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	32.41	31.26	38.5	PASS
		MCH	32.34	31.19	38.5	PASS
		HCH	32.59	31.44	38.5	PASS
	GSM/TM2	LCH	27.63	26.48	38.5	PASS
		MCH	27.67	26.52	38.5	PASS
		HCH	27.59	26.44	38.5	PASS

Test Band	Test Mode	Test Channel	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
GSM1900	GSM/TM1	LCH	29.93	32.81	33	PASS
		MCH	29.52	32.4	33	PASS
		HCH	29.15	32.03	33	PASS
	GSM/TM2	LCH	27.27	30.15	33	PASS
		MCH	27.3	30.18	33	PASS

Test Band	Test Mode	Test Channel	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
		HCH	27.2	30.08	33	PASS

Test Band	Test Mode	Test Channel	Conducted Power [dBm]	ERP [dBm]	Limit [dBm]	Verdict
WCDMA850	UMTS/TM1	LCH	23.30	22.15	38.5	PASS
		MCH	23.47	22.32	38.5	PASS
		HCH	23.48	22.33	38.5	PASS

Test Band	Test Mode	Test Channel	Conducted Power [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
WCDMA1900	UMTS/TM1	LCH	23.69	26.57	33	PASS
		MCH	23.32	26.2	33	PASS
		HCH	23.99	26.87	33	PASS

Note1:

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

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

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

b, SGP=Signal Generator Level

Note2: RBW > emission bandwidth, VBW > 3 x RBW.

Detector: RMS

2Appendix_B: Peak-to-Average Ratio

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
GSM1900	GSM/TM1	LCH	0.14	13	PASS
		MCH	0.12	13	PASS
		HCH	0.13	13	PASS
	GSM/TM2	LCH	2.58	13	PASS
		MCH	2.27	13	PASS
		HCH	2.23	13	PASS
WCDMA1900	UMTS/TM1	LCH	3.42	13	PASS
		MCH	3.48	13	PASS
		HCH	3.38	13	PASS

3Appendix_C: Modulation Characteristics

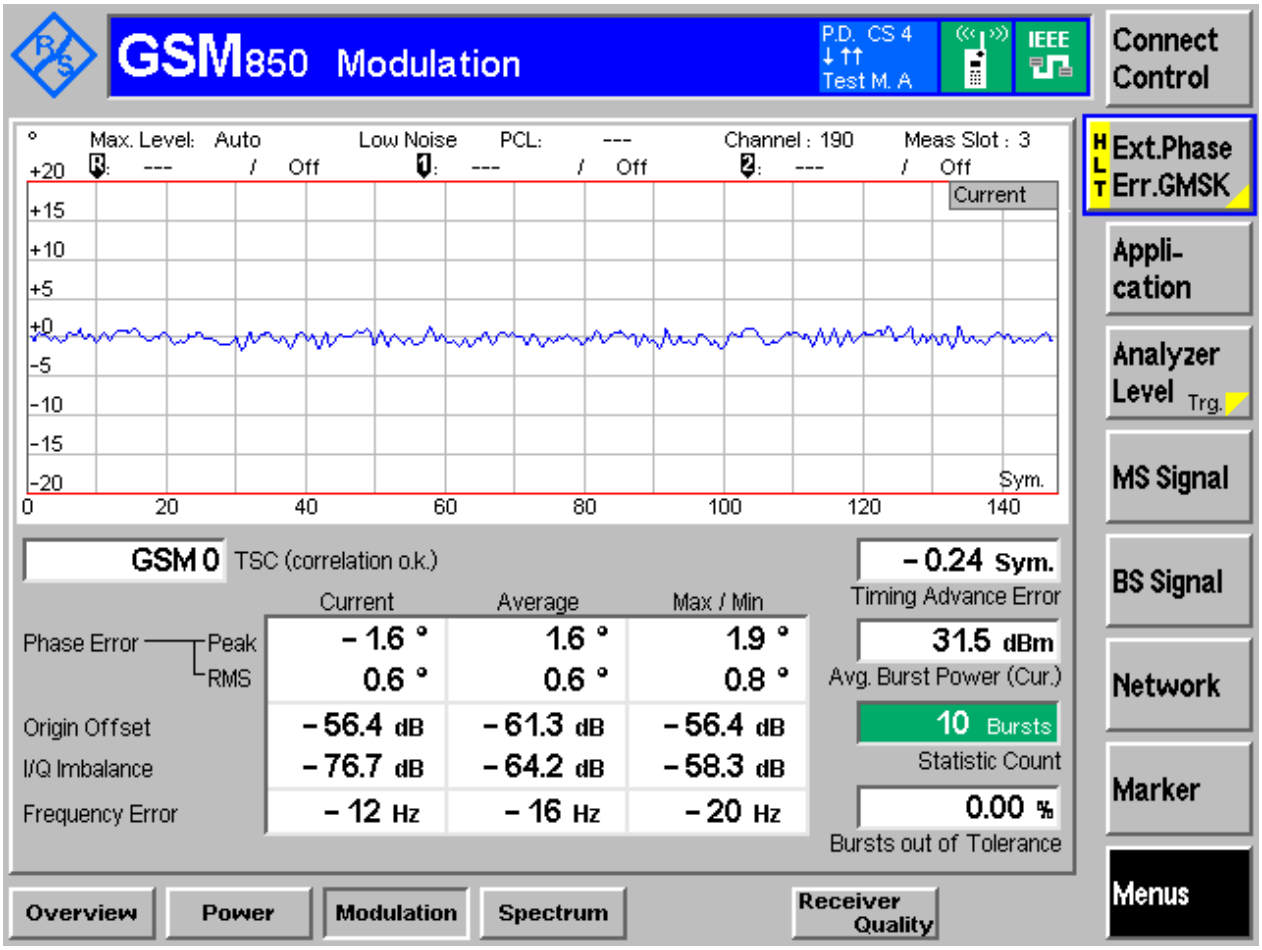
Part I - Test Plots

3.1 For GSM

3.1.1 Test Band = GSM850

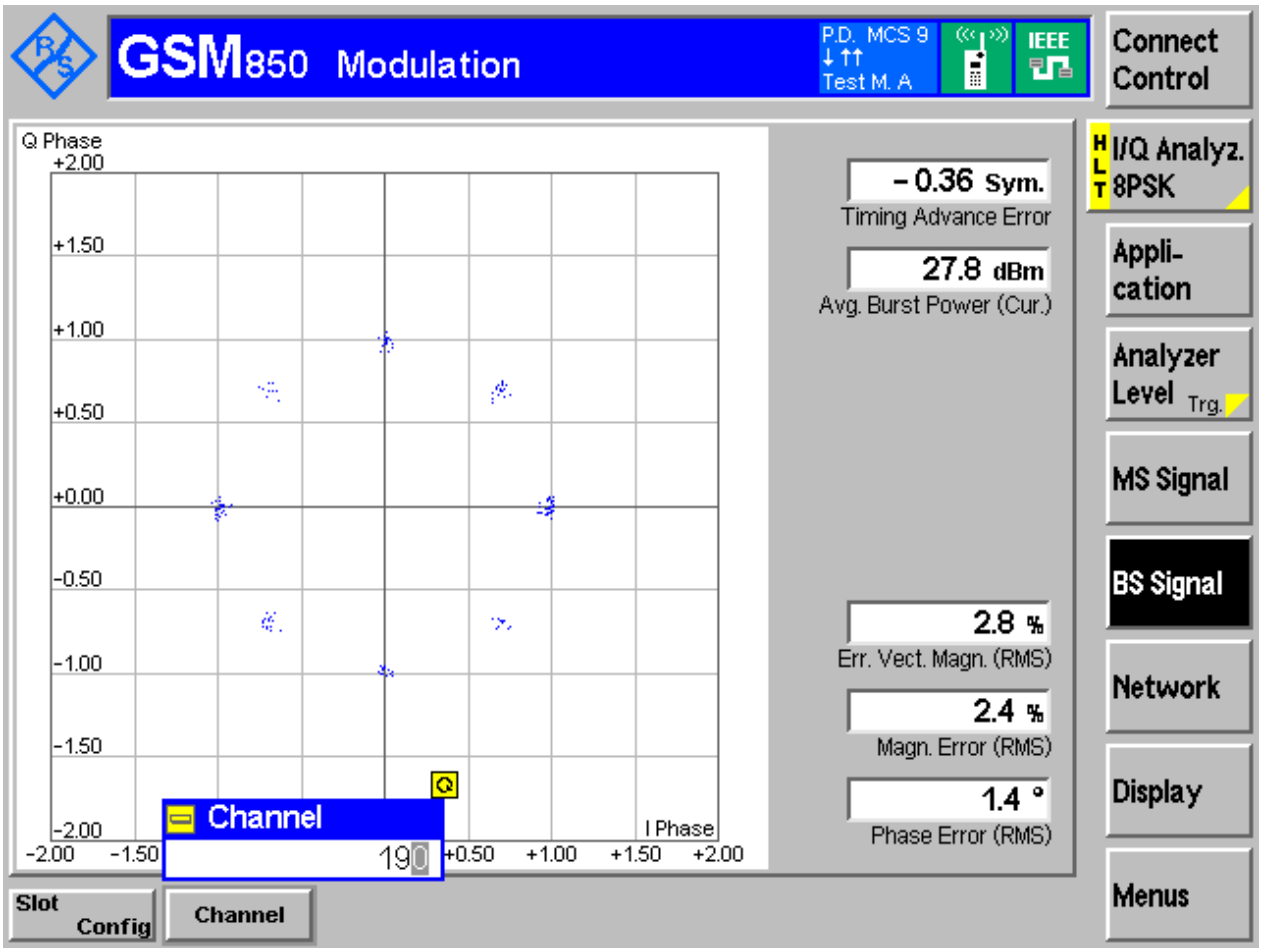
3.1.1.1 Test Mode = GSM/TM1

3.1.1.1.1 Test Channel = MCH



3.1.1.2 Test Mode = GSM/TM2

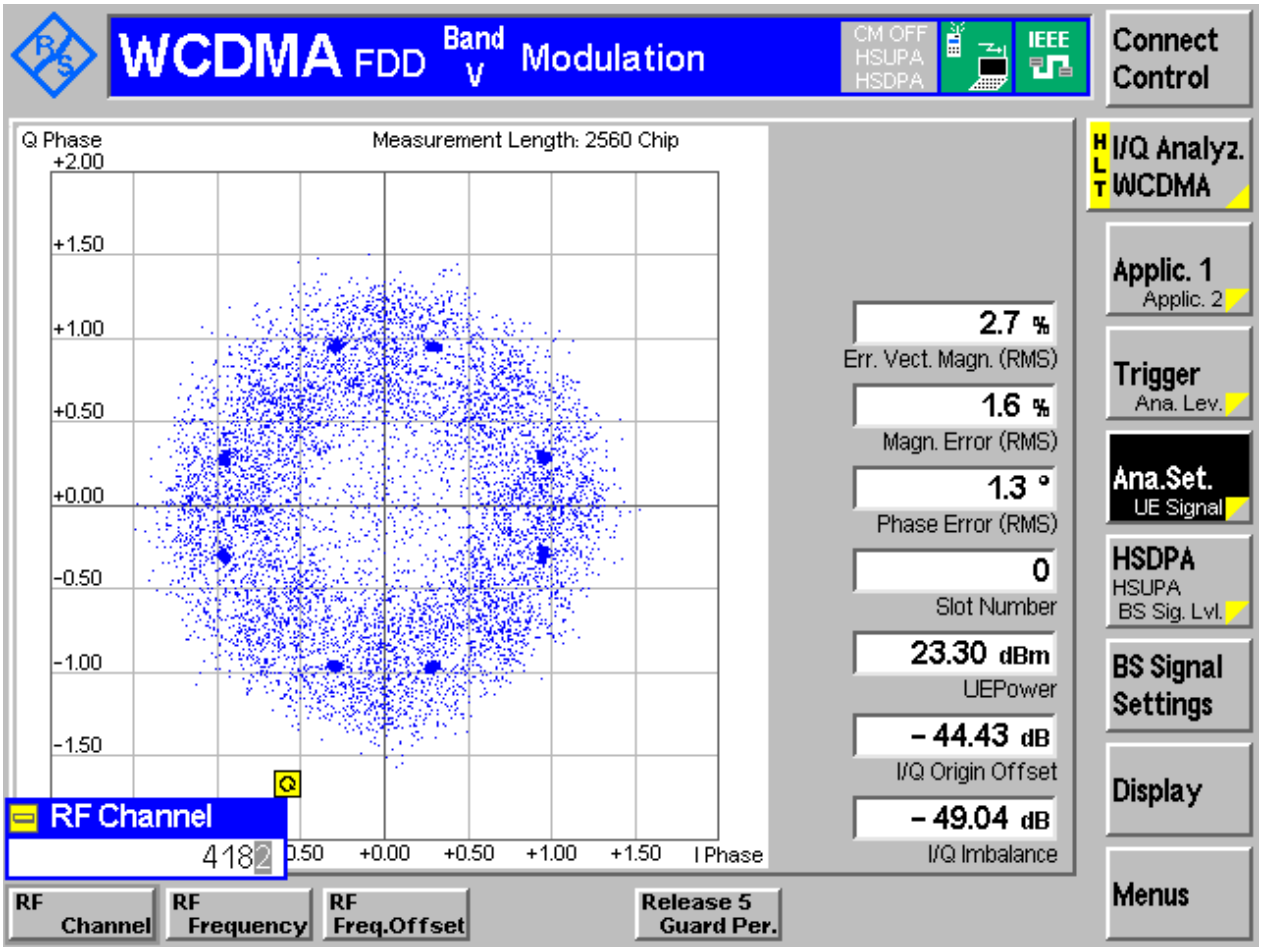
3.1.1.2.1 Test Channel = MCH



3.1.2 Test Band = WCDMA850

3.1.2.1 Test Mode = UMTS/TM1

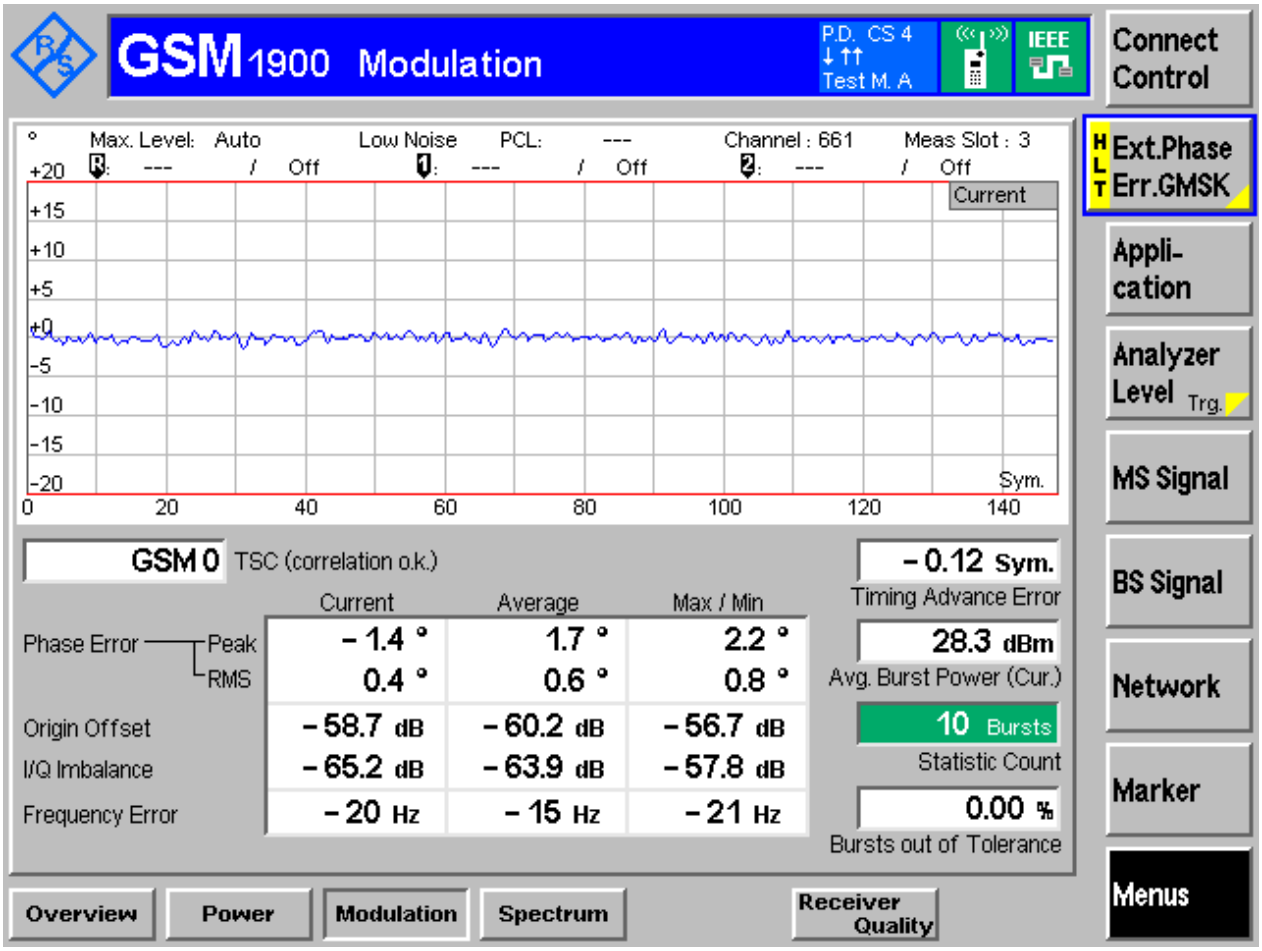
3.1.2.1.1 Test Channel = MCH



3.1.3 Test Band = GSM1900

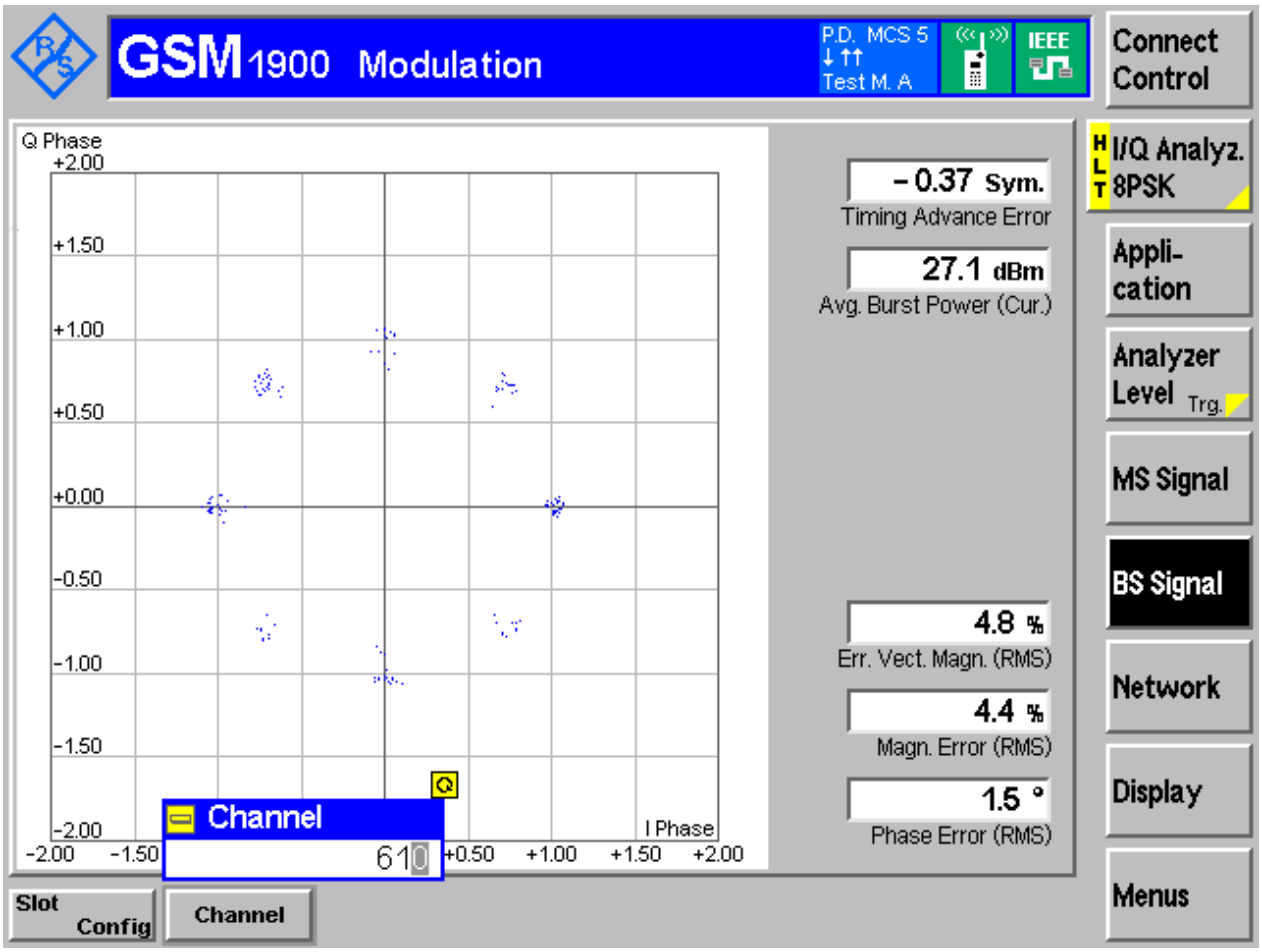
3.1.3.1 Test Mode = GSM/TM1

3.1.3.1.1 Test Channel = MCH



3.1.3.2 Test Mode = GSM/TM2

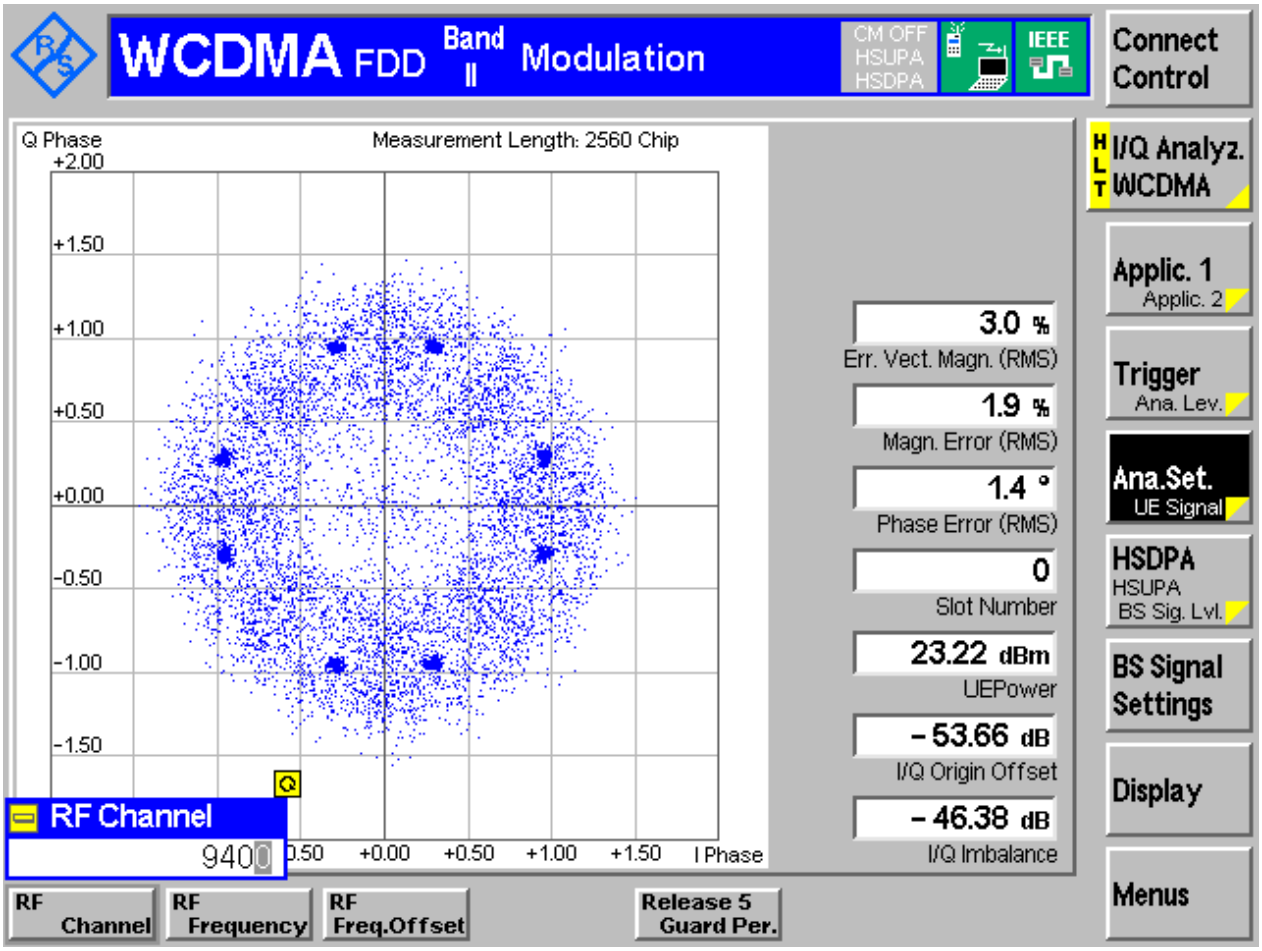
3.1.3.2.1 Test Channel = MCH



3.1.4 Test Band = WCDMA1900

3.1.4.1 Test Mode = UMTS/TM1

3.1.4.1.1 Test Channel = MCH



4Appendix_D: Bandwidth

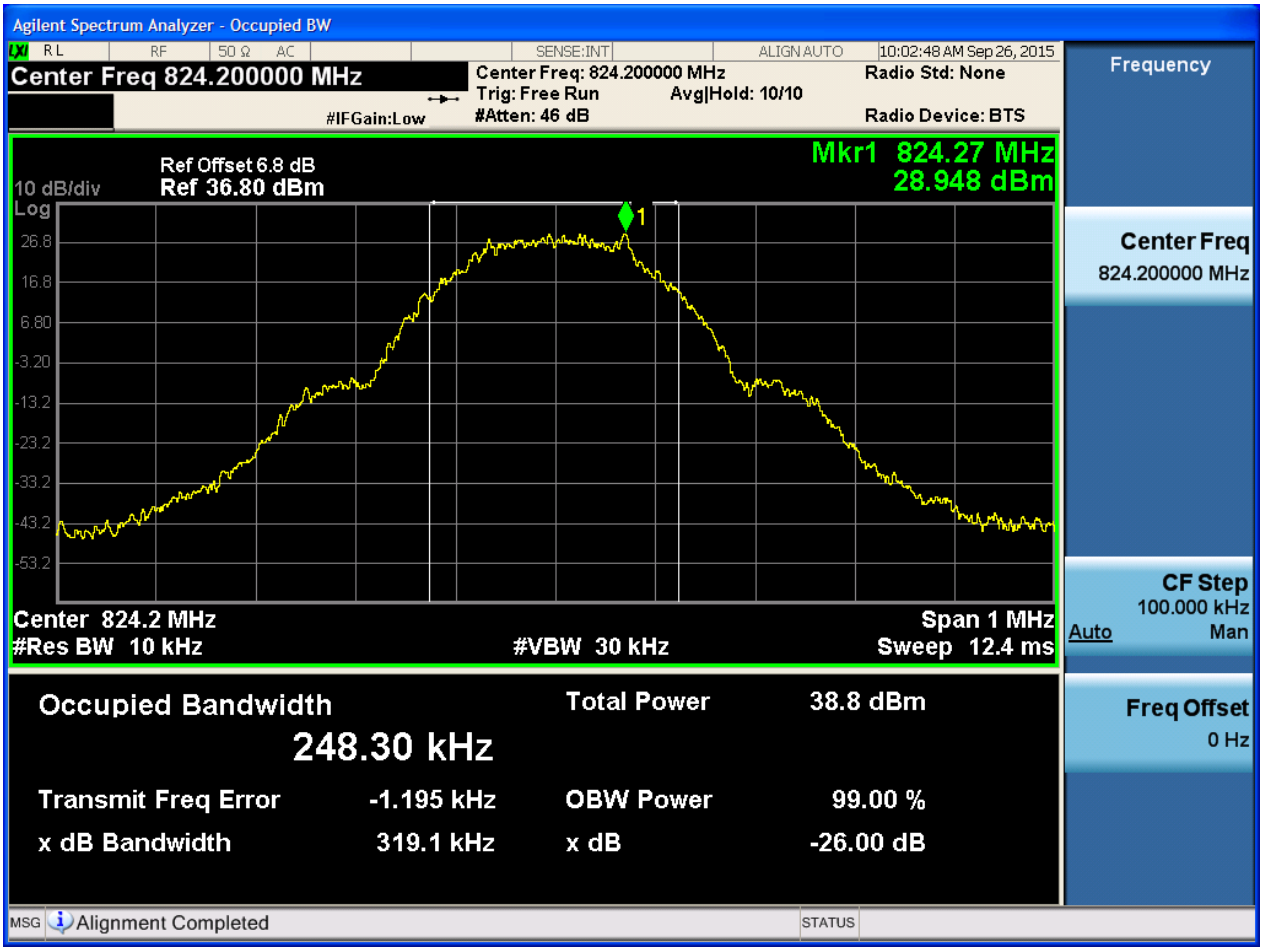
Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [kHz]	Emission Bandwidth [kHz]	Verdict
GSM850	GSM/TM1	LCH	248.30	319.13	Pass
		MCH	245.65	323.16	Pass
		HCH	245.86	321.00	Pass
	GSM/TM2	LCH	240.25	304.15	Pass
		MCH	237.95	310.05	Pass
		HCH	240.83	304.68	Pass
WCDMA850	UMTS/TM1	LCH	4.10	4.66	Pass
		MCH	4.09	4.66	Pass
		HCH	4.10	4.95	Pass
GSM1900	GSM/TM1	LCH	244.18	315.26	Pass
		MCH	246.66	318.05	Pass
		HCH	246.20	318.02	Pass
	GSM/TM2	LCH	252.48	328.47	Pass
		MCH	253.51	318.34	Pass
		HCH	253.24	324.91	Pass
WCDMA1900	UMTS/TM1	LCH	4.10	4.67	Pass
		MCH	4.11	4.66	Pass
		HCH	4.11	4.67	Pass

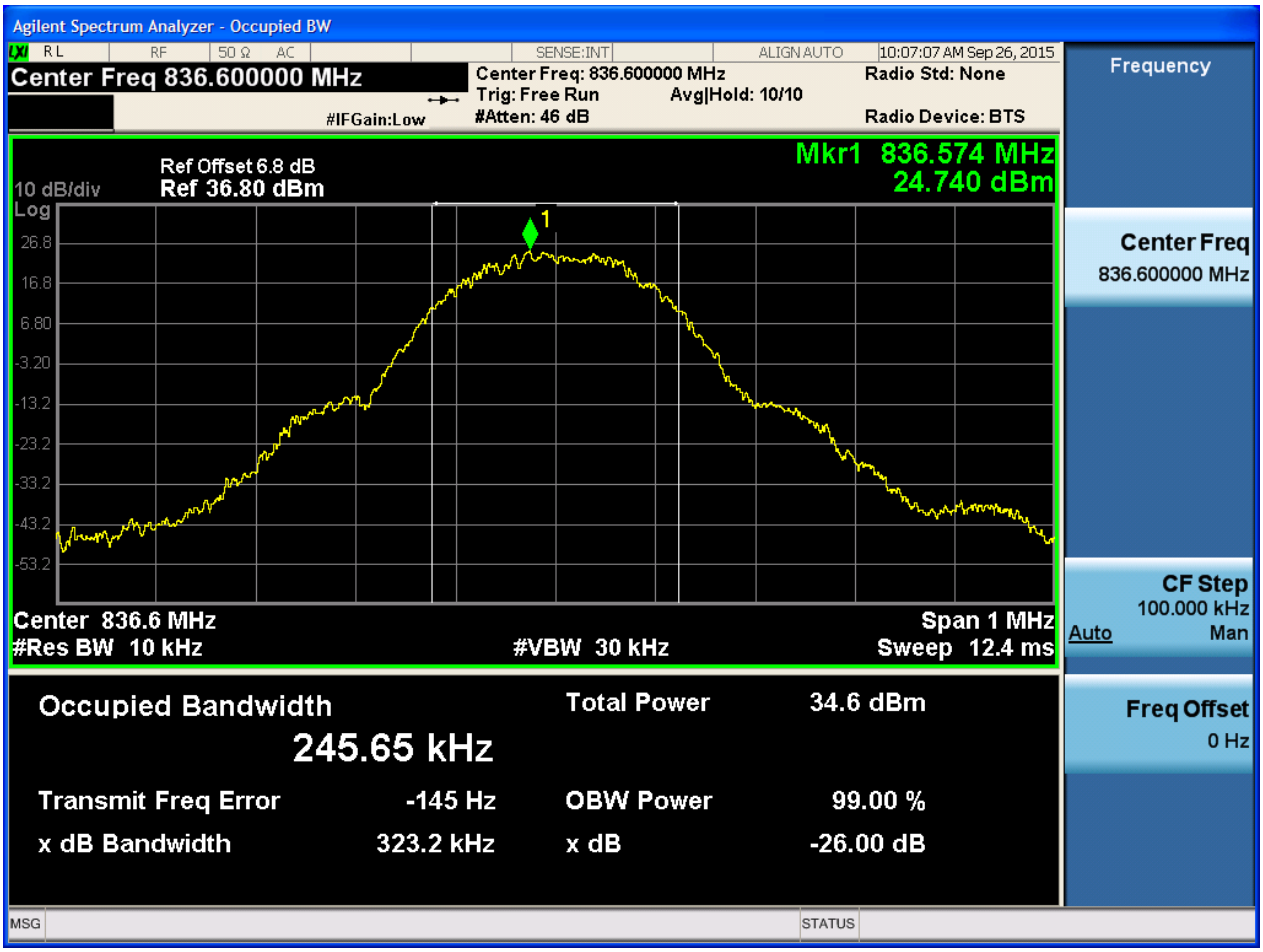
4.1.1 Test Band = GSM850

4.1.1.1 Test Mode = GSM/TM1

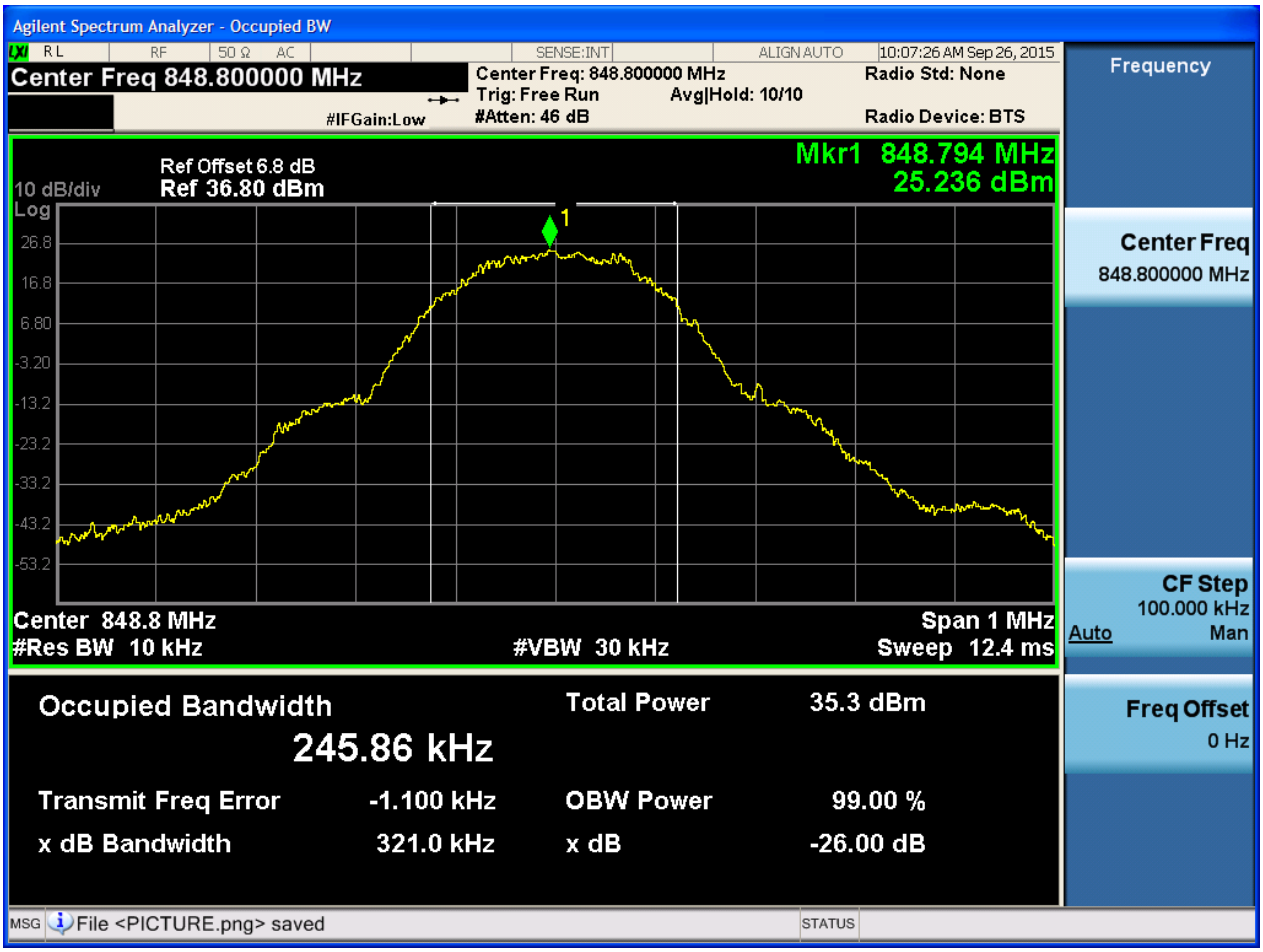
4.1.1.1.1 Test Channel = LCH



4.1.1.1.2 Test Channel = MCH

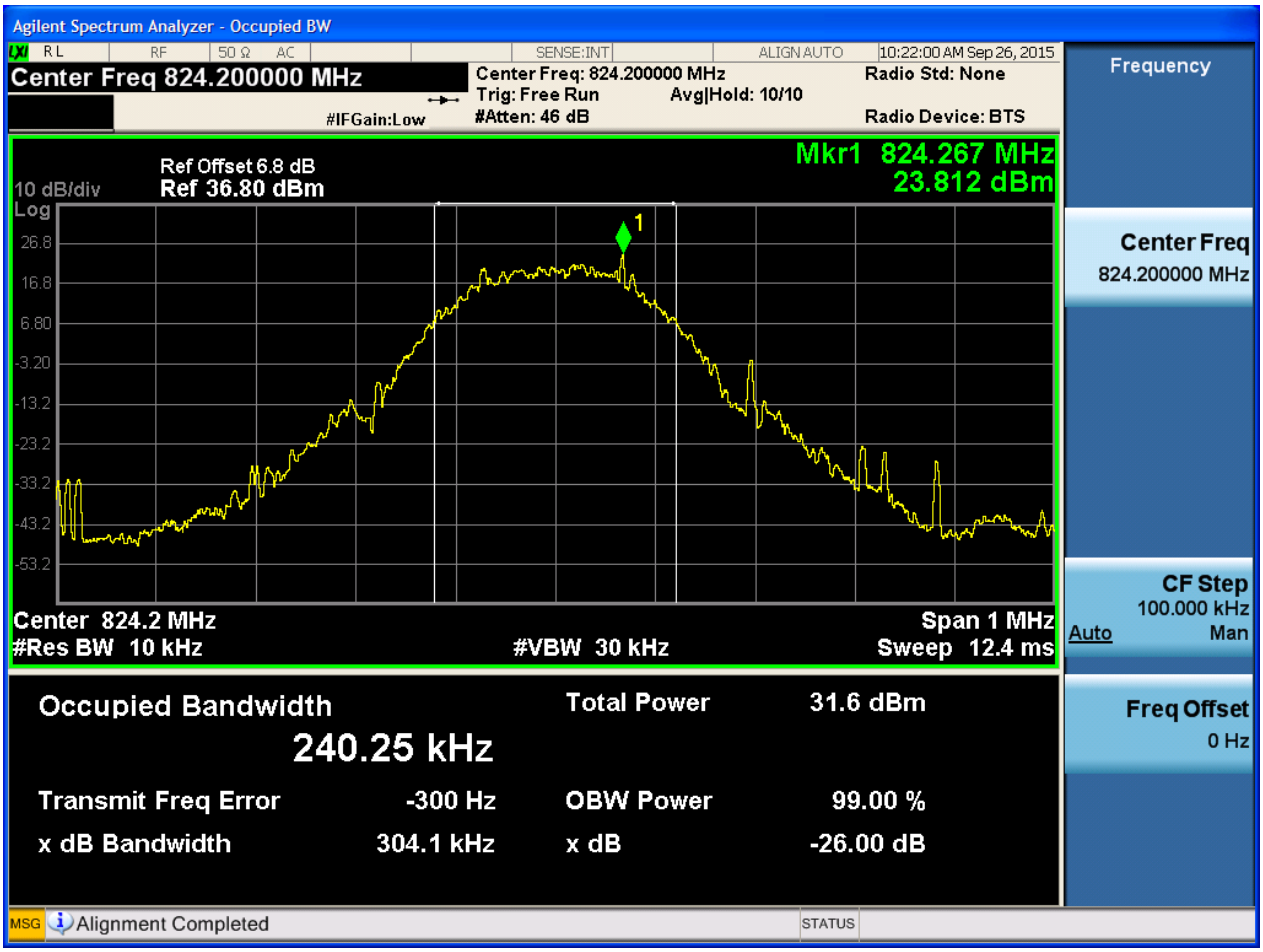


4.1.1.1.3 Test Channel = HCH

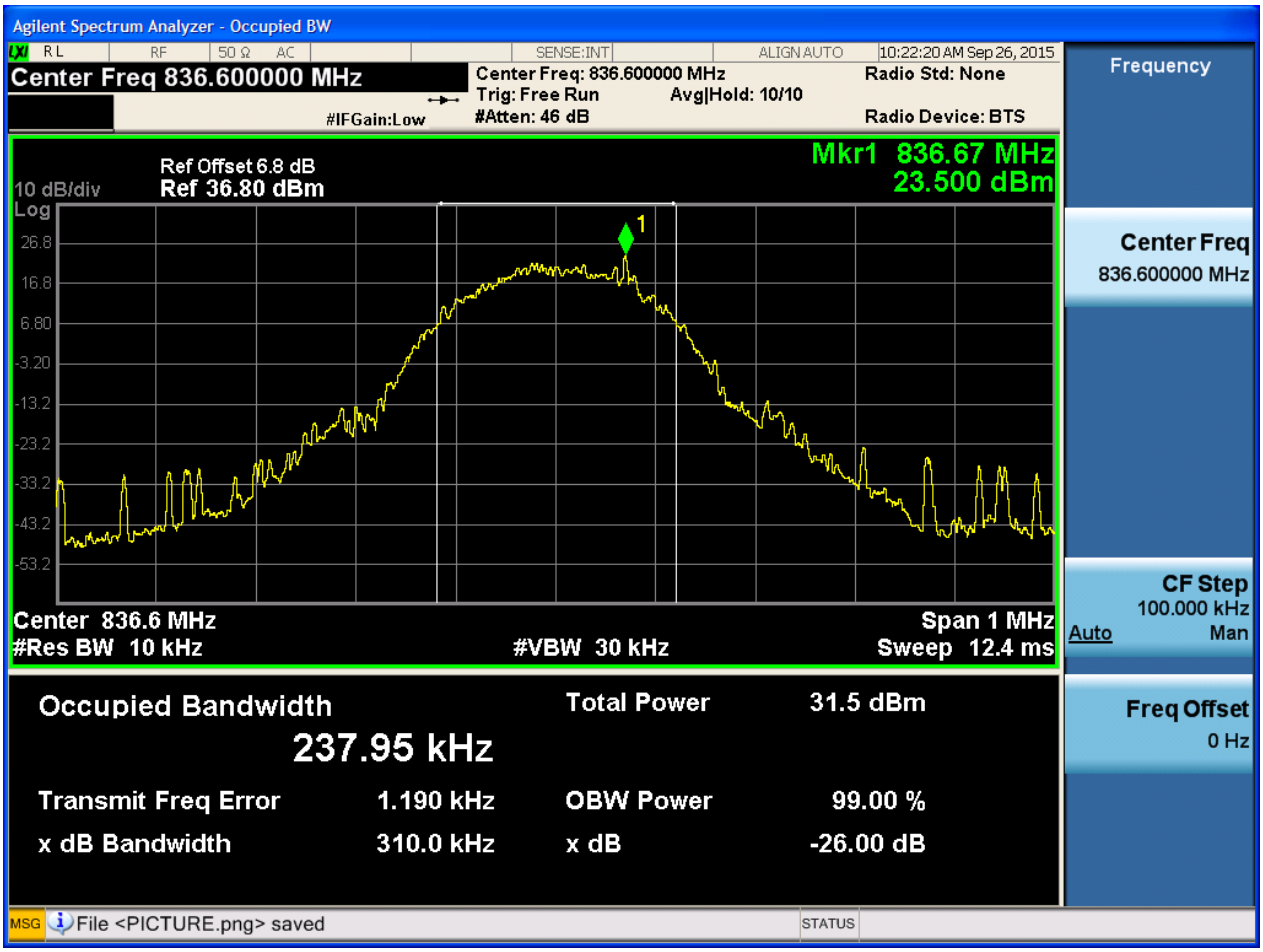


4.1.1.2 Test Mode = GSM/TM2

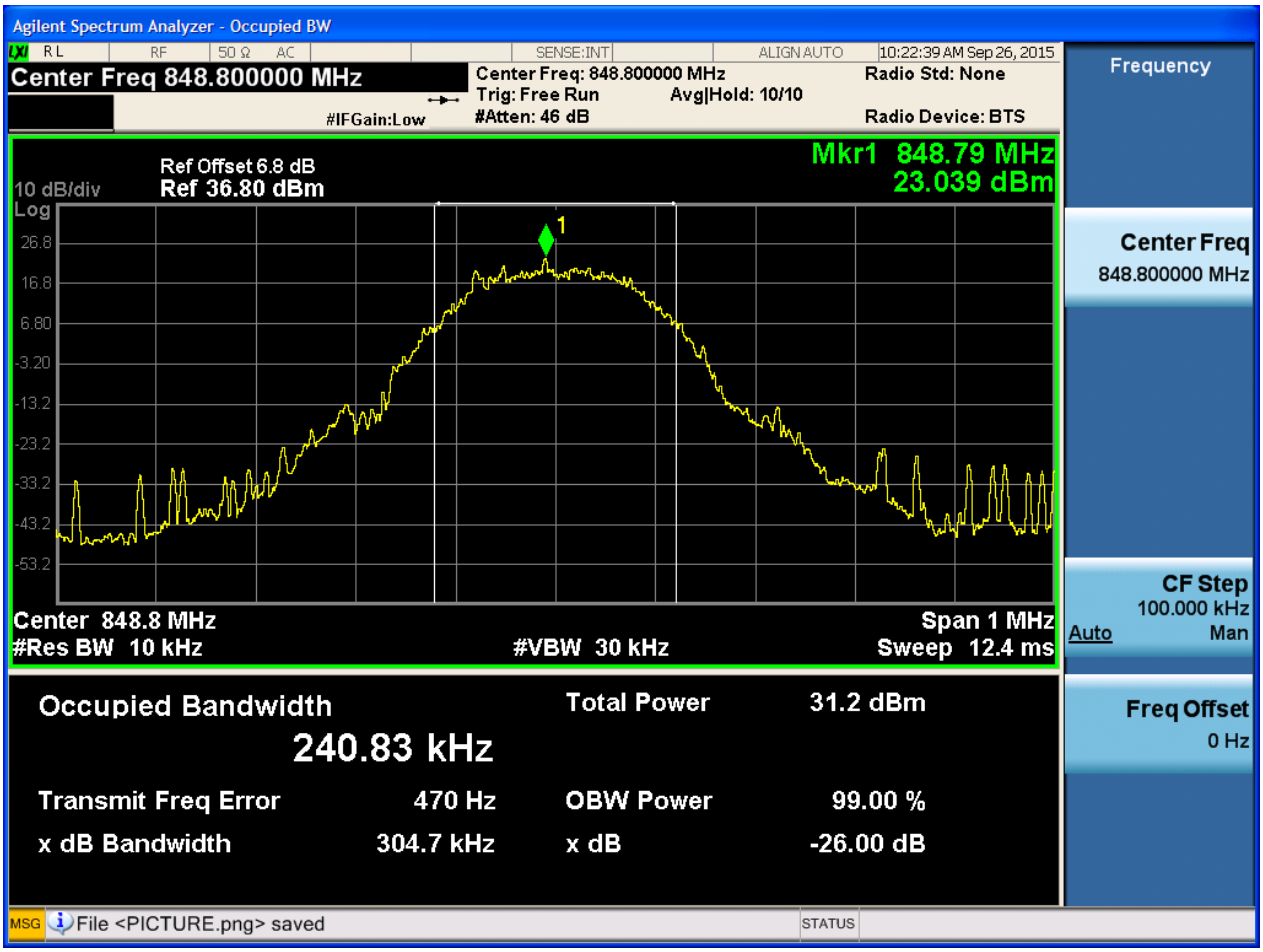
4.1.1.2.1 Test Channel = LCH



4.1.1.2.2 Test Channel = MCH



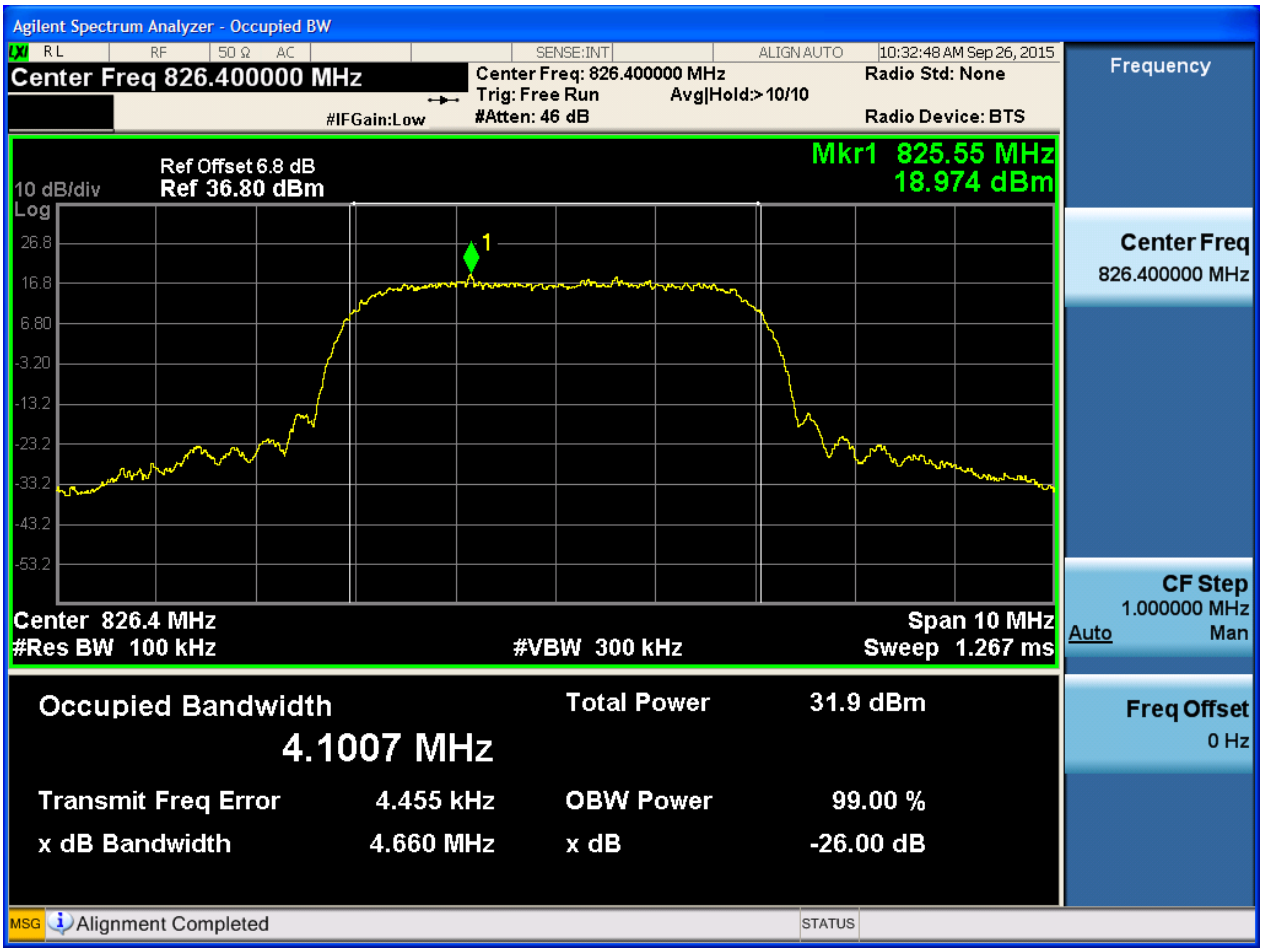
4.1.1.2.3 Test Channel = HCH



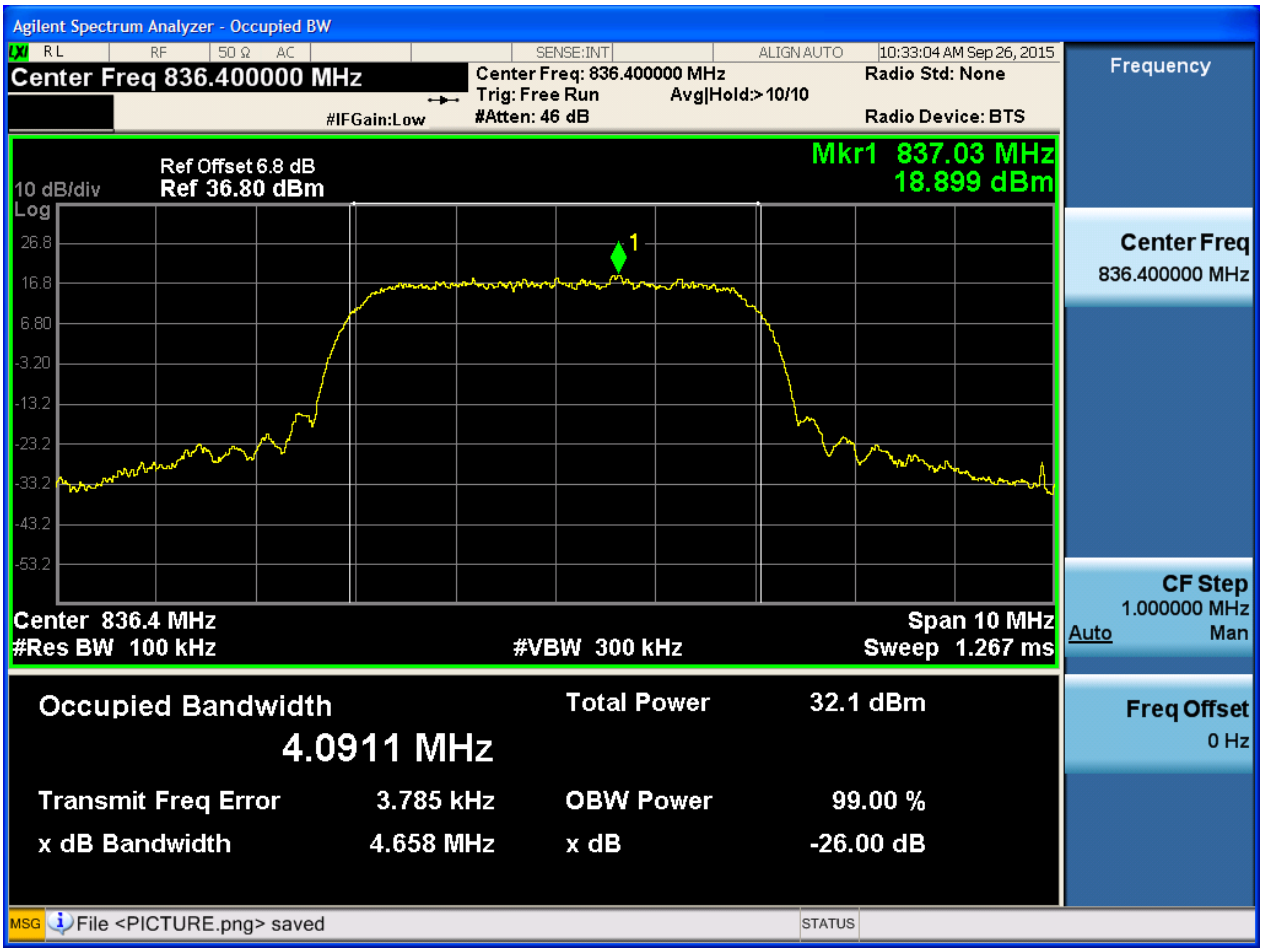
4.1.2 Test Band = WCDMA850

4.1.2.1 Test Mode = UMTS/TM1

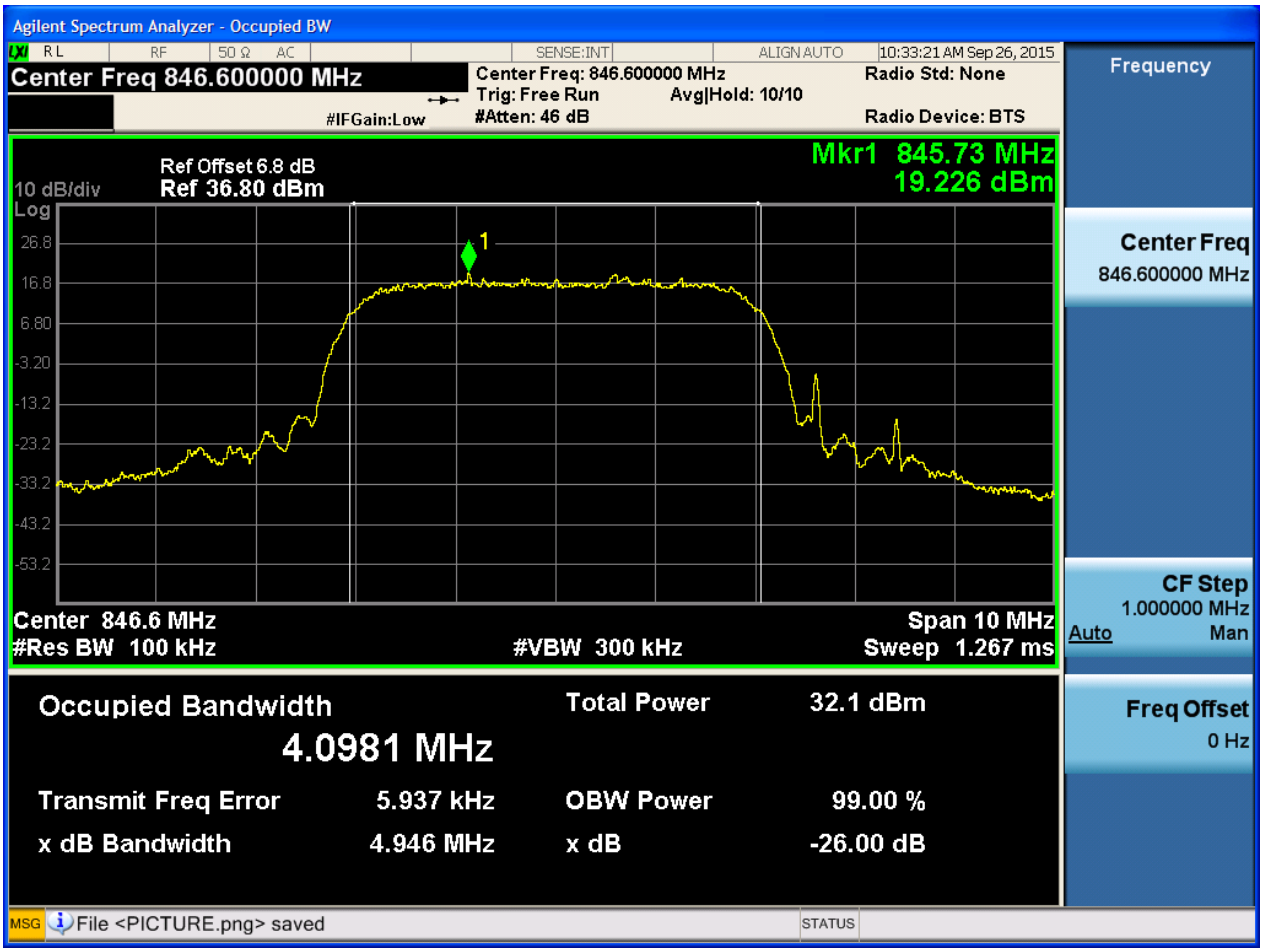
4.1.2.1.1 Test Channel = LCH



4.1.2.1.2 Test Channel = MCH



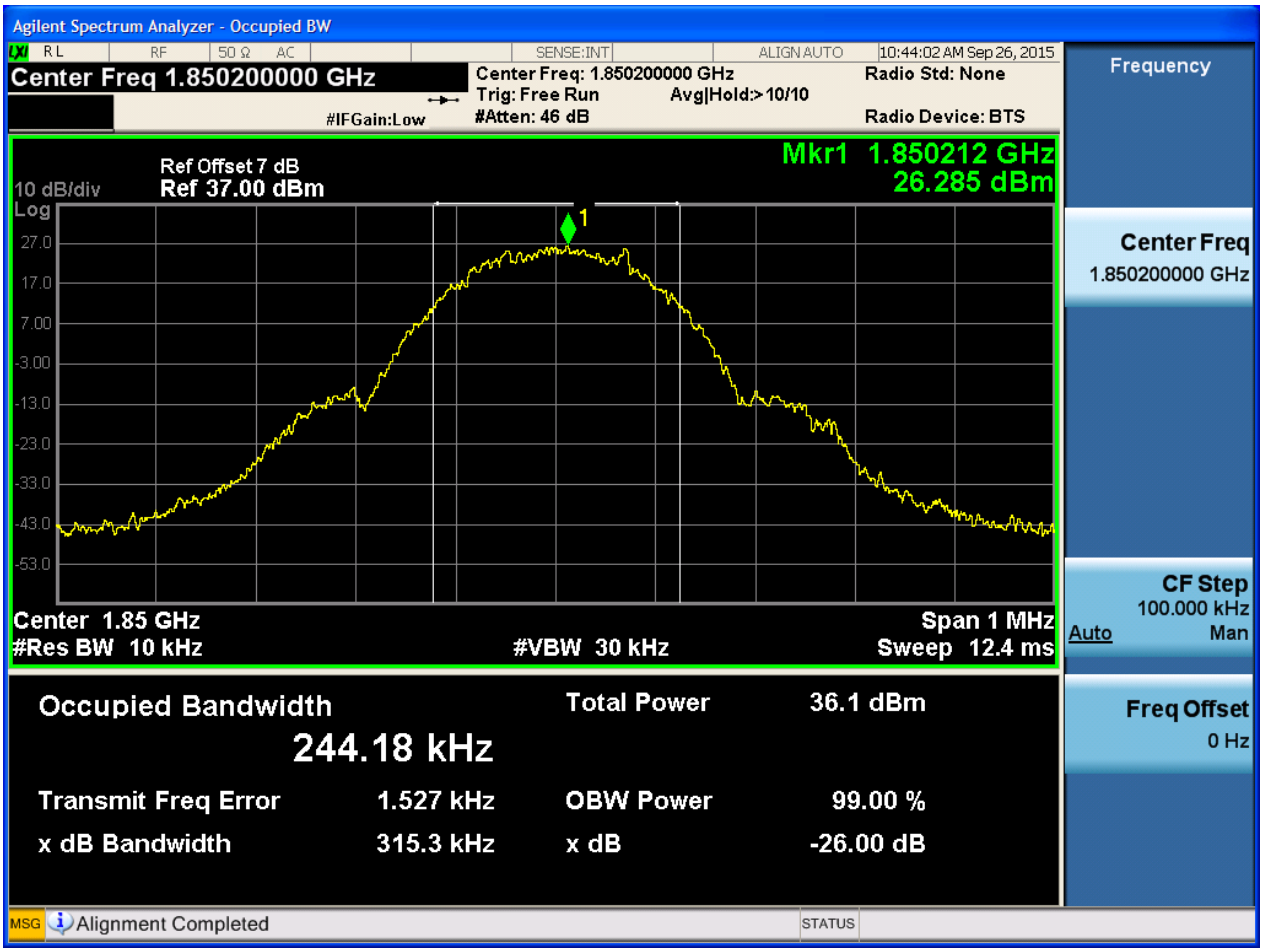
4.1.2.1.3 Test Channel = HCH



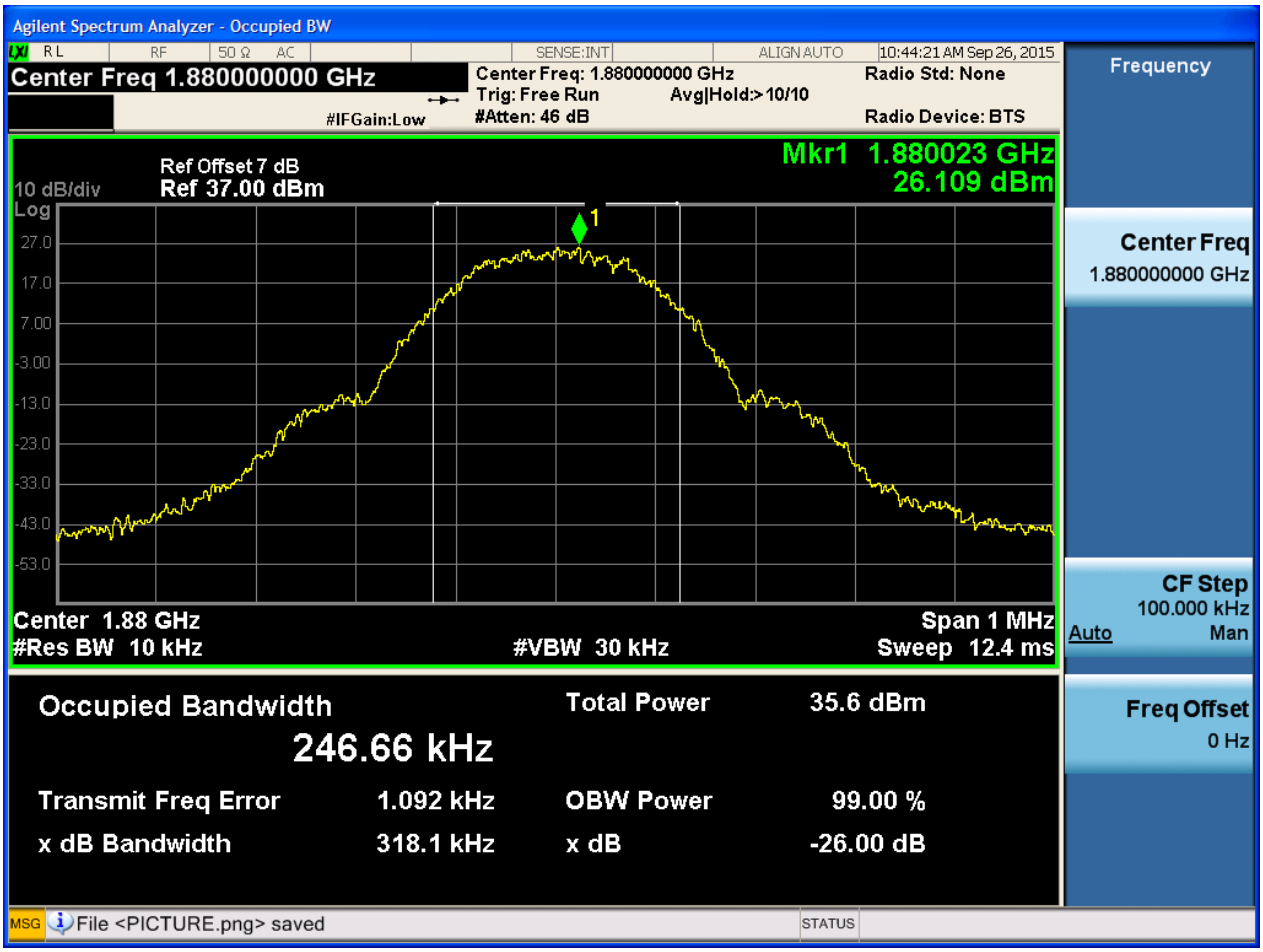
4.1.3 Test Band = GSM1900

4.1.3.1 Test Mode = GSM/TM1

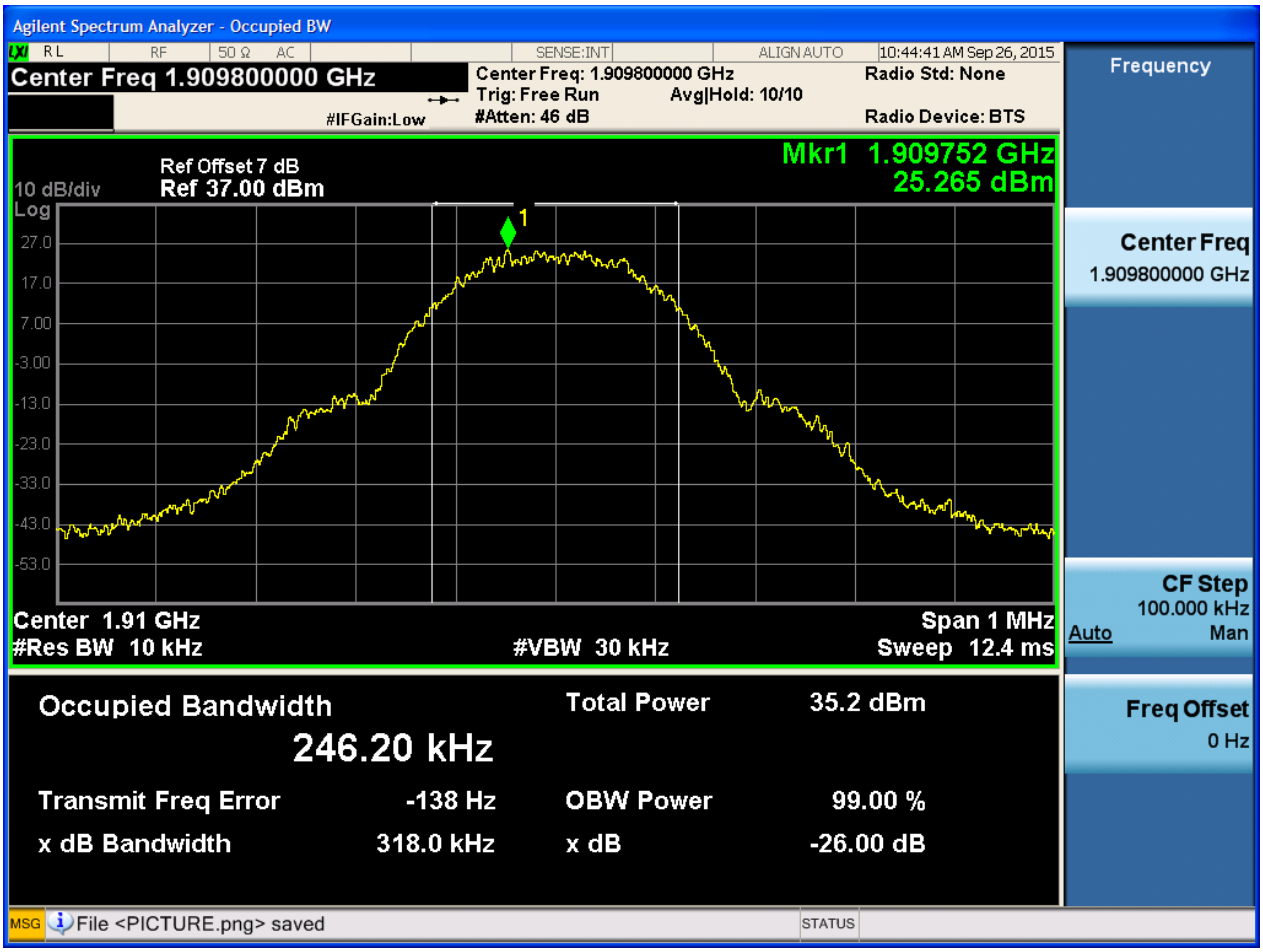
4.1.3.1.1 Test Channel = LCH



4.1.3.1.2 Test Channel = MCH

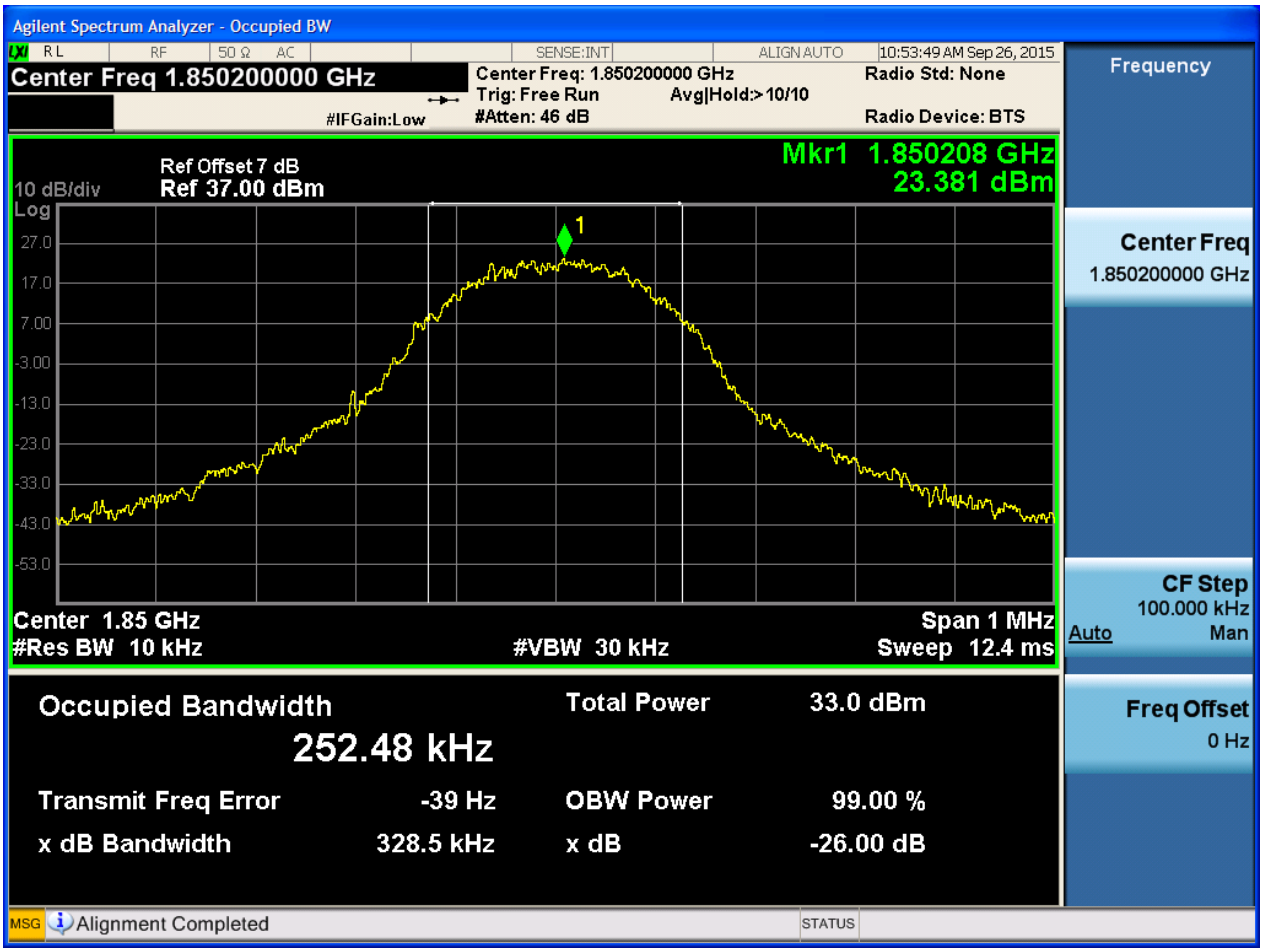


4.1.3.1.3 Test Channel = HCH

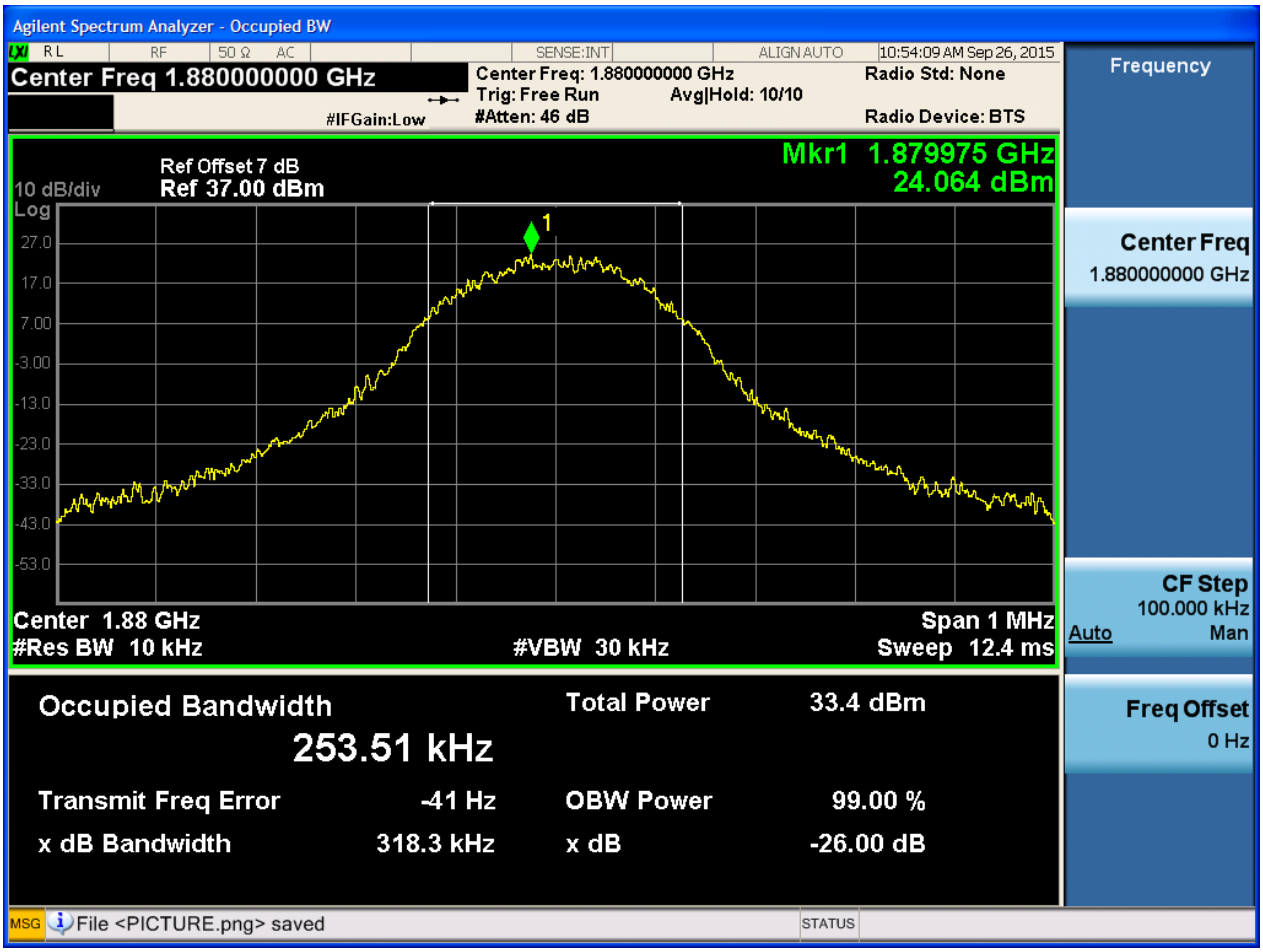


4.1.3.2 Test Mode = GSM/TM2

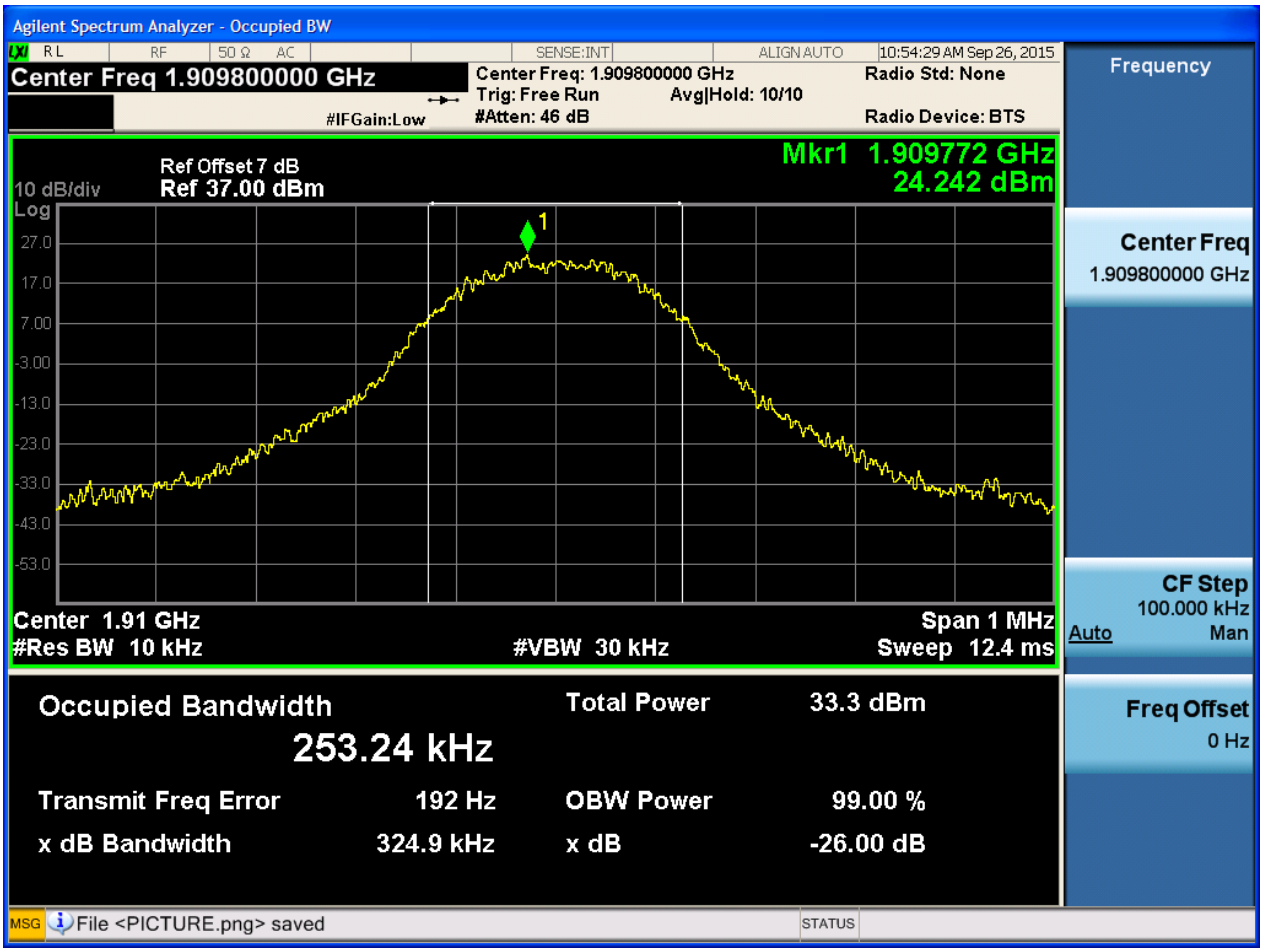
4.1.3.2.1 Test Channel = LCH



4.1.3.2.2 Test Channel = MCH



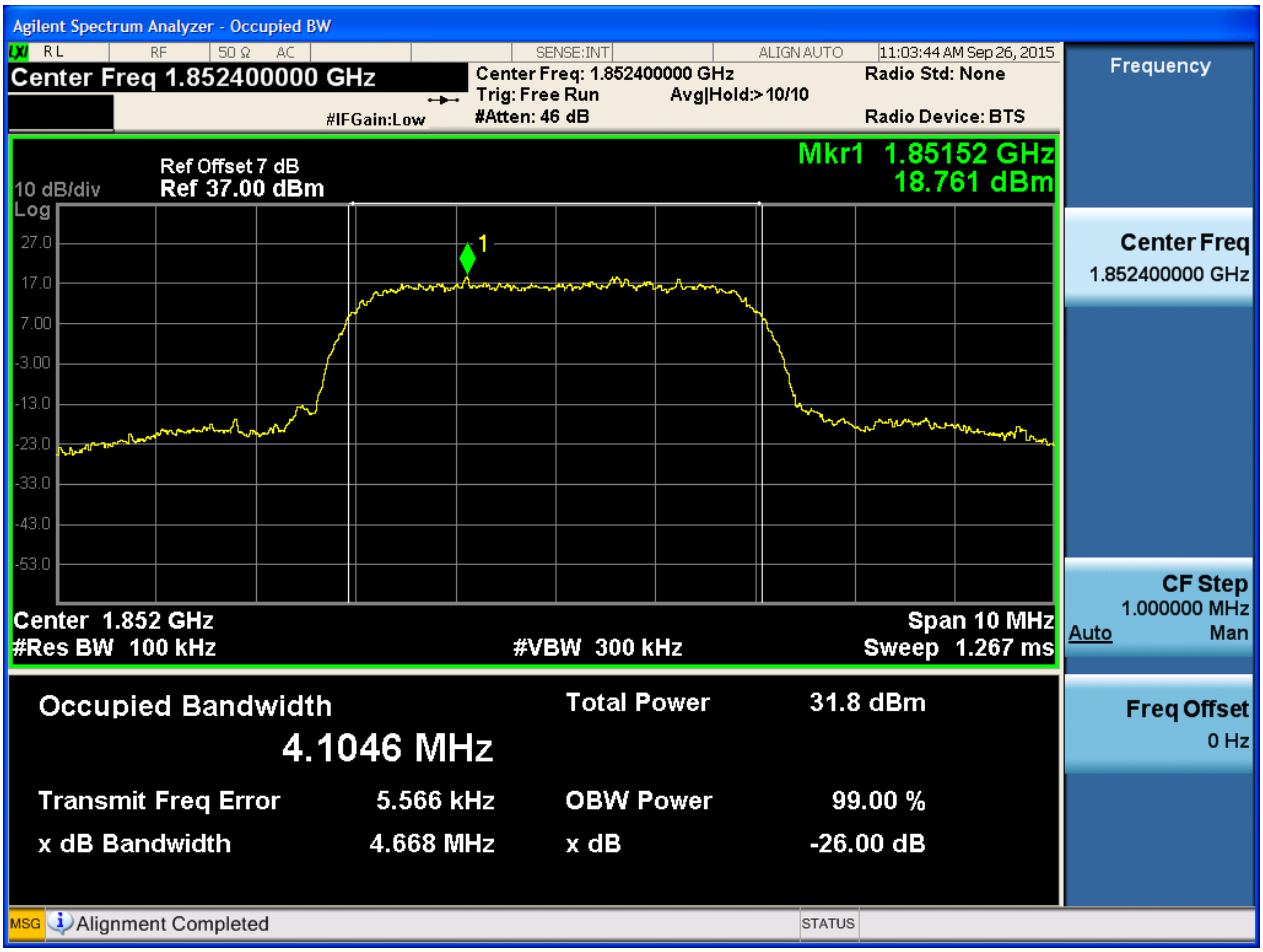
4.1.3.2.3 Test Channel = HCH



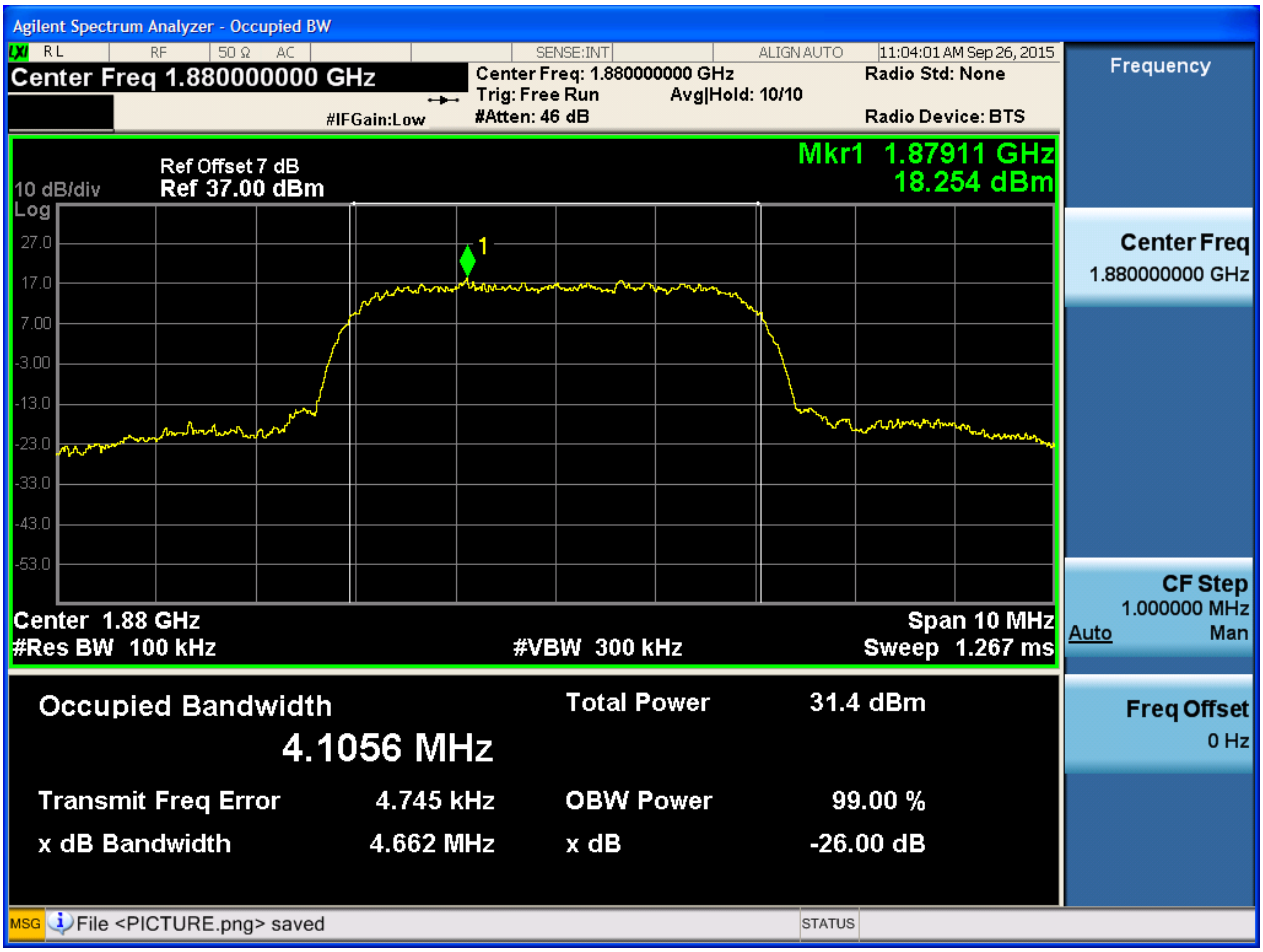
4.1.4 Test Band = WCDMA1900

4.1.4.1 Test Mode = UMTS/TM1

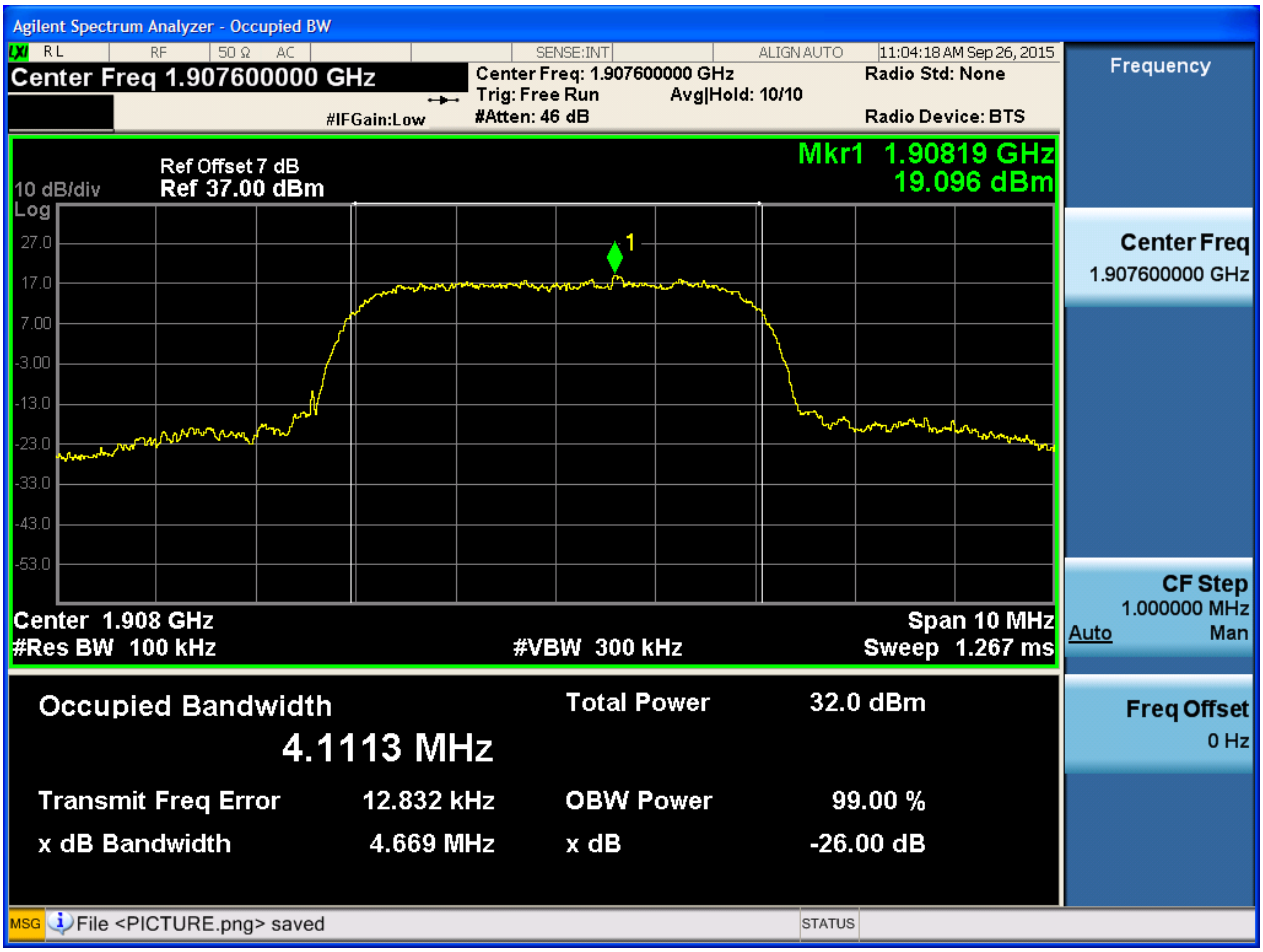
4.1.4.1.1 Test Channel = LCH



4.1.4.1.2 Test Channel = MCH



4.1.4.1.3 Test Channel = HCH



5Appendix_E: Band Edges Compliance

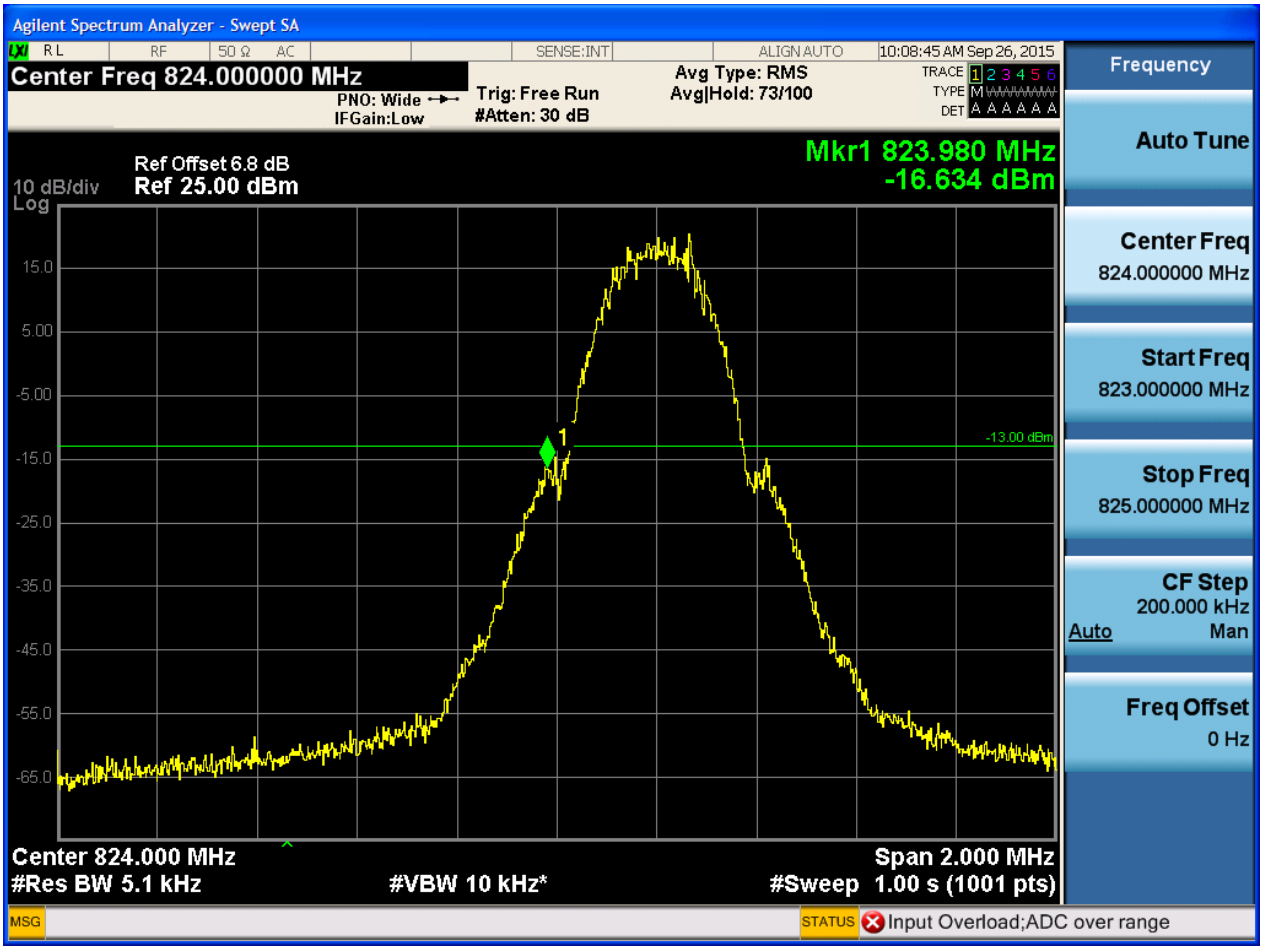
Part I - Test Plots

5.1 For GSM

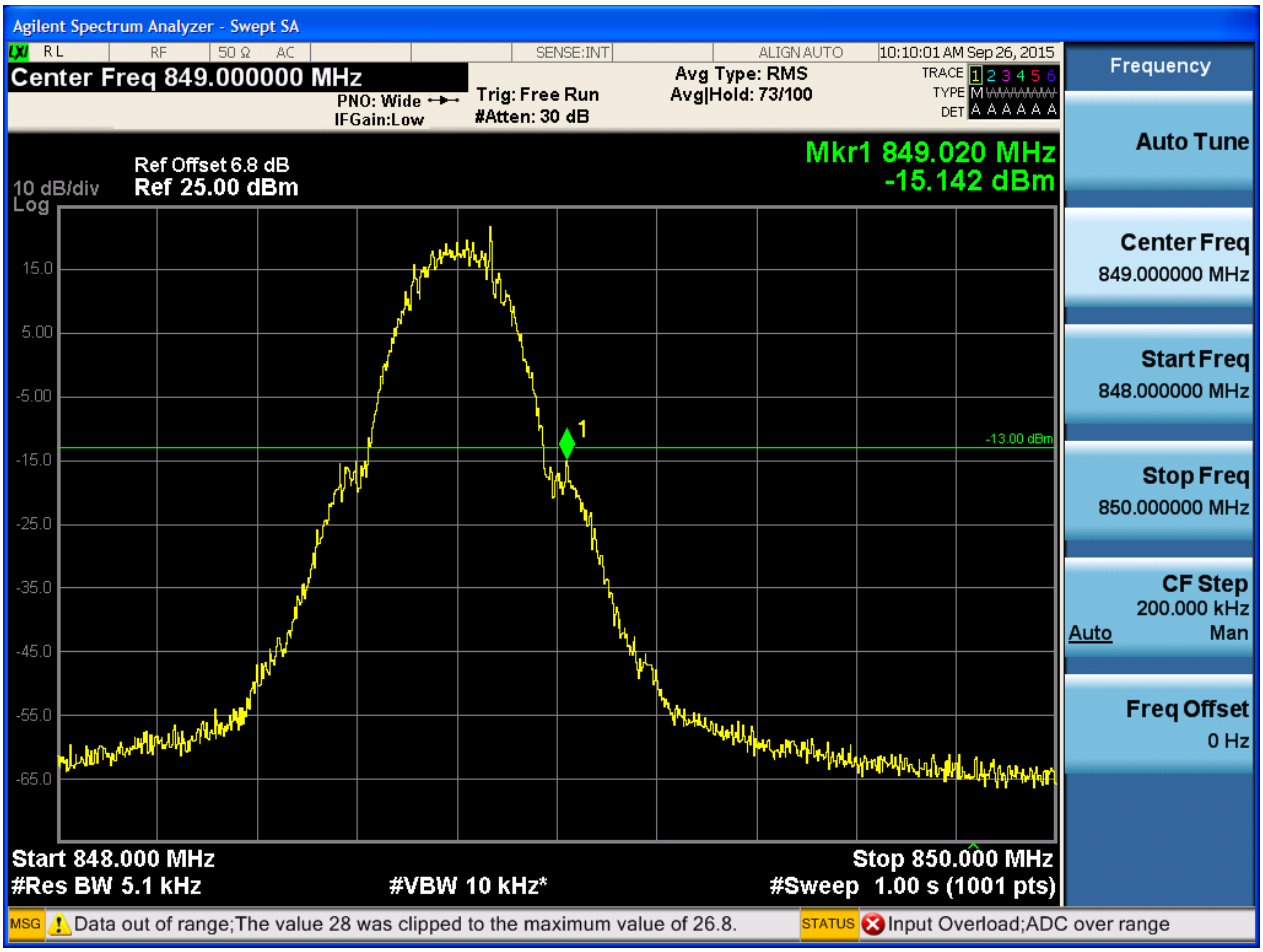
5.1.1 Test Band = GSM850

5.1.1.1 Test Mode = GSM/TM1

5.1.1.1.1 Test Channel = LCH

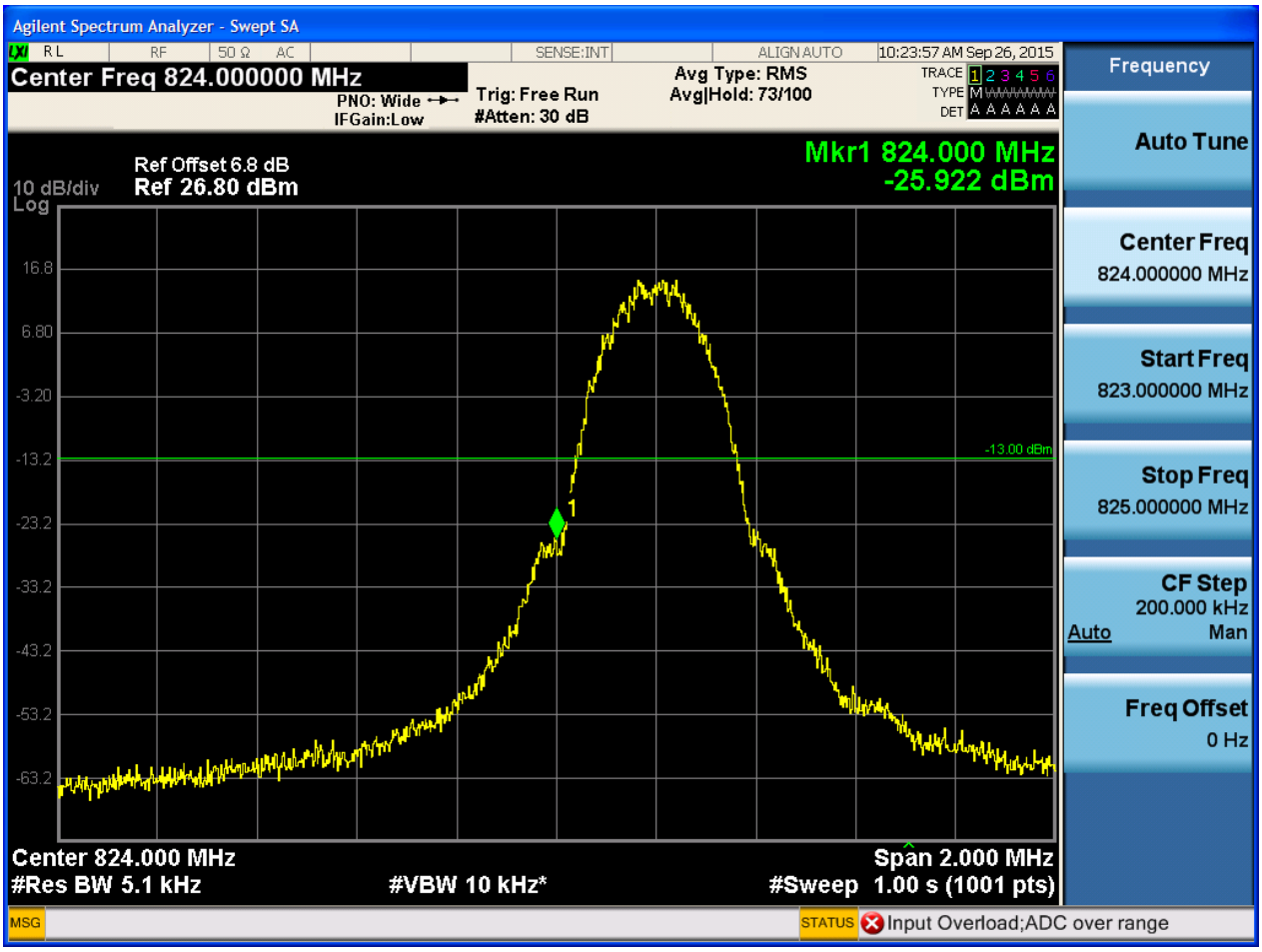


5.1.1.1.2 Test Channel = HCH

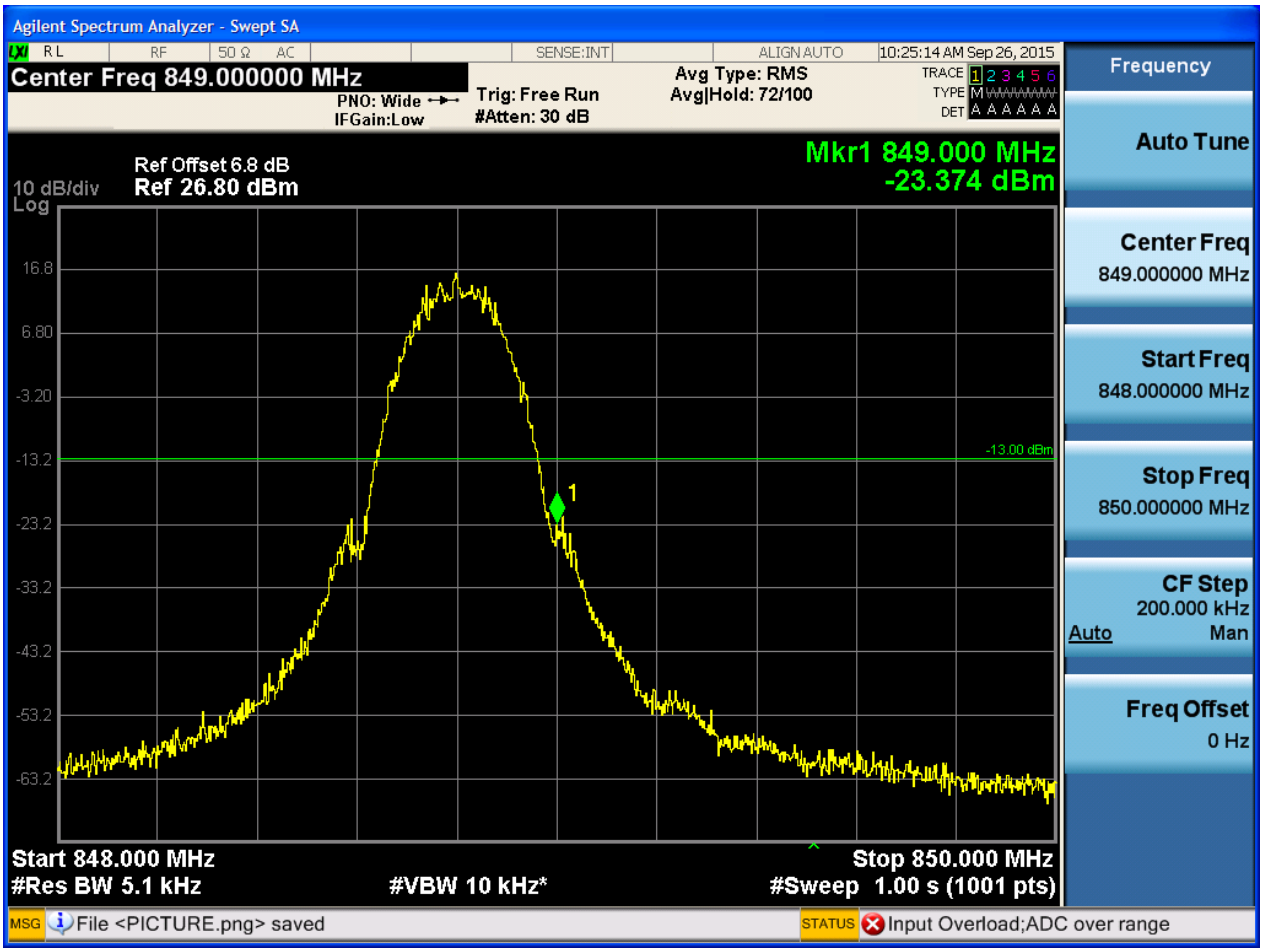


5.1.1.2 Test Mode = GSM/TM2

5.1.1.2.1 Test Channel = LCH



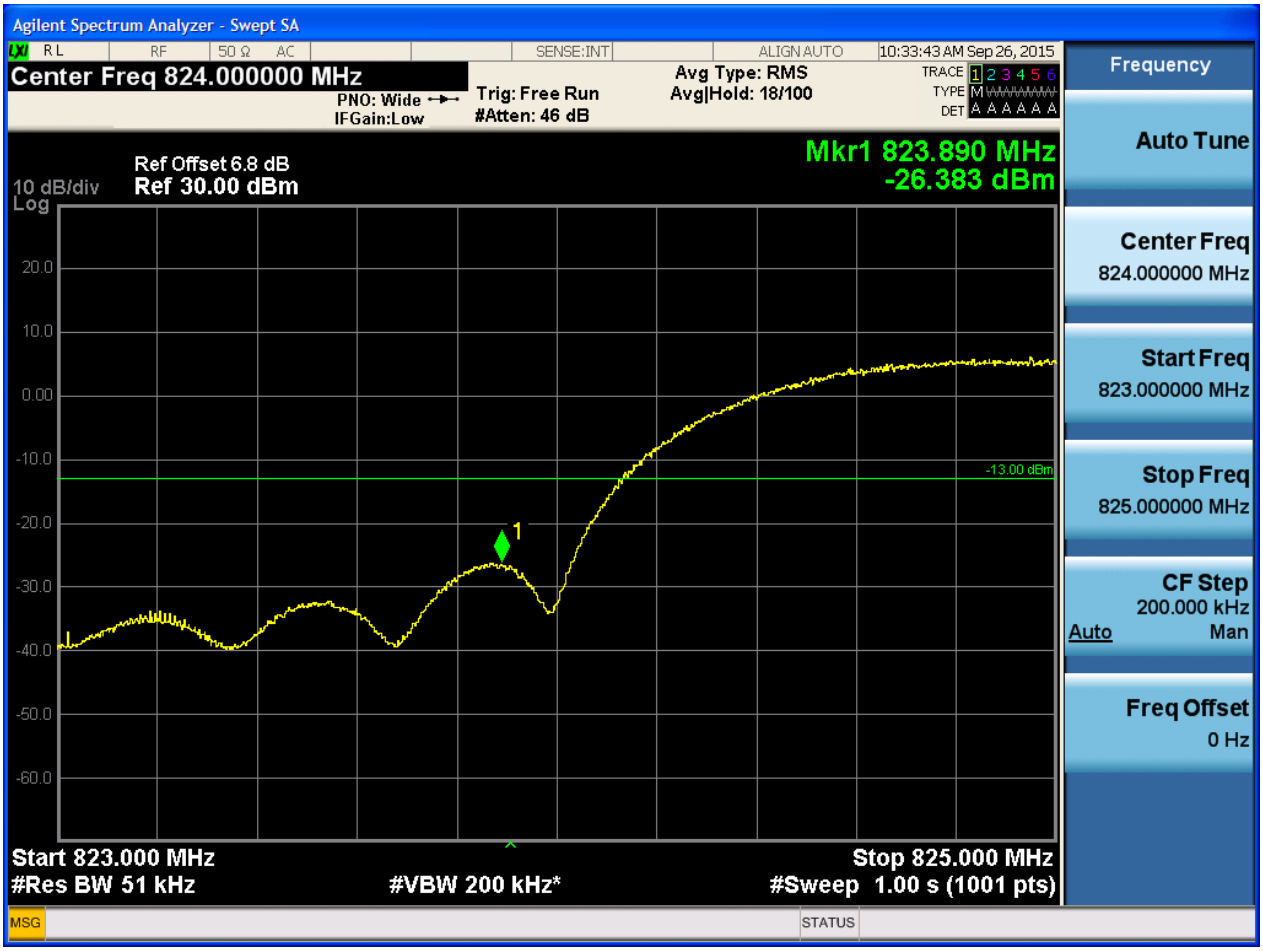
5.1.1.2.2 Test Channel = HCH



5.1.2 Test Band = WCDMA850

5.1.2.1 Test Mode = UMTS/TM1

5.1.2.1.1 Test Channel = LCH

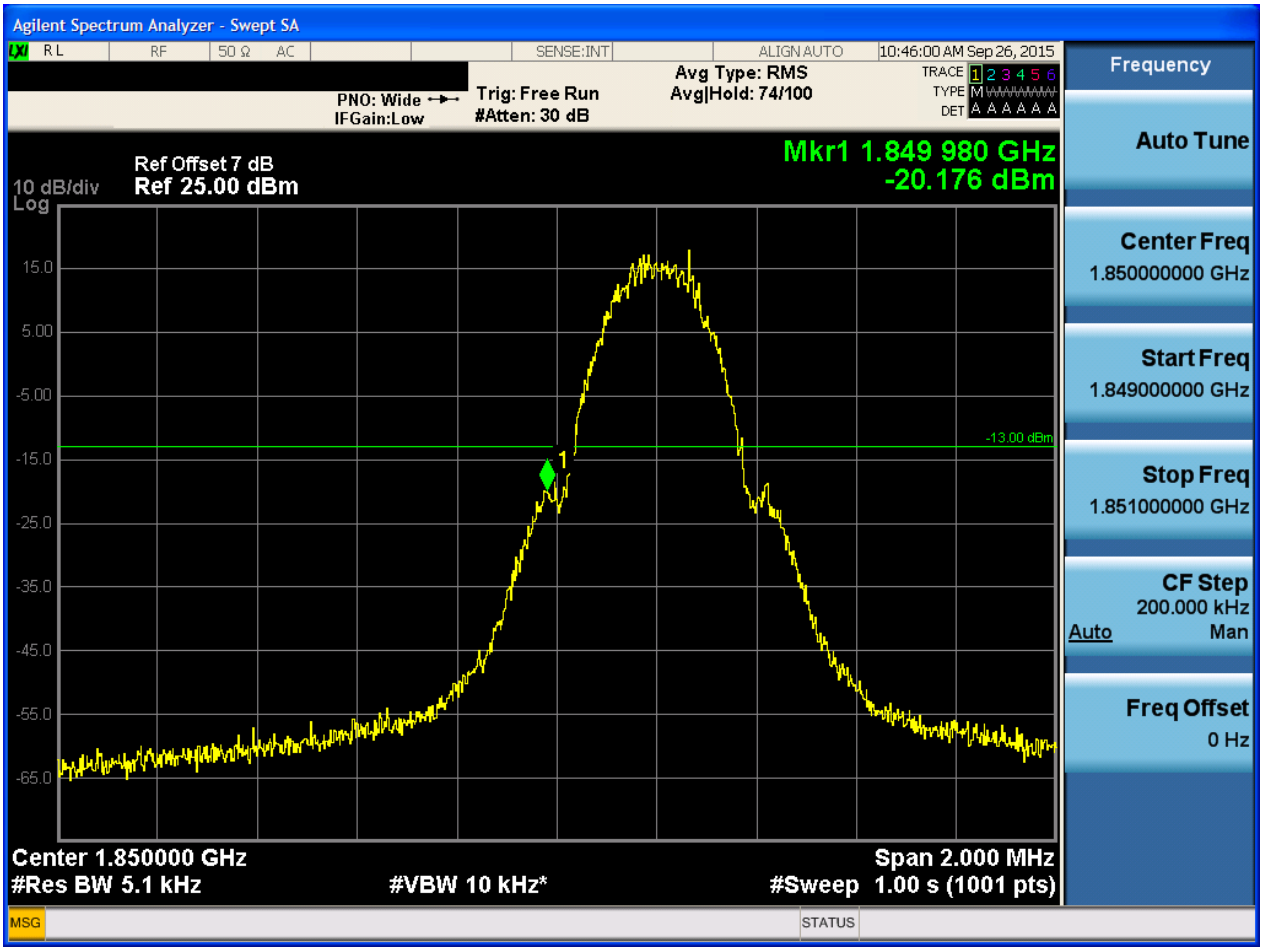


5.1.2.1.2 Test Channel = HCH

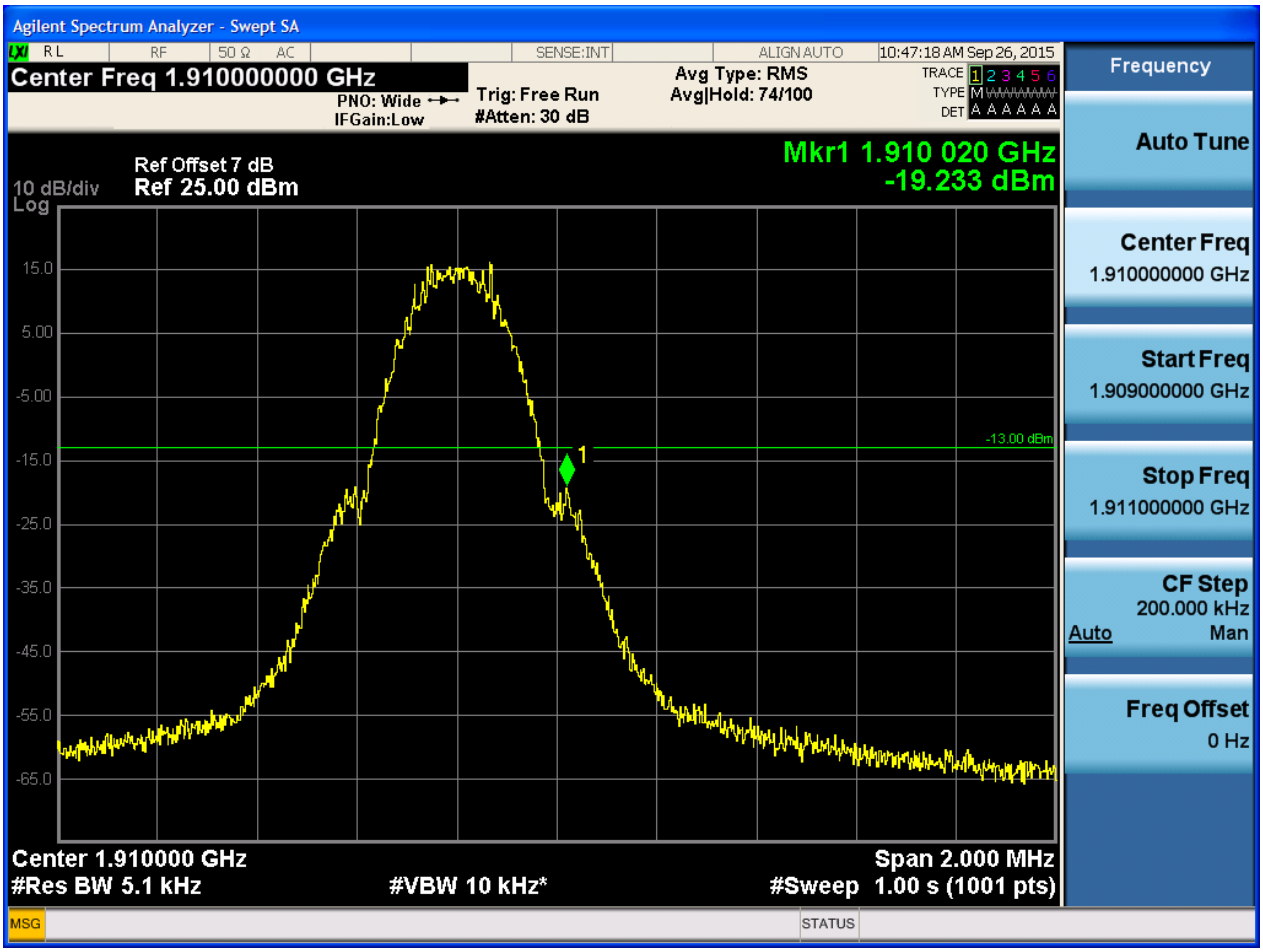
5.1.3 Test Band = GSM1900

5.1.3.1 Test Mode = GSM/TM1

5.1.3.1.1 Test Channel = LCH

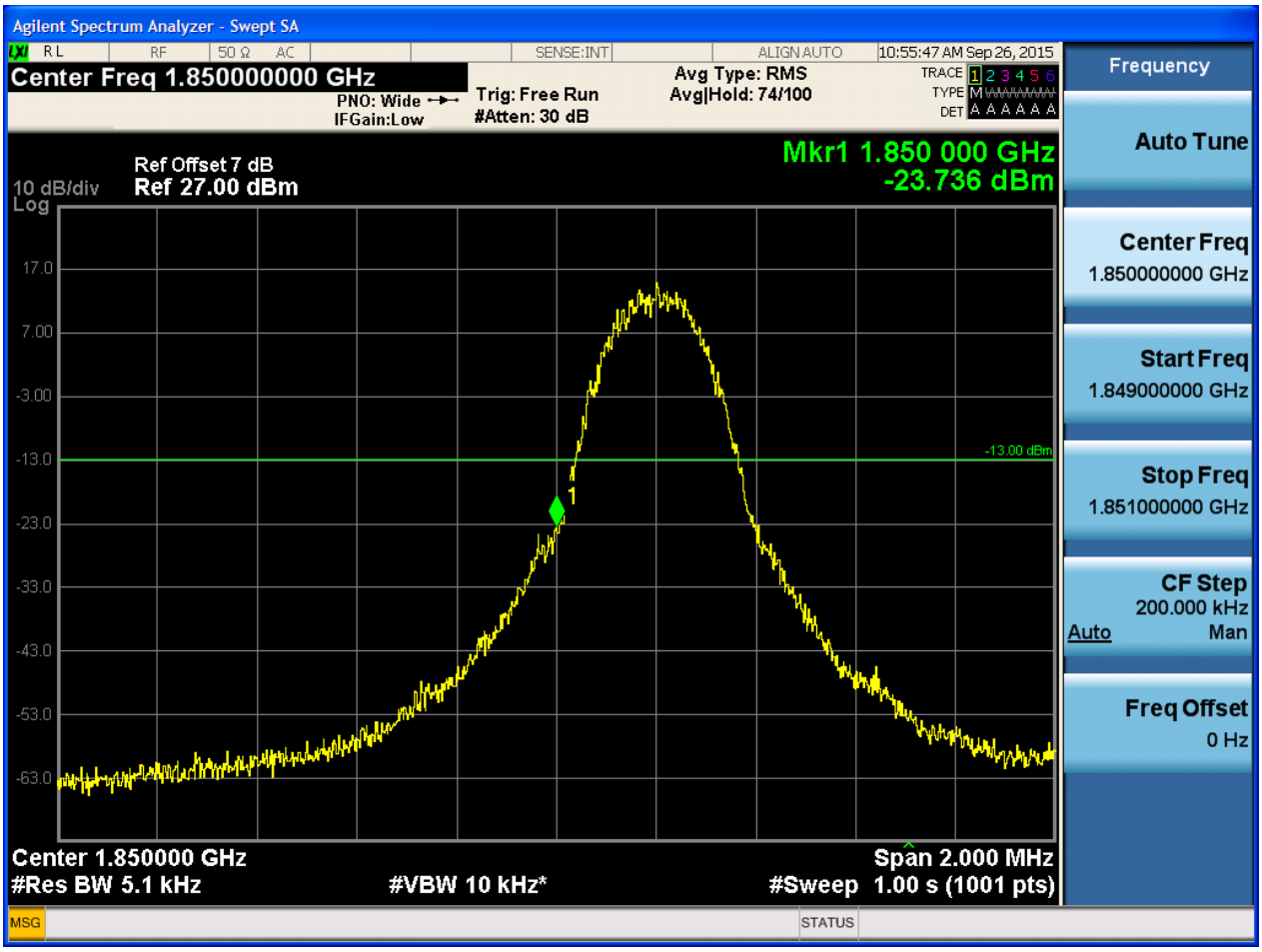


5.1.3.1.2 Test Channel = HCH

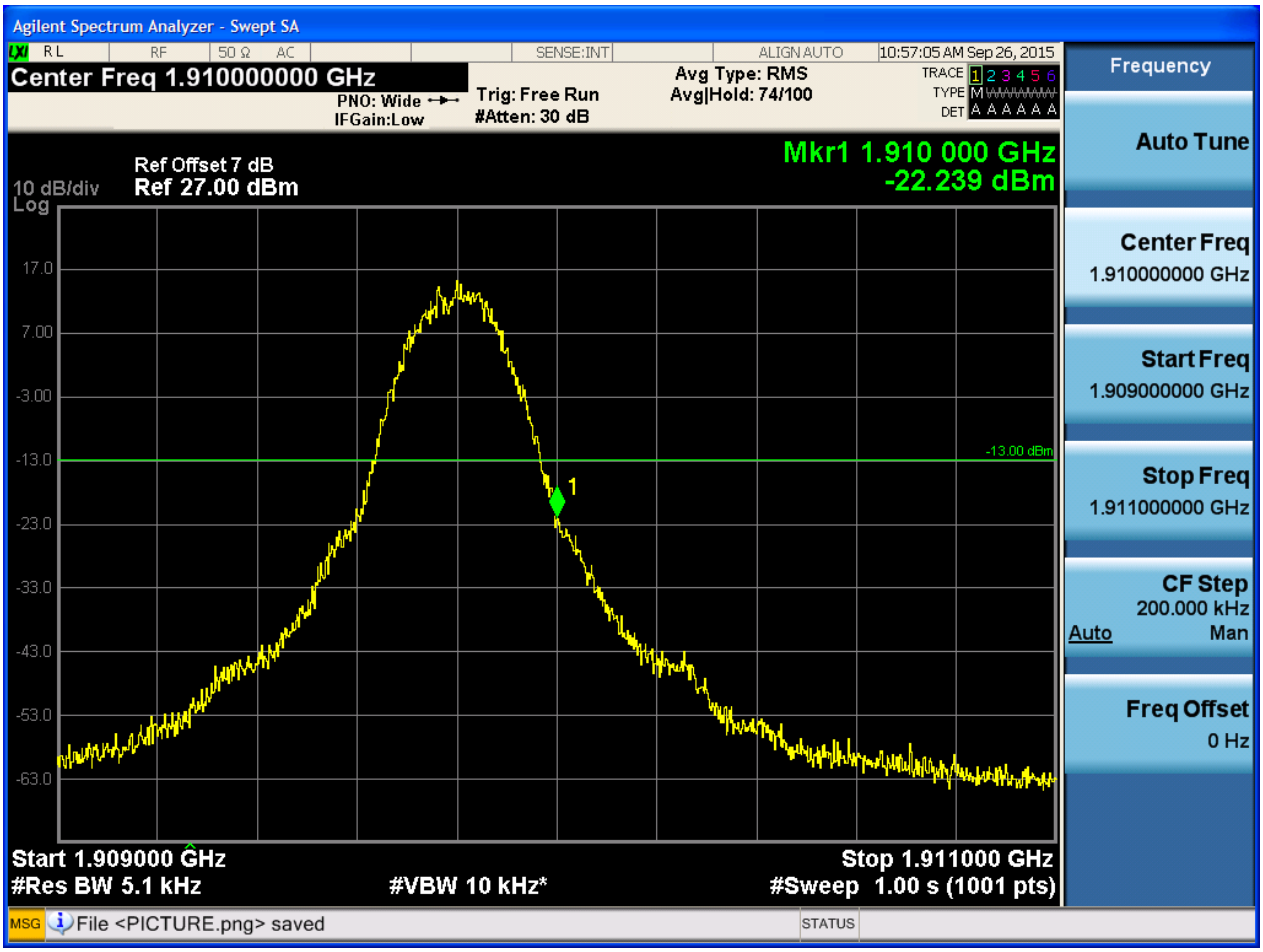


5.1.3.2 Test Mode = GSM/TM2

5.1.3.2.1 Test Channel = LCH



5.1.3.2.2 Test Channel = HCH



5.1.4 Test Band = WCDMA1900

5.1.4.1 Test Mode = UMTS/TM1

5.1.4.1.1 Test Channel = LCH

5.1.4.1.2 Test Channel = HCH

6Appendix_F: Spurious Emission at Antenna Terminal

NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of < RBW/2 so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = k * (Span / RBW)" with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

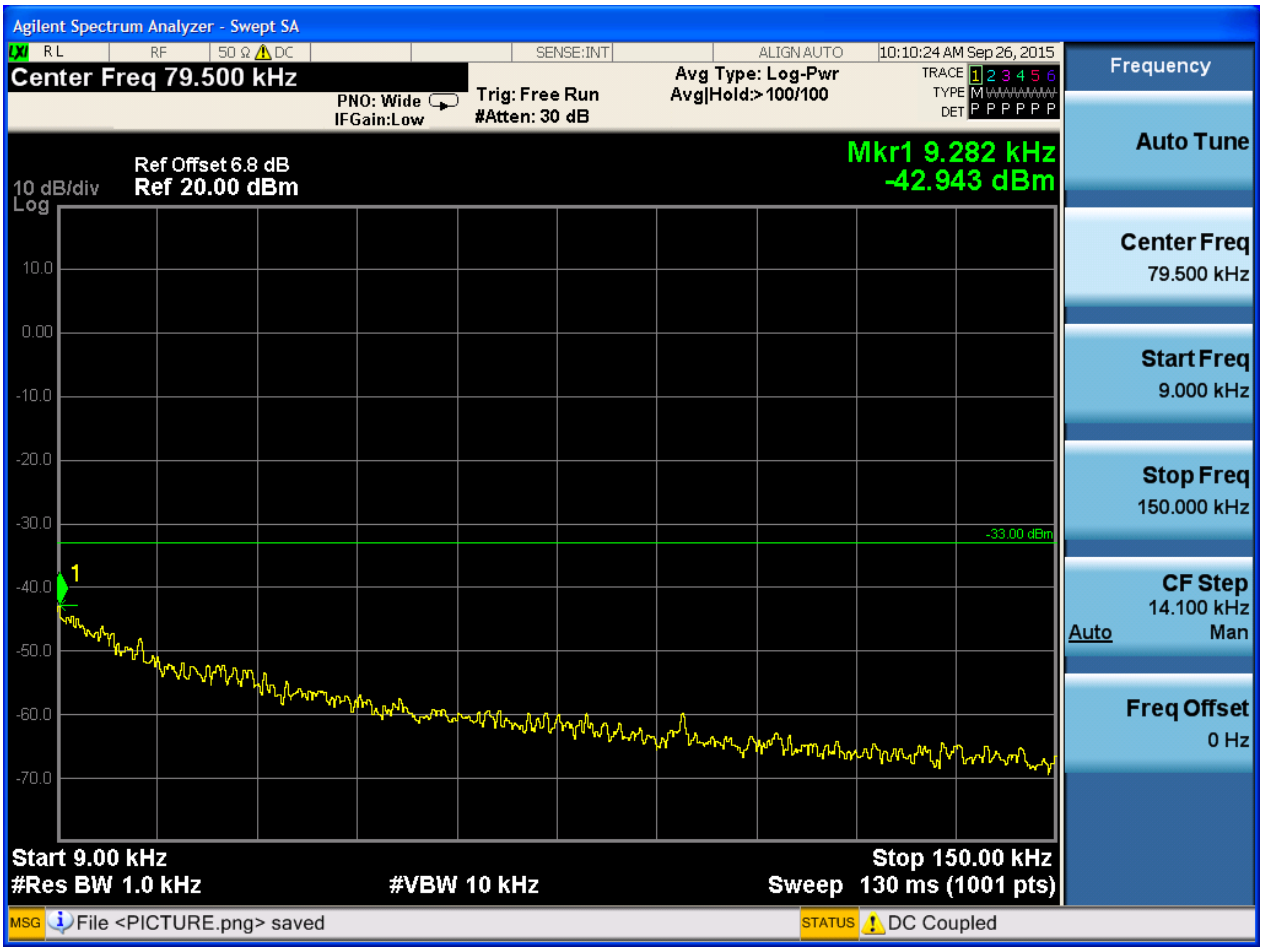
Part I - Test Plots

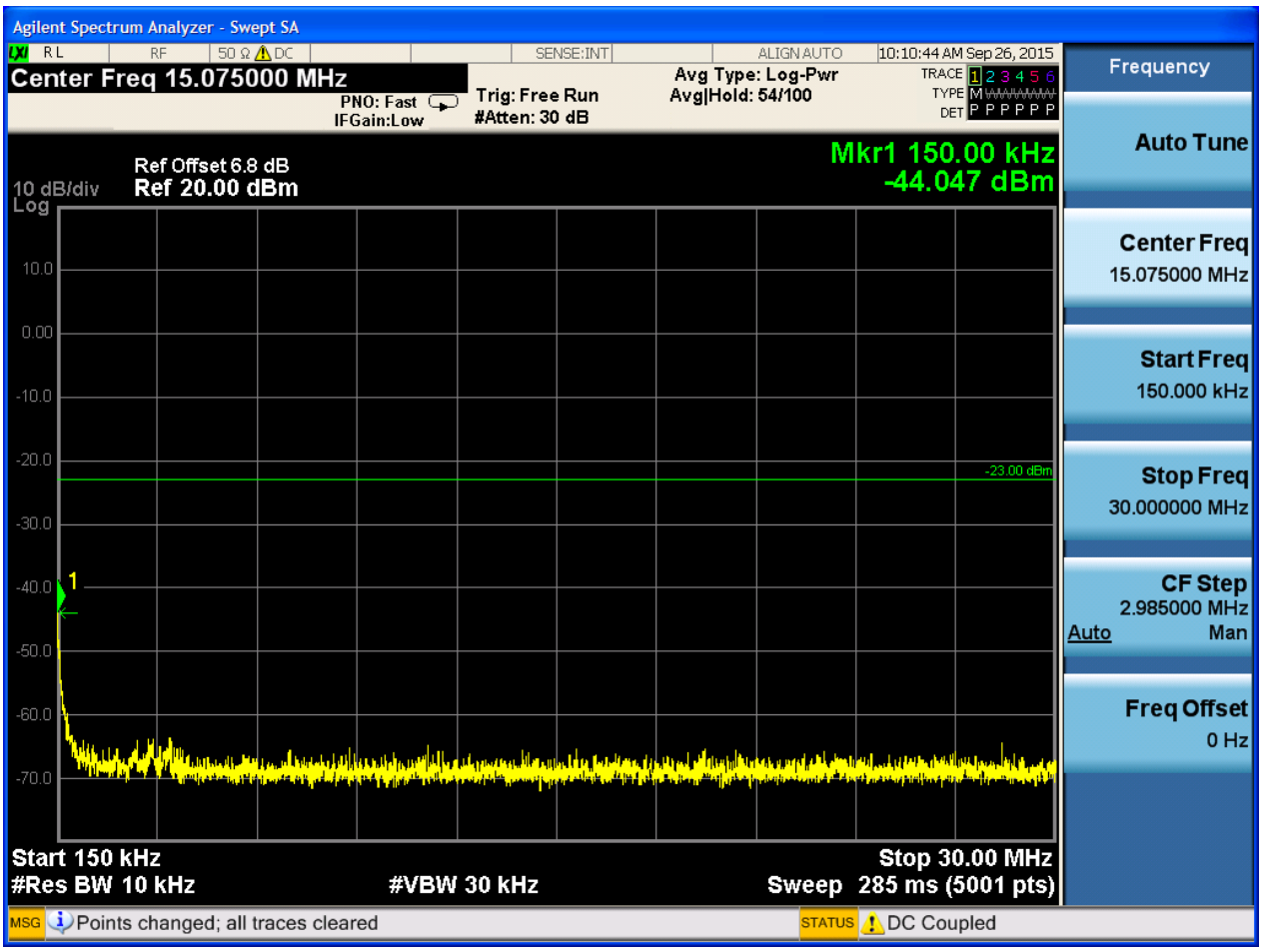
6.1 For GSM

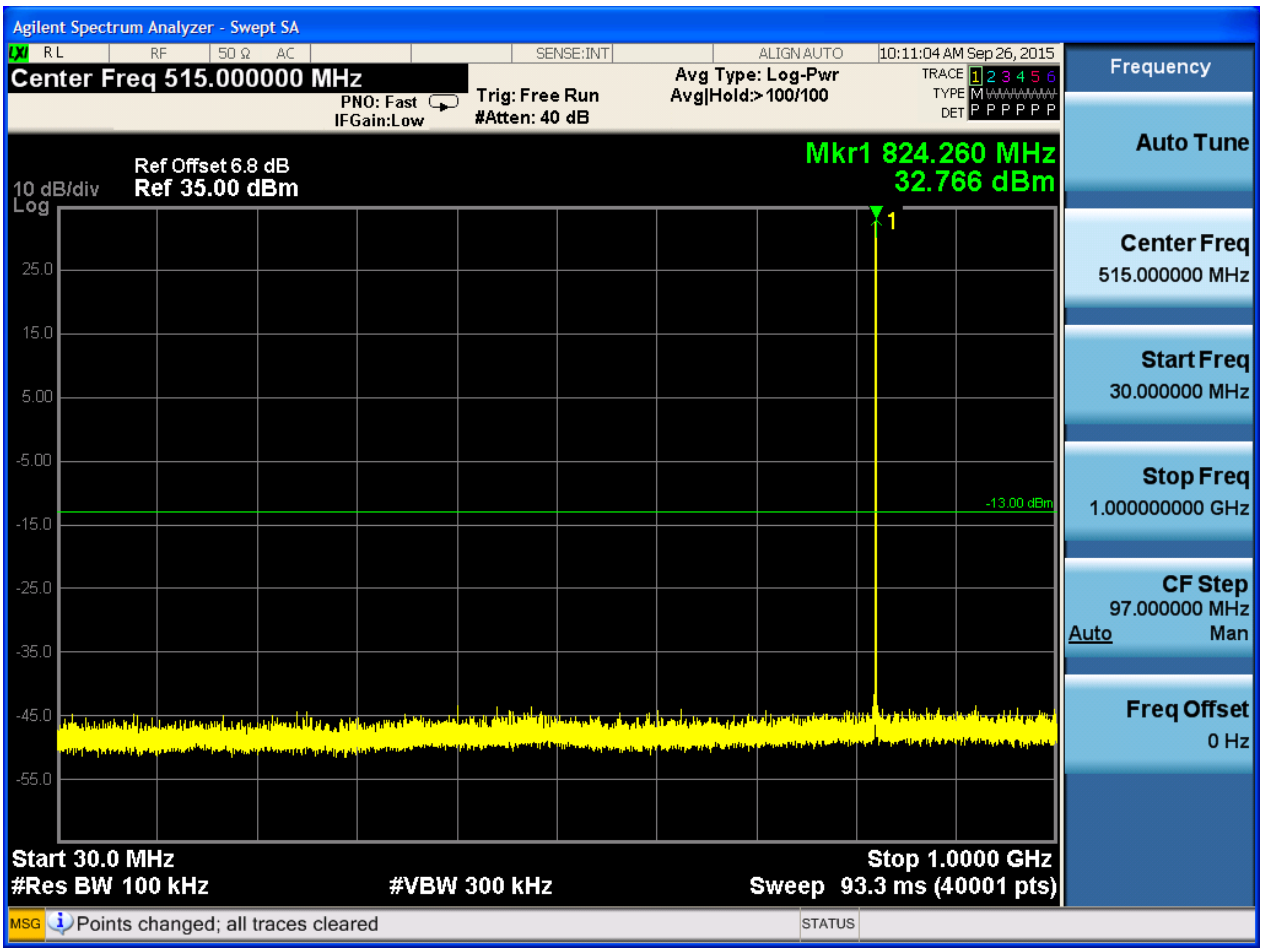
6.1.1 Test Band = GSM850

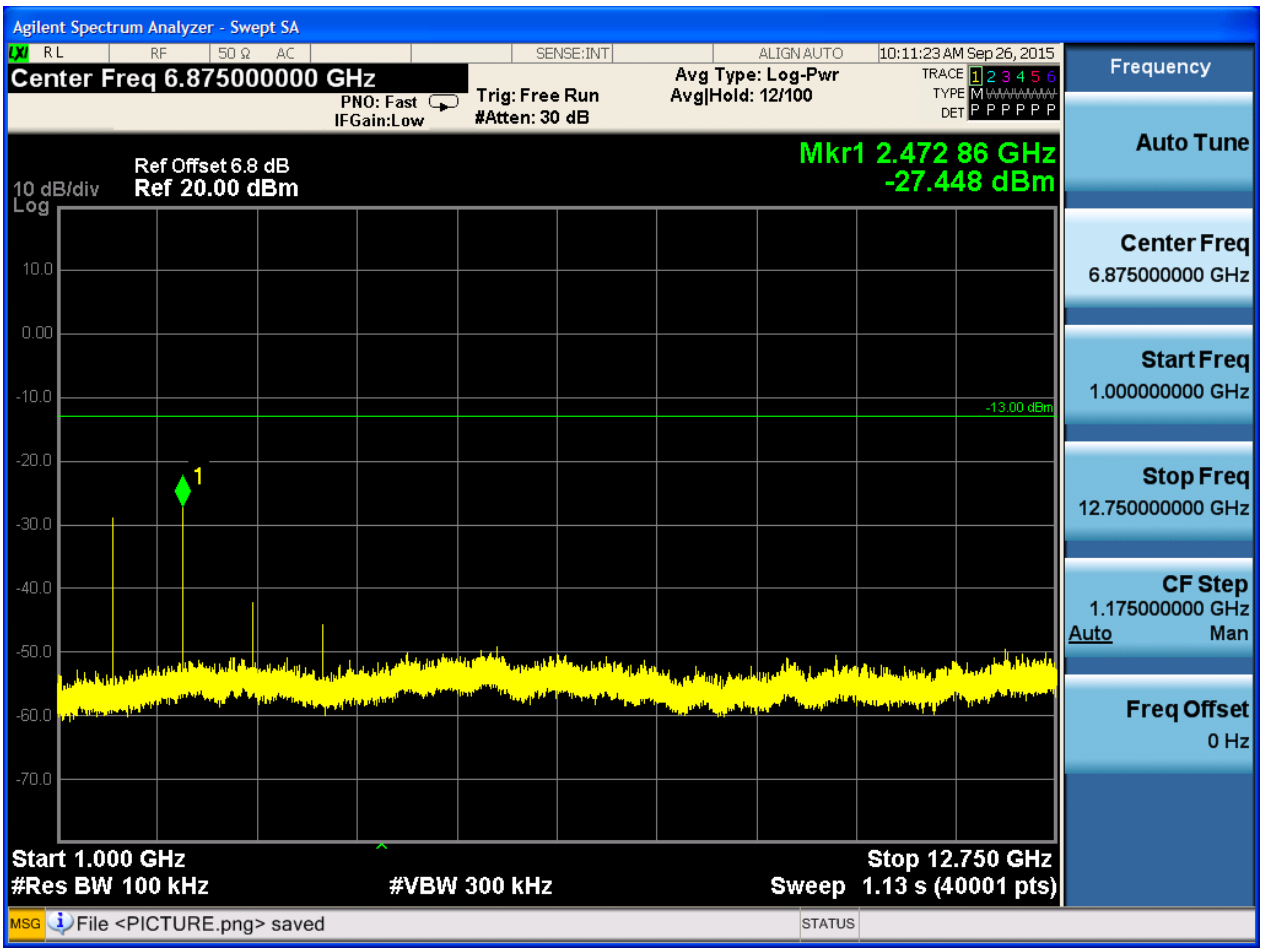
6.1.1.1 Test Mode = GSM/TM1

6.1.1.1.1 Test Channel = LCH

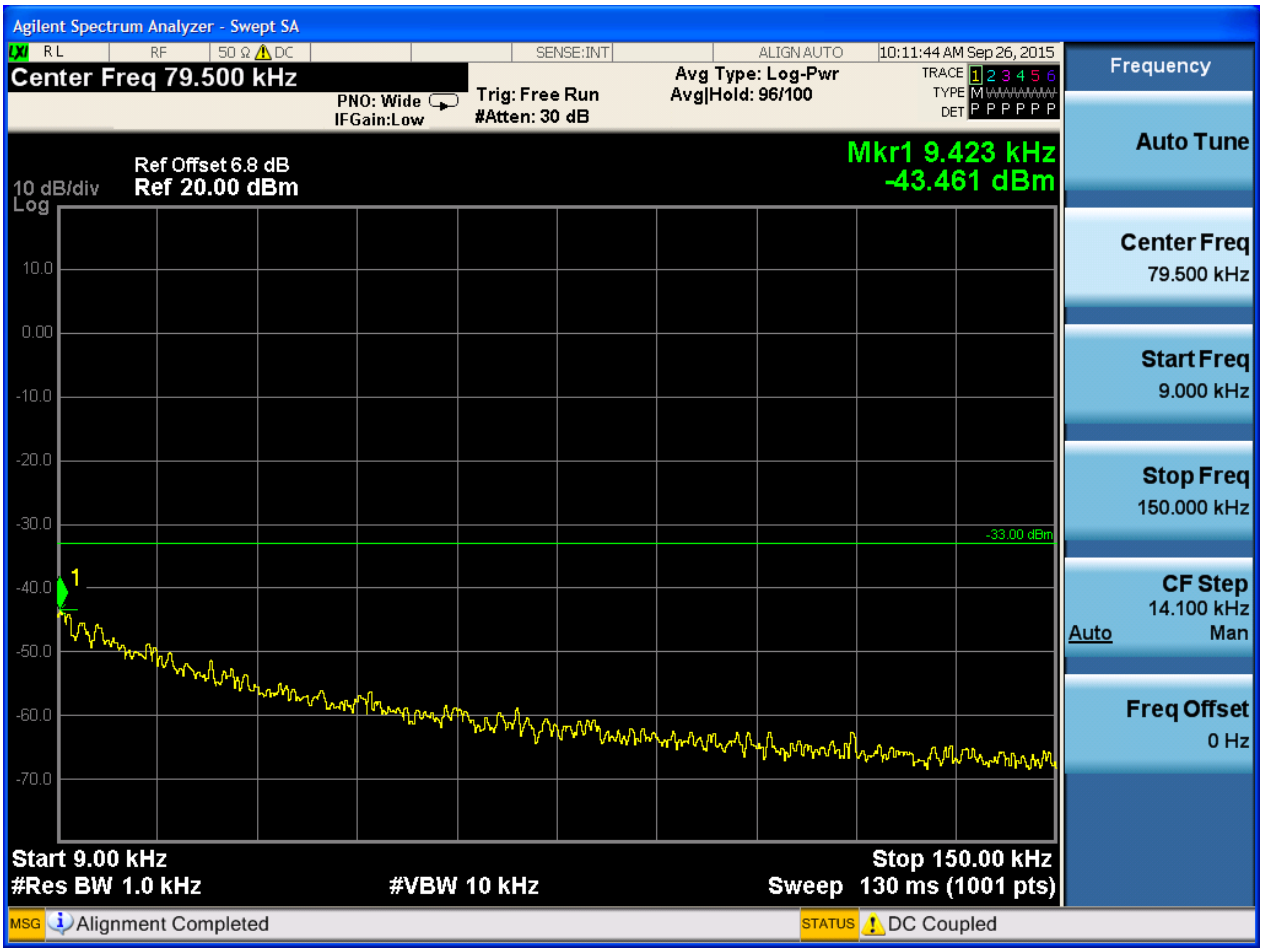


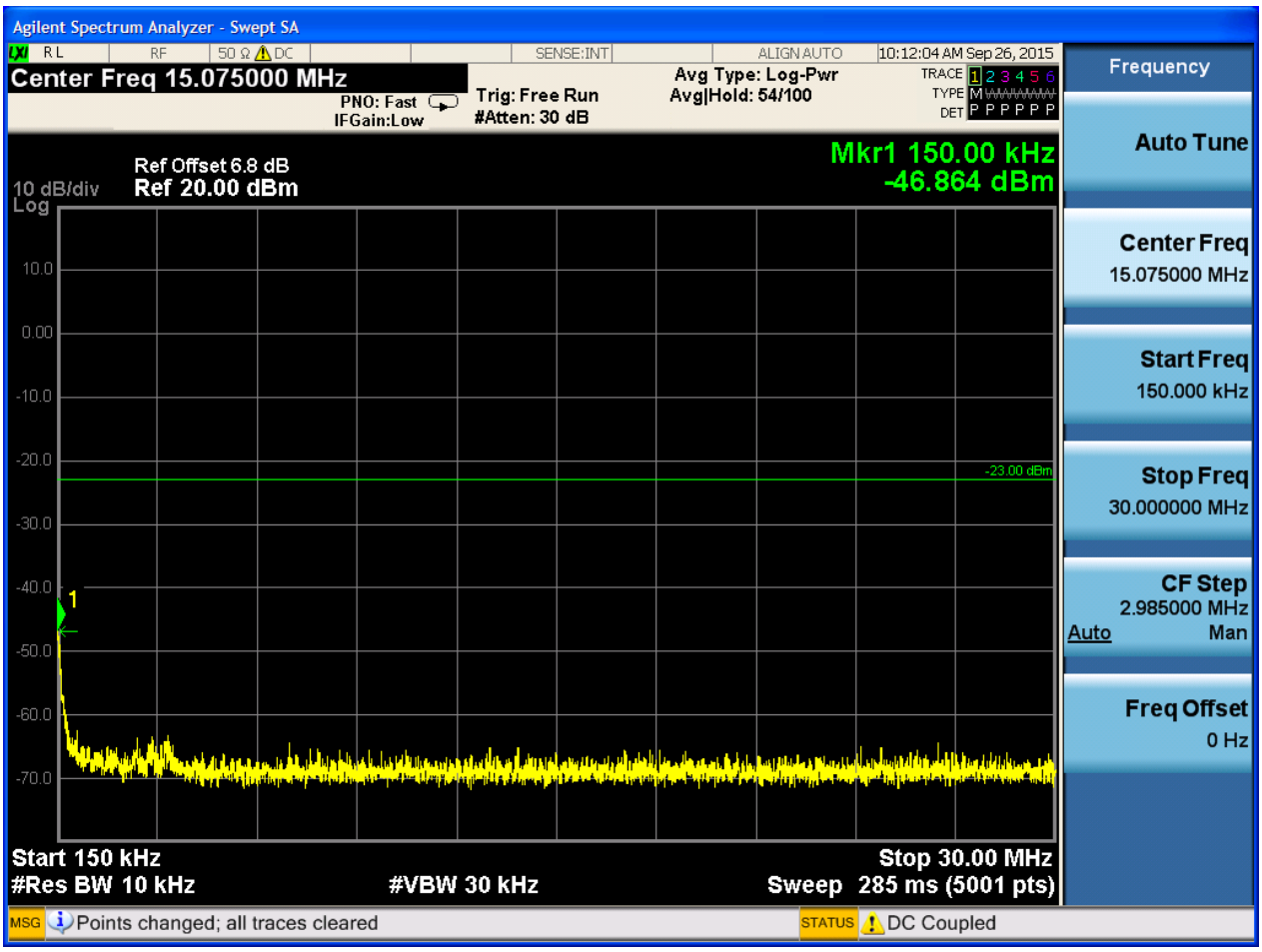


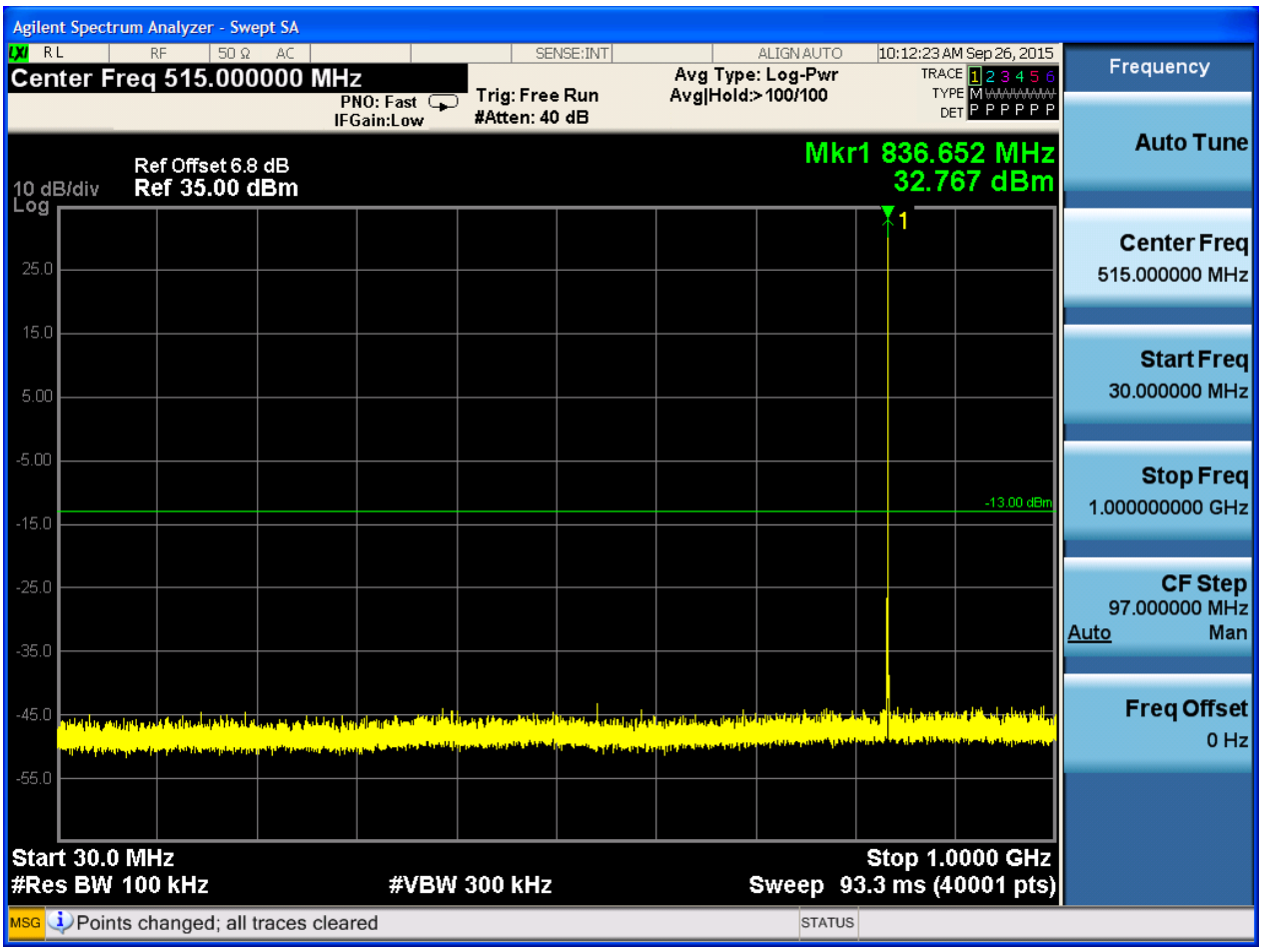


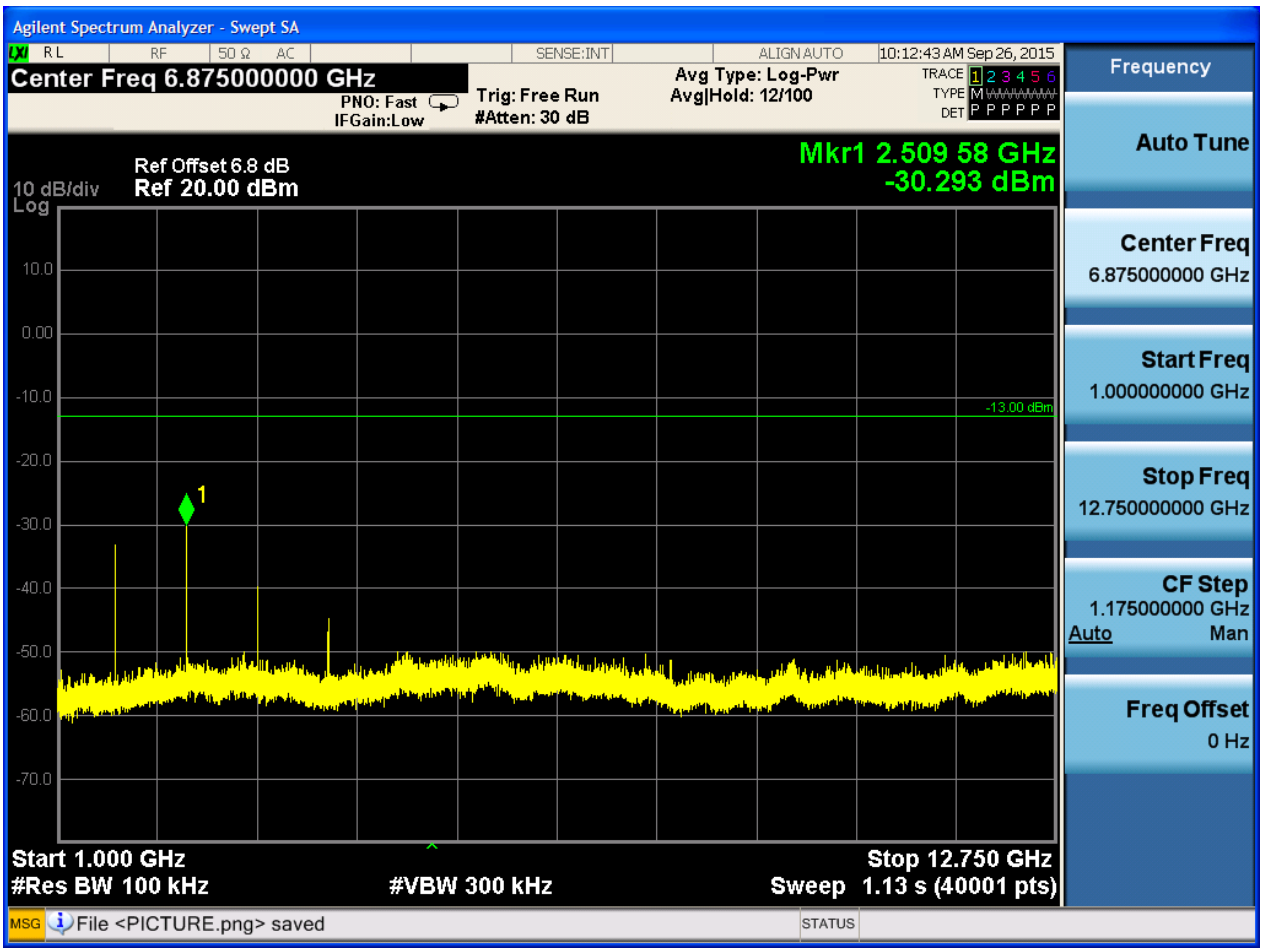


6.1.1.1.2 Test Channel = MCH

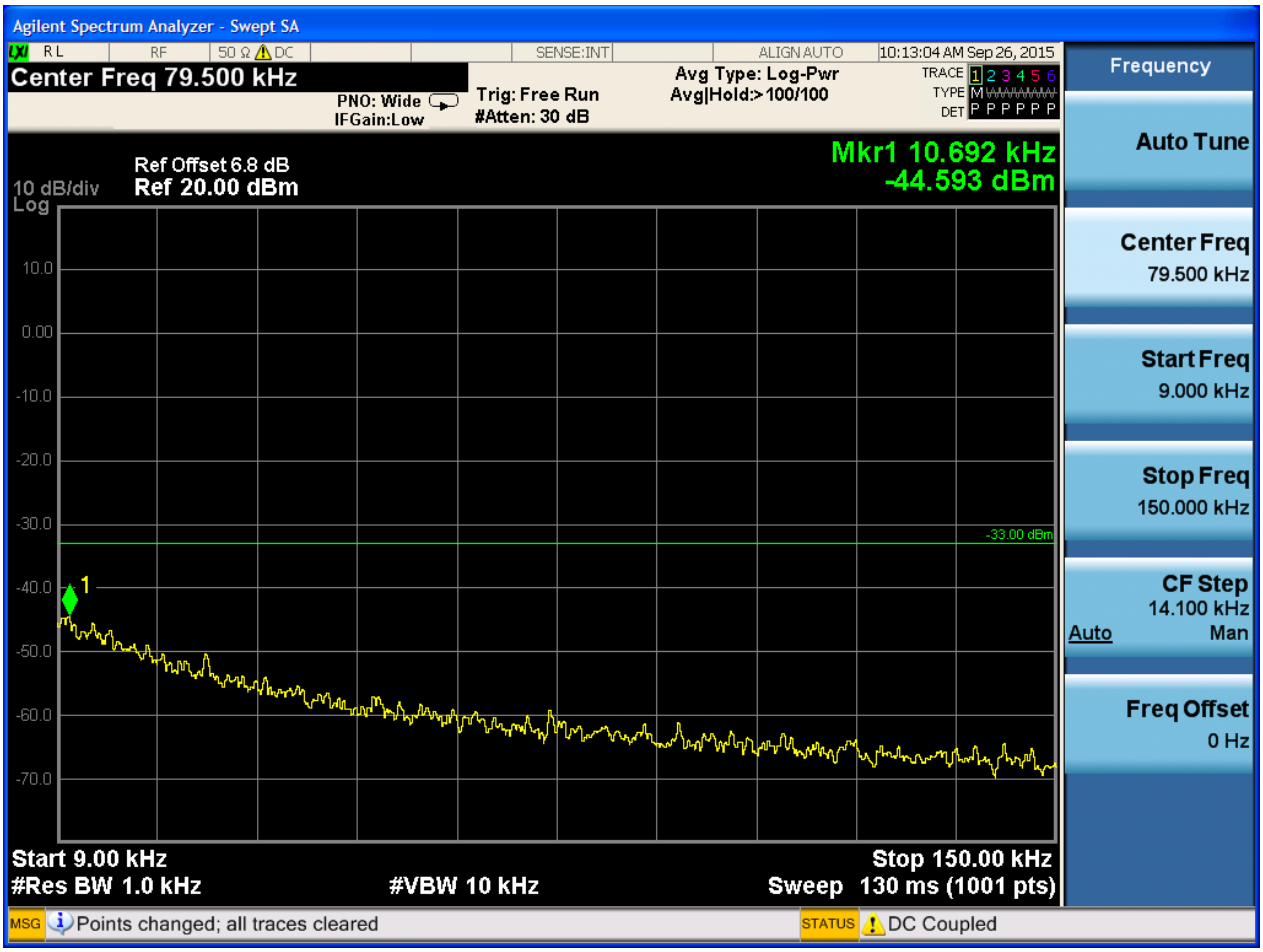


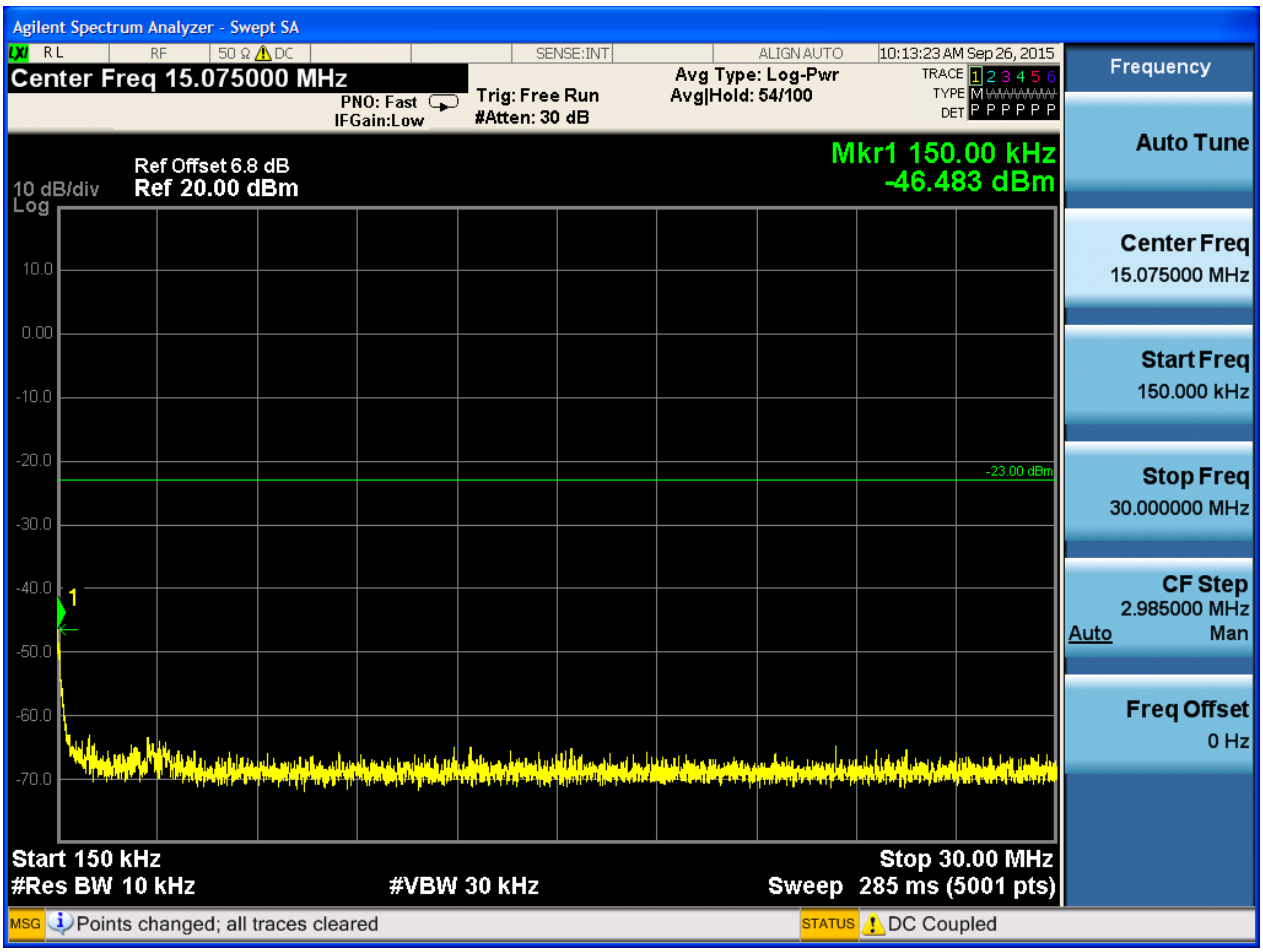


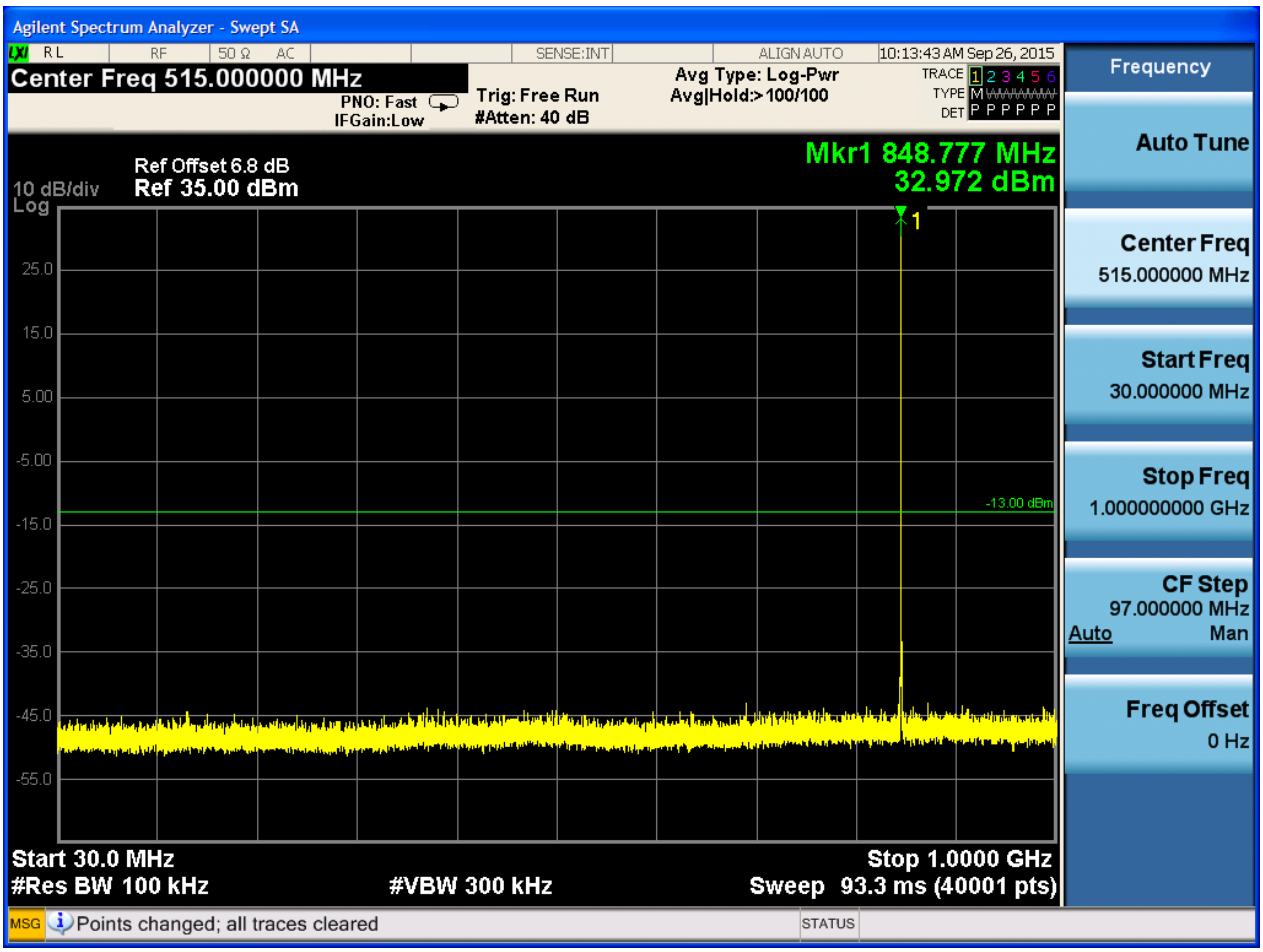


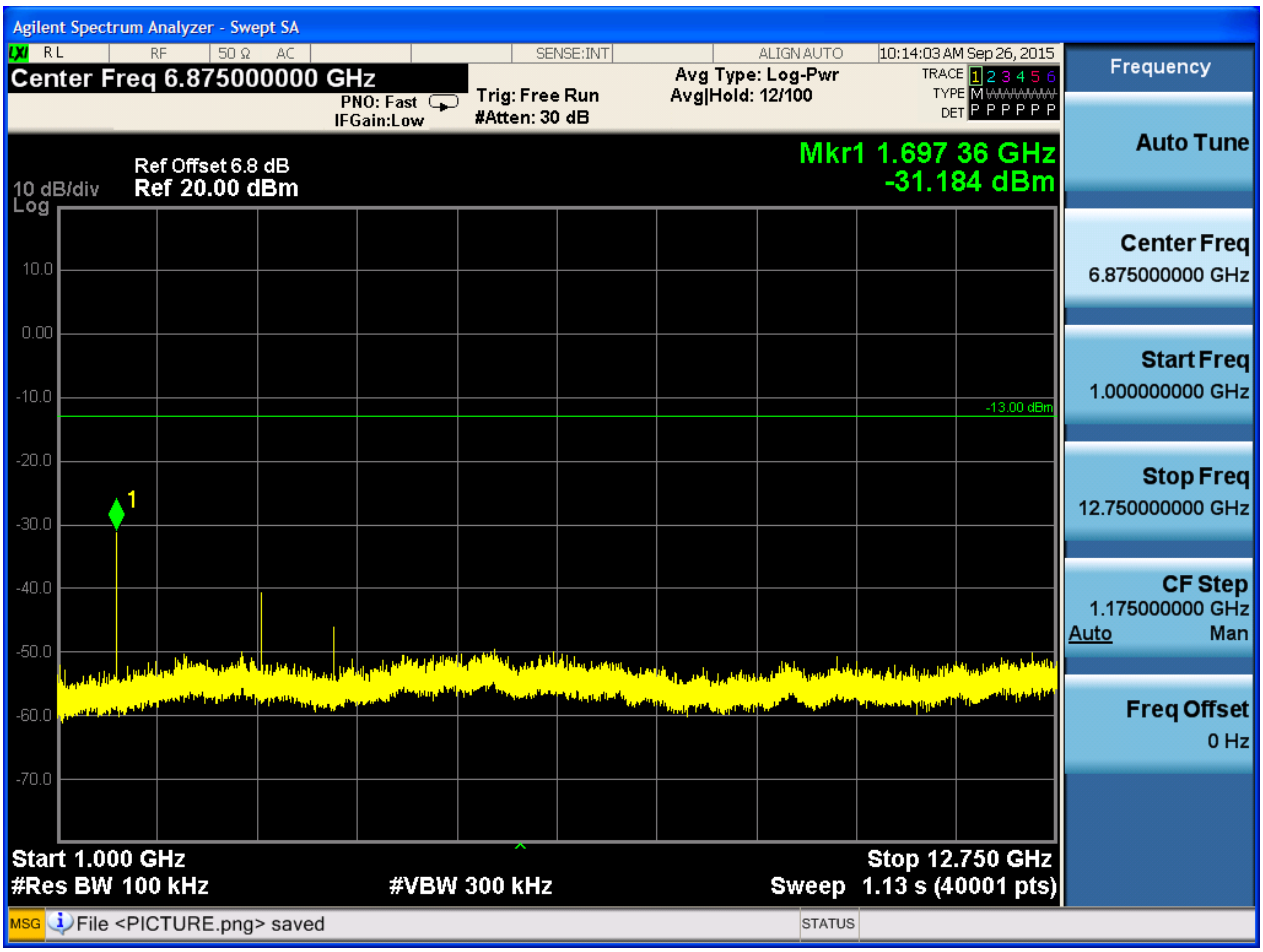


6.1.1.1.3 Test Channel = HCH



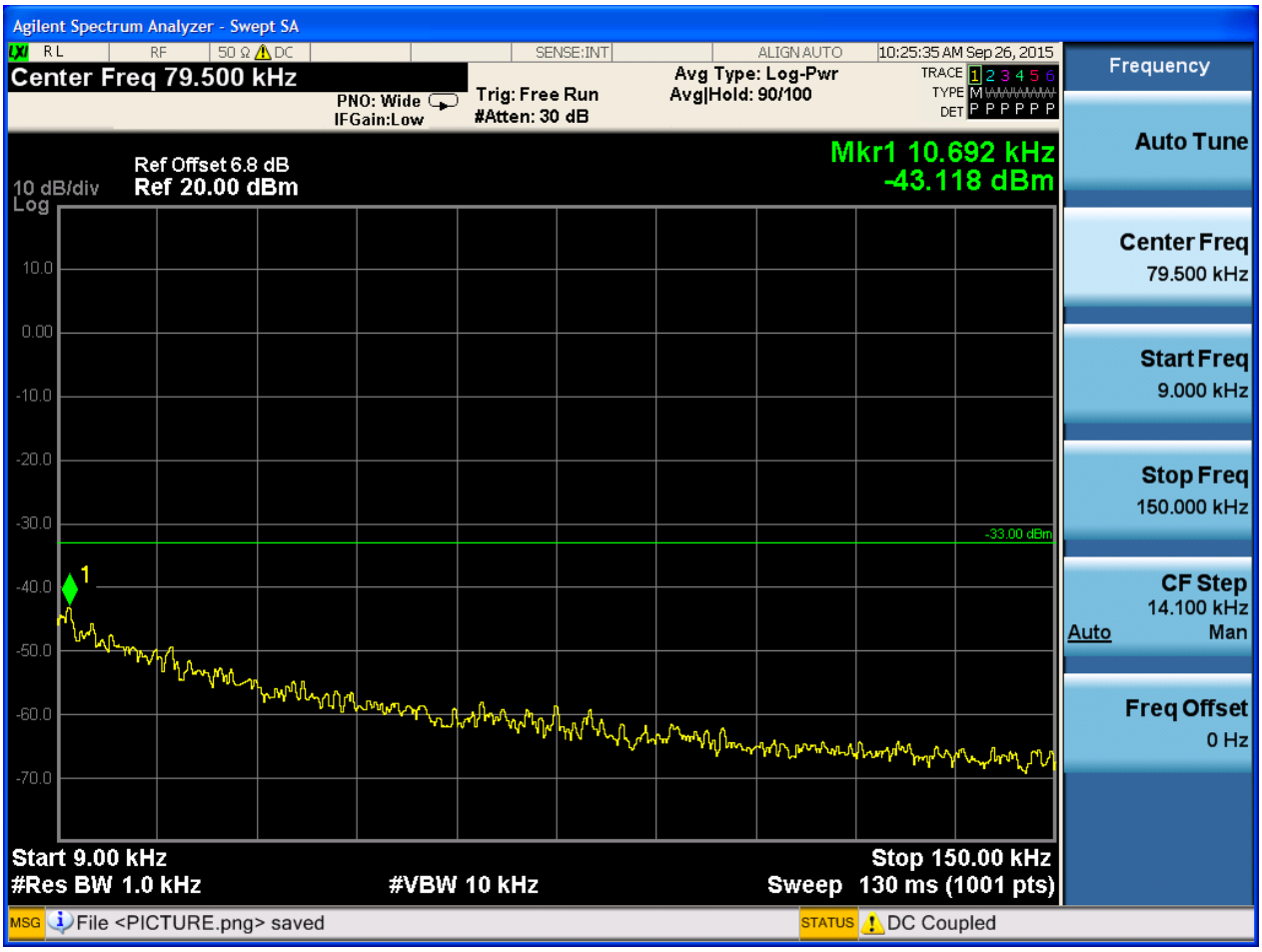


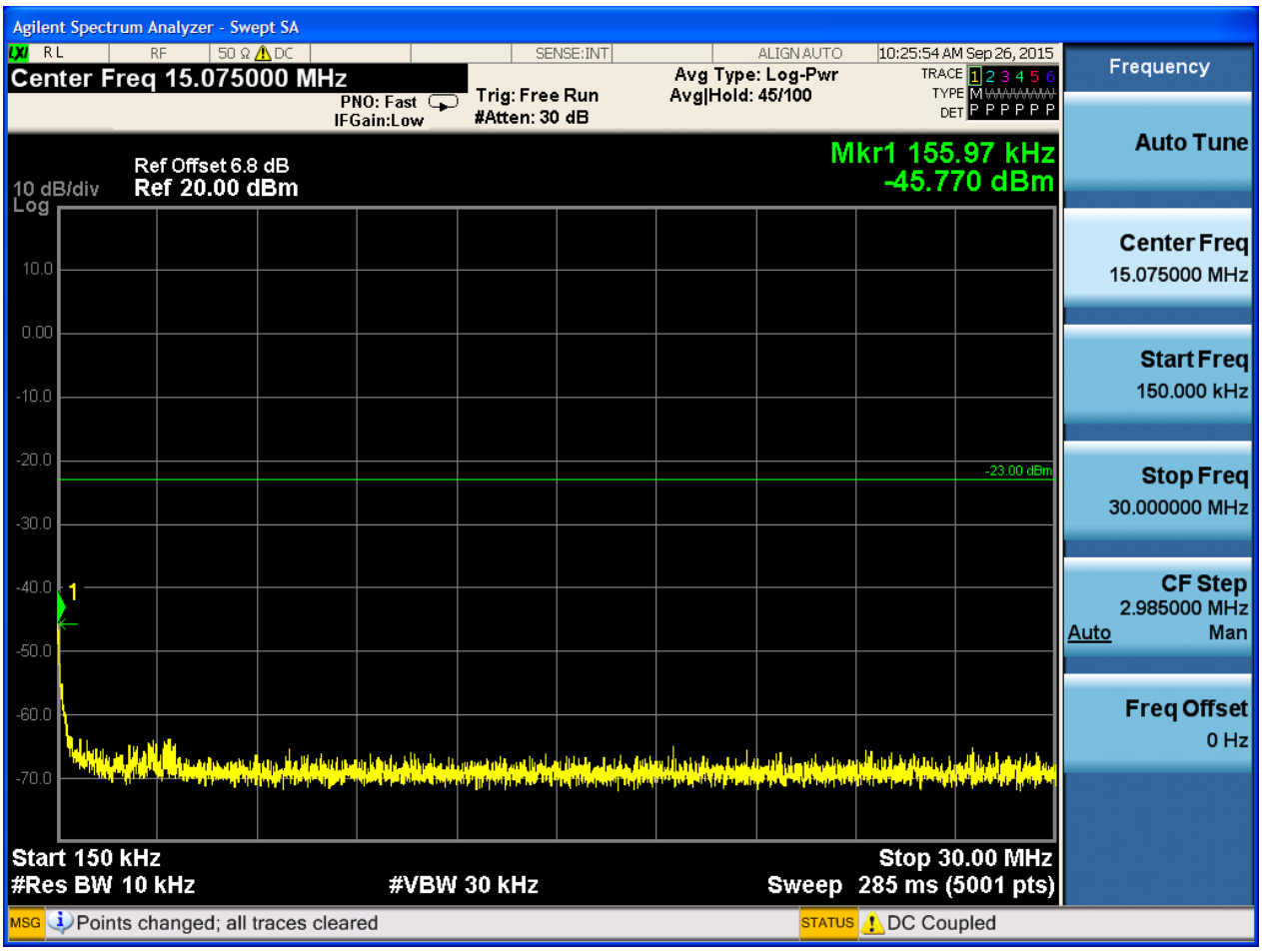


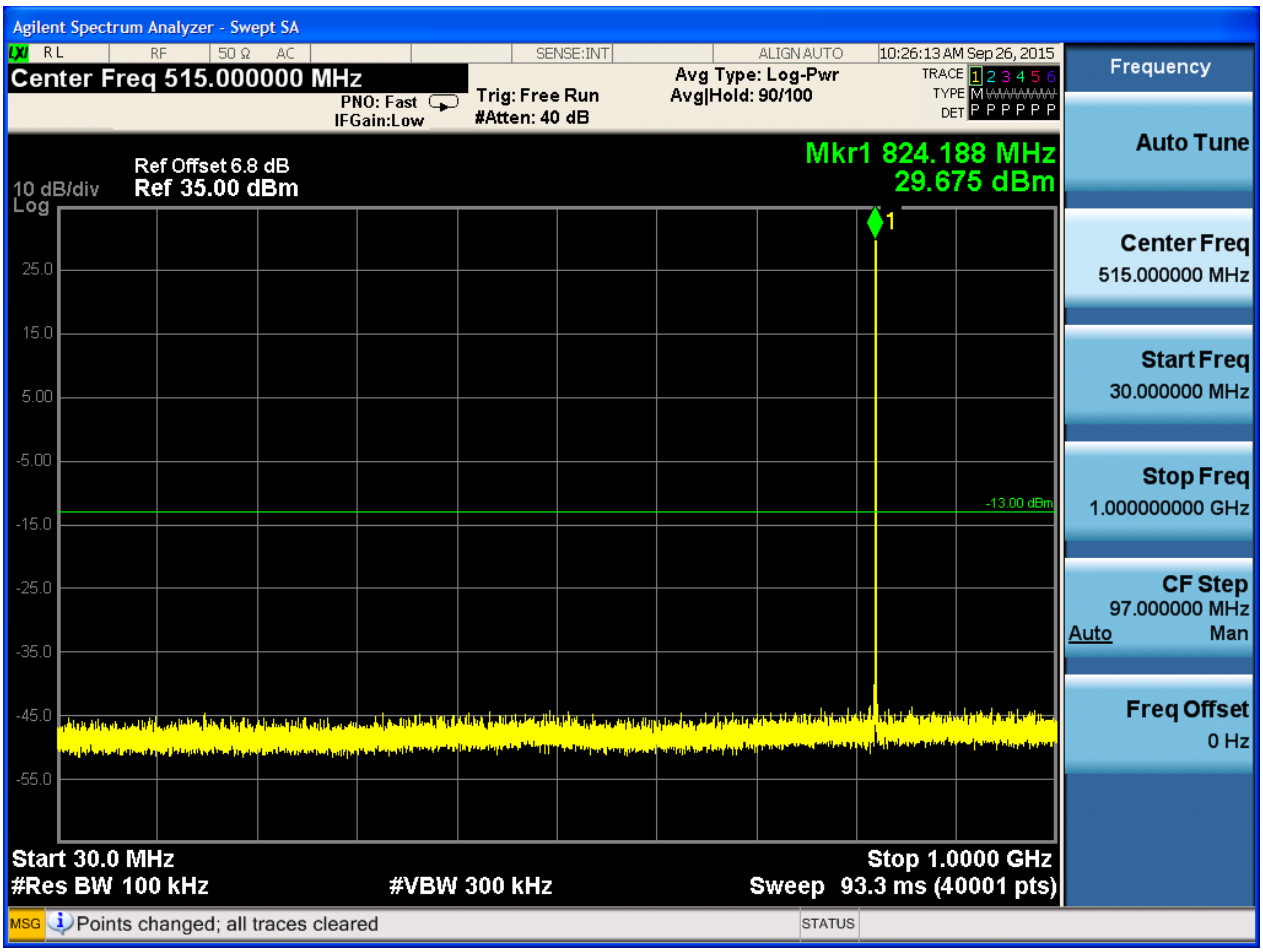


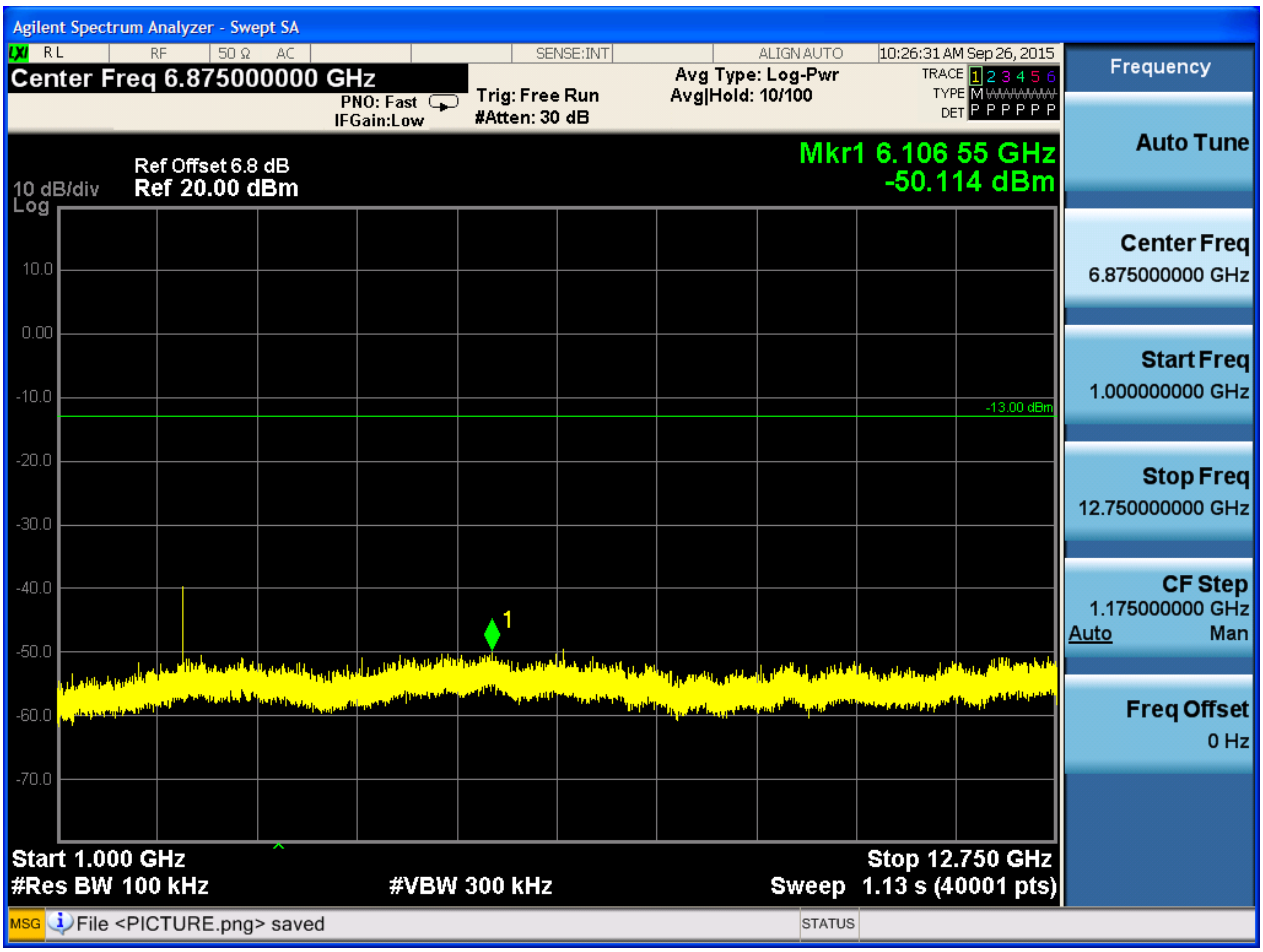
6.1.1.2 Test Mode = GSM/TM2

6.1.1.2.1 Test Channel = LCH

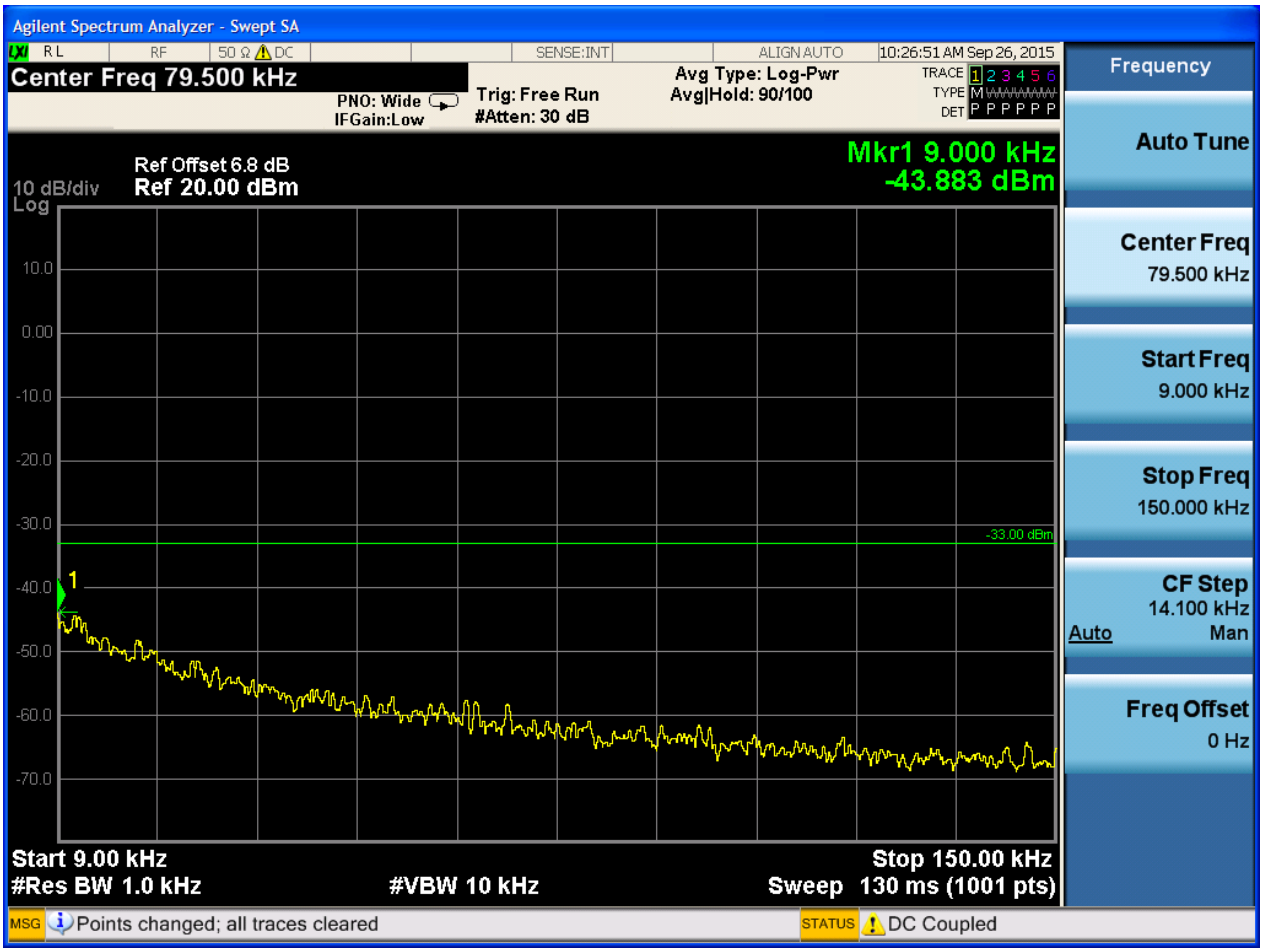


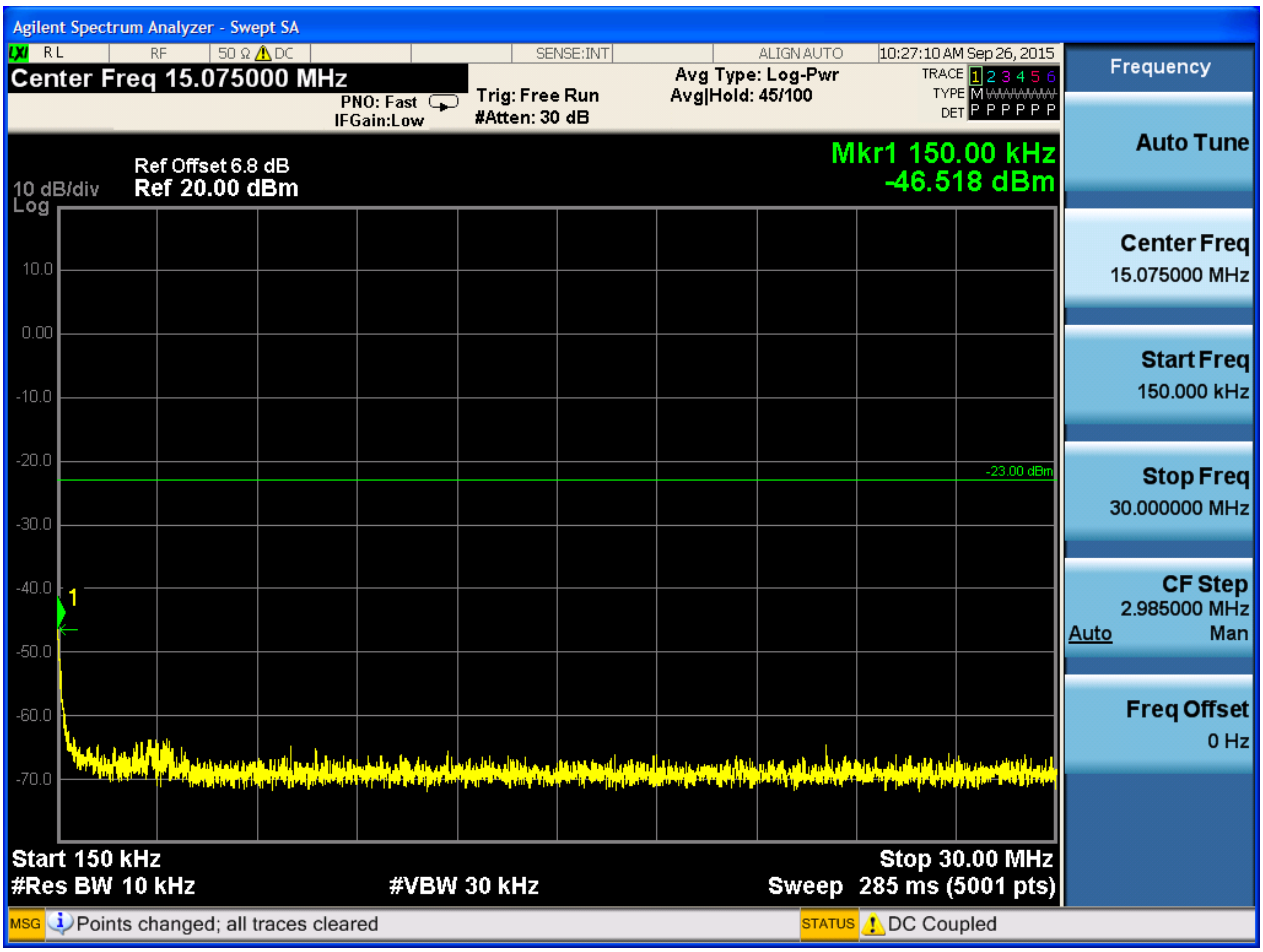


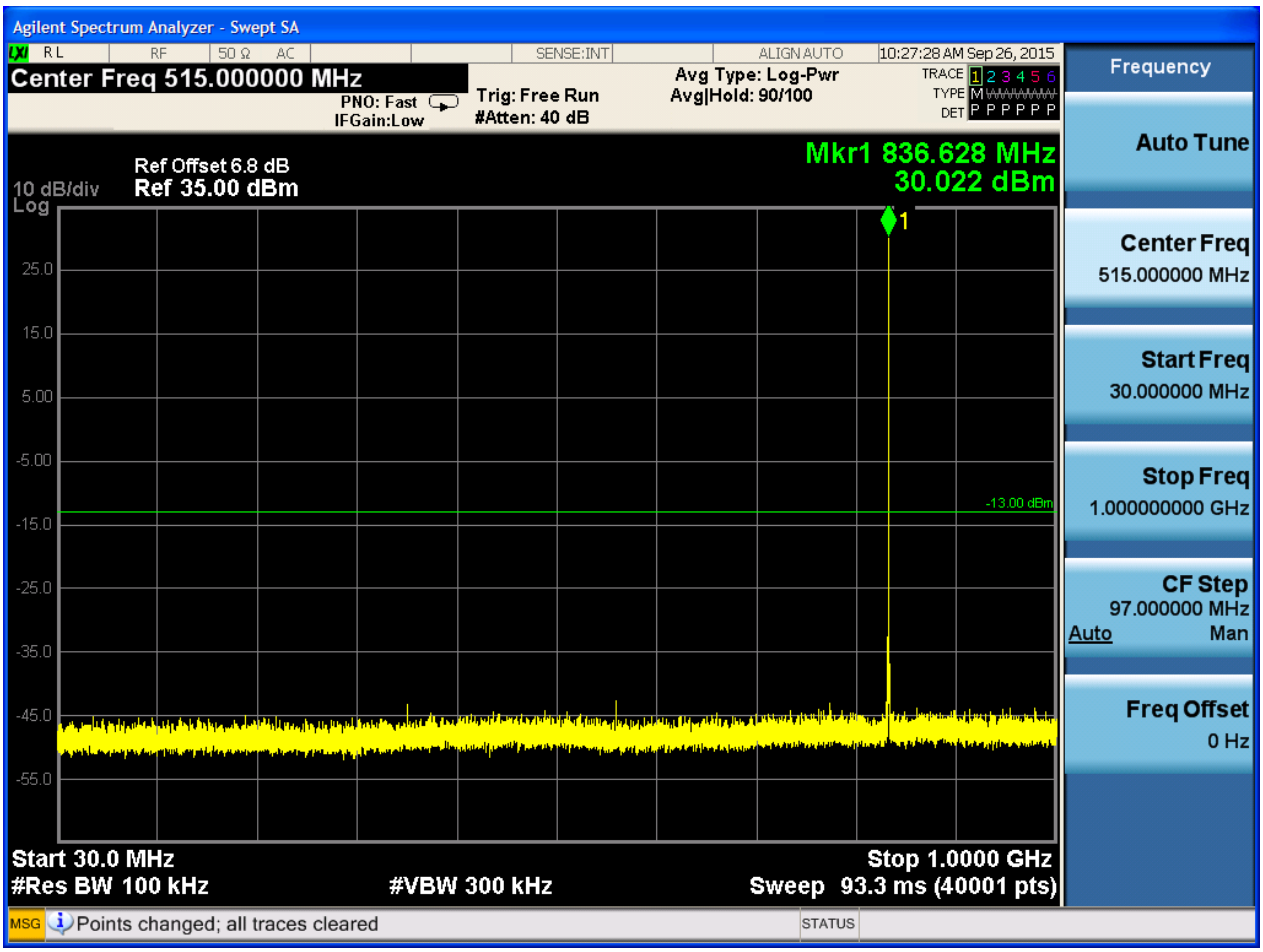


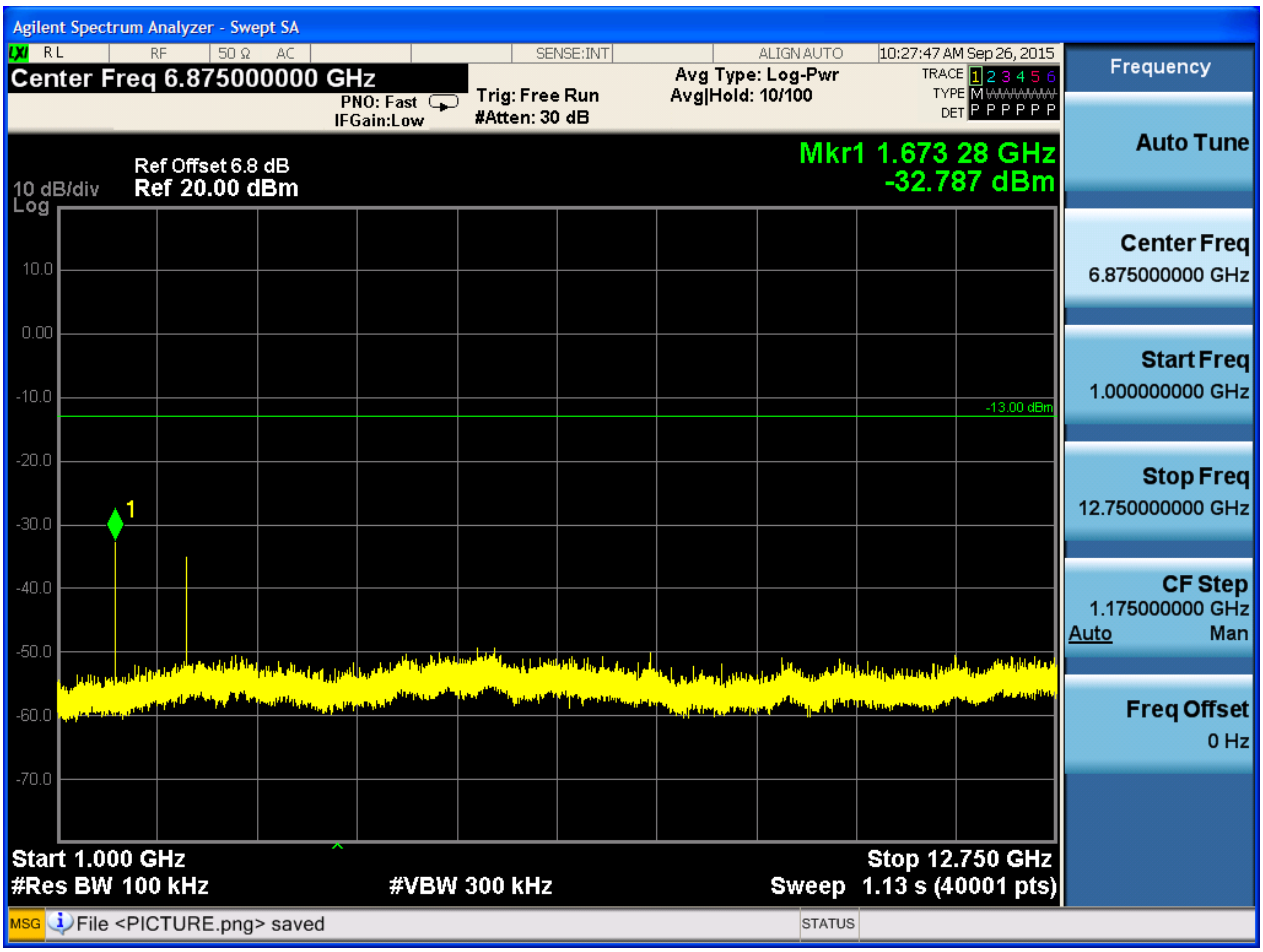


6.1.1.2.2 Test Channel = MCH

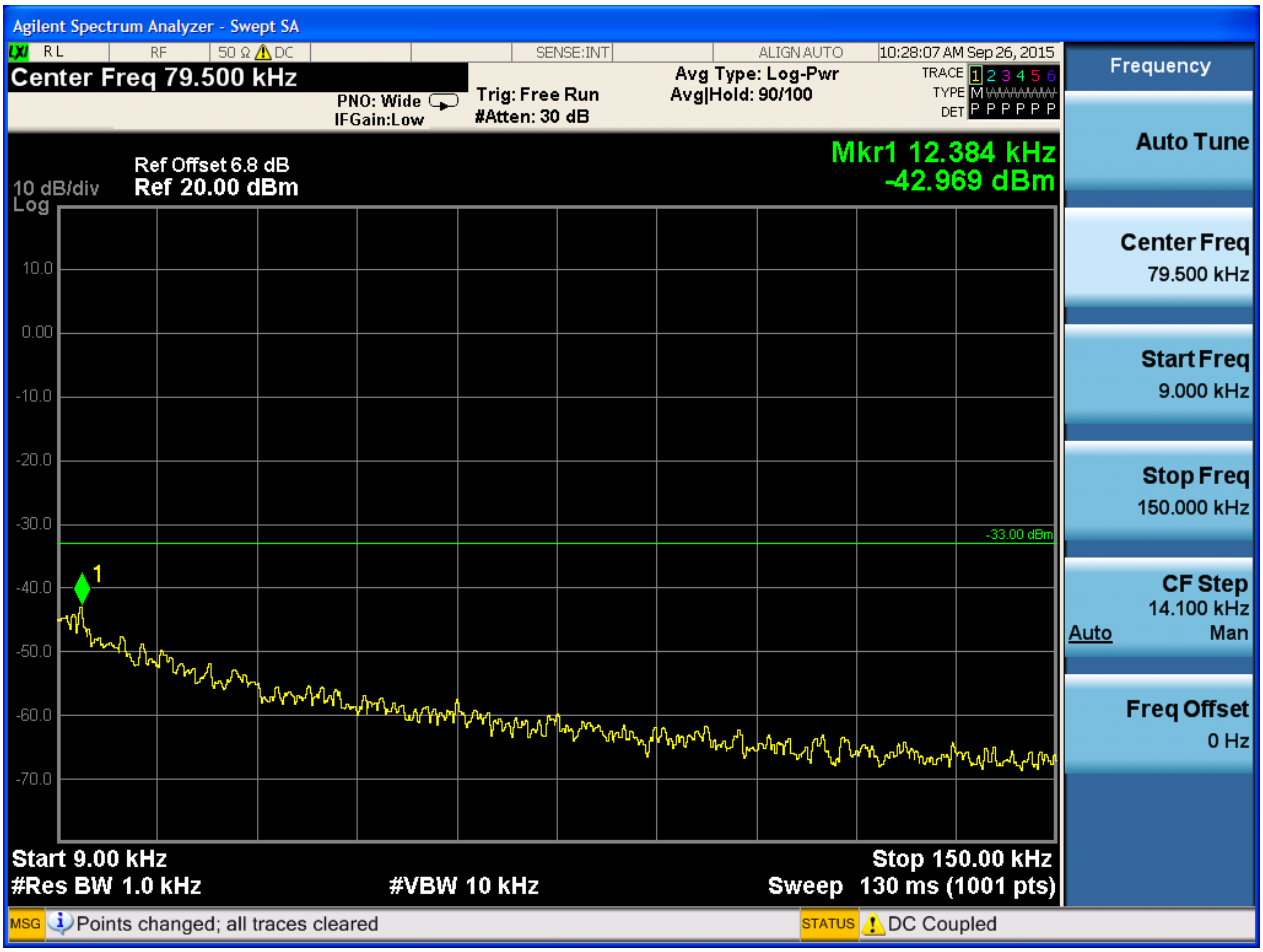


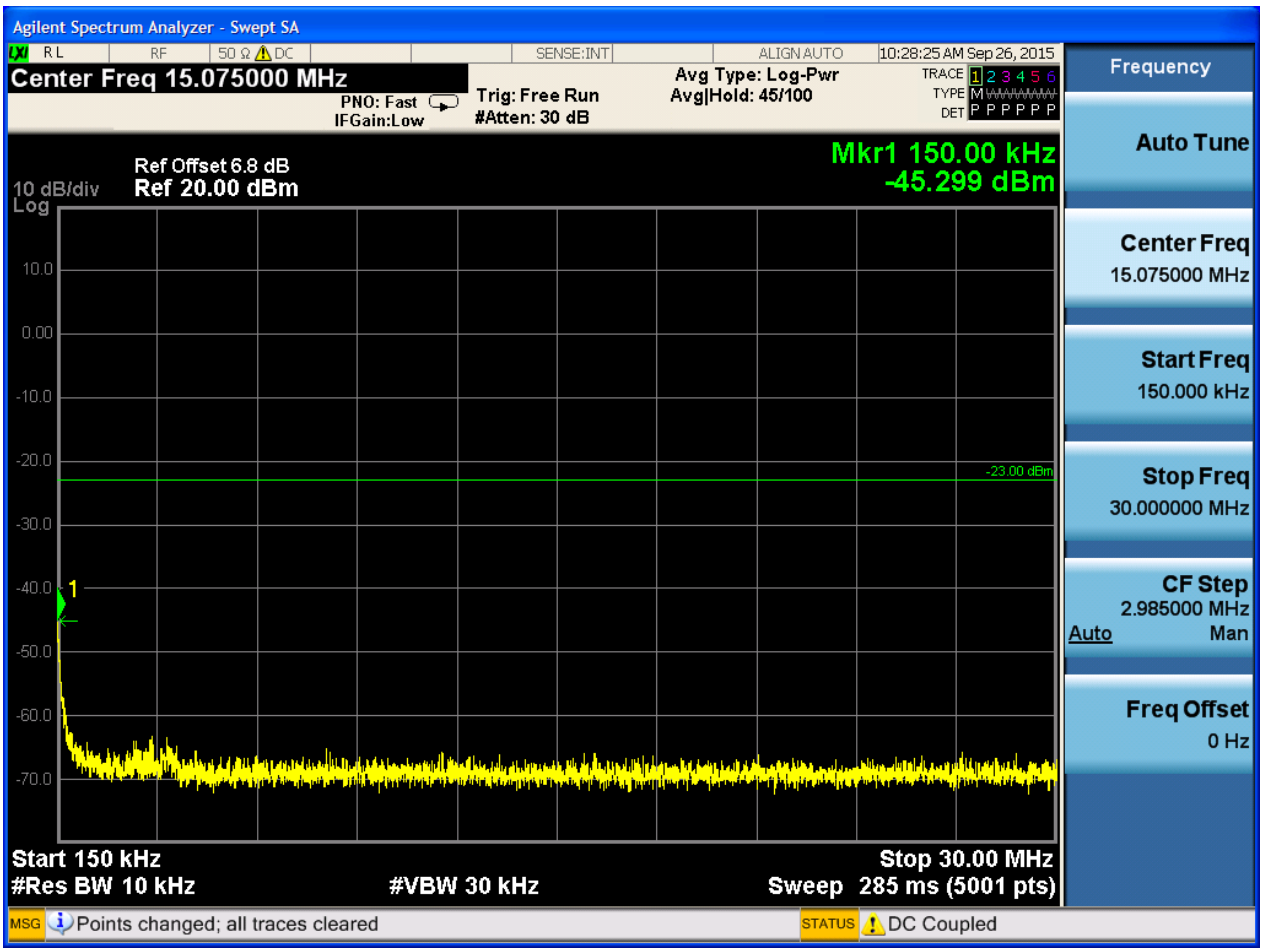


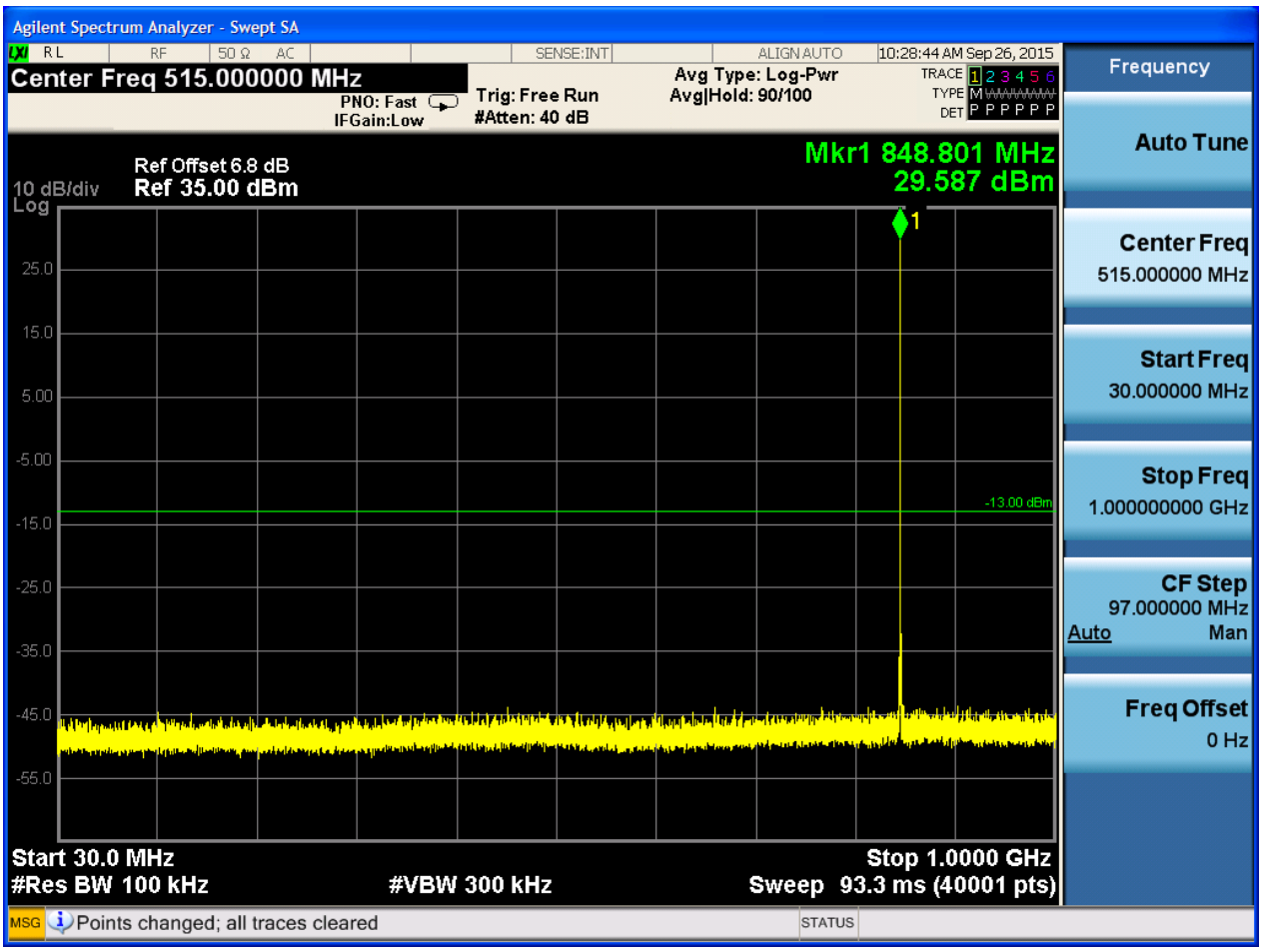


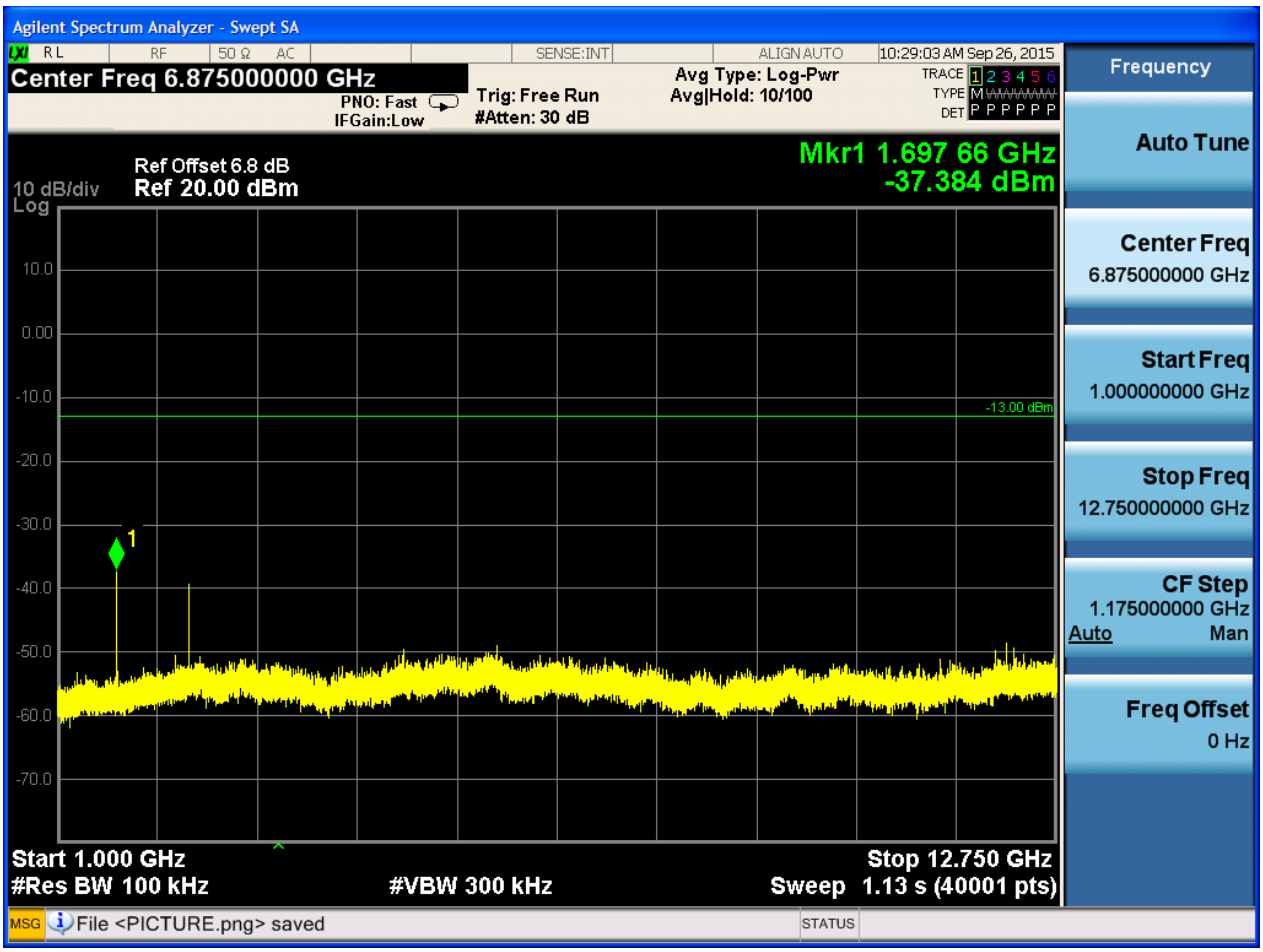


6.1.1.2.3 Test Channel = HCH





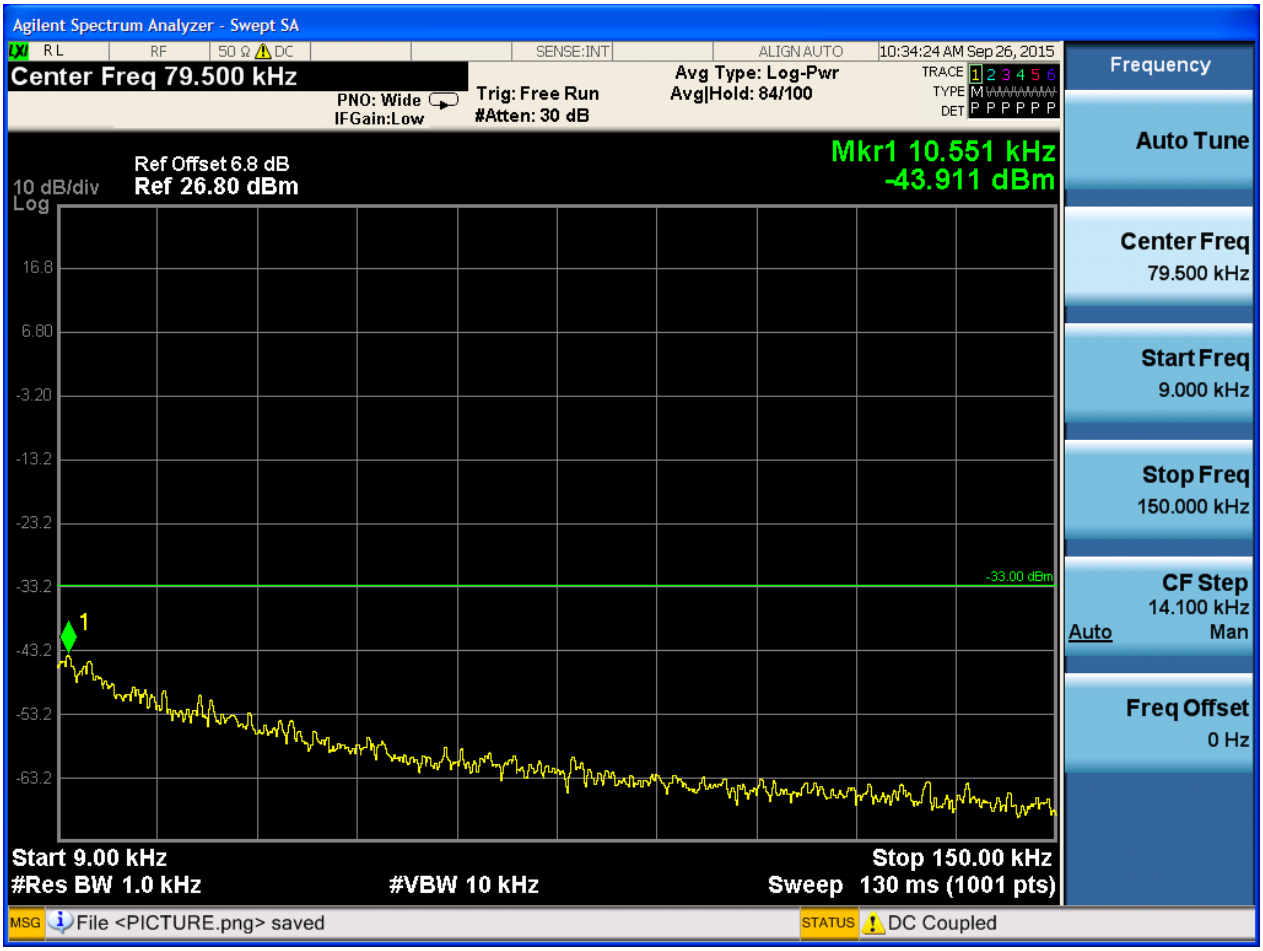


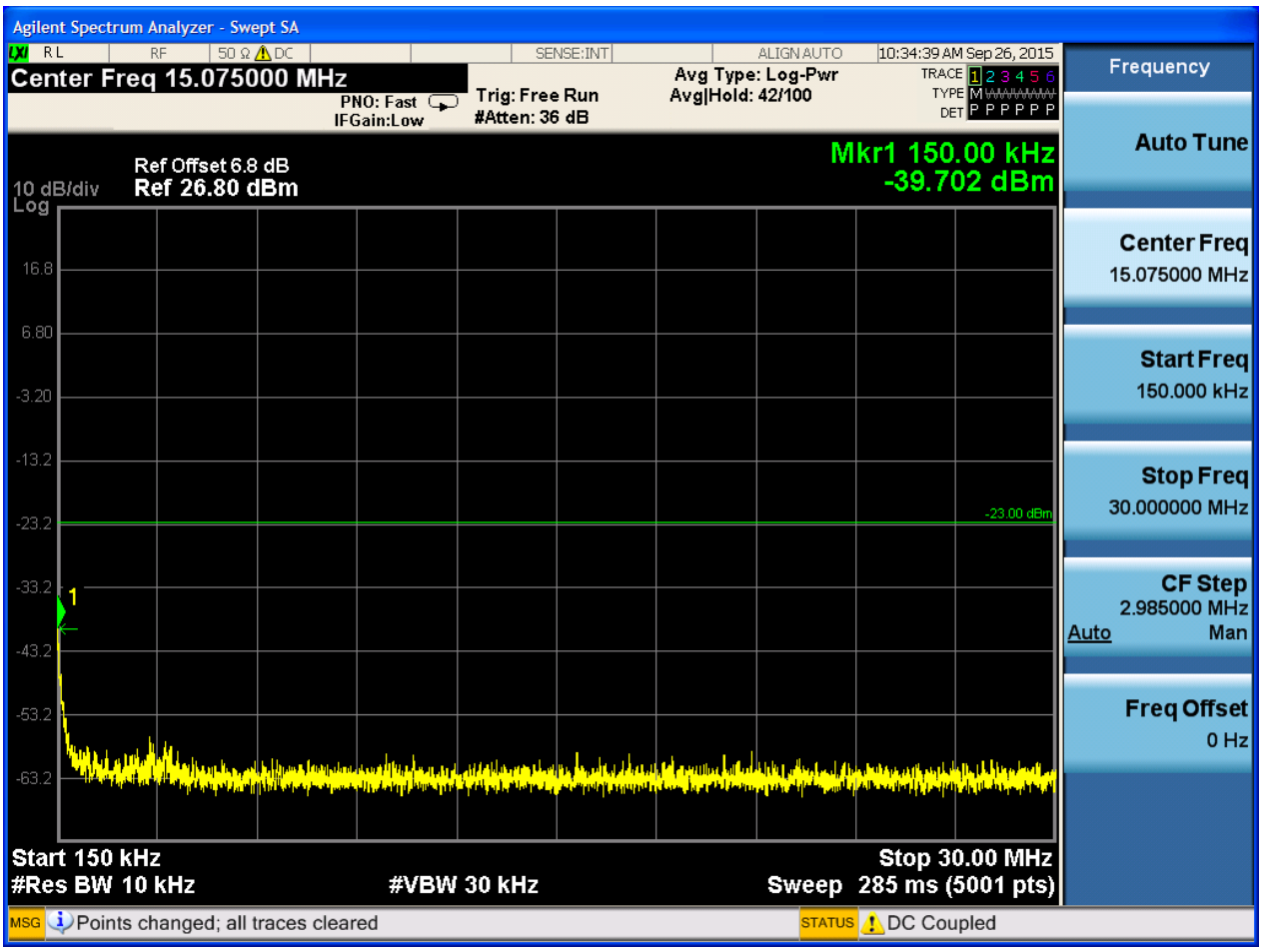


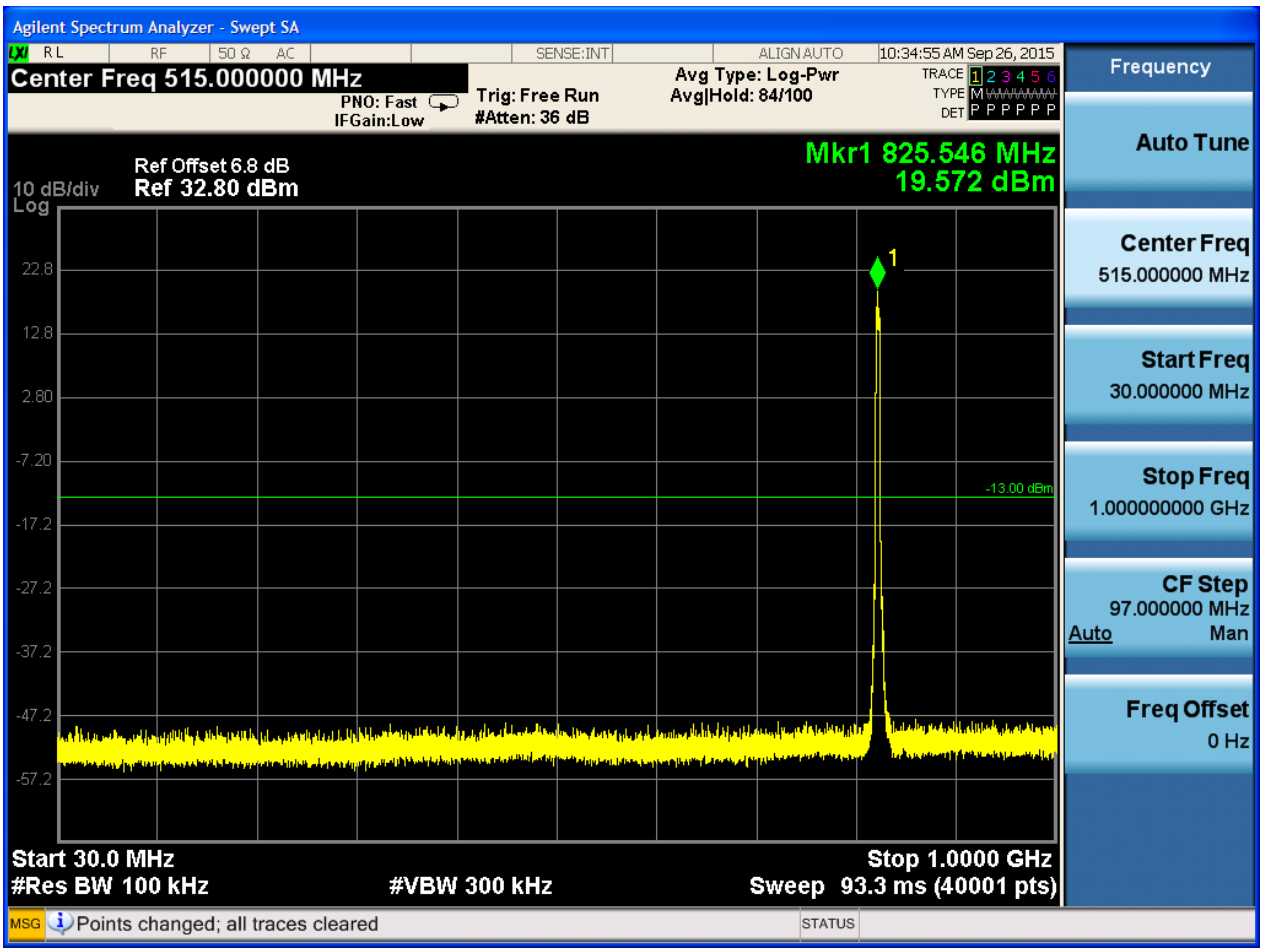
6.1.2 Test Band = WCDMA850

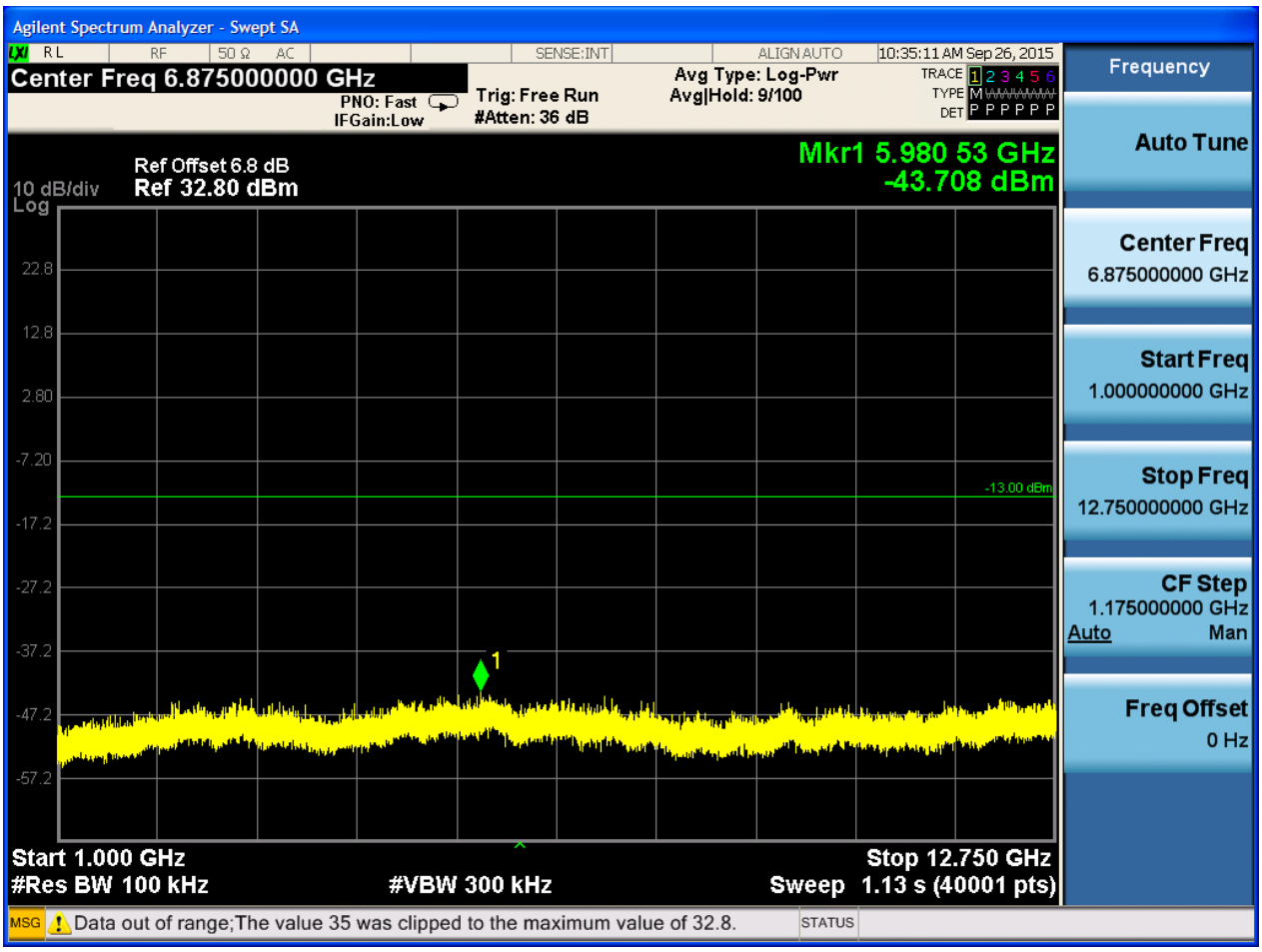
6.1.2.1 Test Mode = UMTS/TM1

6.1.2.1.1 Test Channel = LCH

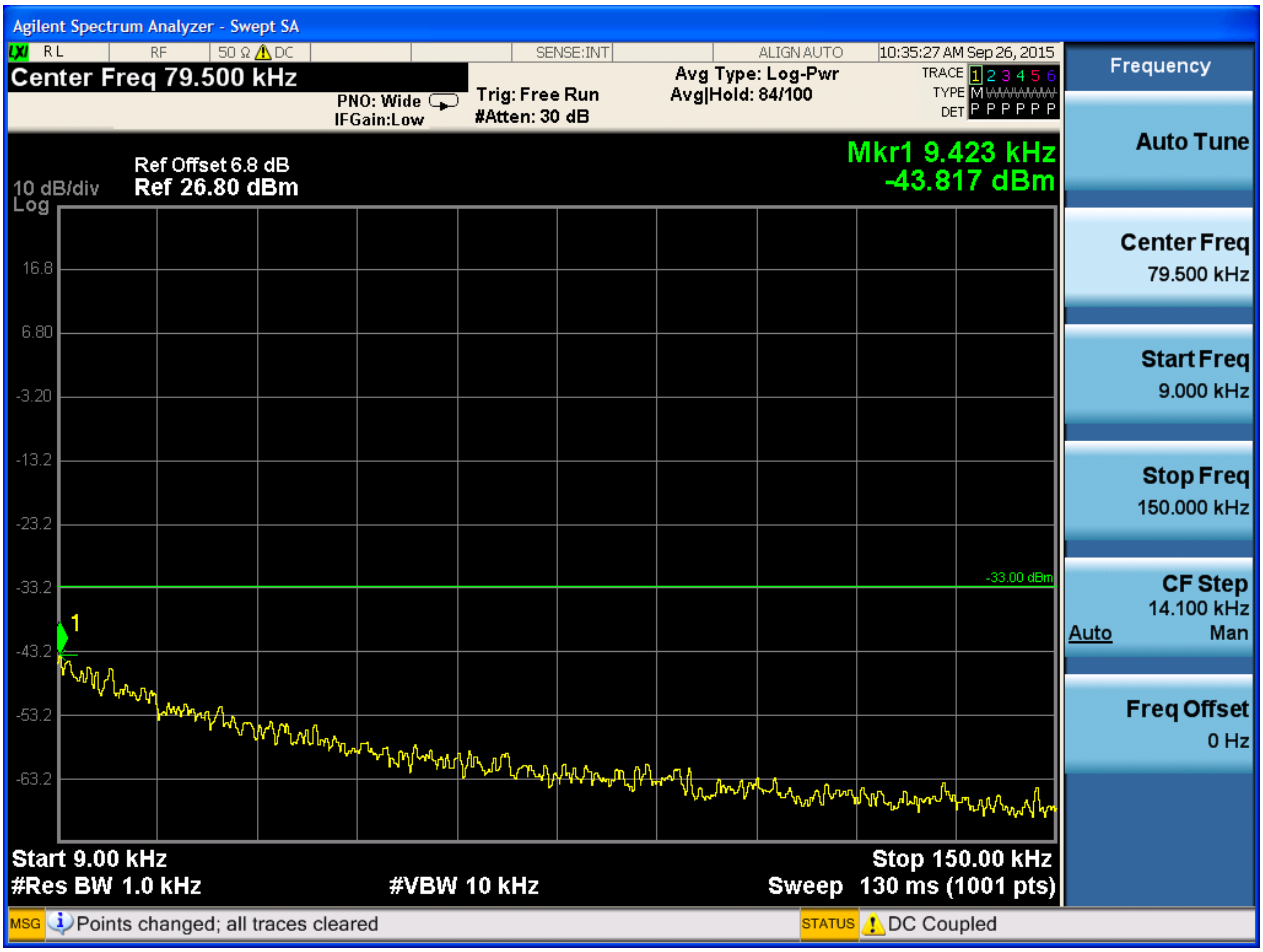


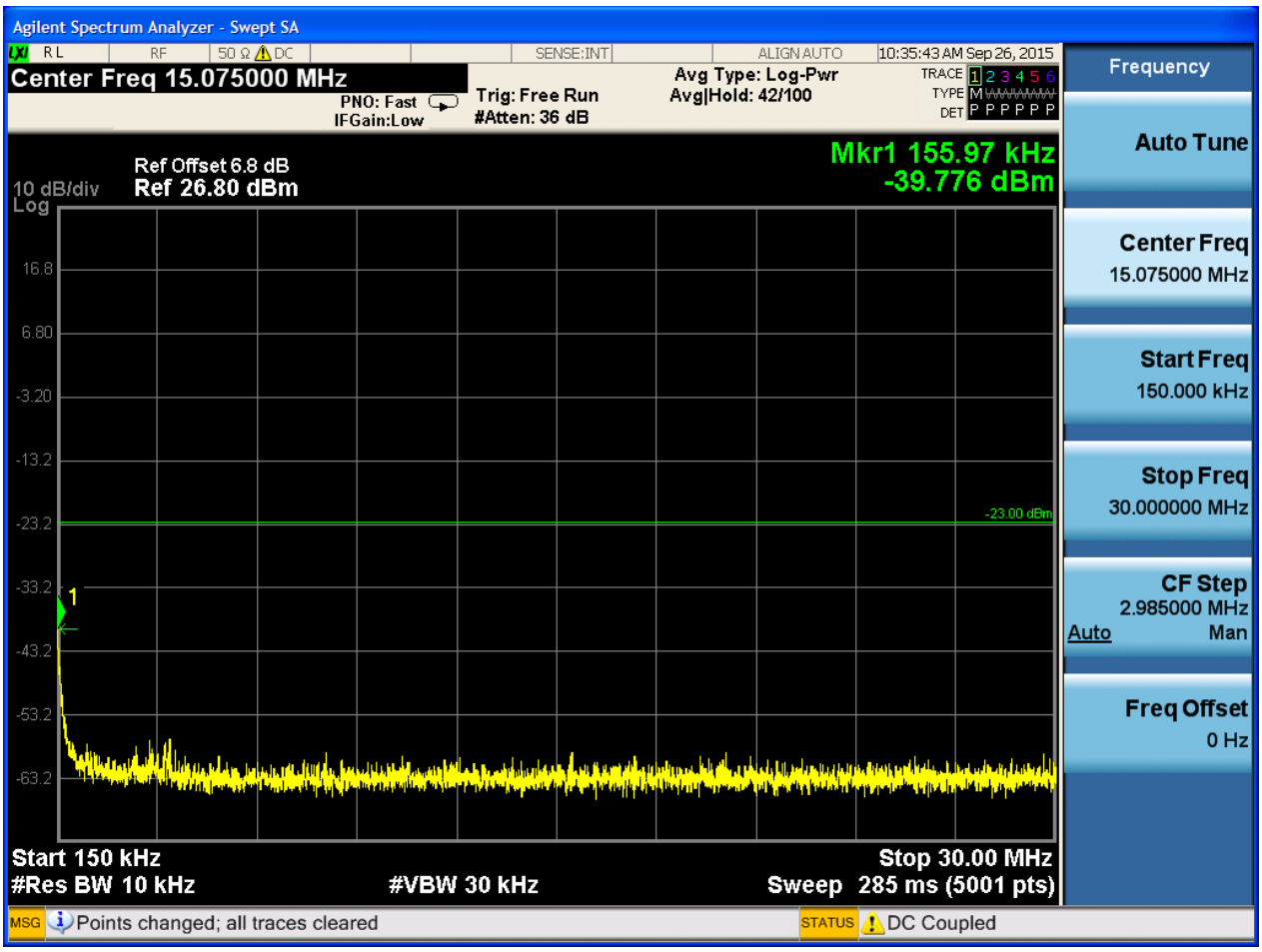


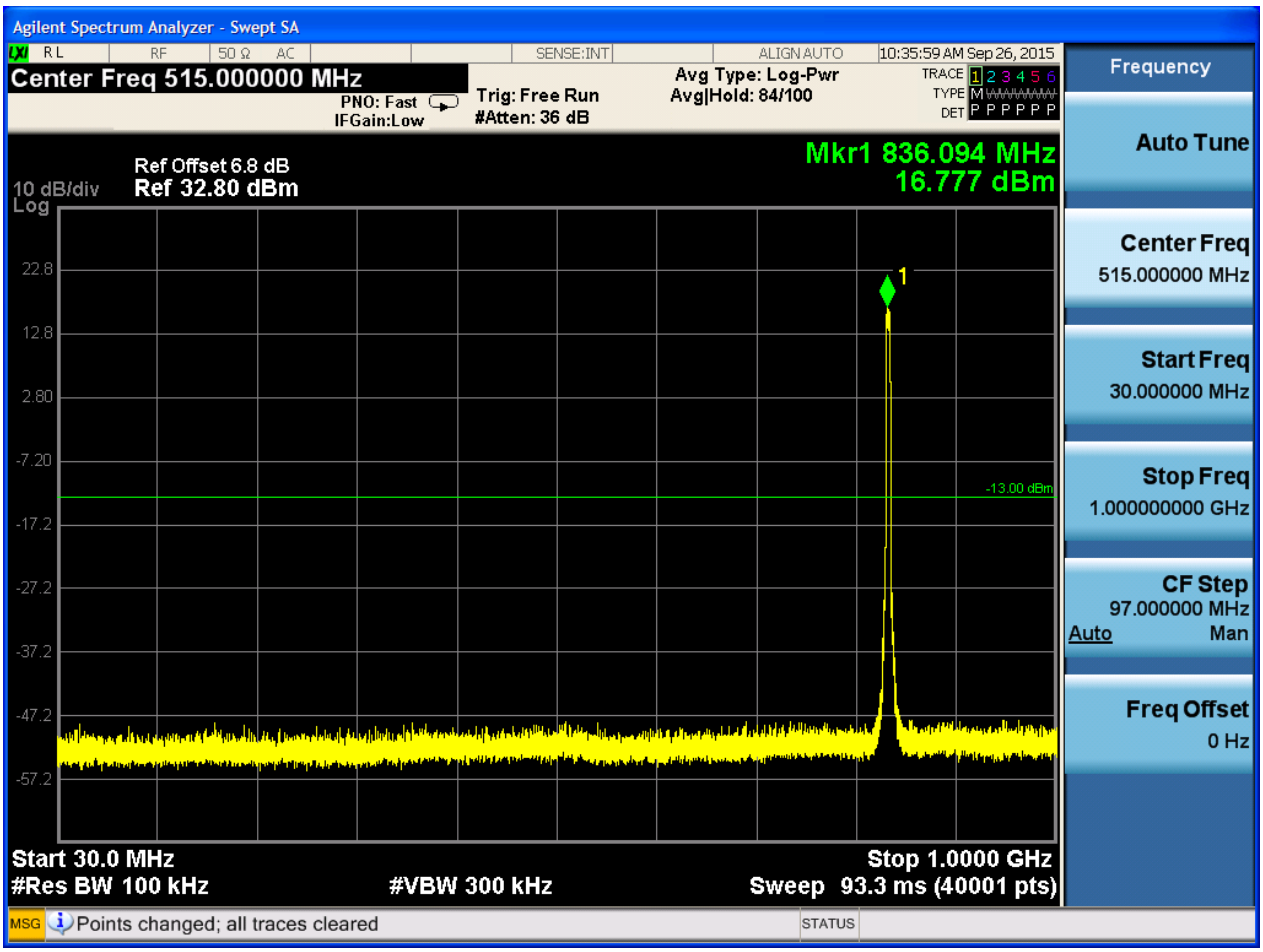


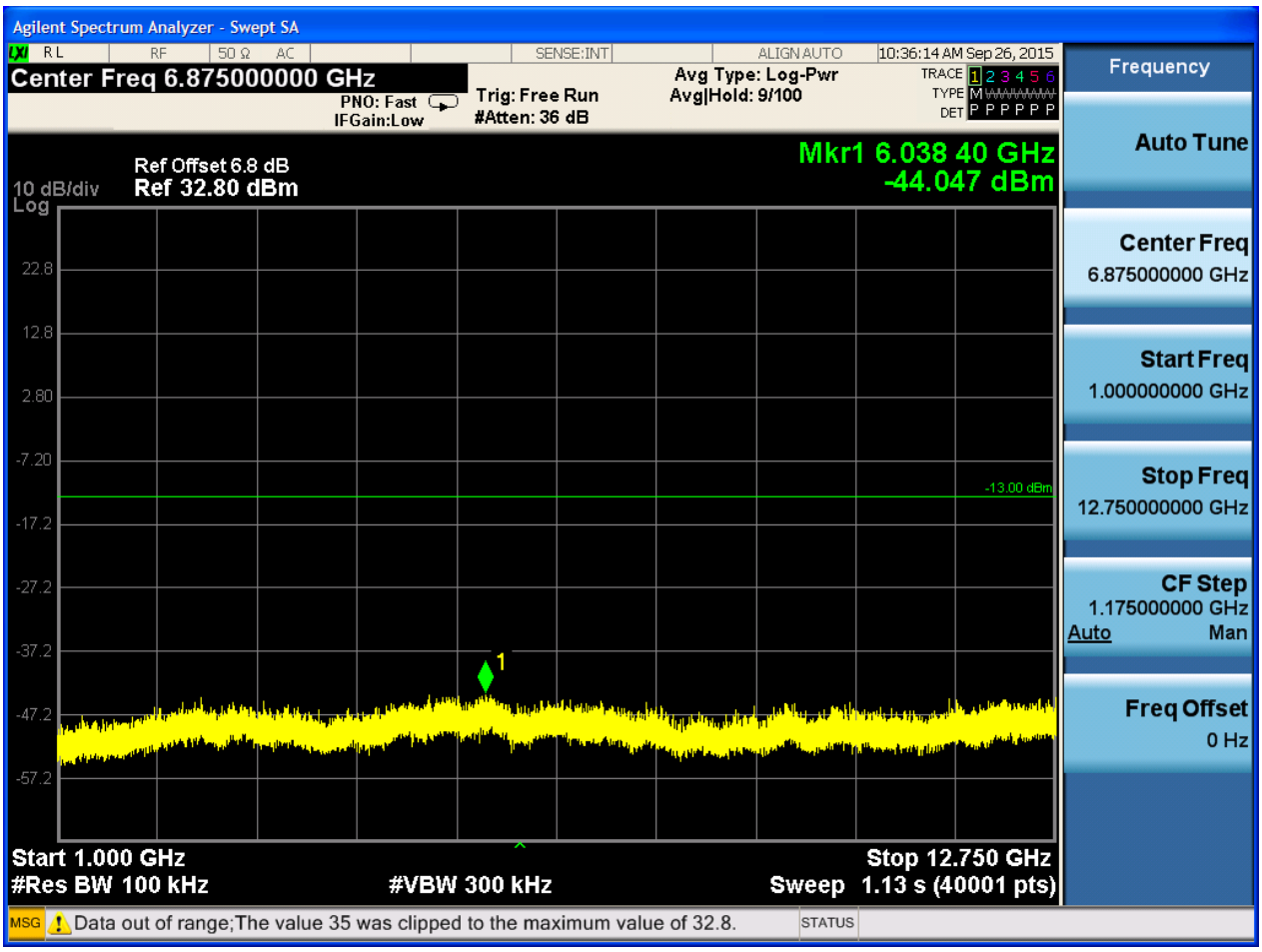


6.1.2.1.2 Test Channel = MCH

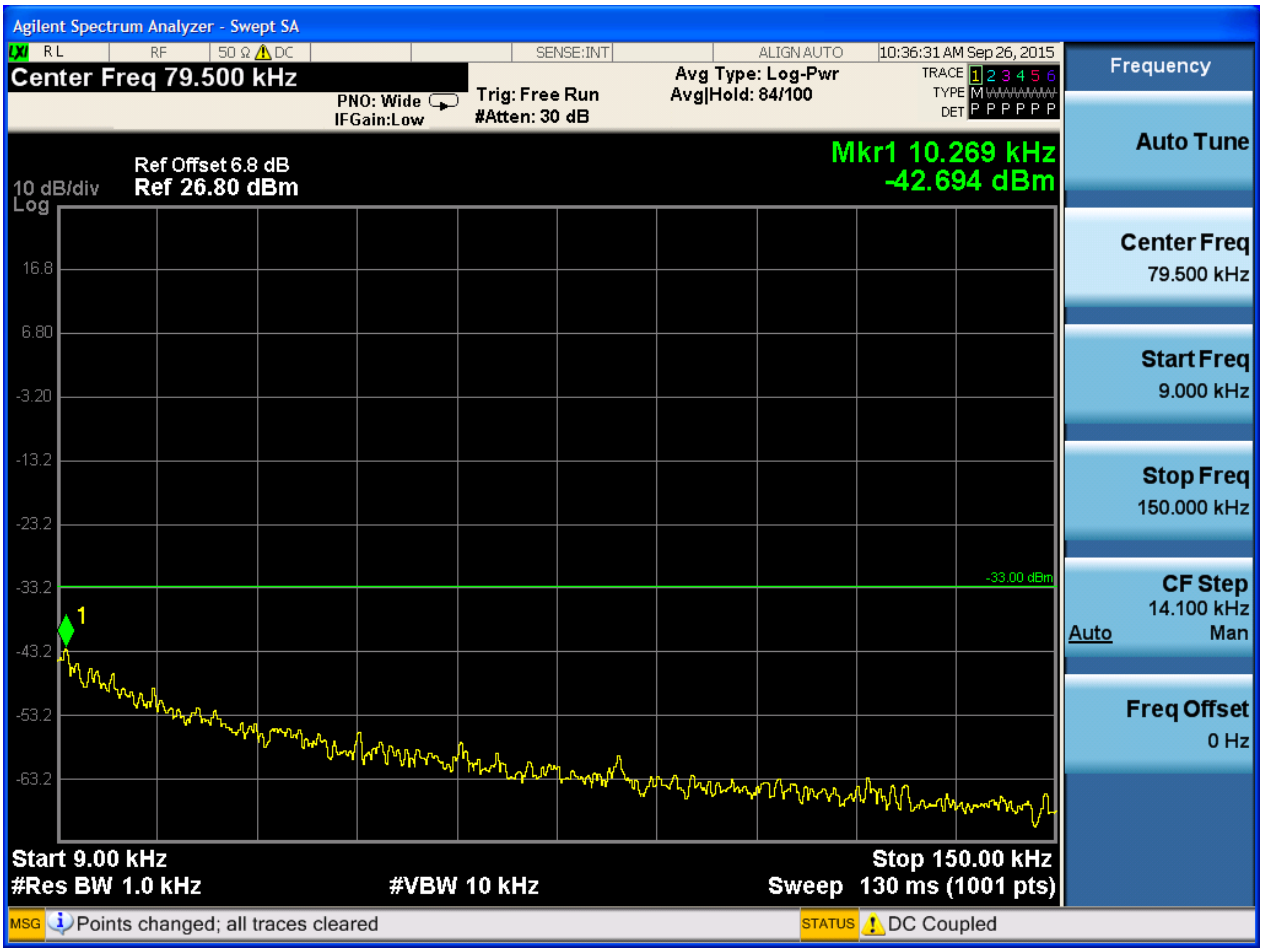


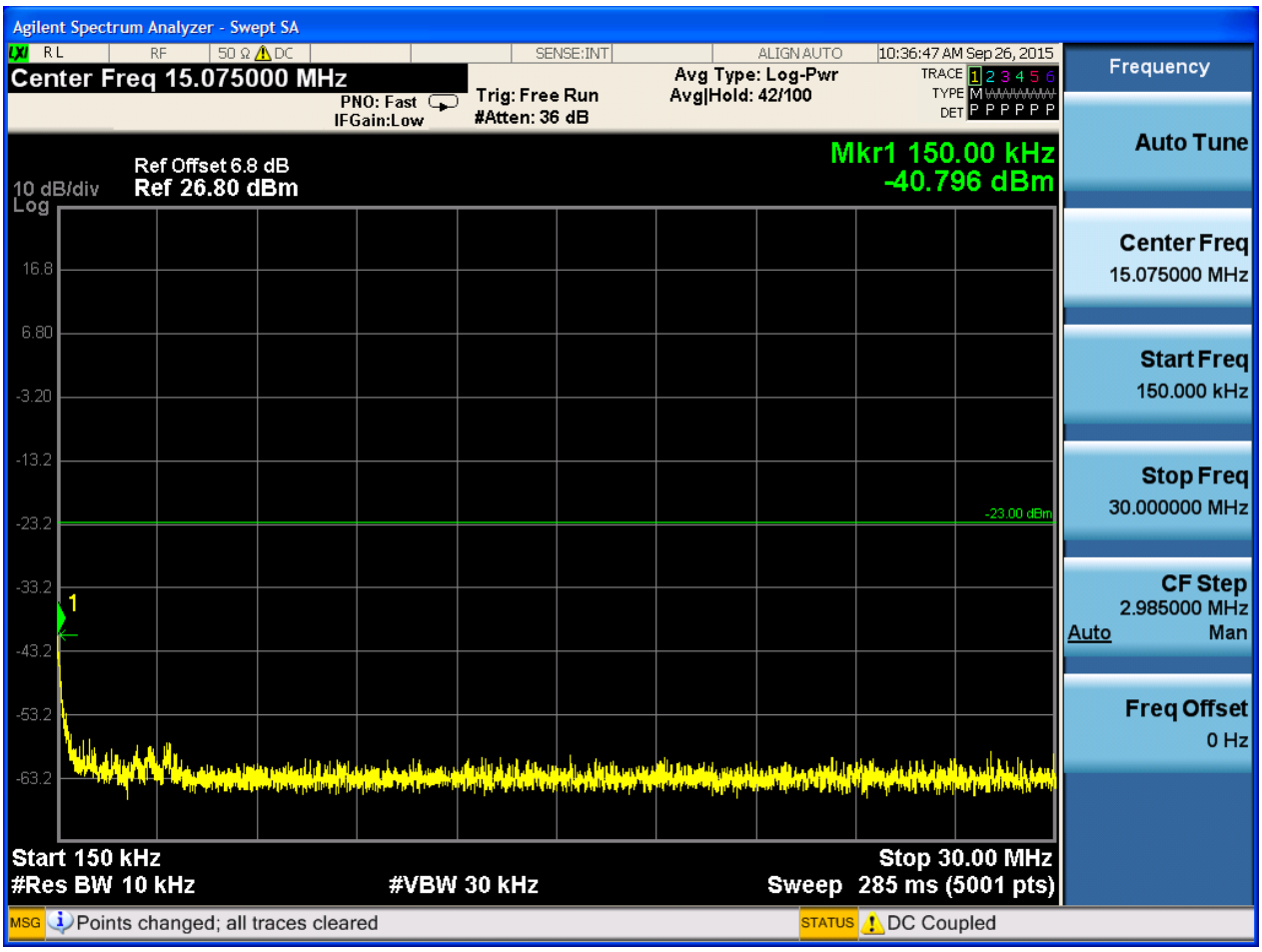


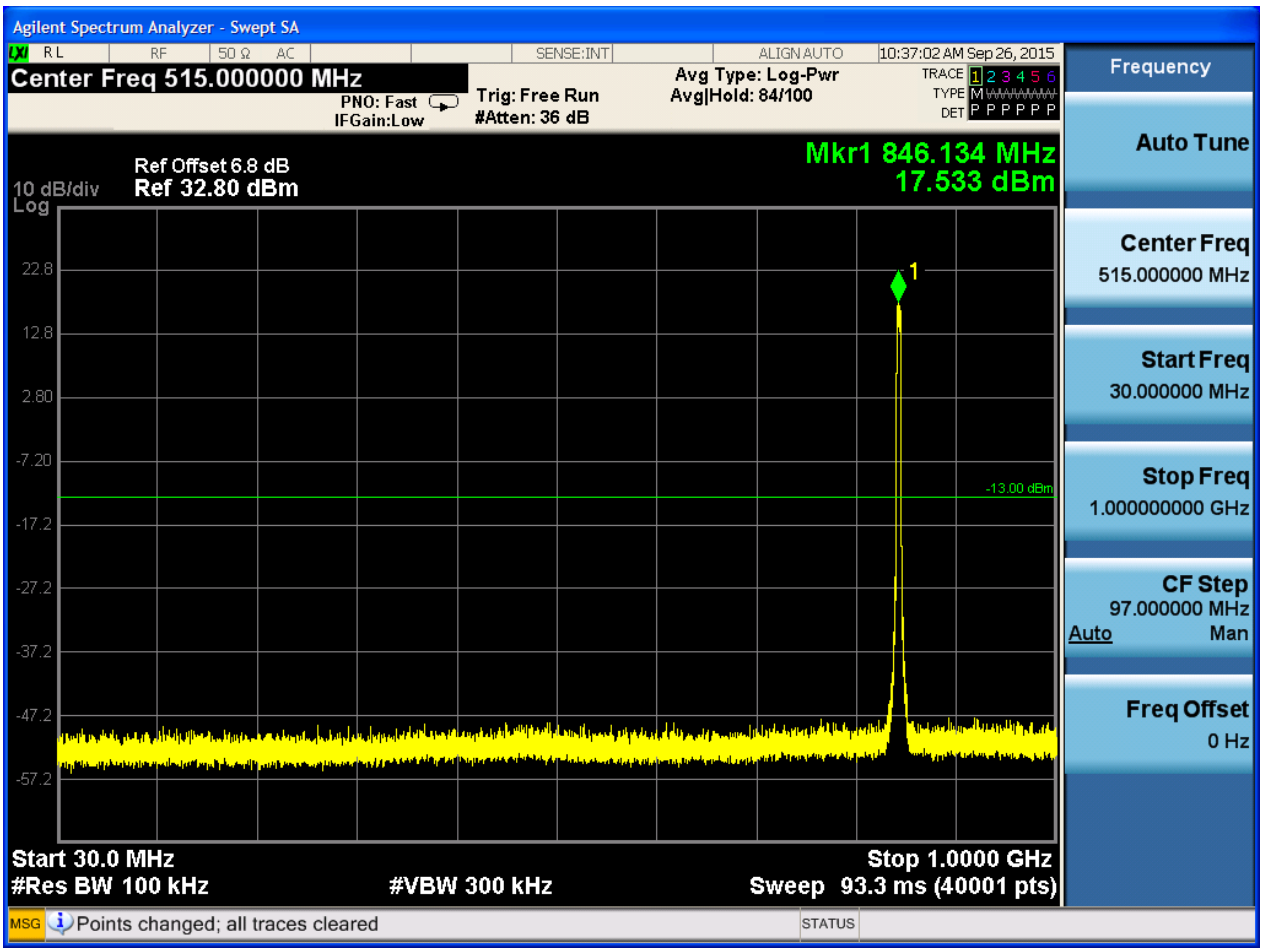


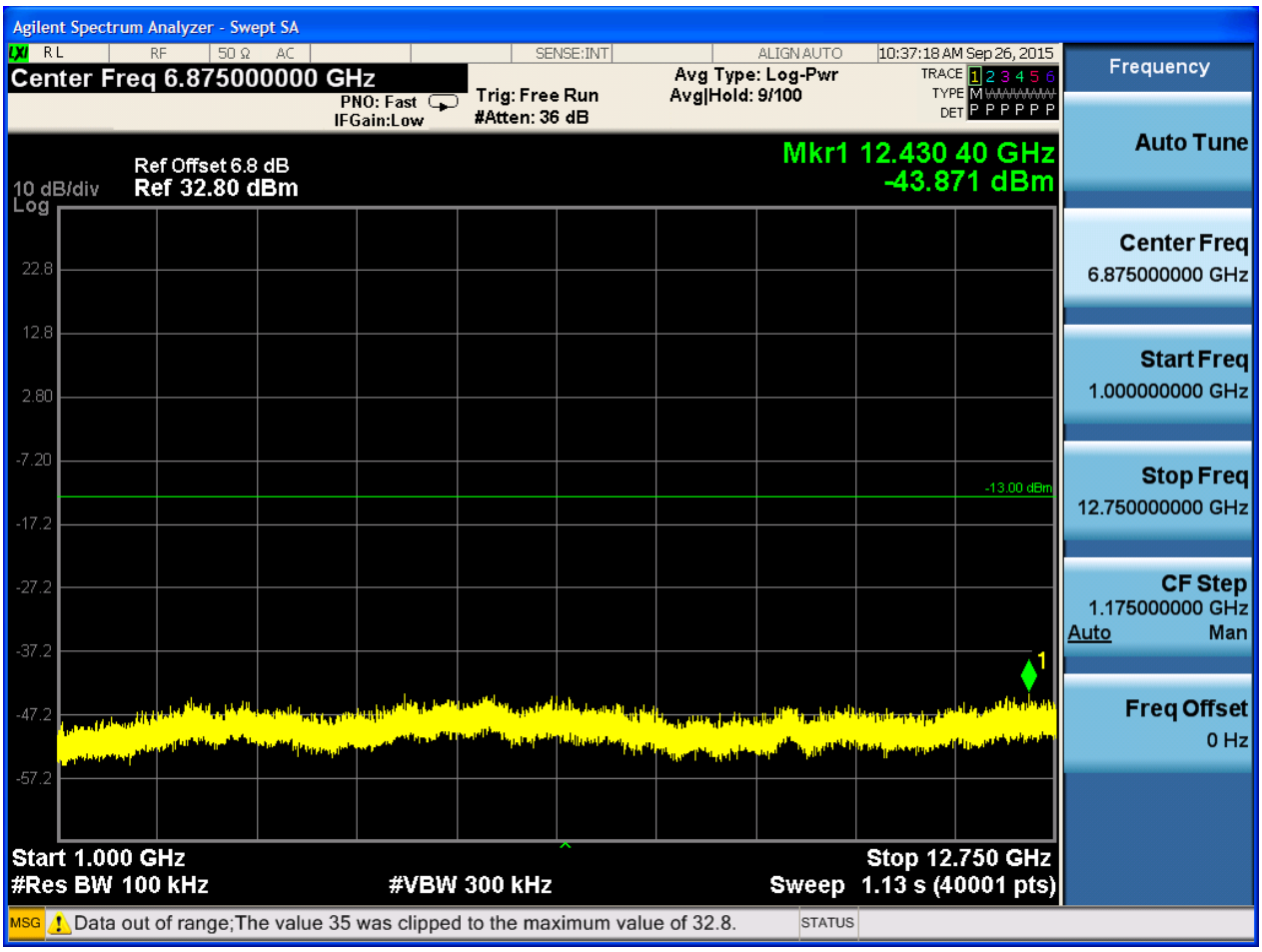


6.1.2.1.3 Test Channel = HCH





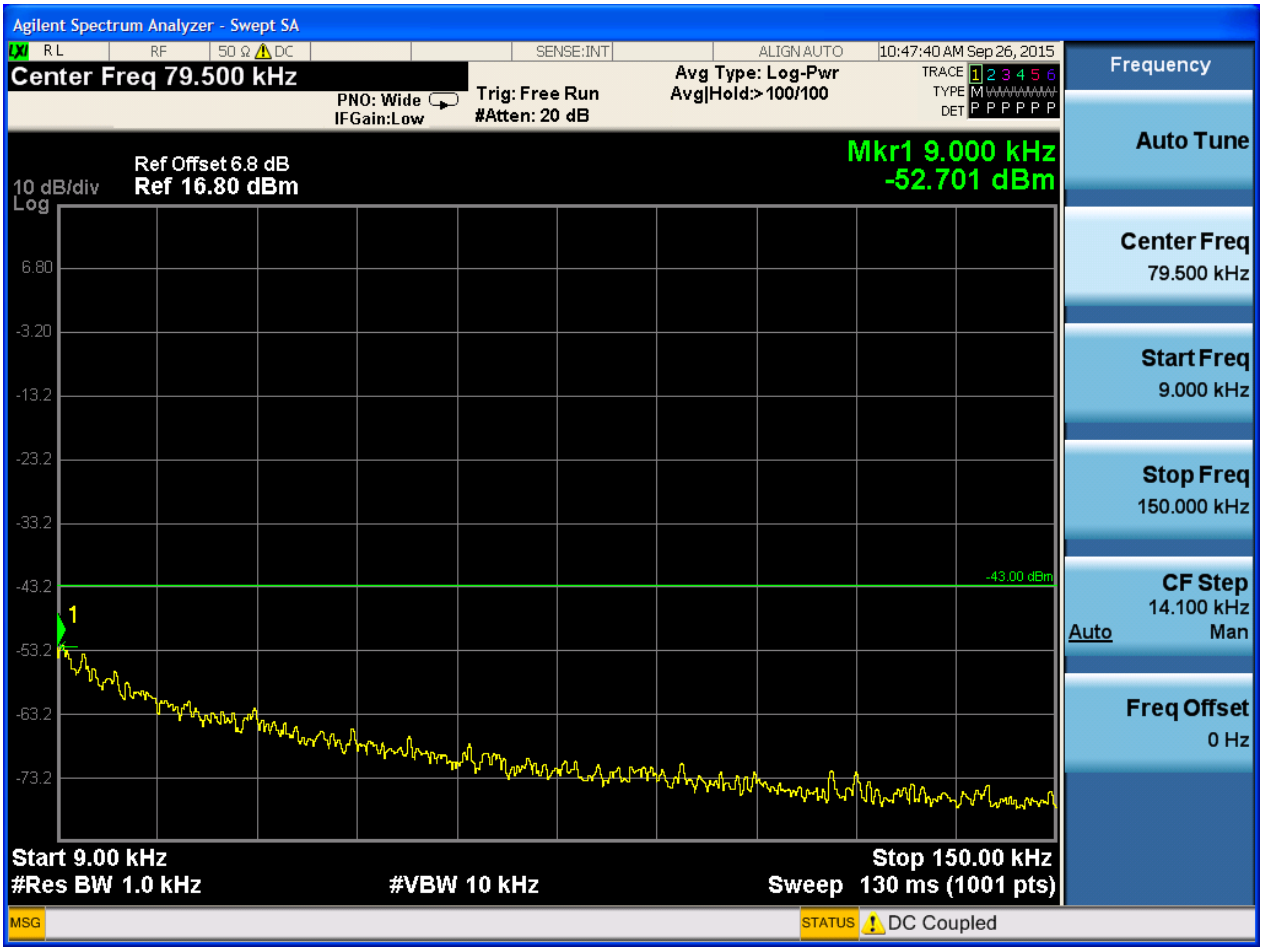


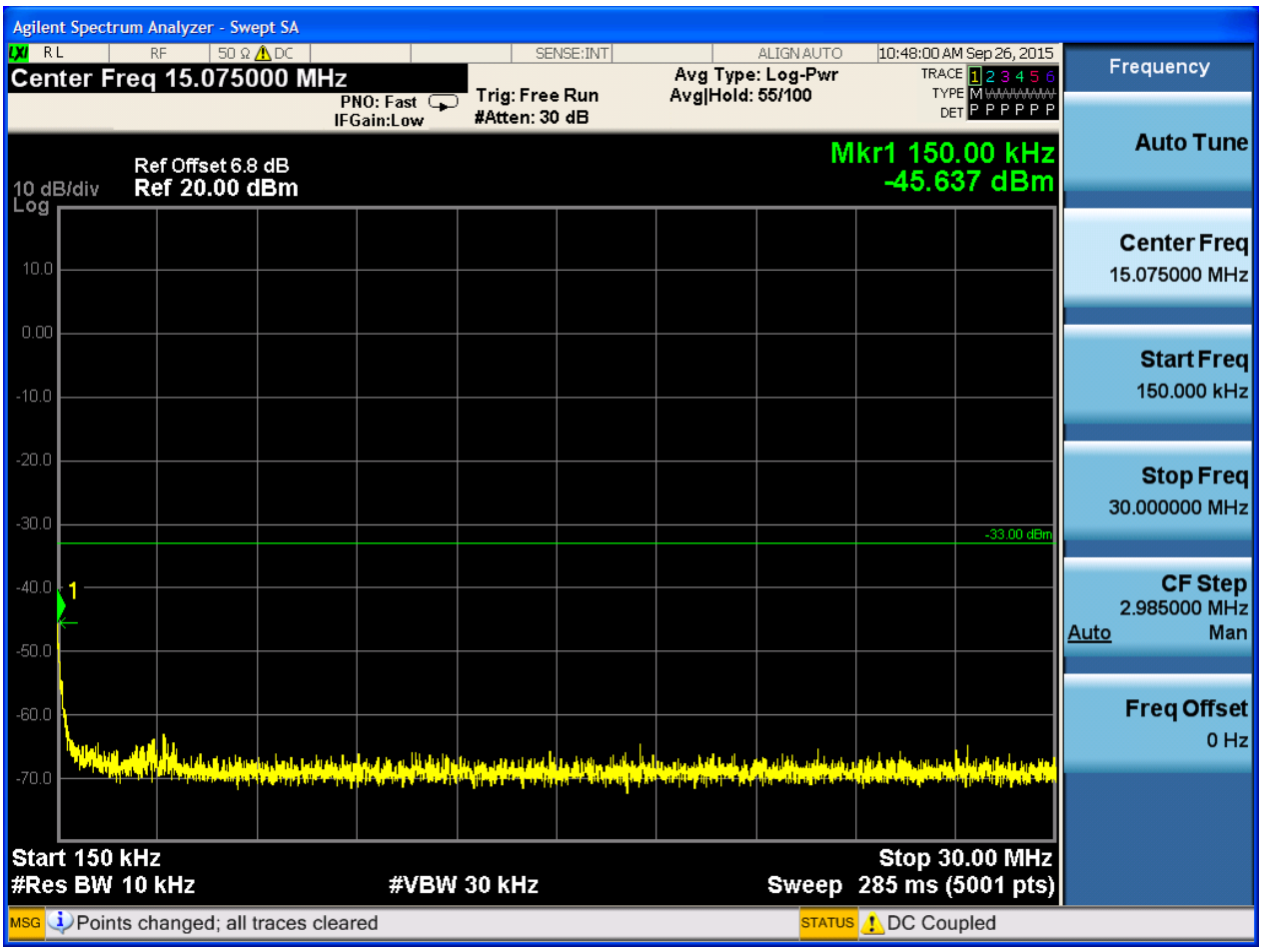


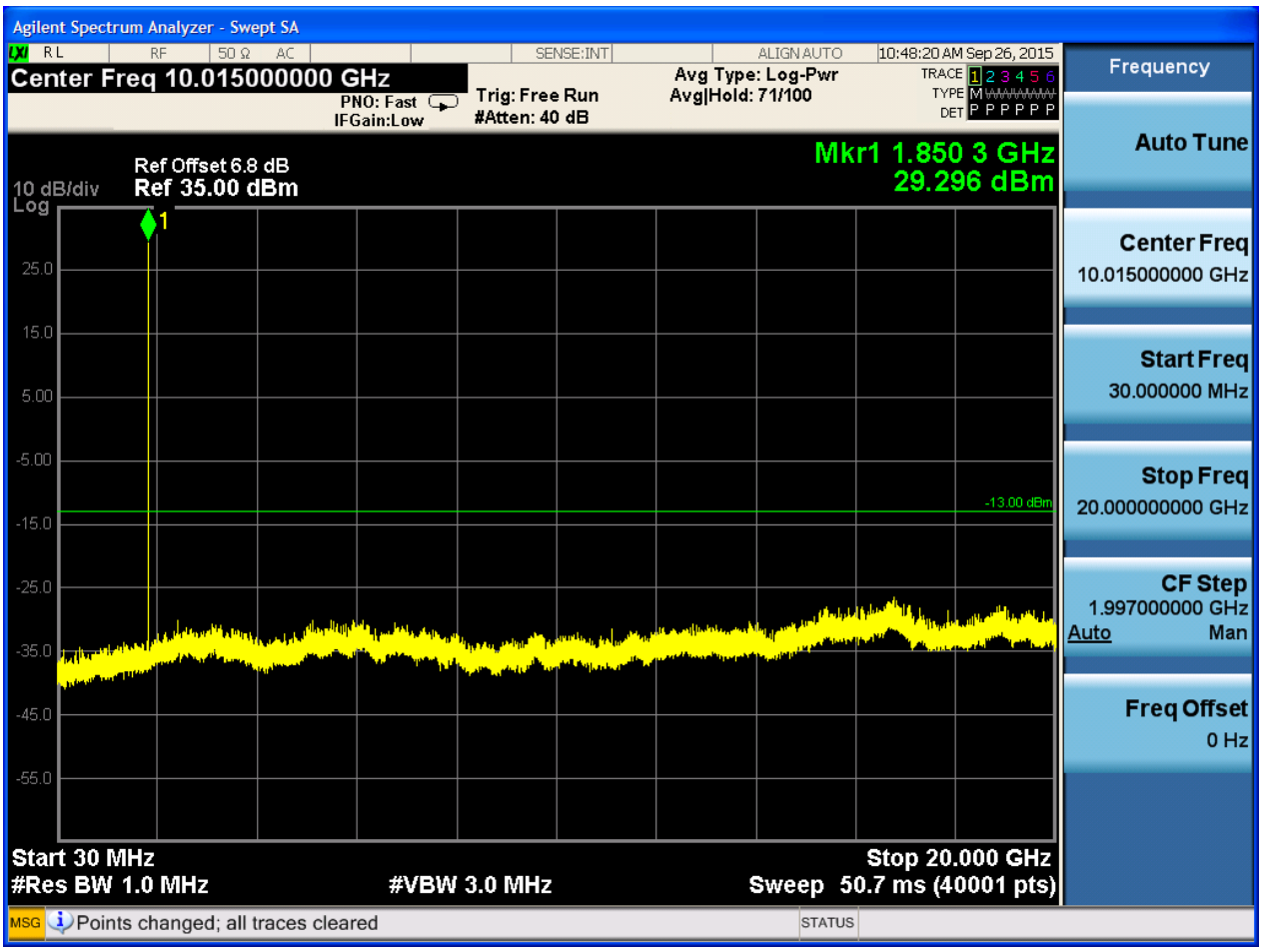
6.1.3 Test Band = GSM1900

6.1.3.1 Test Mode = GSM/TM1

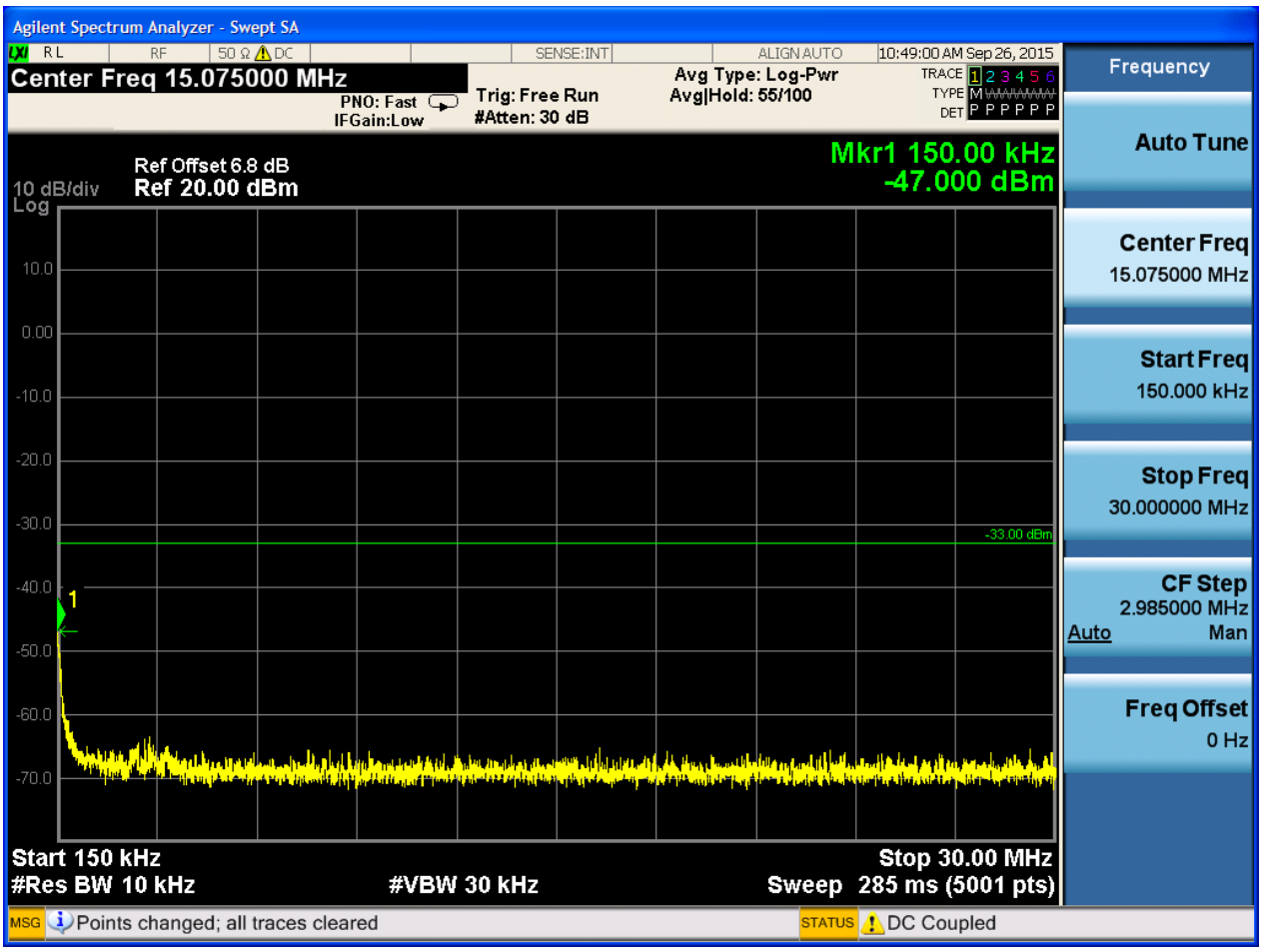
6.1.3.1.1 Test Channel = LCH

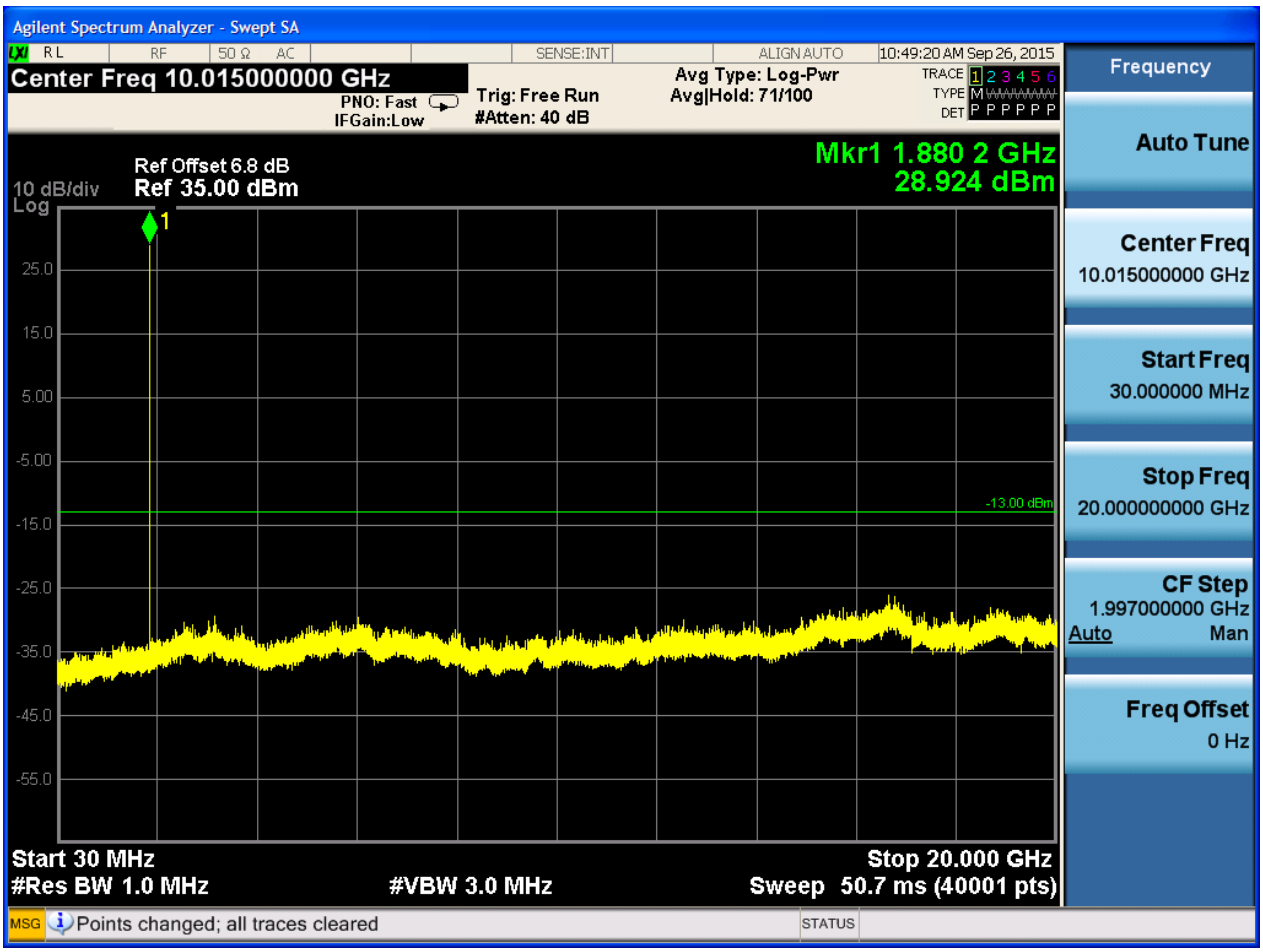




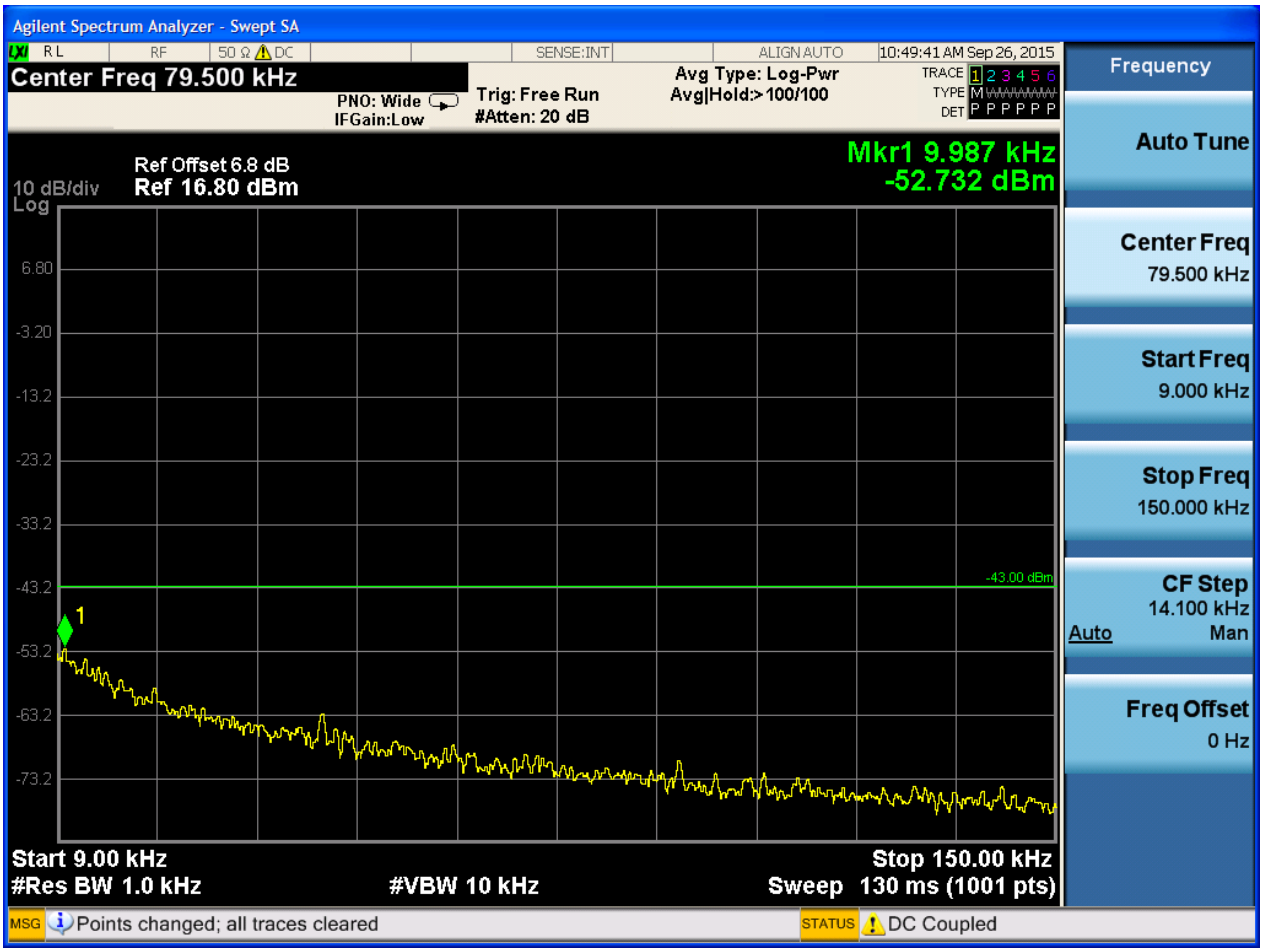


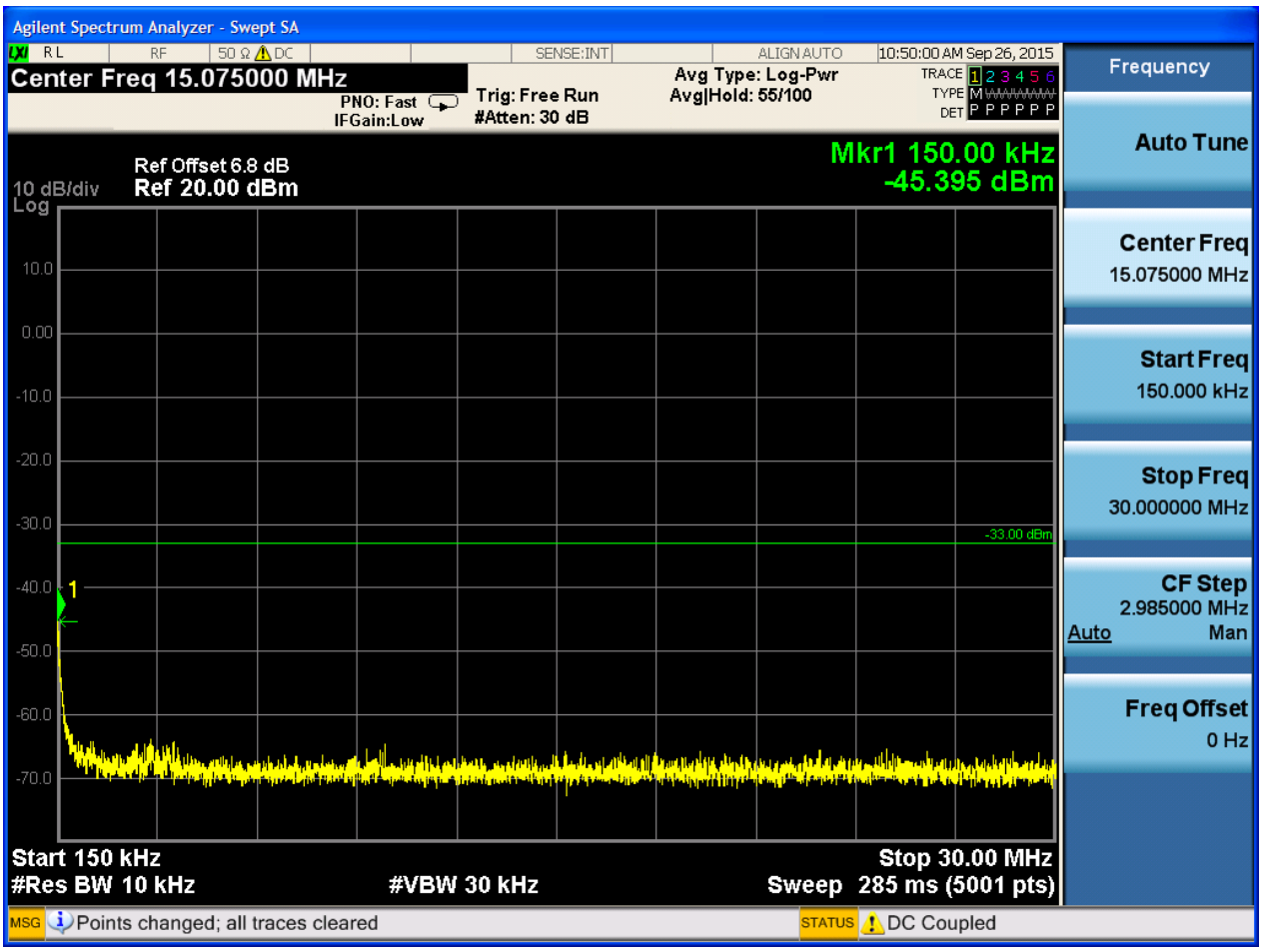
6.1.3.1.2 Test Channel = MCH

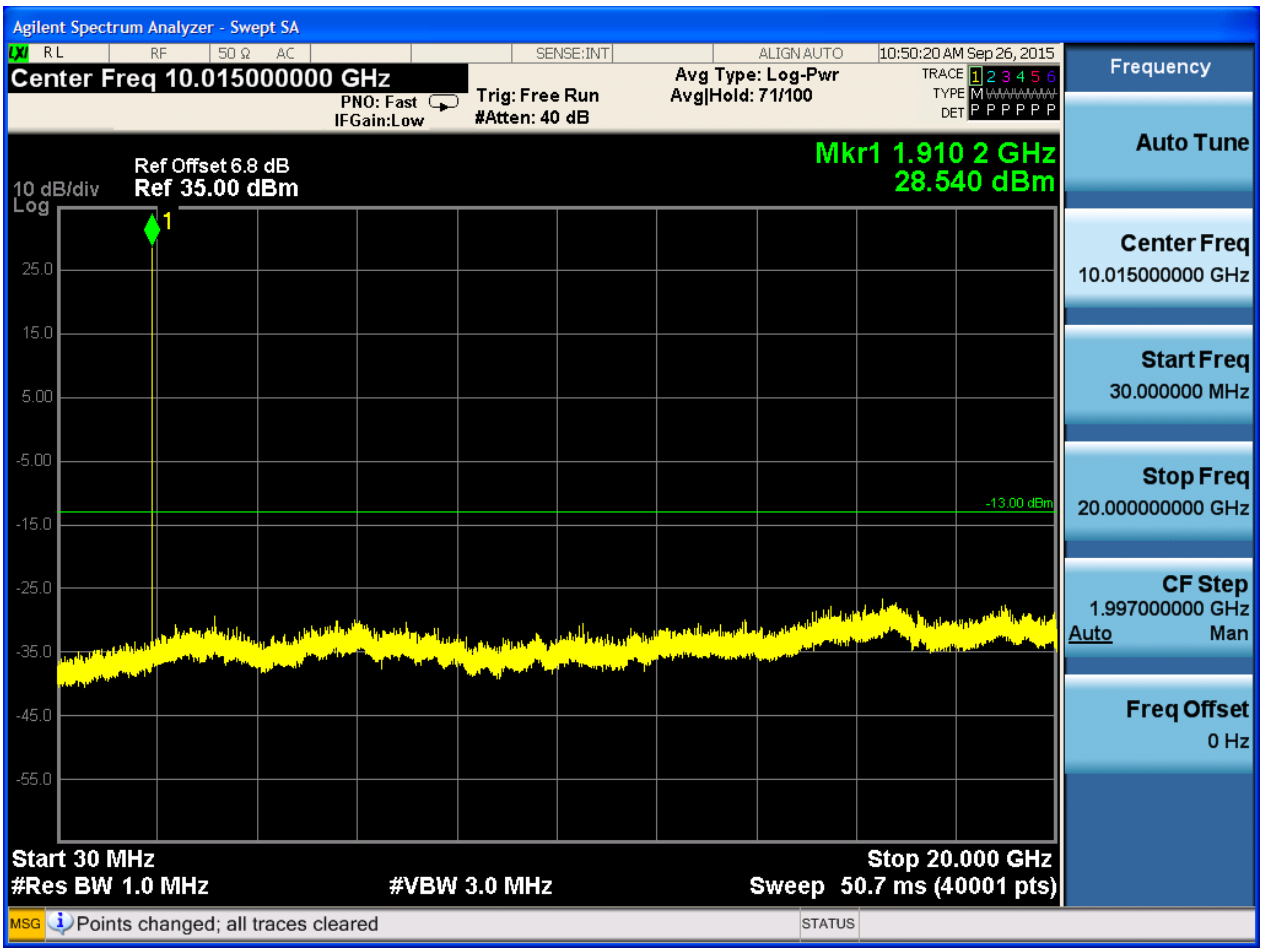




6.1.3.1.3 Test Channel = HCH

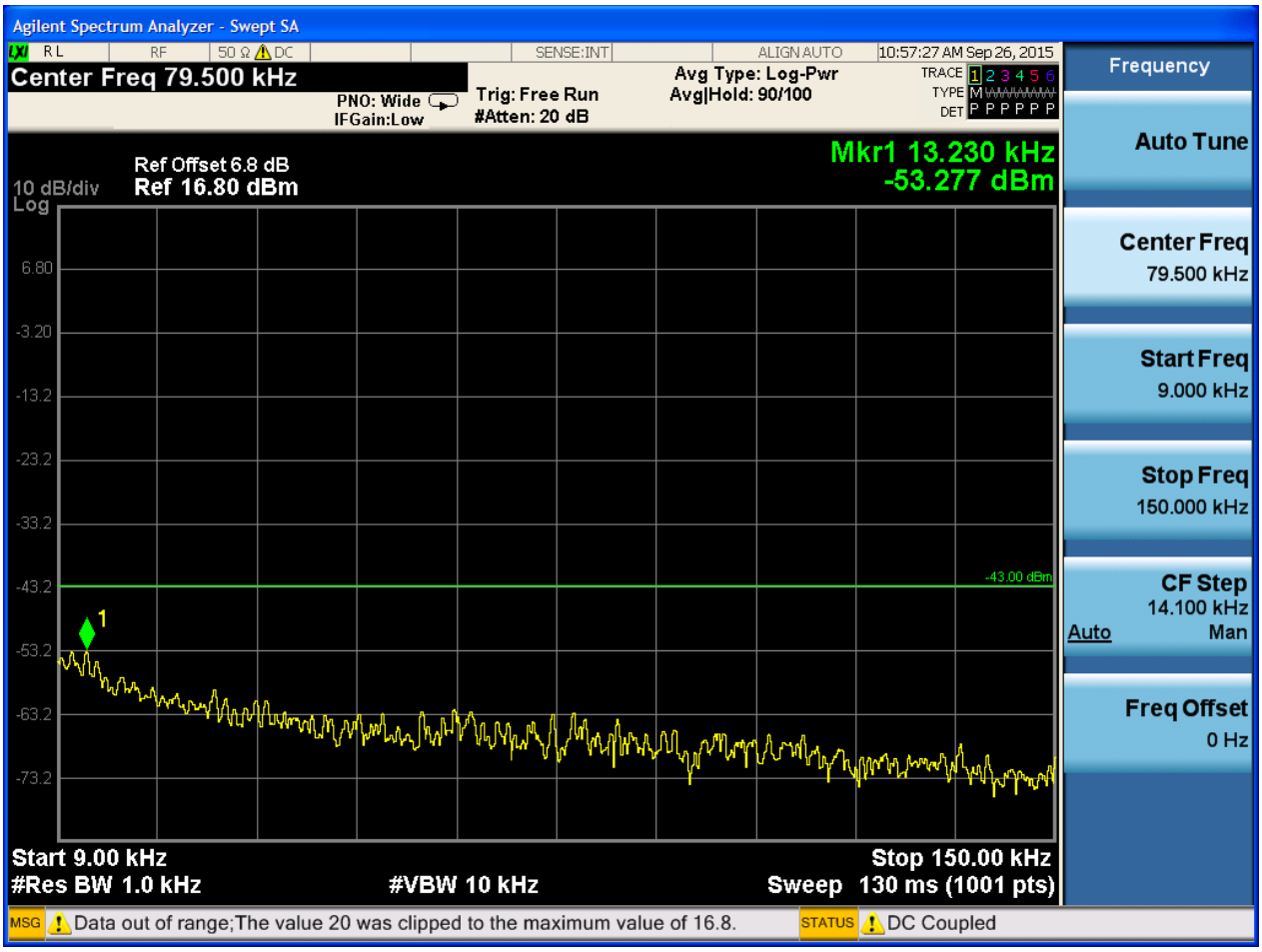


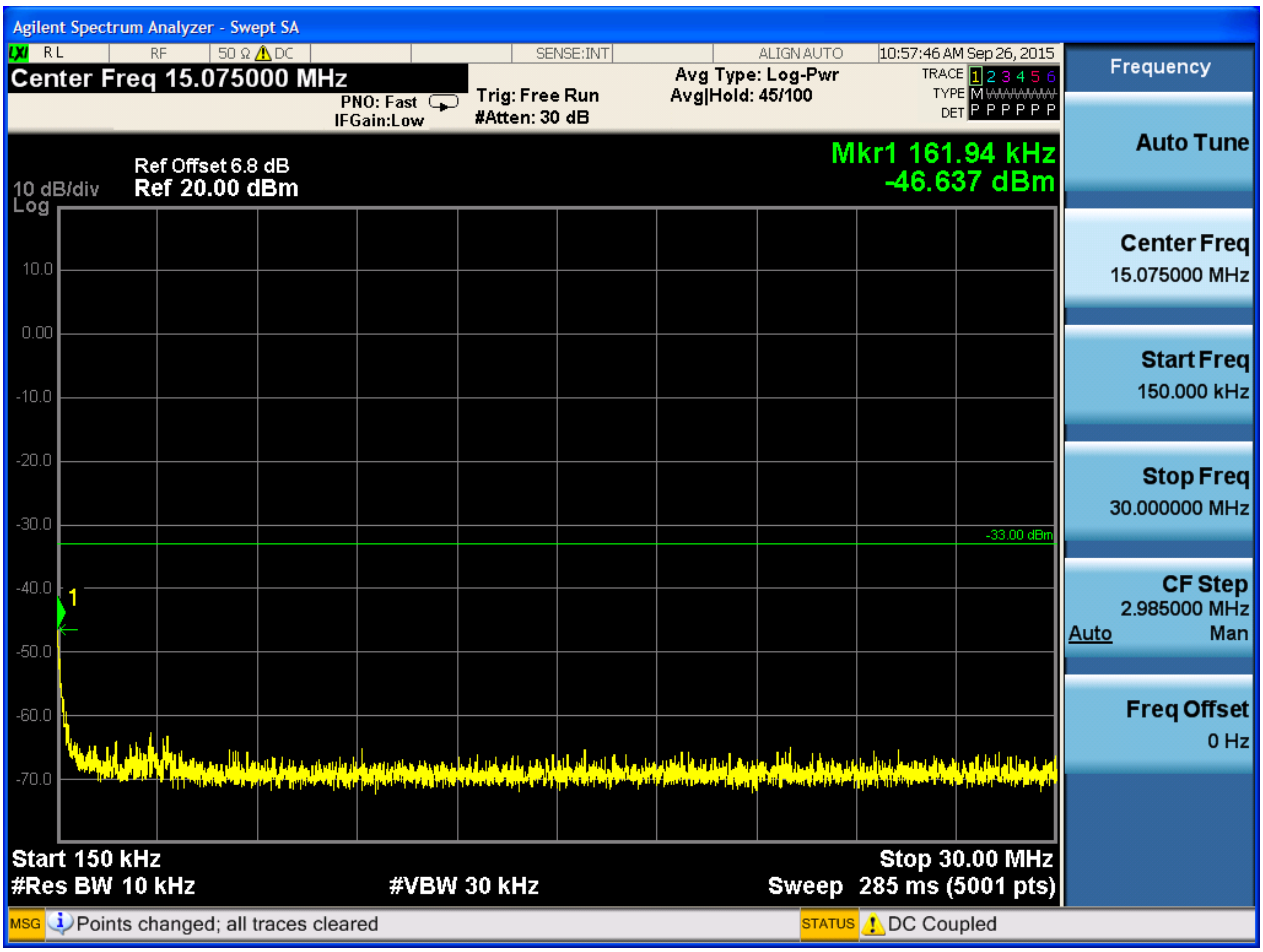


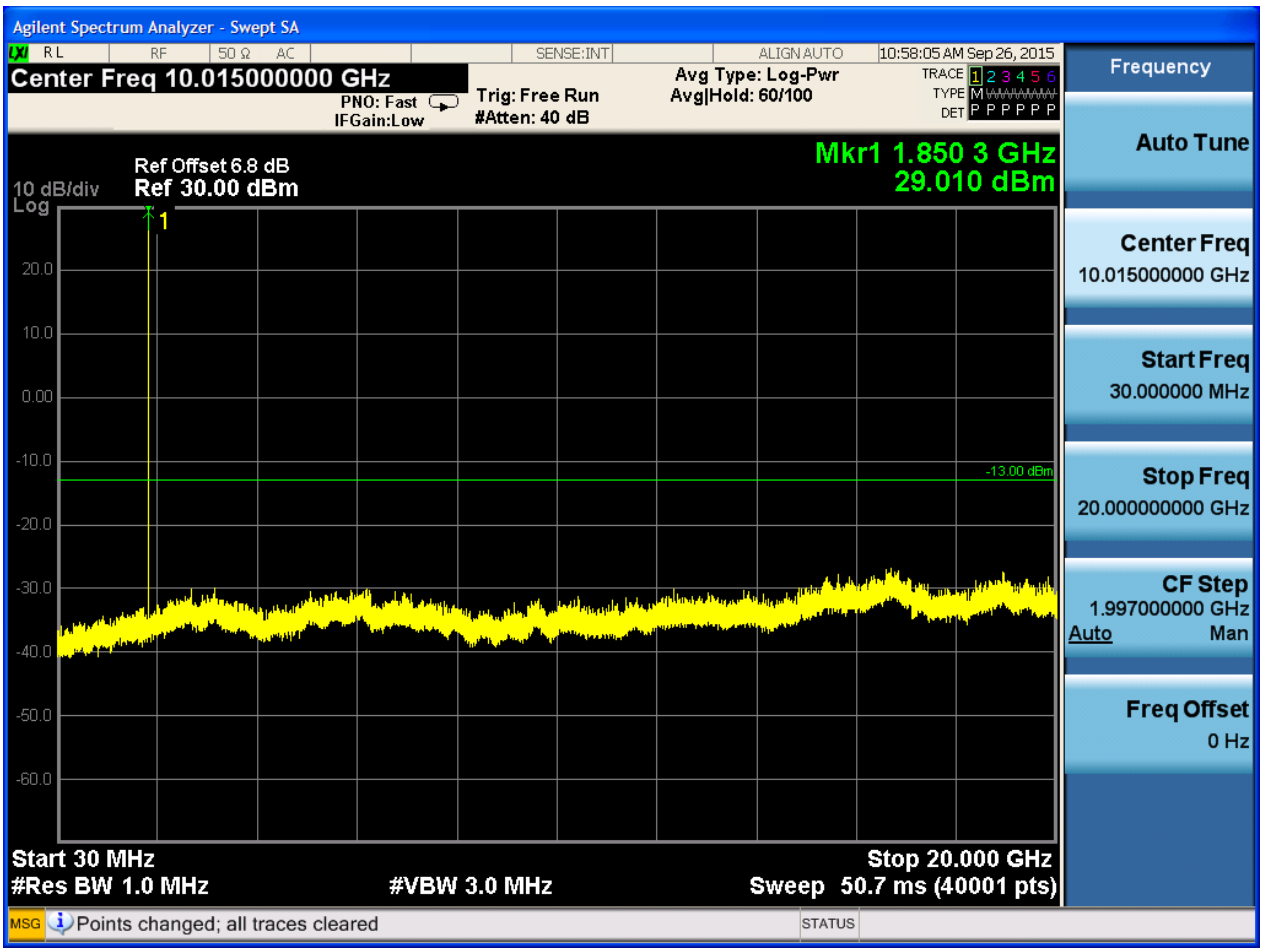


6.1.3.2 Test Mode = GSM/TM2

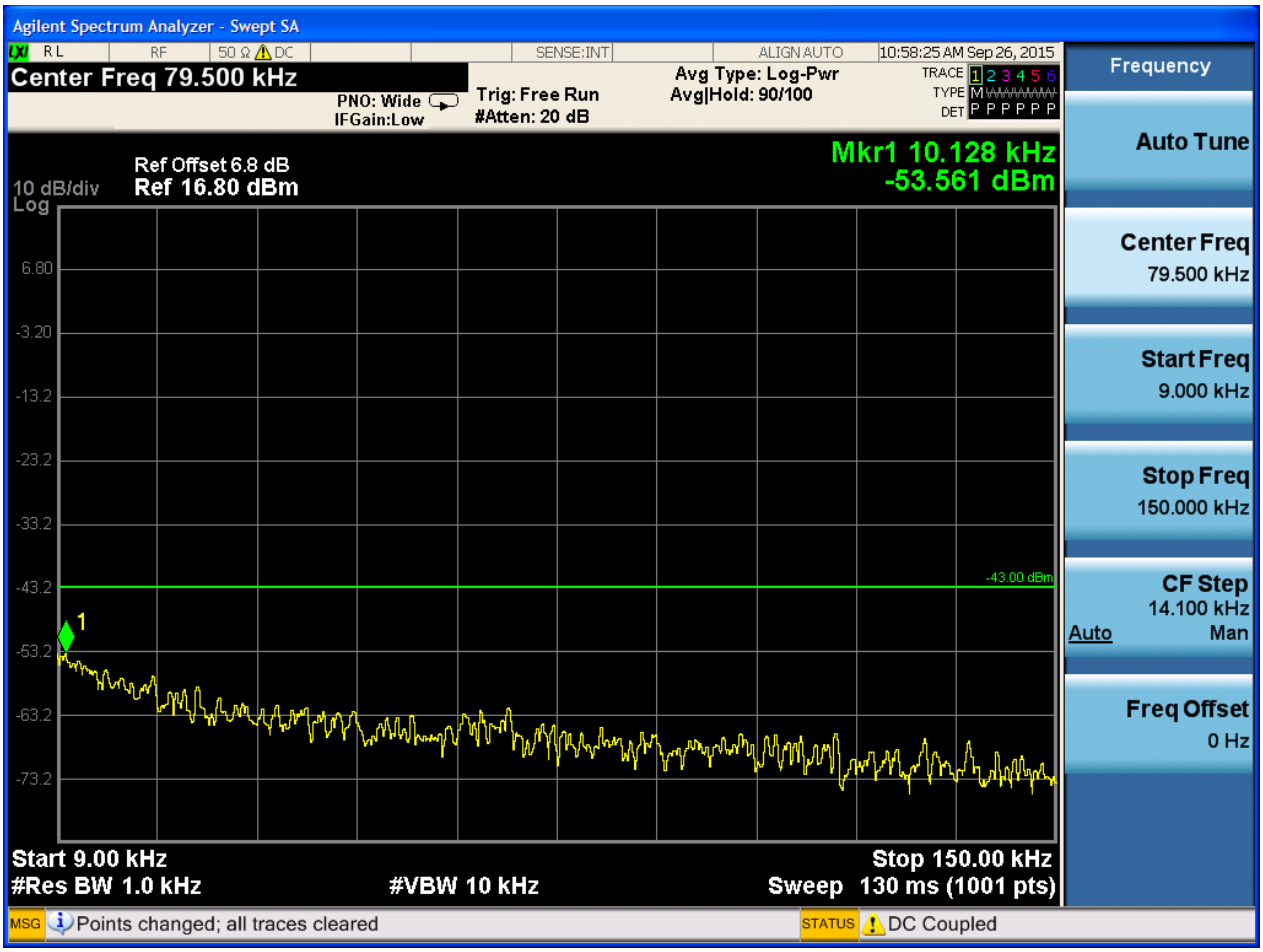
6.1.3.2.1 Test Channel = LCH

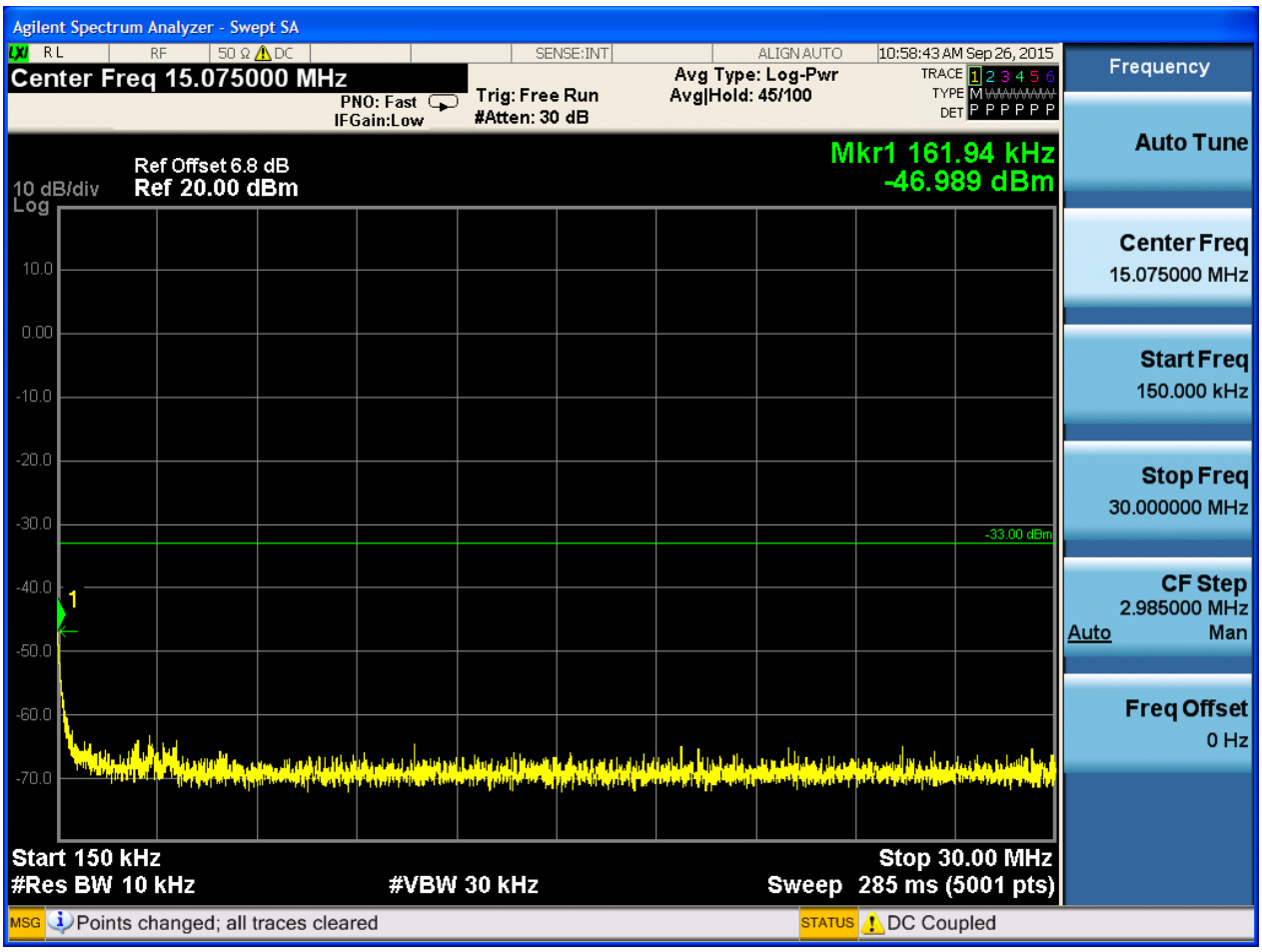


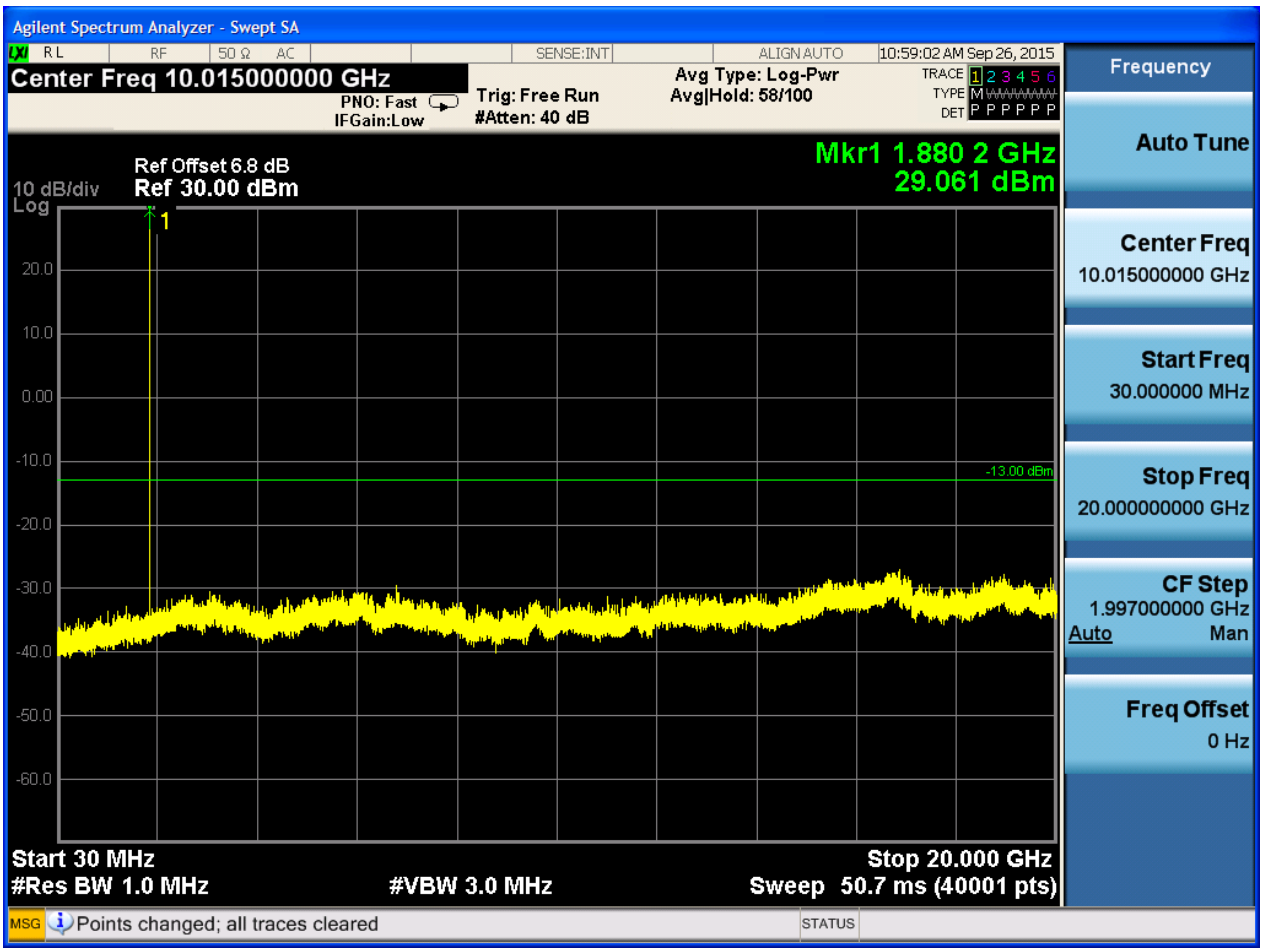




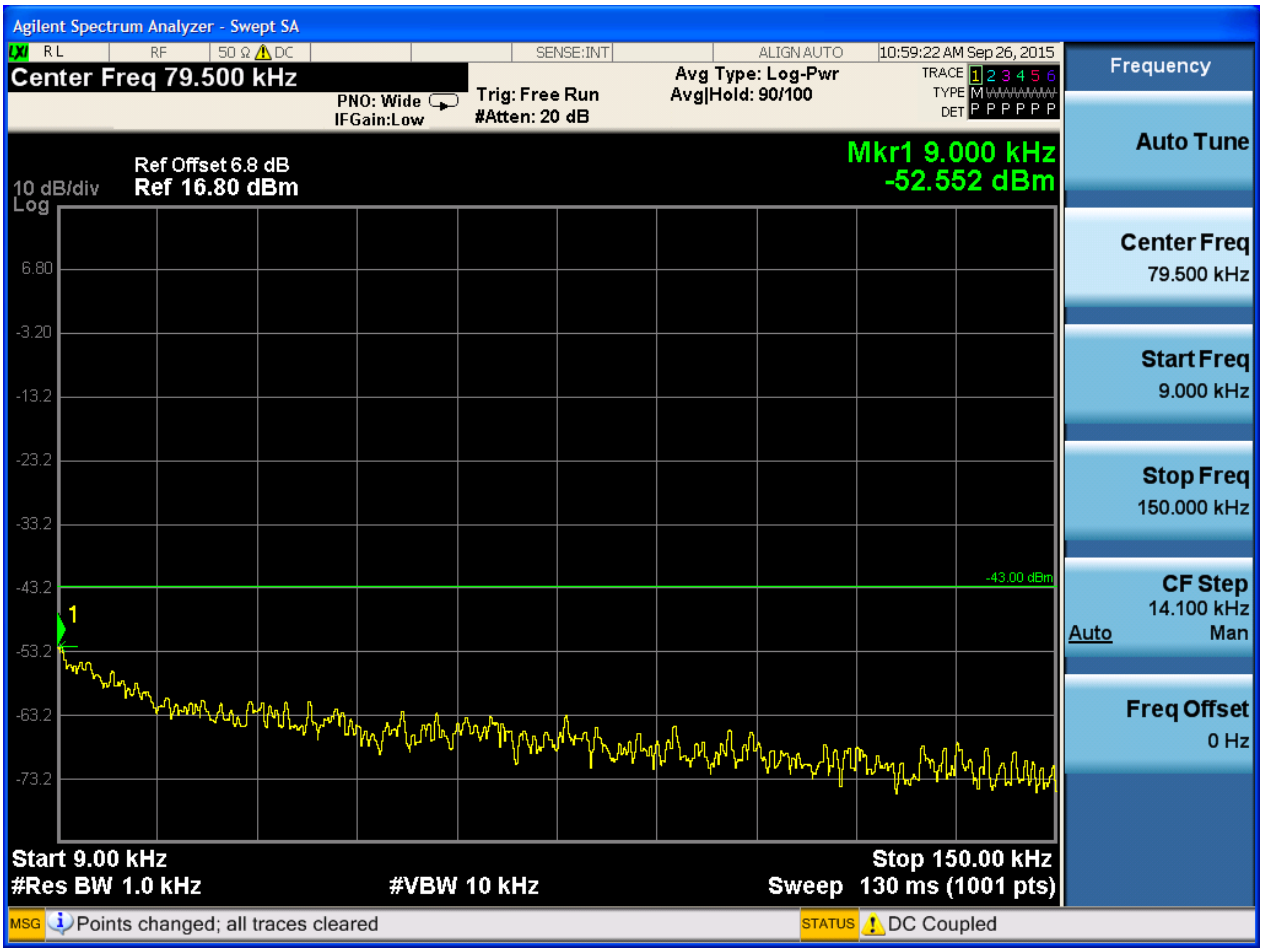
6.1.3.2.2 Test Channel = MCH

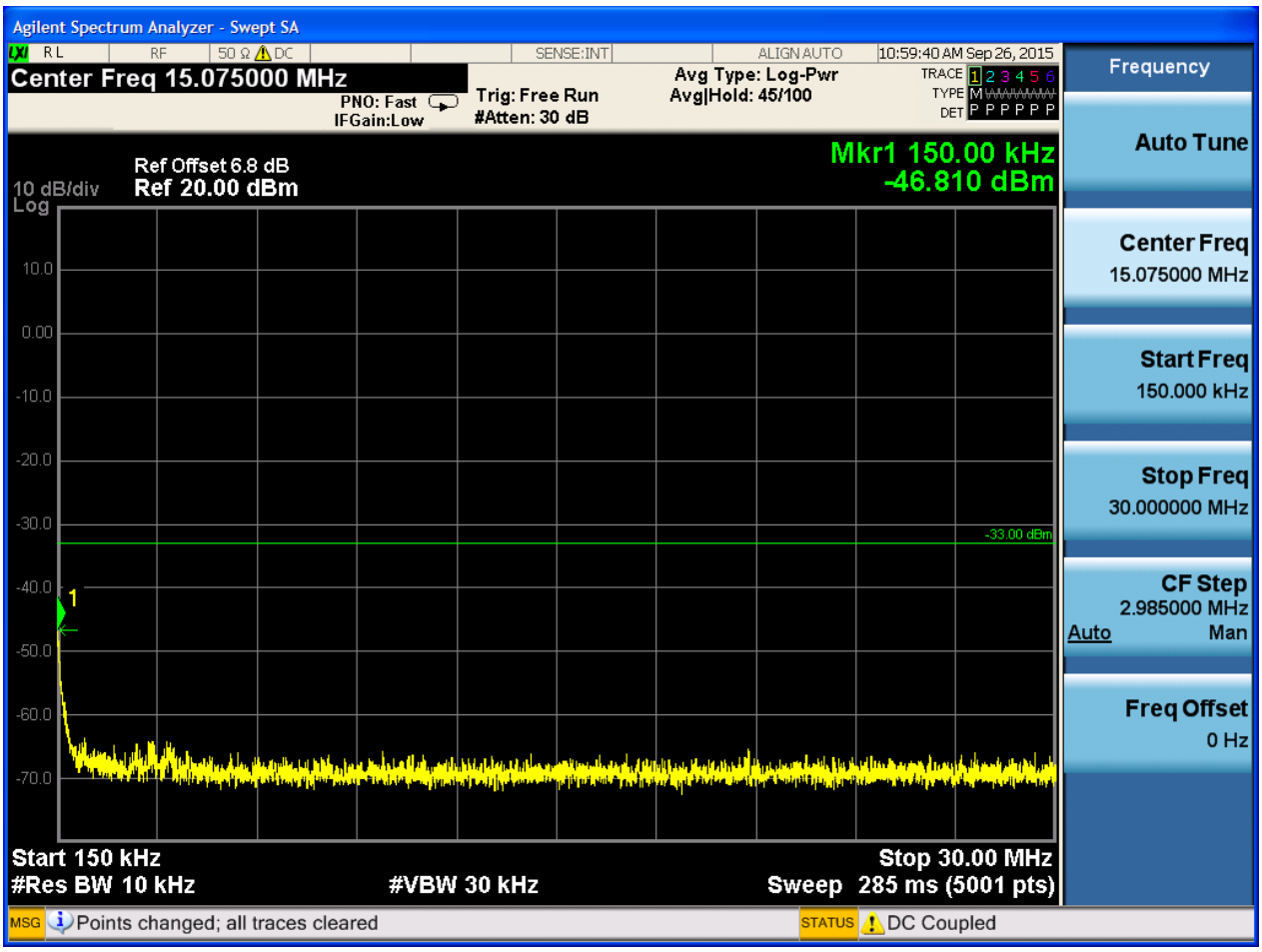


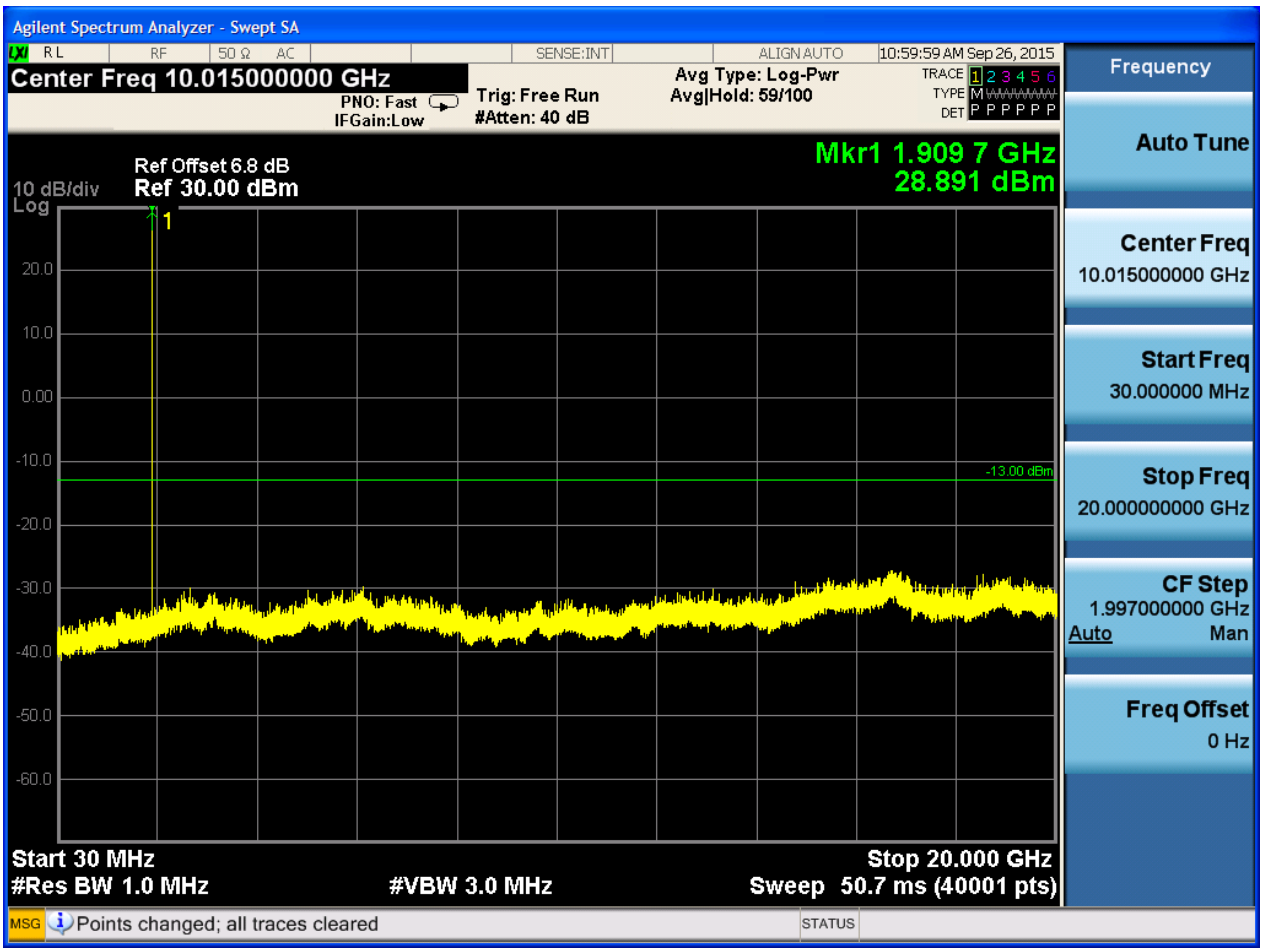




6.1.3.2.3 Test Channel = HCH



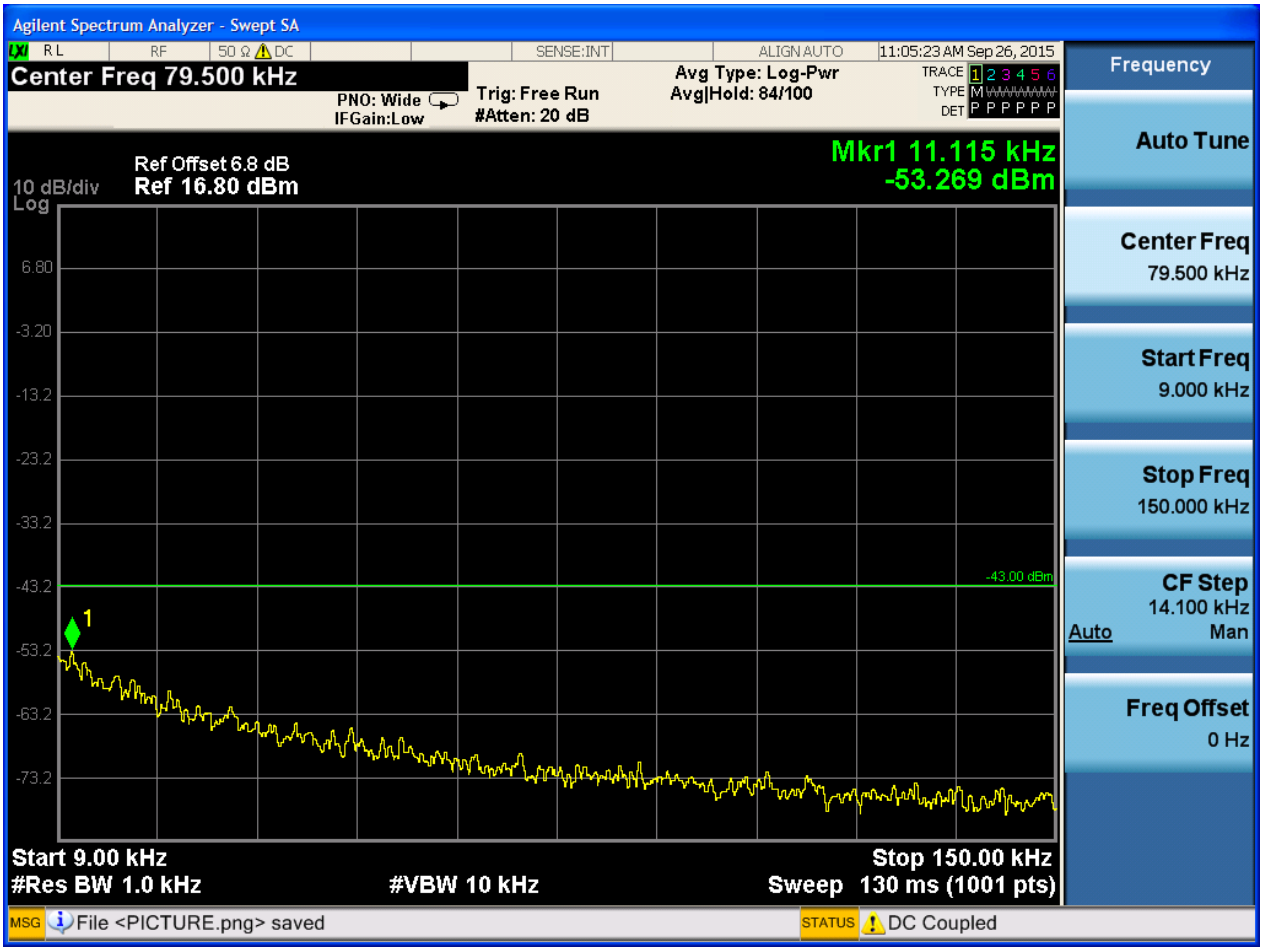


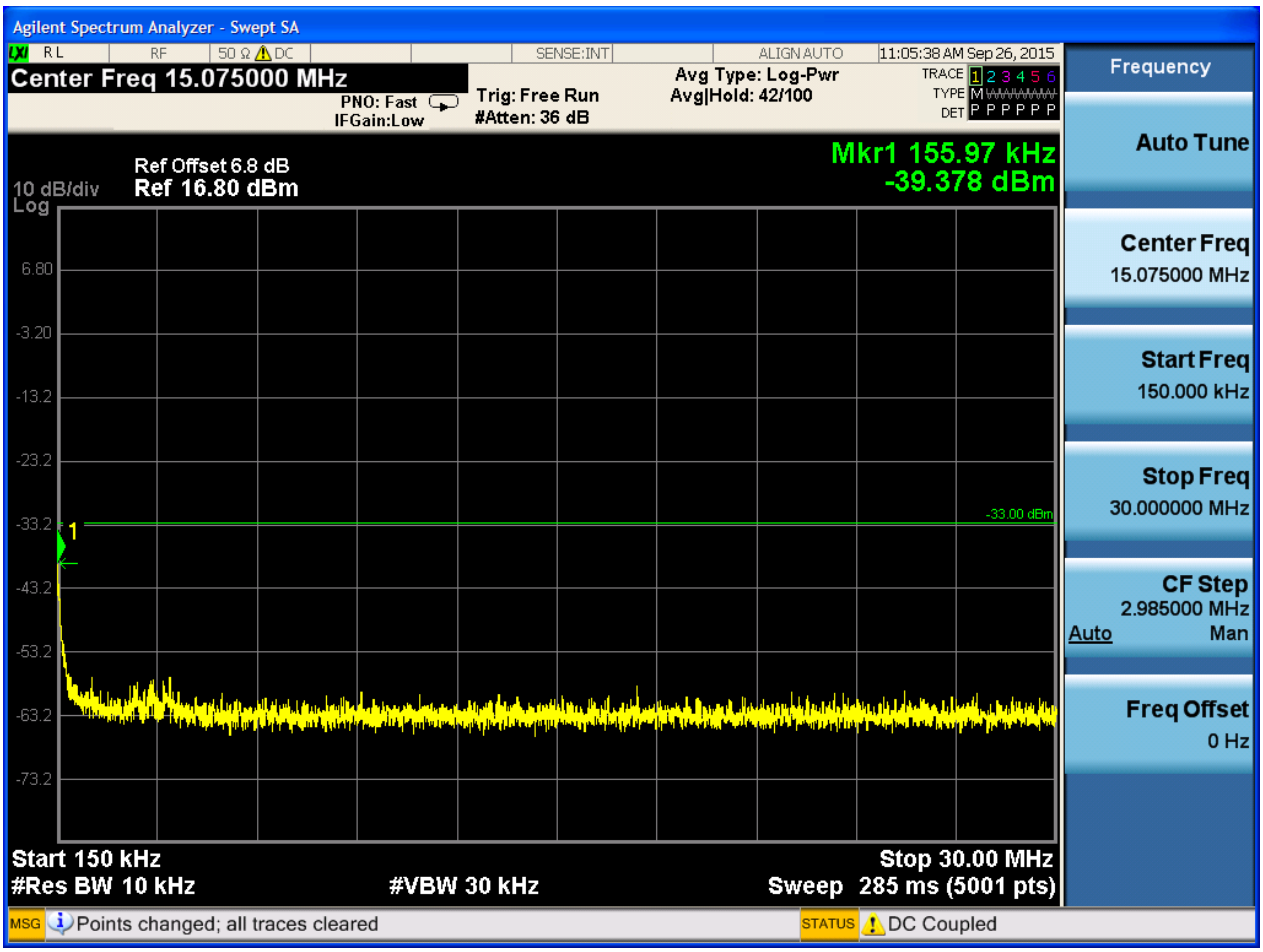


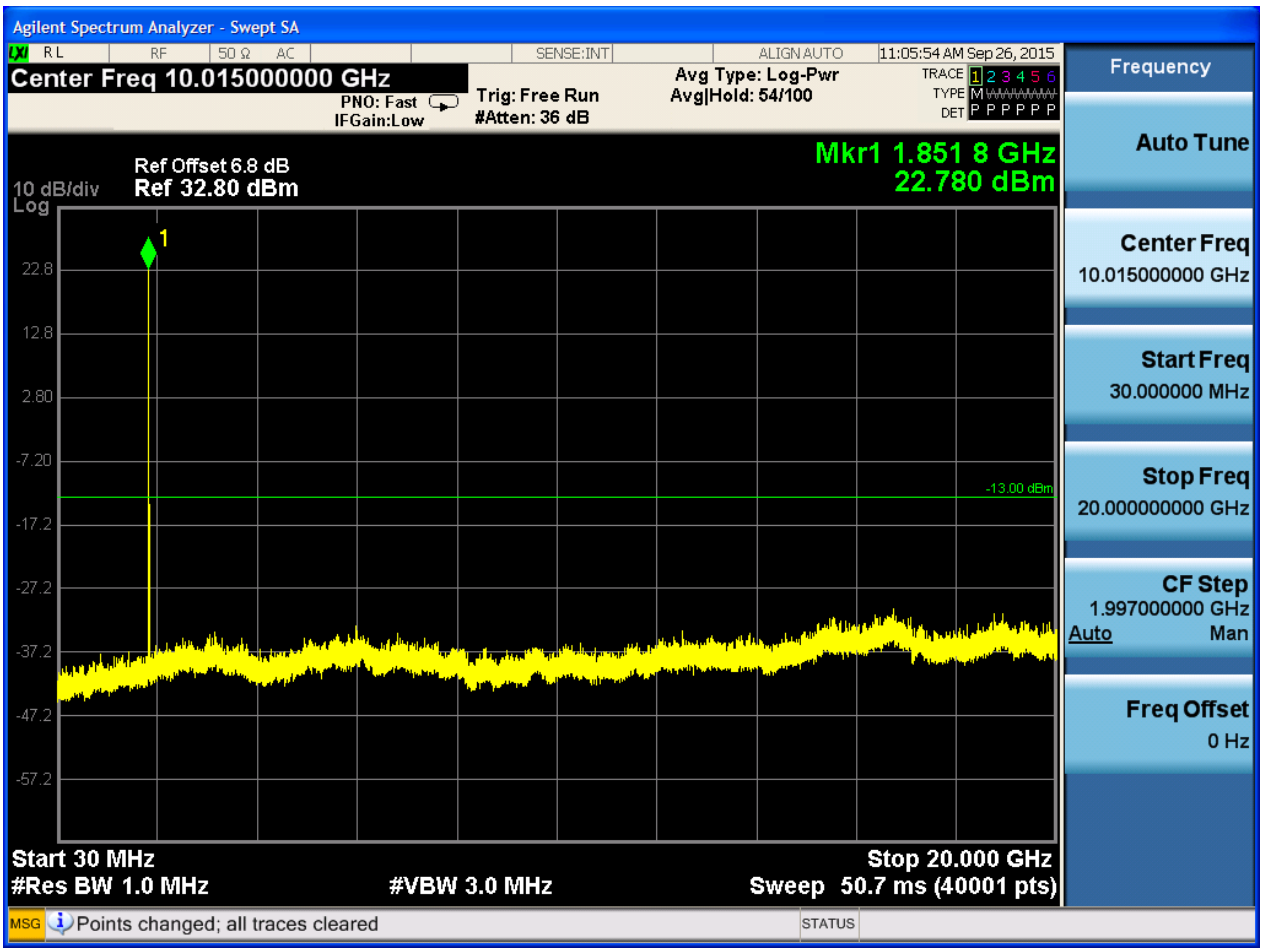
6.1.4 Test Band = WCDMA1900

6.1.4.1 Test Mode = UMTS/TM1

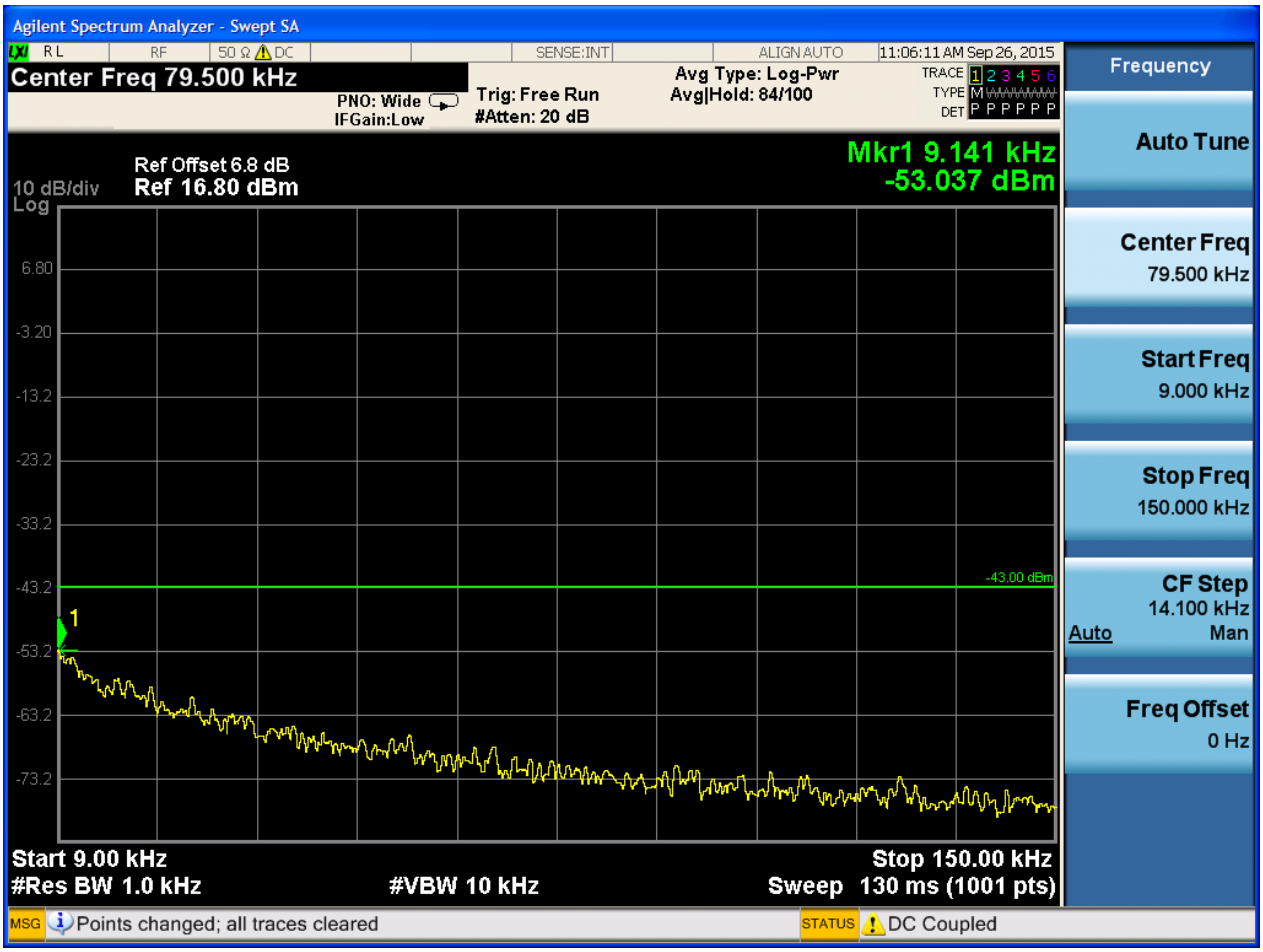
6.1.4.1.1 Test Channel = LCH

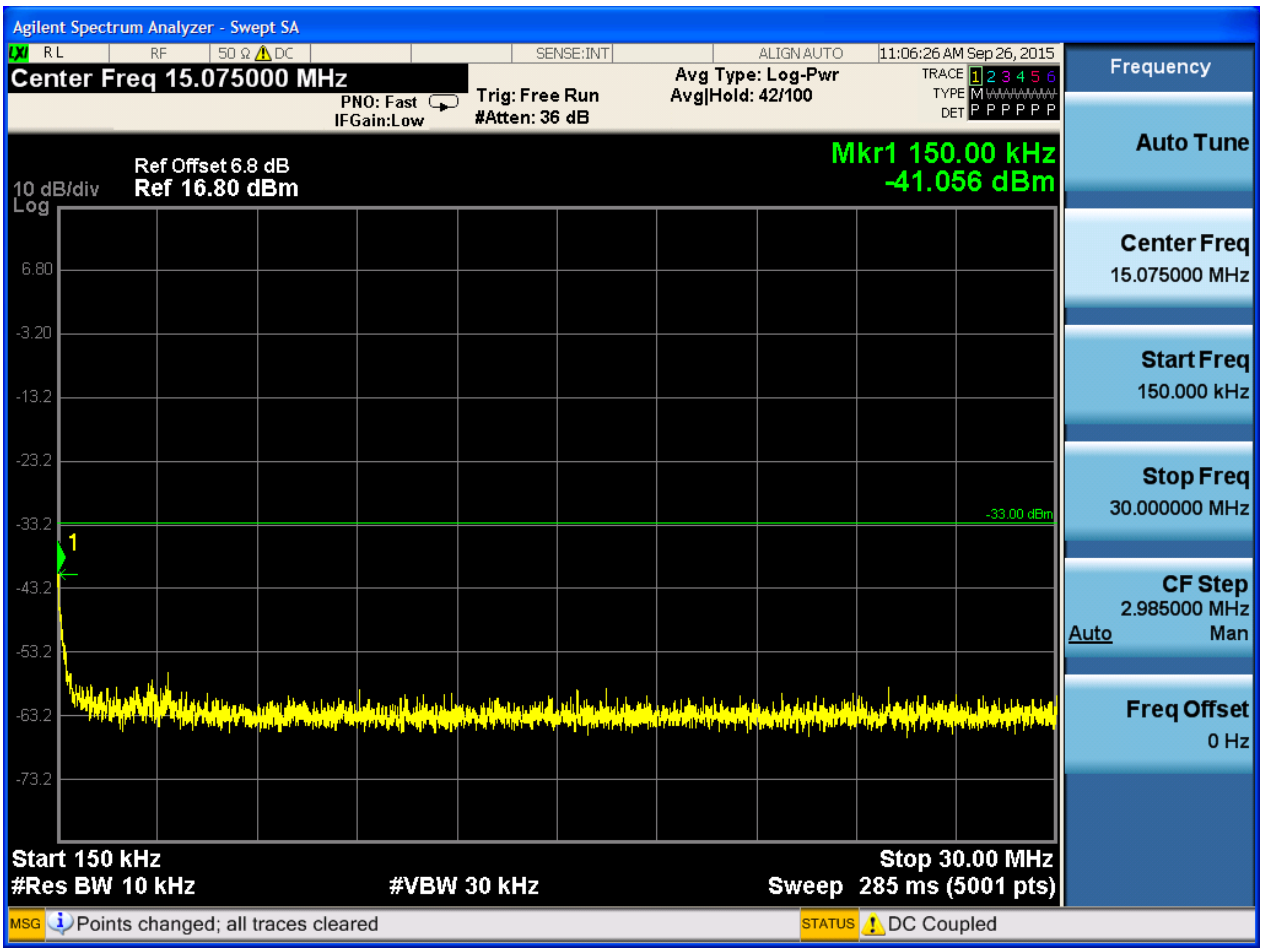


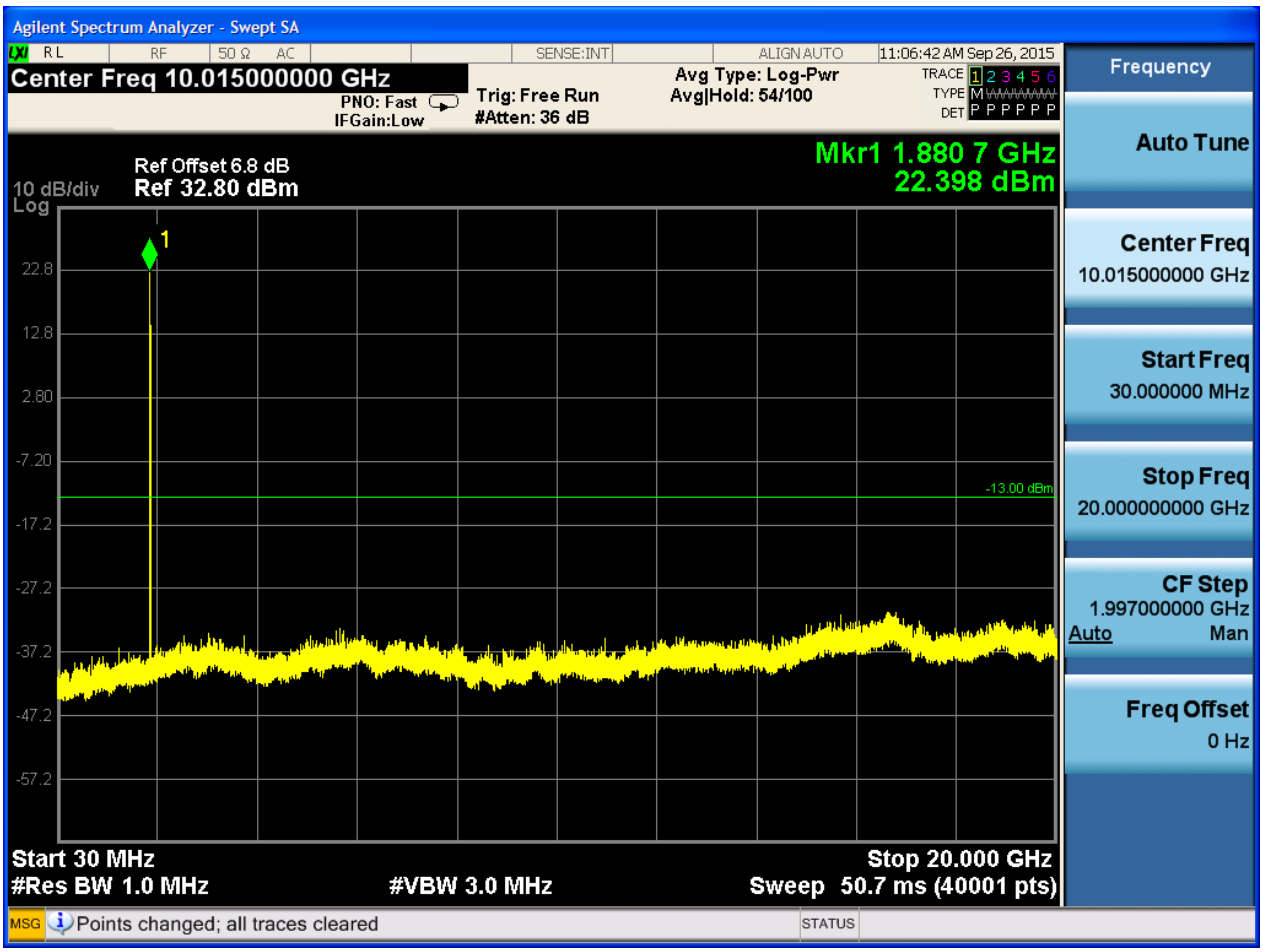




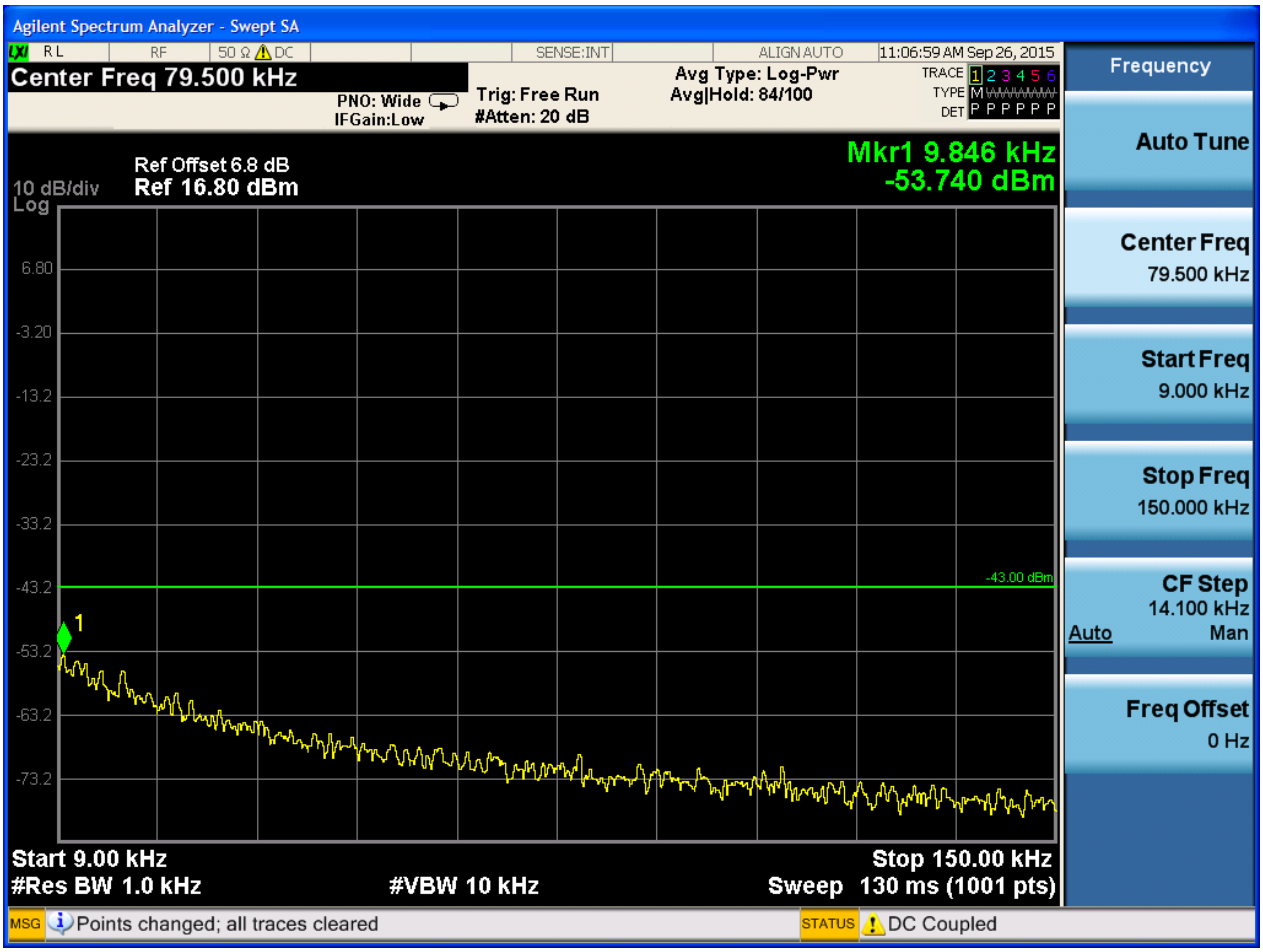
6.1.4.1.2 Test Channel = MCH

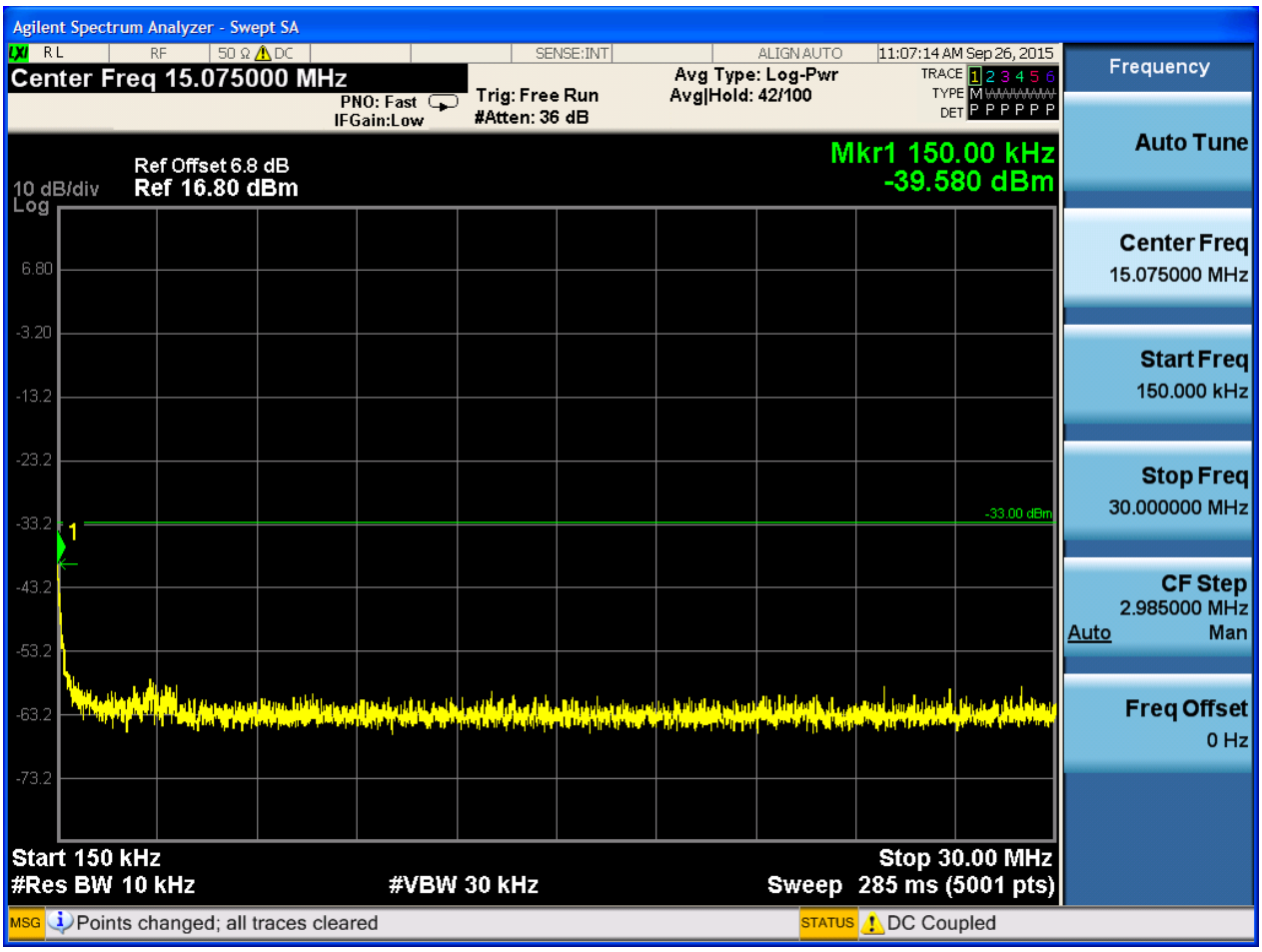


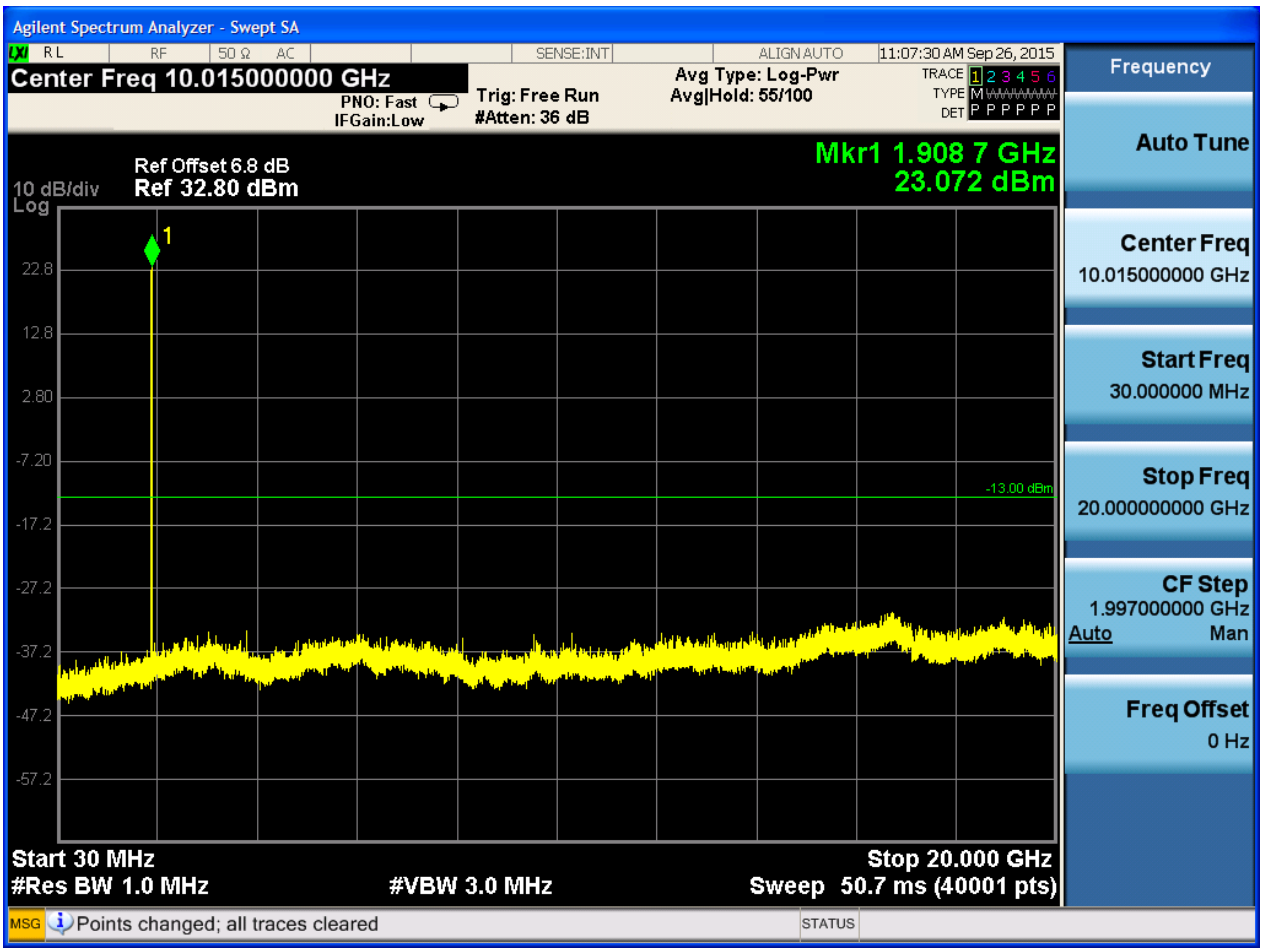




6.1.4.1.3 Test Channel = HCH







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

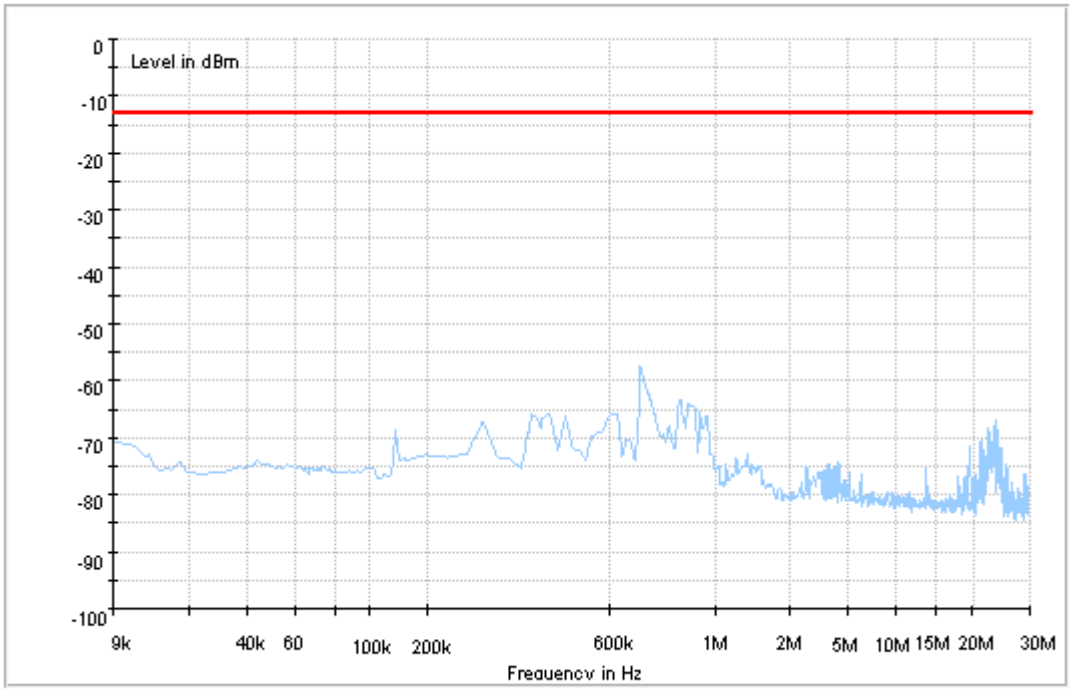
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Part I - Test Plots

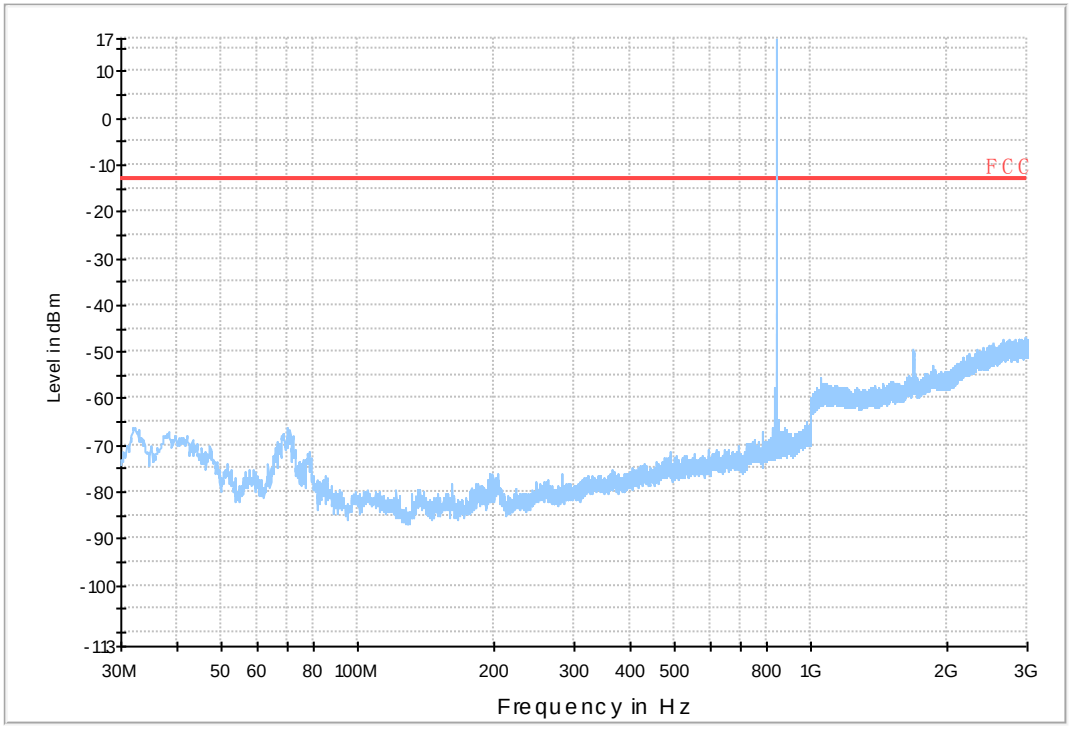
7.1 For GSM

7.1.1 Test Band = GSM850

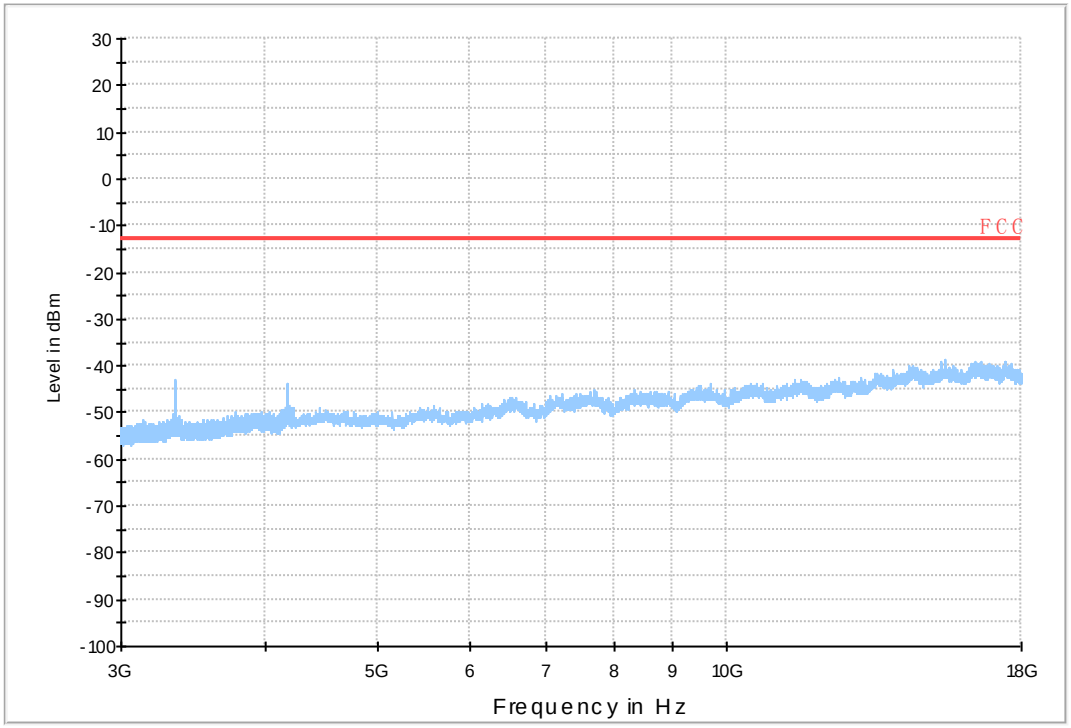
7.1.1.1 Test Mode = GSM/TM1



Copy of FCC PART22 GSM850_L

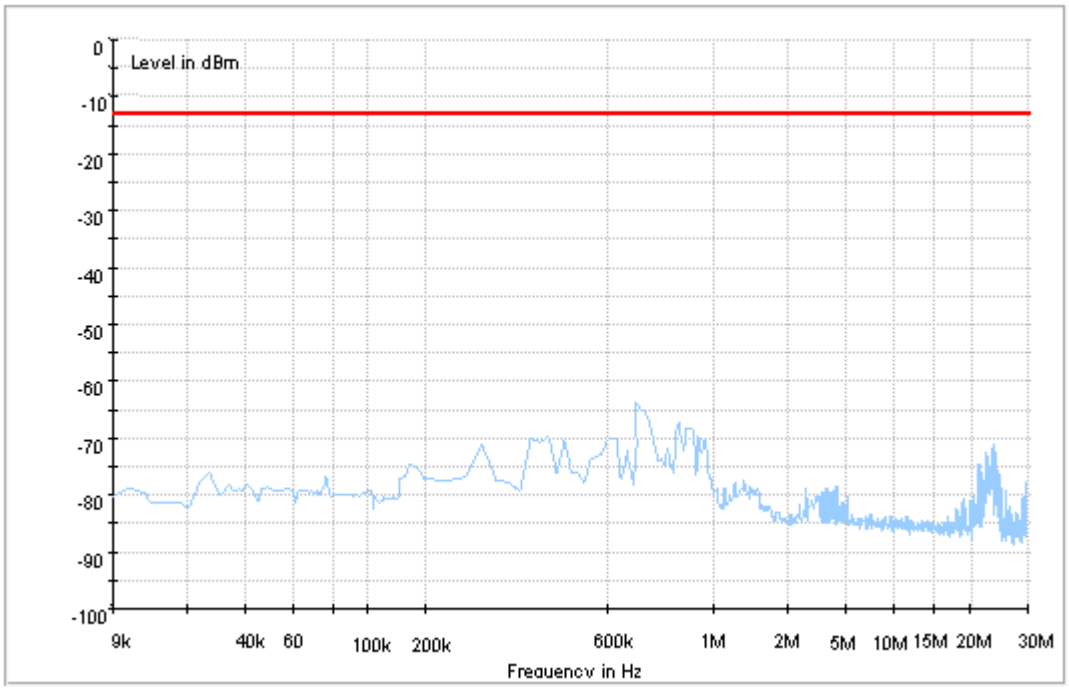


Copy of FCC PART22 GSM850_H

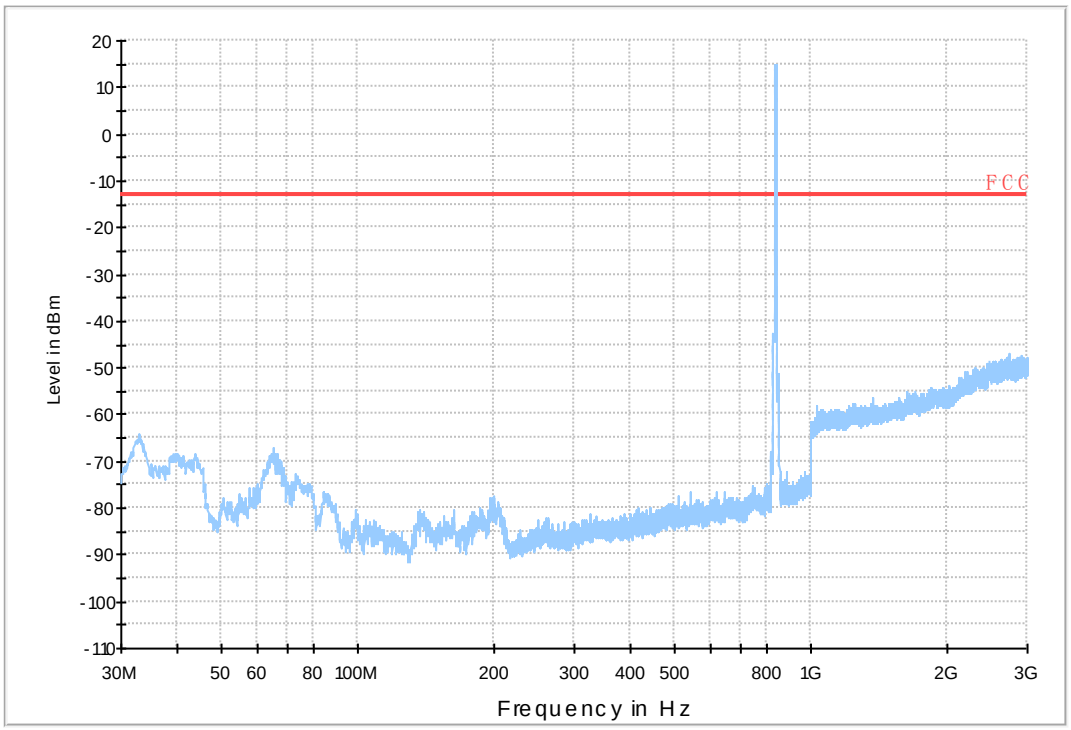


7.1.2 Test Band = WCDMA850

7.1.2.1 Test Mode = UMTS/TM1



Copy of FCC PART22 WCDMA850_L



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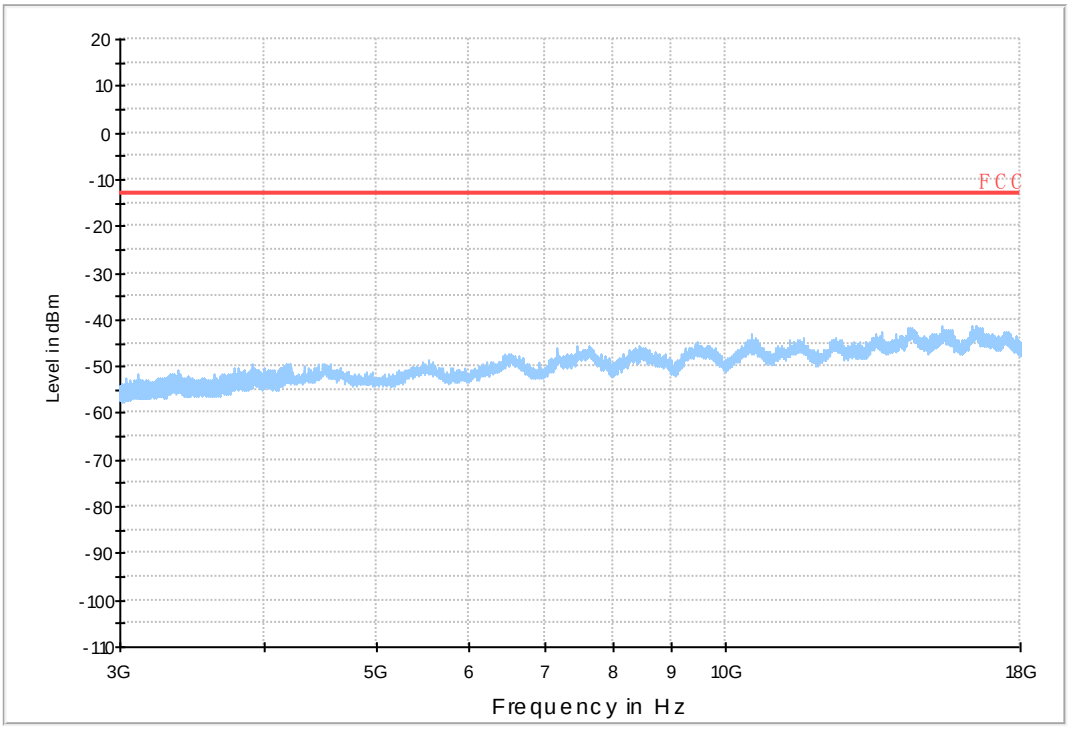
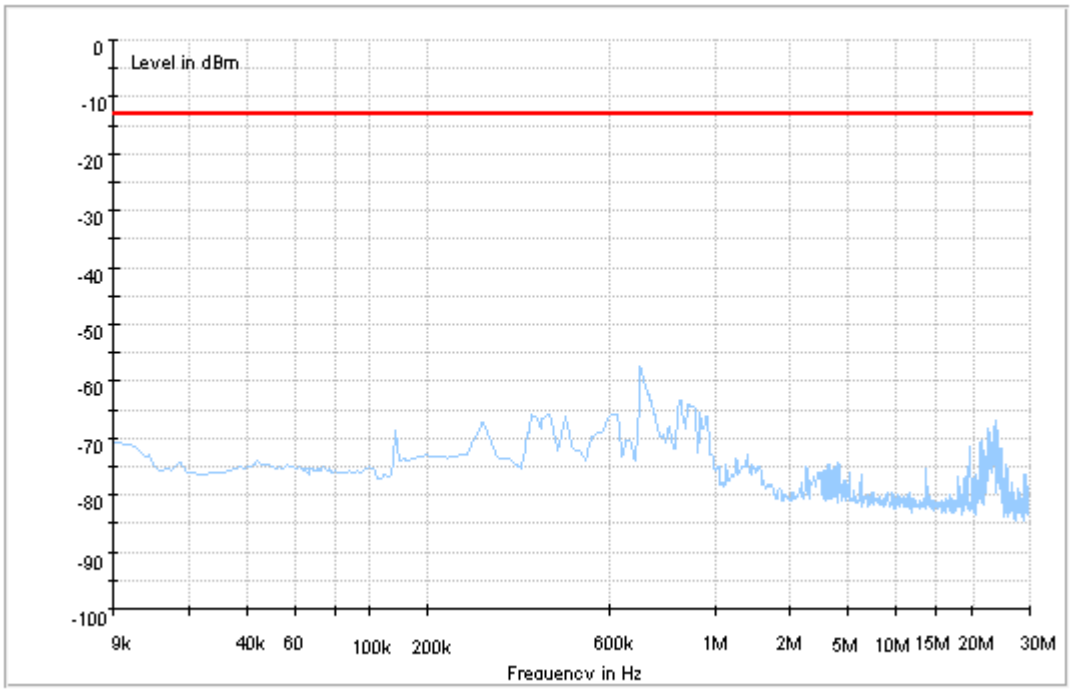


7.1.3 Test Band = GSM1900

7.1.3.1 Test Mode = GSM/TM1



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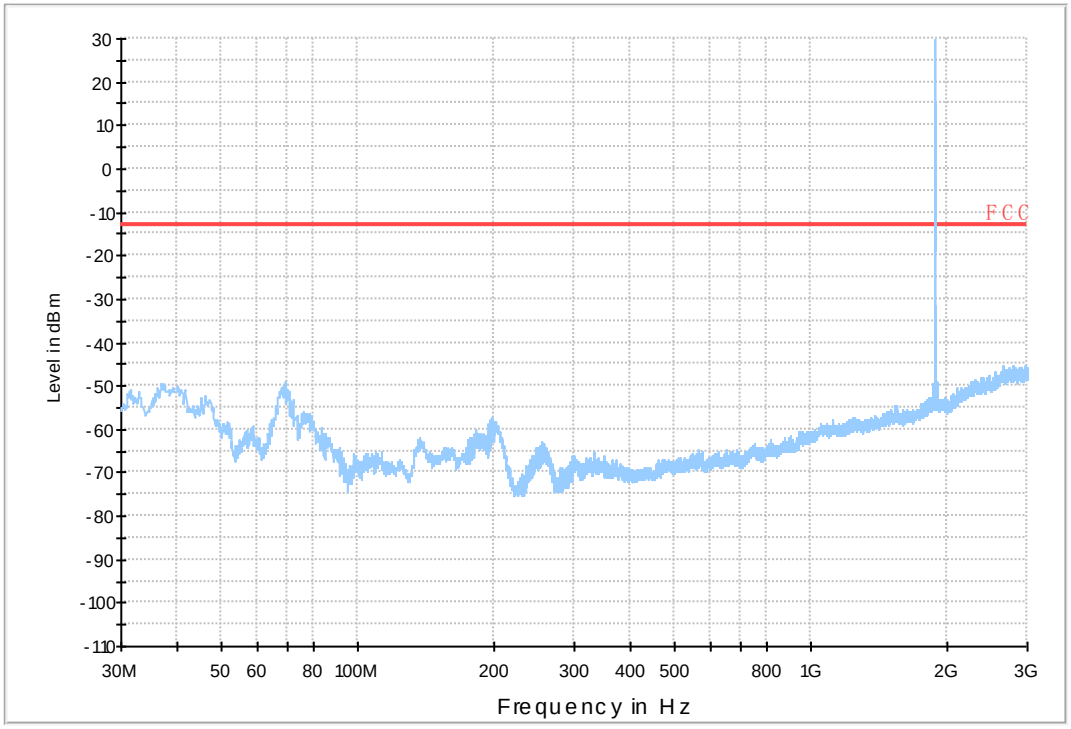
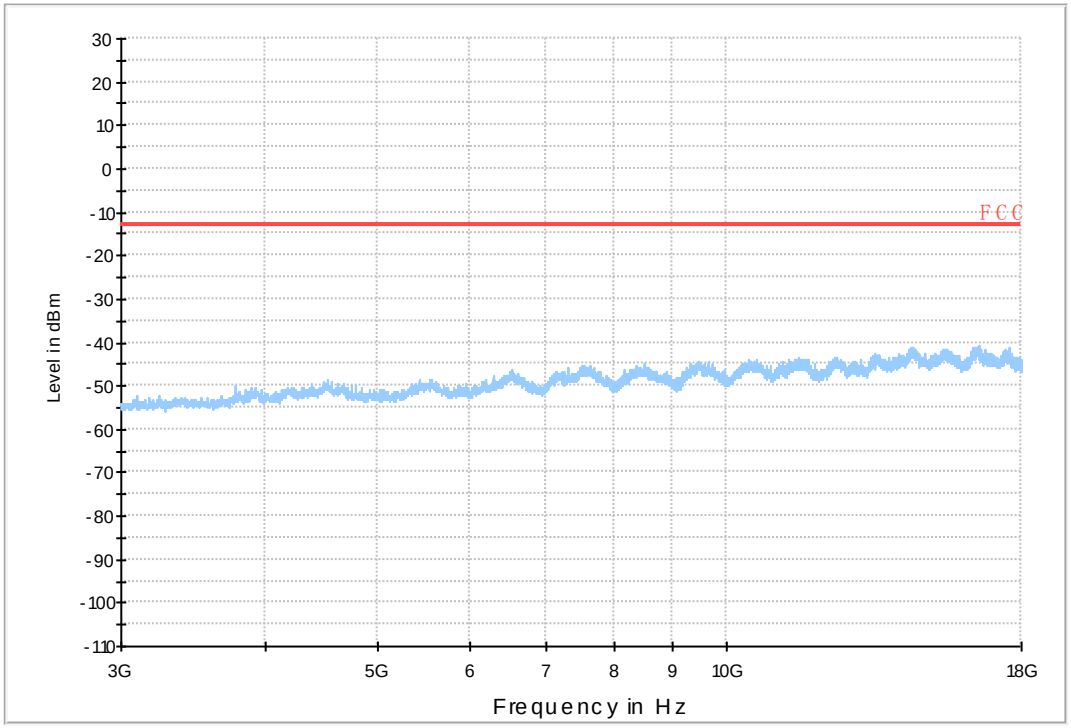
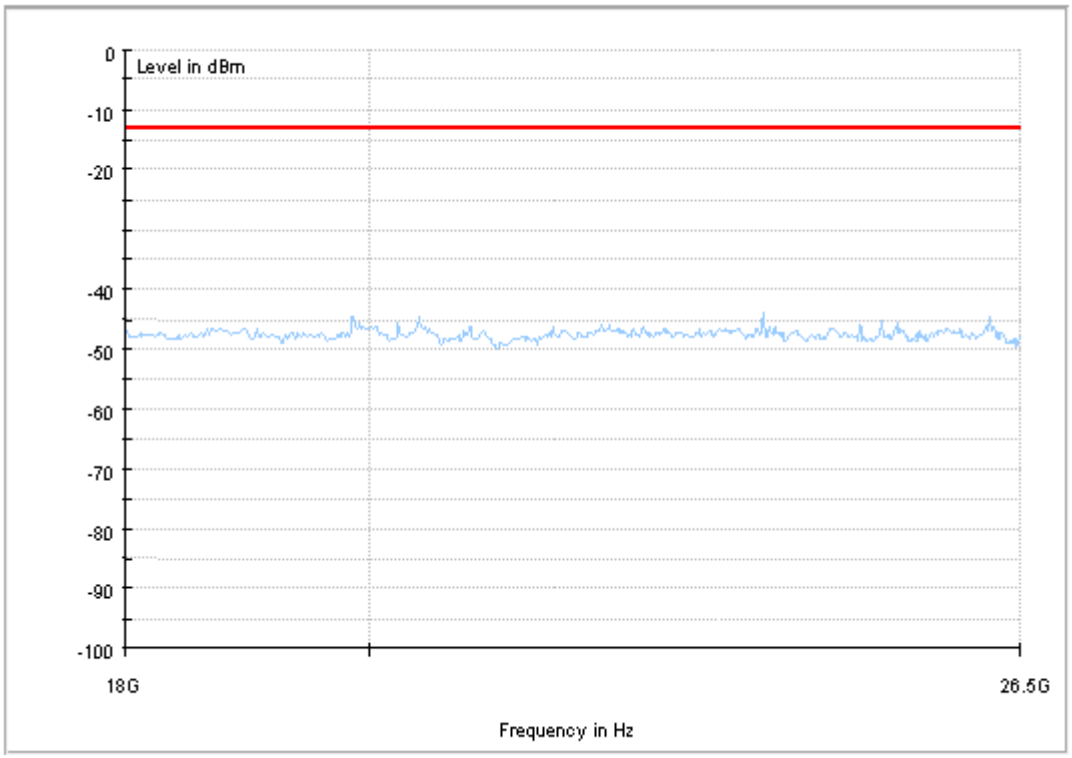


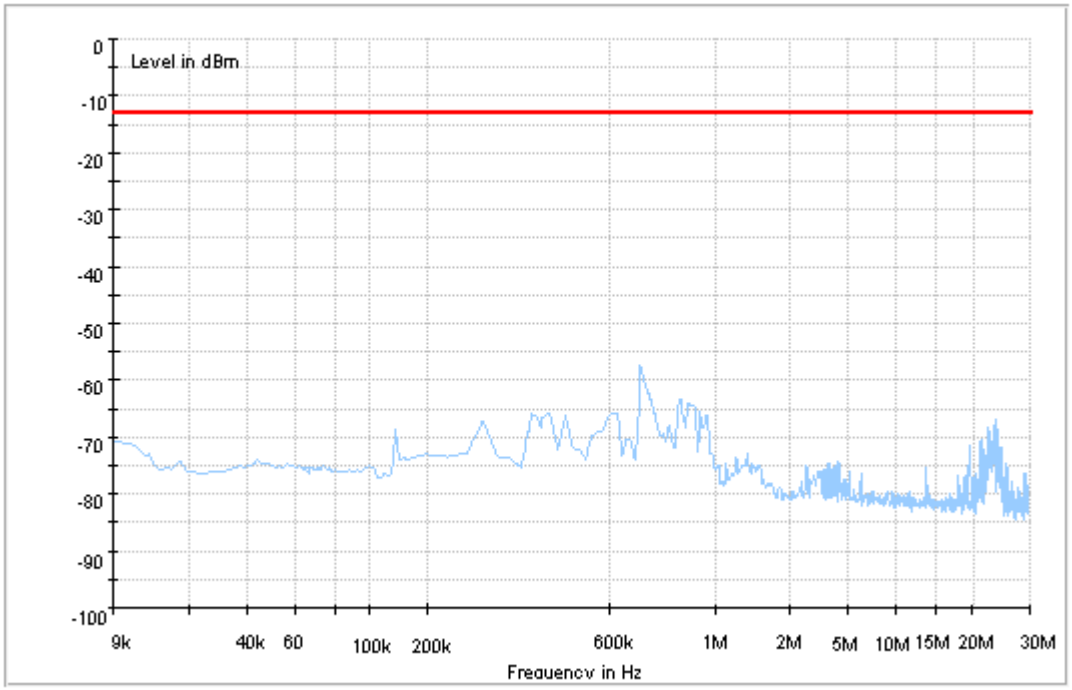
Copy of FCC PART24 GSM1900_H





7.1.4 Test Band = WCDMA1900

7.1.4.1 Test Mode = UMTS/TM1



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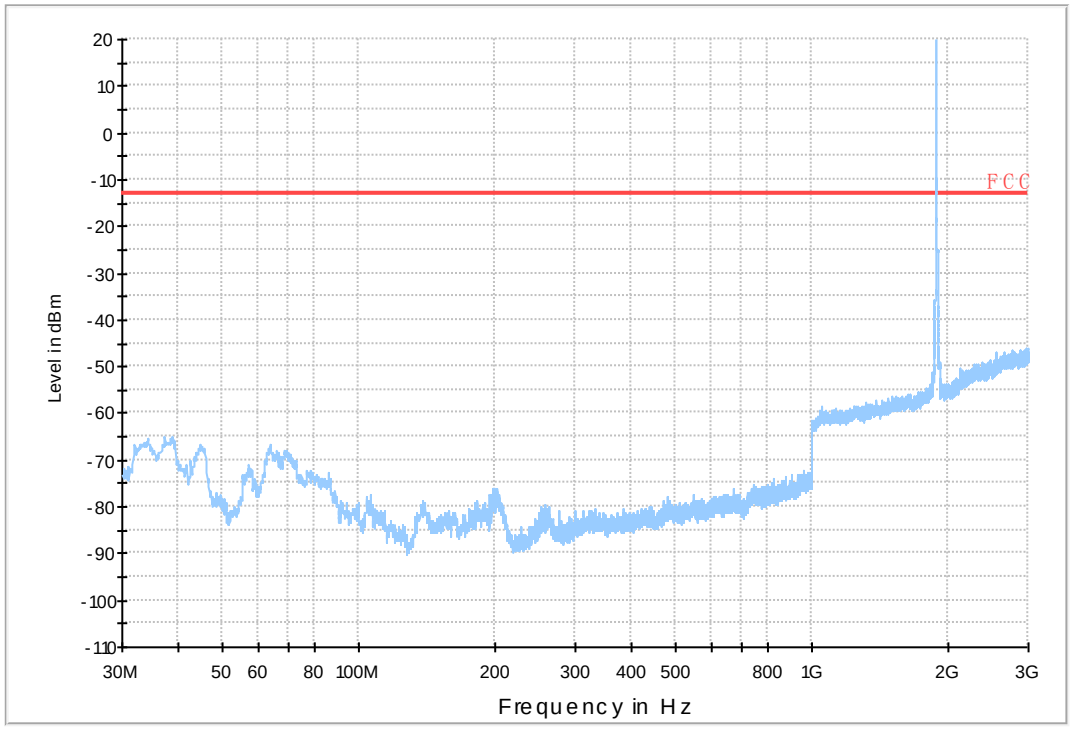
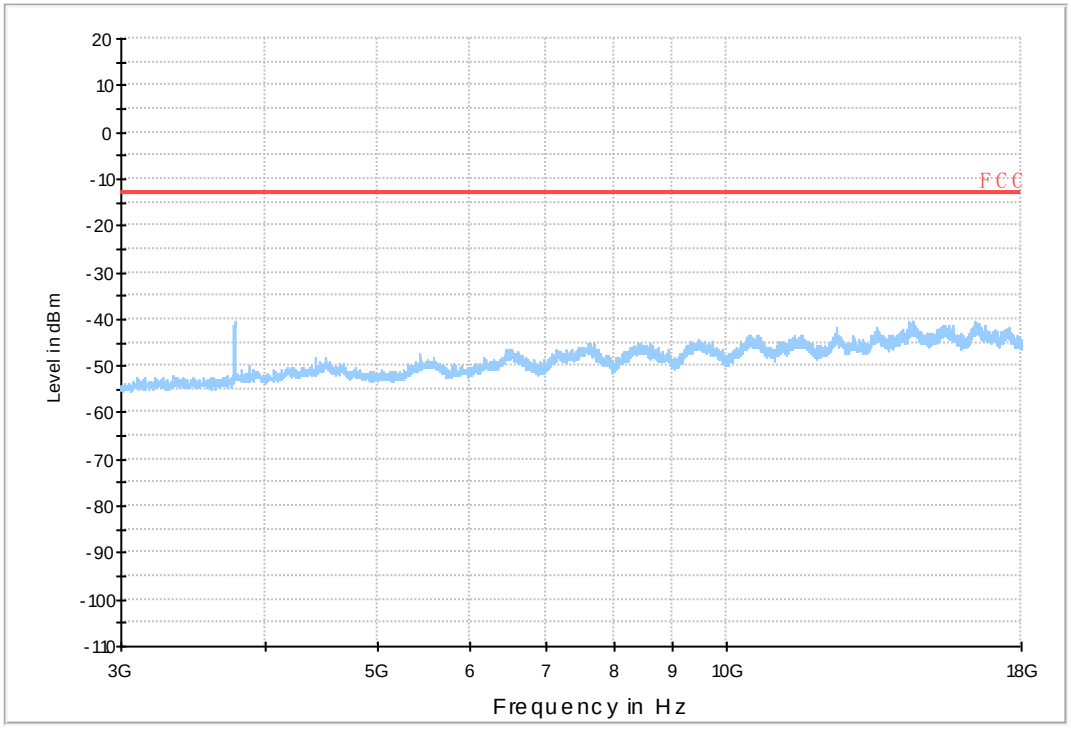
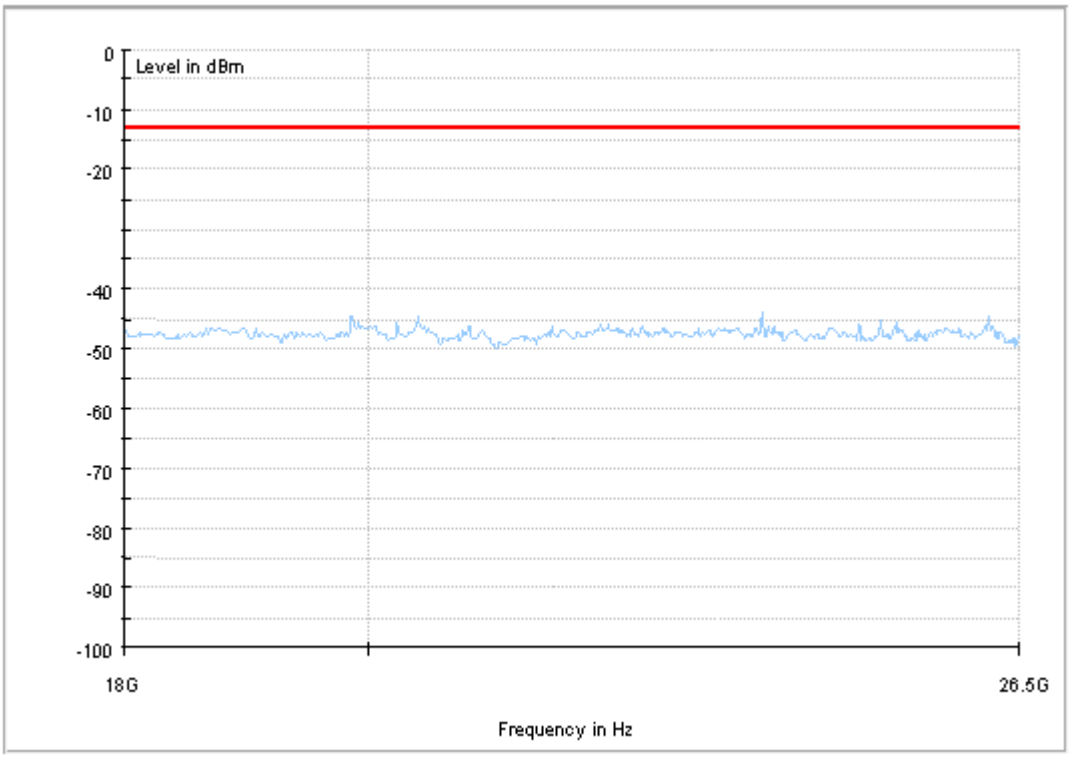


Copy of FCC PART24 WCDMA1900_H





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	-19.44	-0.02359	PASS
				VN	-20.99	-0.02547	PASS
				VH	-22.47	-0.02726	PASS
		MCH	TN	VL	-18.4	-0.02199	PASS
				VN	-23.76	-0.0284	PASS
				VH	-18.6	-0.02223	PASS
		HCH	TN	VL	-24.99	-0.02944	PASS
				VN	-20.28	-0.02389	PASS
				VH	-24.67	-0.02906	PASS
	GSM/TM2	LCH	TN	VL	-30.45	-0.03694	PASS
				VN	-27.22	-0.03303	PASS
				VH	-29.41	-0.03568	PASS
		MCH	TN	VL	-30.67	-0.03666	PASS
				VN	-31.87	-0.03809	PASS
				VH	-27.73	-0.03315	PASS
		HCH	TN	VL	-28.9	-0.03405	PASS
				VN	-30.41	-0.03583	PASS
				VH	-26.35	-0.03104	PASS
WCDMA850	UMTS/TM1	LCH	TN	VL	-0.95	-0.00115	PASS
				VN	-1.92	-0.00232	PASS
				VH	-1.16	-0.0014	PASS
		MCH	TN	VL	-2.99	-0.00357	PASS
				VN	-3.69	-0.00441	PASS
				VH	0.17	0.0002	PASS
		HCH	TN	VL	1.25	0.00148	PASS
				VN	6.1	0.00721	PASS
				VH	2.66	0.00314	PASS
GSM1900	GSM/TM1	LCH	TN	VL	-19.18	-0.01037	PASS
				VN	-23.37	-0.01263	PASS
				VH	-15.95	-0.00862	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		MCH	TN	VL	-28.61	-0.01522	PASS
				VN	-32.54	-0.01731	PASS
				VH	-20.66	-0.01099	PASS
		HCH	TN	VL	-29.25	-0.01532	PASS
				VN	-40.23	-0.02107	PASS
				VH	-32.48	-0.01701	PASS
	GSM/TM2	LCH	TN	VL	-10.82	-0.00585	PASS
				VN	-1.03	-0.00056	PASS
				VH	-8.62	-0.00466	PASS
		MCH	TN	VL	-4.75	-0.00253	PASS
				VN	-4.97	-0.00264	PASS
				VH	-2.13	-0.00113	PASS
		HCH	TN	VL	-39.23	-0.02054	PASS
				VN	-22.44	-0.01175	PASS
				VH	-21.99	-0.01151	PASS
WCDMA1900	UMTS/TM1	LCH	TN	VL	-4.06	-0.00219	PASS
				VN	4.9	0.00265	PASS
				VH	12.8	0.00691	PASS
		MCH	TN	VL	8.38	0.00446	PASS
				VN	5.74	0.00305	PASS
				VH	2.38	0.00127	PASS
		HCH	TN	VL	11.41	0.00598	PASS
				VN	8.83	0.00463	PASS
				VH	3.94	0.00207	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	-25.12	-0.03048	PASS
				-20	-25.12	-0.03048	PASS
				-10	-22.99	-0.02789	PASS
				0	-12.79	-0.01552	PASS
				10	-21.24	-0.02577	PASS
				20	-18.4	-0.02232	PASS
				30	-26.73	-0.03243	PASS
				40	-21.37	-0.02593	PASS
				50	-22.86	-0.02774	PASS
		MCH	VN	-30	-21.95	-0.02624	PASS
				-20	-23.7	-0.02833	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				-10	-20.47	-0.02447	PASS
				0	-24.73	-0.02956	PASS
				10	-25.25	-0.03018	PASS
				20	-26.22	-0.03134	PASS
				30	-21.89	-0.02617	PASS
				40	-16.21	-0.01938	PASS
				50	-18.92	-0.02262	PASS
		HCH	VN	-30	-15.82	-0.01864	PASS
				-20	-20.21	-0.02381	PASS
				-10	-22.99	-0.02709	PASS
				0	-20.79	-0.02449	PASS
				10	-19.37	-0.02282	PASS
				20	-28.22	-0.03325	PASS
				30	-22.02	-0.02594	PASS
				40	-22.15	-0.0261	PASS
				50	-23.25	-0.02739	PASS
	GSM/TM2	LCH	VN	-30	-25.09	-0.03044	PASS
				-20	-26.76	-0.03247	PASS
				-10	-26.02	-0.03157	PASS
				0	-26.22	-0.03181	PASS
				10	-29.35	-0.03561	PASS
				20	-29.67	-0.036	PASS
				30	-28.86	-0.03502	PASS
				40	-26.6	-0.03227	PASS
				50	-29.32	-0.03557	PASS
		MCH	VN	-30	-30.25	-0.03616	PASS
				-20	-31.54	-0.0377	PASS
				-10	-28.31	-0.03384	PASS
				0	-35.19	-0.04206	PASS
				10	-29.22	-0.03493	PASS
				20	-30.77	-0.03678	PASS
				30	-24.34	-0.02909	PASS
				40	-30.93	-0.03697	PASS
				50	-26.28	-0.03141	PASS
		HCH	VN	-30	-28.02	-0.03301	PASS
				-20	-29.7	-0.03499	PASS
				-10	-32.03	-0.03774	PASS
				0	-29.48	-0.03473	PASS
				10	-27.51	-0.03241	PASS
				20	-34.32	-0.04043	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				30	-31.87	-0.03755	PASS
				40	-29.83	-0.03514	PASS
				50	-25.44	-0.02997	PASS
WCDMA850	UMTS/TM1	LCH	VN	-30	-5.48	-0.00663	PASS
				-20	0.95	0.00115	PASS
				-10	-5.52	-0.0066	PASS
				0	-4.59	-0.00555	PASS
				10	-4.27	-0.00517	PASS
				20	0.23	0.00028	PASS
				30	-1.04	-0.00126	PASS
				40	-1.25	-0.00151	PASS
				50	-1.11	-0.00134	PASS
		MCH	VN	-30	0.05	0.00006	PASS
				-20	-3.39	-0.00405	PASS
				-10	-1.72	-0.00206	PASS
				0	-2.21	-0.00264	PASS
				10	-5.52	-0.0066	PASS
				20	-0.52	-0.00062	PASS
				30	3.16	0.00378	PASS
				40	-0.67	-0.0008	PASS
				50	-1.08	-0.00129	PASS
		HCH	VN	-30	3.42	0.00404	PASS
				-20	5.4	0.00638	PASS
				-10	5.46	0.00645	PASS
				0	8.47	0.01	PASS
				10	6.91	0.00816	PASS
				20	3.98	0.0047	PASS
				30	3.49	0.00412	PASS
				40	8.94	0.01056	PASS
				50	8.79	0.01038	PASS
GSM1900	GSM/TM1	LCH	VN	-30	-29.77	-0.01609	PASS
				-20	-34.22	-0.0185	PASS
				-10	-19.69	-0.01064	PASS
				0	-26.93	-0.01456	PASS
				10	-21.5	-0.01162	PASS
				20	-21.63	-0.01169	PASS
				30	-17.43	-0.00942	PASS
				40	-21.95	-0.01186	PASS
				50	-26.73	-0.01445	PASS
		MCH	VN	-30	-14.46	-0.00769	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				-20	-27.38	-0.01456	PASS
				-10	-26.54	-0.01412	PASS
				0	-17.43	-0.00927	PASS
				10	-26.28	-0.01398	PASS
				20	-25.25	-0.01343	PASS
				30	-20.66	-0.01099	PASS
				40	-21.05	-0.0112	PASS
				50	-28.02	-0.0149	PASS
		HCH	VN	-30	-45.07	-0.0236	PASS
				-20	-29.64	-0.01552	PASS
				-10	-44.62	-0.02336	PASS
				0	-36.74	-0.01924	PASS
				10	-40.36	-0.02113	PASS
				20	-43.39	-0.02272	PASS
				30	-37.06	-0.01941	PASS
				40	-43.91	-0.02299	PASS
				50	-36.94	-0.01934	PASS
	GSM/TM2	LCH	VN	-30	-15.08	-0.00815	PASS
				-20	-13.3	-0.00719	PASS
				-10	-5.55	-0.003	PASS
				0	-9.23	-0.00499	PASS
				10	-14.82	-0.00801	PASS
				20	-17.92	-0.00969	PASS
				30	-10.2	-0.00551	PASS
				40	-1.97	-0.00106	PASS
				50	-15.4	-0.00832	PASS
		MCH	VN	-30	-9.56	-0.00509	PASS
				-20	-12.56	-0.00668	PASS
				-10	-5.88	-0.00313	PASS
				0	-18.34	-0.00976	PASS
				10	0.77	0.00041	PASS
				20	-0.06	-0.00003	PASS
				30	-10.04	-0.00534	PASS
				40	-8.04	-0.00428	PASS
				50	-4.42	-0.00235	PASS
		HCH	VN	-30	-20.24	-0.0106	PASS
				-20	-22.05	-0.01155	PASS
				-10	-20.08	-0.01051	PASS
				0	-20.31	-0.01063	PASS
				10	-14.4	-0.00754	PASS

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				20	-10.01	-0.00524	PASS
				30	-11.24	-0.00589	PASS
				40	-27.54	-0.01442	PASS
				50	-24.5	-0.01283	PASS
WCDMA1900	UMTS/TM1	LCH	VN	-30	9.69	0.00523	PASS
				-20	2.91	0.00157	PASS
				-10	3.57	0.00193	PASS
				0	3.63	0.00196	PASS
				10	5.84	0.00315	PASS
				20	-0.49	-0.00026	PASS
				30	6.82	0.00368	PASS
				40	10.41	0.00562	PASS
				50	2.14	0.00116	PASS
		MCH	VN	-30	1.37	0.00073	PASS
				-20	6.93	0.00369	PASS
				-10	-1.3	-0.00069	PASS
				0	-0.17	-0.00009	PASS
				10	3.23	0.00172	PASS
				20	9.28	0.00494	PASS
				30	1.88	0.001	PASS
				40	7.08	0.00377	PASS
				50	2.33	0.00124	PASS
		HCH	VN	-30	9.57	0.00502	PASS
				-20	9.54	0.005	PASS
				-10	-1.91	-0.001	PASS
				0	8.96	0.0047	PASS
				10	5.25	0.00275	PASS
				20	1.11	0.00058	PASS
				30	7.75	0.00406	PASS
				40	2.64	0.00138	PASS
				50	-5.39	-0.00283	PASS

END