



5.1.1.2.4.1.3 Test RB = RB50#25





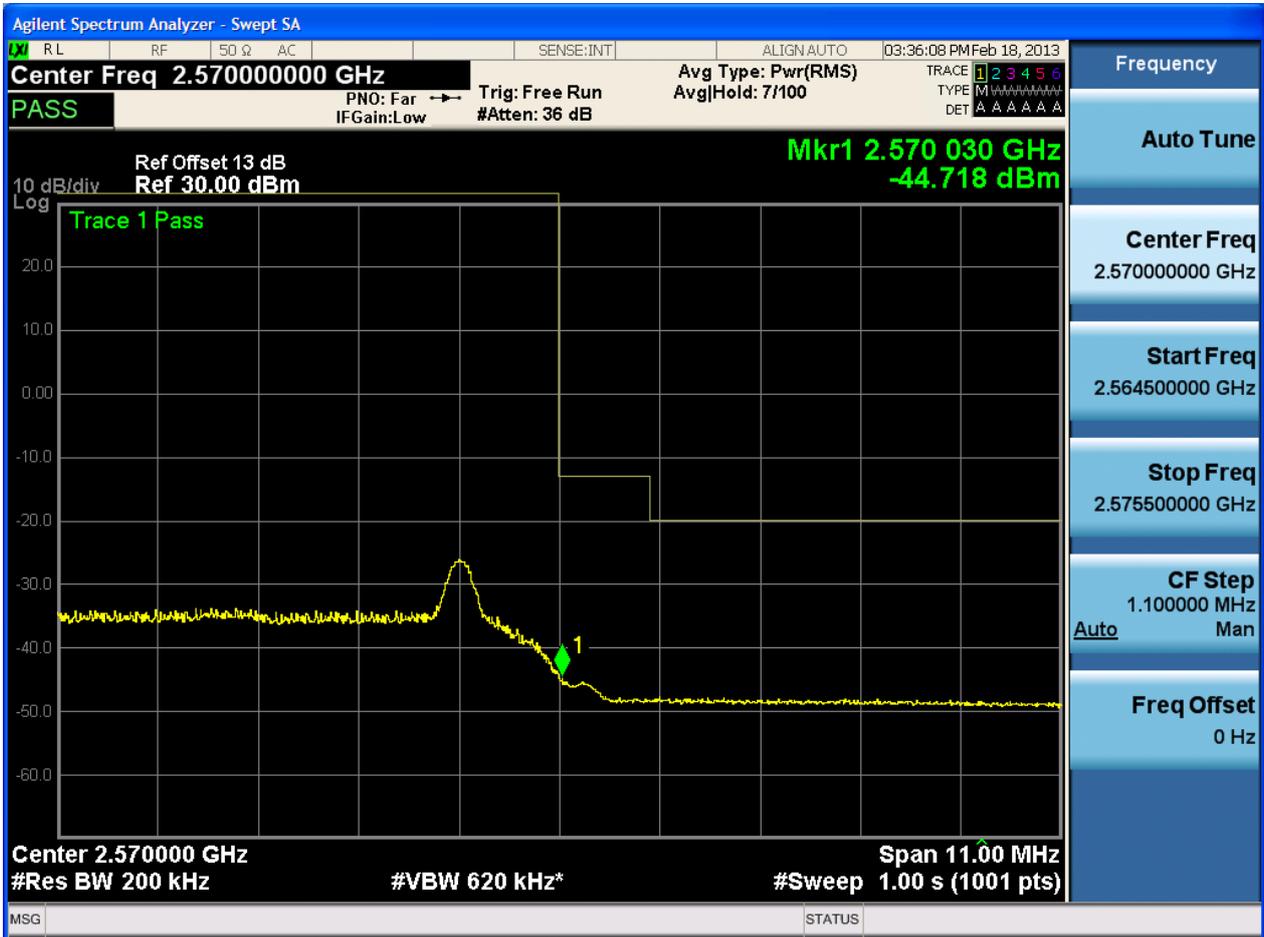
5.1.1.2.4.1.4 Test RB = RB100#0





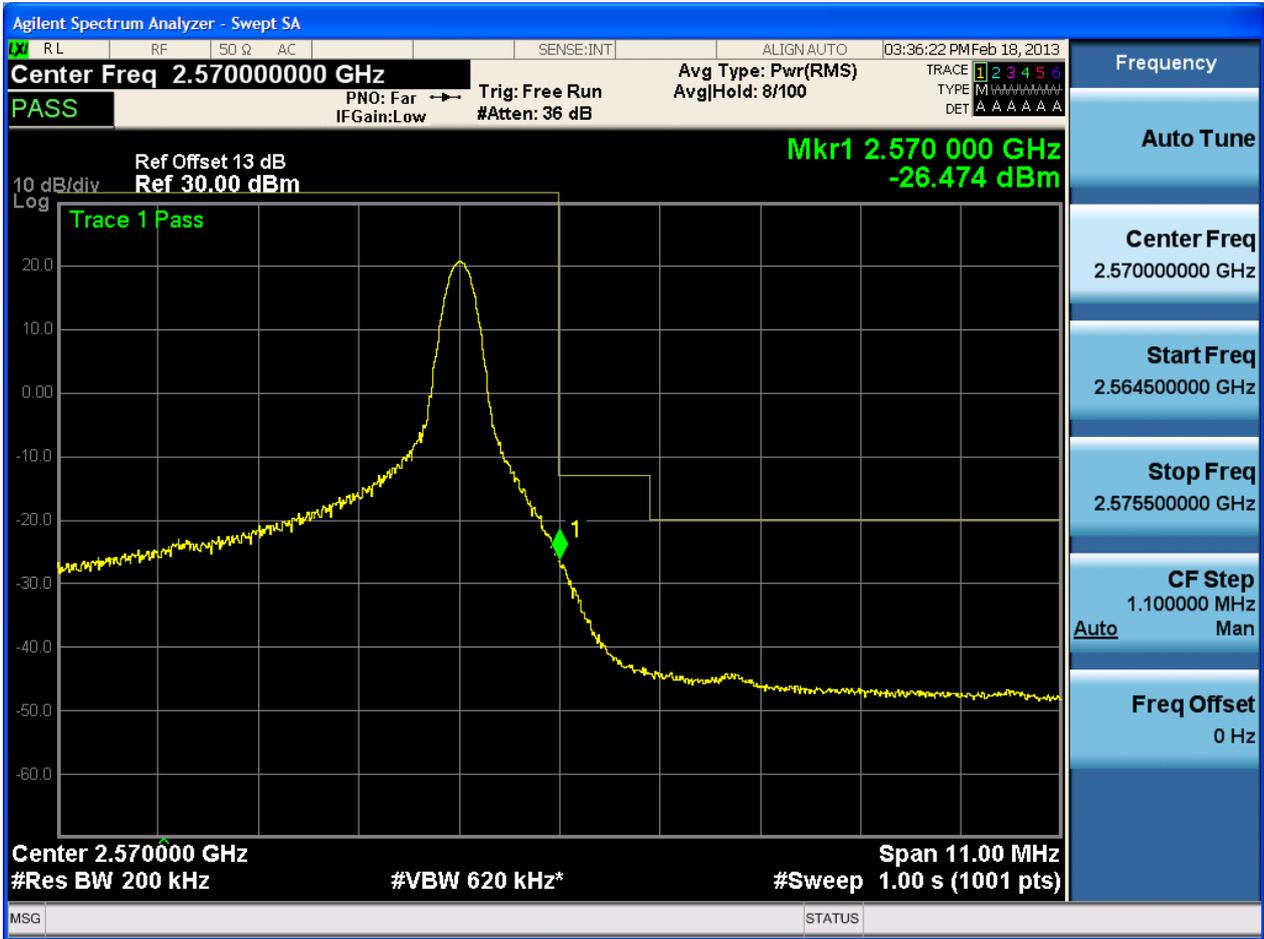
5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0





5.1.1.2.4.2.2 Test RB = RB1#99





5.1.1.2.4.2.3 Test RB = RB50#25





5.1.1.2.4.2.4 Test RB = RB100#0





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 LTE

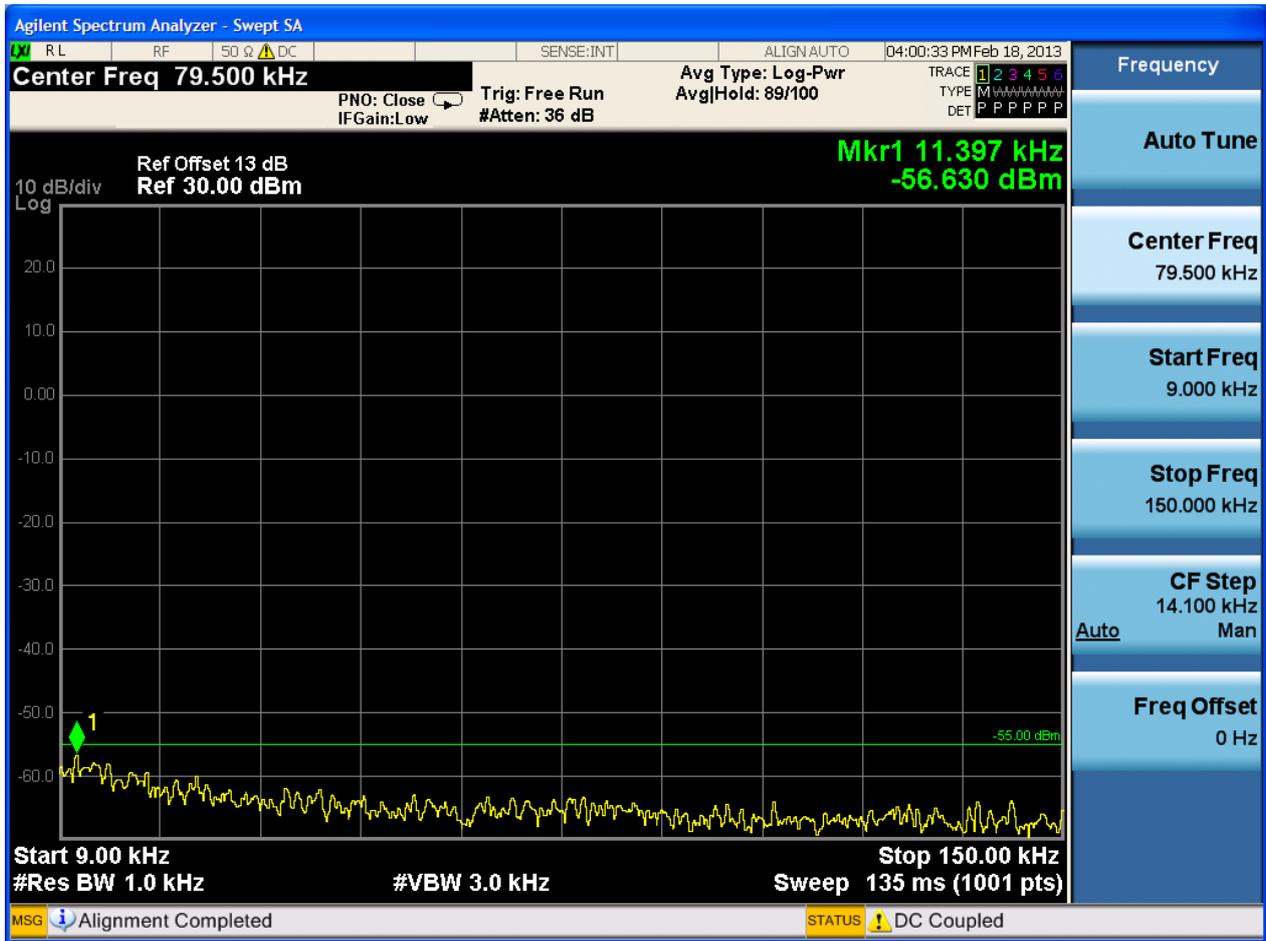
6.1.1 Test Band = BAND7

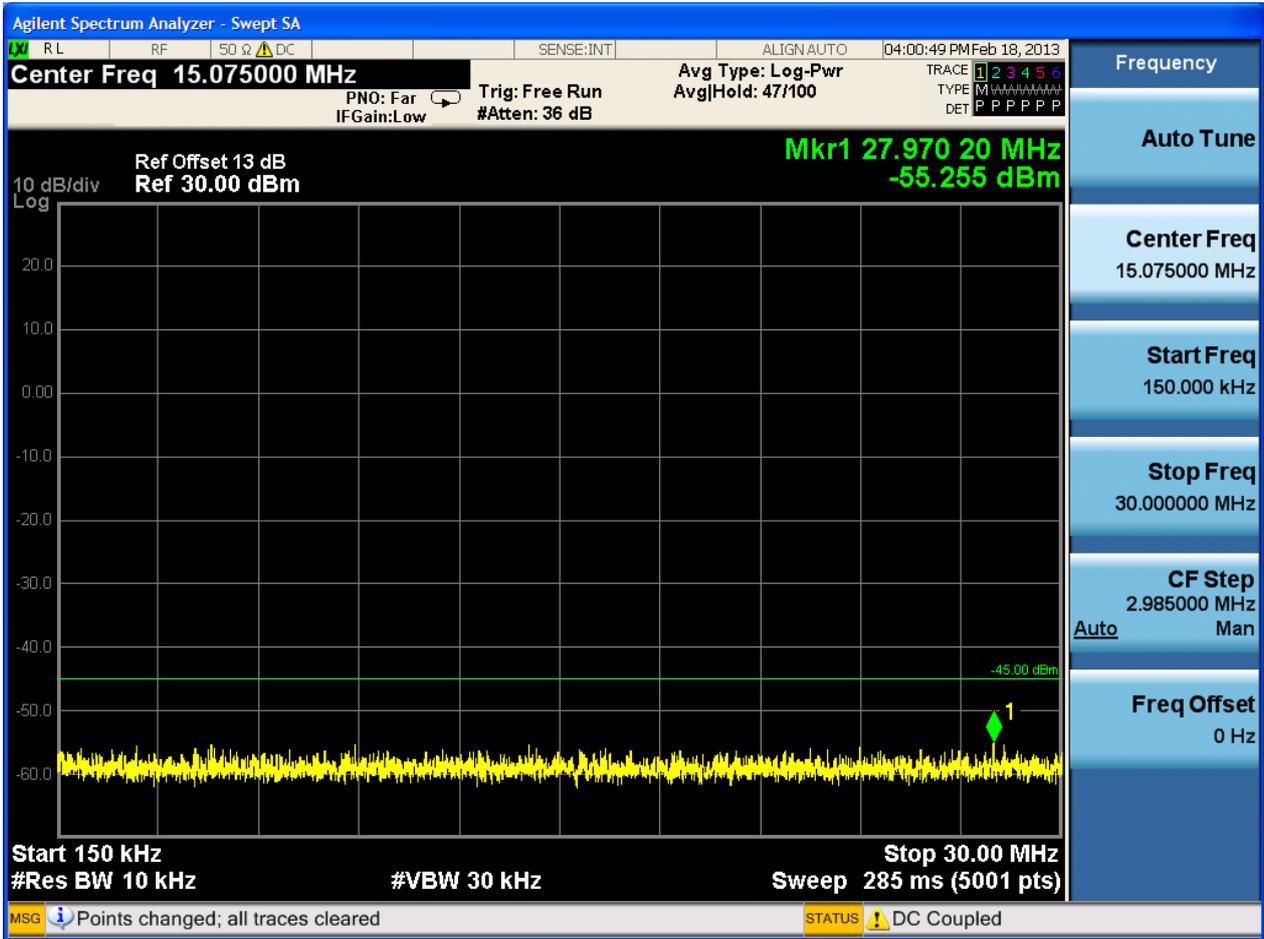
6.1.1.1 Test Mode = LTE/TM1

6.1.1.1.1 Test Bandwidth = 5

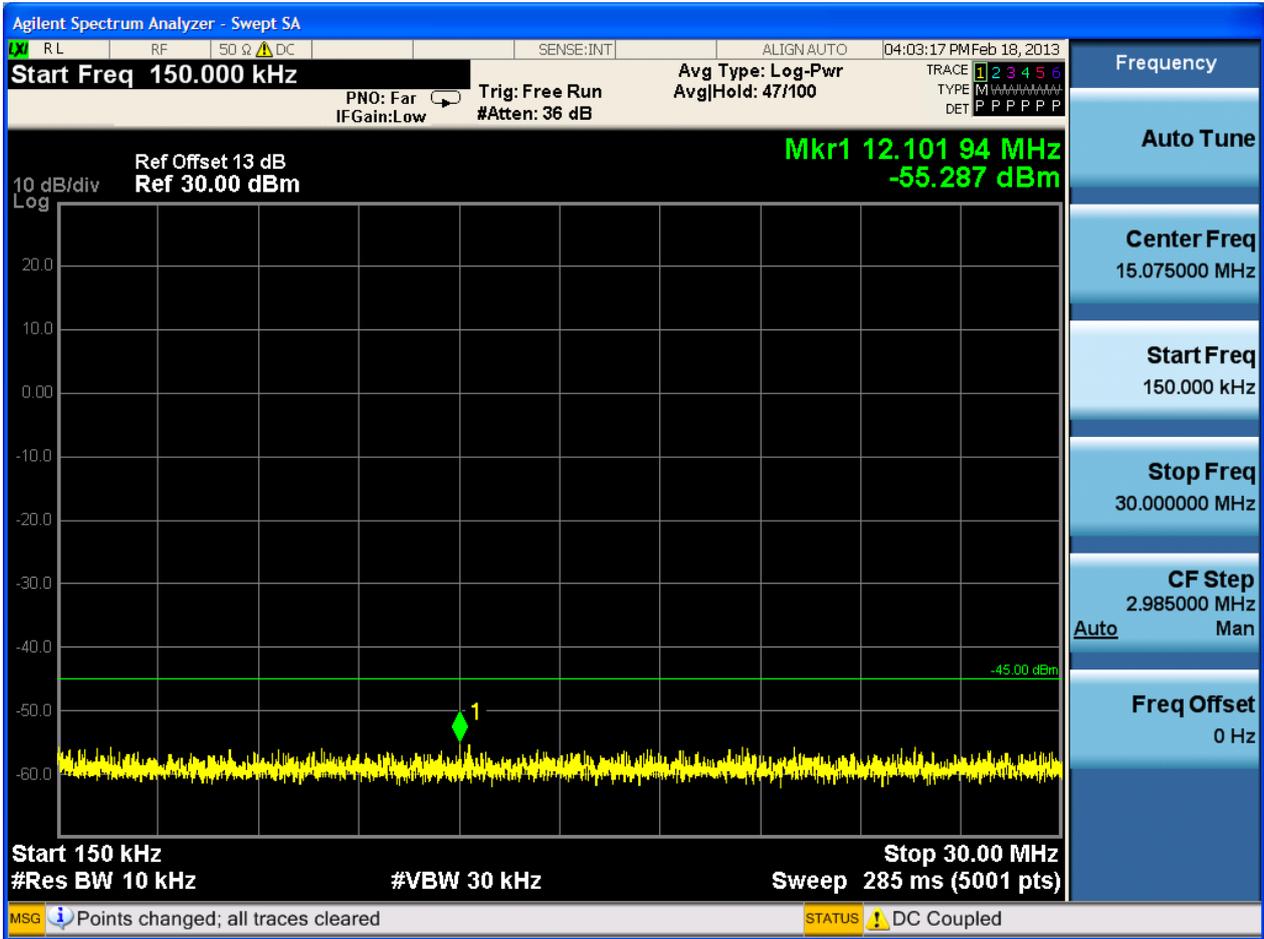
6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0

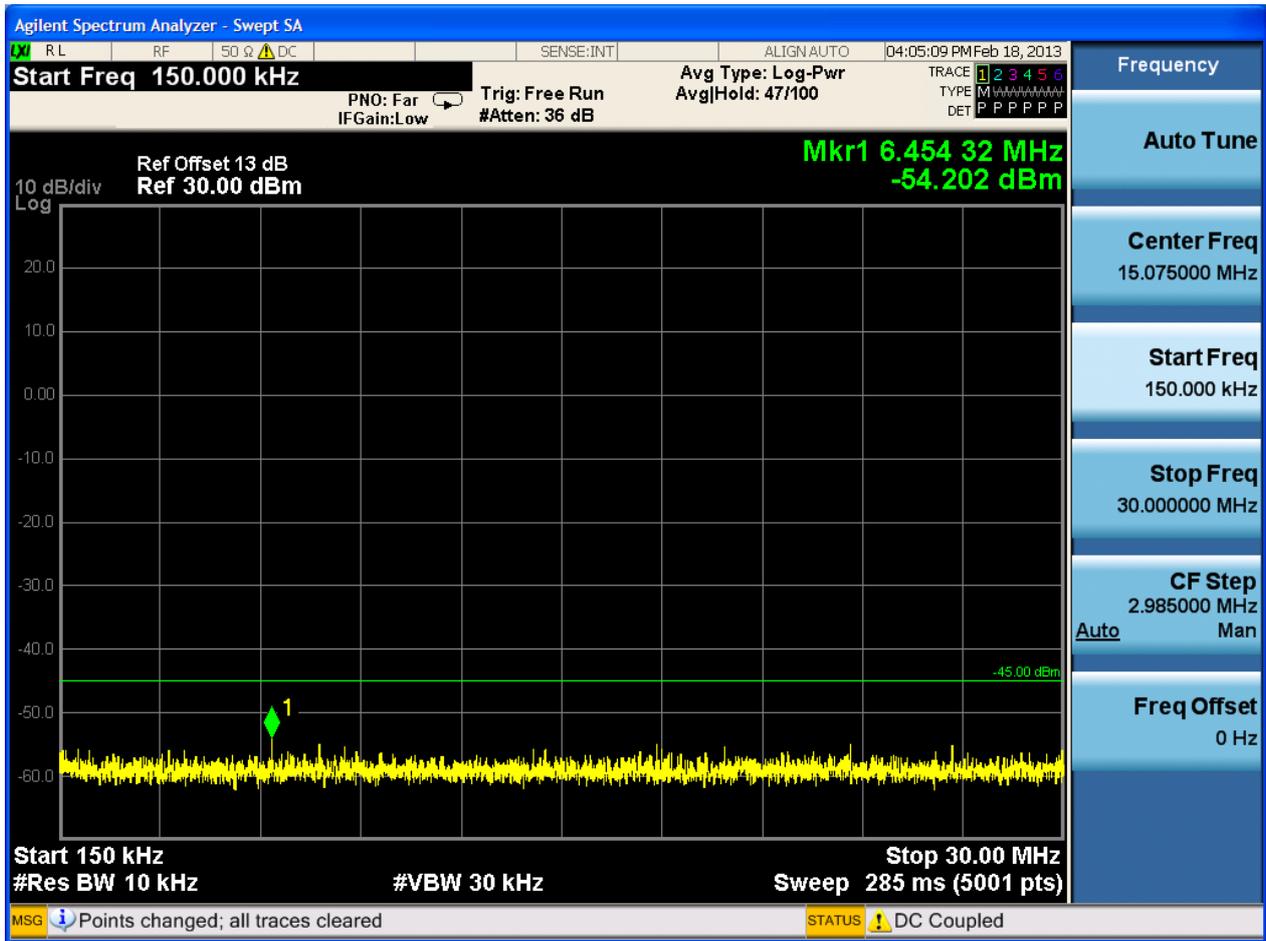










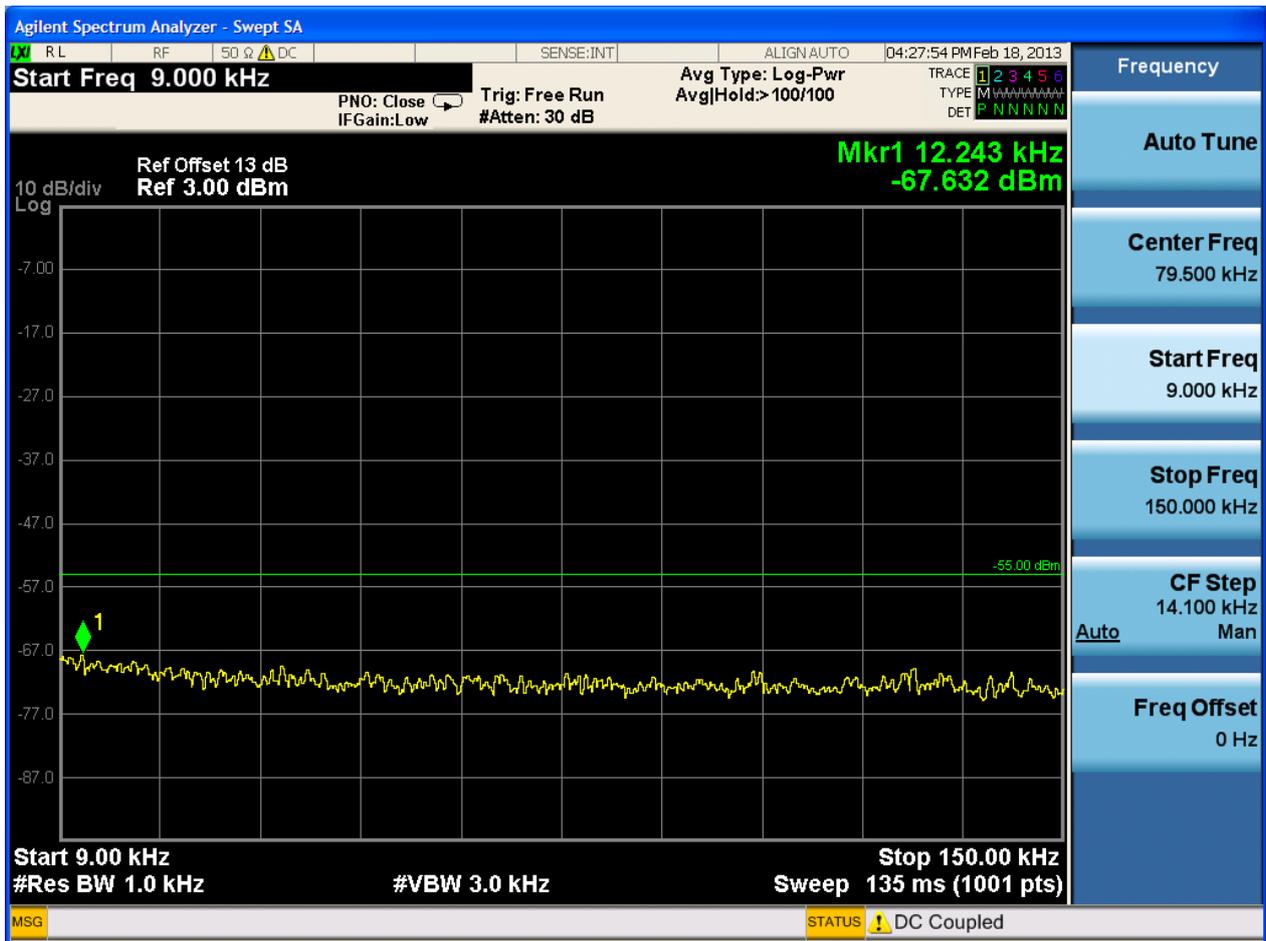


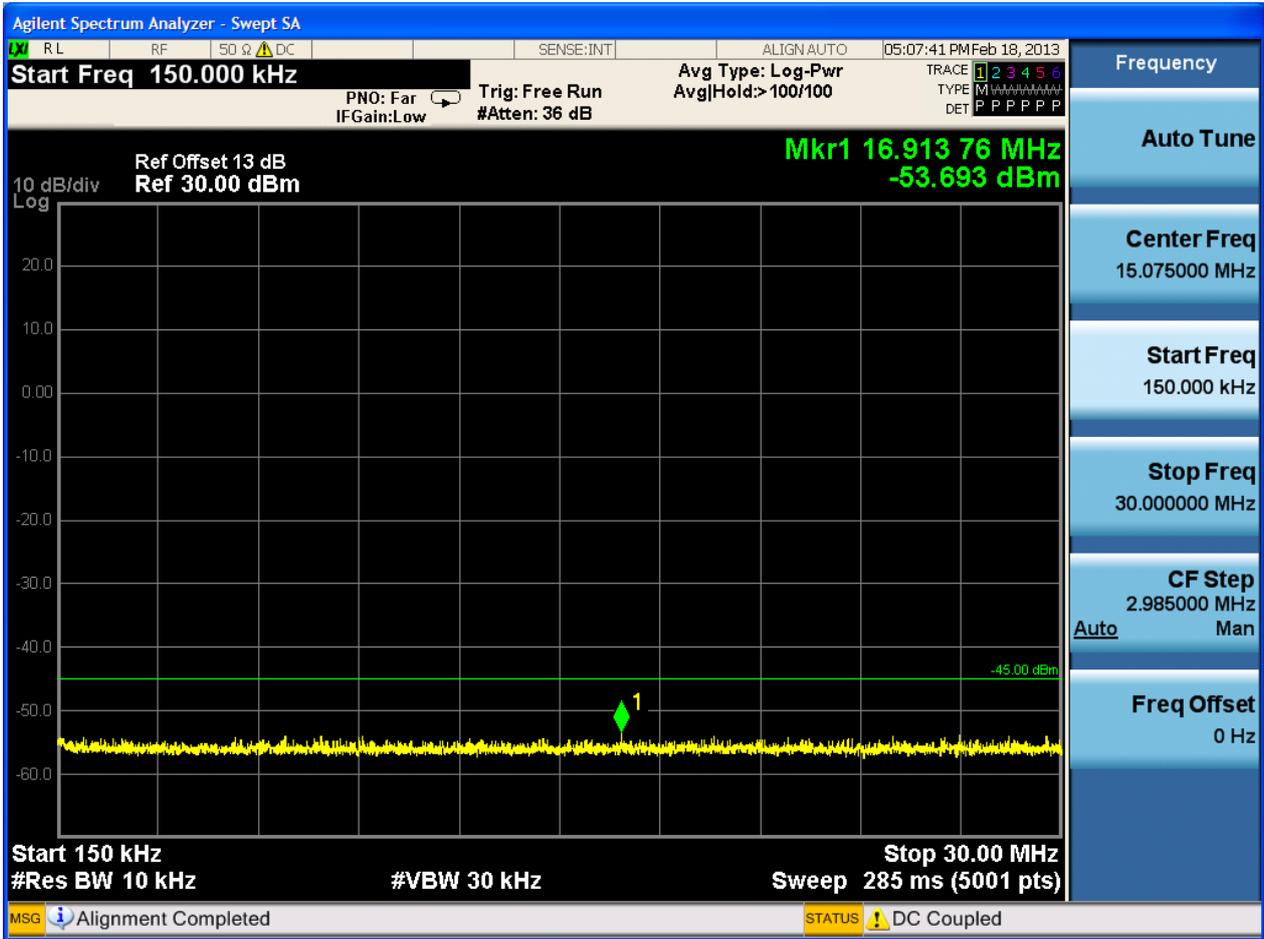


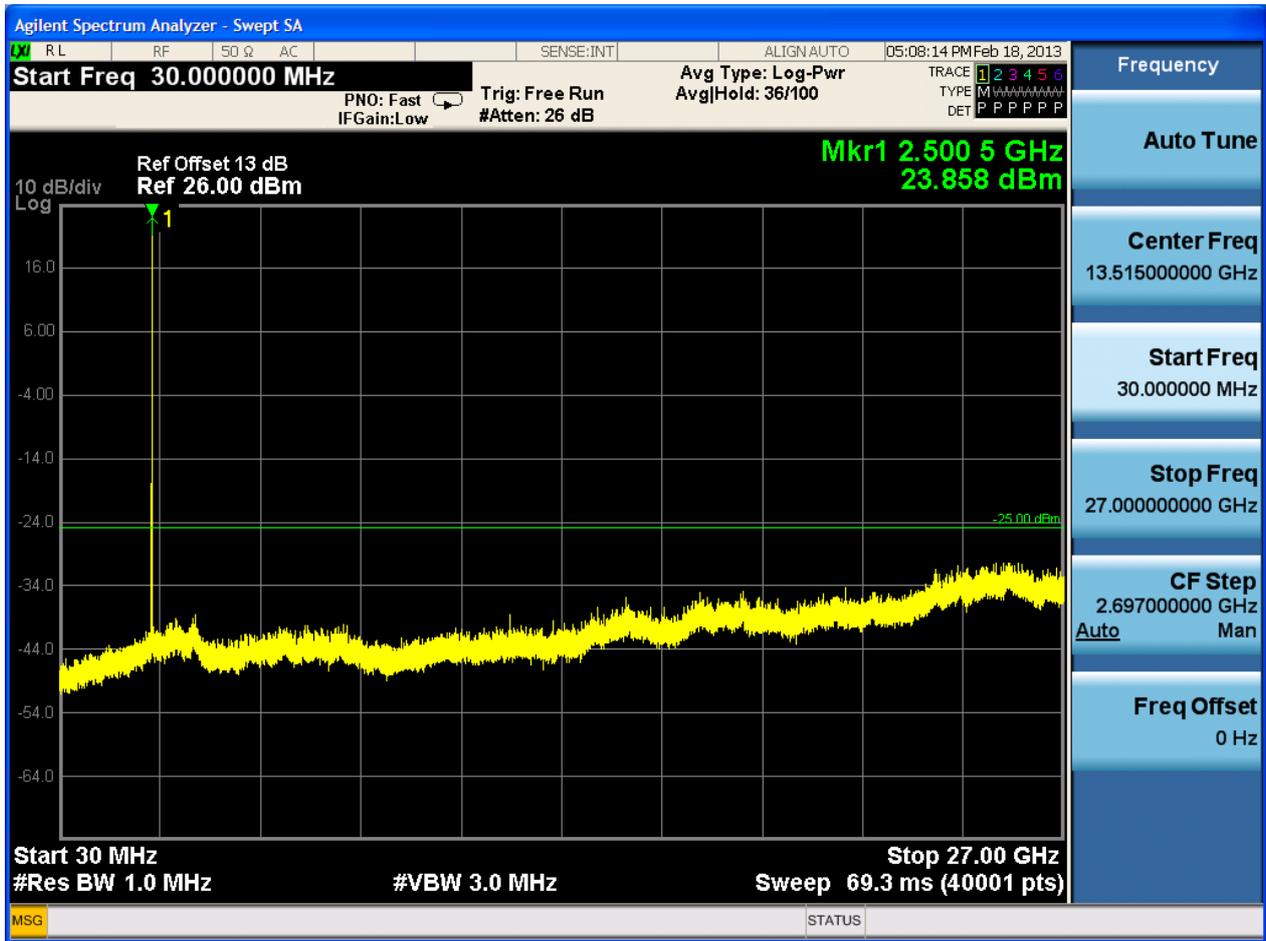
6.1.1.1.2 Test Bandwidth = 10

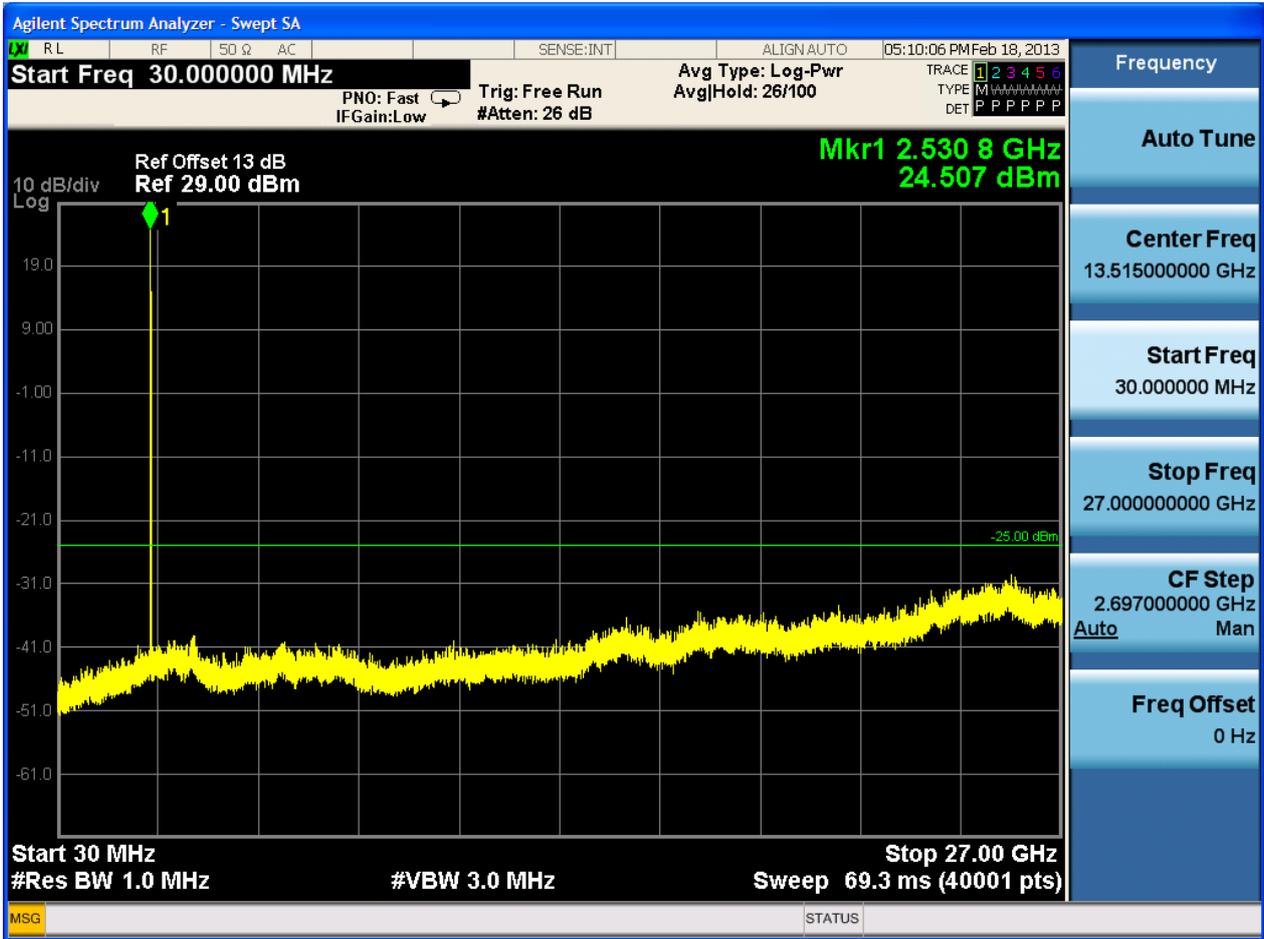
6.1.1.1.2.1 Test Channel = LCH

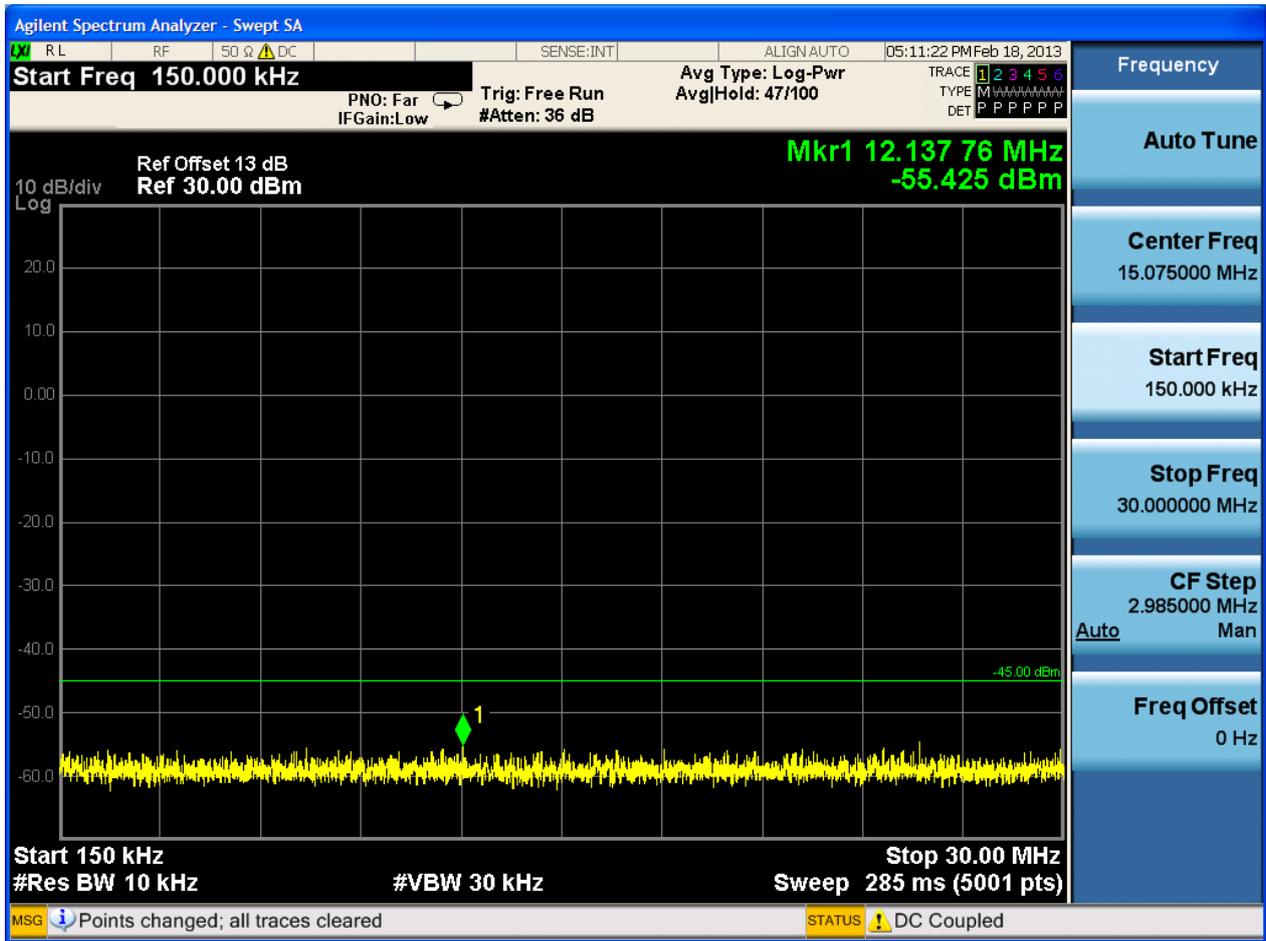
6.1.1.1.2.1.1 Test RB = RB1#0













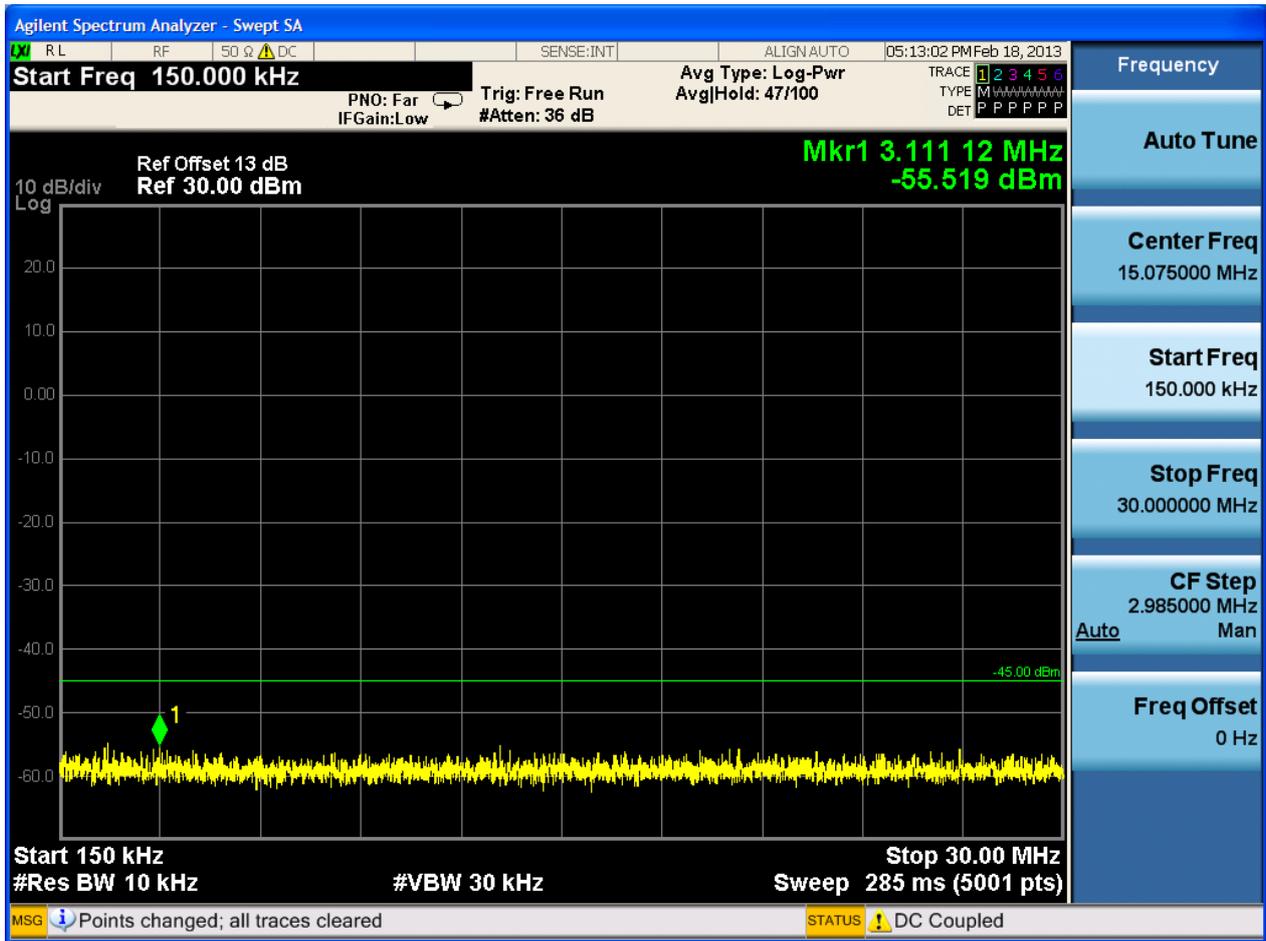


6.1.1.1.3 Test Bandwidth = 15

6.1.1.1.3.1 Test Channel = LCH

6.1.1.1.3.1.1 Test RB = RB1#0

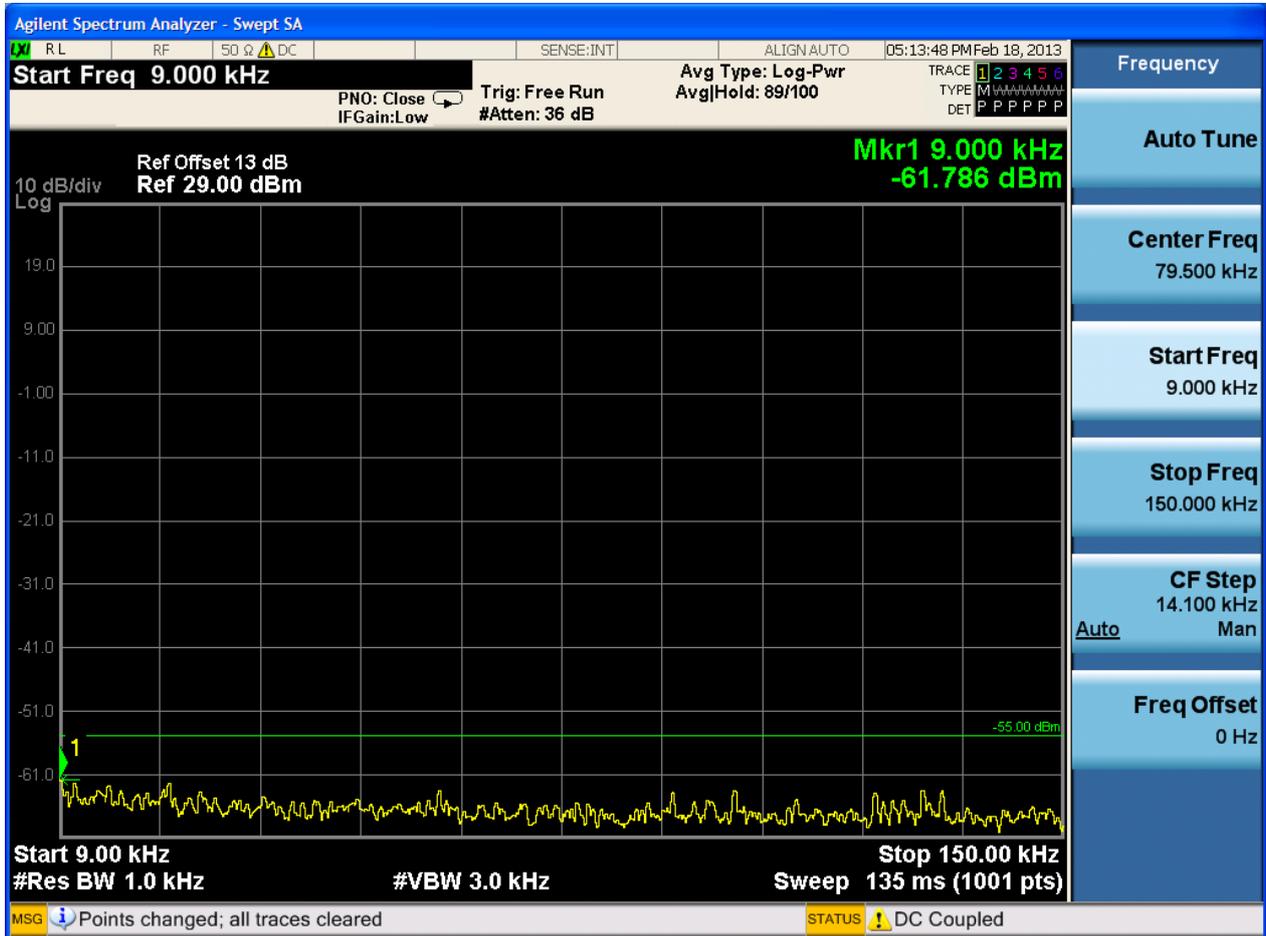


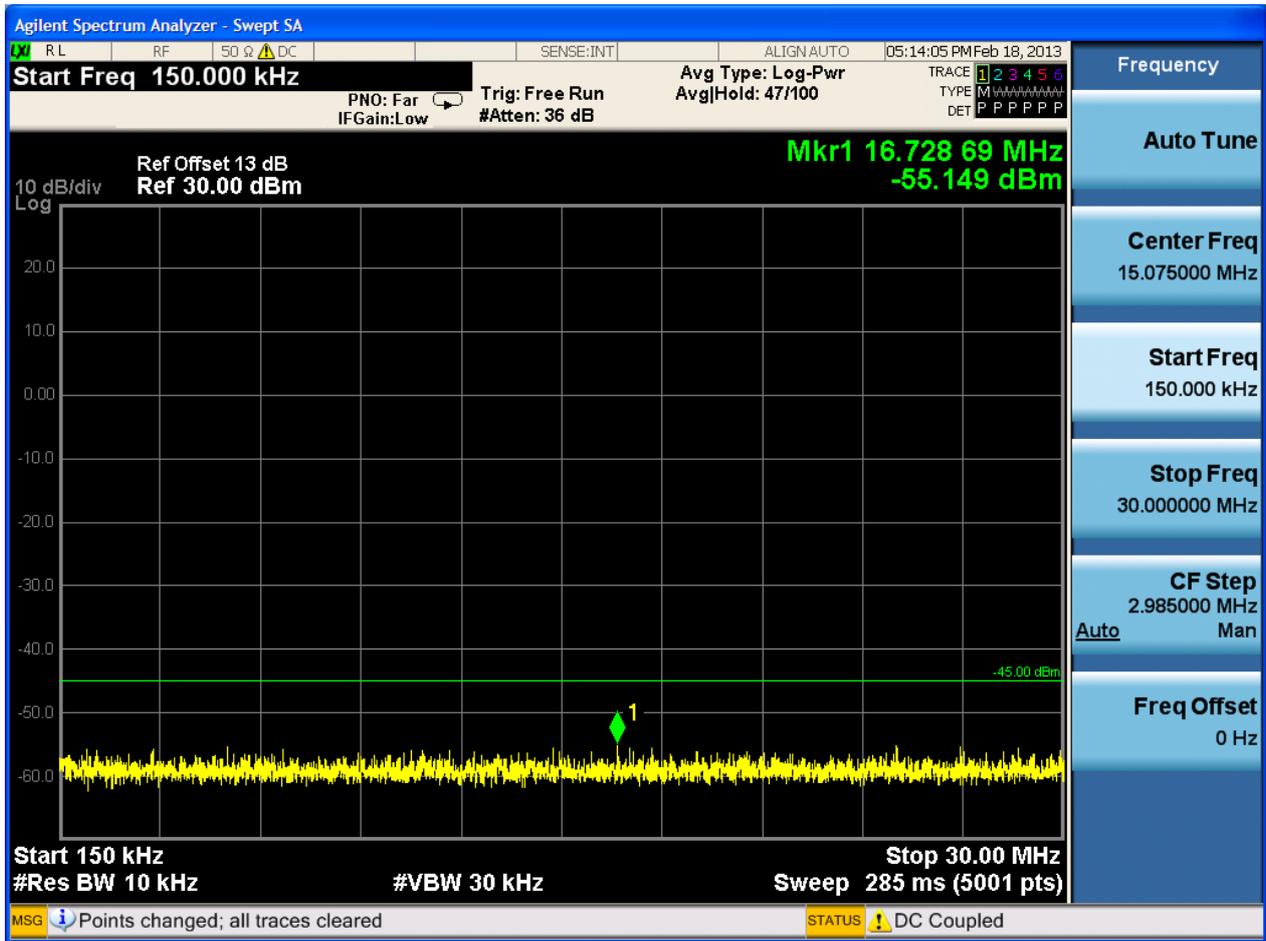




6.1.1.1.3.2 Test Channel = HCH

6.1.1.1.3.2.1 Test RB = RB1#0



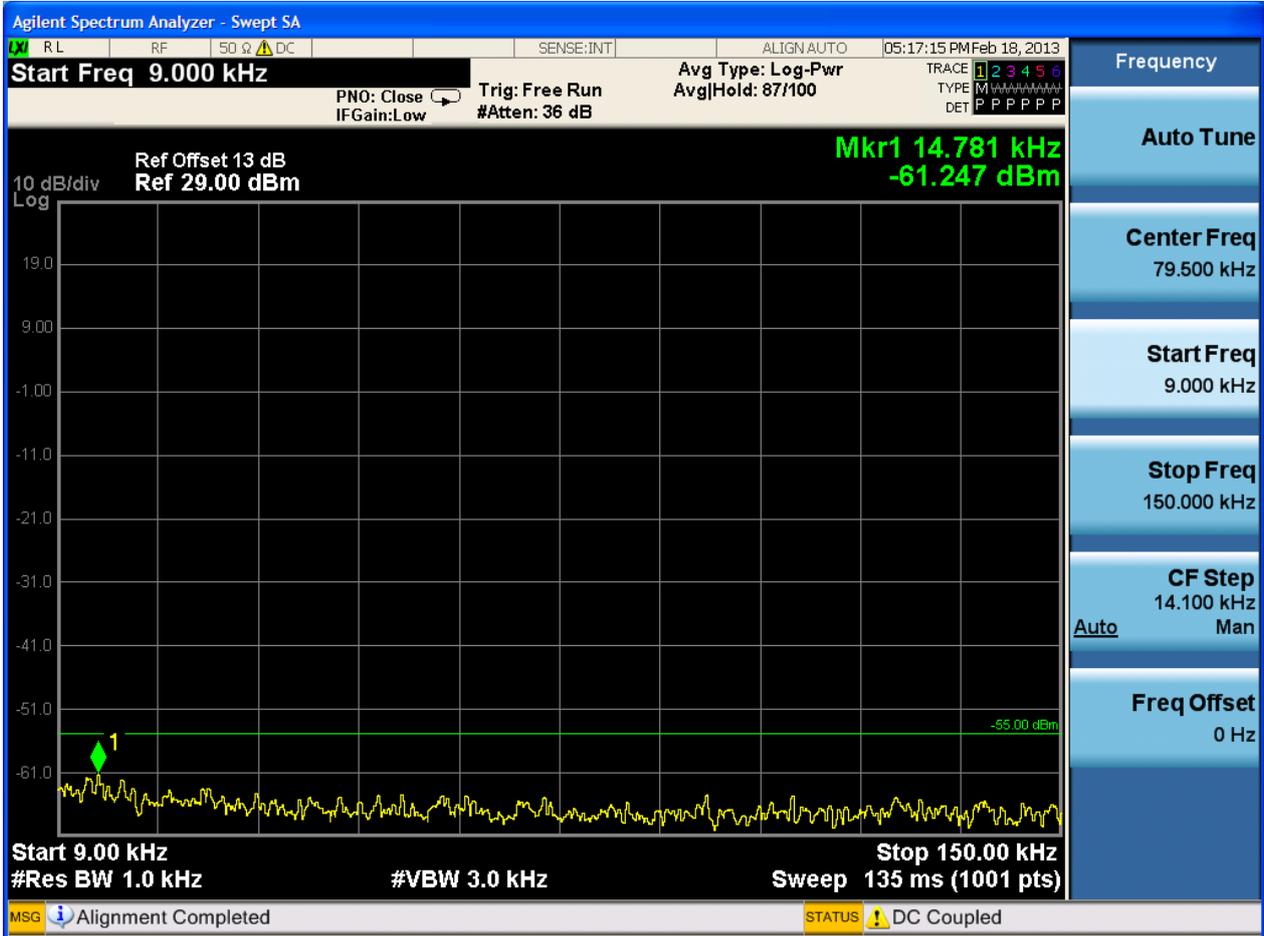


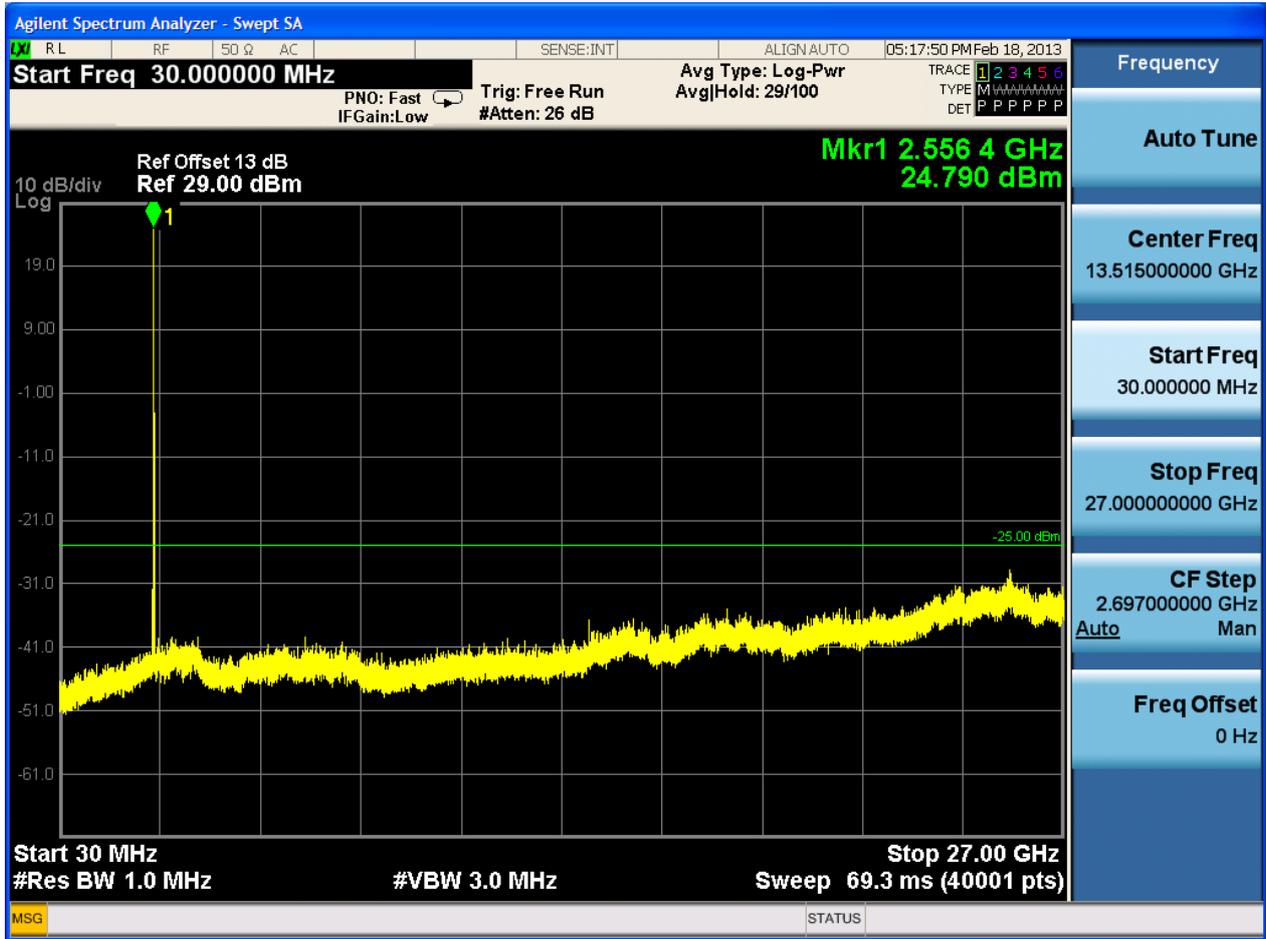




6.1.1.1.3.3 Test Channel = MCH

6.1.1.1.3.3.1 Test RB = RB1#0





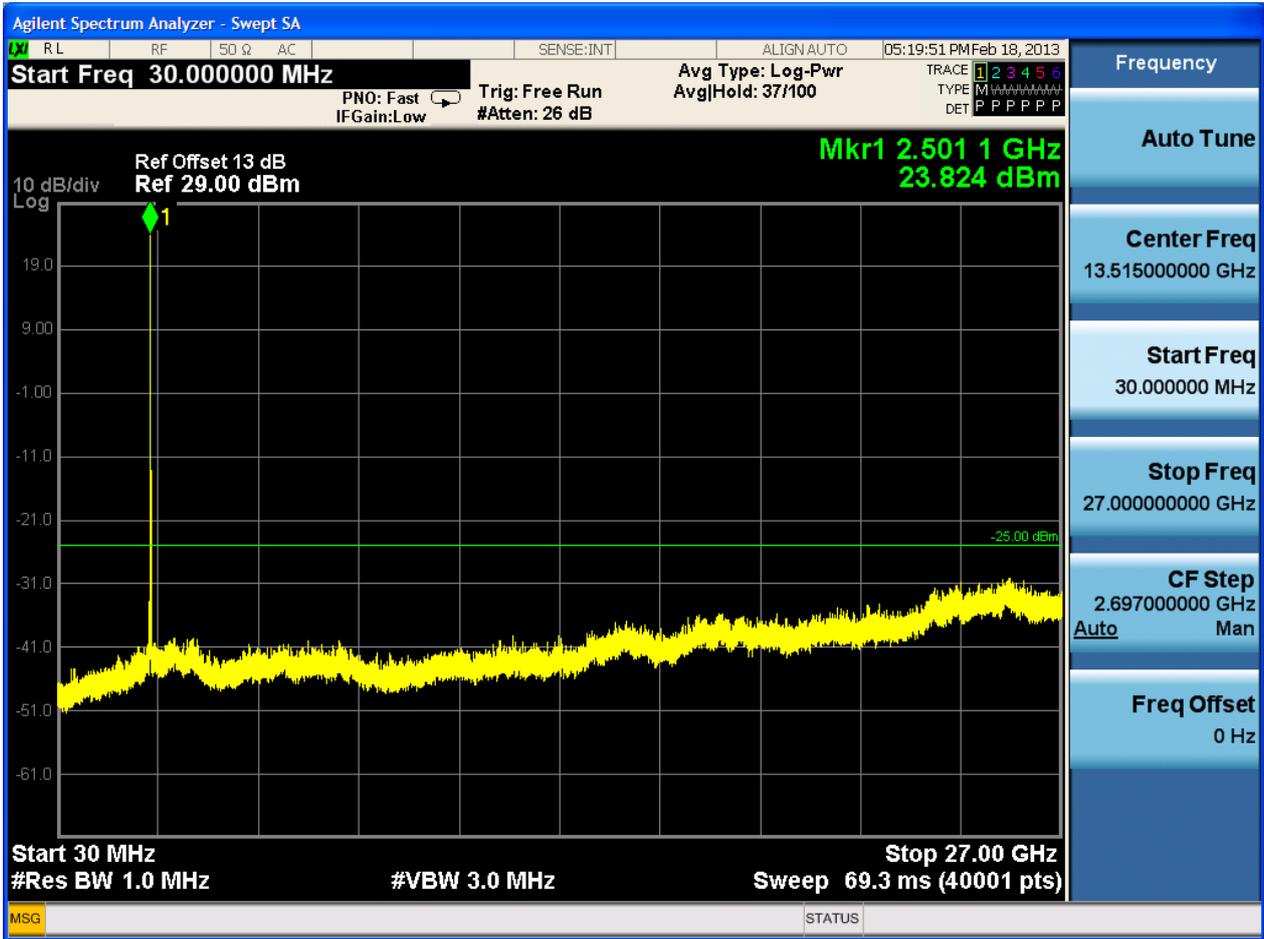


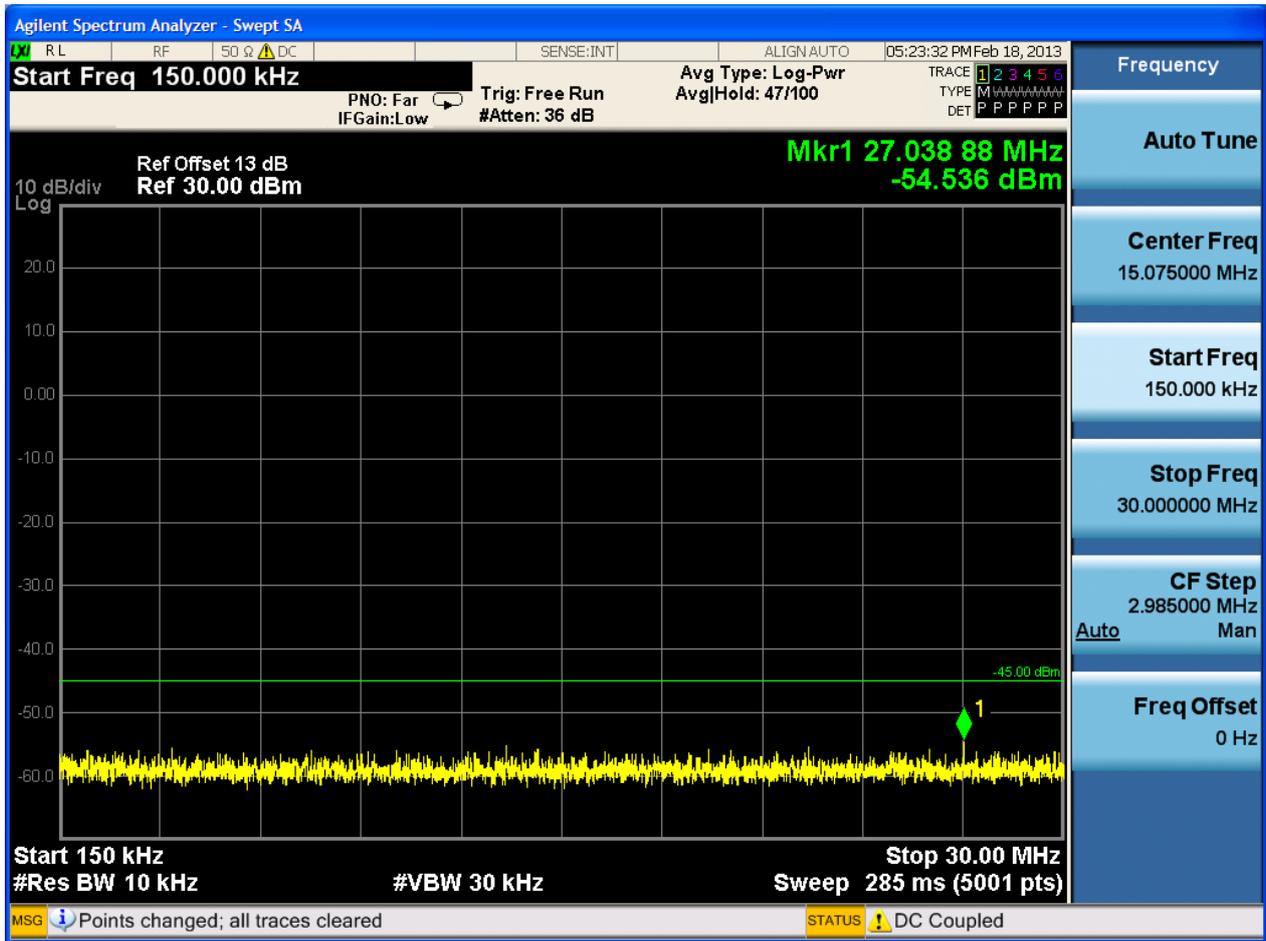
6.1.1.1.4 Test Bandwidth = 20

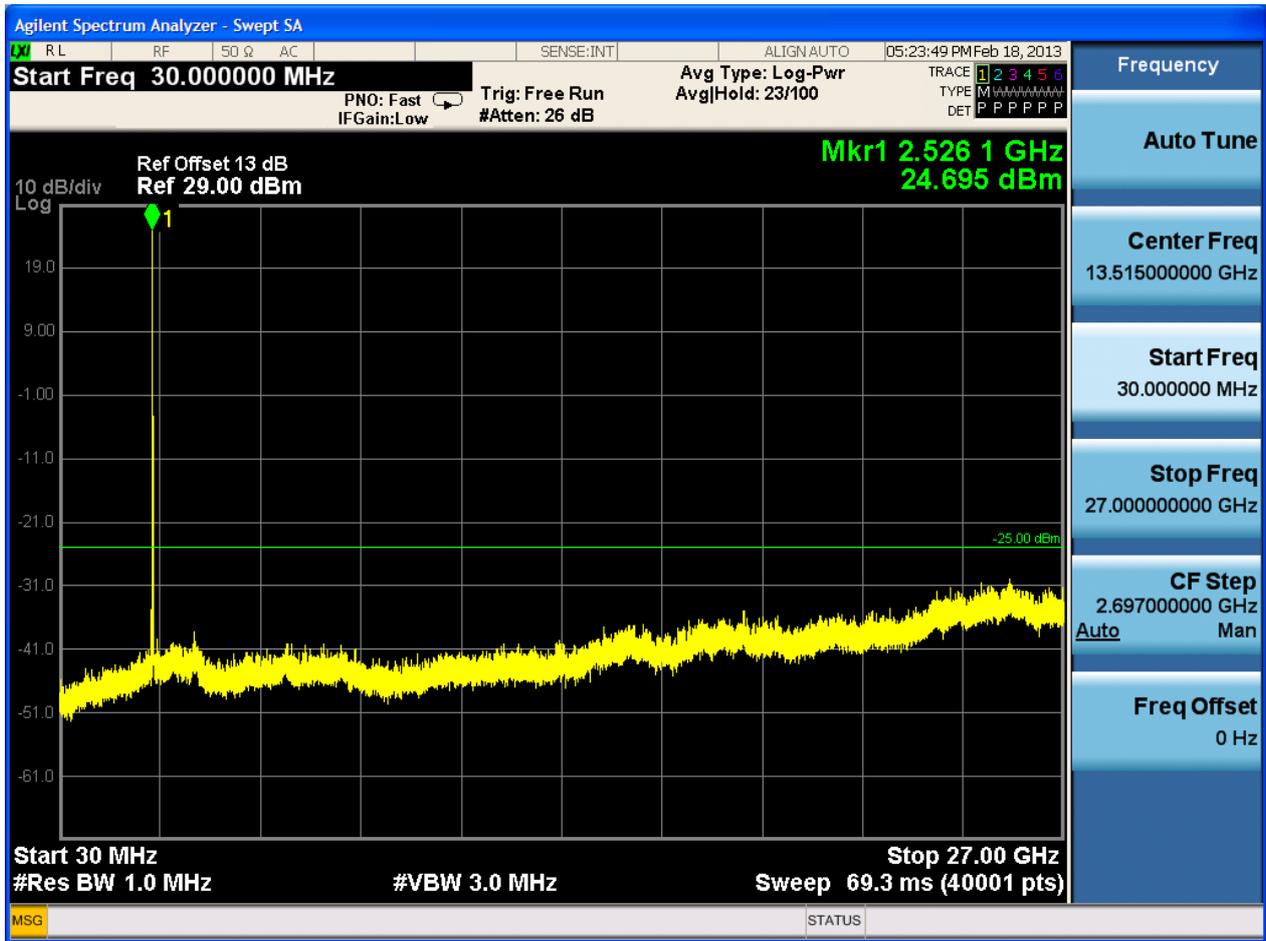
6.1.1.1.4.1 Test Channel = LCH

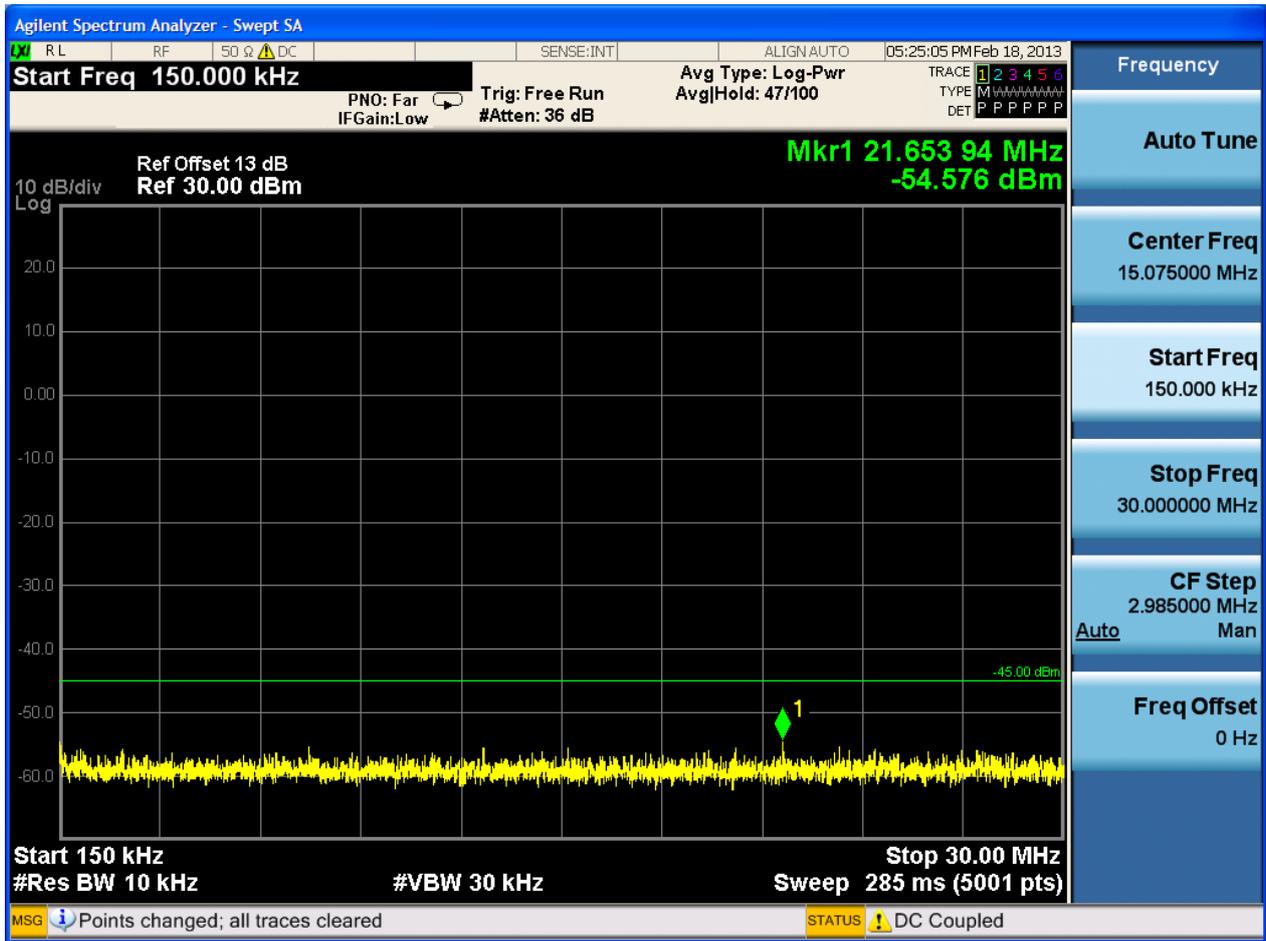
6.1.1.1.4.1.1 Test RB = RB1#0

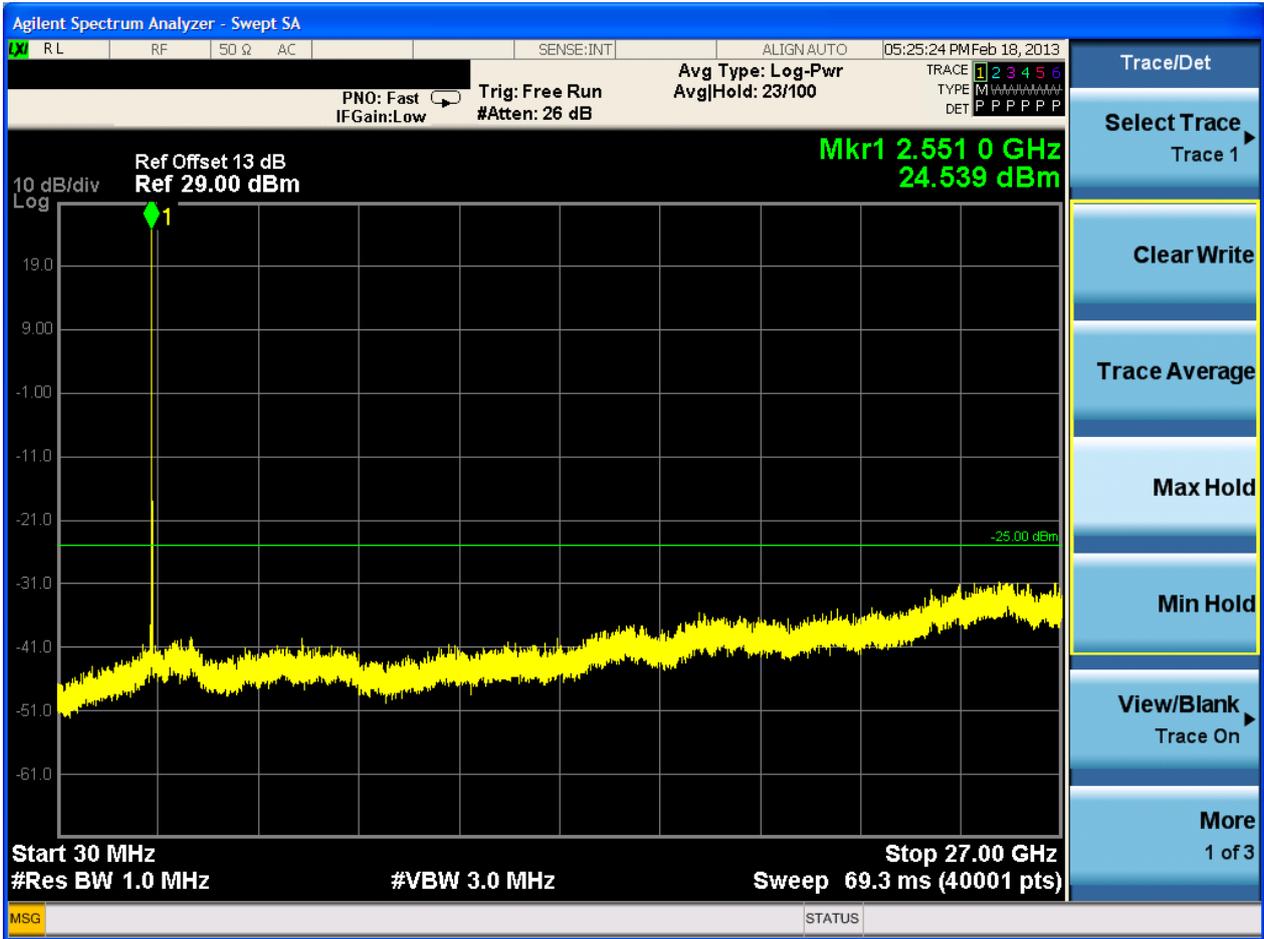


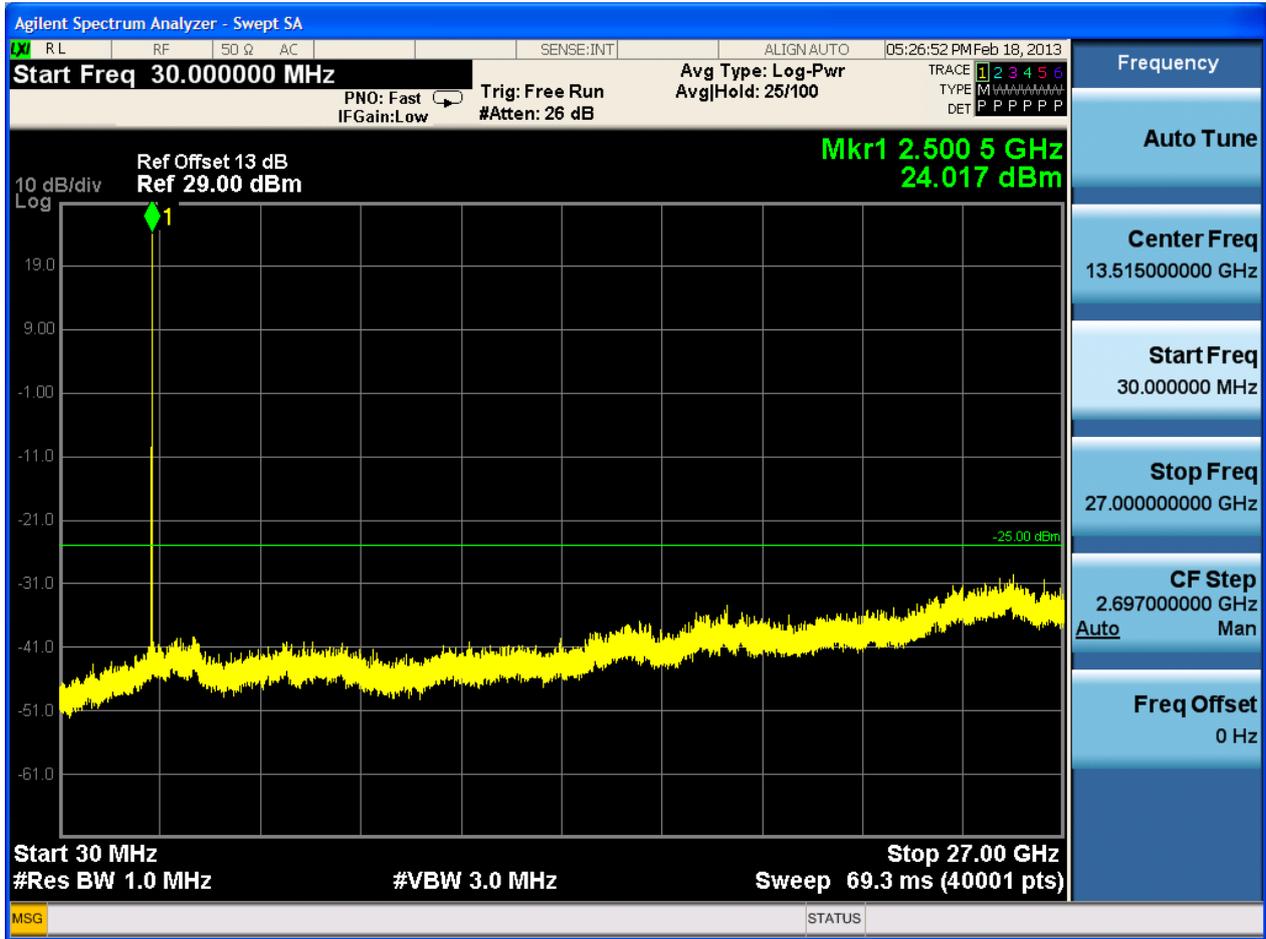














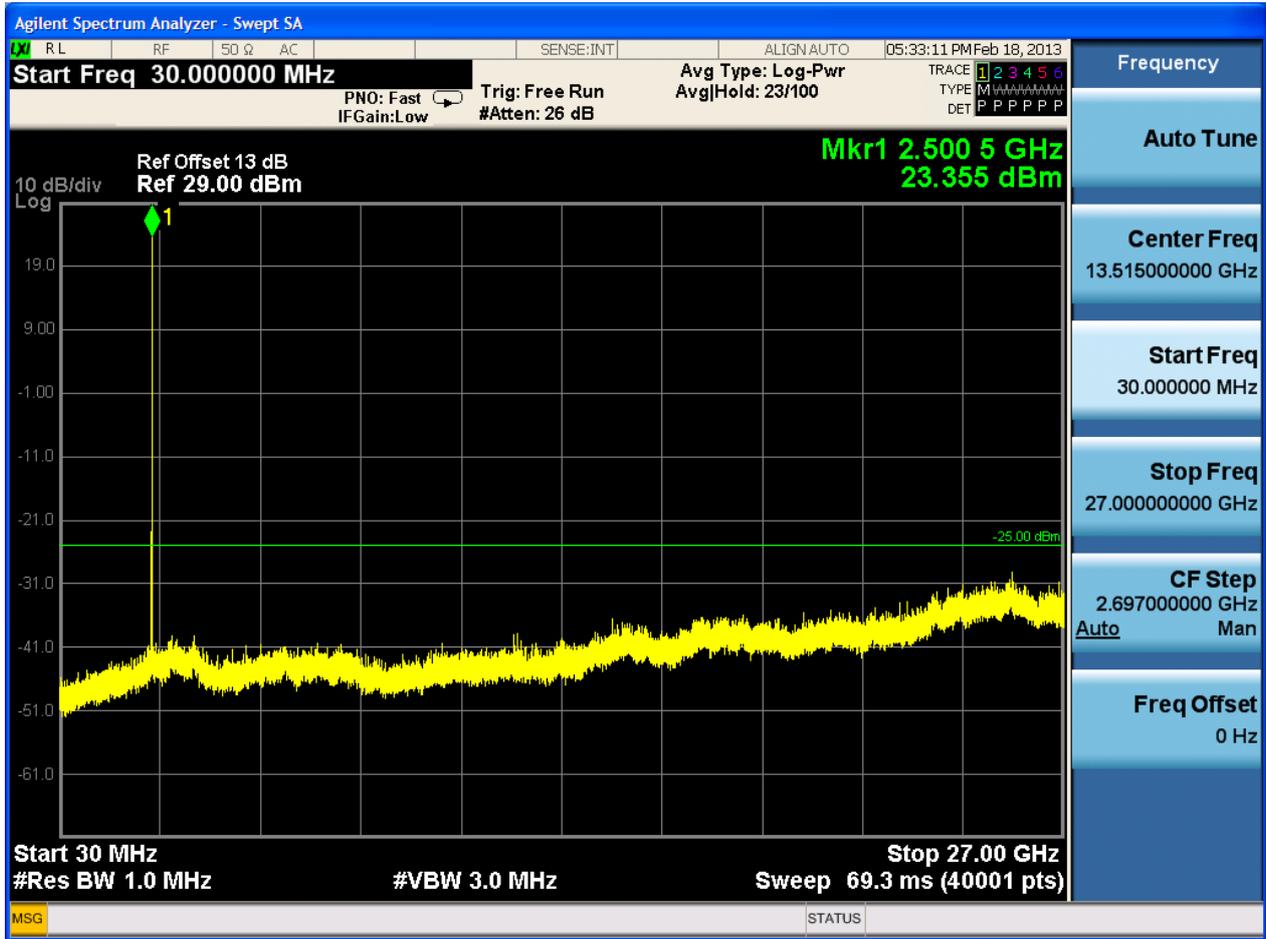


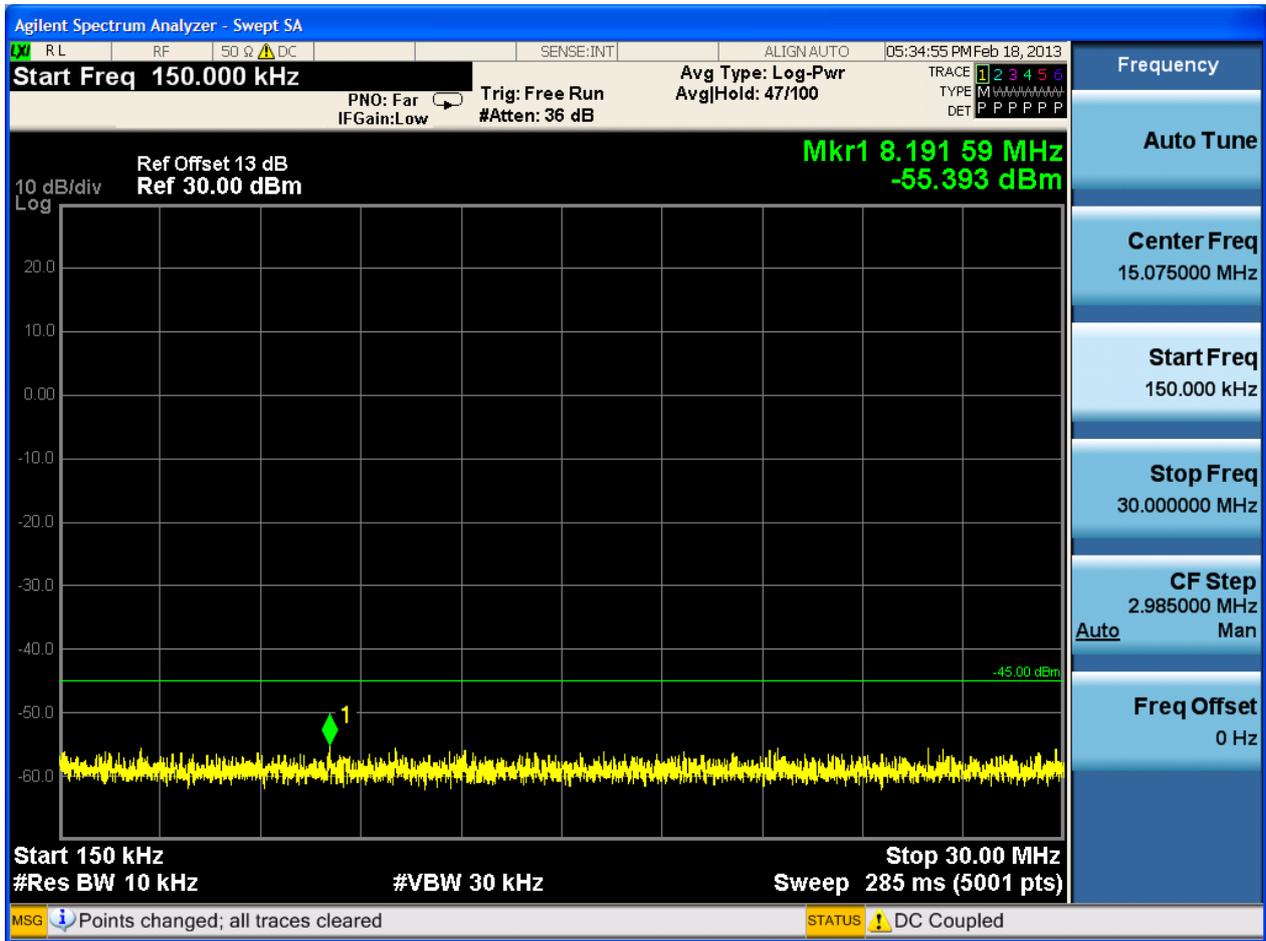
6.1.1.2.2 Test Bandwidth = 10

6.1.1.2.2.1 Test Channel = LCH

6.1.1.2.2.1.1 Test RB = RB1#0





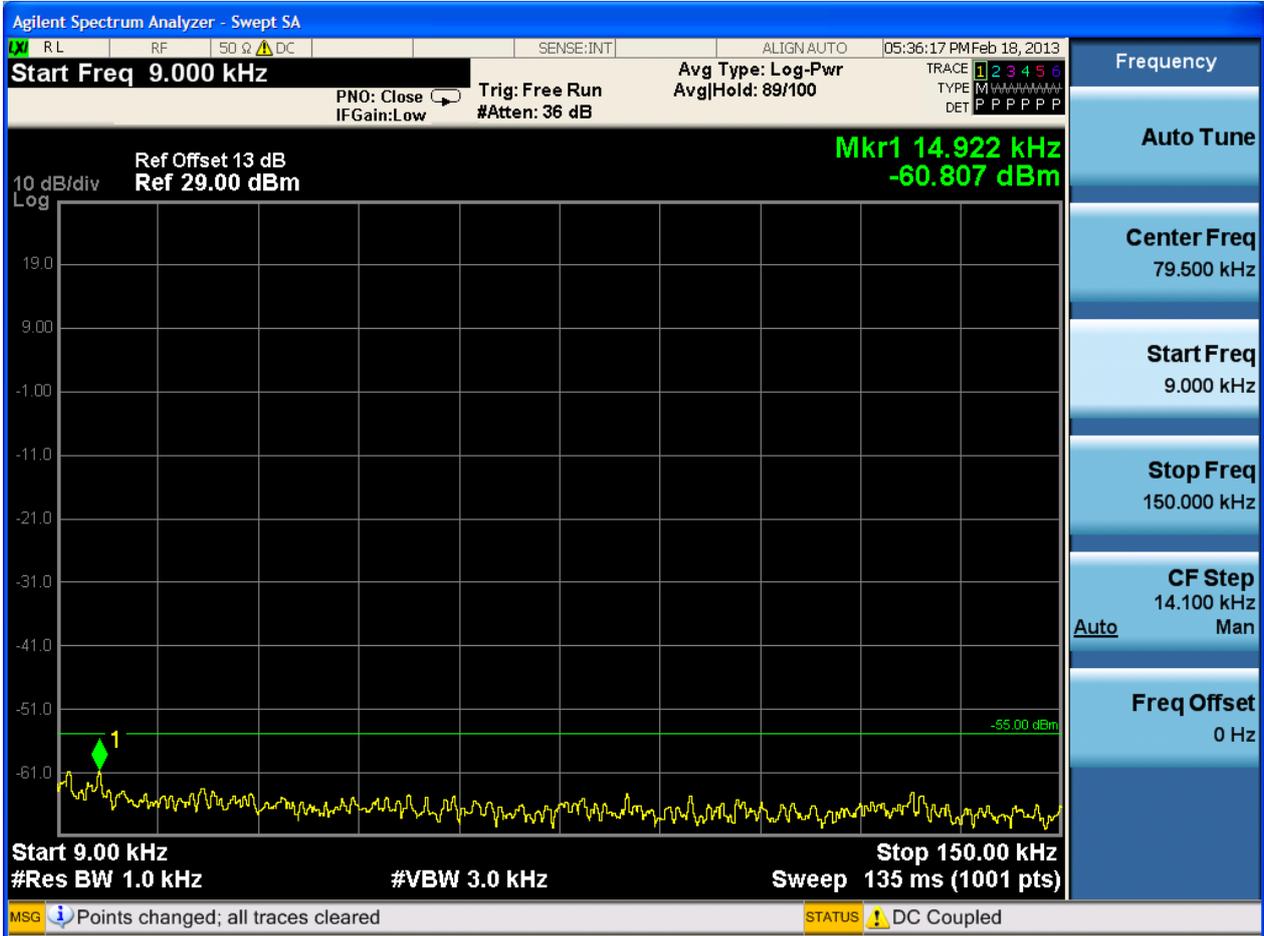


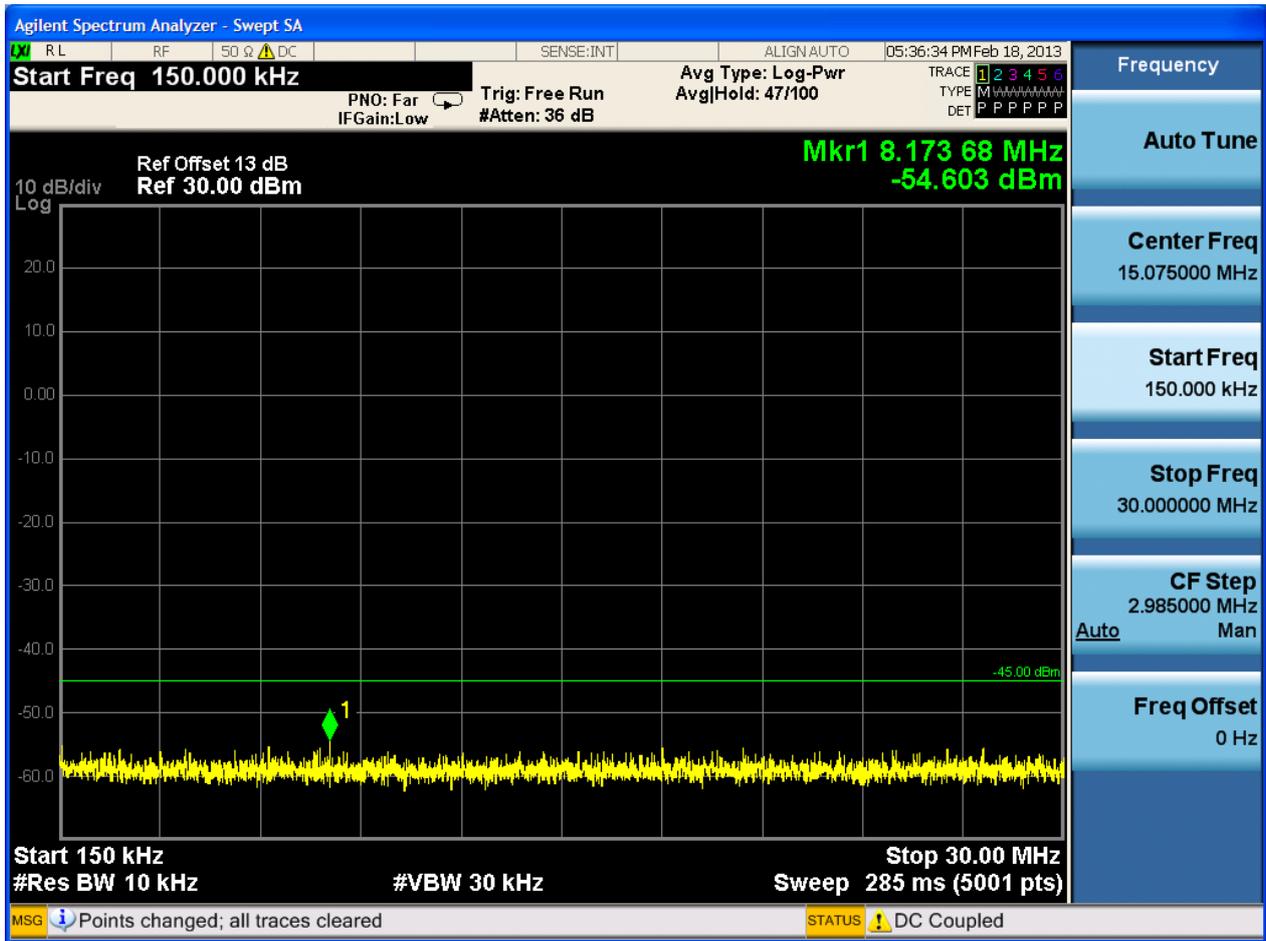




6.1.1.2.2.3 Test Channel = MCH

6.1.1.2.2.3.1 Test RB = RB1#0









6.1.1.2.3 Test Bandwidth = 15

6.1.1.2.3.1 Test Channel = LCH

6.1.1.2.3.1.1 Test RB = RB1#0

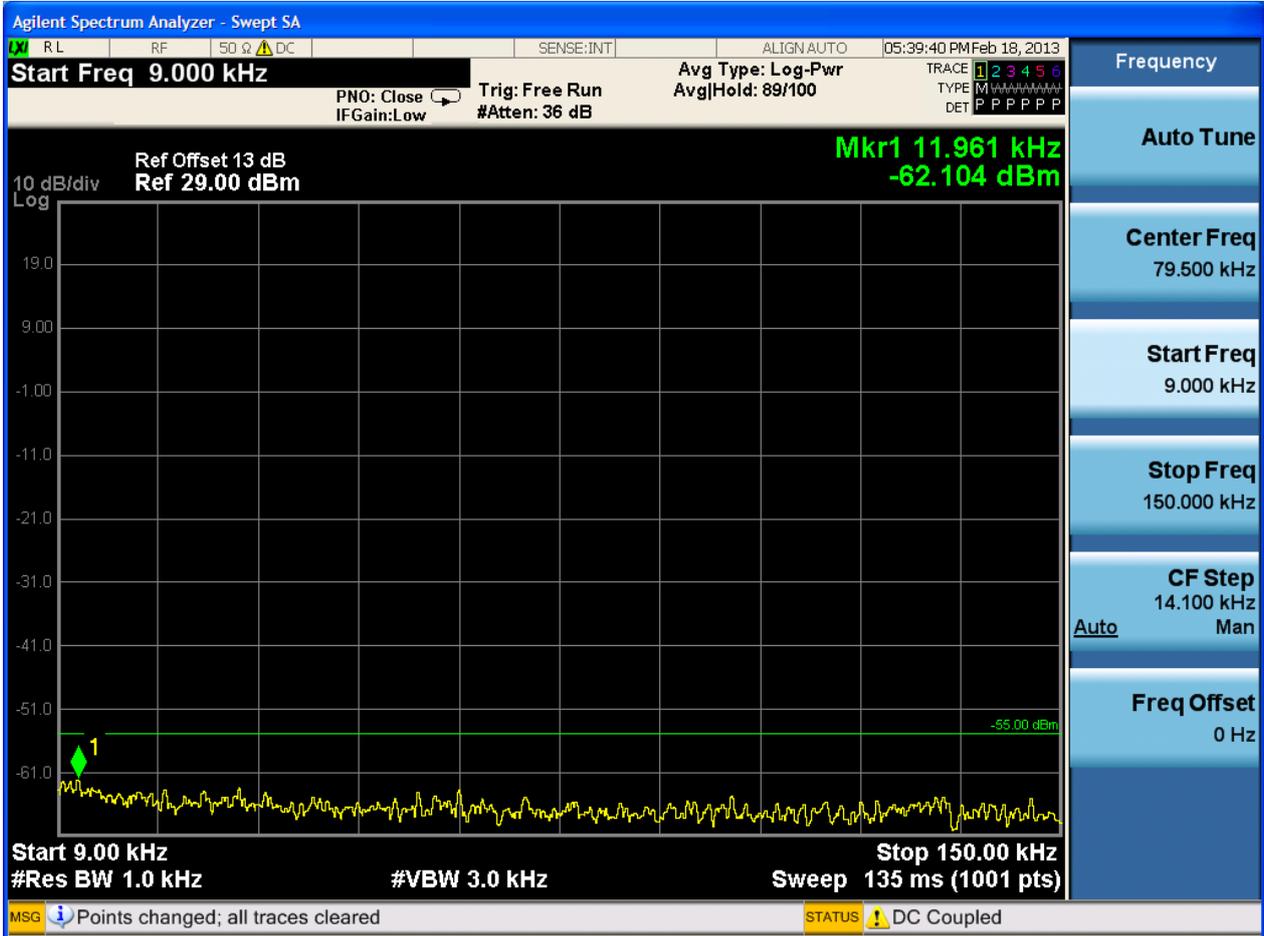


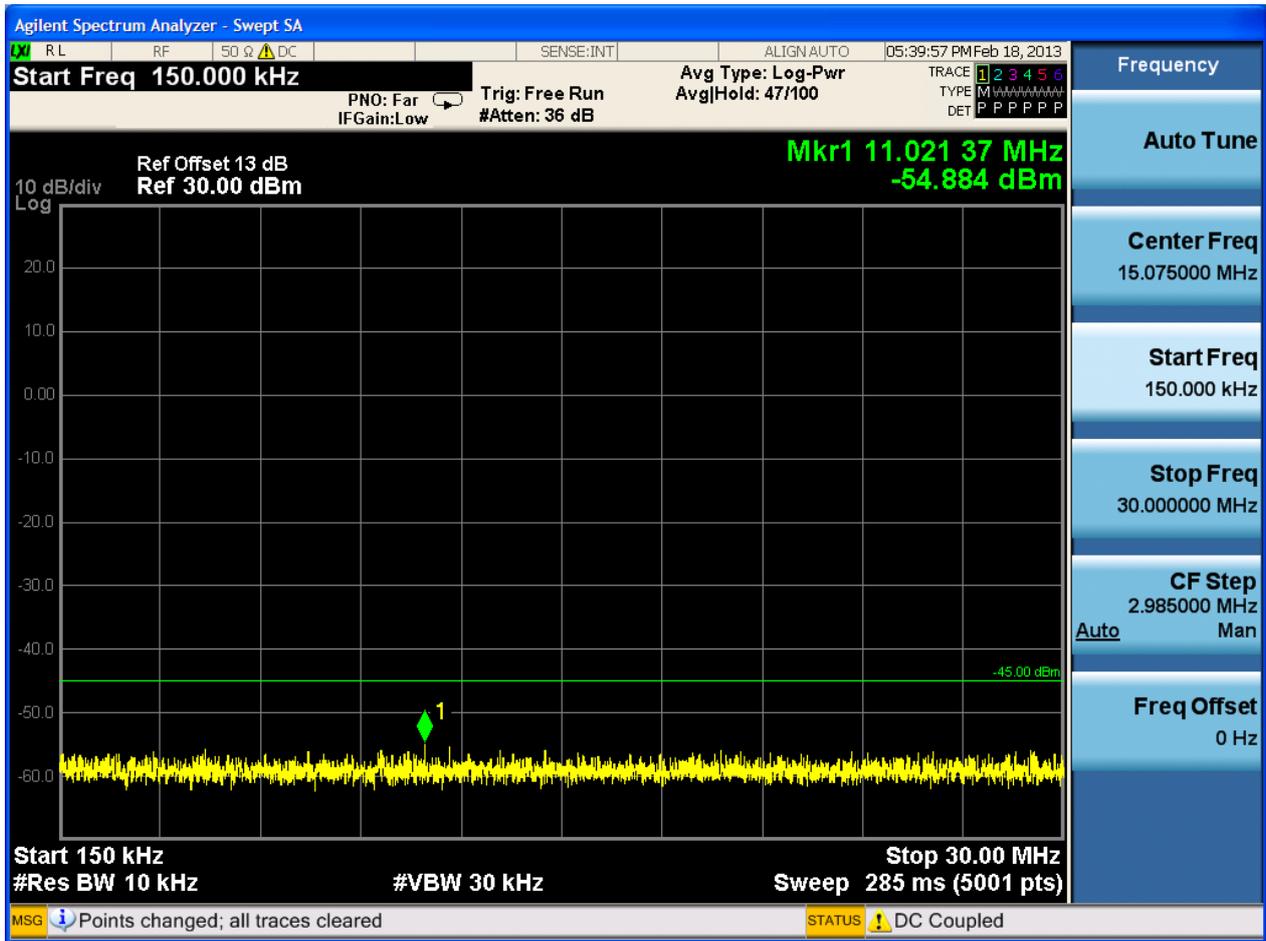


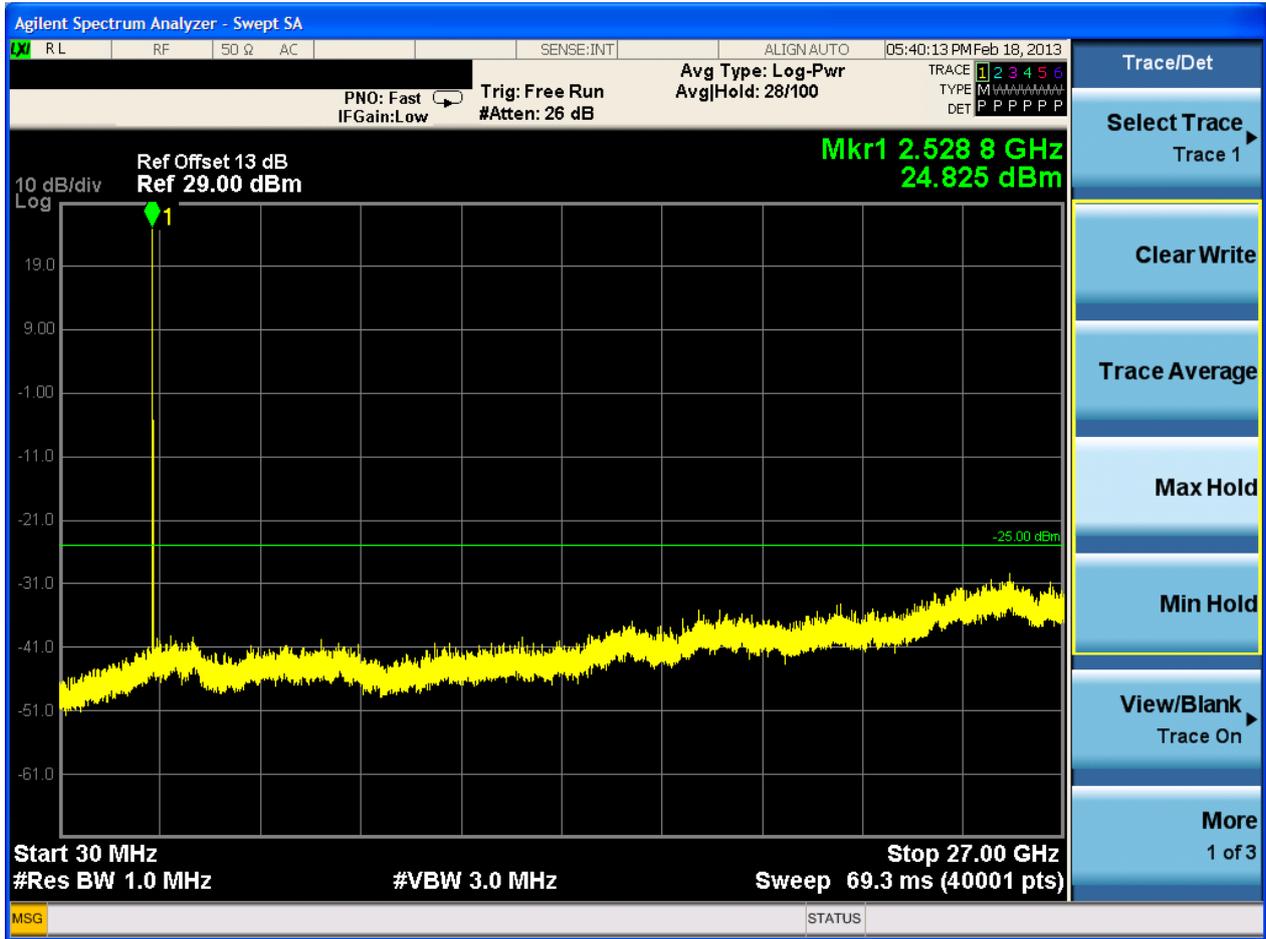


6.1.1.2.3.2 Test Channel = HCH

6.1.1.2.3.2.1 Test RB = RB1#0









6.1.1.2.4 Test Bandwidth = 20

6.1.1.2.4.1 Test Channel = LCH

6.1.1.2.4.1.1 Test RB = RB1#0



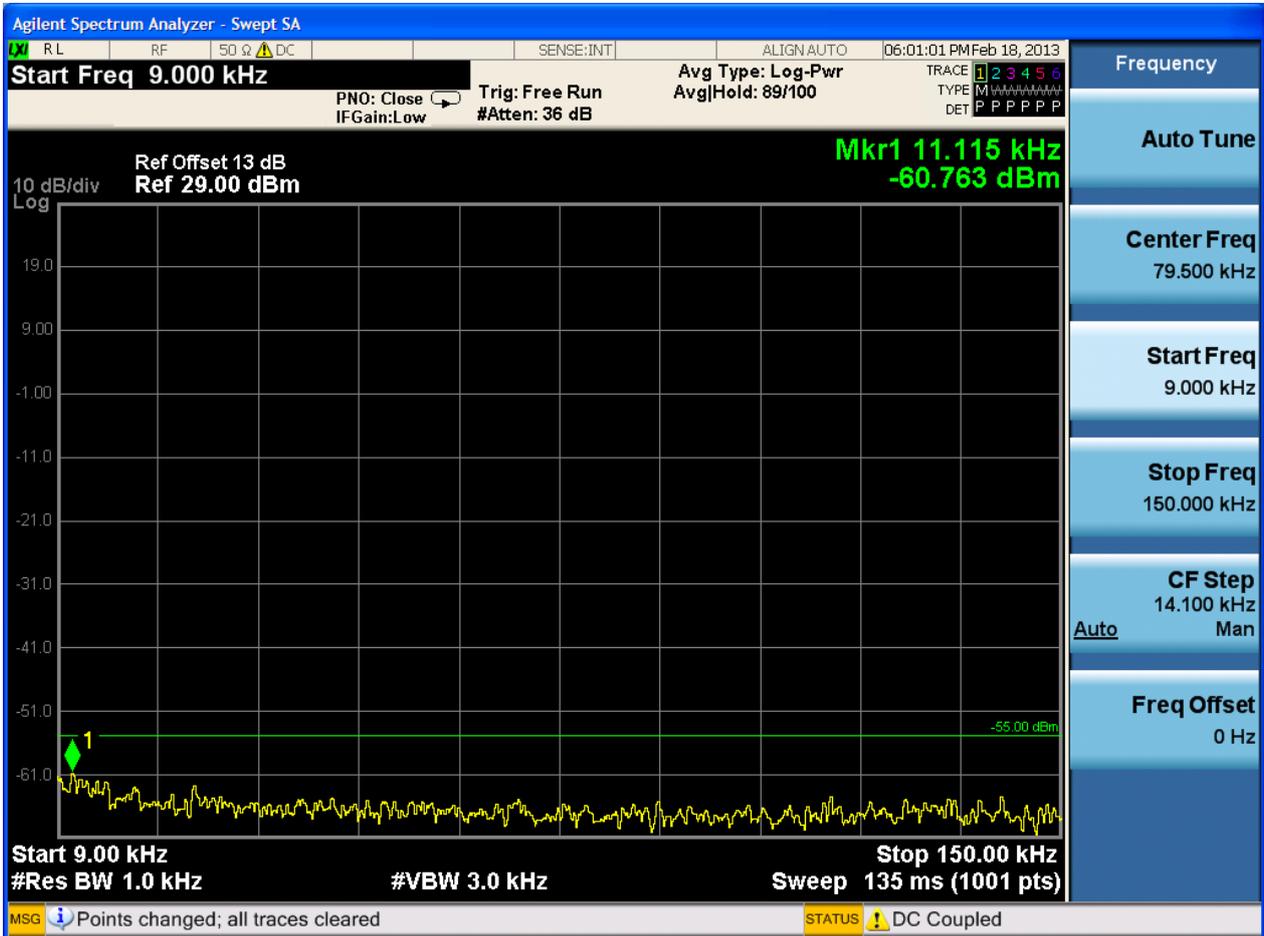


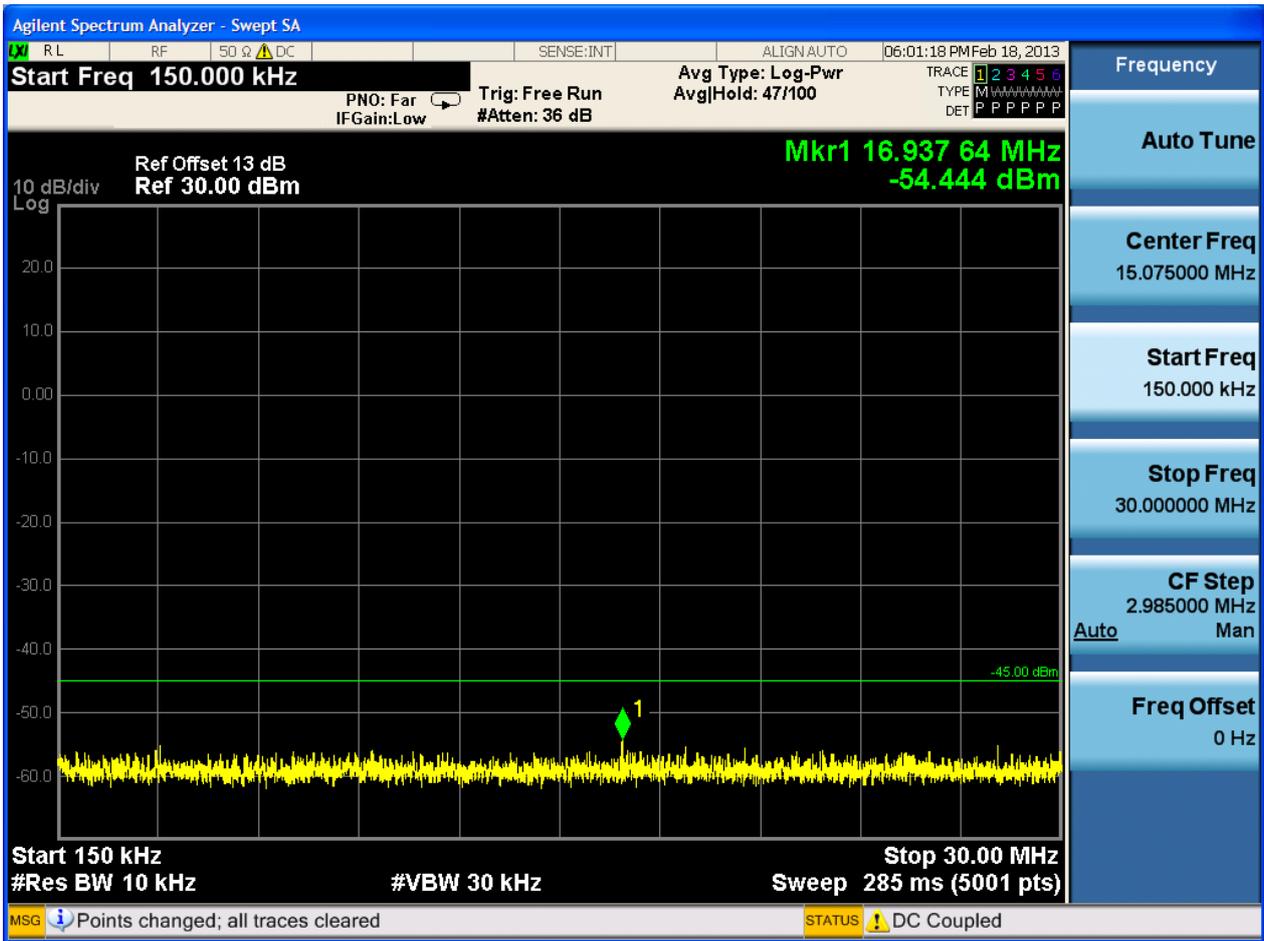




6.1.1.2.4.3 Test Channel = MCH

6.1.1.2.4.3.1 Test RB = RB1#0







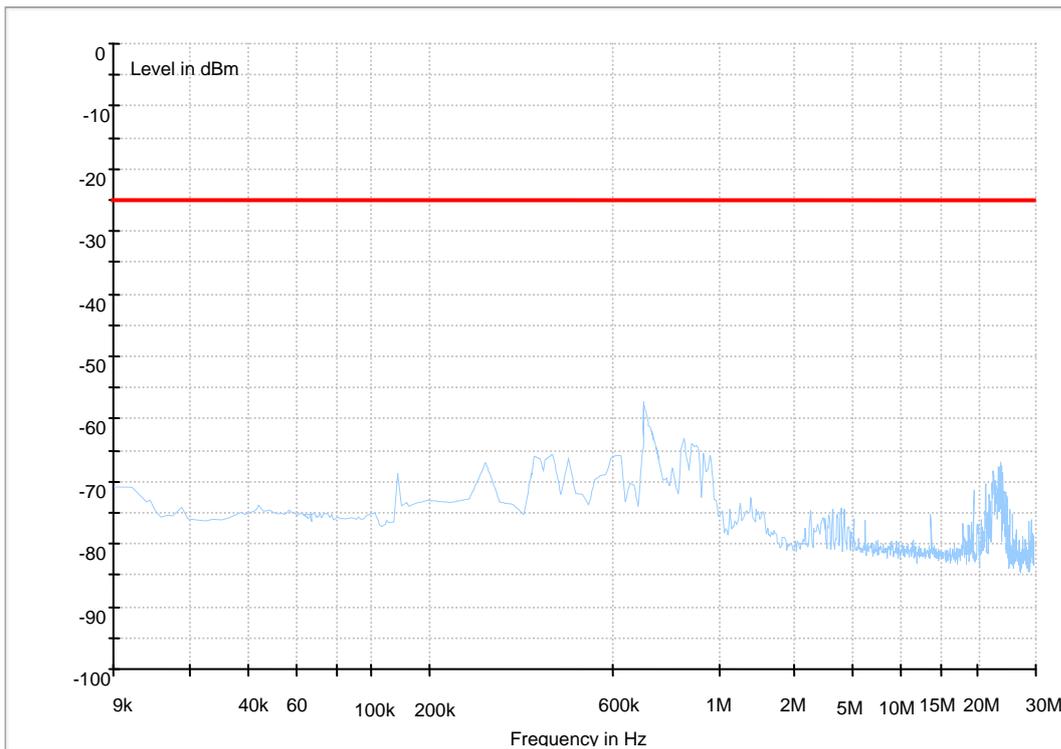
7Appendix_G: Field Strength of Spurious Radiation

7.1For LTE

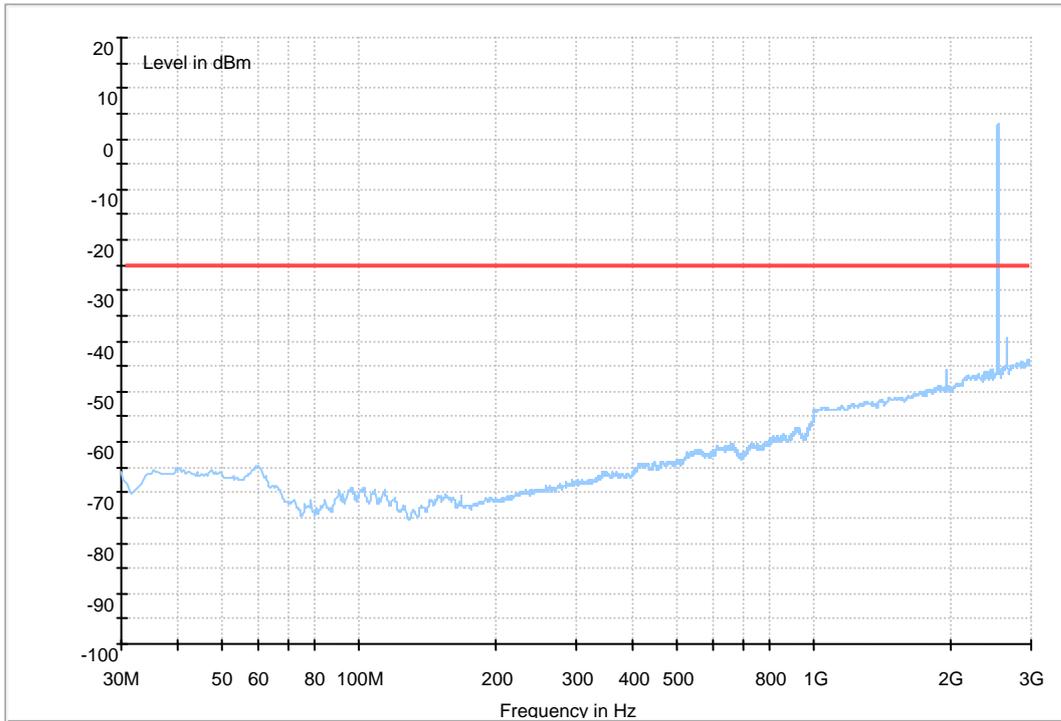
7.1.1Test Band=Band7

7.1.1.1 Test Bandwidth = 5

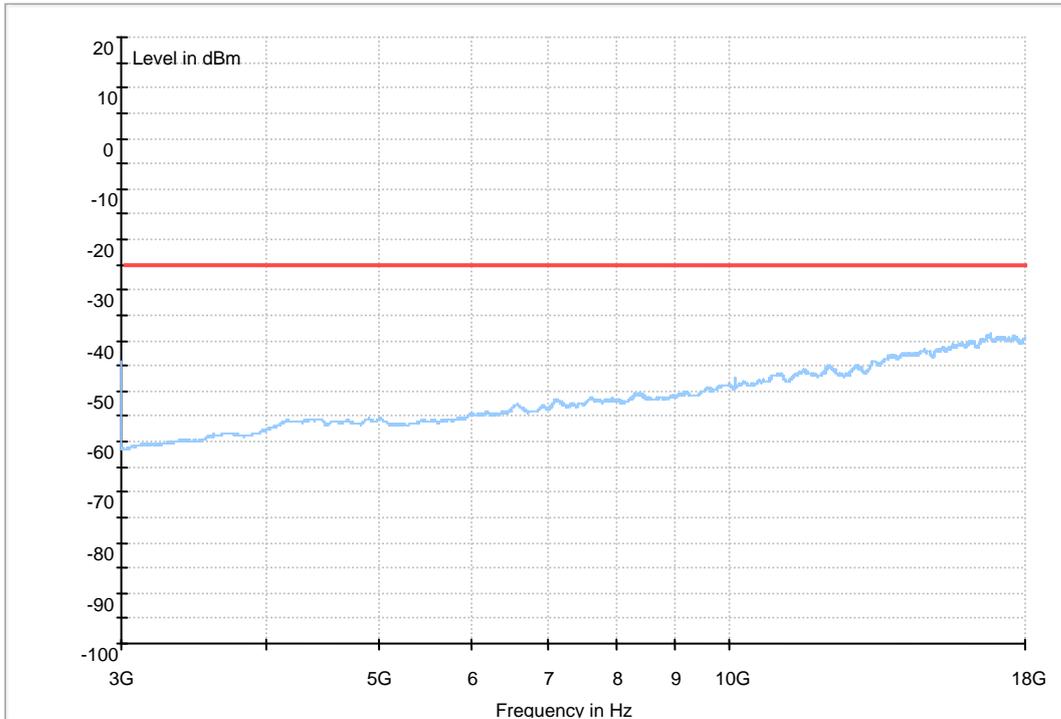
Traffic Mode (9kHz-30MHz)



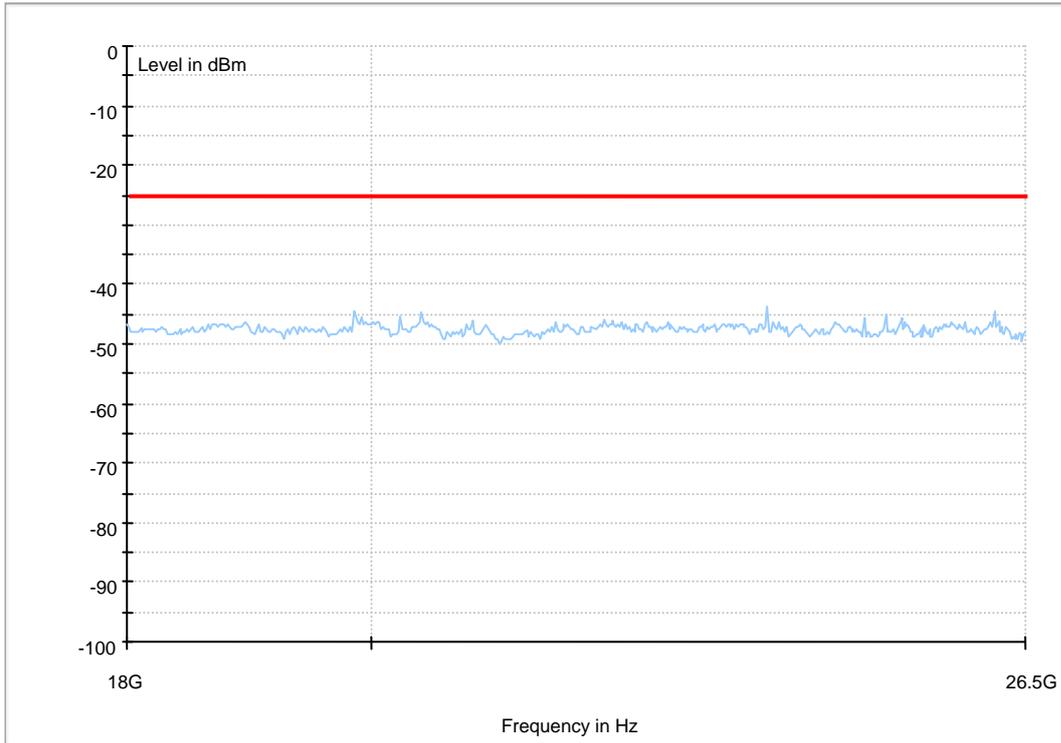
Traffic Mode (30MHz-3GHz)



Traffic Mode (3GHz-18GHz)

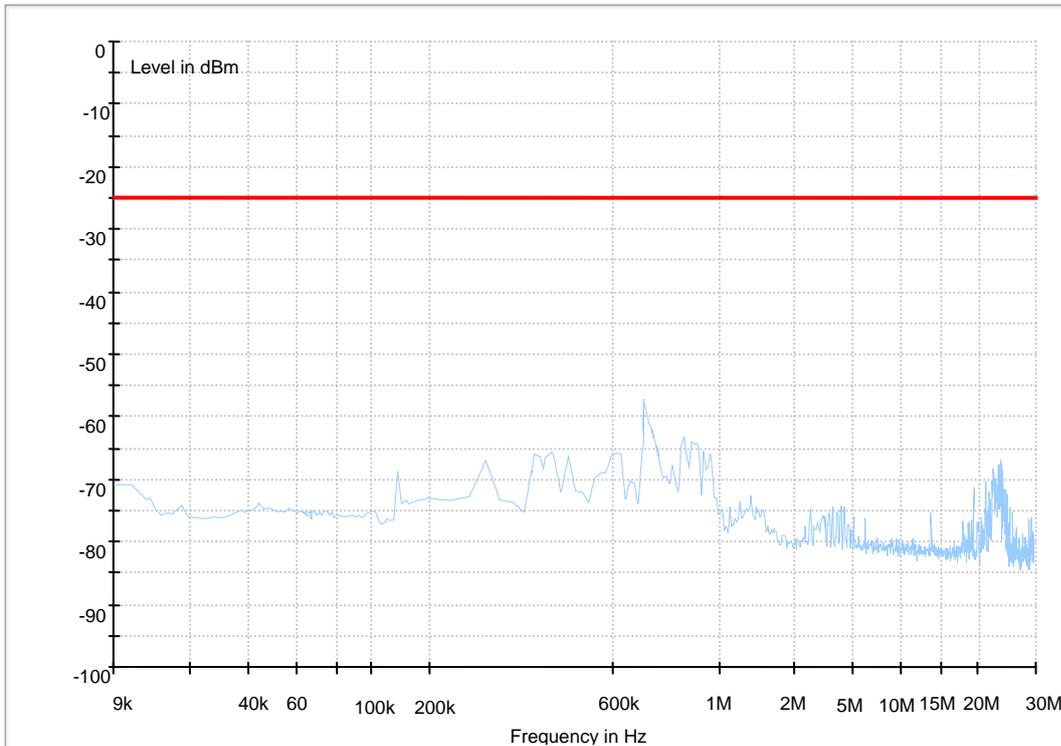


Traffic Mode (18GHz-26.5GHz)

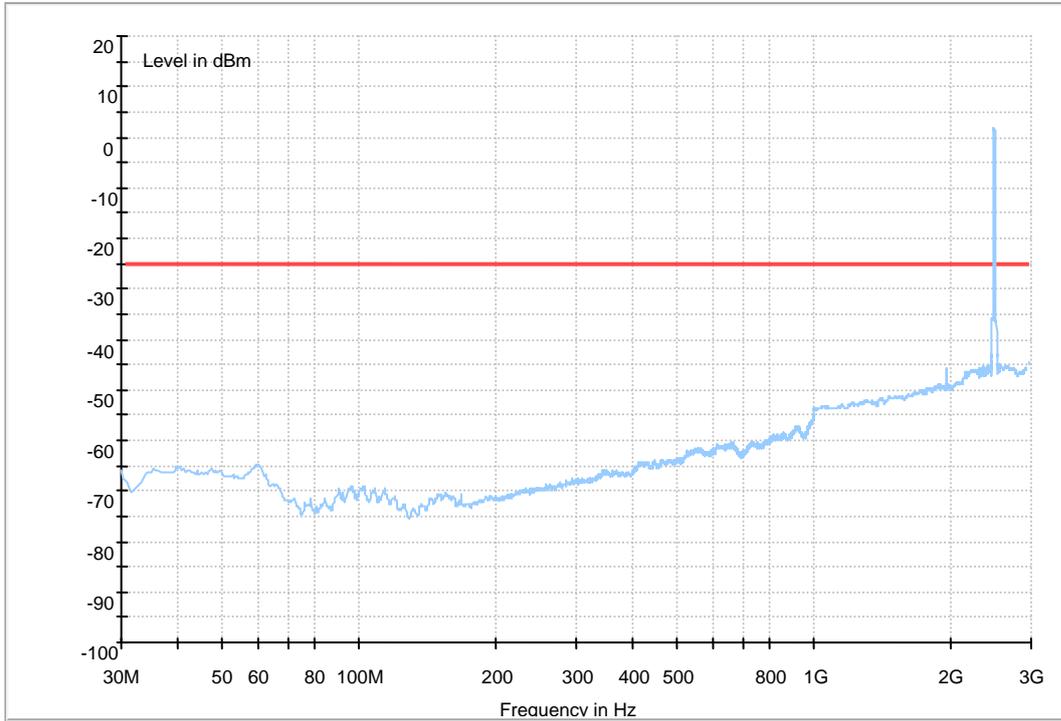


7.1.1.1 Test Bandwidth = 20

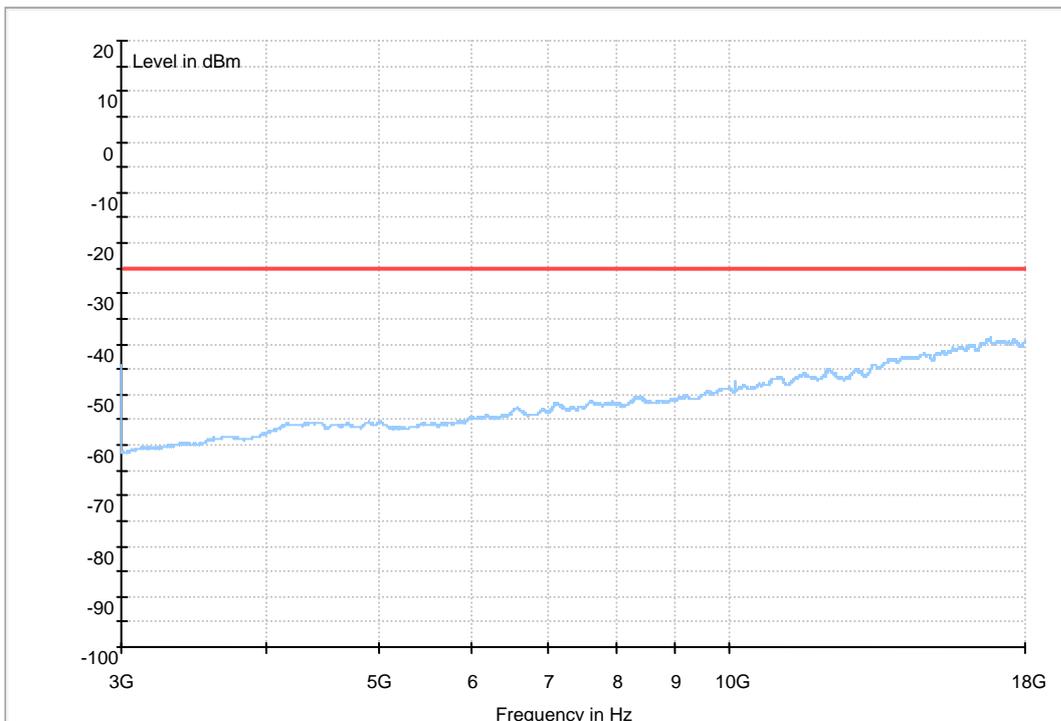
Traffic Mode (9kHz-30MHz)



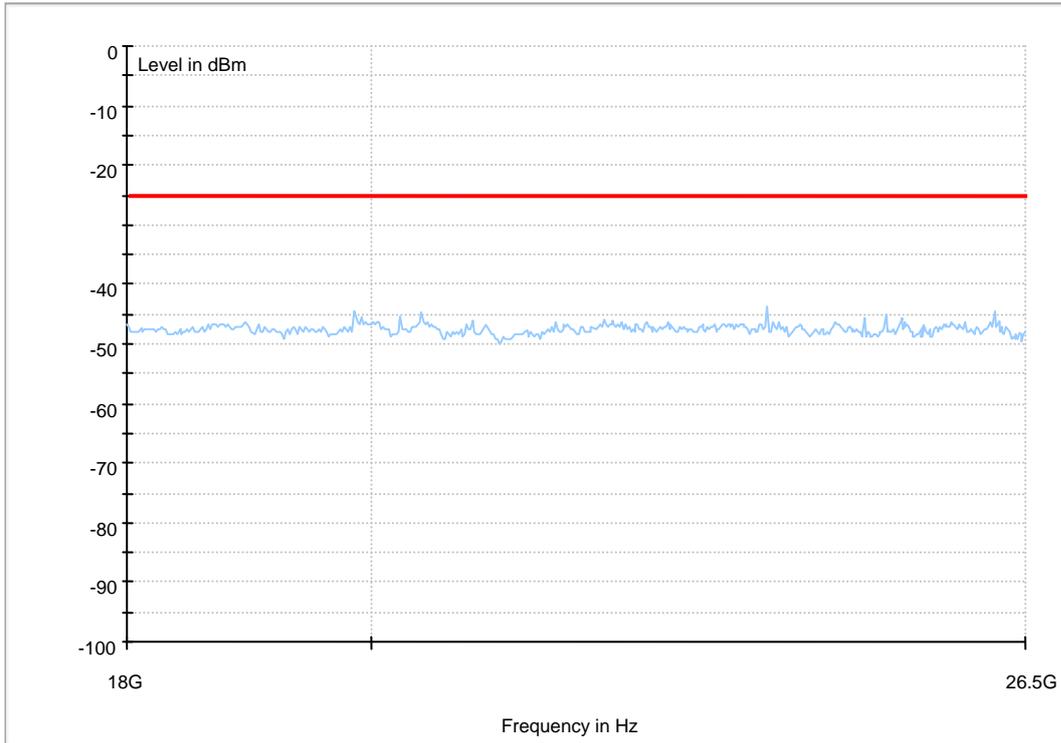
Traffic Mode (30MHz-3GHz)



Traffic Mode (3GHz-18GHz)



Traffic Mode (18GHz-26.5GHz)



8Appendix_H: Frequency Stability

8.1 For LTE

8.1.1 Frequency Error vs. Voltage:

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Limit [dBm]	Verdict
BAND7	LTE/TM1	5	LCH	TN	VL	4.82	0.00193	±2.5	PASS
					VN	4.22	0.00169	±2.5	PASS
					VH	2.70	0.00108	±2.5	PASS
			MCH	TN	VL	2.19	0.00086	±2.5	PASS
					VN	4.35	0.00172	±2.5	PASS
					VH	4.16	0.00164	±2.5	PASS
			HCH	TN	VL	0.37	0.00014	±2.5	PASS
					VN	0.69	0.00027	±2.5	PASS
					VH	2.76	0.00107	±2.5	PASS
		10	LCH	TN	VL	1.62	0.00065	±2.5	PASS
					VN	-1.22	-0.00049	±2.5	PASS
					VH	-2.23	-0.00089	±2.5	PASS
			MCH	TN	VL	0.73	0.00029	±2.5	PASS
					VN	0.10	0.00004	±2.5	PASS
					VH	1.59	0.00063	±2.5	PASS
			HCH	TN	VL	0.60	0.00023	±2.5	PASS
					VN	-0.47	-0.00018	±2.5	PASS
					VH	3.93	0.00153	±2.5	PASS
		15	LCH	TN	VL	-0.63	-0.00025	±2.5	PASS
					VN	1.40	0.00056	±2.5	PASS
					VH	-1.90	-0.00076	±2.5	PASS
			MCH	TN	VL	1.07	0.00042	±2.5	PASS
					VN	-2.76	-0.00109	±2.5	PASS
					VH	-2.33	-0.00092	±2.5	PASS
			HCH	TN	VL	0.46	0.00018	±2.5	PASS
					VN	-0.29	-0.00011	±2.5	PASS
					VH	0.36	0.00014	±2.5	PASS
		20	LCH	TN	VL	0.23	0.00009	±2.5	PASS
					VN	-2.17	-0.00086	±2.5	PASS
					VH	-1.23	-0.00049	±2.5	PASS
			MCH	TN	VL	0.97	0.00038	±2.5	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Limit [dBm]	Verdict
			HCH	TN	VN	1.43	0.00056	±2.5	PASS
					VH	-1.52	-0.0006	±2.5	PASS
					VL	0.37	0.00014	±2.5	PASS
			VN	-1.53	-0.0006	±2.5	PASS		
			VH	-1.80	-0.0007	±2.5	PASS		
			VL	1.87	0.00075	±2.5	PASS		
		5	LCH	TN	VN	4.45	0.00178	±2.5	PASS
					VH	3.50	0.0014	±2.5	PASS
					VL	4.52	0.00178	±2.5	PASS
			MCH	TN	VN	0.92	0.00036	±2.5	PASS
					VH	3.52	0.00139	±2.5	PASS
					VL	2.30	0.0009	±2.5	PASS
	HCH		TN	VN	1.50	0.00058	±2.5	PASS	
				VH	6.28	0.00245	±2.5	PASS	
				VL	-0.53	-0.00021	±2.5	PASS	
	10		LCH	TN	VN	-0.11	-0.00004	±2.5	PASS
					VH	-1.09	-0.00044	±2.5	PASS
					VL	0.34	0.00013	±2.5	PASS
		MCH	TN	VN	1.20	0.00047	±2.5	PASS	
				VH	3.69	0.00146	±2.5	PASS	
				VL	1.07	0.00042	±2.5	PASS	
		HCH	TN	VN	1.86	0.00073	±2.5	PASS	
				VH	-0.26	-0.0001	±2.5	PASS	
				VL	0.23	0.00009	±2.5	PASS	
		15	LCH	TN	VN	-0.92	-0.00037	±2.5	PASS
					VH	-0.13	-0.00005	±2.5	PASS
					VL	0.49	0.00019	±2.5	PASS
	MCH		TN	VN	2.26	0.00089	±2.5	PASS	
				VH	-1.65	-0.00065	±2.5	PASS	
				VL	0.59	0.00023	±2.5	PASS	
	HCH		TN	VN	-1.92	-0.00075	±2.5	PASS	
				VH	-2.46	-0.00096	±2.5	PASS	
				VL	-1.37	-0.00055	±2.5	PASS	
	20		LCH	TN	VN	0.77	0.00031	±2.5	PASS
					VH	1.02	0.00041	±2.5	PASS
					VL	0.73	0.00029	±2.5	PASS
		MCH	TN	VN	-0.46	-0.00018	±2.5	PASS	
				VH	-1.46	-0.00058	±2.5	PASS	
				VL	1.65	0.00064	±2.5	PASS	
		HCH	TN	VN	1.43	0.00056	±2.5	PASS	
				VH	-1.52	-0.0006	±2.5	PASS	
				VL	0.37	0.00014	±2.5	PASS	

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Limit [dBm]	Verdict
					VN	1.76	0.00069	±2.5	PASS
					VH	-0.44	-0.00017	±2.5	PASS

8.1.2 Frequency Error vs. Voltage:

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Limit [dBm]	Verdict
BAND7	LTE/TM1	5	LCH	VN	-30	1.83	0.00073	±2.5	PASS
					-20	3.33	0.00133	±2.5	PASS
					-10	-0.11	-0.00004	±2.5	PASS
					0	2.25	0.0009	±2.5	PASS
					10	1.09	0.00044	±2.5	PASS
					20	3.19	0.00127	±2.5	PASS
					30	-0.49	-0.0002	±2.5	PASS
					40	1.36	0.00054	±2.5	PASS
			50	7.30	0.00292	±2.5	PASS		
			MCH	VN	-30	4.06	0.0016	±2.5	PASS
					-20	5.65	0.00223	±2.5	PASS
					-10	3.29	0.0013	±2.5	PASS
					0	1.42	0.00056	±2.5	PASS
					10	4.72	0.00186	±2.5	PASS
					20	0.86	0.00034	±2.5	PASS
					30	2.37	0.00093	±2.5	PASS
		40			2.36	0.00093	±2.5	PASS	
		50	-0.86	-0.00034	±2.5	PASS			
		HCH	VN	-30	3.08	0.0012	±2.5	PASS	
				-20	3.43	0.00134	±2.5	PASS	
				-10	-0.74	-0.00029	±2.5	PASS	
				0	-4.79	-0.00187	±2.5	PASS	
				10	10.89	0.00424	±2.5	PASS	
				20	0.16	0.00006	±2.5	PASS	
				30	2.39	0.00093	±2.5	PASS	
				40	2.88	0.00112	±2.5	PASS	
		50	0.01	0	±2.5	PASS			
		10	LCH	VN	-30	0.67	0.00027	±2.5	PASS
					-20	0.67	0.00027	±2.5	PASS
					-10	1.50	0.0006	±2.5	PASS
					0	-3.38	-0.00135	±2.5	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Limit [dBm]	Verdict	
		15			10	-0.27	-0.00011	±2.5	PASS	
					20	-1.59	-0.00063	±2.5	PASS	
					30	-1.04	-0.00042	±2.5	PASS	
					40	0.31	0.00012	±2.5	PASS	
					50	1.63	0.00065	±2.5	PASS	
			MCH	VN	-30	-0.41	-0.00016	±2.5	PASS	
					-20	1.50	0.00059	±2.5	PASS	
					-10	4.82	0.0019	±2.5	PASS	
					0	0.73	0.00029	±2.5	PASS	
					10	-5.38	-0.00212	±2.5	PASS	
					20	-0.50	-0.0002	±2.5	PASS	
					30	2.92	0.00115	±2.5	PASS	
					40	1.40	0.00055	±2.5	PASS	
			HCH	VN	-30	1.79	0.0007	±2.5	PASS	
					-20	2.70	0.00105	±2.5	PASS	
					-10	1.69	0.00066	±2.5	PASS	
					0	2.66	0.00104	±2.5	PASS	
					10	-2.15	-0.00084	±2.5	PASS	
					20	-0.93	-0.00036	±2.5	PASS	
					30	3.03	0.00118	±2.5	PASS	
					40	-0.73	-0.00028	±2.5	PASS	
			LCH	VN	-30	-0.01	0	±2.5	PASS	
					-20	-1.30	-0.00052	±2.5	PASS	
					-10	-1.13	-0.00045	±2.5	PASS	
		0			-1.14	-0.00045	±2.5	PASS		
		10			-0.84	-0.00033	±2.5	PASS		
		20			0.43	0.00017	±2.5	PASS		
		30			0.53	0.00021	±2.5	PASS		
		40			1.93	0.00077	±2.5	PASS		
		50			2.32	0.00093	±2.5	PASS		
		MCH			VN	-30	0.40	0.00016	±2.5	PASS
						-20	-1.75	-0.00069	±2.5	PASS
						-10	0.46	0.00018	±2.5	PASS
			0	0.13		0.00005	±2.5	PASS		
			10	-2.86		-0.00113	±2.5	PASS		
			20	1.09		0.00043	±2.5	PASS		
30	-0.47		-0.00019	±2.5		PASS				



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Limit [dBm]	Verdict		
					40	-4.28	-0.00169	±2.5	PASS		
					50	-1.26	-0.0005	±2.5	PASS		
			HCH	VN	-30	-0.56	-0.00022	±2.5	PASS		
					-20	0.80	0.00031	±2.5	PASS		
					-10	-0.21	-0.00008	±2.5	PASS		
					0	1.95	0.00076	±2.5	PASS		
					10	0.72	0.00028	±2.5	PASS		
					20	-0.49	-0.00019	±2.5	PASS		
					30	-1.46	-0.00057	±2.5	PASS		
					40	-1.92	-0.00075	±2.5	PASS		
		50	-1.33	-0.00052	±2.5	PASS					
					LCH	VN	-30	0.17	0.00007	±2.5	PASS
							-20	0.34	0.00014	±2.5	PASS
							-10	-0.69	-0.00027	±2.5	PASS
							0	-0.64	-0.00025	±2.5	PASS
							10	-0.57	-0.00023	±2.5	PASS
							20	-1.79	-0.00071	±2.5	PASS
							30	0.83	0.00033	±2.5	PASS
							40	-1.26	-0.0005	±2.5	PASS
							50	-0.31	-0.00012	±2.5	PASS
										MCH	VN
		-20	-0.31	-0.00012	±2.5	PASS					
		-10	-0.60	-0.00024	±2.5	PASS					
		0	1.53	0.0006	±2.5	PASS					
		10	1.47	0.00058	±2.5	PASS					
		20	-0.96	-0.00038	±2.5	PASS					
		30	1.19	0.00047	±2.5	PASS					
		40	1.34	0.00053	±2.5	PASS					
		50	4.92	0.00194	±2.5	PASS					
					HCH	VN					
							-20	-0.04	-0.00002	±2.5	PASS
							-10	-1.06	-0.00041	±2.5	PASS
							0	1.03	0.0004	±2.5	PASS
							10	1.23	0.00048	±2.5	PASS
							20	-0.96	-0.00038	±2.5	PASS
							30	-0.10	-0.00004	±2.5	PASS
							40	0.17	0.00007	±2.5	PASS
							50	0.24	0.00009	±2.5	PASS
								LTE/TM2	5	LCH	VN



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Limit [dBm]	Verdict
		10			-20	3.10	0.00124	±2.5	PASS
					-10	-2.25	-0.0009	±2.5	PASS
					0	2.20	0.00088	±2.5	PASS
					10	2.78	0.00111	±2.5	PASS
					20	2.55	0.00102	±2.5	PASS
					30	0.27	0.00011	±2.5	PASS
					40	-0.89	-0.00036	±2.5	PASS
					50	4.62	0.00185	±2.5	PASS
			MCH	VN	-30	1.14	0.00045	±2.5	PASS
					-20	2.75	0.00108	±2.5	PASS
					-10	4.25	0.00168	±2.5	PASS
					0	2.93	0.00116	±2.5	PASS
					10	2.40	0.00095	±2.5	PASS
					20	1.79	0.00071	±2.5	PASS
					30	1.66	0.00065	±2.5	PASS
					40	2.36	0.00093	±2.5	PASS
			HCH	VN	-30	2.05	0.0008	±2.5	PASS
					-20	2.45	0.00095	±2.5	PASS
					-10	10.14	0.00395	±2.5	PASS
					0	-1.46	-0.00057	±2.5	PASS
					10	1.16	0.00045	±2.5	PASS
					20	5.51	0.00215	±2.5	PASS
					30	1.49	0.00058	±2.5	PASS
					40	2.75	0.00107	±2.5	PASS
			LCH	VN	-30	1.86	0.00074	±2.5	PASS
					-20	-0.53	-0.00021	±2.5	PASS
					-10	0.53	0.00021	±2.5	PASS
					0	-1.16	-0.00046	±2.5	PASS
		10			-0.72	-0.00029	±2.5	PASS	
		20			-2.10	-0.00084	±2.5	PASS	
		30			2.23	0.00089	±2.5	PASS	
		40			1.16	0.00046	±2.5	PASS	
		MCH	VN	-30	0.17	0.00007	±2.5	PASS	
				-20	2.90	0.00114	±2.5	PASS	
				-10	0.24	0.00009	±2.5	PASS	
				0	-0.06	-0.00002	±2.5	PASS	



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Limit [dBm]	Verdict
				VN	10	-0.80	-0.00032	±2.5	PASS
					20	0.46	0.00018	±2.5	PASS
					30	1.72	0.00068	±2.5	PASS
					40	1.75	0.00069	±2.5	PASS
					50	0.69	0.00027	±2.5	PASS
			HCH		-30	0.86	0.00034	±2.5	PASS
					-20	2.98	0.00116	±2.5	PASS
					-10	2.40	0.00094	±2.5	PASS
					0	1.13	0.00044	±2.5	PASS
					10	-1.14	-0.00044	±2.5	PASS
					20	2.43	0.00095	±2.5	PASS
					30	2.39	0.00093	±2.5	PASS
					40	1.02	0.0004	±2.5	PASS
					50	1.34	0.00052	±2.5	PASS
					LCH	-30	0.74	0.0003	±2.5
			-20			1.53	0.00061	±2.5	PASS
			-10			-1.52	-0.00061	±2.5	PASS
			0			-1.27	-0.00051	±2.5	PASS
			10			0.79	0.00032	±2.5	PASS
			20			-0.60	-0.00024	±2.5	PASS
		30	2.36	0.00094		±2.5	PASS		
		40	-0.56	-0.00022		±2.5	PASS		
		MCH	50	1.33	0.00053	±2.5	PASS		
			-30	1.37	0.00054	±2.5	PASS		
			-20	0.50	0.0002	±2.5	PASS		
			-10	0.36	0.00014	±2.5	PASS		
			0	1.52	0.0006	±2.5	PASS		
			10	0.29	0.00011	±2.5	PASS		
			20	-2.82	-0.00111	±2.5	PASS		
			30	0.21	0.00008	±2.5	PASS		
		40	-1.44	-0.00057	±2.5	PASS			
		HCH	50	-0.37	-0.00015	±2.5	PASS		
			-30	0.07	0.00003	±2.5	PASS		
			-20	0.33	0.00013	±2.5	PASS		
			-10	1.63	0.00064	±2.5	PASS		
			0	0.50	0.0002	±2.5	PASS		
			10	-0.56	-0.00022	±2.5	PASS		
			20	0.11	0.00004	±2.5	PASS		
		30	2.20	0.00086	±2.5	PASS			



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Limit [dBm]	Verdict
					40	1.26	0.00049	±2.5	PASS
					50	0.01	0	±2.5	PASS
		20	LCH	VN	-30	0.26	0.0001	±2.5	PASS
					-20	-0.10	-0.00004	±2.5	PASS
					-10	1.04	0.00041	±2.5	PASS
					0	-1.93	-0.00077	±2.5	PASS
					10	0.64	0.00025	±2.5	PASS
					20	-1.92	-0.00076	±2.5	PASS
					30	0.21	0.00008	±2.5	PASS
					40	-0.34	-0.00014	±2.5	PASS
					50	-0.92	-0.00037	±2.5	PASS
			MCH	VN	-30	0.41	0.00016	±2.5	PASS
					-20	1.57	0.00062	±2.5	PASS
					-10	-0.49	-0.00019	±2.5	PASS
					0	-0.59	-0.00023	±2.5	PASS
					10	0.63	0.00025	±2.5	PASS
					20	1.33	0.00052	±2.5	PASS
					30	0.07	0.00003	±2.5	PASS
					40	0.07	0.00003	±2.5	PASS
					50	-1.26	-0.0005	±2.5	PASS
		HCH	VN	-30	-0.80	-0.00031	±2.5	PASS	
				-20	-0.51	-0.0002	±2.5	PASS	
				-10	0.29	0.00011	±2.5	PASS	
				0	0.82	0.00032	±2.5	PASS	
				10	-0.03	-0.00001	±2.5	PASS	
				20	0.73	0.00029	±2.5	PASS	
				30	-0.16	-0.00006	±2.5	PASS	
				40	-0.69	-0.00027	±2.5	PASS	
		50	0.23	0.00009	±2.5	PASS			

END