



5.1.1.2.4.1.3 Test RB = RB50#25





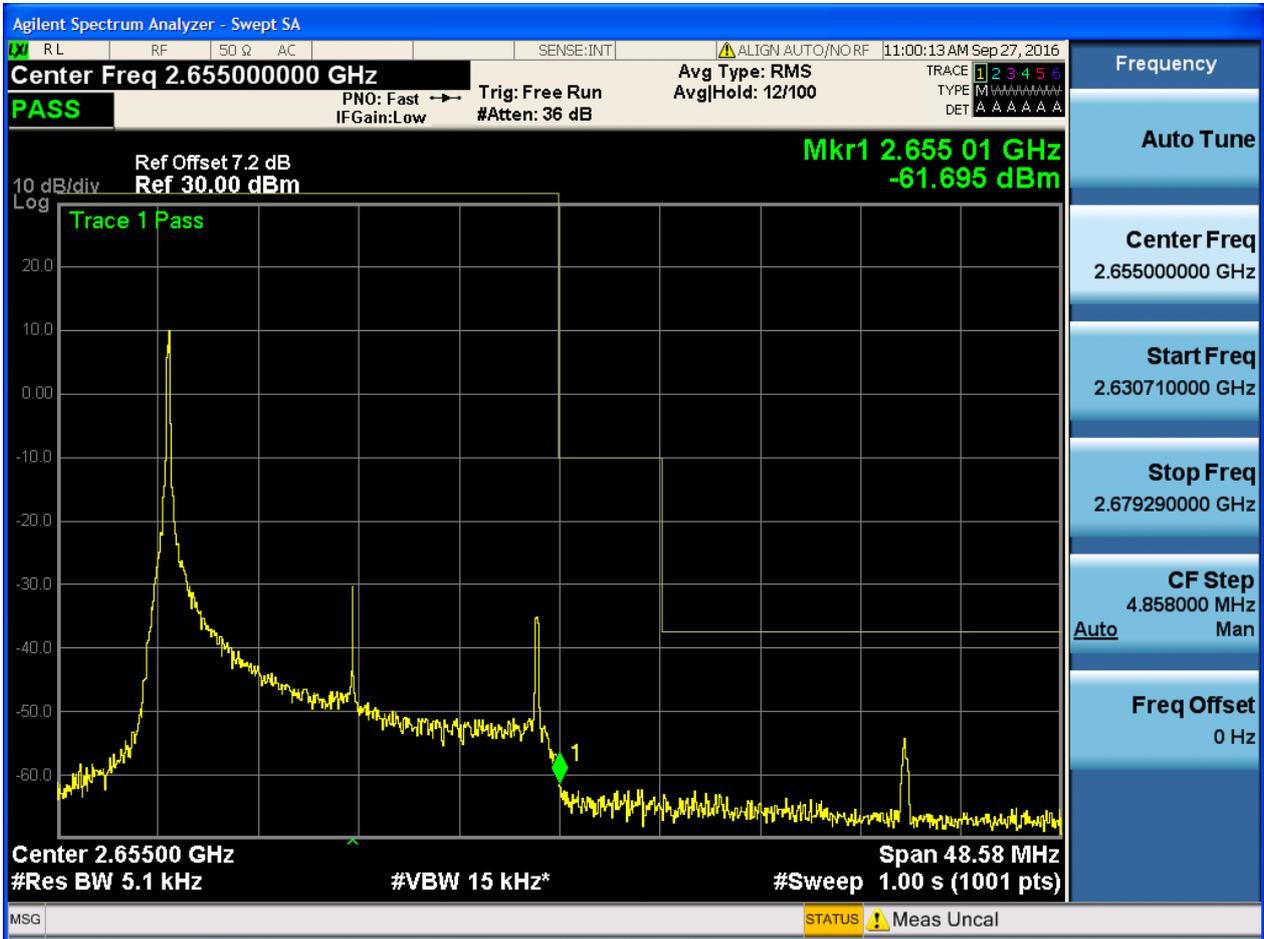
5.1.1.2.4.1.4 Test RB = RB100#0





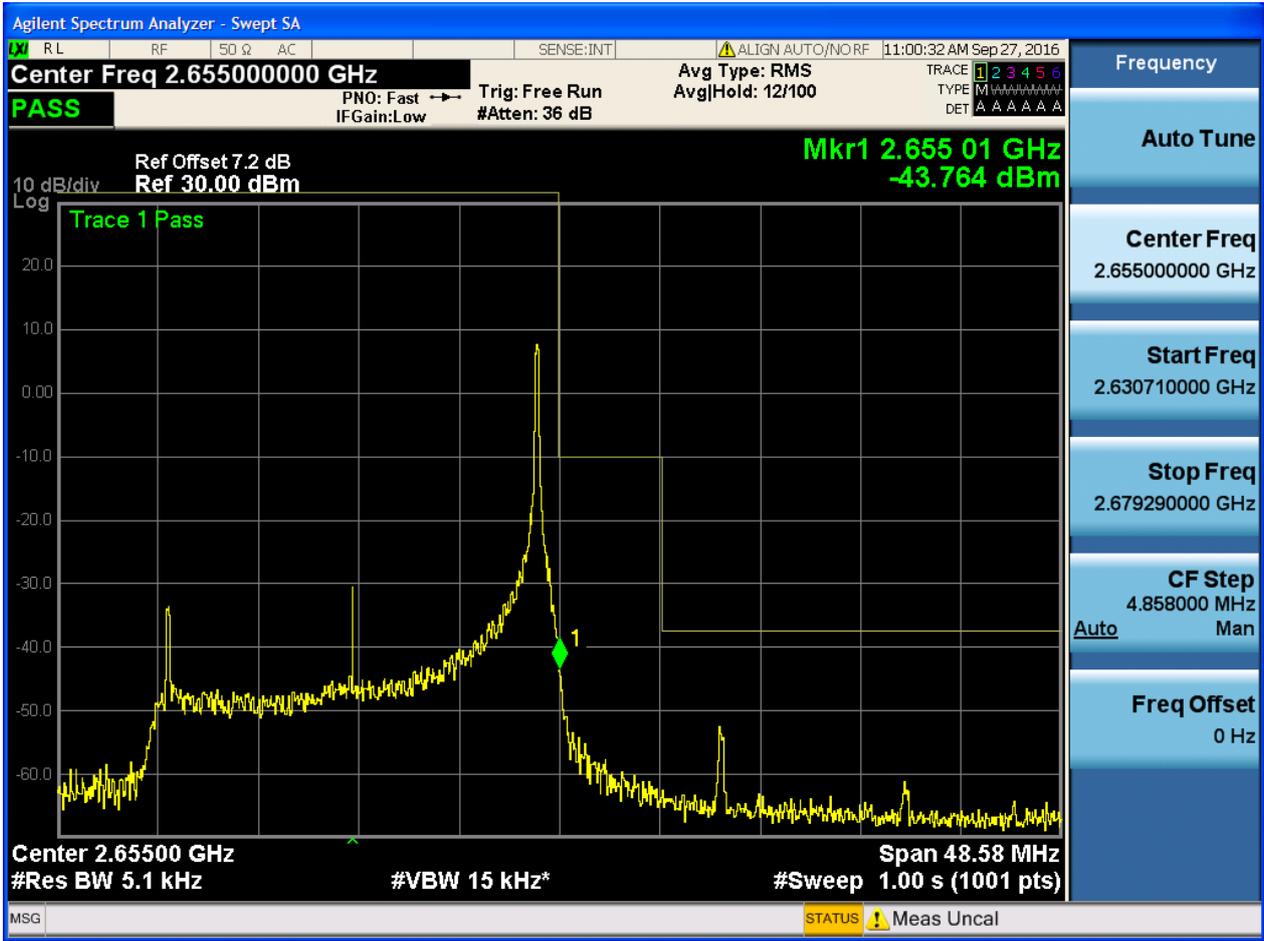
5.1.1.2.4.2 Test Channel = HCH

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

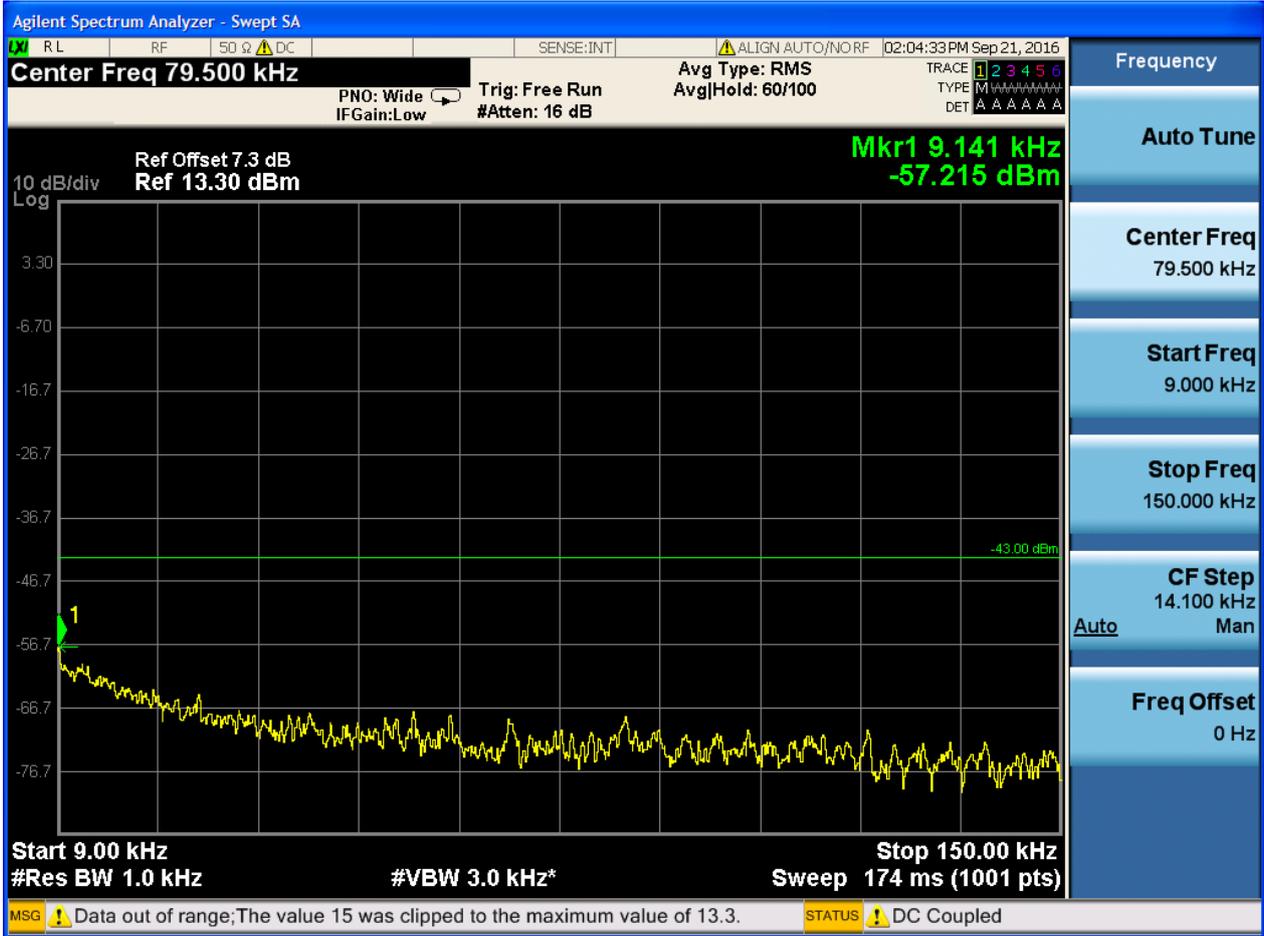
6.1.1 Test Band = BAND41

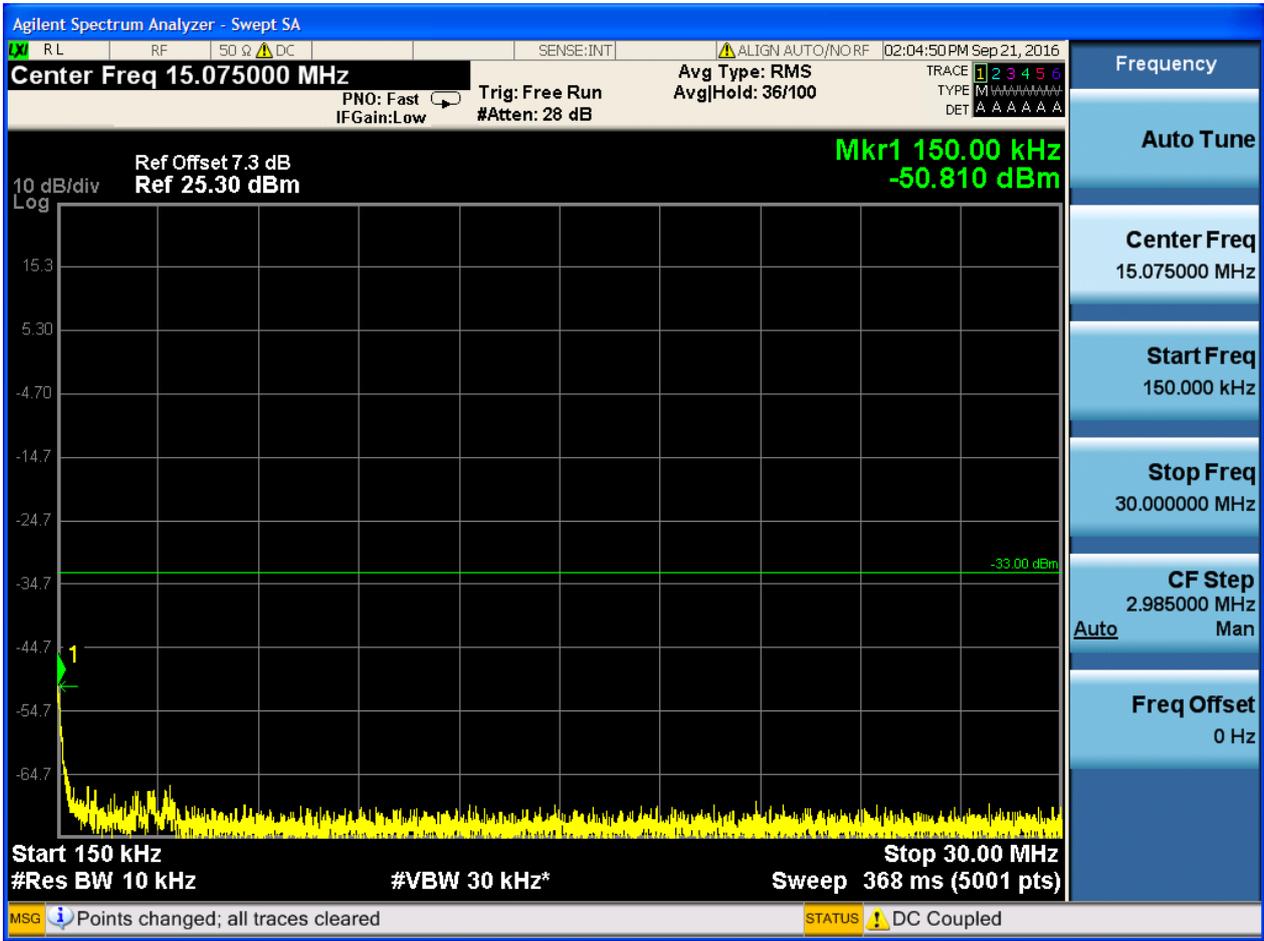
6.1.1.1 Test Mode = LTE/TM1

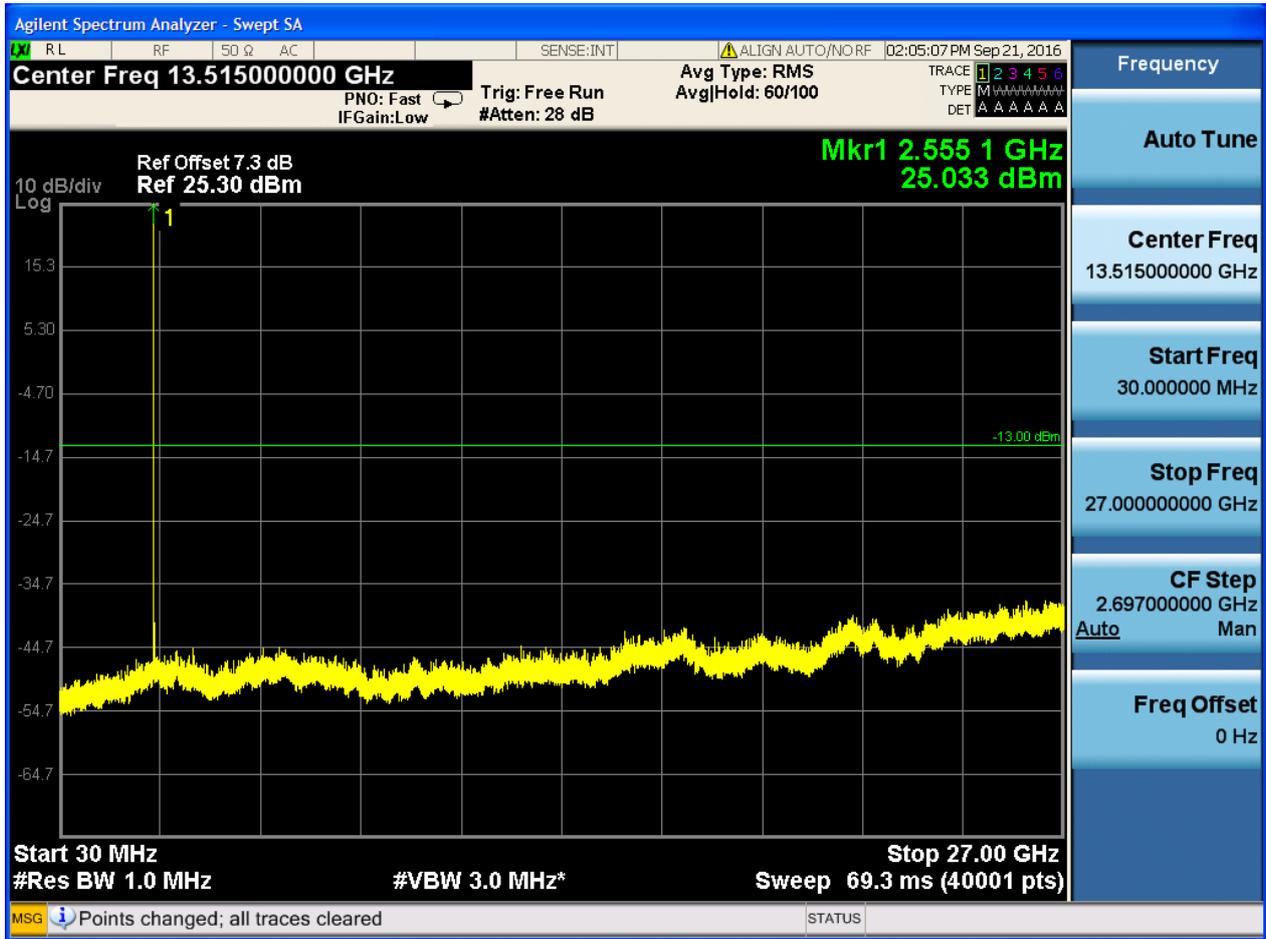
6.1.1.1.1 Test Bandwidth = 5

6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0



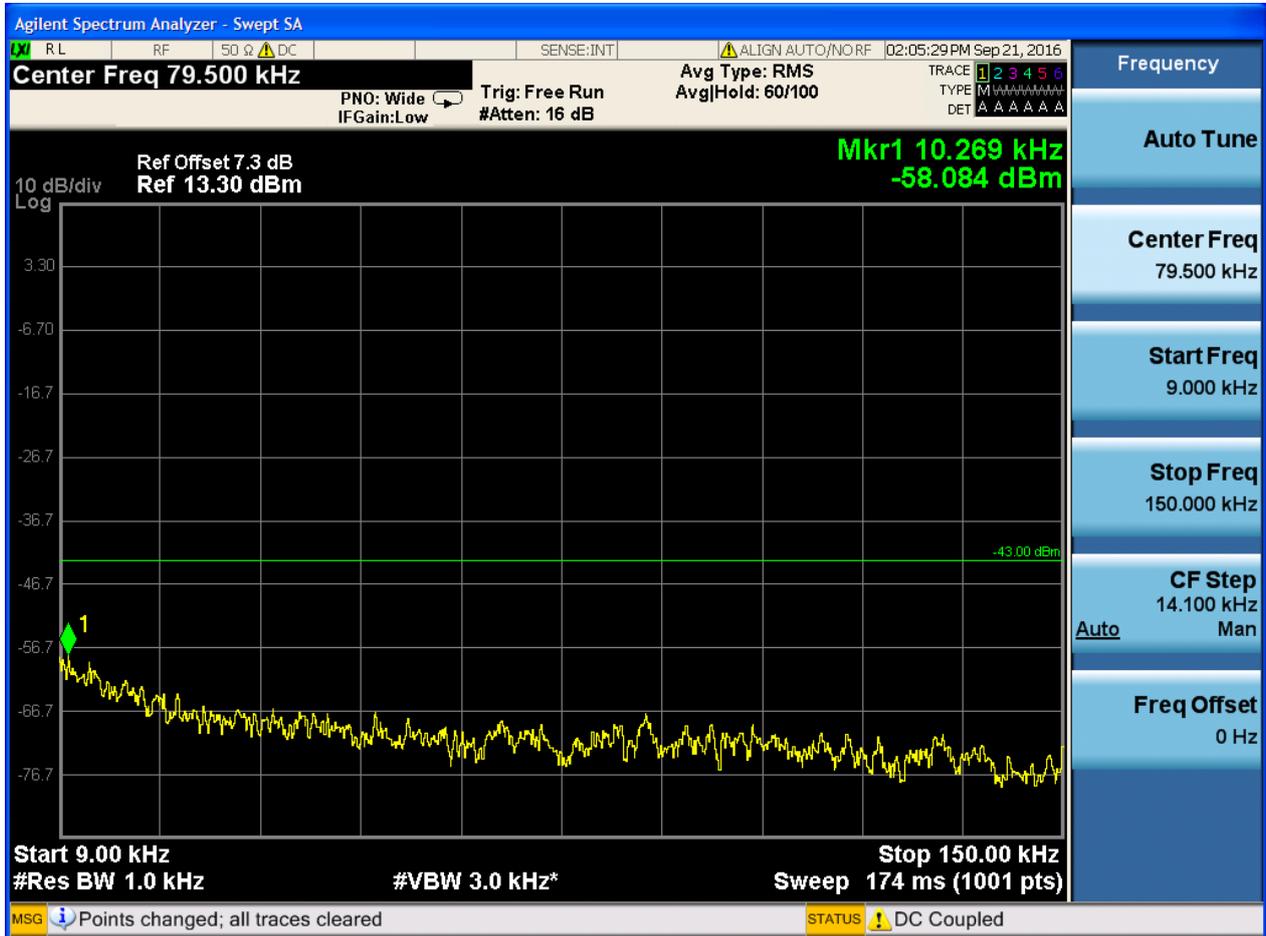


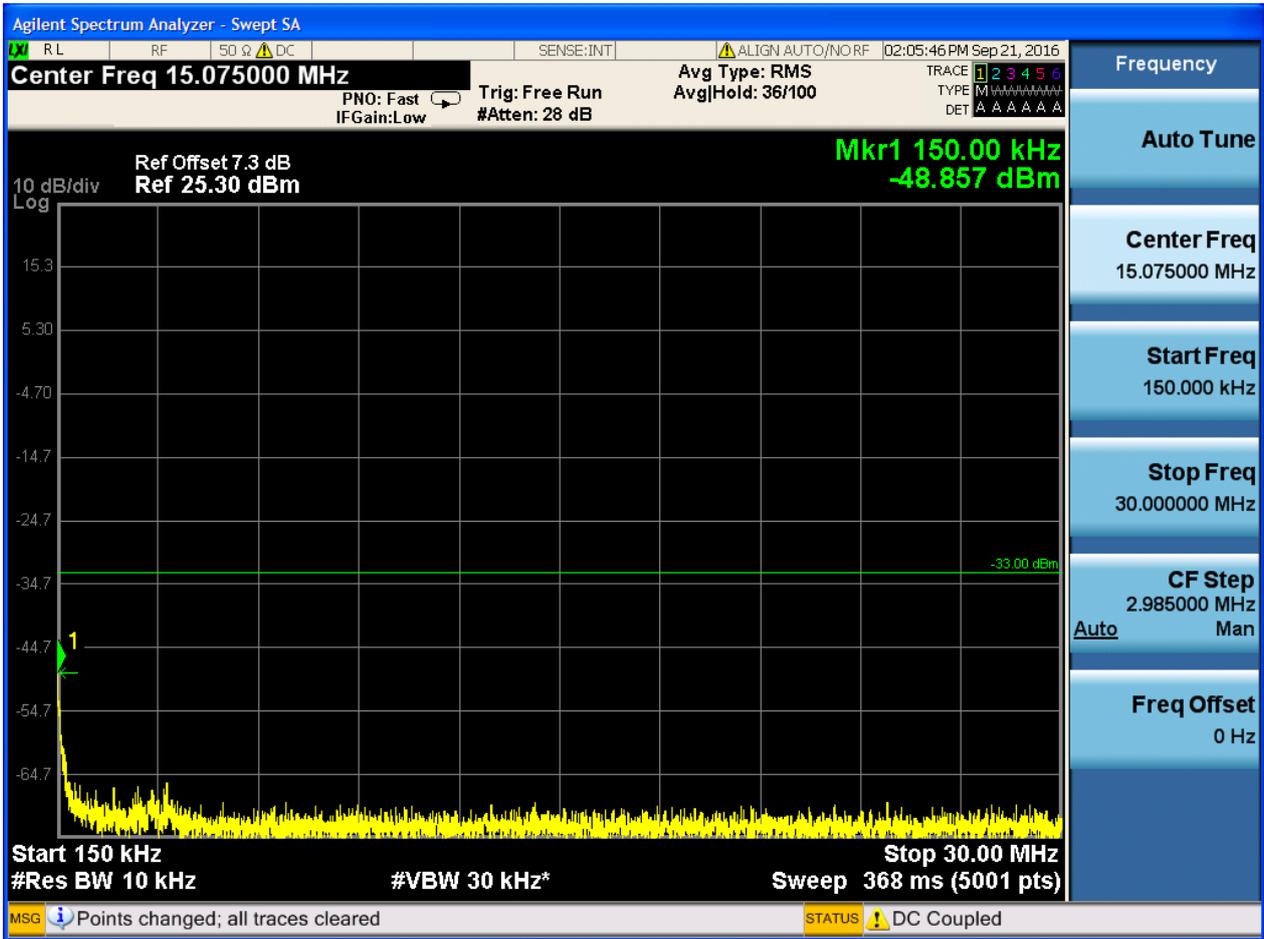


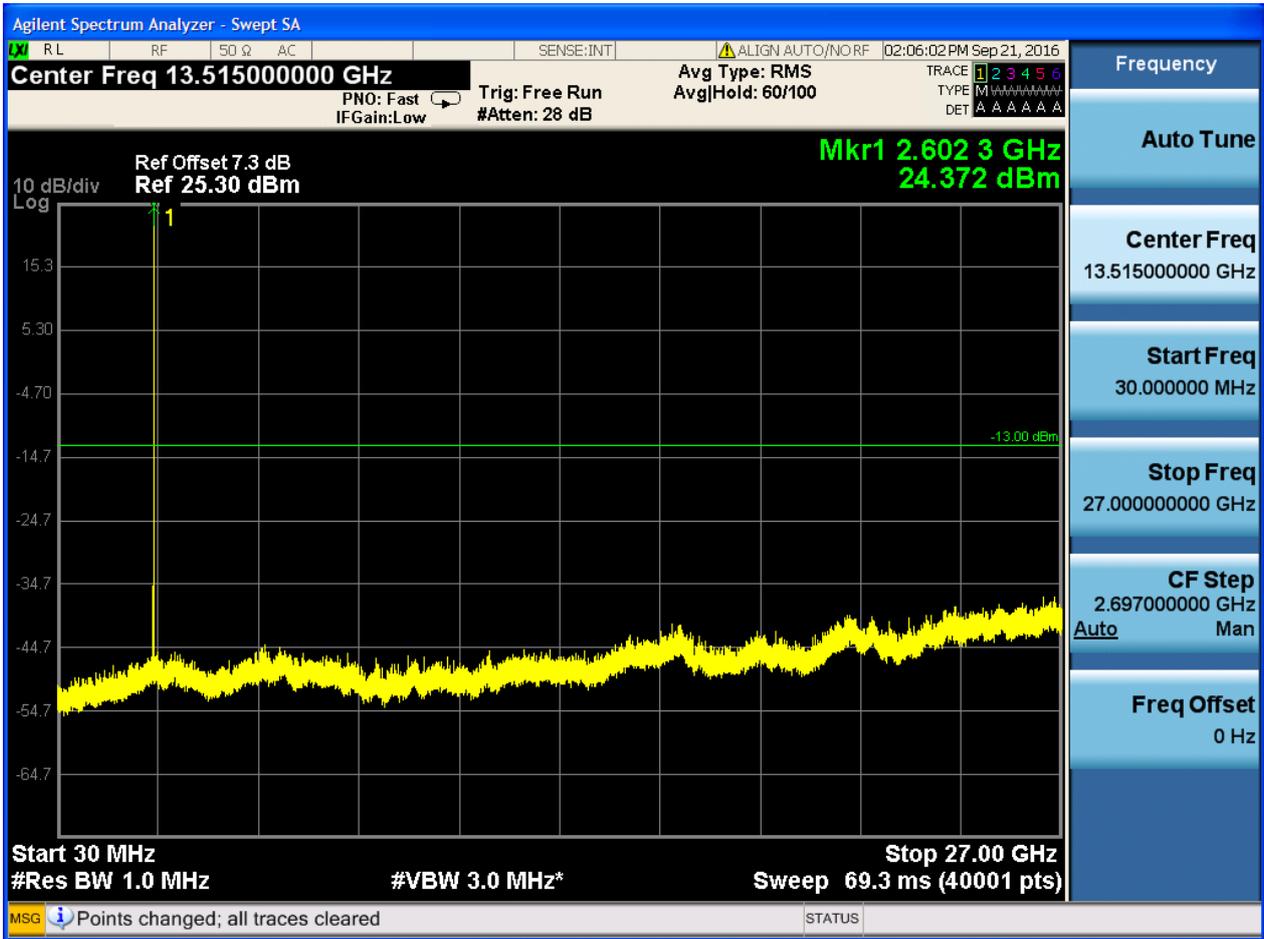


6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0



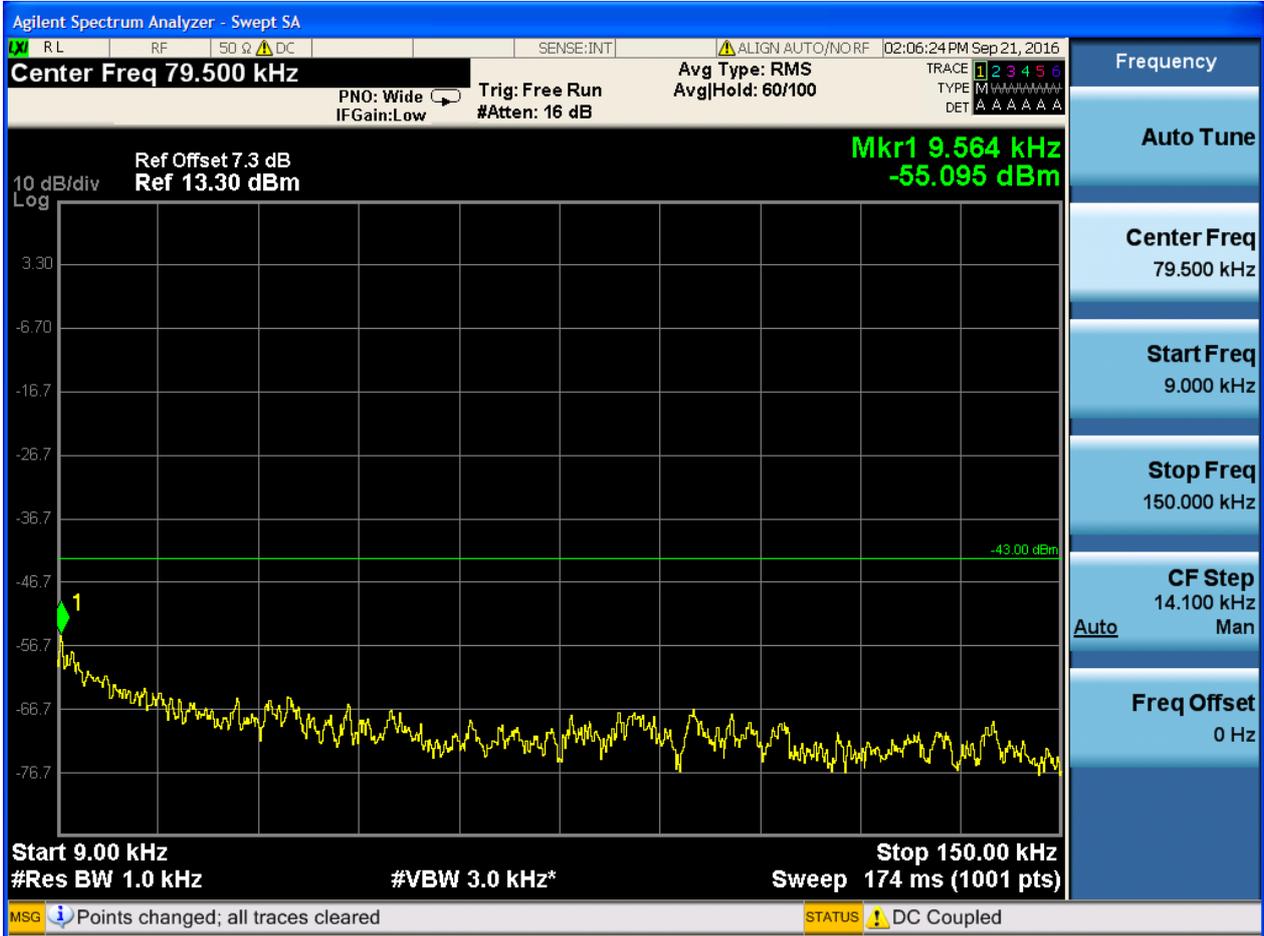


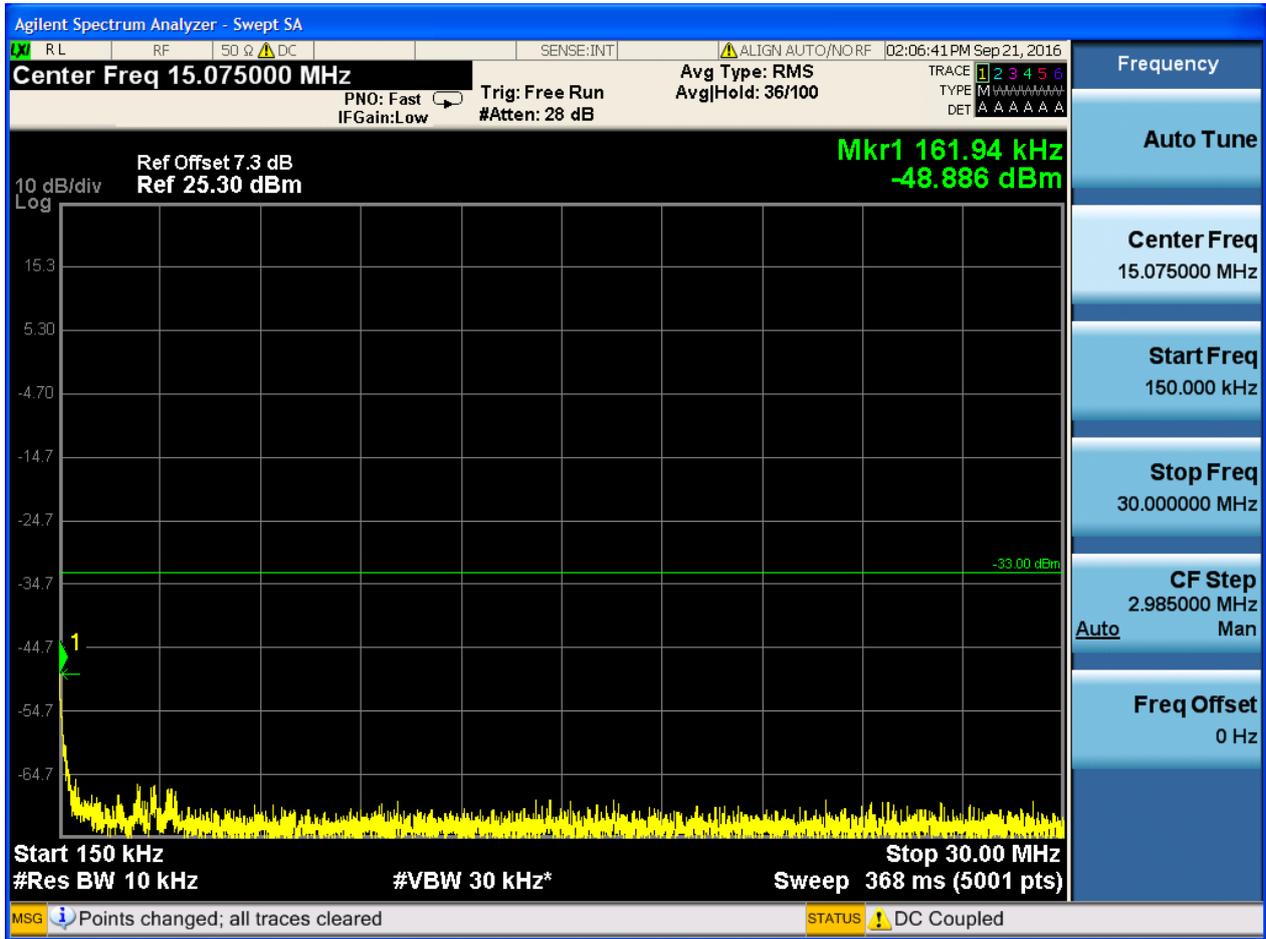




6.1.1.1.3 Test Channel = HCH

6.1.1.1.3.1 Test RB = RB1#0



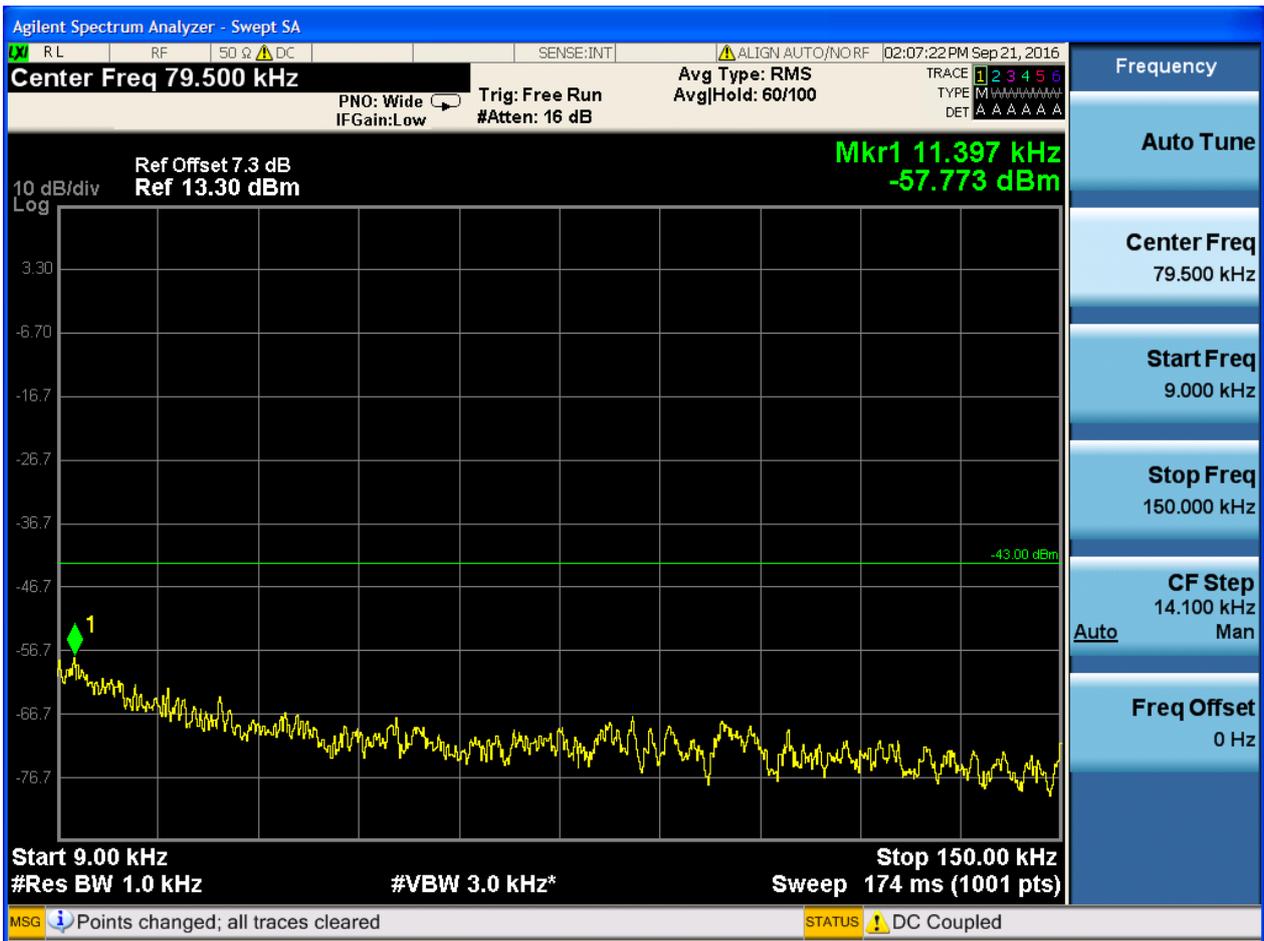


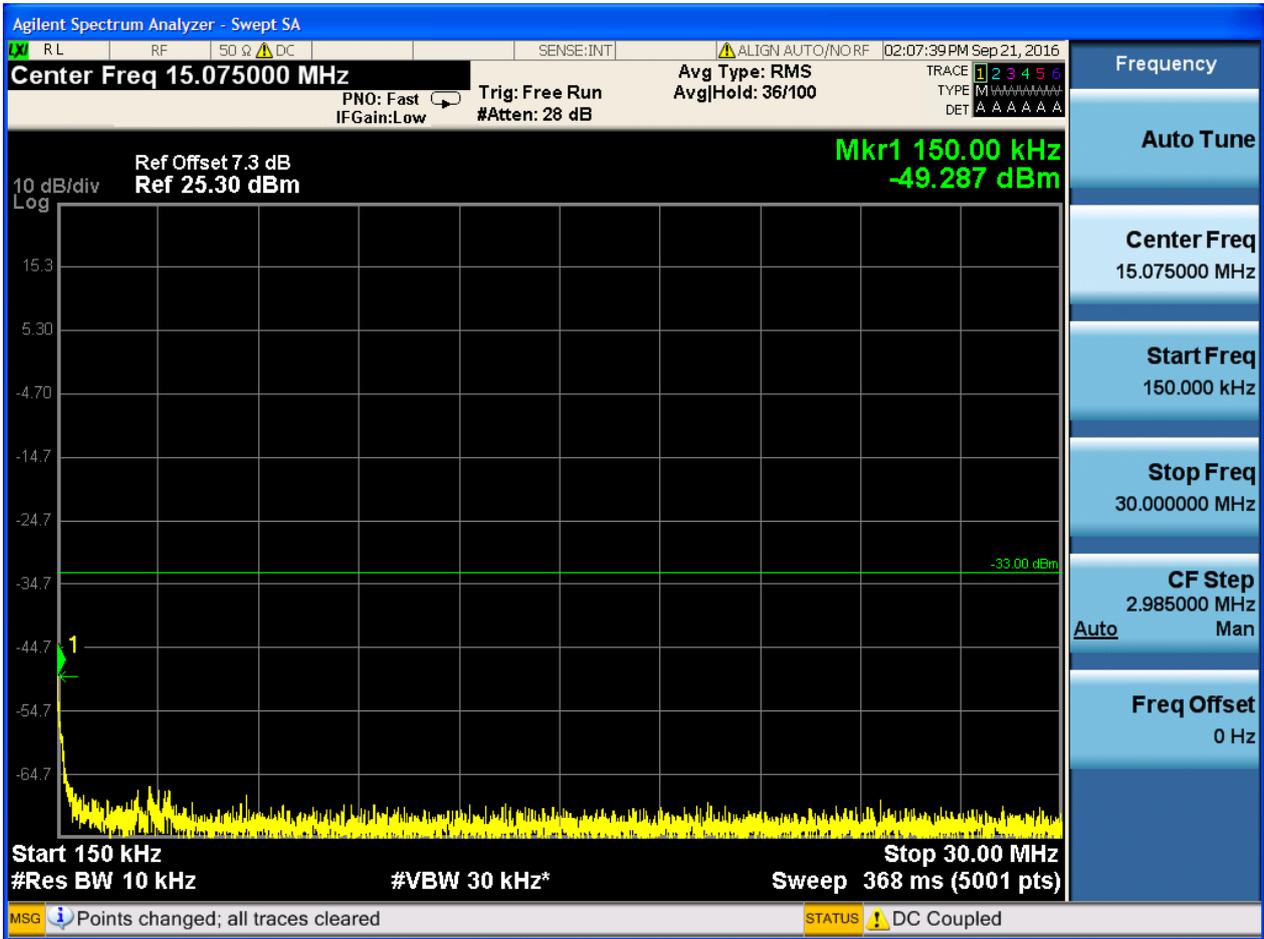


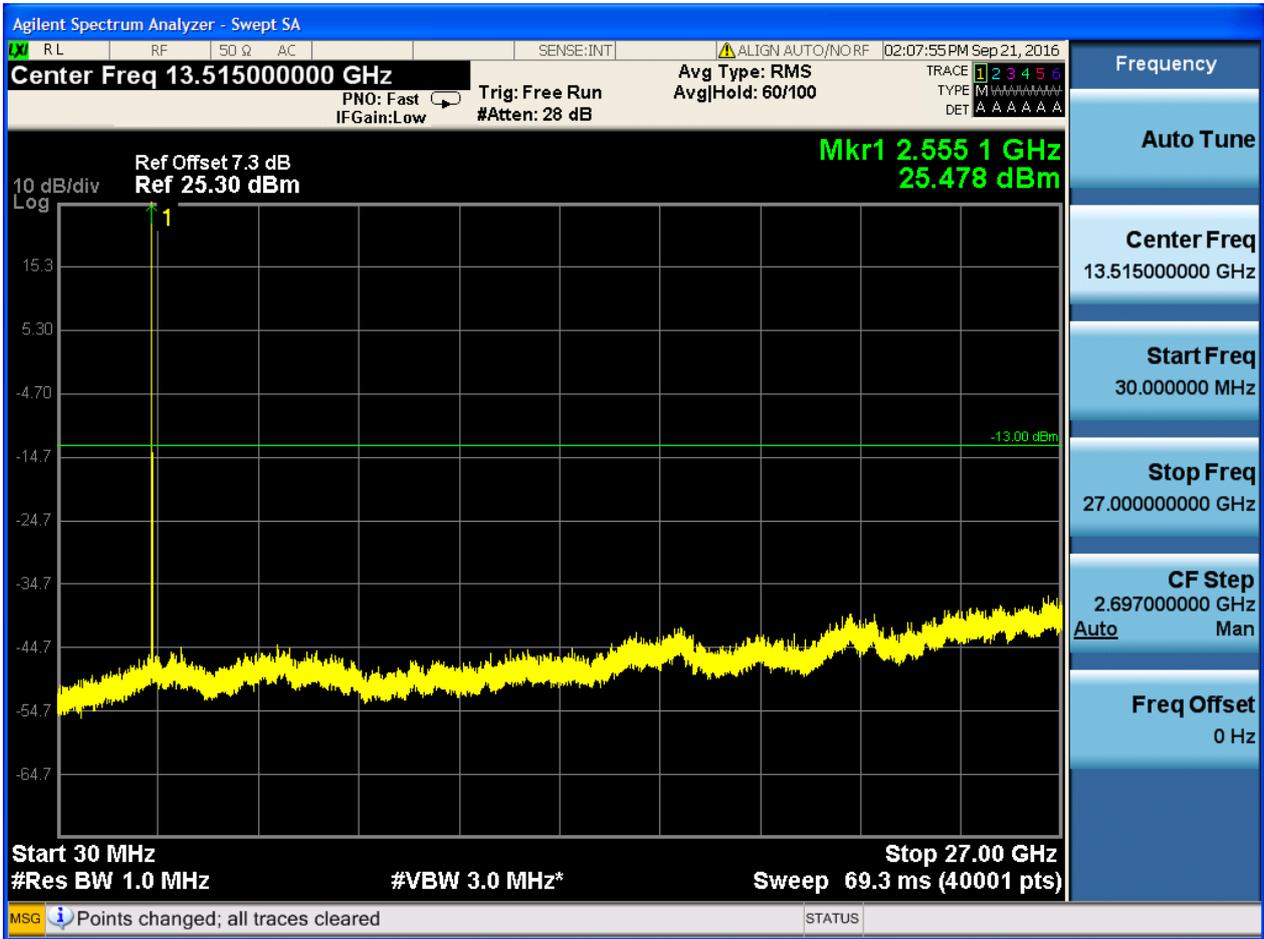
6.1.1.1.2 Test Bandwidth = 10

6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0



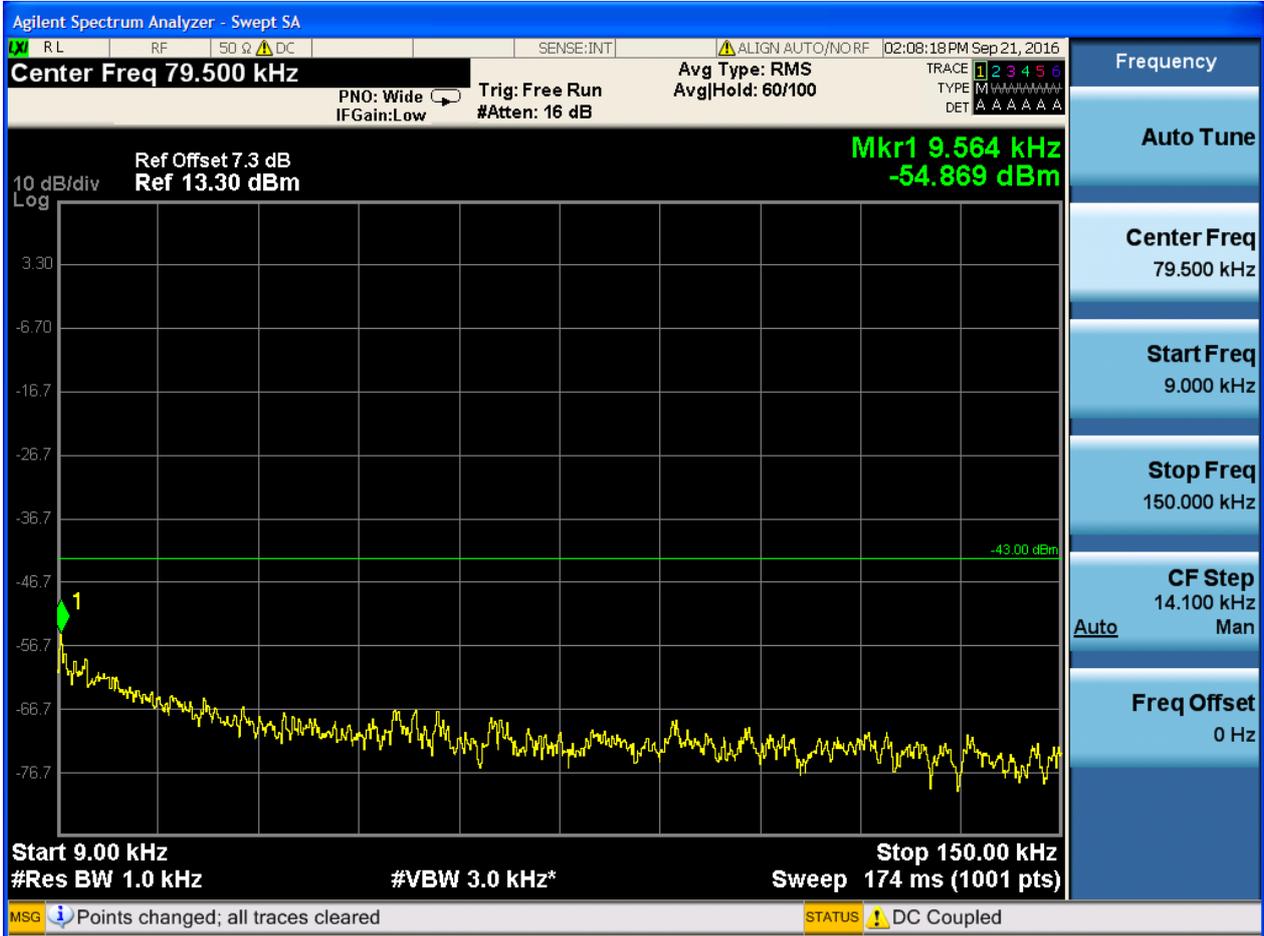


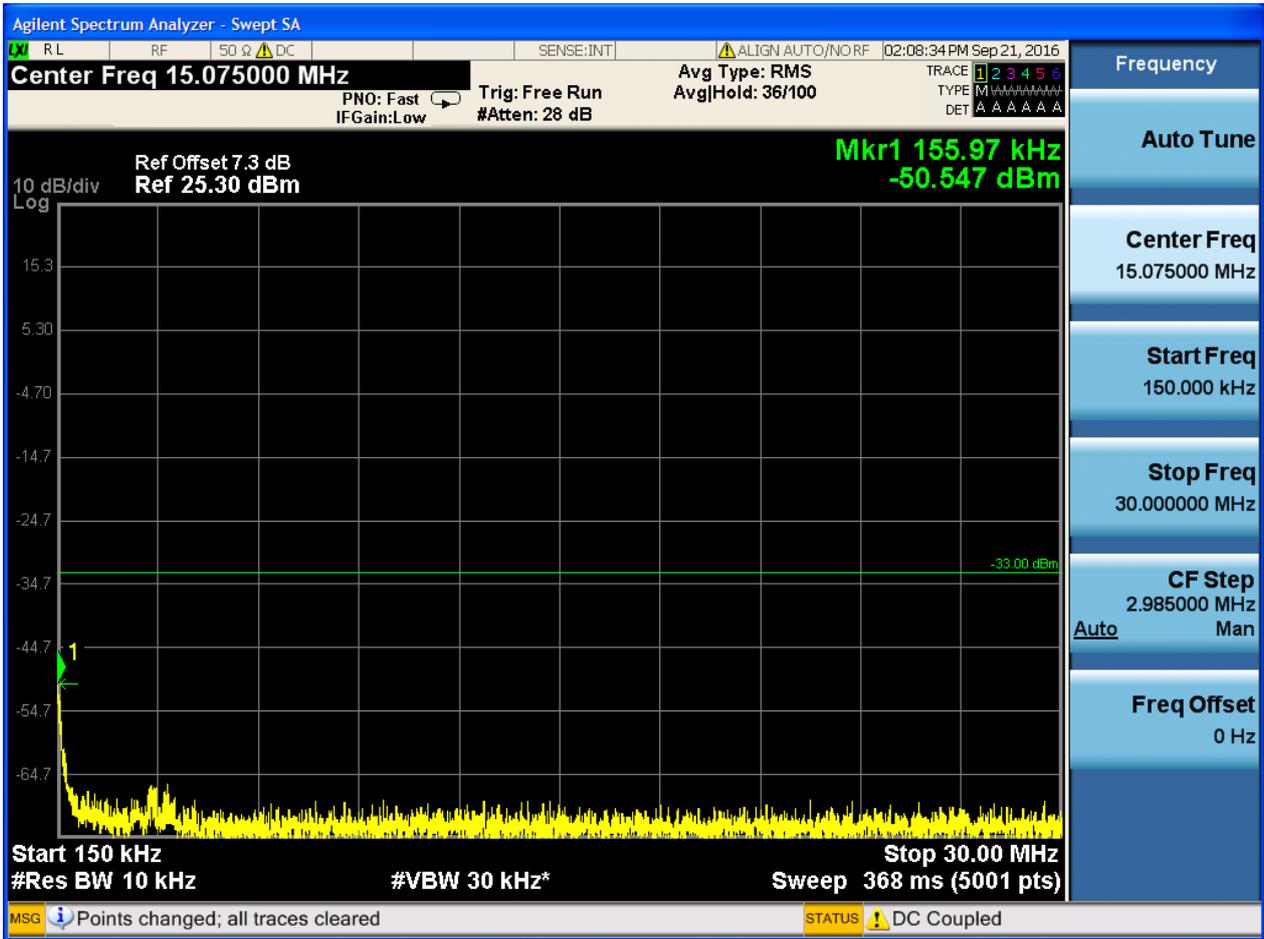


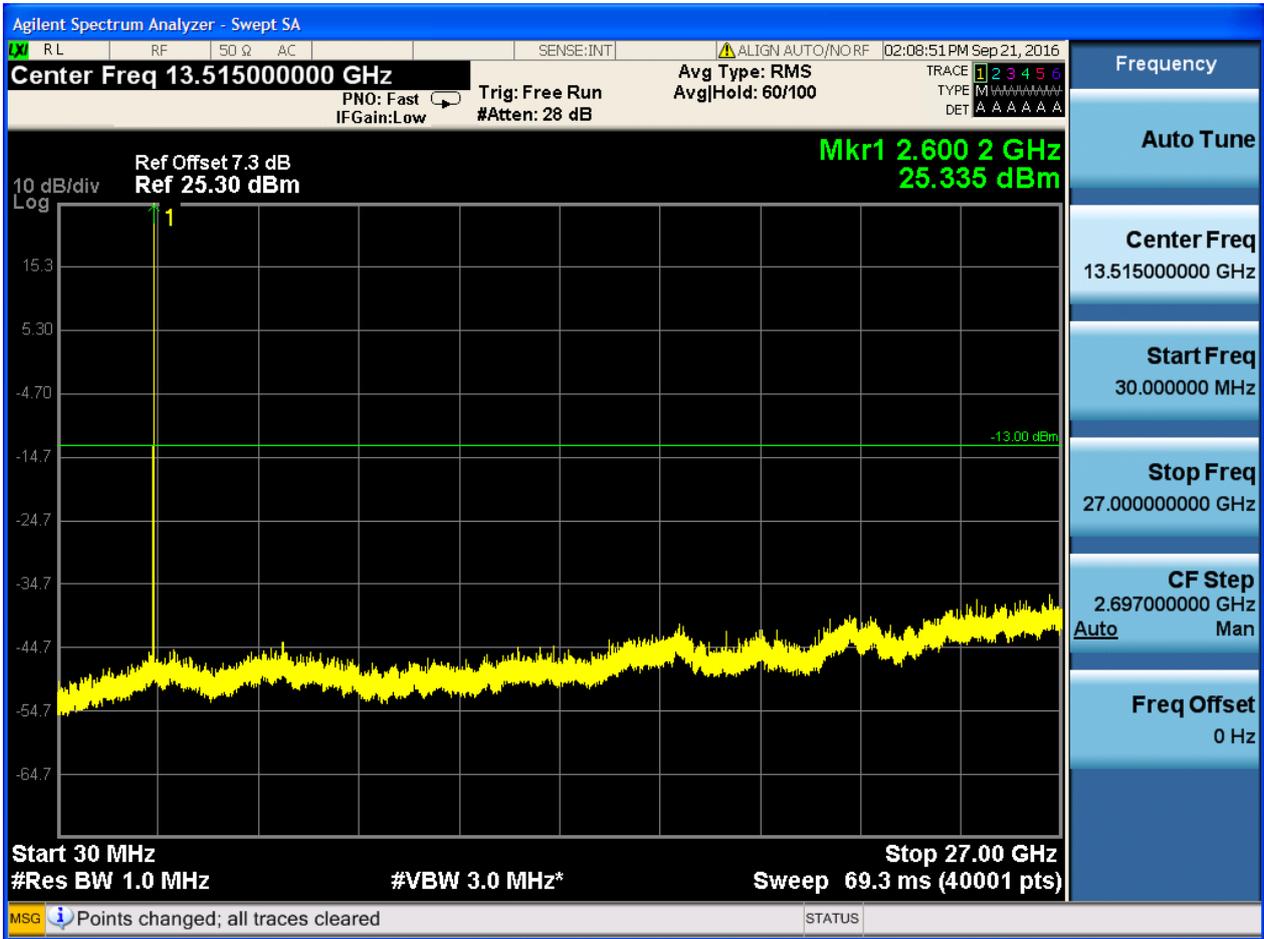


6.1.1.1.2.2 Test Channel = MCH

6.1.1.1.2.2.1 Test RB = RB1#0



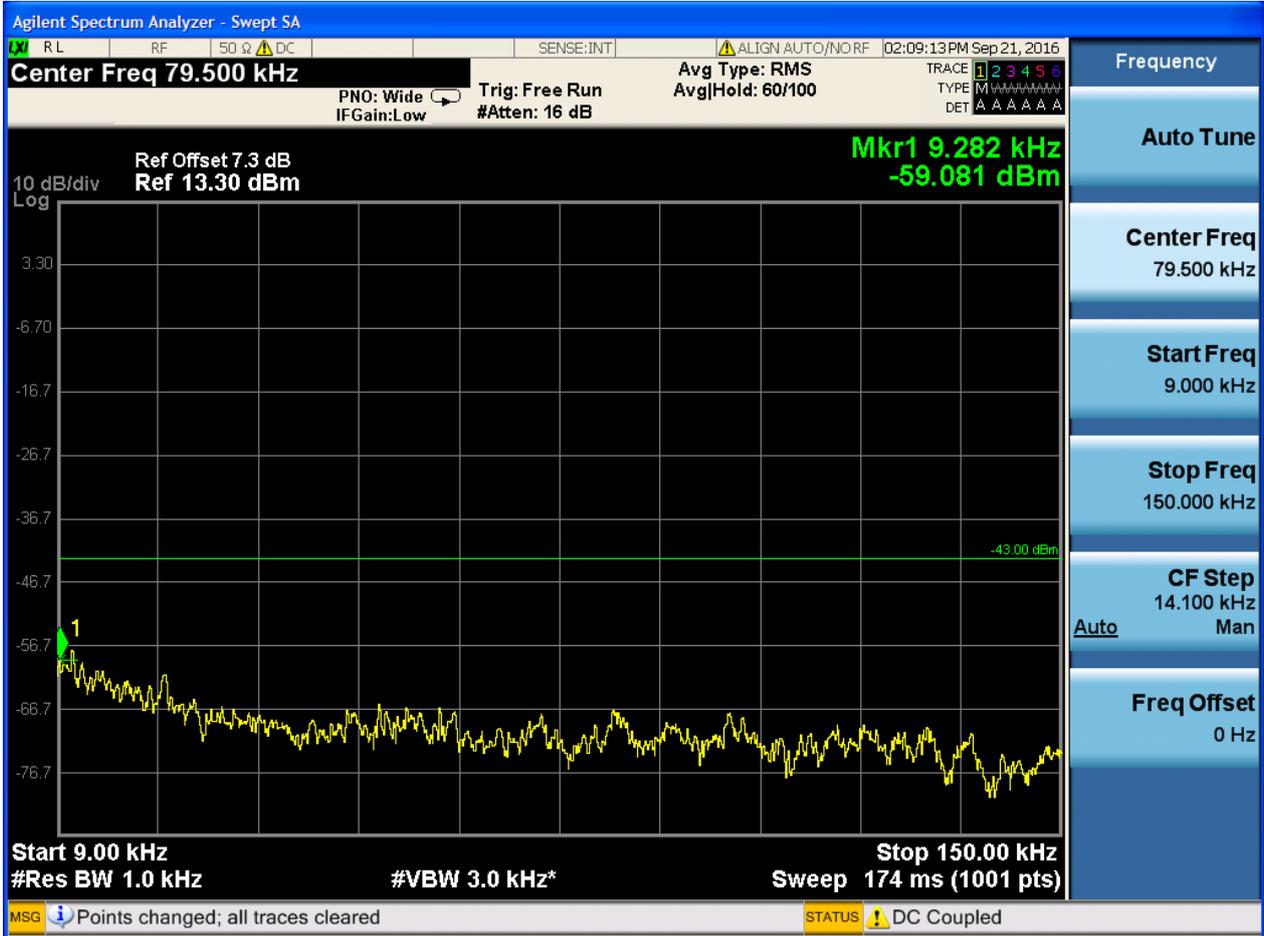


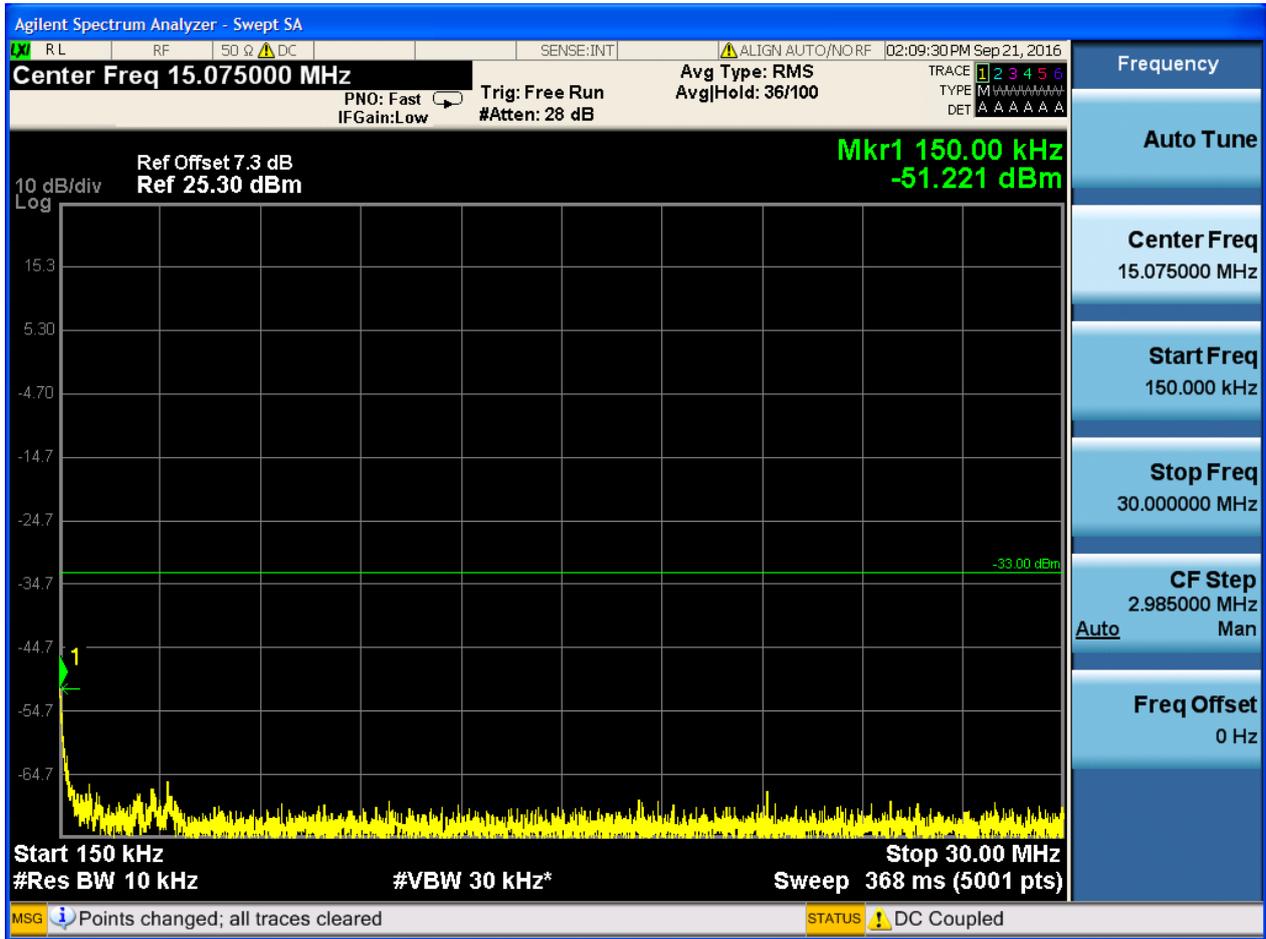




6.1.1.1.2.3 Test Channel = HCH

6.1.1.1.2.3.1 Test RB = RB1#0



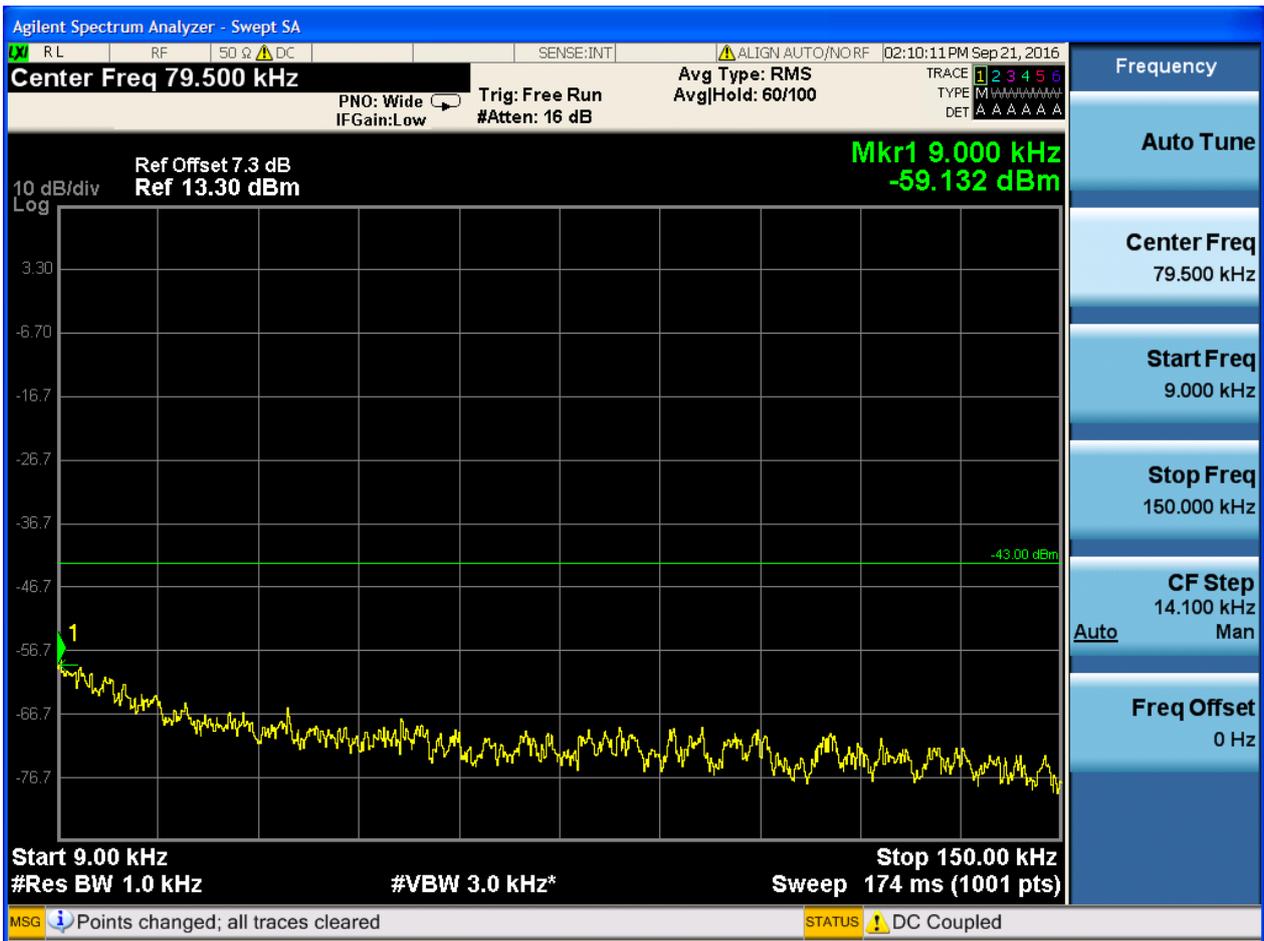


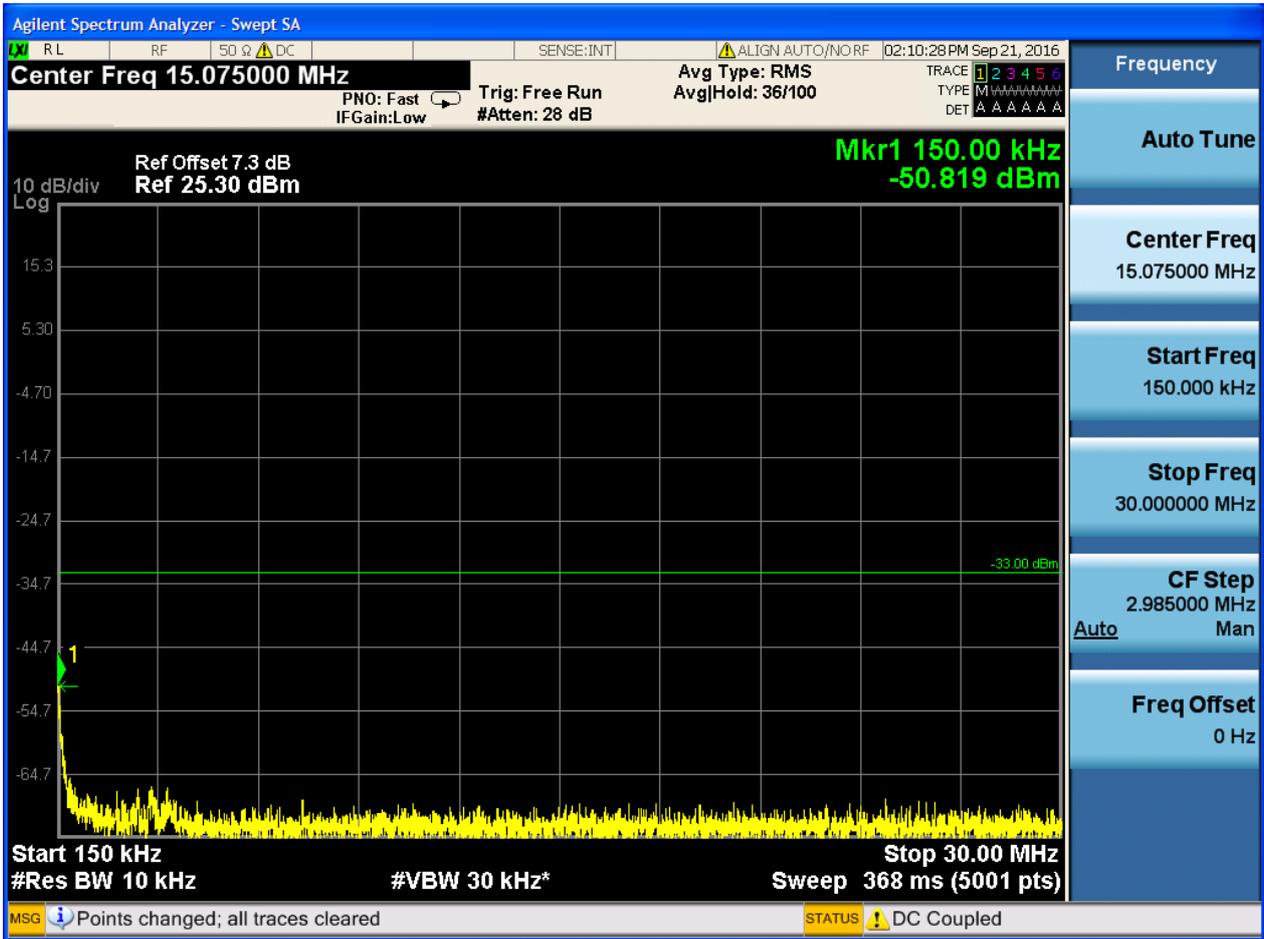


6.1.1.1.3 Test Bandwidth = 15

6.1.1.1.3.1 Test Channel = LCH

6.1.1.1.3.1.1 Test RB = RB1#0



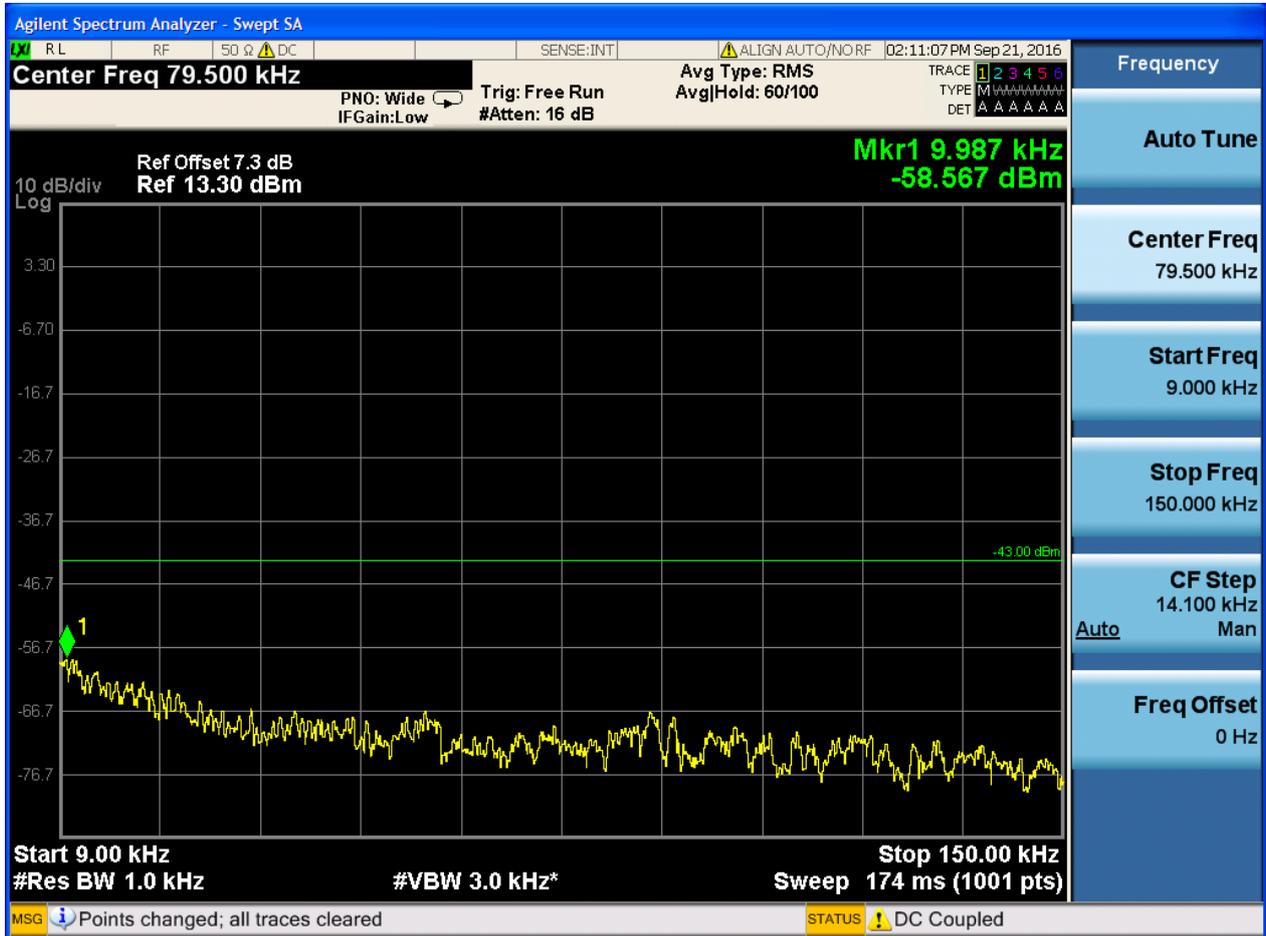


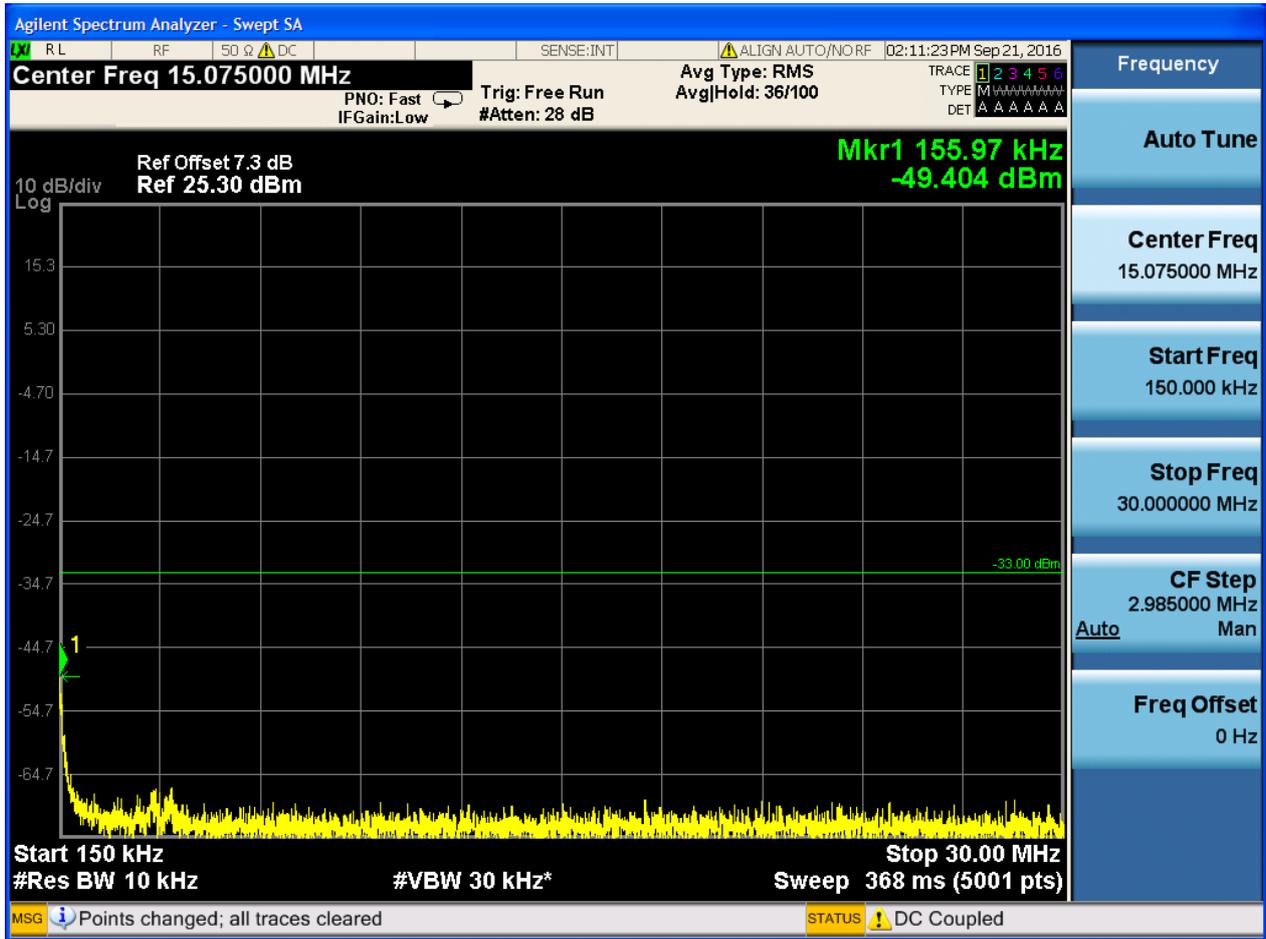


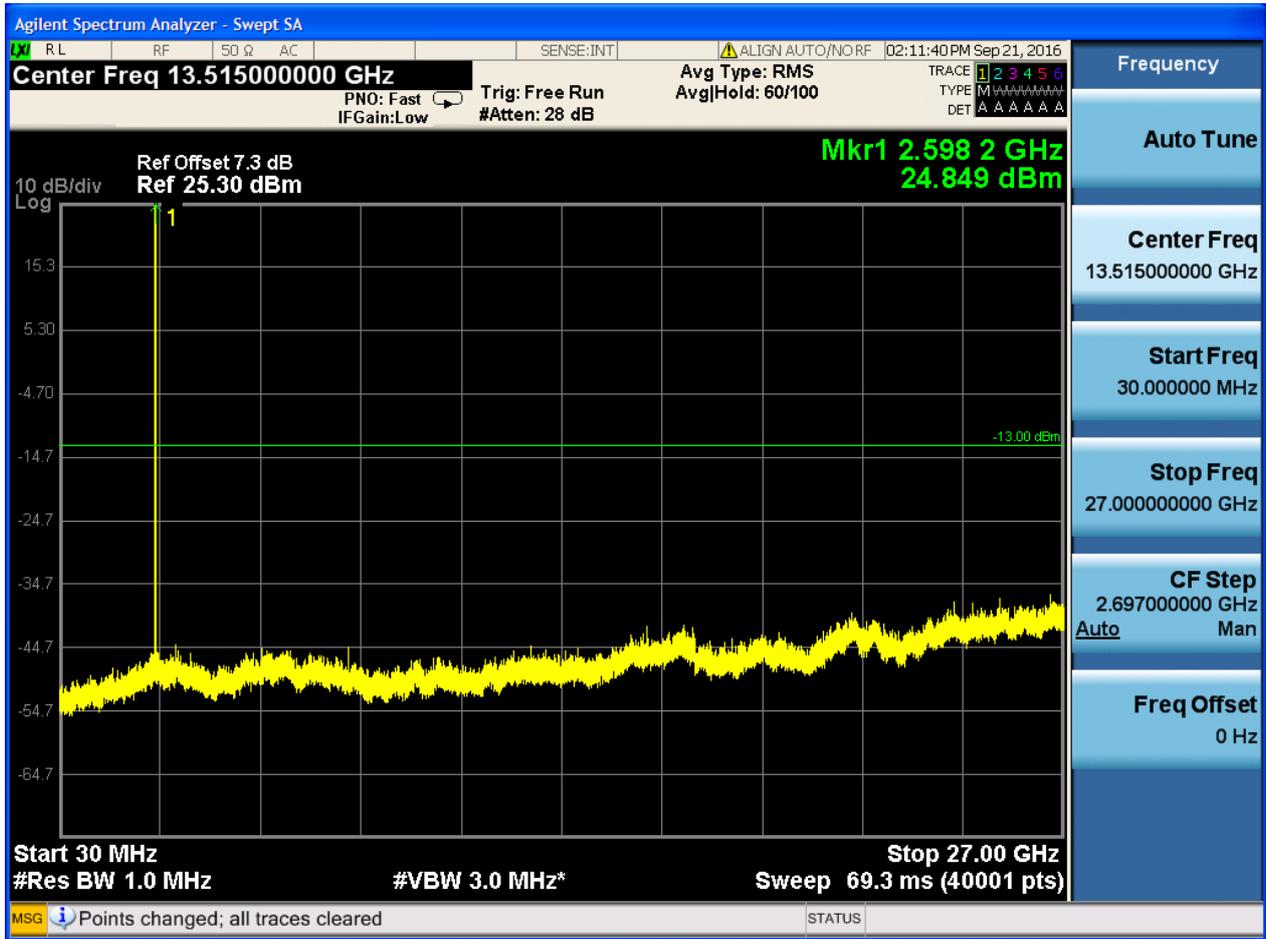


6.1.1.1.3.2 Test Channel = MCH

6.1.1.1.3.2.1 Test RB = RB1#0



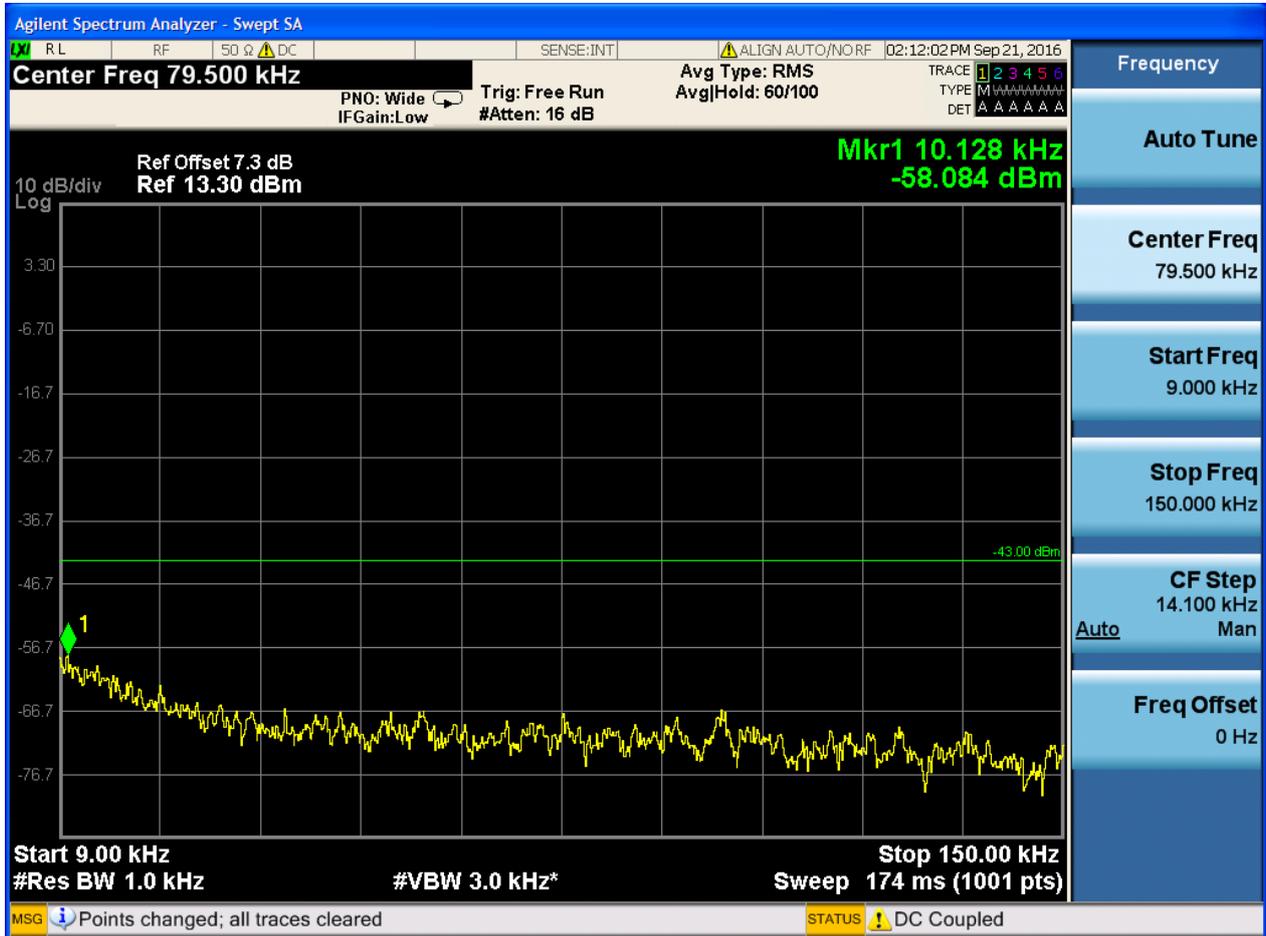


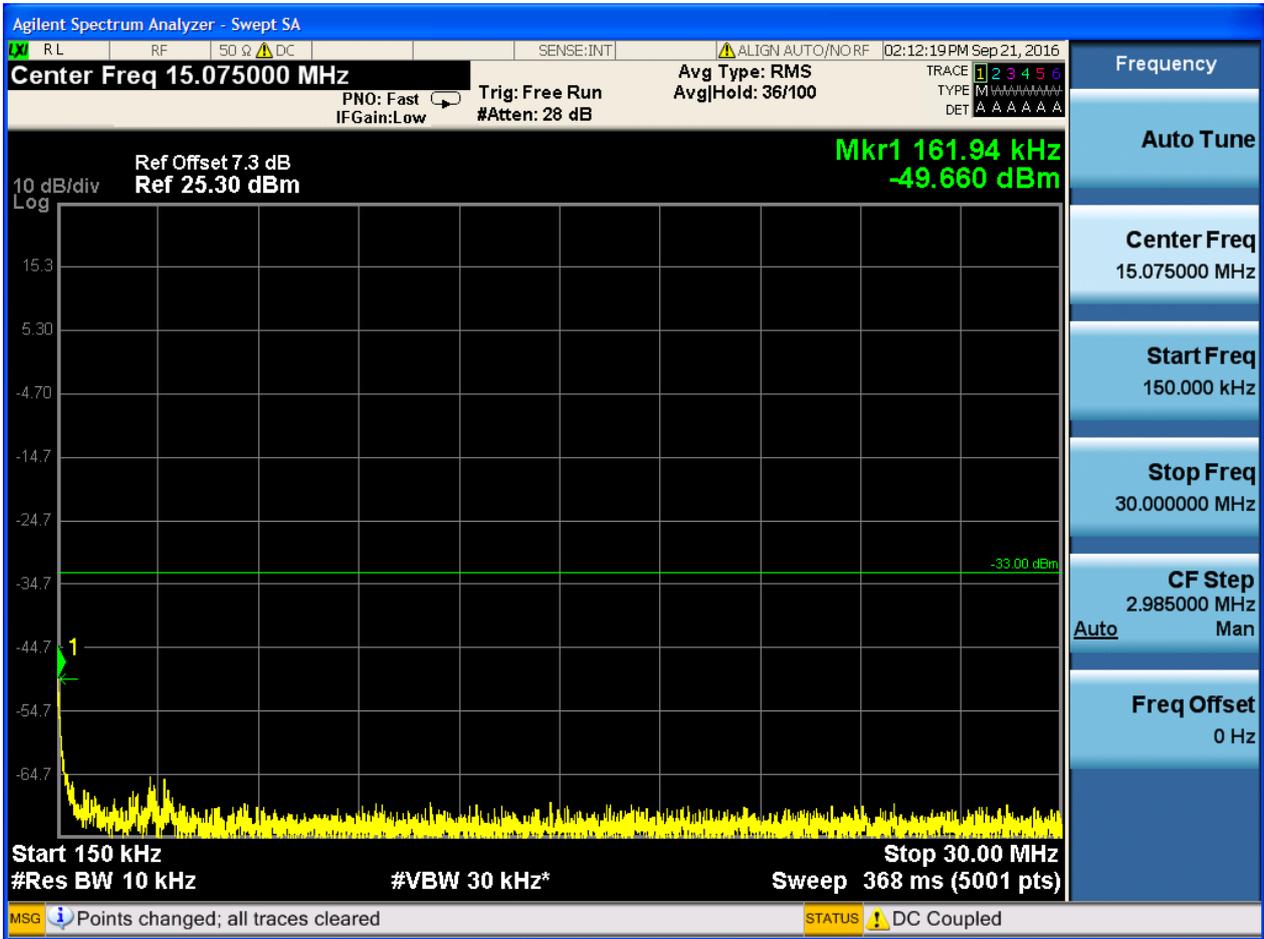


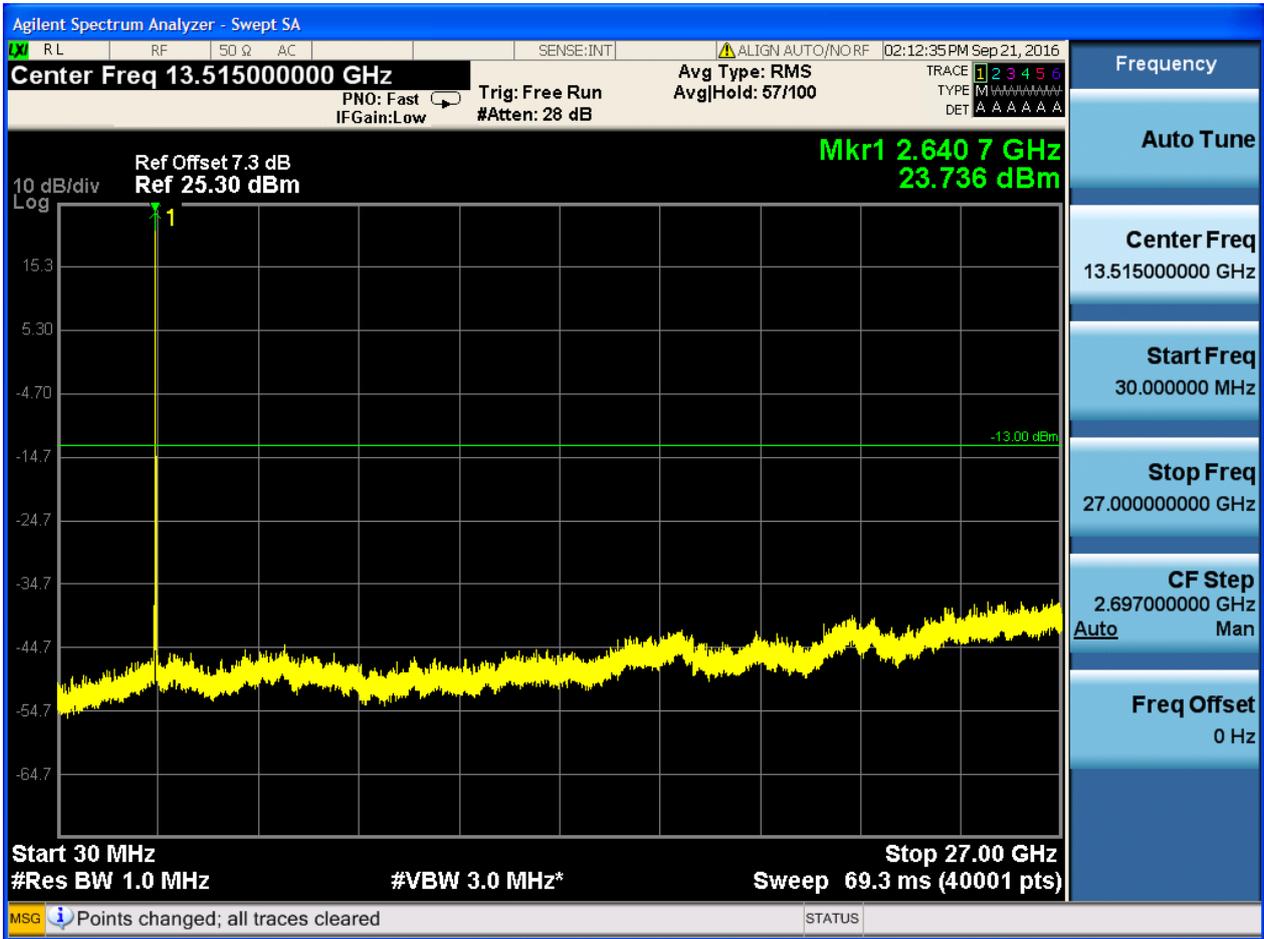


6.1.1.1.3.3 Test Channel = HCH

6.1.1.1.3.3.1 Test RB = RB1#0





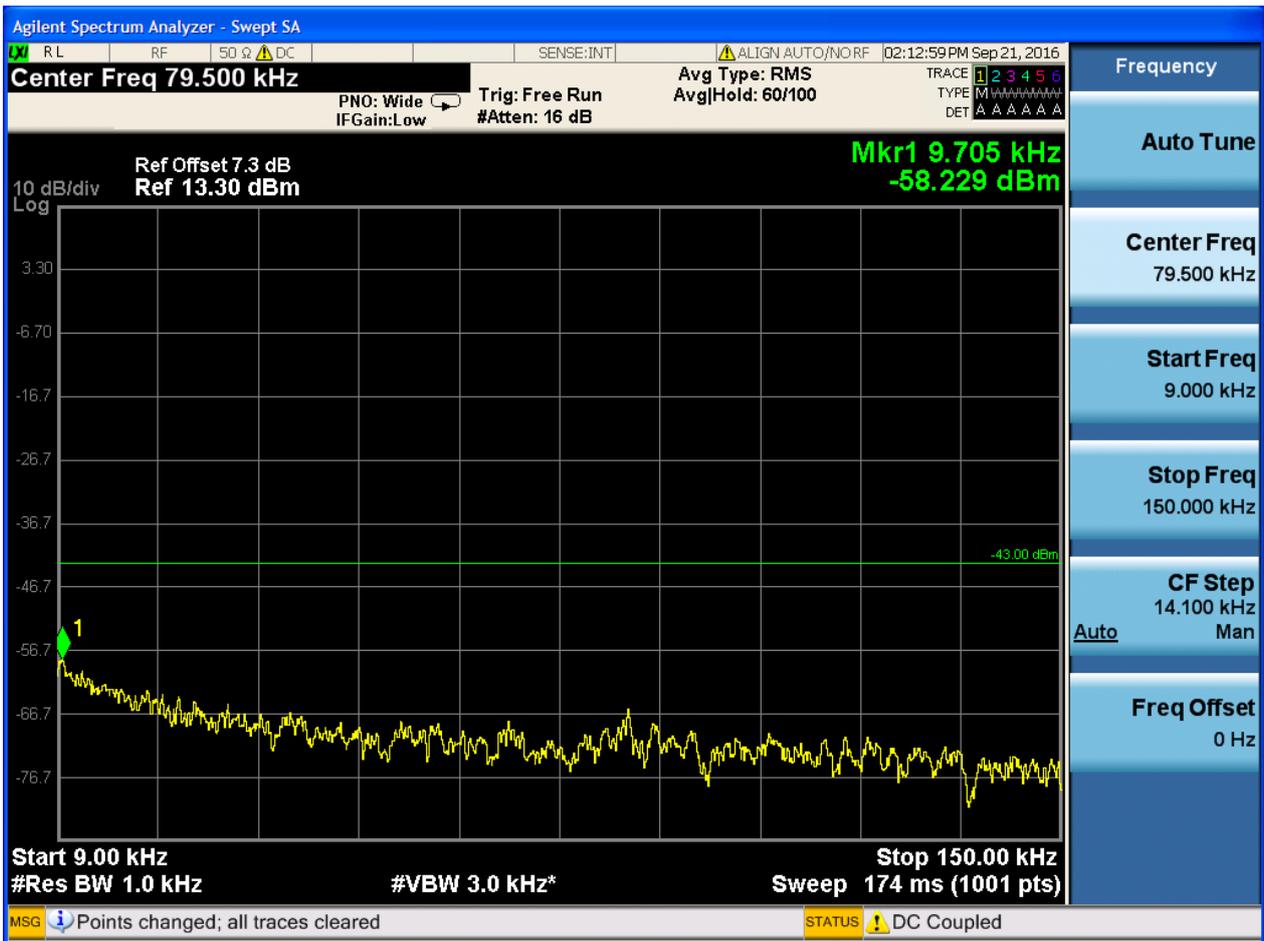


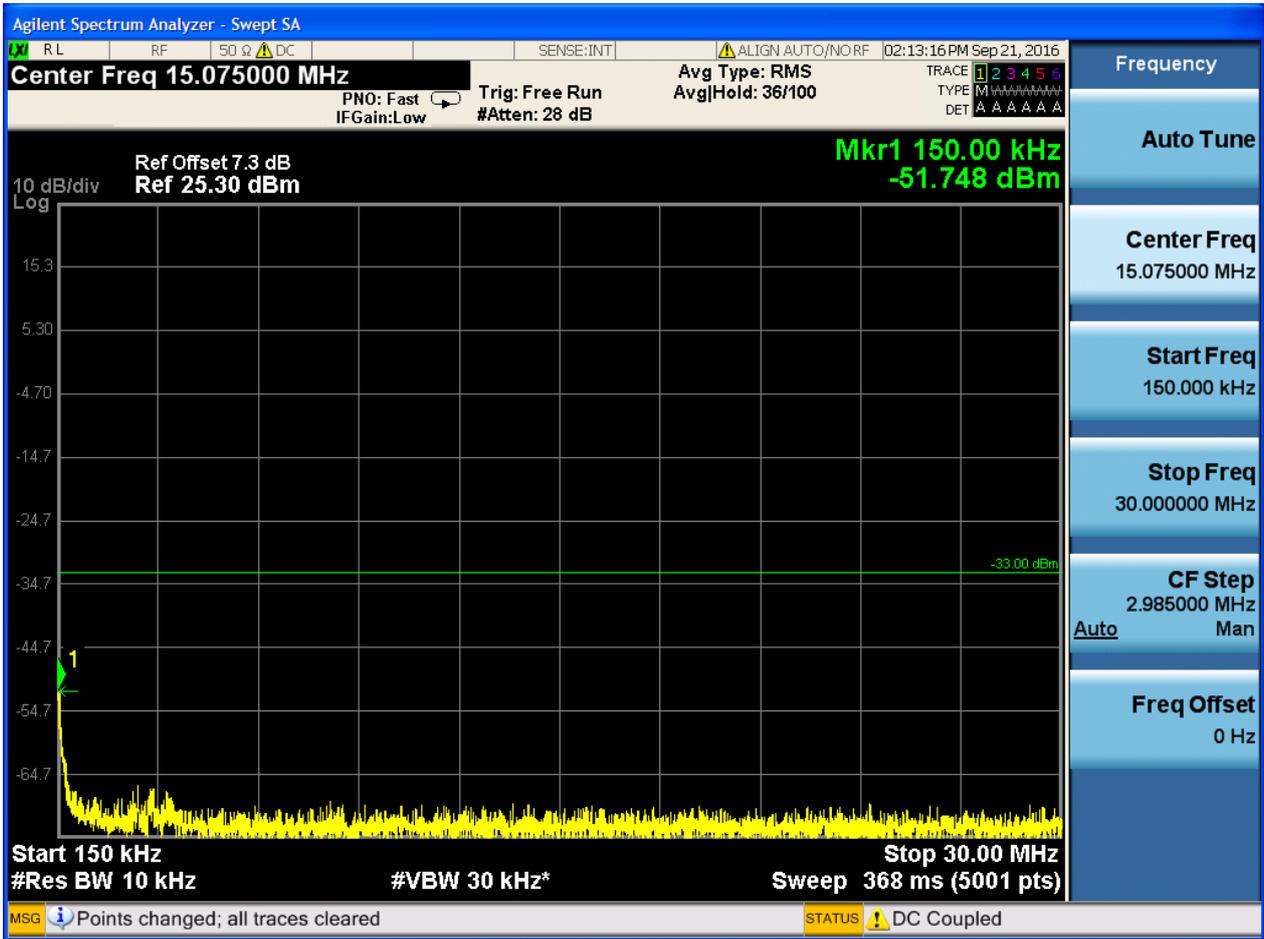


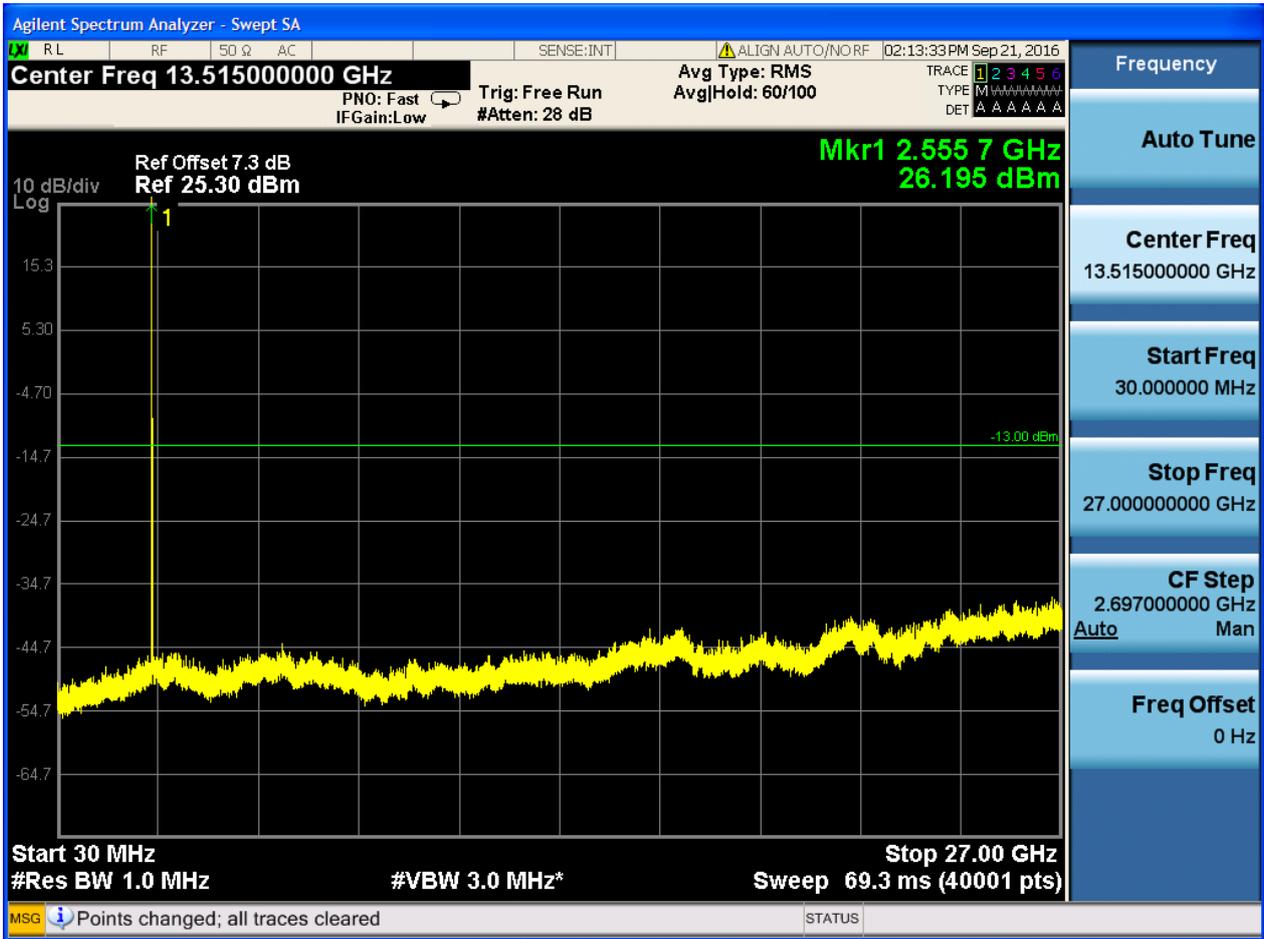
6.1.1.1.4 Test Bandwidth = 20

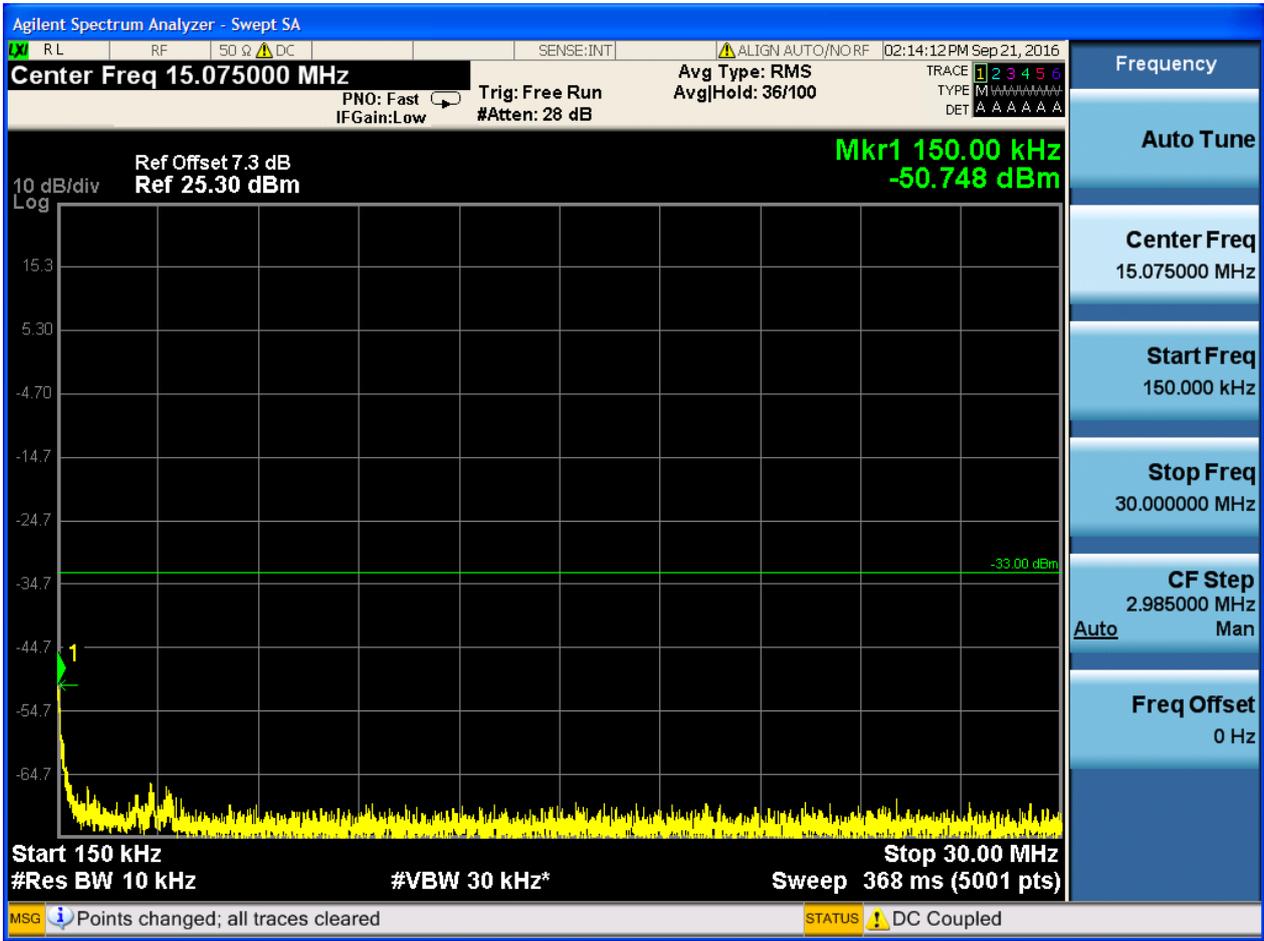
6.1.1.1.4.1 Test Channel = LCH

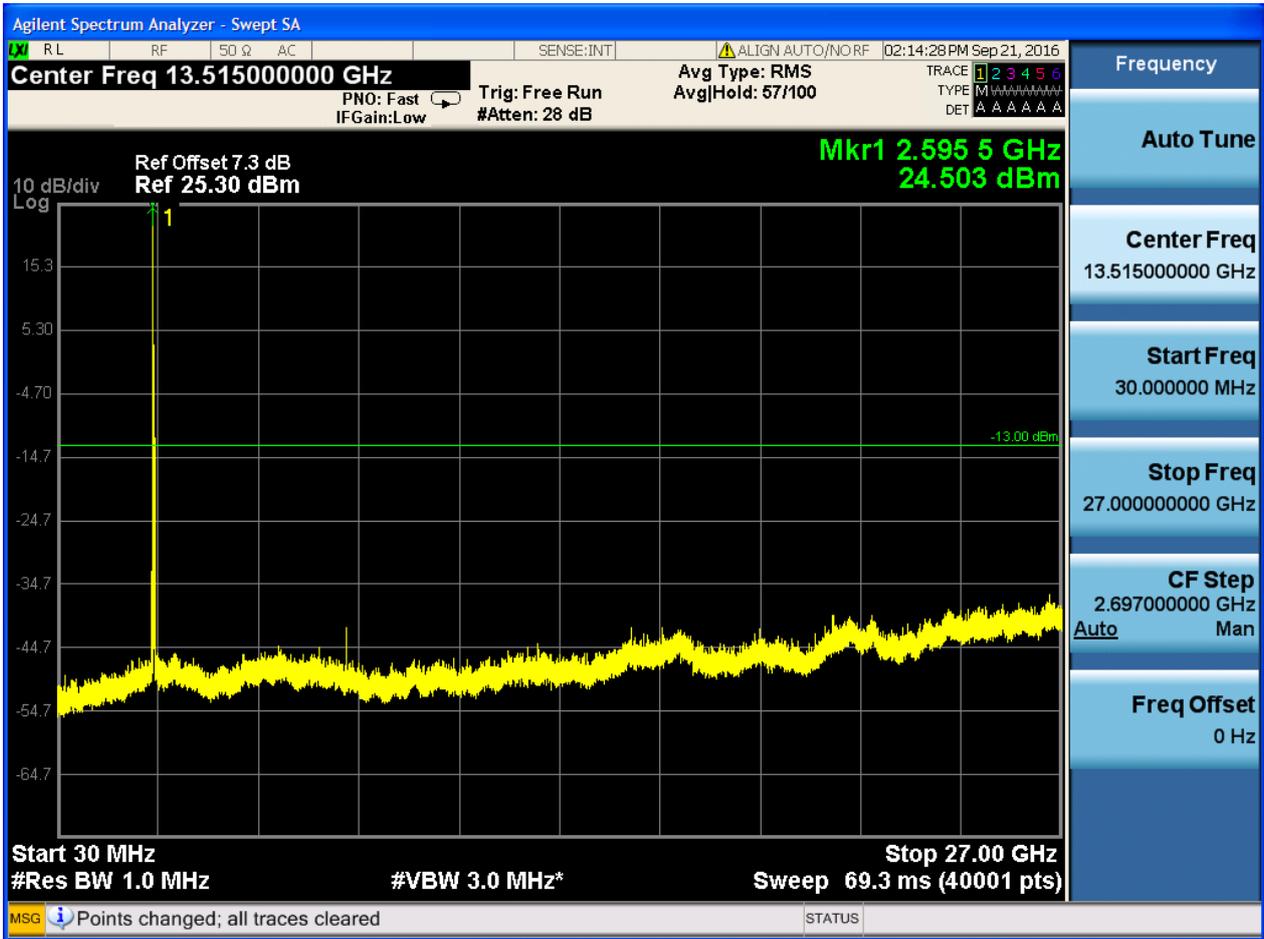
6.1.1.1.4.1.1 Test RB = RB1#0







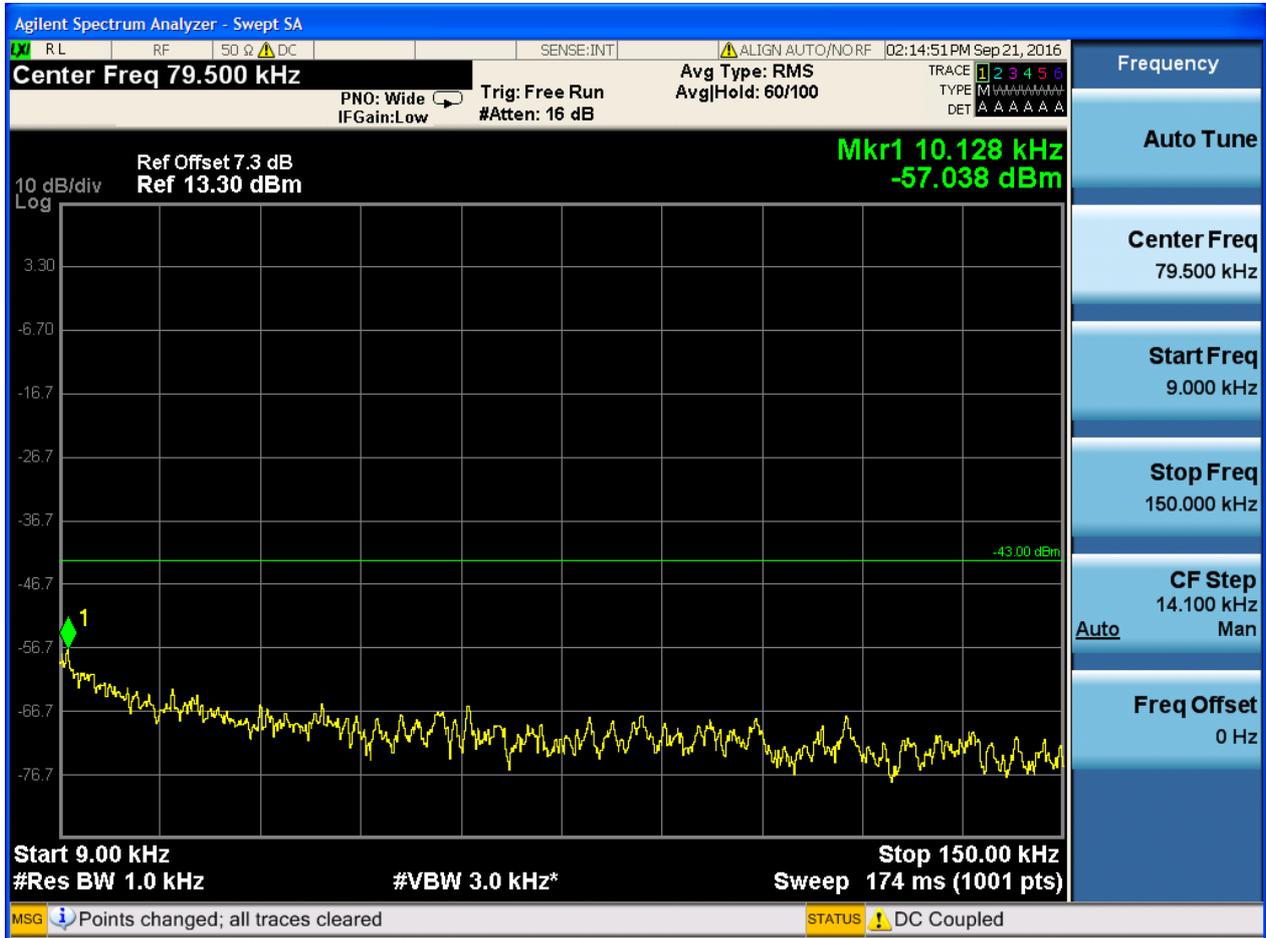


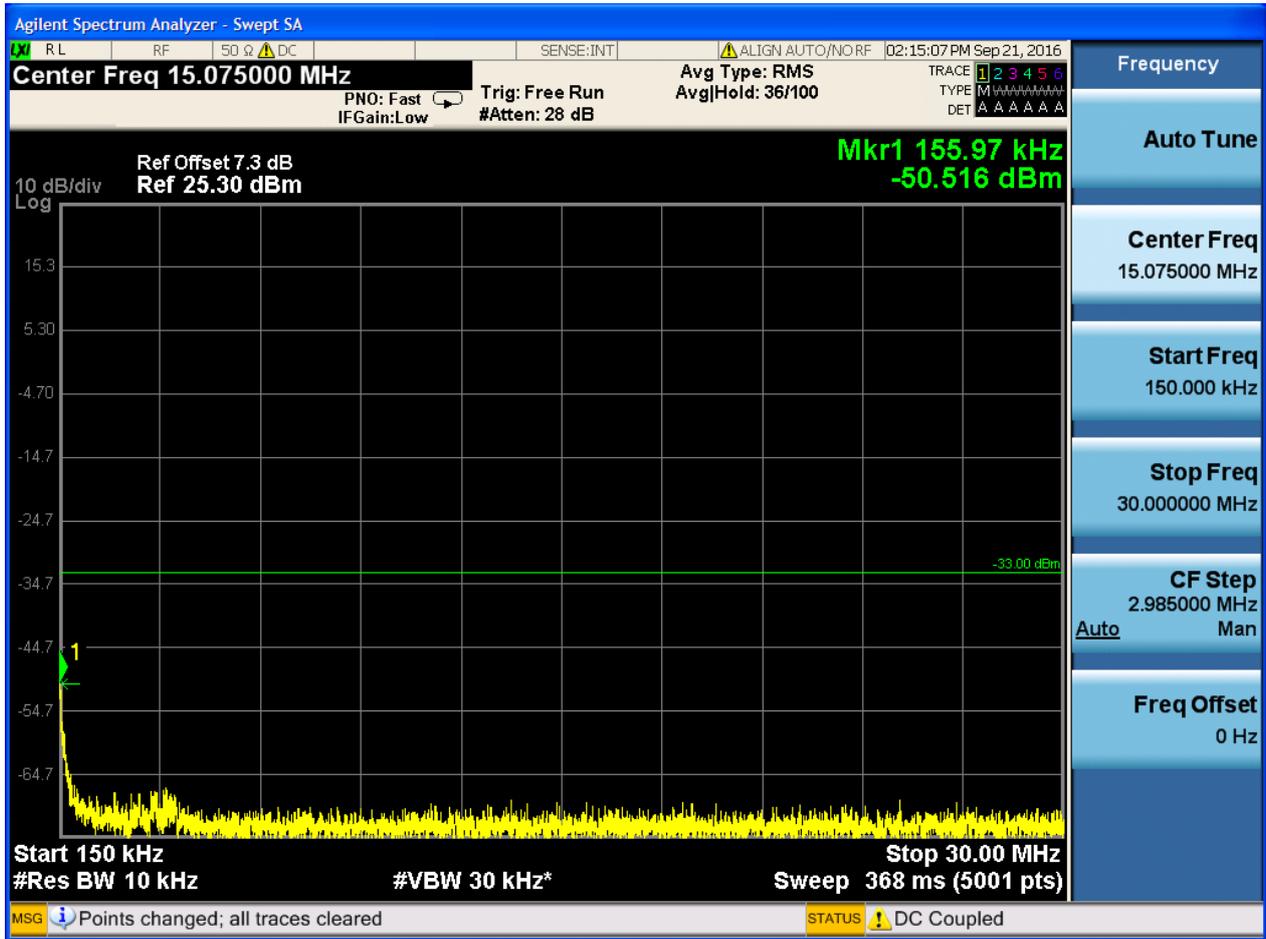


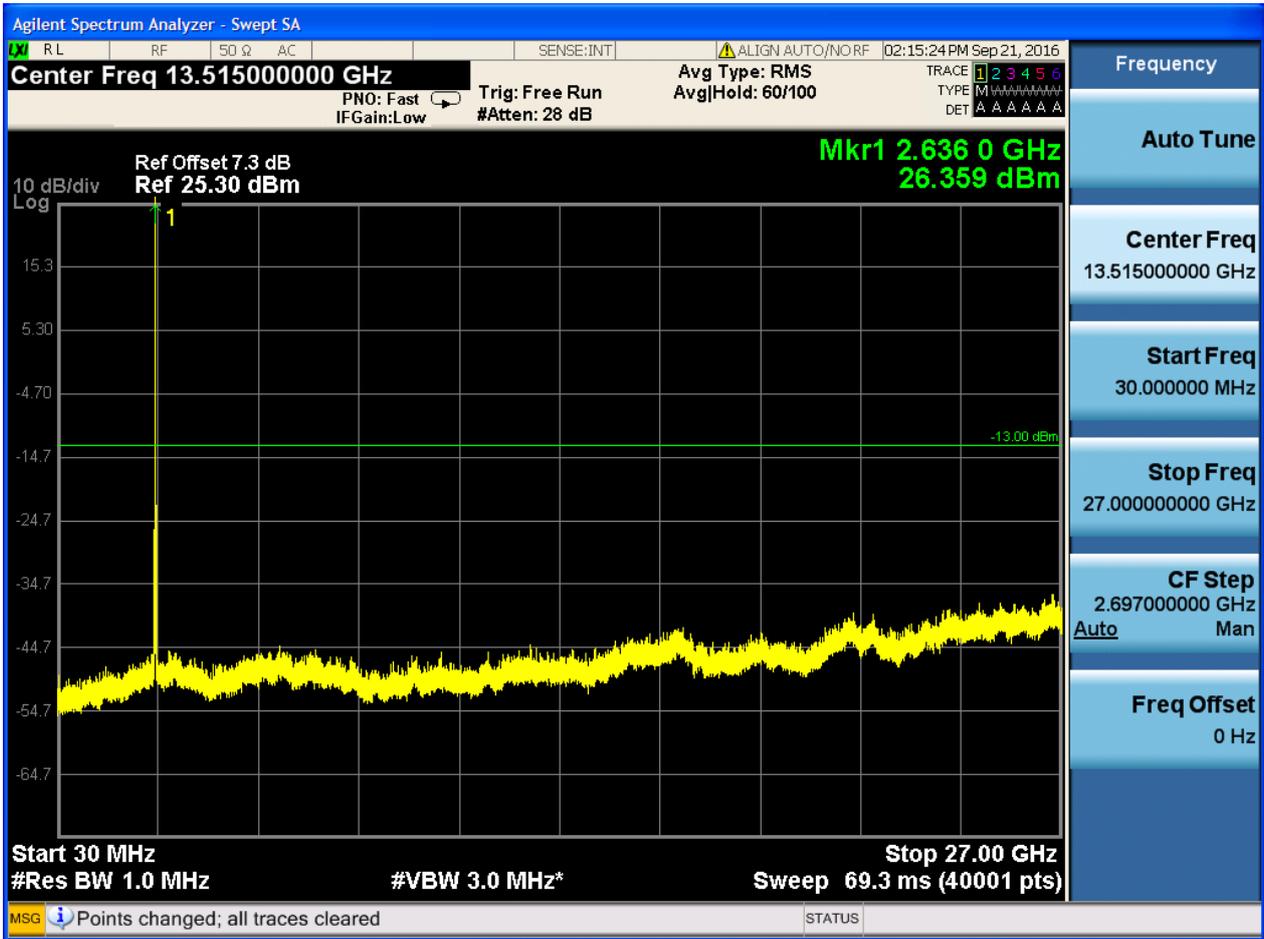


6.1.1.1.4.3 Test Channel = HCH

6.1.1.1.4.3.1 Test RB = RB1#0







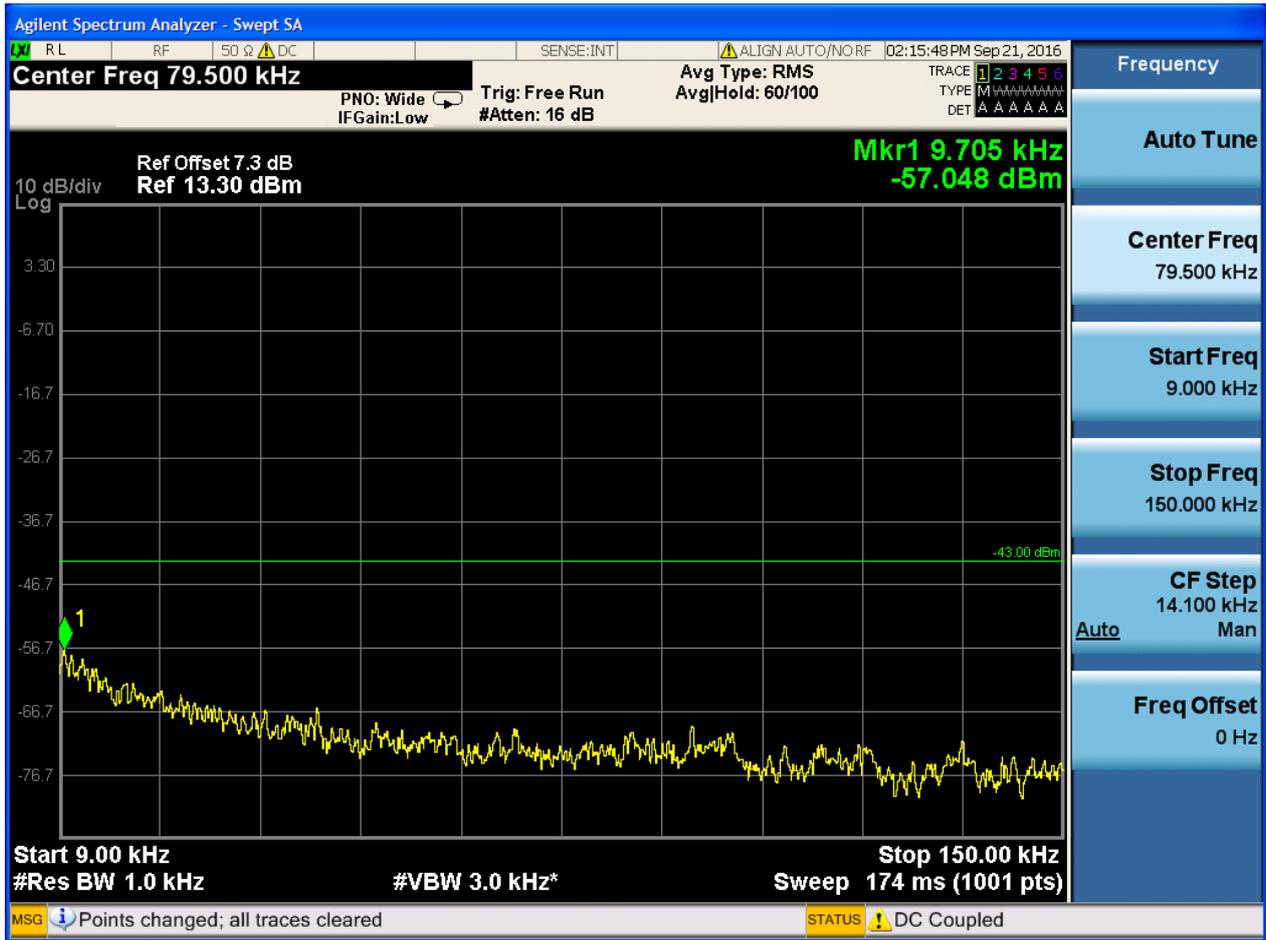


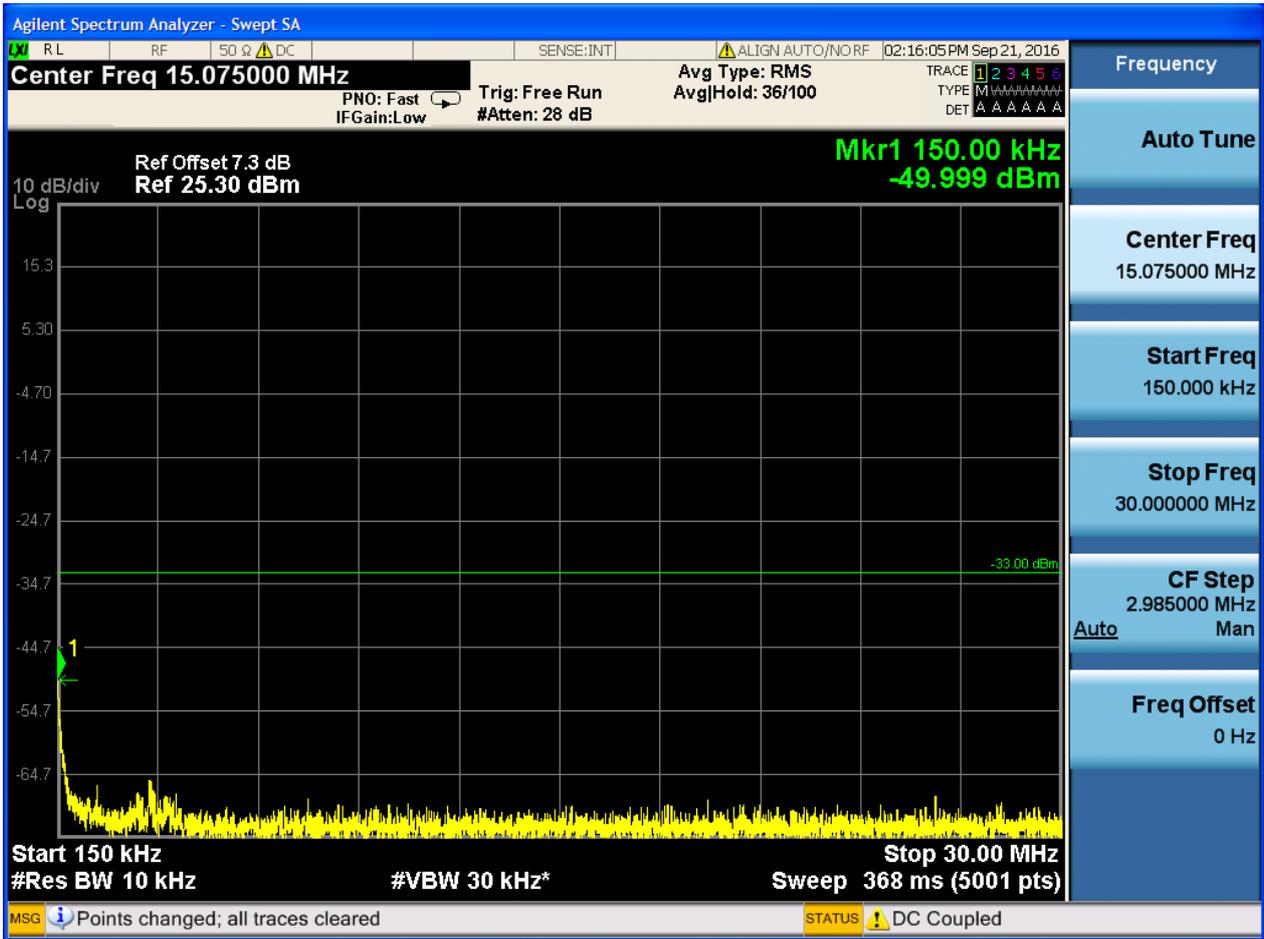
6.1.1.2 Test Mode = LTE/TM2

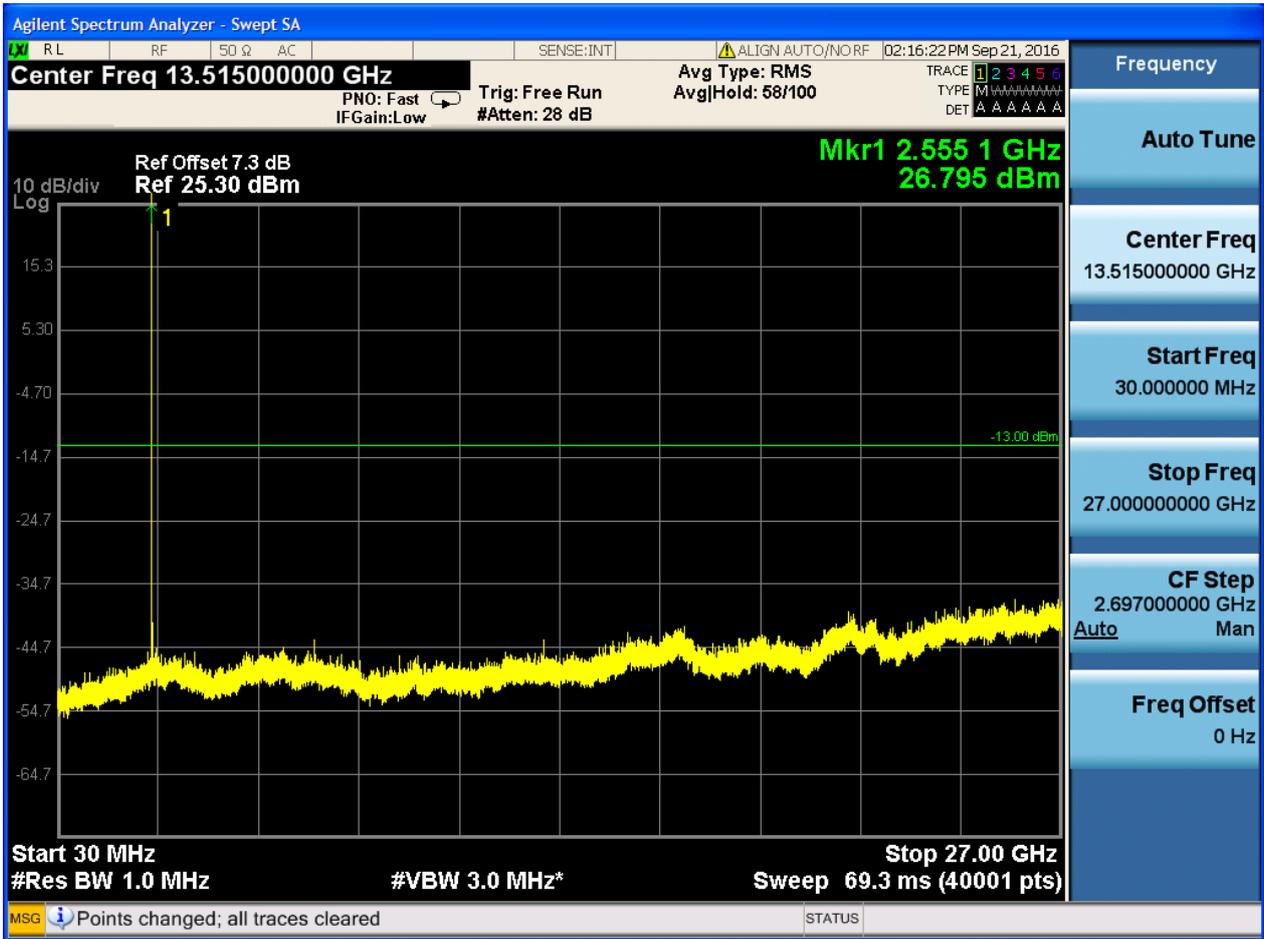
6.1.1.2.1 Test Bandwidth = 5

6.1.1.2.1.1 Test Channel = LCH

6.1.1.2.1.1.1 Test RB = RB1#0



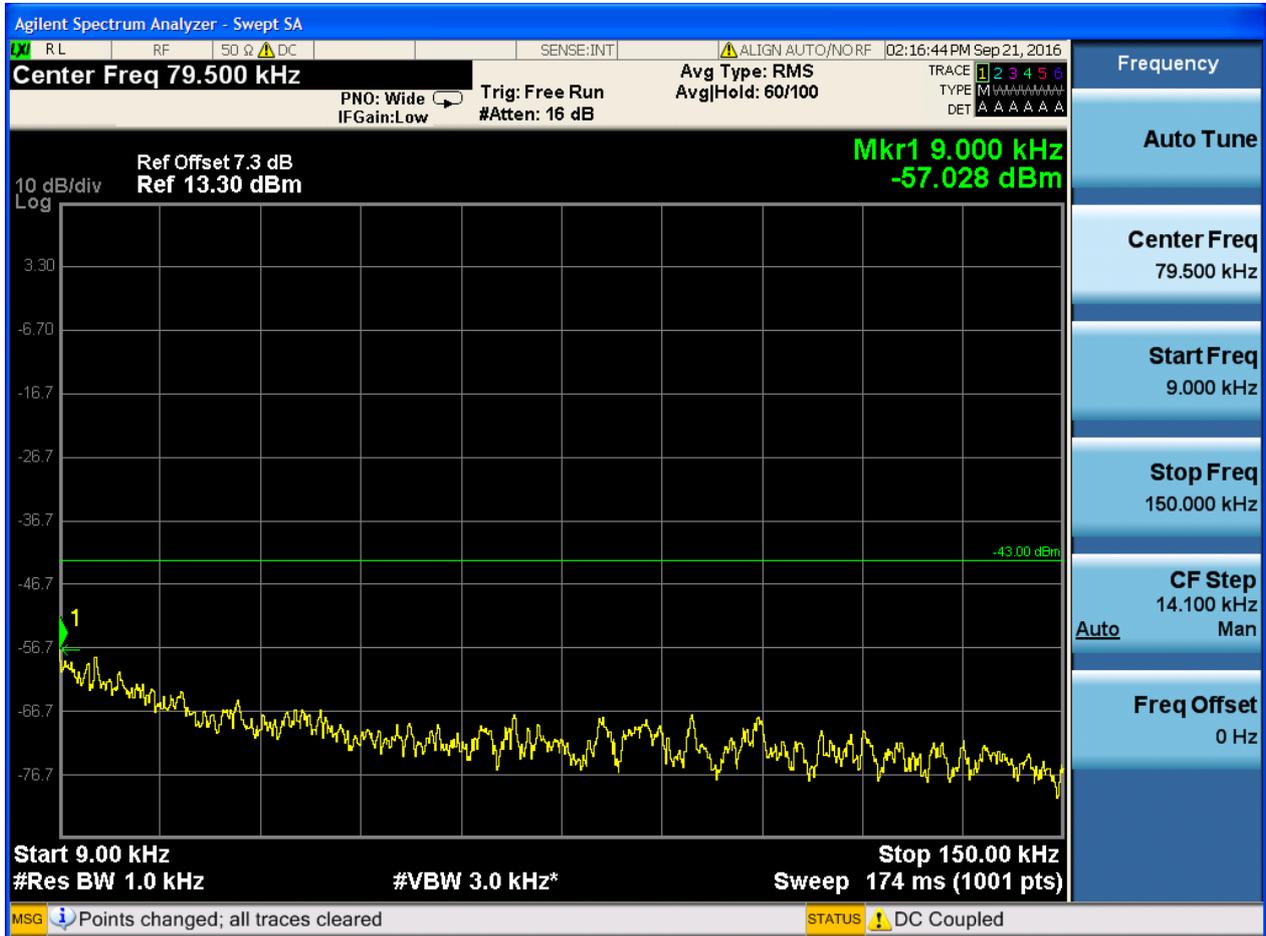


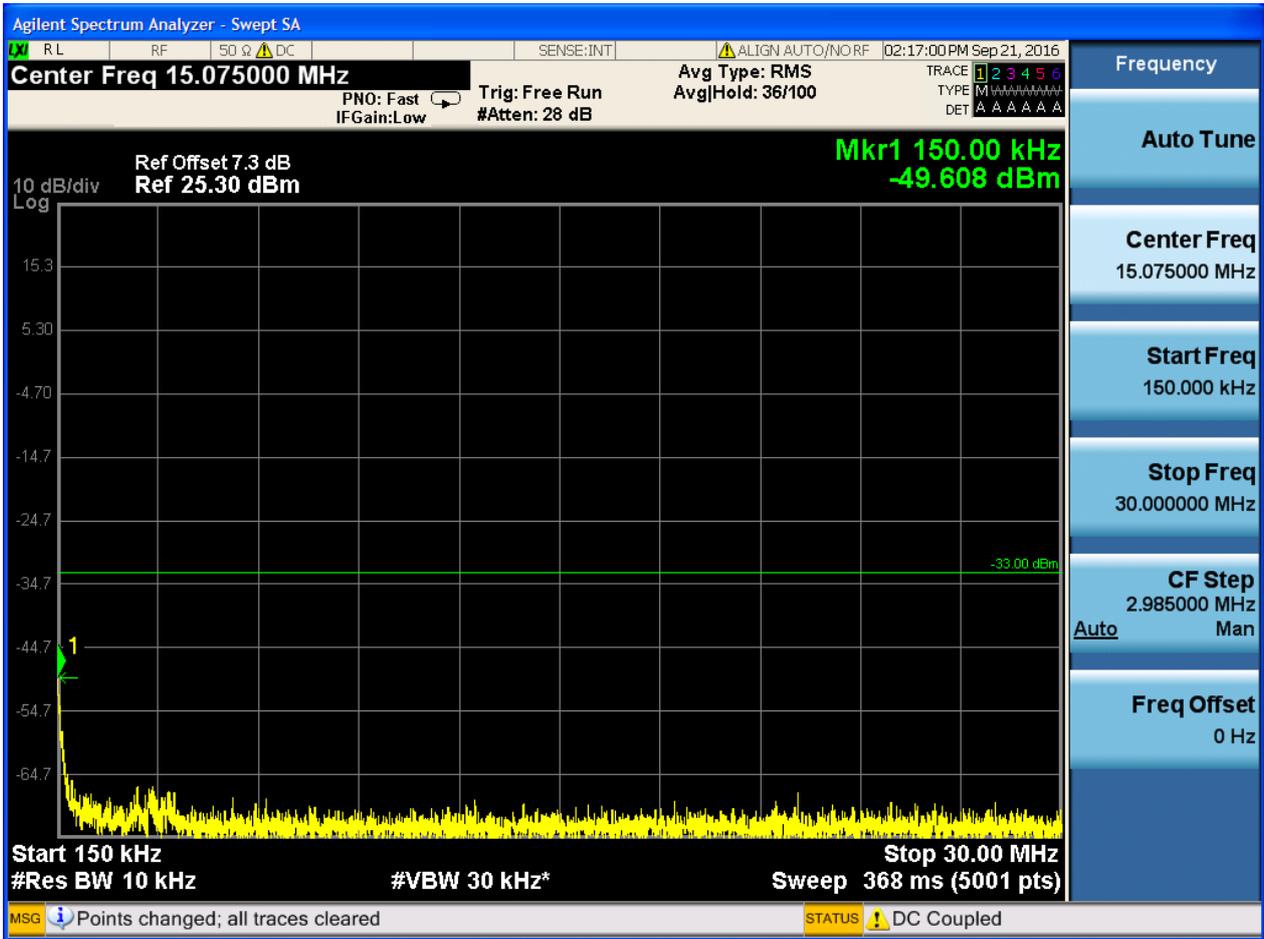


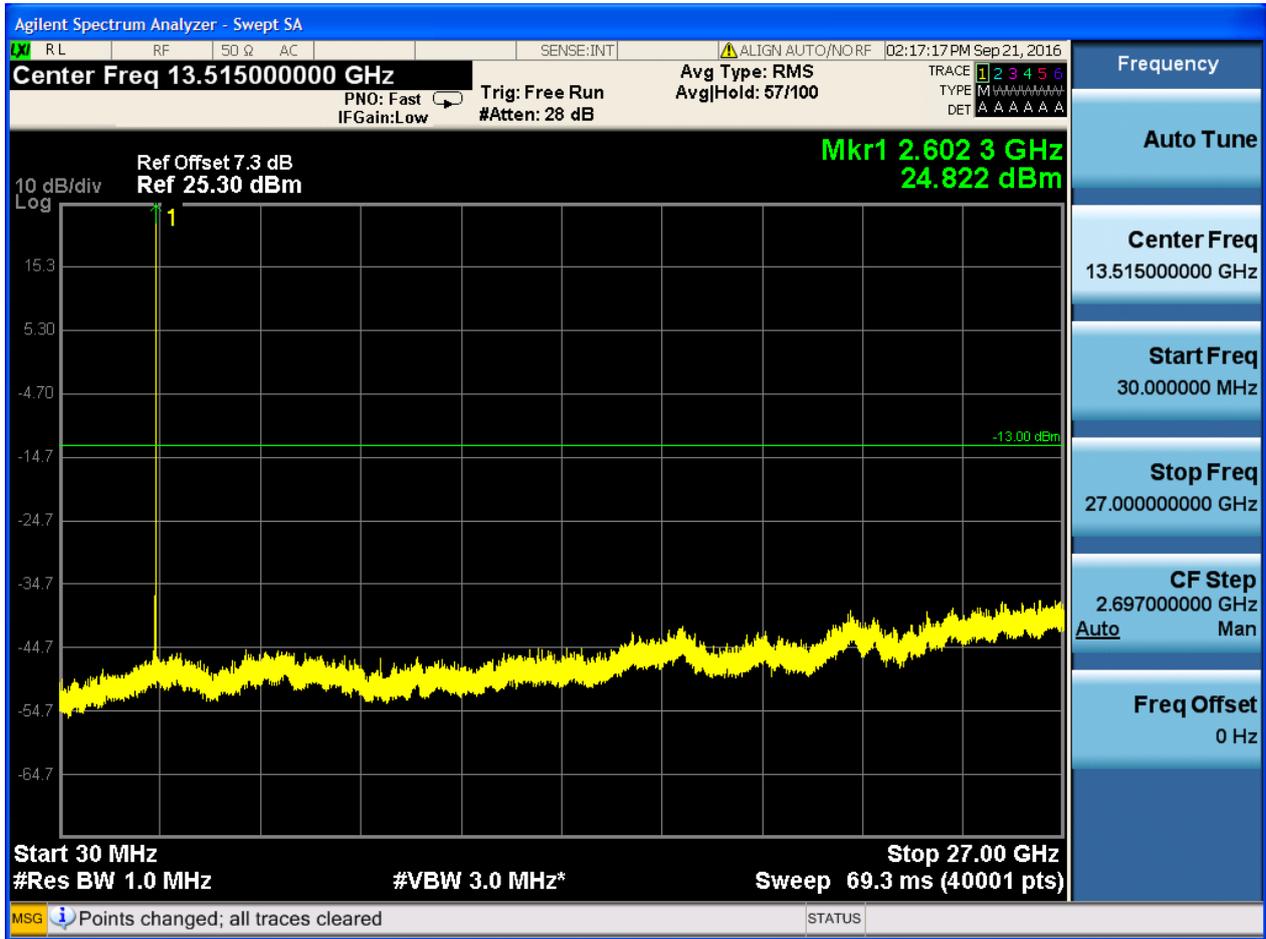


6.1.1.2.1.2 Test Channel = MCH

6.1.1.2.1.2.1 Test RB = RB1#0



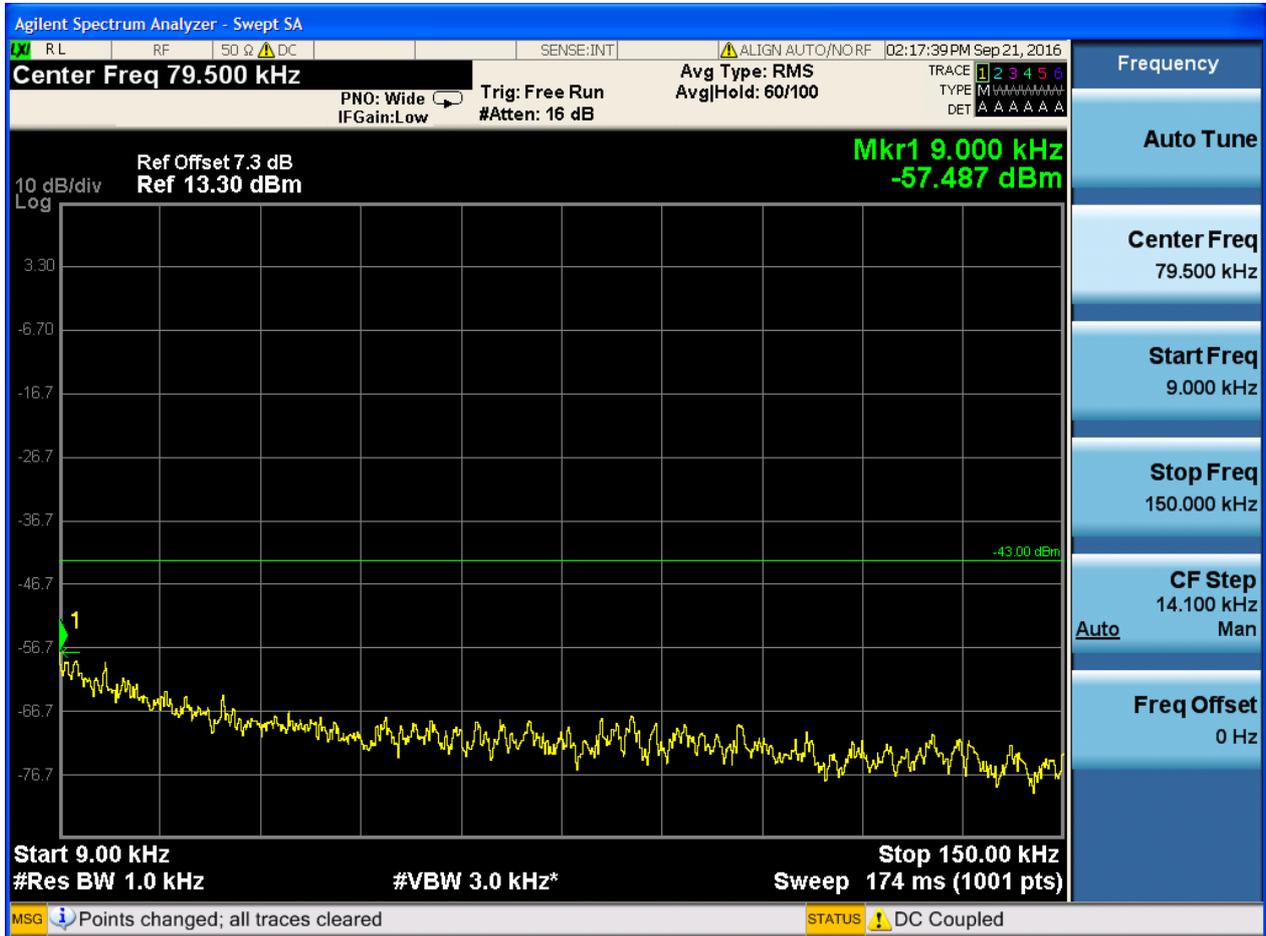


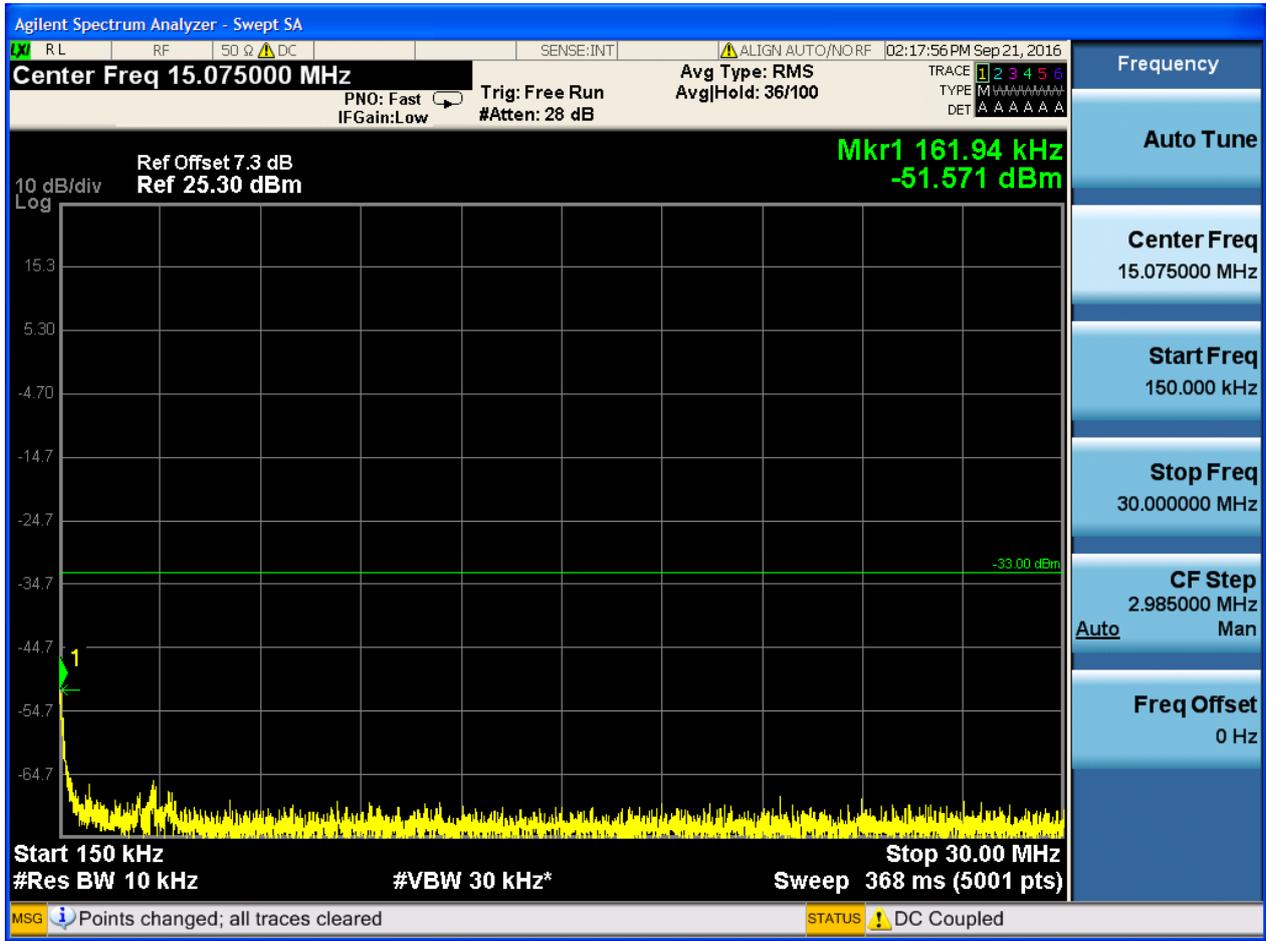


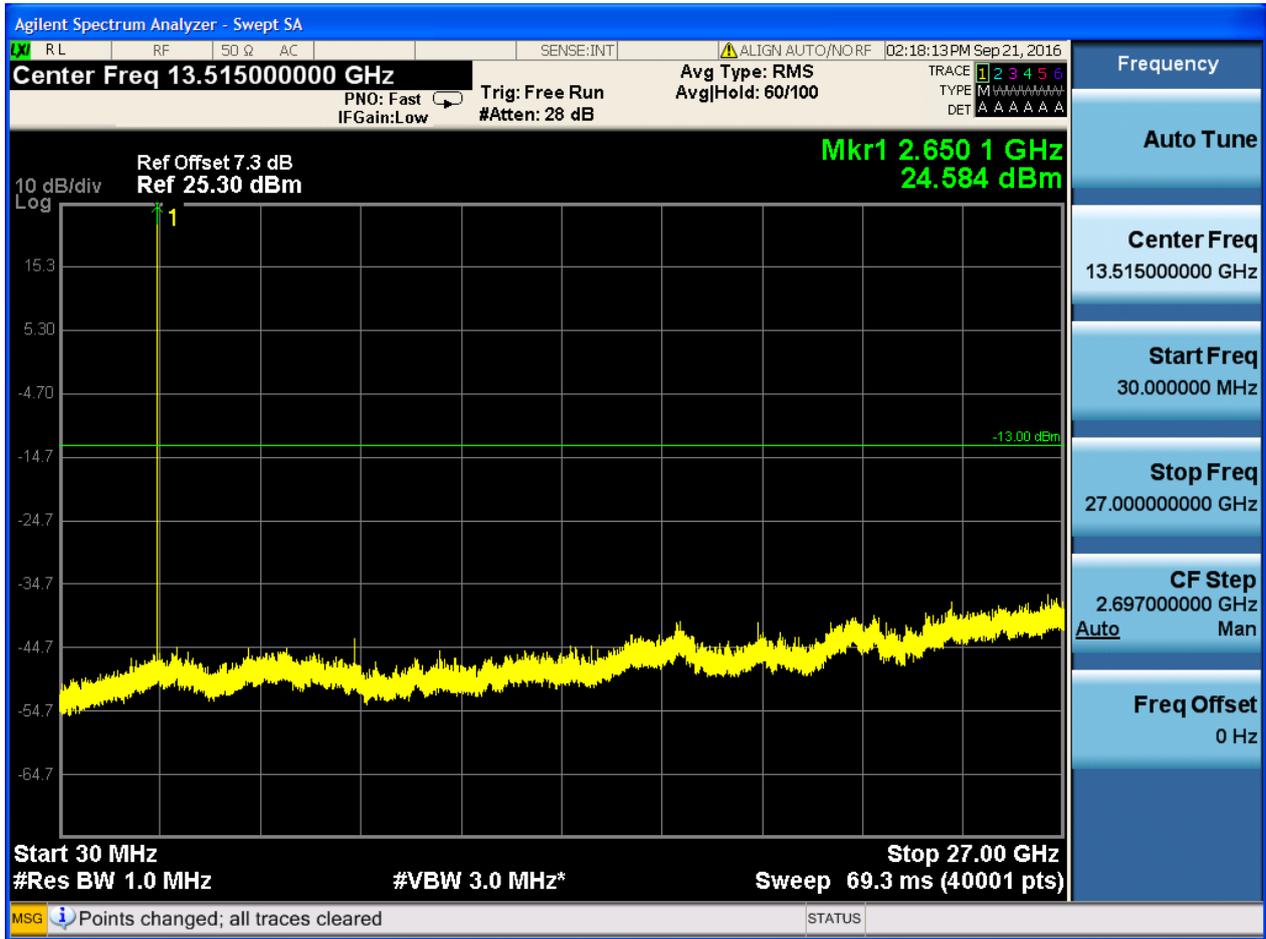


6.1.1.2.1.3 Test Channel = HCH

6.1.1.2.1.3.1 Test RB = RB1#0





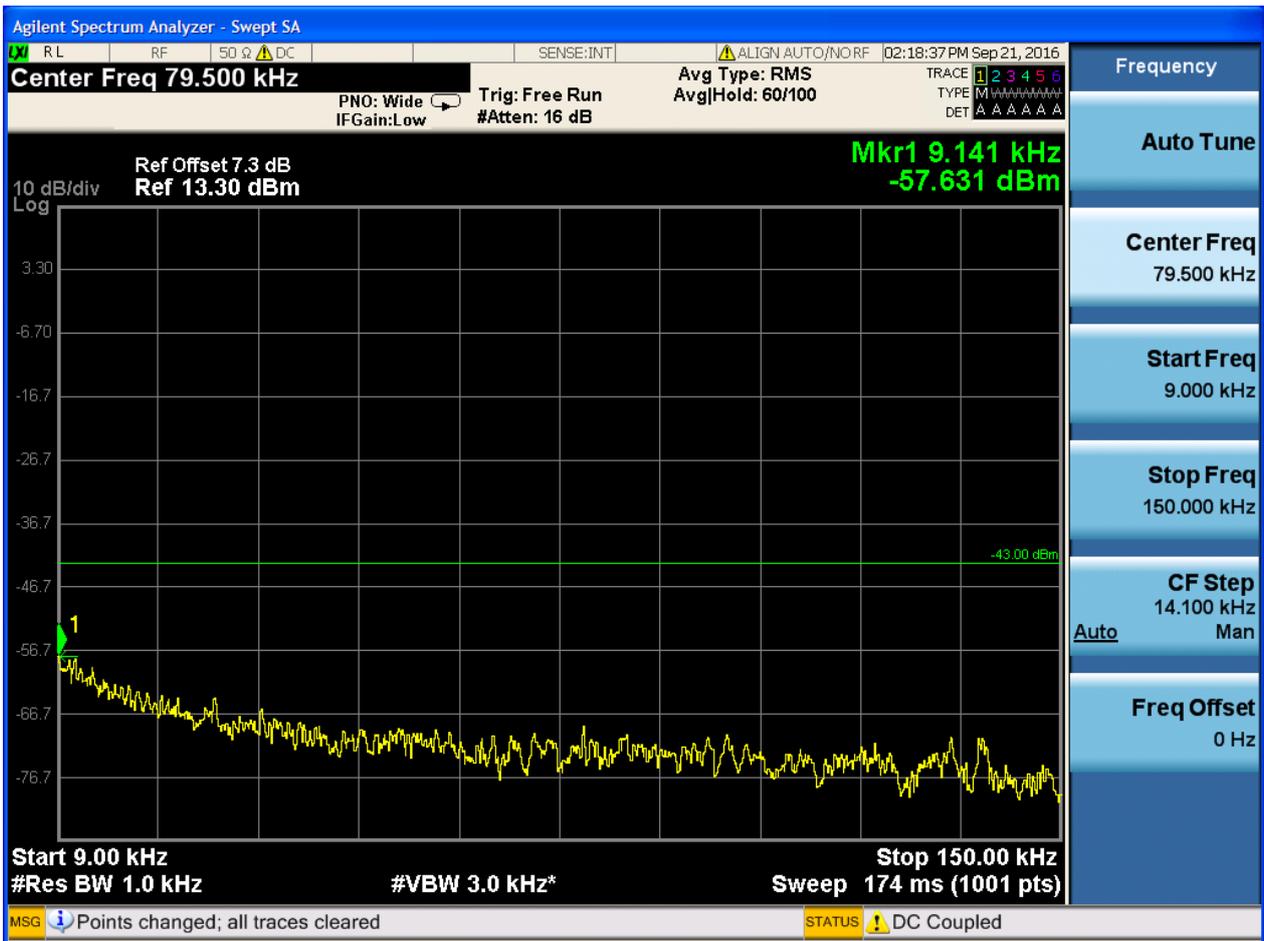


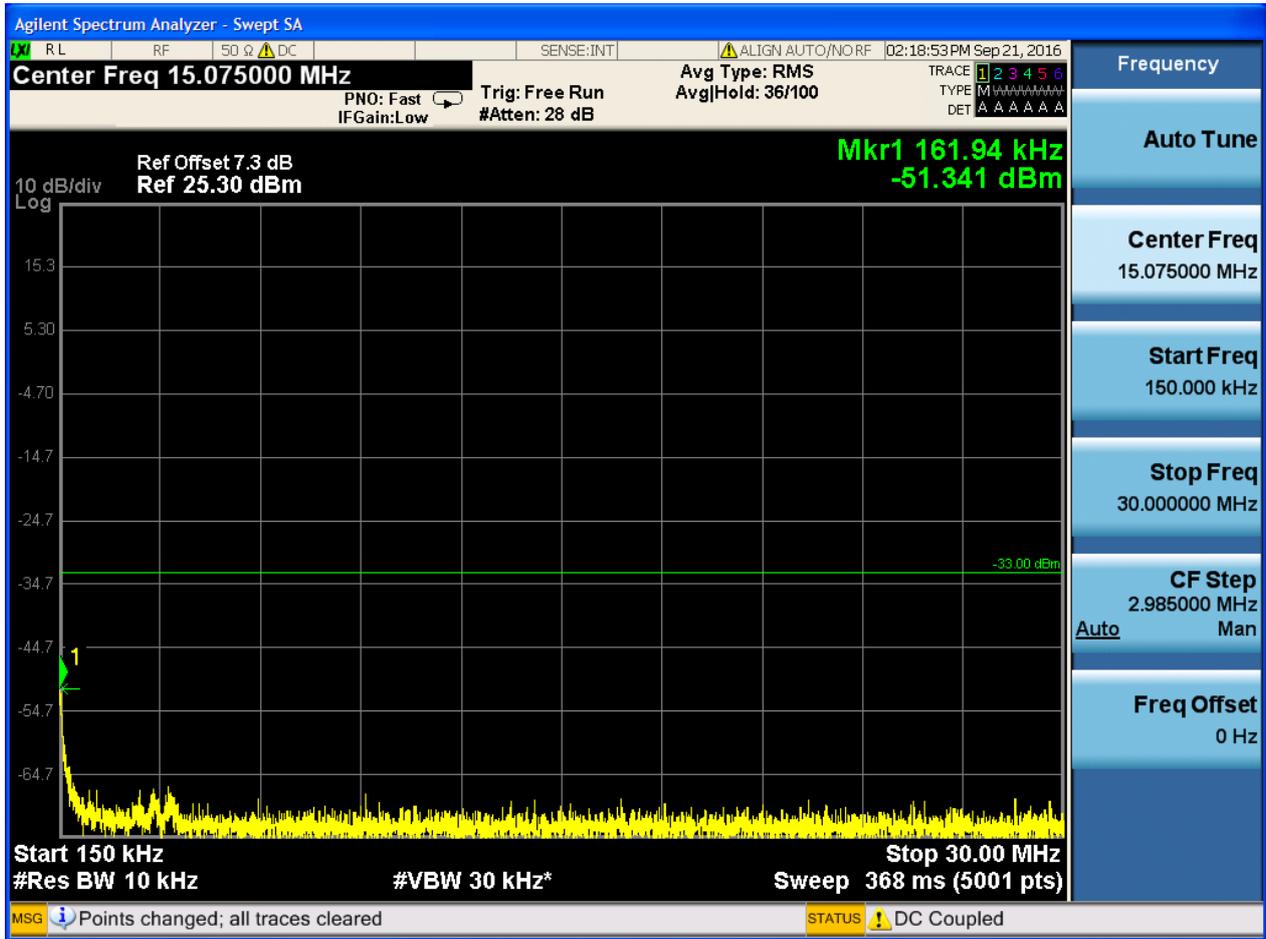


6.1.1.2.2 Test Bandwidth = 10

6.1.1.2.2.1 Test Channel = LCH

6.1.1.2.2.1.1 Test RB = RB1#0



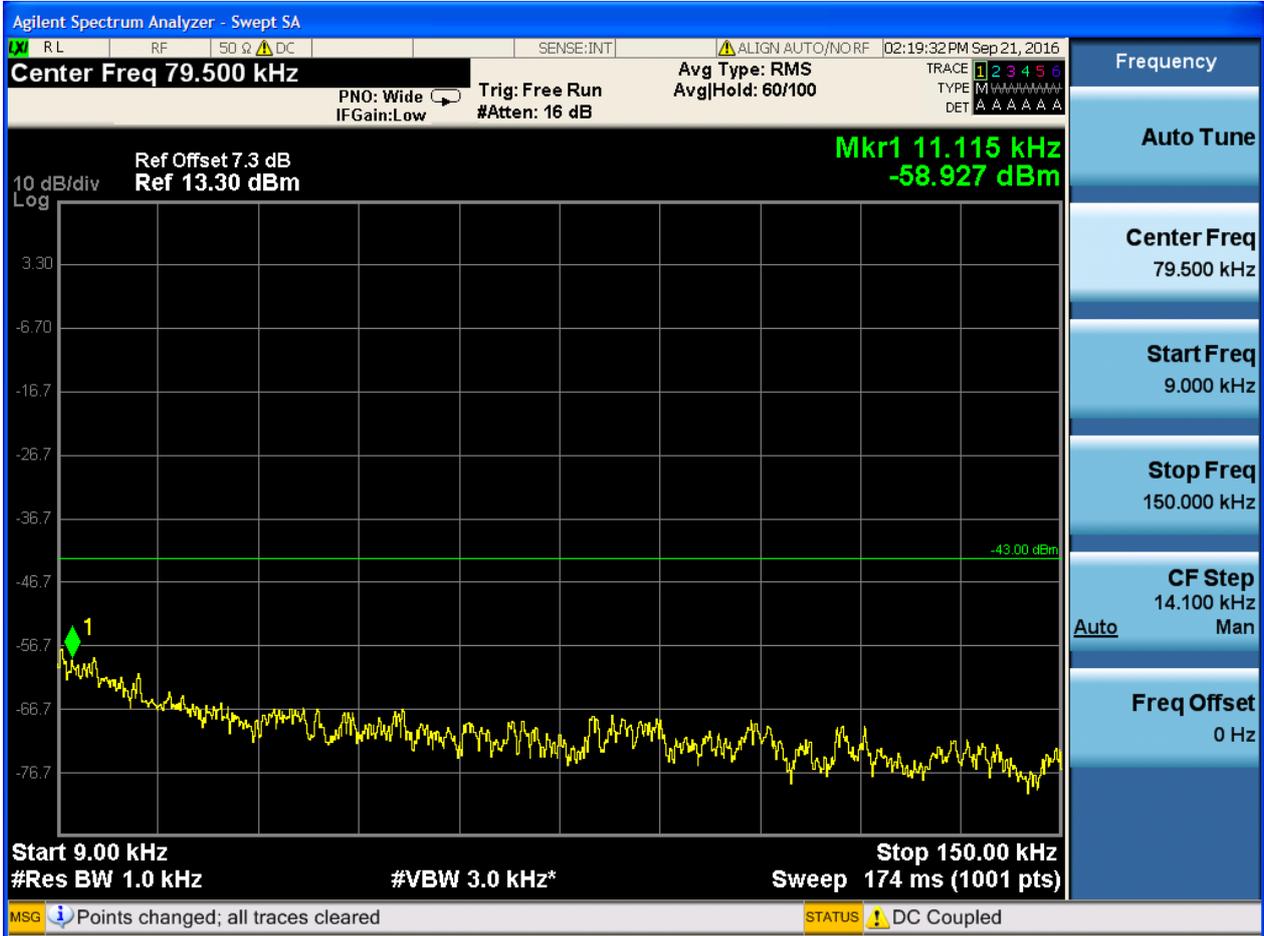


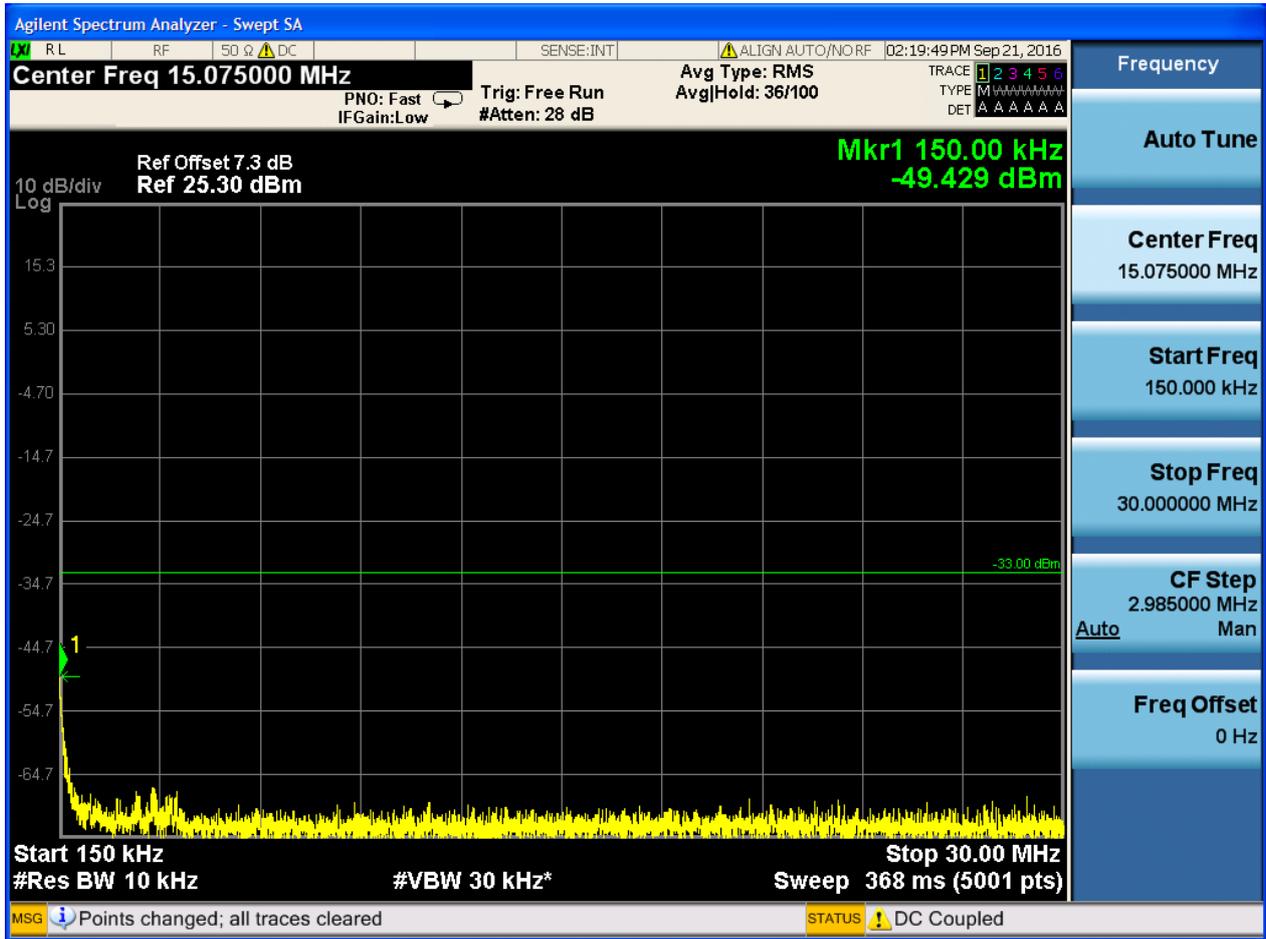




6.1.1.2.2 Test Channel = MCH

6.1.1.2.2.1 Test RB = RB1#0



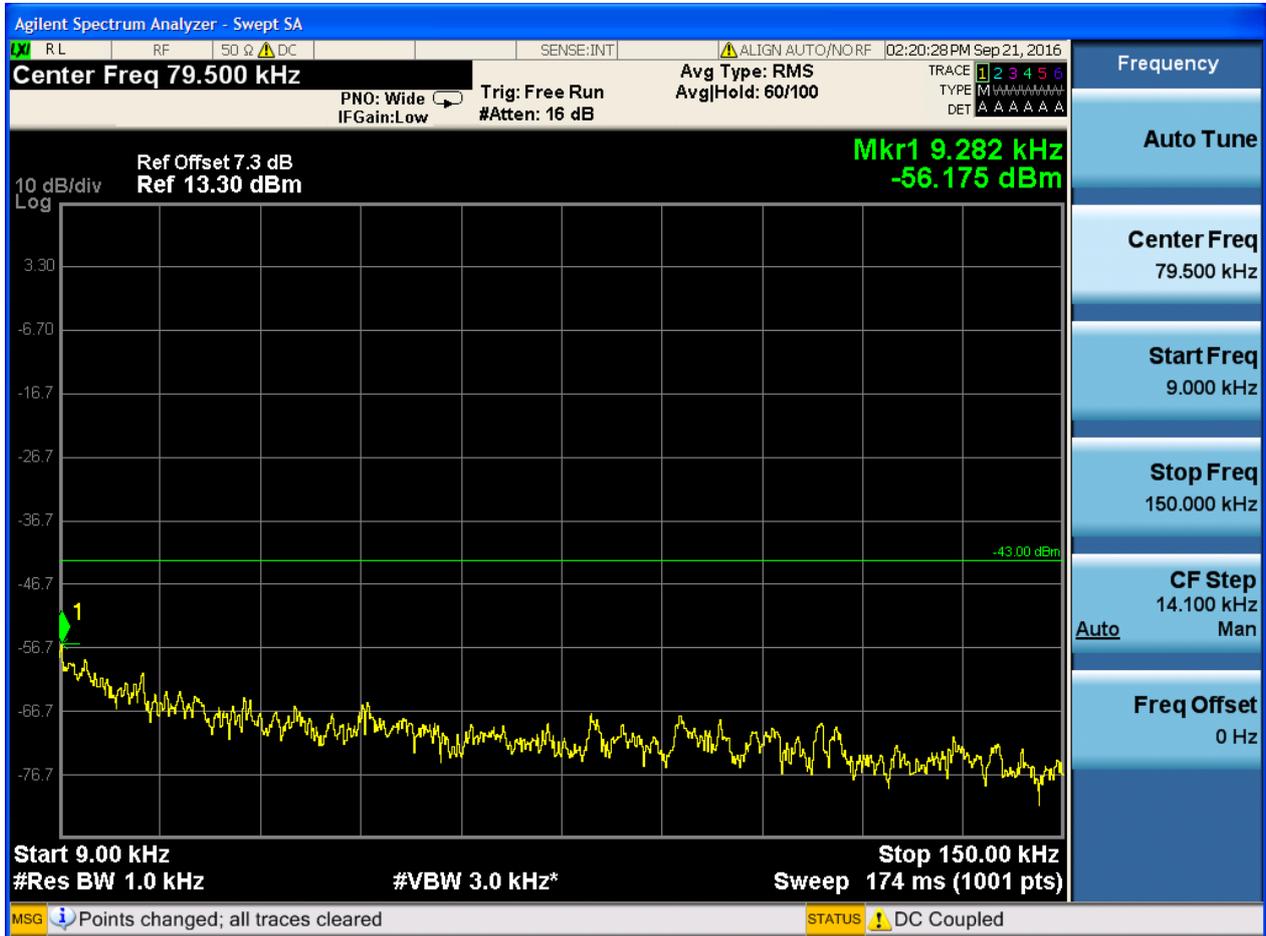


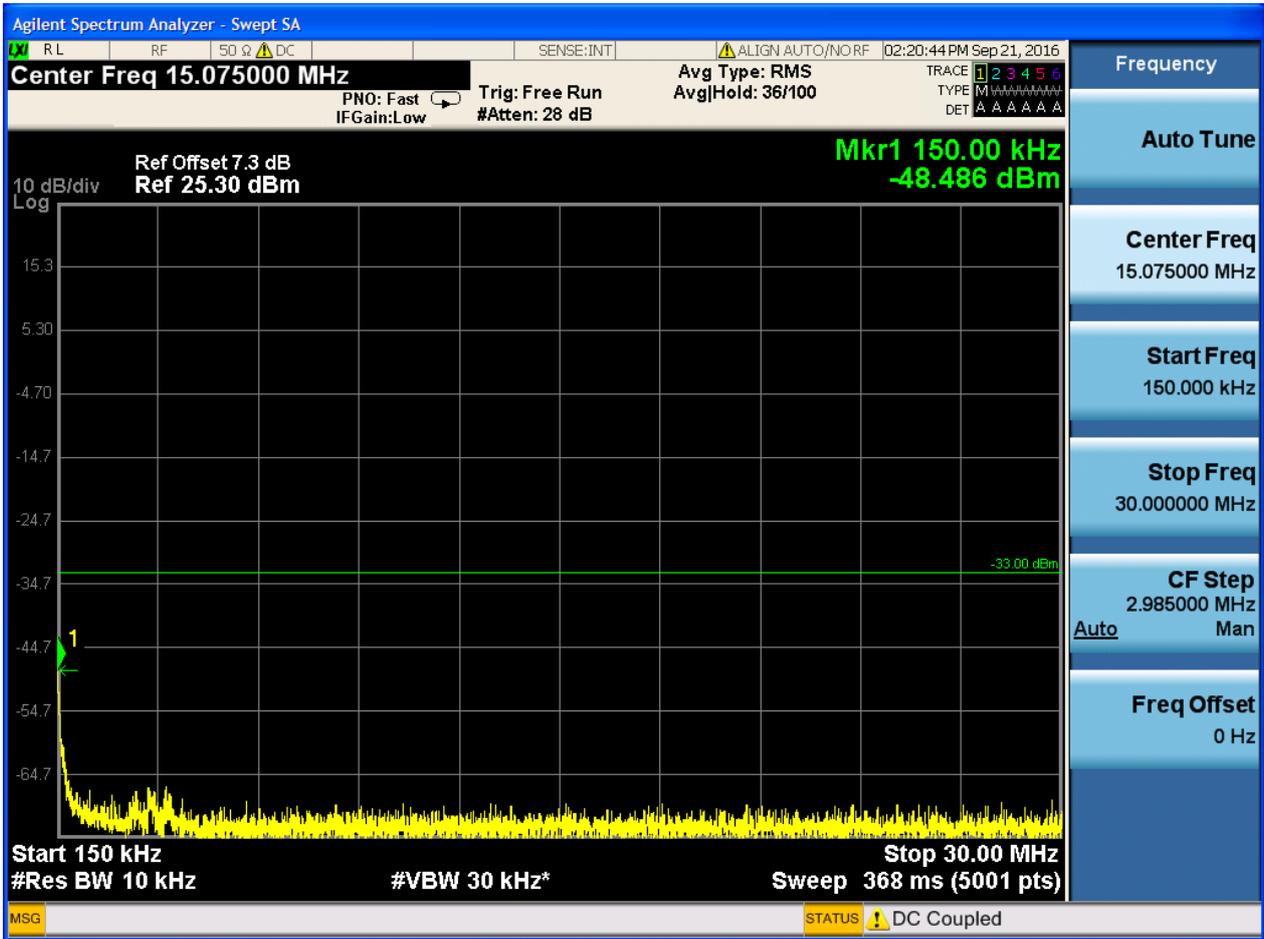


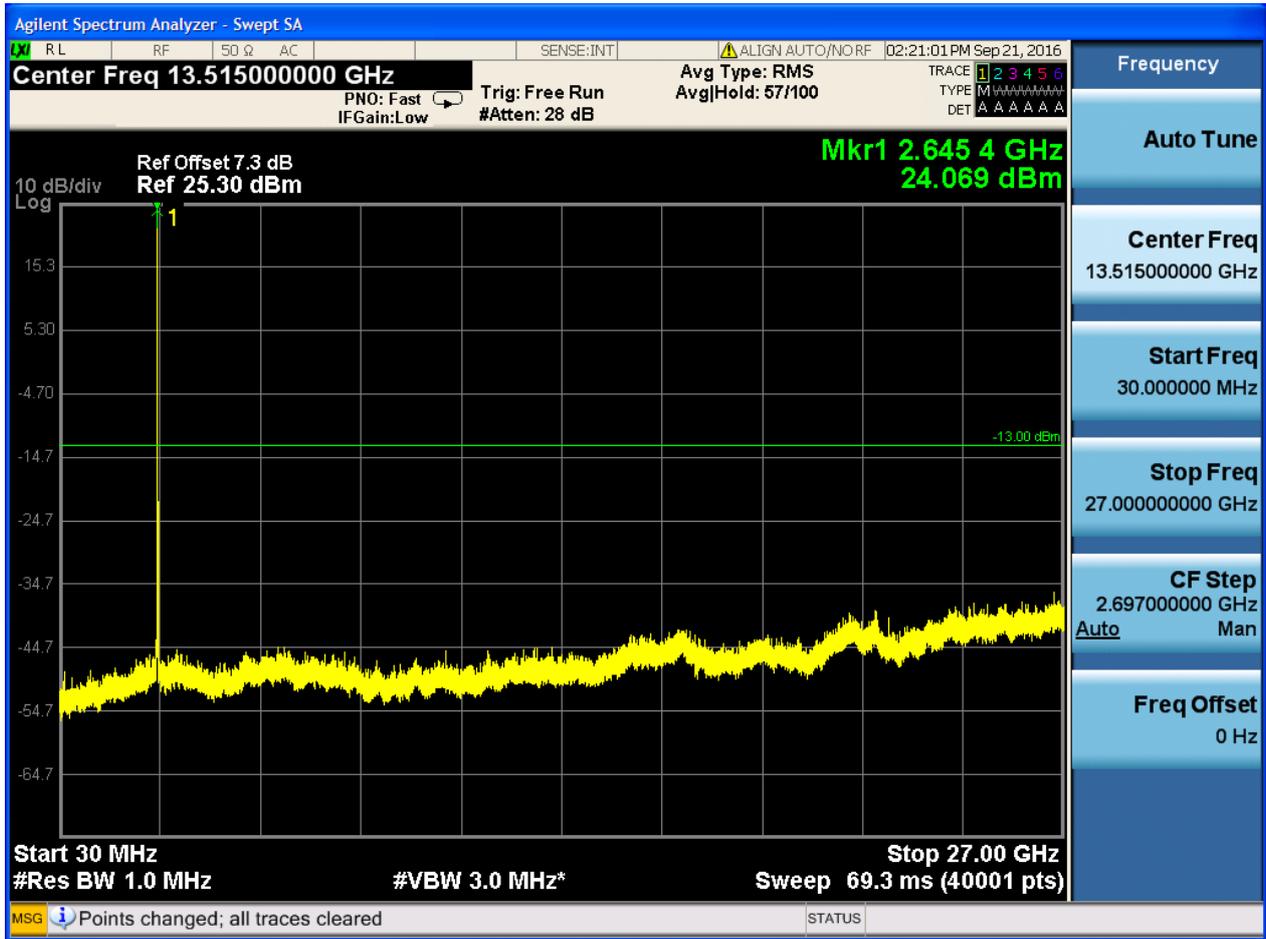


6.1.1.2.2.3 Test Channel = HCH

6.1.1.2.2.3.1 Test RB = RB1#0





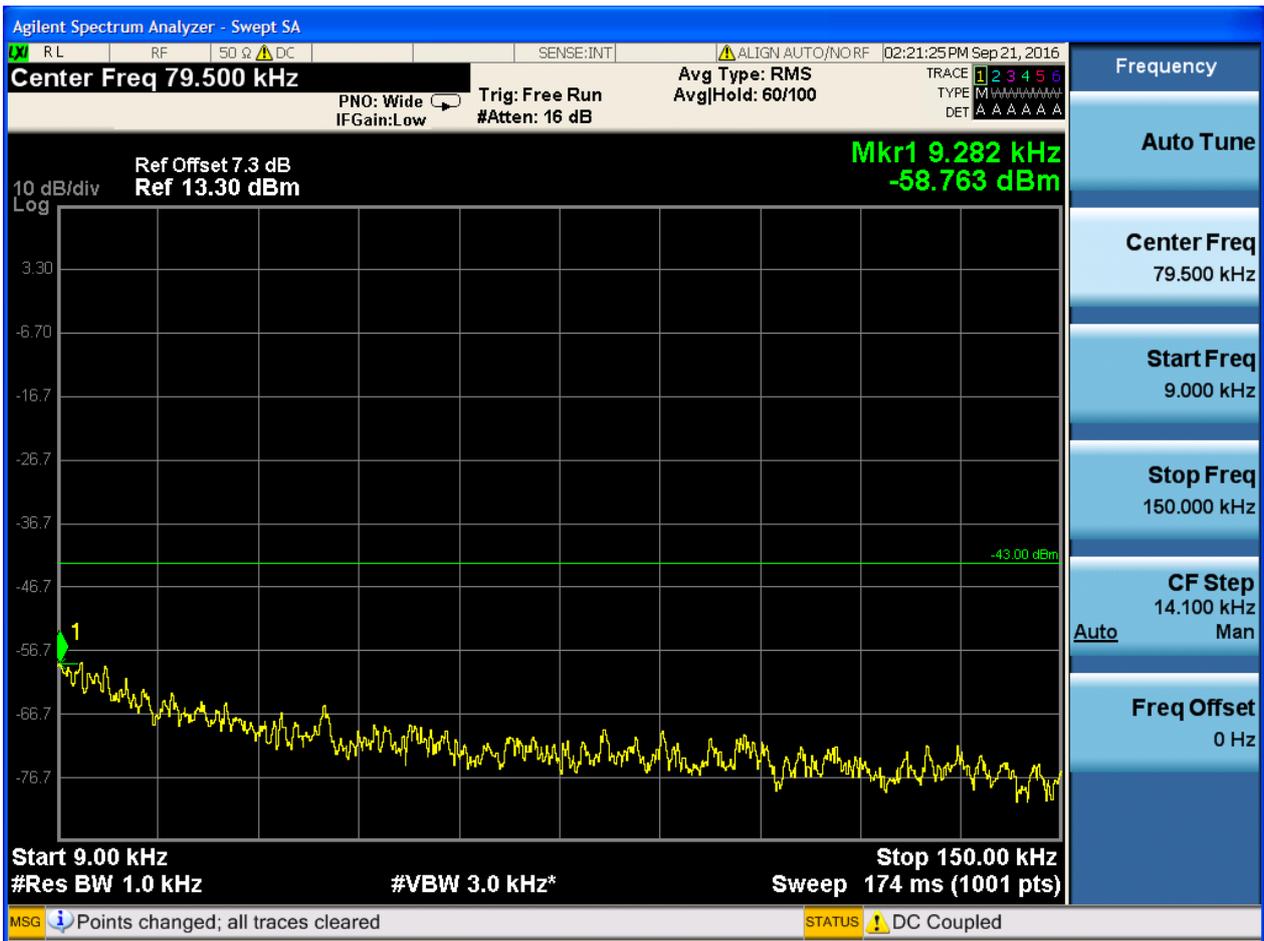


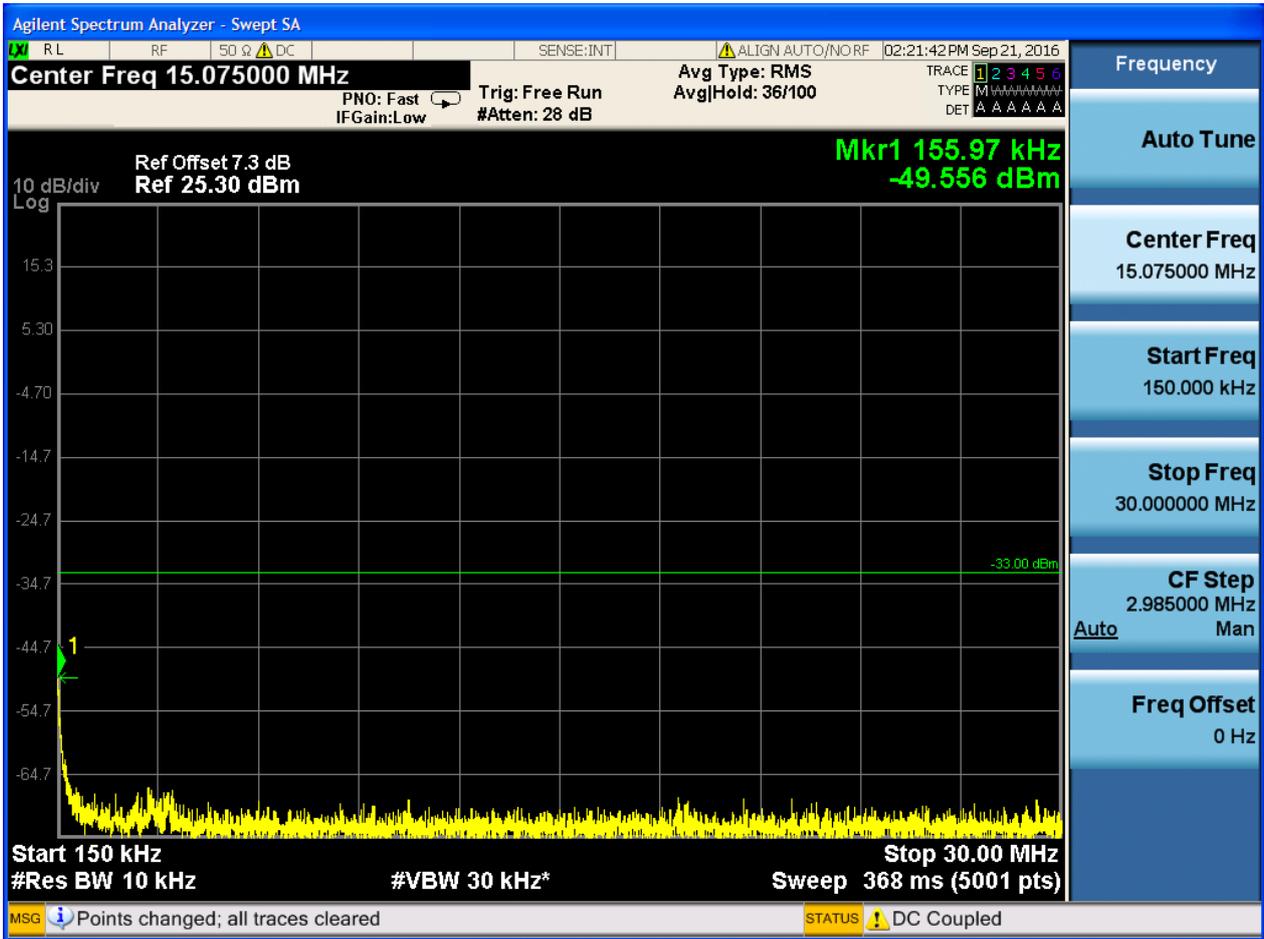


6.1.1.2.3 Test Bandwidth = 15

6.1.1.2.3.1 Test Channel = LCH

6.1.1.2.3.1.1 Test RB = RB1#0



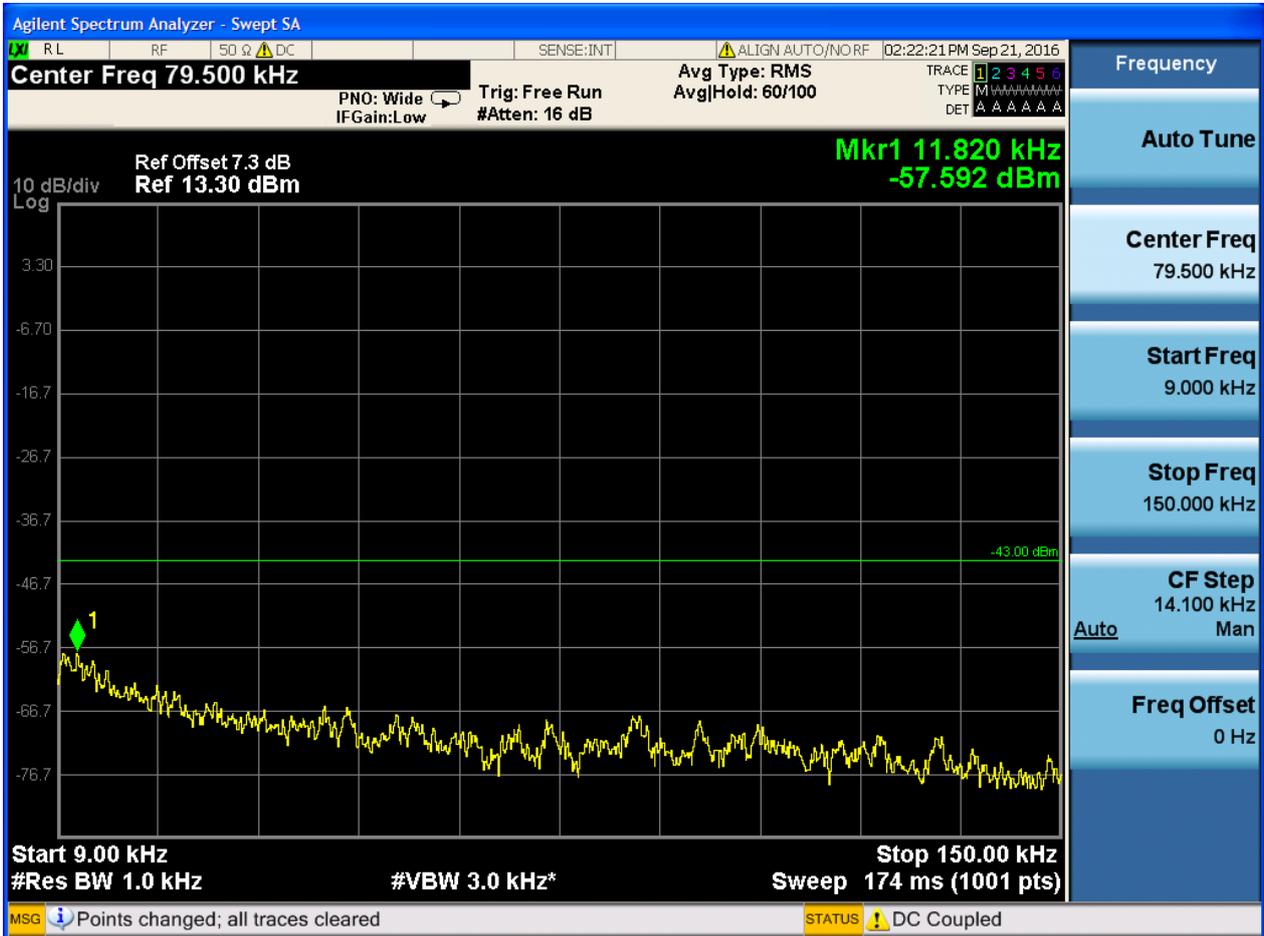


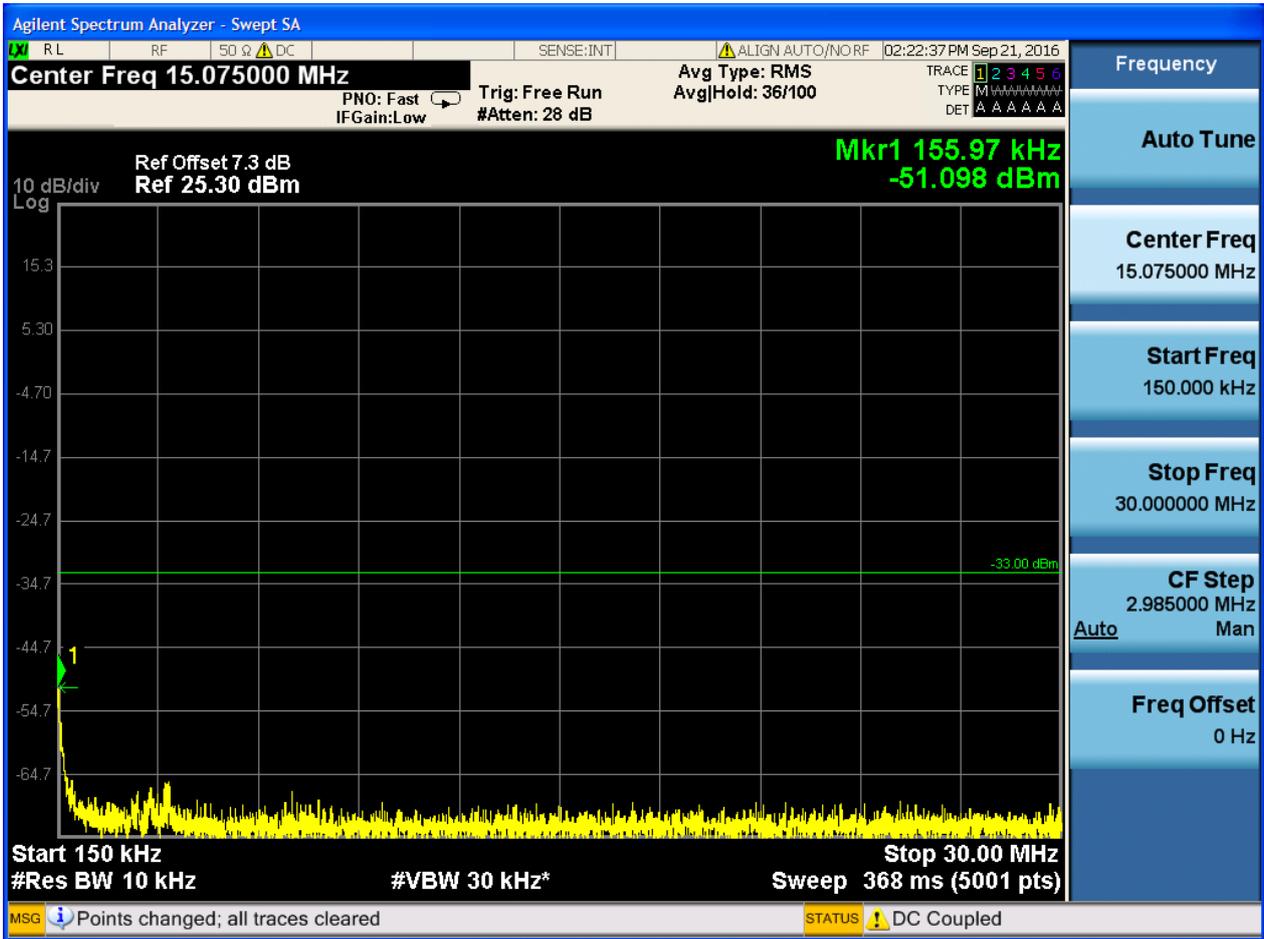


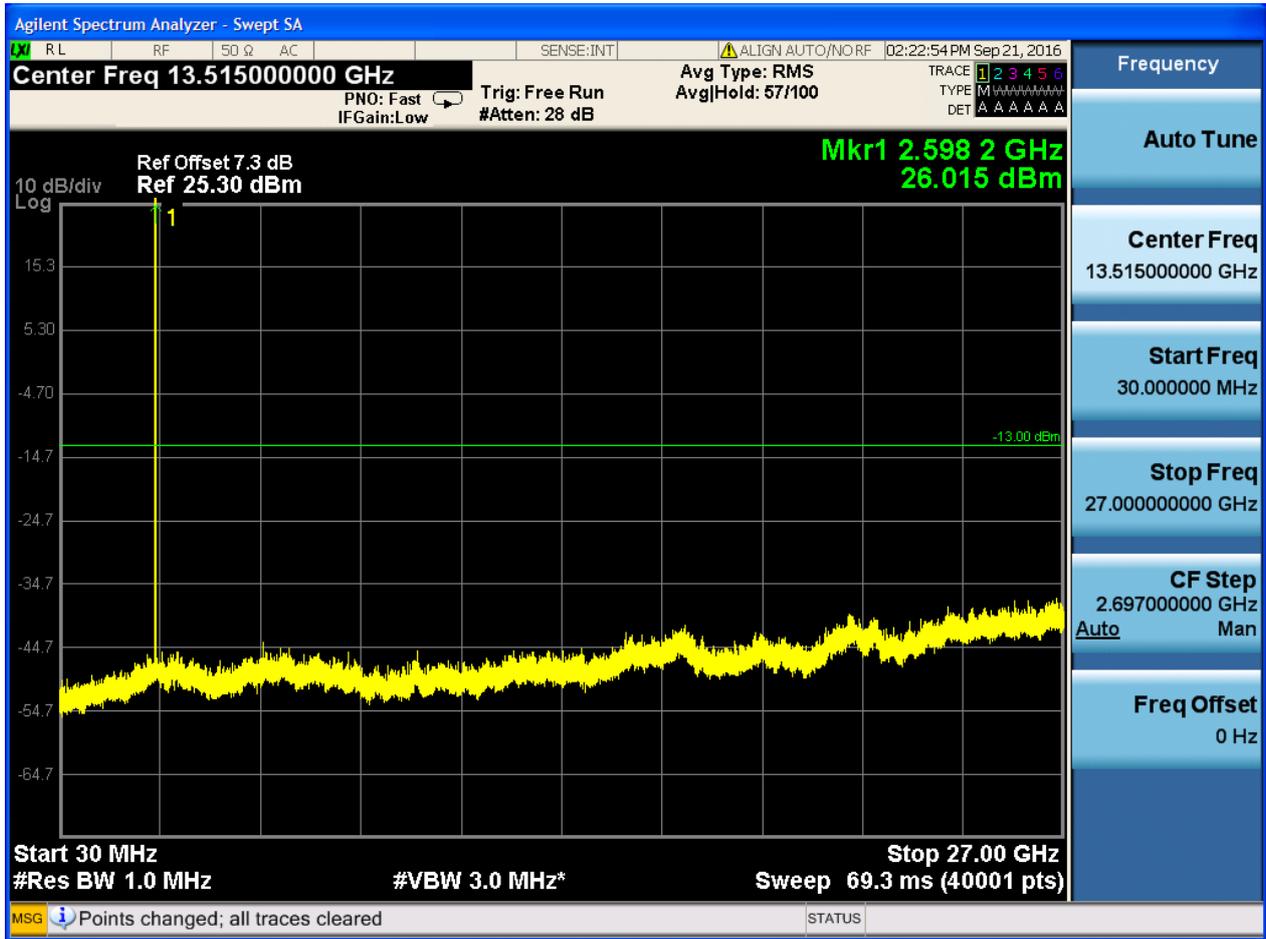


6.1.1.2.3.2 Test Channel = MCH

6.1.1.2.3.2.1 Test RB = RB1#0



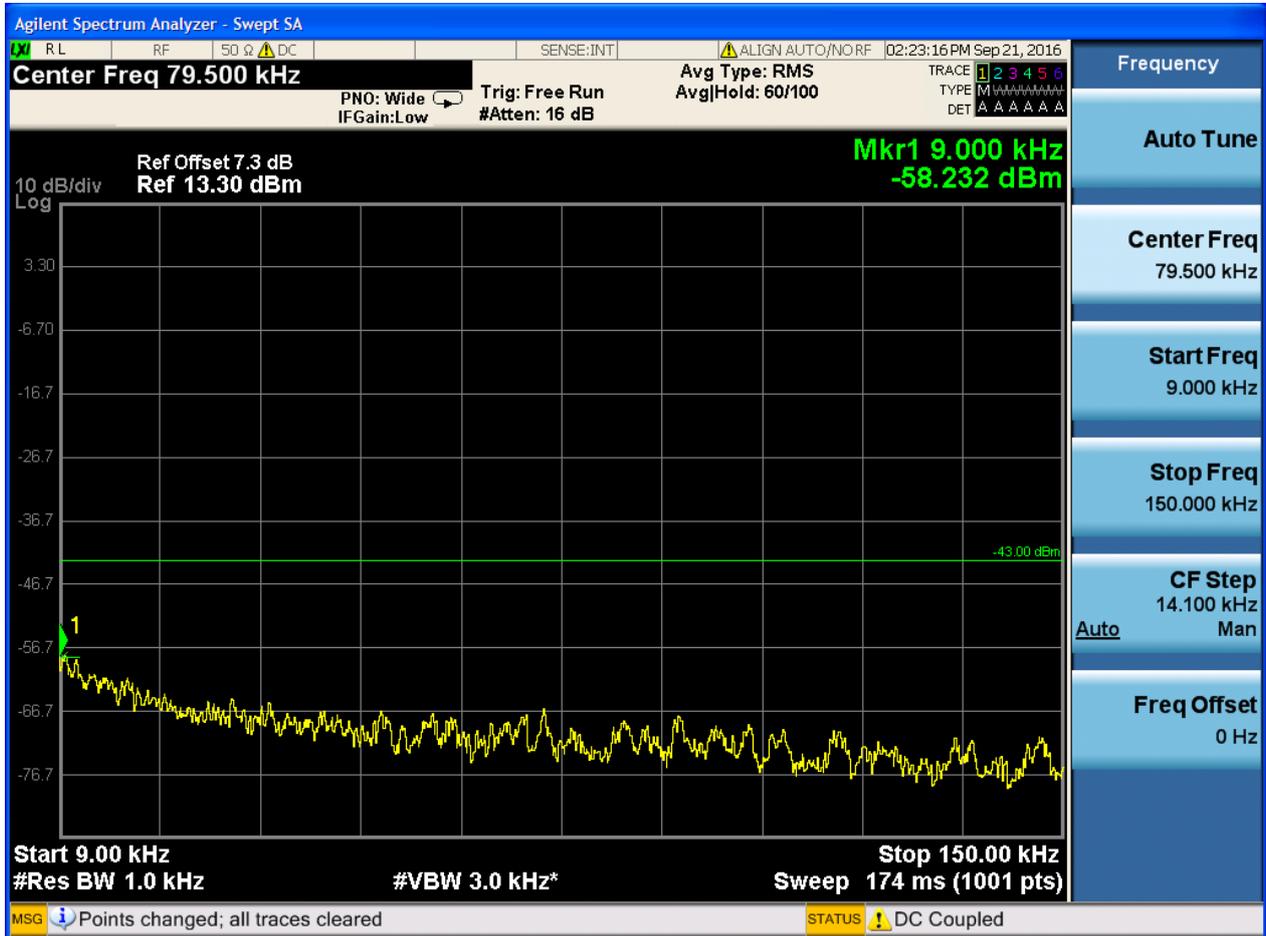


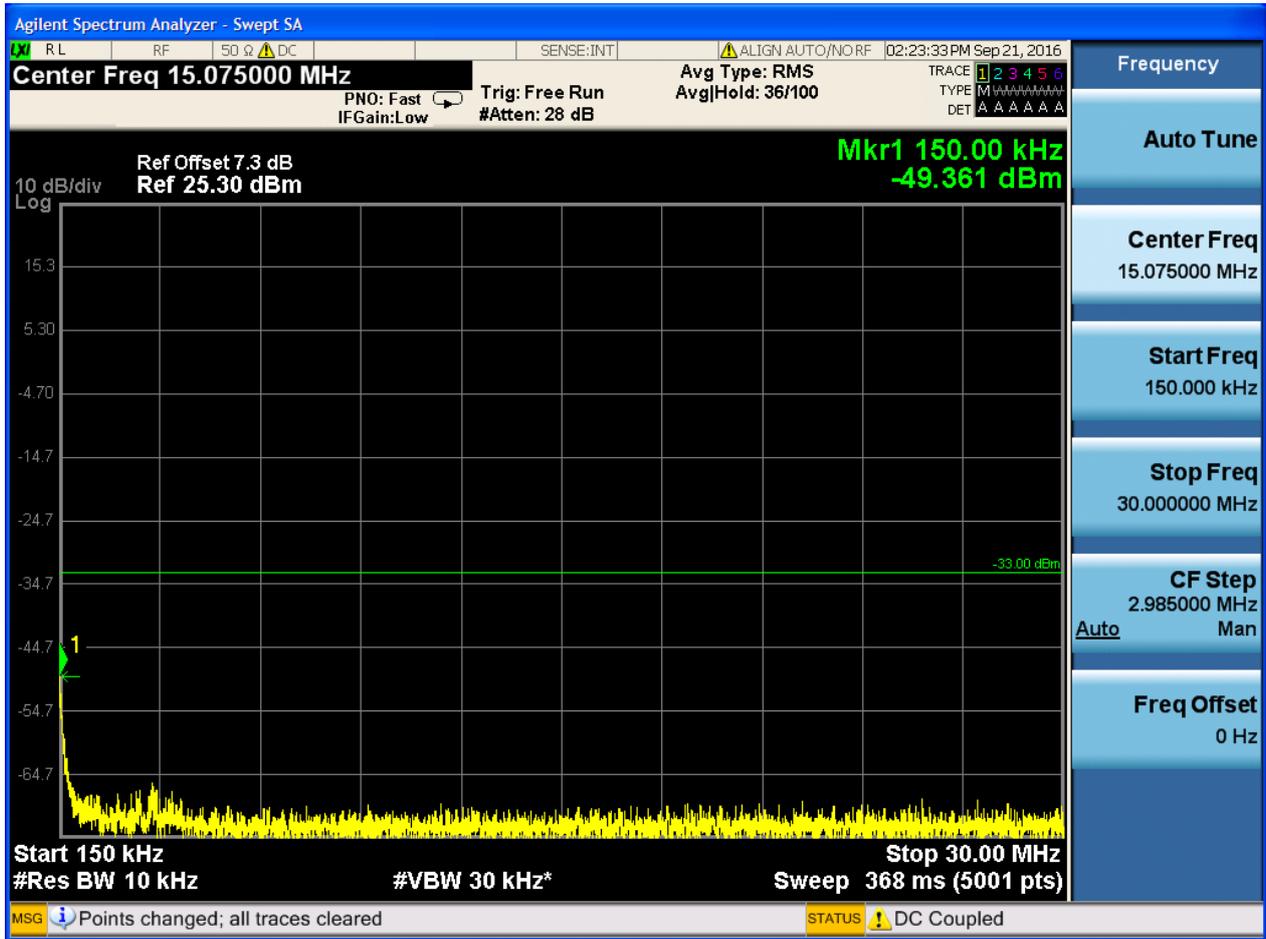




6.1.1.2.3.3 Test Channel = HCH

6.1.1.2.3.3.1 Test RB = RB1#0



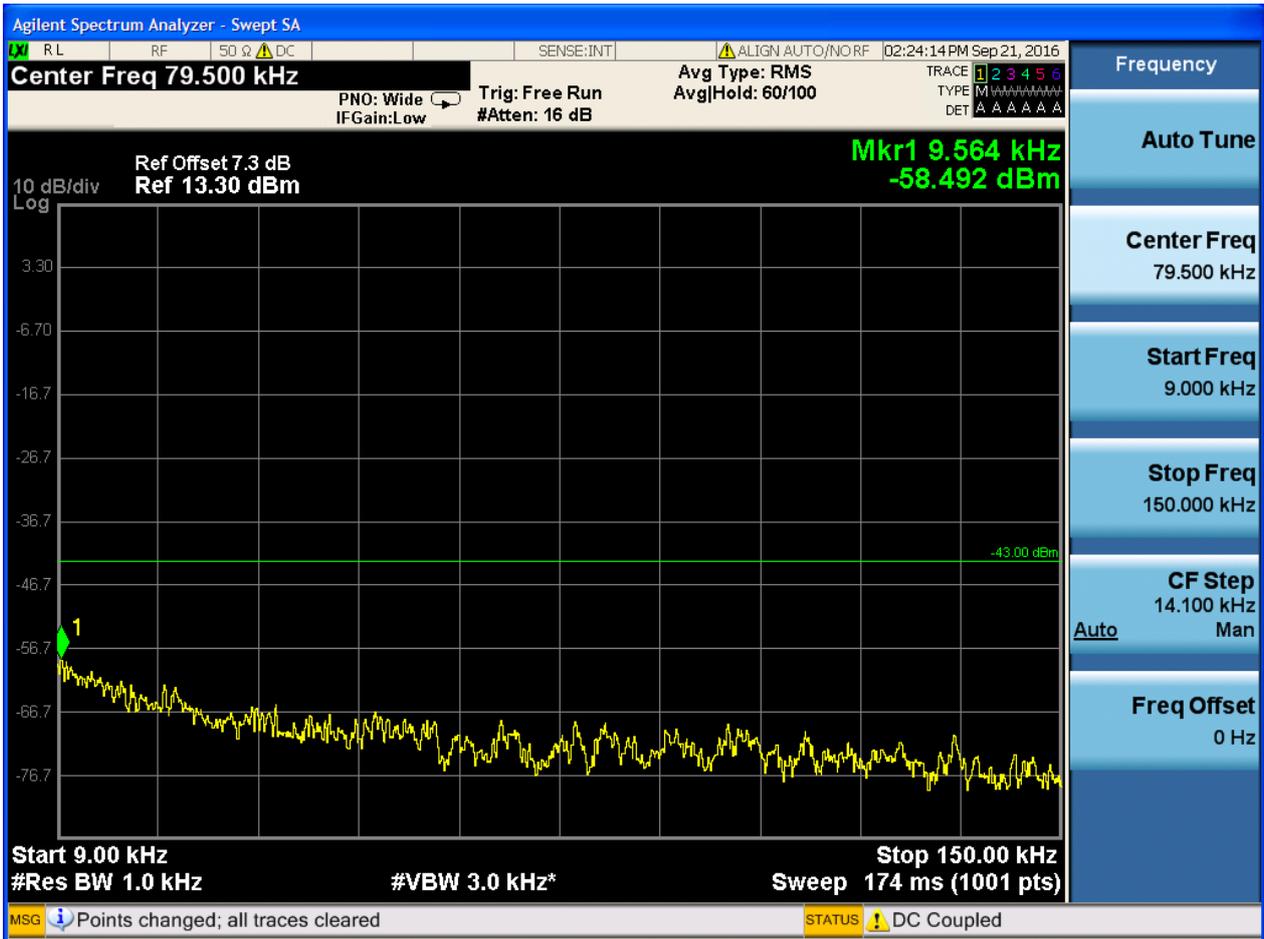


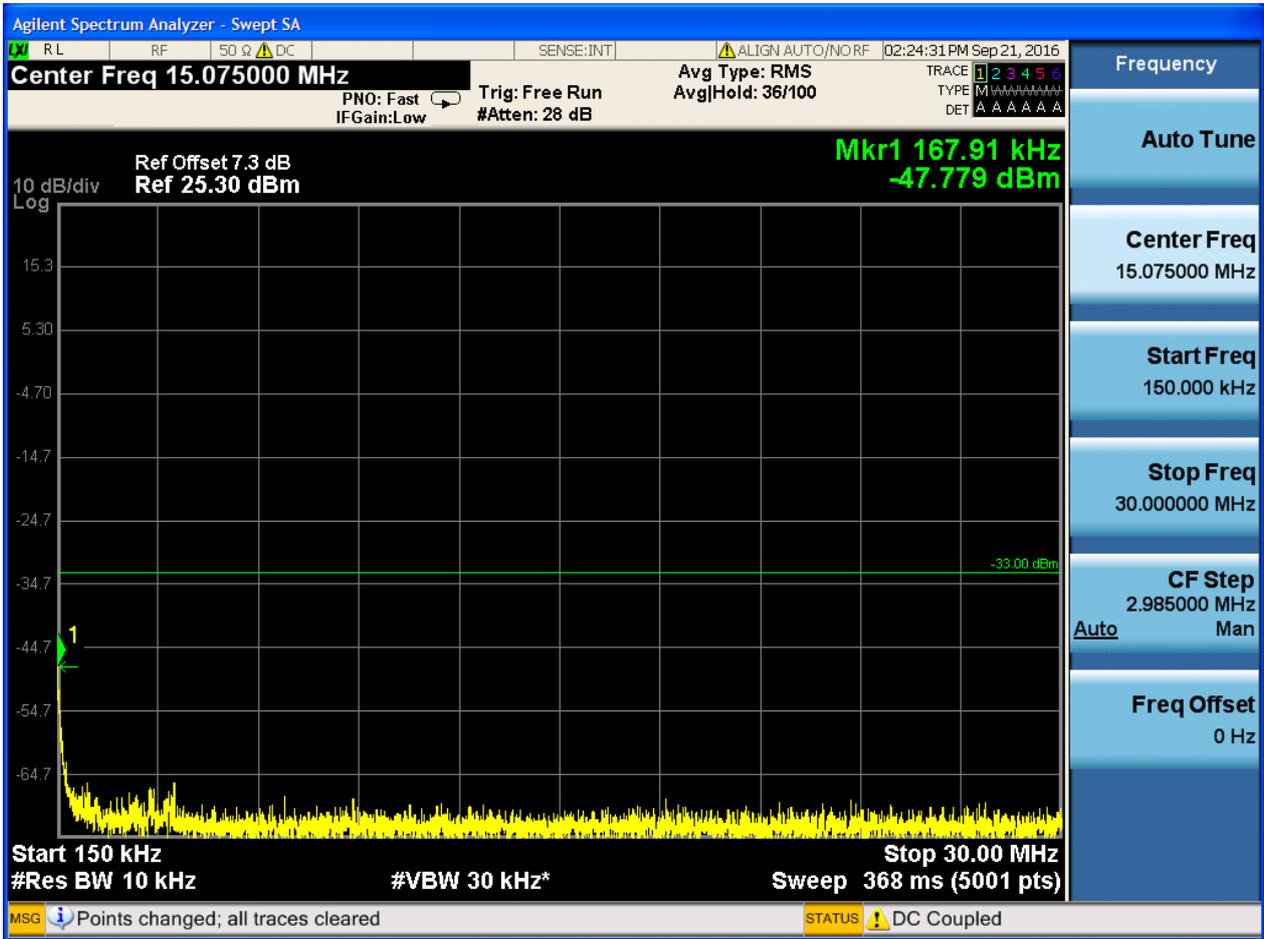


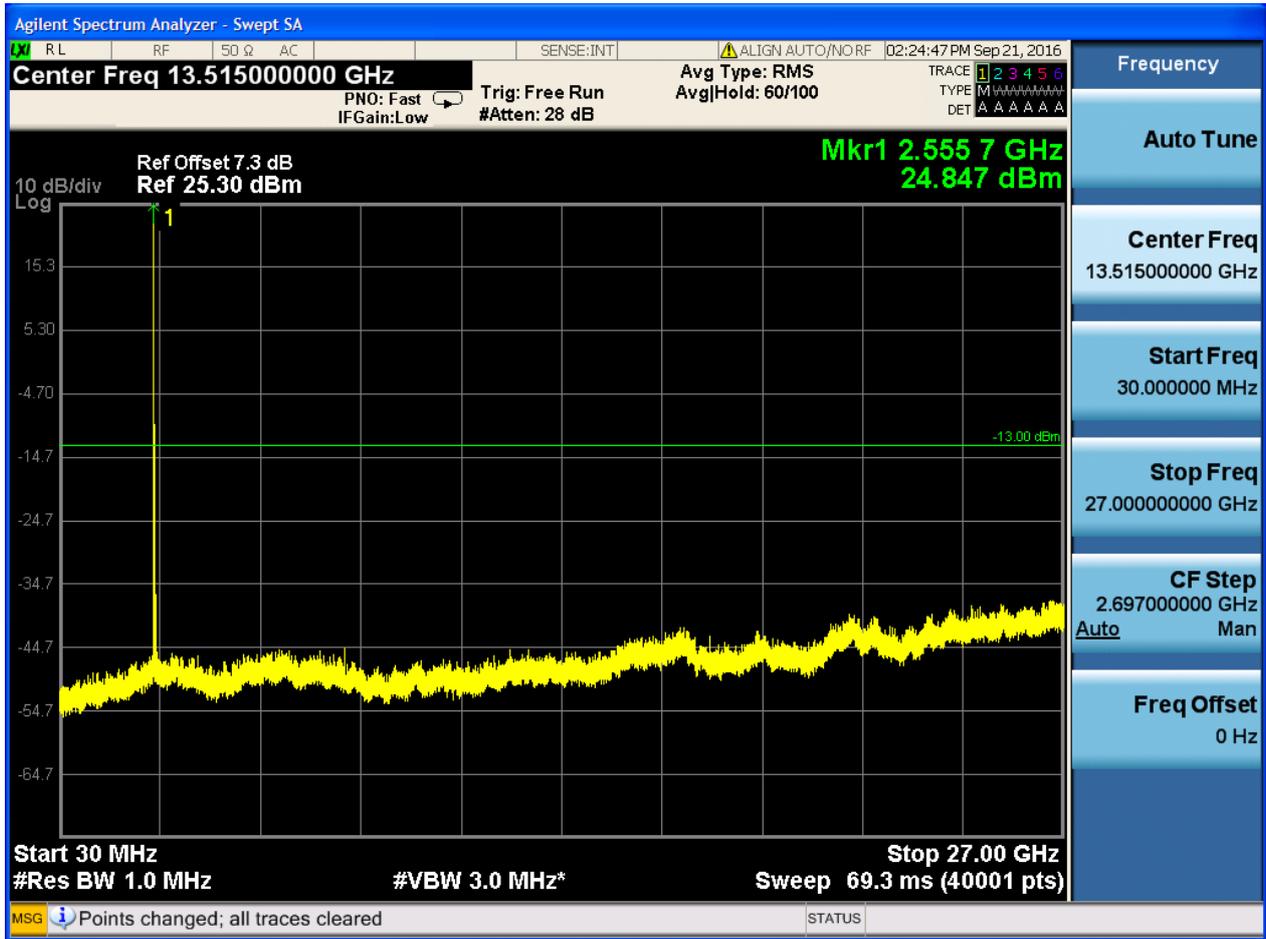
6.1.1.2.4 Test Bandwidth = 20

6.1.1.2.4.1 Test Channel = LCH

6.1.1.2.4.1.1 Test RB = RB1#0



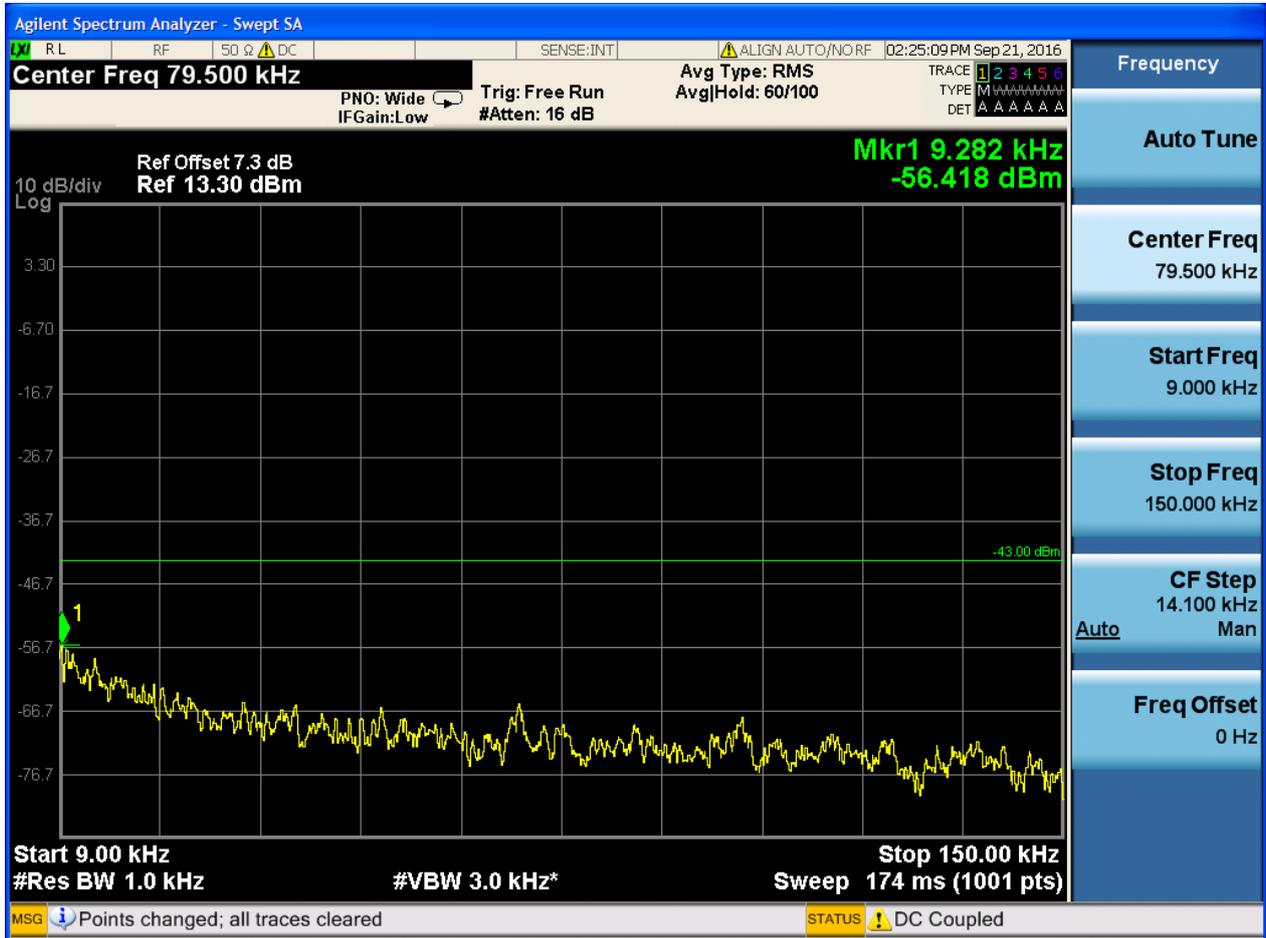


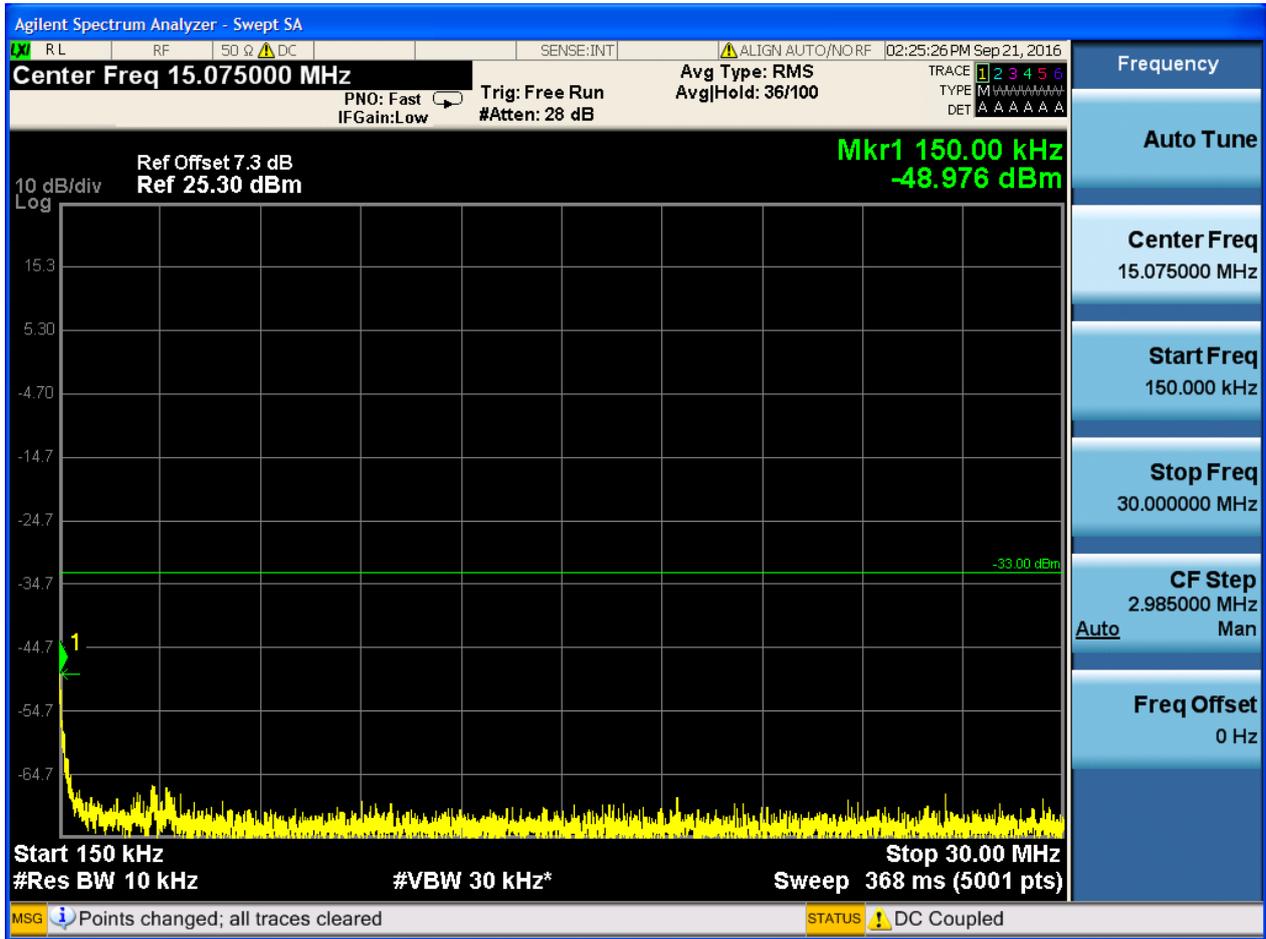


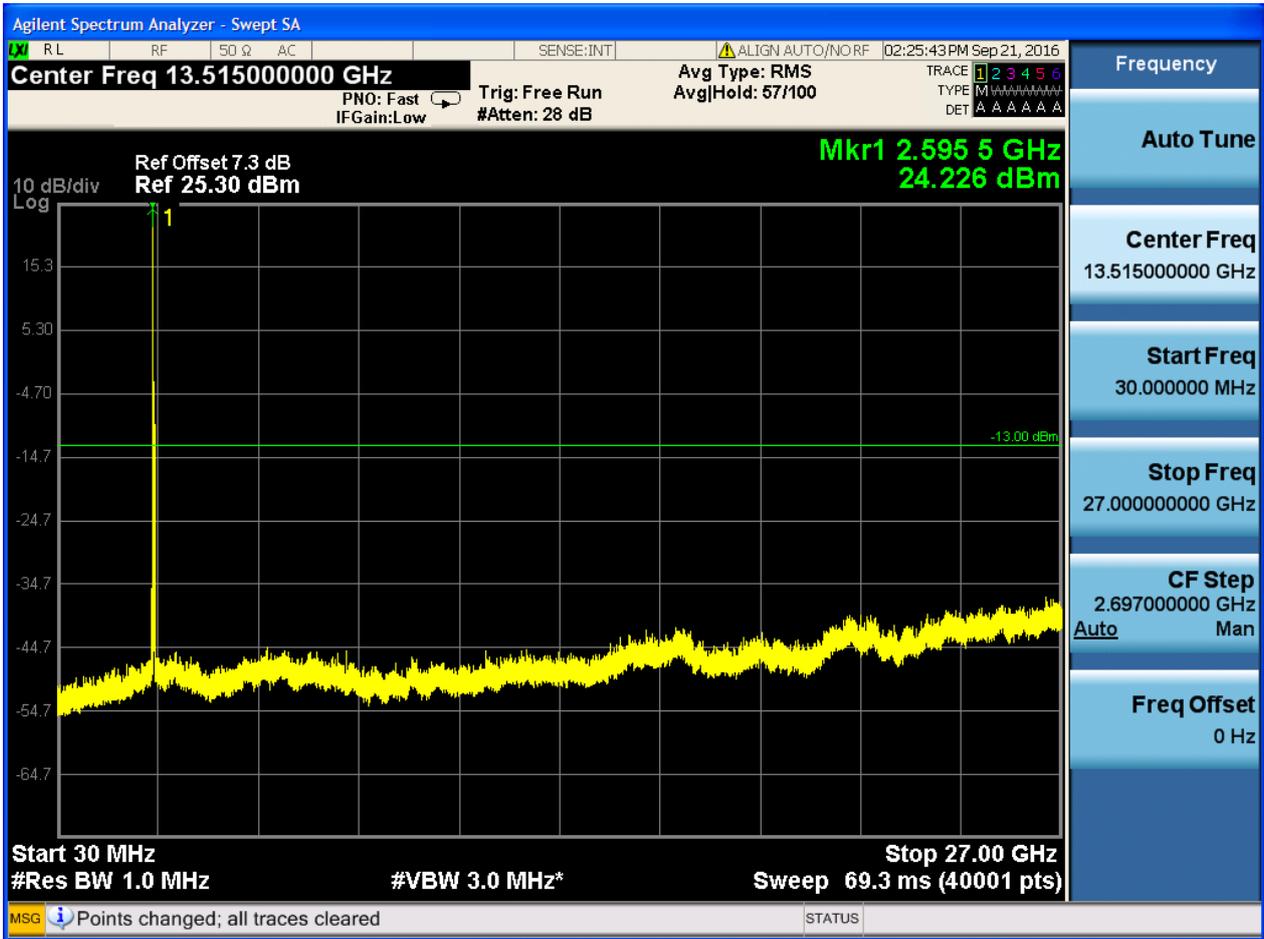


6.1.1.2.4.2 Test Channel = MCH

6.1.1.2.4.2.1 Test RB = RB1#0



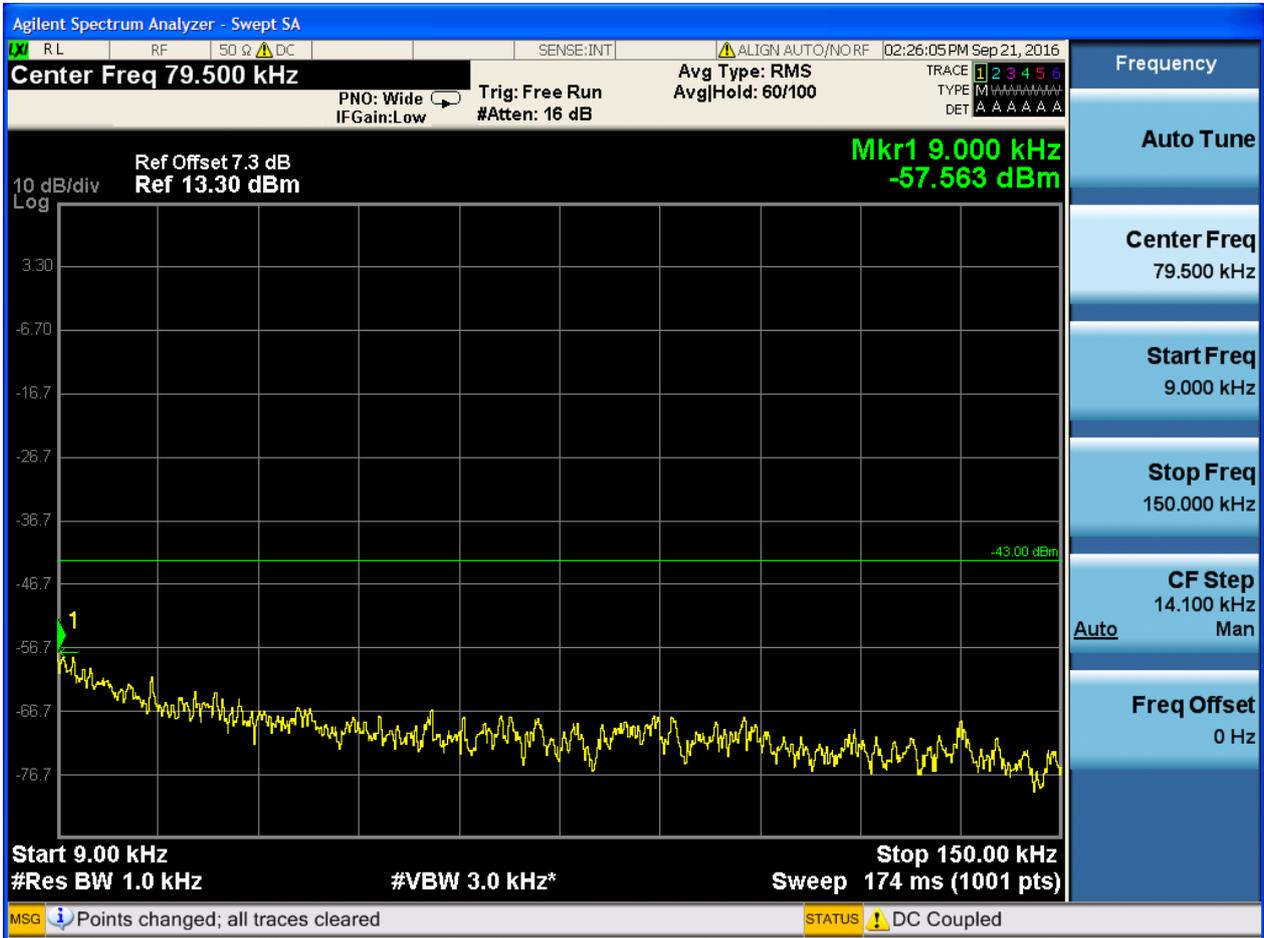


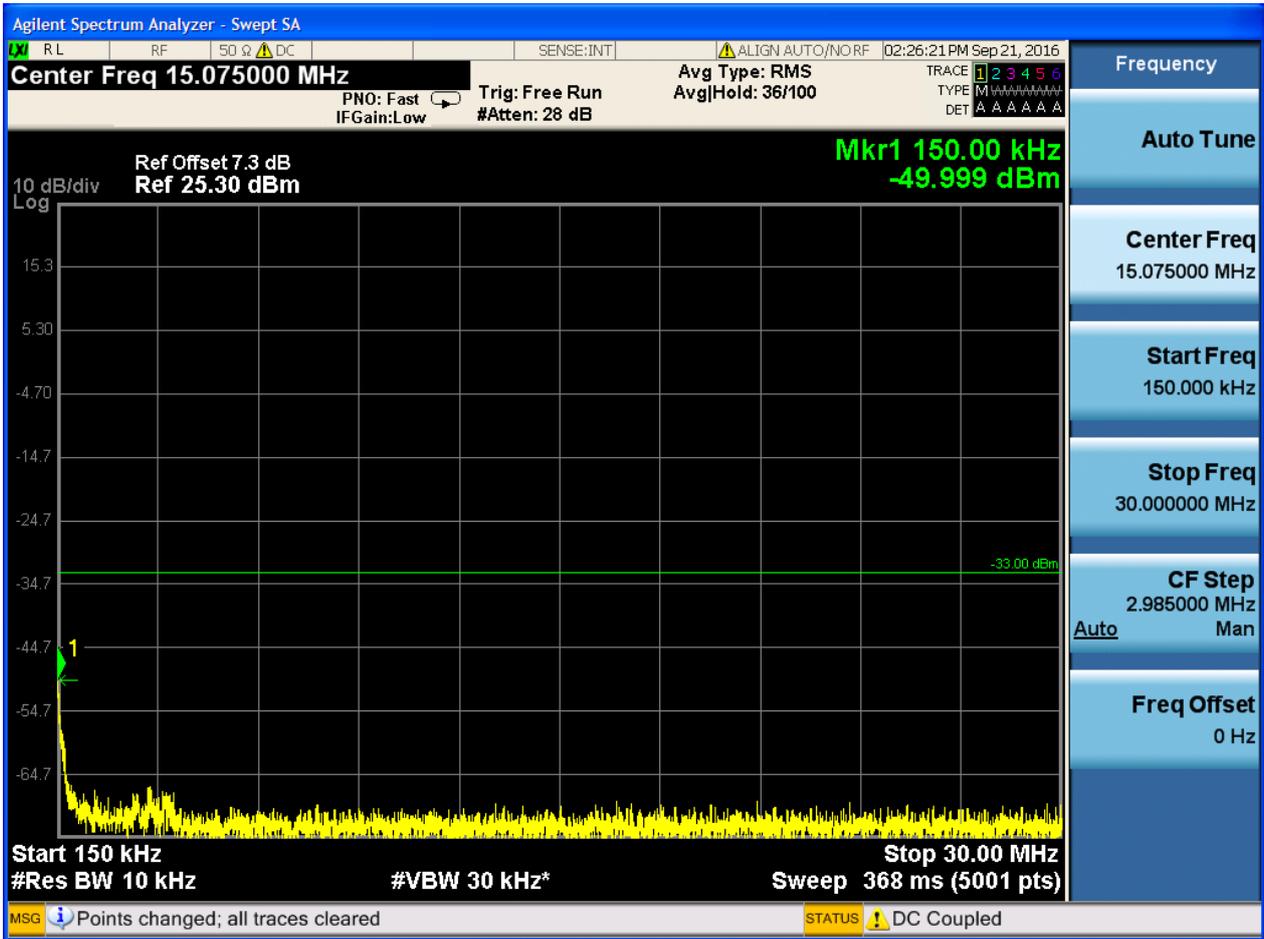


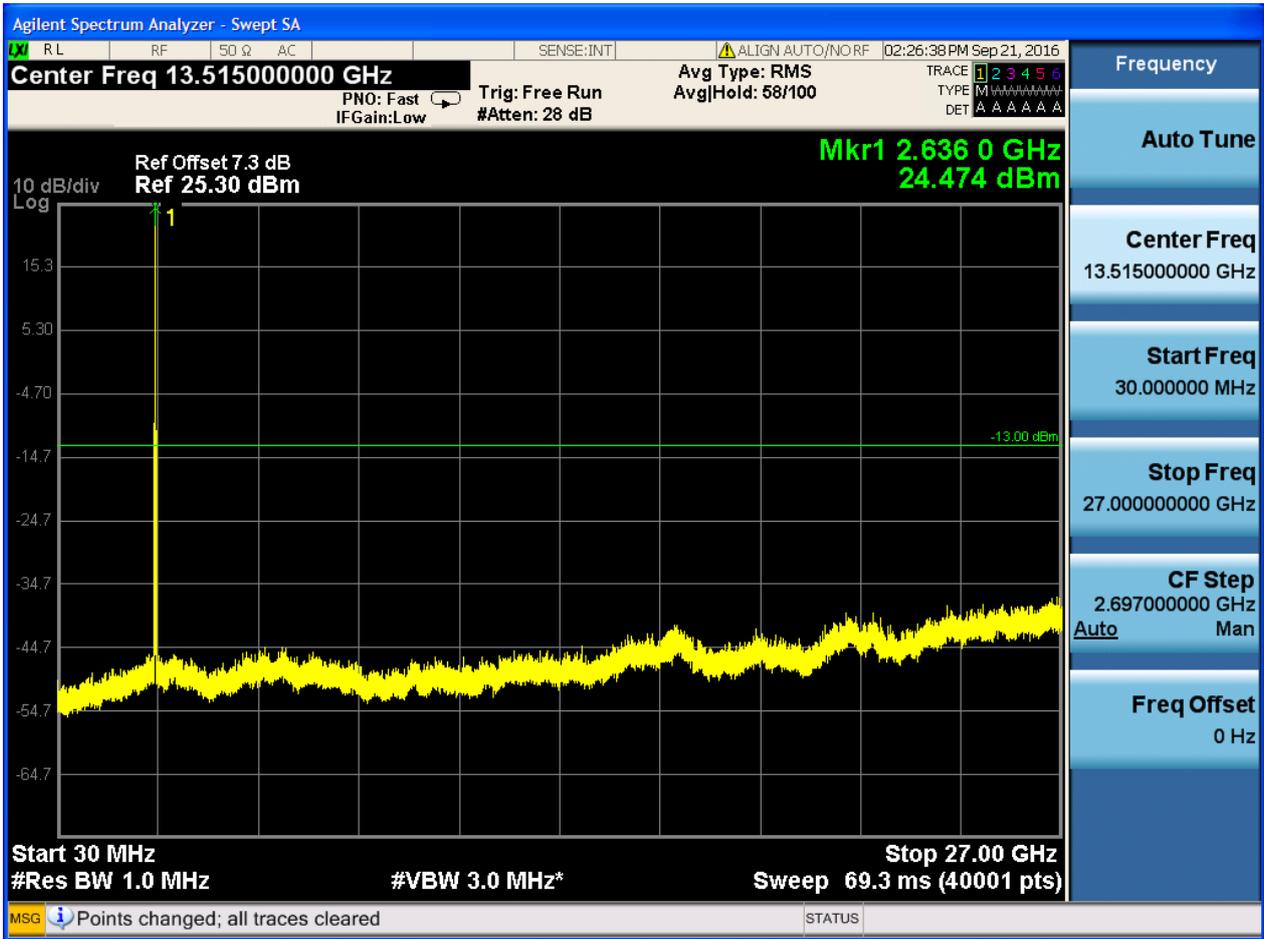


6.1.1.2.4.3 Test Channel = HCH

6.1.1.2.4.3.1 Test RB = RB1#0







7Appendix_G: Field Strength of Spurious Radiation

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

9kHz~150kHz, VBW = 200Hz, VBW = 600 Hz, Detector: PK

150kHz~30MHz, VBW = 9kHz, VBW = 30k Hz, Detector: PK

30MHz~1GHz, RBW = 100 kHz, VBW = 300 kHz. Detector: PK

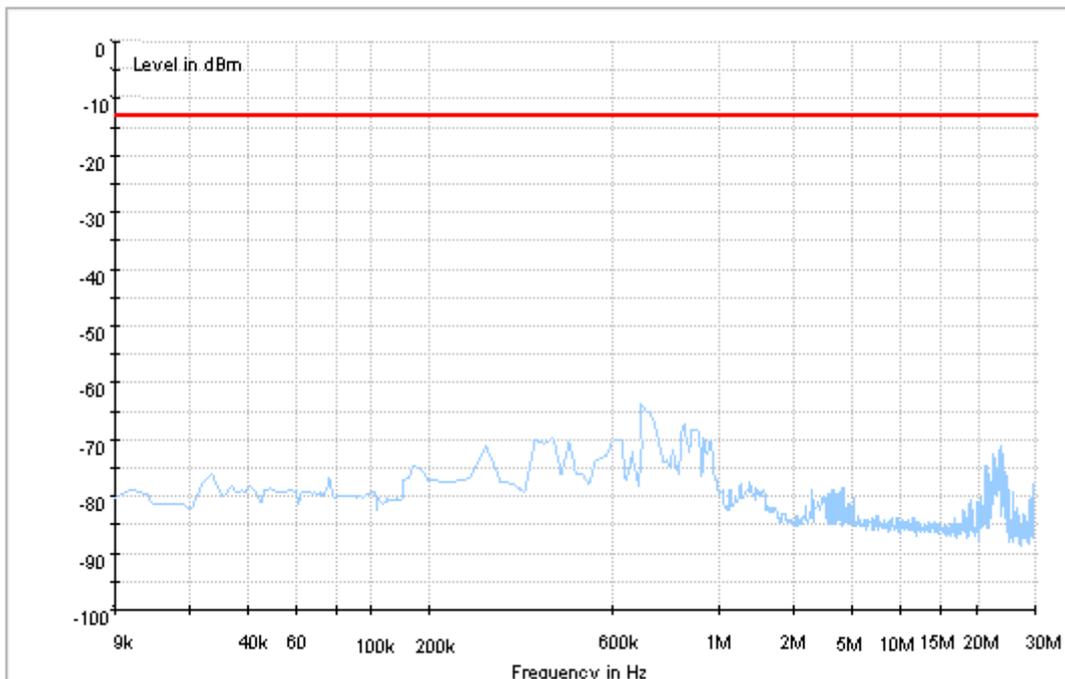
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

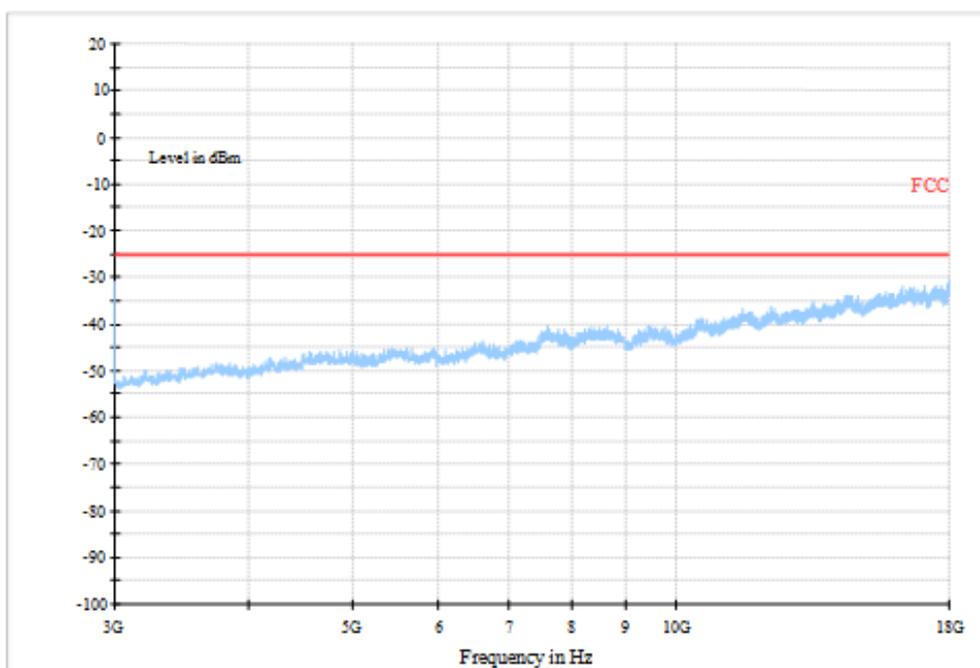
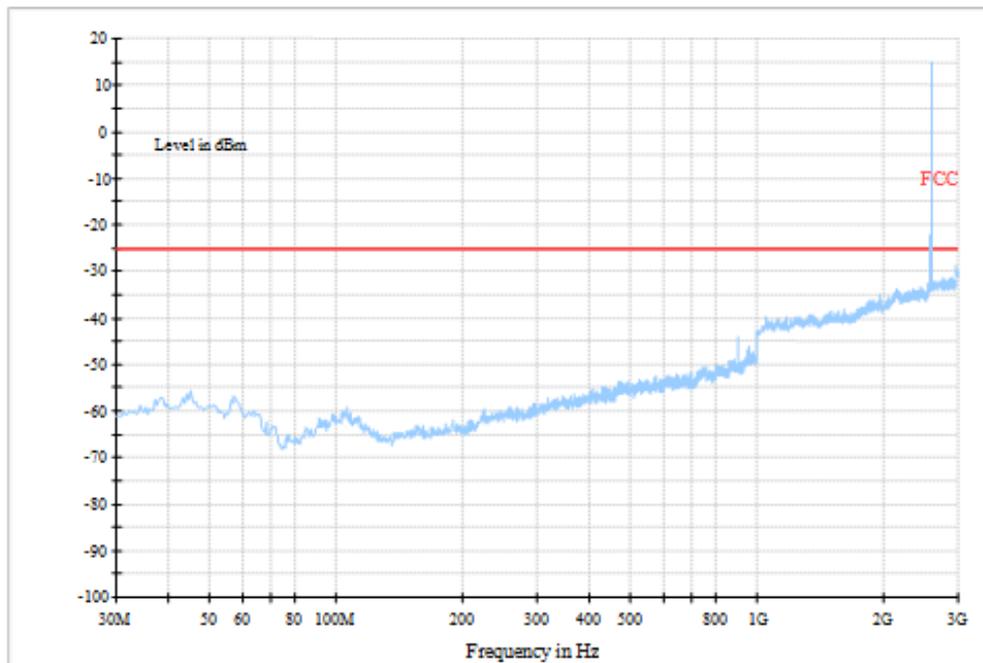
Part I - Test Plots

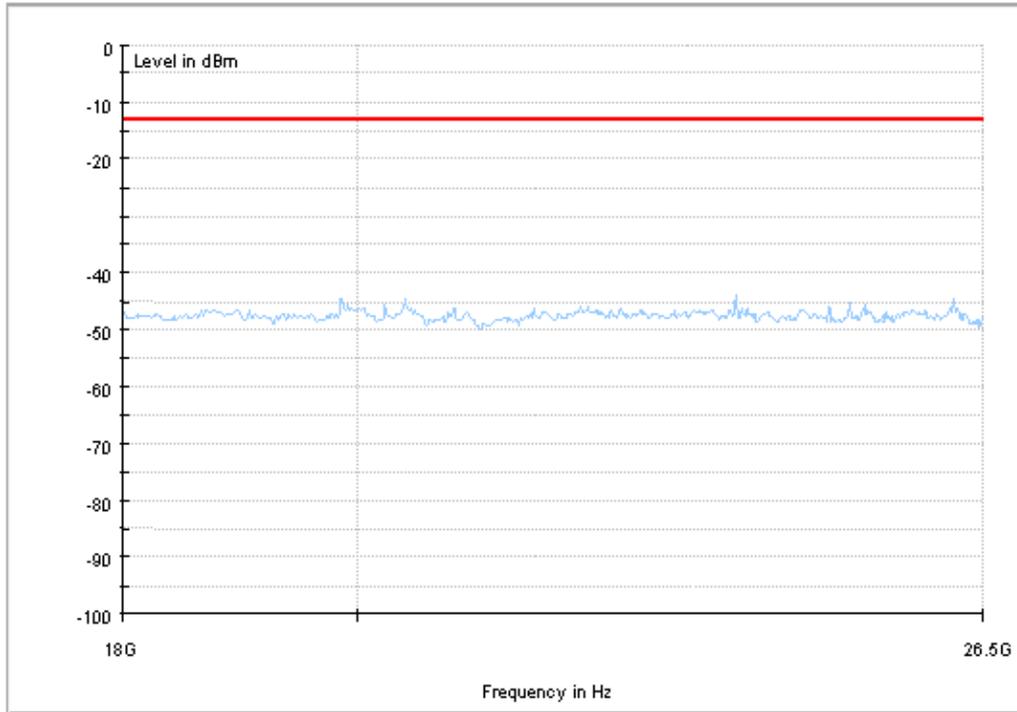
7.1 For LTE

7.1.1 Test Band = BAND41_Ant1

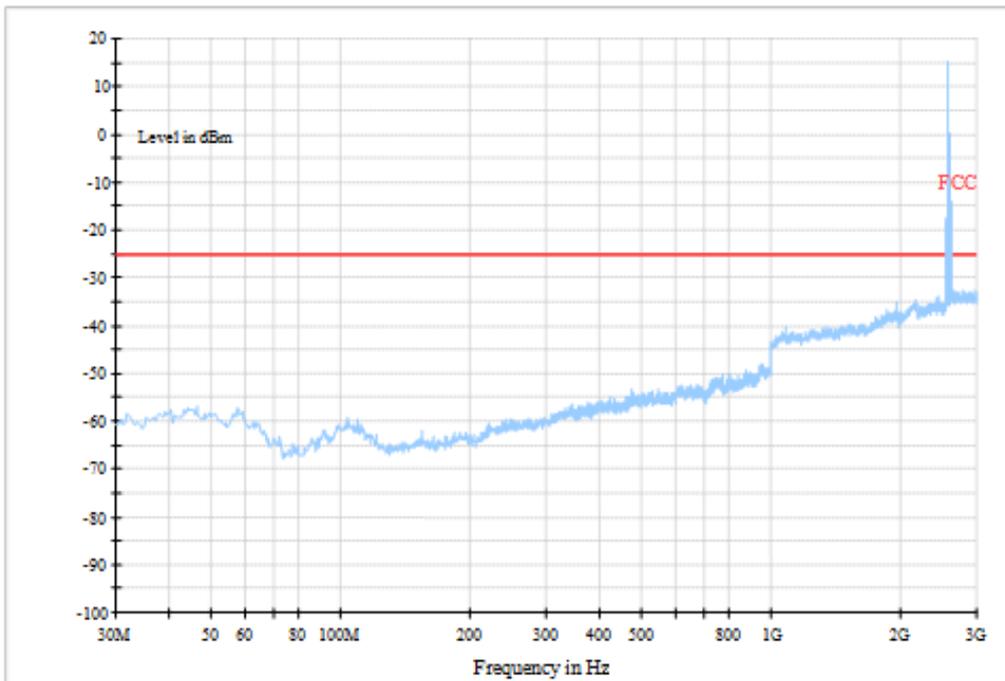
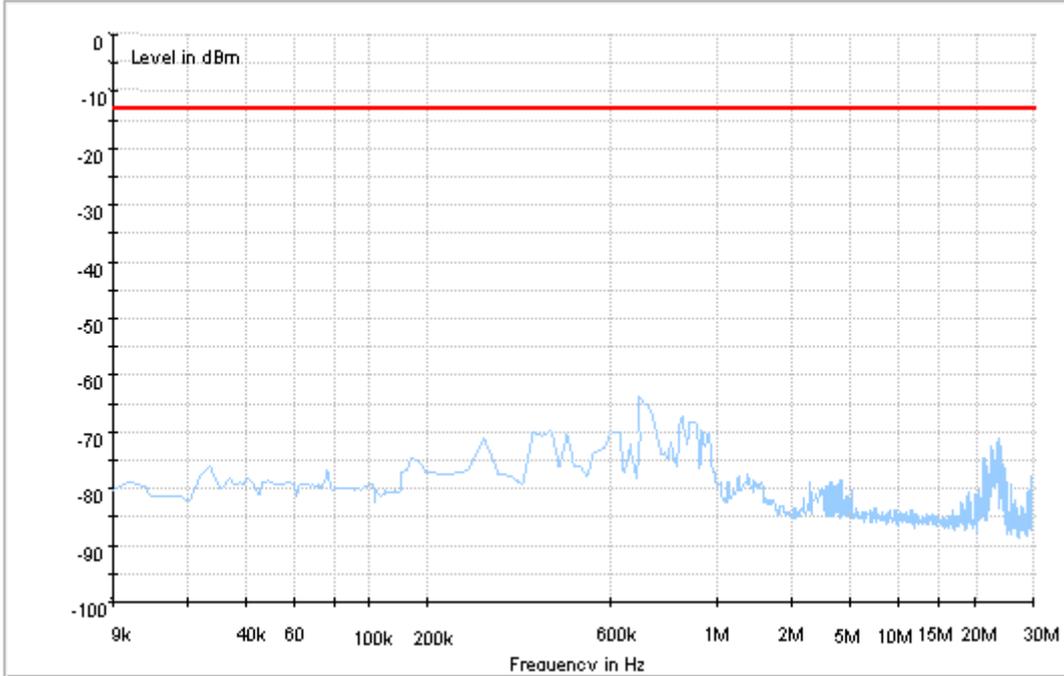
7.1.1.1 Test Bandwidth = 5

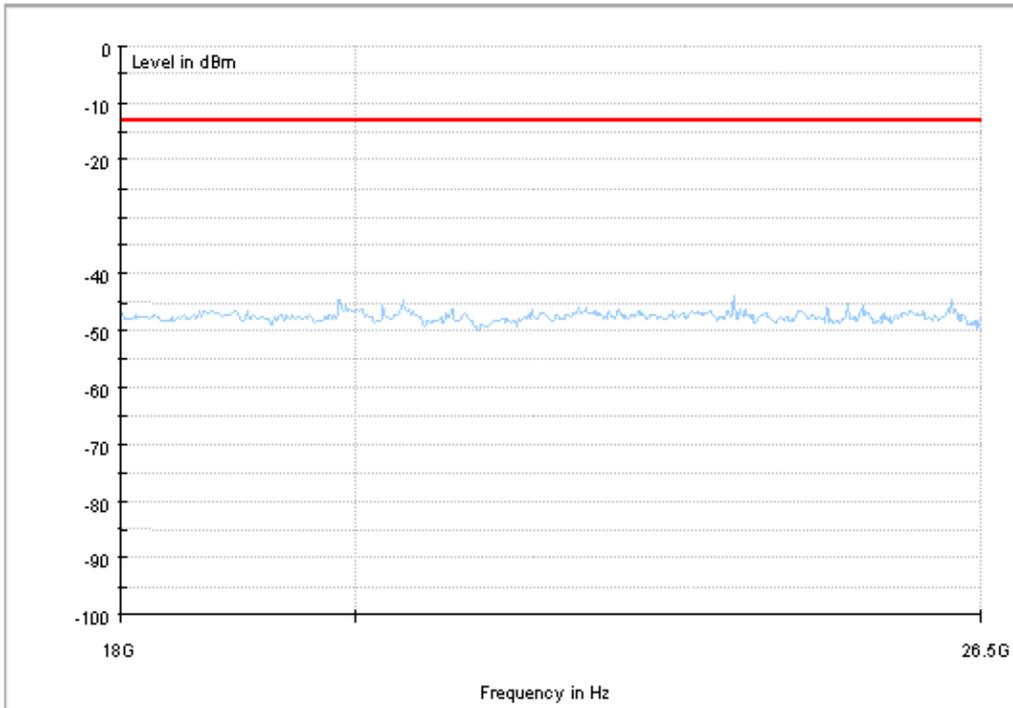
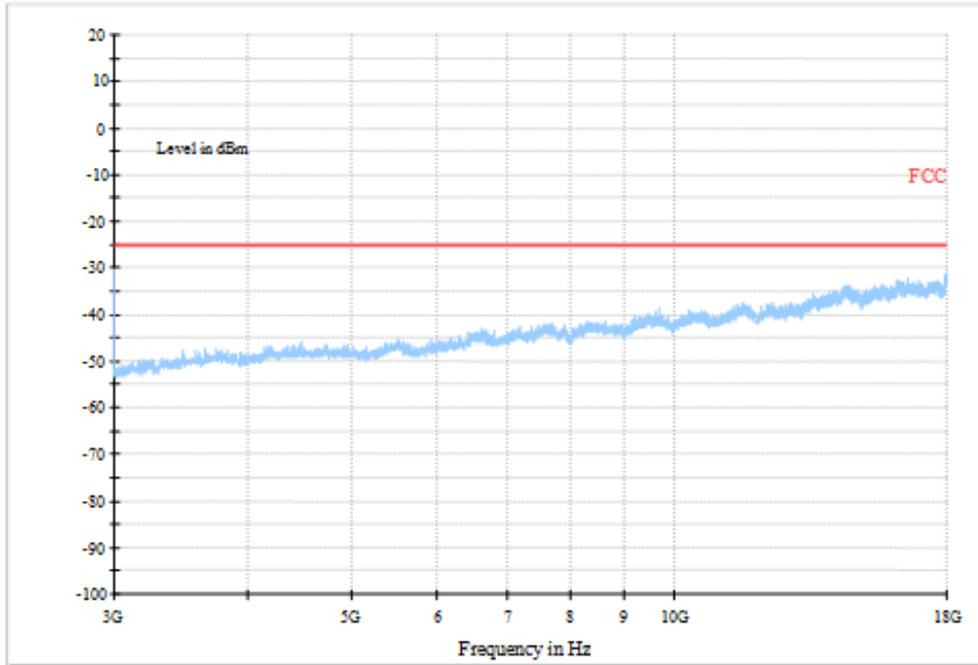






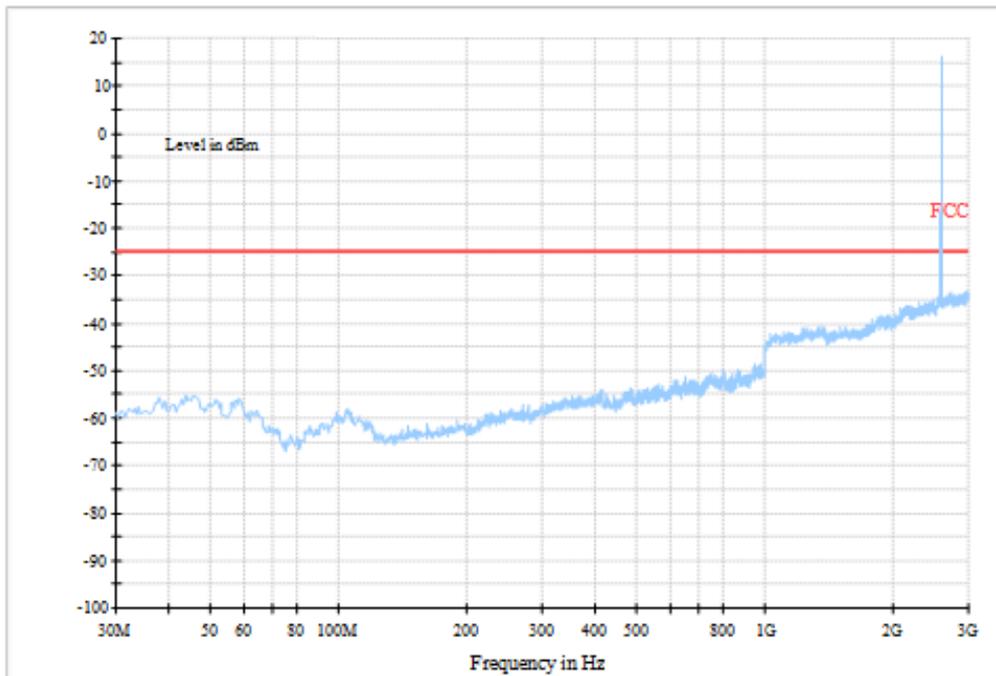
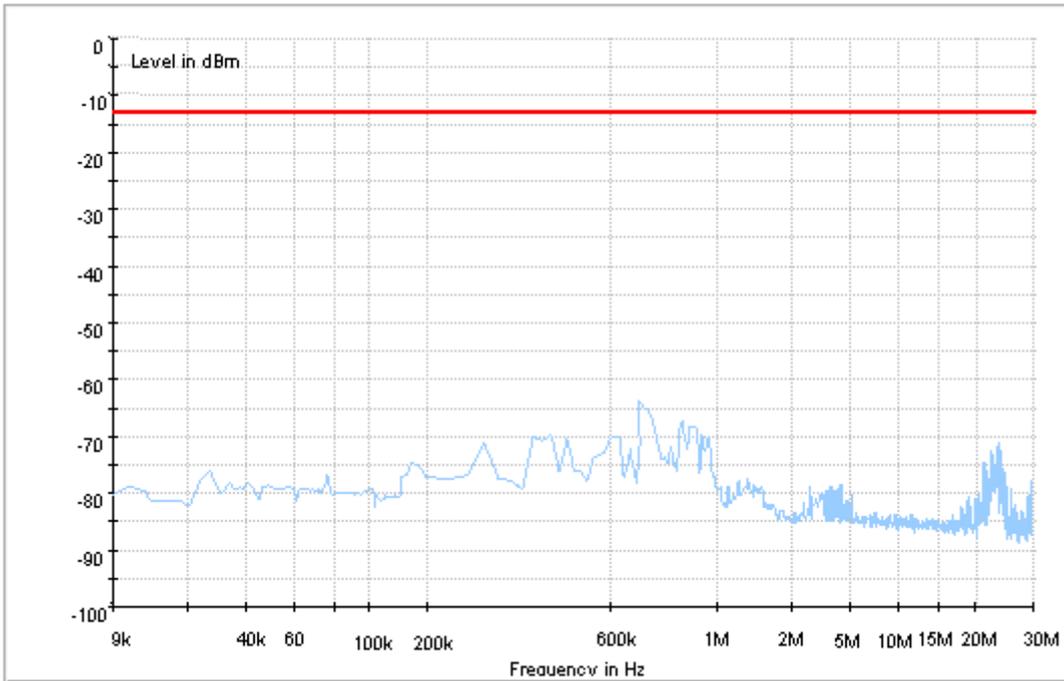
7.1.1.2 Test Bandwidth = 20

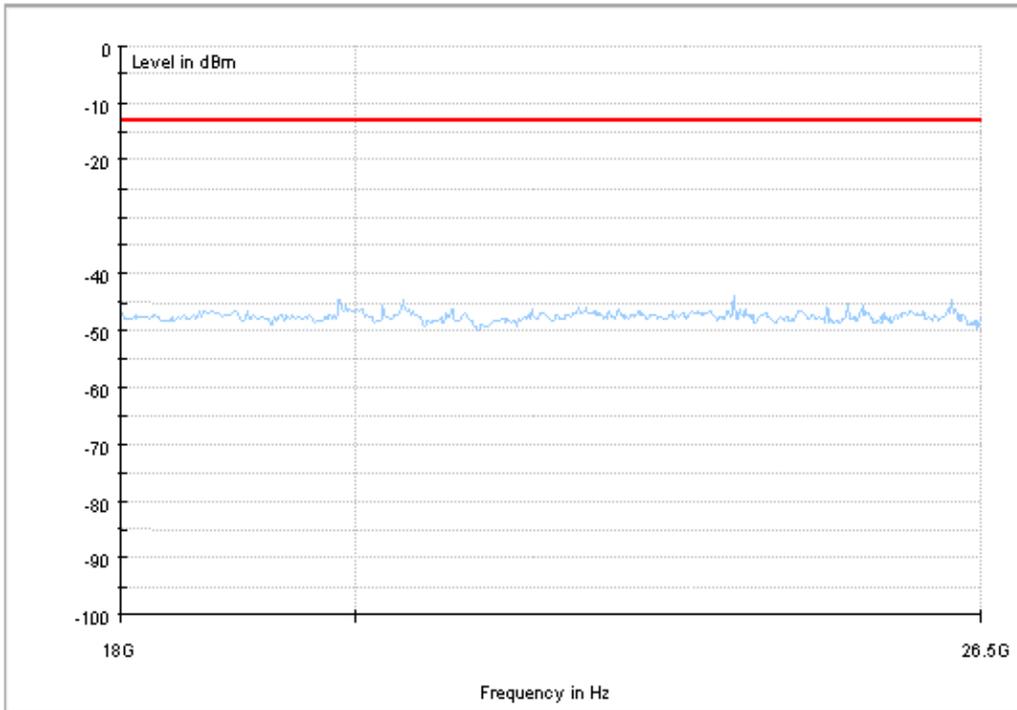
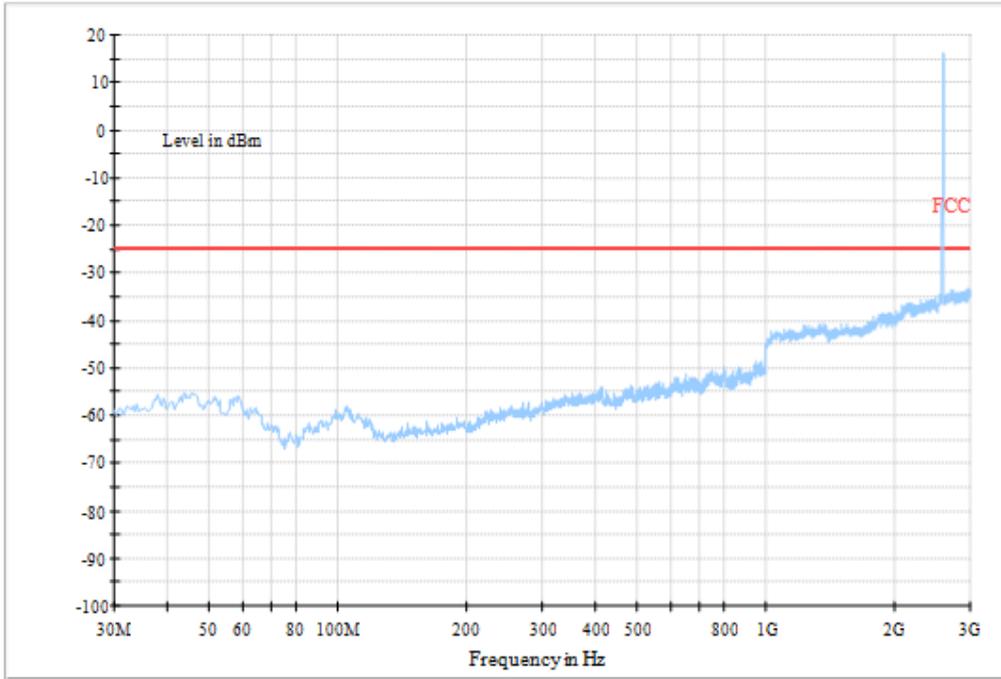




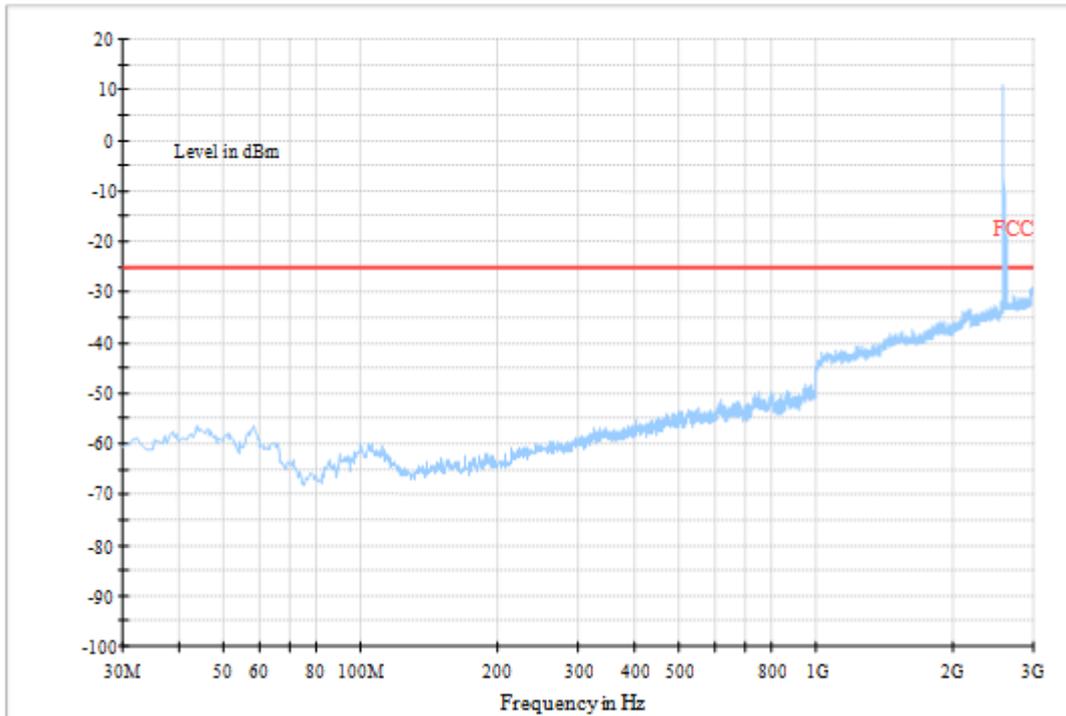
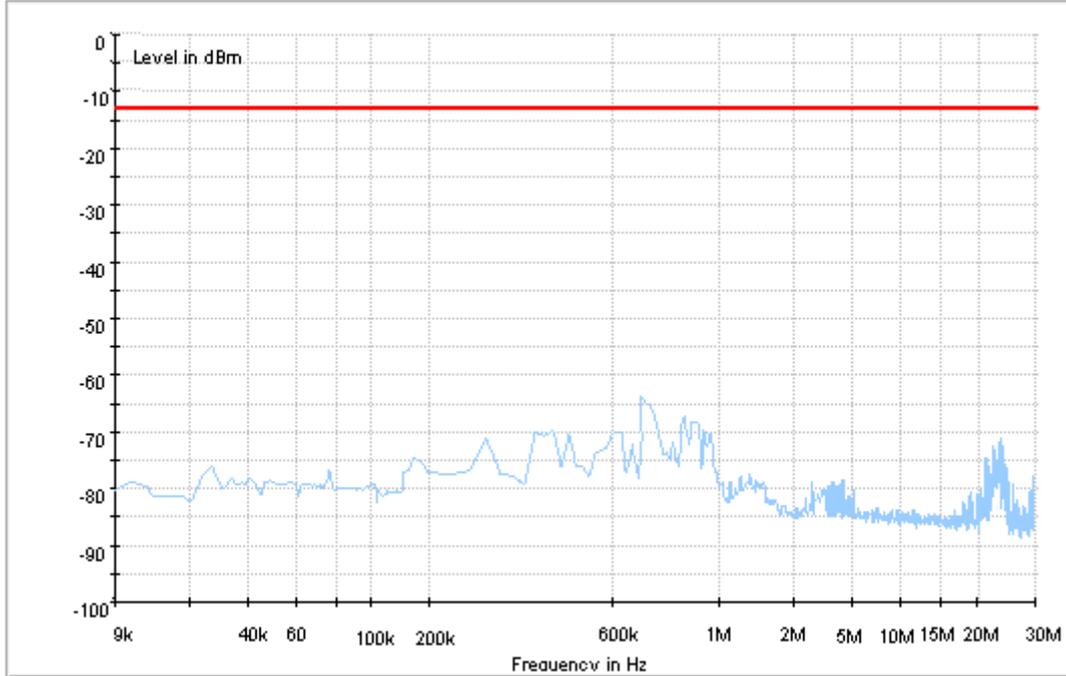
7.1.2 Test Band = BAND41_Ant2

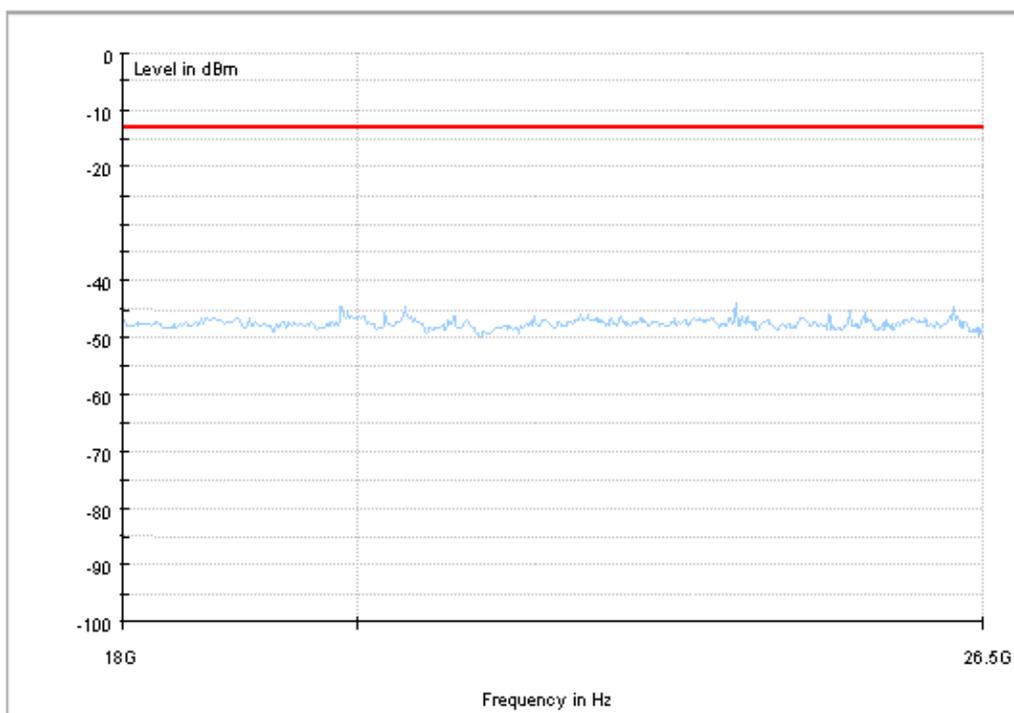
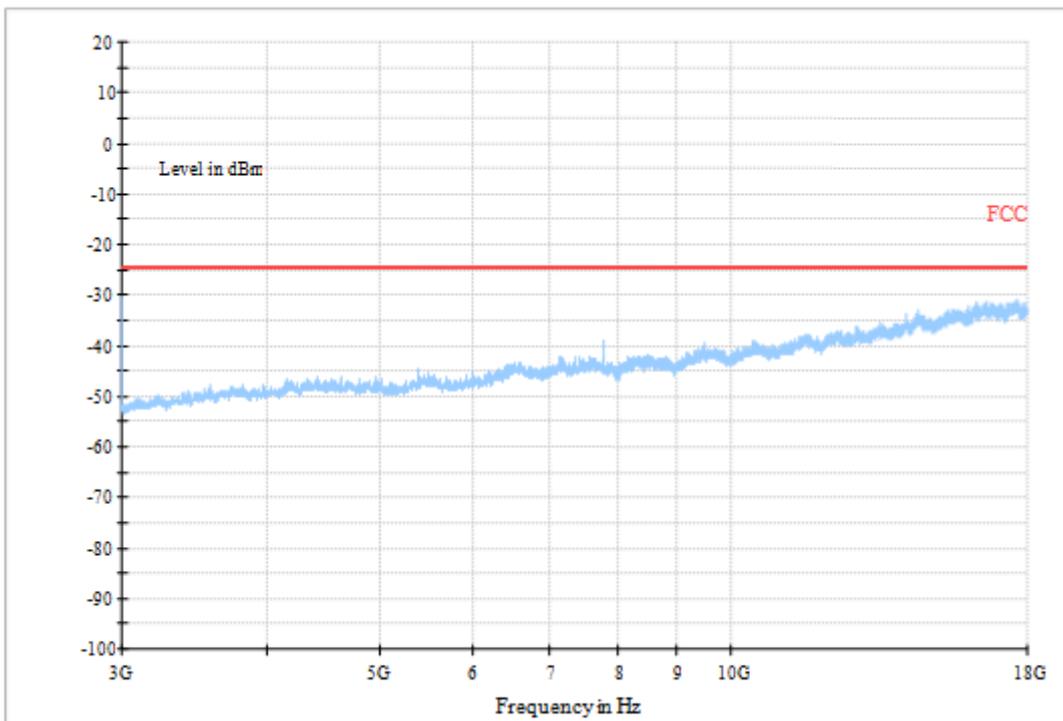
7.1.2.1 Test Bandwidth = 5





7.1.2.2 Test Bandwidth = 20







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
BAND41	LTE/TM1	5	LCH	TN	VL	9.64	0.00377	PASS
					VN	-42.59	-0.01665	PASS
					VH	0.14	0.00005	PASS
			MCH	TN	VL	-67.65	-0.02597	PASS
					VN	-48.92	-0.01878	PASS
					VH	-7.10	-0.00273	PASS
			HCH	TN	VL	1.33	0.0005	PASS
					VN	0.10	0.00004	PASS
					VH	-1.20	-0.00045	PASS
		10	LCH	TN	VL	1.02	0.0004	PASS
					VN	0.79	0.00031	PASS
					VH	-0.86	-0.00034	PASS
			MCH	TN	VL	-1.33	-0.00051	PASS
					VN	-15.74	-0.00604	PASS
					VH	-8.78	-0.00337	PASS
			HCH	TN	VL	2.07	0.00078	PASS
					VN	2.55	0.00096	PASS
					VH	-4.71	-0.00178	PASS
		15	LCH	TN	VL	-31.54	-0.01231	PASS
					VN	-30.80	-0.01202	PASS
					VH	-0.49	-0.00019	PASS
			MCH	TN	VL	-32.70	-0.01255	PASS
					VN	-14.00	-0.00537	PASS
					VH	-19.56	-0.00751	PASS
			HCH	TN	VL	-0.69	-0.00026	PASS
					VN	-1.99	-0.00075	PASS
					VH	-1.00	-0.00038	PASS
		20	LCH	TN	VL	1.32	0.00051	PASS
					VN	-3.72	-0.00145	PASS
					VH	-4.35	-0.0017	PASS
			MCH	TN	VL	-3.38	-0.0013	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
			HCH	TN	VN	-3.19	-0.00122	PASS
					VH	-3.48	-0.00134	PASS
					VL	1.04	0.00039	PASS
			VN	-1.59	-0.0006	PASS		
			VH	-5.06	-0.00191	PASS		
			VL	5.14	0.00201	PASS		
		5	LCH	TN	VN	1.36	0.00053	PASS
					VH	-1.20	-0.00047	PASS
					VL	-56.41	-0.02165	PASS
			MCH	TN	VN	-59.55	-0.02286	PASS
					VH	-49.08	-0.01884	PASS
					VL	1.70	0.00064	PASS
	10	HCH	TN	VN	0.20	0.00008	PASS	
				VH	-4.88	-0.00184	PASS	
				VL	-5.76	-0.00225	PASS	
		LCH	TN	VN	1.24	0.00048	PASS	
				VH	-16.69	-0.00652	PASS	
				VL	-3.23	-0.00124	PASS	
	15	MCH	TN	VN	-11.57	-0.00444	PASS	
				VH	-15.06	-0.00578	PASS	
				VL	5.66	0.00214	PASS	
		HCH	TN	VN	2.53	0.00095	PASS	
				VH	0.73	0.00028	PASS	
				VL	8.77	0.00342	PASS	
	20	5	LCH	TN	VN	-0.89	-0.00035	PASS
					VH	-21.72	-0.00848	PASS
					VL	-14.45	-0.00555	PASS
			MCH	TN	VN	-25.46	-0.00977	PASS
					VH	-22.53	-0.00865	PASS
					VL	1.40	0.00053	PASS
		10	HCH	TN	VN	-2.95	-0.00111	PASS
					VH	-0.34	-0.00013	PASS
					VL	3.39	0.00132	PASS
			LCH	TN	VN	0.10	0.00004	PASS
					VH	-0.19	-0.00007	PASS
					VL	-1.87	-0.00072	PASS
	MCH	TN	VN	-0.73	-0.00028	PASS		
			VH	-4.81	-0.00185	PASS		
			VL	0.23	0.00009	PASS		

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					VN	-1.40	-0.00053	PASS
					VH	-1.85	-0.0007	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
BAND41	LTE/TM1	5	LCH	VN	-30	5.54	0.00217	PASS
					-20	-2.33	-0.00091	PASS
					-10	-1.14	-0.00045	PASS
					0	0.27	0.00011	PASS
					10	-7.94	-0.0031	PASS
					20	-7.58	-0.00296	PASS
					30	-12.95	-0.00506	PASS
					40	-8.63	-0.00337	PASS
			50	-0.66	-0.00026	PASS		
			MCH	VN	-30	-44.63	-0.01713	PASS
					-20	-47.29	-0.01815	PASS
					-10	-42.57	-0.01634	PASS
					0	-7.41	-0.00284	PASS
					10	-9.41	-0.00361	PASS
					20	-38.91	-0.01494	PASS
					30	-40.68	-0.01562	PASS
		40			-4.08	-0.00157	PASS	
		HCH	VN	-30	-1.22	-0.00046	PASS	
				-20	-2.09	-0.00079	PASS	
				-10	-1.34	-0.00051	PASS	
				0	-5.94	-0.00224	PASS	
				10	-4.15	-0.00156	PASS	
				20	-2.05	-0.00077	PASS	
				30	-2.47	-0.00093	PASS	
				40	-3.59	-0.00135	PASS	
		10	LCH	VN	-30	1.73	0.00068	PASS
					-20	-2.80	-0.00109	PASS
					-10	-4.48	-0.00175	PASS
0	-10.41				-0.00407	PASS		



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict	
					40	-6.04	-0.00232	PASS	
					50	-2.16	-0.00083	PASS	
			HCH	VN	-30	12.13	0.00458	PASS	
					-20	3.72	0.00141	PASS	
					-10	2.23	0.00084	PASS	
					0	-1.17	-0.00044	PASS	
					10	-2.22	-0.00084	PASS	
					20	-3.56	-0.00134	PASS	
					30	-1.90	-0.00072	PASS	
					40	-3.76	-0.00142	PASS	
					50	-3.32	-0.00125	PASS	
					LCH	VN	-30	10.59	0.00413
			-20	1.44			0.00056	PASS	
			-10	-0.57			-0.00022	PASS	
			0	-2.52			-0.00098	PASS	
			10	-3.35			-0.00131	PASS	
			20	-2.65			-0.00103	PASS	
			30	-4.32			-0.00168	PASS	
		40	-2.43	-0.00095			PASS		
		50	-1.97	-0.00077			PASS		
		MCH	VN	-30			15.13	0.00581	PASS
				-20	-0.79	-0.0003	PASS		
				-10	-0.93	-0.00036	PASS		
				0	-1.36	-0.00052	PASS		
				10	-3.79	-0.00145	PASS		
				20	-7.24	-0.00278	PASS		
				30	-6.07	-0.00233	PASS		
				40	-5.04	-0.00193	PASS		
				50	-6.82	-0.00262	PASS		
				HCH	VN	-30	10.97	0.00415	PASS
		-20	1.53			0.00058	PASS		
		-10	-0.23			-0.00009	PASS		
		0	-1.42			-0.00054	PASS		
		10	-2.06			-0.00078	PASS		
		20	-3.32			-0.00126	PASS		
		30	-1.86			-0.0007	PASS		
		40	-4.28			-0.00162	PASS		
		50	-2.78			-0.00105	PASS		
		LTE/TM2	5			LCH	VN	-30	36.99

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict	
					-20	-30.13	-0.01178	PASS	
					-10	5.56	0.00217	PASS	
					0	-2.19	-0.00086	PASS	
					10	-1.93	-0.00075	PASS	
					20	3.56	0.00139	PASS	
					30	-1.06	-0.00041	PASS	
					40	-80.77	-0.03158	PASS	
					50	-5.92	-0.00231	PASS	
			MCH	VN	-30	-83.14	-0.03192	PASS	
					-20	-1.67	-0.00064	PASS	
					-10	-1.87	-0.00072	PASS	
					0	-38.22	-0.01467	PASS	
					10	-40.77	-0.01565	PASS	
					20	-47.94	-0.0184	PASS	
					30	-3.49	-0.00134	PASS	
					40	-3.55	-0.00136	PASS	
			HCH	VN	-30	2.43	0.00092	PASS	
					-20	-2.50	-0.00094	PASS	
					-10	-2.62	-0.00099	PASS	
					0	-5.16	-0.00195	PASS	
					10	-4.26	-0.00161	PASS	
					20	-2.88	-0.00109	PASS	
					30	-6.51	-0.00245	PASS	
					40	-2.40	-0.0009	PASS	
			10	LCH	VN	-30	-11.30	-0.00441	PASS
						-20	-18.91	-0.00739	PASS
						-10	-10.23	-0.004	PASS
						0	-5.38	-0.0021	PASS
		10				-15.98	-0.00624	PASS	
		20				-22.43	-0.00876	PASS	
		30				-26.39	-0.01031	PASS	
		40				-4.08	-0.00159	PASS	
		50		-27.52	-0.01075	PASS			
		MCH		VN	-30	-19.38	-0.00744	PASS	
					-20	-23.23	-0.00892	PASS	
					-10	-12.02	-0.00461	PASS	
			0		-30.21	-0.0116	PASS		

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					10	-7.91	-0.00304	PASS
					20	-21.74	-0.00835	PASS
					30	-17.32	-0.00665	PASS
					40	-8.71	-0.00334	PASS
					50	-33.32	-0.01279	PASS
			HCH	VN	-30	1.82	0.00069	PASS
					-20	-1.23	-0.00046	PASS
					-10	-5.18	-0.00195	PASS
					0	-5.45	-0.00206	PASS
					10	-5.46	-0.00206	PASS
					20	-2.42	-0.00091	PASS
					30	-6.25	-0.00236	PASS
					40	-2.85	-0.00108	PASS
			LCH	VN	50	-5.89	-0.00222	PASS
					-30	-22.56	-0.0088	PASS
					-20	-20.60	-0.00804	PASS
					-10	-18.67	-0.00729	PASS
					0	-34.06	-0.01329	PASS
		10			-5.91	-0.00231	PASS	
		20			-1.75	-0.00068	PASS	
		30			-10.77	-0.0042	PASS	
		40			-17.08	-0.00667	PASS	
		MCH	VN	50	-2.02	-0.00079	PASS	
				-30	-17.04	-0.00654	PASS	
				-20	-15.66	-0.00601	PASS	
				-10	-2.23	-0.00086	PASS	
				0	-25.63	-0.00984	PASS	
				10	-32.72	-0.01256	PASS	
				20	-17.35	-0.00666	PASS	
				30	-20.17	-0.00774	PASS	
		HCH	VN	40	-14.45	-0.00555	PASS	
				50	-21.83	-0.00838	PASS	
				-30	-1.17	-0.00044	PASS	
				-20	-0.82	-0.00031	PASS	
				-10	-4.59	-0.00173	PASS	
				0	-1.73	-0.00065	PASS	
10	-1.50			-0.00057	PASS			
20	-4.86	-0.00184	PASS					
30	-1.92	-0.00073	PASS					



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict		
					40	-0.39	-0.00015	PASS		
					50	-4.71	-0.00178	PASS		
		20	LCH	VN	-30	9.31	0.00363	PASS		
					-20	0.89	0.00035	PASS		
					-10	3.91	0.00152	PASS		
					0	6.57	0.00256	PASS		
					10	-1.42	-0.00055	PASS		
					20	-3.92	-0.00153	PASS		
					30	-3.09	-0.0012	PASS		
					40	-5.38	-0.0021	PASS		
					50	-3.42	-0.00133	PASS		
					MCH	VN	-30	-0.69	-0.00026	PASS
		-20	-1.04	-0.0004			PASS			
		-10	-3.10	-0.00119			PASS			
		0	-5.04	-0.00193			PASS			
		10	-3.72	-0.00143			PASS			
		20	-5.31	-0.00204			PASS			
		30	-3.91	-0.0015			PASS			
		40	-6.67	-0.00256			PASS			
		HCH	VN	-30	-2.03	-0.00077	PASS			
				-20	-2.75	-0.00104	PASS			
				-10	-0.89	-0.00034	PASS			
				0	-4.13	-0.00156	PASS			
				10	-3.46	-0.00131	PASS			
				20	-3.69	-0.0014	PASS			
				30	-0.94	-0.00036	PASS			
				40	-3.22	-0.00122	PASS			
							50	-4.23	-0.0016	PASS

END