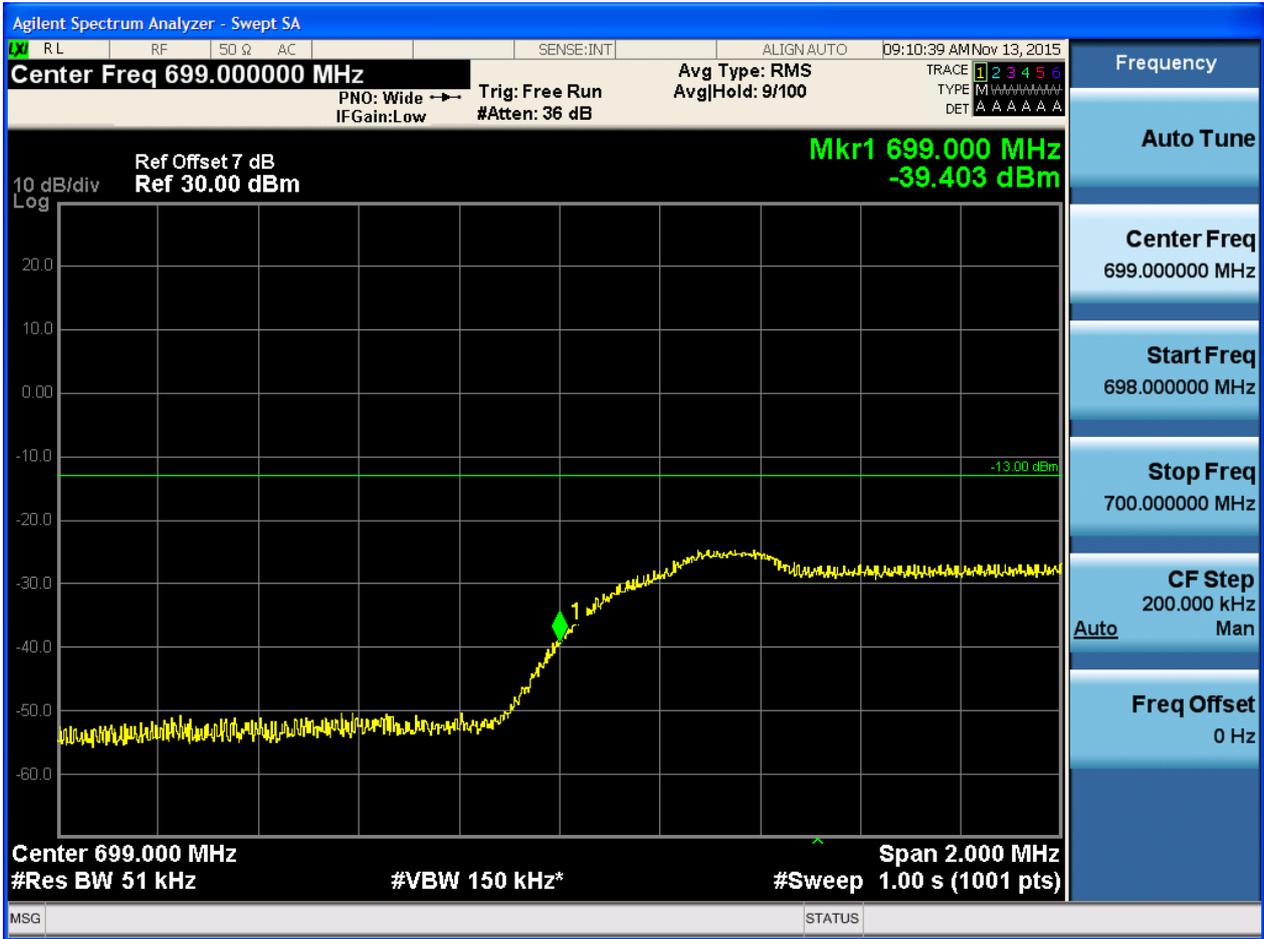




5.1.1.2.3.1.2 Test RB = RB1#24



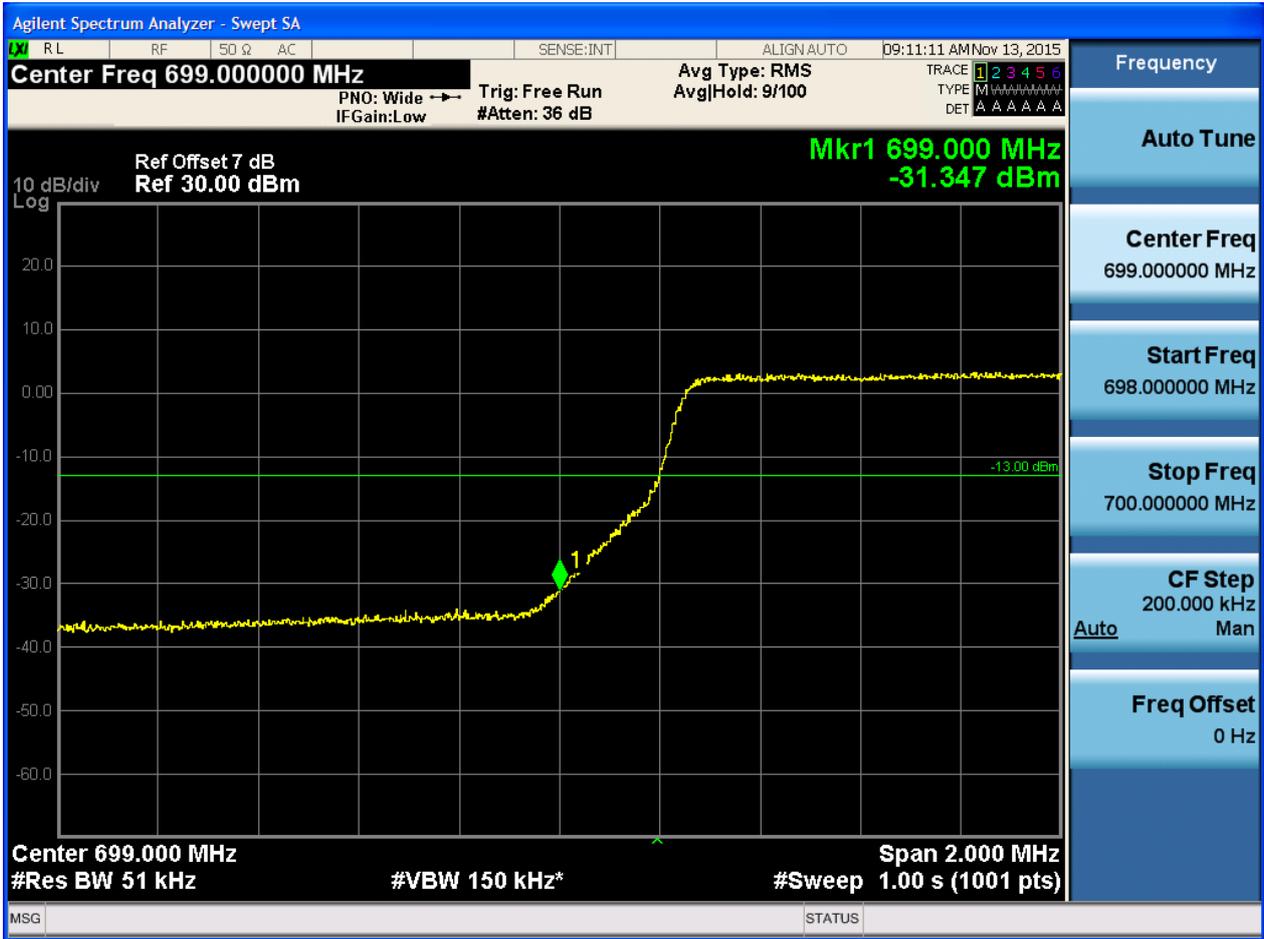


5.1.1.2.3.1.3 Test RB = RB12#6





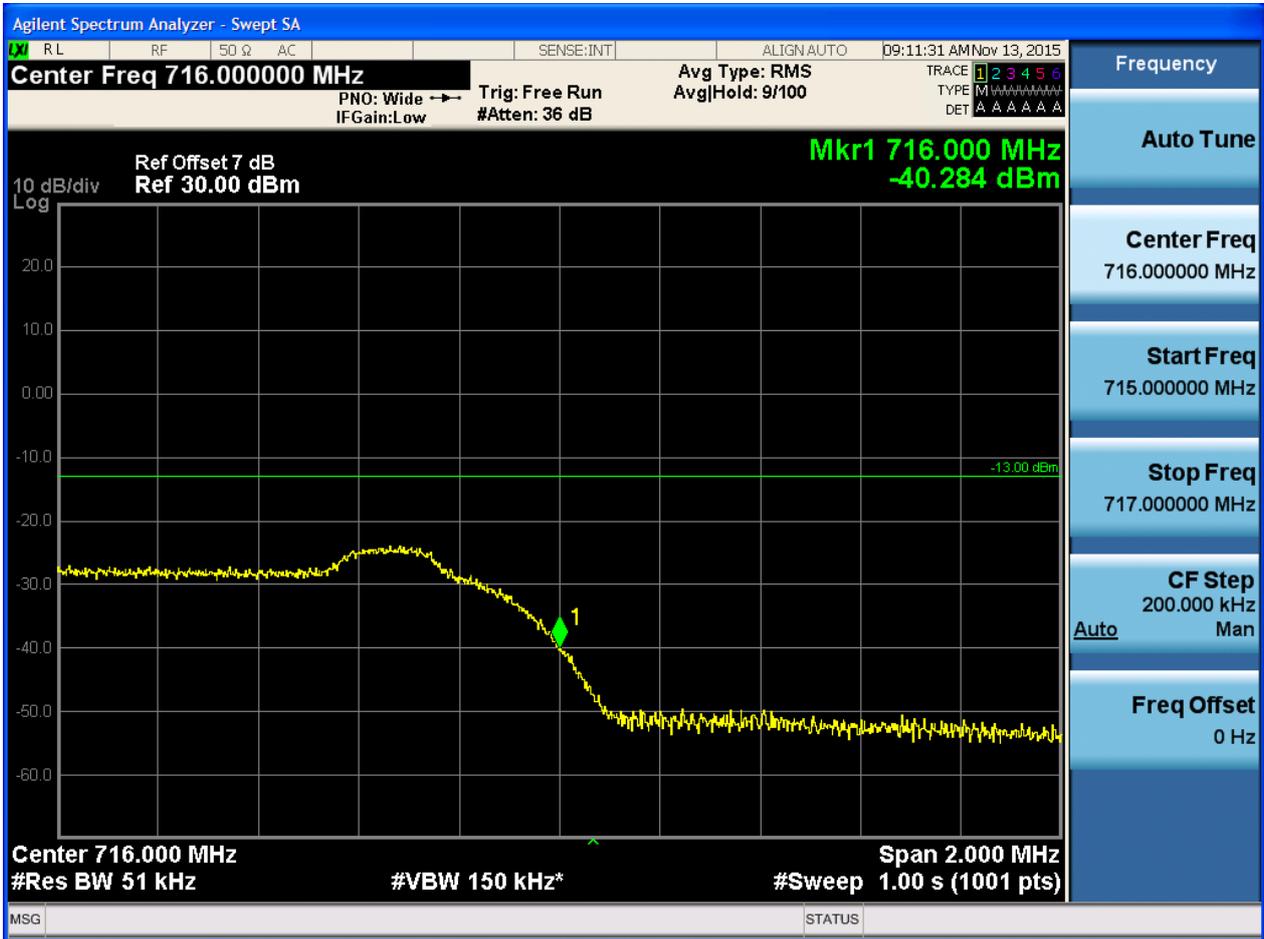
5.1.1.2.3.1.4 Test RB = RB25#0





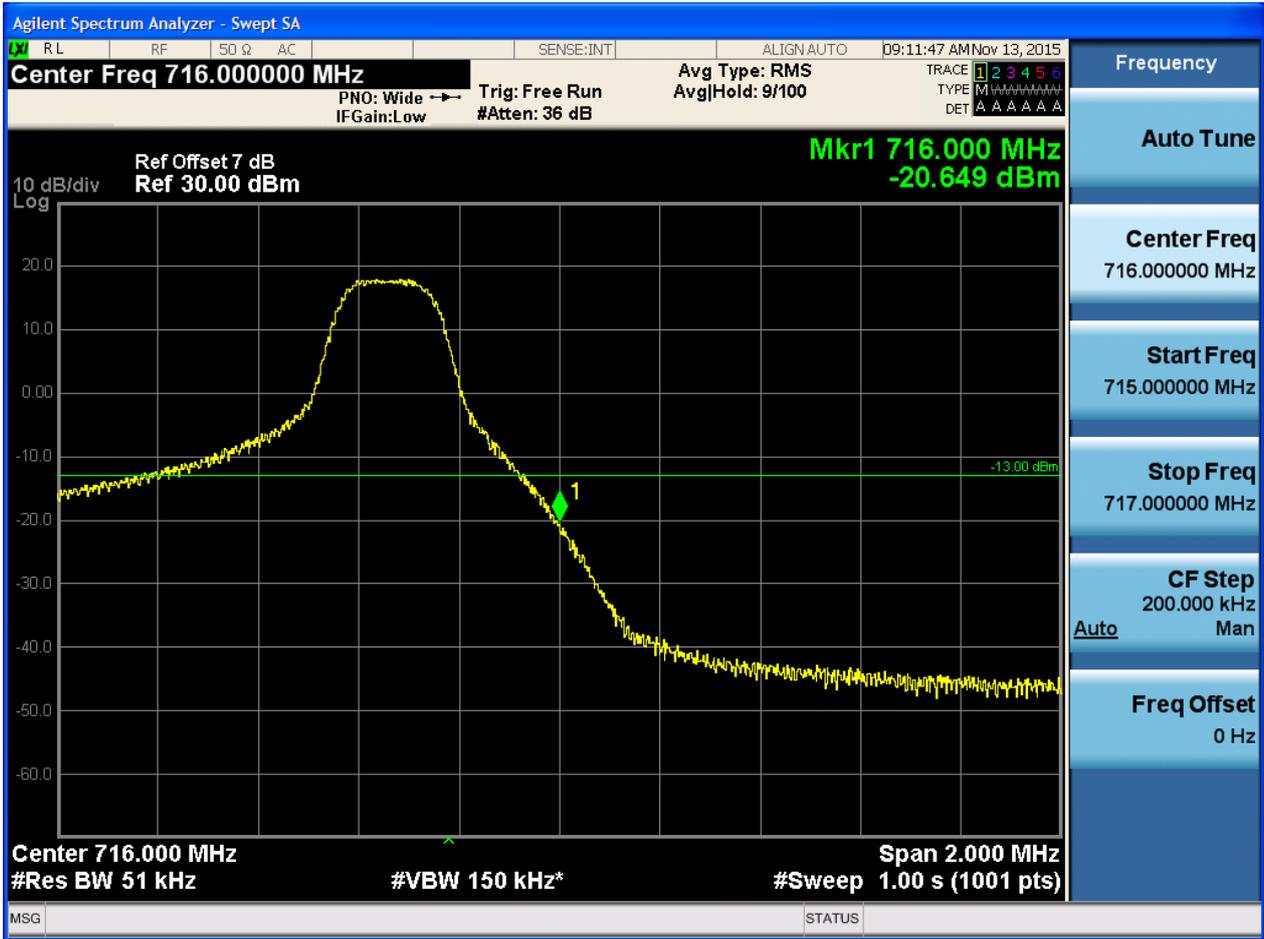
5.1.1.2.3.2 Test Channel = HCH

5.1.1.2.3.2.1 Test RB = RB1#0





5.1.1.2.3.2.2 Test RB = RB1#24





5.1.1.2.3.2.3 Test RB = RB12#6





5.1.1.2.3.2.4 Test RB = RB25#0

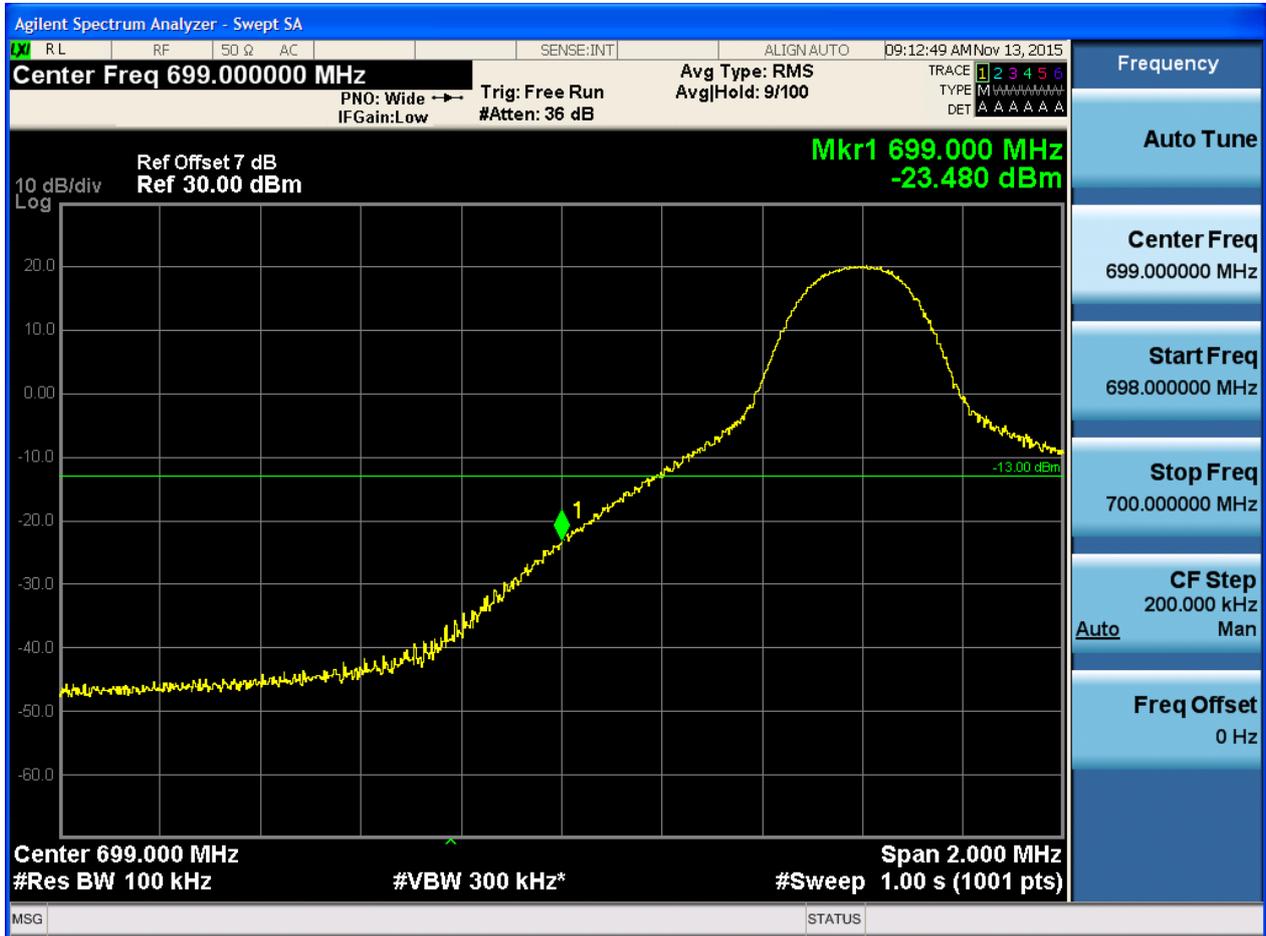




5.1.1.2.4 Test Bandwidth = 10

5.1.1.2.4.1 Test Channel = LCH

5.1.1.2.4.1.1 Test RB = RB1#0



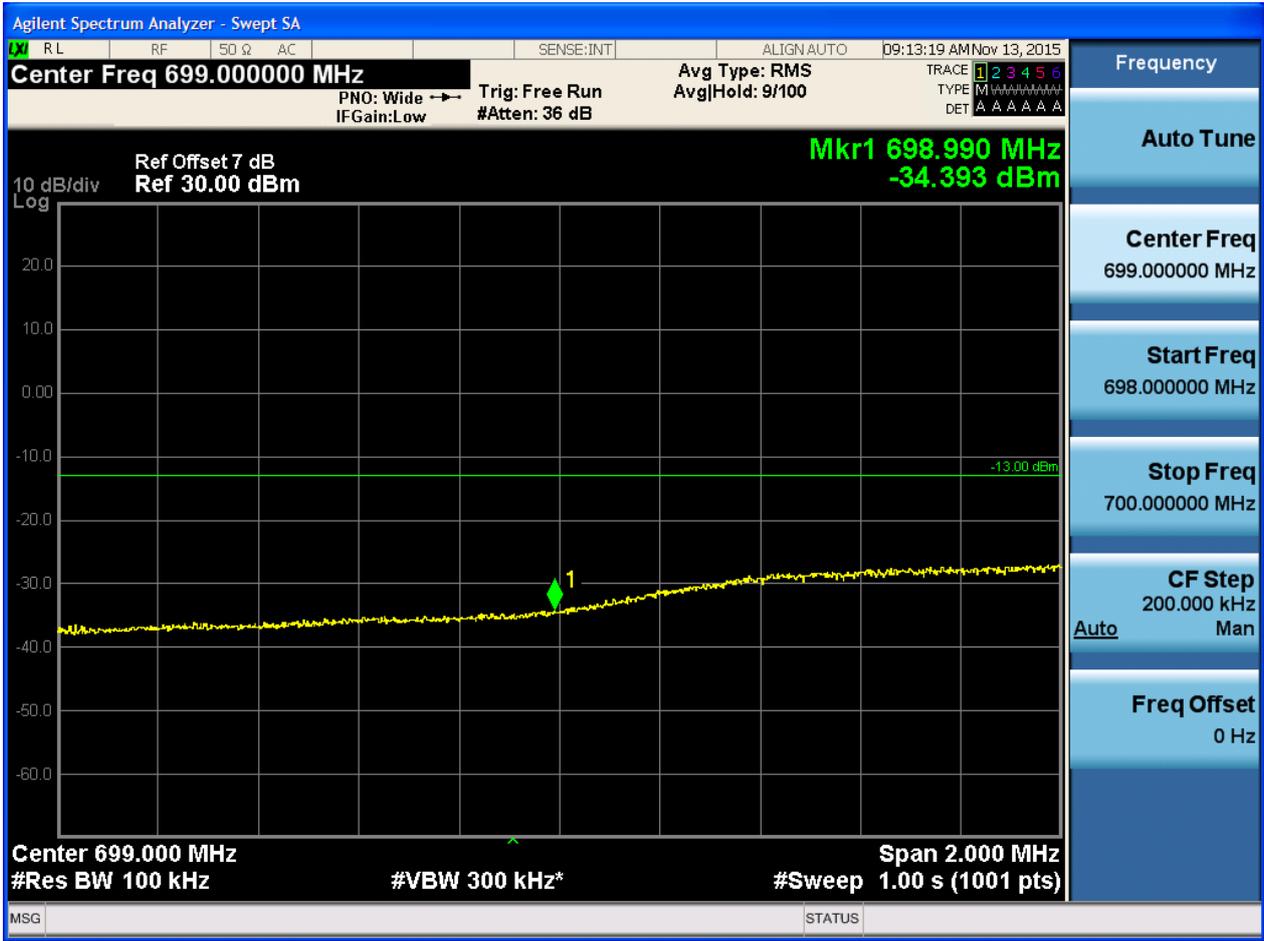


5.1.1.2.4.1.2 Test RB = RB1#49





5.1.1.2.4.1.3 Test RB = RB25#13





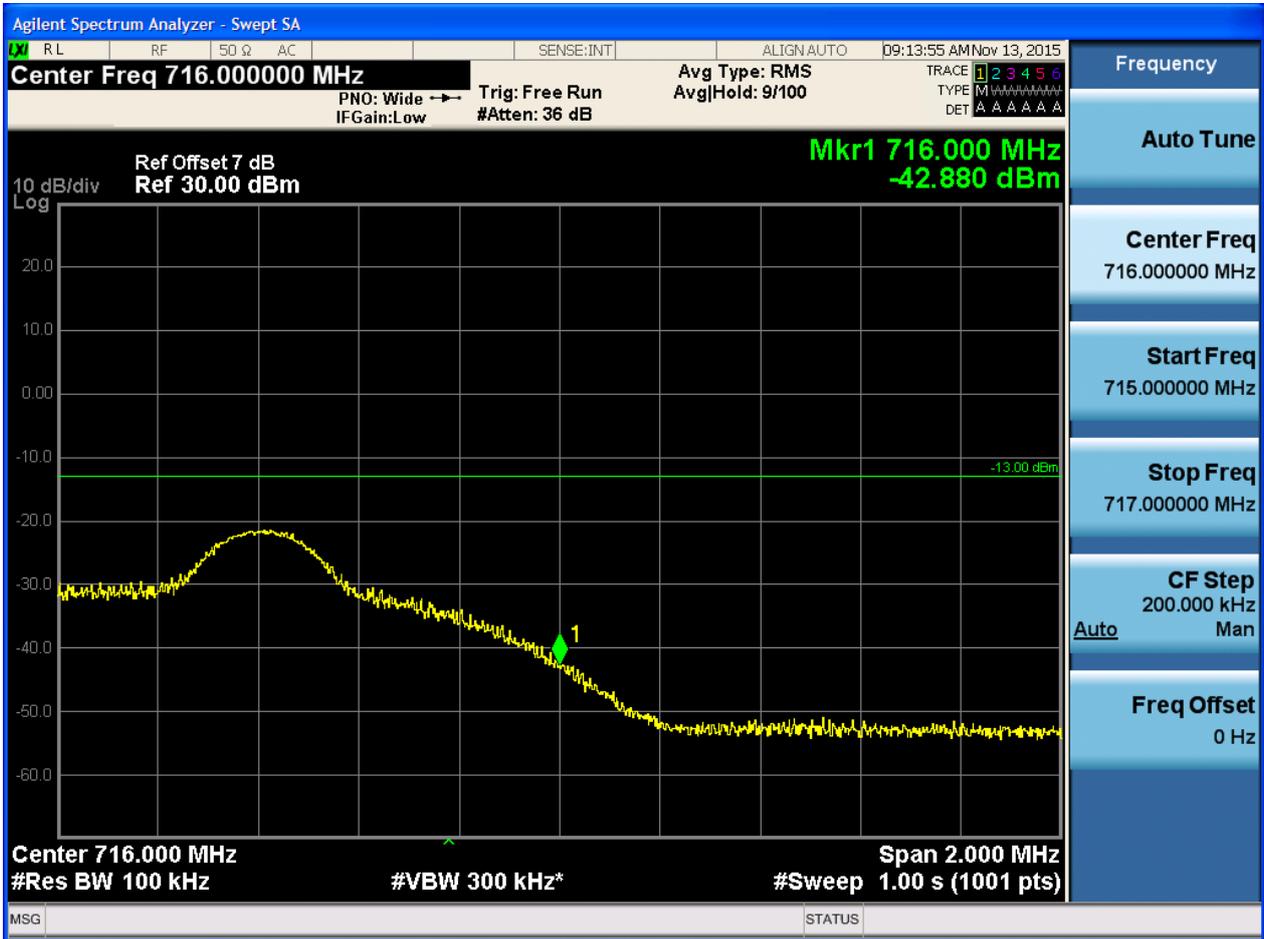
5.1.1.2.4.1.4 Test RB = RB50#0





5.1.1.2.4.2 Test Channel = HCH

5.1.1.2.4.2.1 Test RB = RB1#0



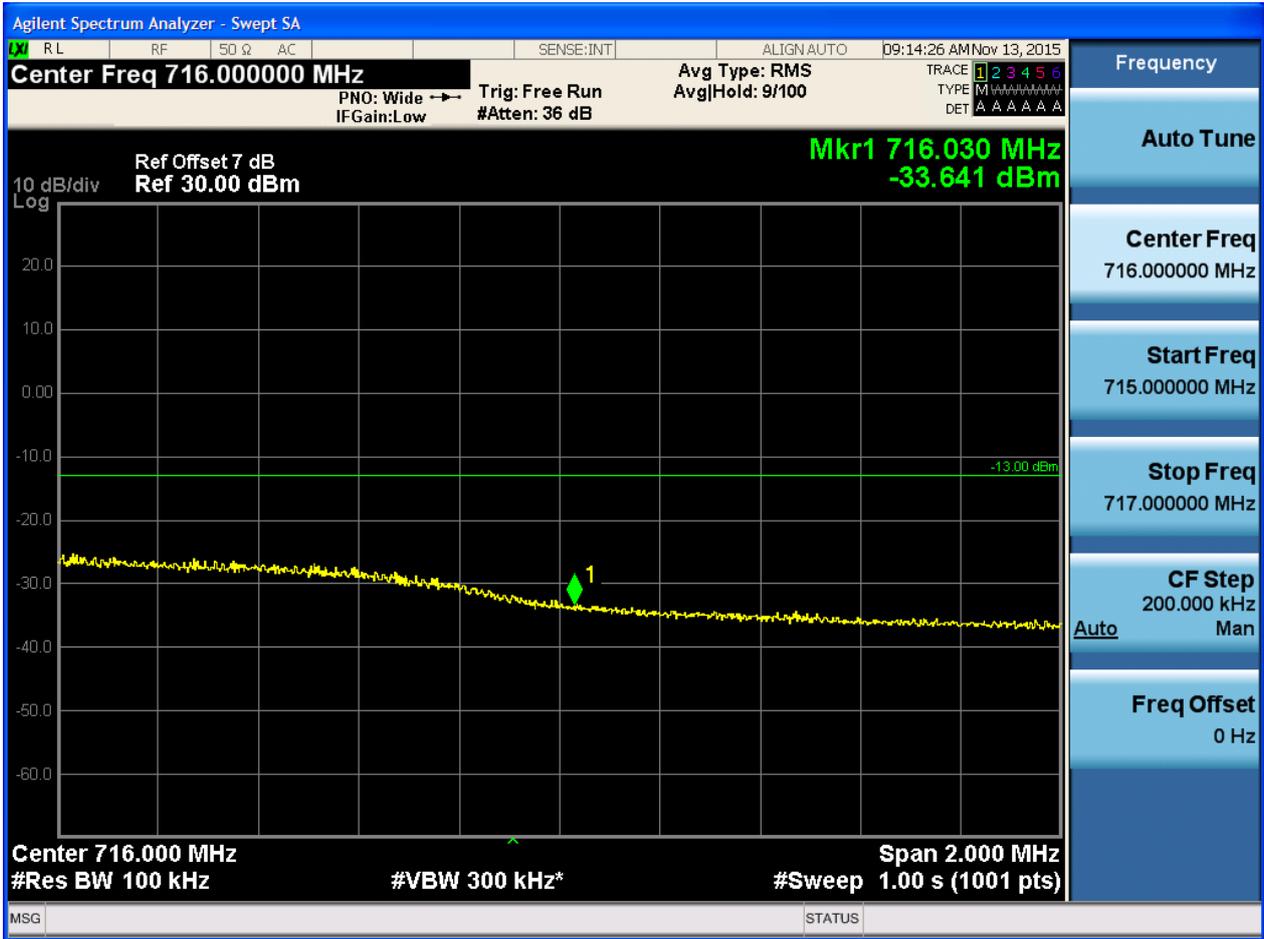


5.1.1.2.4.2.2 Test RB = RB1#49





5.1.1.2.4.2.3 Test RB = RB25#13





5.1.1.2.4.2.4 Test RB = RB50#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

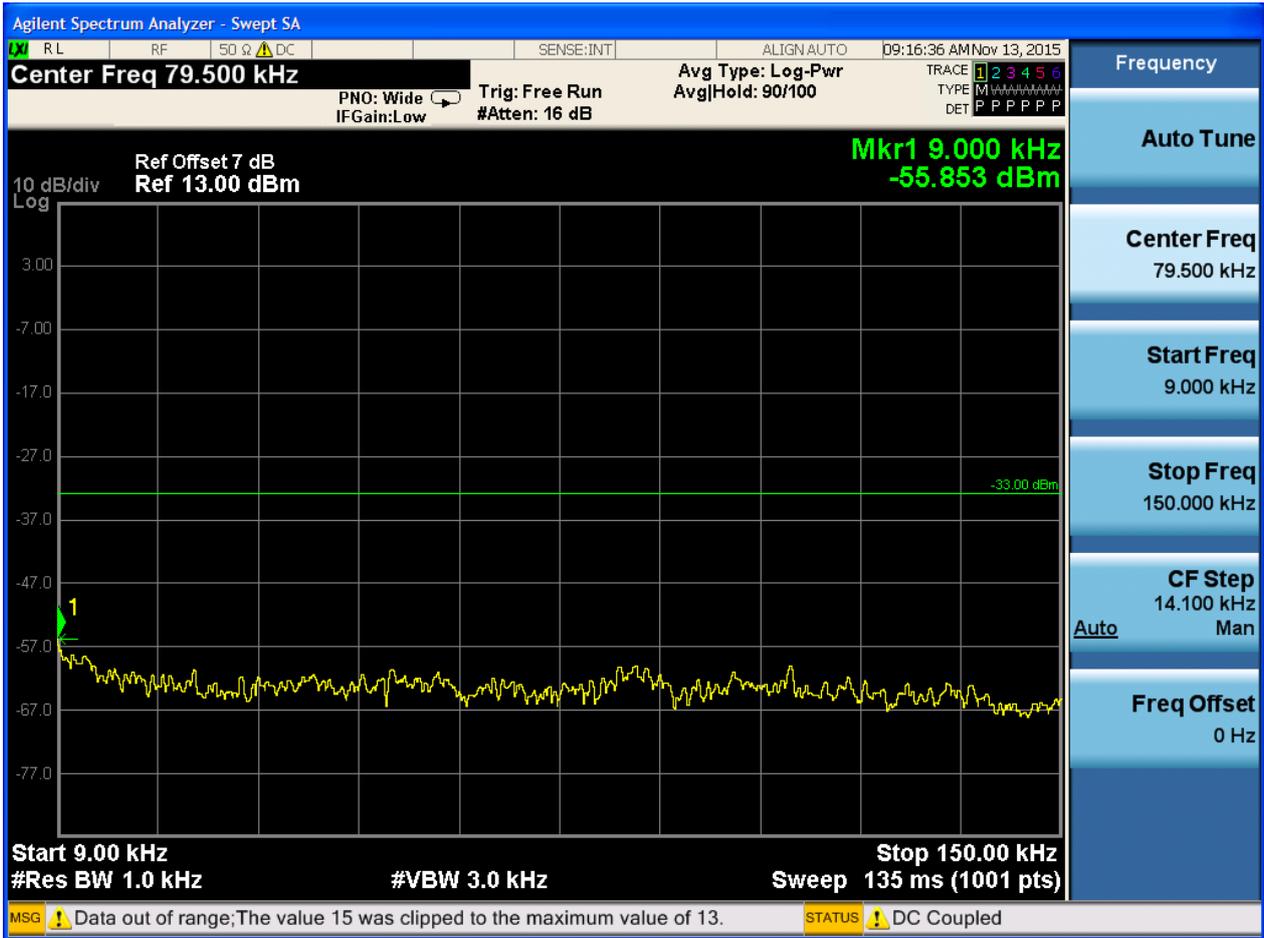
6.1.1 Test Band = BAND12

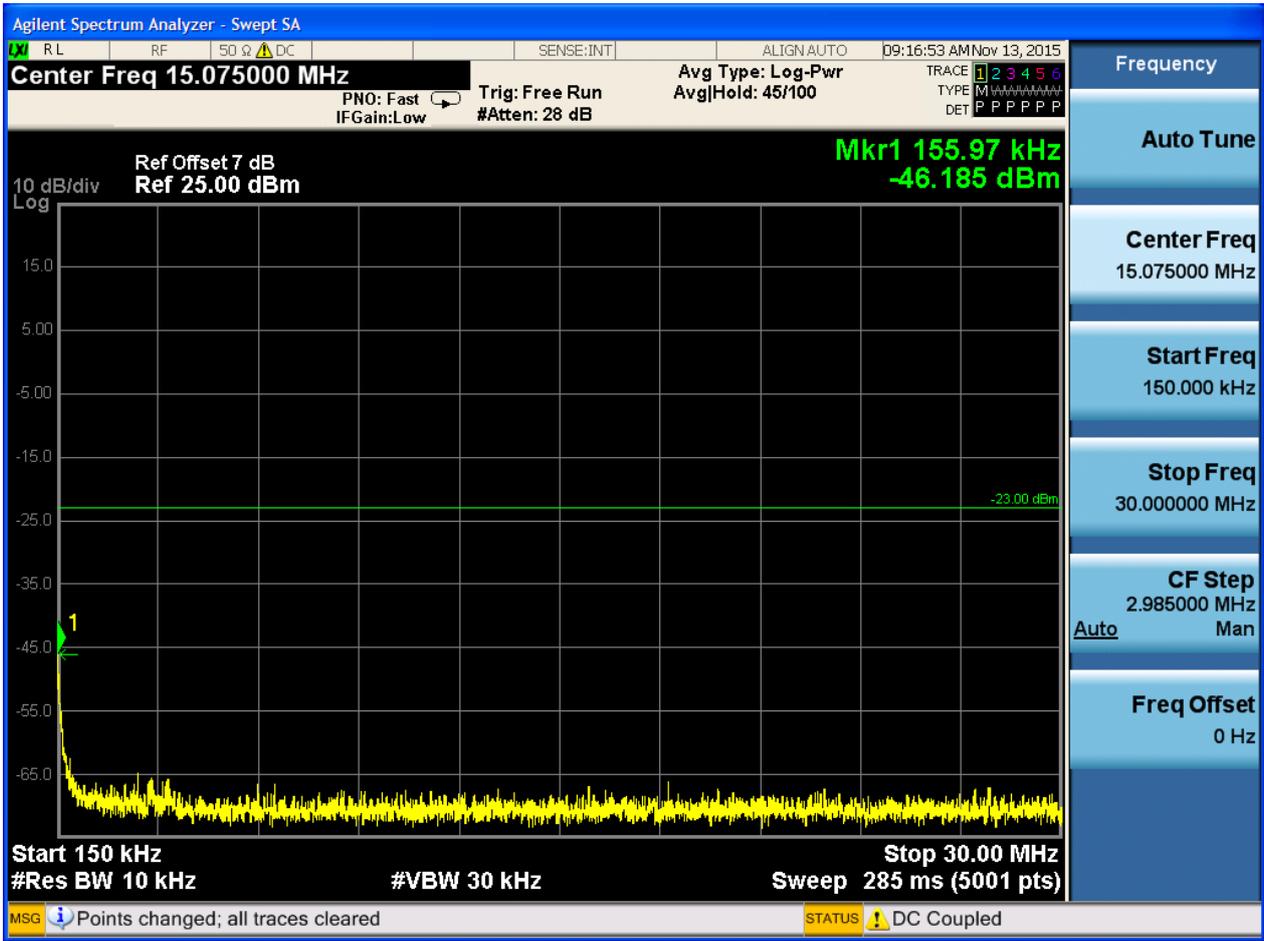
6.1.1.1 Test Mode = LTE/TM1

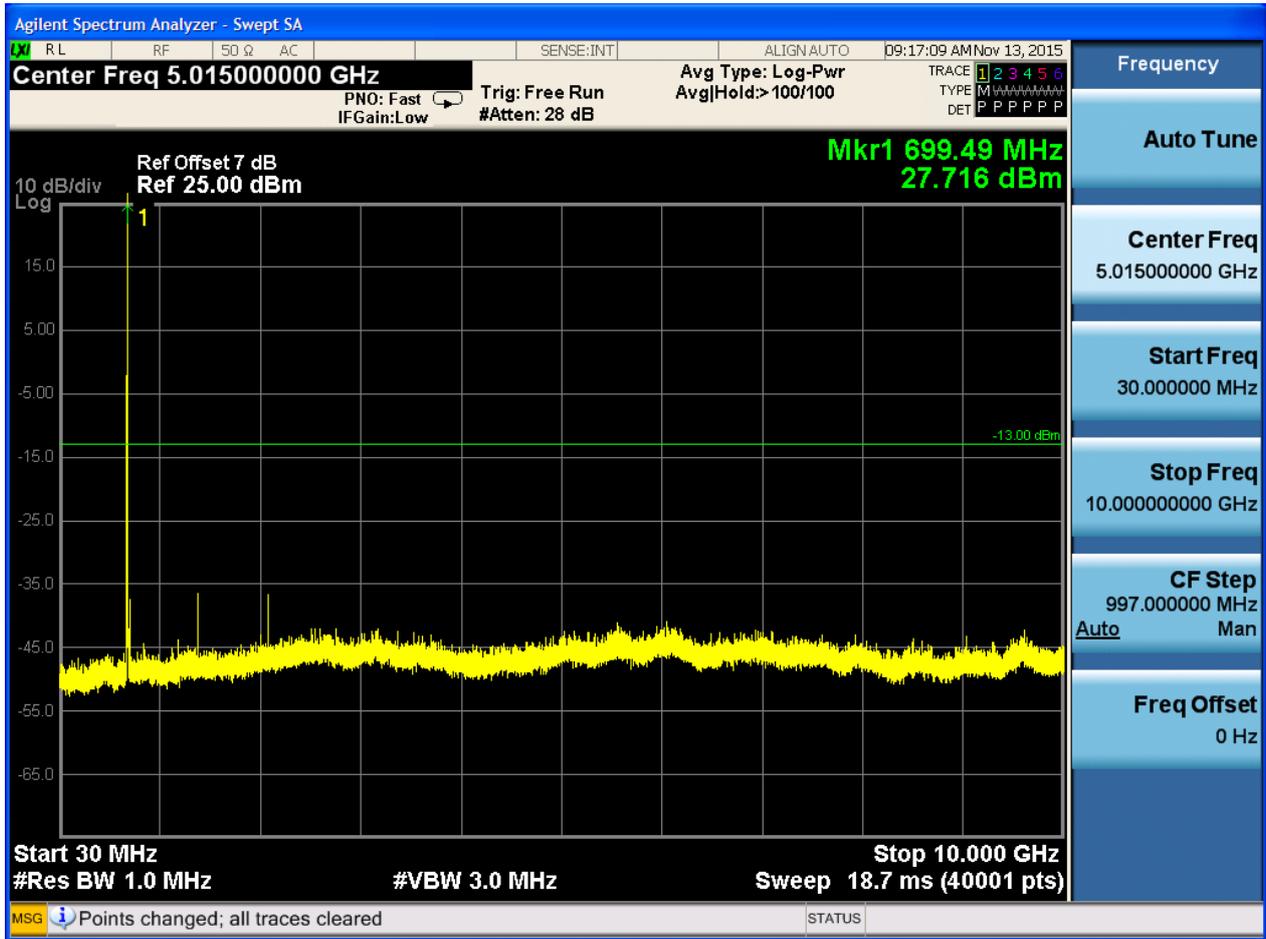
6.1.1.1.1 Test Bandwidth = 1.4

6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0

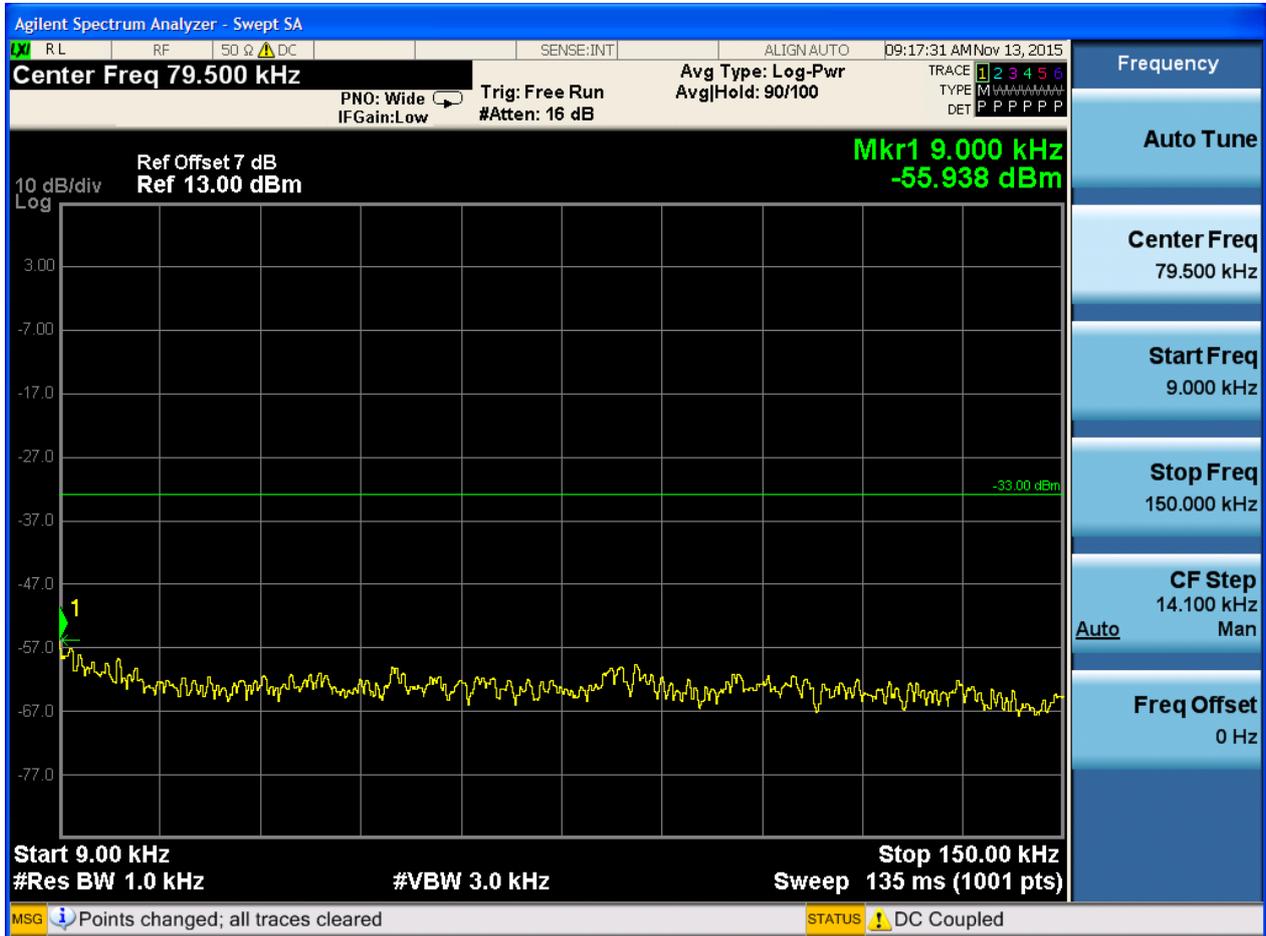


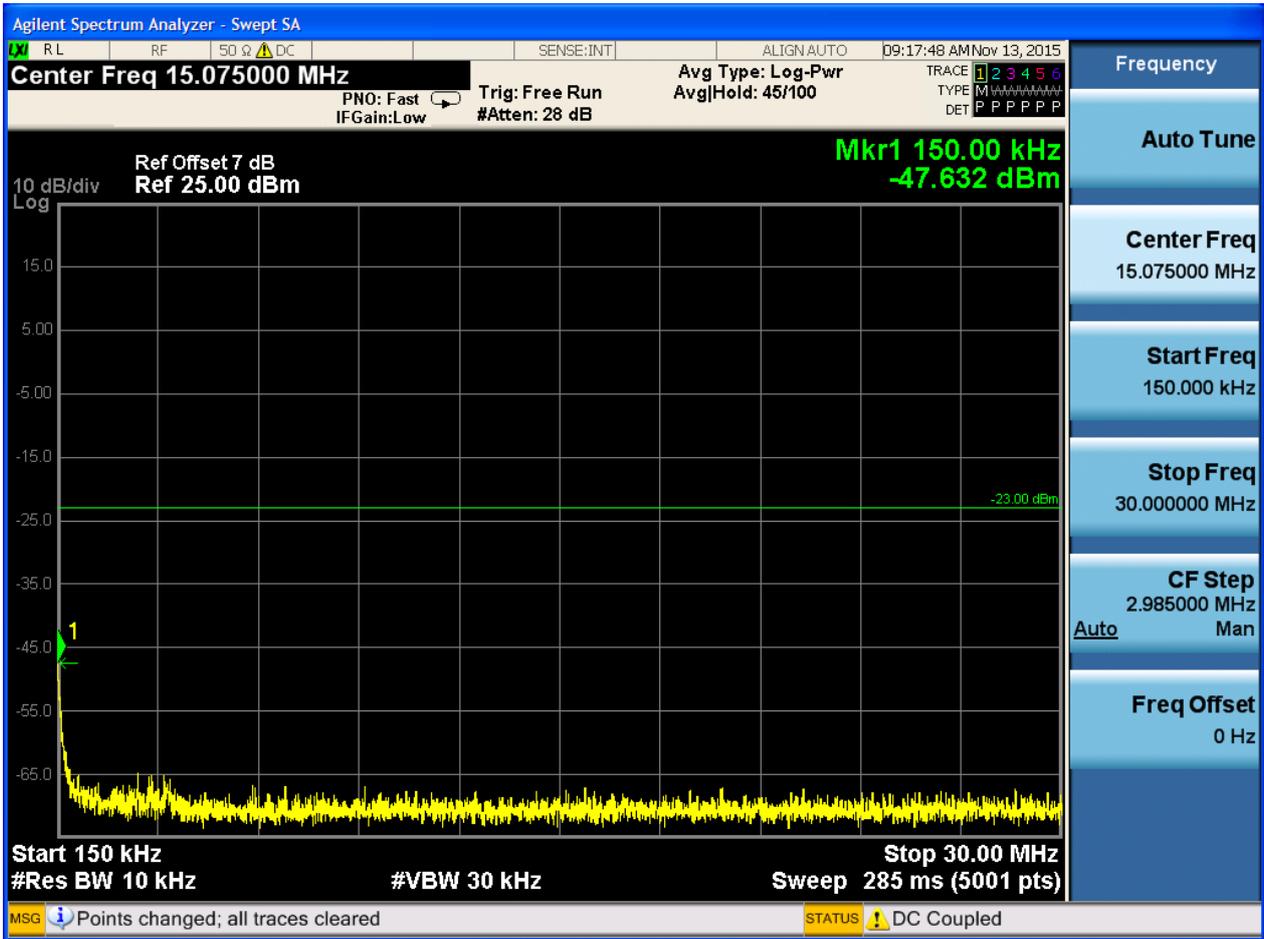




6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0

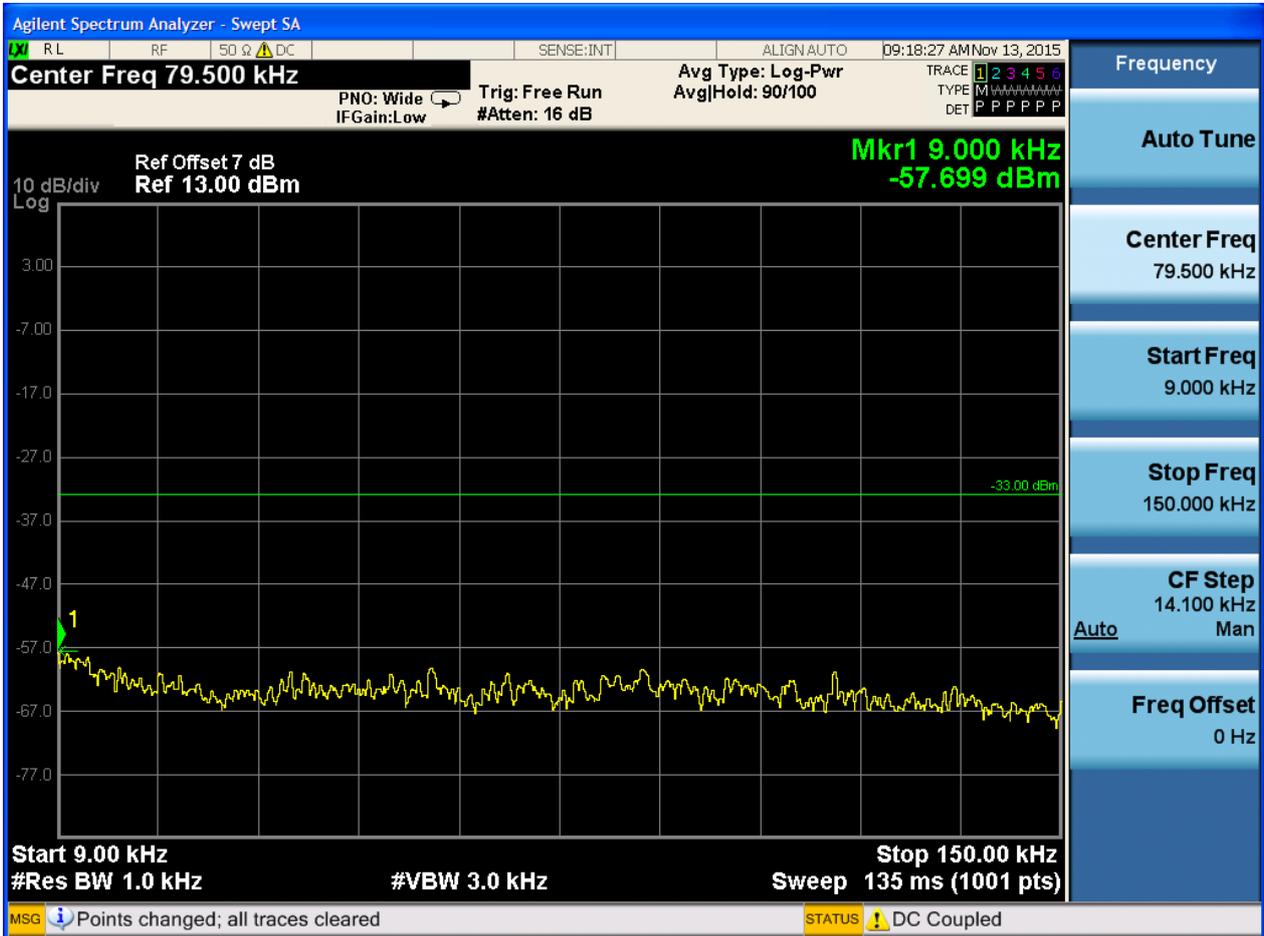




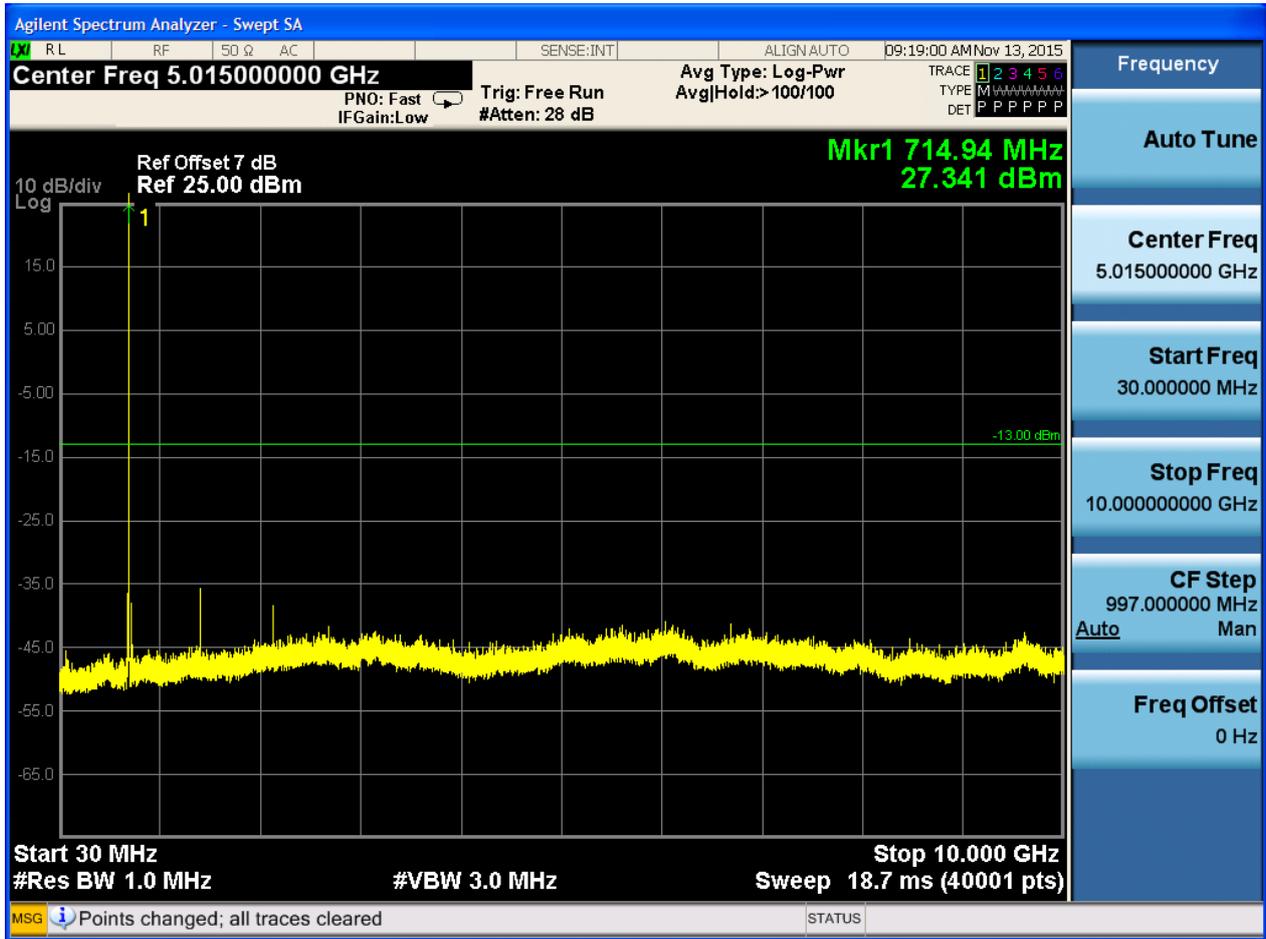


6.1.1.1.3 Test Channel = HCH

6.1.1.1.3.1 Test RB = RB1#0





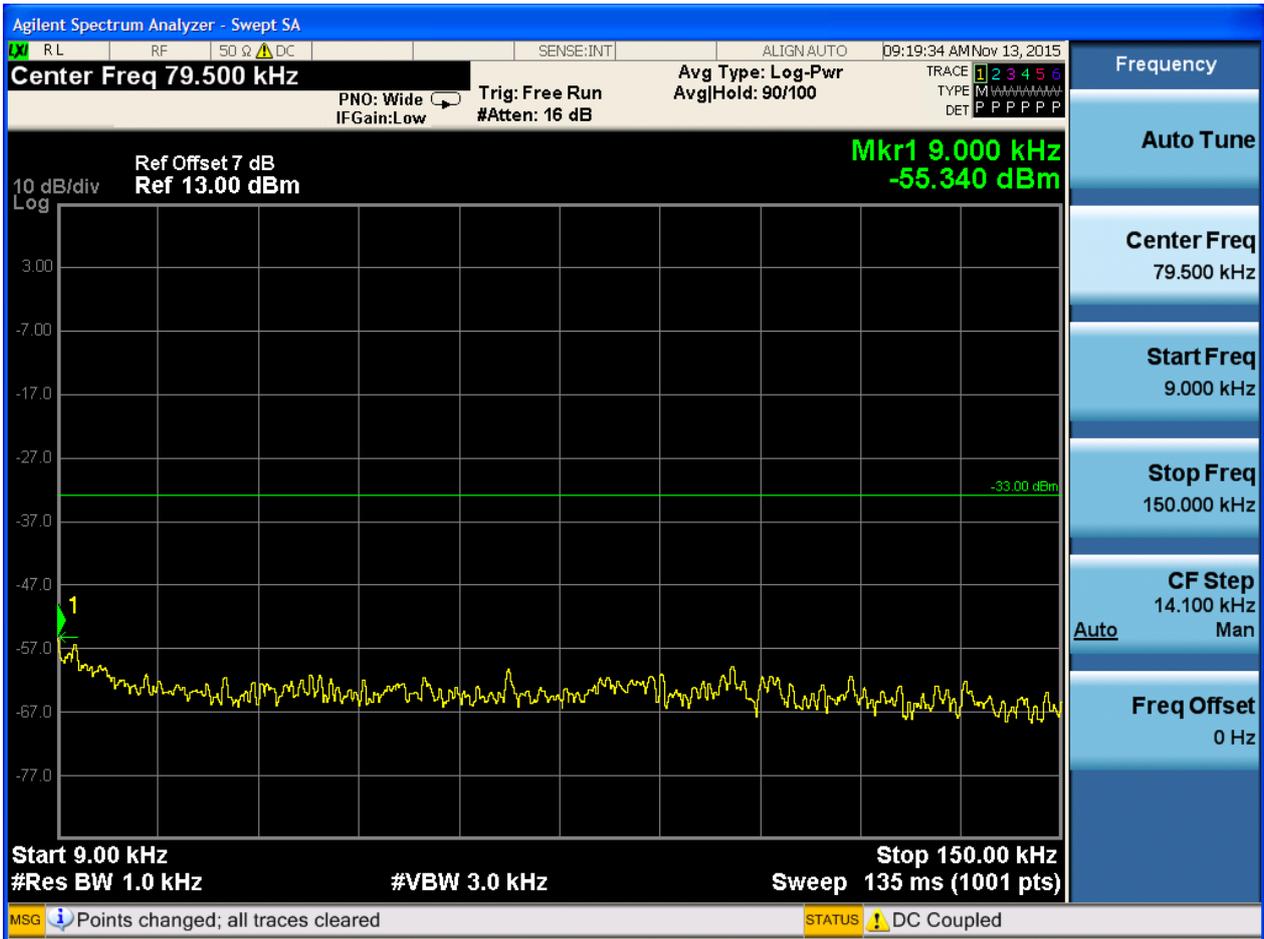




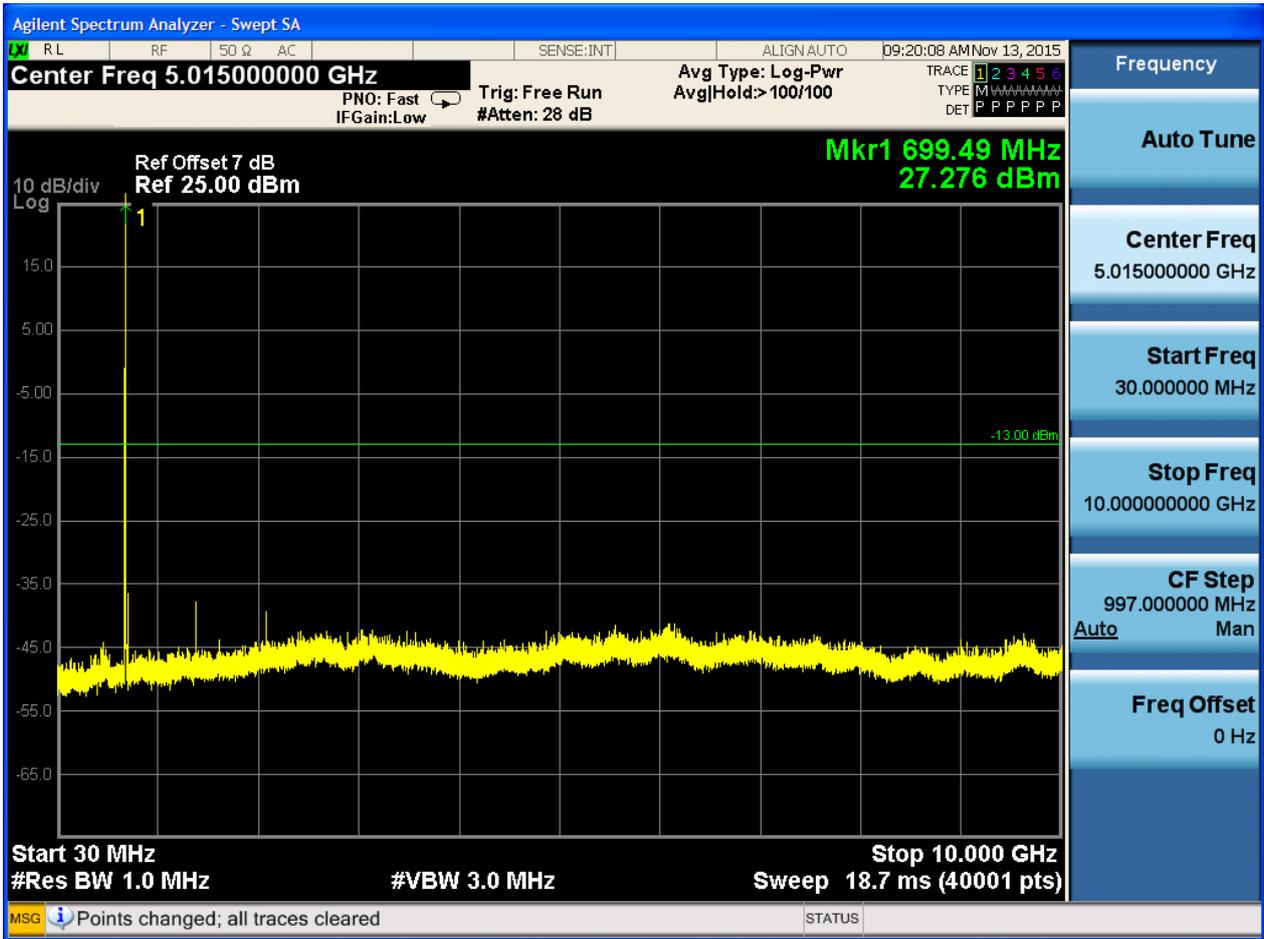
6.1.1.1.2 Test Bandwidth = 3

6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0



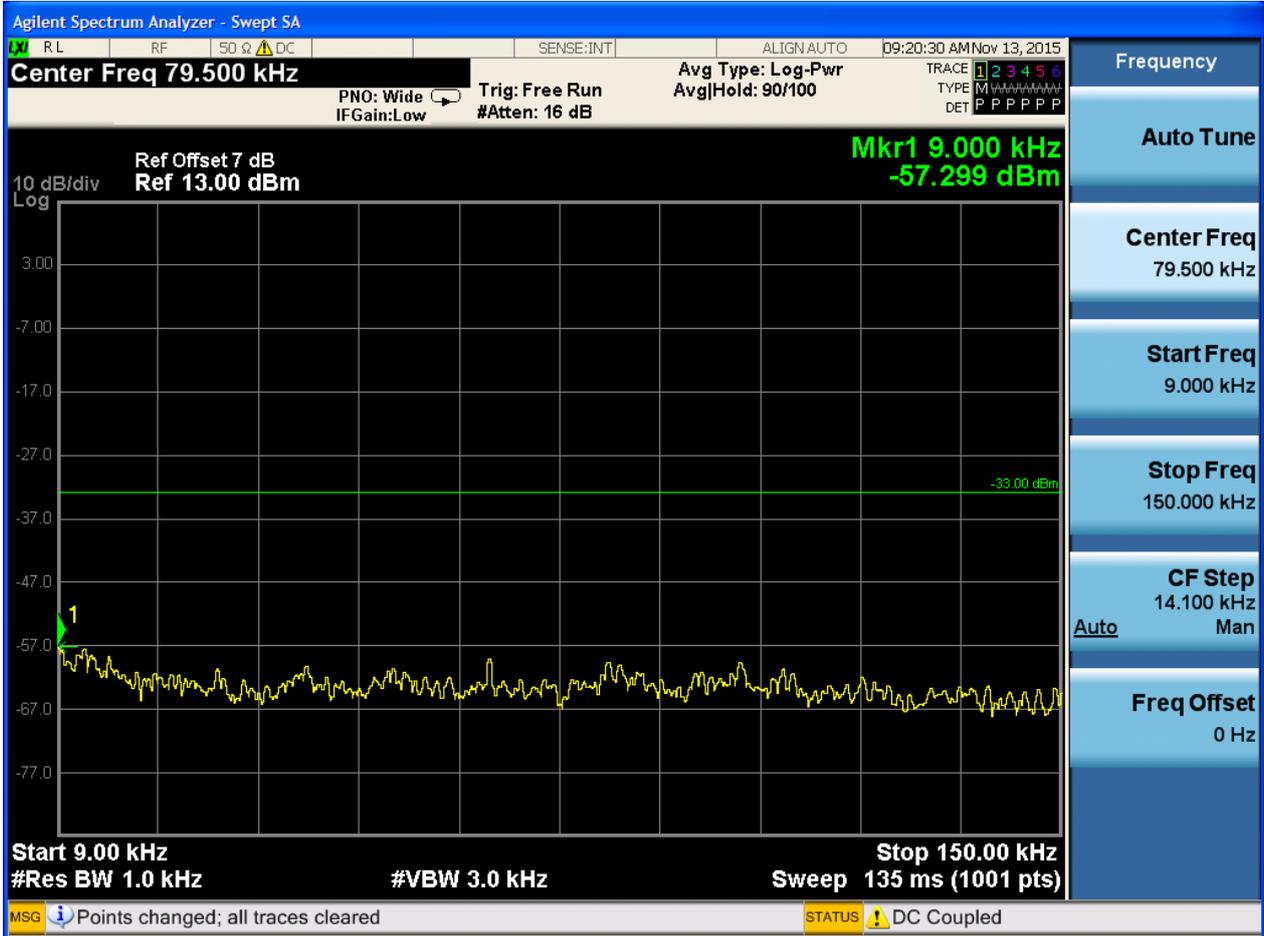




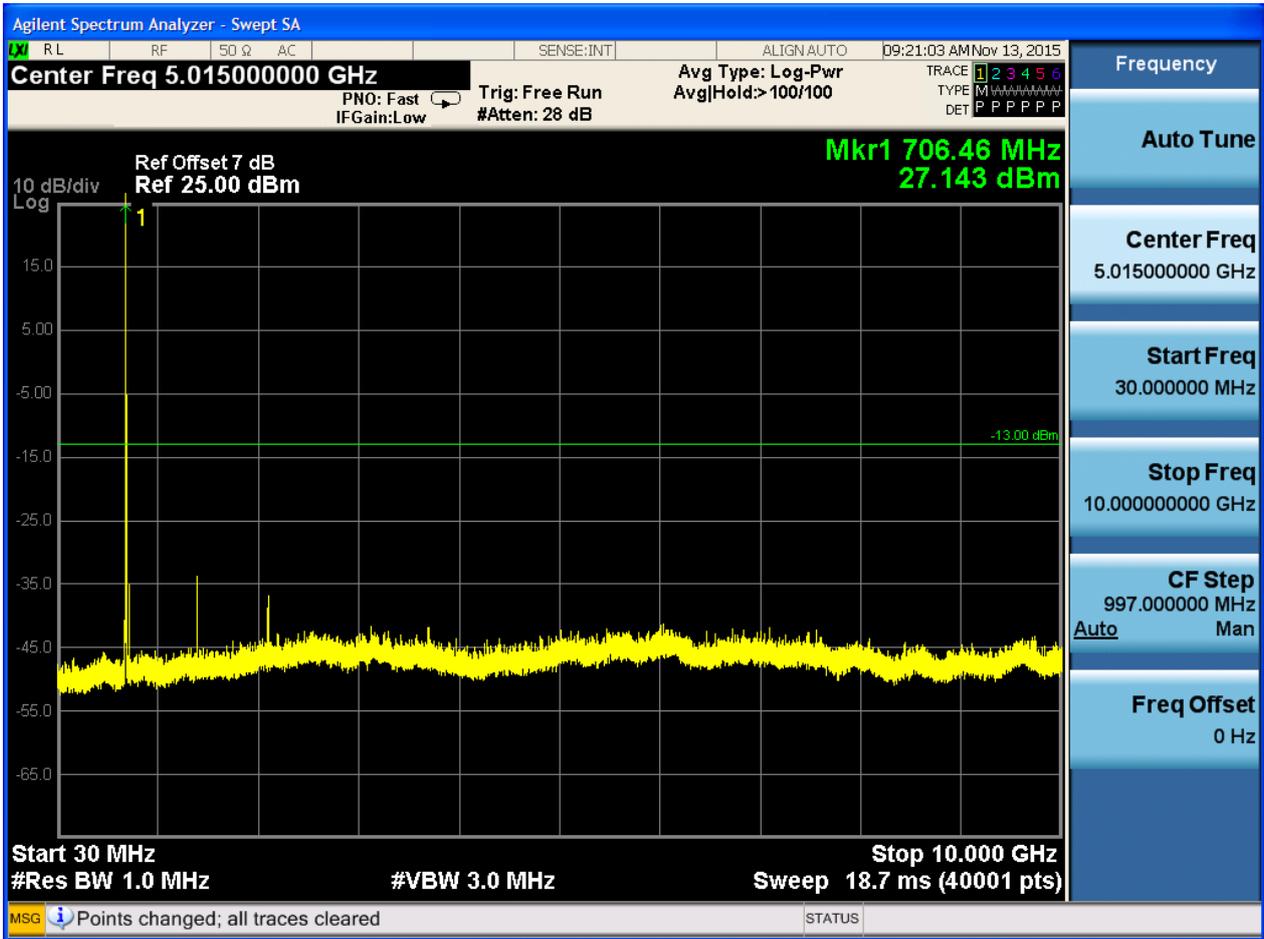


6.1.1.1.2.2 Test Channel = MCH

6.1.1.1.2.2.1 Test RB = RB1#0



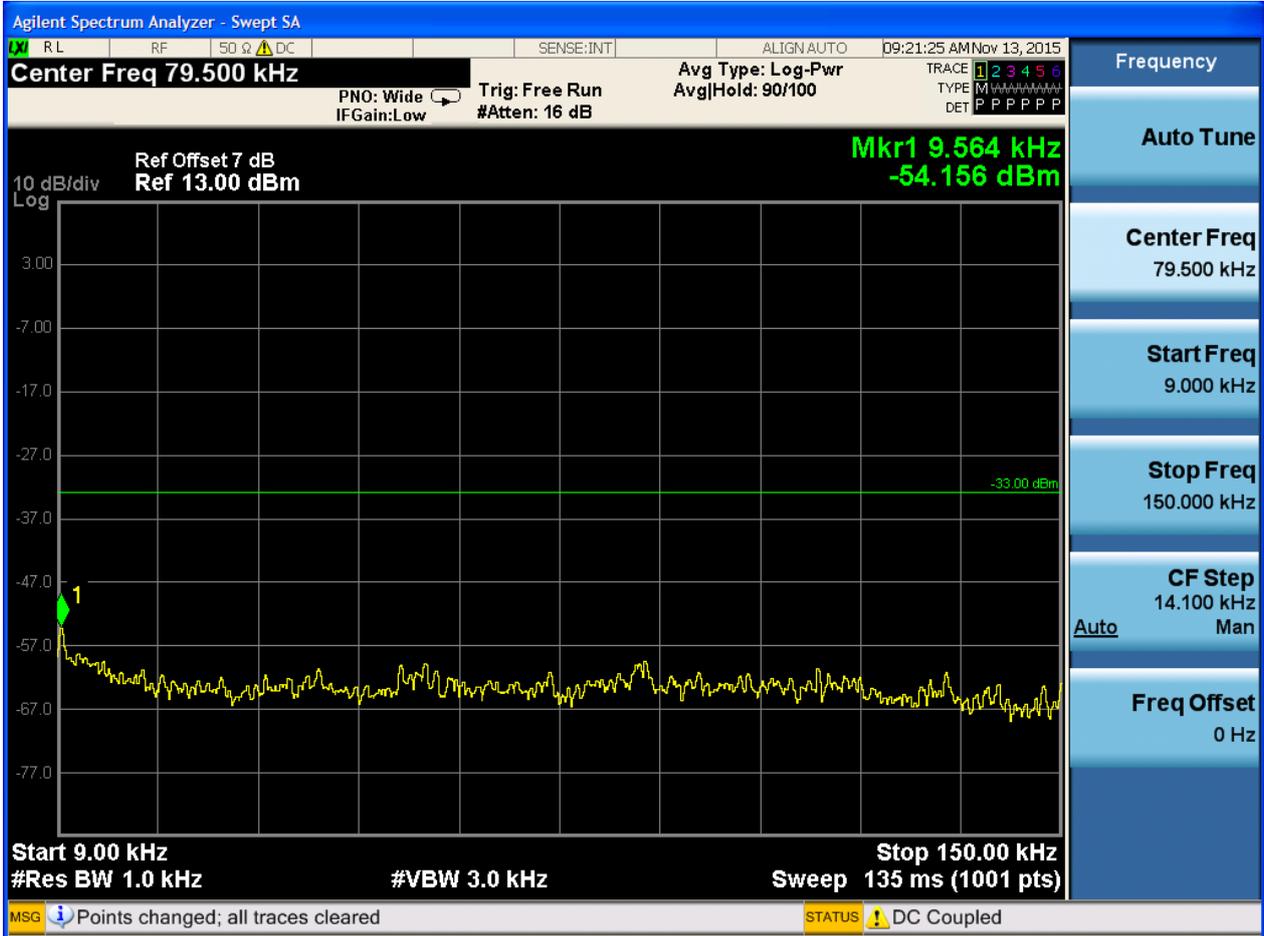




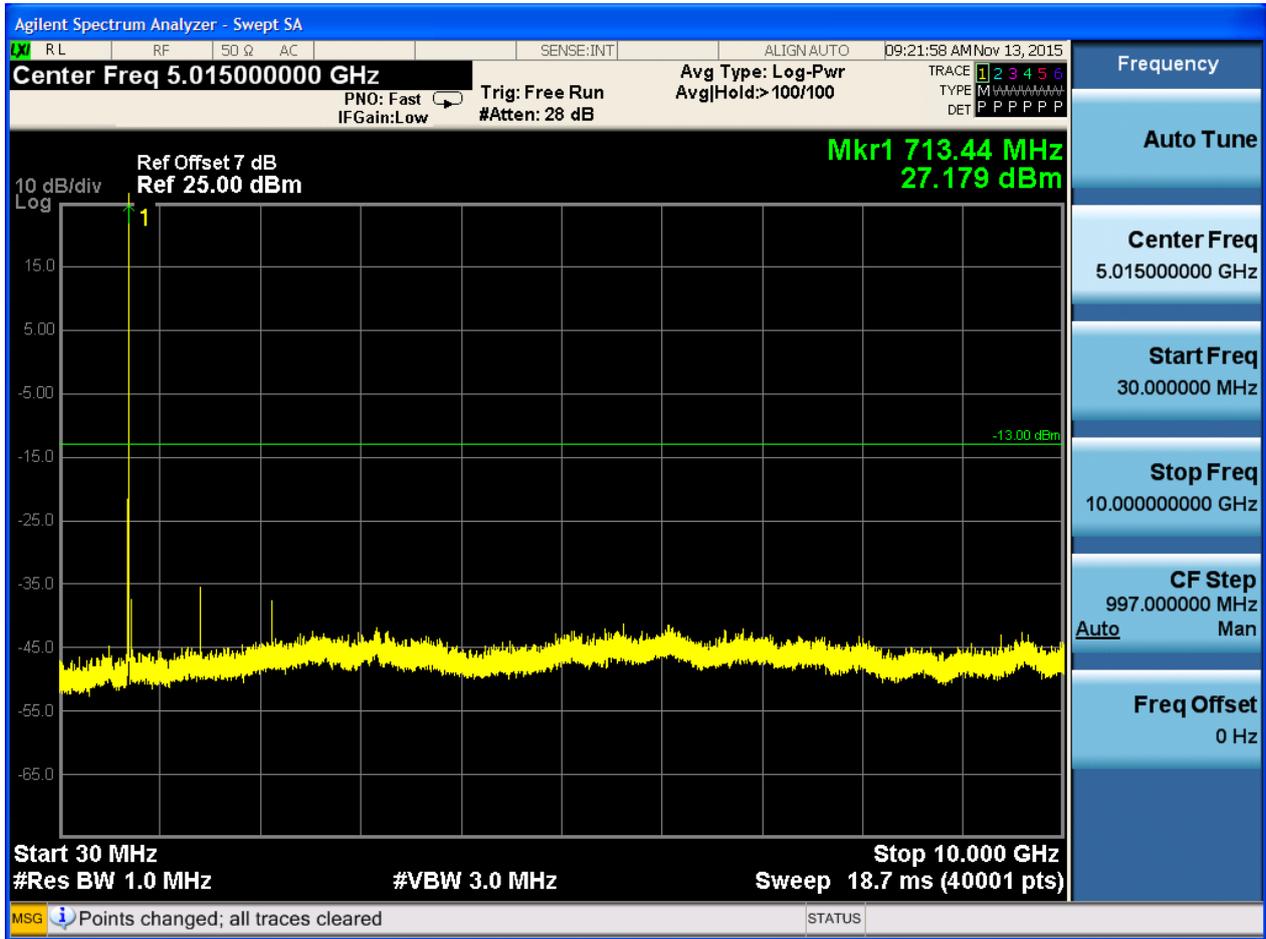


6.1.1.1.2.3 Test Channel = HCH

6.1.1.1.2.3.1 Test RB = RB1#0





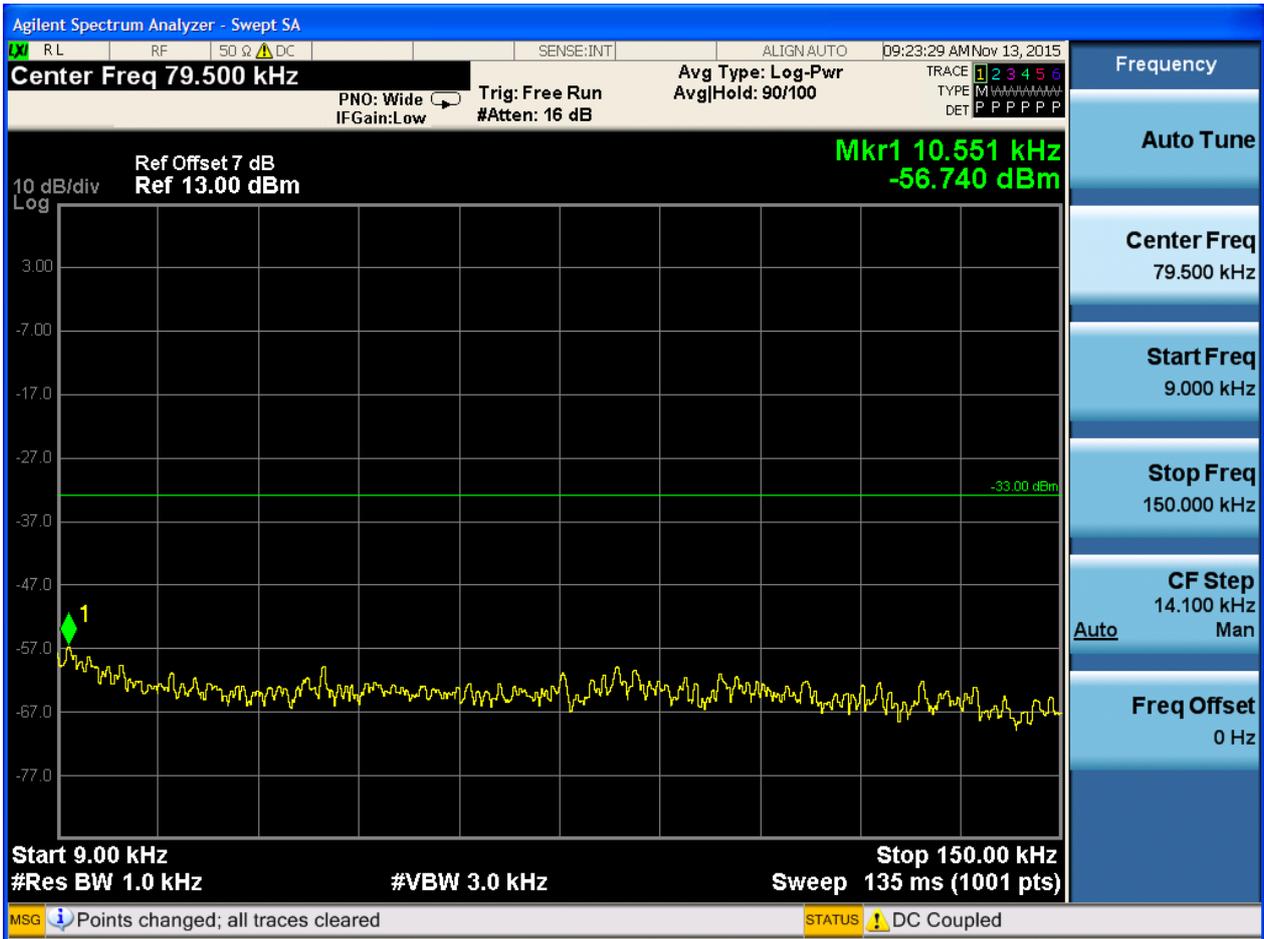


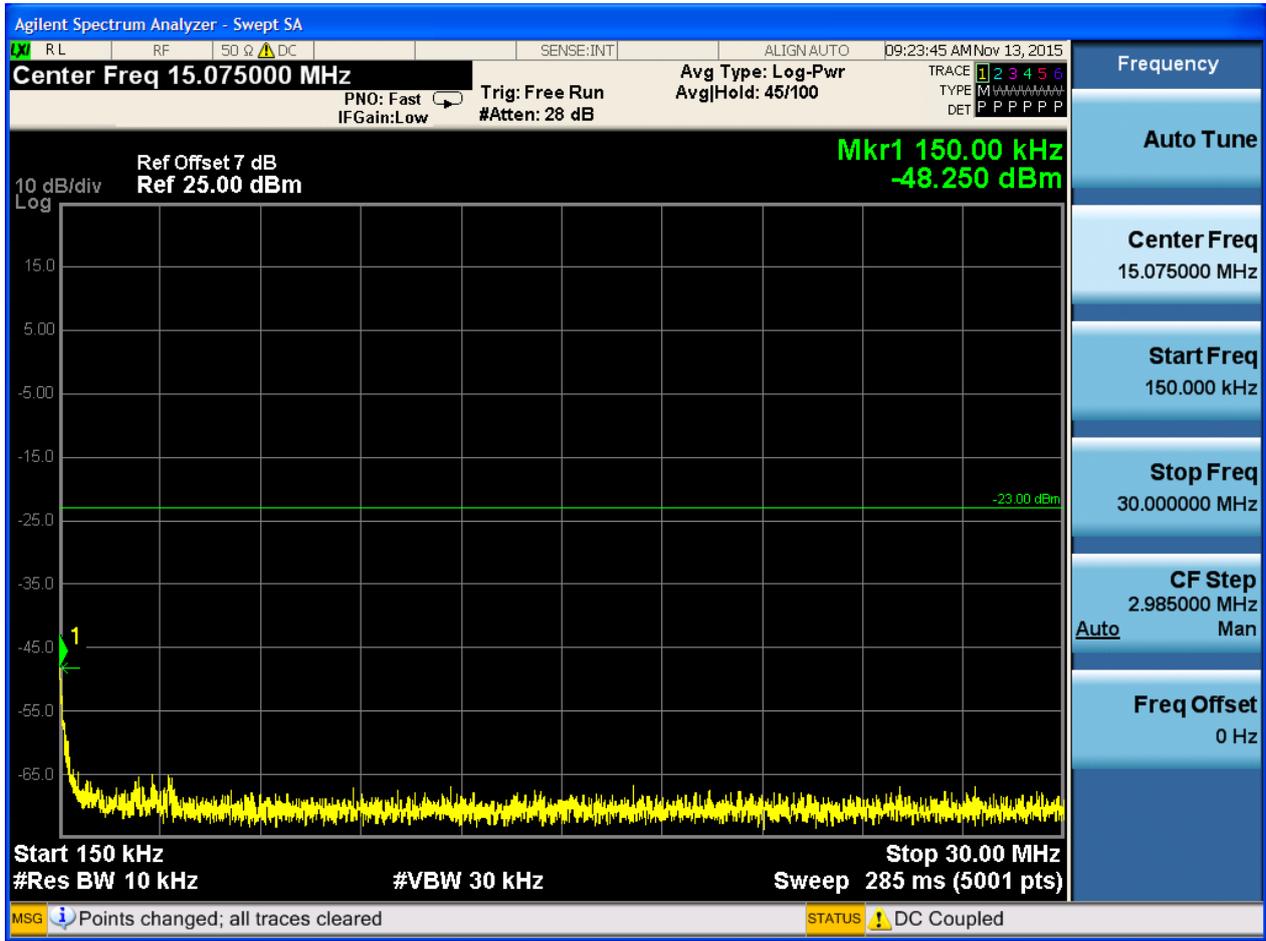


6.1.1.1.3 Test Bandwidth = 5

6.1.1.1.3.1 Test Channel = LCH

6.1.1.1.3.1.1 Test RB = RB1#0

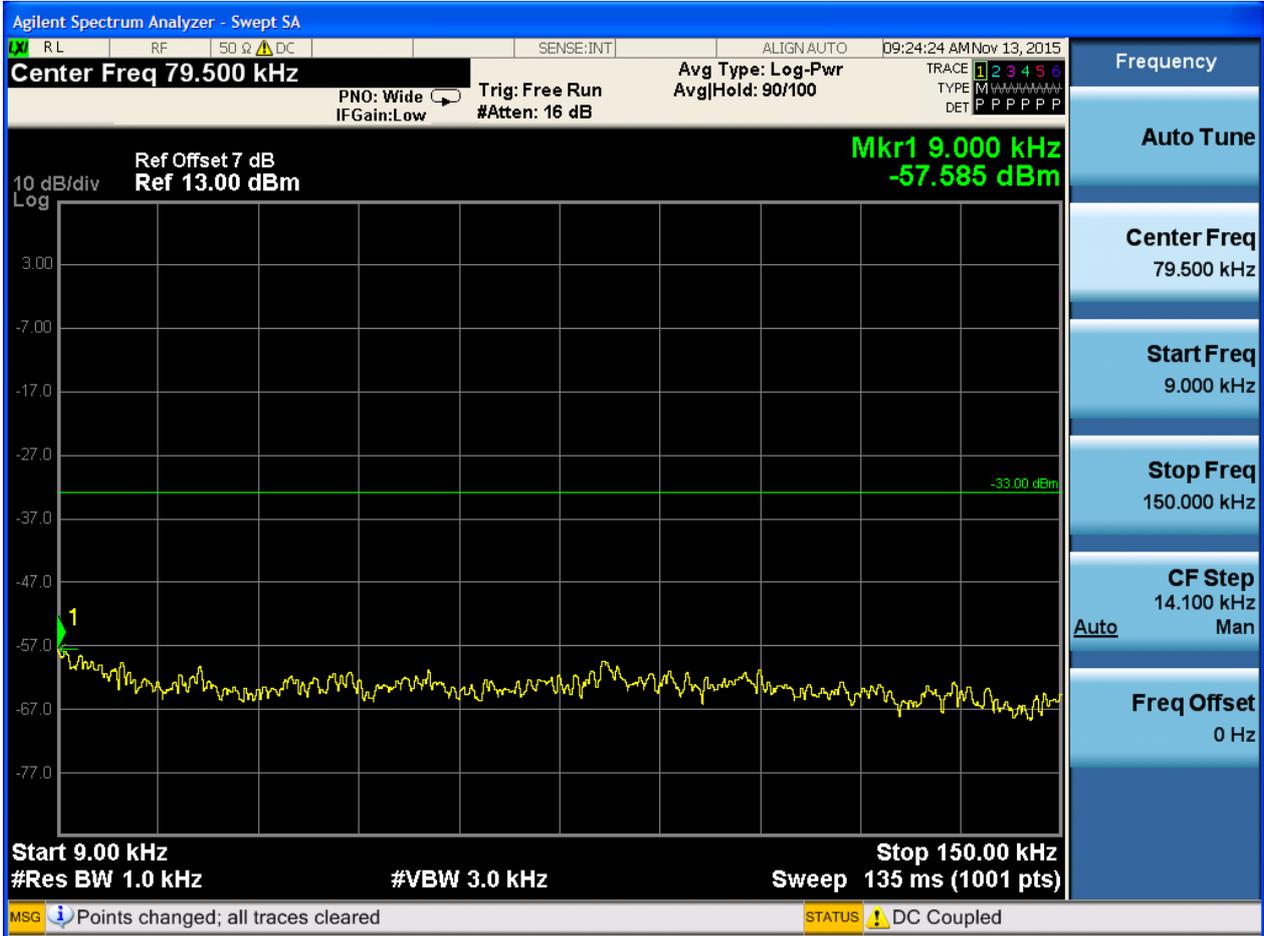




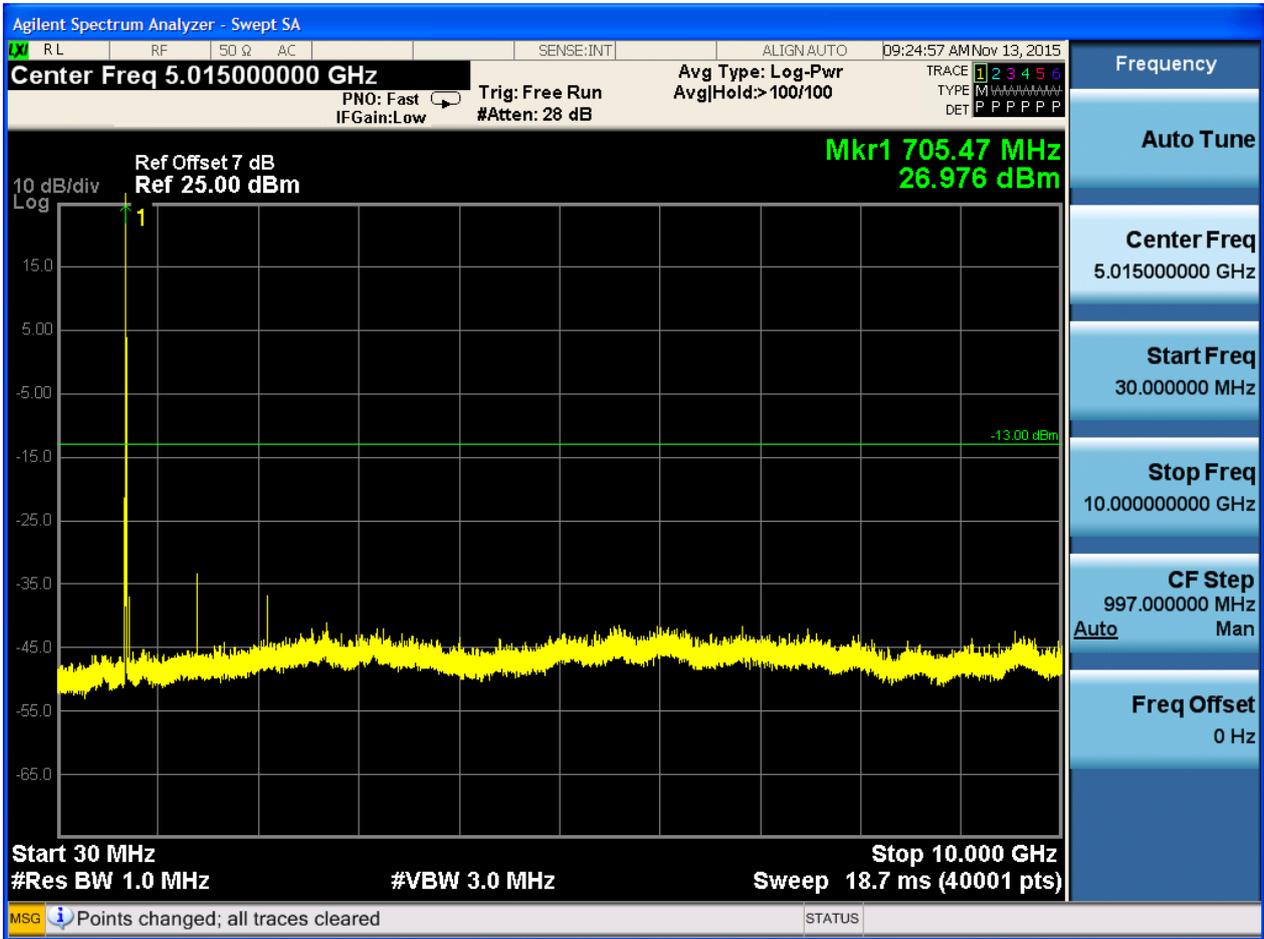


6.1.1.1.3.2 Test Channel = MCH

6.1.1.1.3.2.1 Test RB = RB1#0

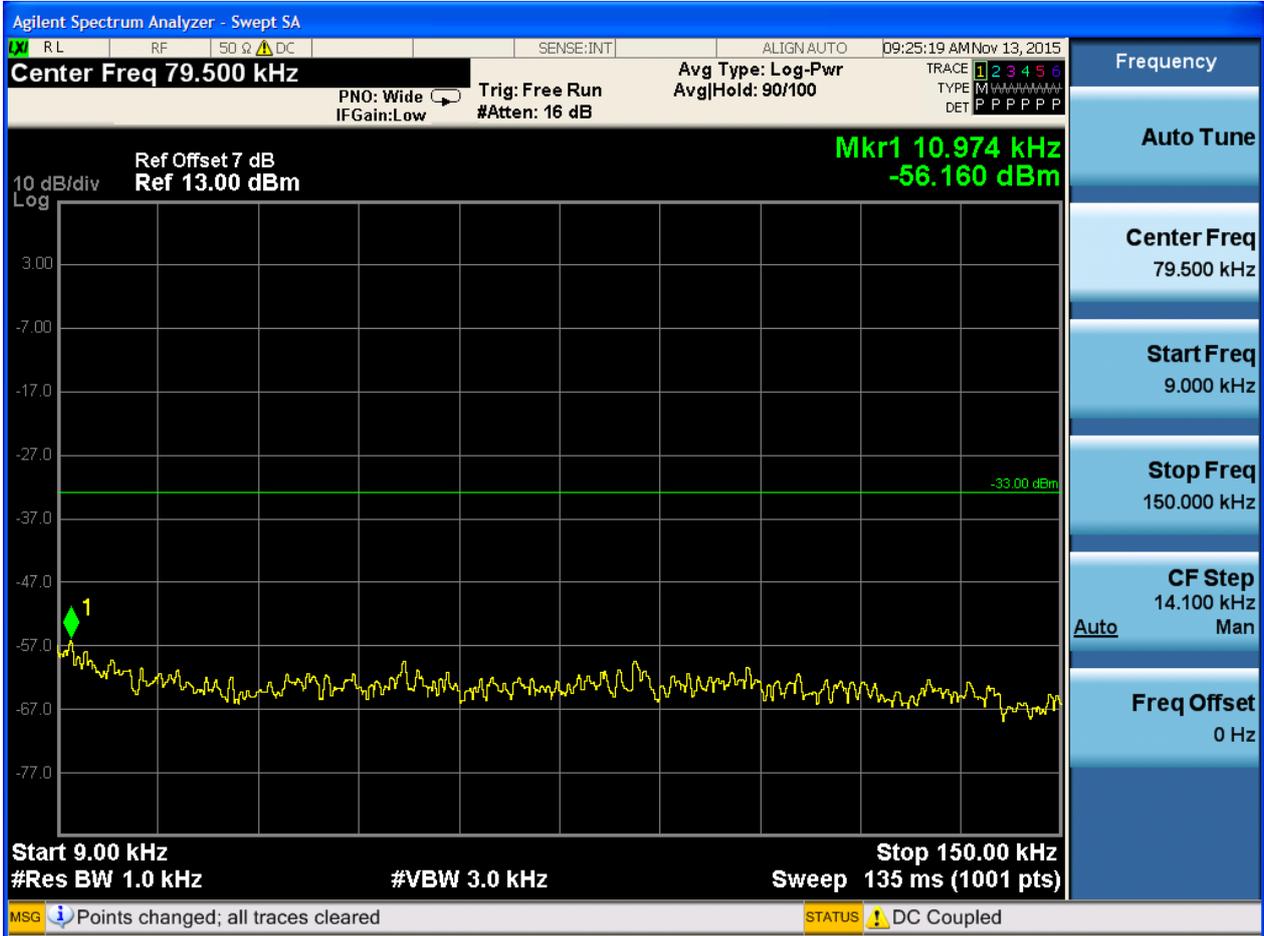




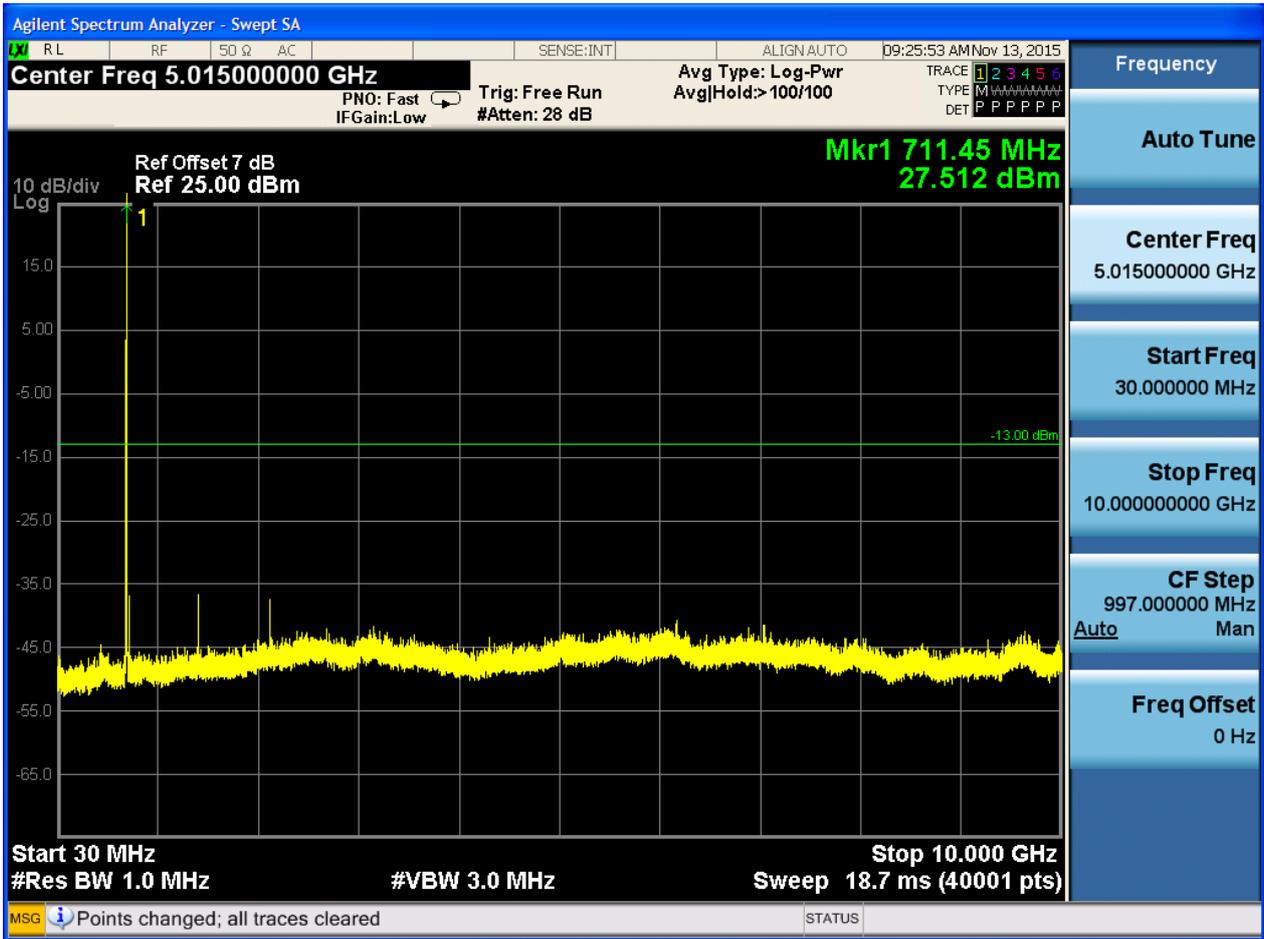


6.1.1.1.3.3 Test Channel = HCH

6.1.1.1.3.3.1 Test RB = RB1#0





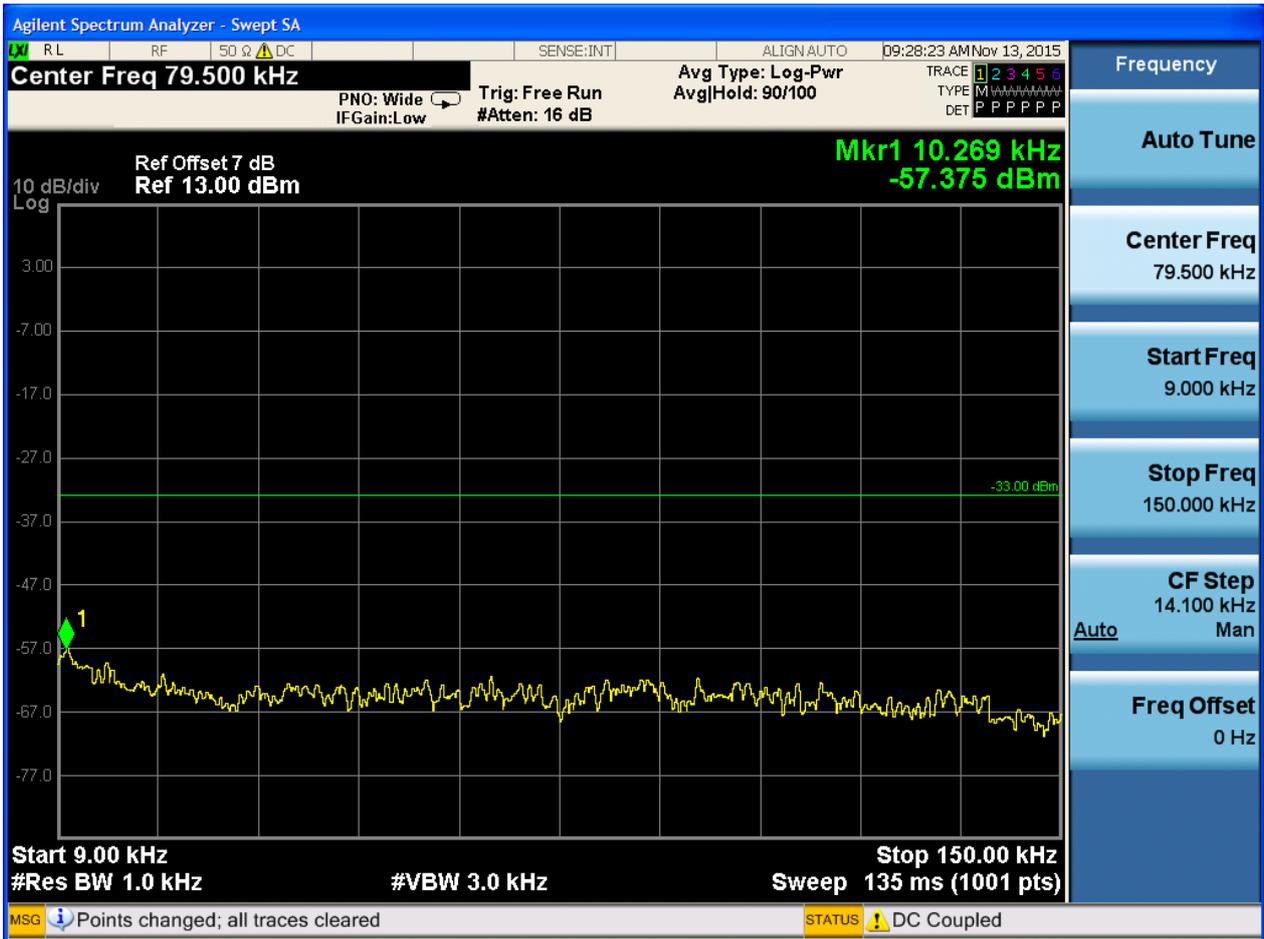


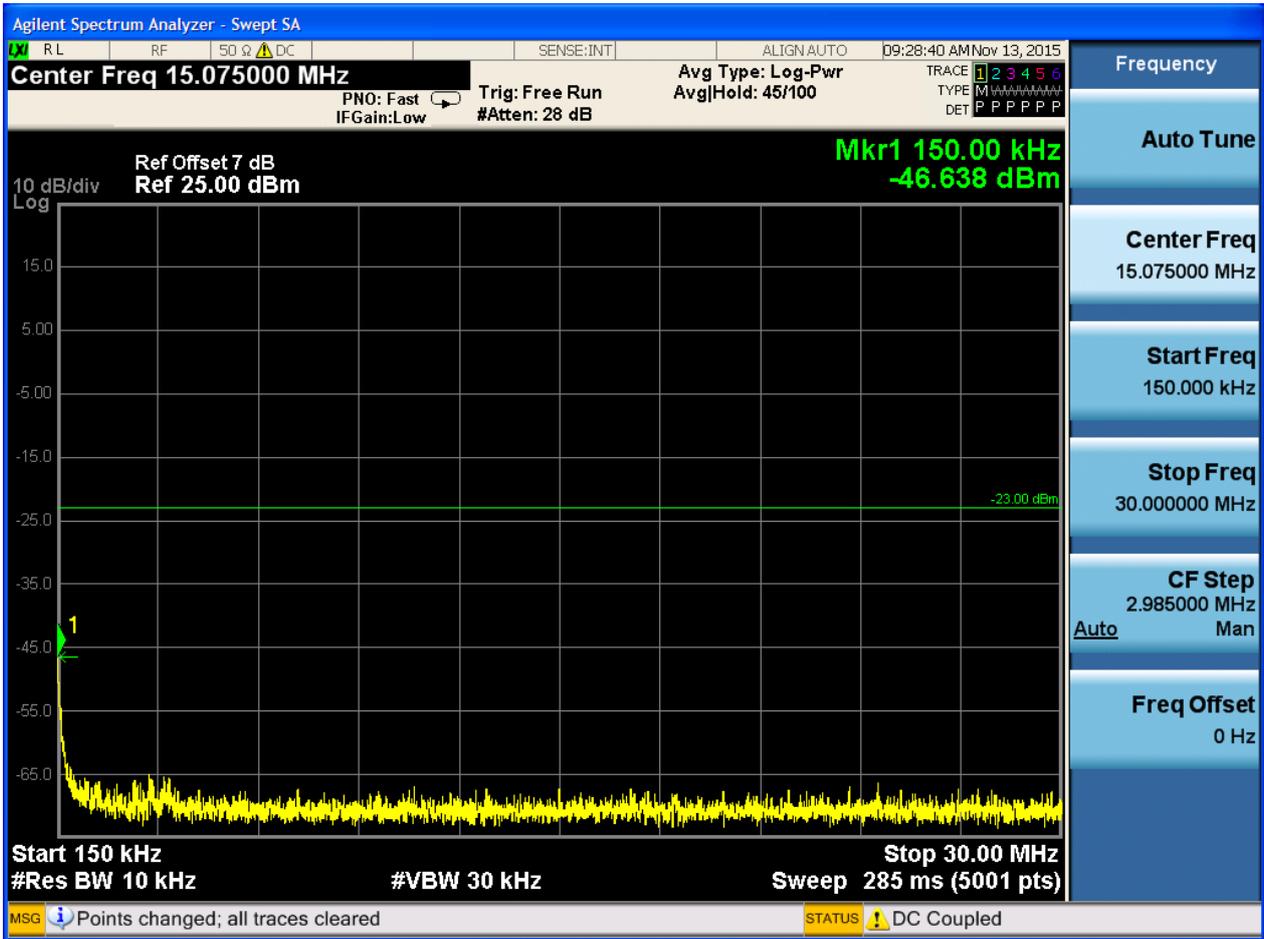


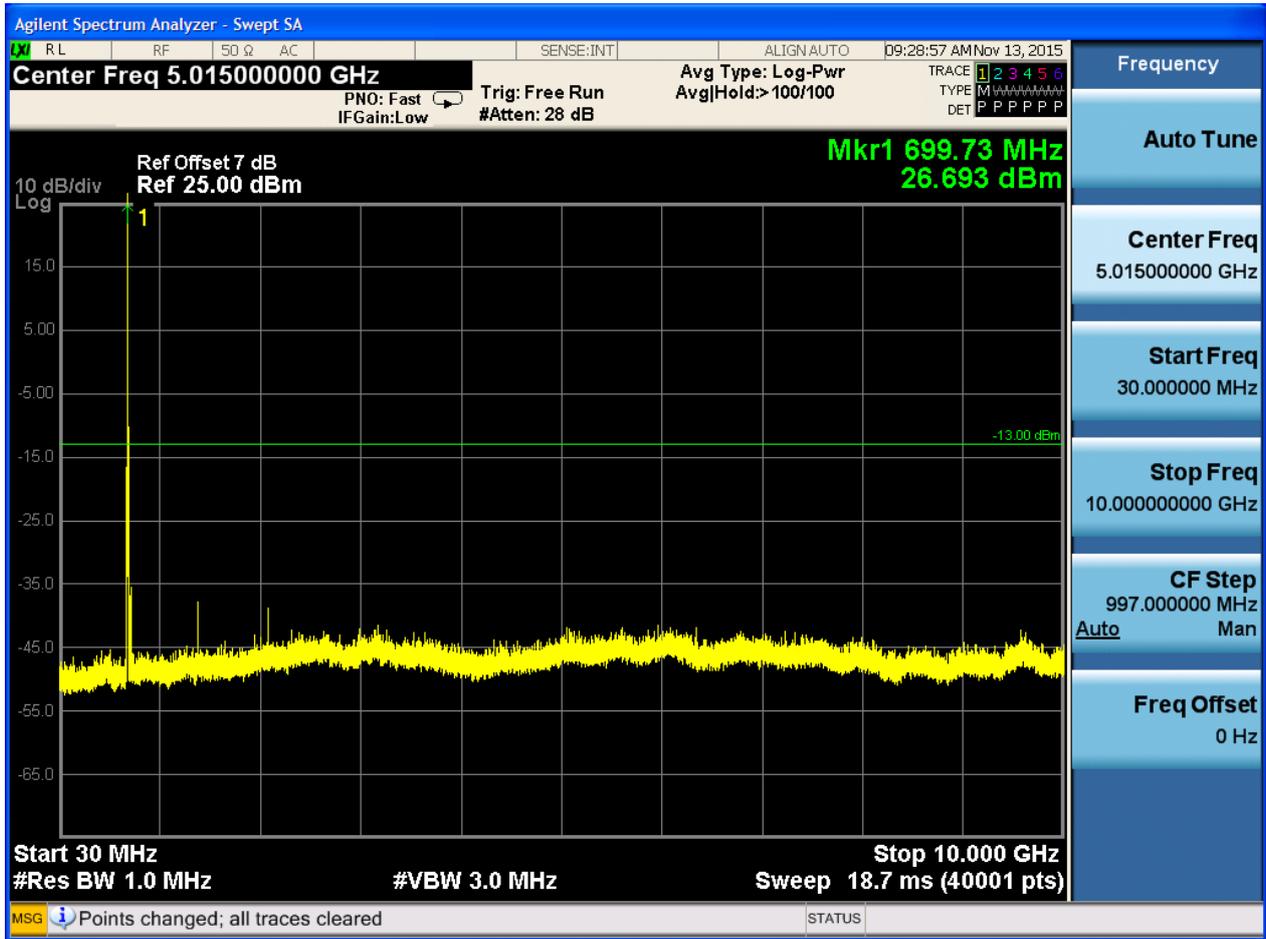
6.1.1.1.4 Test Bandwidth = 10

6.1.1.1.4.1 Test Channel = LCH

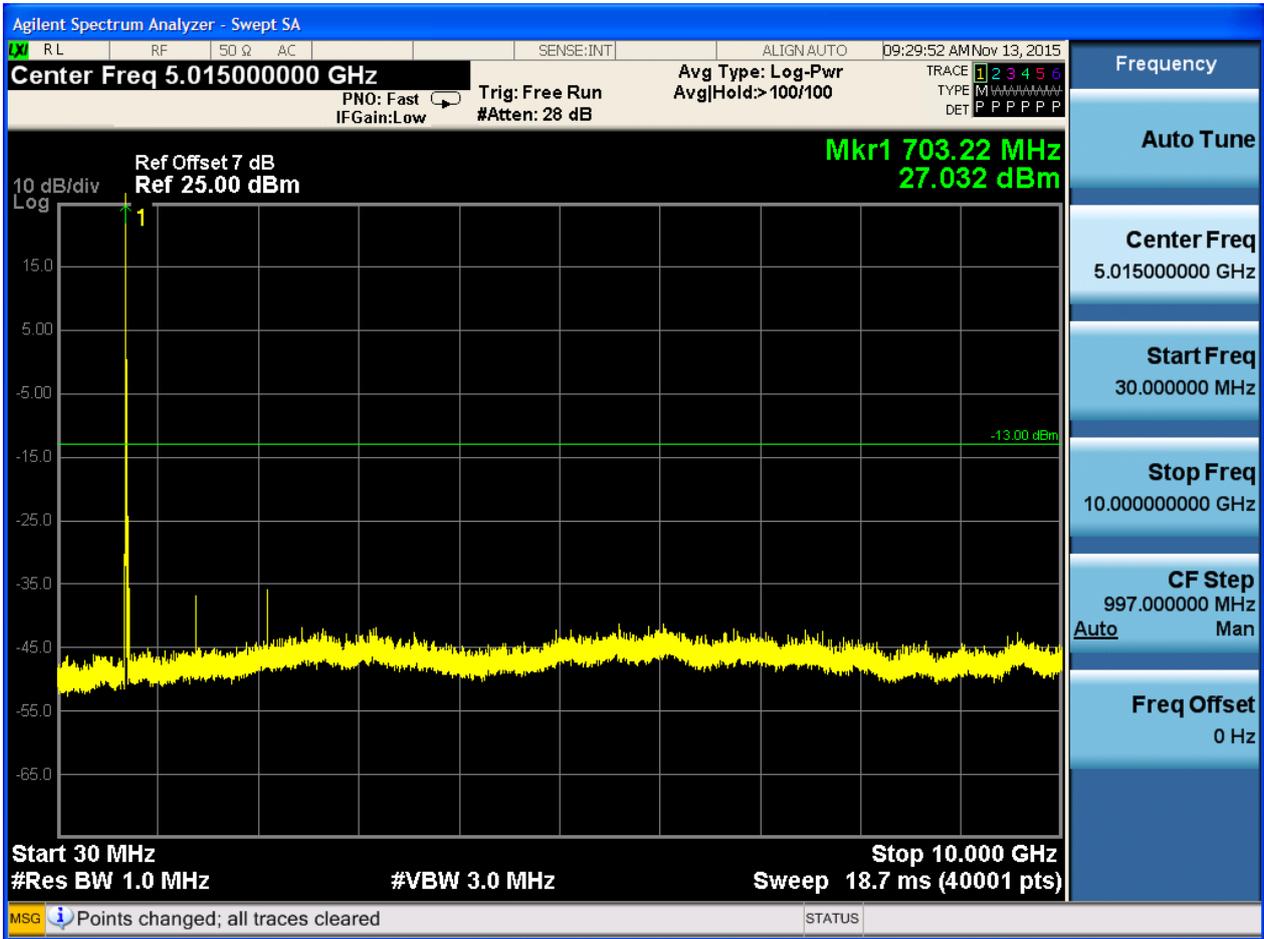
6.1.1.1.4.1.1 Test RB = RB1#0







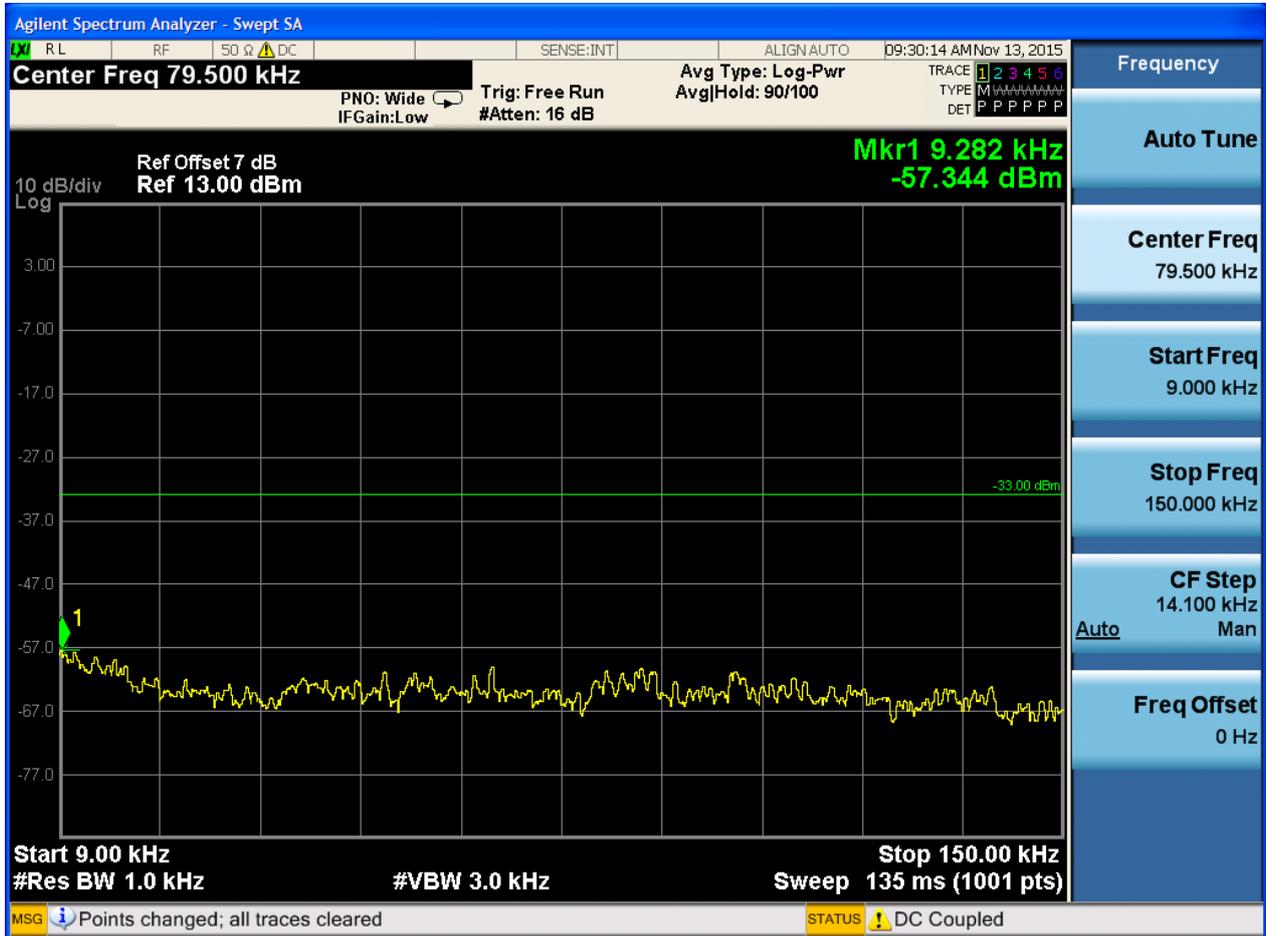




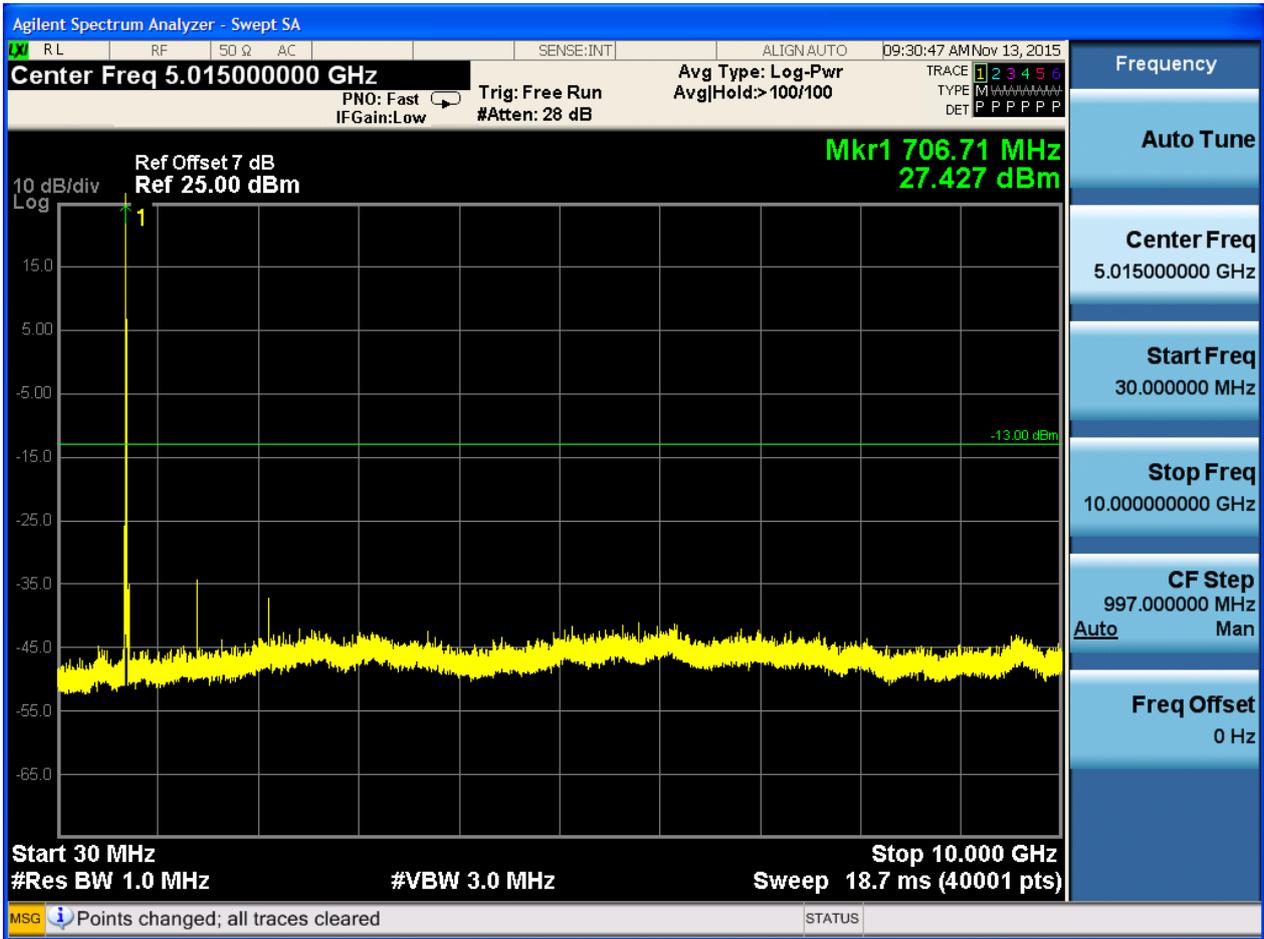


6.1.1.1.4.3 Test Channel = HCH

6.1.1.1.4.3.1 Test RB = RB1#0







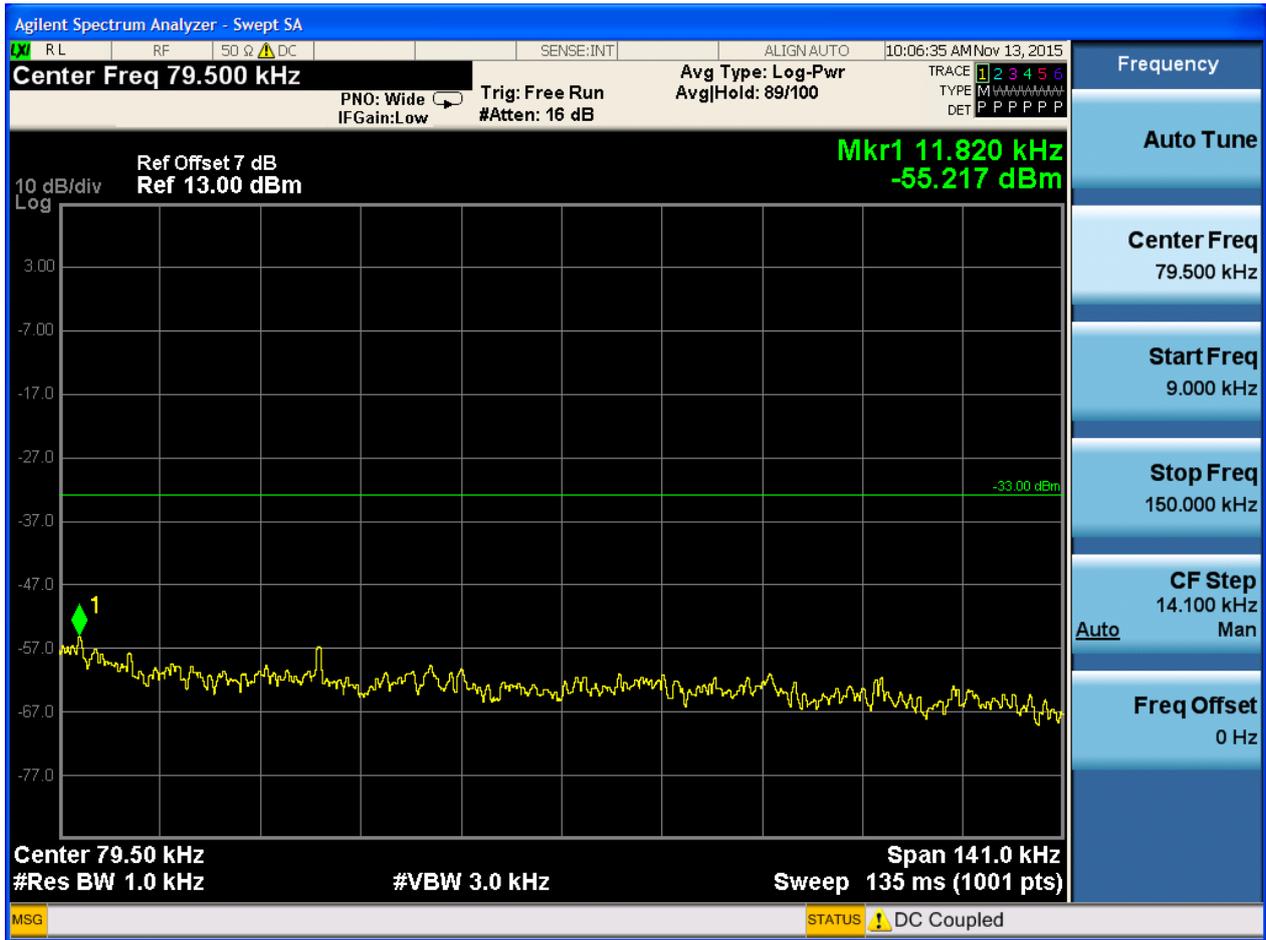


6.1.1.2 Test Mode = LTE/TM2

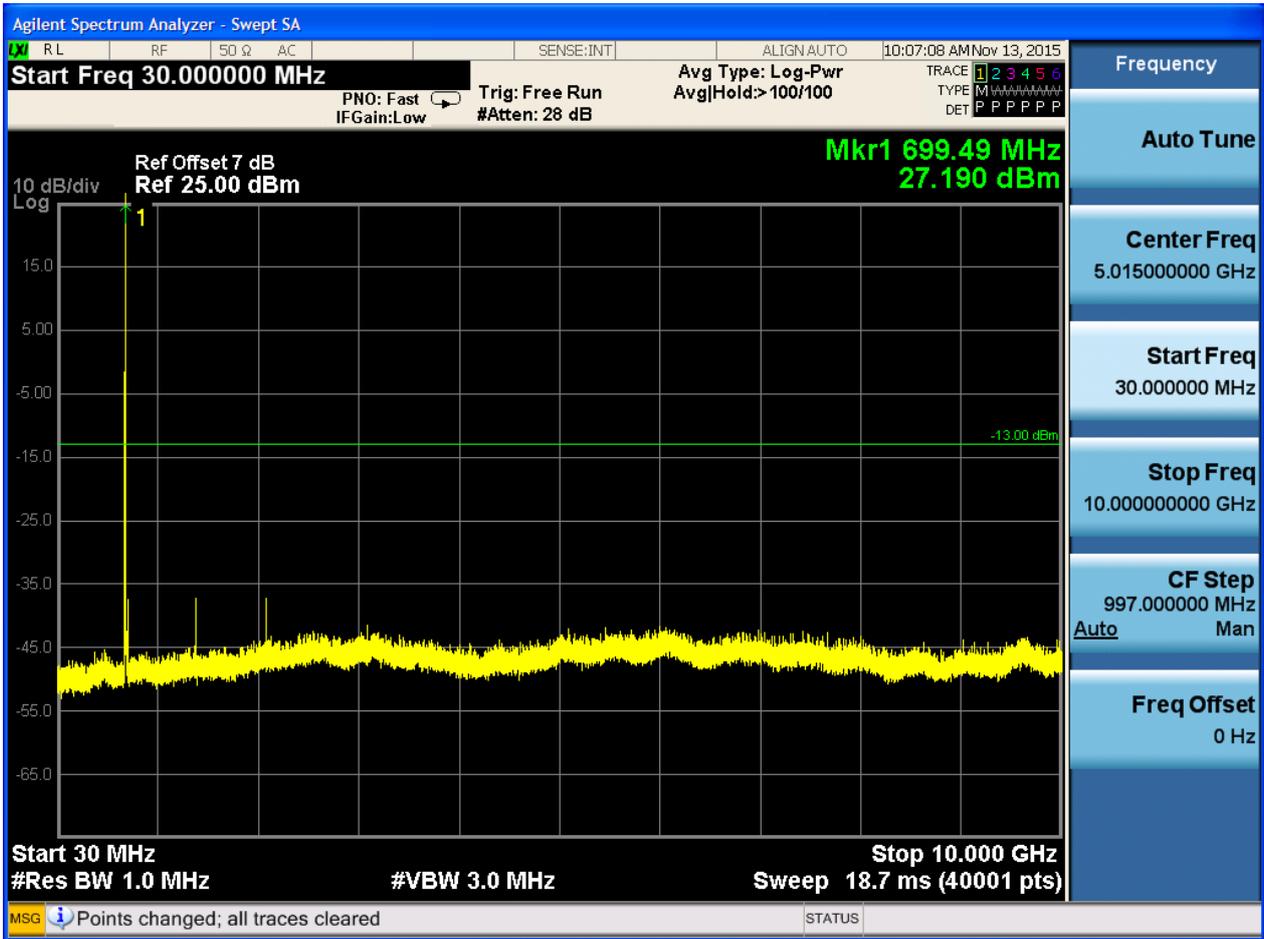
6.1.2.1.1 Test Bandwidth = 1.4

6.1.2.1.1.1 Test Channel = LCH

6.1.2.1.1.1.1 Test RB = RB1#0



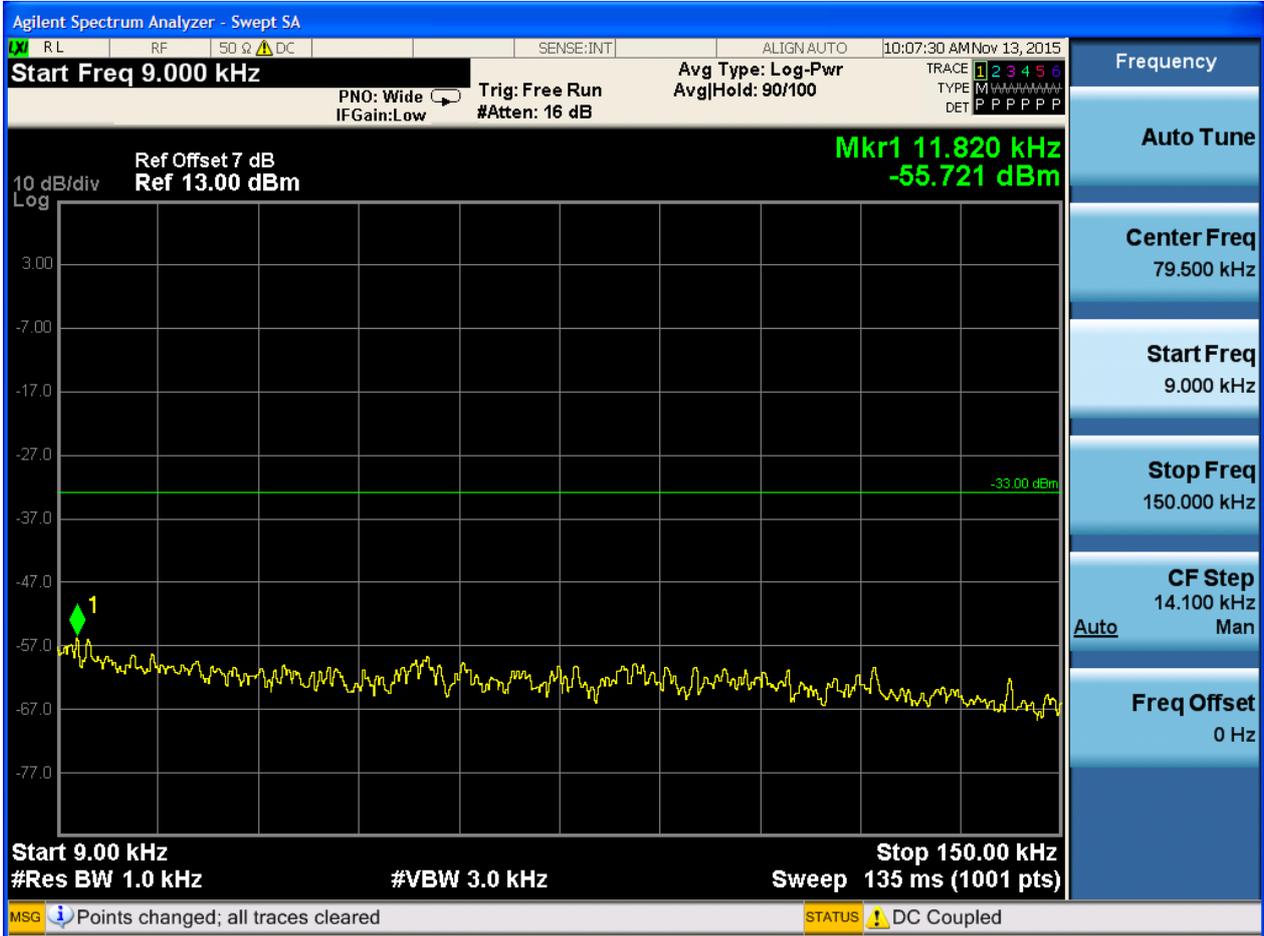


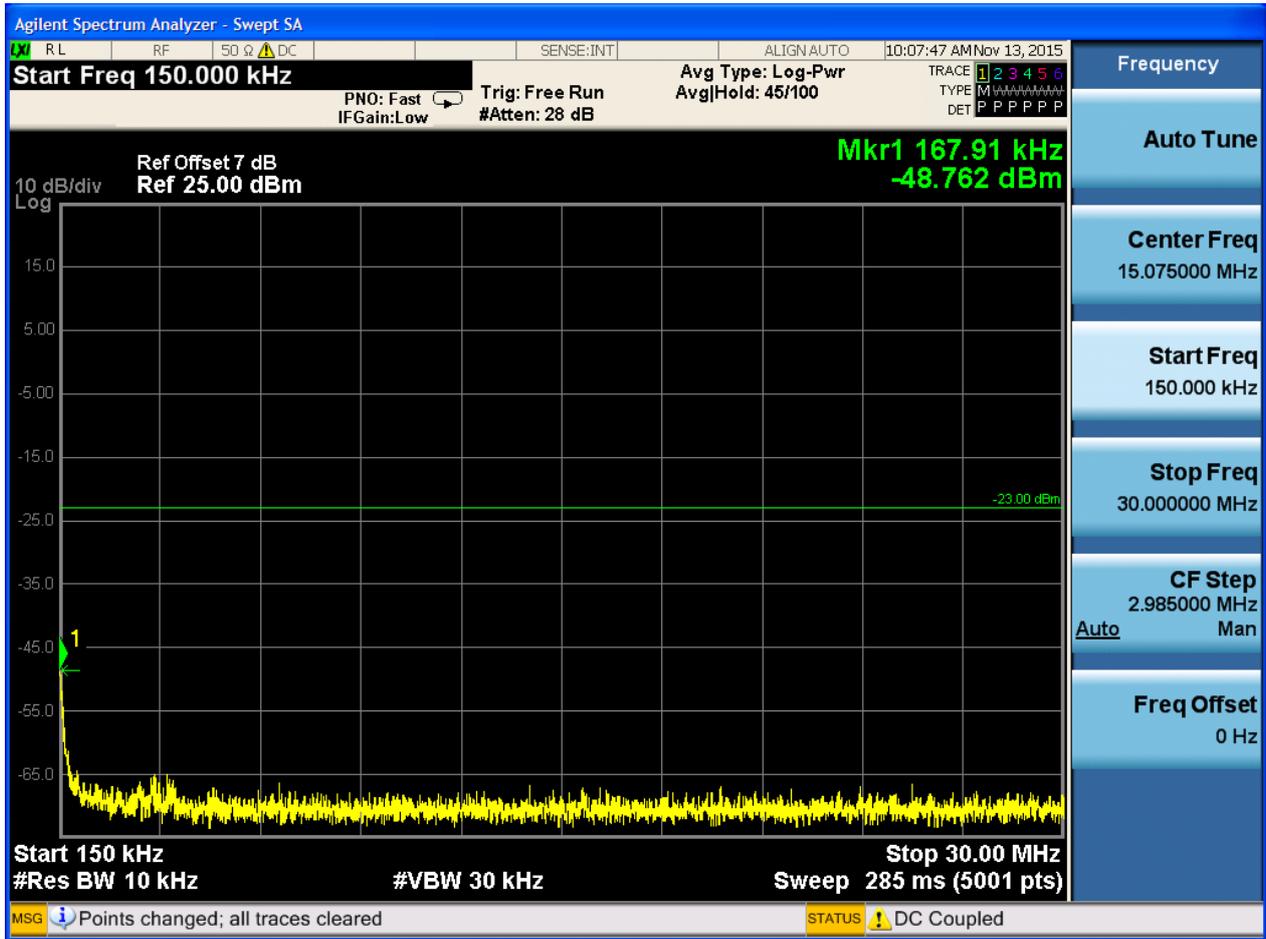


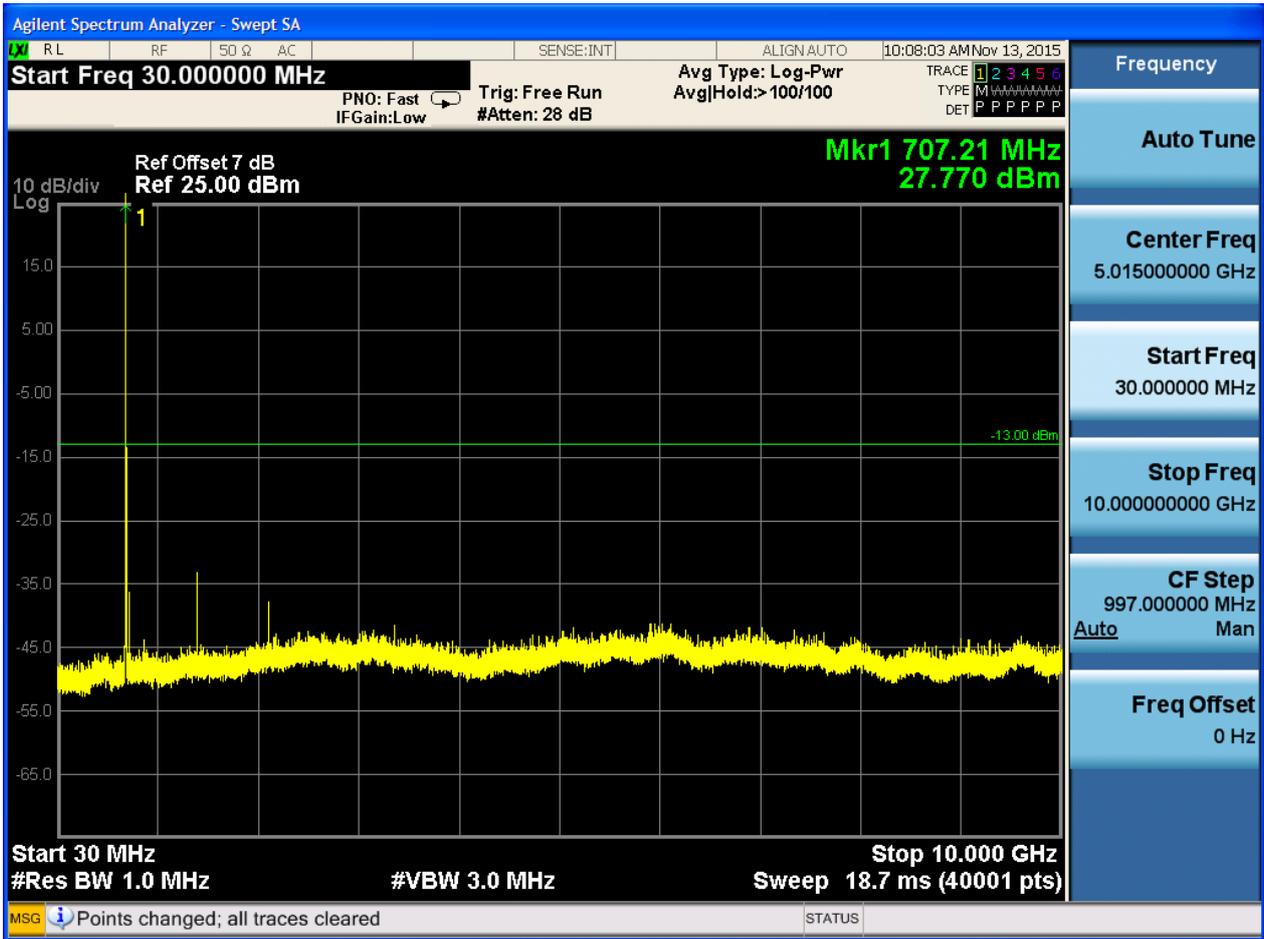


6.1.2.1.1.2 Test Channel = MCH

6.1.2.1.1.2.1 Test RB = RB1#0



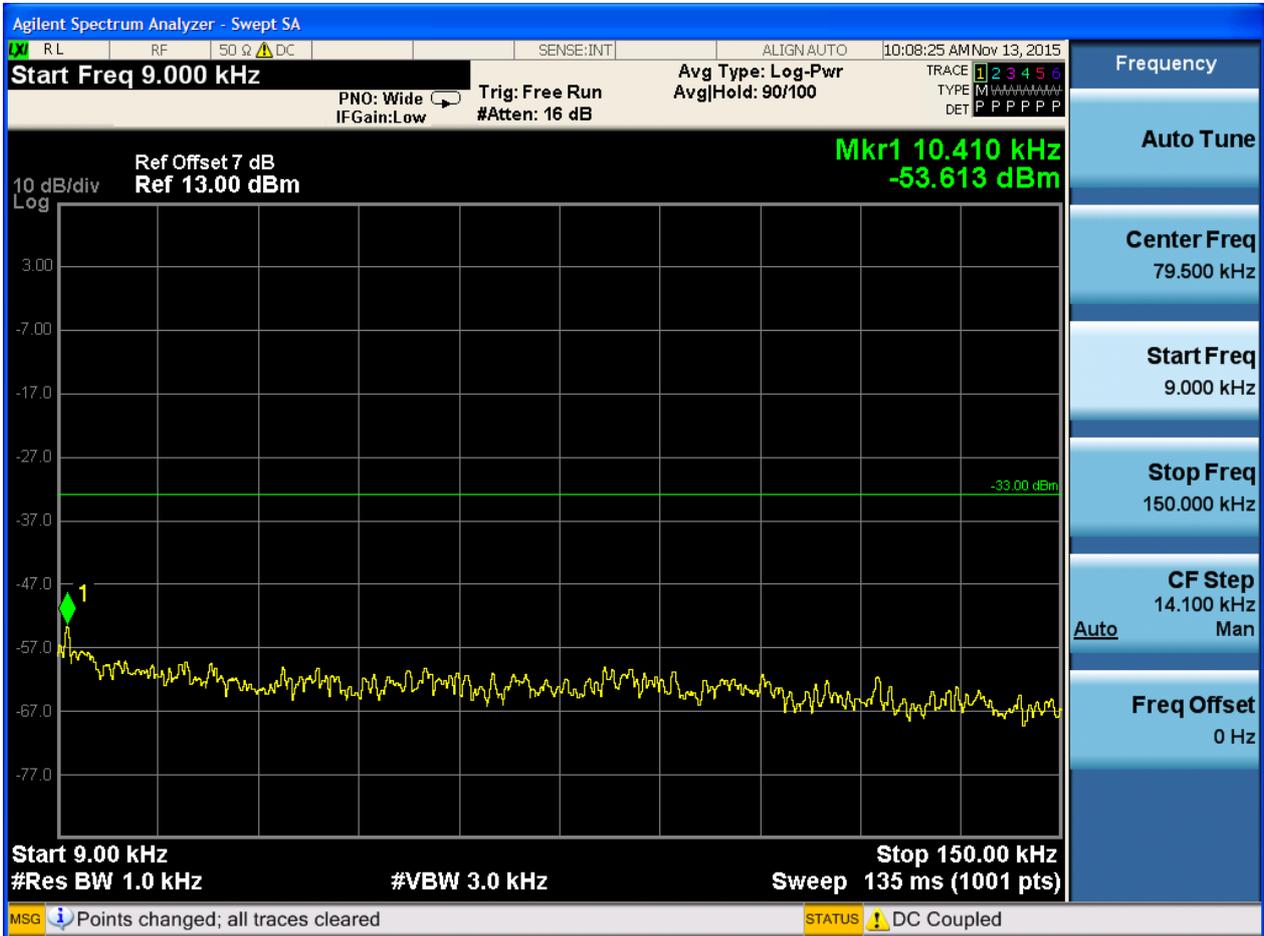


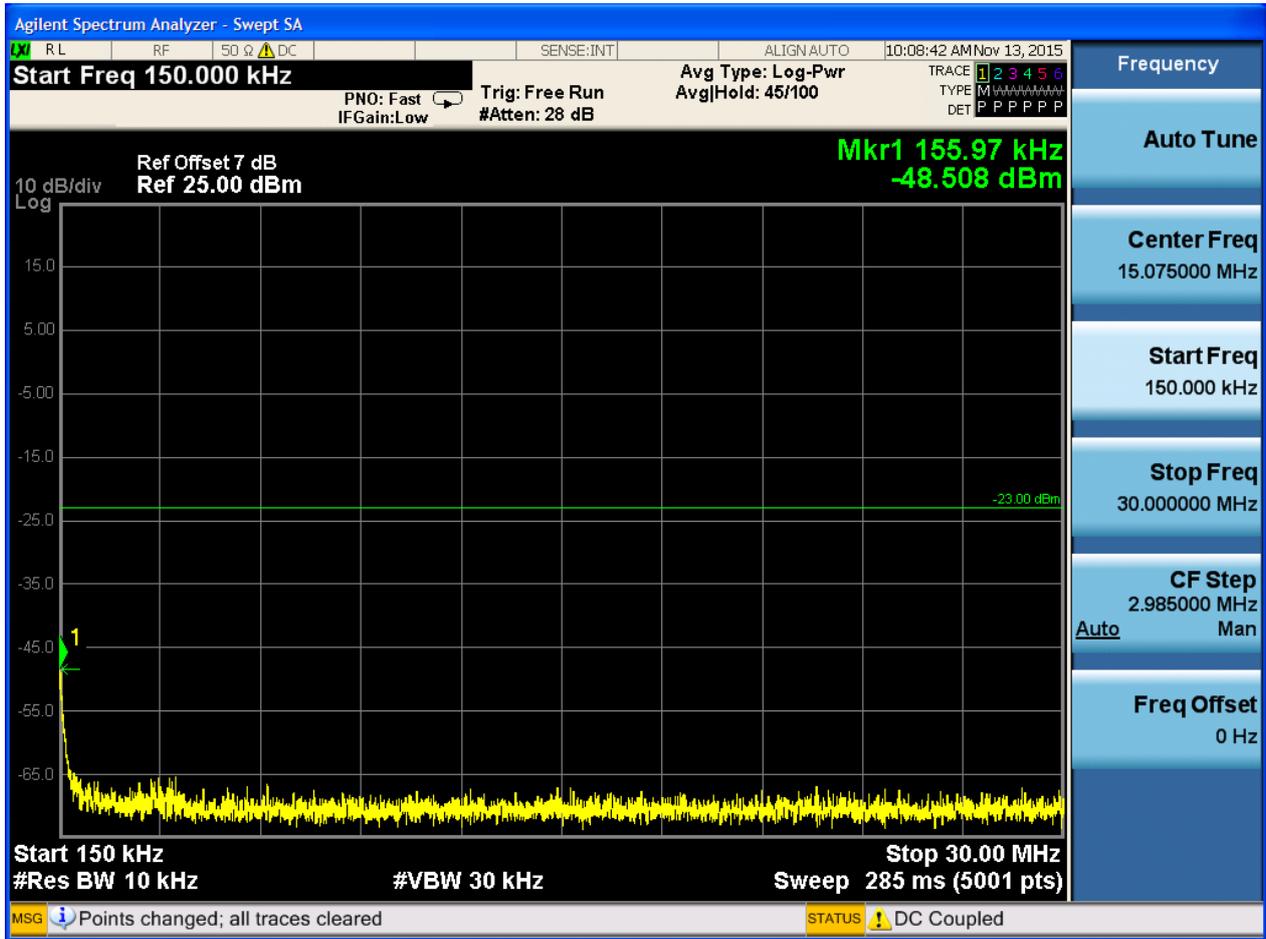


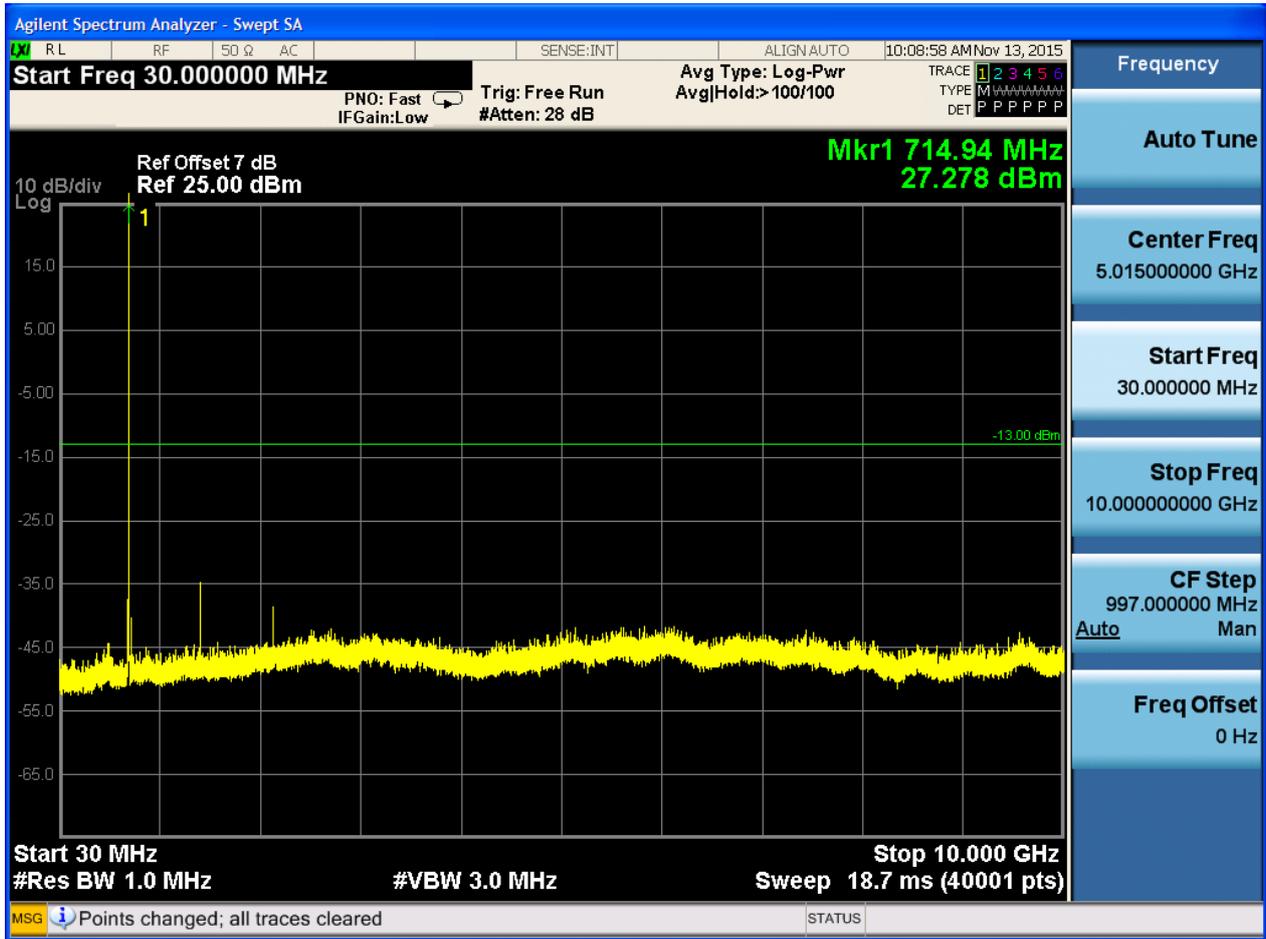


6.1.2.1.1.3 Test Channel = HCH

6.1.2.1.1.3.1 Test RB = RB1#0





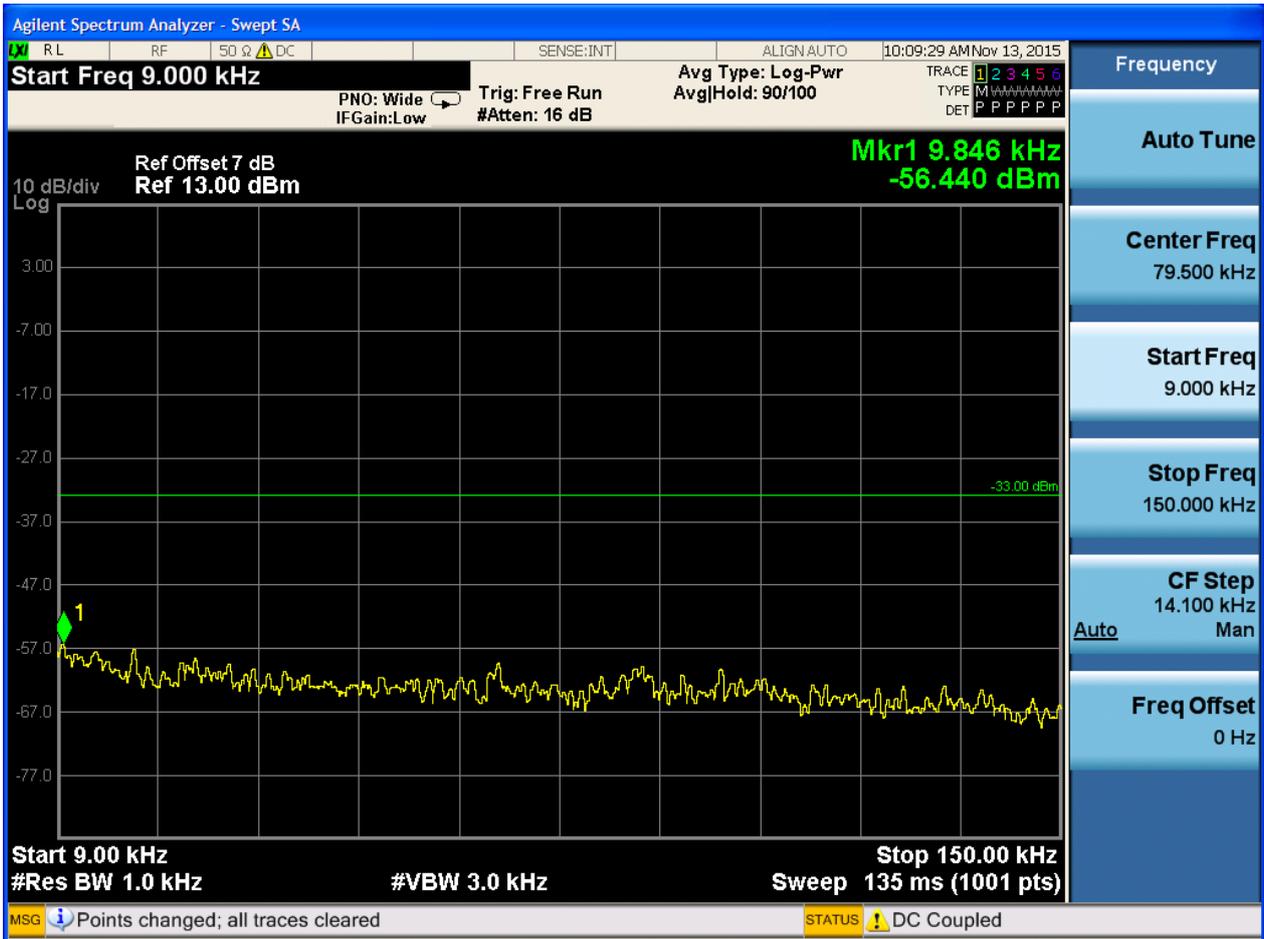




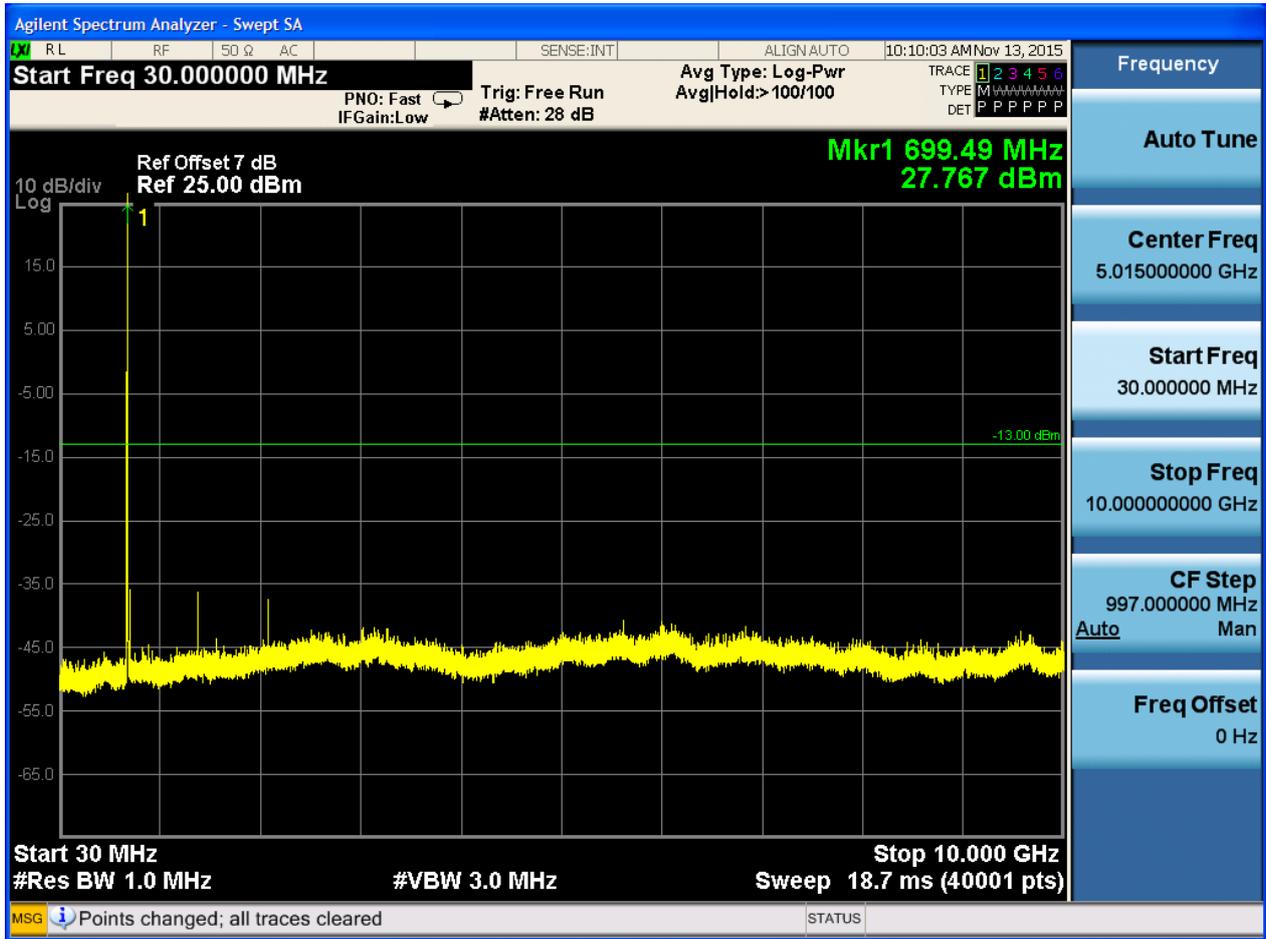
6.1.2.1.2 Test Bandwidth = 3

6.1.2.1.2.1 Test Channel = LCH

6.1.2.1.2.1.1 Test RB = RB1#0



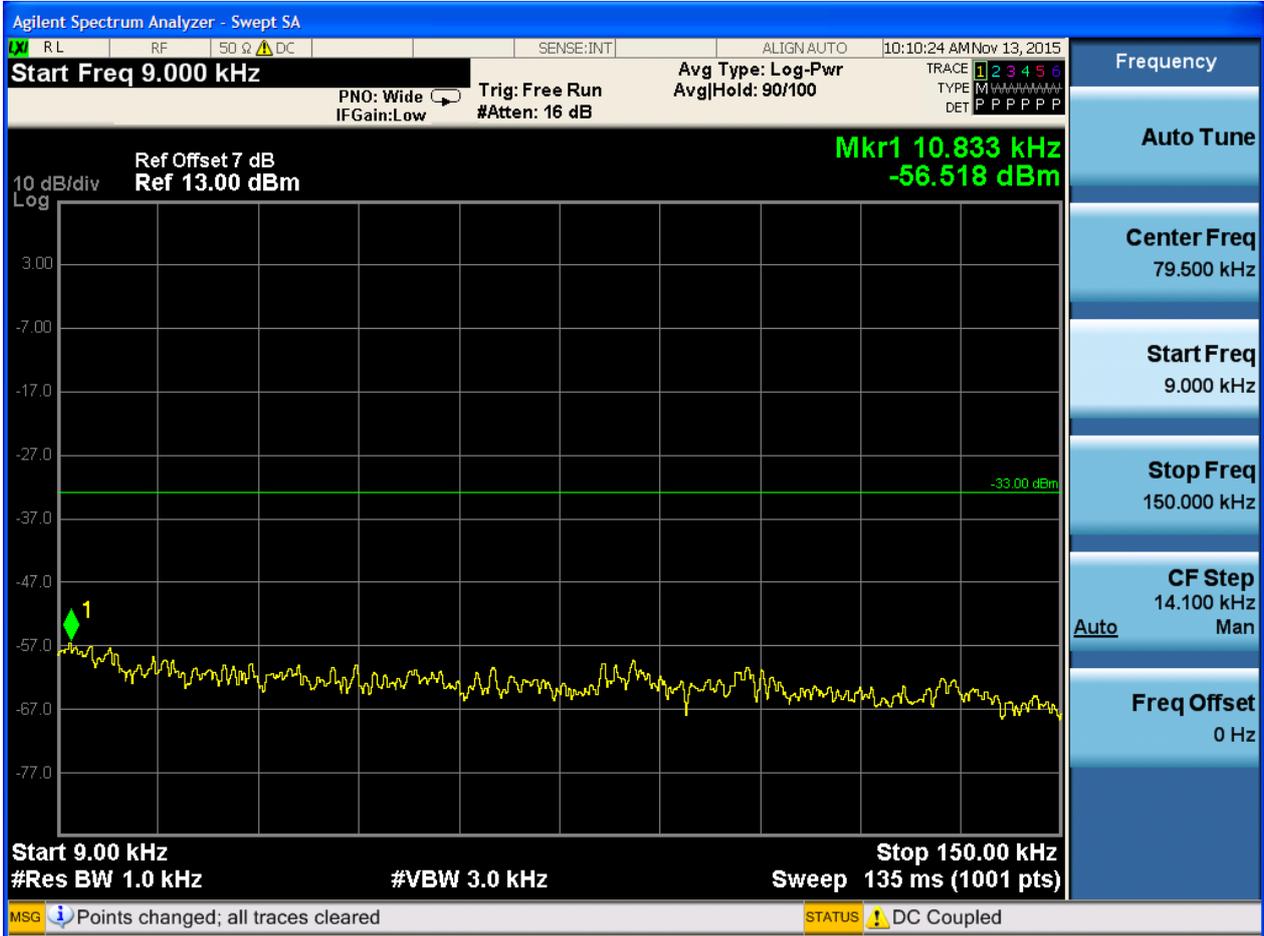






6.1.2.1.2.2 Test Channel = MCH

6.1.2.1.2.2.1 Test RB = RB1#0

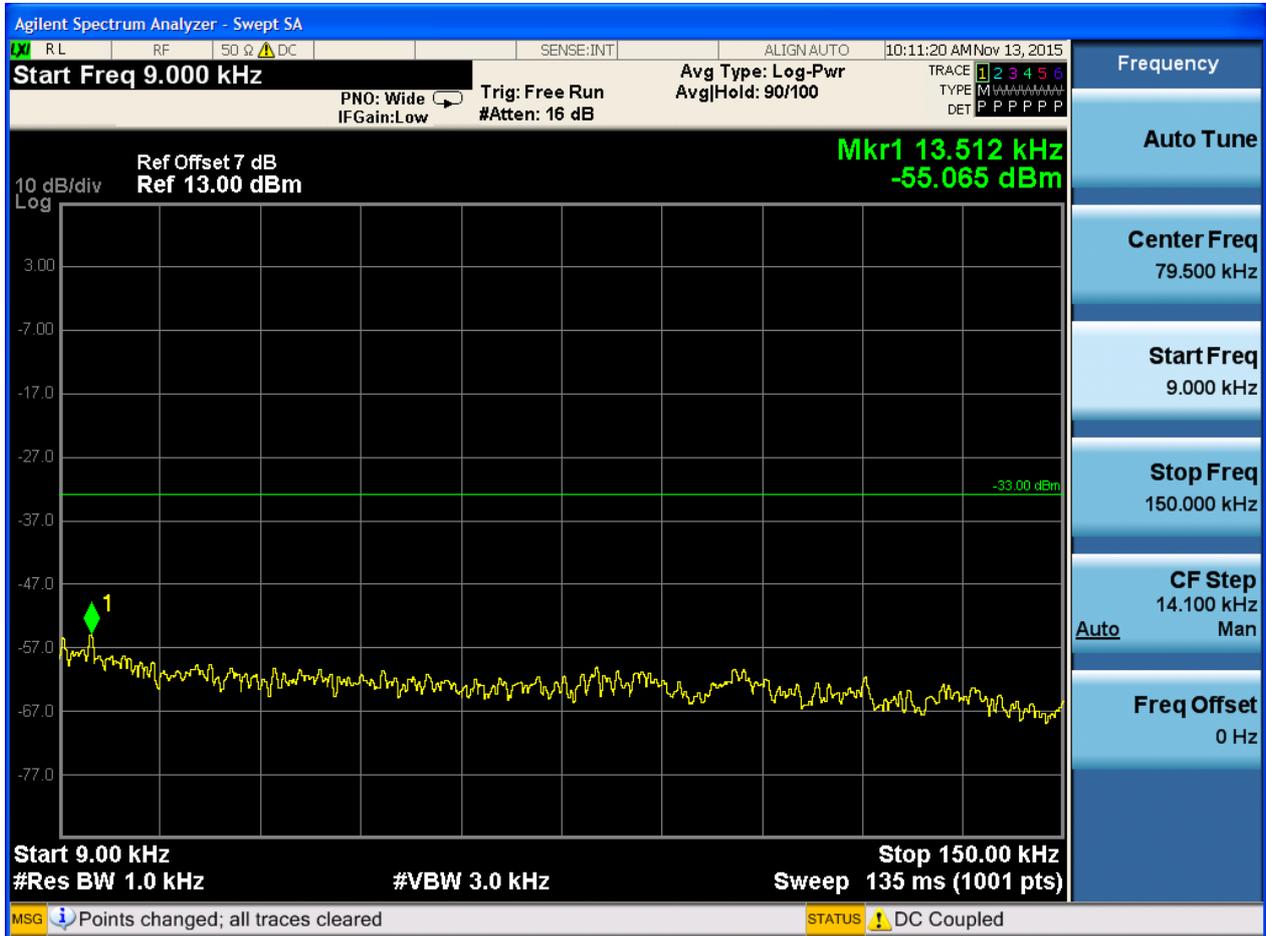




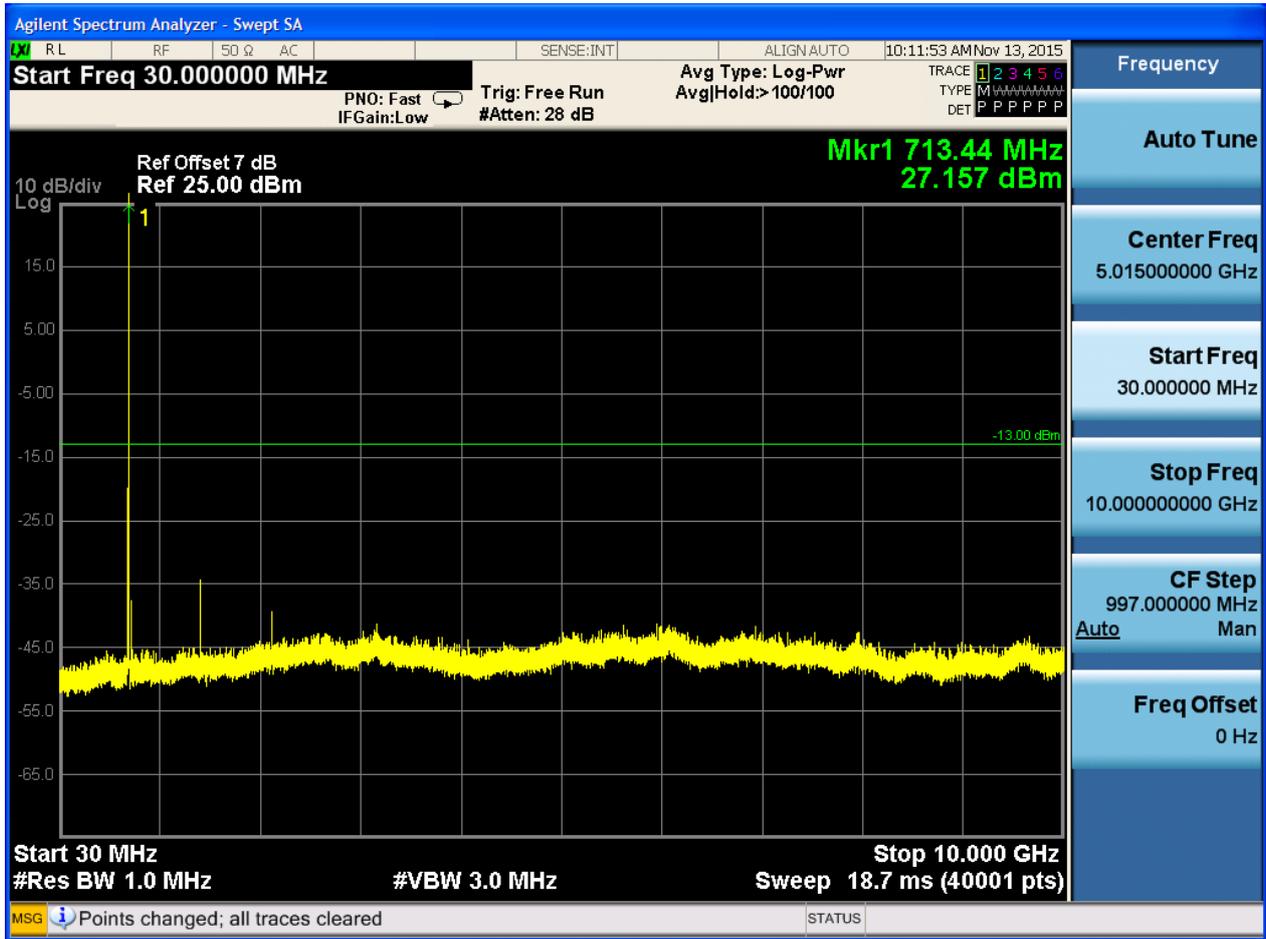


6.1.2.1.2.3 Test Channel = HCH

6.1.2.1.2.3.1 Test RB = RB1#0





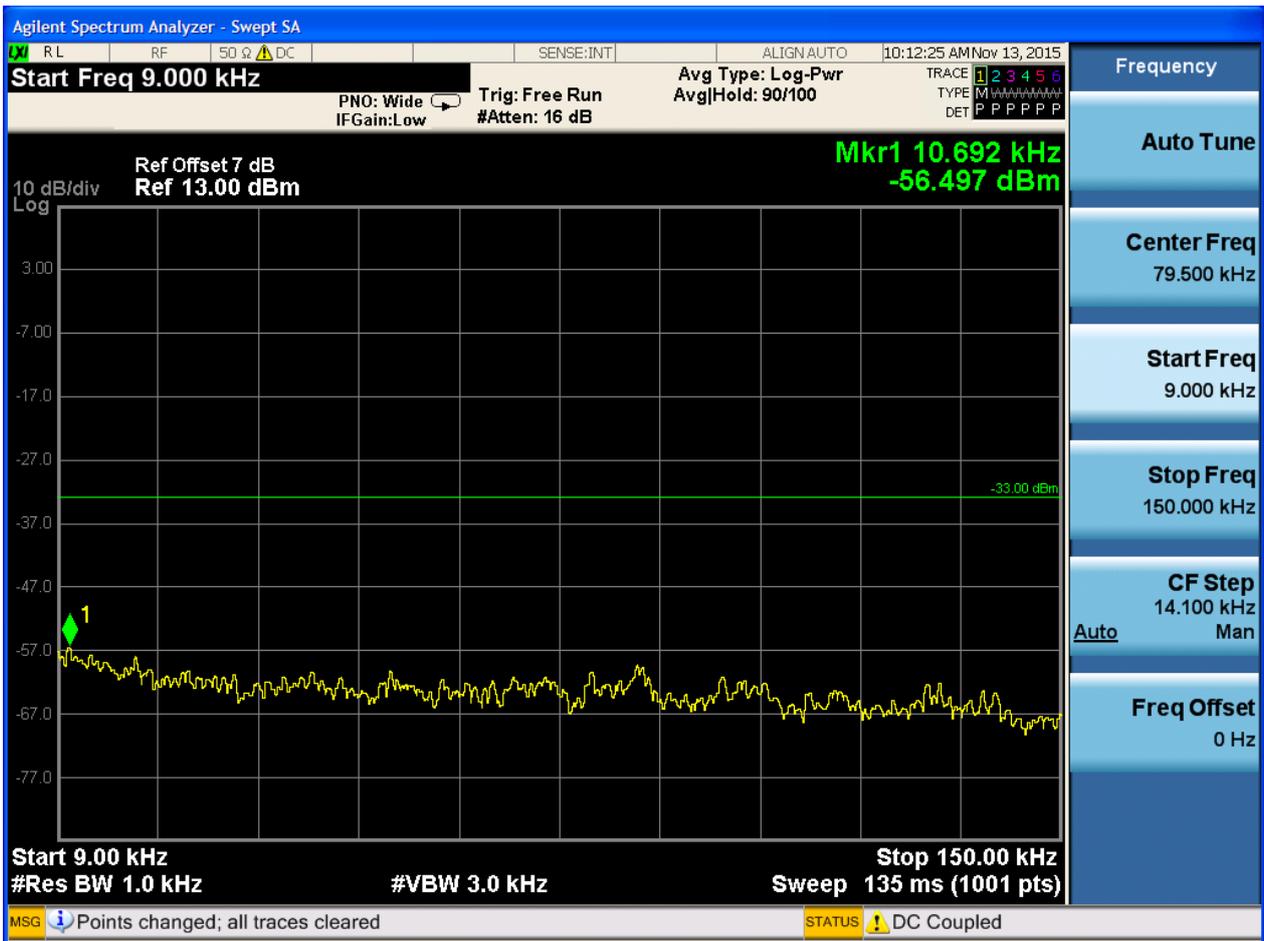


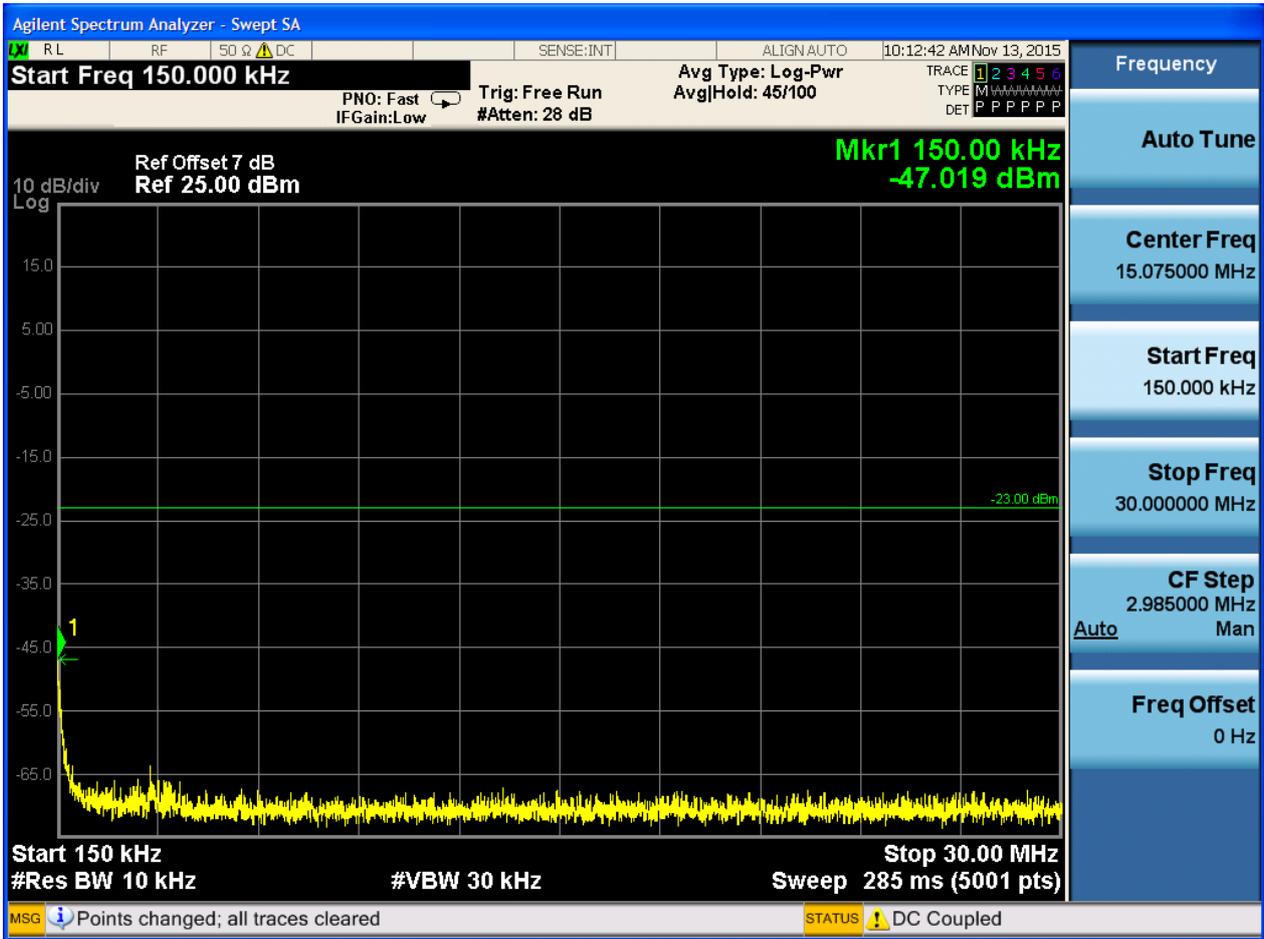


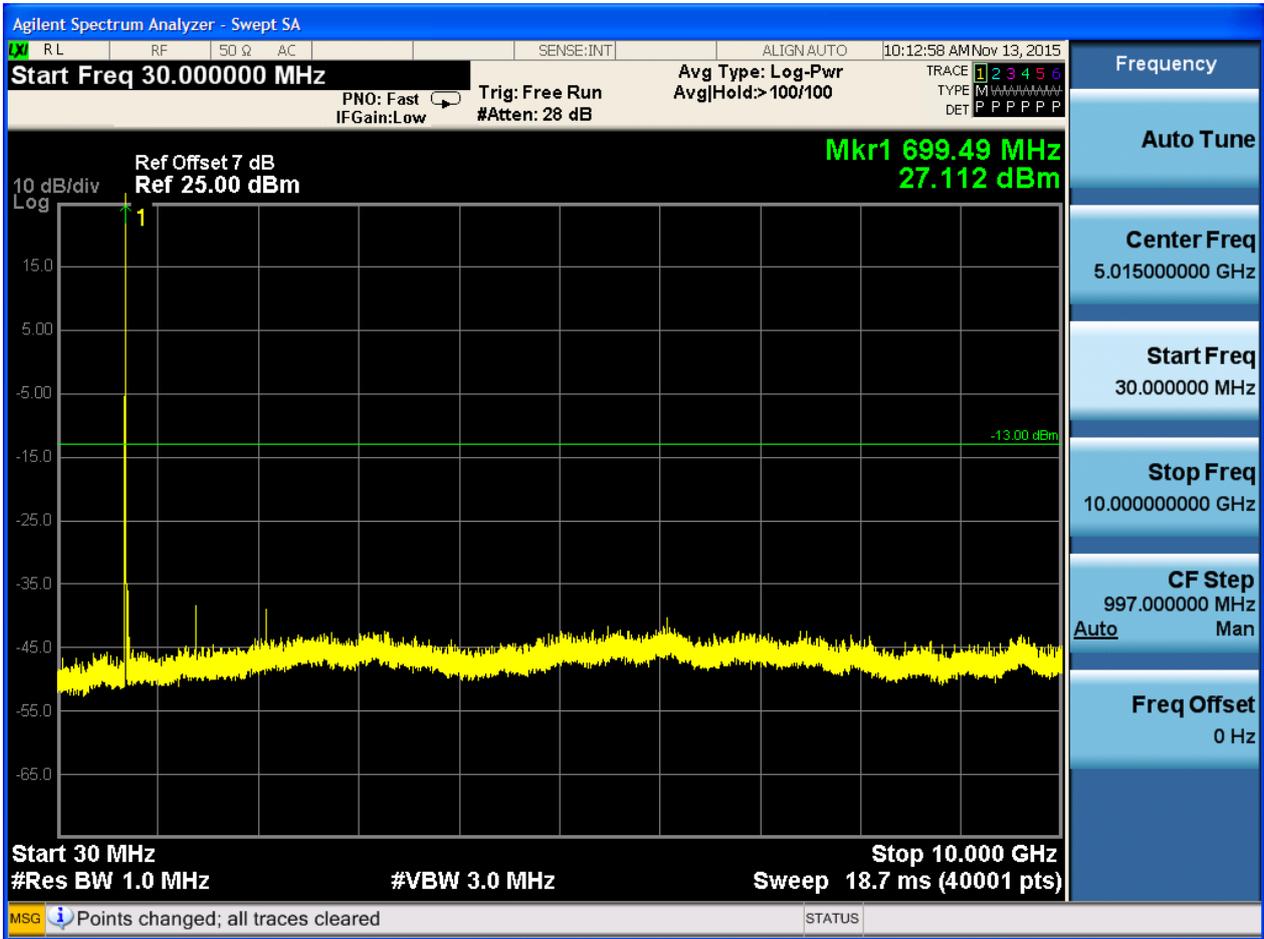
6.1.2.1.3 Test Bandwidth = 5

6.1.2.1.3.1 Test Channel = LCH

6.1.2.1.3.1.1 Test RB = RB1#0



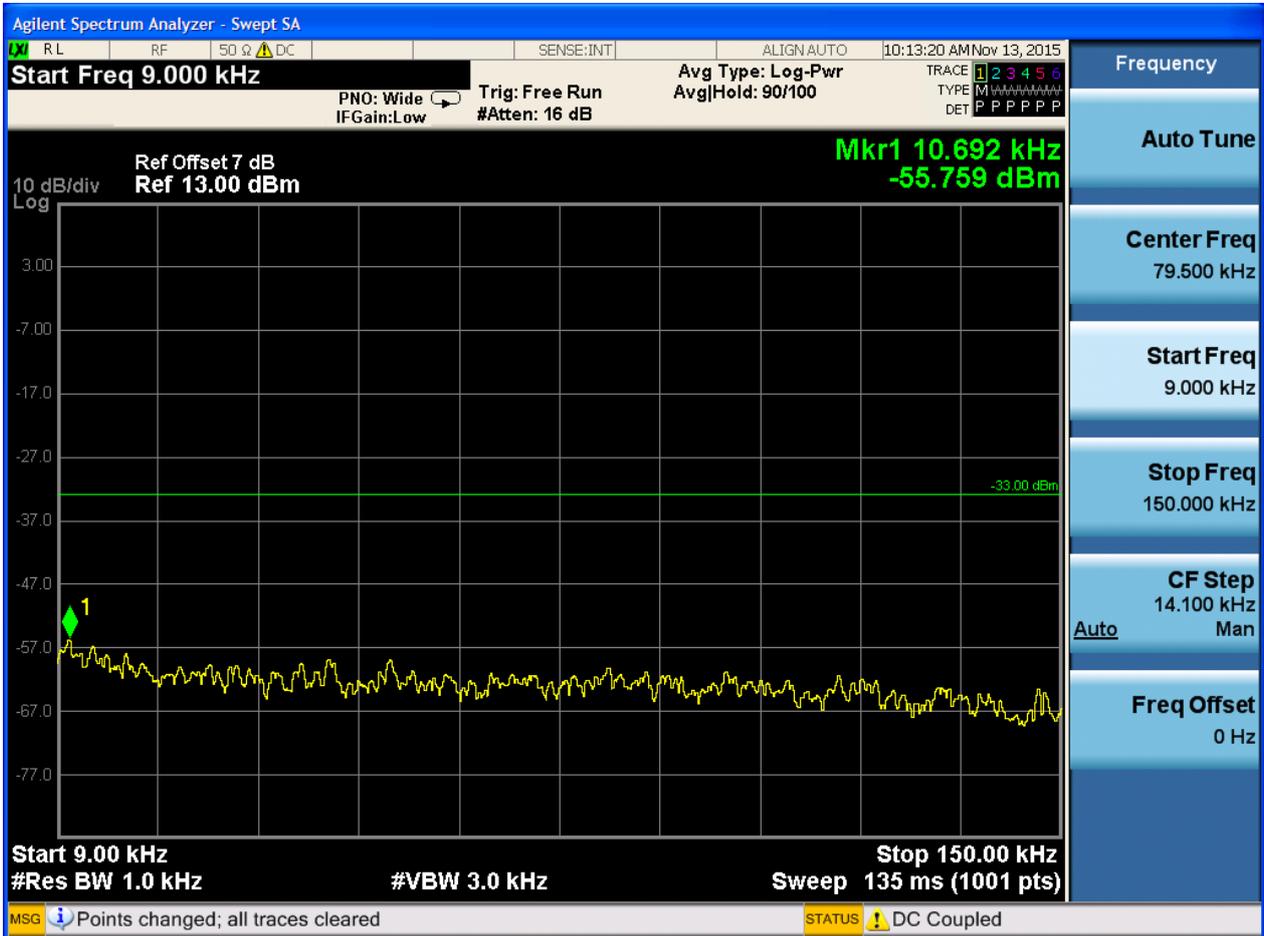




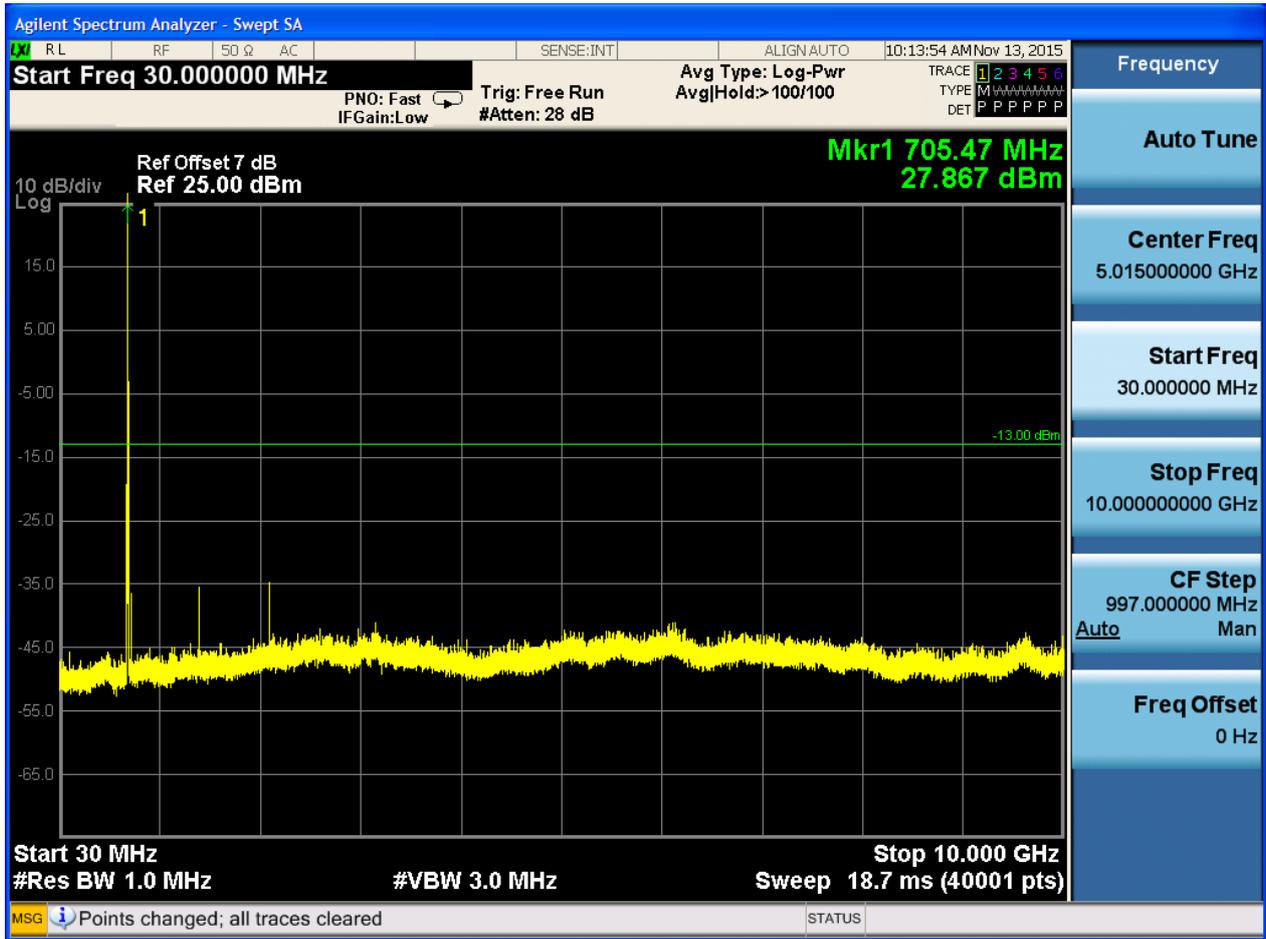


6.1.2.1.3.2 Test Channel = MCH

6.1.2.1.3.2.1 Test RB = RB1#0



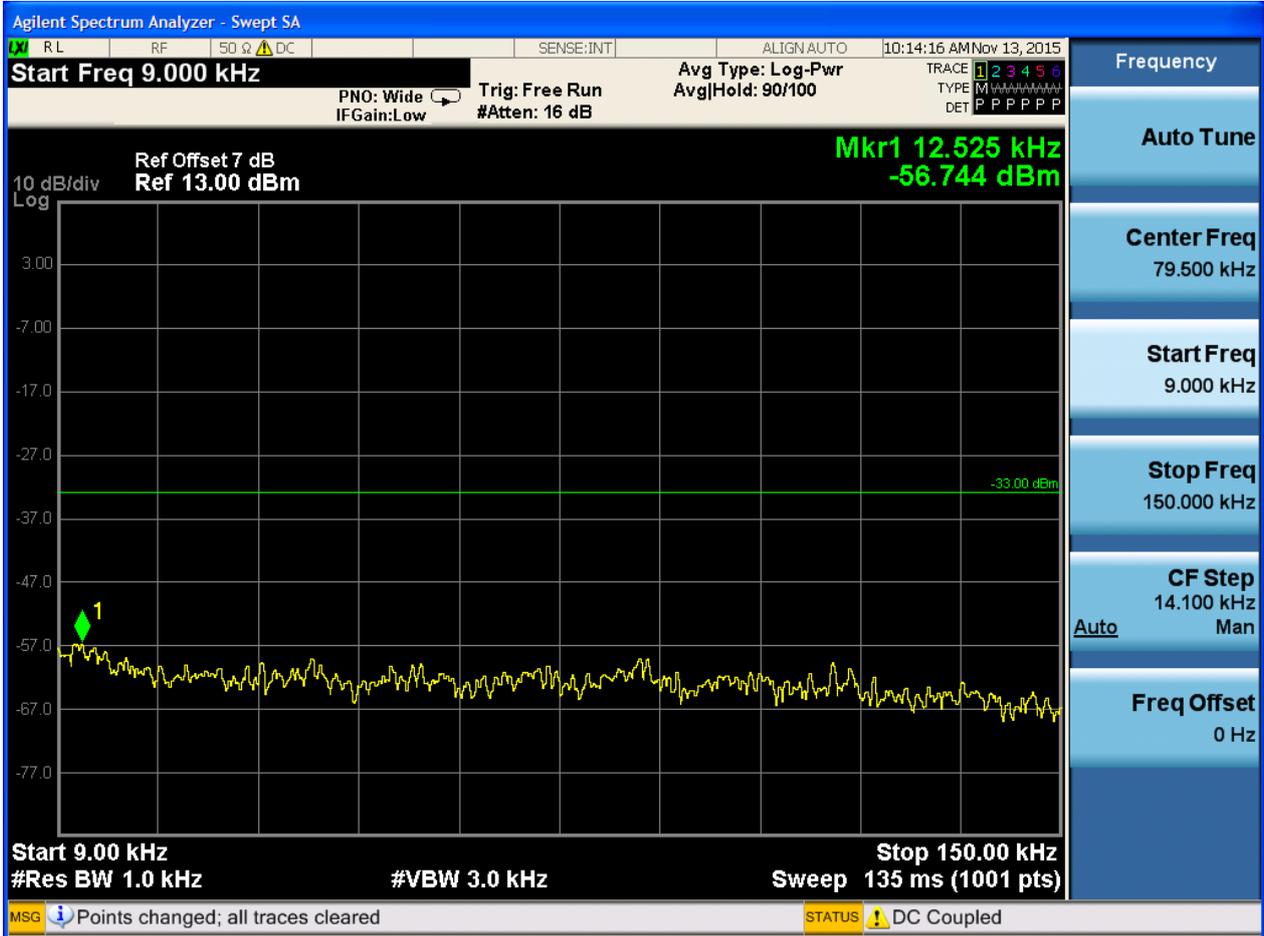


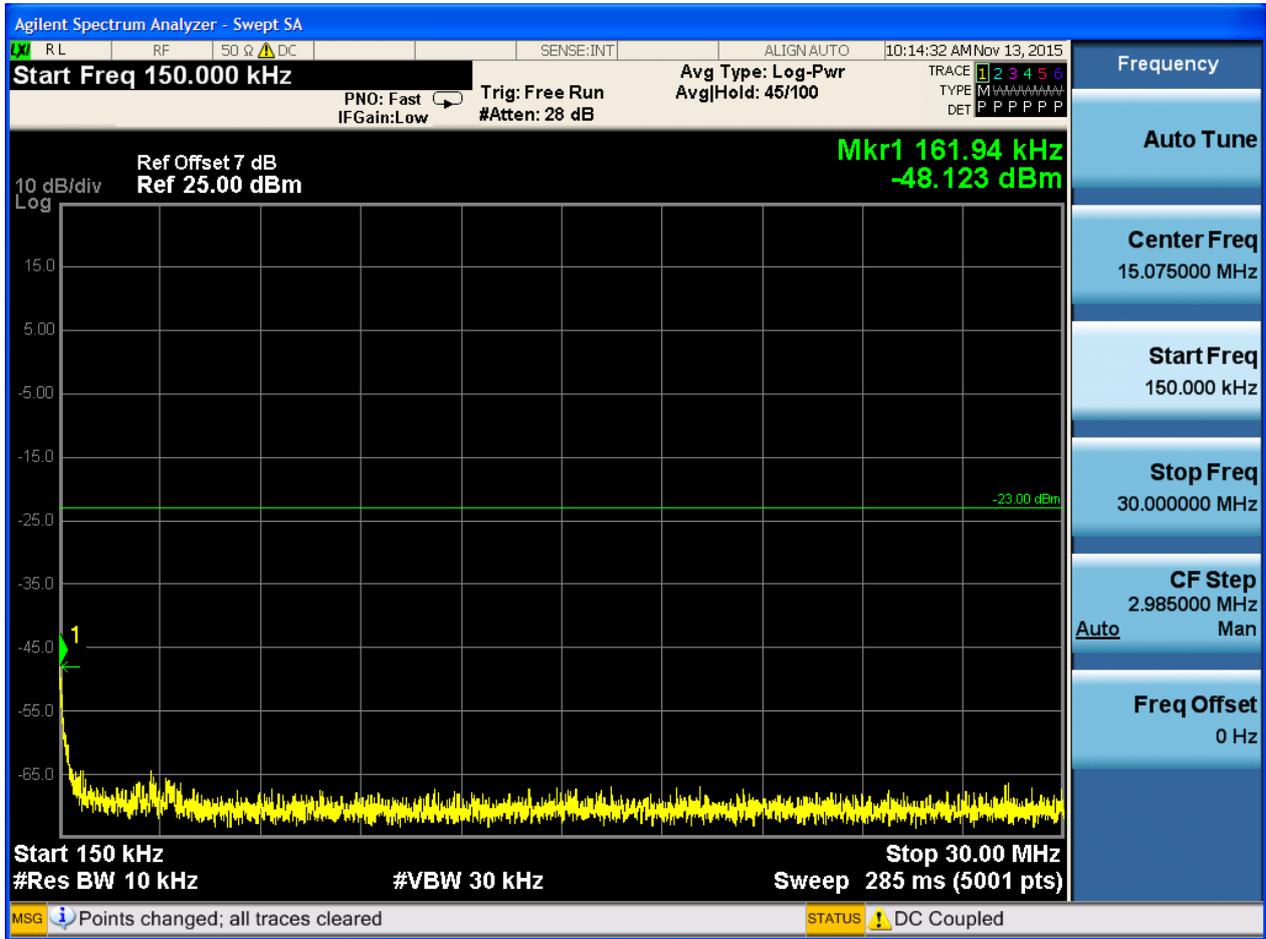


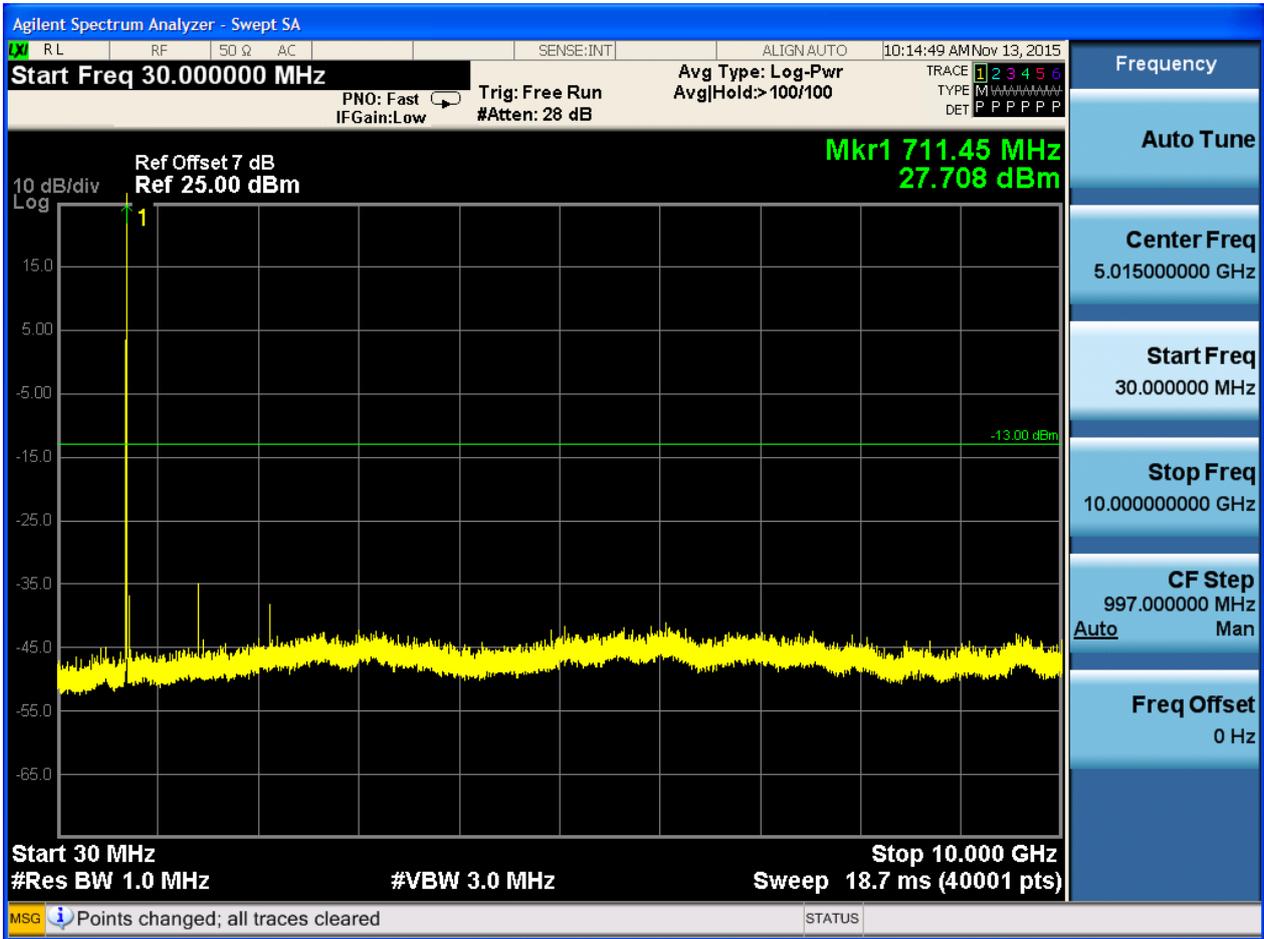


6.1.2.1.3.3 Test Channel = HCH

6.1.2.1.3.3.1 Test RB = RB1#0





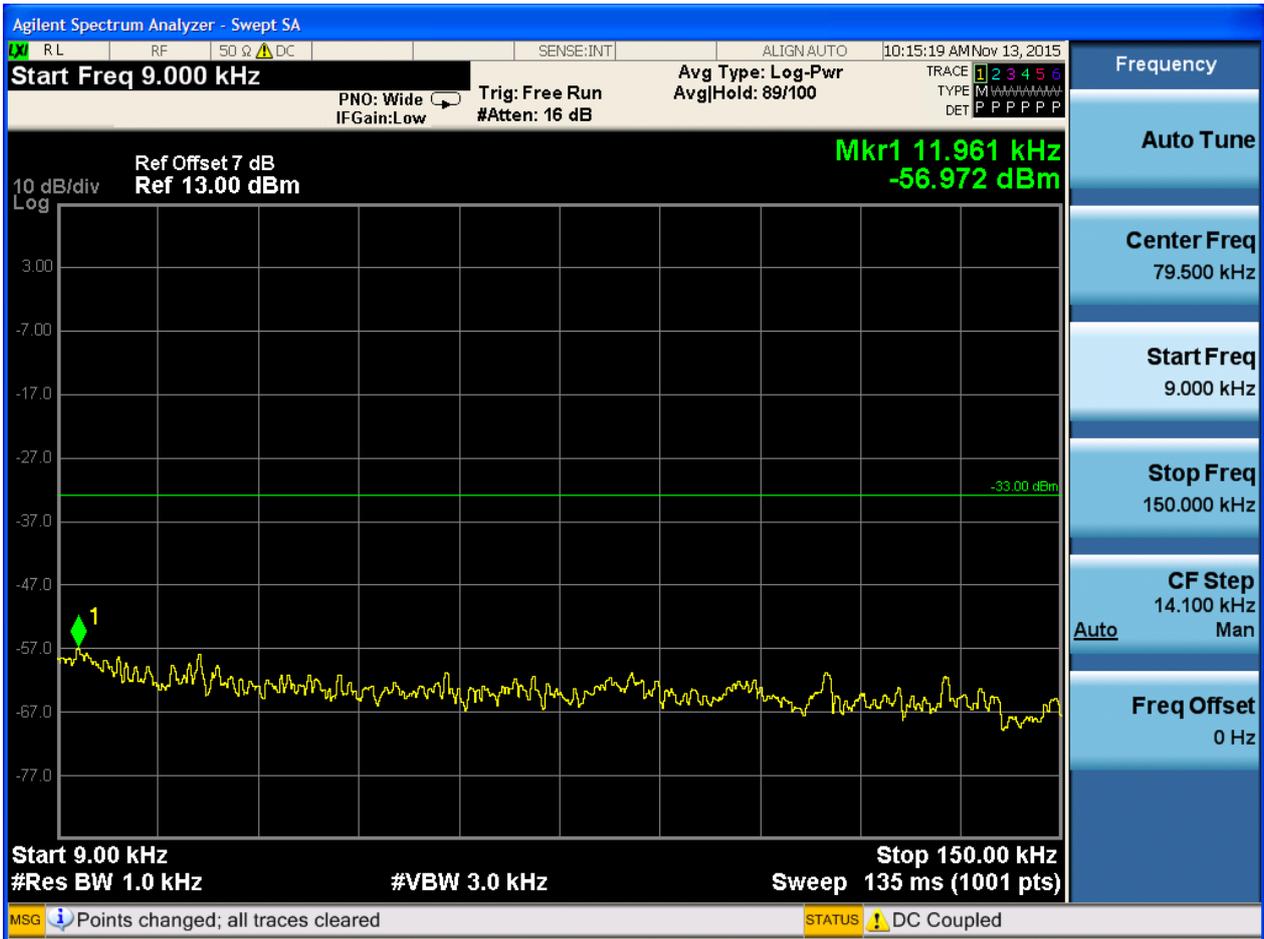


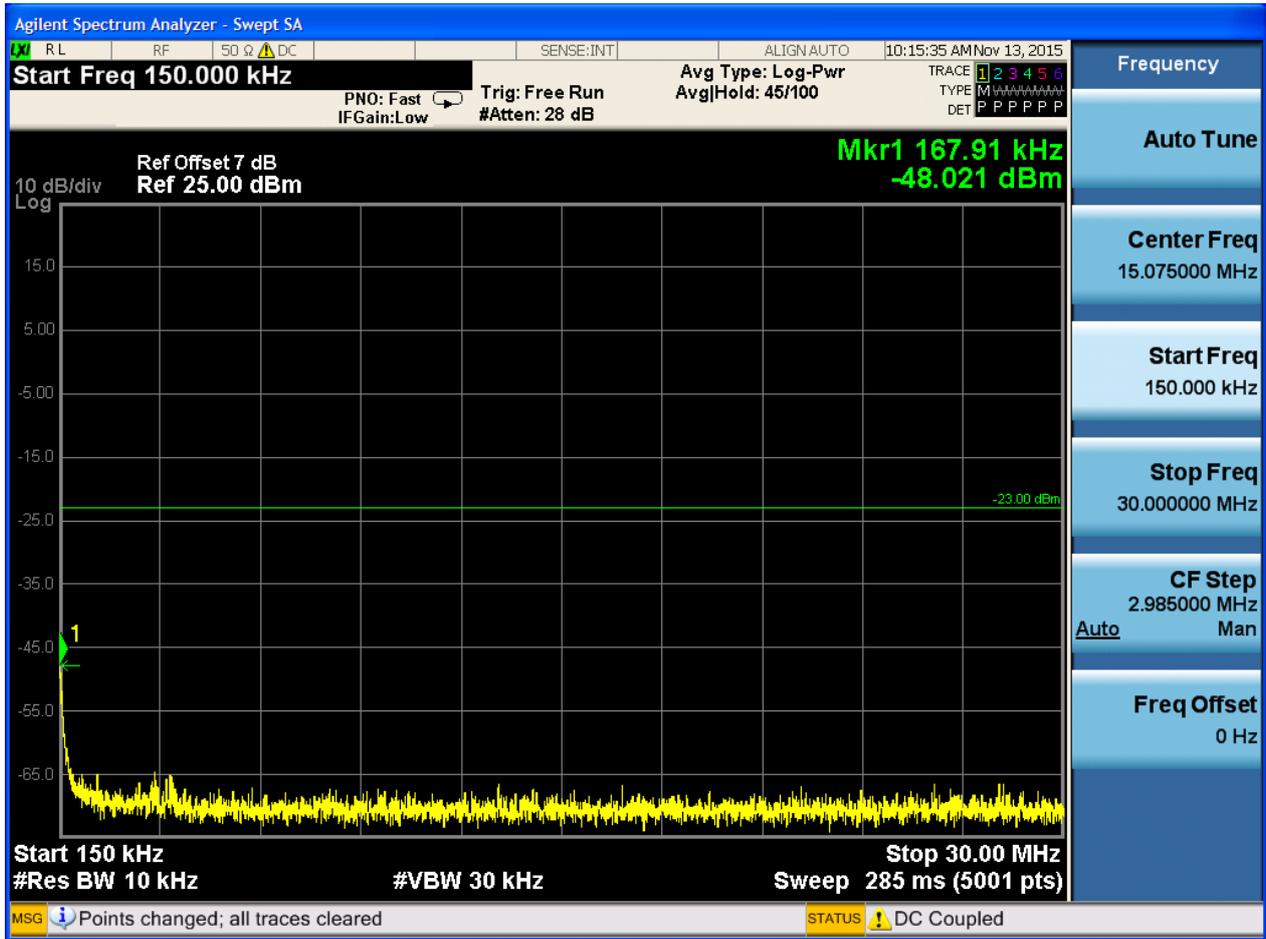


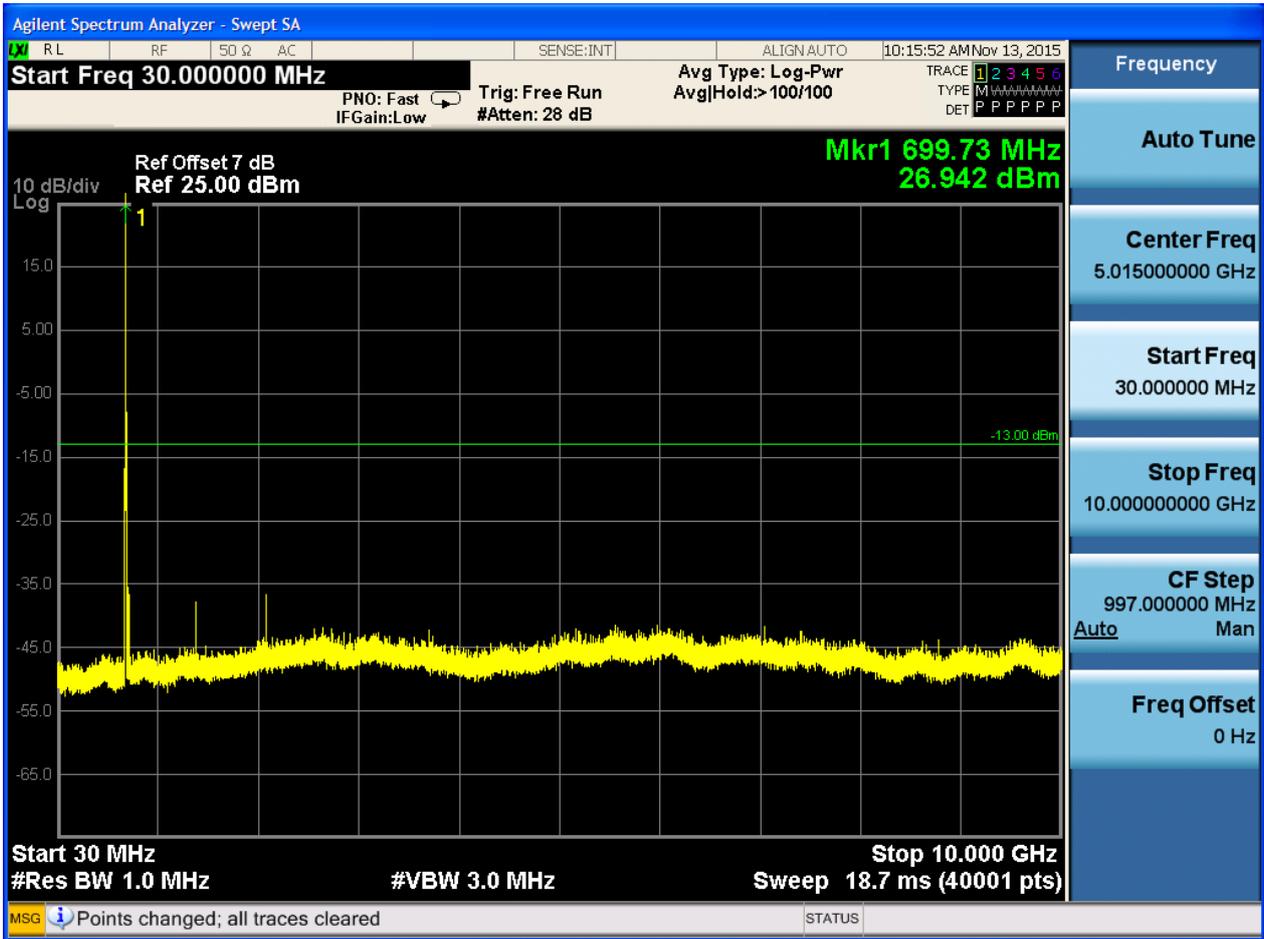
6.1.2.1.4 Test Bandwidth = 10

6.1.2.1.4.1 Test Channel = LCH

6.1.2.1.4.1.1 Test RB = RB1#0



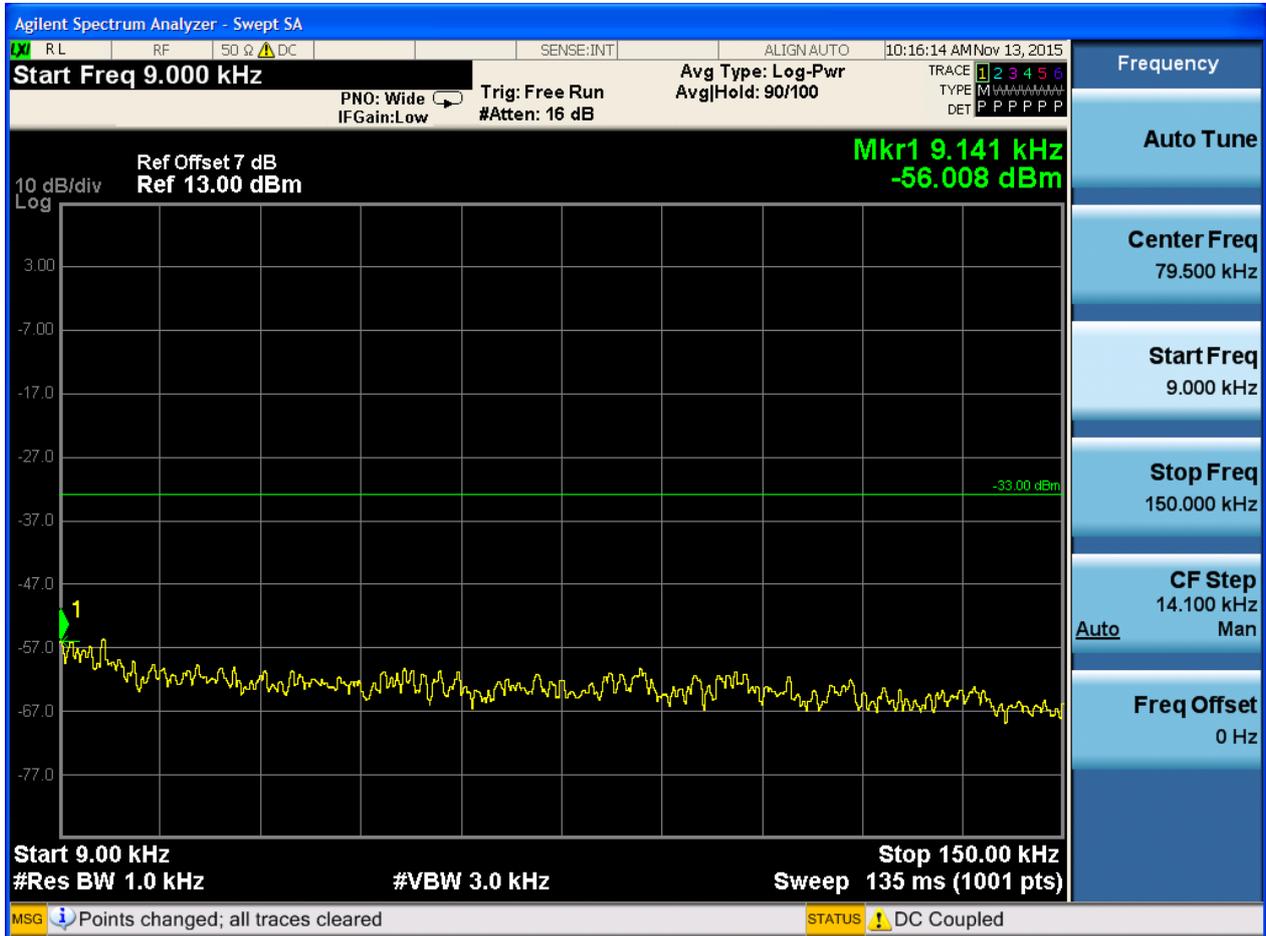






6.1.2.1.4.2 Test Channel = MCH

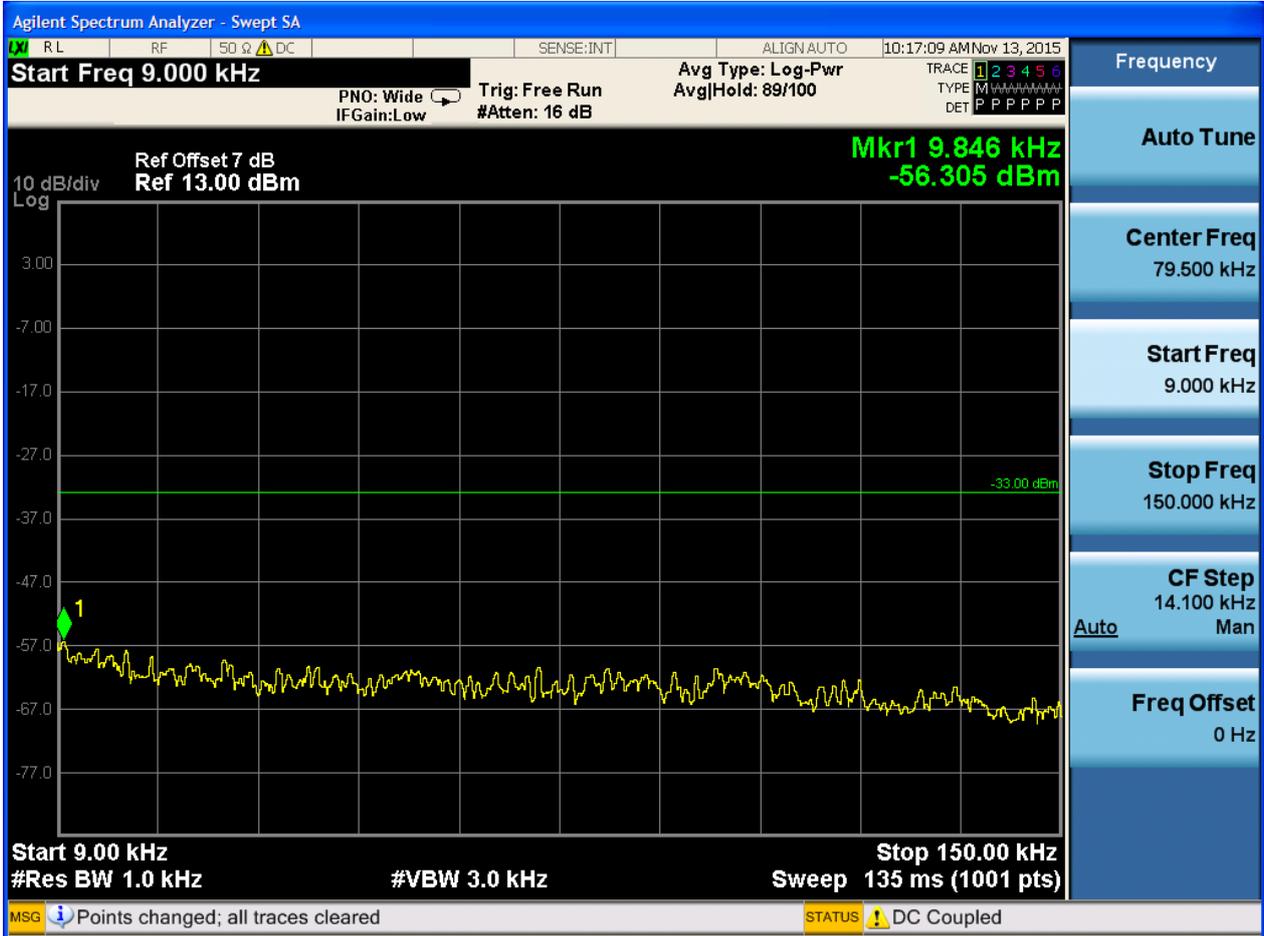
6.1.2.1.4.2.1 Test RB = RB1#0





6.1.2.1.4.3 Test Channel = HCH

6.1.2.1.4.3.1 Test RB = RB1#0



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

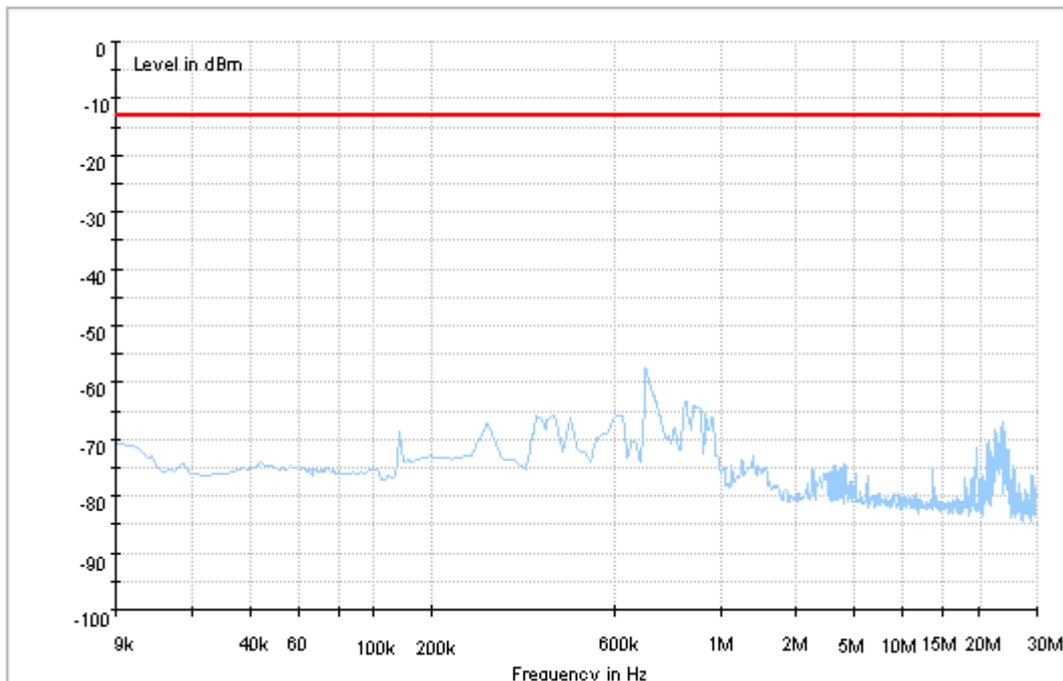
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Part I - Test Plots

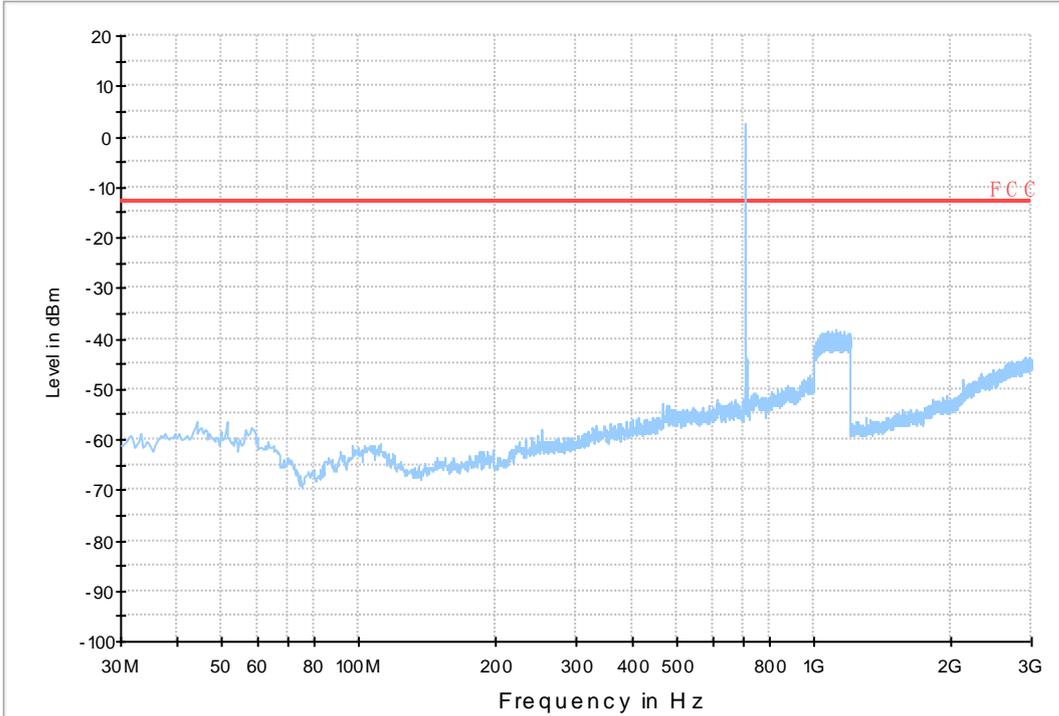
7.1 For LTE

7.1.1 Test Band = BAND12

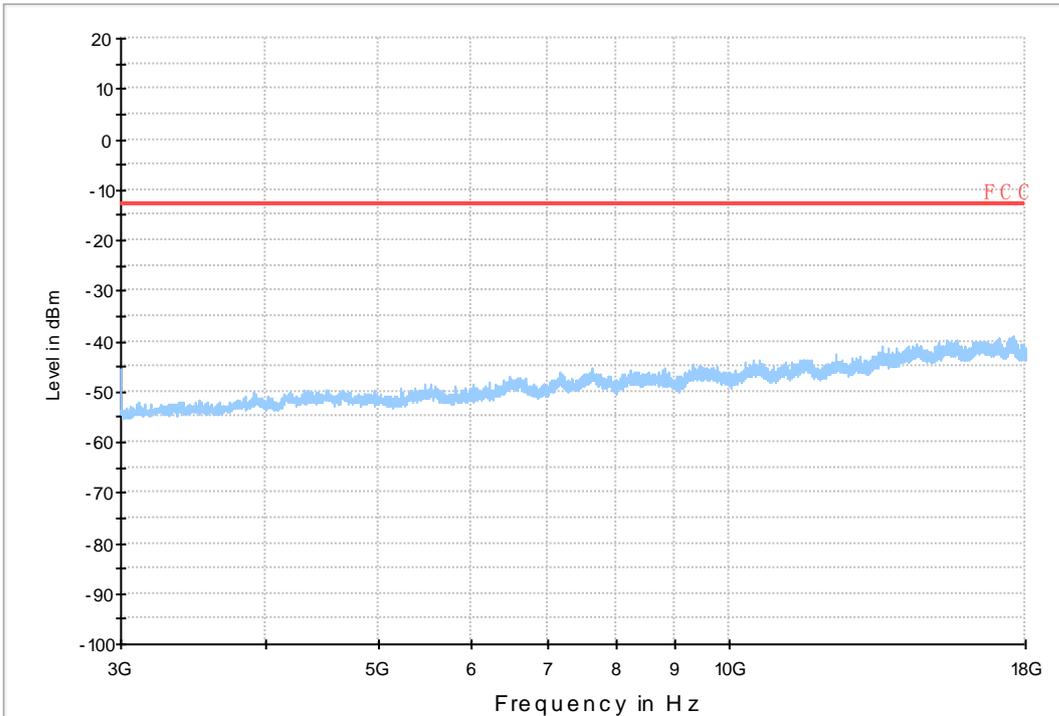
7.1.1.1 Test Bandwidth = 1.4



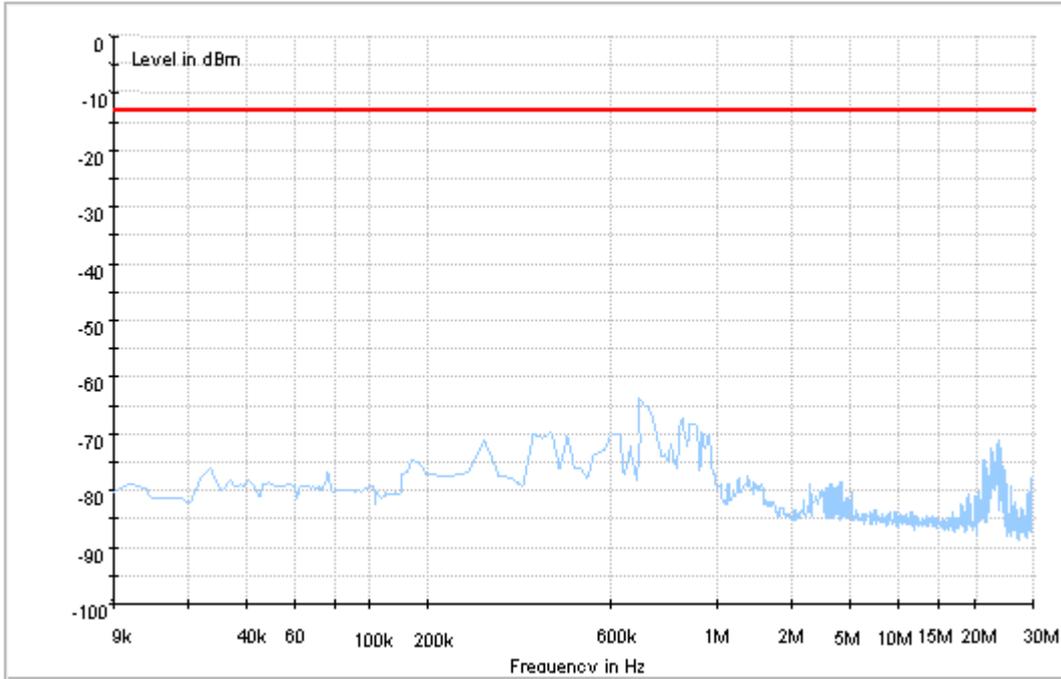
Copy of RSE-TX-DIRECTOR BELOW 1G_L



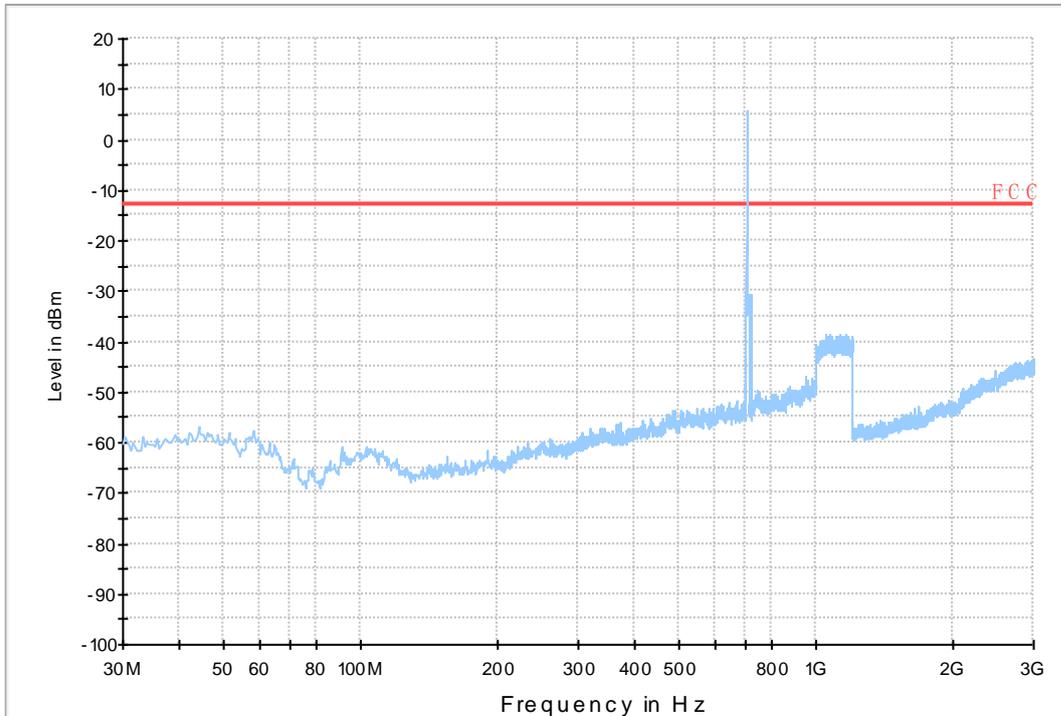
Copy of RSE-TX-DIRECTOR BELOW 1G_H



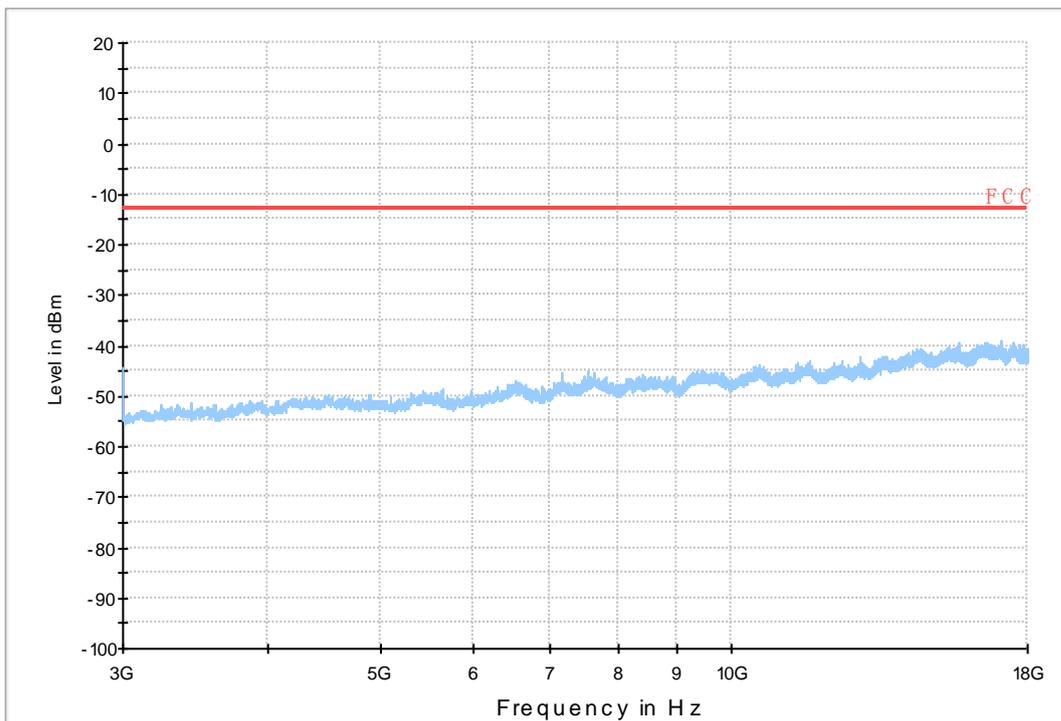
7.1.1.3 Test Bandwidth = 10



Copy of RSE-TX-DIRECTOR BELOW 1G_L



Copy of RSE-TX-DIRECTOR BELOW 1G_H





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]	Verdict
BAND12	LTE/TM1	1.4	LCH	TN	VL	4.09	0.00585	PASS
					VN	1.07	0.00153	PASS
					VH	-1.53	-0.00219	PASS
			MCH	TN	VL	-2.4	-0.00339	PASS
					VN	6.15	0.00869	PASS
					VH	-5.18	-0.00732	PASS
			HCH	TN	VL	-2.99	-0.00418	PASS
					VN	-3.86	-0.0054	PASS
					VH	3.69	0.00516	PASS
		3	LCH	TN	VL	-0.72	-0.00103	PASS
					VN	0.74	0.00106	PASS
					VH	-1.79	-0.00256	PASS
			MCH	TN	VL	2.82	0.00399	PASS
					VN	-0.27	-0.00038	PASS
					VH	-1.63	-0.0023	PASS
			HCH	TN	VL	-0.2	-0.00028	PASS
					VN	4.65	0.00651	PASS
					VH	5.95	0.00833	PASS
		5	LCH	TN	VL	-2.49	-0.00355	PASS
					VN	-0.29	-0.00041	PASS
					VH	-4.06	-0.00579	PASS
			MCH	TN	VL	-8.54	-0.01207	PASS
					VN	-1.04	-0.00147	PASS
					VH	-2.22	-0.00314	PASS
			HCH	TN	VL	-0.93	-0.0013	PASS
					VN	-4.63	-0.00649	PASS
					VH	-4.23	-0.00593	PASS
		10	LCH	TN	VL	18.97	0.02695	PASS
					VN	19.21	0.02729	PASS
					VH	20.79	0.02953	PASS
MCH	TN		VL	3.29	0.00465	PASS		
			VN	3.42	0.00483	PASS		
			VH	-3.52	-0.00498	PASS		
HCH	TN		VL	-37.09	-0.05217	PASS		



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
	LTE/TM2				VN	-52.43	-0.07374	PASS
					VH	-24.2	-0.03404	PASS
		1.4	LCH	TN	VL	-0.64	-0.00091	PASS
					VN	2.39	0.00342	PASS
					VH	-2.37	-0.00339	PASS
			MCH	TN	VL	-2.26	-0.00319	PASS
					VN	-1.96	-0.00277	PASS
					VH	3.98	0.00563	PASS
			HCH	TN	VL	3.59	0.00502	PASS
					VN	-3.15	-0.0044	PASS
					VH	-1.97	-0.00275	PASS
		3	LCH	TN	VL	-1.62	-0.00231	PASS
					VN	0.47	0.00067	PASS
					VH	1.47	0.0021	PASS
			MCH	TN	VL	-2.12	-0.003	PASS
					VN	-2.52	-0.00356	PASS
					VH	2.57	0.00363	PASS
			HCH	TN	VL	-2.62	-0.00367	PASS
					VN	-3.12	-0.00437	PASS
					VH	-5.02	-0.00703	PASS
		5	LCH	TN	VL	-3.36	-0.00479	PASS
					VN	2.56	0.00365	PASS
					VH	-3.78	-0.00539	PASS
			MCH	TN	VL	-1.24	-0.00175	PASS
					VN	-0.72	-0.00102	PASS
					VH	3.3	0.00466	PASS
			HCH	TN	VL	-1.97	-0.00276	PASS
					VN	-4.58	-0.00642	PASS
					VH	-4.05	-0.00568	PASS
		10	LCH	TN	VL	10.73	0.01524	PASS
					VN	6.64	0.00943	PASS
					VH	5.74	0.00815	PASS
			MCH	TN	VL	5.66	0.008	PASS
					VN	2.6	0.00367	PASS
					VH	12.25	0.01731	PASS
			HCH	TN	VL	19.2	0.027	PASS
					VN	31.53	0.04435	PASS
					VH	12.13	0.01706	PASS



8.1.2 Frequency Error vs. Temperature:

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
BAND12	LTE/TM1	1.4	LCH	VN	-30	5.29	0.00756	PASS
					-20	-1.62	-0.00232	PASS
					-10	-1.99	-0.00284	PASS
					0	-1.87	-0.00267	PASS
					10	2.96	0.00423	PASS
					20	-4.76	-0.0068	PASS
					30	-6.11	-0.00873	PASS
					40	-9.81	-0.01402	PASS
			50	2.2	0.00314	PASS		
			MCH	VN	-30	-1.66	-0.00235	PASS
					-20	1.4	0.00198	PASS
					-10	-1.32	-0.00187	PASS
					0	3.33	0.00471	PASS
					10	5.82	0.00823	PASS
					20	2.86	0.00404	PASS
					30	-0.27	-0.00038	PASS
		40			1.07	0.00151	PASS	
		HCH	VN	-30	-0.67	-0.00094	PASS	
				-20	-8	-0.01118	PASS	
				-10	0.17	0.00024	PASS	
				0	-7.41	-0.01036	PASS	
				10	0.84	0.00117	PASS	
				20	1.33	0.00186	PASS	
				30	-2.03	-0.00284	PASS	
				40	-1.13	-0.00158	PASS	
		3	LCH	VN	-30	-2.02	-0.00288	PASS
					-20	-0.03	-0.00004	PASS
					-10	1.16	0.00166	PASS
					0	2.98	0.00425	PASS
					10	2.73	0.0039	PASS
					20	0.99	0.00141	PASS
					30	3.92	0.0056	PASS
40	8.11				0.01158	PASS		
50	-0.31		-0.00044	PASS				
MCH	VN		-30	3.13	0.00442	PASS		



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict		
					-20	-4.28	-0.00605	PASS		
					-10	1.93	0.00273	PASS		
					0	-0.54	-0.00076	PASS		
					10	6.15	0.00869	PASS		
					20	-0.3	-0.00042	PASS		
					30	0.09	0.00013	PASS		
					40	2.7	0.00382	PASS		
					50	-2.86	-0.00404	PASS		
			HCH	VN	-30	1.1	0.00154	PASS		
					-20	3.42	0.00479	PASS		
					-10	0.39	0.00055	PASS		
					0	-3.13	-0.00438	PASS		
					10	0	0	PASS		
					20	1.37	0.00192	PASS		
					30	-0.23	-0.00032	PASS		
					40	-3.4	-0.00476	PASS		
			LCH	VN	-30	-1.13	-0.00161	PASS		
					-20	1.22	0.00174	PASS		
					-10	1	0.00143	PASS		
					0	0.3	0.00043	PASS		
		10			-1.53	-0.00218	PASS			
		20			-4.71	-0.00671	PASS			
		30			-0.83	-0.00118	PASS			
		40			1.96	0.00279	PASS			
		MCH	VN	50	2.2	0.00314	PASS			
				-30	-2.1	-0.00297	PASS			
				-20	-3.79	-0.00536	PASS			
				-10	2.06	0.00291	PASS			
				0	0.92	0.0013	PASS			
				10	-3.52	-0.00498	PASS			
				20	-2.53	-0.00358	PASS			
				30	-5.19	-0.00734	PASS			
		HCH	VN	40	-1.26	-0.00178	PASS			
				50	-1.85	-0.00261	PASS			
				-30	-0.21	-0.00029	PASS			
				-20	-2.53	-0.00355	PASS			
				5			-10	-2.59	-0.00363	PASS
							0	0.29	0.00041	PASS



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict		
					10	-0.84	-0.00118	PASS		
					20	-2.79	-0.00391	PASS		
					30	-6.09	-0.00854	PASS		
					40	-2.55	-0.00357	PASS		
					50	0.9	0.00126	PASS		
		10	LCH	VN	-30	1.23	0.00175	PASS		
					-20	5.29	0.00751	PASS		
					-10	5.24	0.00744	PASS		
					0	1.04	0.00148	PASS		
					10	13.43	0.01908	PASS		
					20	8.8	0.0125	PASS		
					30	2.65	0.00376	PASS		
					40	6.57	0.00933	PASS		
					50	4.49	0.00638	PASS		
					MCH	VN	-30	6.92	0.00978	PASS
							-20	5.24	0.00741	PASS
							-10	7.04	0.00995	PASS
							0	9.58	0.01354	PASS
							10	13.38	0.01891	PASS
							20	3	0.00424	PASS
							30	10.6	0.01498	PASS
	40						-0.34	-0.00048	PASS	
	HCH				VN	-30	17.58	0.02473	PASS	
		-20	31.01	0.04361		PASS				
		-10	9.47	0.01332		PASS				
		0	21.3	0.02996		PASS				
		10	10.9	0.01533		PASS				
		20	15.12	0.02127		PASS				
		30	25.51	0.03588		PASS				
		40	19.01	0.02674		PASS				
	1.4	LCH	VN	-30	0.59	0.00084	PASS			
				-20	5.35	0.00765	PASS			
				-10	-4.73	-0.00676	PASS			
0				-8.3	-0.01186	PASS				
10				-5.58	-0.00797	PASS				
20				1.07	0.00153	PASS				
30				5.38	0.00769	PASS				



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict	
					40	0.23	0.00033	PASS	
					50	-1.66	-0.00237	PASS	
			MCH	VN	-30	-1.67	-0.00236	PASS	
					-20	-1.62	-0.00229	PASS	
					-10	-1.12	-0.00158	PASS	
					0	4.56	0.00645	PASS	
					10	-3.03	-0.00428	PASS	
					20	-2.32	-0.00328	PASS	
					30	-4.41	-0.00623	PASS	
					40	-0.97	-0.00137	PASS	
					50	-1.49	-0.00211	PASS	
					HCH	VN	-30	-0.87	-0.00122
			-20	2.27			0.00317	PASS	
			-10	-2.63			-0.00368	PASS	
			0	-3.46			-0.00484	PASS	
			10	0.49			0.00069	PASS	
			20	3.36			0.0047	PASS	
			30	-5.09			-0.00712	PASS	
			40	1.43			0.002	PASS	
			3		LCH	VN	-30	0.76	0.00108
		-20					1.27	0.00181	PASS
		-10					5.49	0.00784	PASS
		0					2.52	0.0036	PASS
		10					1.29	0.00184	PASS
		20					1.43	0.00204	PASS
		30					1.92	0.00274	PASS
		40					2.6	0.00371	PASS
		50					-5.82	-0.00831	PASS
		MCH					VN	-30	2.78
					-20	0		0	PASS
					-10	-1.56		-0.0022	PASS
					0	2.89		0.00408	PASS
					10	-0.26		-0.00037	PASS
					20	-2.13		-0.00301	PASS
					30	-0.24		-0.00034	PASS
					40	-0.3		-0.00042	PASS
					50	3.22		0.00455	PASS
					HCH	VN		-30	3.05



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					-20	2.27	0.00318	PASS
					-10	-4.12	-0.00577	PASS
					0	-1.75	-0.00245	PASS
					10	-3.36	-0.0047	PASS
					20	1.23	0.00172	PASS
					30	1.65	0.00231	PASS
					40	-1.85	-0.00259	PASS
					50	-6.31	-0.00883	PASS
		5	LCH	VN	-30	-0.46	-0.00066	PASS
					-20	0.99	0.00141	PASS
					-10	-5.02	-0.00716	PASS
					0	-2.5	-0.00356	PASS
					10	-2.65	-0.00378	PASS
					20	0.24	0.00034	PASS
					30	-2.25	-0.00321	PASS
					40	-2.43	-0.00346	PASS
			MCH	VN	-30	1.82	0.00257	PASS
					-20	-0.31	-0.00044	PASS
					-10	-3.55	-0.00502	PASS
					0	3.62	0.00512	PASS
					10	0.31	0.00044	PASS
					20	-1.46	-0.00206	PASS
					30	0.07	0.0001	PASS
					40	0.17	0.00024	PASS
			HCH	VN	-30	3.62	0.00507	PASS
					-20	1.5	0.0021	PASS
					-10	-5.32	-0.00746	PASS
					0	-5.51	-0.00772	PASS
					10	-5.79	-0.00811	PASS
					20	-1.02	-0.00143	PASS
					30	-1.5	-0.0021	PASS
					40	2.4	0.00336	PASS
		10	LCH	VN	50	1.46	0.00205	PASS
					-30	-1.86	-0.00264	PASS
					-20	1.29	0.00183	PASS
					-10	2.57	0.00365	PASS
					0	6.54	0.00929	PASS



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					10	7.22	0.01026	PASS
					20	0.63	0.00089	PASS
					30	3.89	0.00553	PASS
					40	7.82	0.01111	PASS
					50	3.76	0.00534	PASS
			MCH	VN	-30	-7.35	-0.01039	PASS
					-20	10.99	0.01553	PASS
					-10	3.39	0.00479	PASS
					0	1.37	0.00194	PASS
					10	8.14	0.01151	PASS
					20	-7.82	-0.01105	PASS
					30	0.01	0.00001	PASS
					40	3.69	0.00522	PASS
			HCH	VN	50	5.14	0.00727	PASS
					-30	5.89	0.00828	PASS
					-20	-1.39	-0.00195	PASS
					-10	-2.4	-0.00338	PASS
					0	-6.79	-0.00955	PASS
					10	-3.06	-0.0043	PASS
					20	-2.63	-0.0037	PASS
					30	-10.23	-0.01439	PASS
			40	-10.94	-0.01539	PASS		
			50	-1.79	-0.00252	PASS		

END