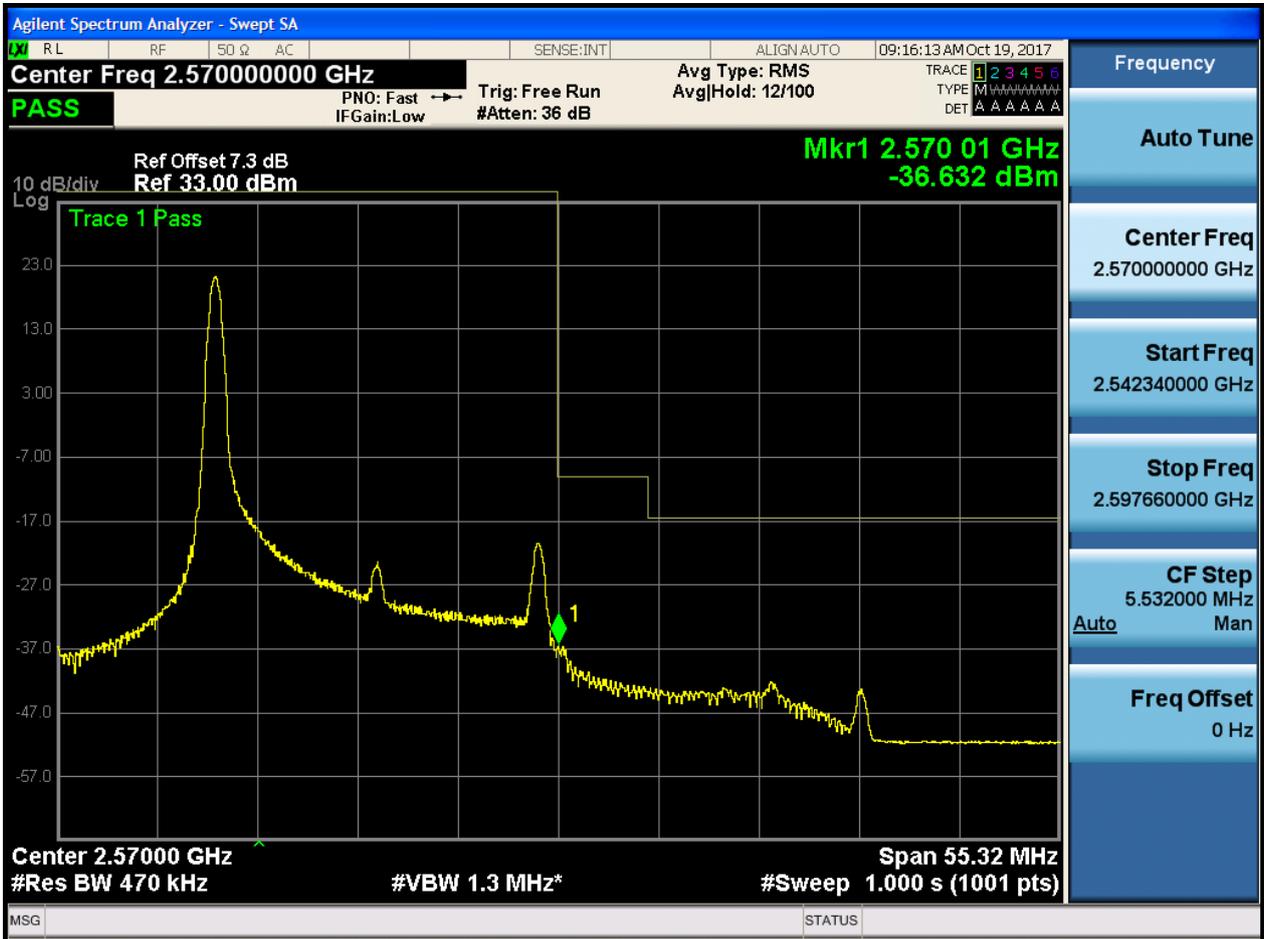




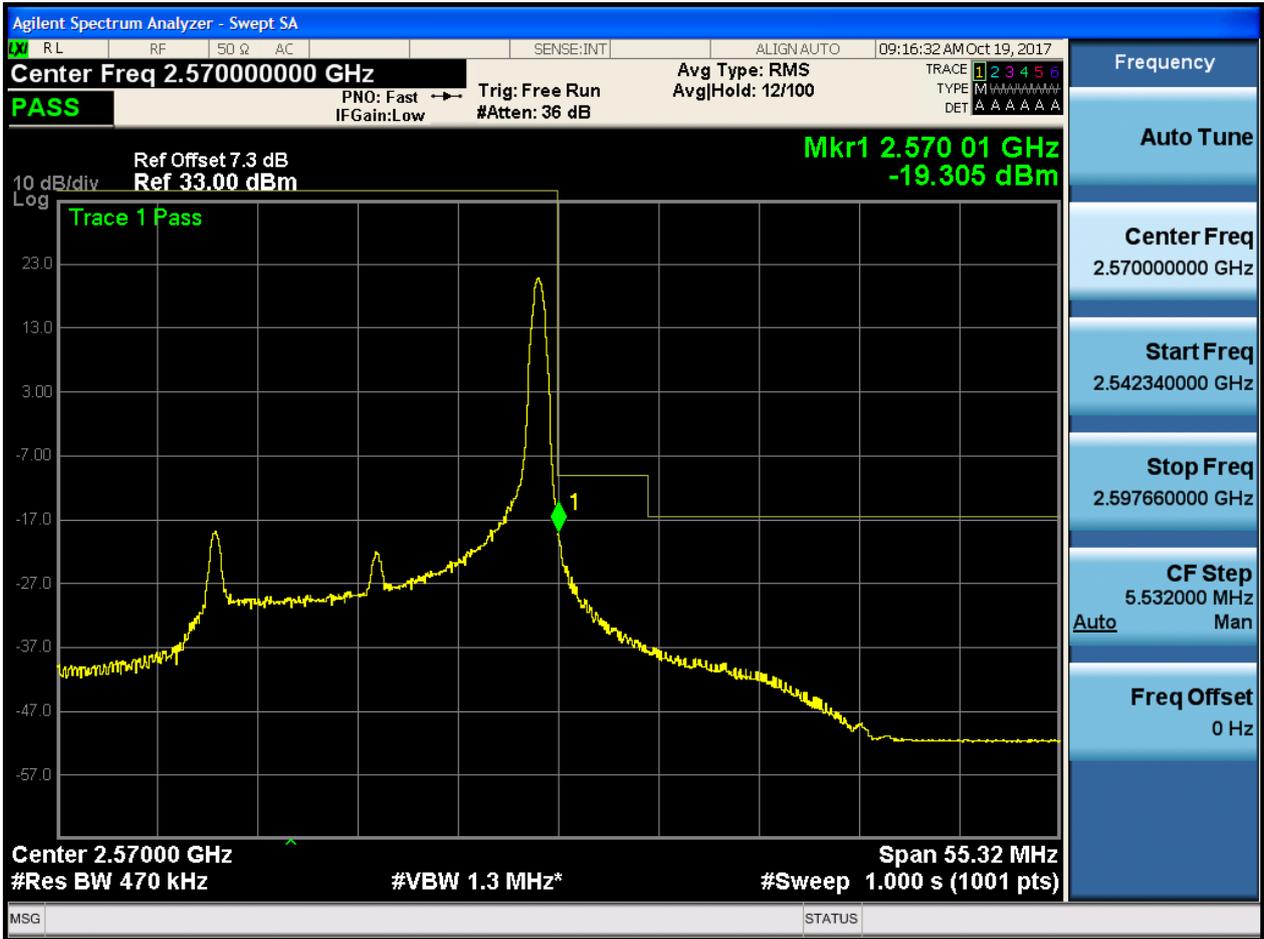
5.1.1.2.4.2 Test Channel = HCH

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

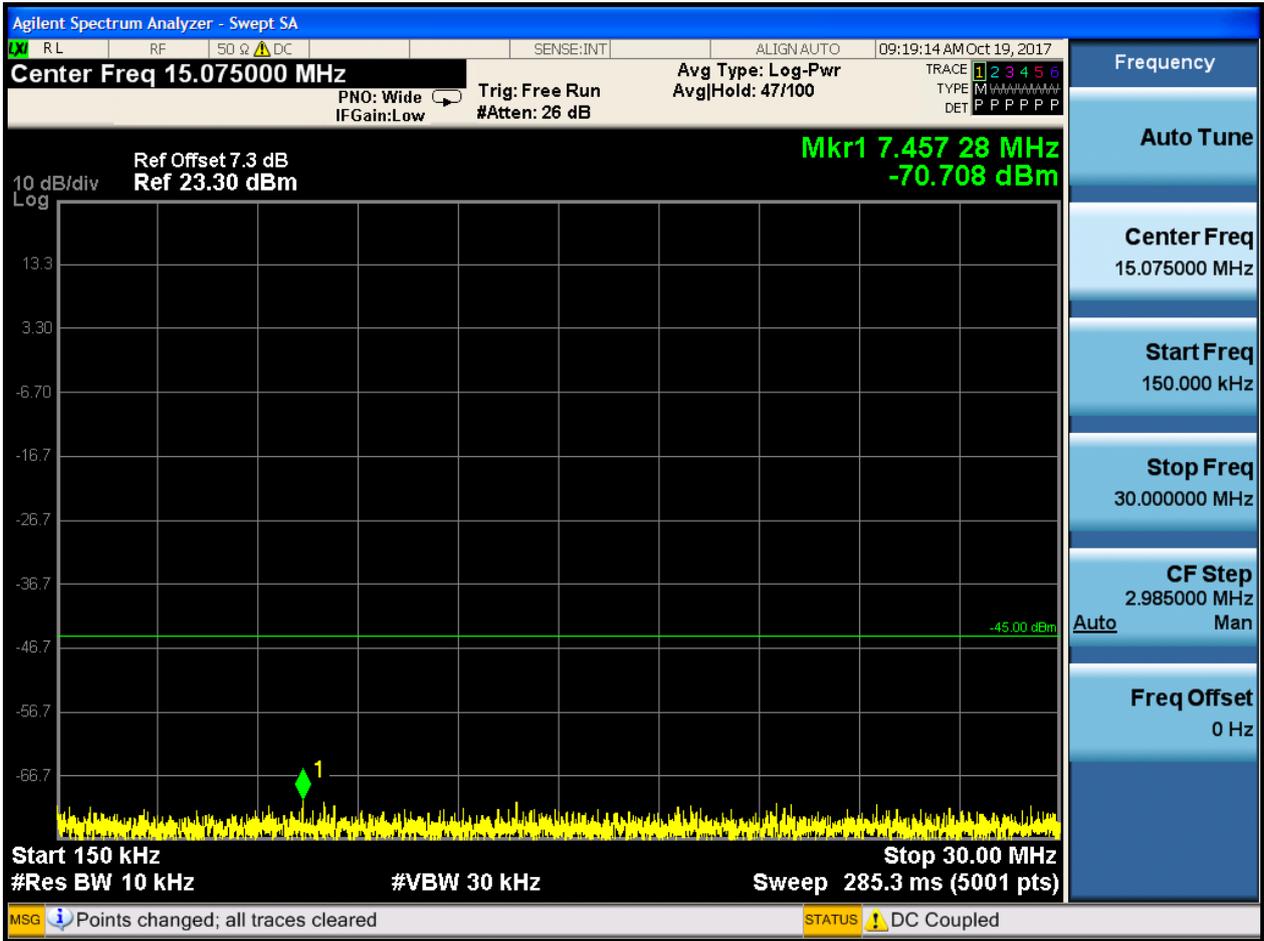
6.1.1 Test Band = BAND7

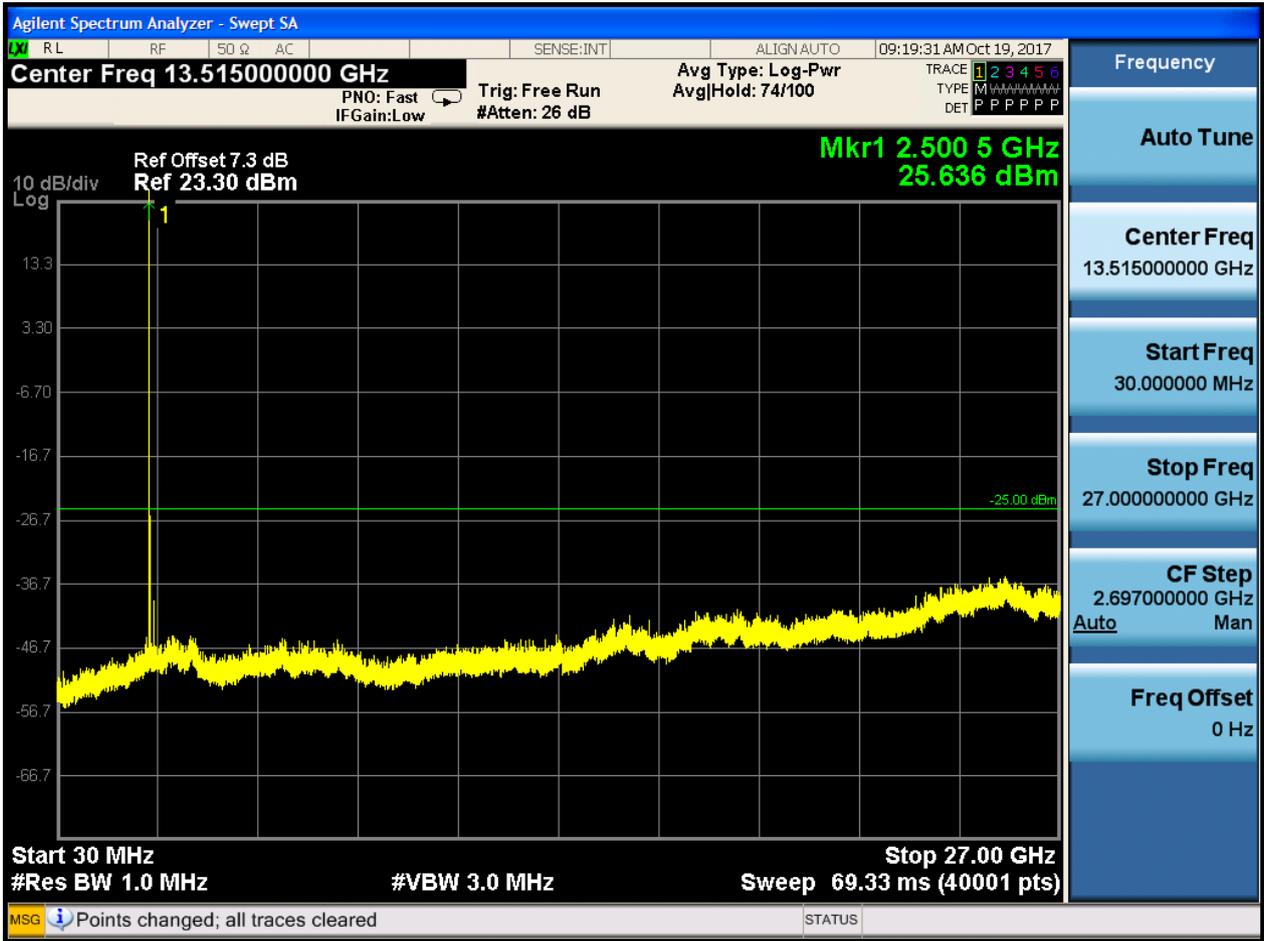
6.1.1.1 Test Mode = LTE/TM1

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







6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0



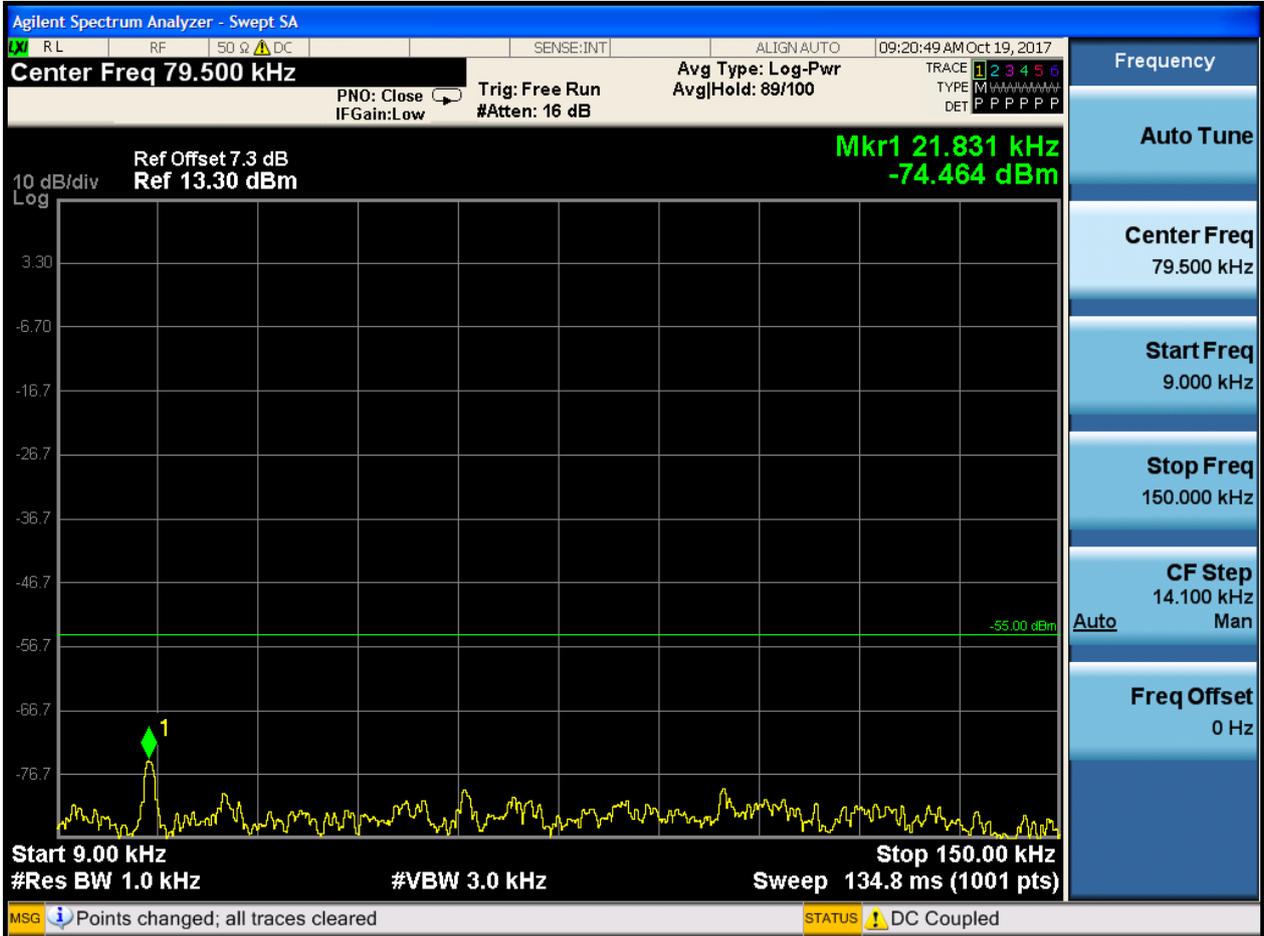




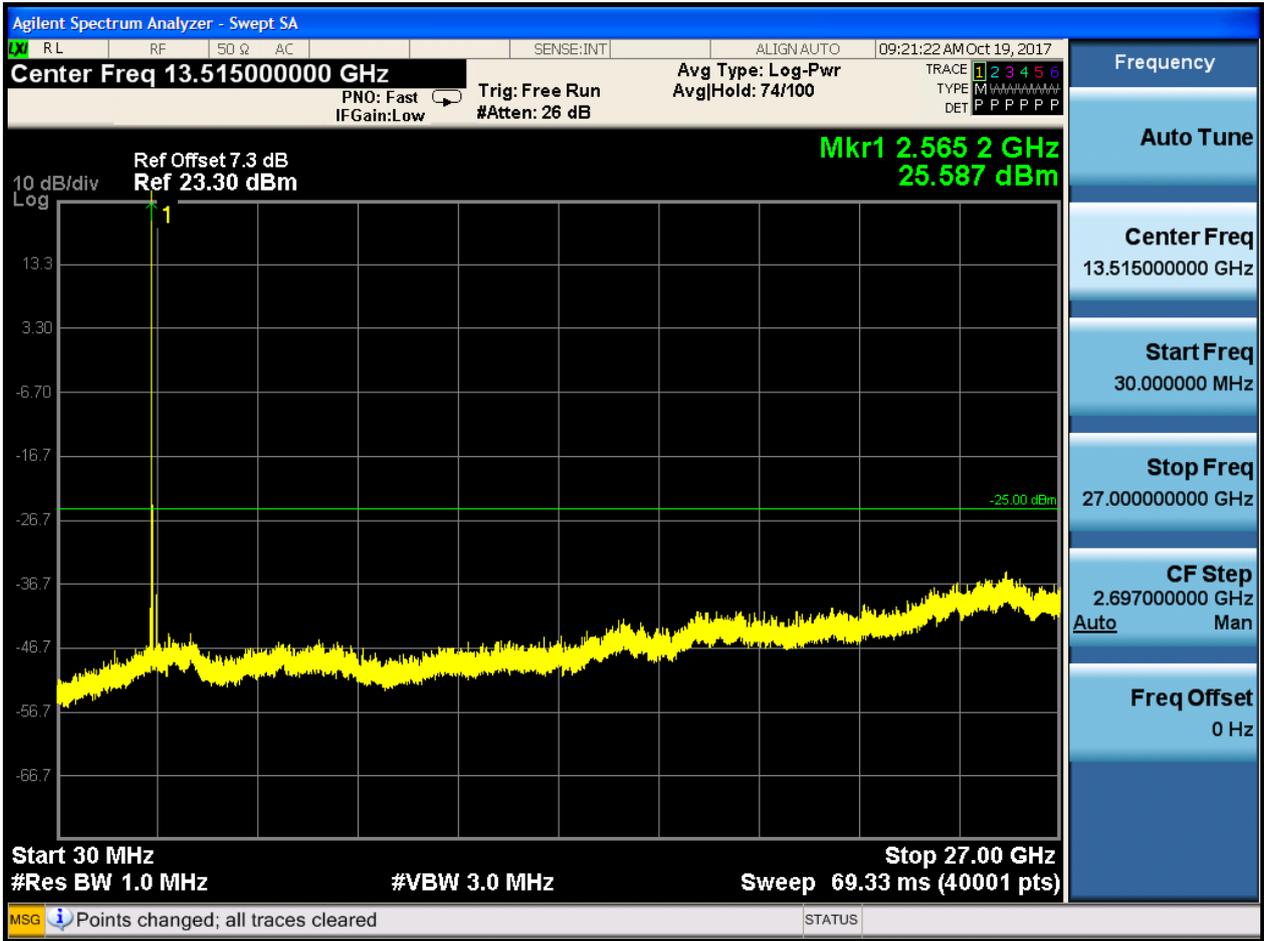


6.1.1.1.1.3 Test Channel = HCH

6.1.1.1.1.3.1 Test RB = RB1#0





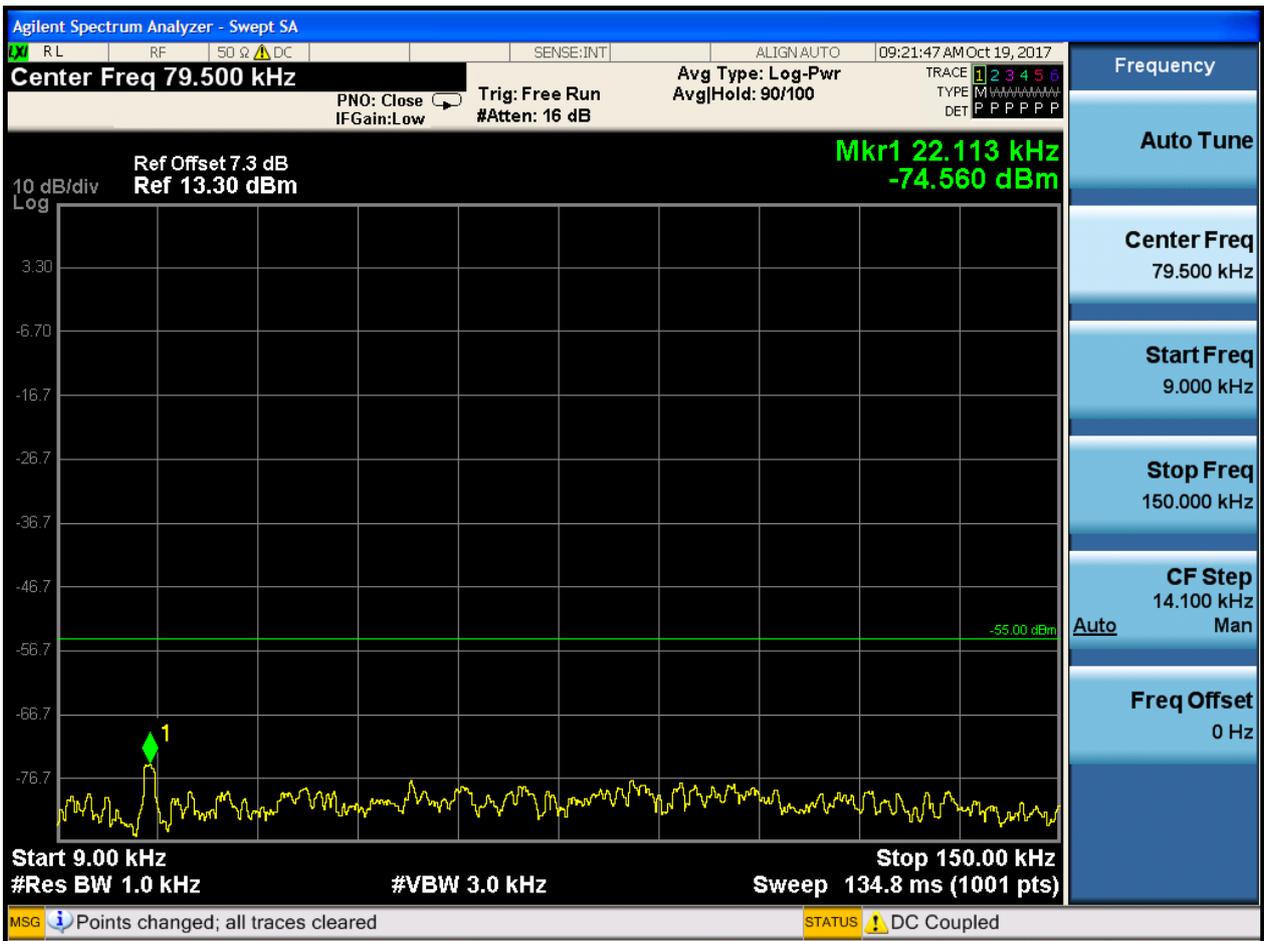


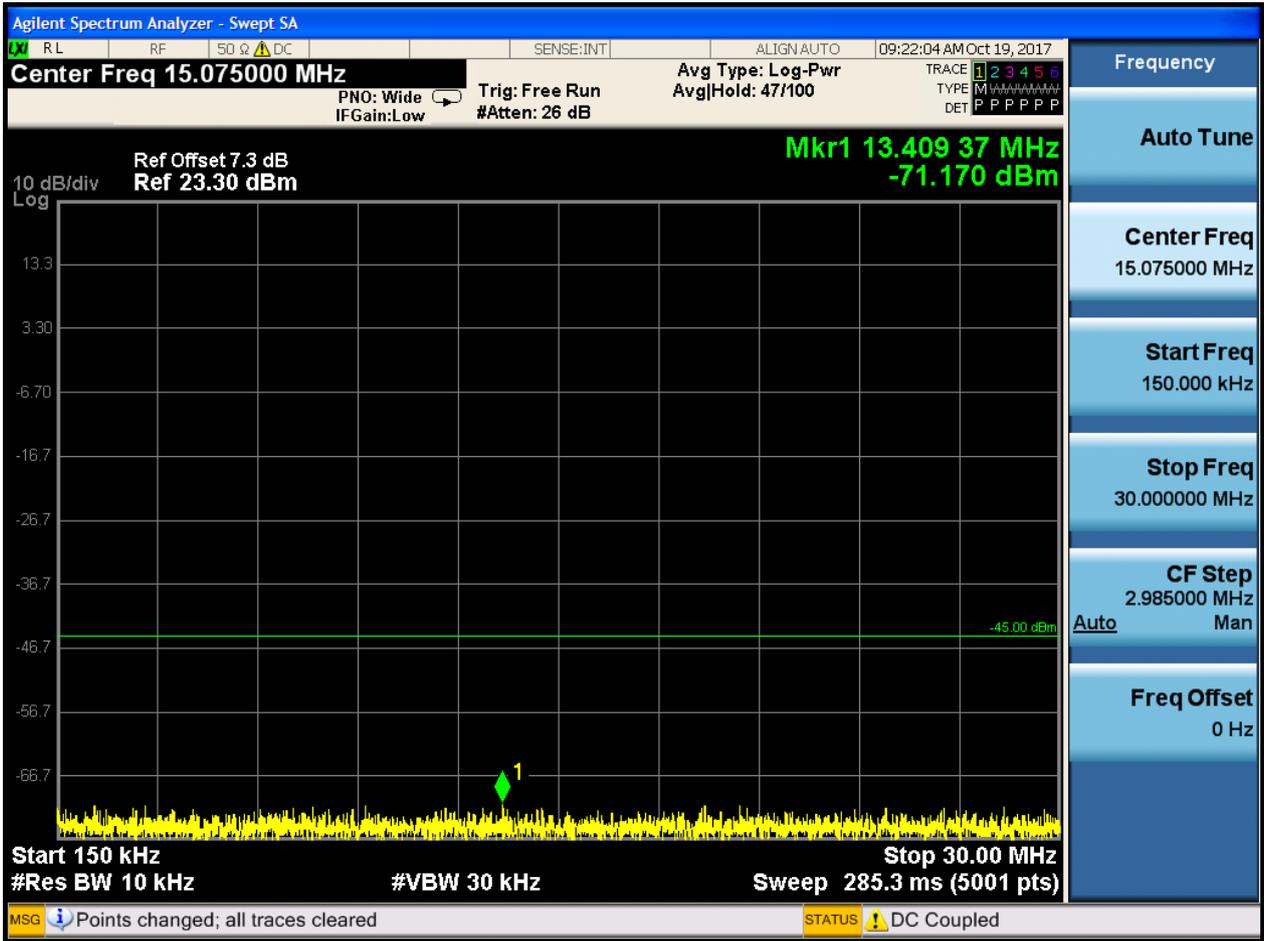


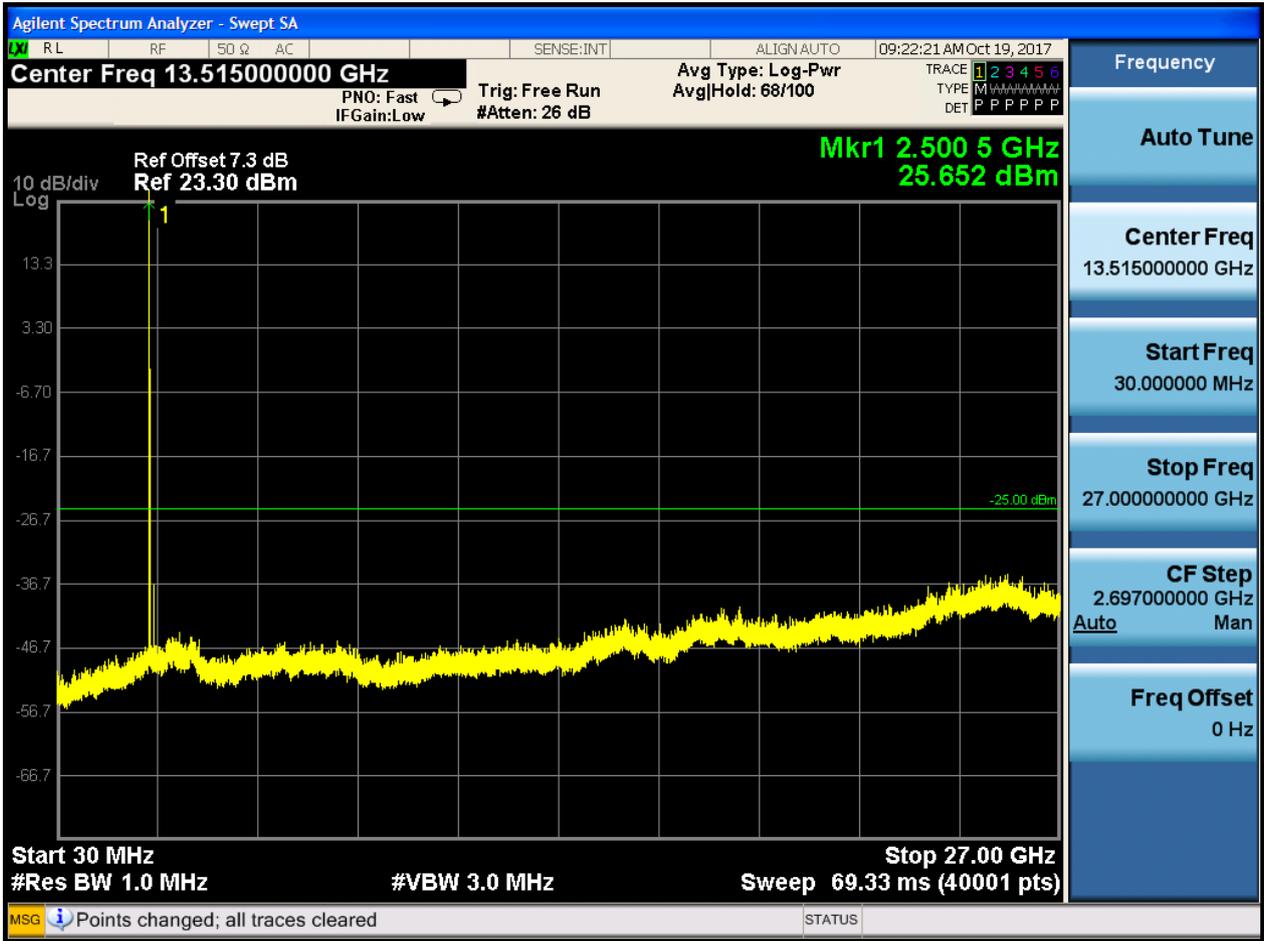
6.1.1.1.2 Test Bandwidth = 10

6.1.1.1.2.1 Test Channel = LCH

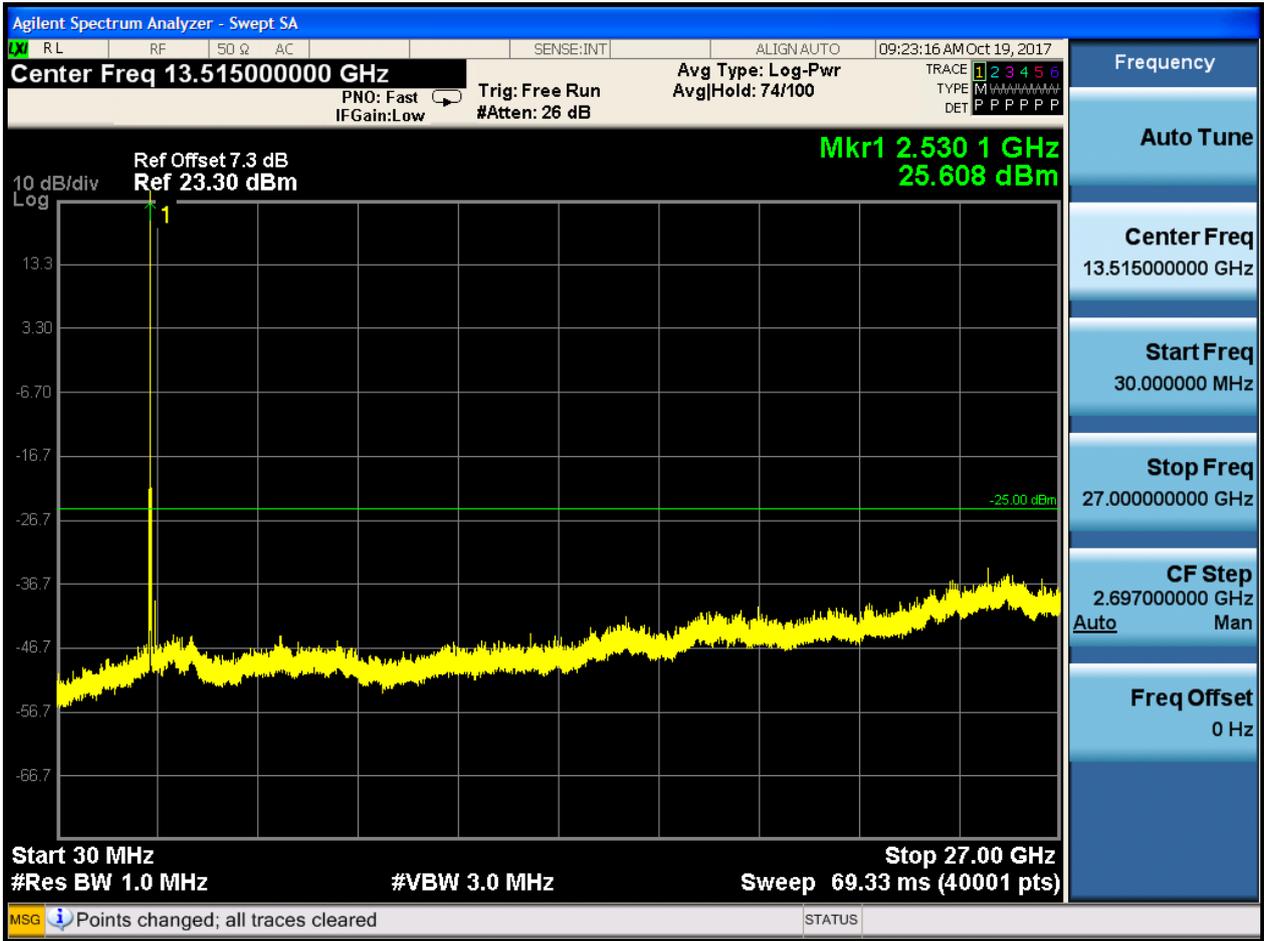
6.1.1.1.2.1.1 Test RB = RB1#0











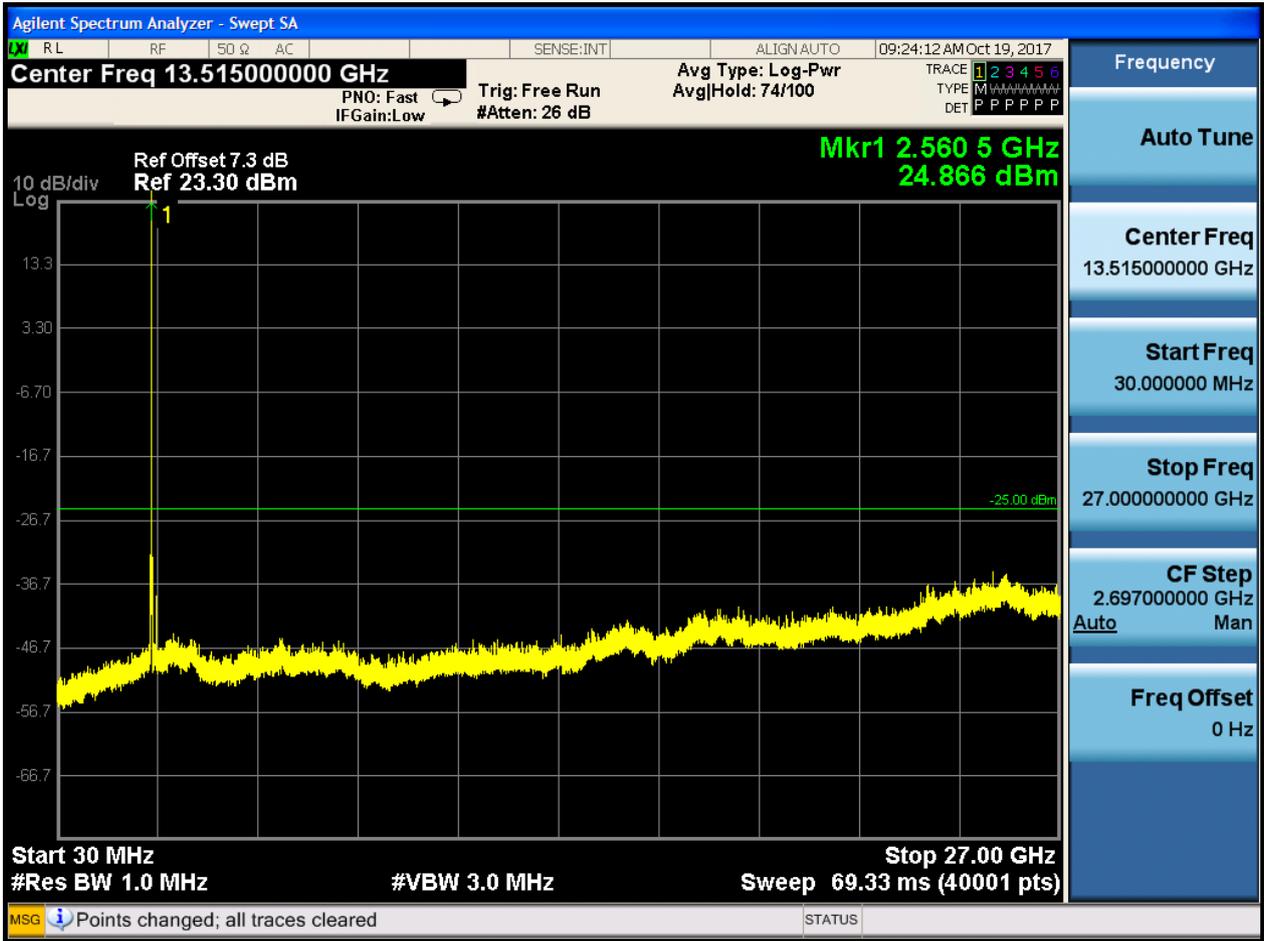


6.1.1.1.2.3 Test Channel = HCH

6.1.1.1.2.3.1 Test RB = RB1#0





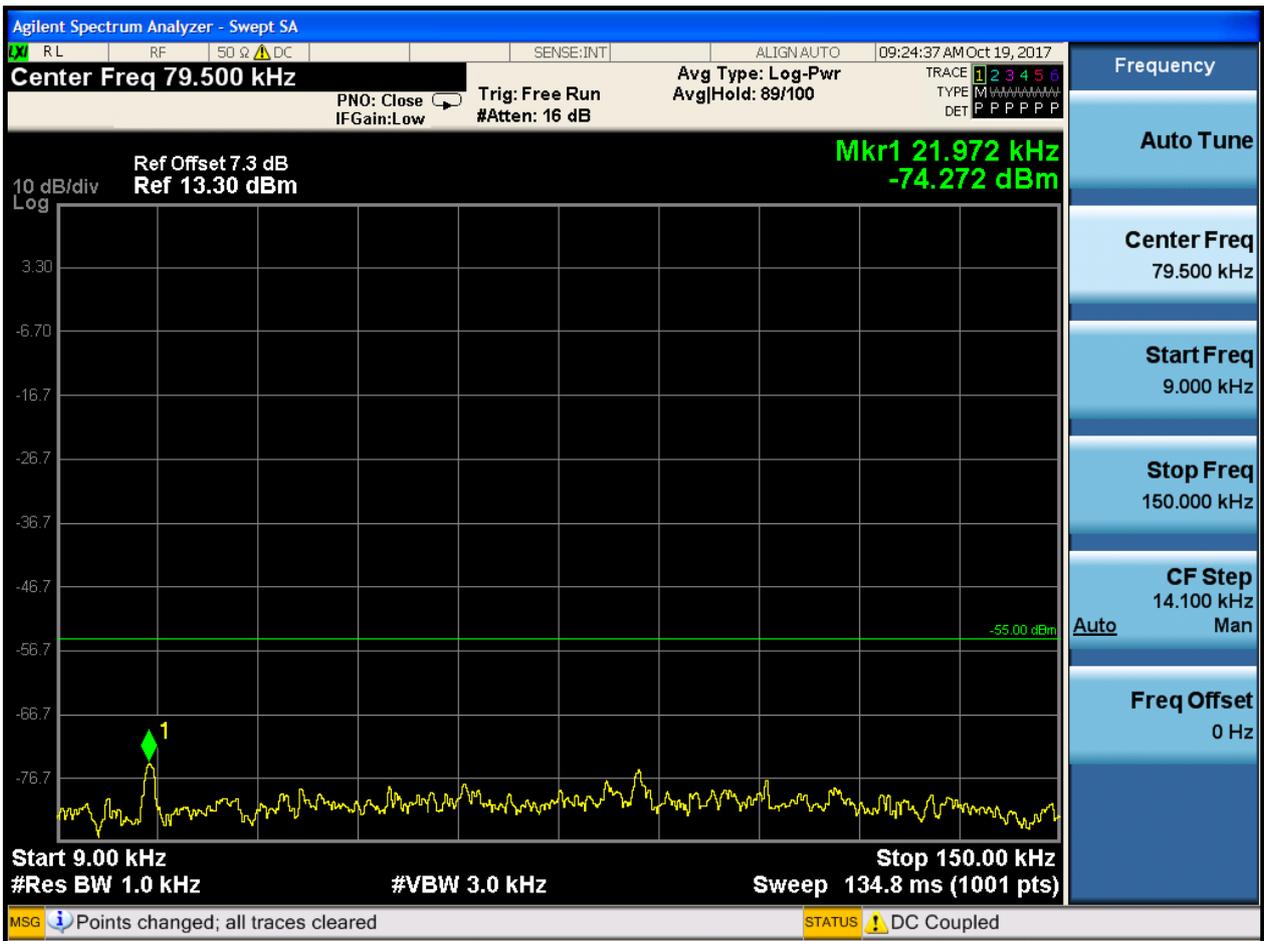


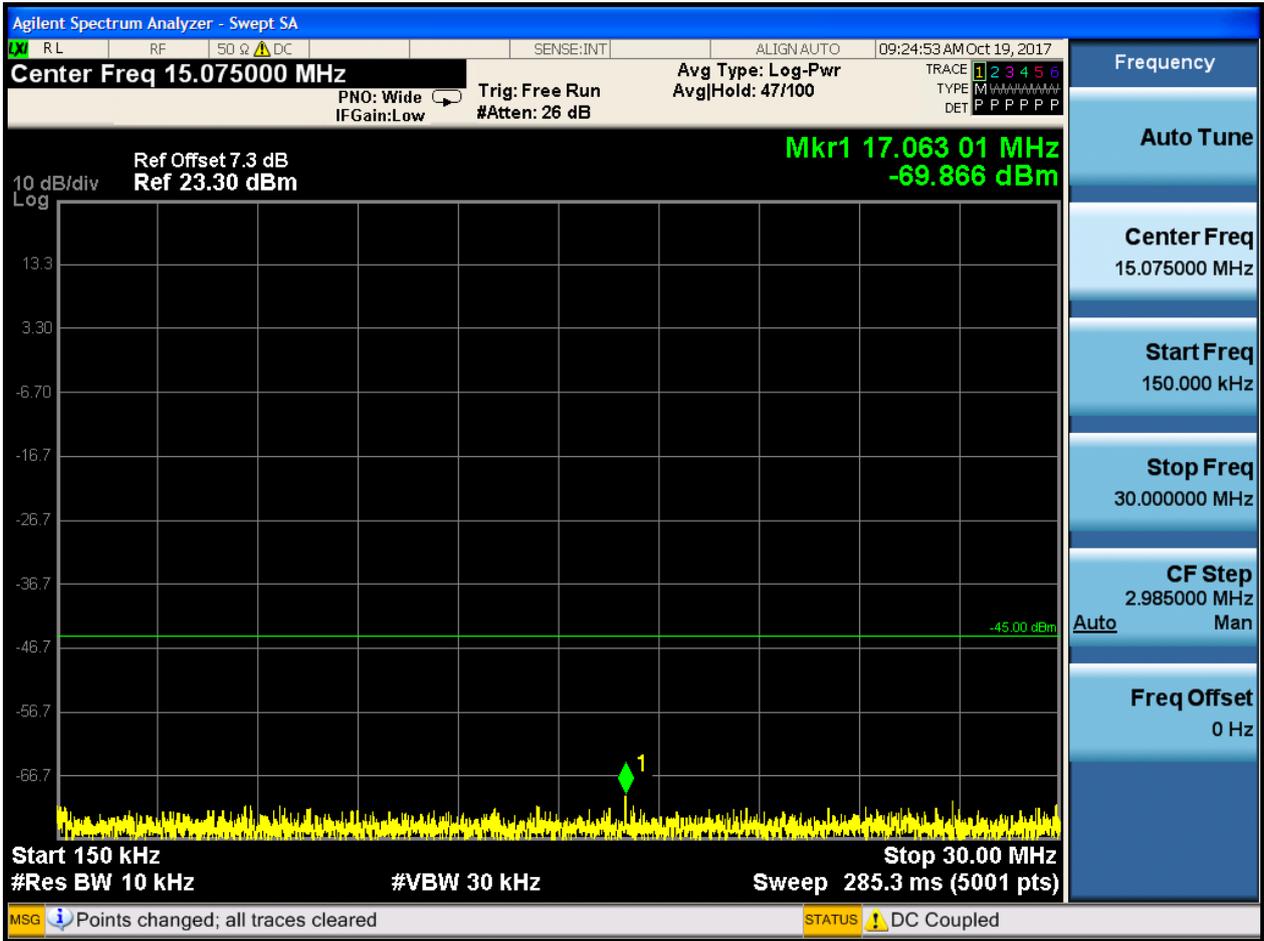


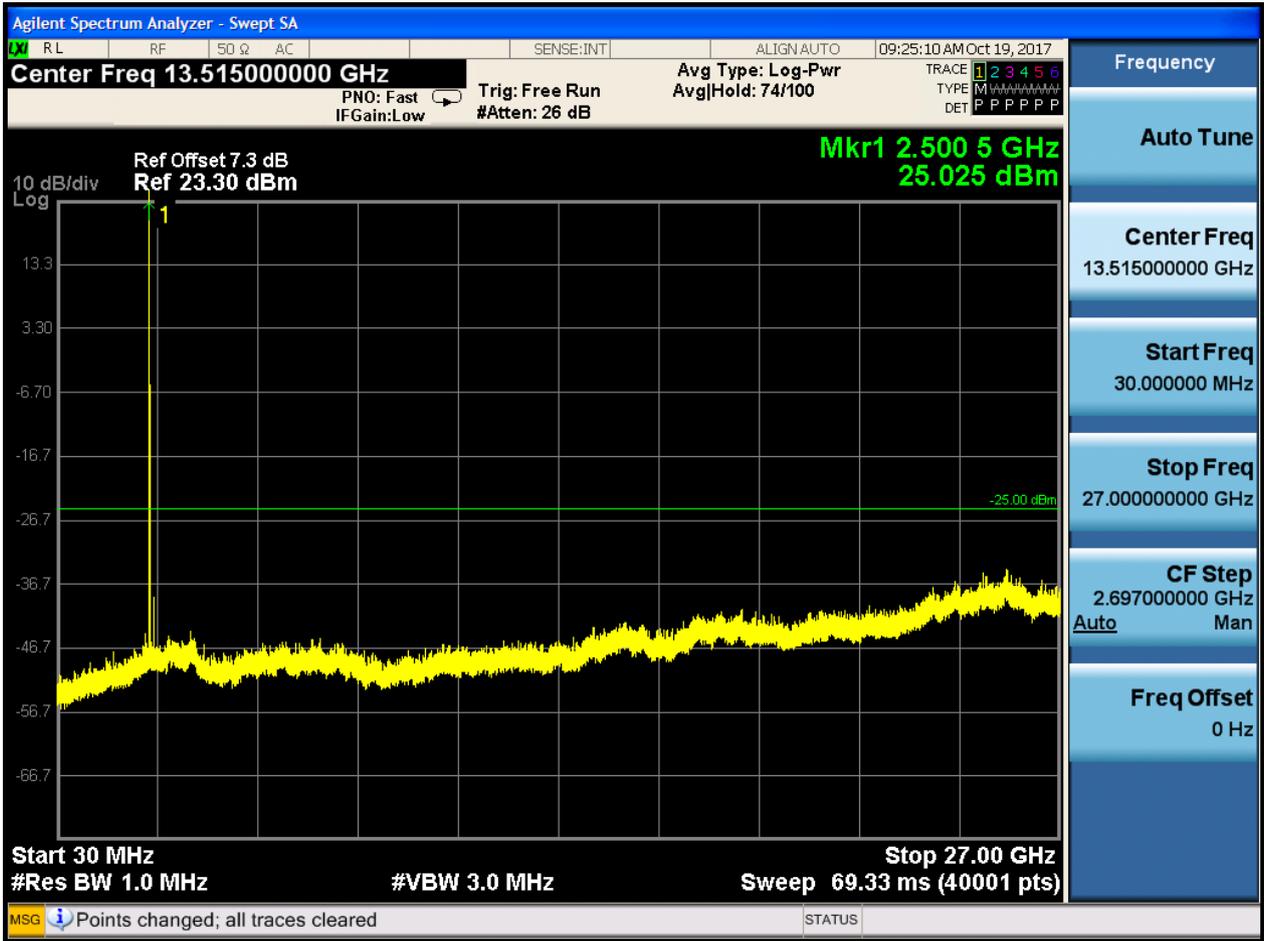
6.1.1.1.3 Test Bandwidth = 15

6.1.1.1.3.1 Test Channel = LCH

6.1.1.1.3.1.1 Test RB = RB1#0







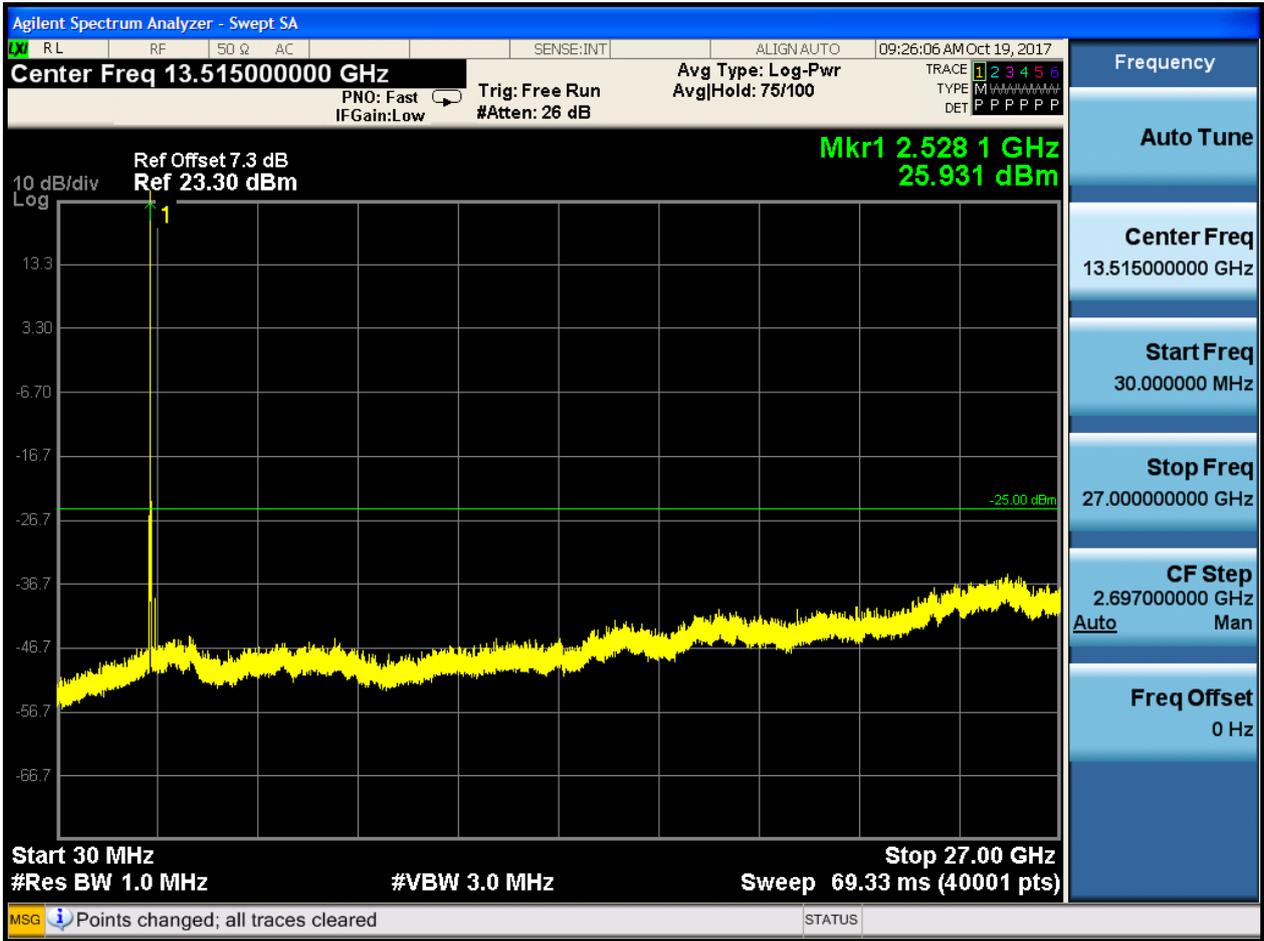


6.1.1.1.3.2 Test Channel = MCH

6.1.1.1.3.2.1 Test RB = RB1#0



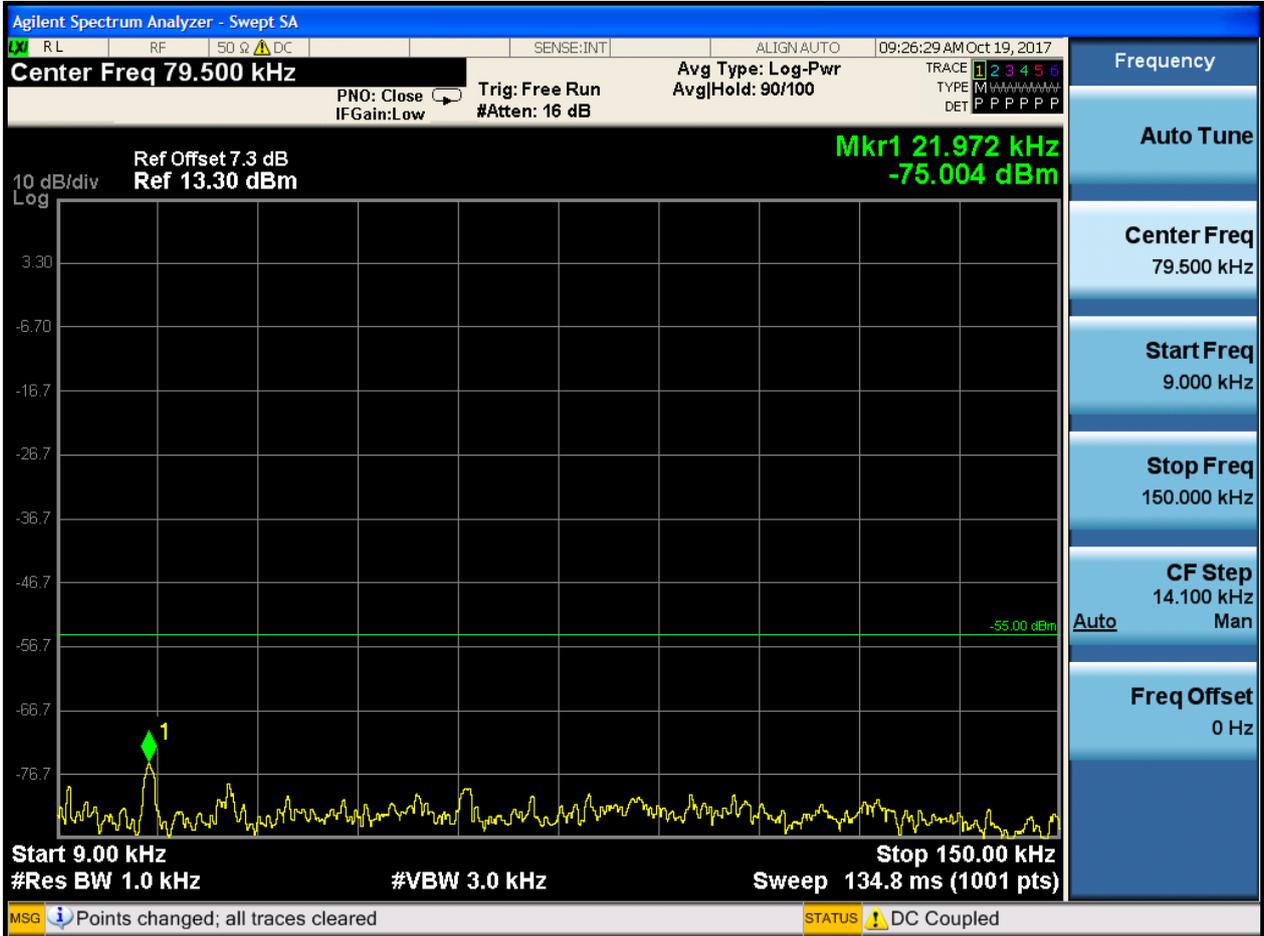




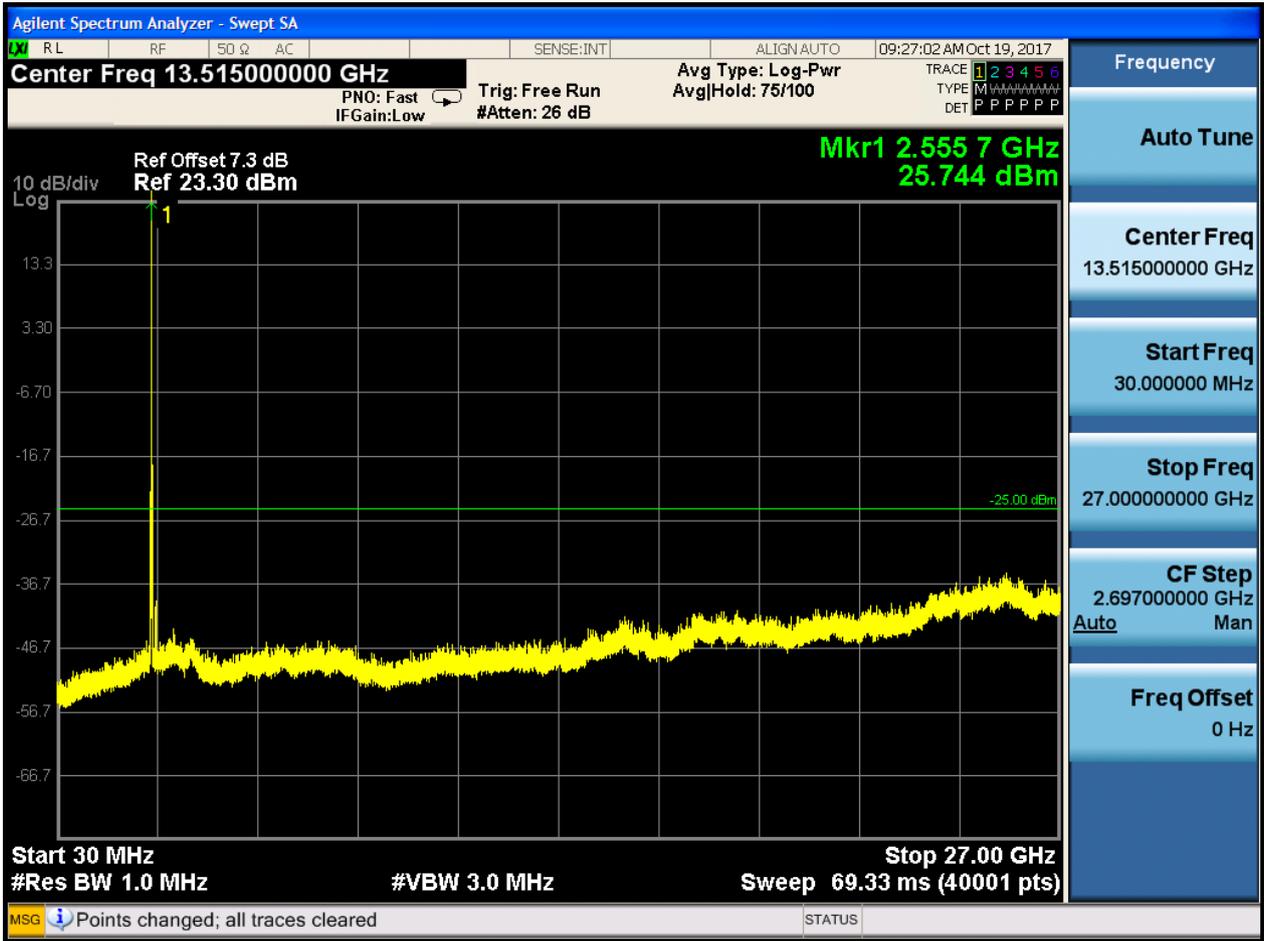


6.1.1.1.3.3 Test Channel = HCH

6.1.1.1.3.3.1 Test RB = RB1#0





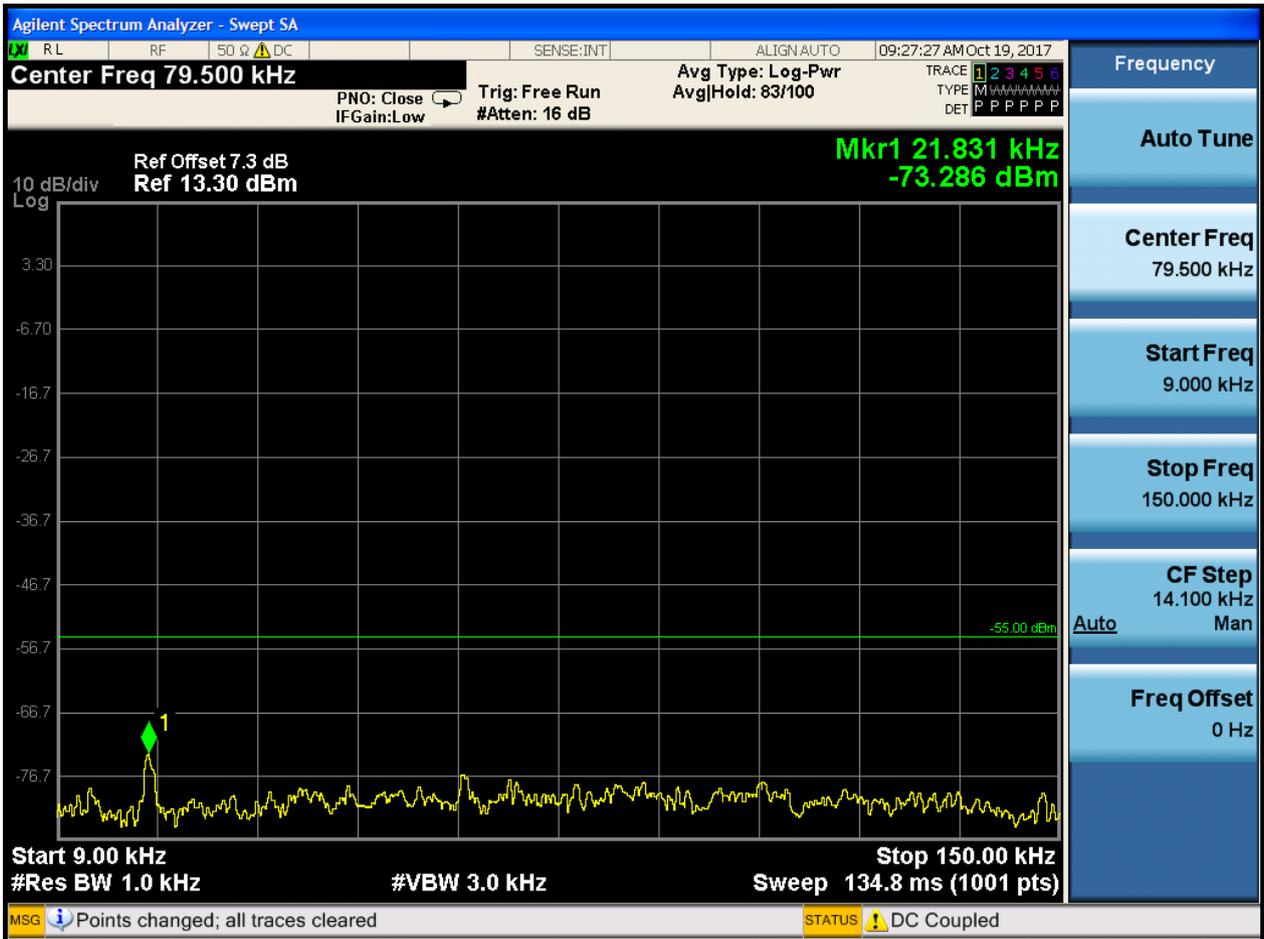


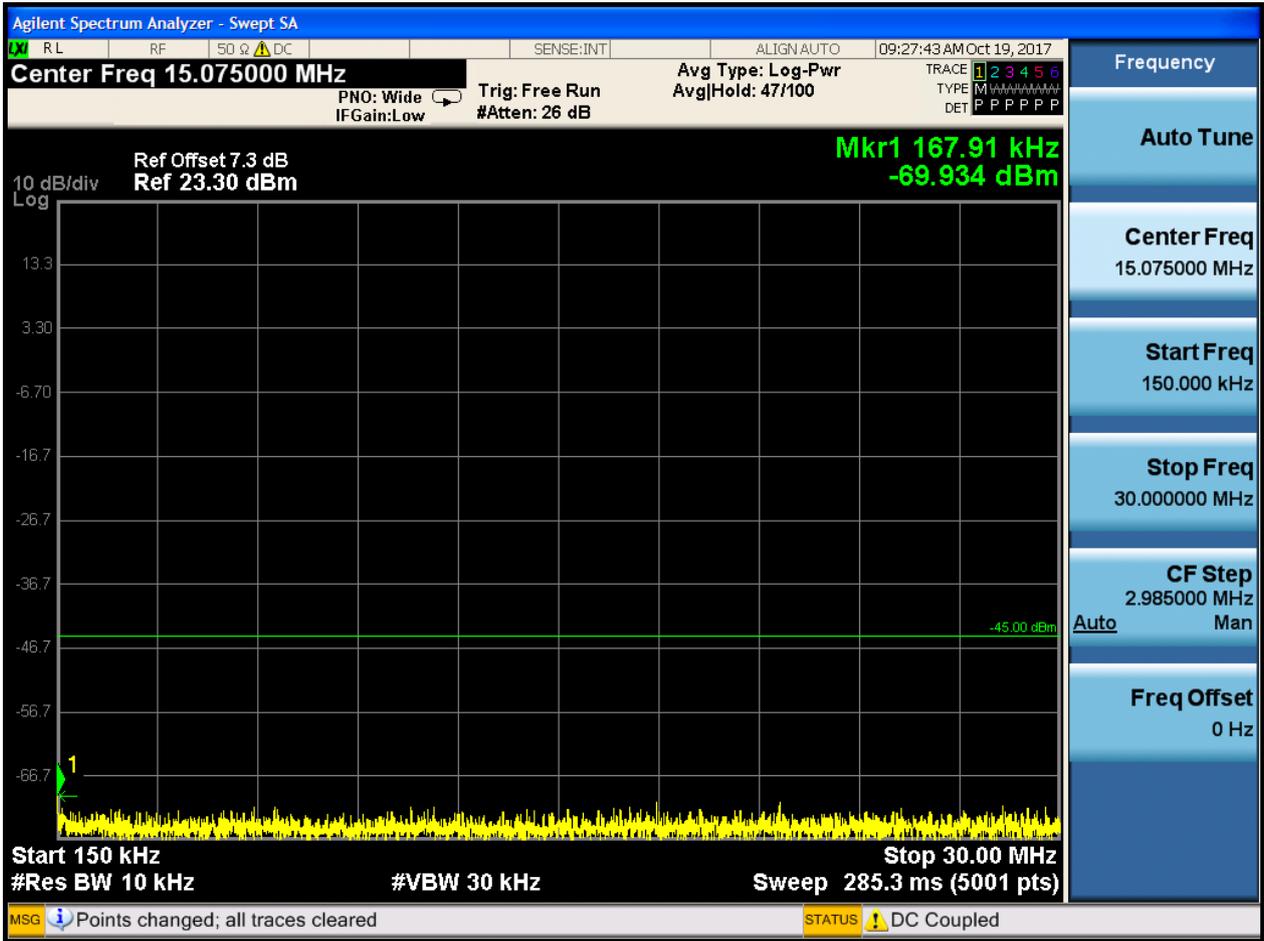


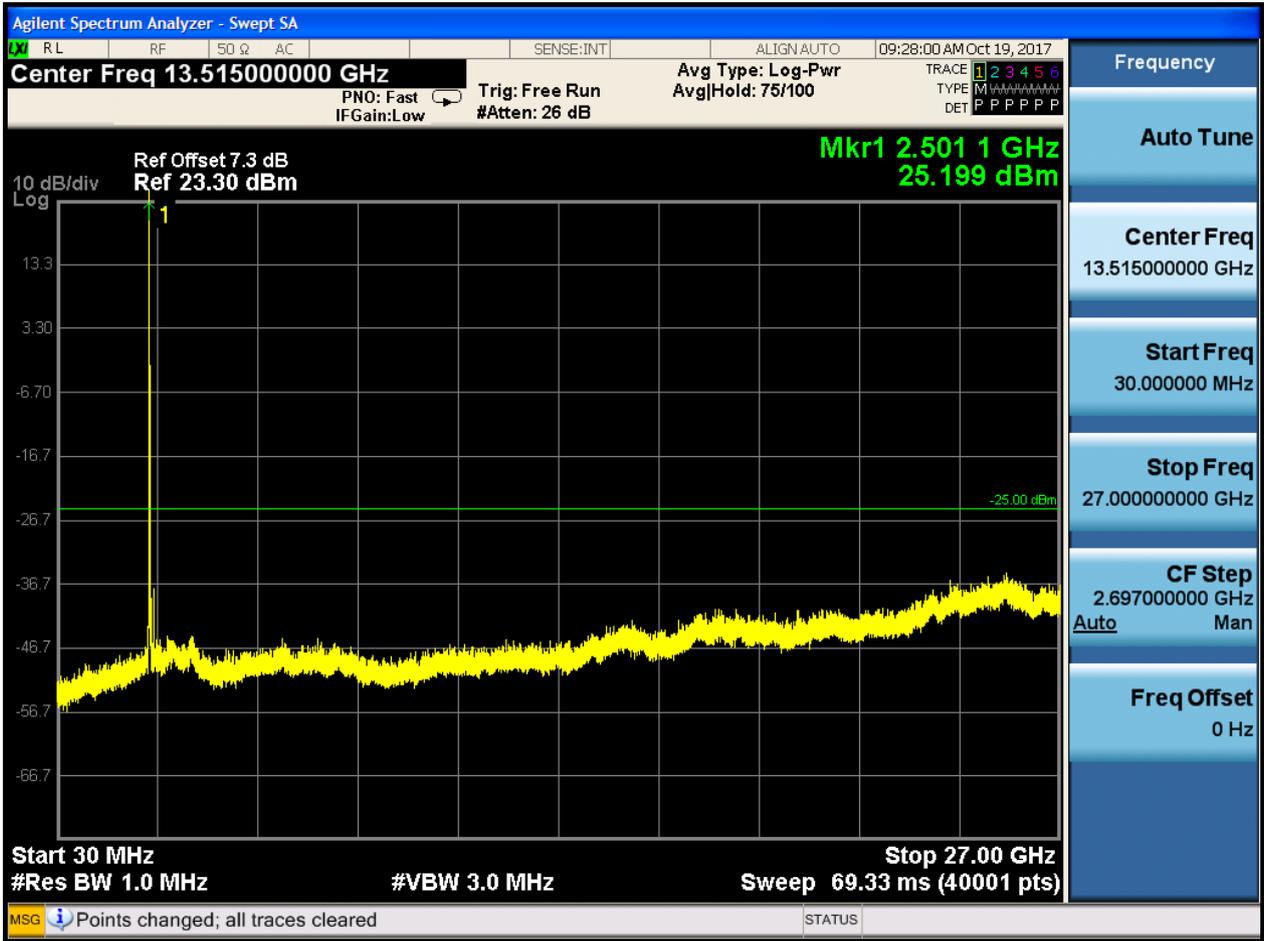
6.1.1.1.4 Test Bandwidth = 20

6.1.1.1.4.1 Test Channel = LCH

6.1.1.1.4.1.1 Test RB = RB1#0



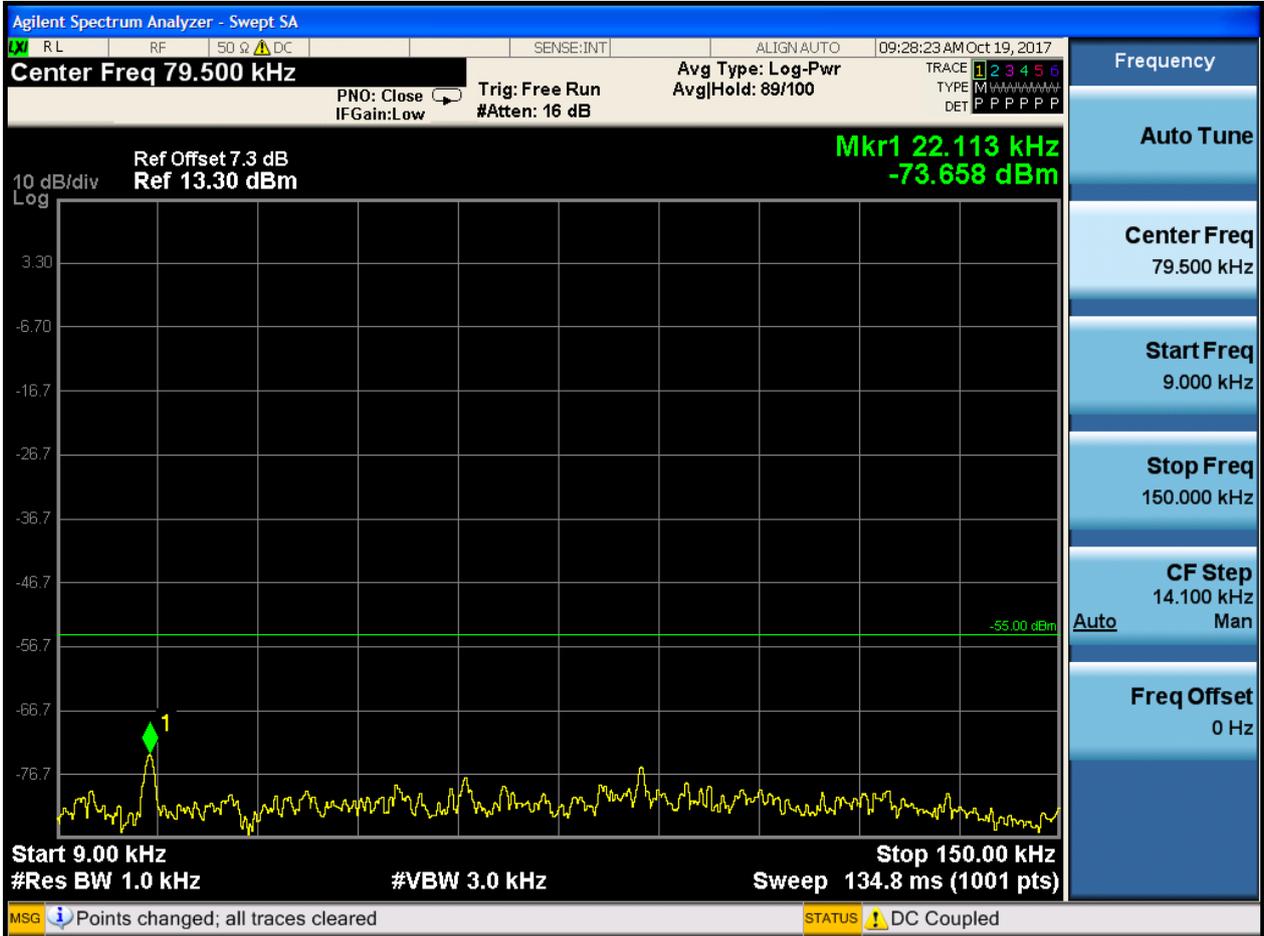


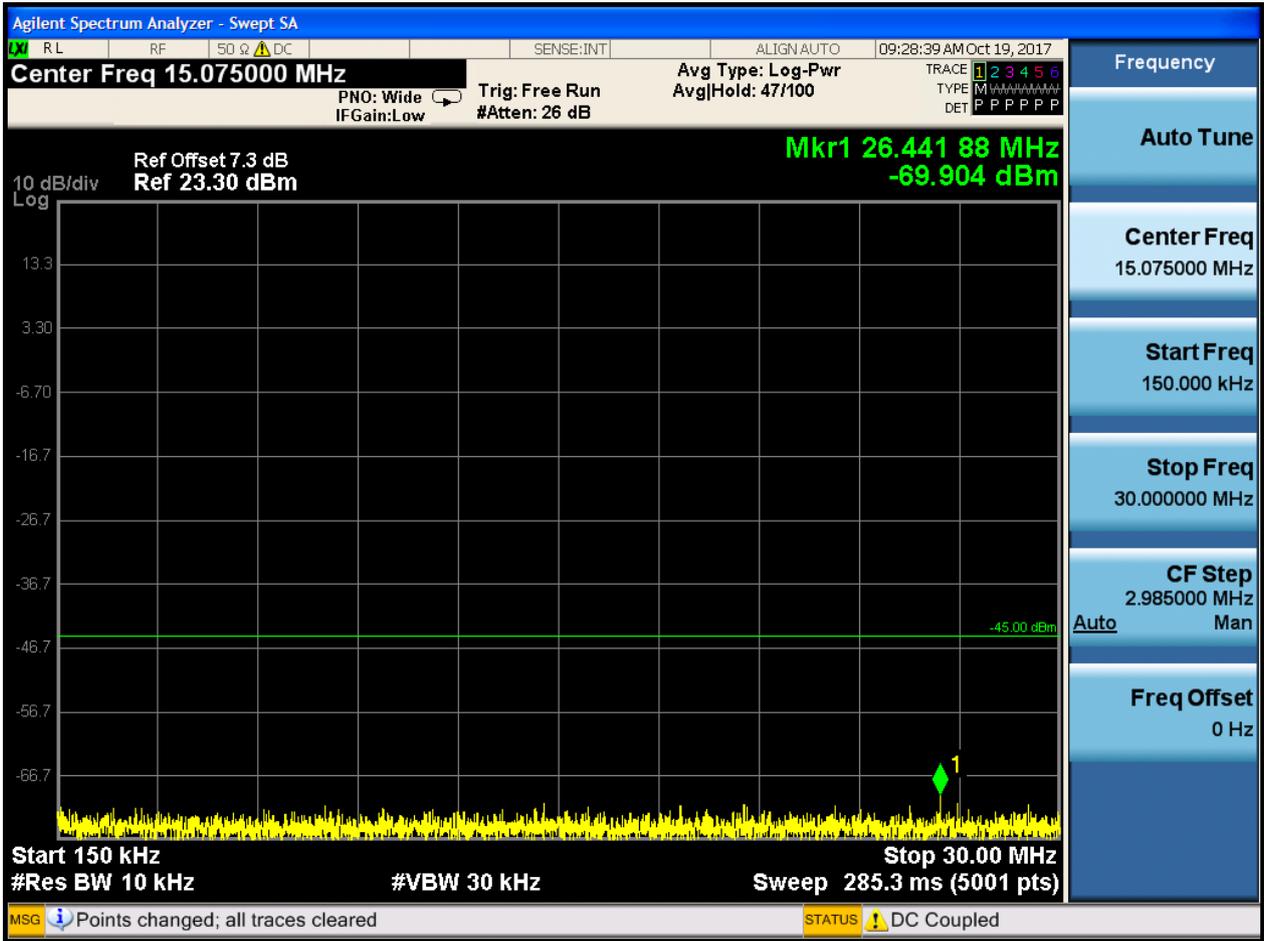


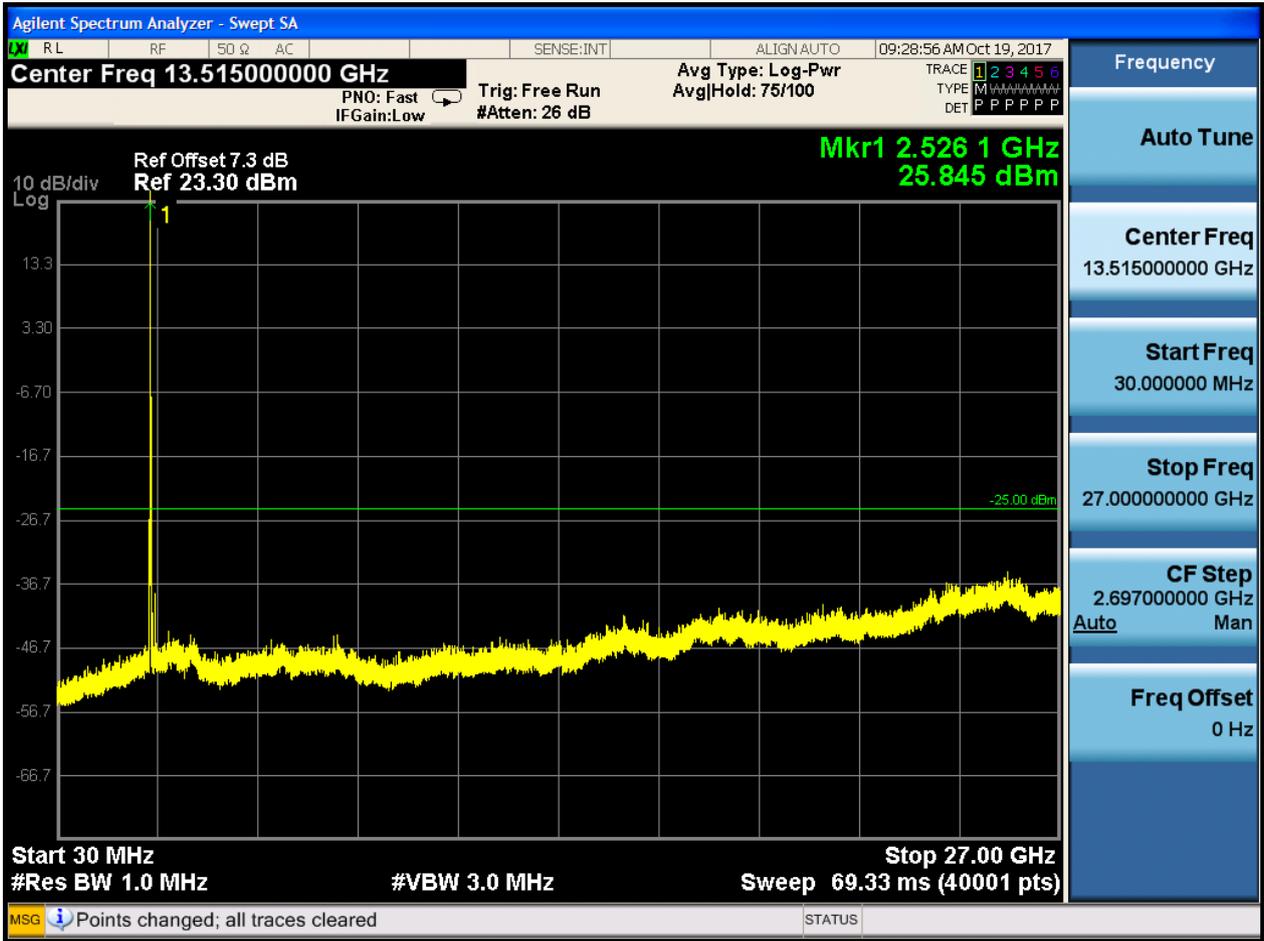


6.1.1.1.4.2 Test Channel = MCH

6.1.1.1.4.2.1 Test RB = RB1#0







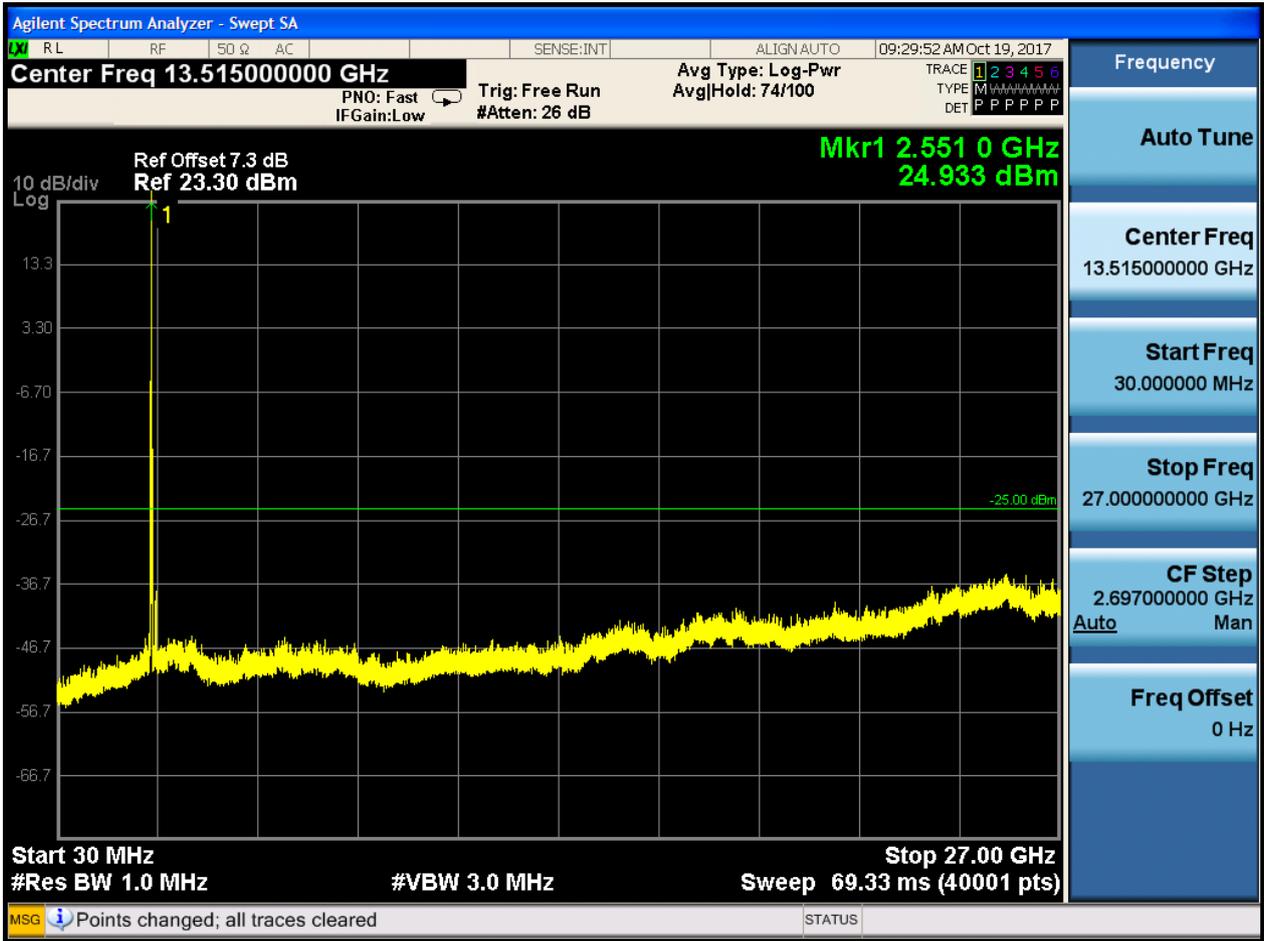


6.1.1.1.4.3 Test Channel = HCH

6.1.1.1.4.3.1 Test RB = RB1#0







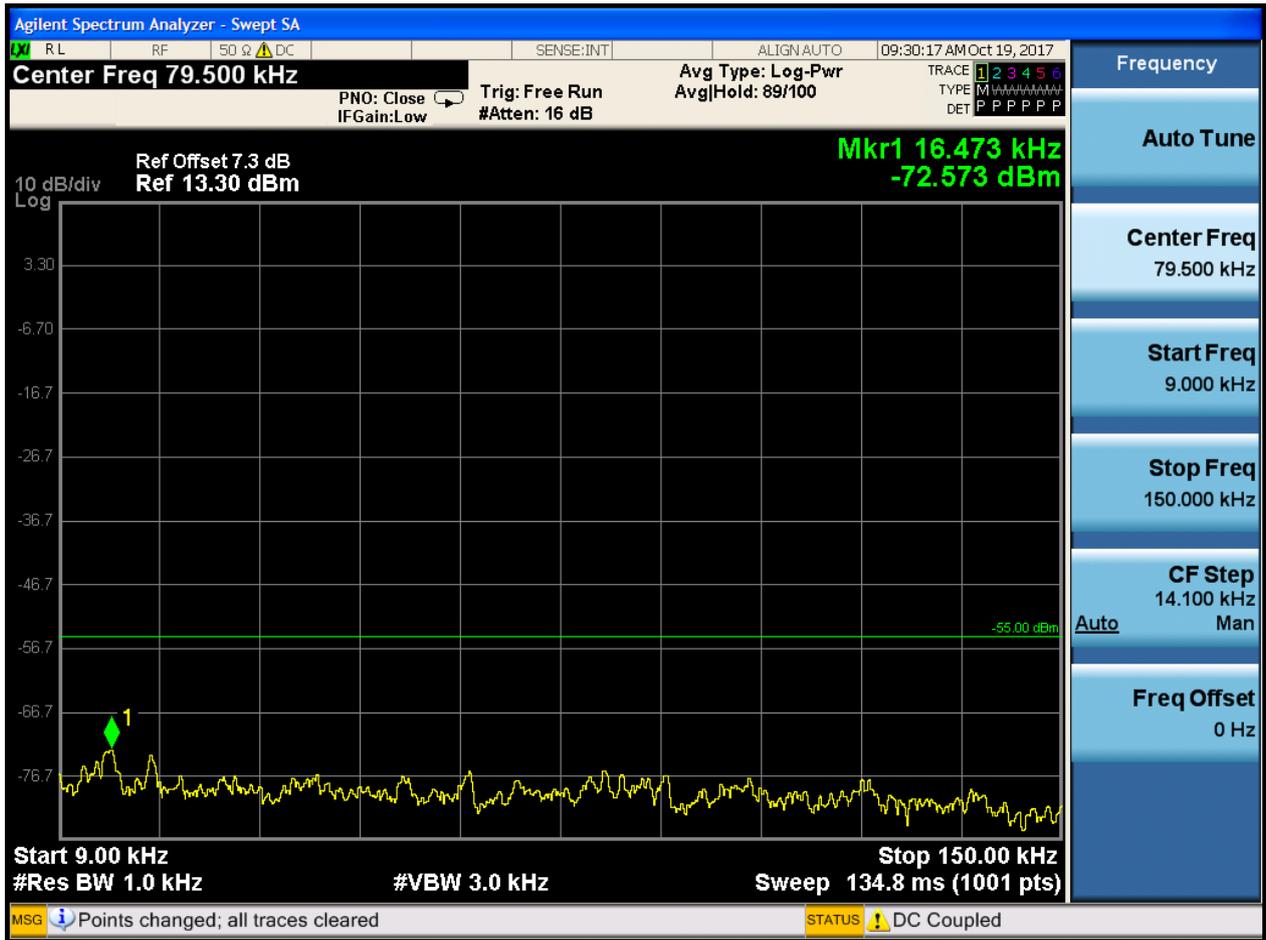


6.1.1.2 Test Mode = LTE/TM2

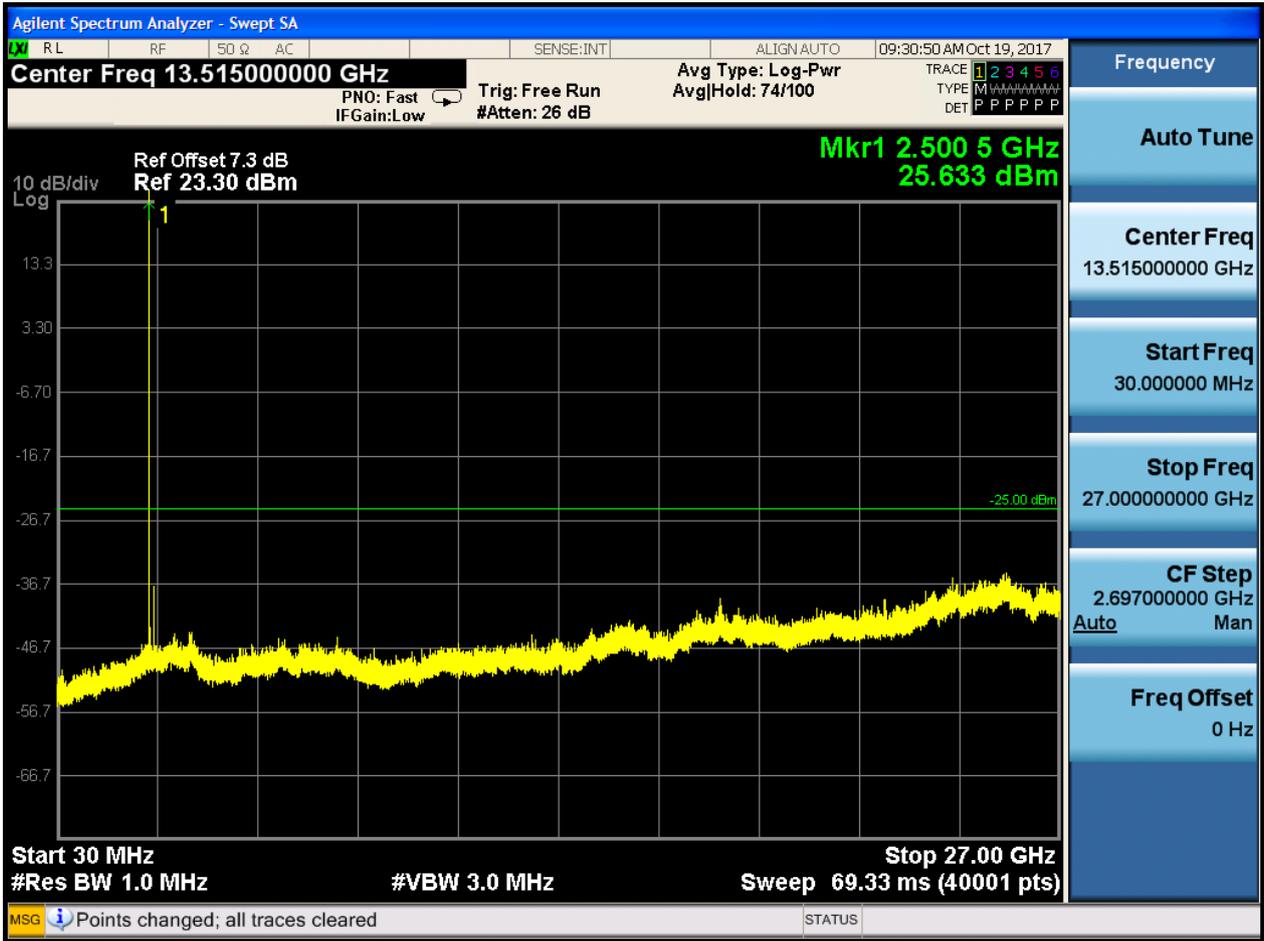
6.1.1.2.1 Test Bandwidth = 5

6.1.1.2.1.1 Test Channel = LCH

6.1.1.2.1.1.1 Test RB = RB1#0







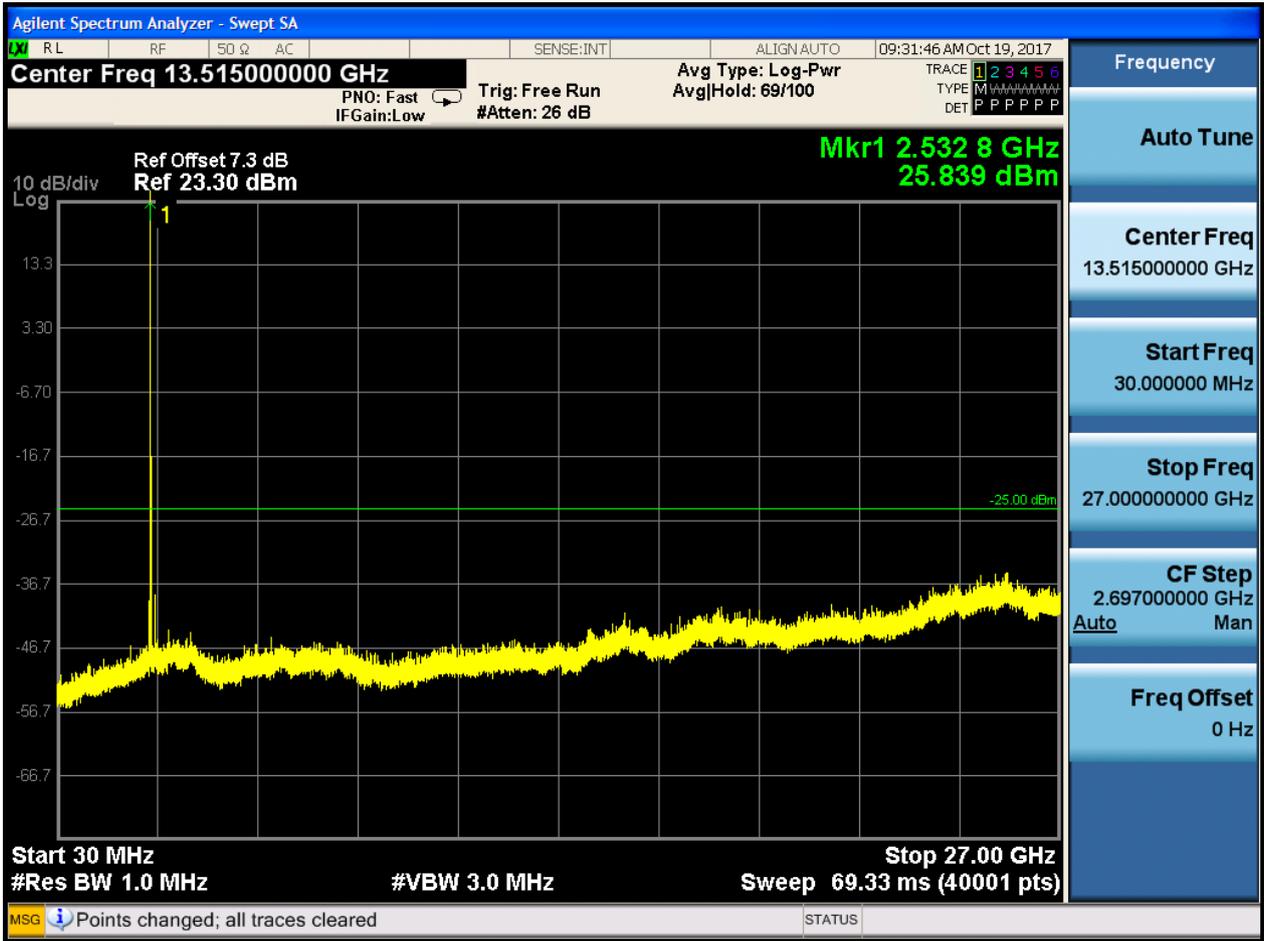


6.1.1.2.1.2 Test Channel = MCH

6.1.1.2.1.2.1 Test RB = RB1#0



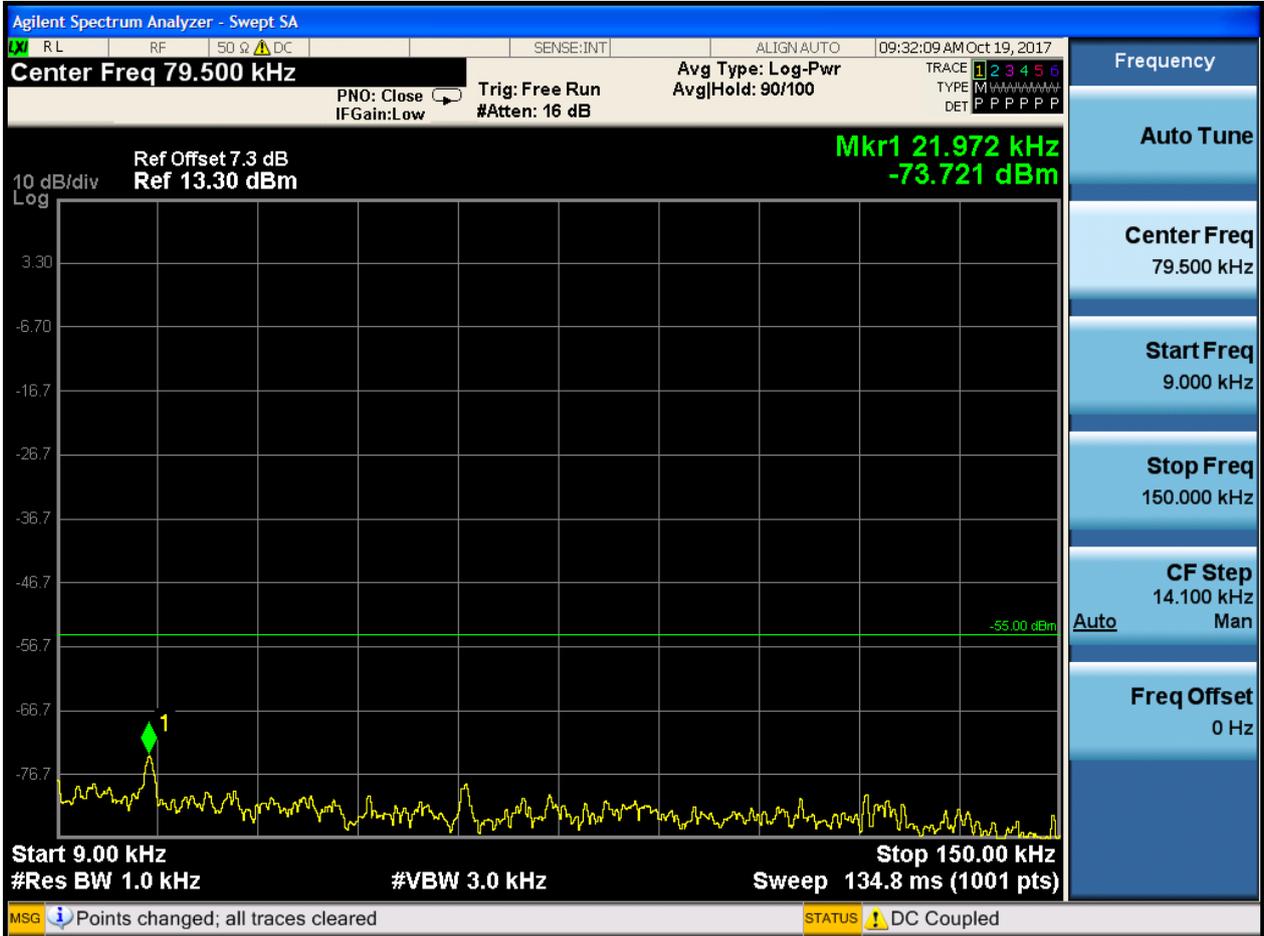




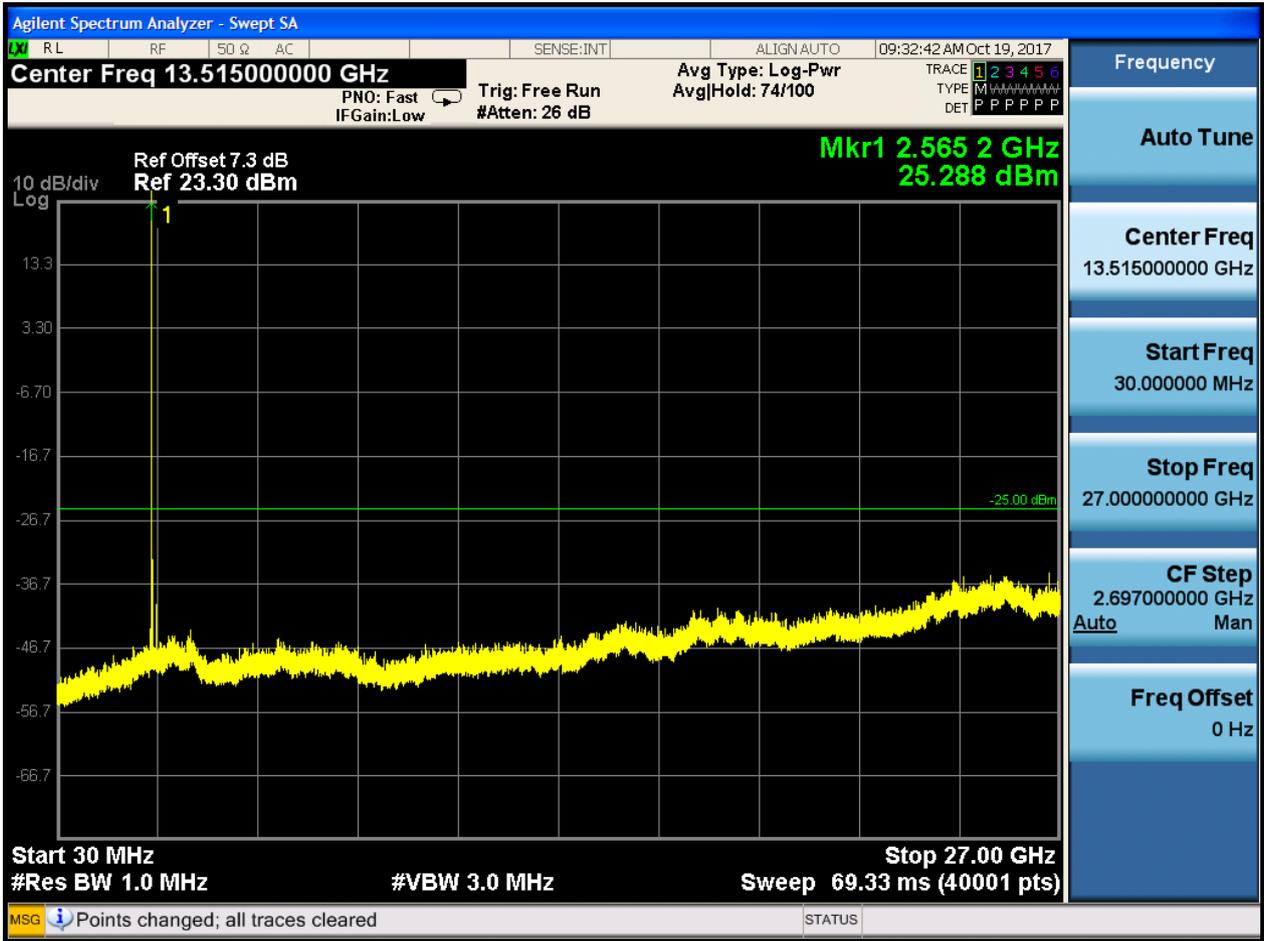


6.1.1.2.1.3 Test Channel = HCH

6.1.1.2.1.3.1 Test RB = RB1#0





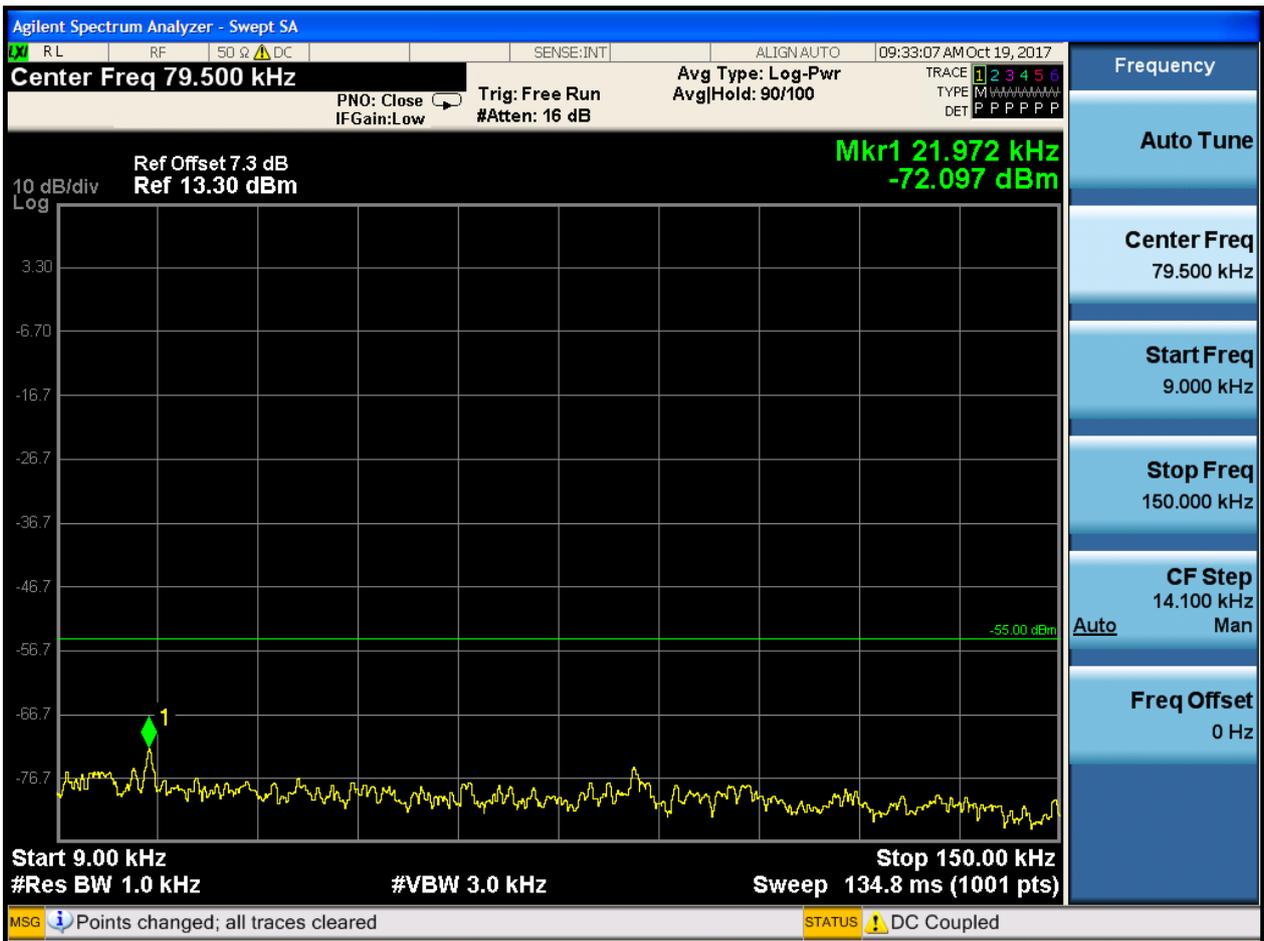


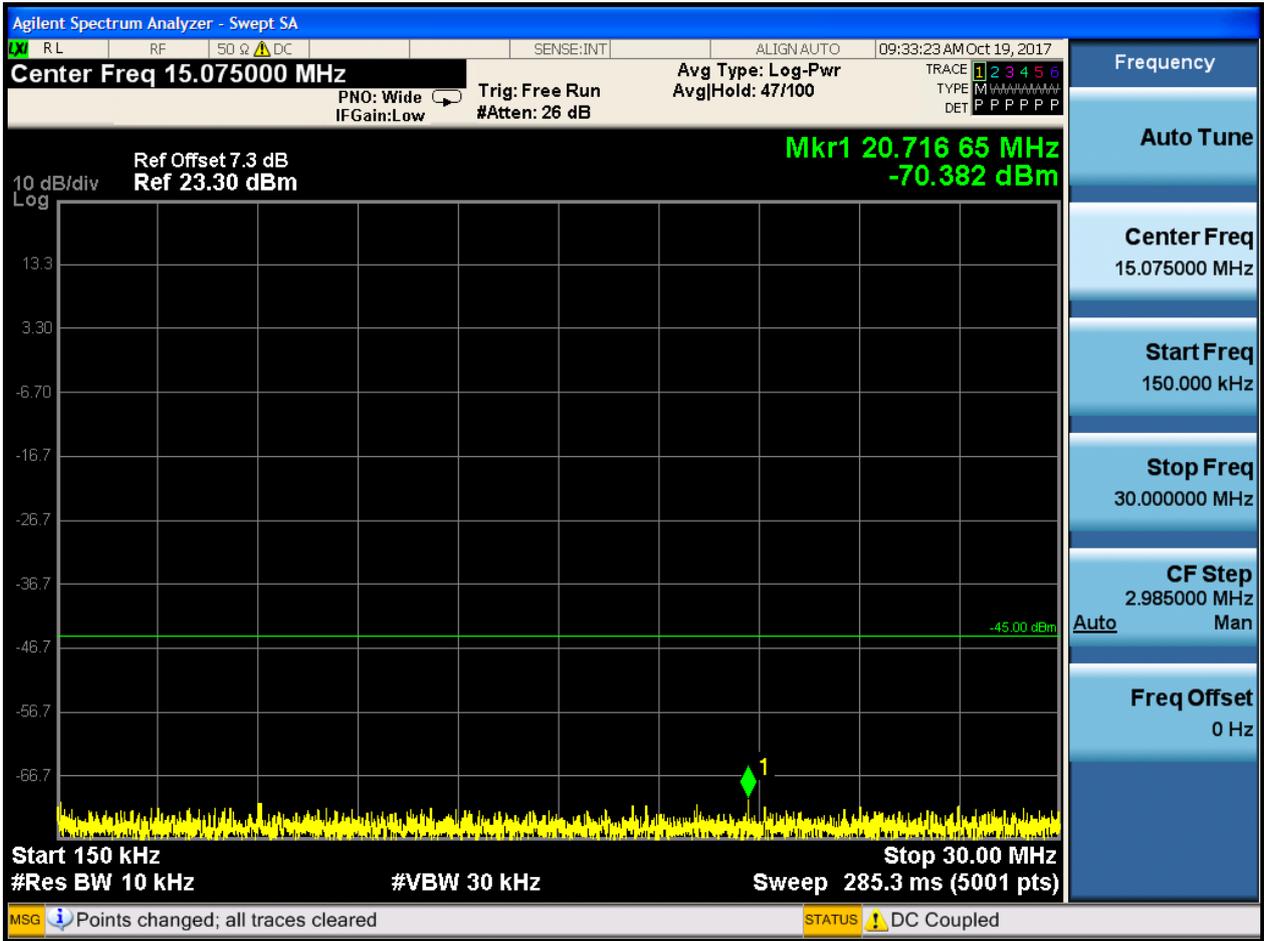


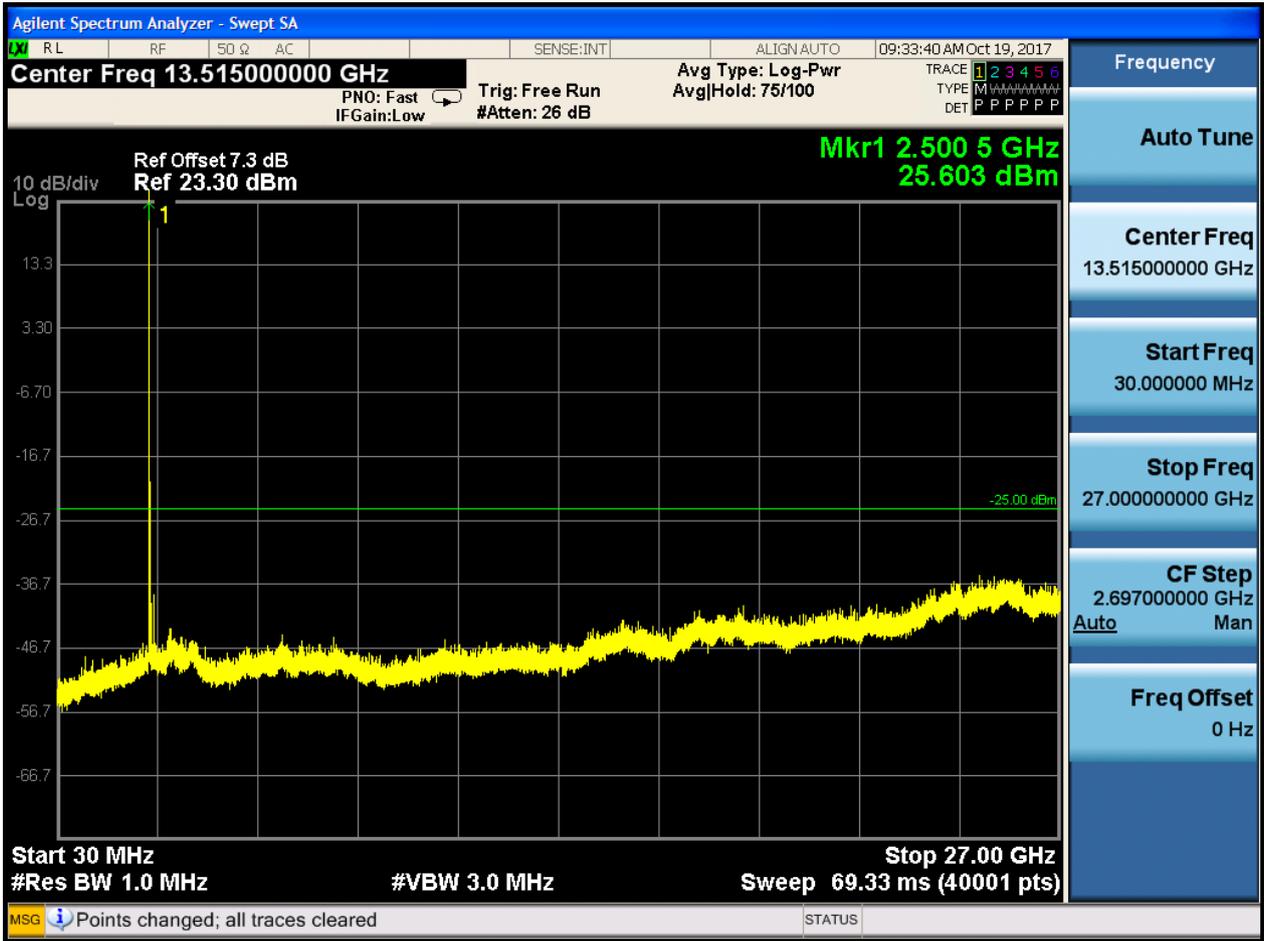
6.1.1.2.2 Test Bandwidth = 10

6.1.1.2.2.1 Test Channel = LCH

6.1.1.2.2.1.1 Test RB = RB1#0



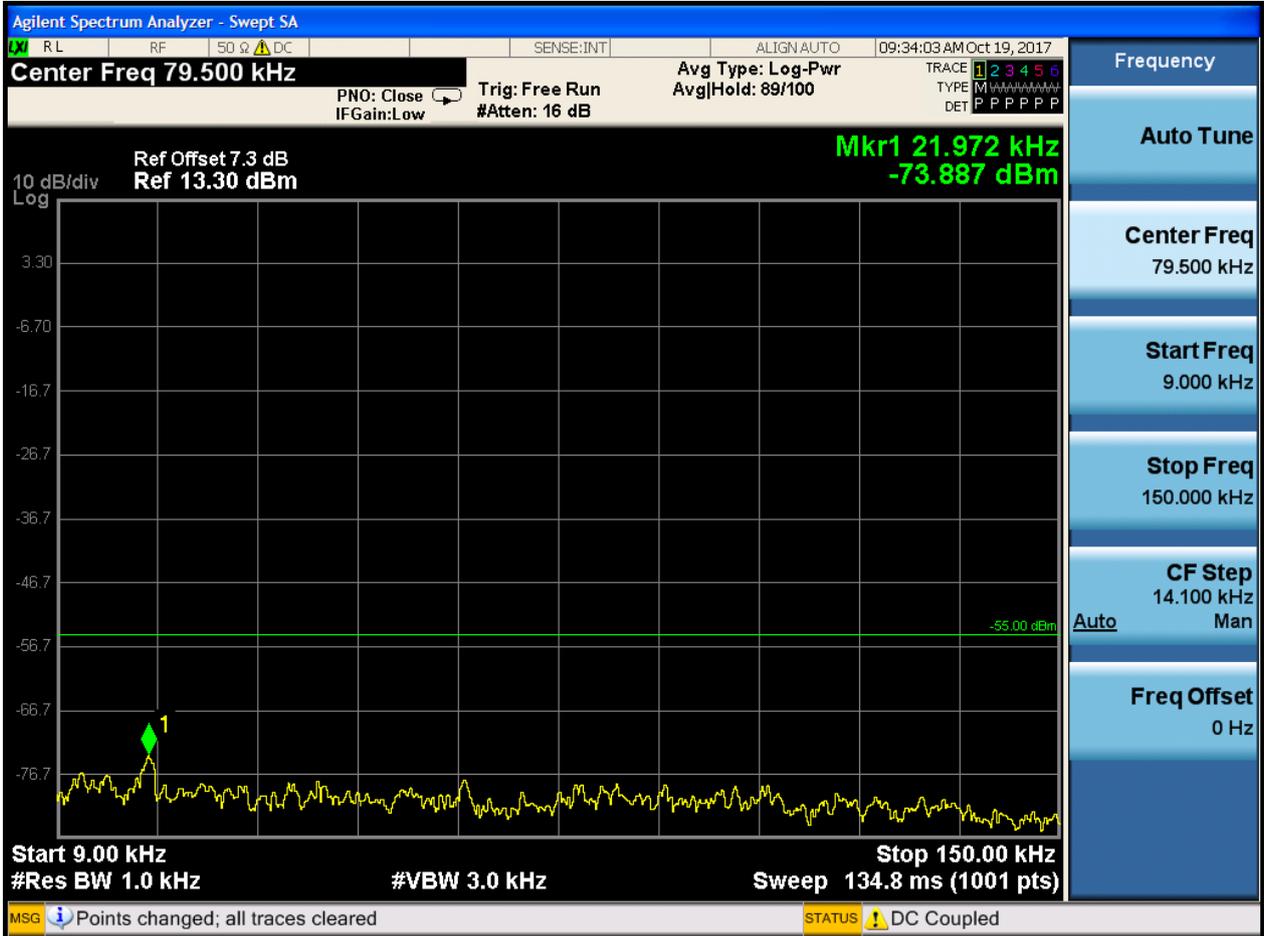




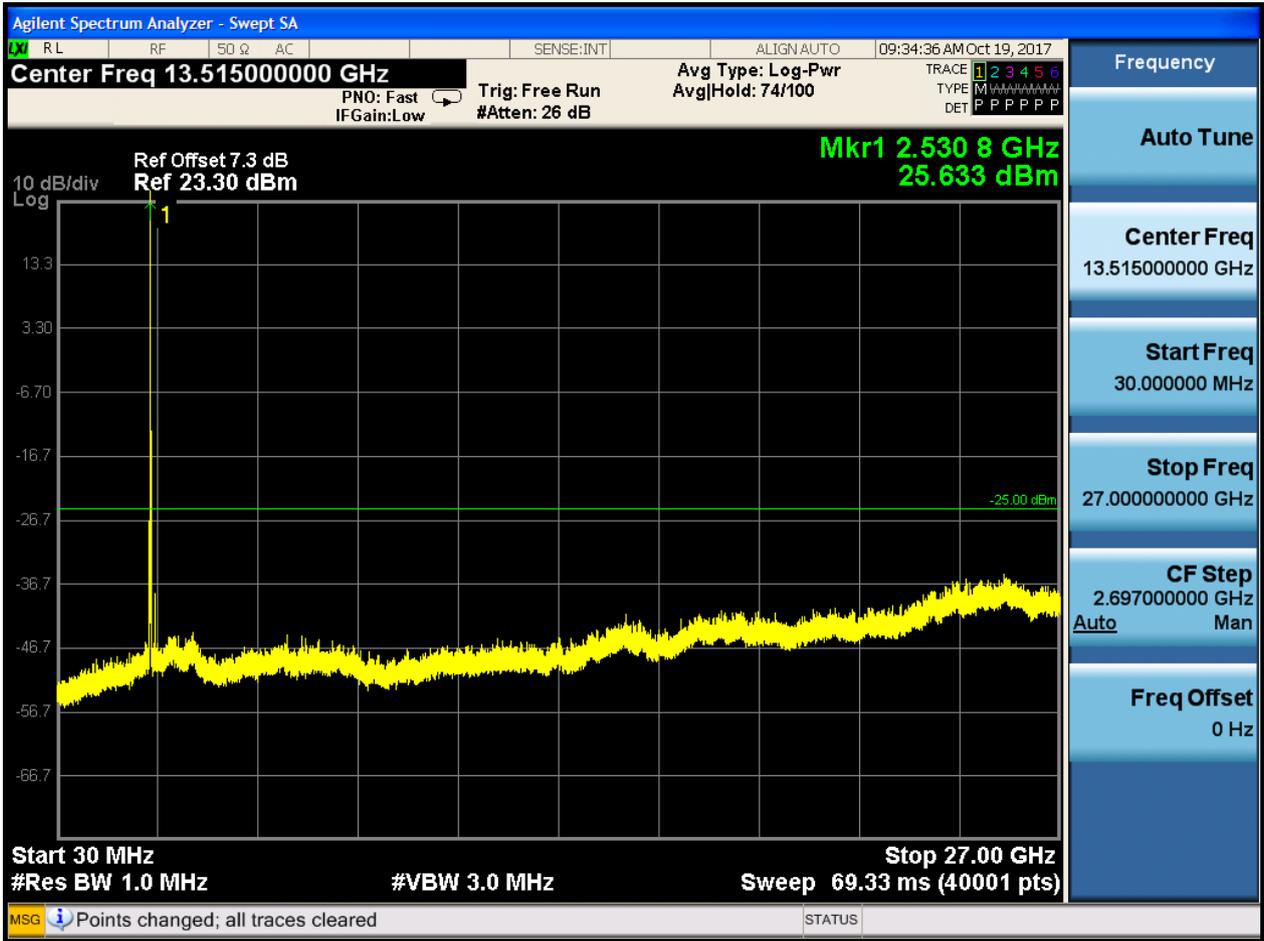


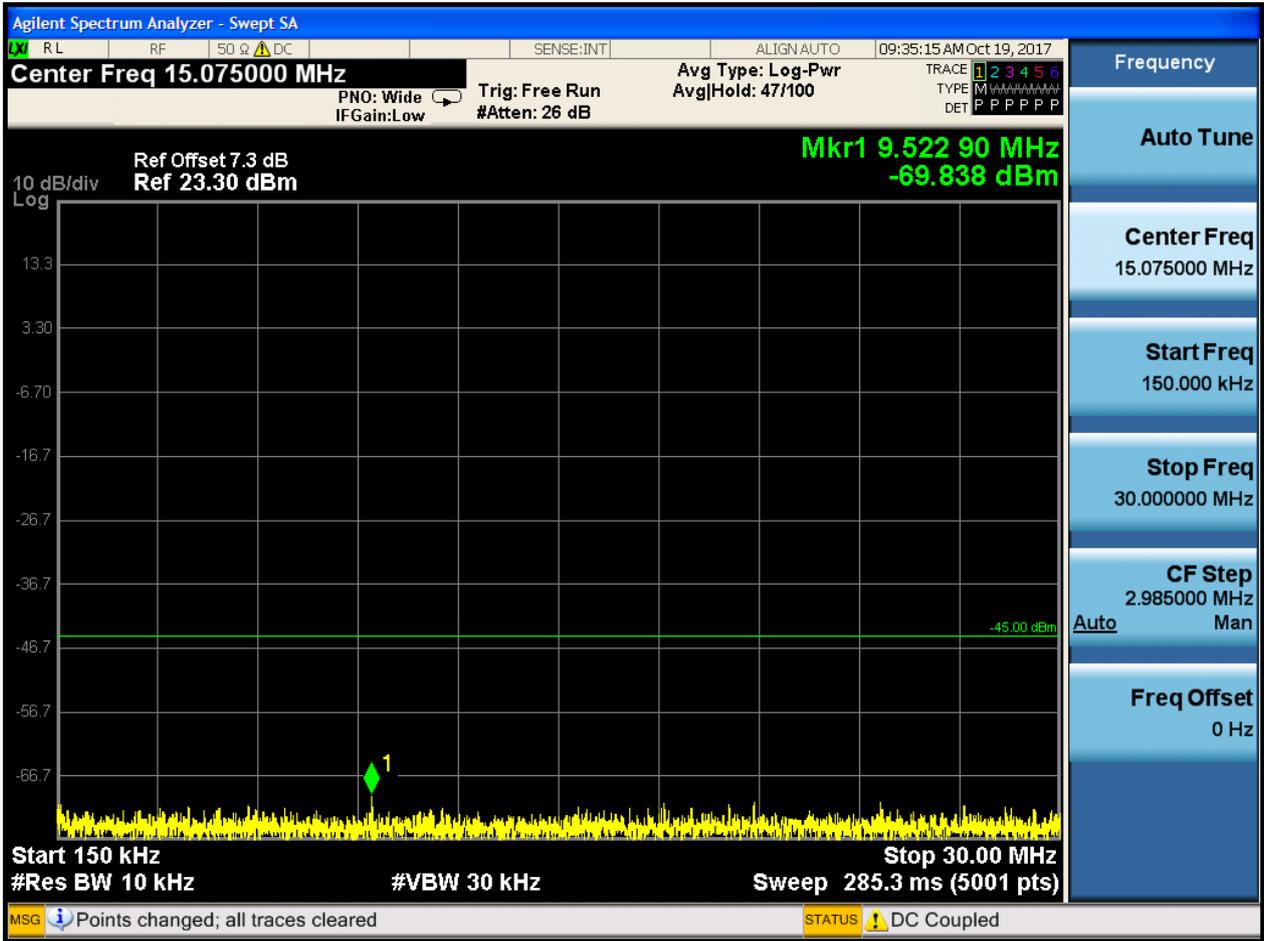
6.1.1.2.2.2 Test Channel = MCH

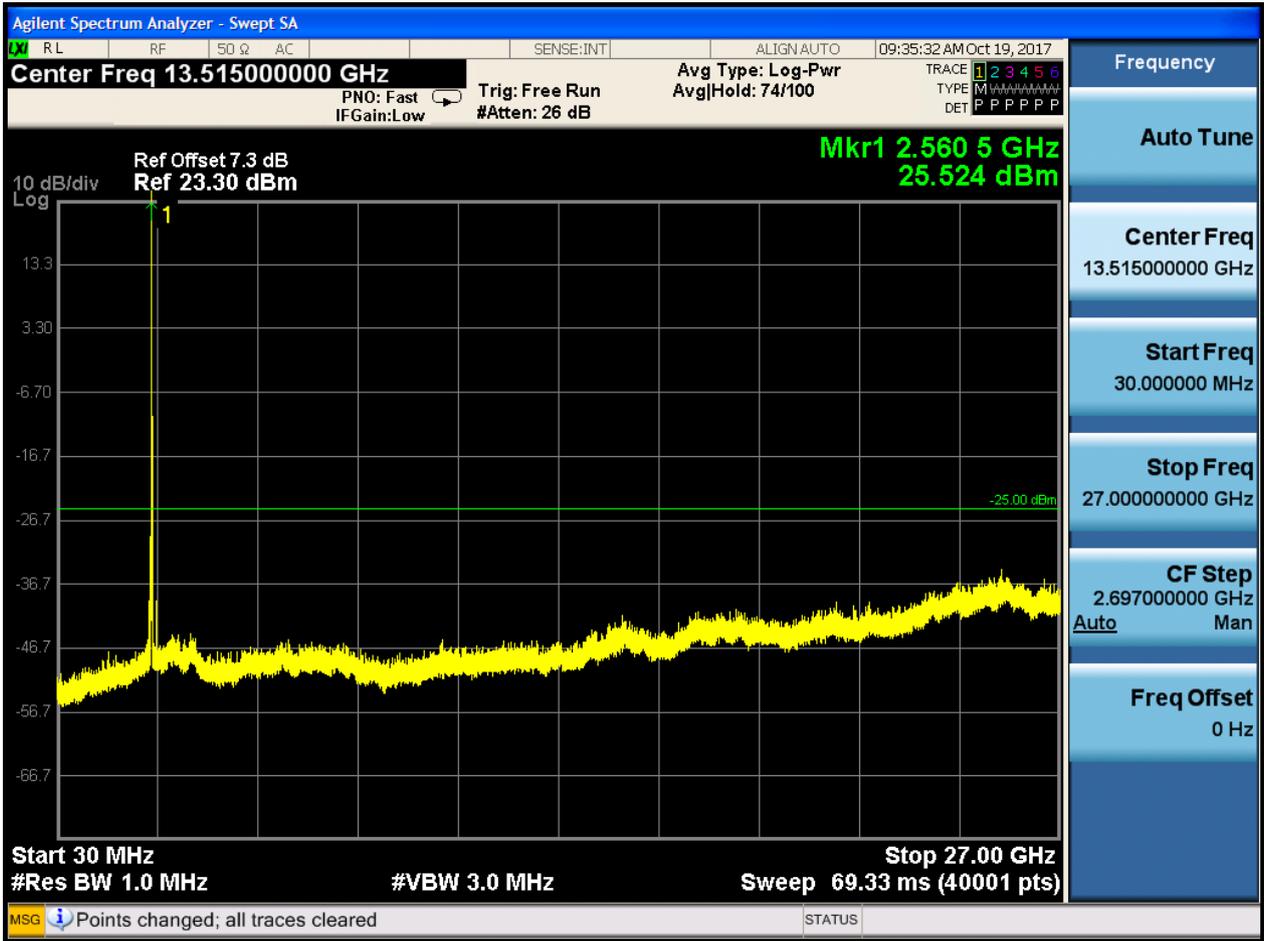
6.1.1.2.2.2.1 Test RB = RB1#0









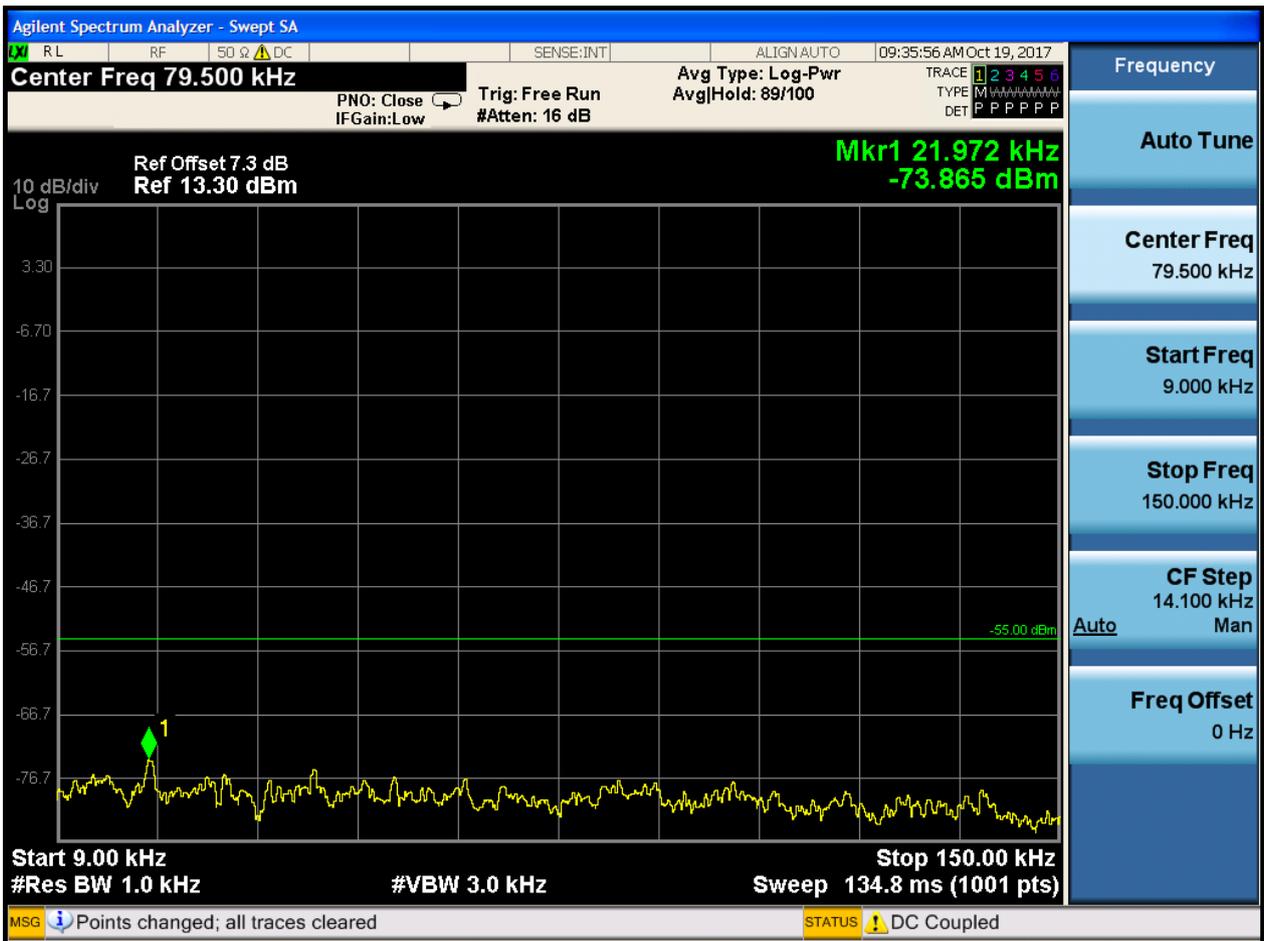


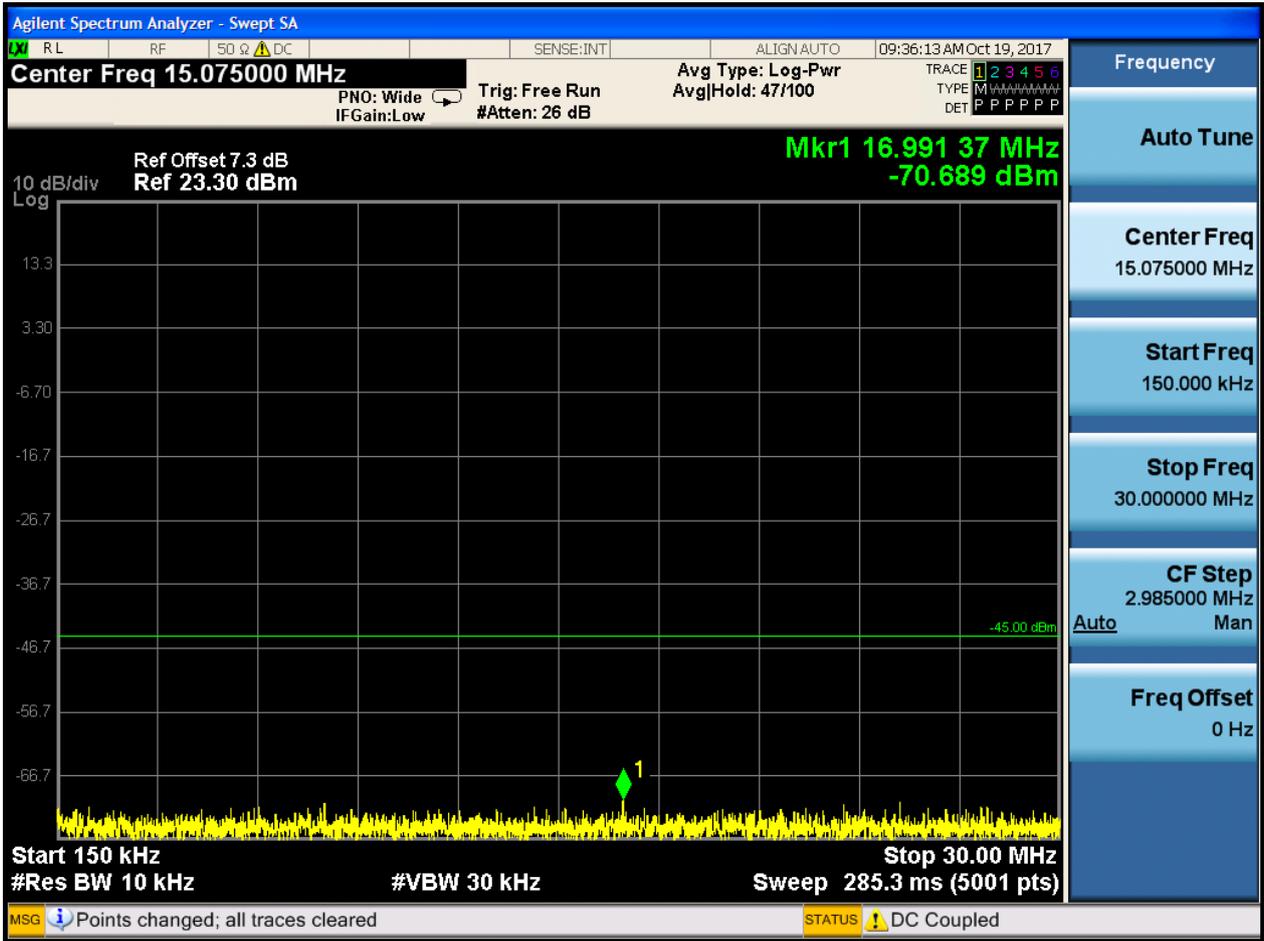


6.1.1.2.3 Test Bandwidth = 15

6.1.1.2.3.1 Test Channel = LCH

6.1.1.2.3.1.1 Test RB = RB1#0





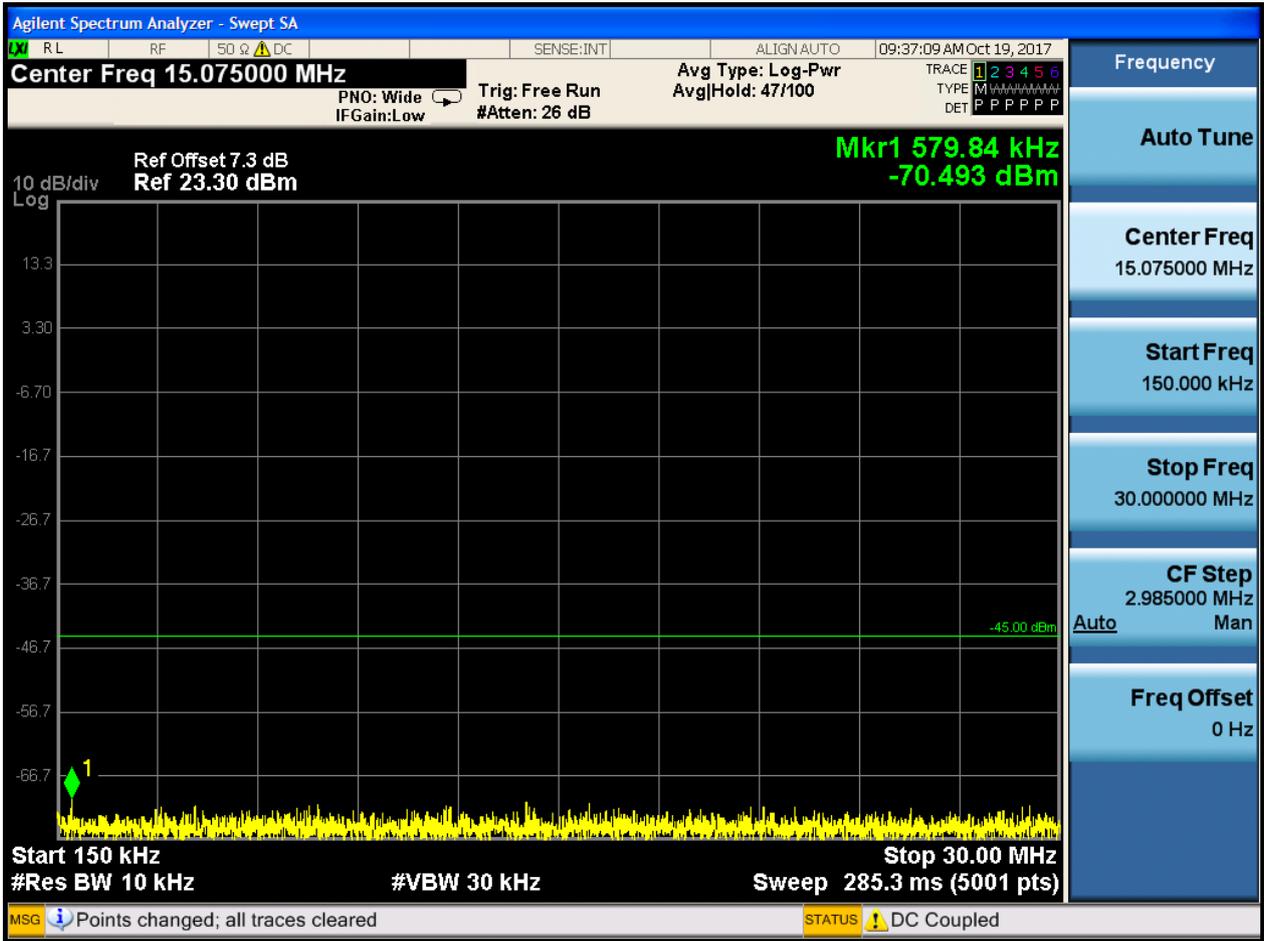


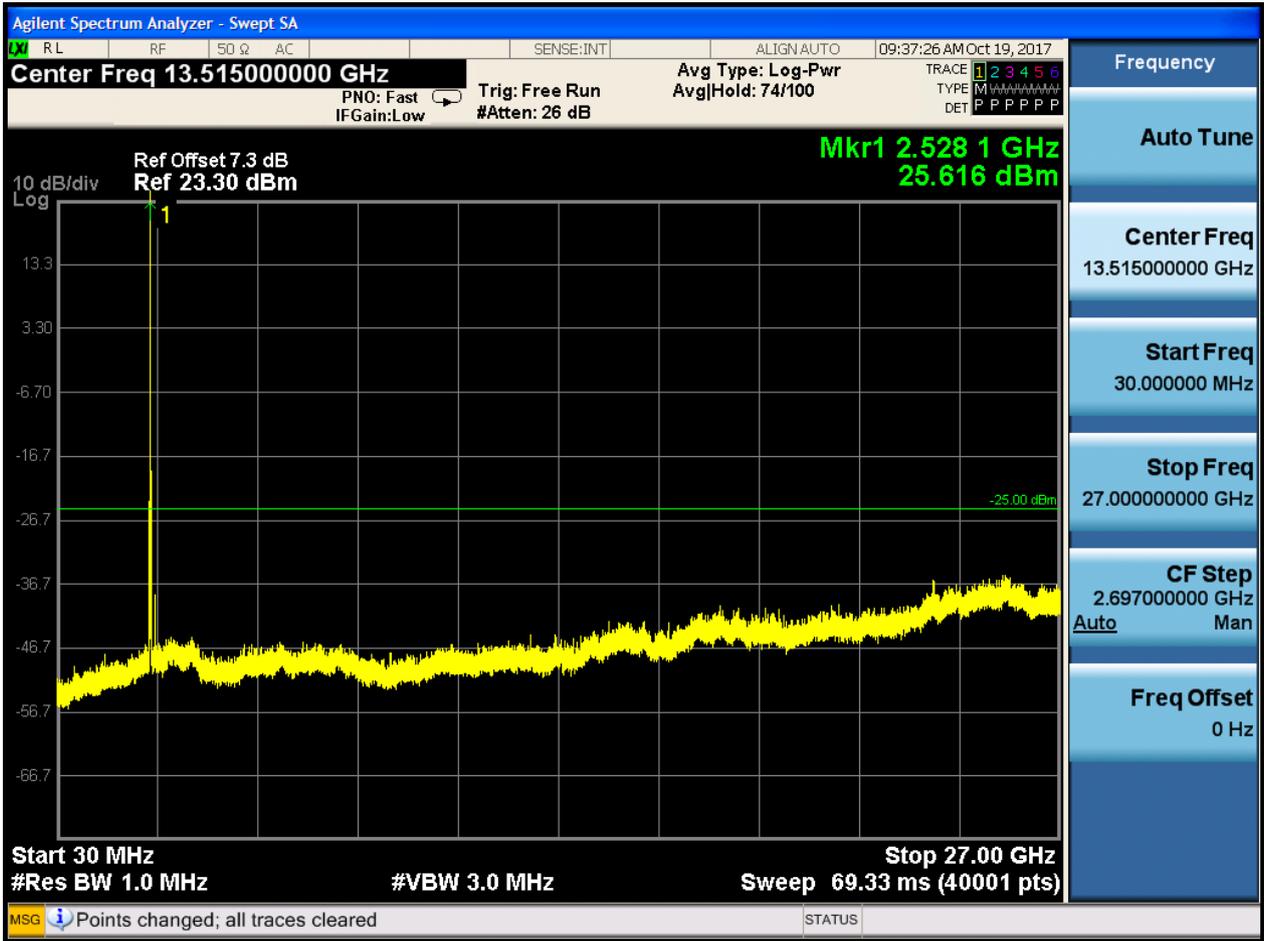


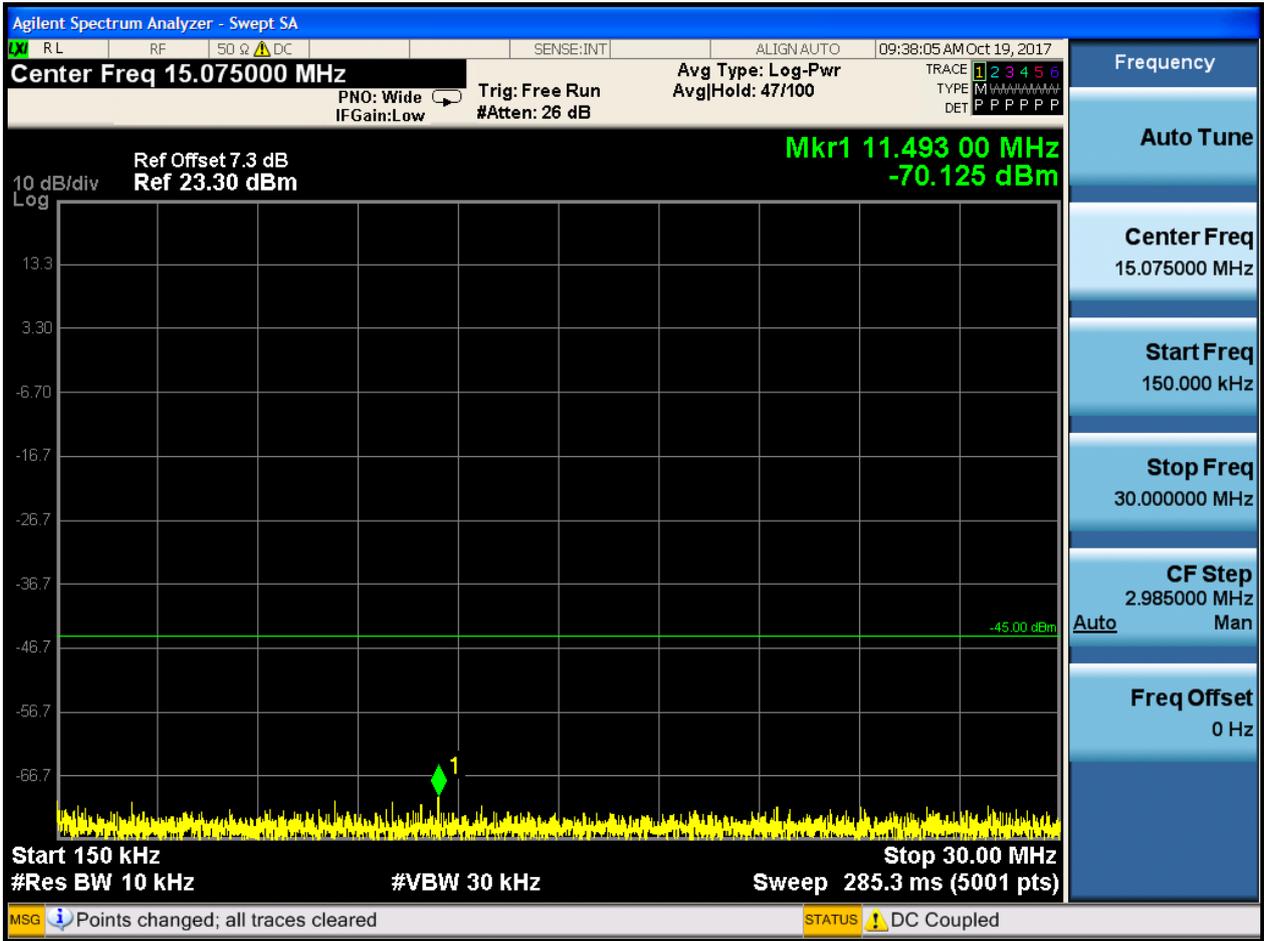
6.1.1.2.3.2 Test Channel = MCH

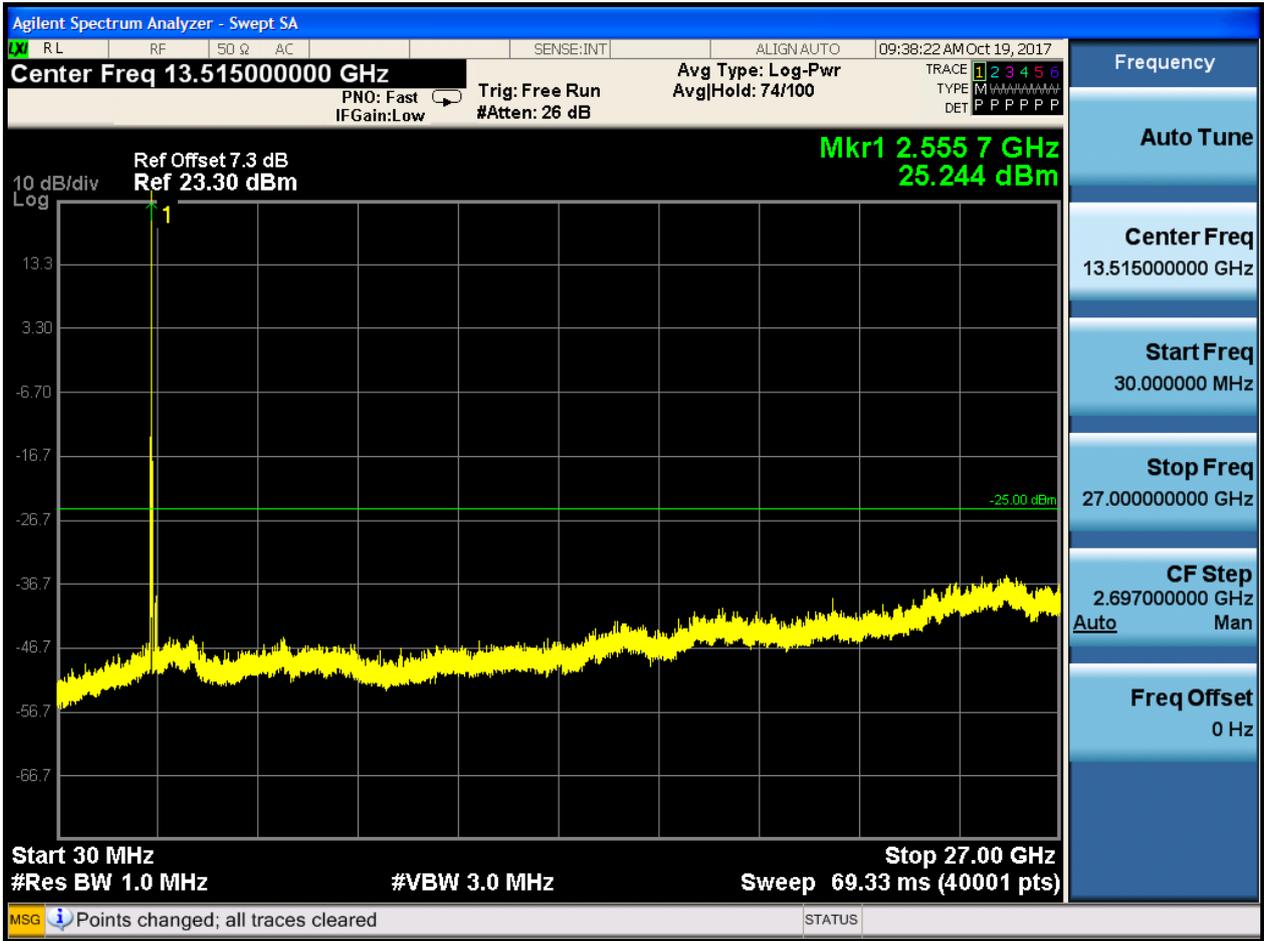
6.1.1.2.3.2.1 Test RB = RB1#0









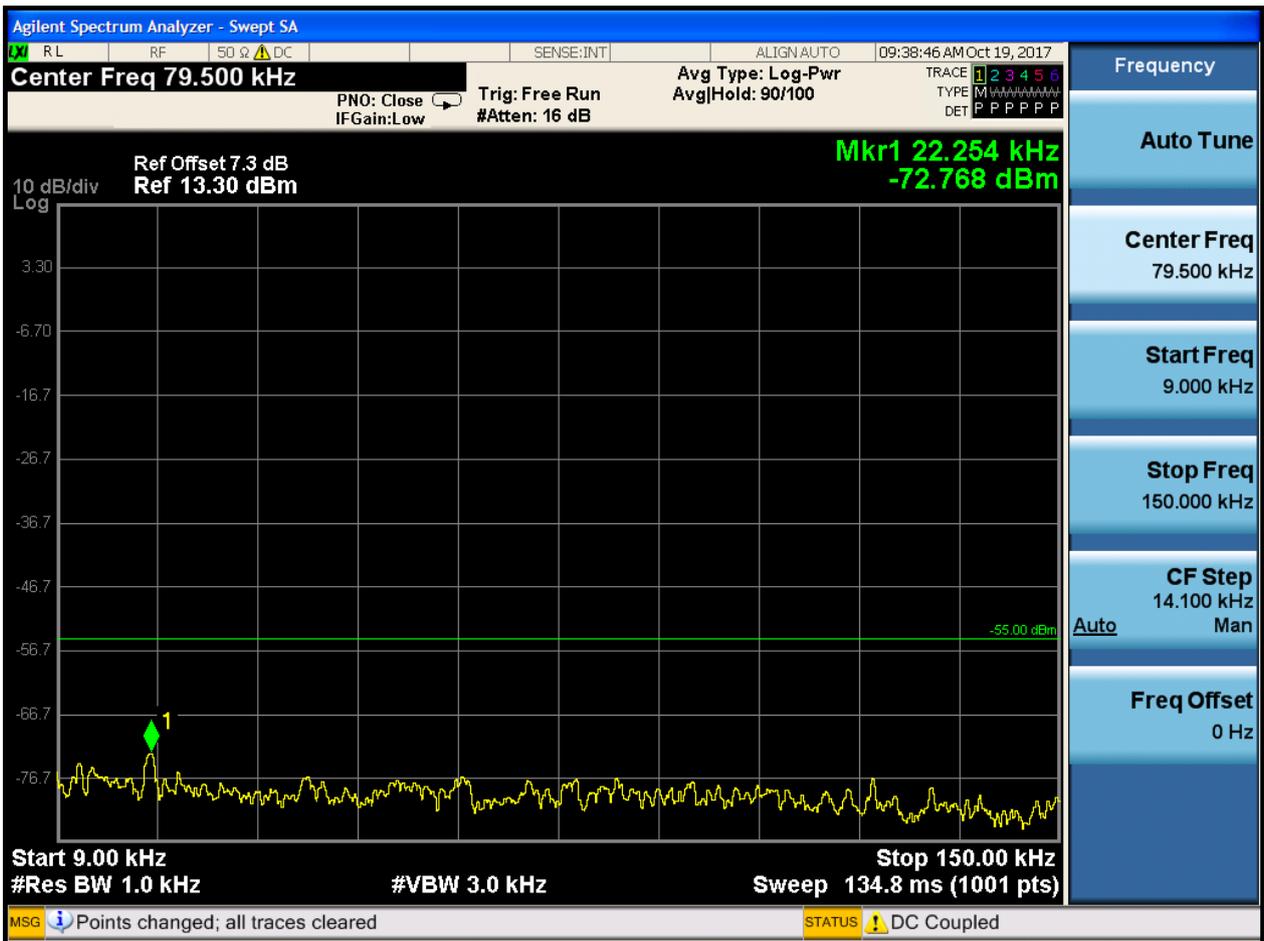




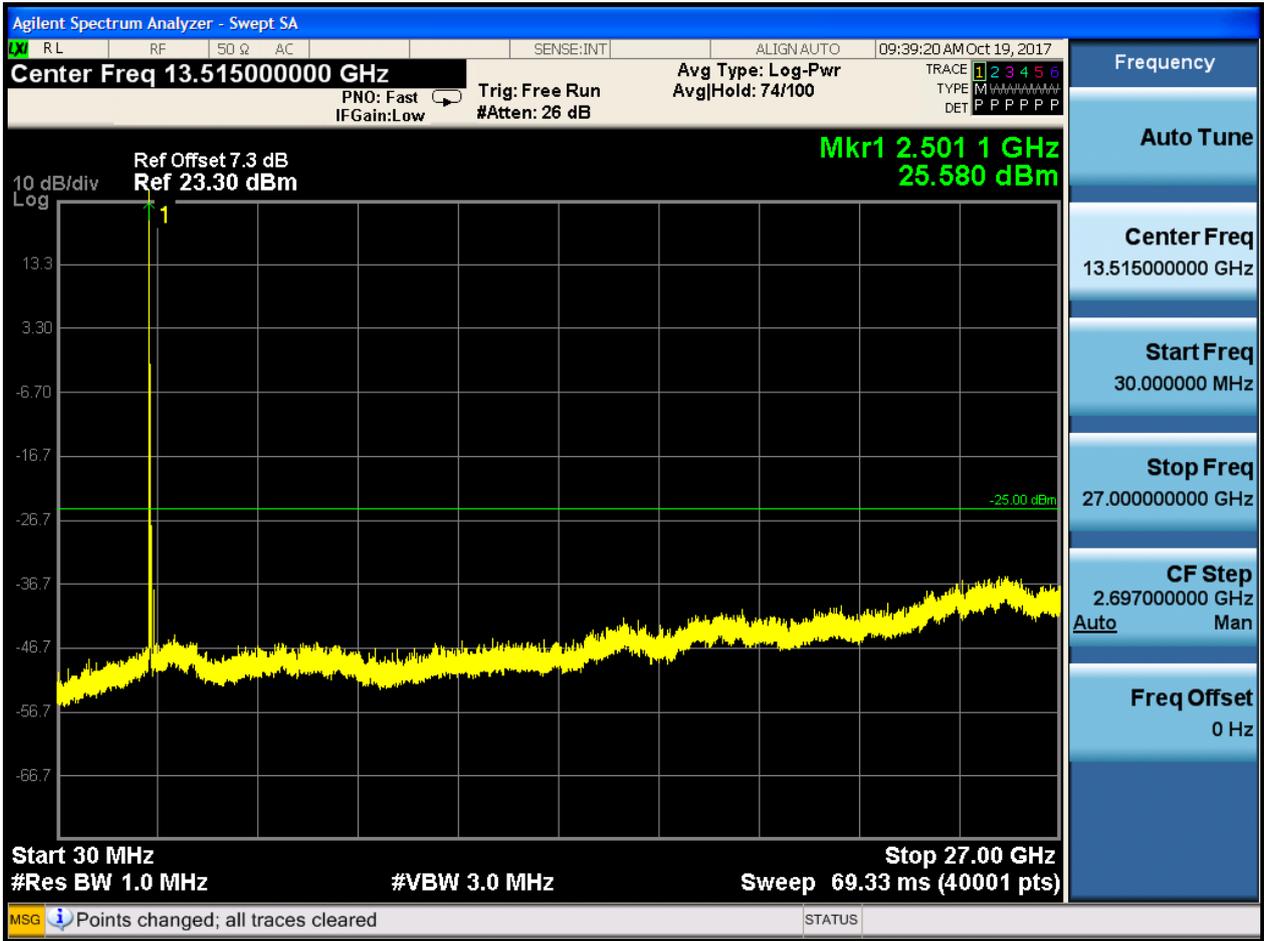
6.1.1.2.4 Test Bandwidth = 20

6.1.1.2.4.1 Test Channel = LCH

6.1.1.2.4.1.1 Test RB = RB1#0



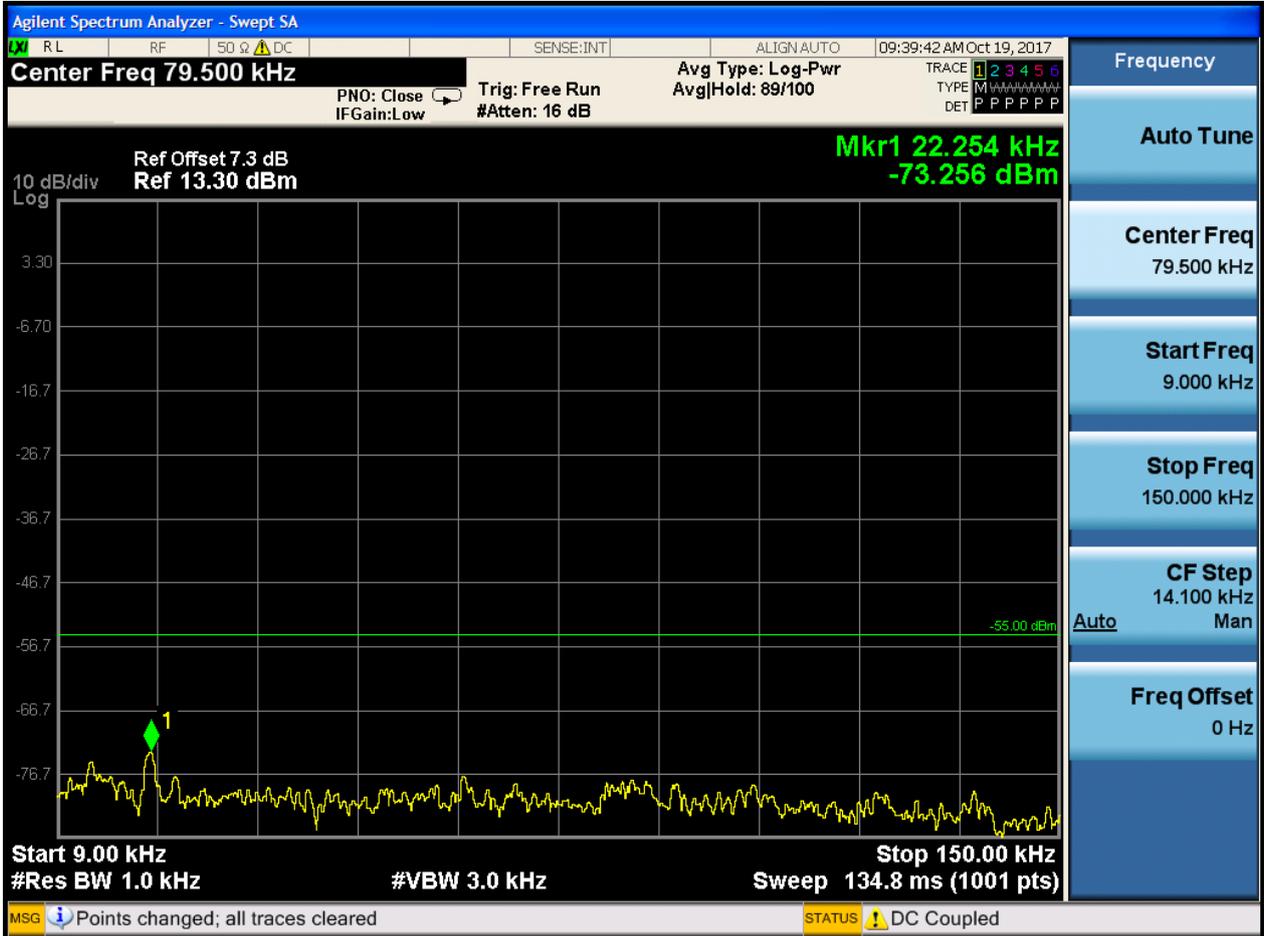


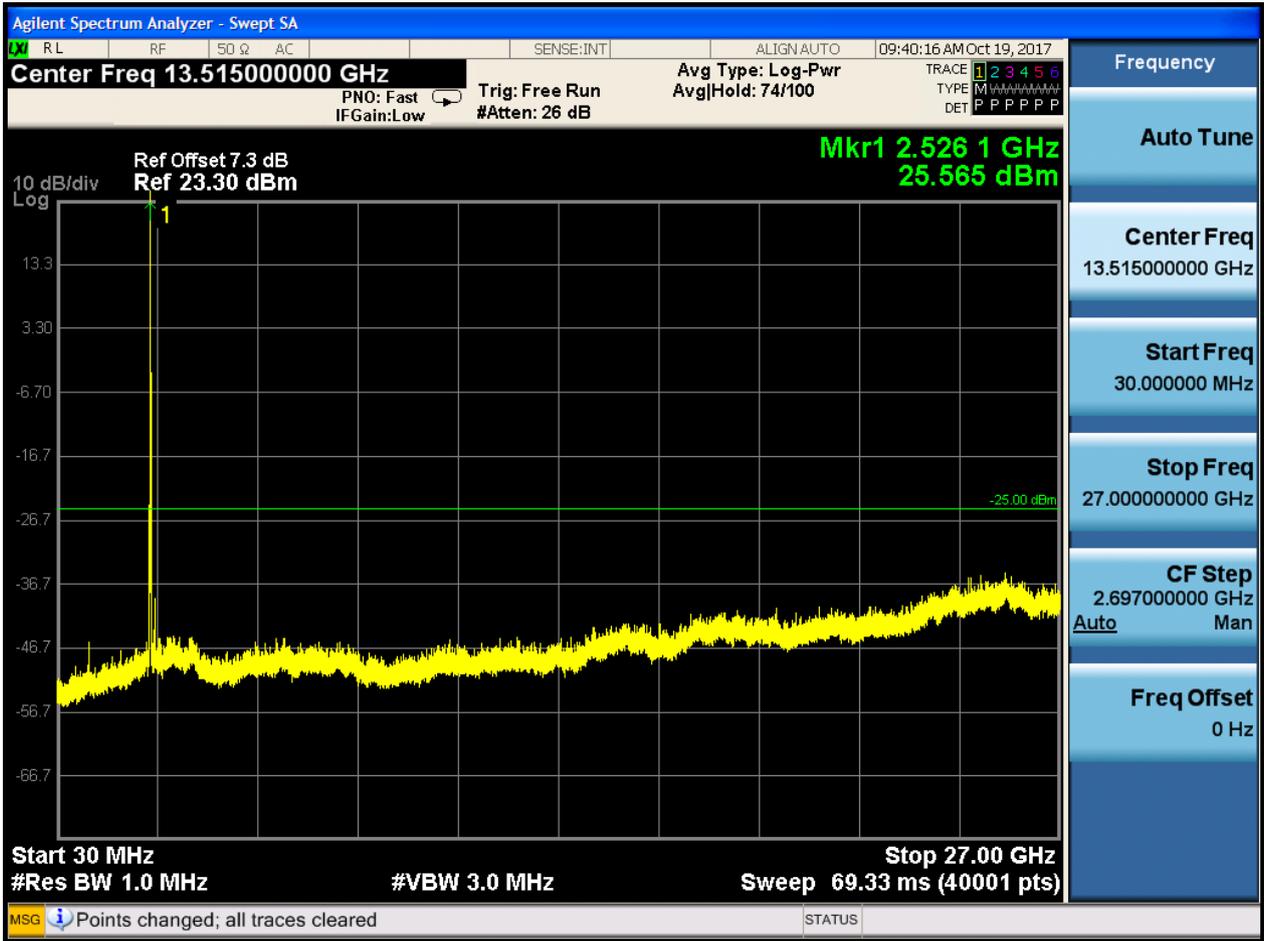




6.1.1.2.4.2 Test Channel = MCH

6.1.1.2.4.2.1 Test RB = RB1#0

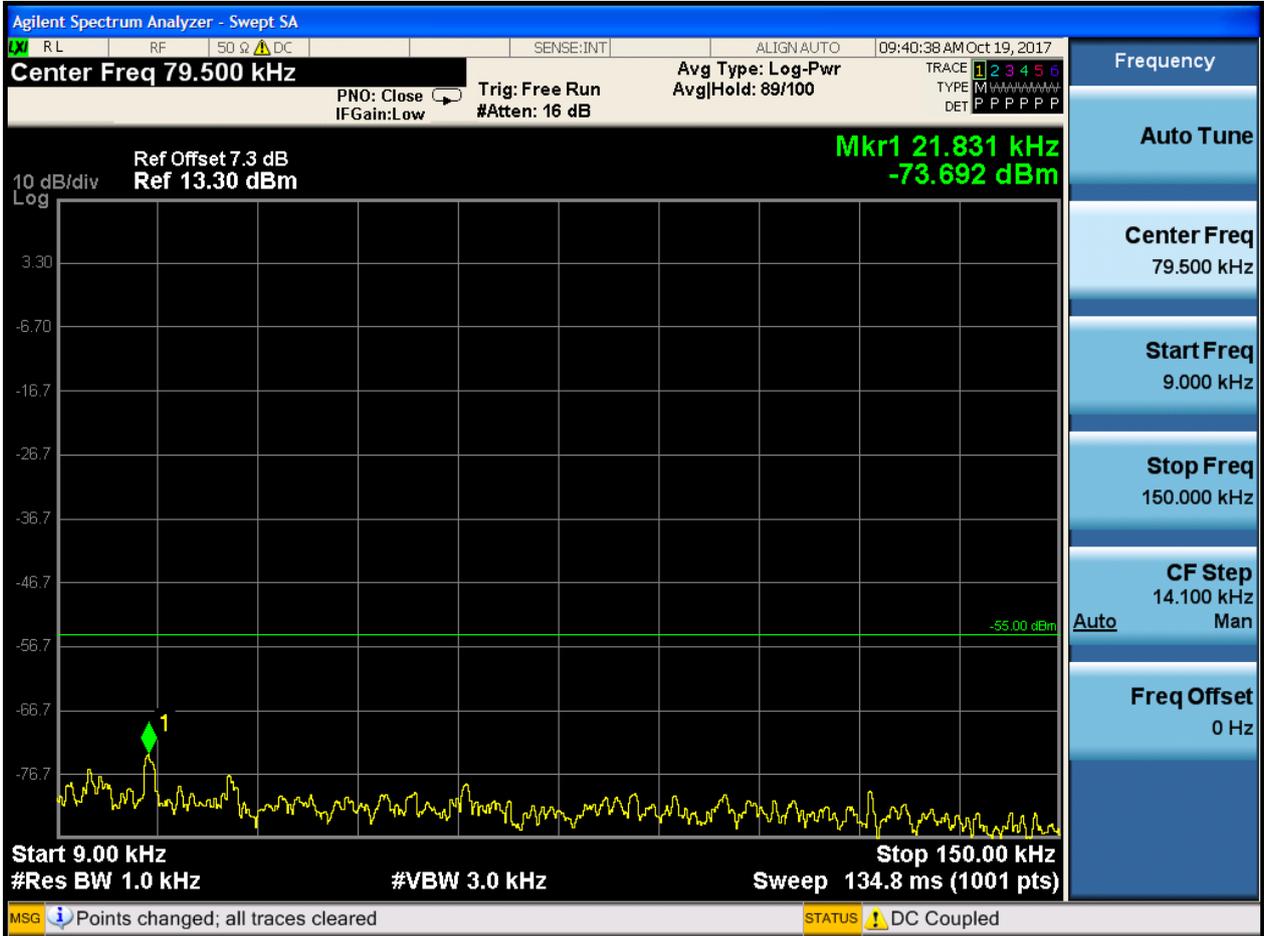


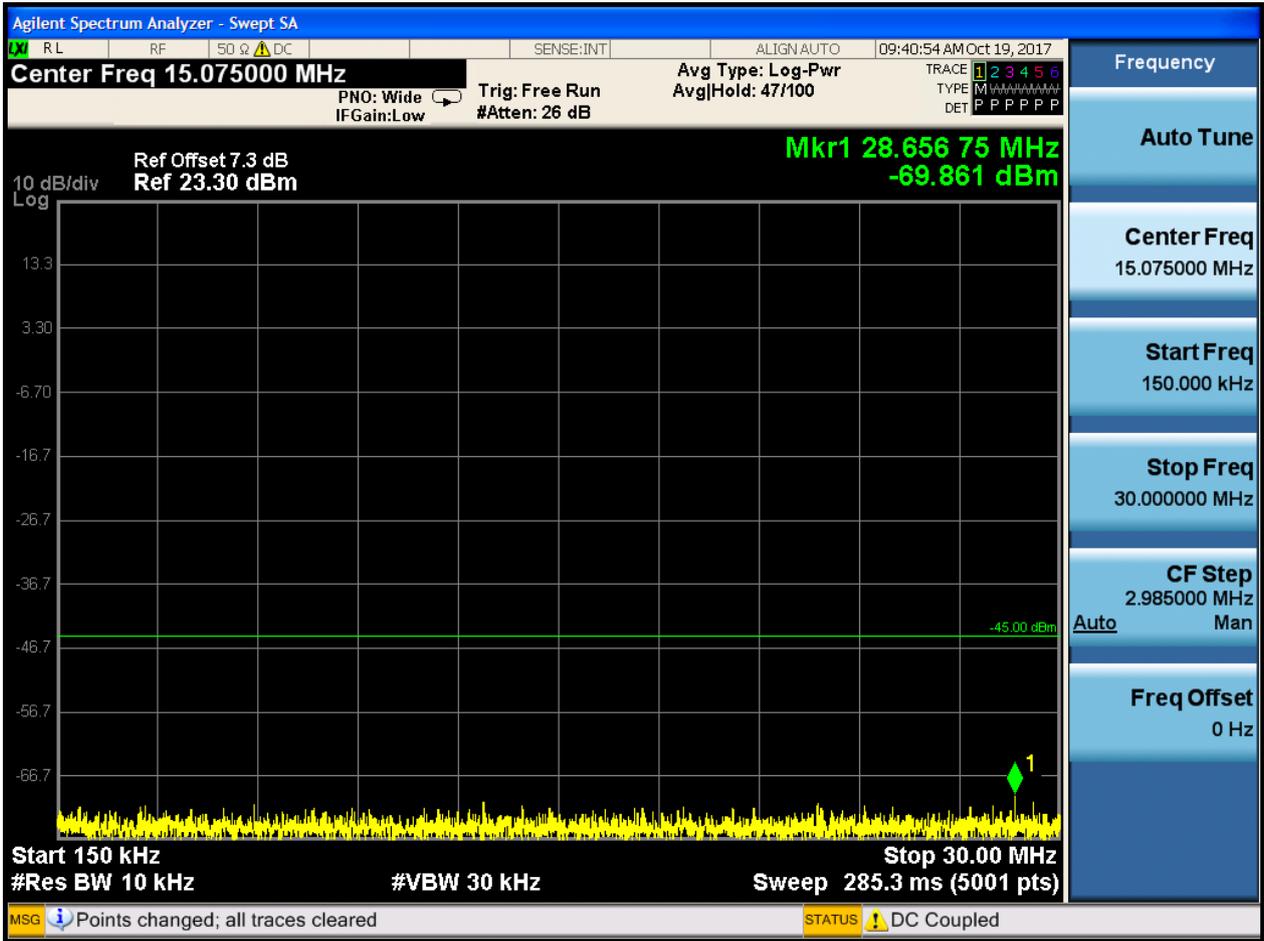


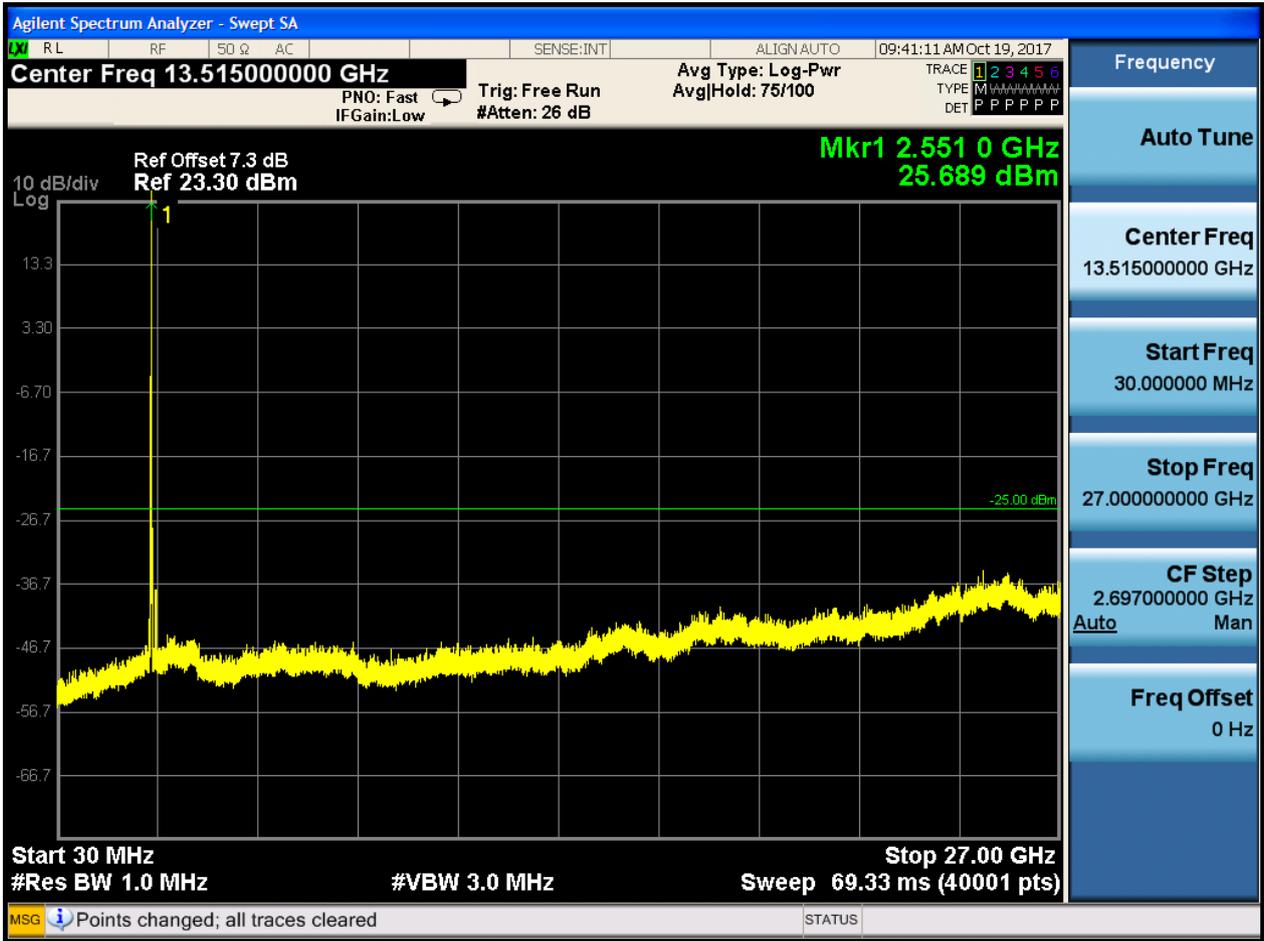


6.1.1.2.4.3 Test Channel = HCH

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, RBW = 200Hz, VBW = 600 Hz, Detector: PK

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

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

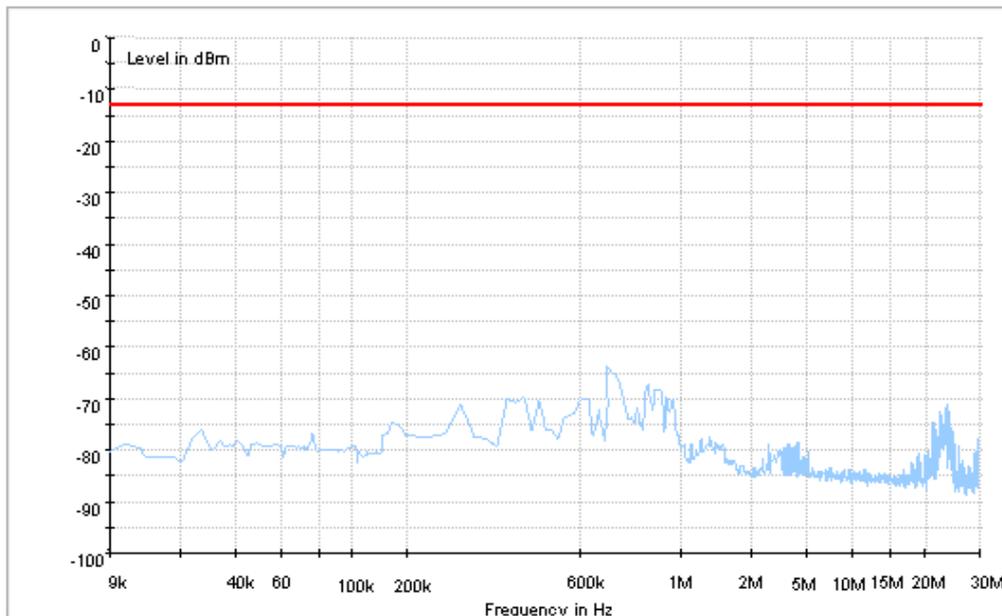
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Part I - Test Plots

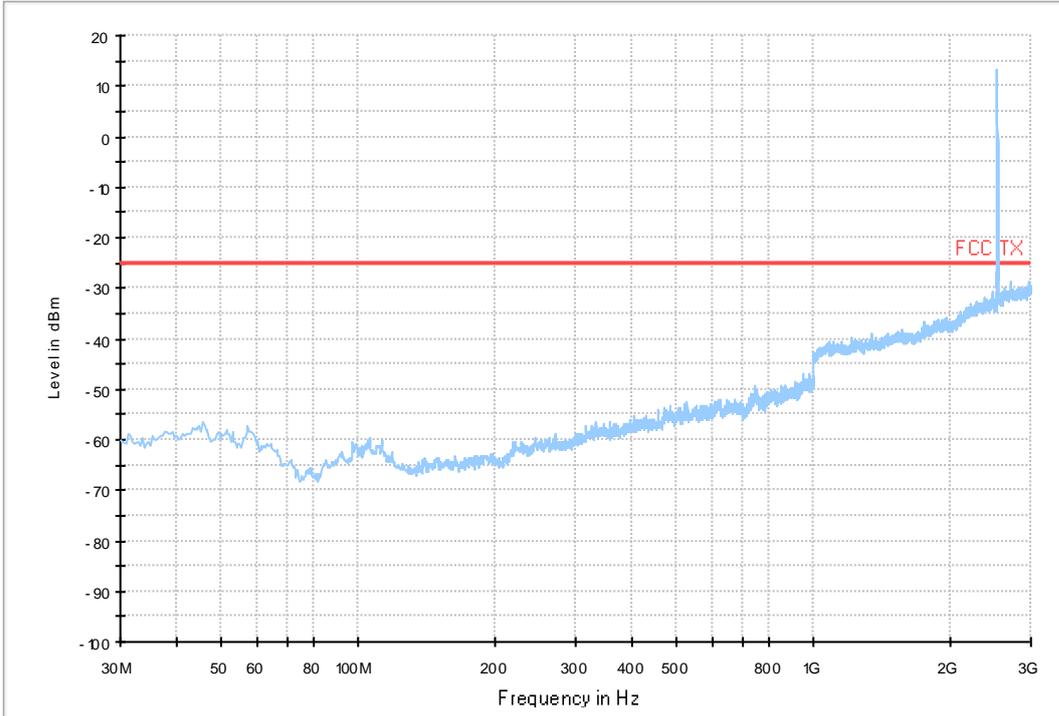
7.1 For LTE

7.1.1 Test Band = BAND7_ANT1

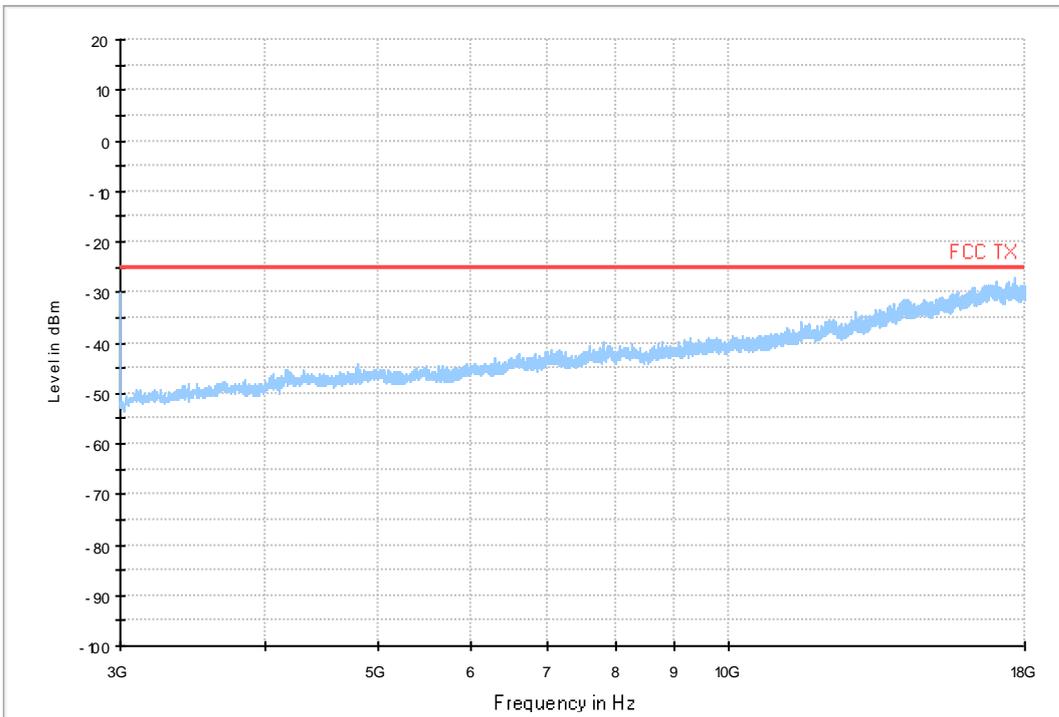
7.1.1.1 Test Bandwidth = 5

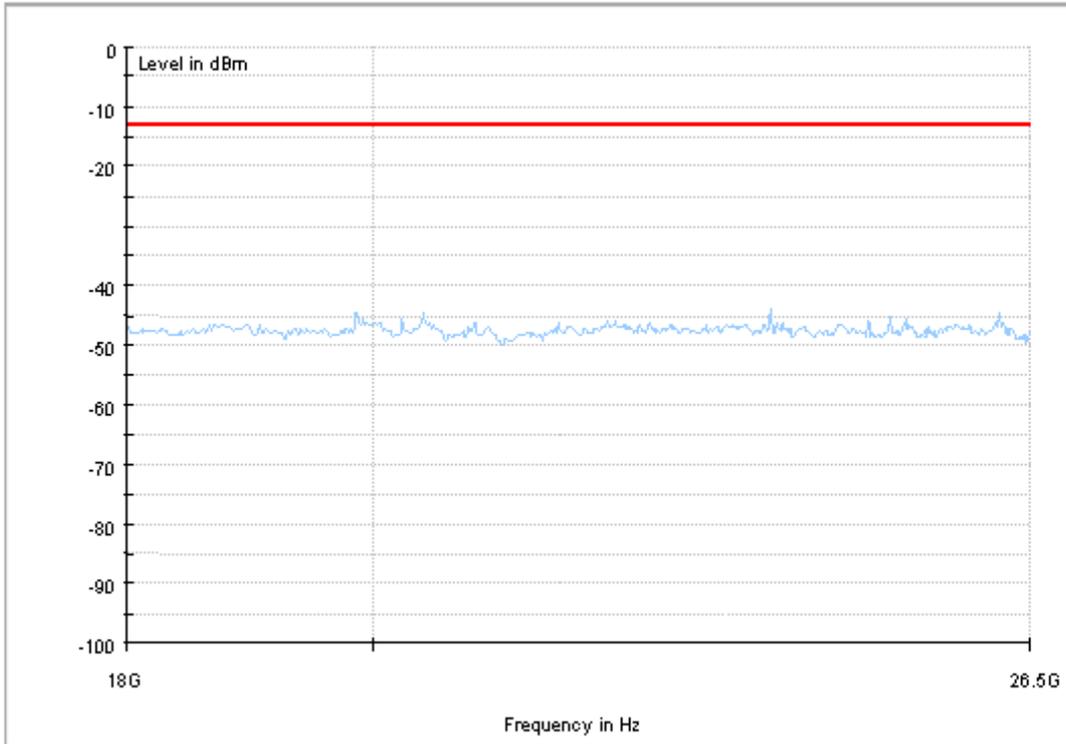


RSE-TXDIRECTOR LTE 73841_L

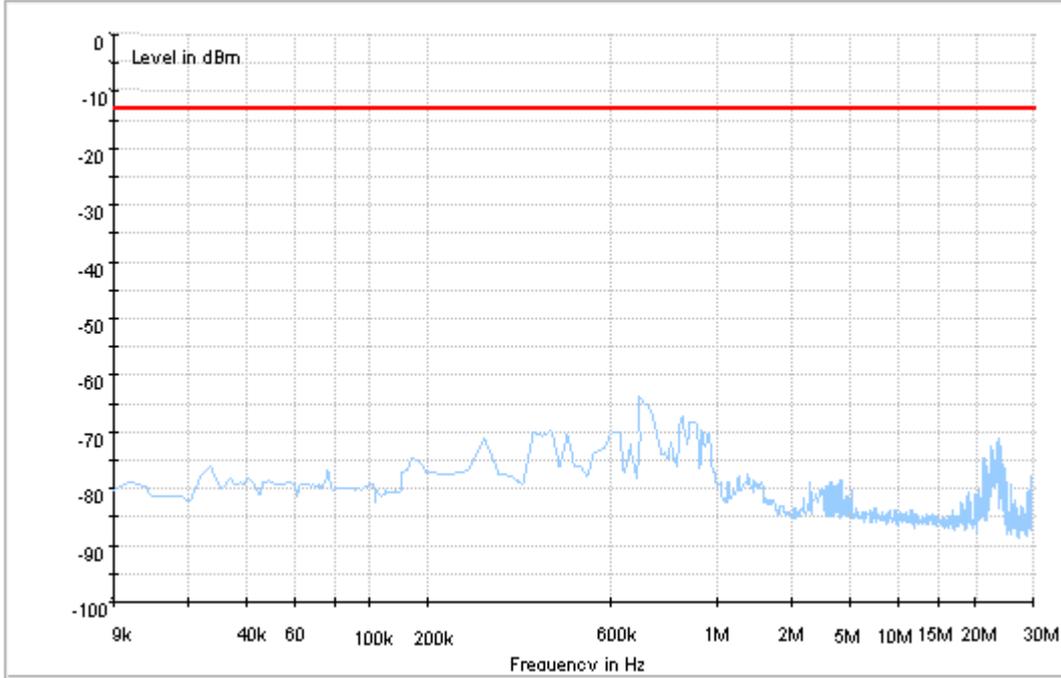


RSE-TXDIRECTOR LTE 73841_H

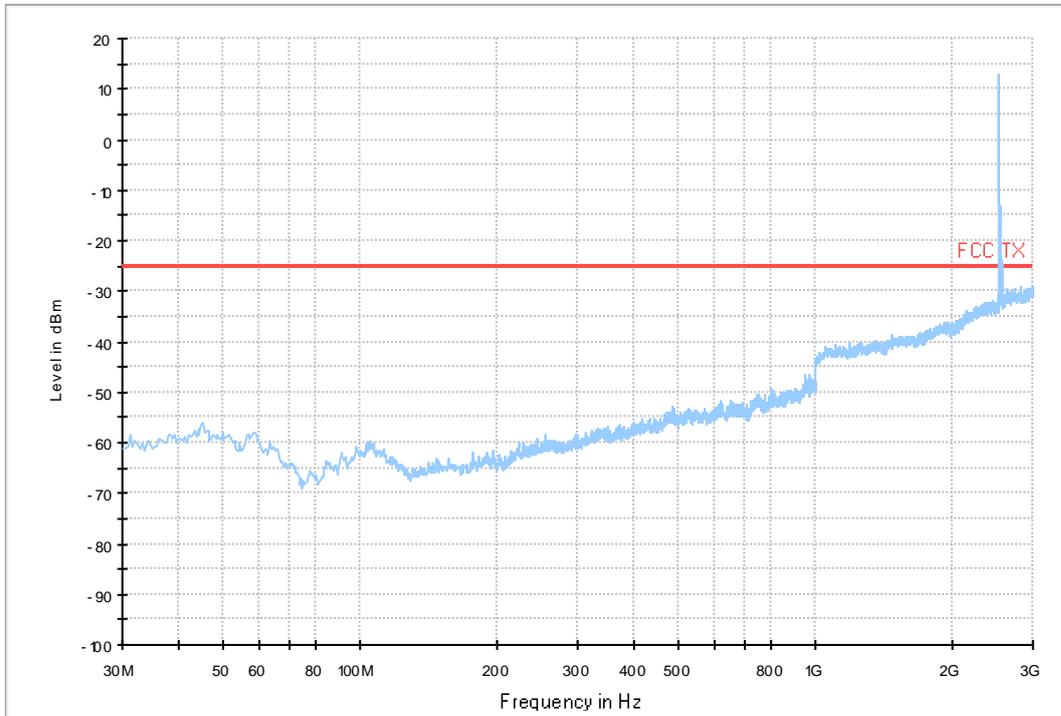




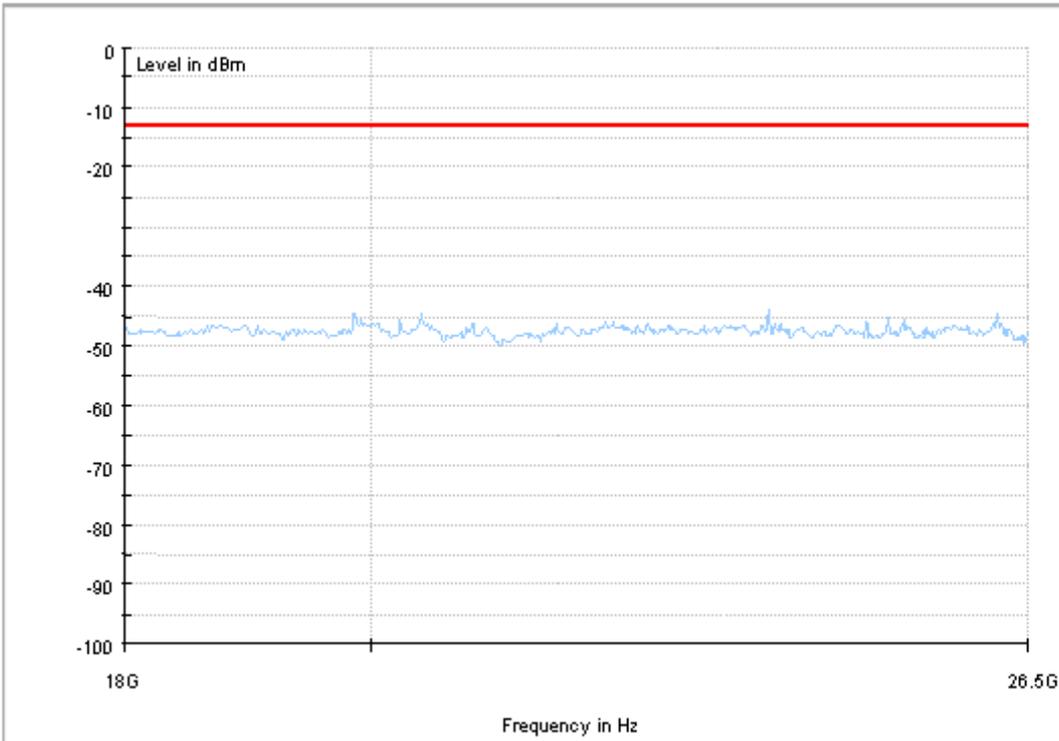
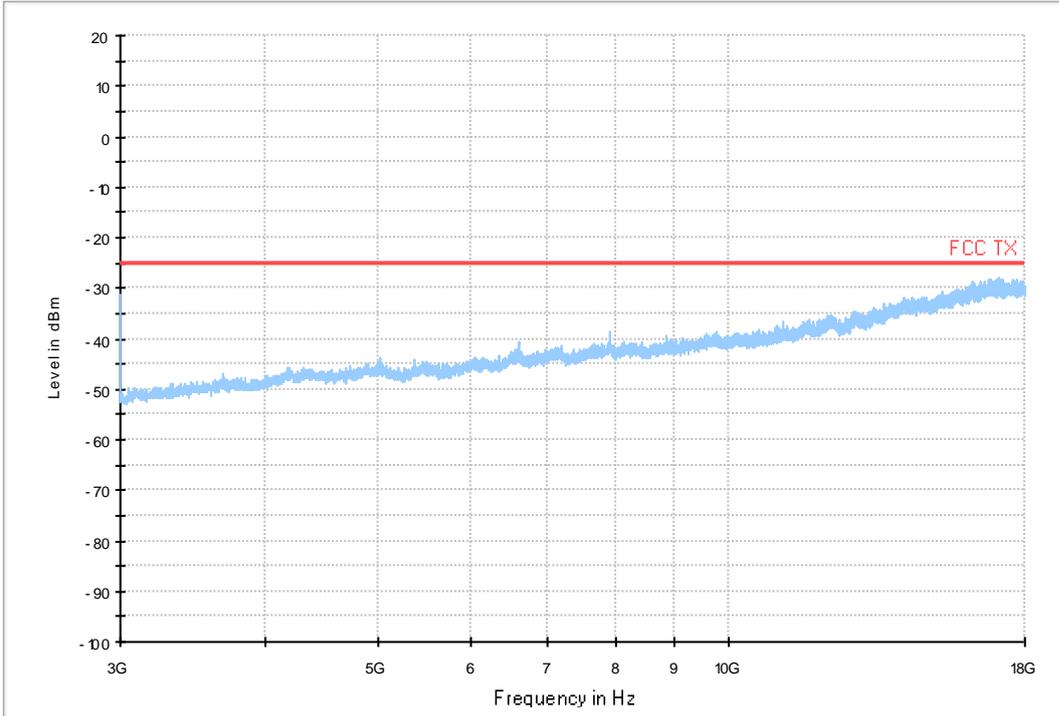
7.1.1.2 Test Bandwidth = 20



RSE-TX-DIRECTOR LTE 73841_L

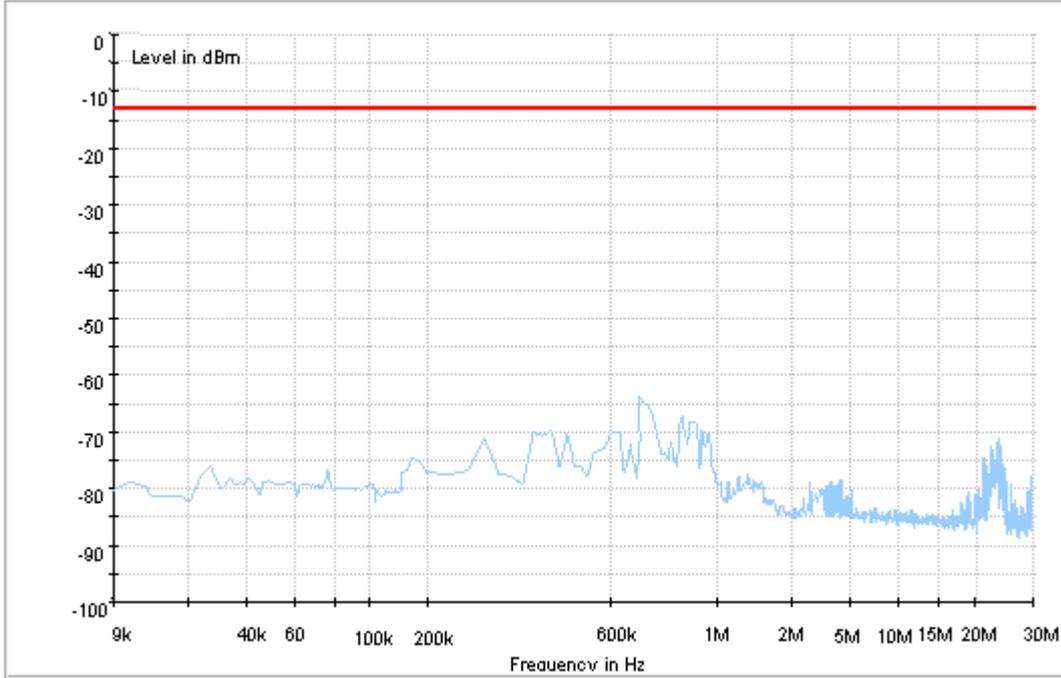


RSE-TXDIRECTOR LTE73841_H

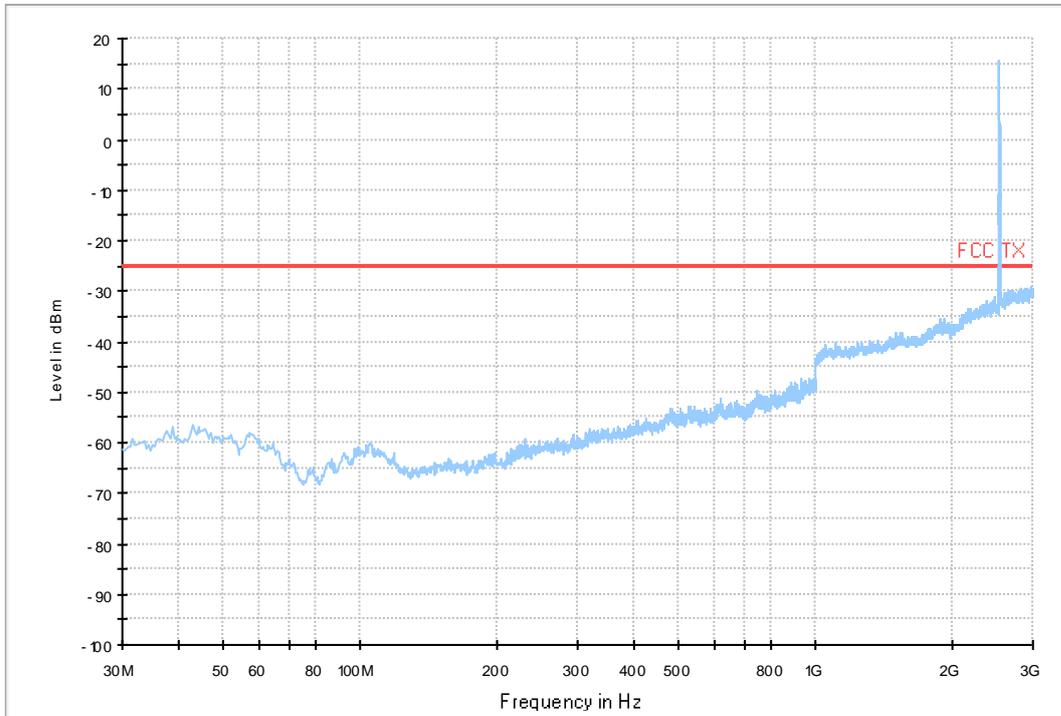


7.1.2 Test Band = BAND7_ANT2

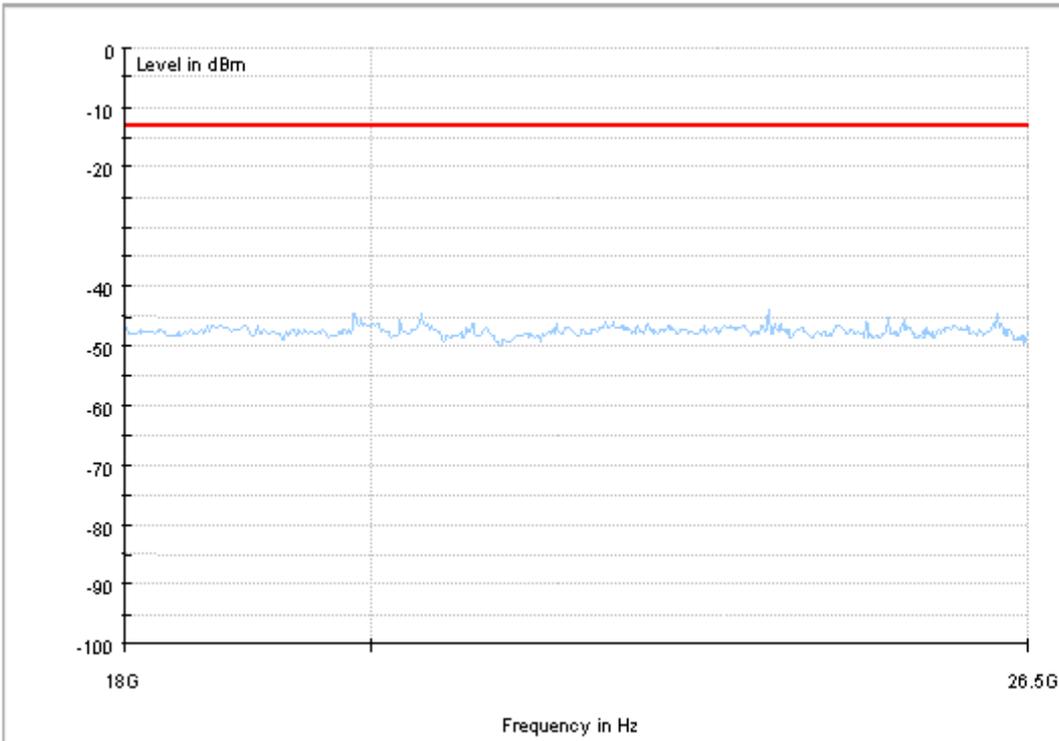
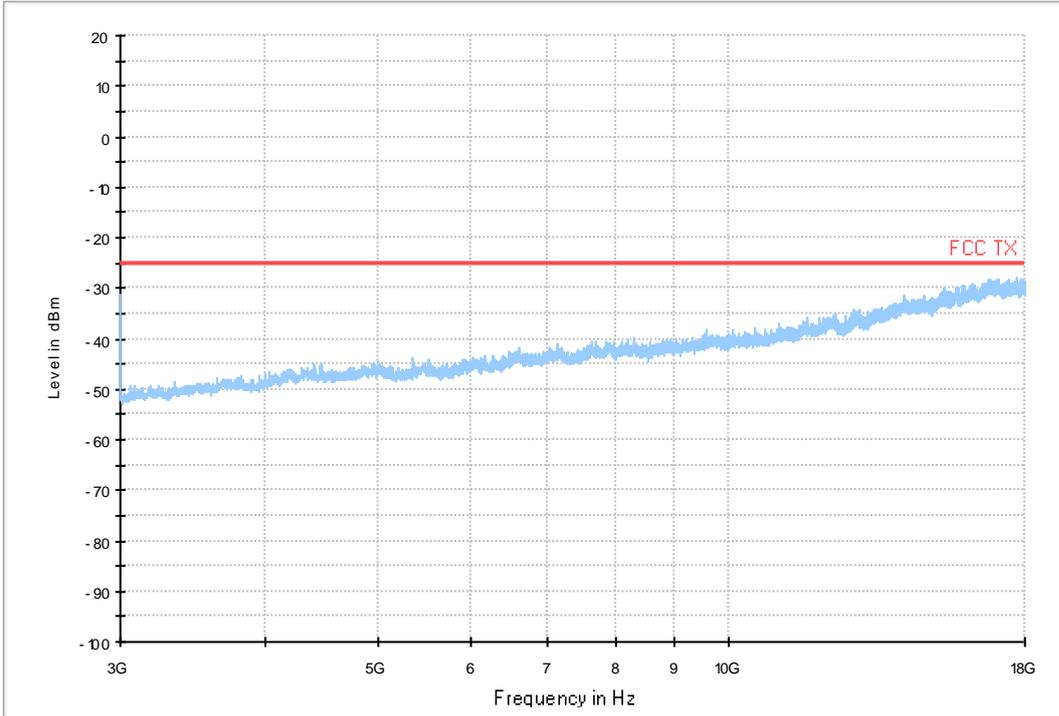
7.1.2.1 Test Bandwidth = 5



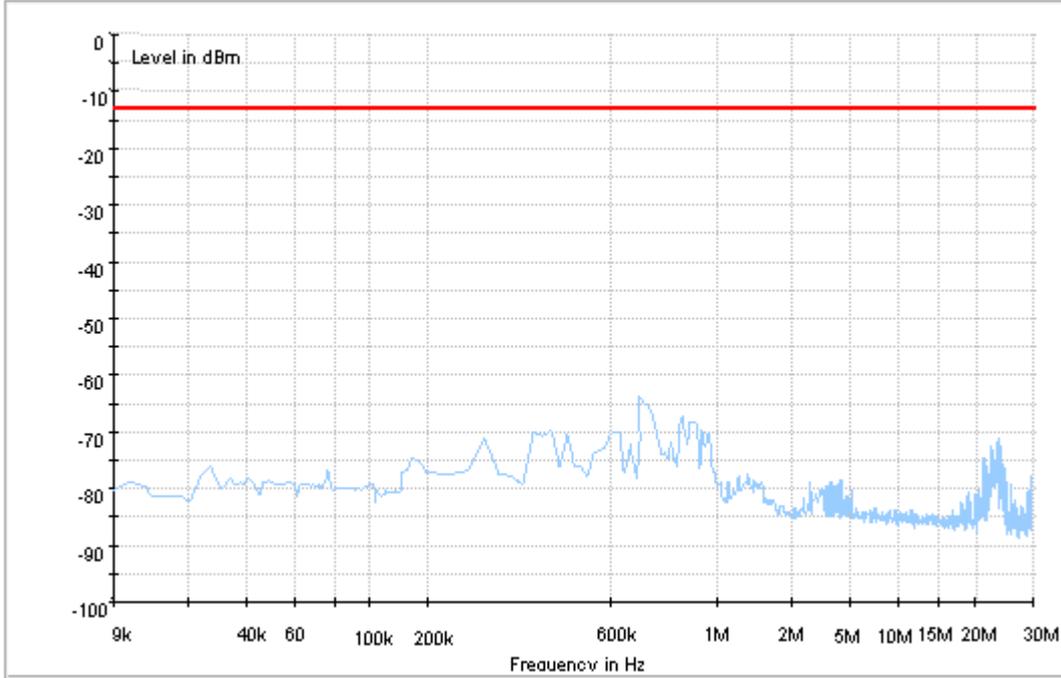
RSE-TXDIRECTOR LTE 73841_L



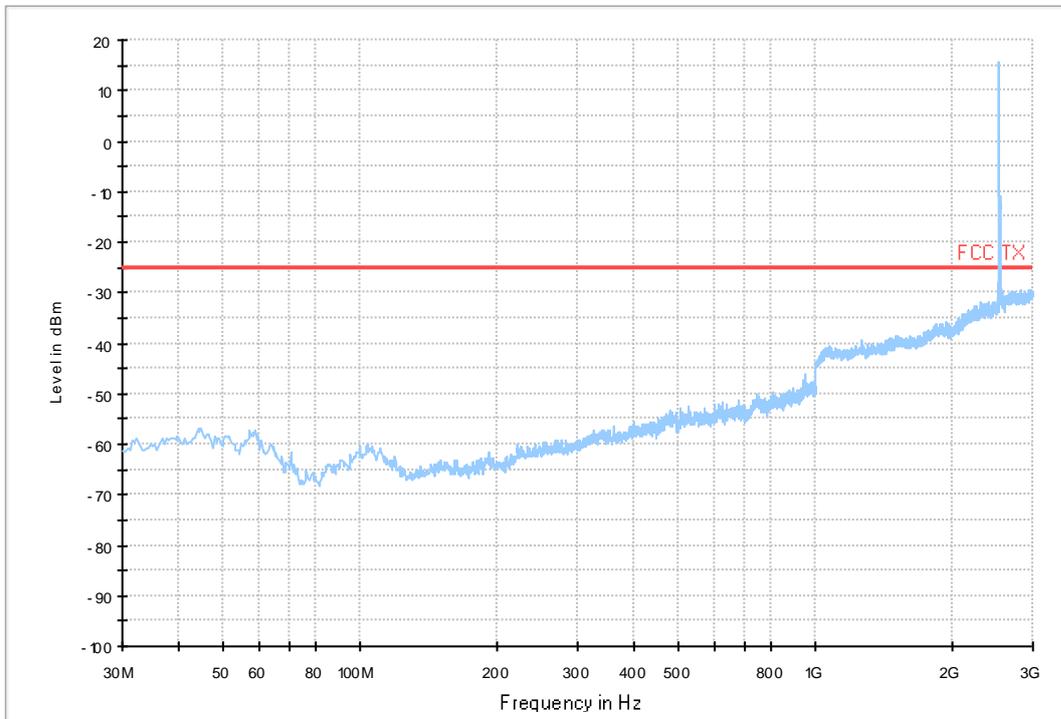
RSE-TXDIRECTOR LTE73841_H



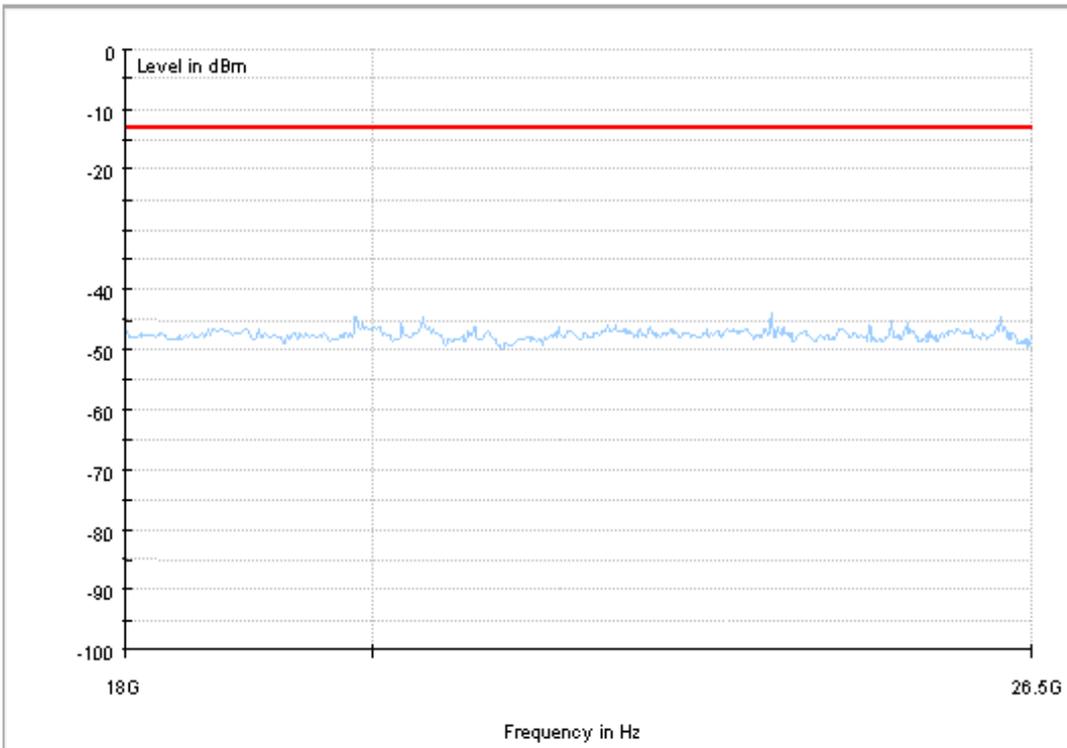
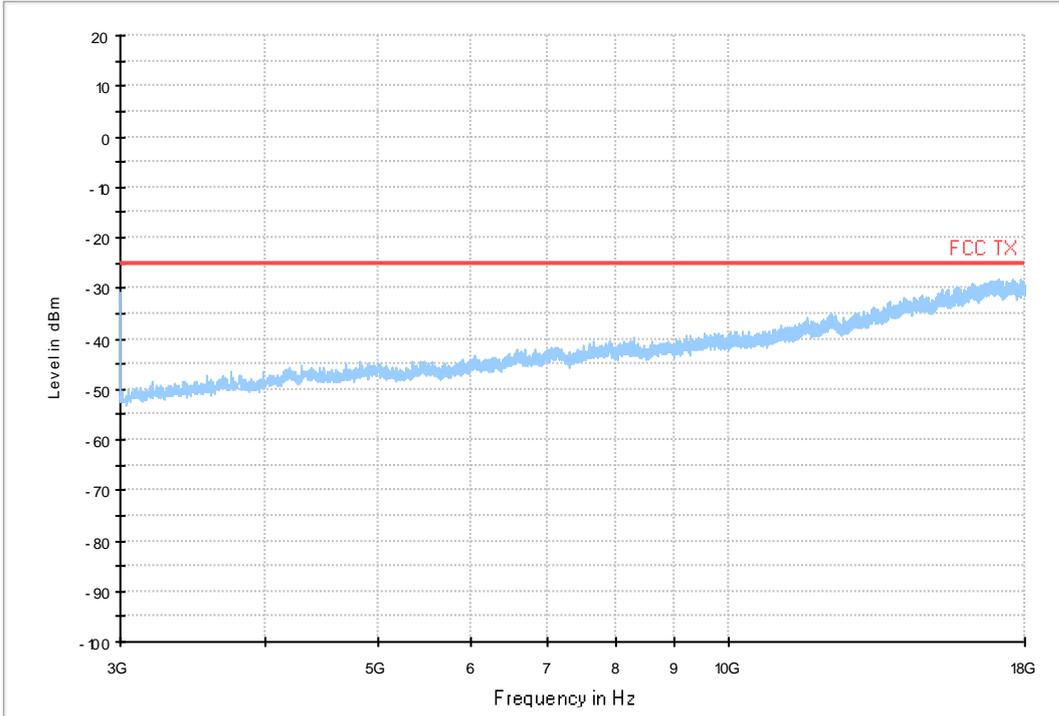
7.1.2.2 Test Bandwidth = 20



RSE-TX:DIRECTOR LTE 7 38 41_L



RSE-TXDIRECTOR LTE73841_H



8Appendix_H: Frequency Stability

8.1 For LTE

8.1.1Frequency Error vs. Voltage:

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
BAND7	LTE/TM1	5	LCH	TN	VL	-3.43	-0.00137	PASS
					VN	-0.19	-0.00008	PASS
					VH	1.93	0.00077	PASS
			MCH	TN	VL	-18.70	-0.00738	PASS
					VN	-7.20	-0.00284	PASS
					VH	-5.52	-0.00218	PASS
			HCH	TN	VL	1.34	0.00052	PASS
					VN	-8.33	-0.00324	PASS
					VH	-1.66	-0.00065	PASS
		10	LCH	TN	VL	0.09	0.00004	PASS
					VN	-6.68	-0.00267	PASS
					VH	-0.87	-0.00035	PASS
			MCH	TN	VL	-0.47	-0.00019	PASS
					VN	-2.88	-0.00114	PASS
					VH	0.31	0.00012	PASS
			HCH	TN	VL	-6.52	-0.00254	PASS
					VN	-1.06	-0.00041	PASS
					VH	1.56	0.00061	PASS
		15	LCH	TN	VL	-0.82	-0.00033	PASS
					VN	1.42	0.00057	PASS
					VH	1.23	0.00049	PASS
			MCH	TN	VL	5.61	0.00221	PASS
					VN	-2.60	-0.00103	PASS
					VH	2.37	0.00093	PASS
			HCH	TN	VL	-3.40	-0.00133	PASS
					VN	-3.48	-0.00136	PASS
					VH	-3.30	-0.00129	PASS
		20	LCH	TN	VL	-2.26	-0.0009	PASS
					VN	-0.70	-0.00028	PASS



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
	LTE/TM2		MCH	TN	VH	-1.87	-0.00075	PASS
					VL	2.09	0.00082	PASS
					VN	0.34	0.00013	PASS
			HCH	TN	VH	0.72	0.00028	PASS
					VL	-0.16	-0.00006	PASS
					VN	0.01	0	PASS
		5	LCH	TN	VH	-1.46	-0.00057	PASS
					VL	3.28	0.00131	PASS
					VN	-1.76	-0.0007	PASS
			MCH	TN	VH	-28.10	-0.01123	PASS
					VL	2.26	0.00089	PASS
					VN	-0.49	-0.00019	PASS
		HCH	TN	VH	-2.98	-0.00118	PASS	
				VL	-3.82	-0.00149	PASS	
				VN	4.11	0.0016	PASS	
		10	LCH	TN	VH	1.23	0.00048	PASS
					VL	0.26	0.0001	PASS
					VN	-3.02	-0.00121	PASS
			MCH	TN	VH	0.87	0.00035	PASS
					VL	-3.42	-0.00135	PASS
					VN	-0.54	-0.00021	PASS
		HCH	TN	VH	-0.33	-0.00013	PASS	
				VL	-0.62	-0.00024	PASS	
				VN	-0.84	-0.00033	PASS	
		15	LCH	TN	VH	0.14	0.00005	PASS
					VL	-4.36	-0.00174	PASS
					VN	-1.54	-0.00061	PASS
			MCH	TN	VH	0.13	0.00005	PASS
					VL	3.63	0.00143	PASS
					VN	-2.43	-0.00096	PASS
		HCH	TN	VH	4.26	0.00168	PASS	
				VL	-1.19	-0.00046	PASS	
				VN	-4.36	-0.0017	PASS	
		20	LCH	TN	VH	-0.11	-0.00004	PASS
					VL	-1.26	-0.0005	PASS
					VN	0.30	0.00012	PASS
			MCH	TN	VH	-2.95	-0.00118	PASS
					VL	0.06	0.00002	PASS
					VN	-2.86	-0.00113	PASS



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					VH	-0.87	-0.00034	PASS
			HCH	TN	VL	-0.20	-0.00008	PASS
					VN	-1.49	-0.00058	PASS
					VH	-3.22	-0.00126	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
BAND7	LTE/TM1	5	LCH	VN	-30	-4.36	-0.00174	PASS
					-20	-3.40	-0.00136	PASS
					-10	0.06	0.00002	PASS
					0	0.94	0.00038	PASS
					10	-3.09	-0.00123	PASS
					20	3.86	0.00154	PASS
					30	1.66	0.00066	PASS
					40	-1.36	-0.00054	PASS
			50	-10.40	-0.00416	PASS		
			MCH	VN	-30	-2.60	-0.00103	PASS
					-20	-2.78	-0.0011	PASS
					-10	-1.56	-0.00062	PASS
					0	-6.09	-0.0024	PASS
					10	-0.24	-0.00009	PASS
					20	-9.06	-0.00357	PASS
					30	2.45	0.00097	PASS
					40	0.87	0.00034	PASS
			HCH	VN	-30	2.88	0.00112	PASS
					-20	-1.14	-0.00044	PASS
					-10	-7.07	-0.00275	PASS
					0	-1.73	-0.00067	PASS
					10	-0.56	-0.00022	PASS
					20	-3.33	-0.0013	PASS
					30	-4.43	-0.00173	PASS
		40			-4.61	-0.0018	PASS	
		50	-3.69	-0.00144	PASS			
		10	LCH	VN	-30	-4.95	-0.00198	PASS
					-20	-3.28	-0.00131	PASS



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
		15			-10	-4.29	-0.00171	PASS
					0	-0.53	-0.00021	PASS
					10	-2.37	-0.00095	PASS
					20	1.24	0.0005	PASS
					30	0.70	0.00028	PASS
					40	-1.73	-0.00069	PASS
					50	-11.12	-0.00444	PASS
			MCH	VN	-30	-2.00	-0.00079	PASS
					-20	-0.33	-0.00013	PASS
					-10	1.79	0.00071	PASS
					0	0.36	0.00014	PASS
					10	-0.83	-0.00033	PASS
					20	-2.53	-0.001	PASS
					30	-0.16	-0.00006	PASS
			HCH	VN	-30	3.38	0.00132	PASS
					-20	0.59	0.00023	PASS
					-10	-3.18	-0.00124	PASS
					0	0.27	0.00011	PASS
					10	0.96	0.00037	PASS
					20	-5.56	-0.00217	PASS
					30	-1.40	-0.00055	PASS
			LCH	VN	-30	-1.72	-0.00069	PASS
					-20	-2.69	-0.00107	PASS
					-10	-2.56	-0.00102	PASS
					0	-4.52	-0.0018	PASS
					10	-4.43	-0.00177	PASS
					20	-0.84	-0.00033	PASS
					30	-3.10	-0.00124	PASS
			MCH	VN	-30	0.23	0.00009	PASS
					-20	-1.10	-0.00043	PASS
					-10	-3.63	-0.00143	PASS
					0	-3.62	-0.00143	PASS
					10	-3.38	-0.00133	PASS



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict		
					20	-4.81	-0.0019	PASS		
					30	1.63	0.00064	PASS		
					40	-1.22	-0.00048	PASS		
					50	-1.12	-0.00044	PASS		
			HCH	VN	-30	0.21	0.00008	PASS		
					-20	-2.90	-0.00113	PASS		
					-10	-1.85	-0.00072	PASS		
					0	-4.61	-0.0018	PASS		
					10	-1.27	-0.0005	PASS		
					20	-1.69	-0.00066	PASS		
					30	-2.57	-0.001	PASS		
					40	0.00	0	PASS		
					50	-3.38	-0.00132	PASS		
					LCH	VN	-30	1.39	0.00055	PASS
							-20	-0.79	-0.00031	PASS
							-10	-1.99	-0.00079	PASS
			0	-1.16			-0.00046	PASS		
			10	-2.72			-0.00108	PASS		
			20	-2.80			-0.00112	PASS		
			30	-2.10			-0.00084	PASS		
		40	-0.70	-0.00028			PASS			
		MCH	VN	50	-0.72	-0.00029	PASS			
				-30	-0.30	-0.00012	PASS			
				-20	-1.59	-0.00063	PASS			
				-10	-1.65	-0.00065	PASS			
				0	-1.22	-0.00048	PASS			
				10	-3.22	-0.00127	PASS			
				20	-2.66	-0.00105	PASS			
				30	-5.01	-0.00198	PASS			
		HCH	VN	40	-3.20	-0.00126	PASS			
				50	-2.43	-0.00096	PASS			
				-30	0.90	0.00035	PASS			
				-20	-4.32	-0.00169	PASS			
				-10	-2.57	-0.001	PASS			
				0	-1.66	-0.00065	PASS			
				10	0.21	0.00008	PASS			
				20	-0.14	-0.00005	PASS			
		30	-2.53	-0.00099	PASS					
		40	-1.67	-0.00065	PASS					



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
	LTE/TM2	5	LCH	VN	50	-0.63	-0.00025	PASS
					-30	-0.74	-0.0003	PASS
					-20	0.33	0.00013	PASS
					-10	-6.71	-0.00268	PASS
					0	-9.38	-0.00375	PASS
					10	0.92	0.00037	PASS
					20	1.32	0.00053	PASS
					30	0.19	0.00008	PASS
					40	0.31	0.00012	PASS
			50	-5.26	-0.0021	PASS		
			MCH	VN	-30	-1.83	-0.00072	PASS
					-20	-2.45	-0.00097	PASS
					-10	-2.27	-0.0009	PASS
					0	-7.20	-0.00284	PASS
					10	-2.16	-0.00085	PASS
					20	-0.31	-0.00012	PASS
					30	-0.89	-0.00035	PASS
					40	-6.85	-0.0027	PASS
					50	-0.70	-0.00028	PASS
			HCH	VN	-30	-6.75	-0.00263	PASS
					-20	-7.68	-0.00299	PASS
					-10	-2.19	-0.00085	PASS
					0	-2.69	-0.00105	PASS
					10	-1.50	-0.00058	PASS
		20			-0.20	-0.00008	PASS	
		30			-13.58	-0.00529	PASS	
		40			-0.49	-0.00019	PASS	
		50			-2.30	-0.0009	PASS	
		10	LCH	VN	-30	-1.49	-0.00059	PASS
					-20	-0.24	-0.0001	PASS
					-10	-2.57	-0.00103	PASS
					0	-6.09	-0.00243	PASS
					10	-3.06	-0.00122	PASS
					20	0.17	0.00007	PASS
					30	-5.35	-0.00214	PASS
					40	-6.31	-0.00252	PASS
					50	-5.09	-0.00203	PASS
			MCH	VN	-30	-2.39	-0.00094	PASS
					-20	-0.40	-0.00016	PASS



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					-10	0.66	0.00026	PASS
					0	3.85	0.00152	PASS
					10	-1.20	-0.00047	PASS
					20	1.30	0.00051	PASS
					30	2.27	0.0009	PASS
					40	0.41	0.00016	PASS
			50	-1.26	-0.0005	PASS		
			HCH	VN	-30	-0.30	-0.00012	PASS
					-20	-3.28	-0.00128	PASS
					-10	-2.06	-0.0008	PASS
					0	-1.23	-0.00048	PASS
					10	0.80	0.00031	PASS
					20	-8.07	-0.00315	PASS
					30	-3.76	-0.00147	PASS
					40	-1.90	-0.00074	PASS
		50			-4.86	-0.00189	PASS	
		15	LCH	VN	-30	1.34	0.00053	PASS
					-20	1.29	0.00051	PASS
					-10	-6.45	-0.00257	PASS
					0	-1.16	-0.00046	PASS
					10	-3.40	-0.00136	PASS
					20	-3.30	-0.00132	PASS
					30	-1.26	-0.0005	PASS
					40	-1.87	-0.00075	PASS
			50	-2.73	-0.00109	PASS		
			MCH	VN	-30	-1.72	-0.00068	PASS
					-20	-4.53	-0.00179	PASS
					-10	-3.46	-0.00136	PASS
					0	-0.06	-0.00002	PASS
					10	-4.46	-0.00176	PASS
					20	-1.29	-0.00051	PASS
		30			-1.93	-0.00076	PASS	
		40	0.99	0.00039	PASS			
		50	-1.49	-0.00059	PASS			
		HCH	VN	-30	-3.36	-0.00131	PASS	
				-20	1.29	0.0005	PASS	
				-10	0.00	0	PASS	
				0	0.66	0.00026	PASS	
				10	-1.30	-0.00051	PASS	



Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict							
					20	-0.77	-0.0003	PASS							
					30	1.72	0.00067	PASS							
					40	-0.44	-0.00017	PASS							
					50	-0.63	-0.00025	PASS							
		20	LCH	VN			-30	-0.46	-0.00018	PASS					
							-20	-6.51	-0.00259	PASS					
							-10	-5.98	-0.00238	PASS					
							0	0.43	0.00017	PASS					
							10	-1.73	-0.00069	PASS					
							20	-3.95	-0.00157	PASS					
							30	-2.16	-0.00086	PASS					
							40	-5.05	-0.00201	PASS					
							50	-5.56	-0.00222	PASS					
							MCH	VN				-30	-2.33	-0.00092	PASS
												-20	-3.89	-0.00153	PASS
												-10	-1.14	-0.00045	PASS
												0	-1.85	-0.00073	PASS
												10	1.79	0.00071	PASS
												20	-1.92	-0.00076	PASS
												30	-2.29	-0.0009	PASS
												40	-0.86	-0.00034	PASS
							HCH	VN				50	-3.76	-0.00148	PASS
												-30	-3.88	-0.00152	PASS
												-20	-1.33	-0.00052	PASS
												-10	-0.09	-0.00004	PASS
												0	-3.68	-0.00144	PASS
												10	1.19	0.00046	PASS
												20	-1.67	-0.00065	PASS
												30	0.96	0.00038	PASS
							40	-0.39	-0.00015	PASS					
							50	-1.49	-0.00058	PASS					

END