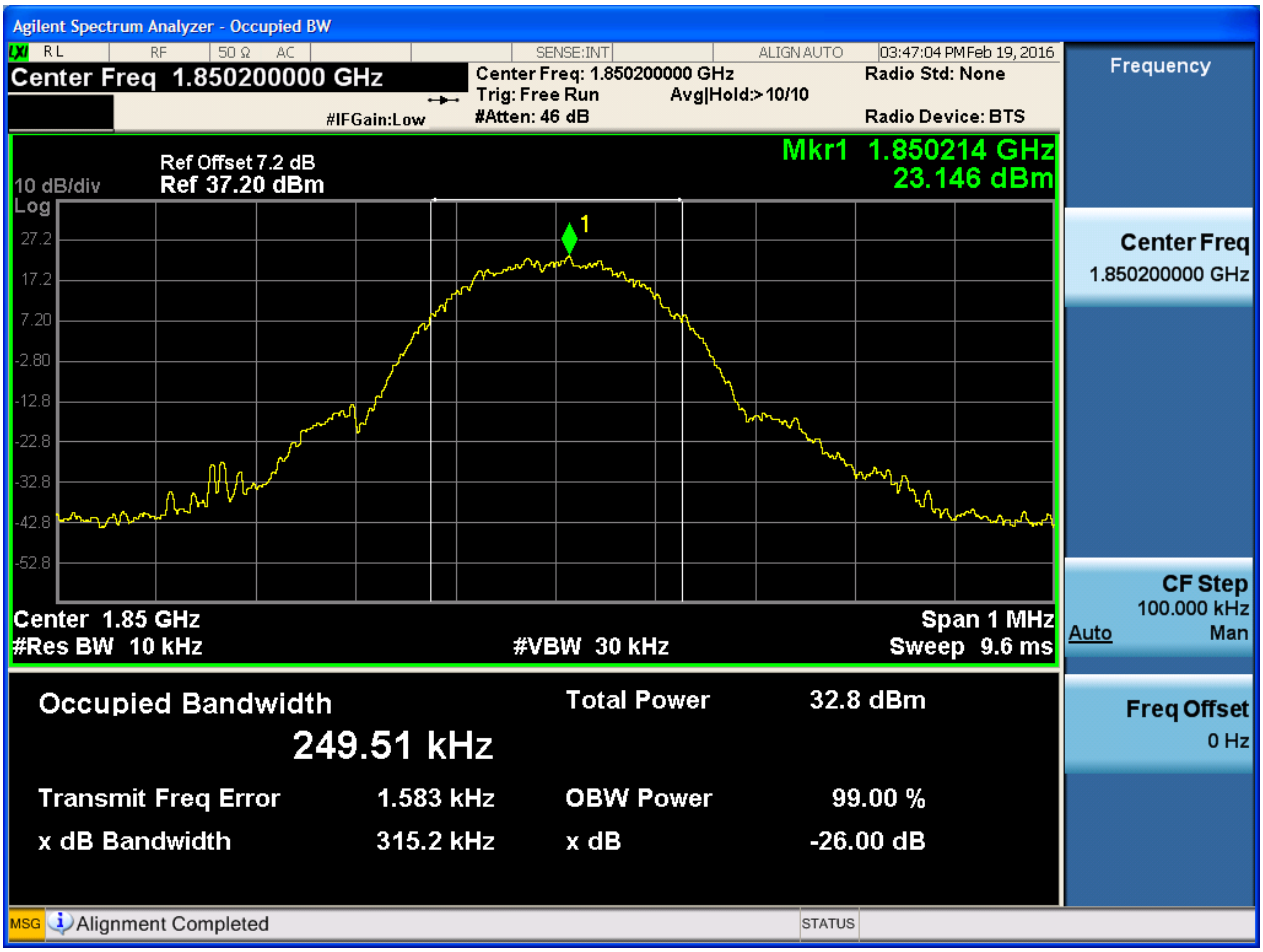


4.1.2.1.3 Test Channel = HCH

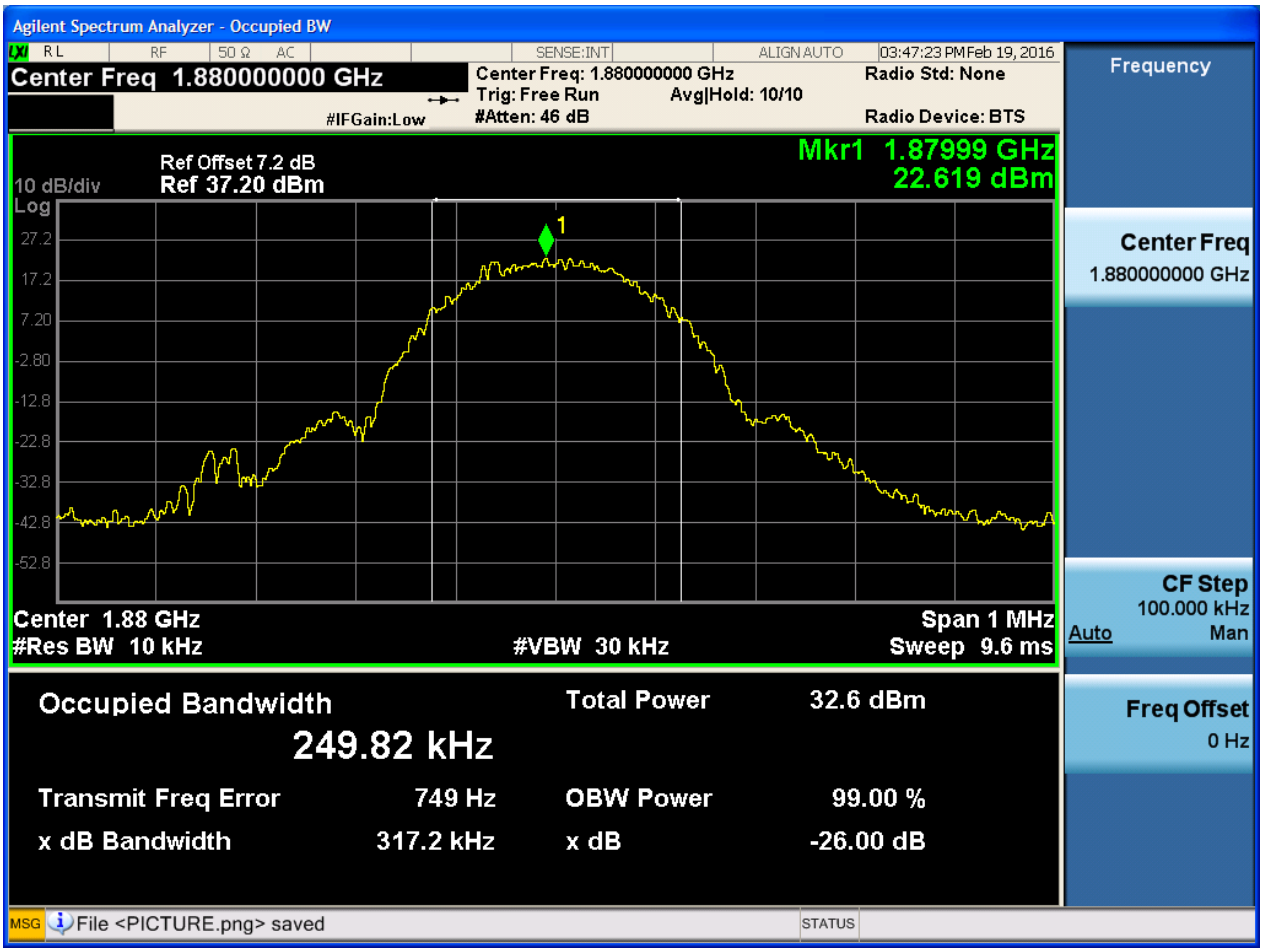


4.1.2.2 Test Mode = GSM/TM2

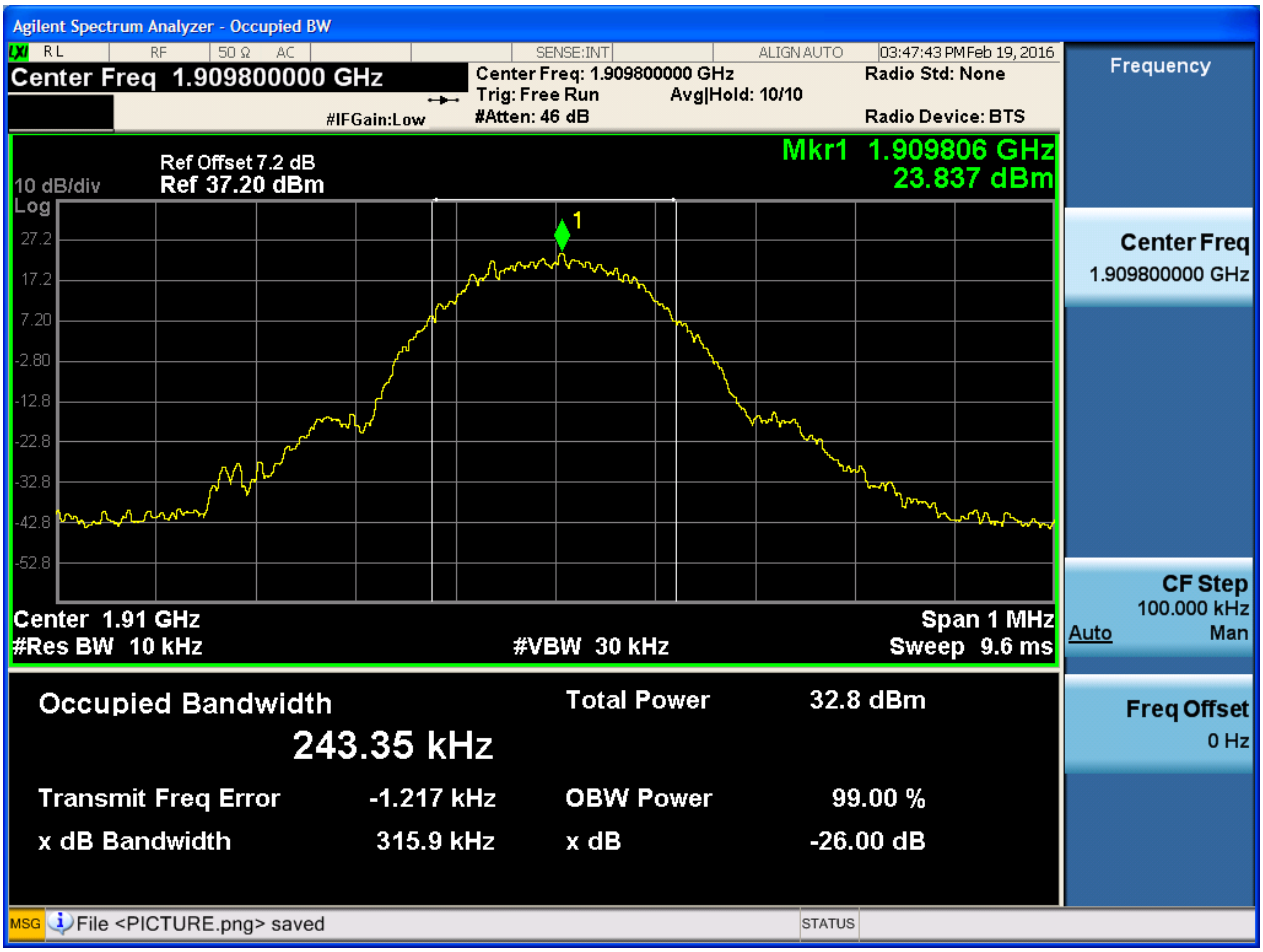
4.1.2.2.1 Test Channel = LCH



4.1.2.2.2 Test Channel = MCH



4.1.2.2.3 Test Channel = HCH

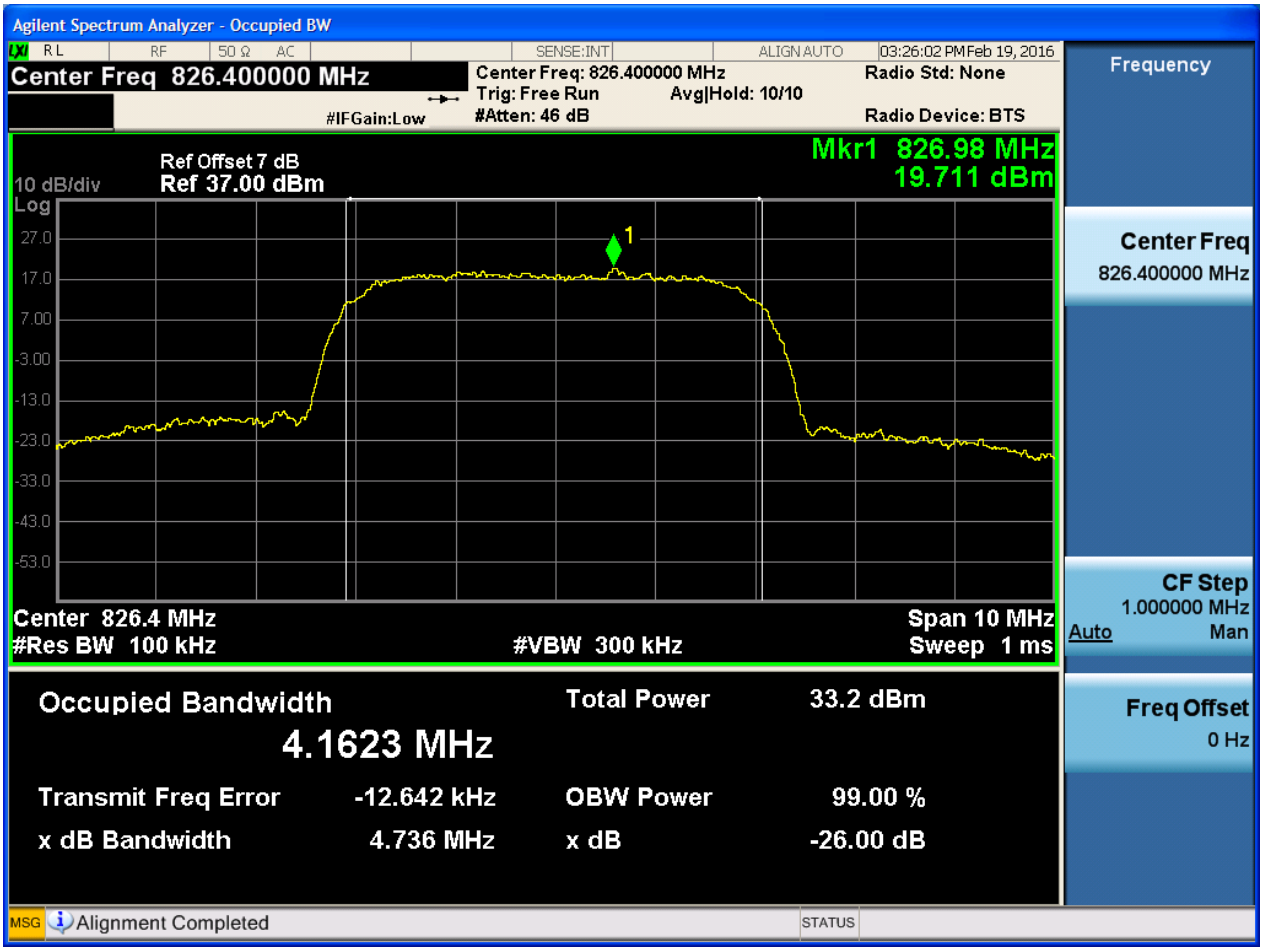


4.2 For UMTS

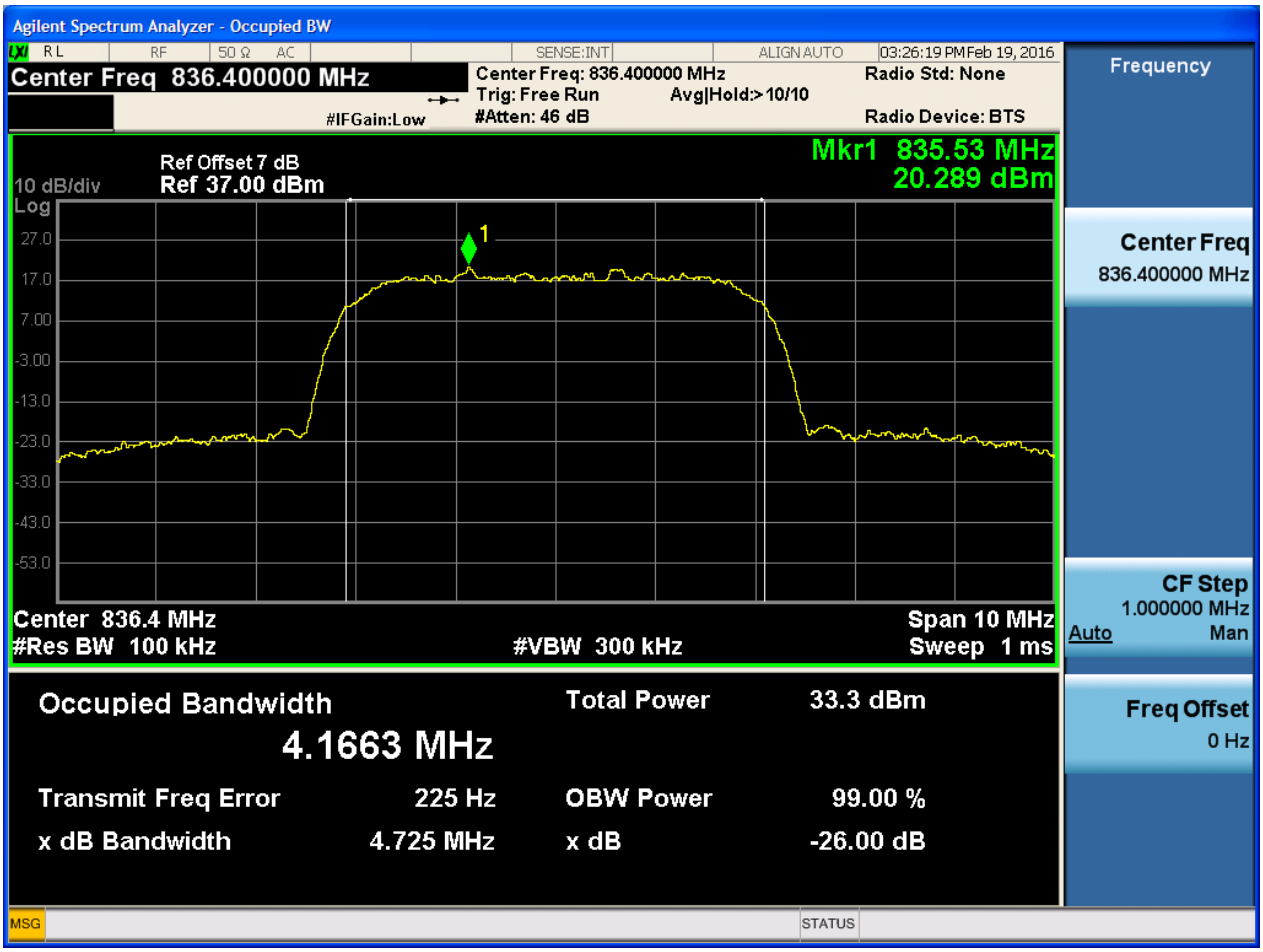
4.2.1 Test Band = WCDMA850

4.2.1.1 Test Mode = UMTS/TM1

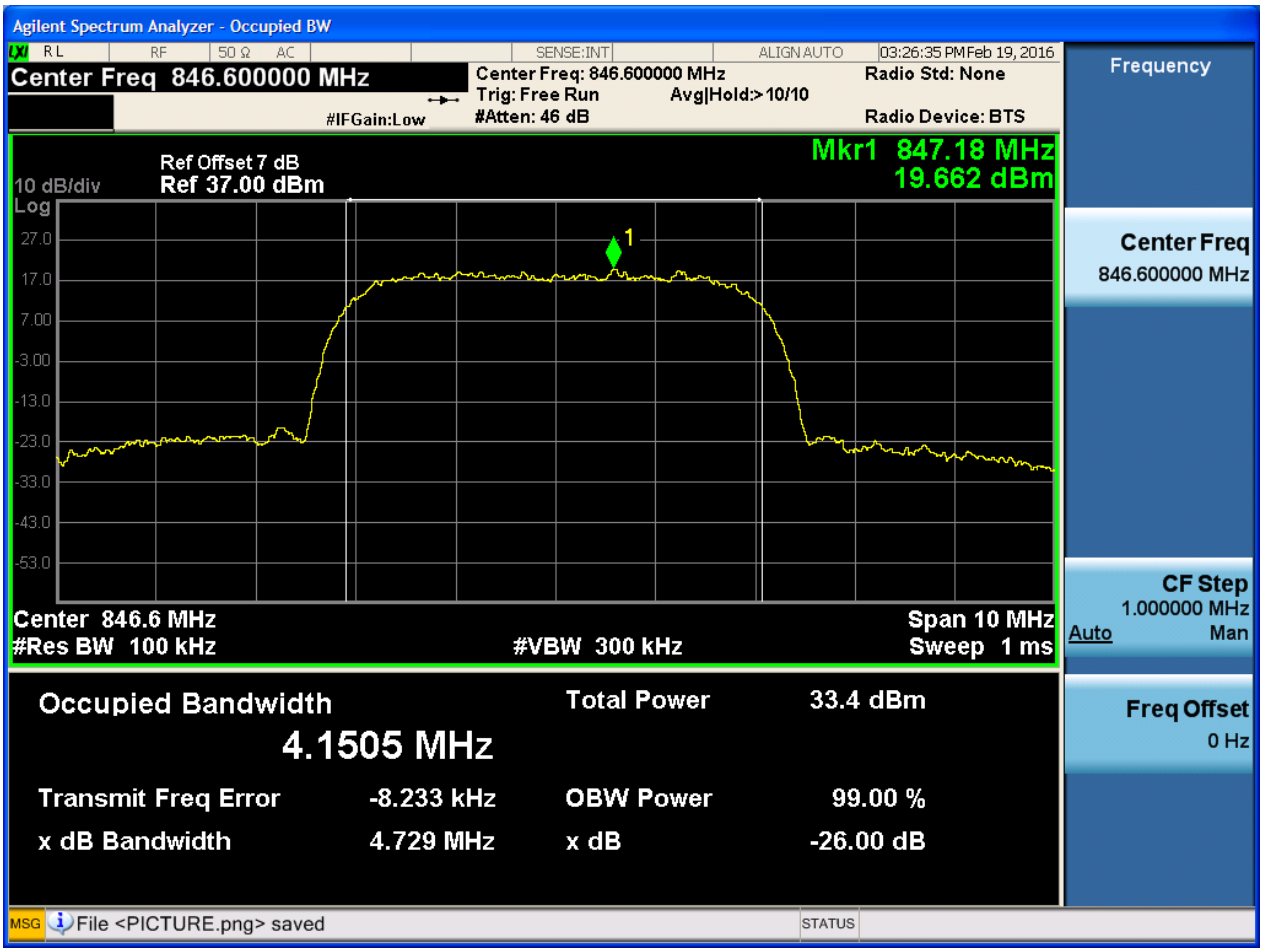
4.2.1.1.1 Test Channel = LCH



4.2.1.1.2 Test Channel = MCH



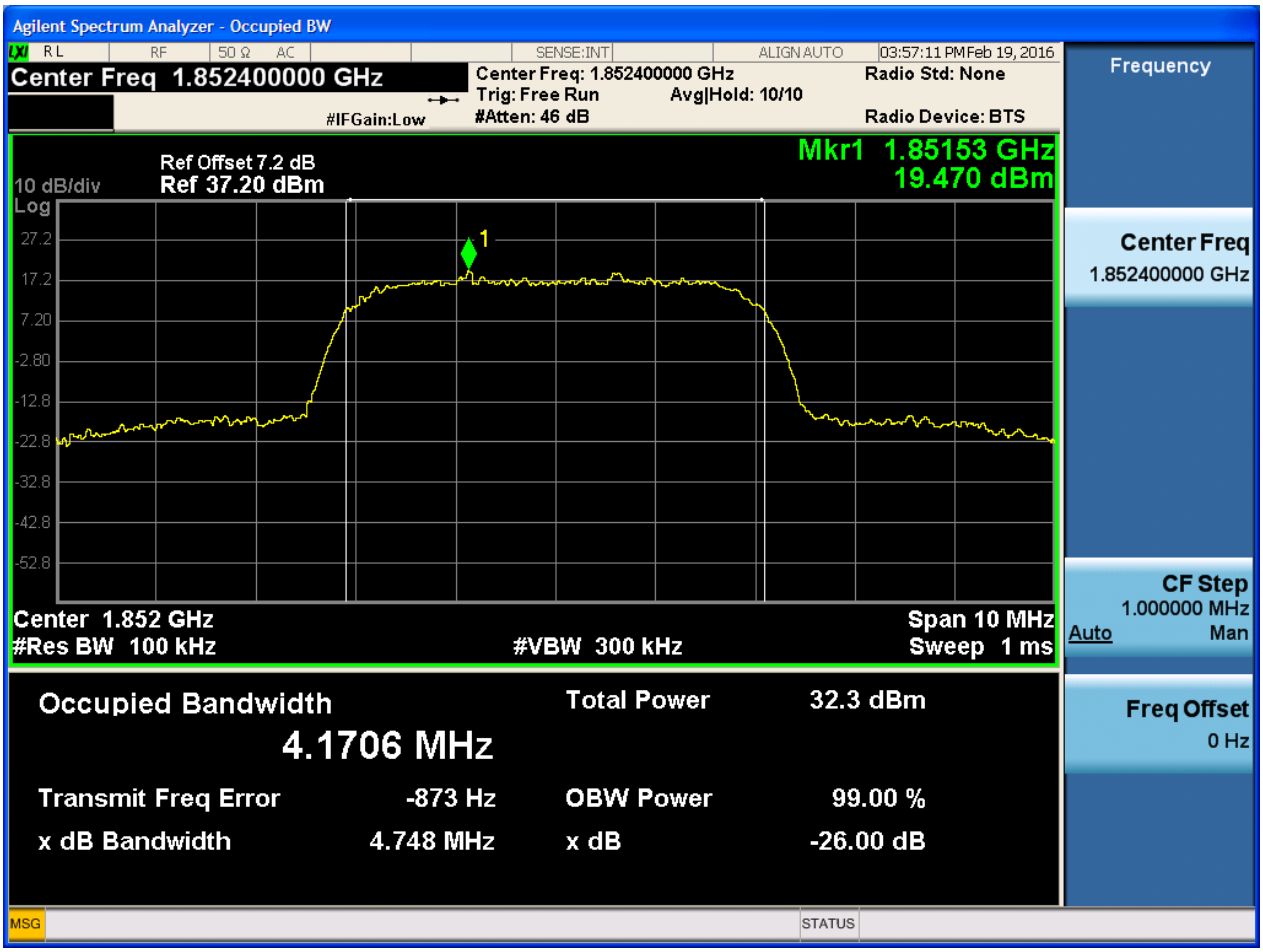
4.2.1.1.3 Test Channel = HCH



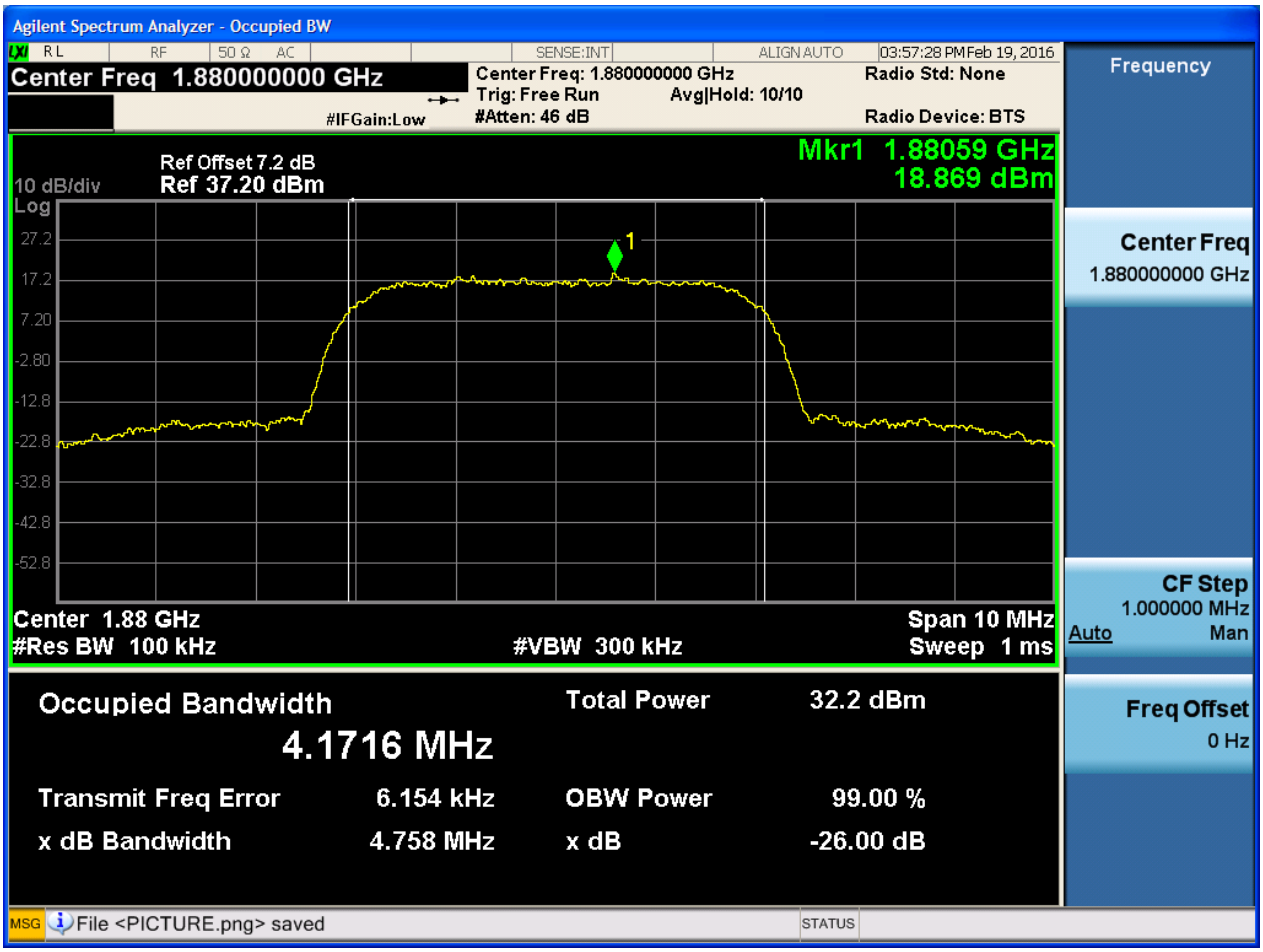
4.2.2 Test Band = WCDMA1900

4.2.2.1 Test Mode = UMTS/TM1

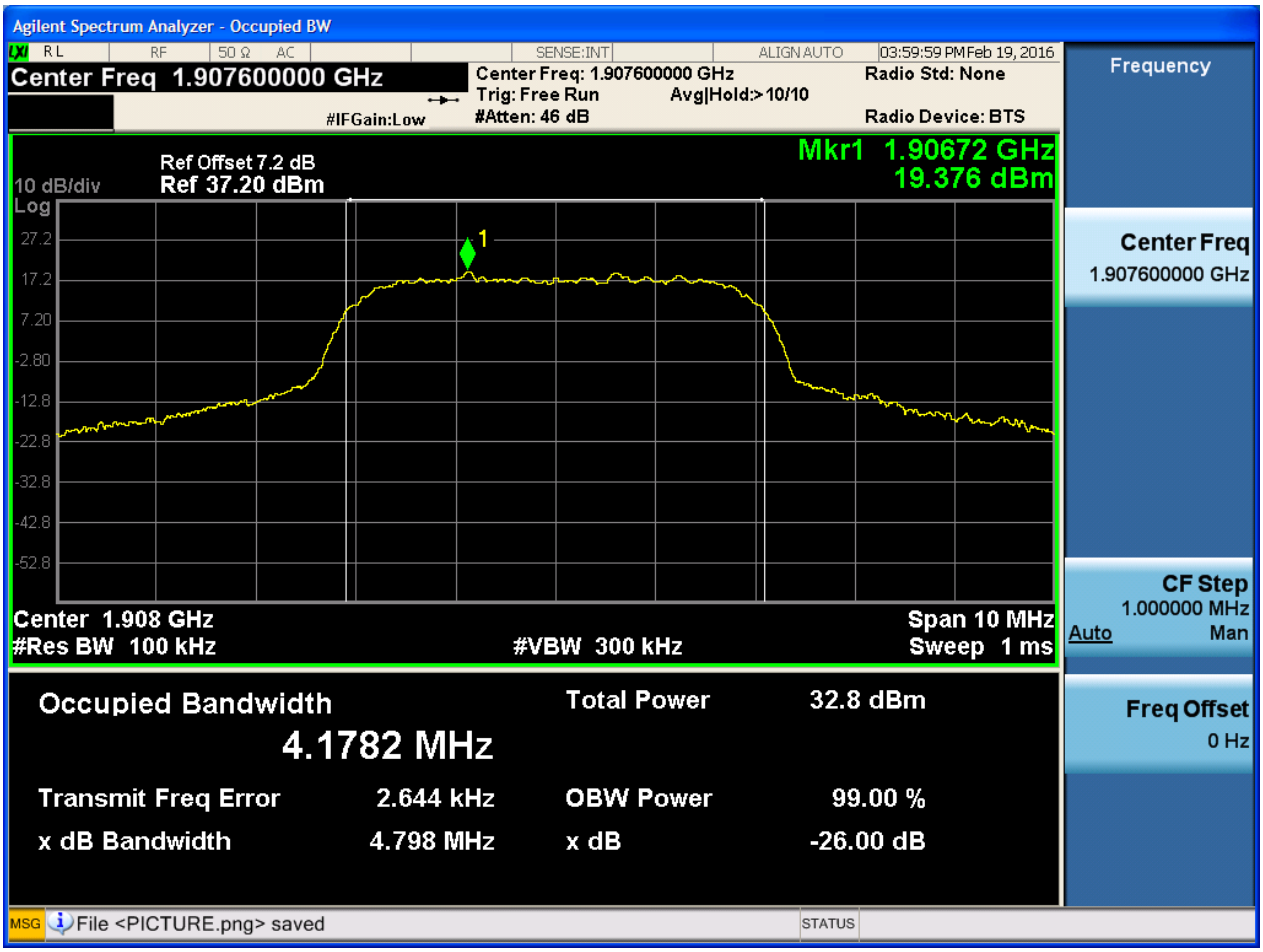
4.2.2.1.1 Test Channel = LCH



4.2.2.1.2 Test Channel = MCH



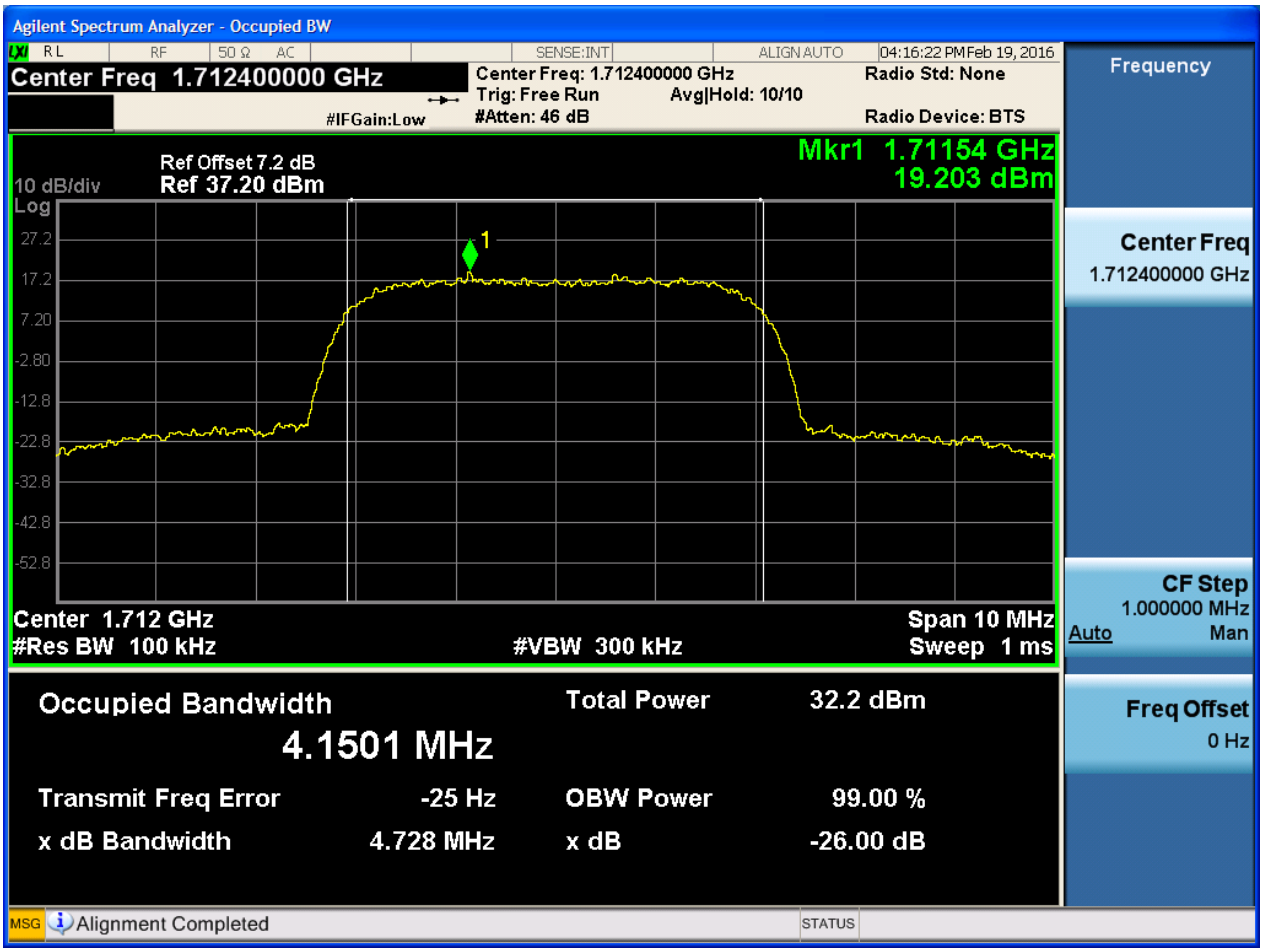
4.2.2.1.3 Test Channel = HCH



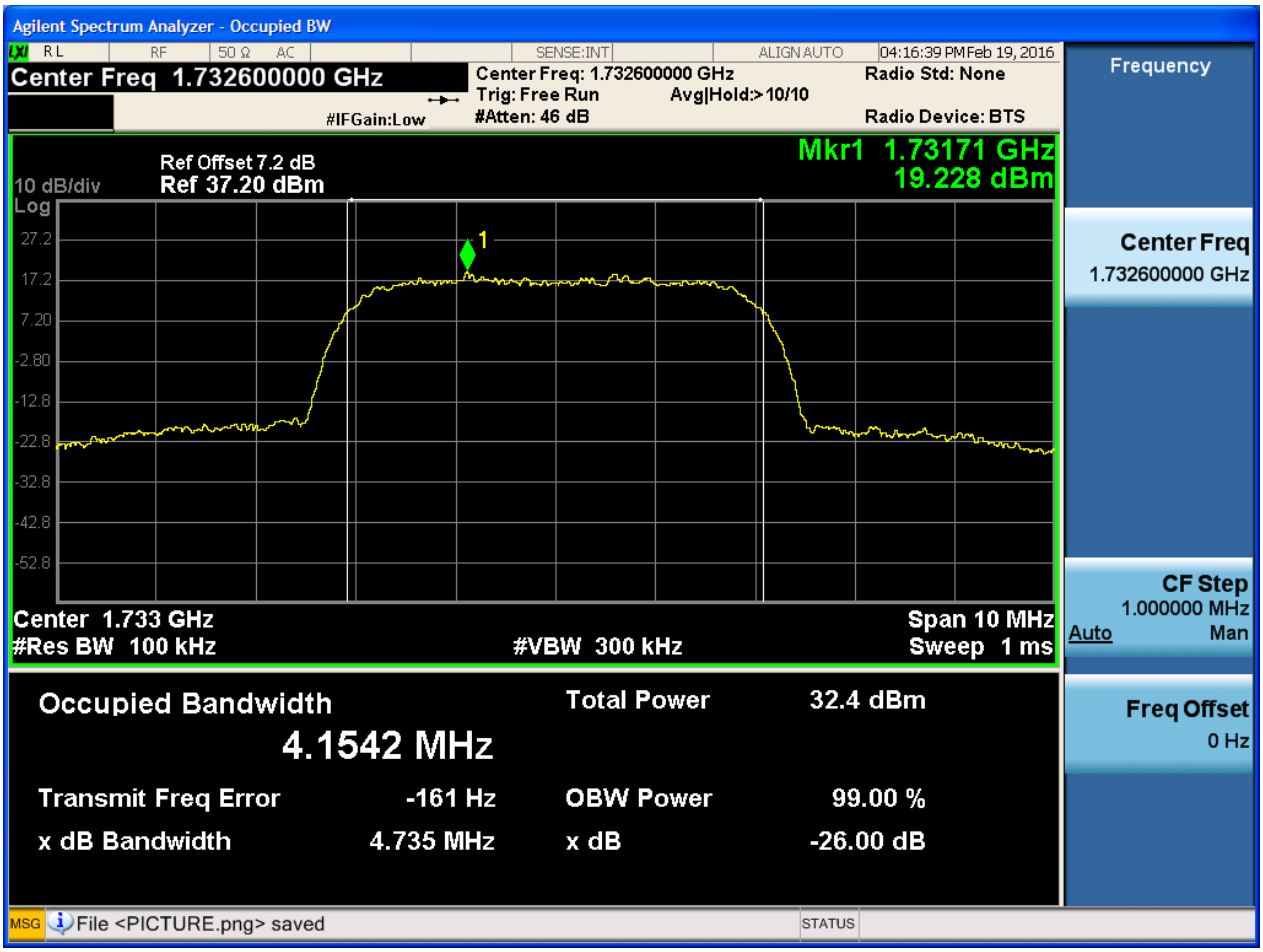
4.2.3 Test Band = WCDMA1700

4.2.3.1 Test Mode = UMTS/TM1

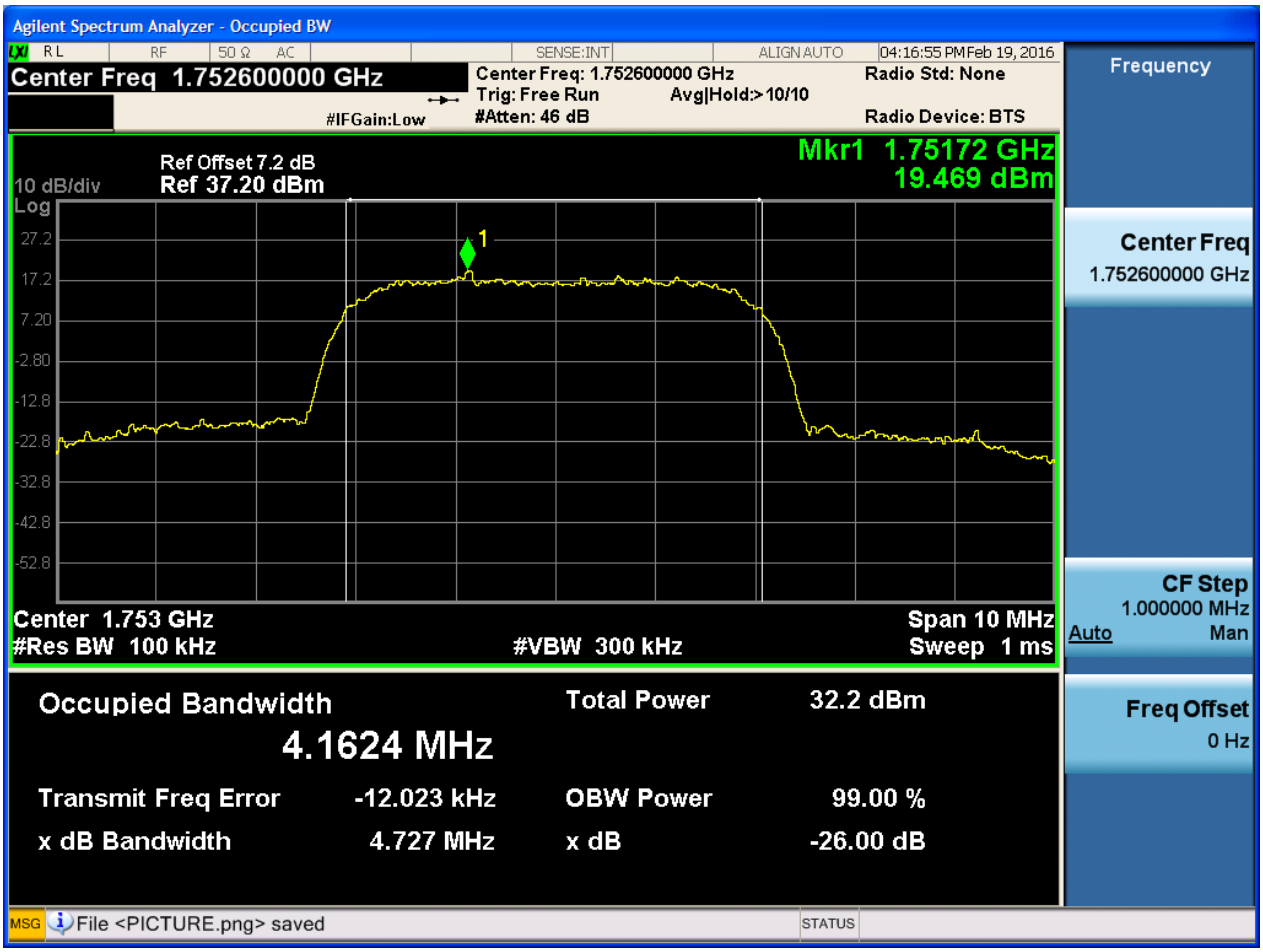
4.2.3.1.1 Test Channel = LCH



4.2.3.1.2 Test Channel = MCH



4.2.3.1.3 Test Channel = HCH



5Appendix_E: Band Edges Compliance

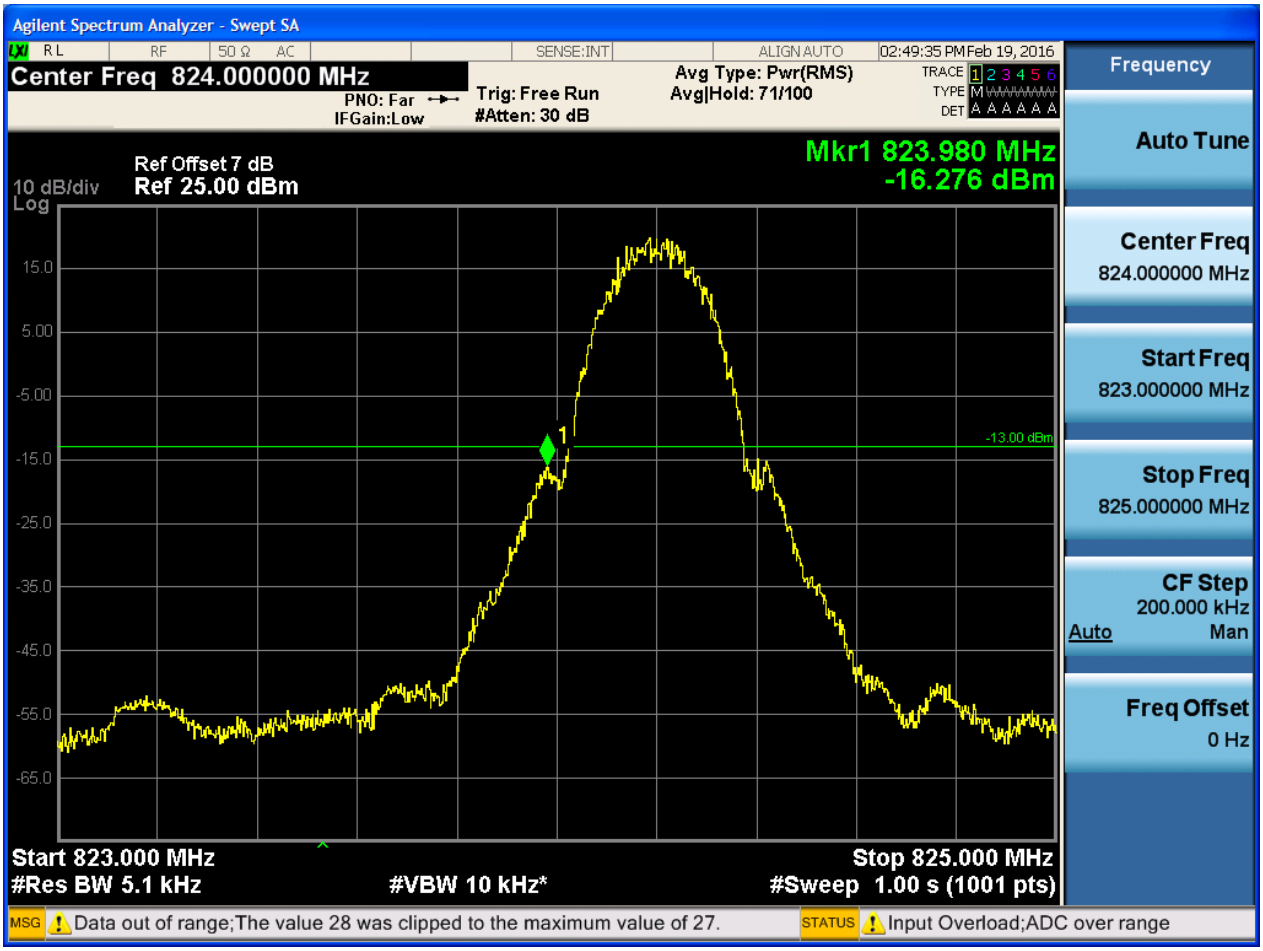
Part I - Test Plots

5.1 For GSM

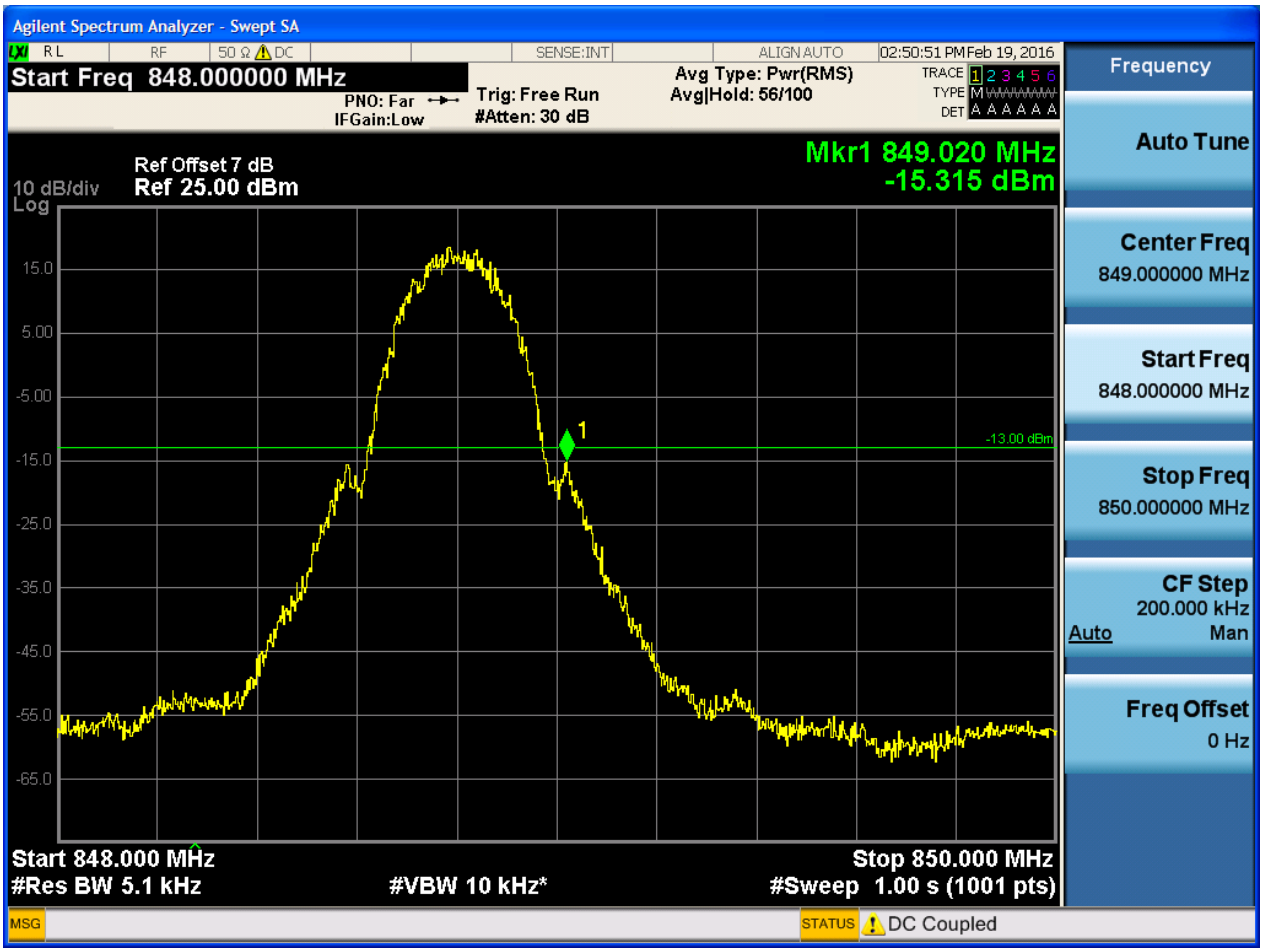
5.1.1 Test Band = GSM850

5.1.1.1 Test Mode = GSM/TM1

5.1.1.1.1 Test Channel = LCH

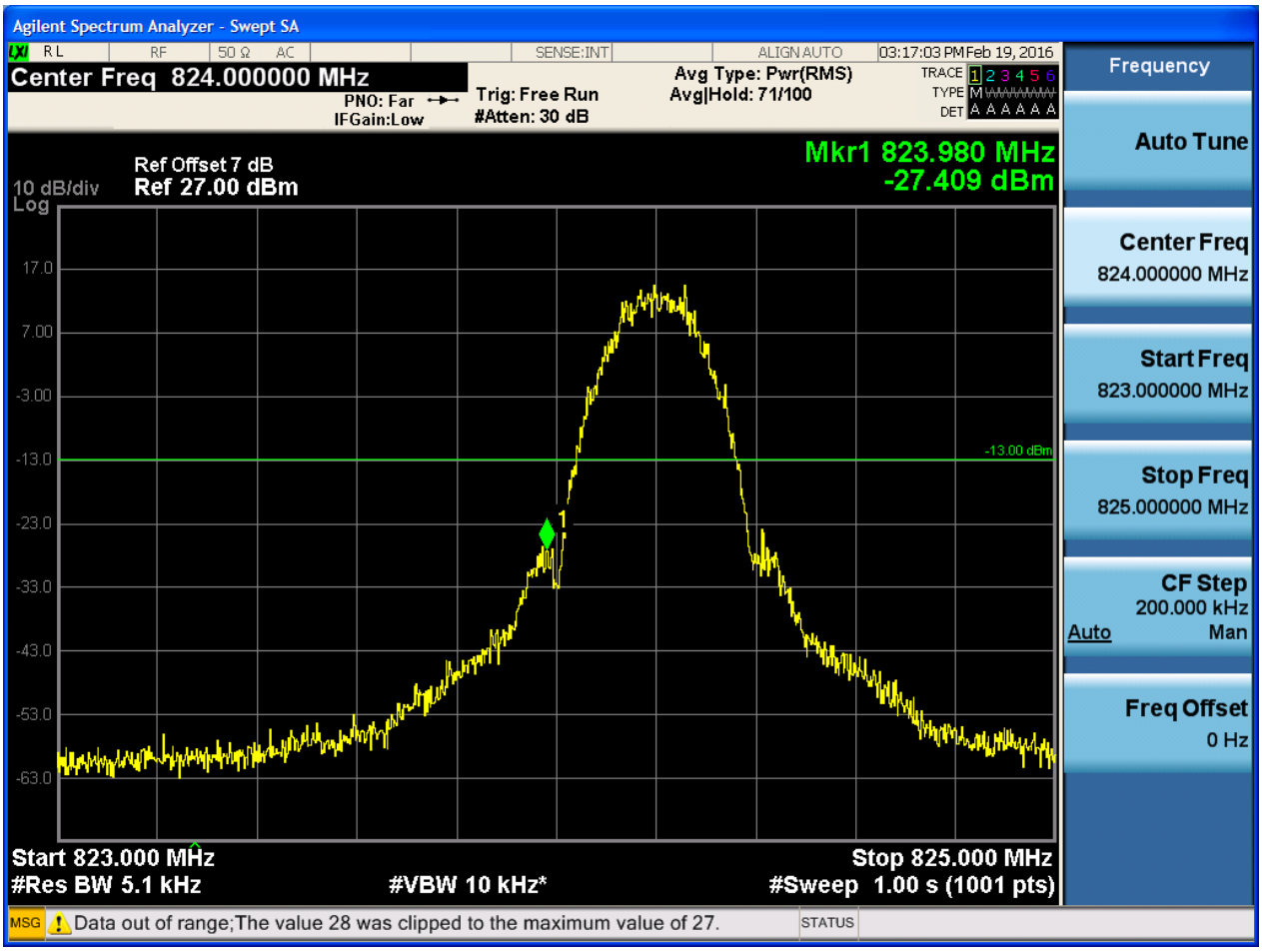


5.1.1.1.2 Test Channel = HCH

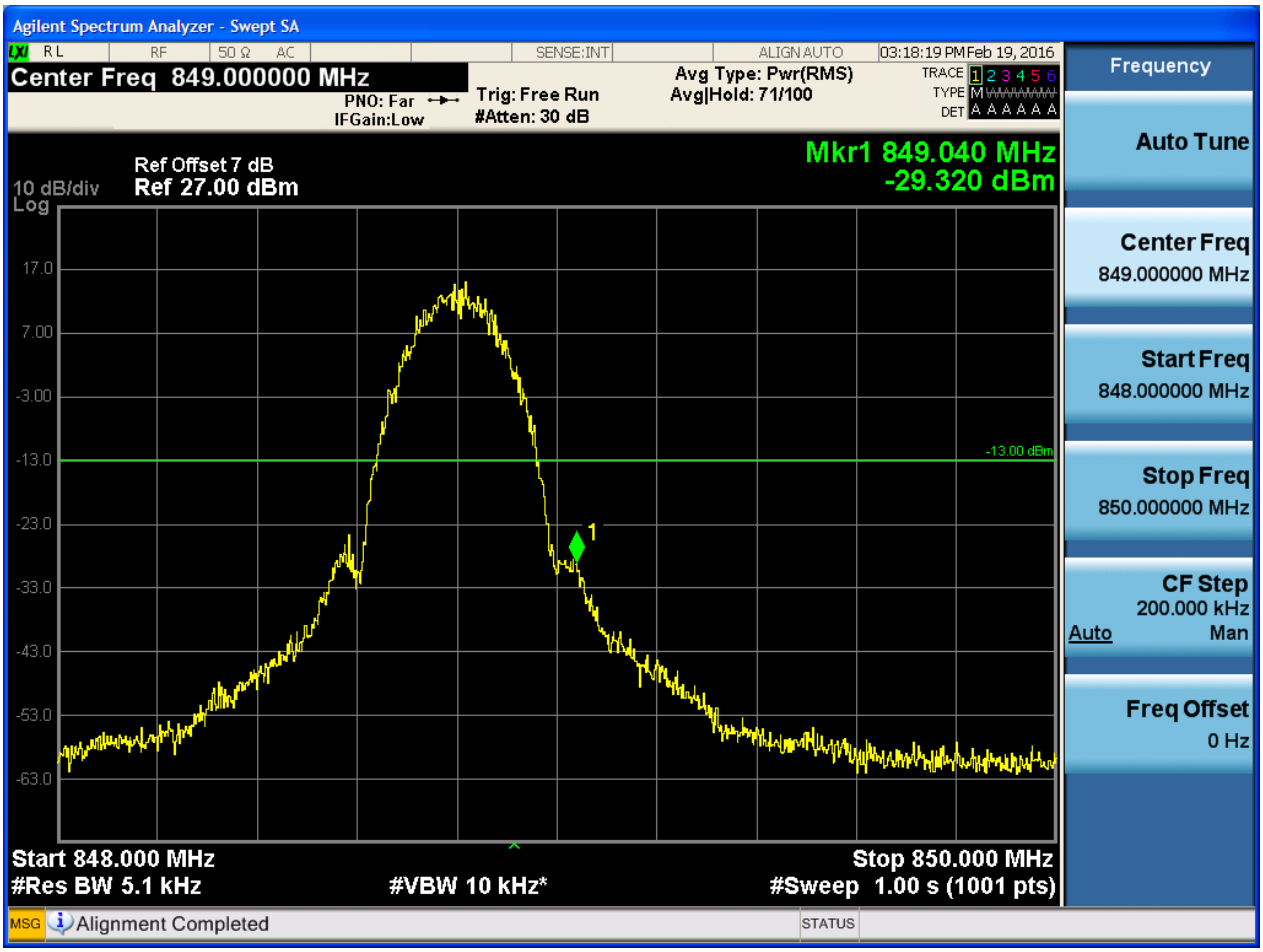


5.1.1.2 Test Mode = GSM/TM2

5.1.1.2.1 Test Channel = LCH



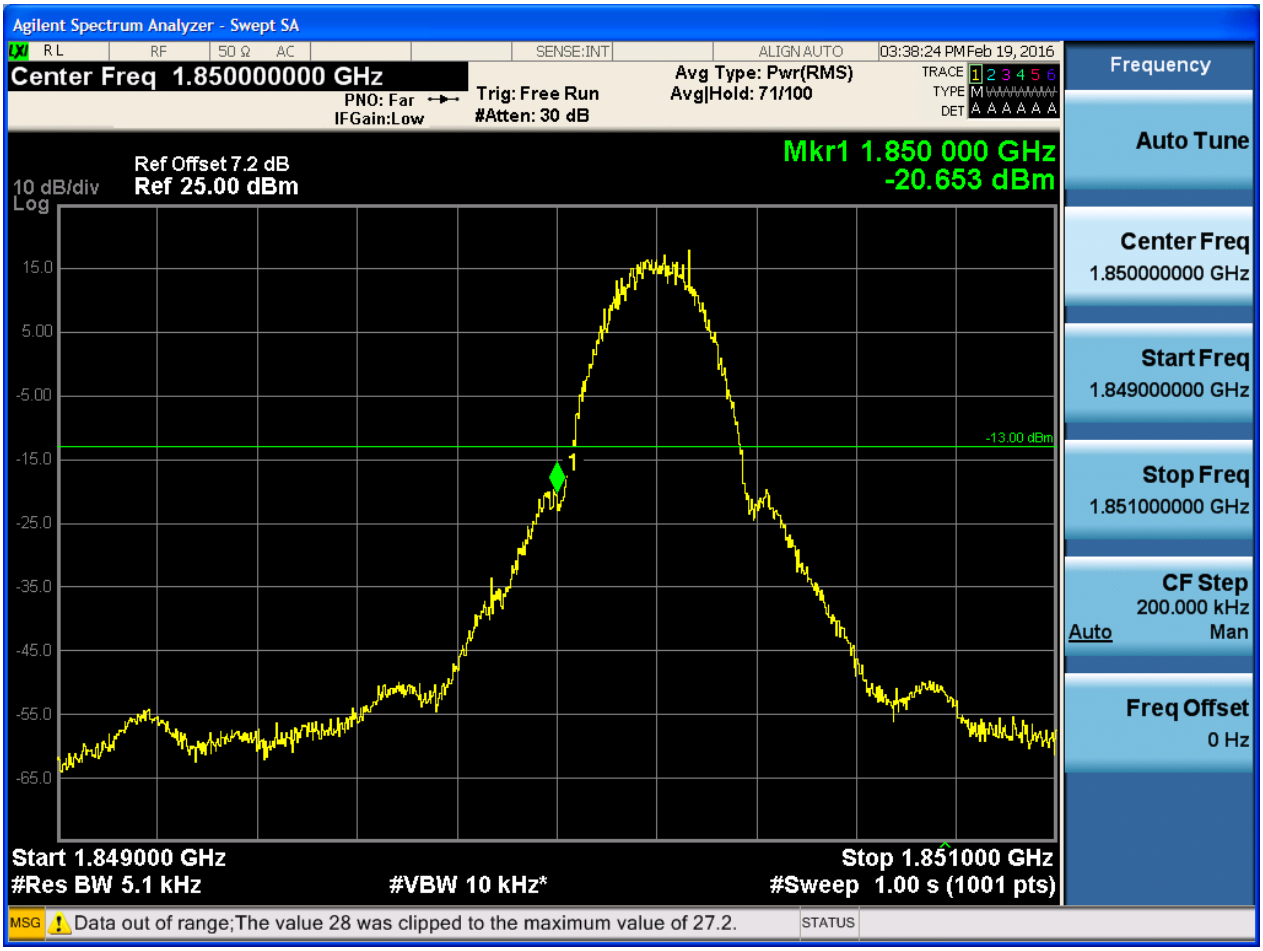
5.1.1.2.2 Test Channel = HCH



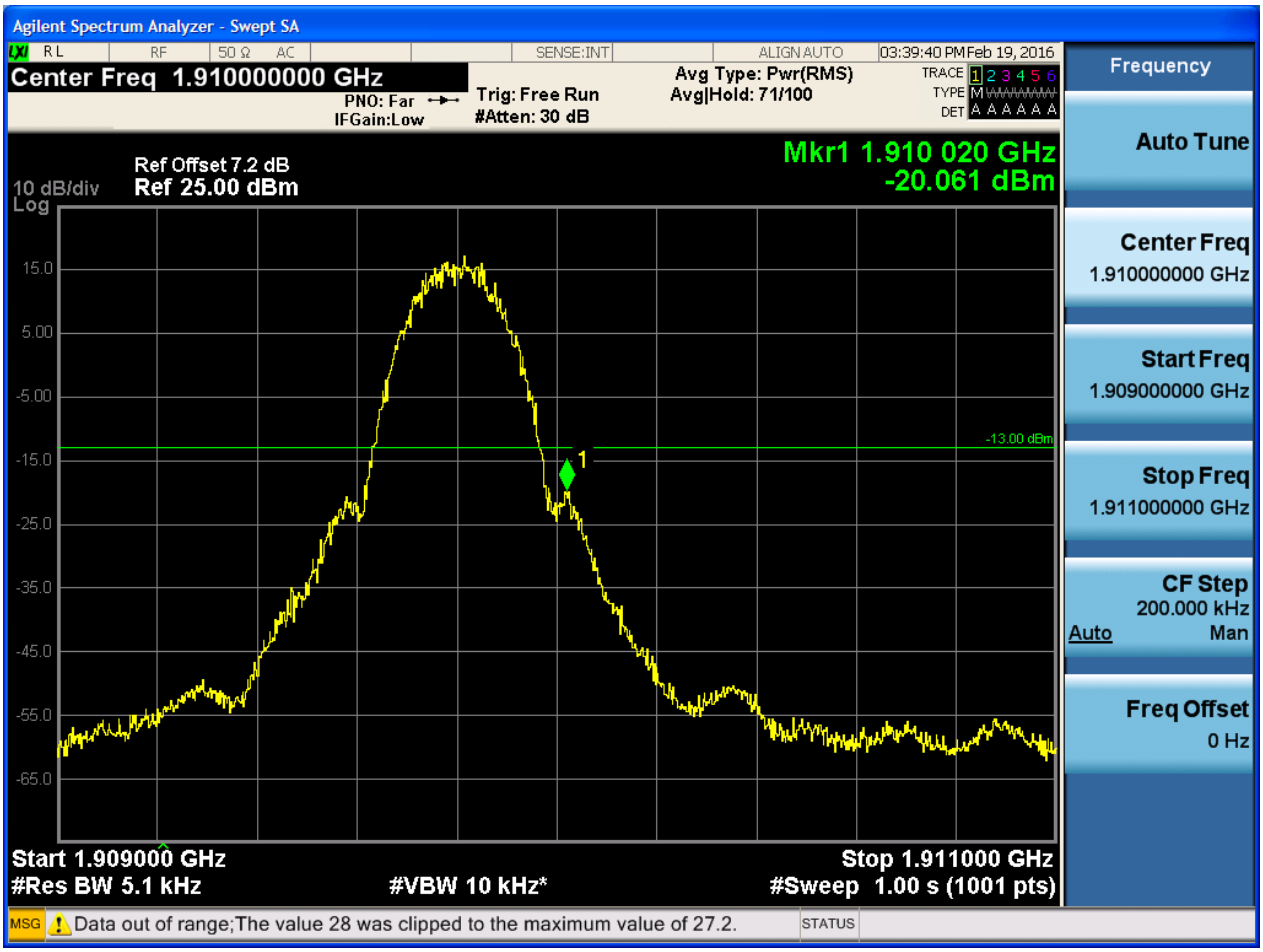
5.1.2 Test Band = GSM1900

5.1.2.1 Test Mode = GSM/TM1

5.1.2.1.1 Test Channel = LCH

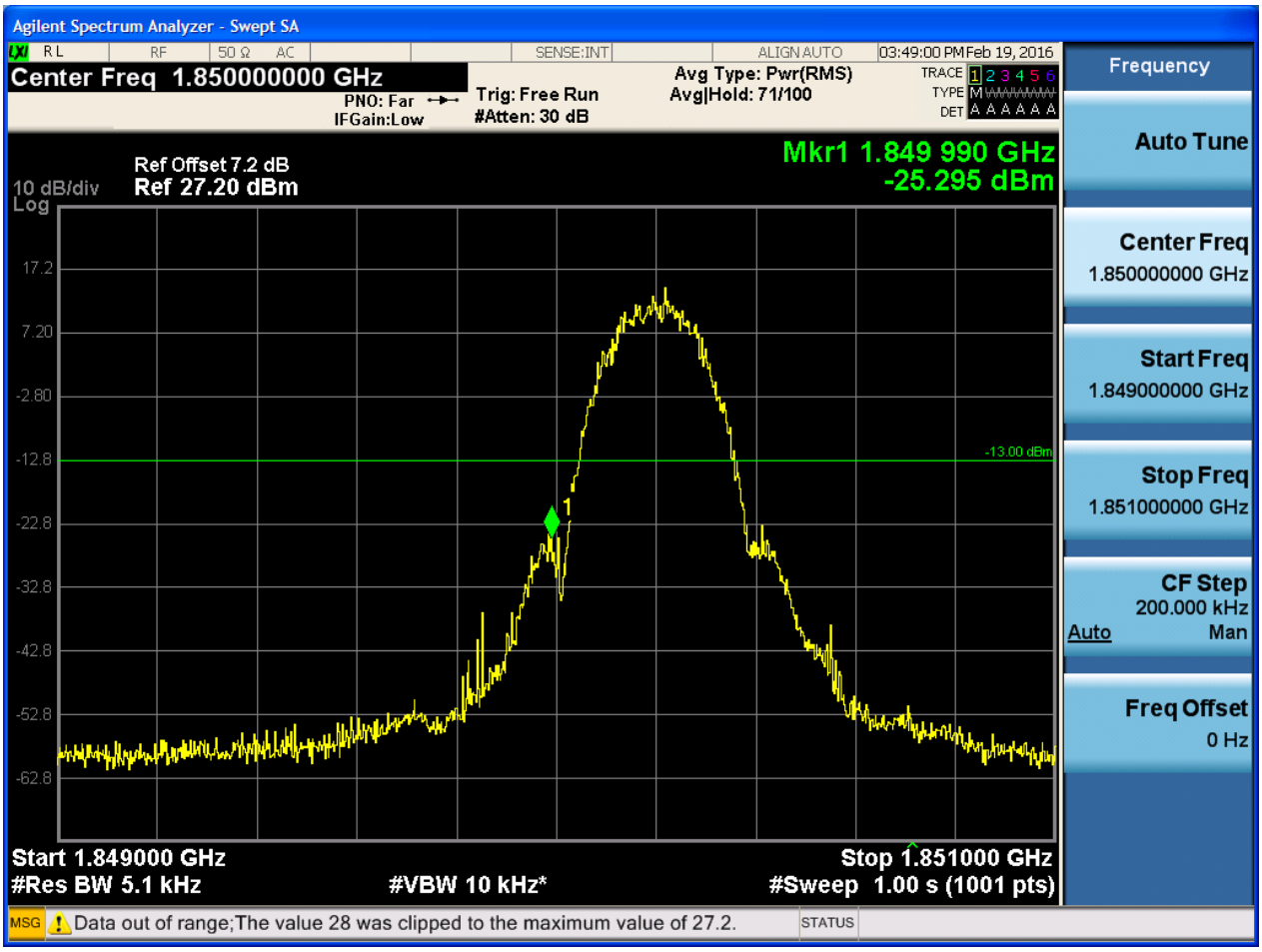


5.1.2.1.2 Test Channel = HCH

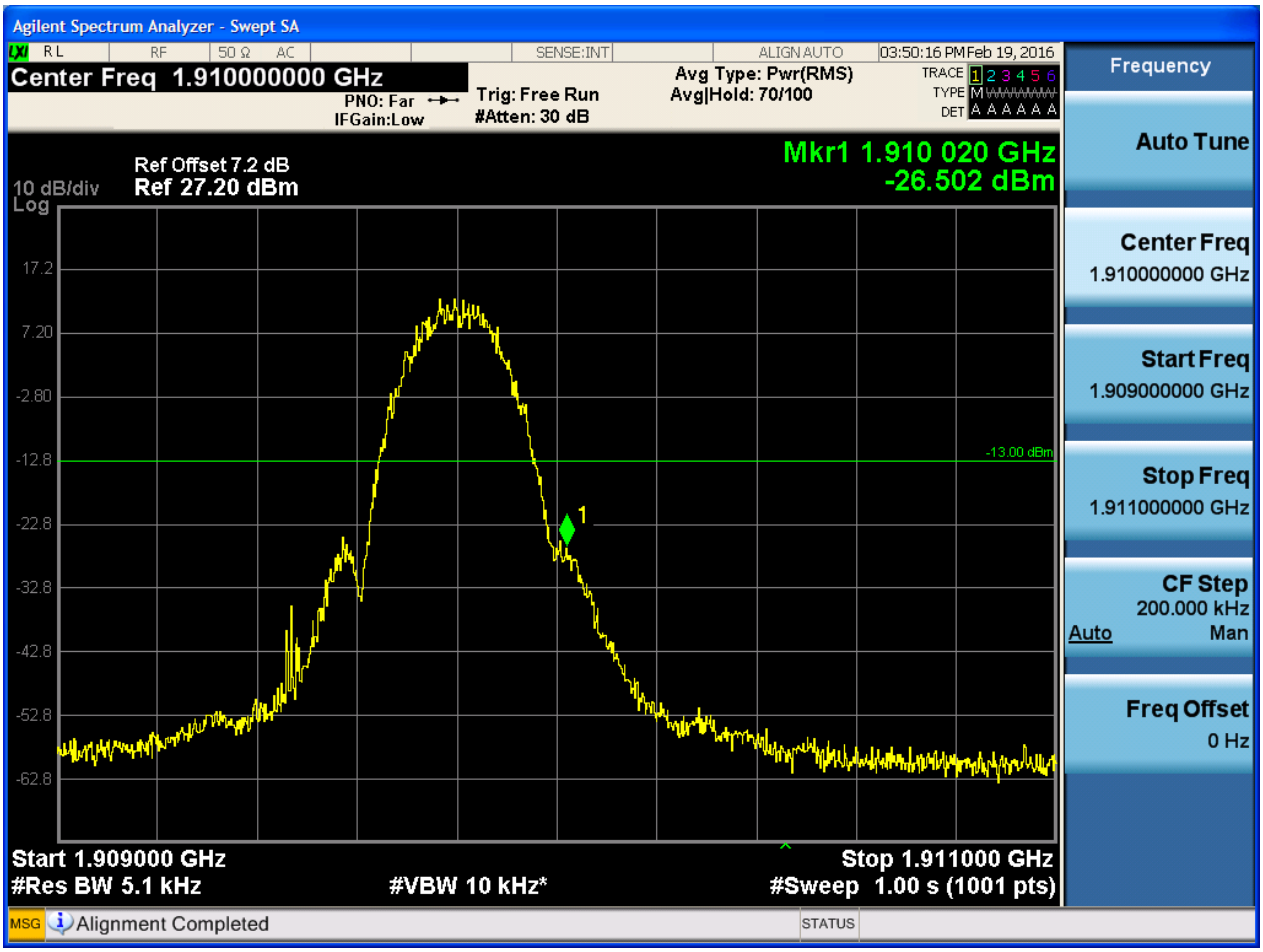


5.1.2.2 Test Mode = GSM/TM2

5.1.2.2.1 Test Channel = LCH



5.1.2.2.2 Test Channel = HCH

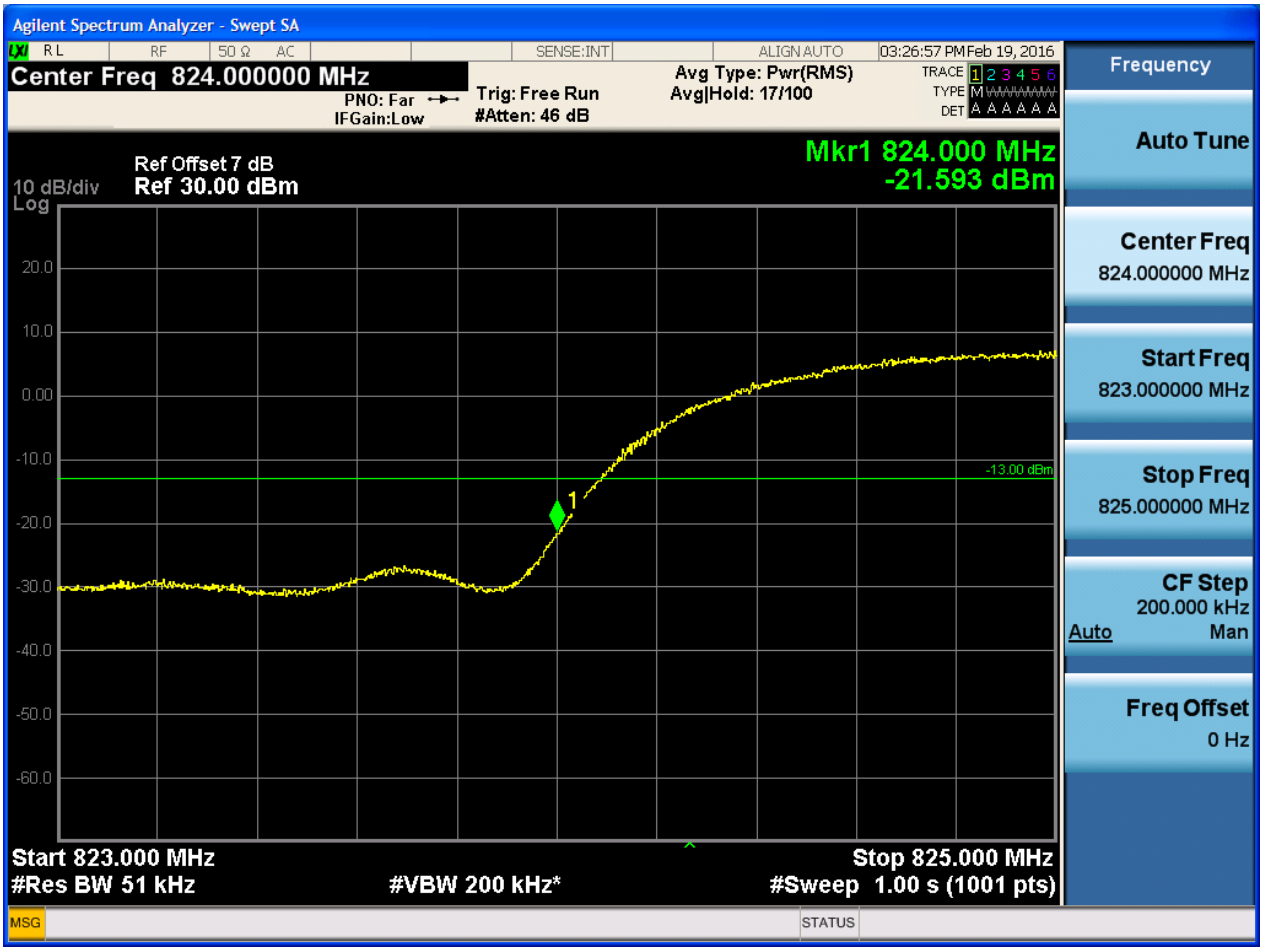


5.2 For UMTS

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

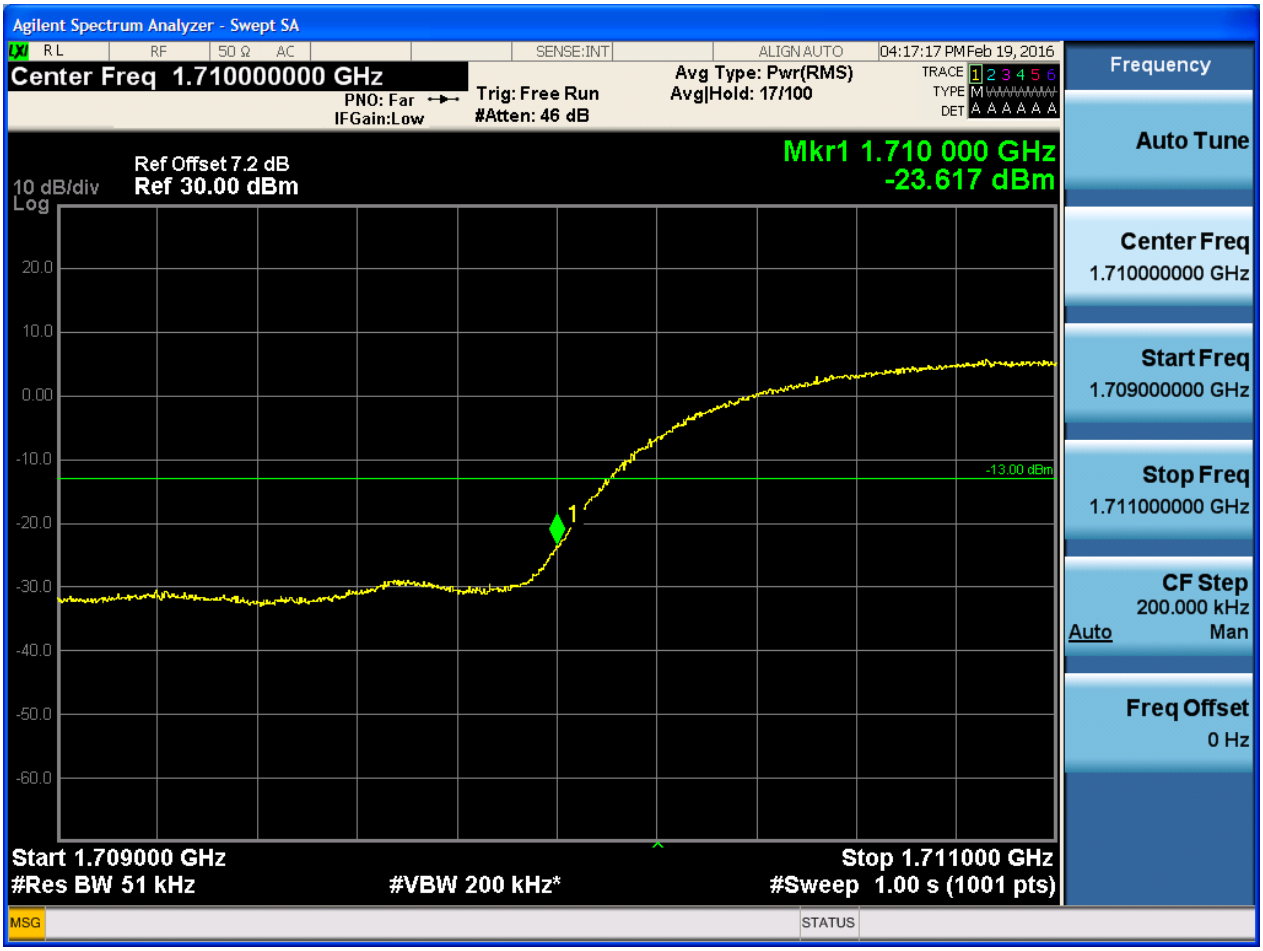
5.2.2.1.1 Test Channel = LCH

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.

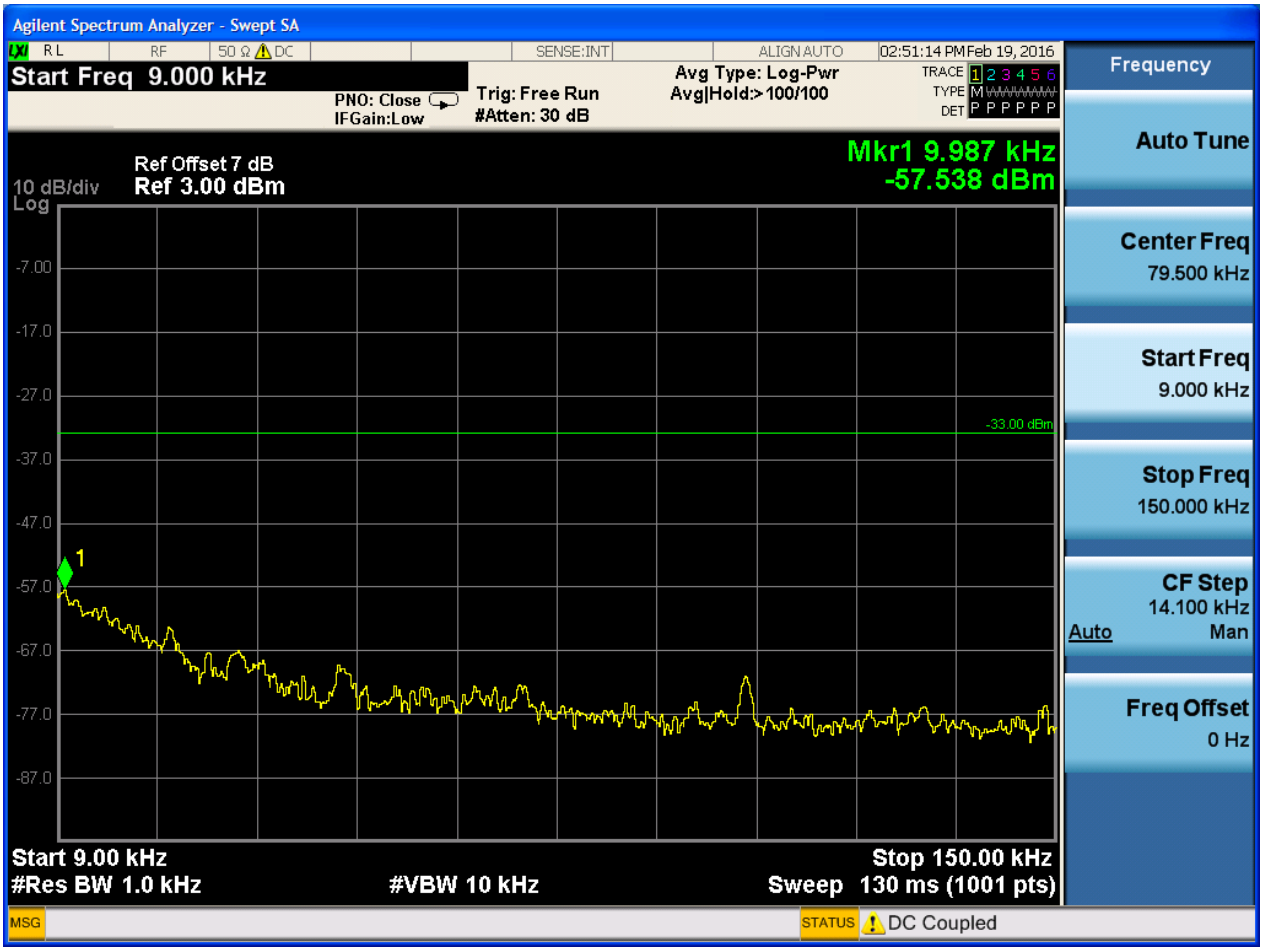
Part I - Test Plots

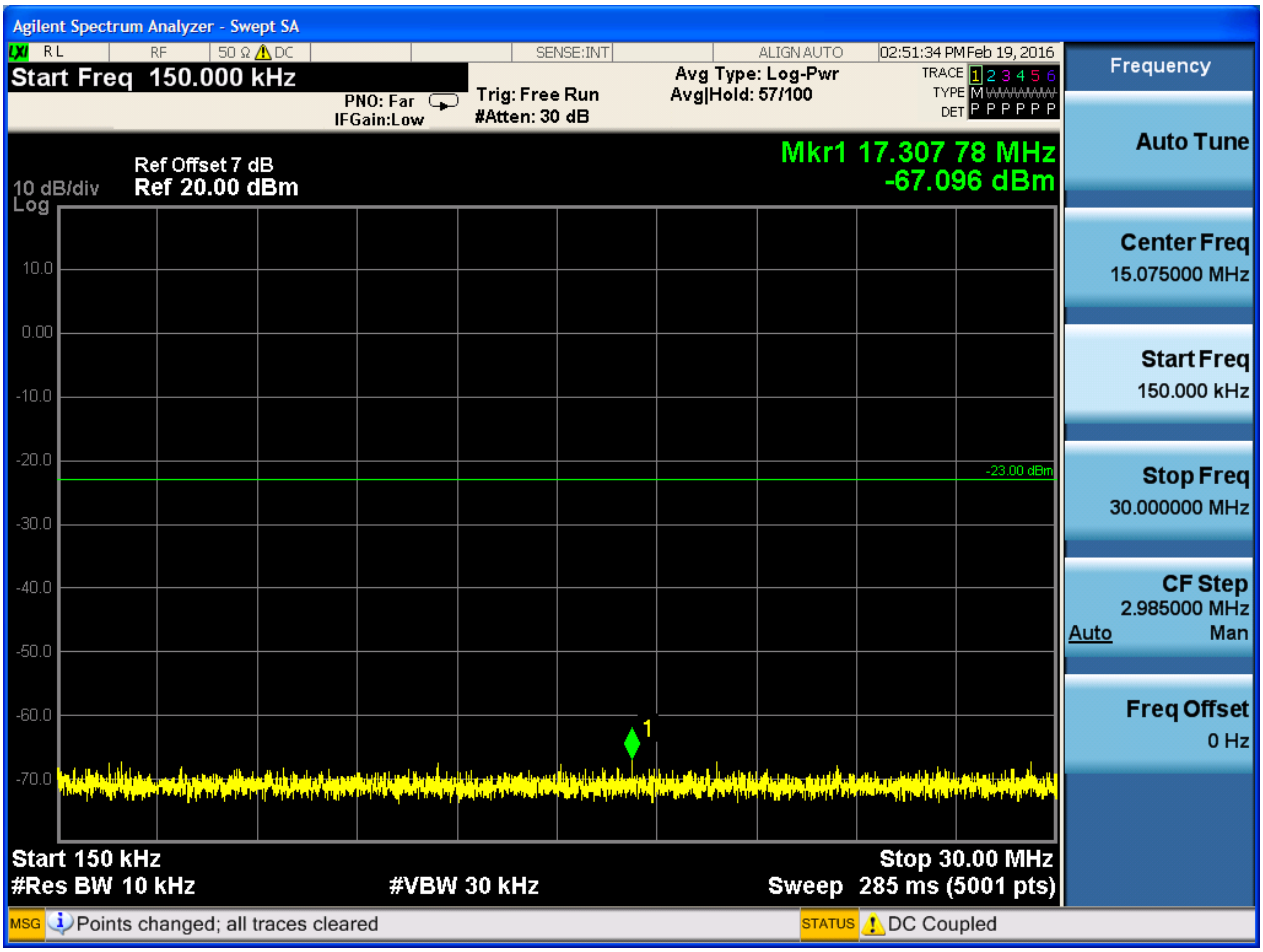
6.1 For GSM

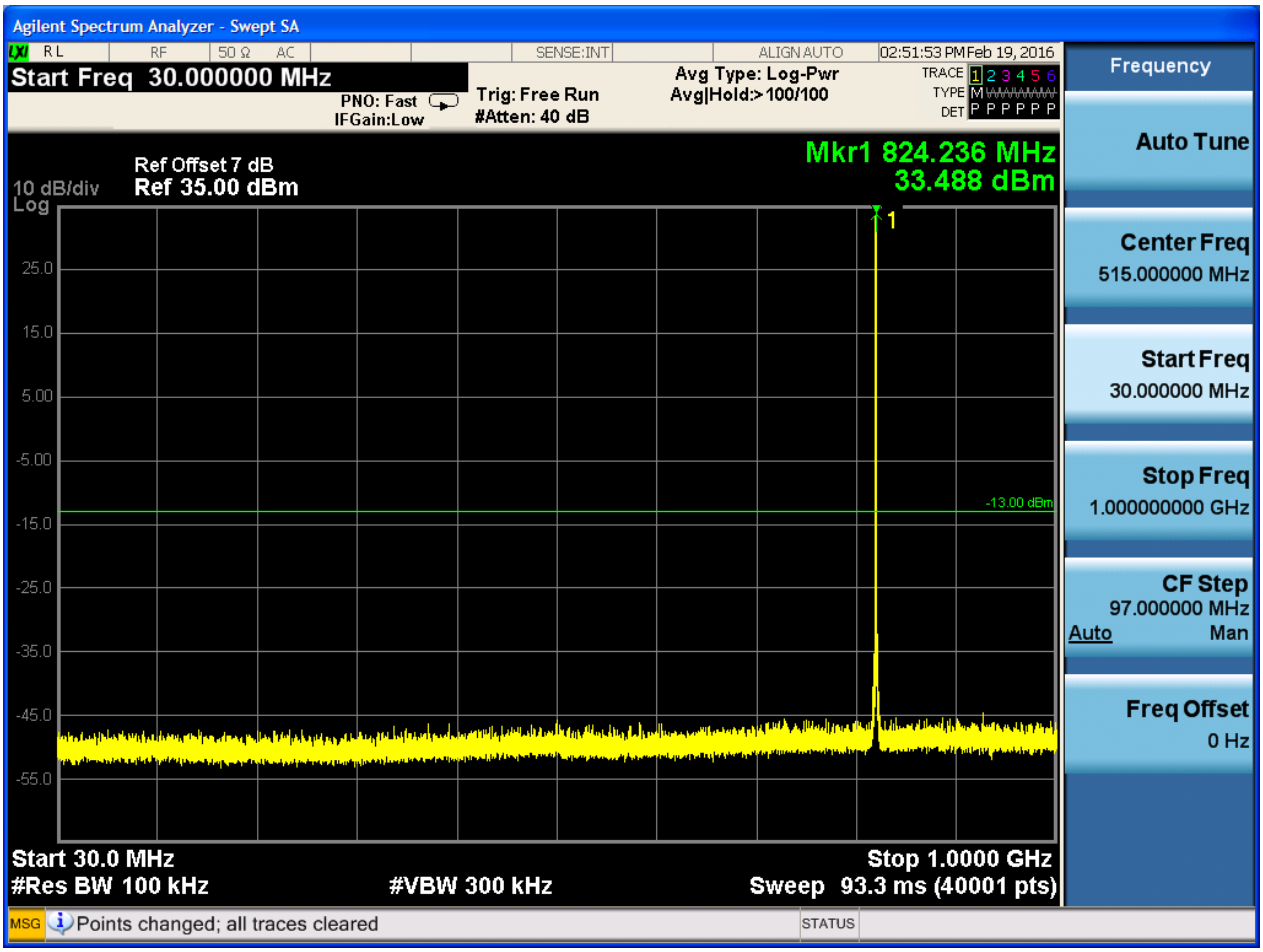
6.1.1 Test Band = GSM850

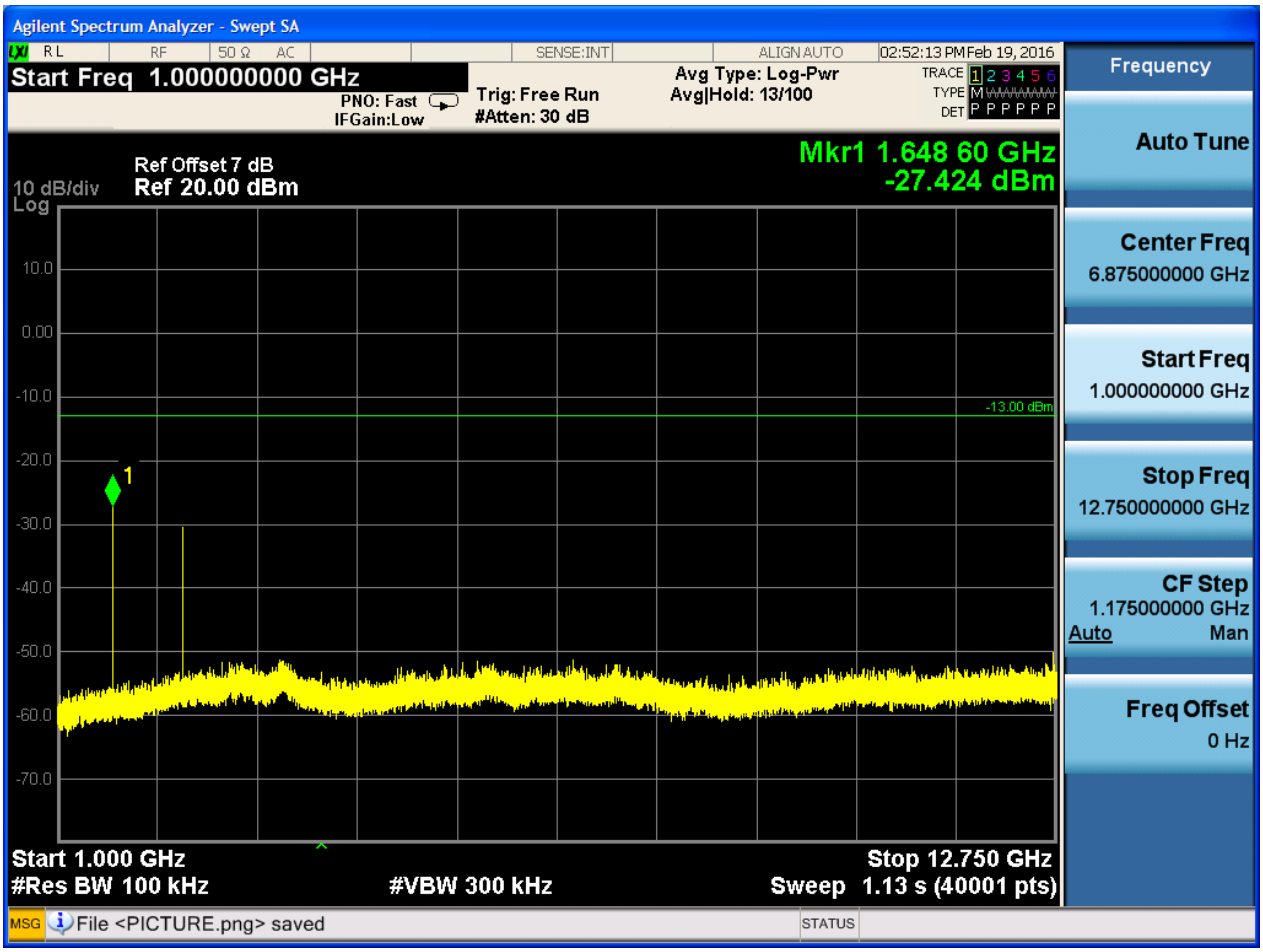
6.1.1.1 Test Mode = GSM/TM1

6.1.1.1.1 Test Channel = LCH

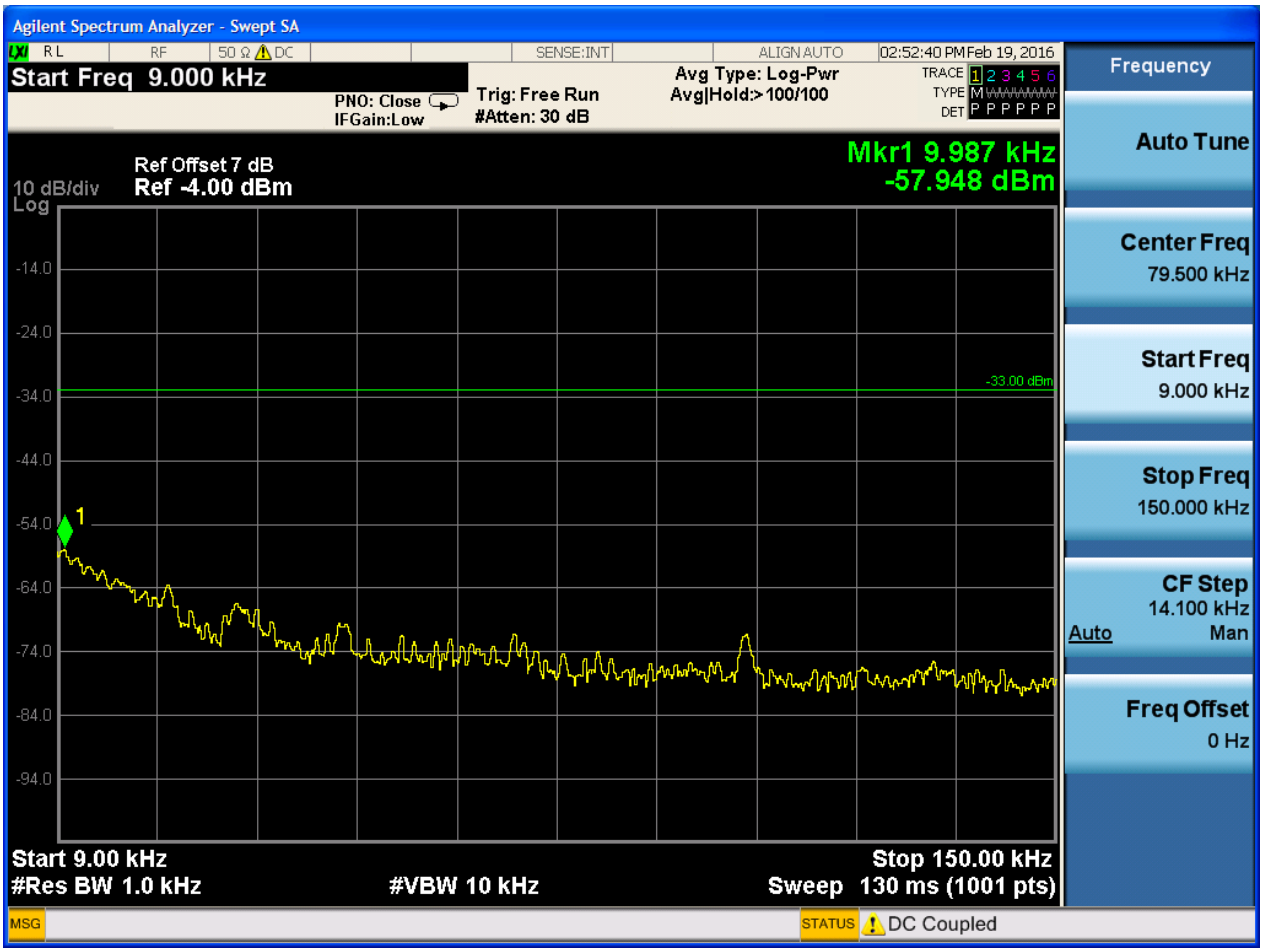


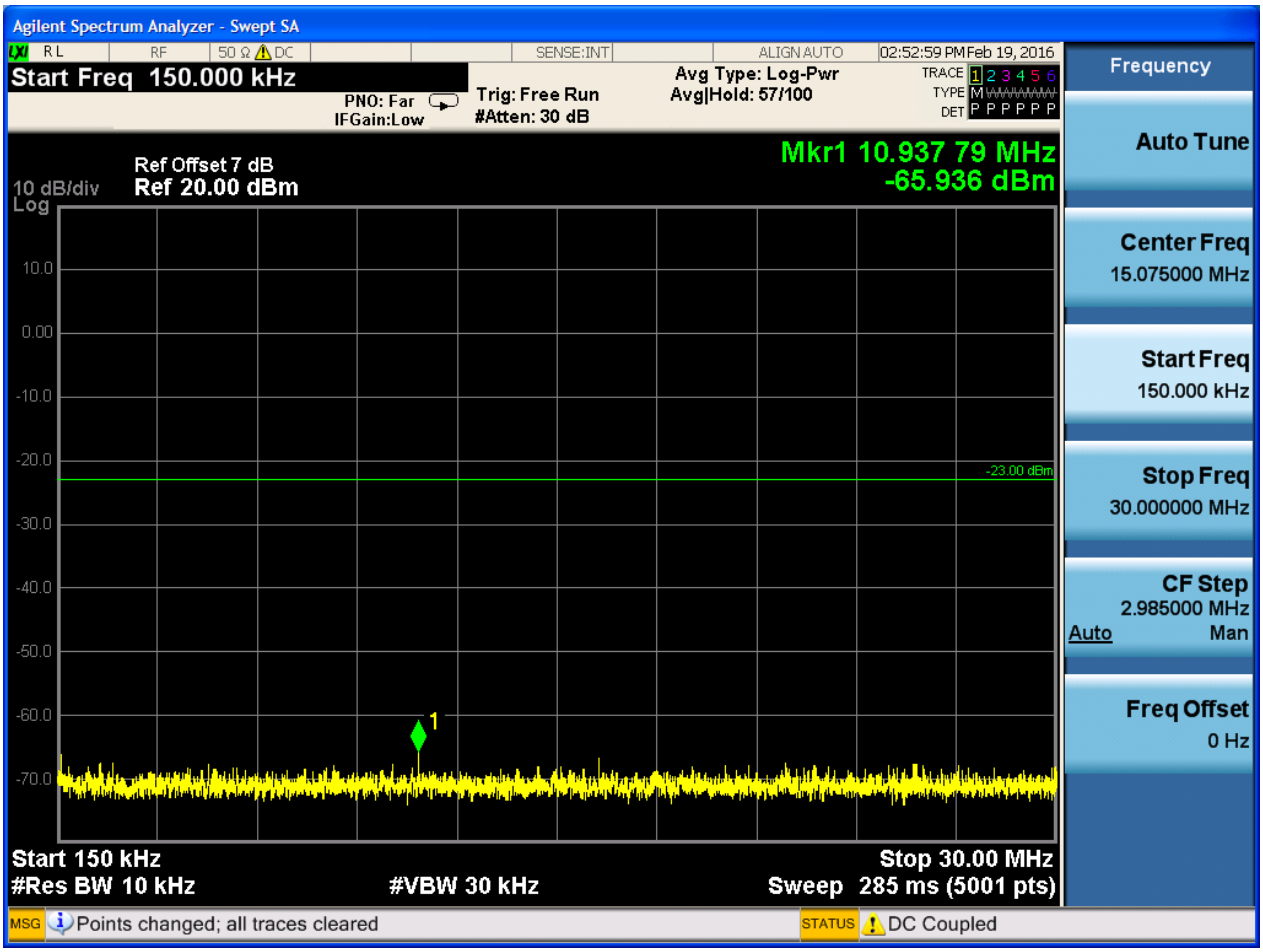


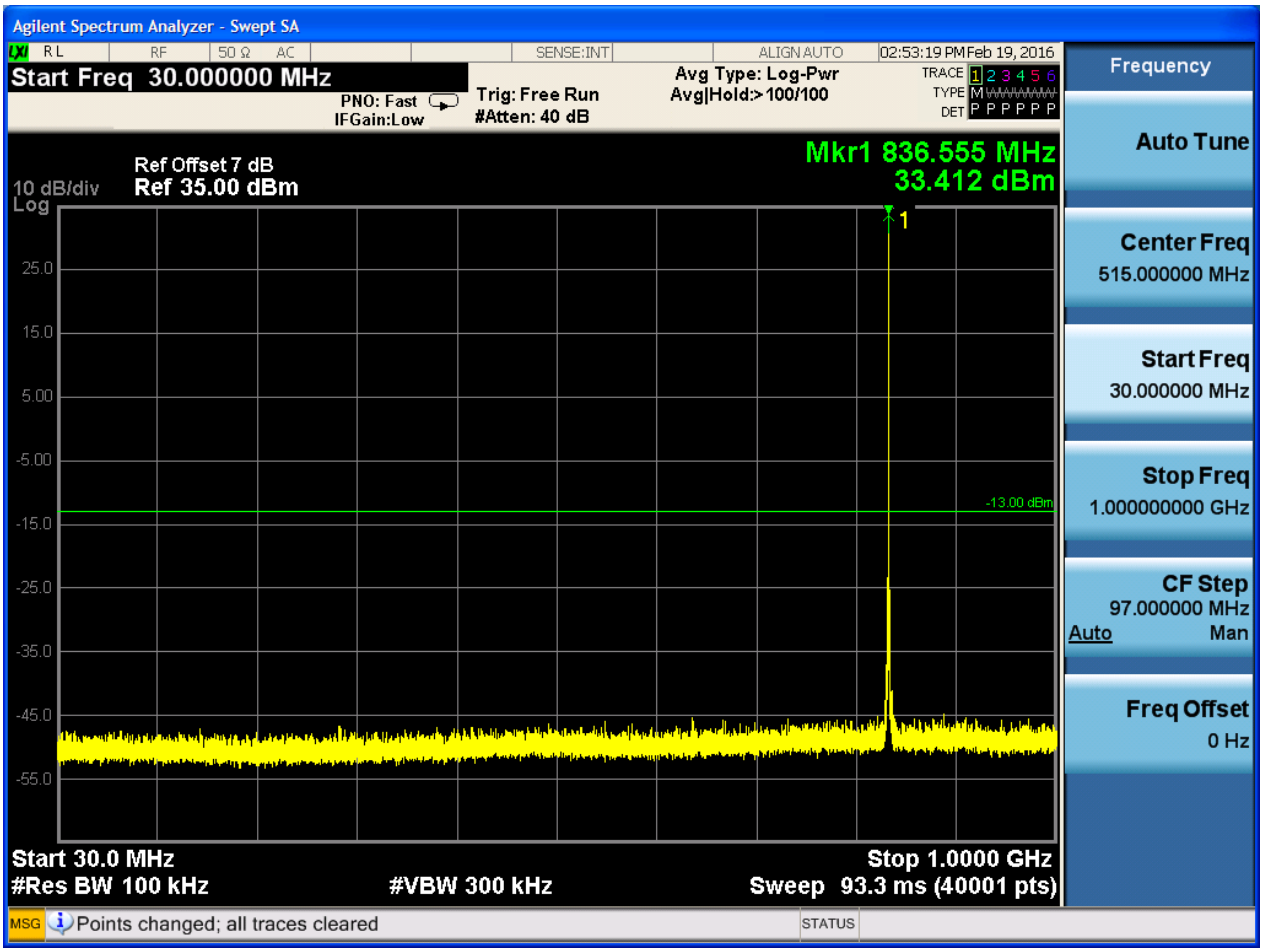


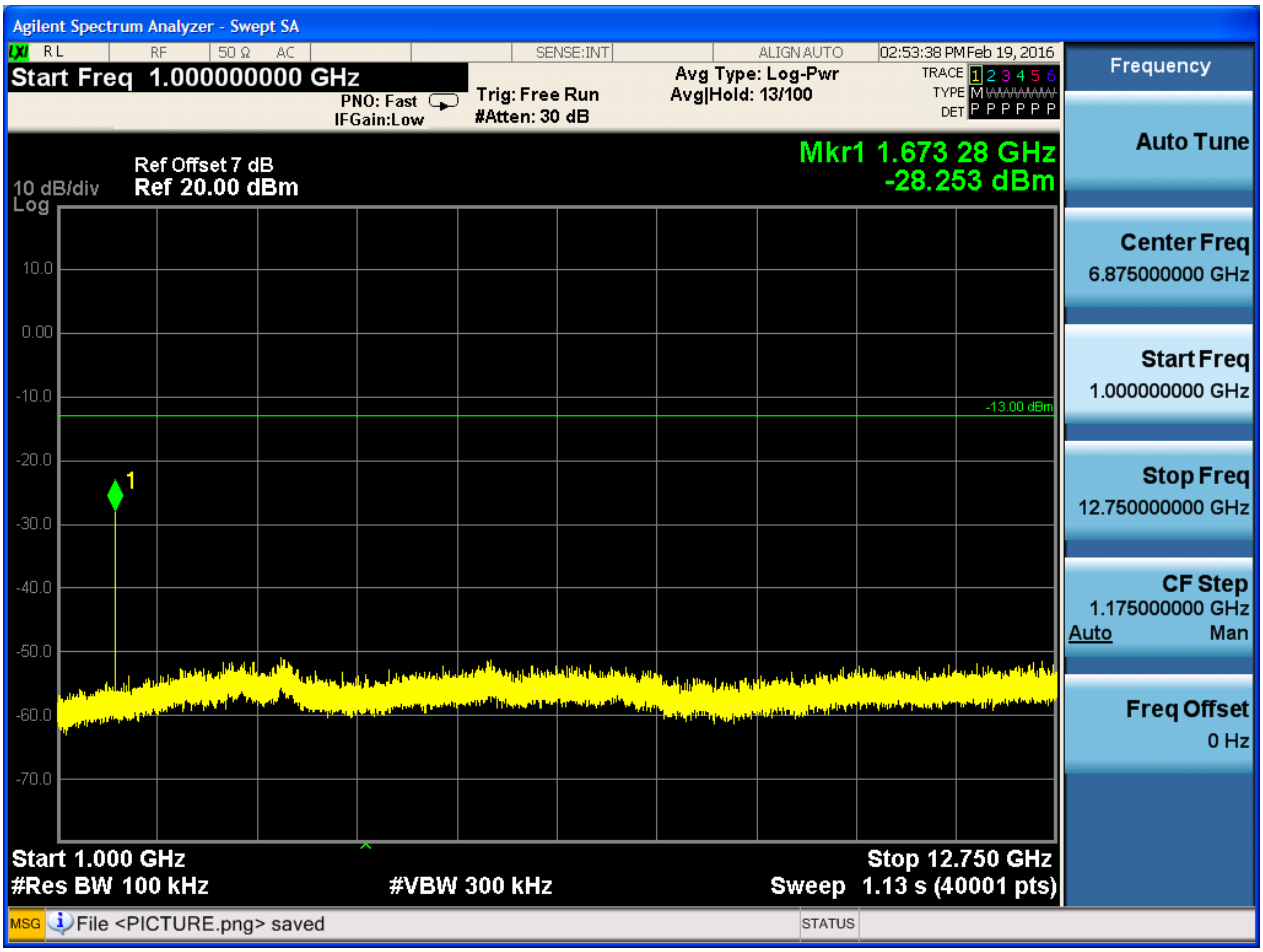


6.1.1.1.2 Test Channel = MCH

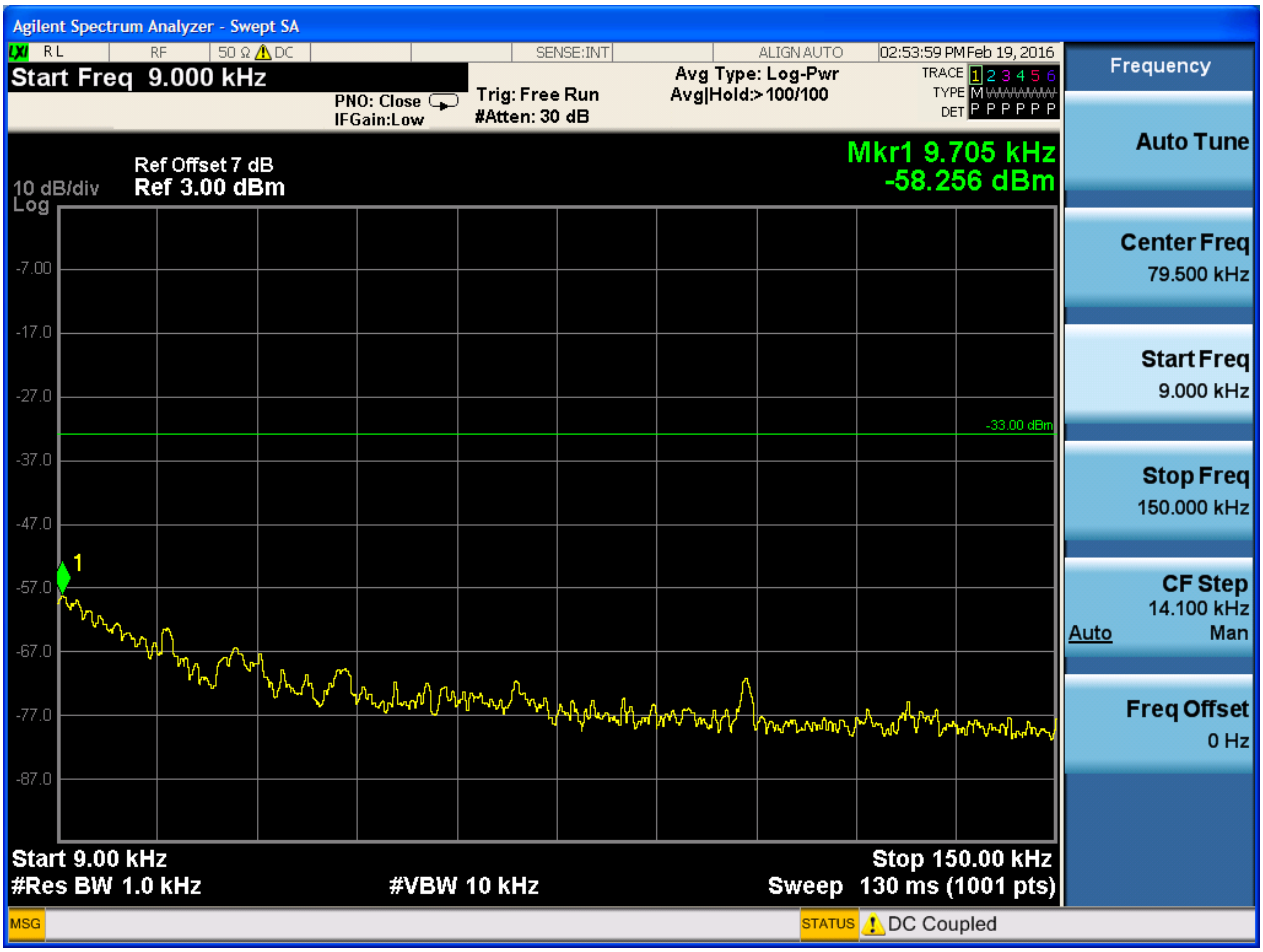


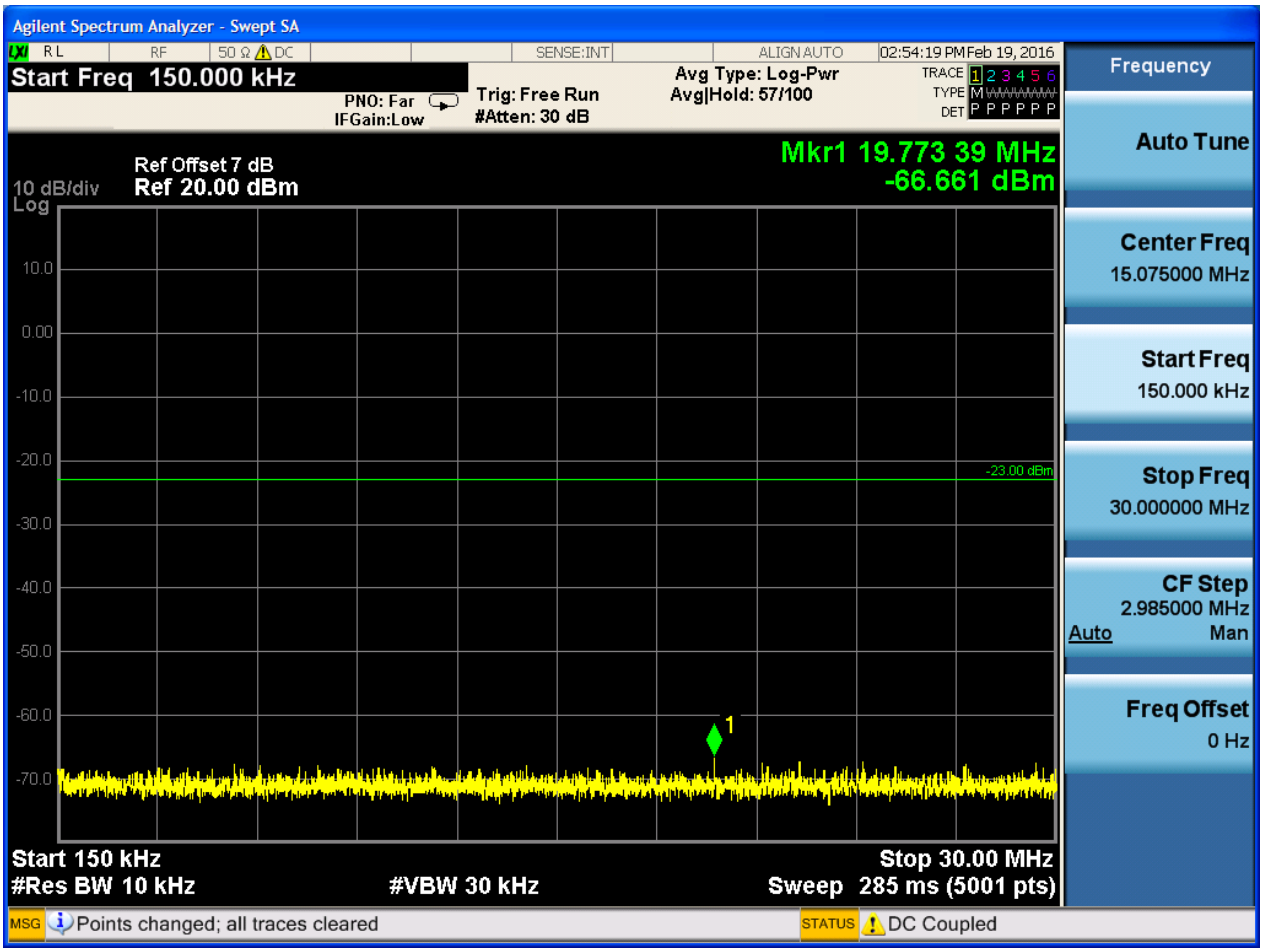


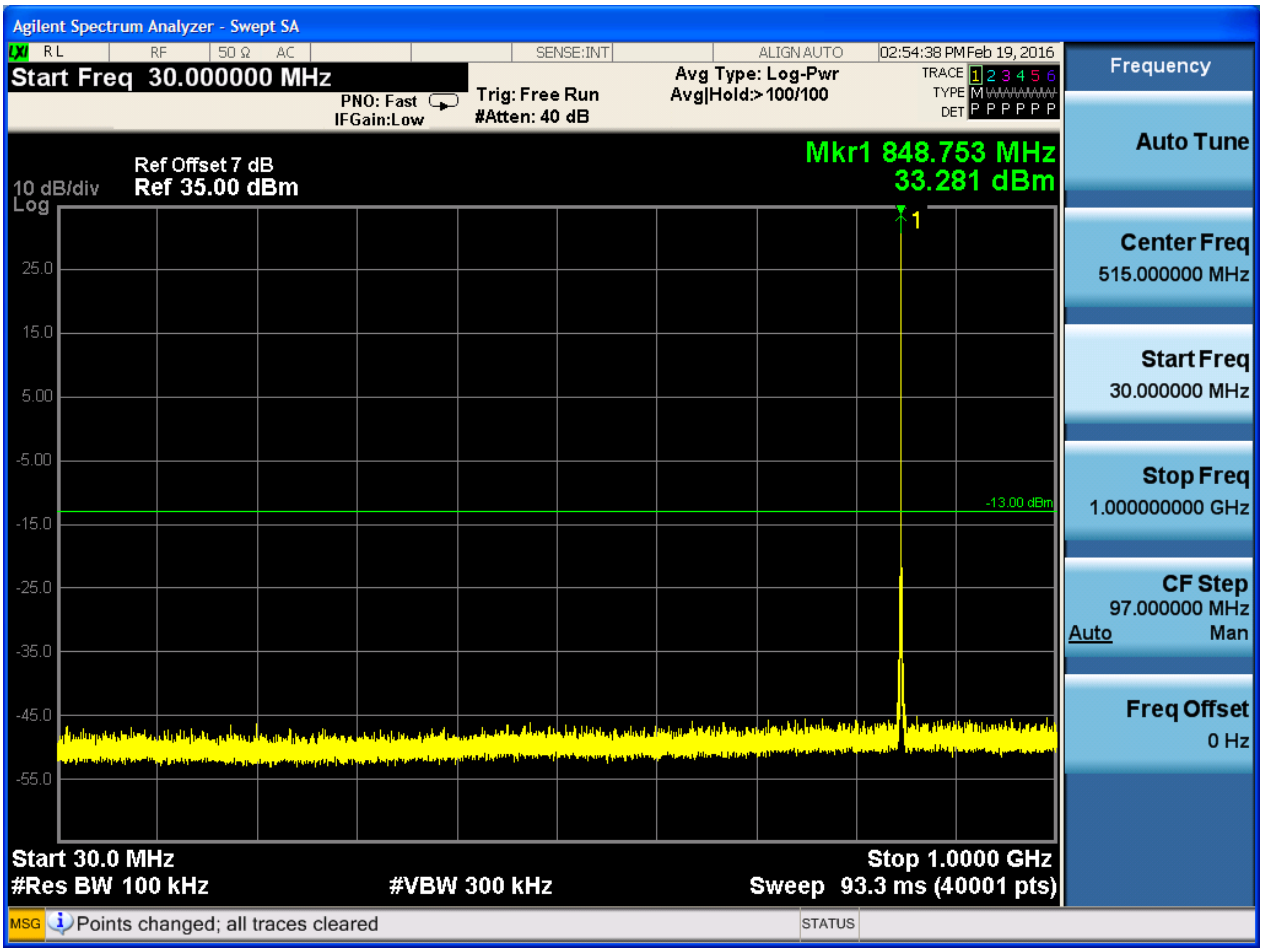


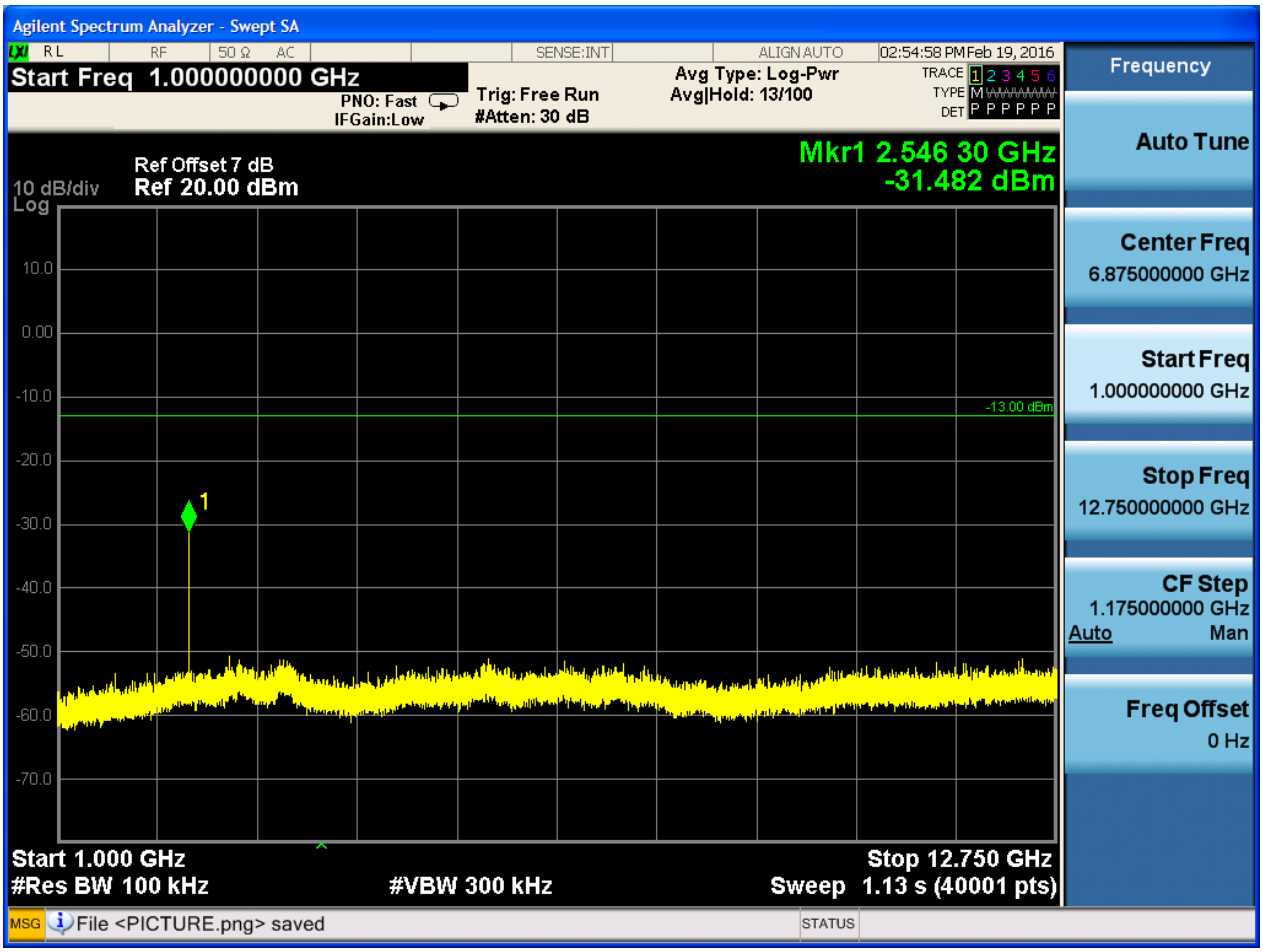


6.1.1.1.3 Test Channel = HCH



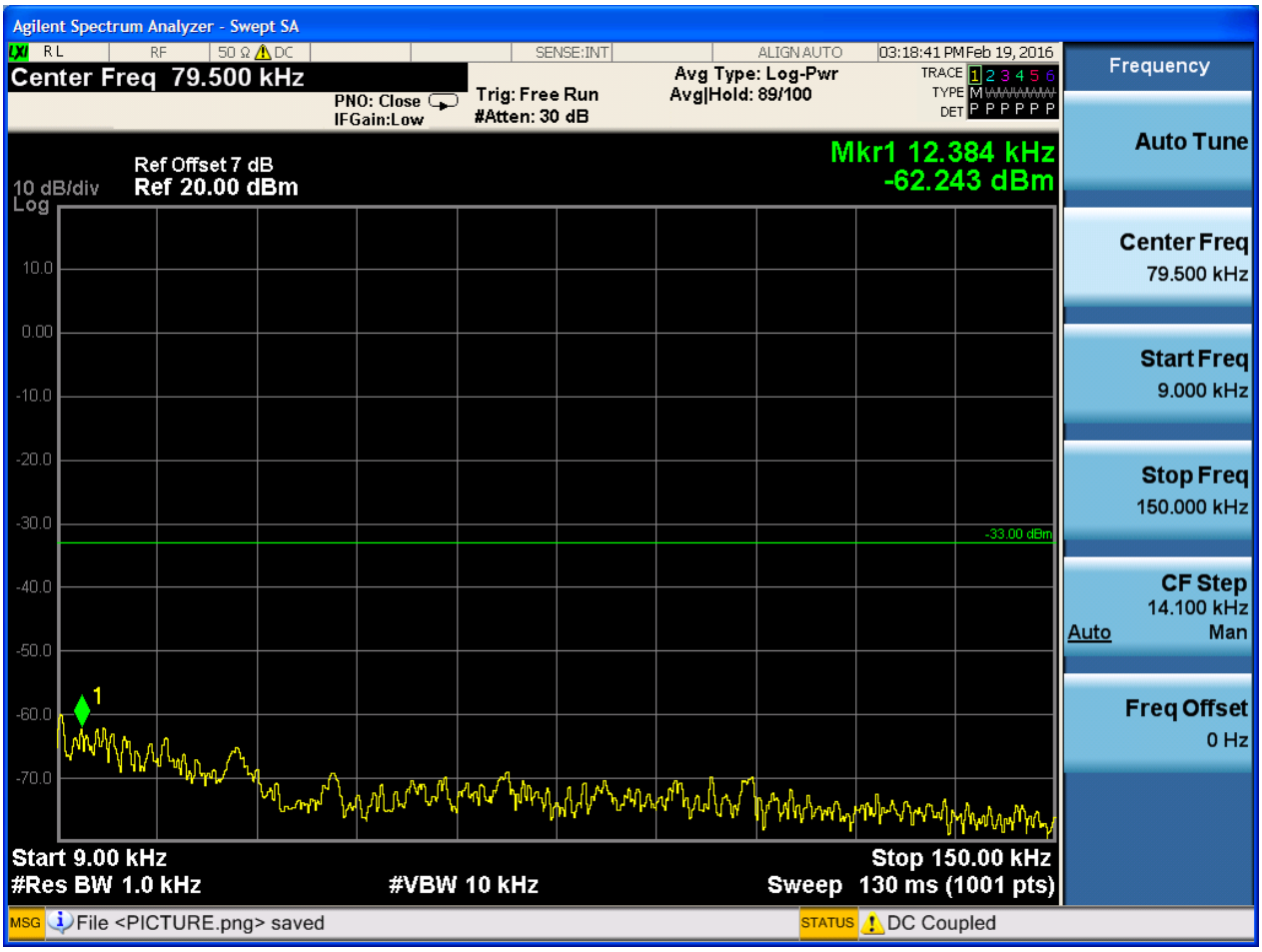


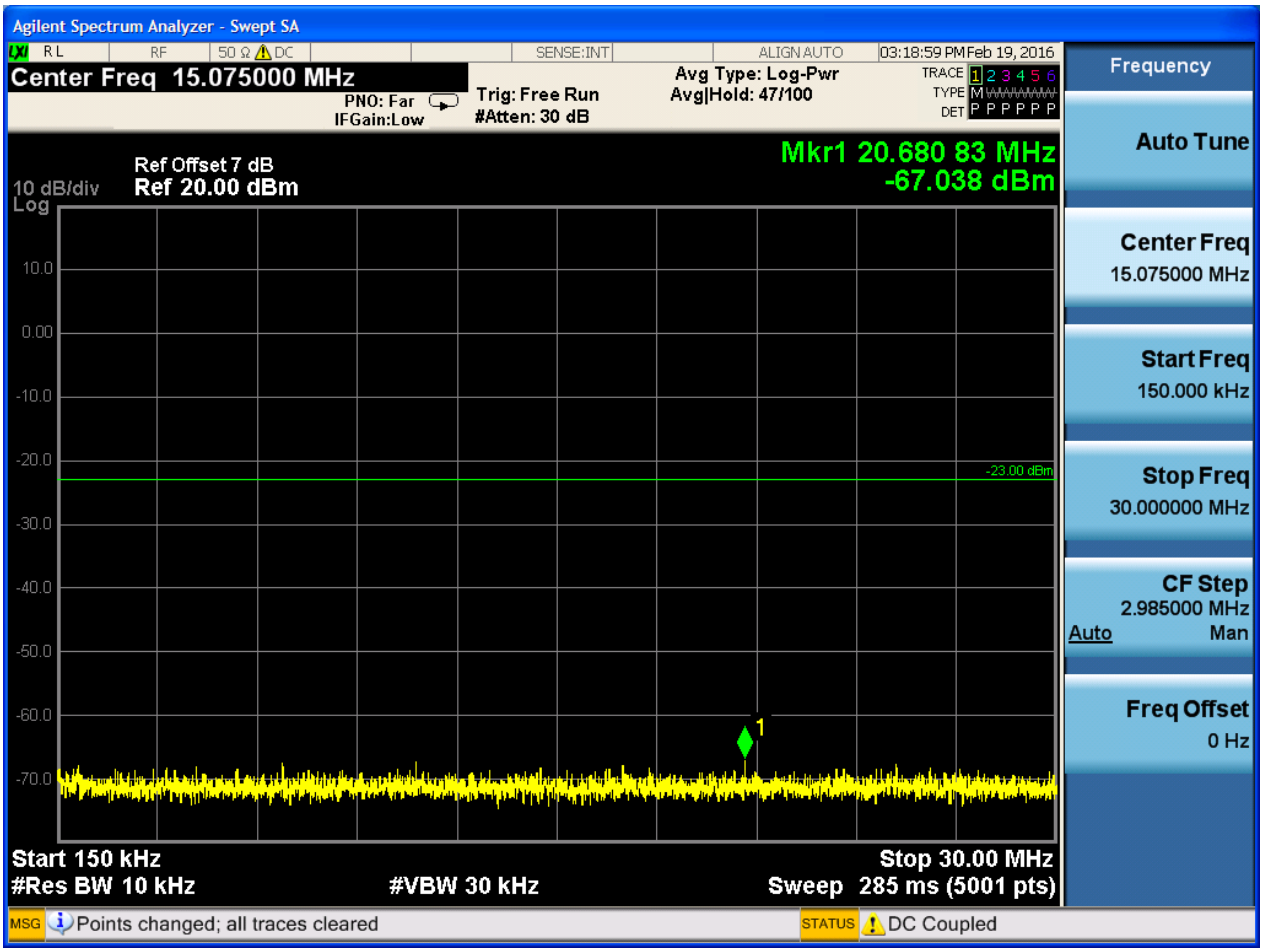


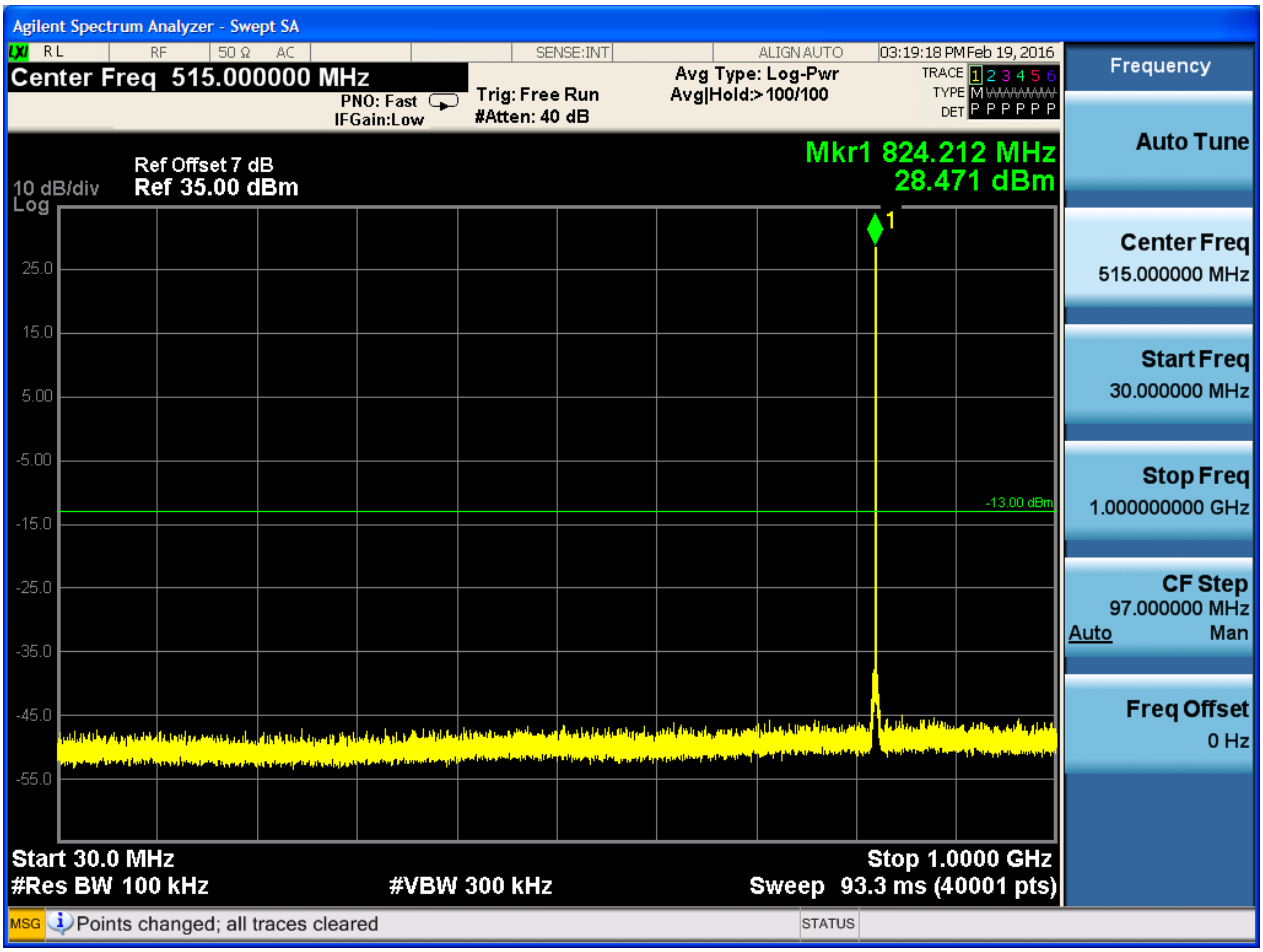


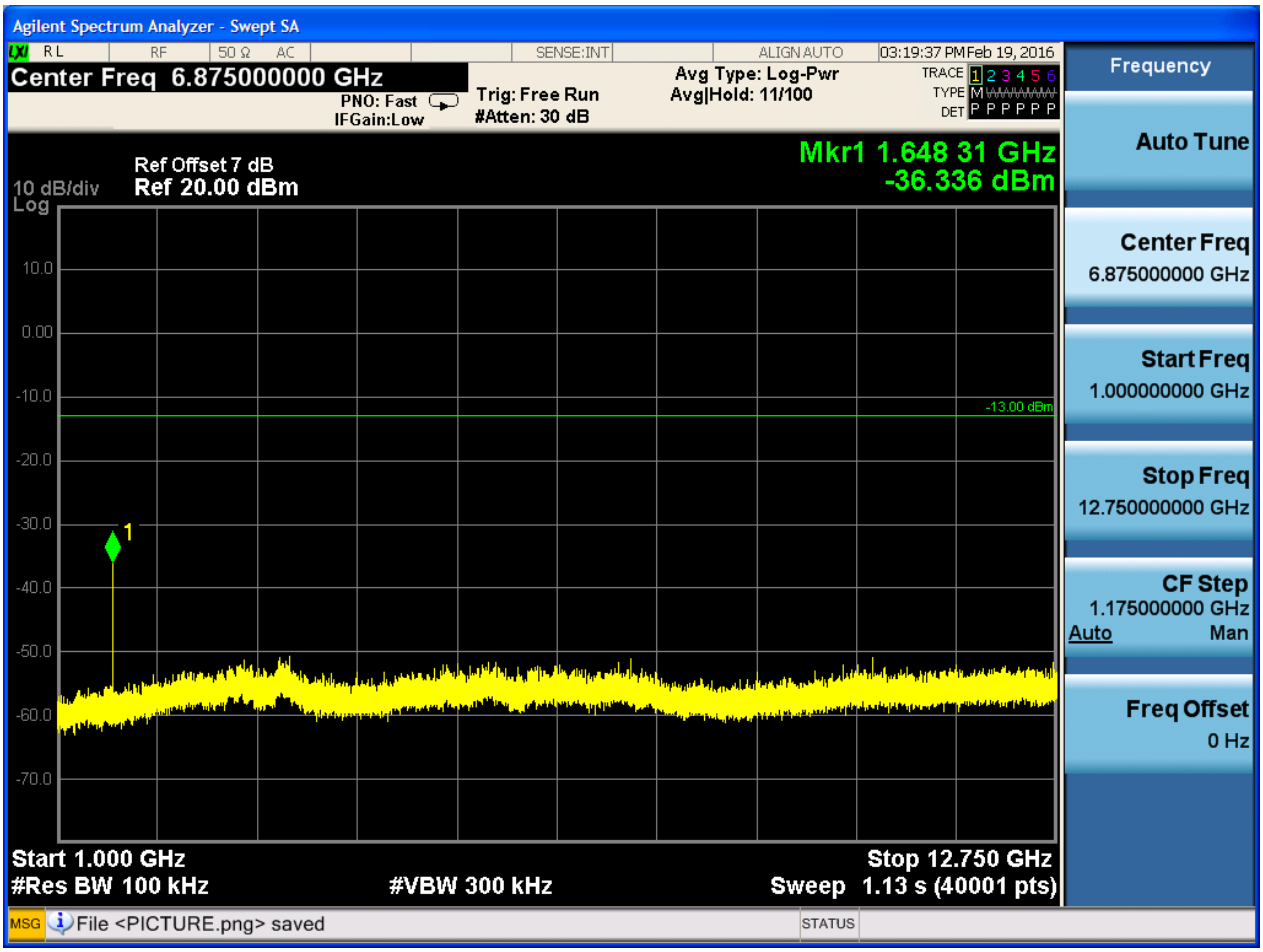
6.1.1.2 Test Mode = GSM/TM2

6.1.1.2.1 Test Channel = LCH

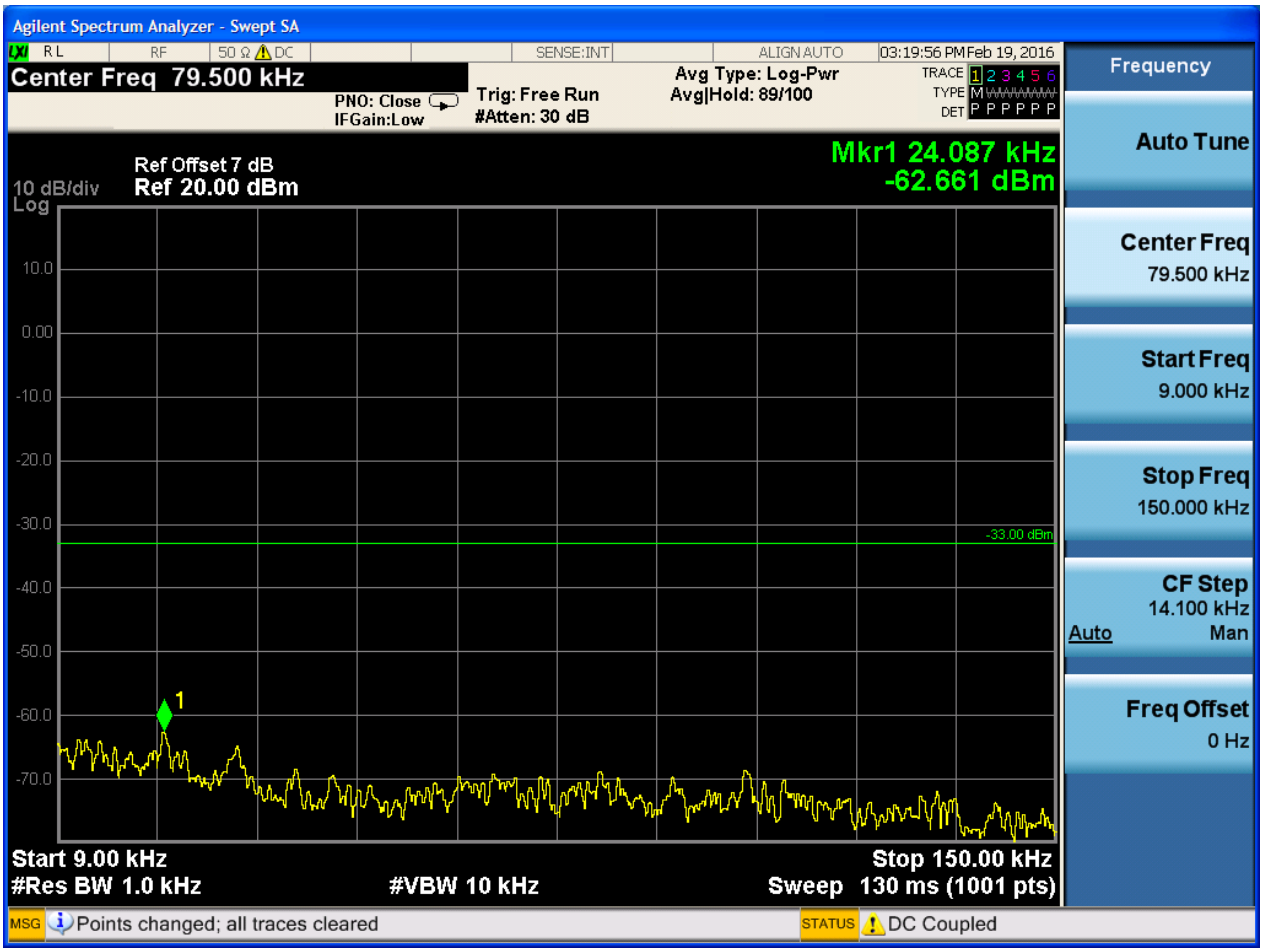


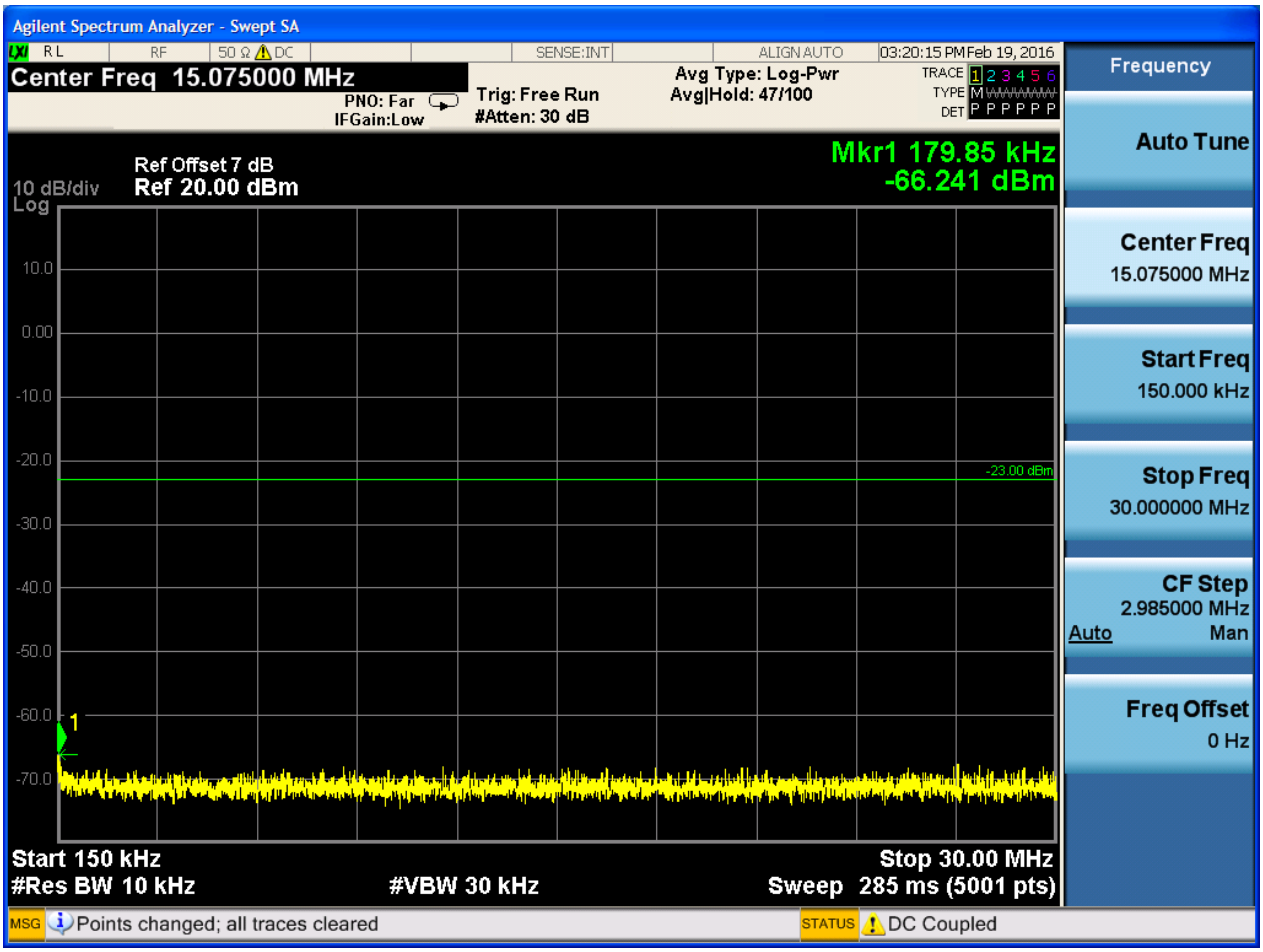


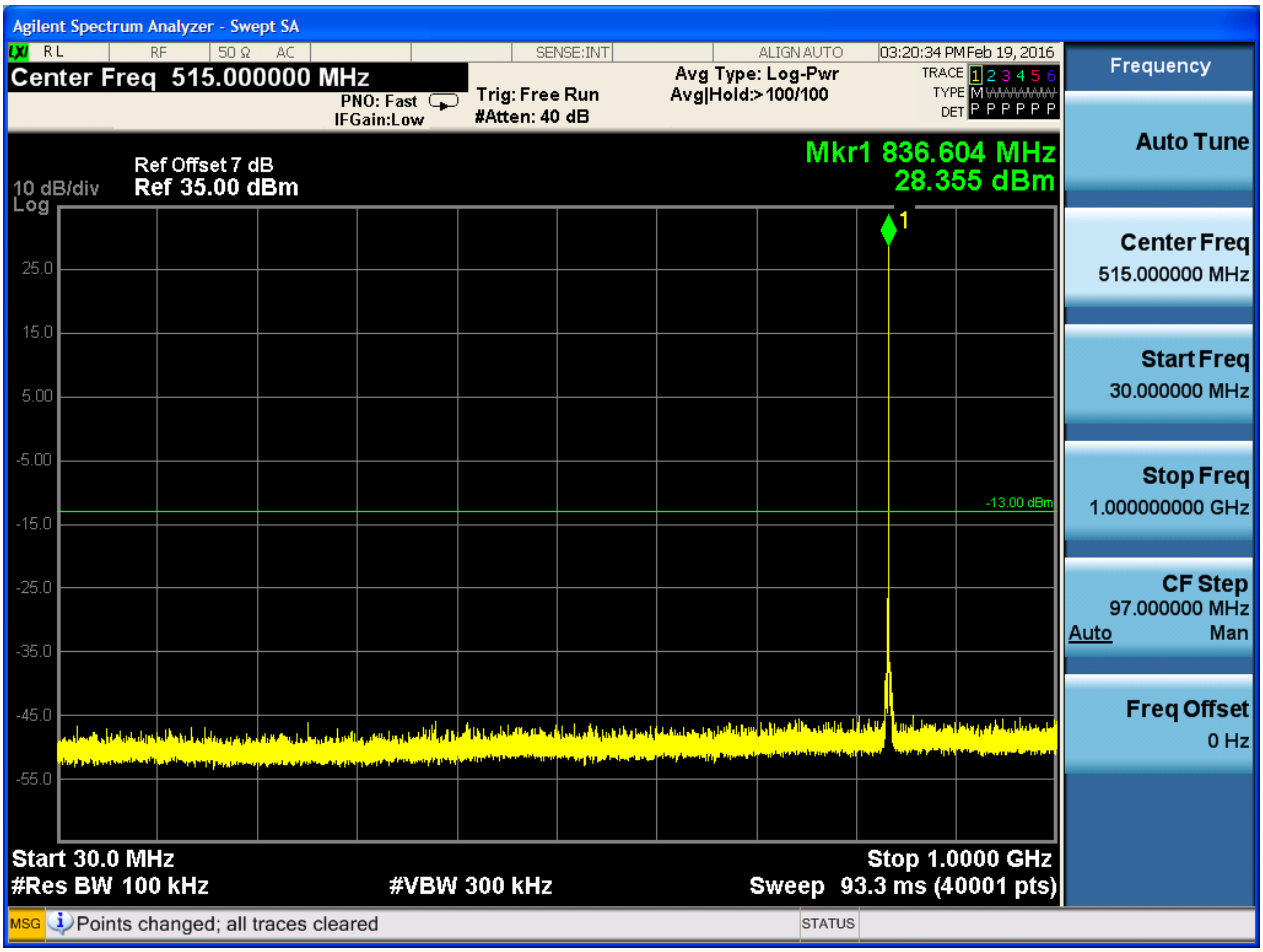


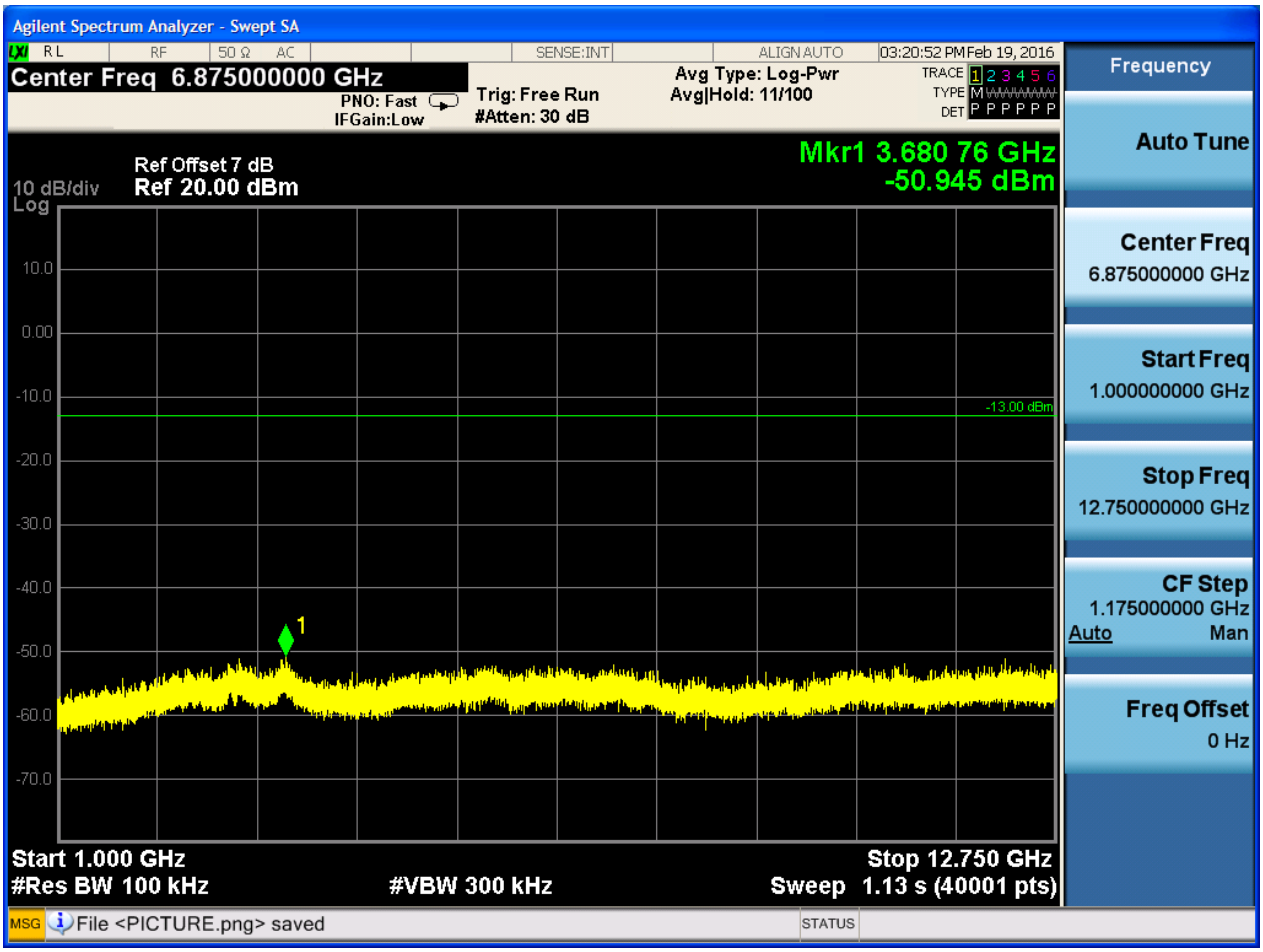


6.1.1.2.2 Test Channel = MCH

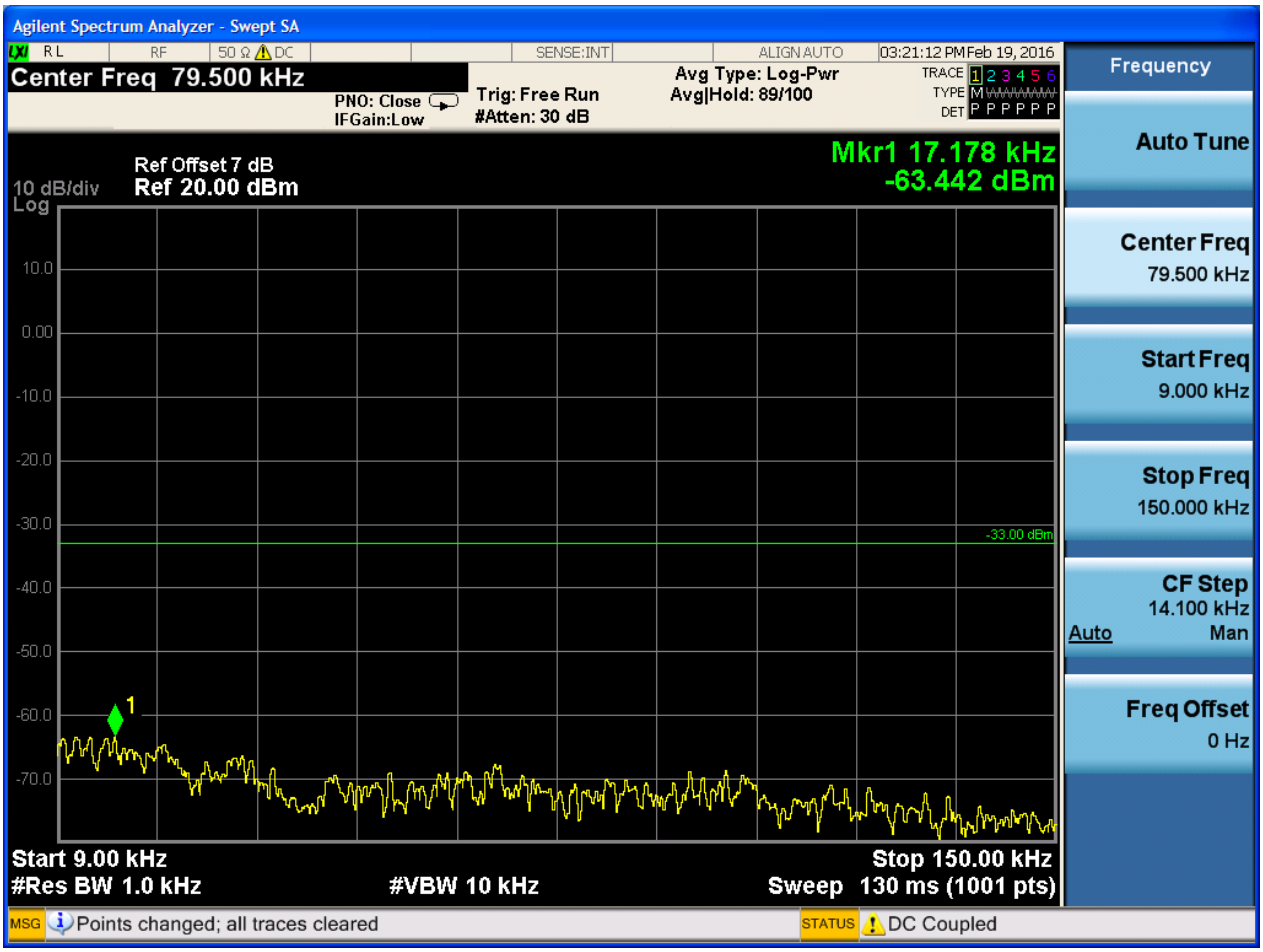


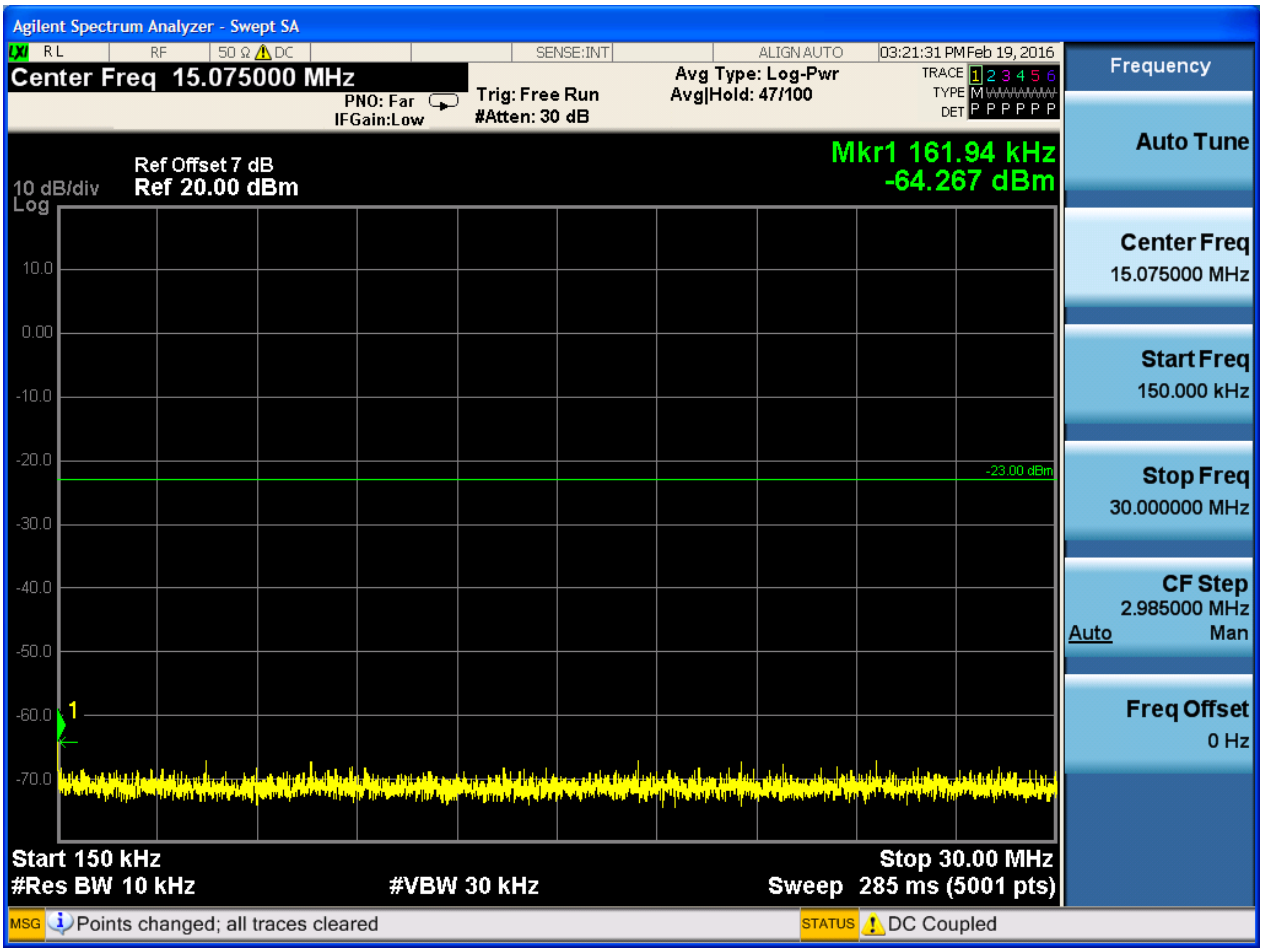


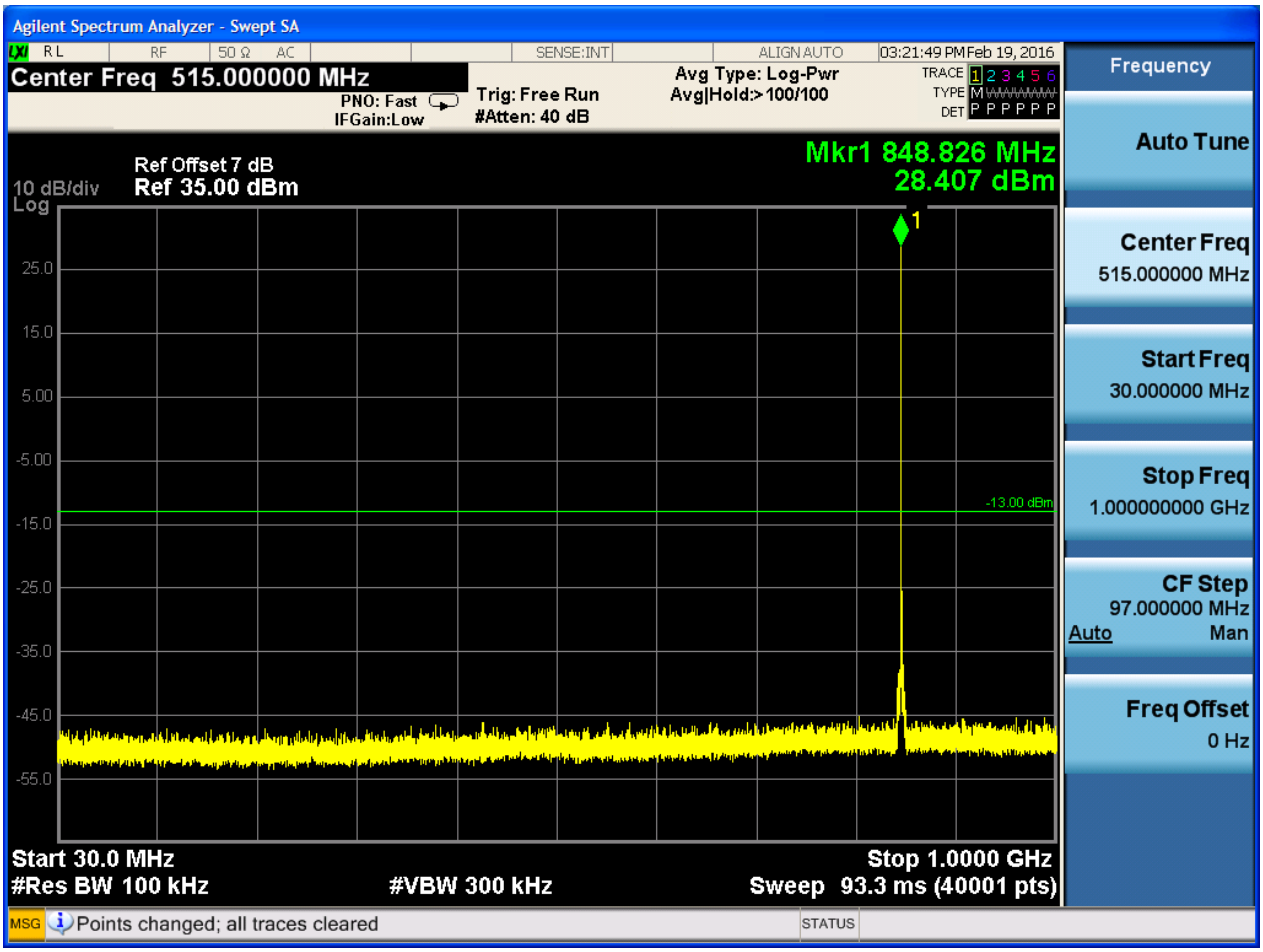


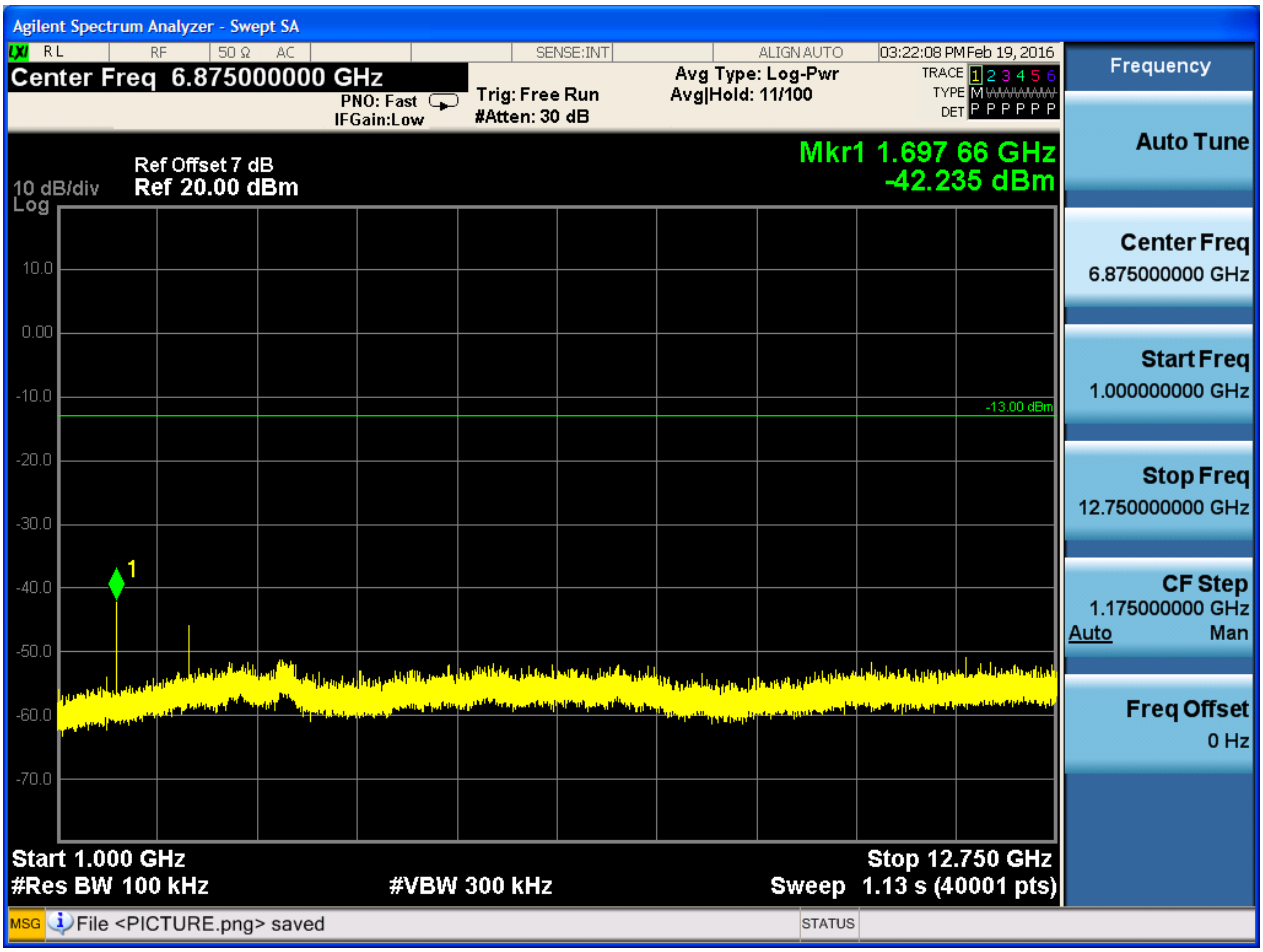


6.1.1.2.3 Test Channel = HCH





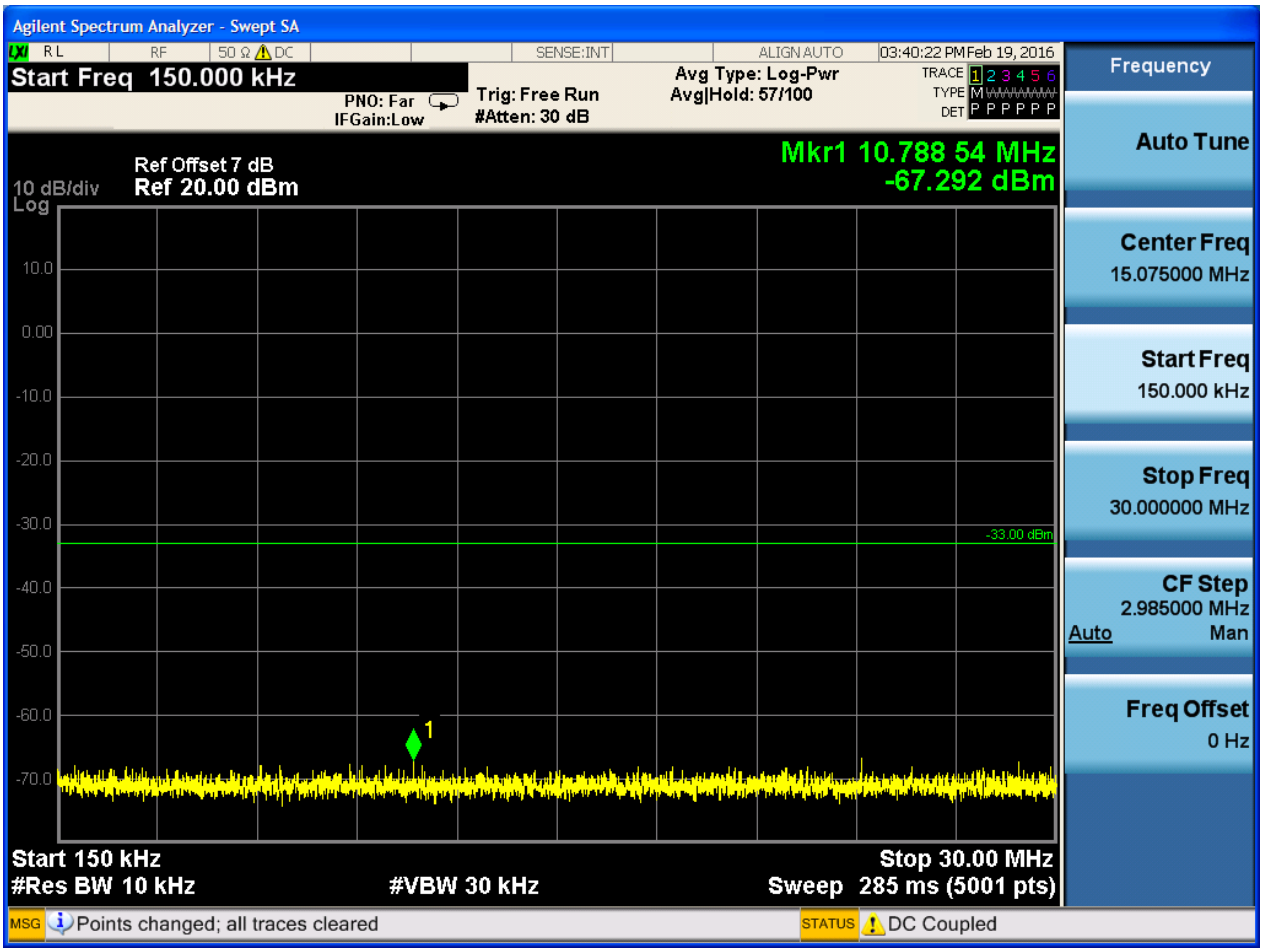


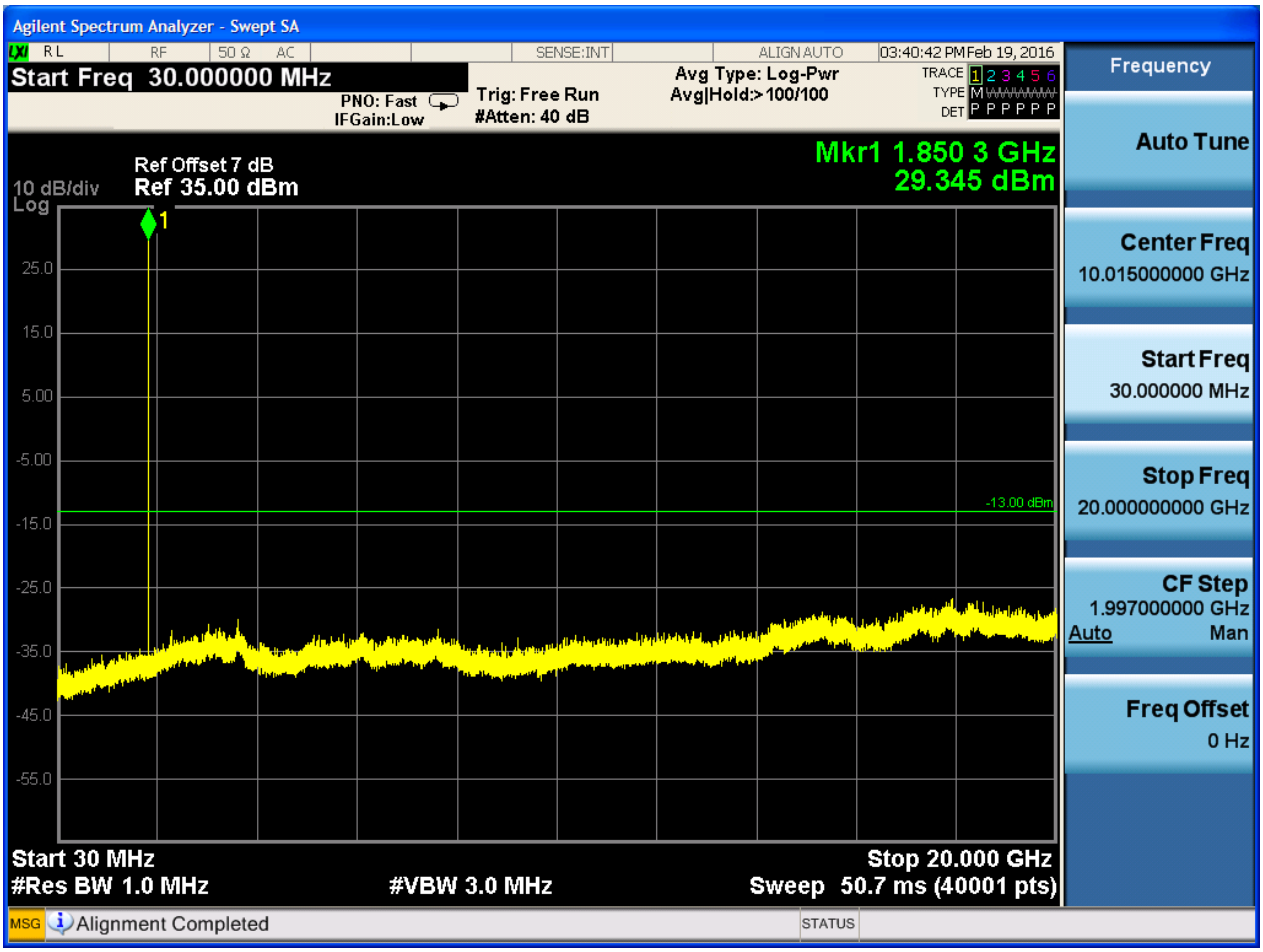


6.1.2 Test Band = GSM1900

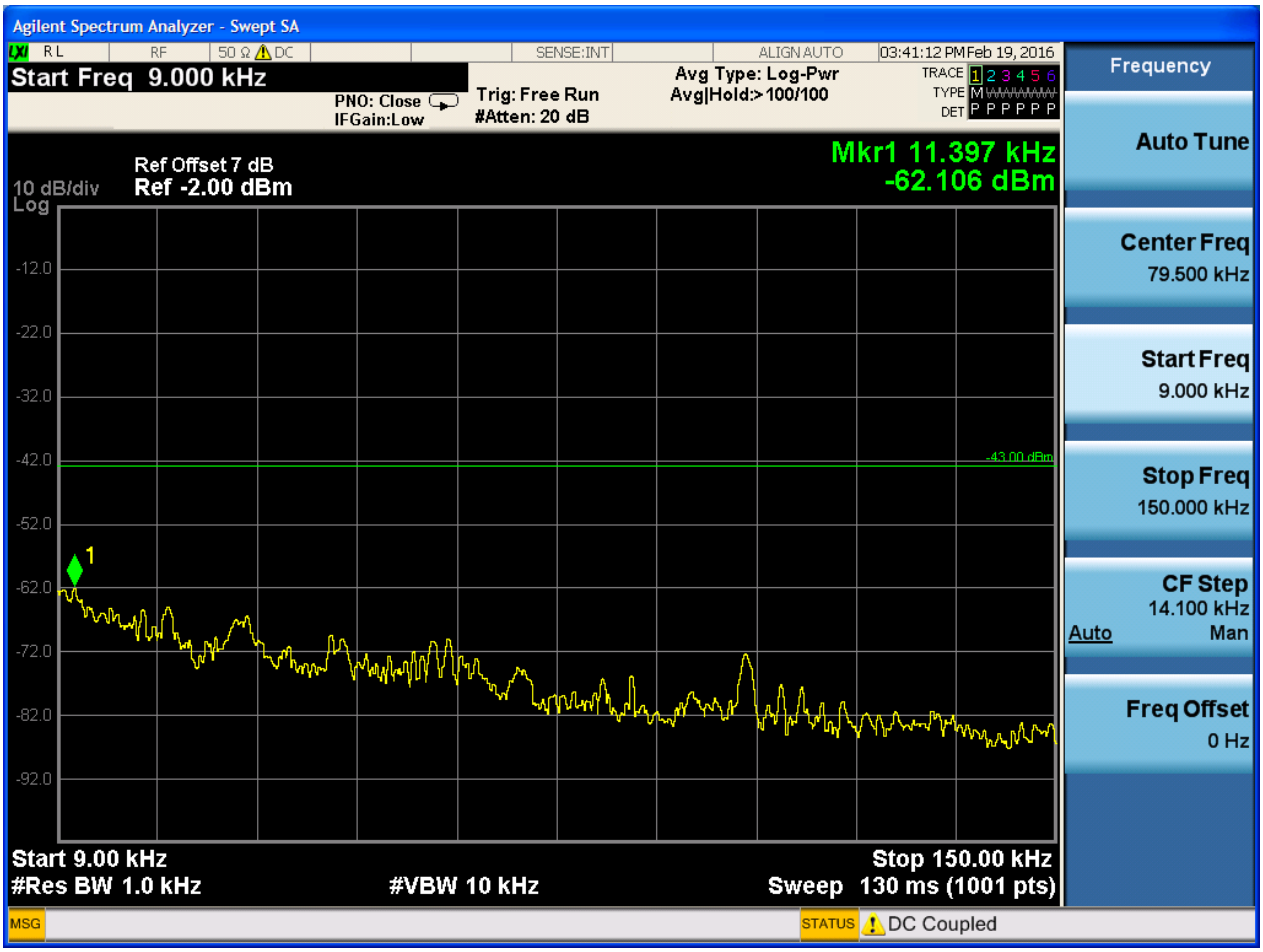
6.1.2.1 Test Mode = GSM/TM1

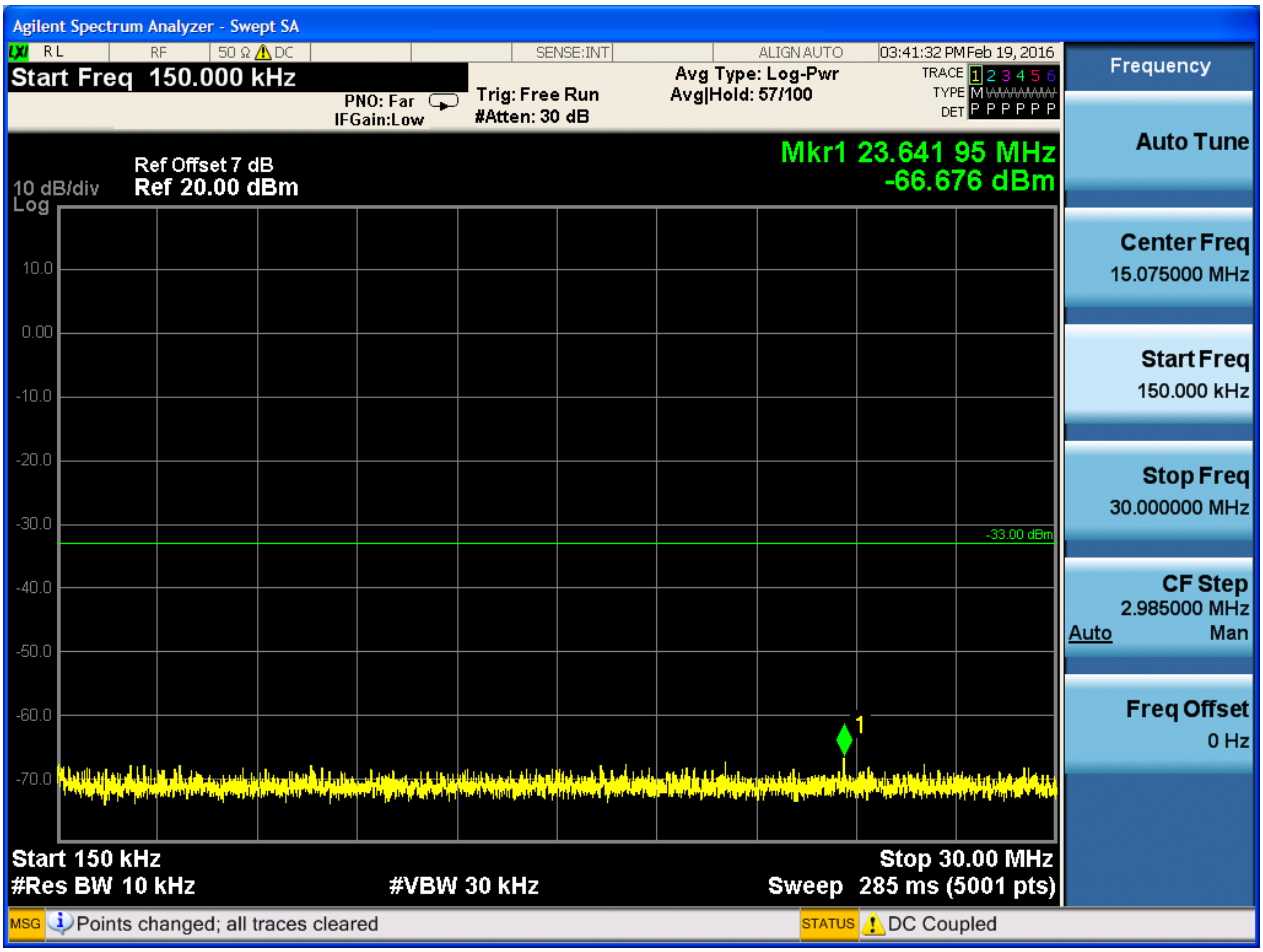
6.1.2.1.1 Test Channel = LCH

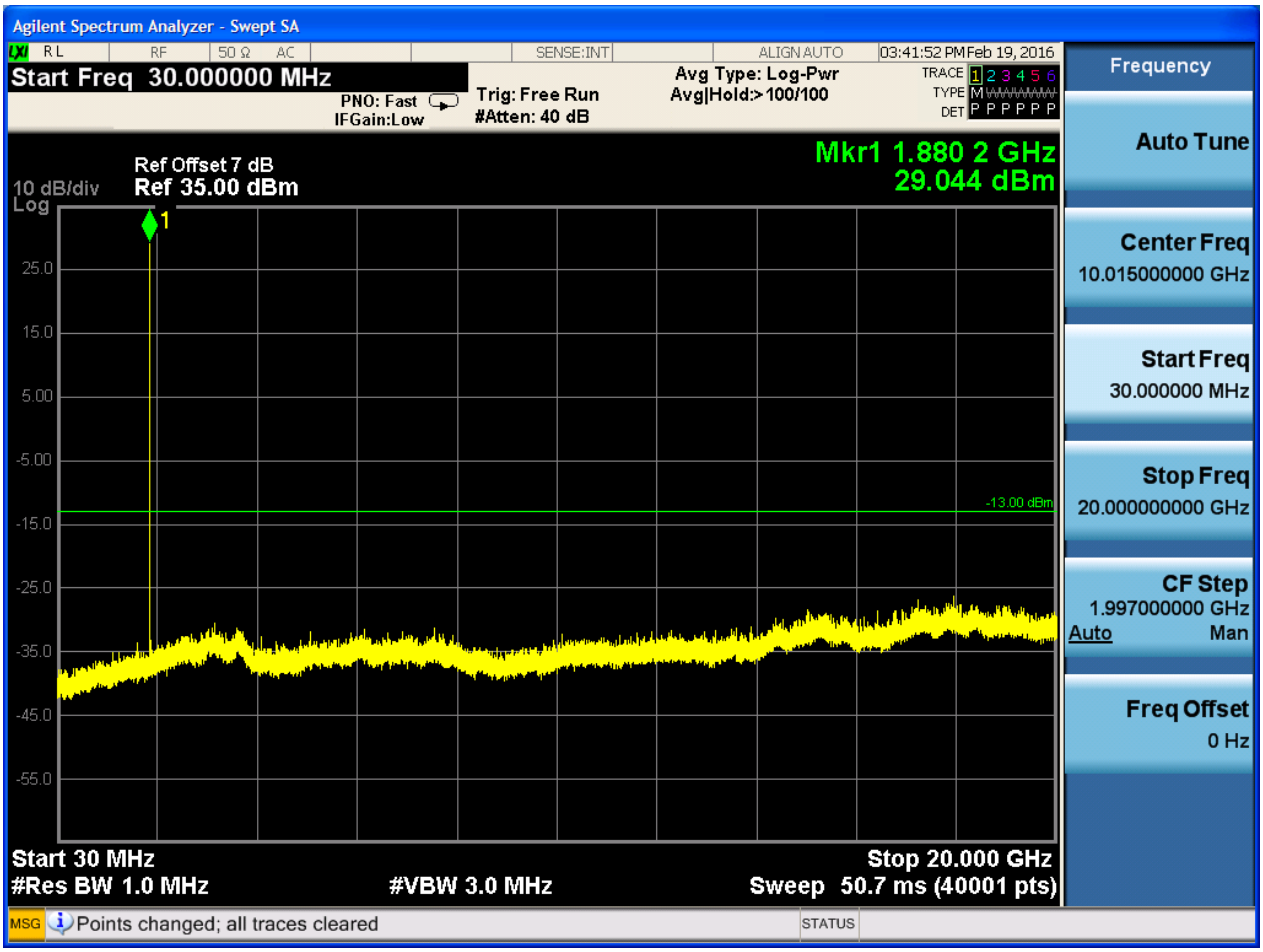




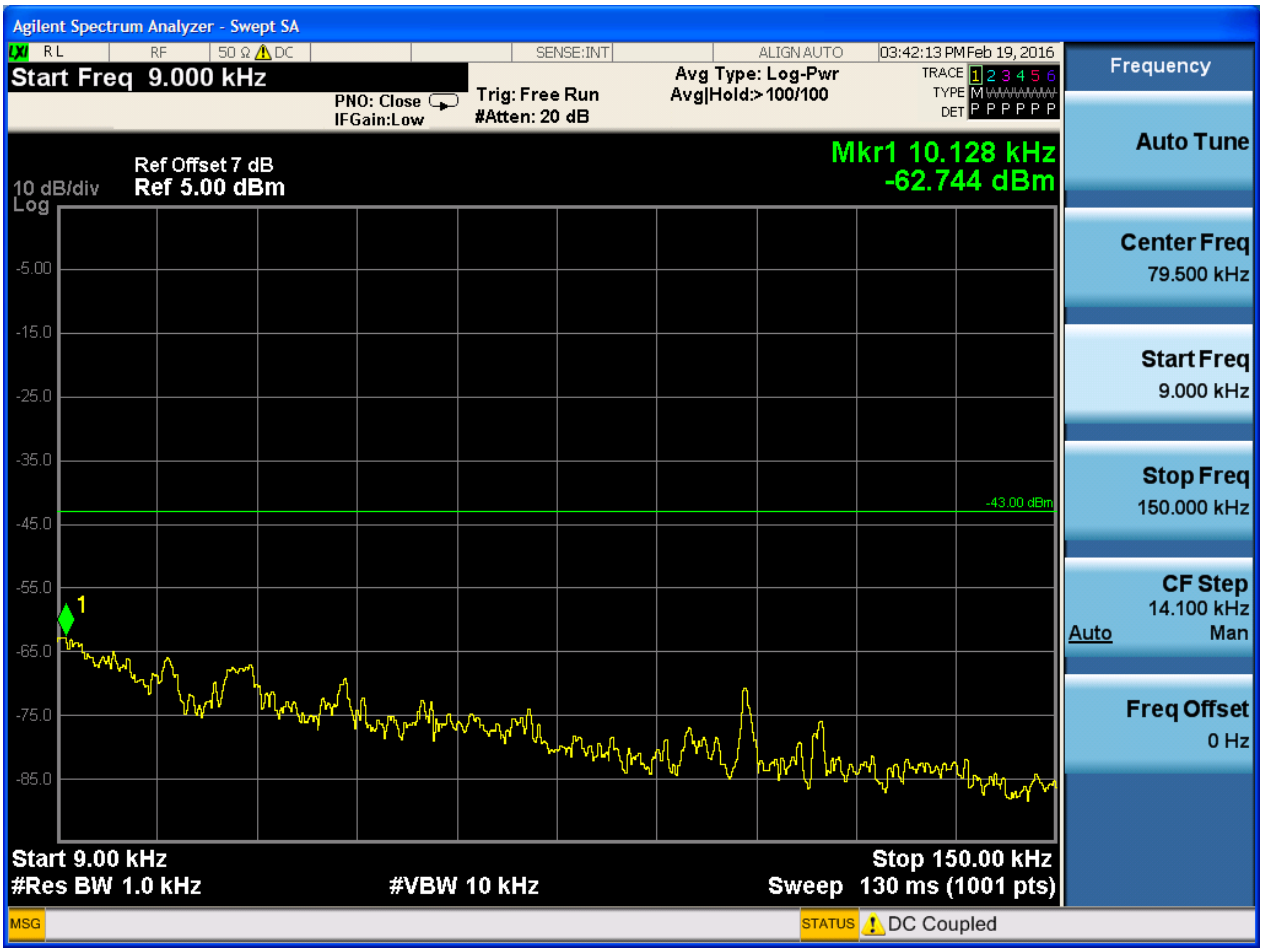
6.1.2.1.2 Test Channel = MCH

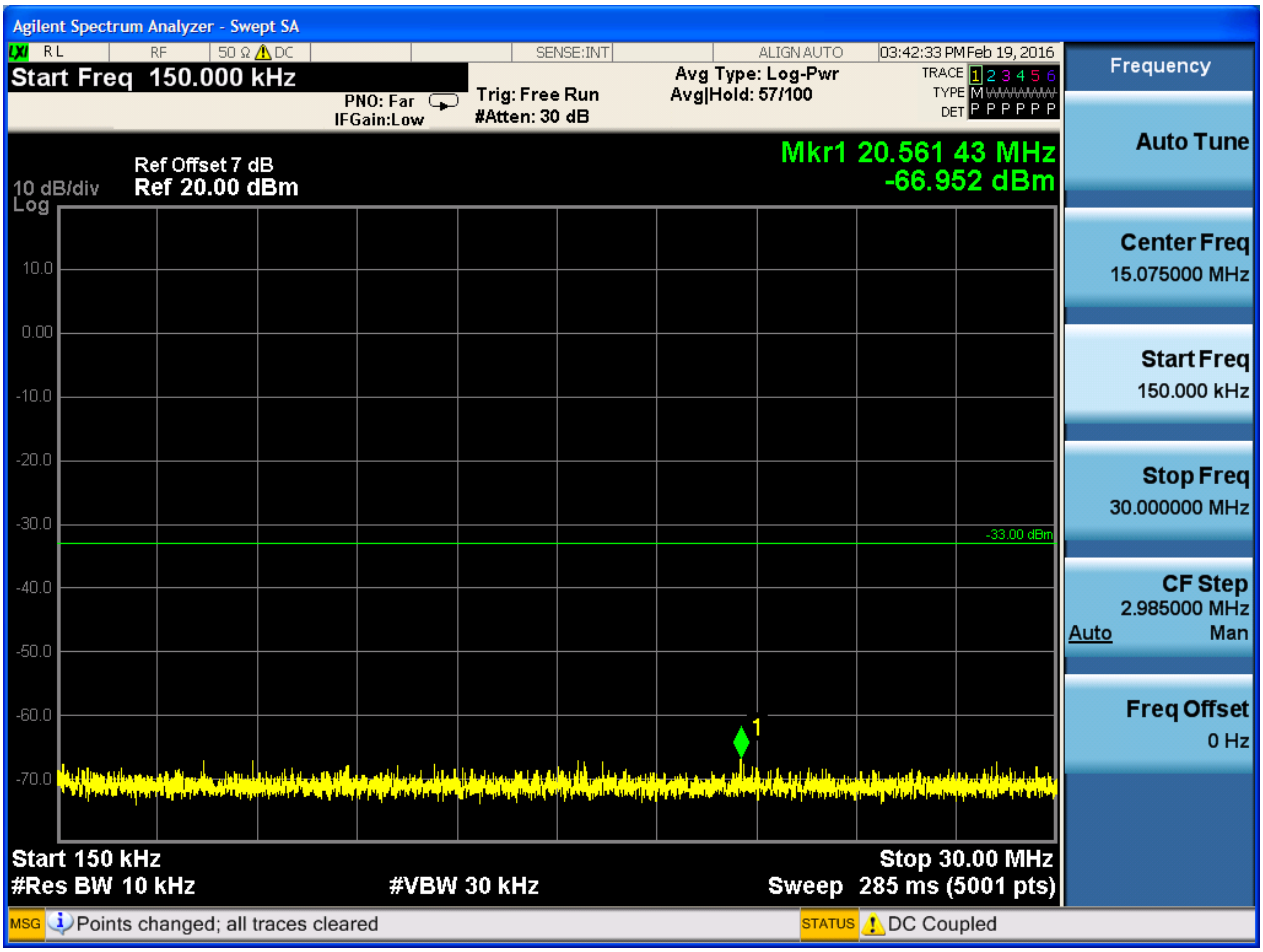


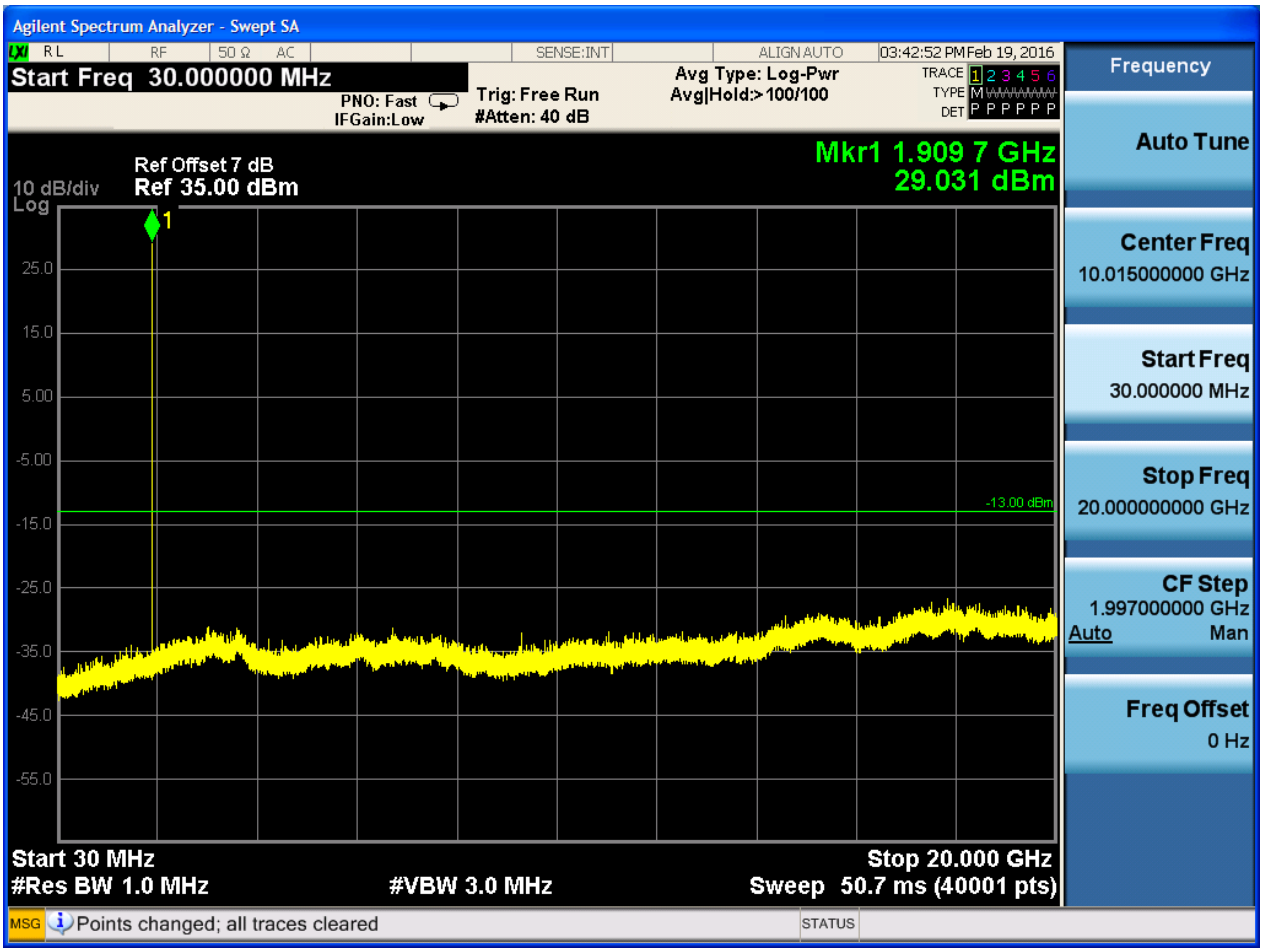




6.1.2.1.3 Test Channel = HCH

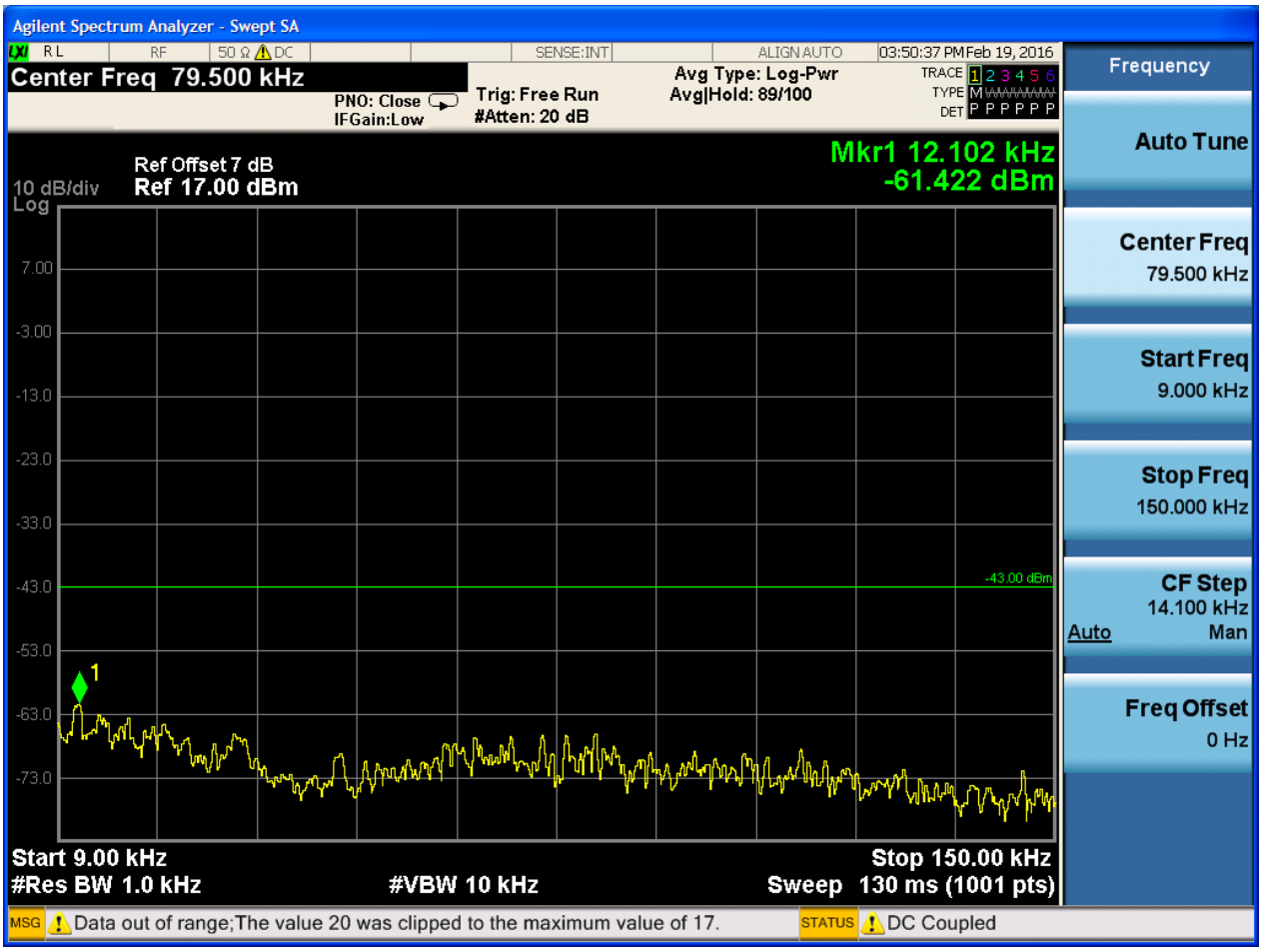


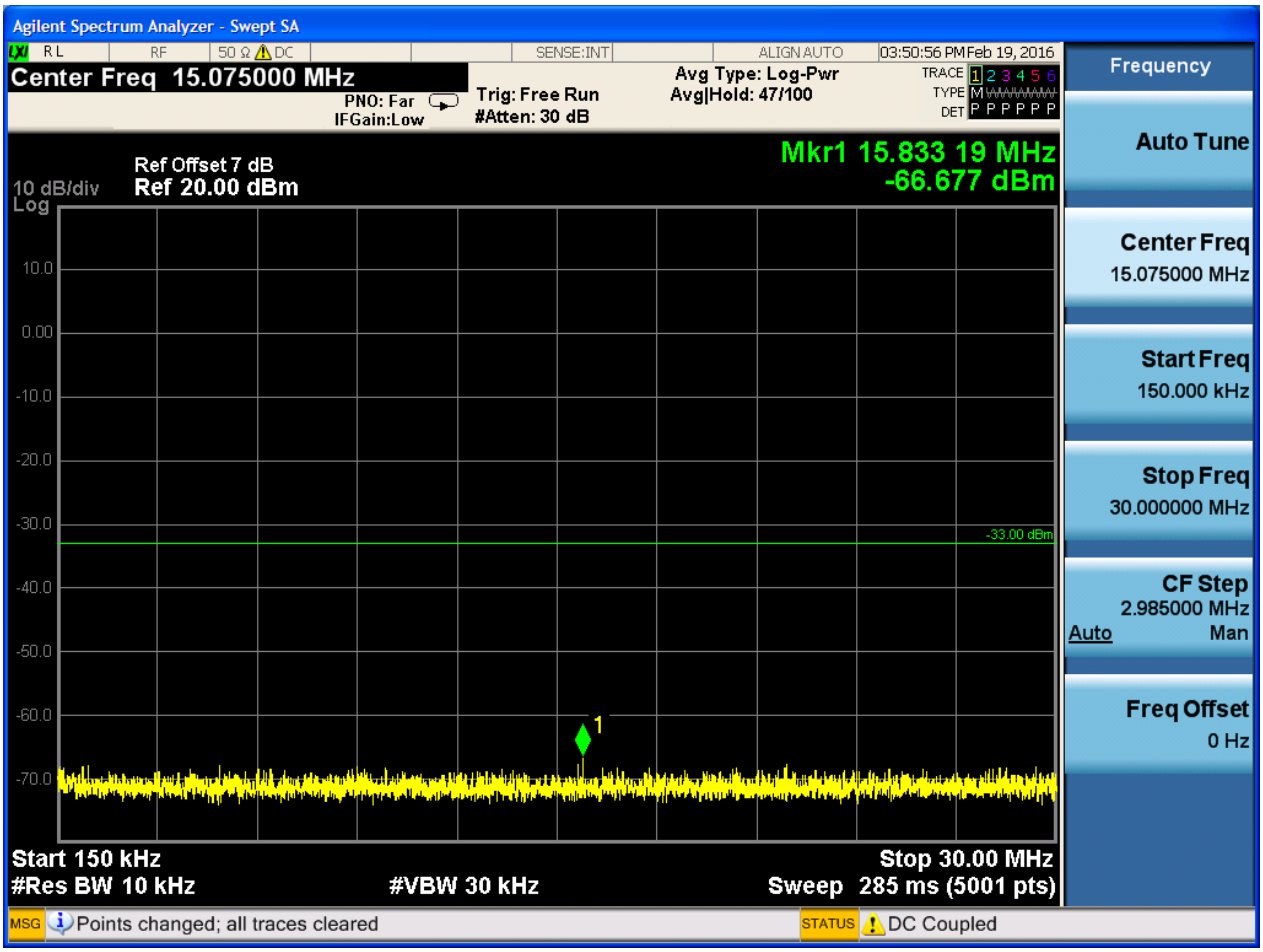


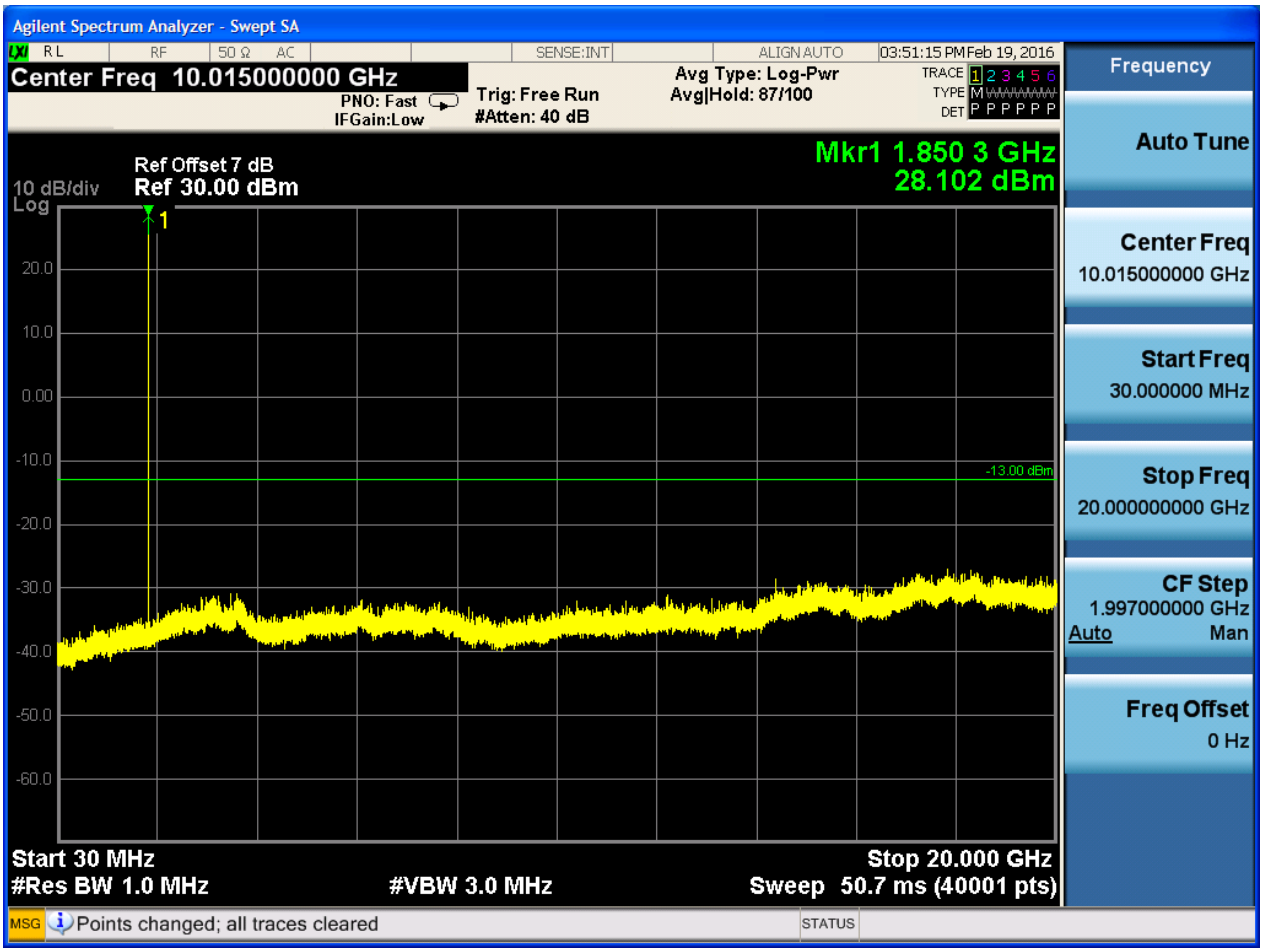


6.1.2.2 Test Mode = GSM/TM2

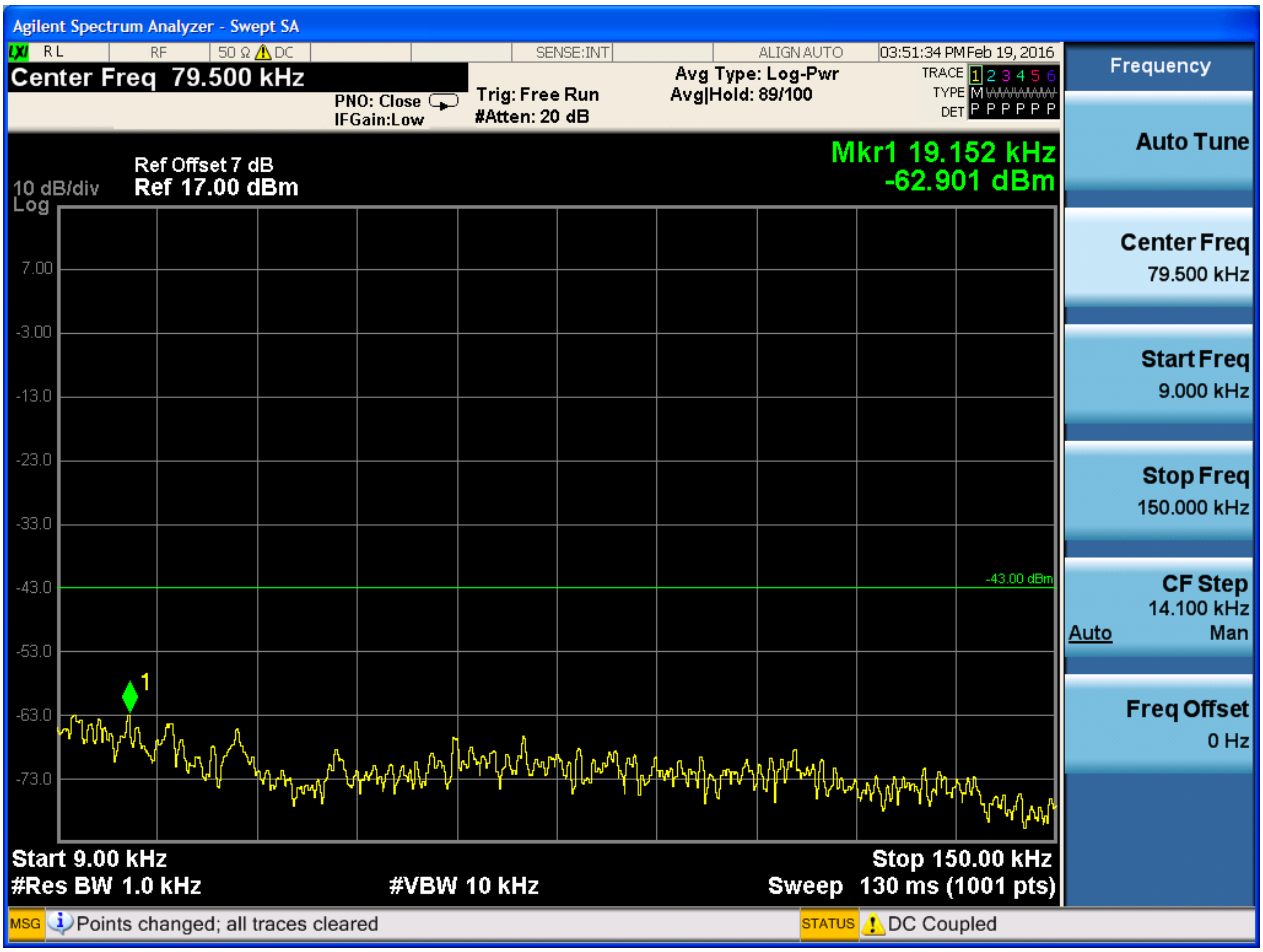
6.1.2.2.1 Test Channel = LCH

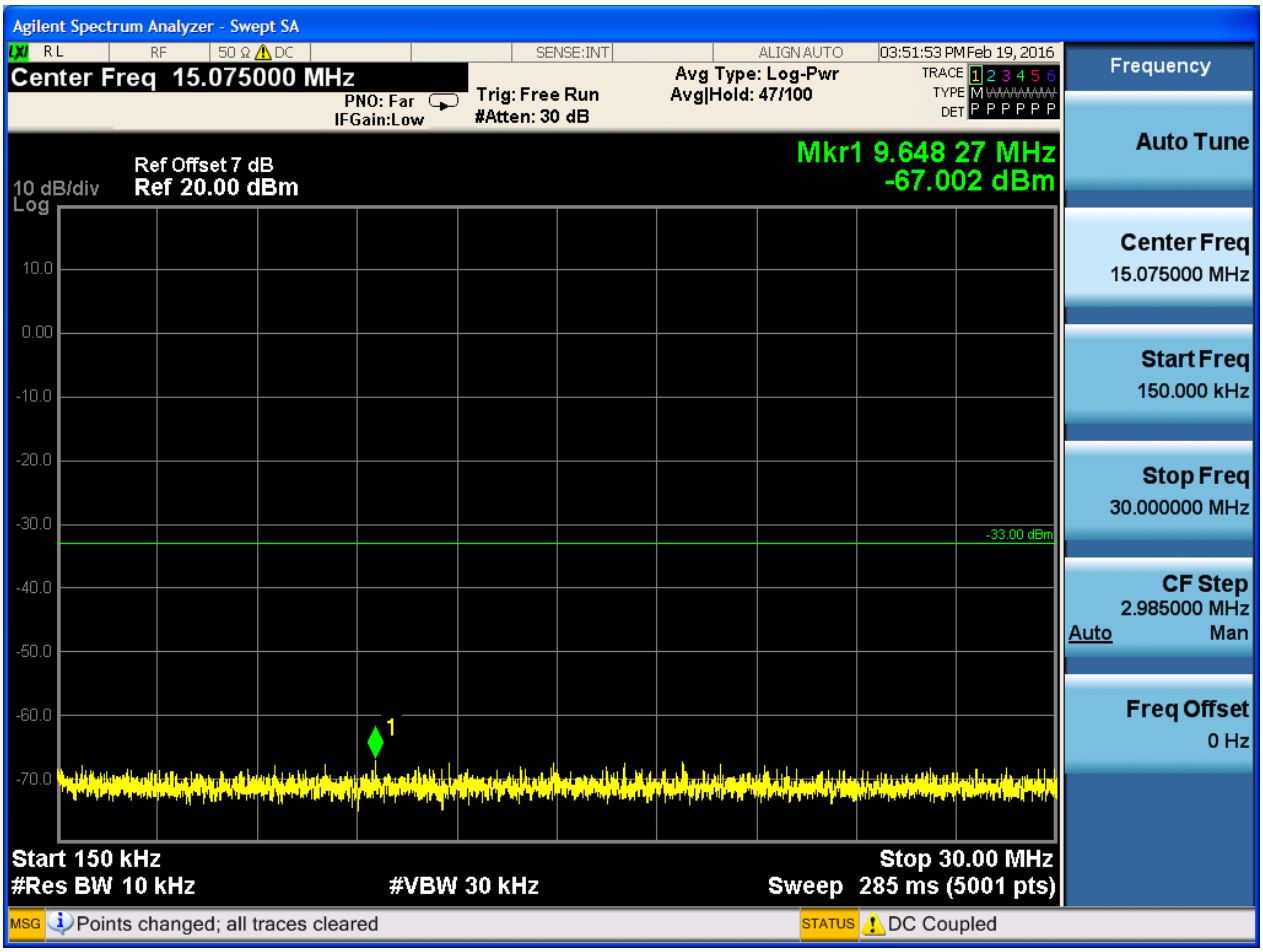


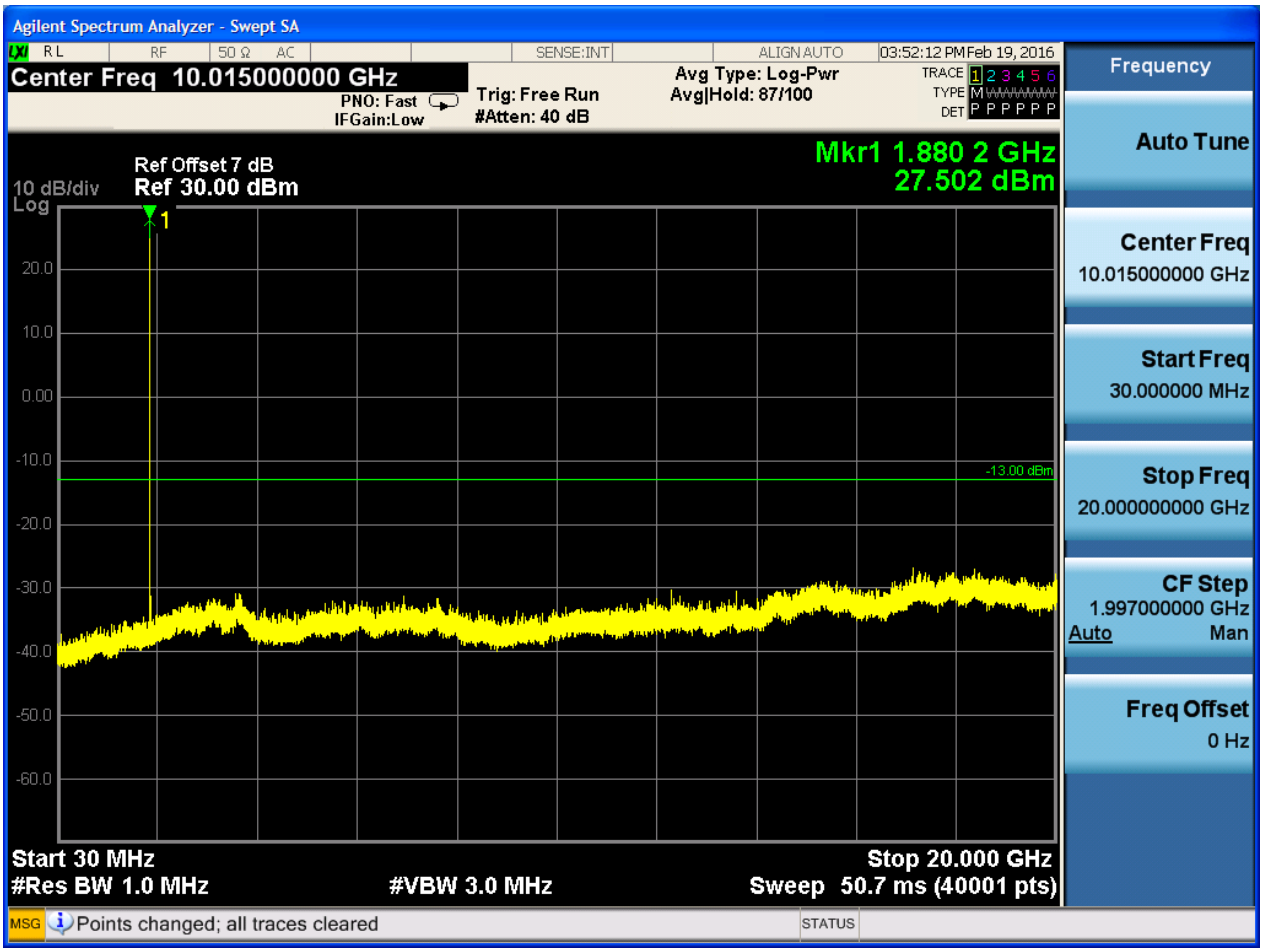




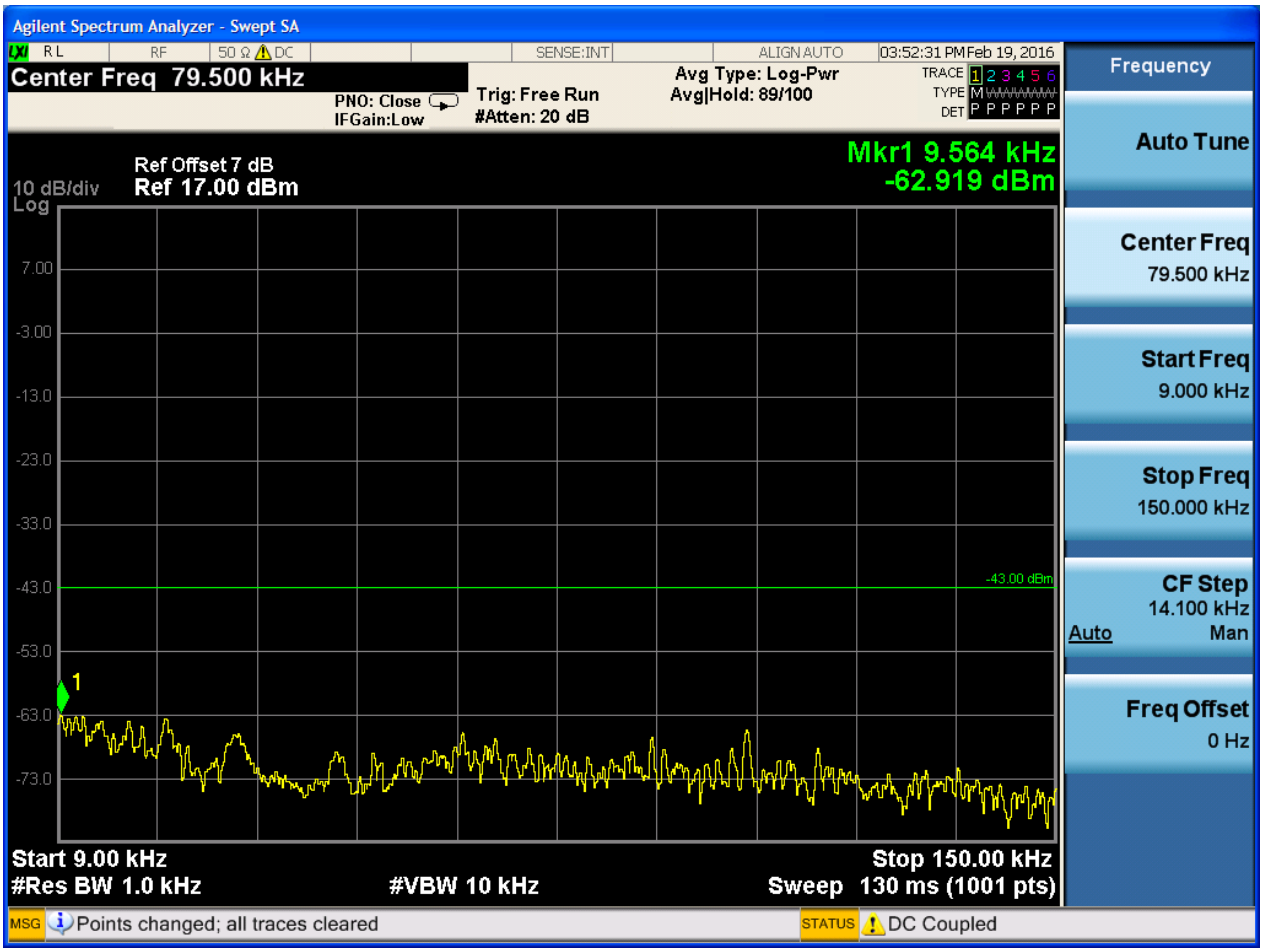
6.1.2.2.2 Test Channel = MCH

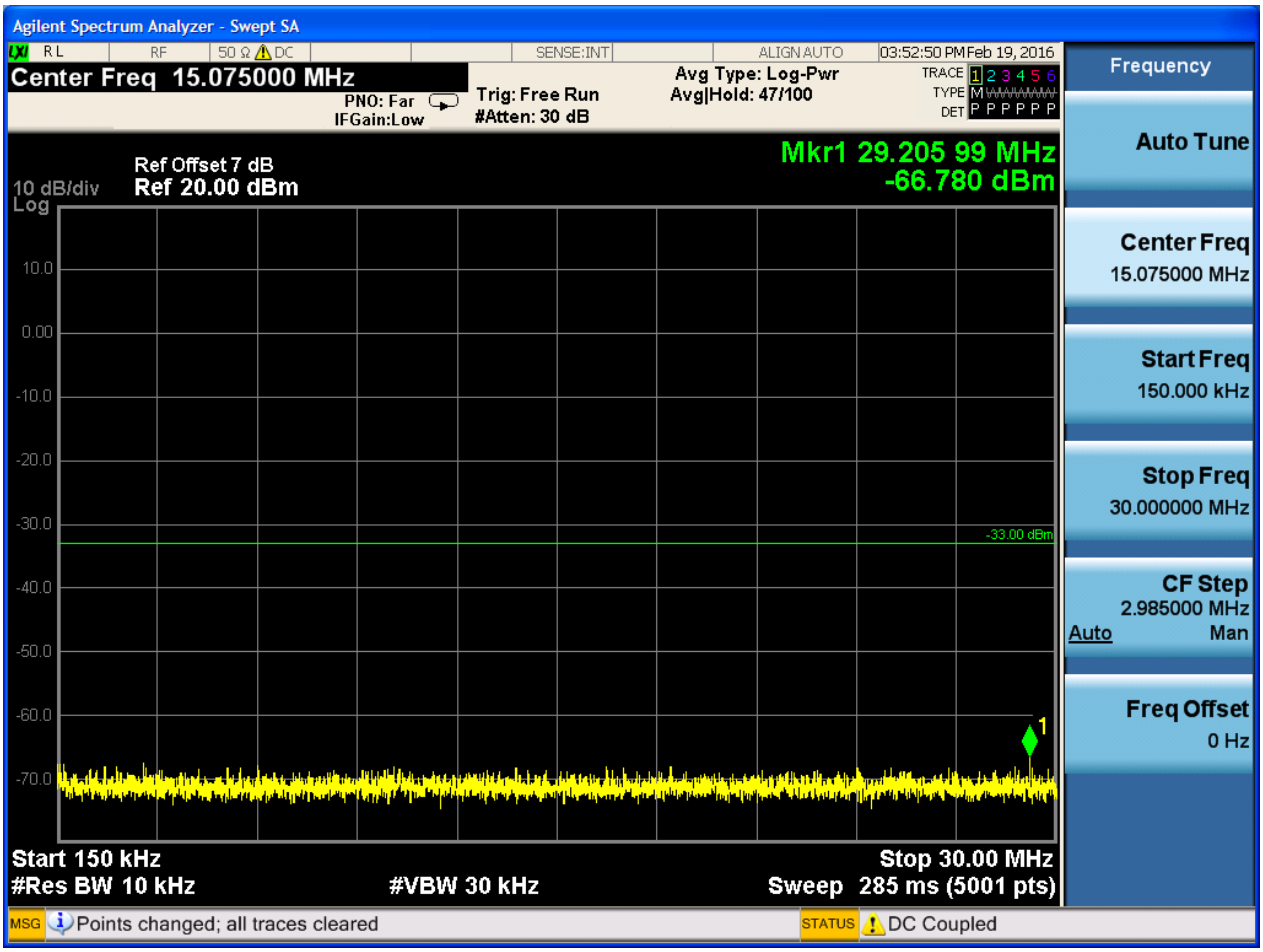


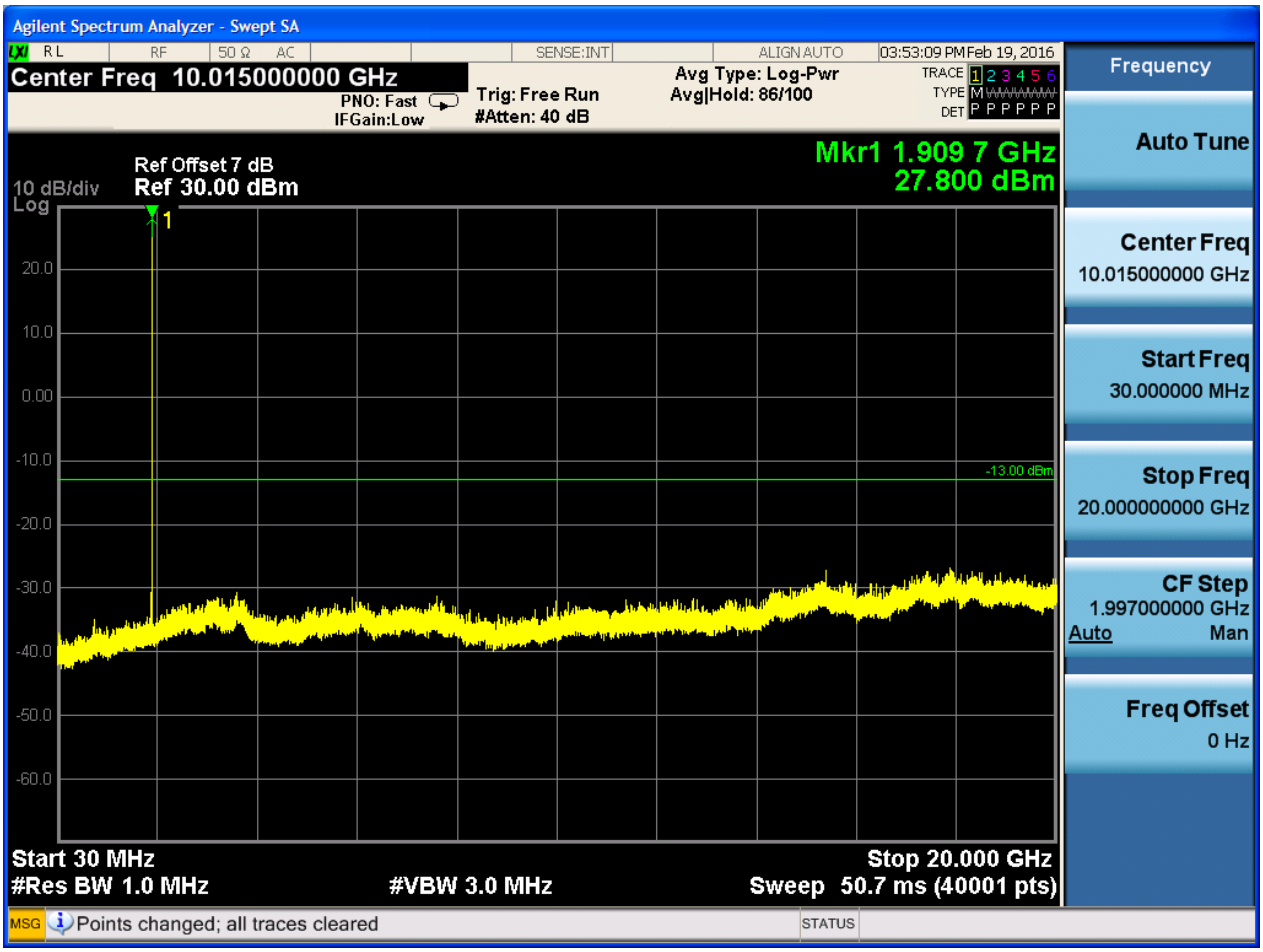




6.1.2.2.3 Test Channel = HCH





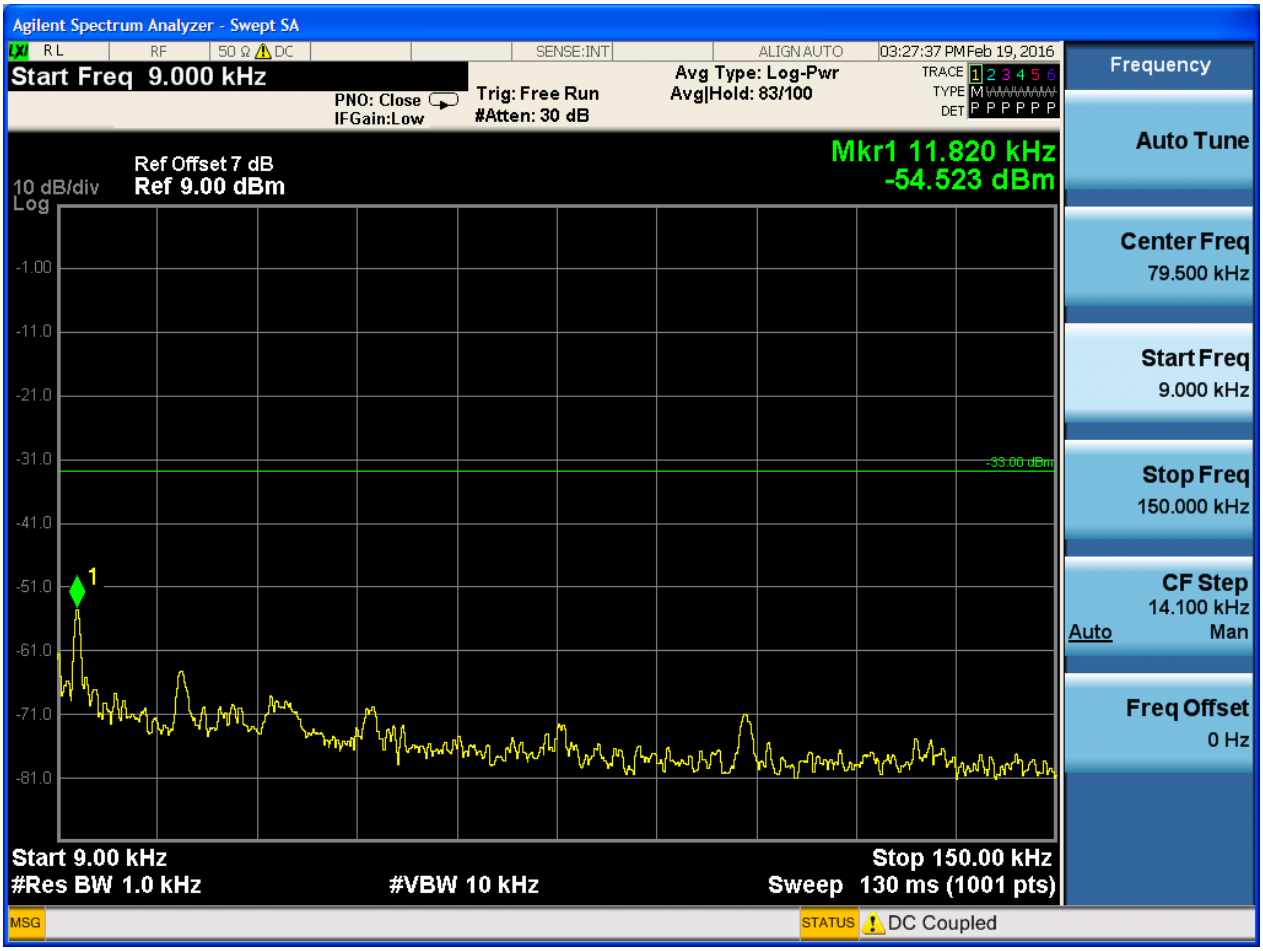


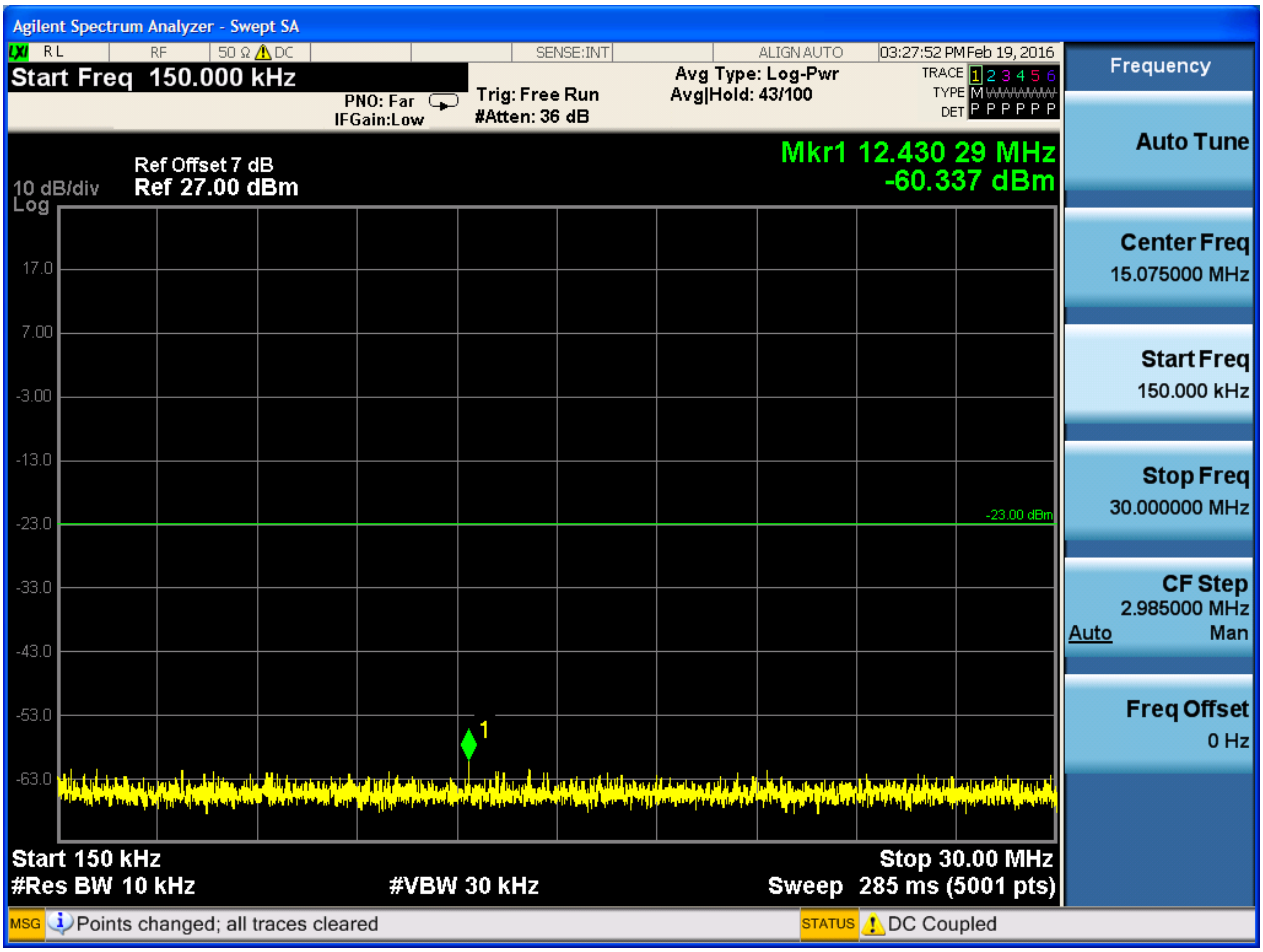
6.2 For UMTS

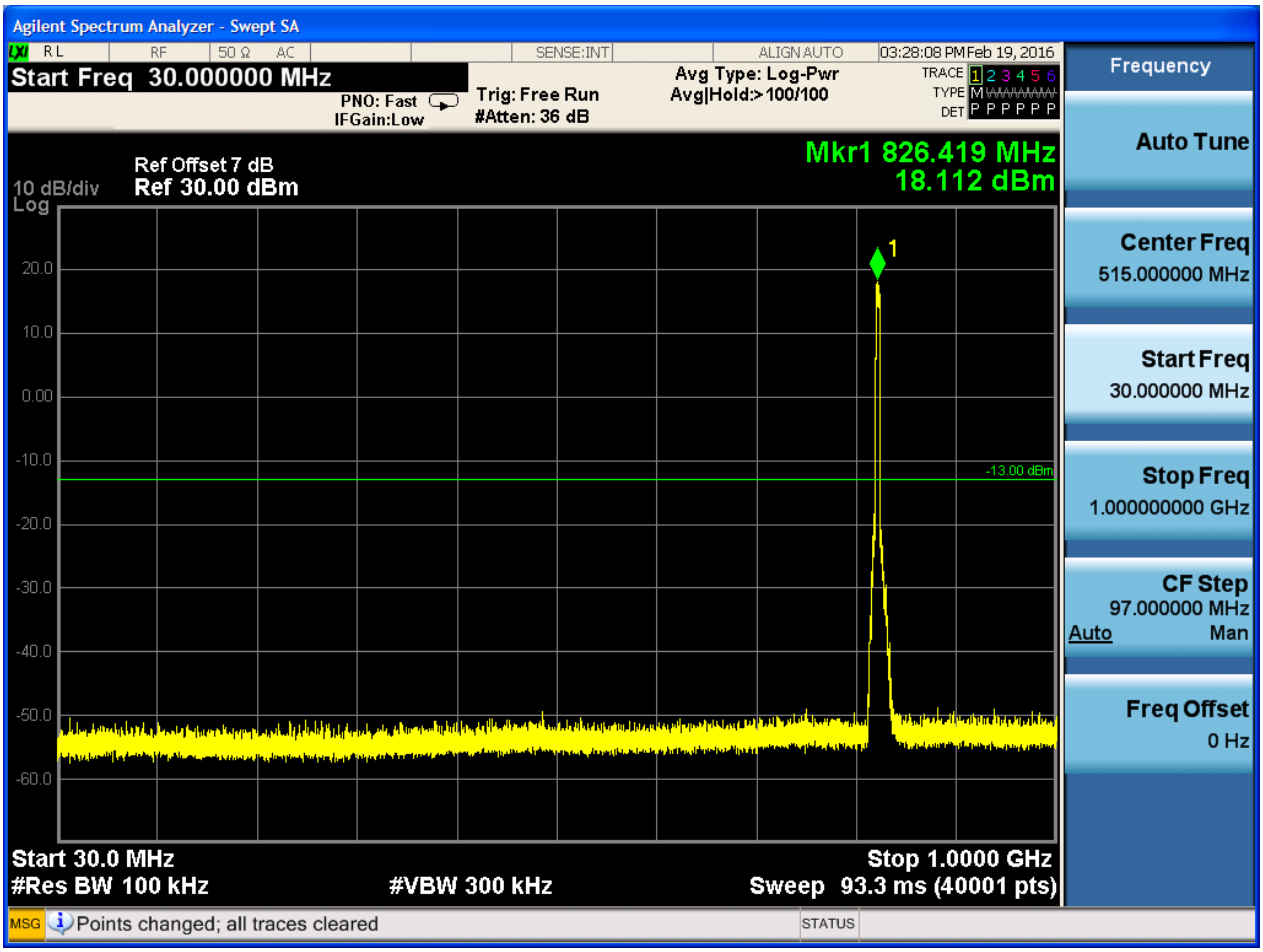
6.2.1 Test Band = WCDMA850

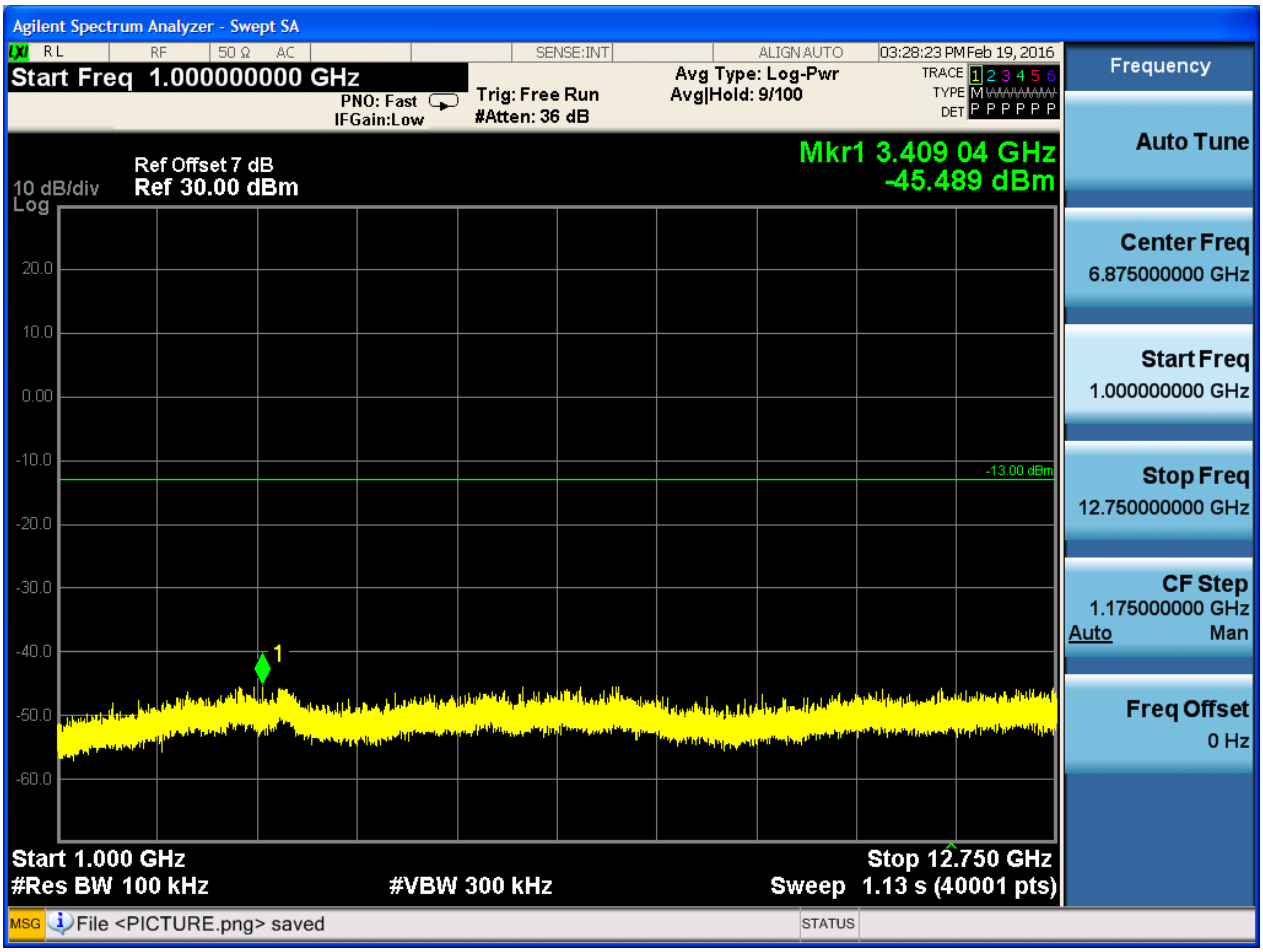
6.2.1.1 Test Mode = UMTS/TM1

6.2.1.1.1 Test Channel = LCH

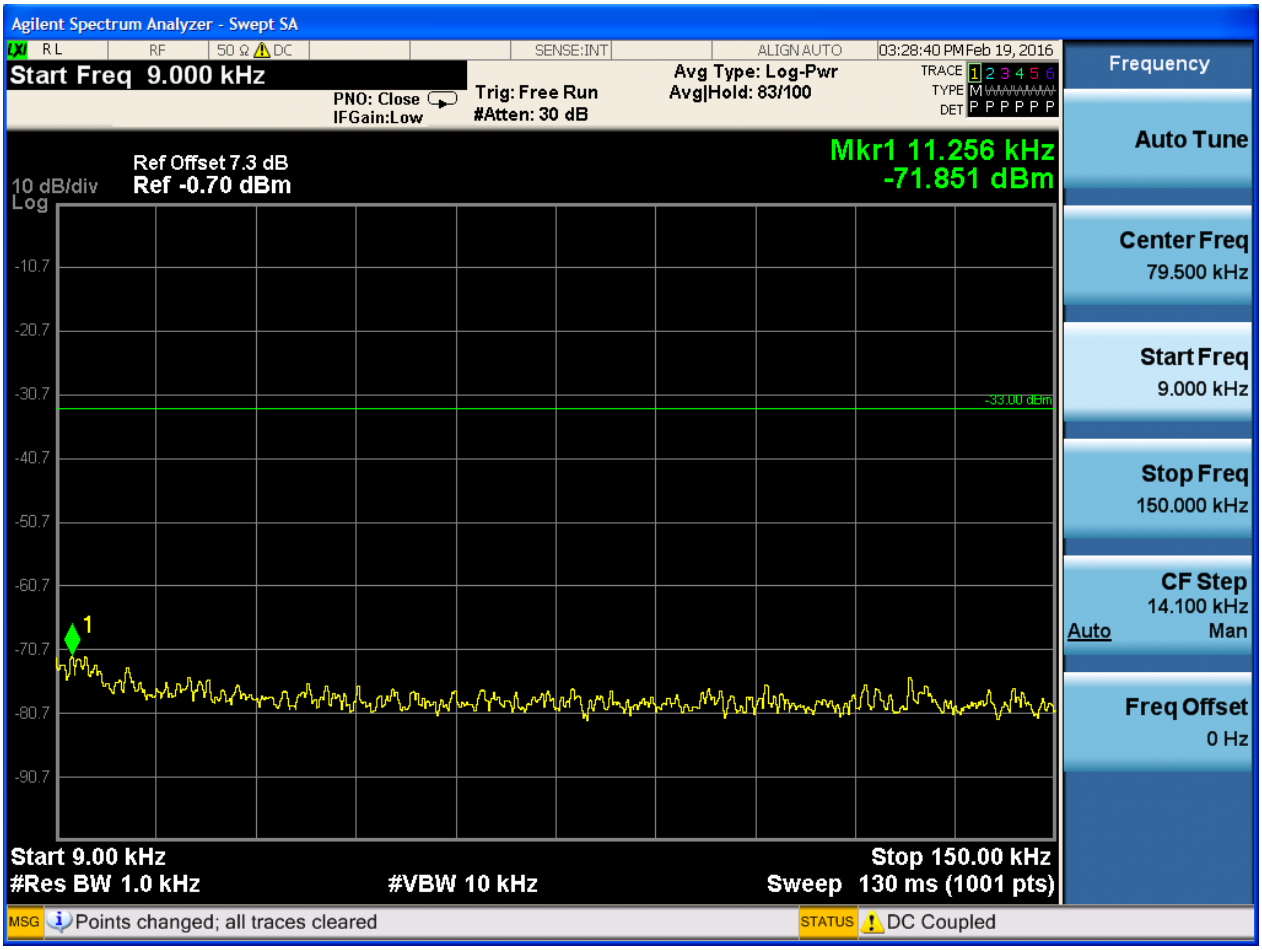


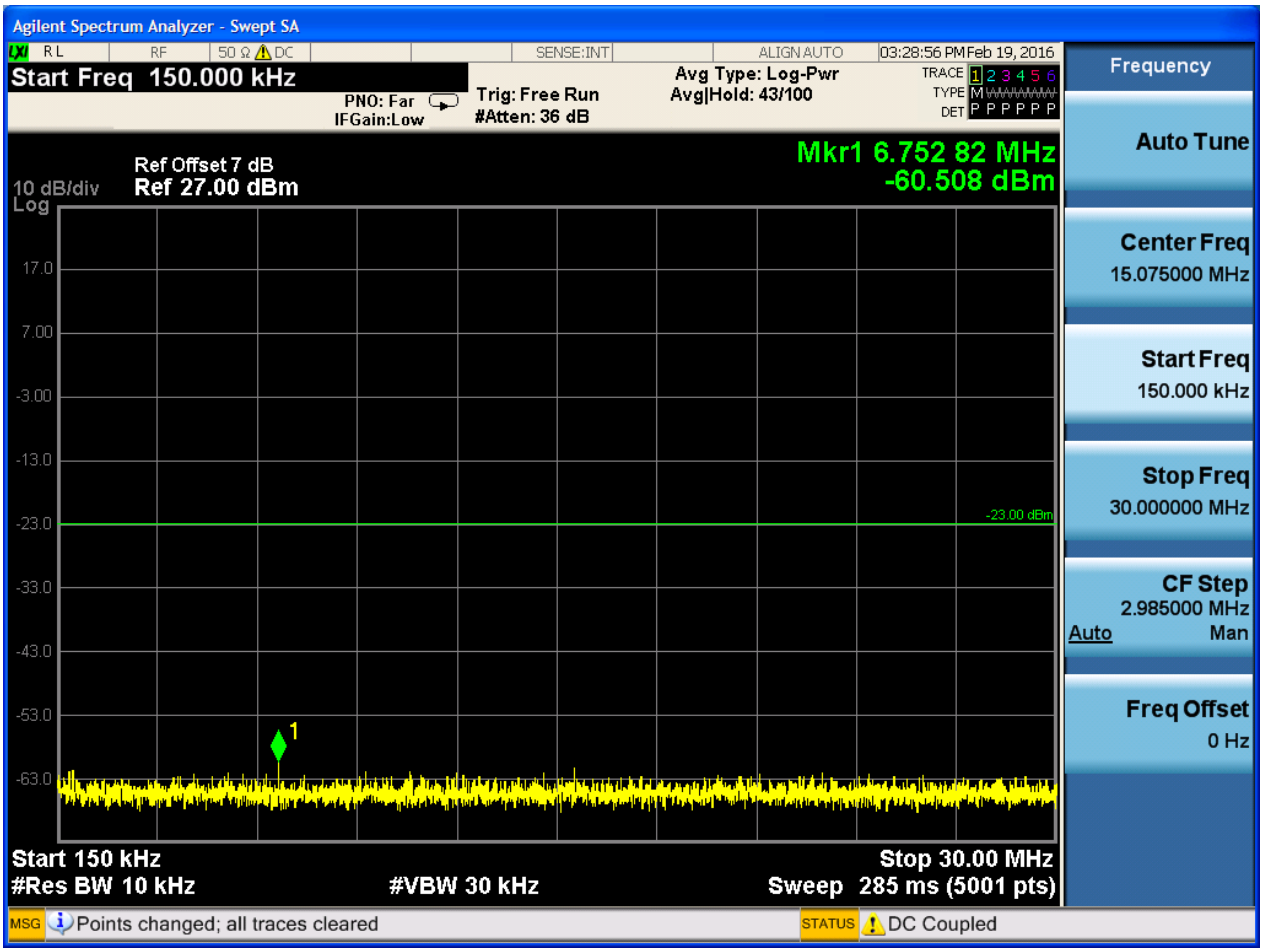


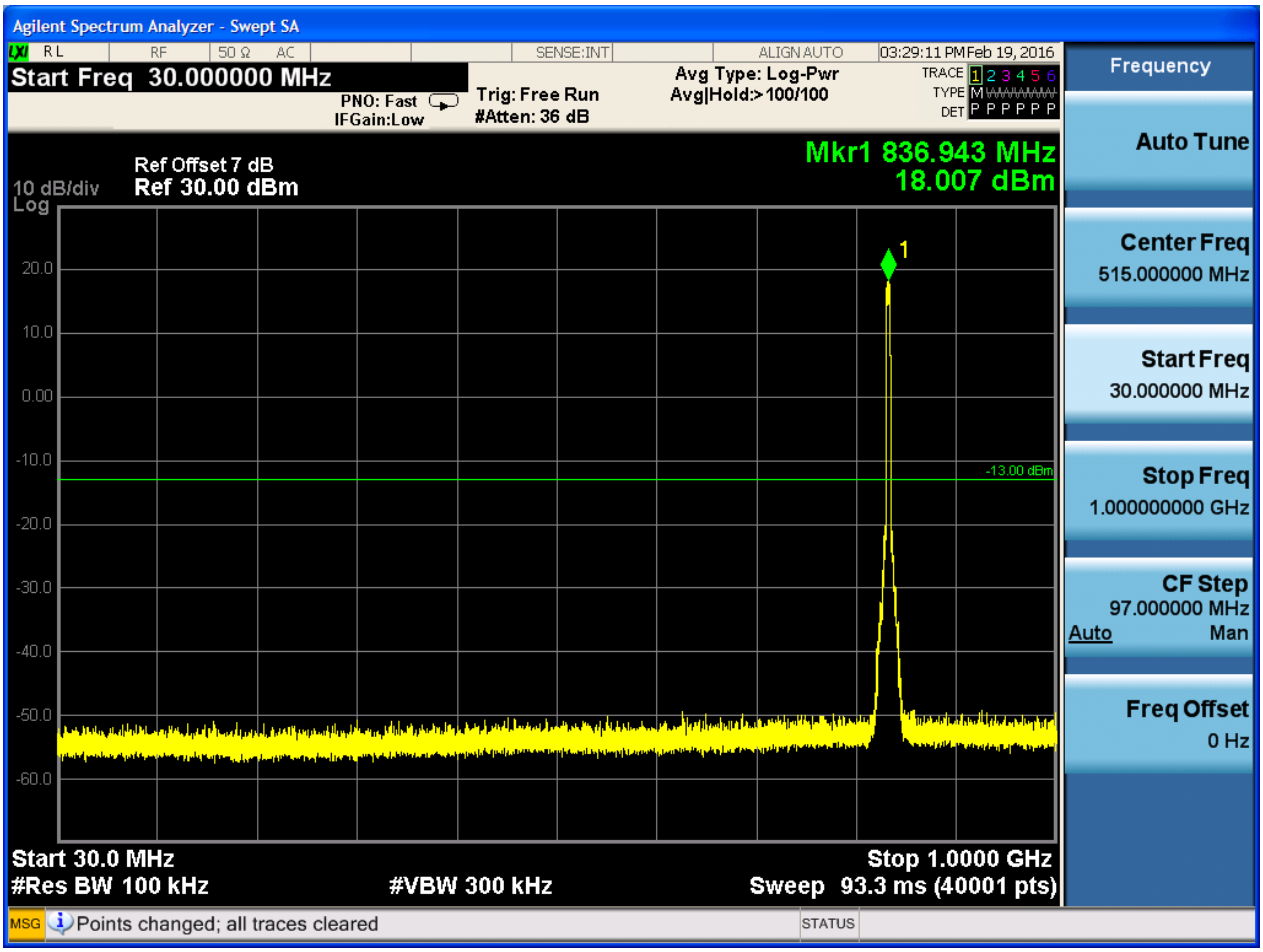


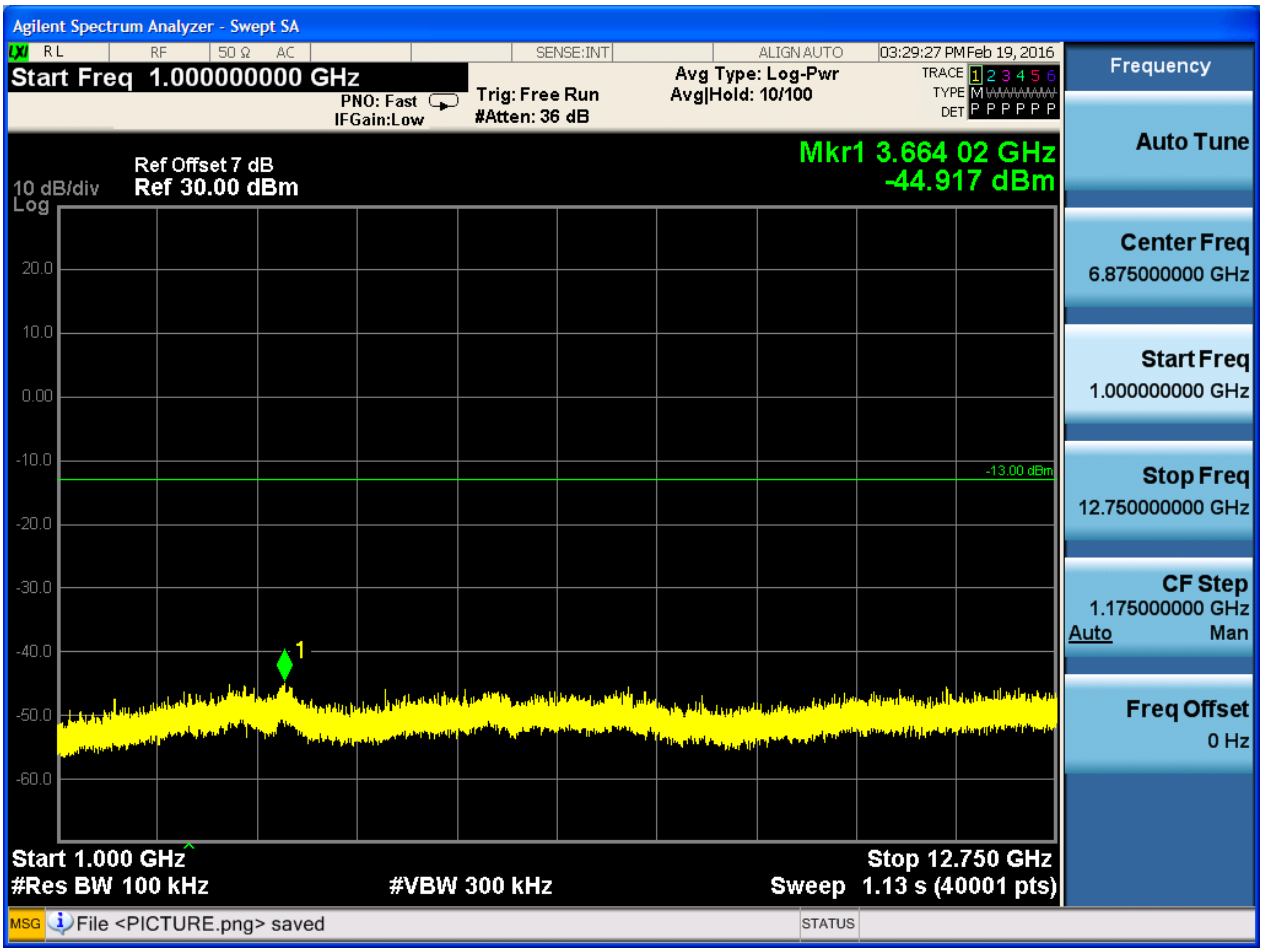


6.2.1.1.2 Test Channel = MCH

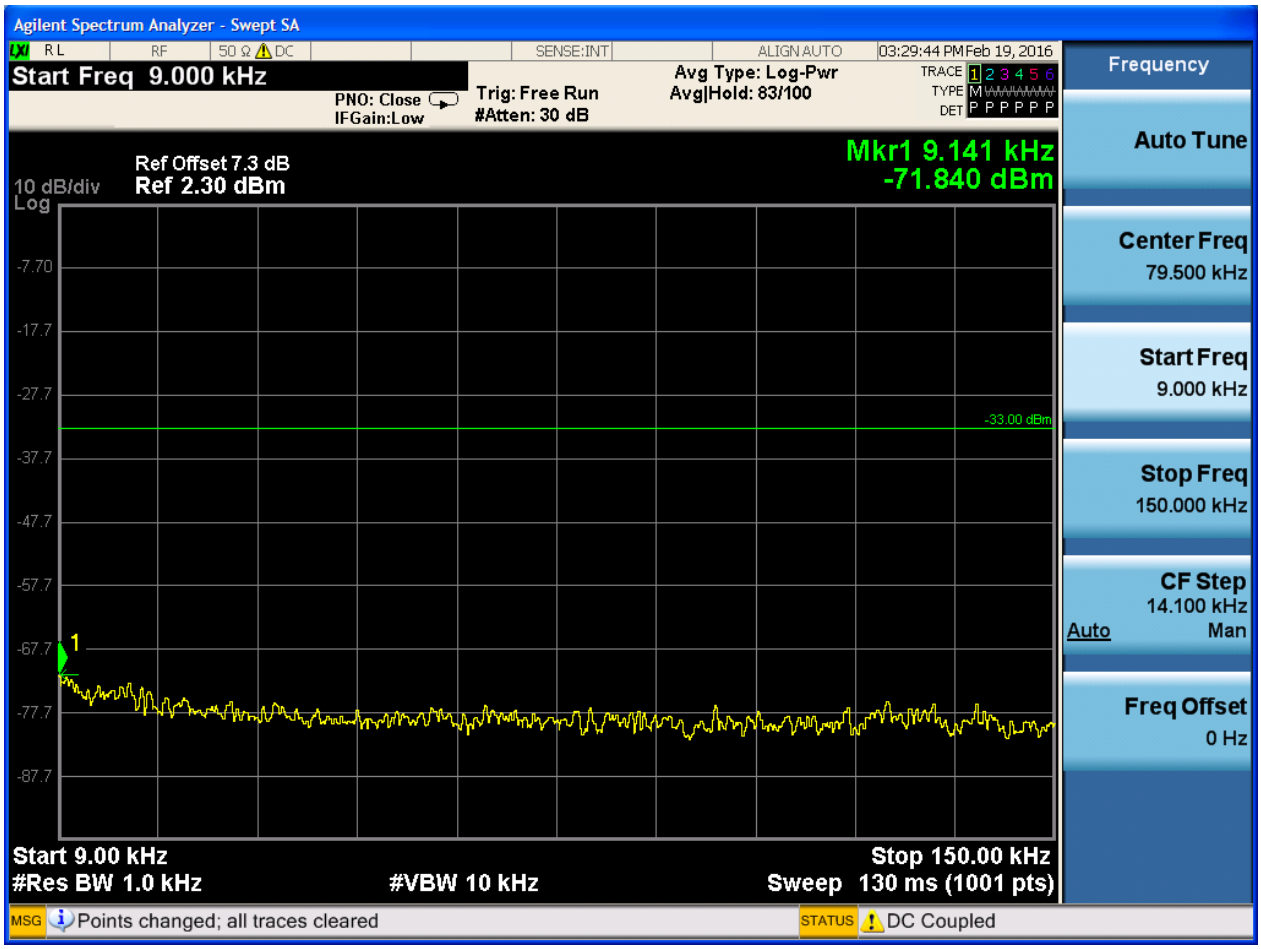


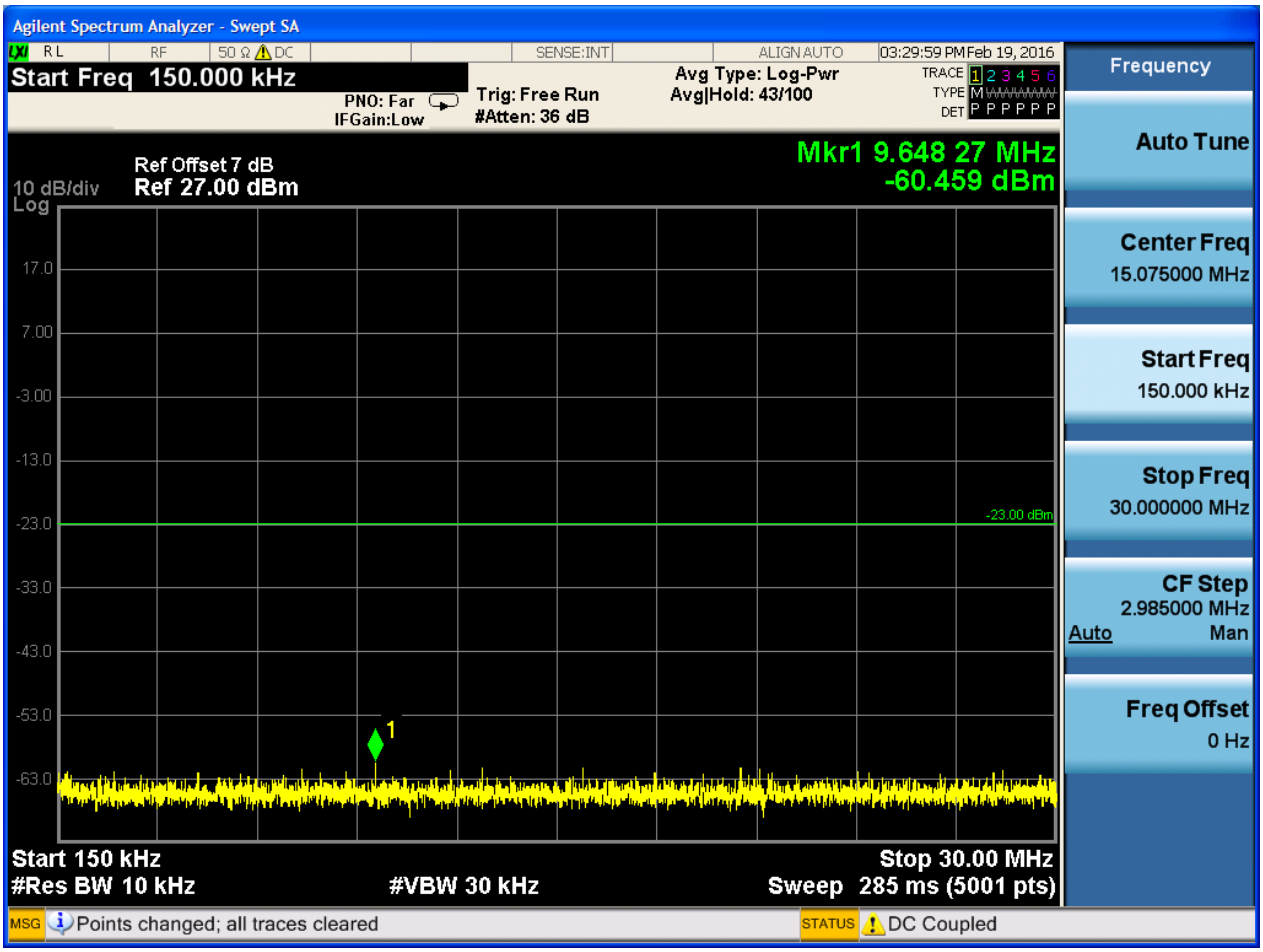


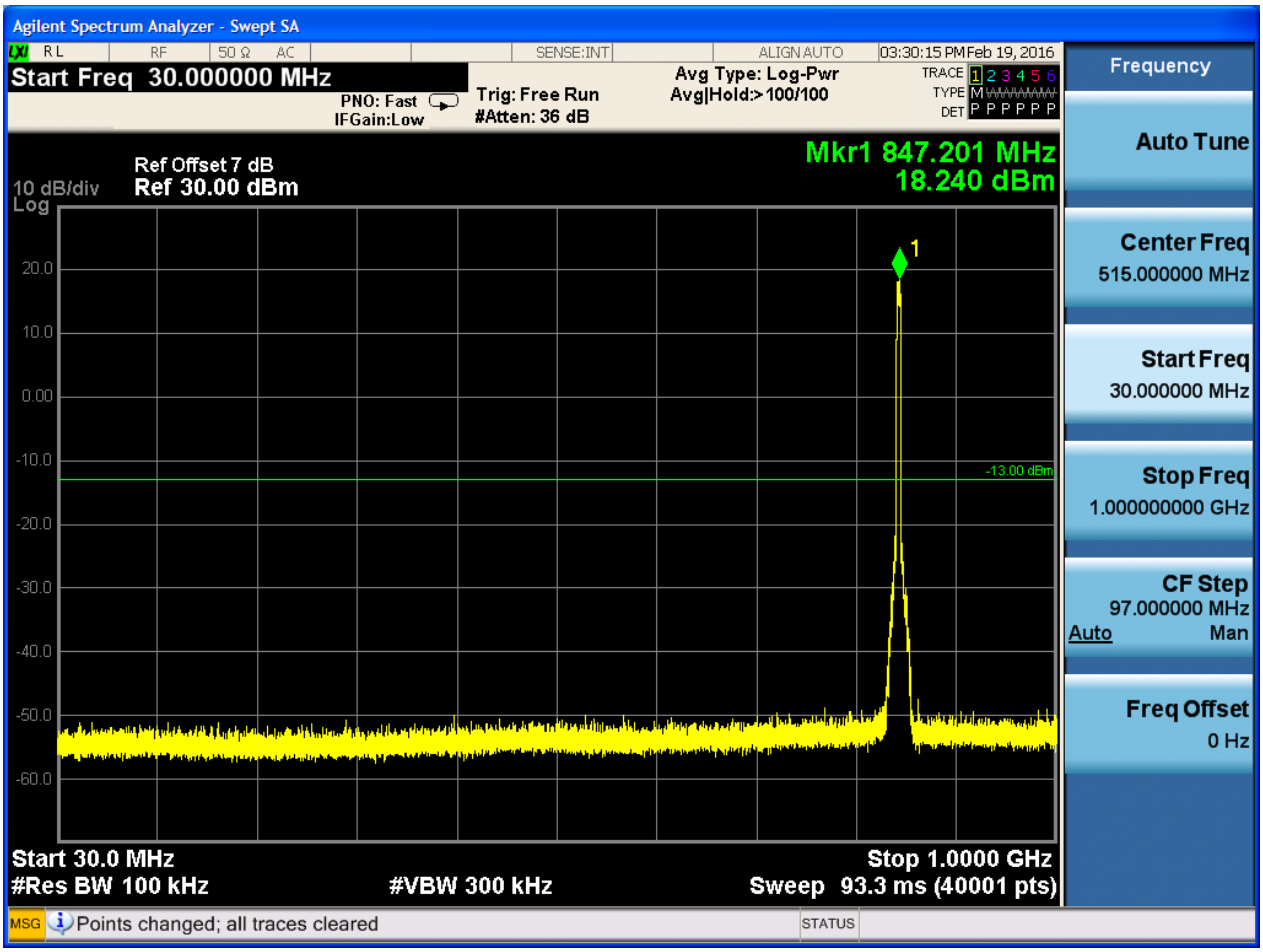


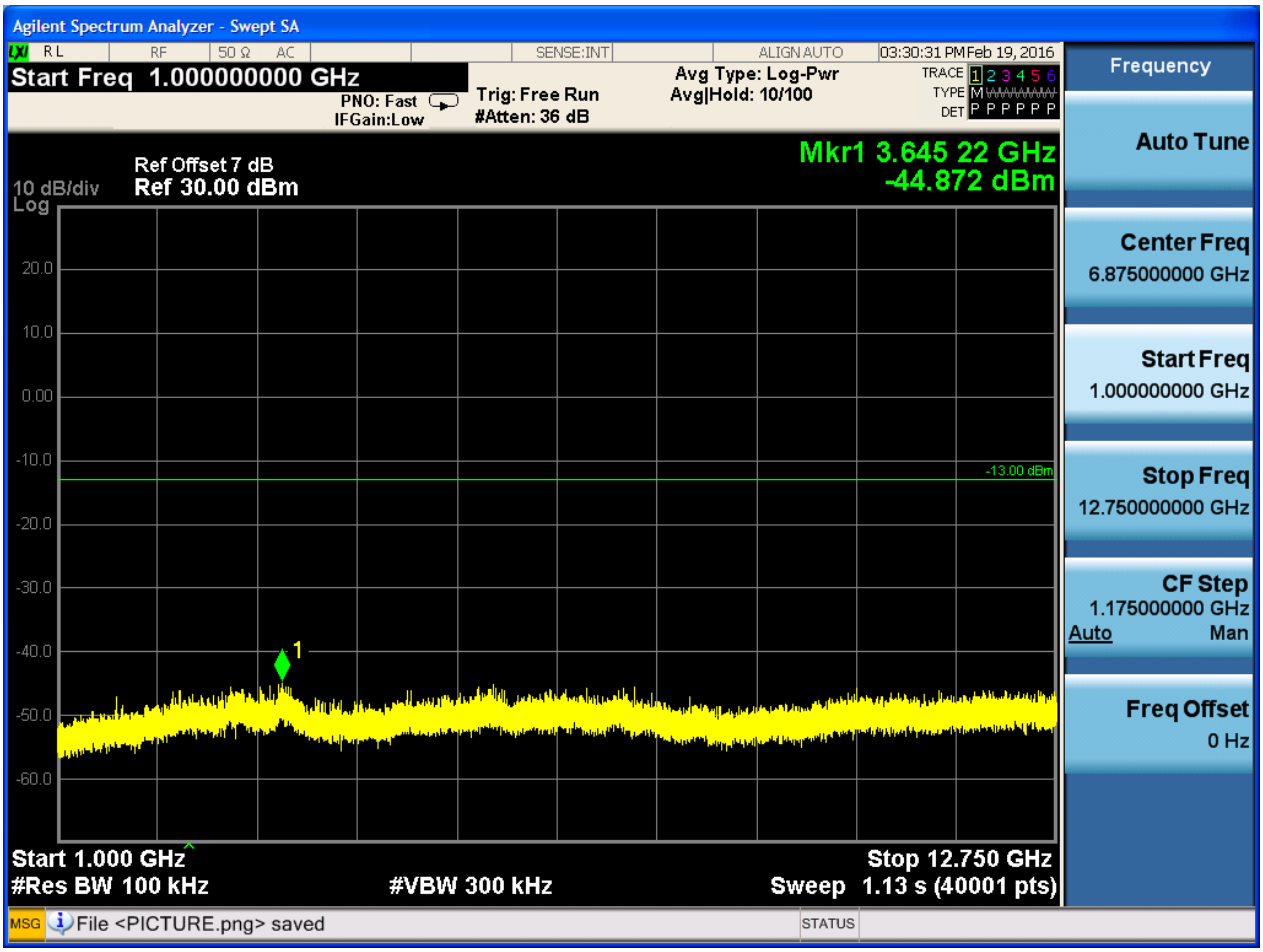


6.2.1.1.3 Test Channel = HCH





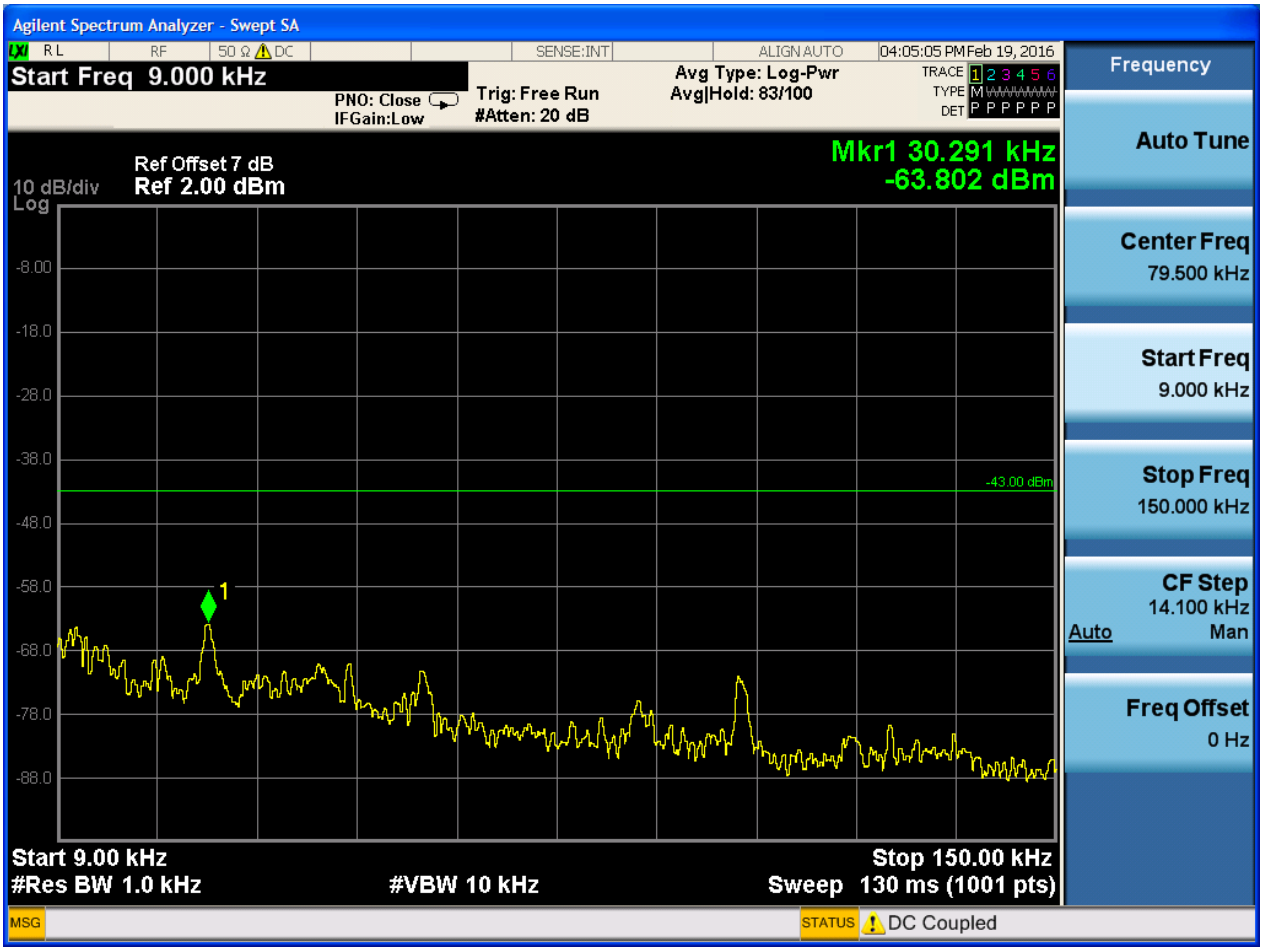


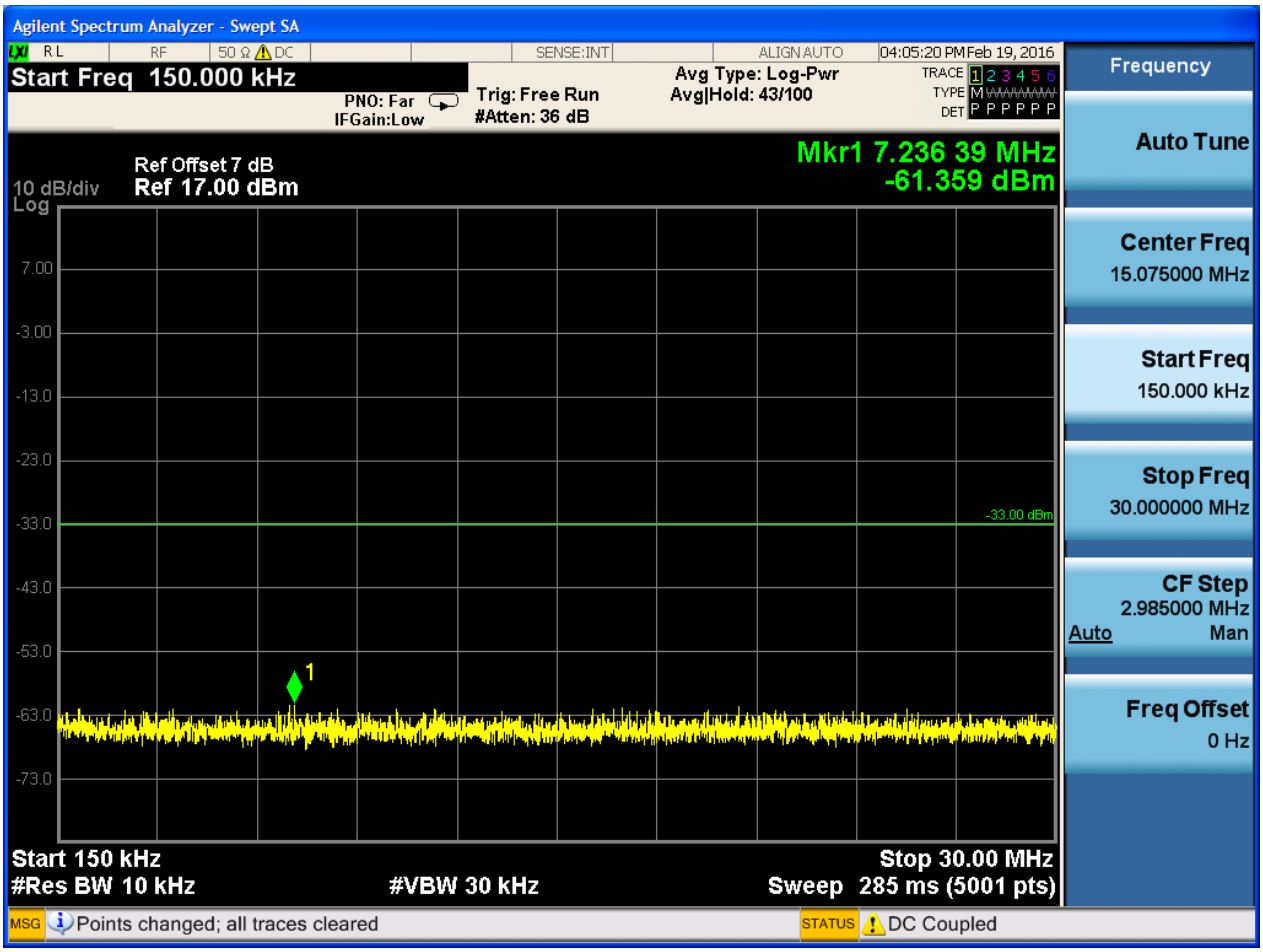


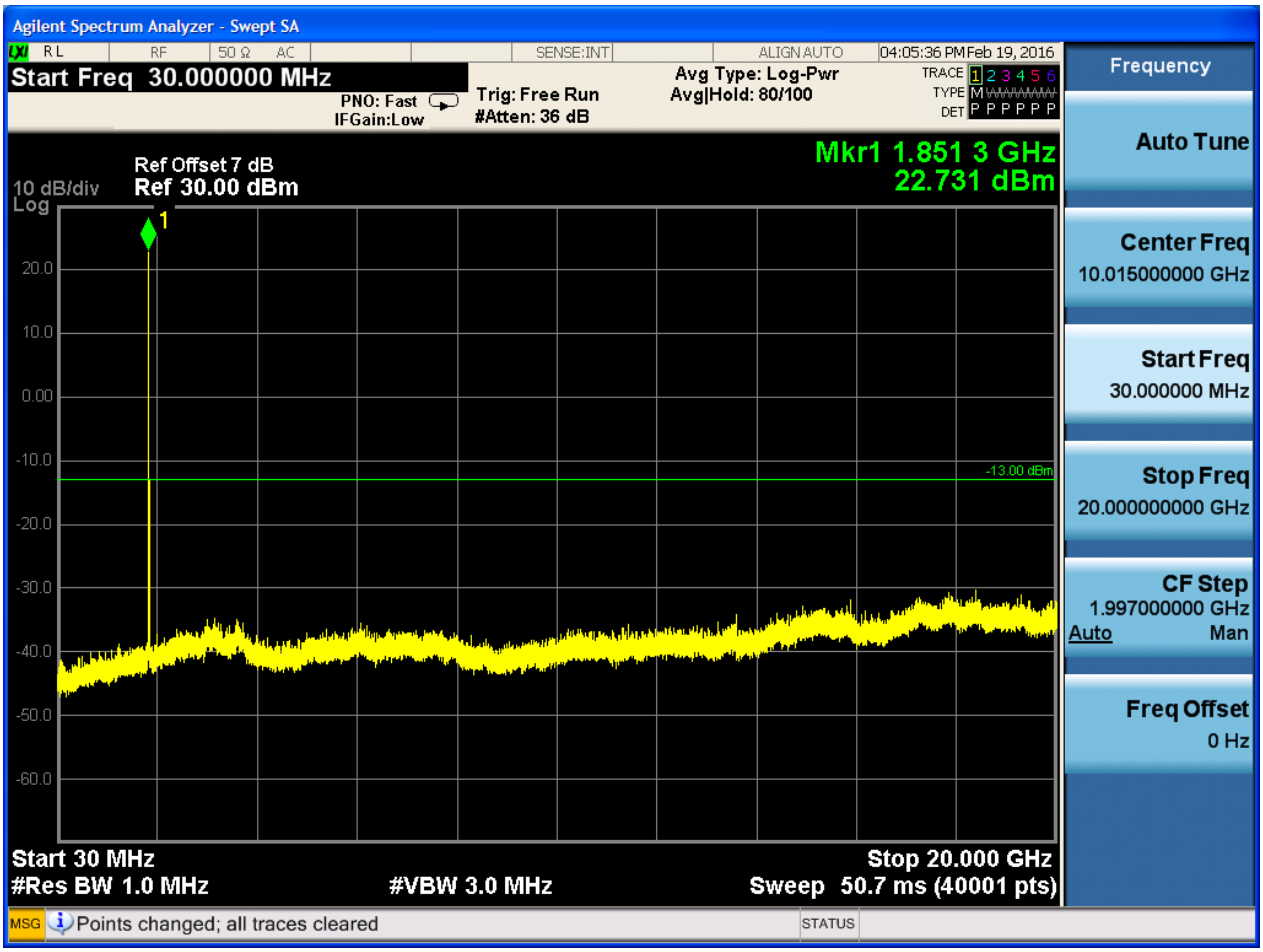
6.2.2 Test Band = WCDMA1900

6.2.2.1 Test Mode = UMTS/TM1

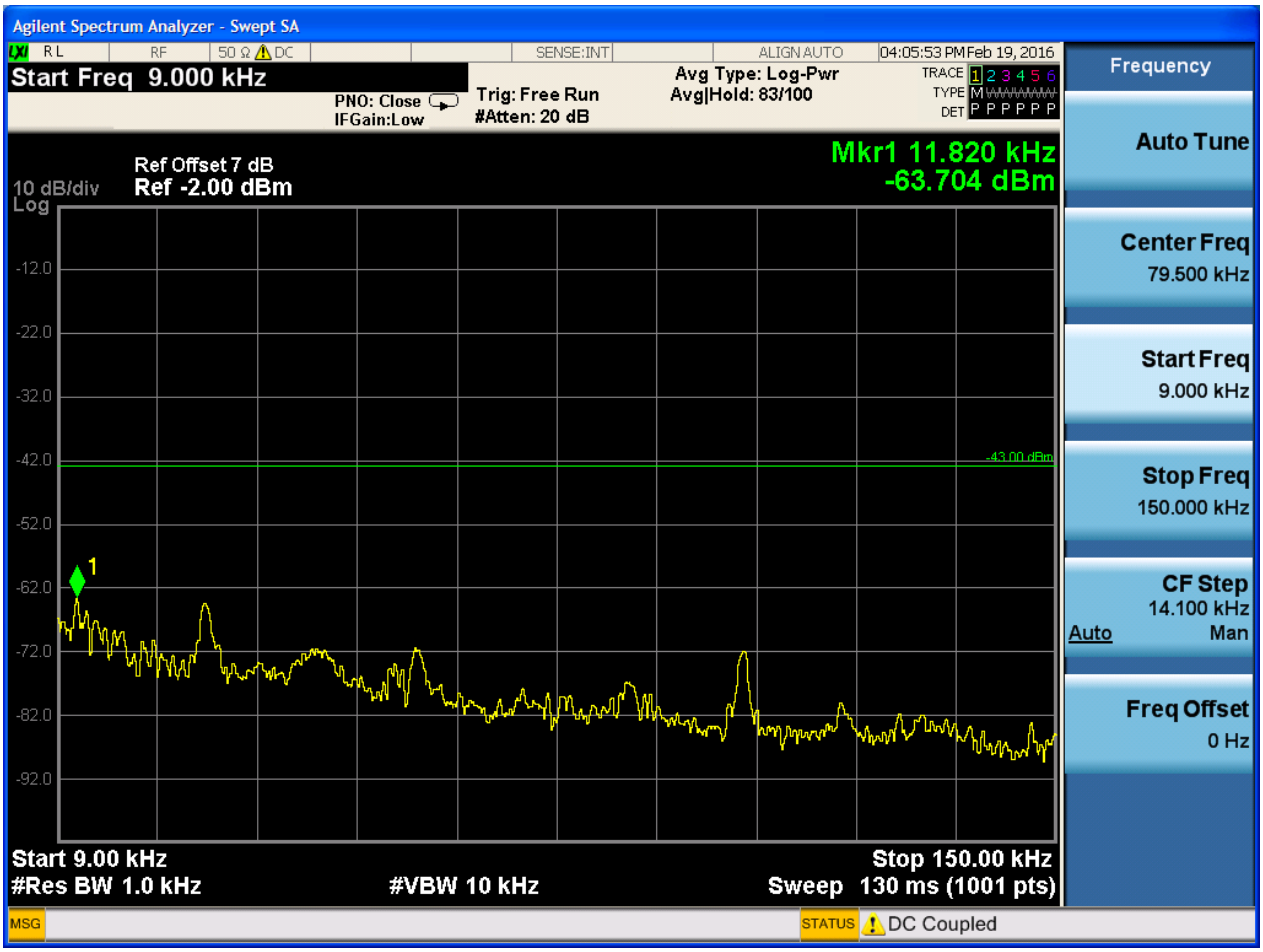
6.2.2.1.1 Test Channel = LCH

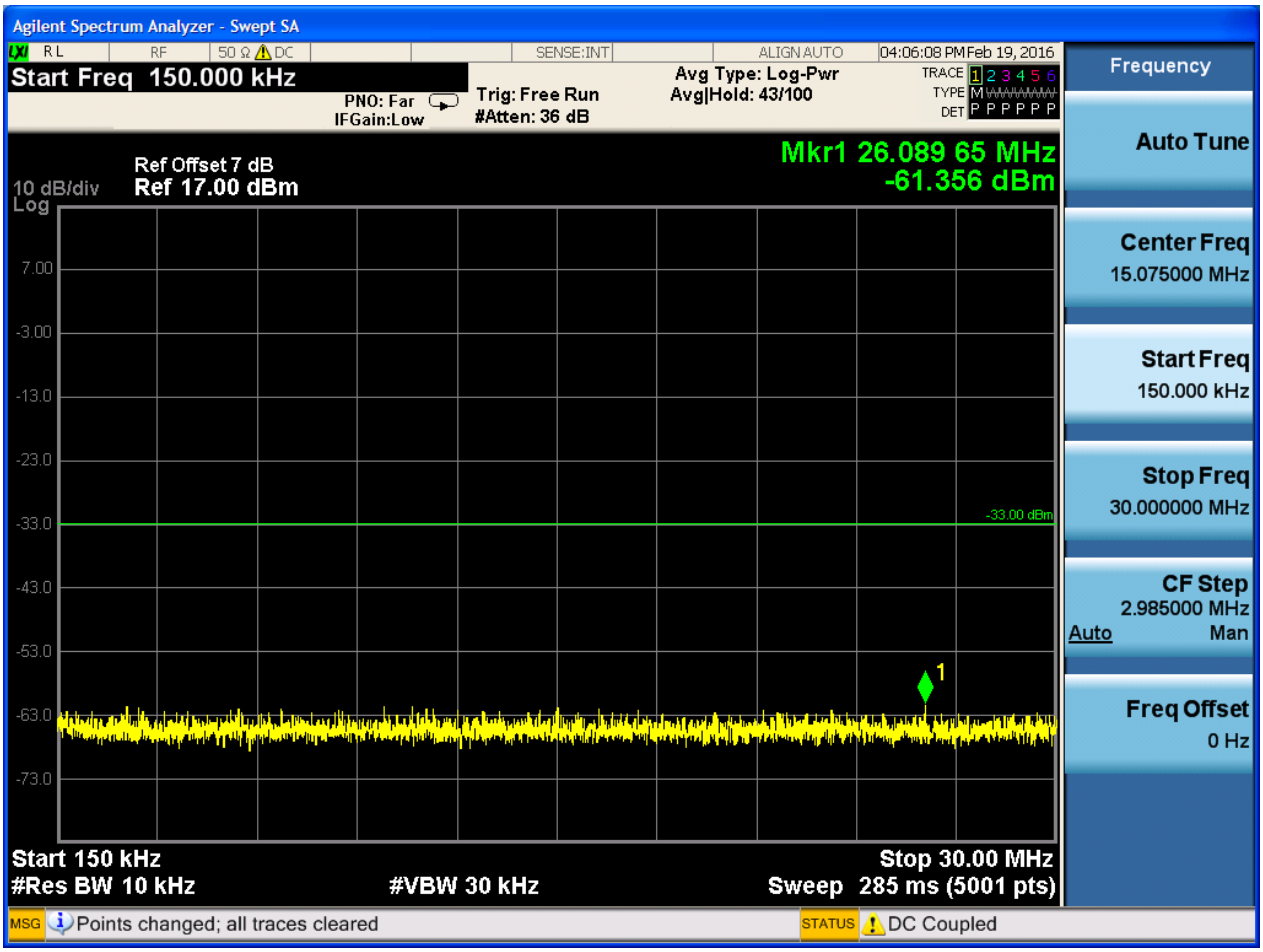


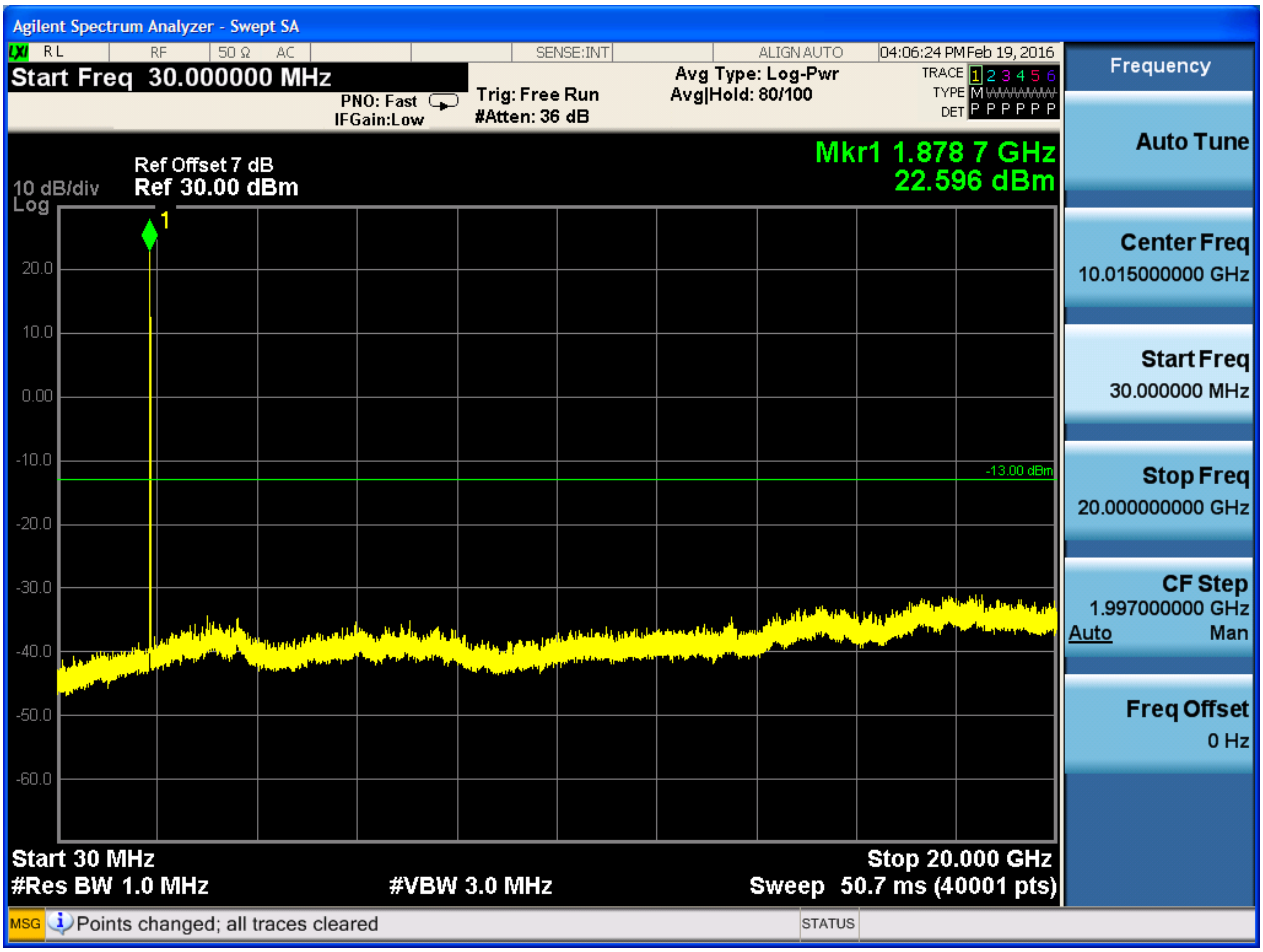




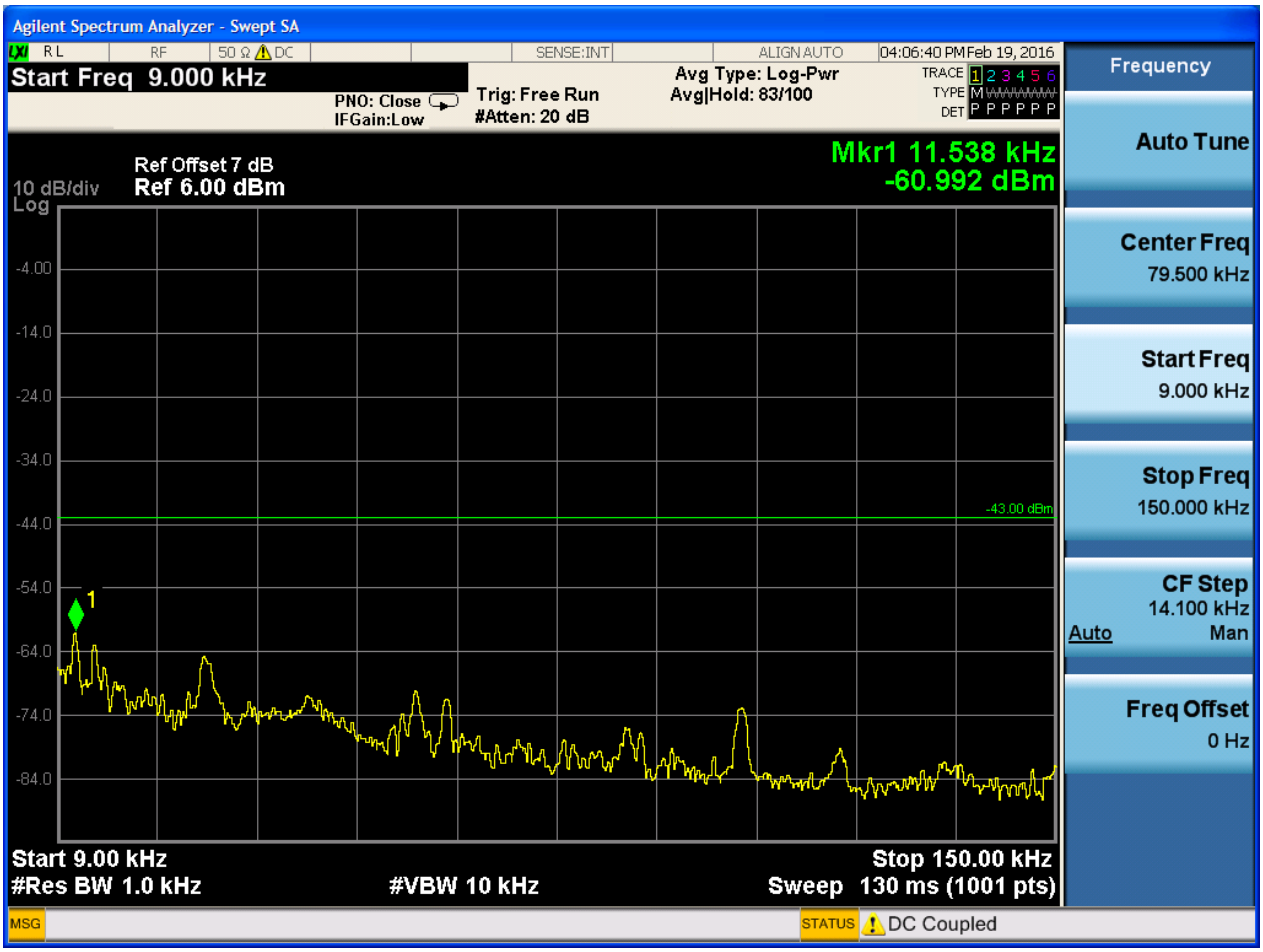
6.2.2.1.2 Test Channel = MCH

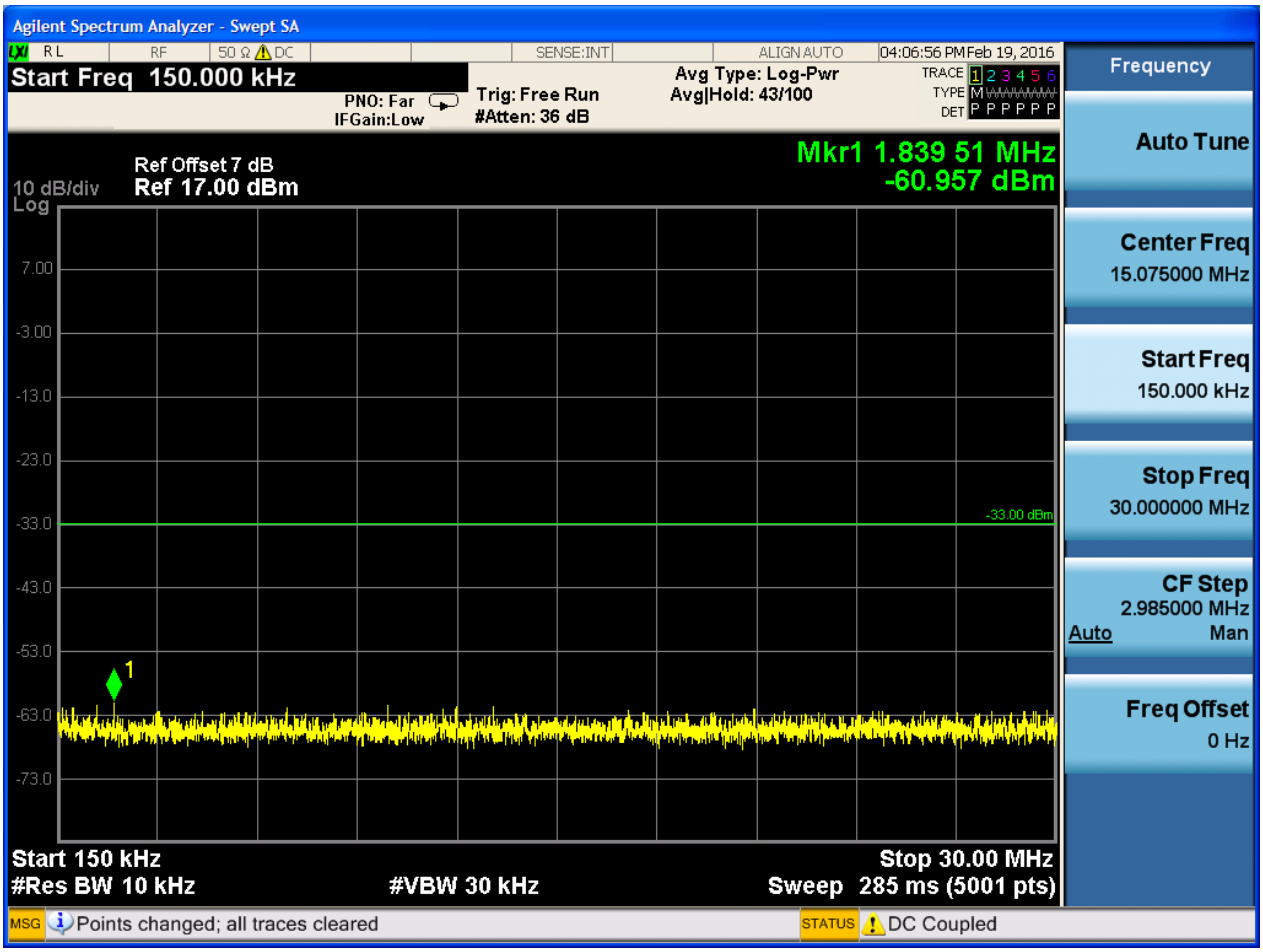


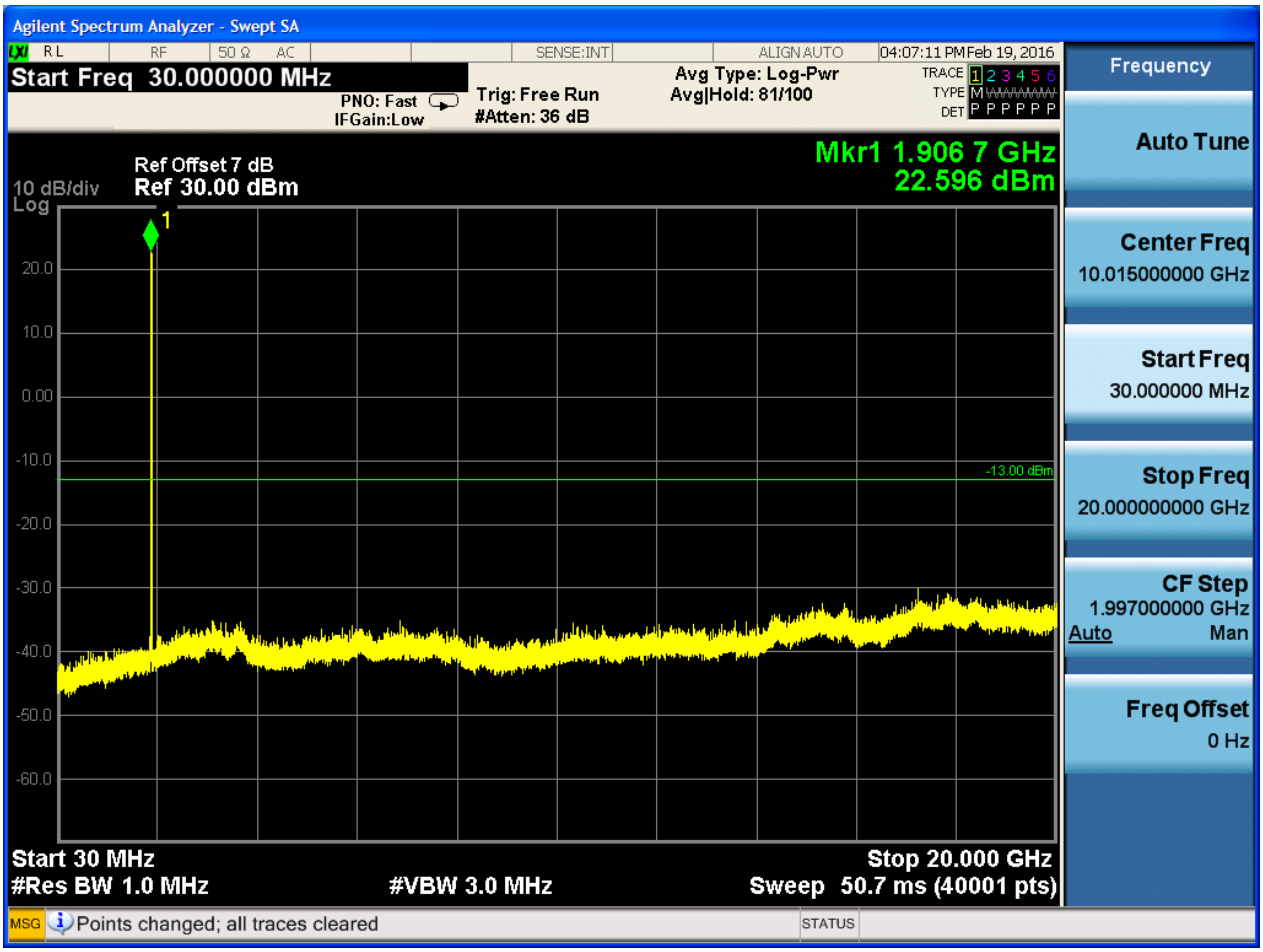




6.2.2.1.3 Test Channel = HCH



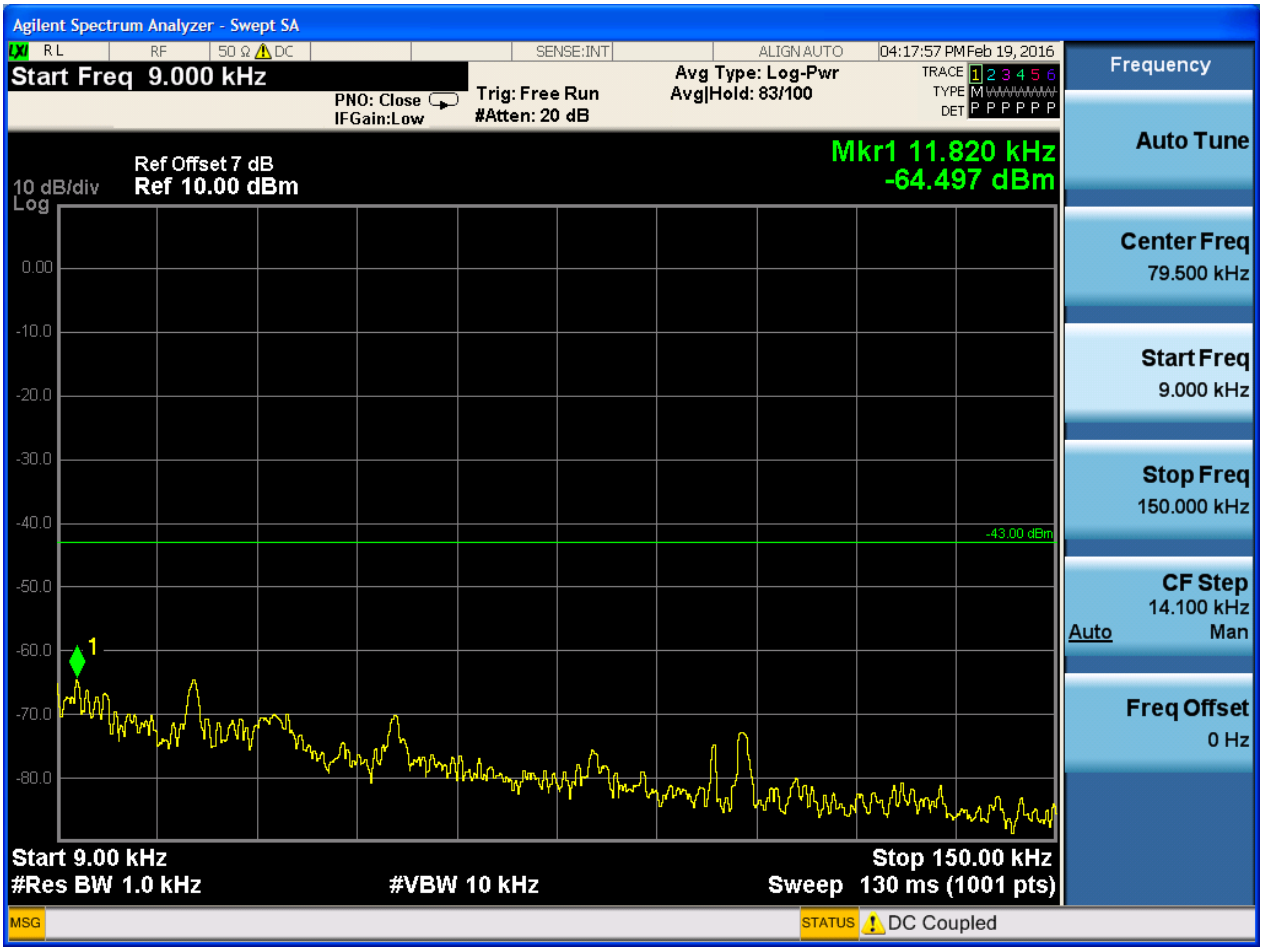


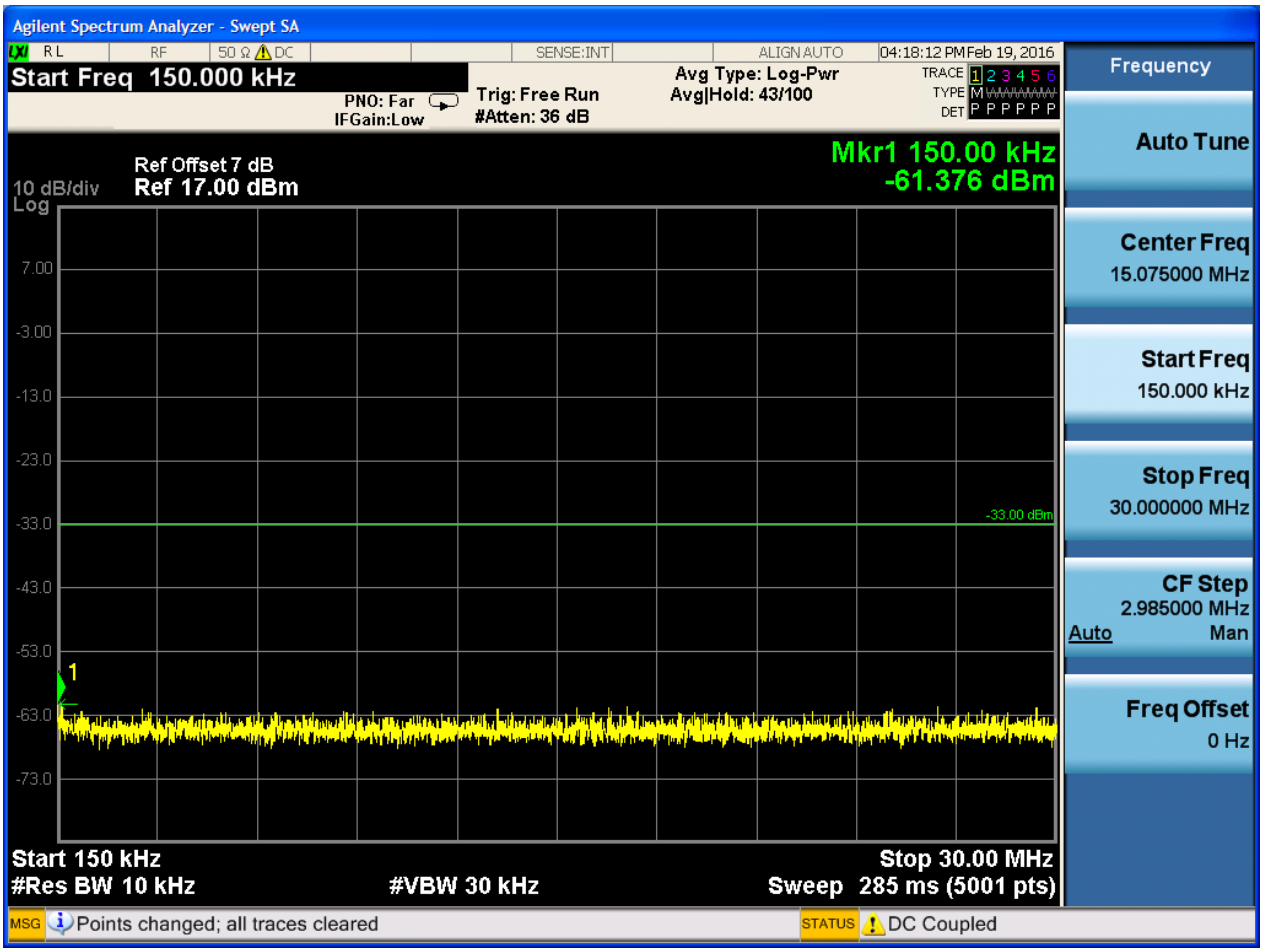


6.2.3 Test Band = WCDMA1700

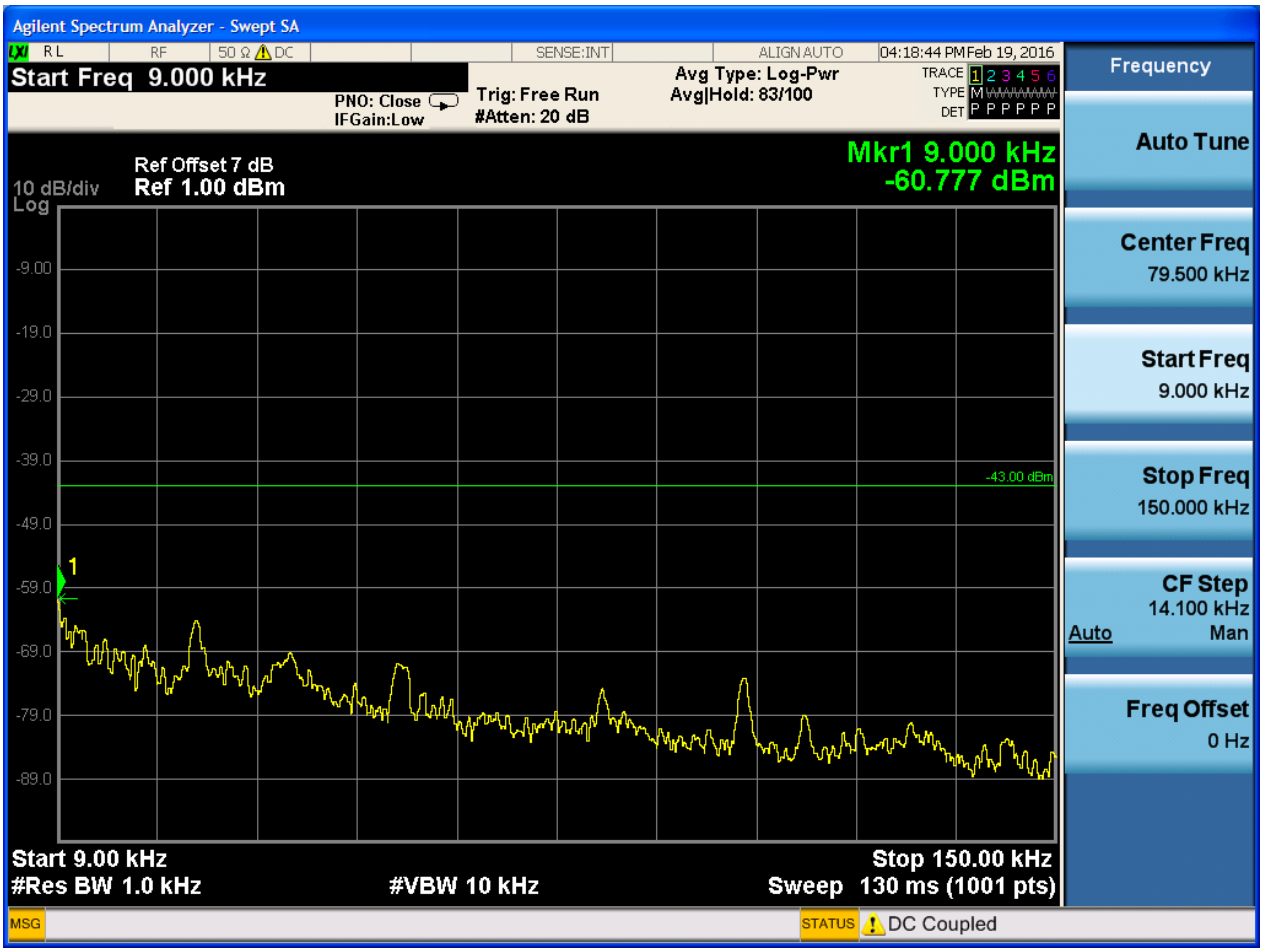
6.2.3.1 Test Mode = UMTS/TM1

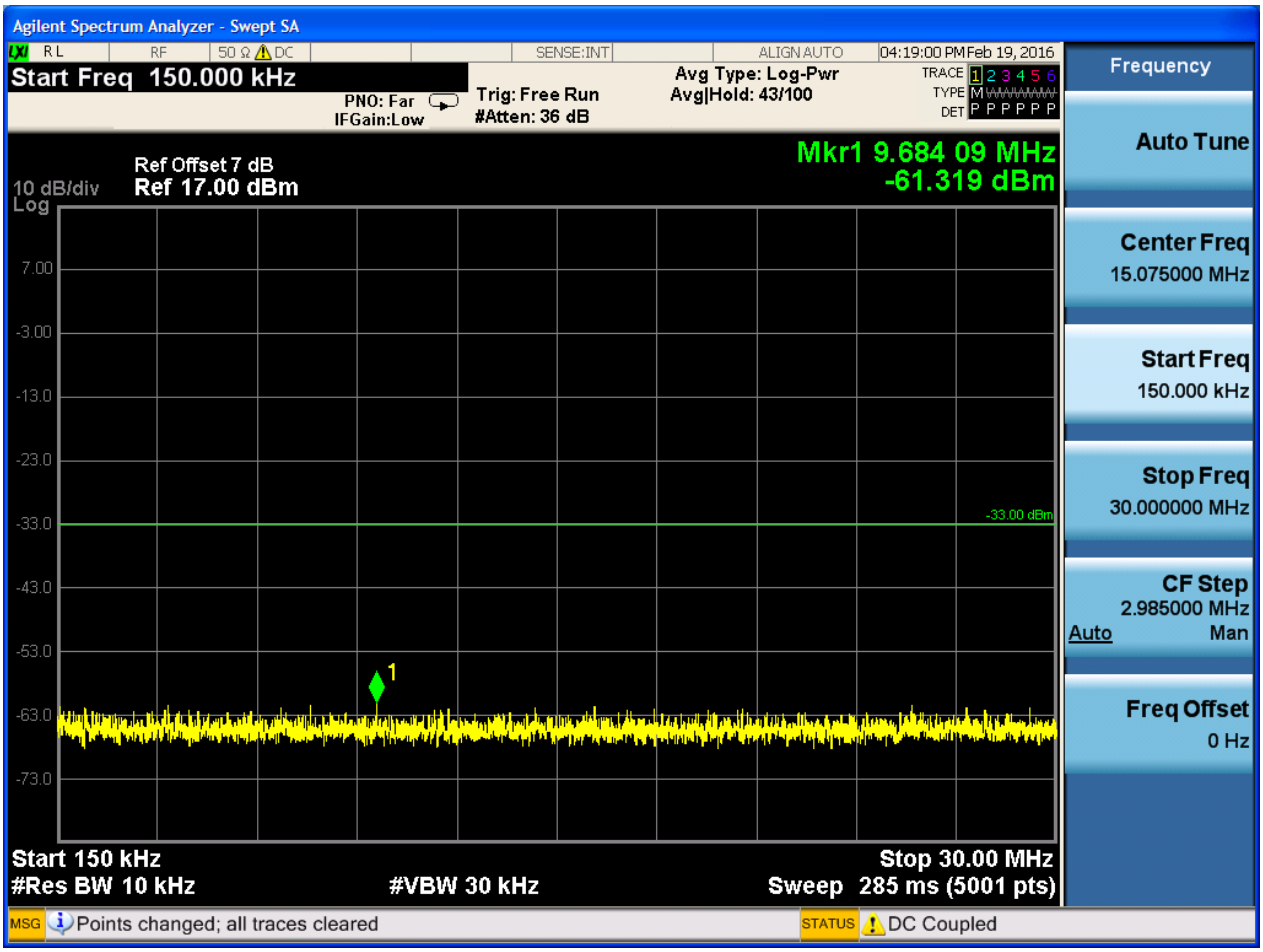
6.2.3.1.1 Test Channel = LCH



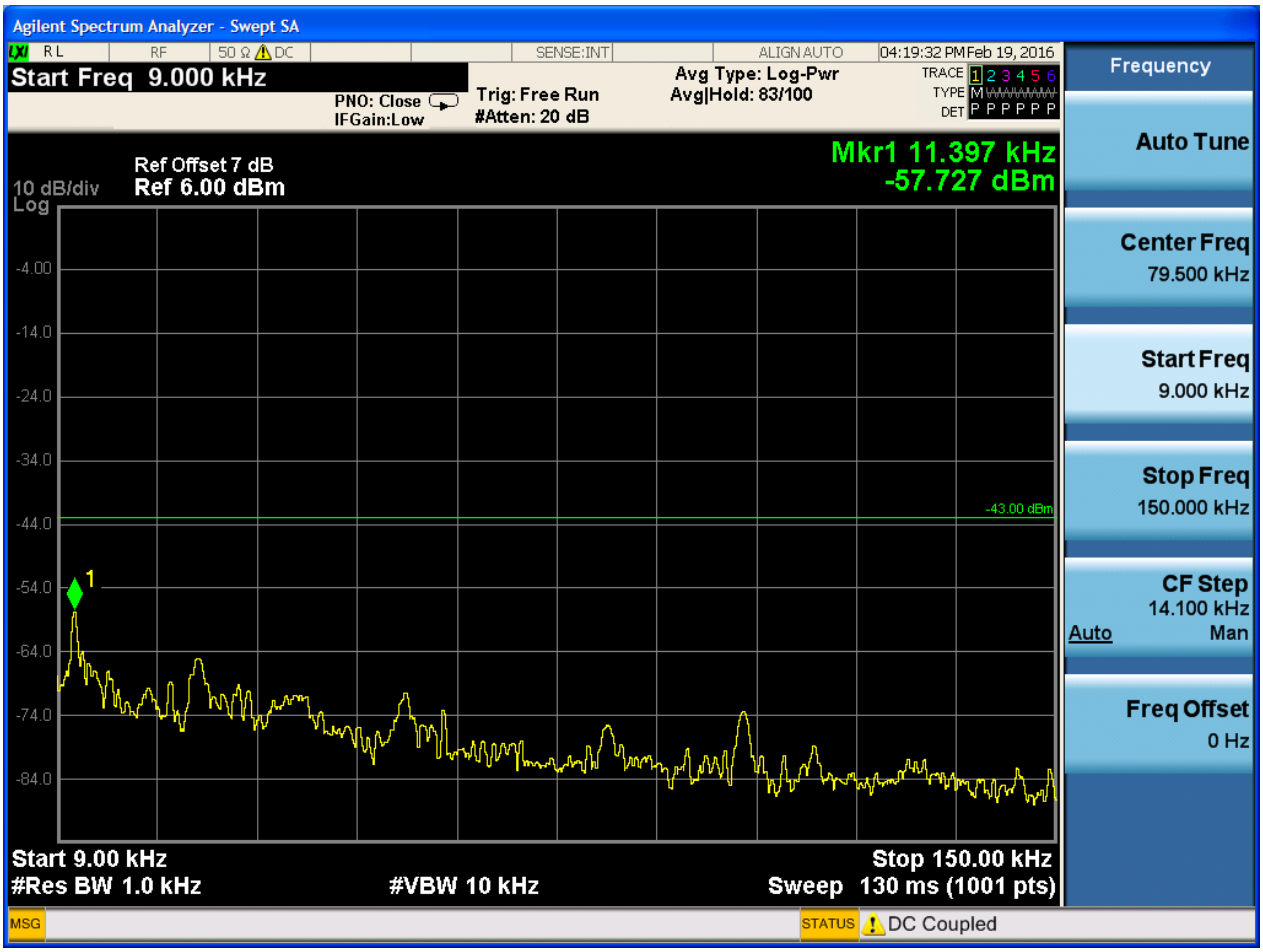


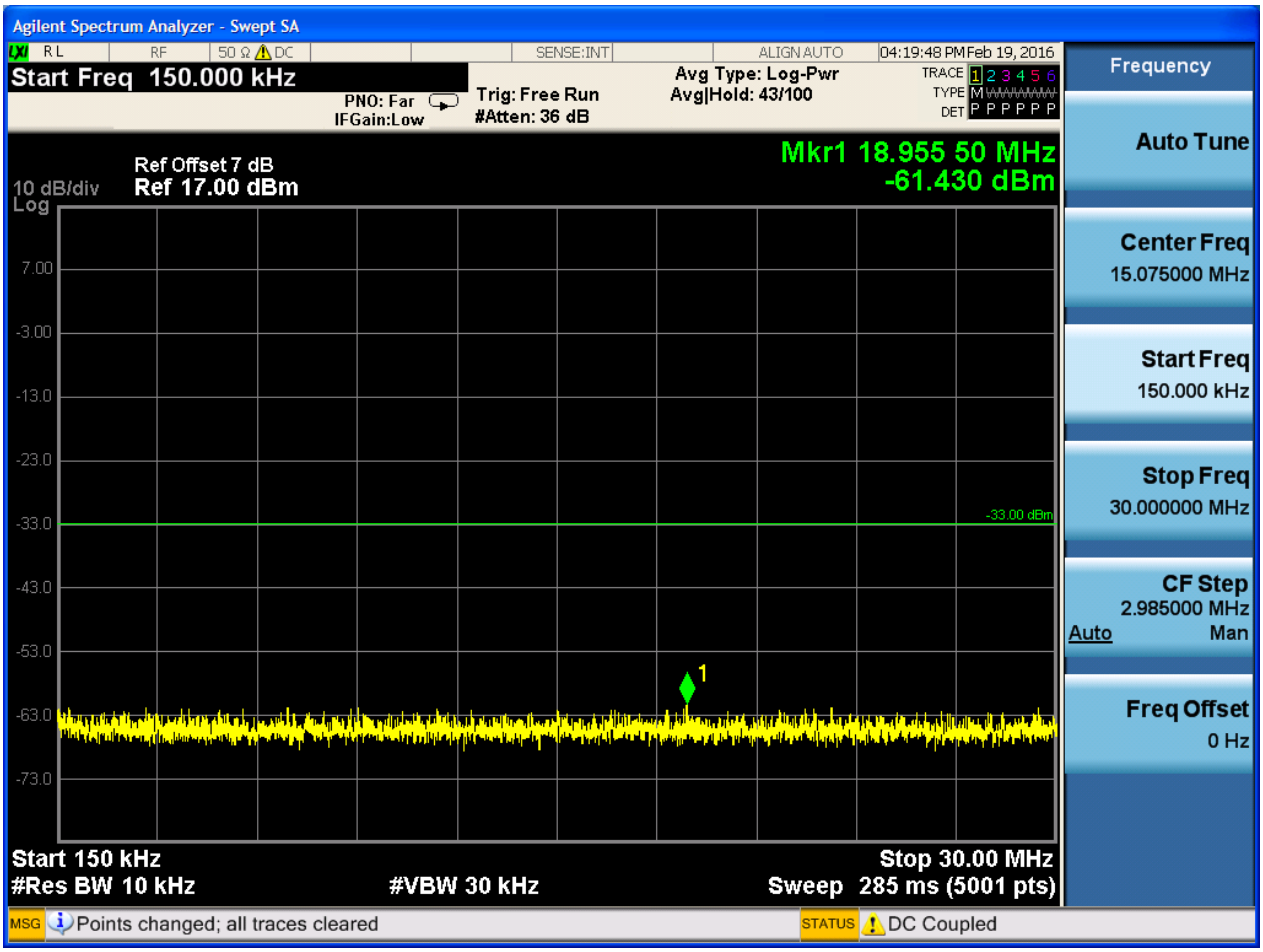
6.2.3.1.2 Test Channel = MCH

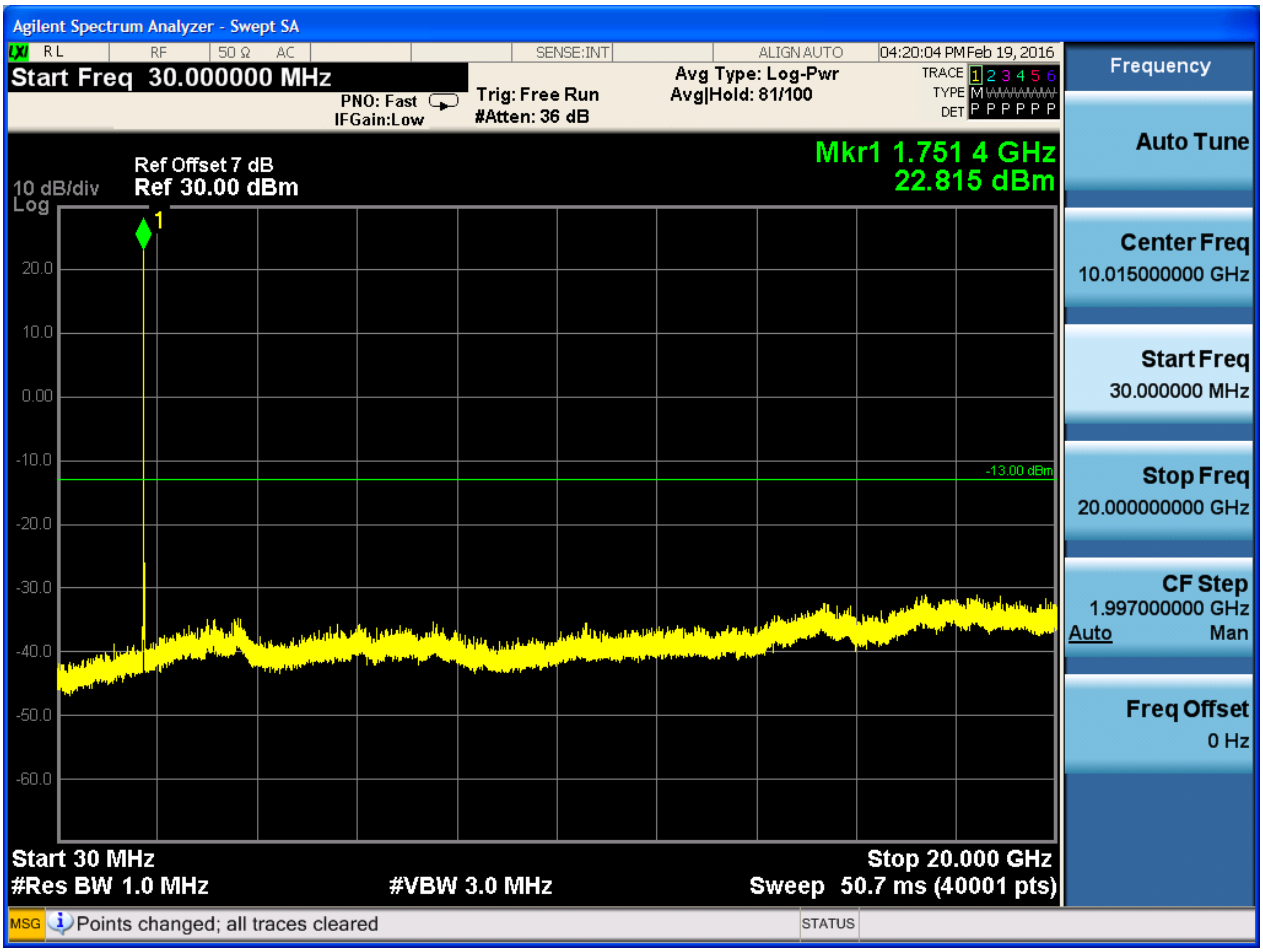




6.2.3.1.3 Test Channel = HCH







7Appendix_G: Field Strength of Spurious Radiation

Note: We tested all modes, but the data presented below is the worst case.

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

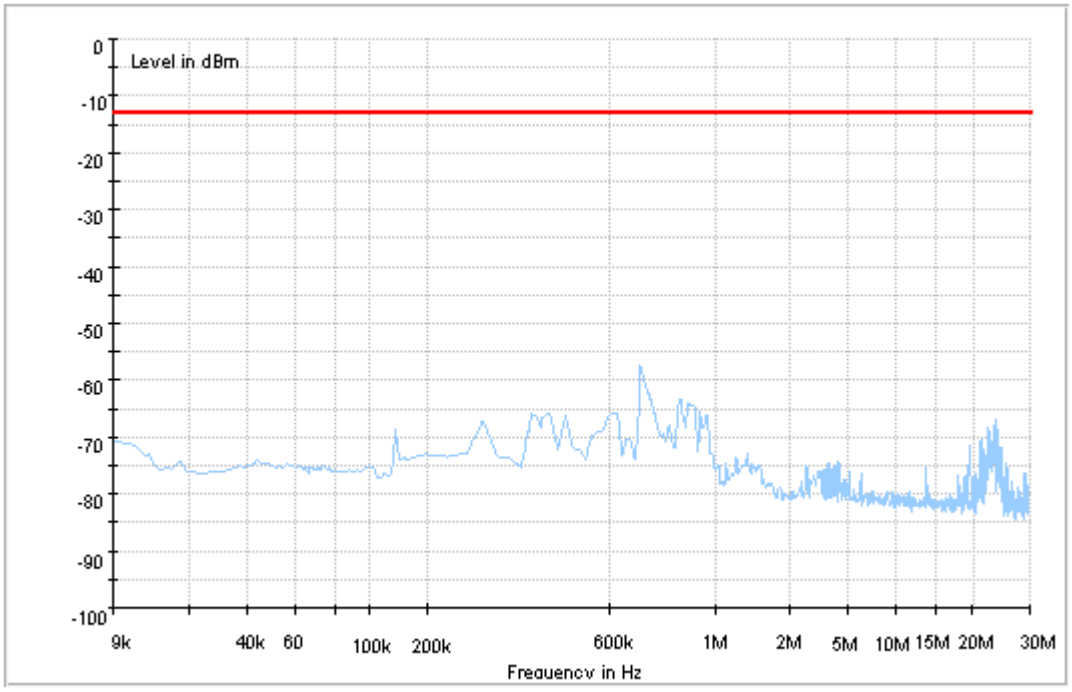
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Part I - Test Plots

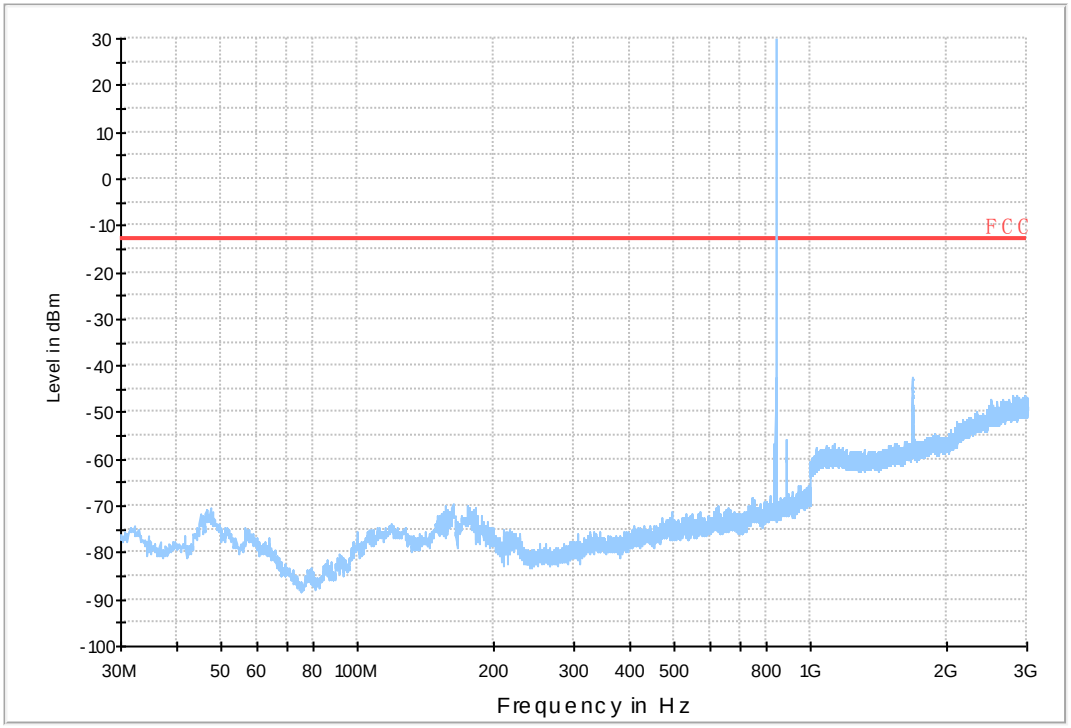
7.1 For GSM

7.1.1 Test Band = GSM850

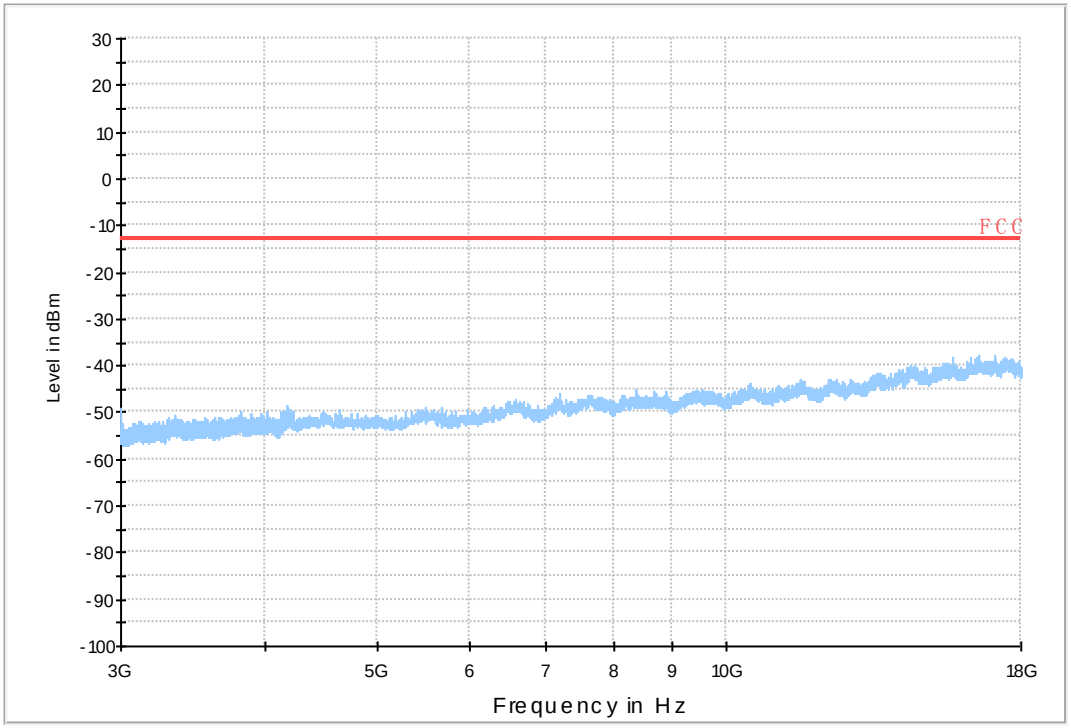
7.1.1.1 Test Mode = GSM/TM1



Copy of FCC PART22 GSM850_L

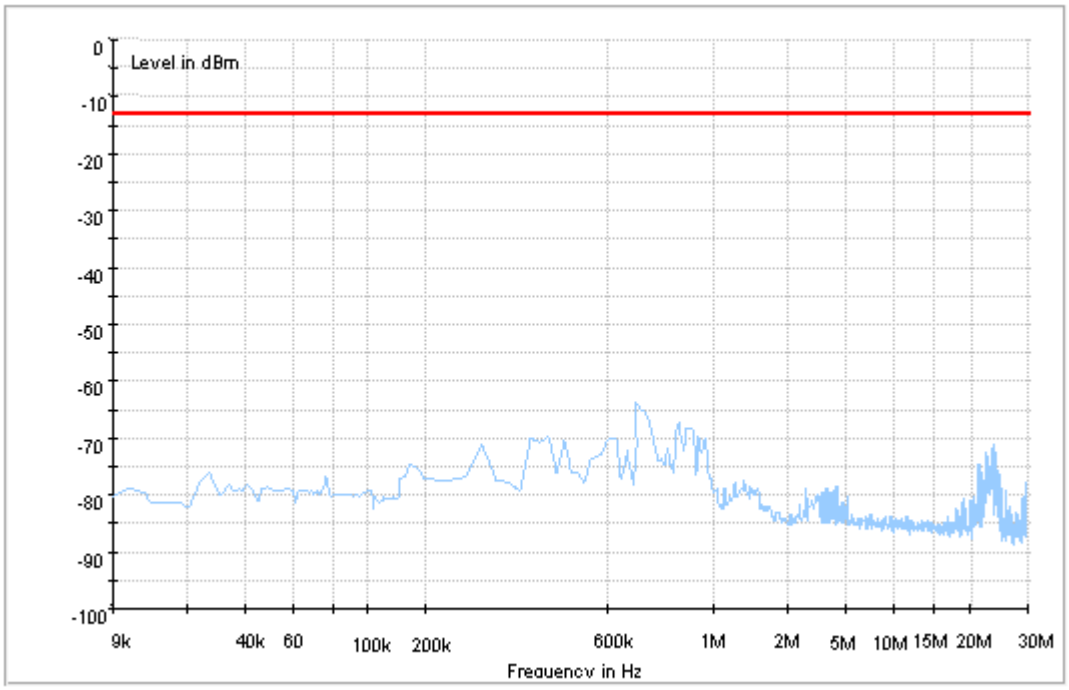


Copy of FCC PART22 GSM850_H

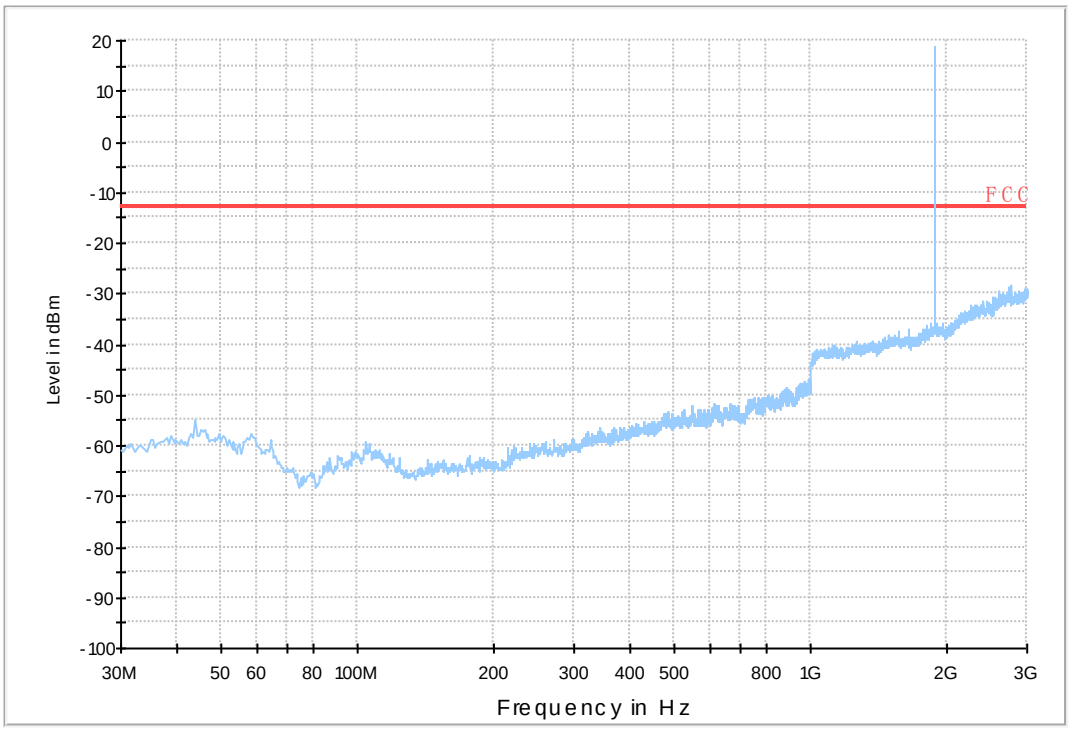


7.1.2 Test Band = GSM1900

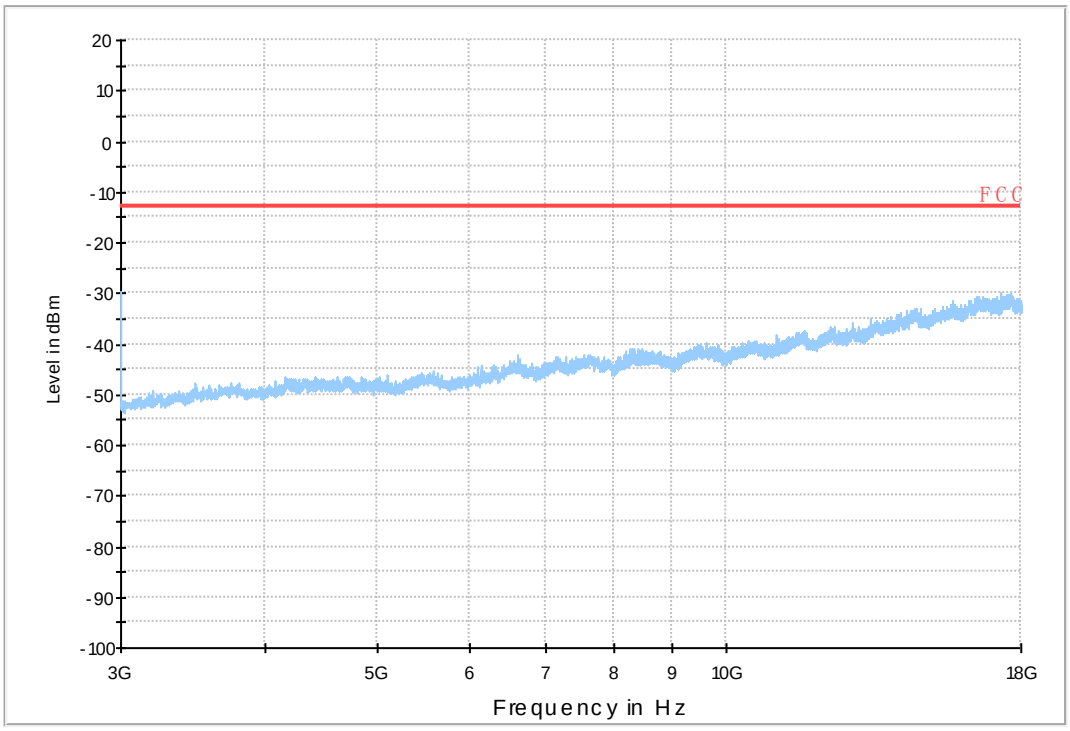
7.1.2.1 Test Mode = GSM/TM1

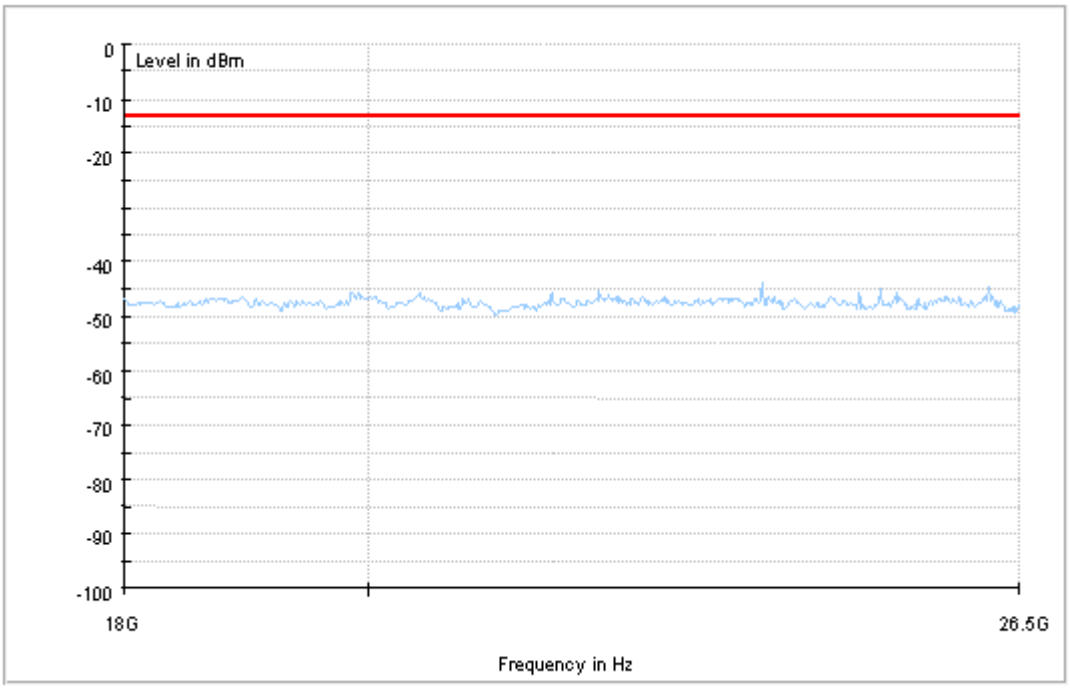


Copy of RSE-TX-DIRECTOR ABOVE 1.5G_L



Copy of RSE-TX-DIRECTOR ABOVE 1.5G_H

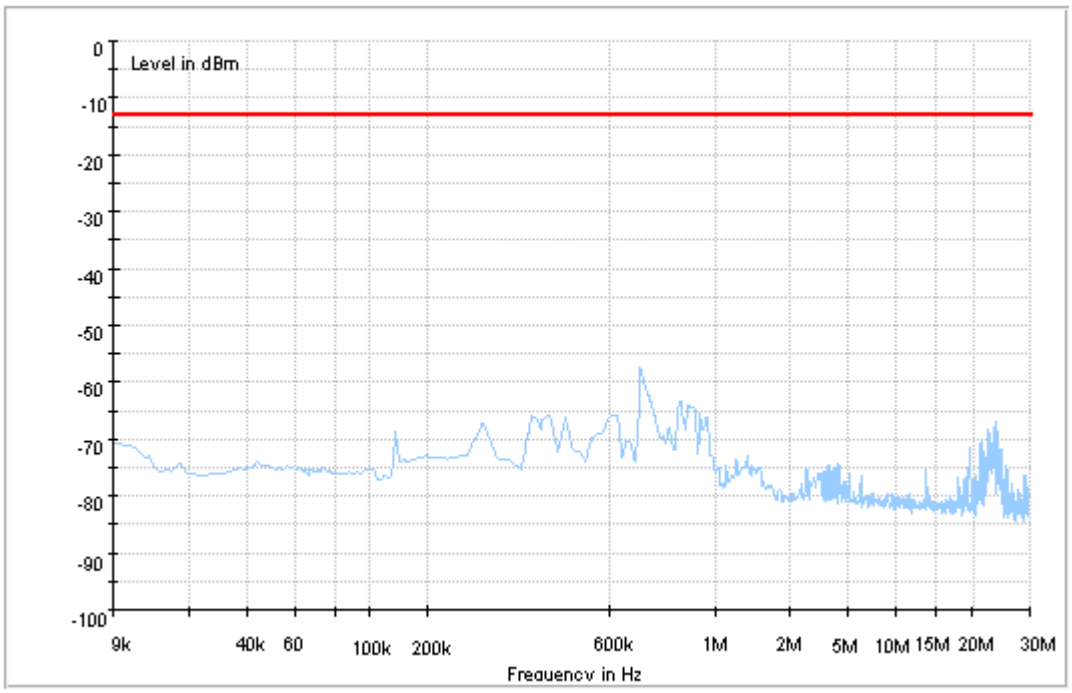




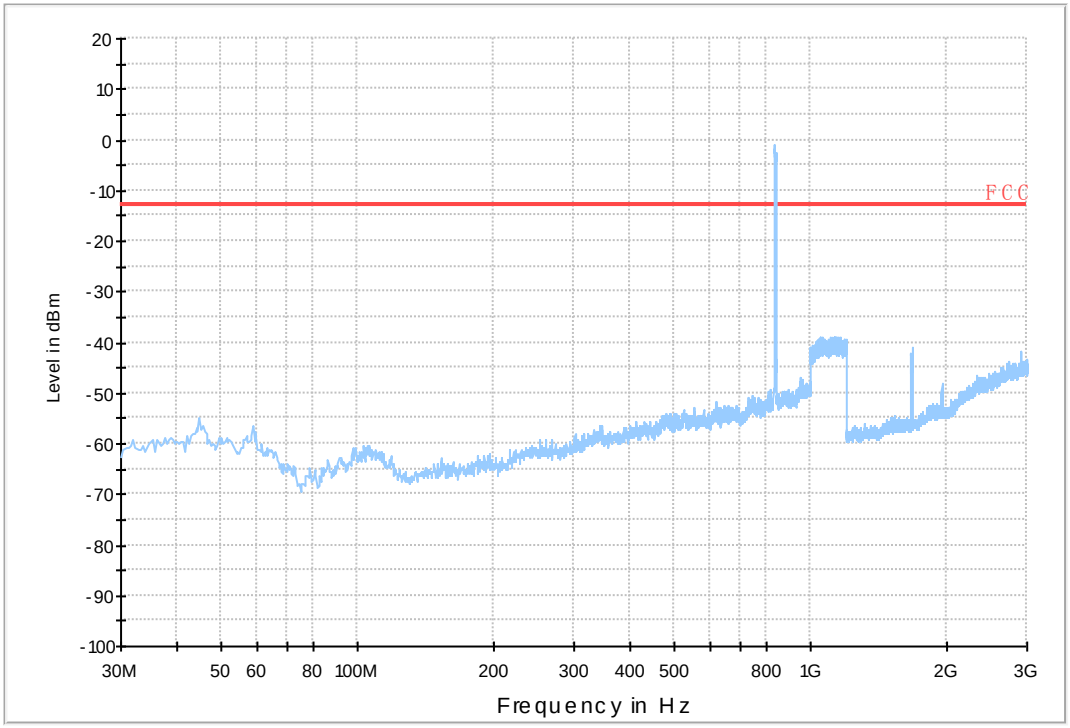
7.2 For UMTS

7.2.1 Test Band = WCDMA850

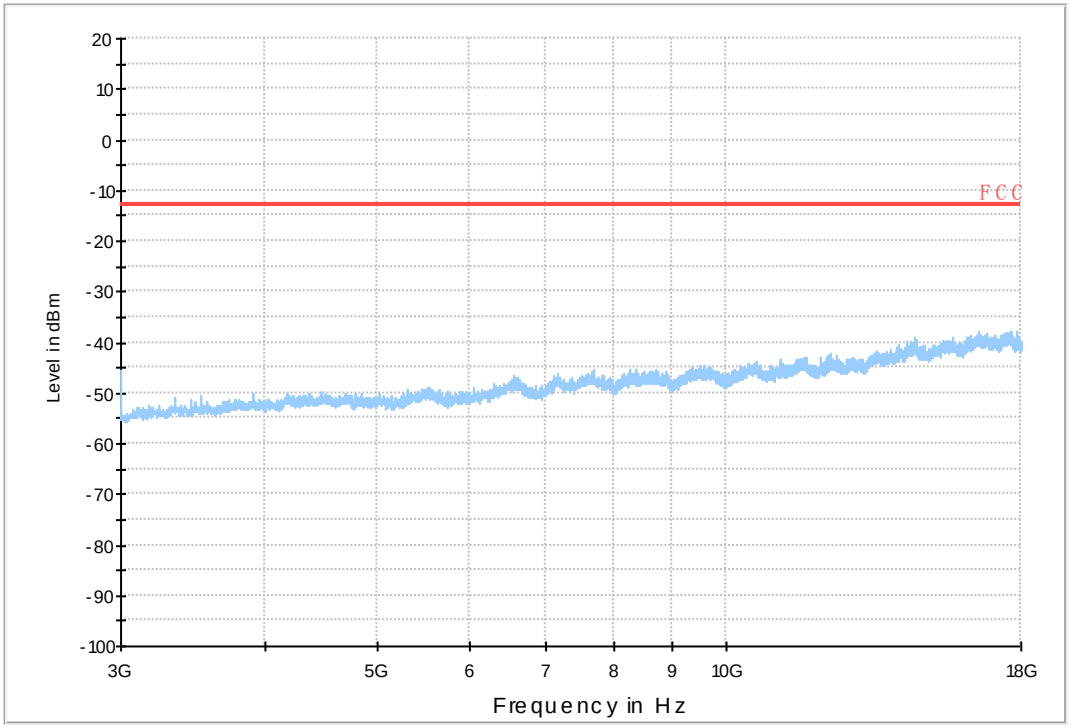
7.2.1.1 Test Mode = UMTS/TM1



Copy of RSE-TX-DIRECTOR BELOW 1G_L

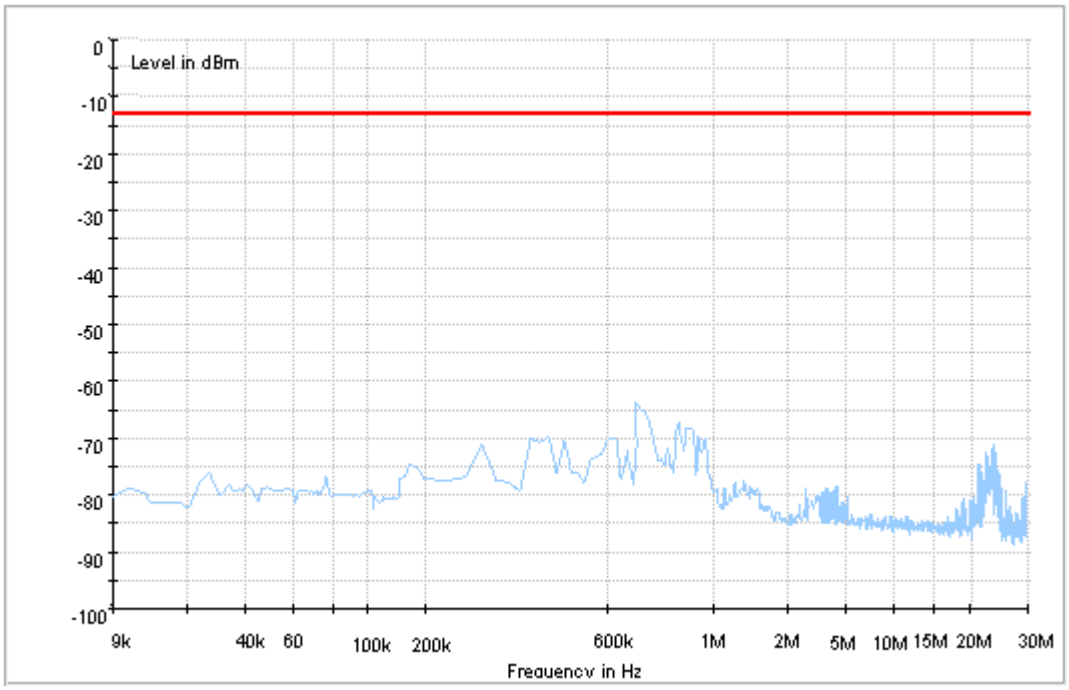


Copy of RSE-TX-DIRECTOR BELOW 1G_H

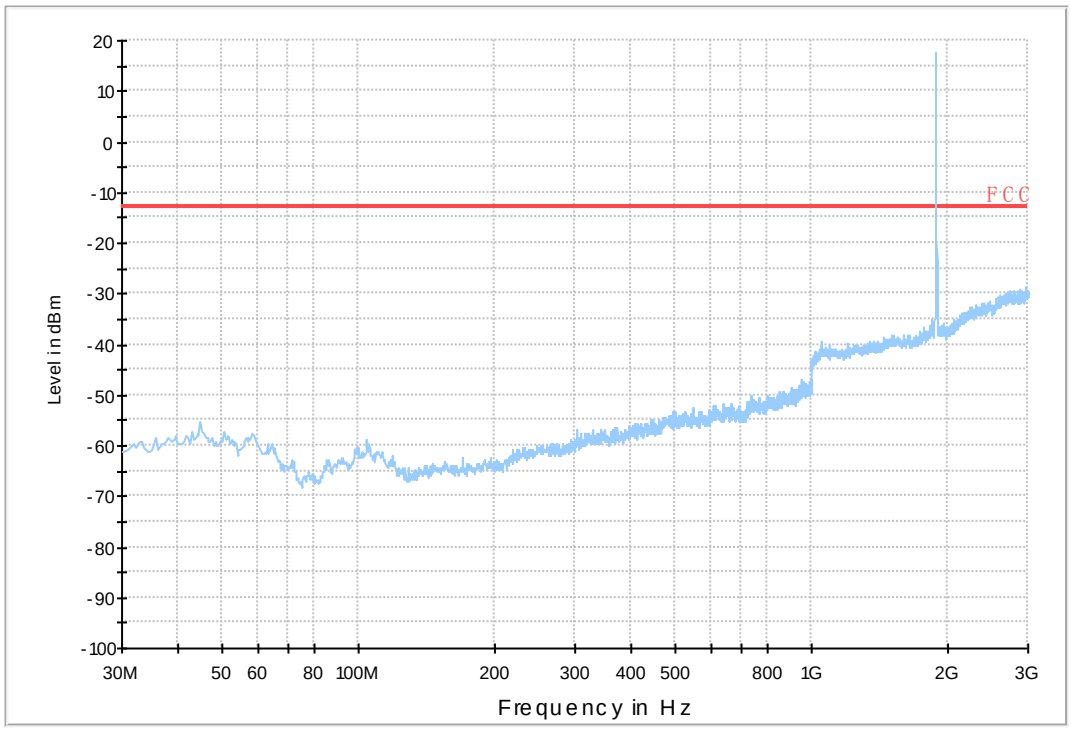


7.2.2 Test Band = WCDMA1900

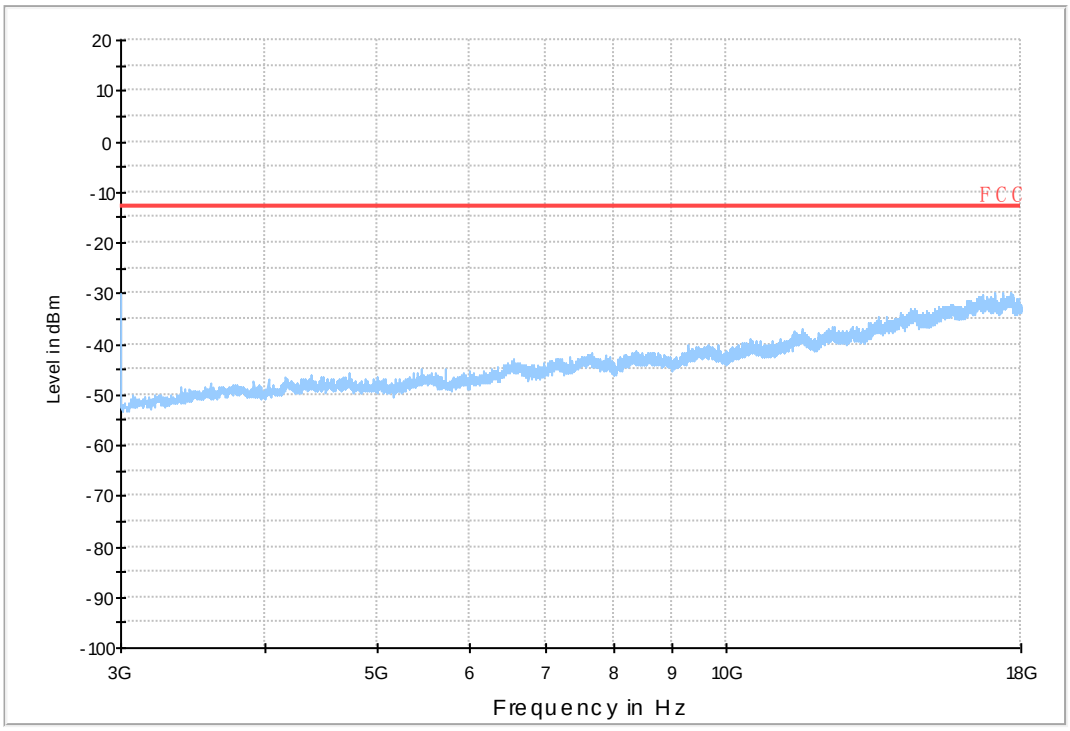
7.2.2.1 Test Mode = UMTS/TM1

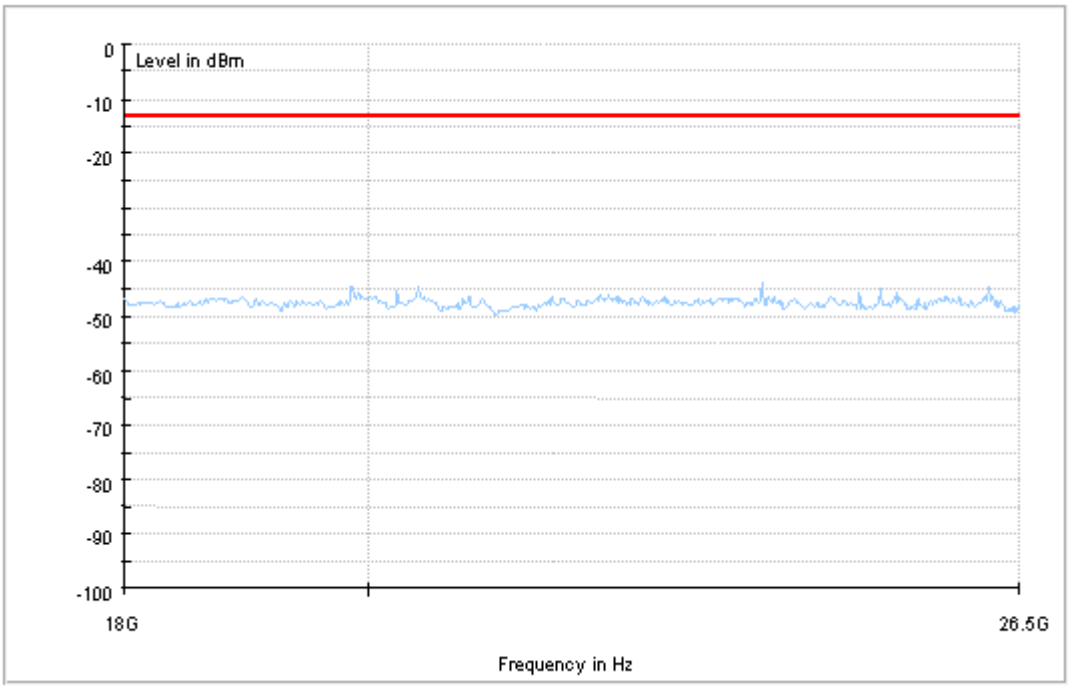


Copy of RSE-TX-DIRECTOR ABOVE 1.5G_L



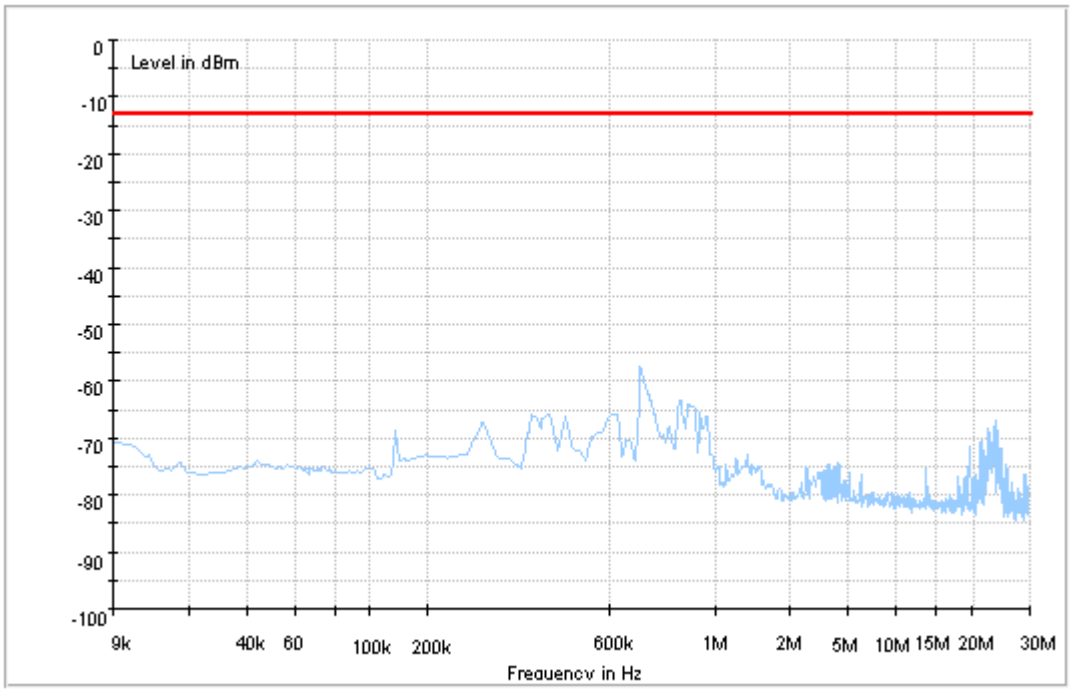
Copy of RSE-TX-DIRECTOR ABOVE 1.5G_H



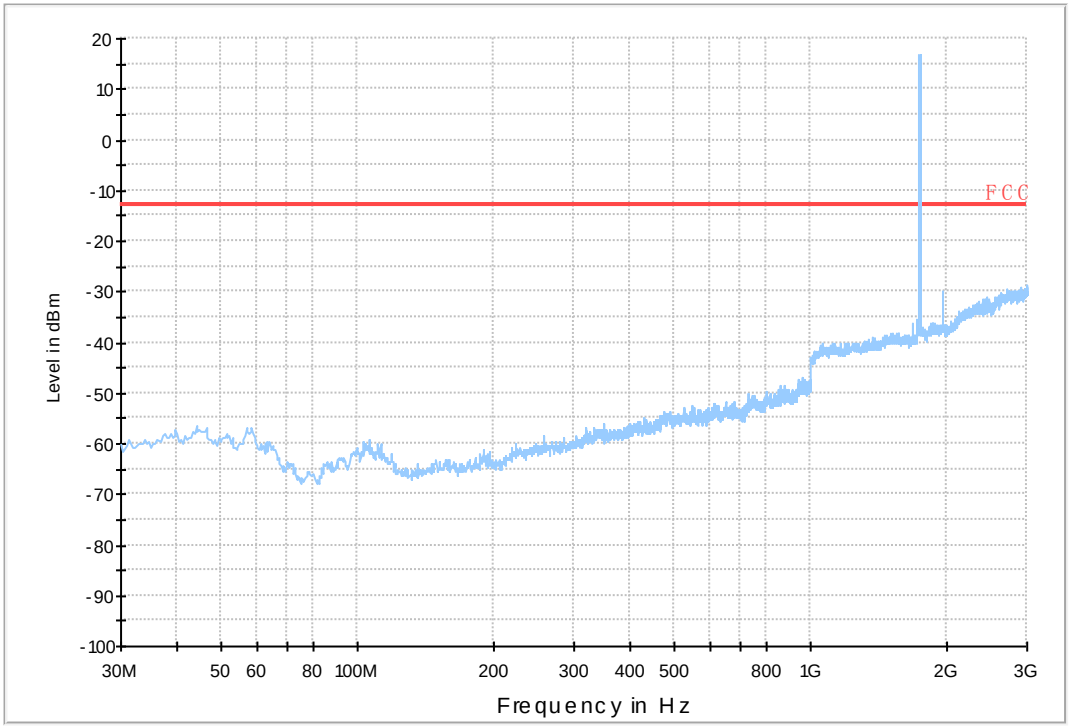


7.2.3 Test Band = WCDMA1700

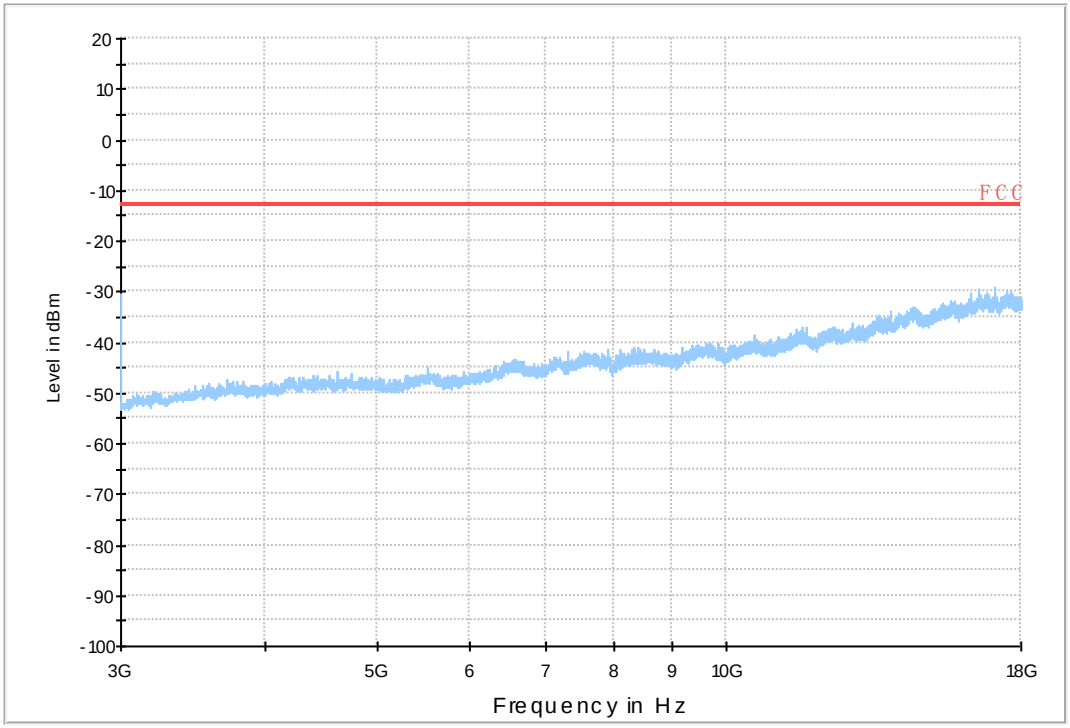
7.2.3.1 Test Mode = UMTS/TM1



Copy of RSE-TX-DIRECTOR ABOVE 1.5G_L



Copy of RSE-TX-DIRECTOR ABOVE 1.5G_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	-13.24	-0.01606	PASS
				VN	-11.04	-0.01339	PASS
				VH	-12.85	-0.01559	PASS
		MCH	TN	VL	-9.75	-0.01165	PASS
				VN	-10.01	-0.01197	PASS
				VH	-12.85	-0.01536	PASS
		HCH	TN	VL	-10.91	-0.01285	PASS
				VN	-12.85	-0.01514	PASS
				VH	-8.98	-0.01058	PASS
	GSM/TM2	LCH	TN	VL	-21.37	-0.02593	PASS
				VN	-18.34	-0.02225	PASS
				VH	-14.21	-0.01724	PASS
		MCH	TN	VL	-11.43	-0.01366	PASS
				VN	-9.27	-0.01108	PASS
				VH	-9.49	-0.01134	PASS
		HCH	TN	VL	-9.69	-0.01142	PASS
				VN	-10.78	-0.0127	PASS
				VH	-8.94	-0.01053	PASS
GSM1900	GSM/TM1	LCH	TN	VL	5.68	0.00307	PASS
				VN	20.28	0.01096	PASS
				VH	20.79	0.01124	PASS
		MCH	TN	VL	26.54	0.01412	PASS
				VN	24.34	0.01295	PASS
				VH	27.51	0.01463	PASS
		HCH	TN	VL	25.89	0.01356	PASS
				VN	37.77	0.01978	PASS
				VH	31.58	0.01654	PASS
	GSM/TM2	LCH	TN	VL	7.43	0.00402	PASS
				VN	5.29	0.00286	PASS
				VH	-1.32	-0.00071	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		MCH	TN	VL	2.74	0.00146	PASS
				VN	4.33	0.0023	PASS
				VH	12.37	0.00658	PASS
		HCH	TN	VL	16.34	0.00856	PASS
				VN	18.4	0.00963	PASS
				VH	10.04	0.00526	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	-12.46	-0.01512	PASS
				-20	-10.2	-0.01238	PASS
				-10	-13.69	-0.01661	PASS
				0	-10.78	-0.01308	PASS
				10	-11.82	-0.01434	PASS
				20	-15.69	-0.01904	PASS
				30	-8.27	-0.01003	PASS
				40	-10.98	-0.01332	PASS
				50	-10.59	-0.01285	PASS
		MCH	VN	-30	-10.07	-0.01204	PASS
				-20	-11.82	-0.01413	PASS
				-10	-12.14	-0.01451	PASS
				0	-8.98	-0.01073	PASS
				10	-5.81	-0.00694	PASS
				20	-13.62	-0.01628	PASS
				30	-11.36	-0.01358	PASS
				40	-4.97	-0.00594	PASS
				50	-9.81	-0.01173	PASS
		HCH	VN	-30	-7.36	-0.00867	PASS
				-20	-10.2	-0.01202	PASS
				-10	-12.59	-0.01483	PASS
				0	-11.24	-0.01324	PASS
				10	-10.27	-0.0121	PASS
				20	-9.49	-0.01118	PASS
				30	-8.85	-0.01043	PASS
				40	-10.14	-0.01195	PASS
				50	-8.59	-0.01012	PASS
	GSM/TM2	LCH	VN	-30	-13.33	-0.01617	PASS
				-20	-17.08	-0.02072	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				-10	-9.17	-0.01113	PASS
				0	-14.01	-0.017	PASS
				10	-16.27	-0.01974	PASS
				20	-14.04	-0.01703	PASS
				30	-10.23	-0.01241	PASS
				40	-15.4	-0.01868	PASS
				50	-9.46	-0.01148	PASS
		MCH	VN	-30	-19.02	-0.02273	PASS
				-20	-15.98	-0.0191	PASS
				-10	-20.34	-0.02431	PASS
				0	-9.85	-0.01177	PASS
				10	-16.66	-0.01991	PASS
				20	-10.01	-0.01197	PASS
				30	-17.6	-0.02104	PASS
				40	-13.17	-0.01574	PASS
				50	-14.63	-0.01749	PASS
		HCH	VN	-30	-13.46	-0.01586	PASS
				-20	-12.62	-0.01487	PASS
				-10	-14.11	-0.01662	PASS
				0	-16.05	-0.01891	PASS
				10	-12.04	-0.01418	PASS
				20	-11.33	-0.01335	PASS
				30	-8.2	-0.00966	PASS
				40	-13.75	-0.0162	PASS
				50	-16.76	-0.01975	PASS
GSM1900	GSM/TM1	LCH	VN	-30	14.85	0.00803	PASS
				-20	11.62	0.00628	PASS
				-10	21.37	0.01155	PASS
				0	16.92	0.00914	PASS
				10	22.28	0.01204	PASS
				20	15.24	0.00824	PASS
				30	26.86	0.01452	PASS
				40	20.66	0.01117	PASS
				50	15.82	0.00855	PASS
		MCH	VN	-30	27.18	0.01446	PASS
				-20	27.89	0.01484	PASS
				-10	25.76	0.0137	PASS
				0	30.61	0.01628	PASS
				10	26.09	0.01388	PASS
				20	19.69	0.01047	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				30	24.21	0.01288	PASS
				40	24.92	0.01326	PASS
				50	29.9	0.0159	PASS
		HCH	VN	-30	33.32	0.01745	PASS
				-20	29.7	0.01555	PASS
				-10	22.02	0.01153	PASS
				0	31.51	0.0165	PASS
				10	29.51	0.01545	PASS
				20	36.94	0.01934	PASS
				30	46.94	0.02458	PASS
				40	25.38	0.01329	PASS
				50	28.41	0.01488	PASS
	GSM/TM2	LCH	VN	-30	17.37	0.00939	PASS
				-20	-0.94	-0.00051	PASS
				-10	3.55	0.00192	PASS
				0	11.46	0.00619	PASS
				10	9.27	0.00501	PASS
				20	16.82	0.00909	PASS
				30	5.55	0.003	PASS
				40	18.05	0.00976	PASS
				50	5.42	0.00293	PASS
		MCH	VN	-30	22.34	0.01188	PASS
				-20	-2.81	-0.00149	PASS
				-10	11.43	0.00608	PASS
				0	15.63	0.00831	PASS
				10	15.21	0.00809	PASS
				20	16.43	0.00874	PASS
				30	4.46	0.00237	PASS
				40	23.57	0.01254	PASS
				50	15.01	0.00798	PASS
		HCH	VN	-30	5.55	0.00291	PASS
				-20	18.76	0.00982	PASS
				-10	15.53	0.00813	PASS
				0	27.83	0.01457	PASS
				10	20.89	0.01094	PASS
				20	14.37	0.00752	PASS
				30	26.28	0.01376	PASS
				40	23.67	0.01239	PASS
				50	8.36	0.00438	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	7.89	0.00955	PASS
				VN	5.1	0.00617	PASS
				VH	7.83	0.00947	PASS
		MCH	TN	VL	3.37	0.00403	PASS
				VN	-3.01	-0.0036	PASS
				VH	13.12	0.01569	PASS
		HCH	TN	VL	6.9	0.00815	PASS
				VN	-5.55	-0.00656	PASS
				VH	-0.49	-0.00058	PASS
WCDMA1900	UMTS/TM1	LCH	TN	VL	-17.85	-0.00964	PASS
				VN	-10.09	-0.00545	PASS
				VH	-9.34	-0.00504	PASS
		MCH	TN	VL	-6	-0.00319	PASS
				VN	-18.51	-0.00985	PASS
				VH	-10.7	-0.00569	PASS
		HCH	TN	VL	-5.1	-0.00267	PASS
				VN	-5.84	-0.00306	PASS
				VH	9.02	0.00473	PASS
WCDMA1700	UMTS/TM1	LCH	TN	VL	-10.3	-0.00601	PASS
				VN	-3.1	-0.00181	PASS
				VH	-3.17	-0.00185	PASS
		MCH	TN	VL	-8.19	-0.00473	PASS
				VN	4.67	0.0027	PASS
				VH	-15.41	-0.00889	PASS
		HCH	TN	VL	-6.99	-0.00399	PASS
				VN	1.33	0.00076	PASS
				VH	-6.01	-0.00343	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	5.33	0.00645	PASS
				-20	4.81	0.00582	PASS
				-10	7.16	0.00866	PASS
				0	-2.03	-0.00246	PASS
				10	-0.95	-0.00115	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				20	-3.77	-0.00456	PASS
				30	-2.5	-0.00303	PASS
				40	5.13	0.00621	PASS
				50	-13.11	-0.01586	PASS
		MCH	VN	-30	-1.53	-0.00183	PASS
				-20	-1.68	-0.00201	PASS
				-10	-5.71	-0.00683	PASS
				0	4.44	0.00531	PASS
				10	3.81	0.00456	PASS
				20	-2.24	-0.00268	PASS
				30	-1.22	-0.00146	PASS
				40	-2.23	-0.00267	PASS
				50	1.27	0.00152	PASS
		HCH	VN	-30	2.52	0.00298	PASS
				-20	3.45	0.00408	PASS
				-10	-5.08	-0.006	PASS
				0	-6.13	-0.00724	PASS
				10	-2.75	-0.00325	PASS
				20	4.87	0.00575	PASS
				30	-3.85	-0.00455	PASS
				40	-0.31	-0.00037	PASS
				50	11.44	0.01351	PASS
WCDMA1900	UMTS/TM1	LCH	VN	-30	9.87	0.00533	PASS
				-20	-14.07	-0.0076	PASS
				-10	-12.36	-0.00667	PASS
				0	-11.17	-0.00603	PASS
				10	4.61	0.00249	PASS
				20	-5.07	-0.00274	PASS
				30	-14.3	-0.00772	PASS
				40	-9.75	-0.00526	PASS
				50	-17.58	-0.00949	PASS
		MCH	VN	-30	-9.63	-0.00512	PASS
				-20	-0.6	-0.00032	PASS
				-10	-7.81	-0.00415	PASS
				0	-4.62	-0.00246	PASS
				10	-7.48	-0.00398	PASS
				20	-10.96	-0.00583	PASS
				30	-2.33	-0.00124	PASS
				40	-0.5	-0.00027	PASS
				50	-3.46	-0.00184	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		HCH	VN	-30	-14.25	-0.00747	PASS
				-20	-3.56	-0.00187	PASS
				-10	-9.26	-0.00485	PASS
				0	5.29	0.00277	PASS
				10	-1.36	-0.00071	PASS
				20	-8.96	-0.0047	PASS
				30	-4.99	-0.00262	PASS
				40	-1.85	-0.00097	PASS
				50	0.95	0.0005	PASS
WCDMA1700	UMTS/TM1	LCH	VN	-30	-2.81	-0.00164	PASS
				-20	5.16	0.00301	PASS
				-10	-4.32	-0.00252	PASS
				0	-7.25	-0.00423	PASS
				10	-11.35	-0.00663	PASS
				20	-2.67	-0.00156	PASS
				30	5.66	0.00331	PASS
				40	-10.16	-0.00593	PASS
				50	-5.74	-0.00335	PASS
		MCH	VN	-30	-6.81	-0.00393	PASS
				-20	-1.16	-0.00067	PASS
				-10	-8.06	-0.00465	PASS
				0	-1.33	-0.00077	PASS
				10	-4.62	-0.00267	PASS
				20	-7.9	-0.00456	PASS
				30	-7.66	-0.00442	PASS
				40	0.56	0.00032	PASS
				50	-7.61	-0.00439	PASS
		HCH	VN	-30	-4.75	-0.00271	PASS
				-20	-7.05	-0.00402	PASS
				-10	-0.63	-0.00036	PASS
				0	-3.65	-0.00208	PASS
				10	-5.36	-0.00306	PASS
				20	3.04	0.00173	PASS
				30	-8.3	-0.00474	PASS
				40	3.14	0.00179	PASS
				50	2.03	0.00116	PASS

END