



1.1.1.2.3.1.3 Test RB = RB36#18





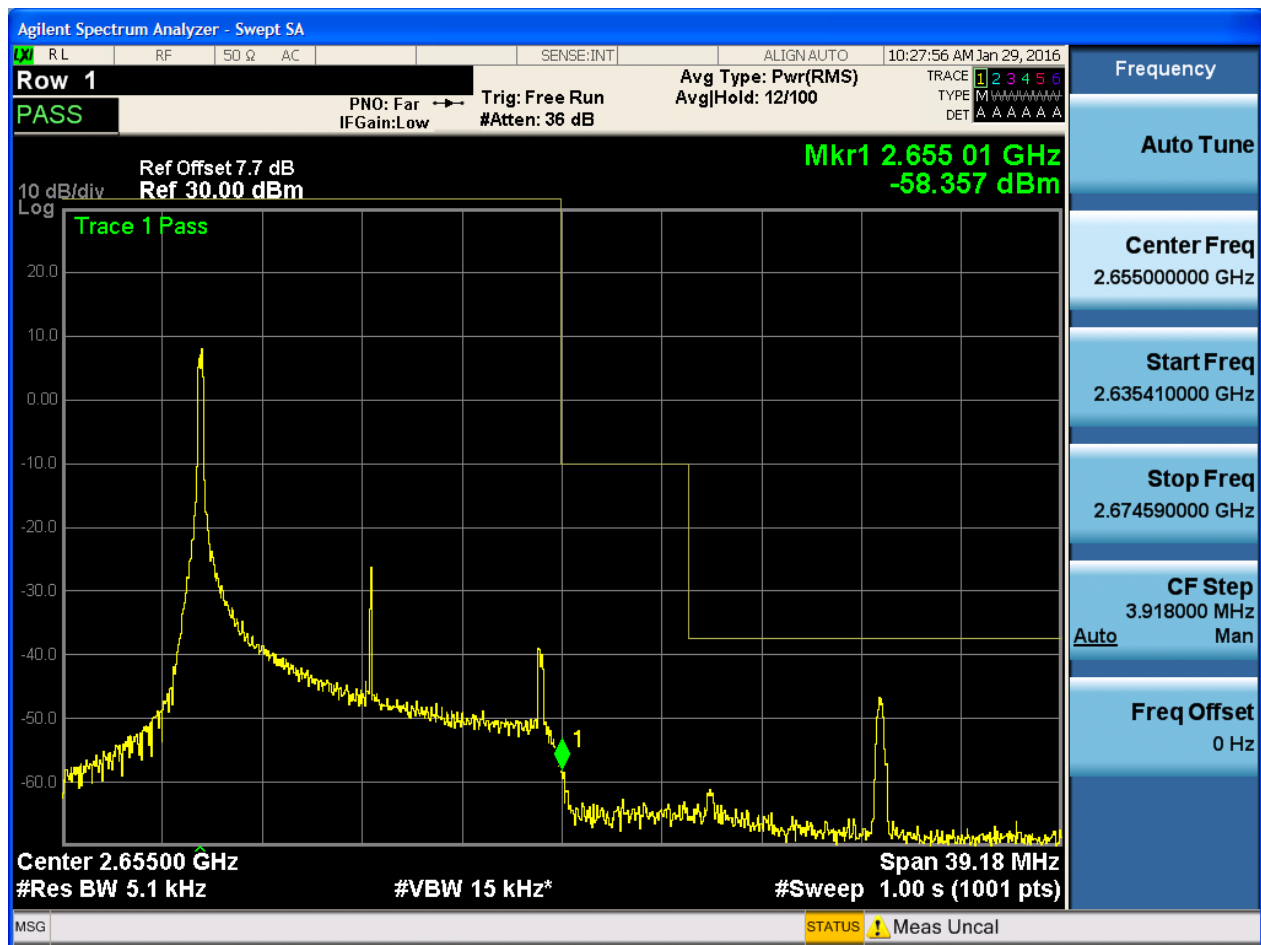
1.1.1.2.3.1.4 Test RB = RB75#0





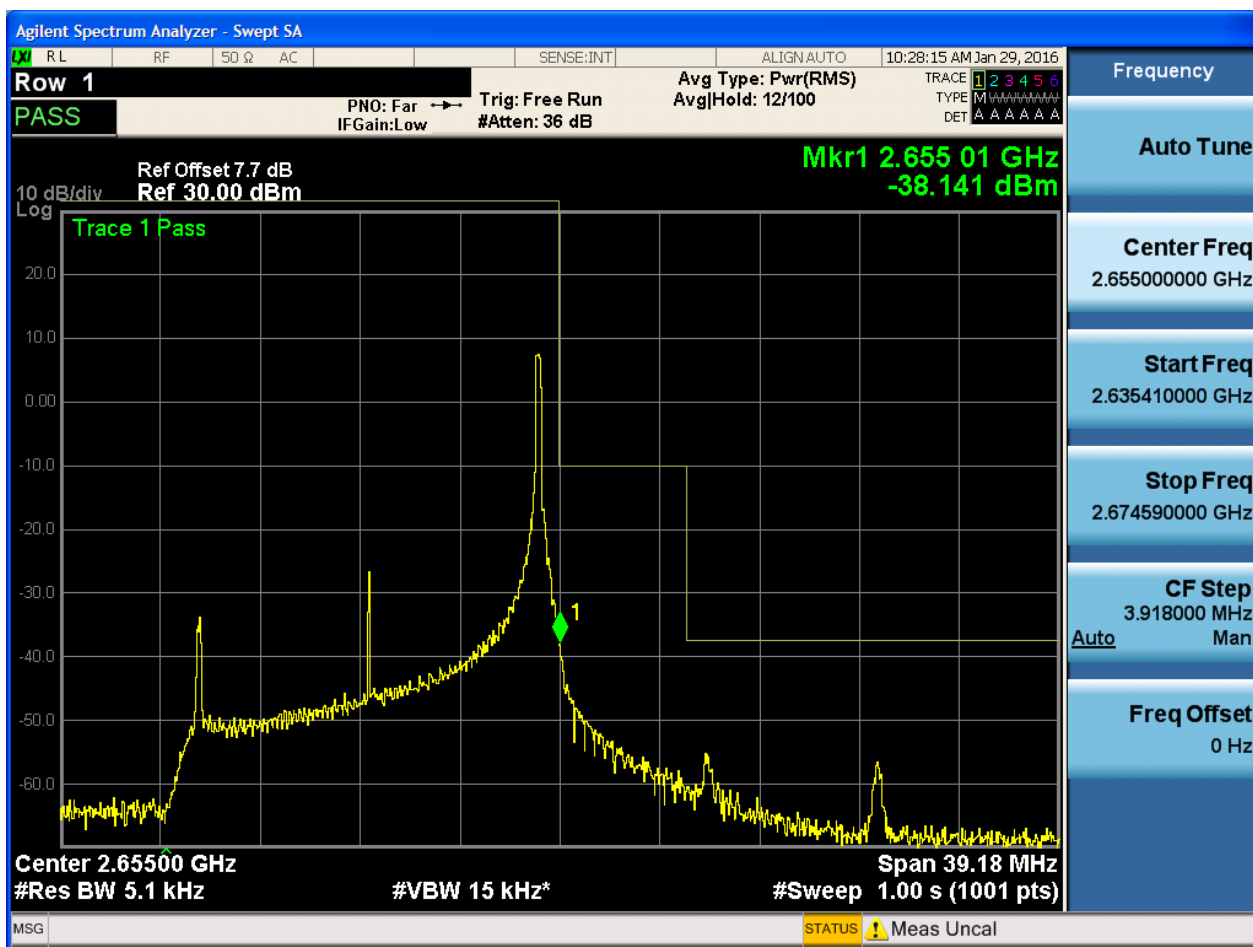
1.1.1.2.3.2 Test Channel = HCH

1.1.1.2.3.2.1 Test RB = RB1#0





1.1.1.2.3.2.2 Test RB = RB1#74





1.1.1.2.3.2.3 Test RB = RB36#18





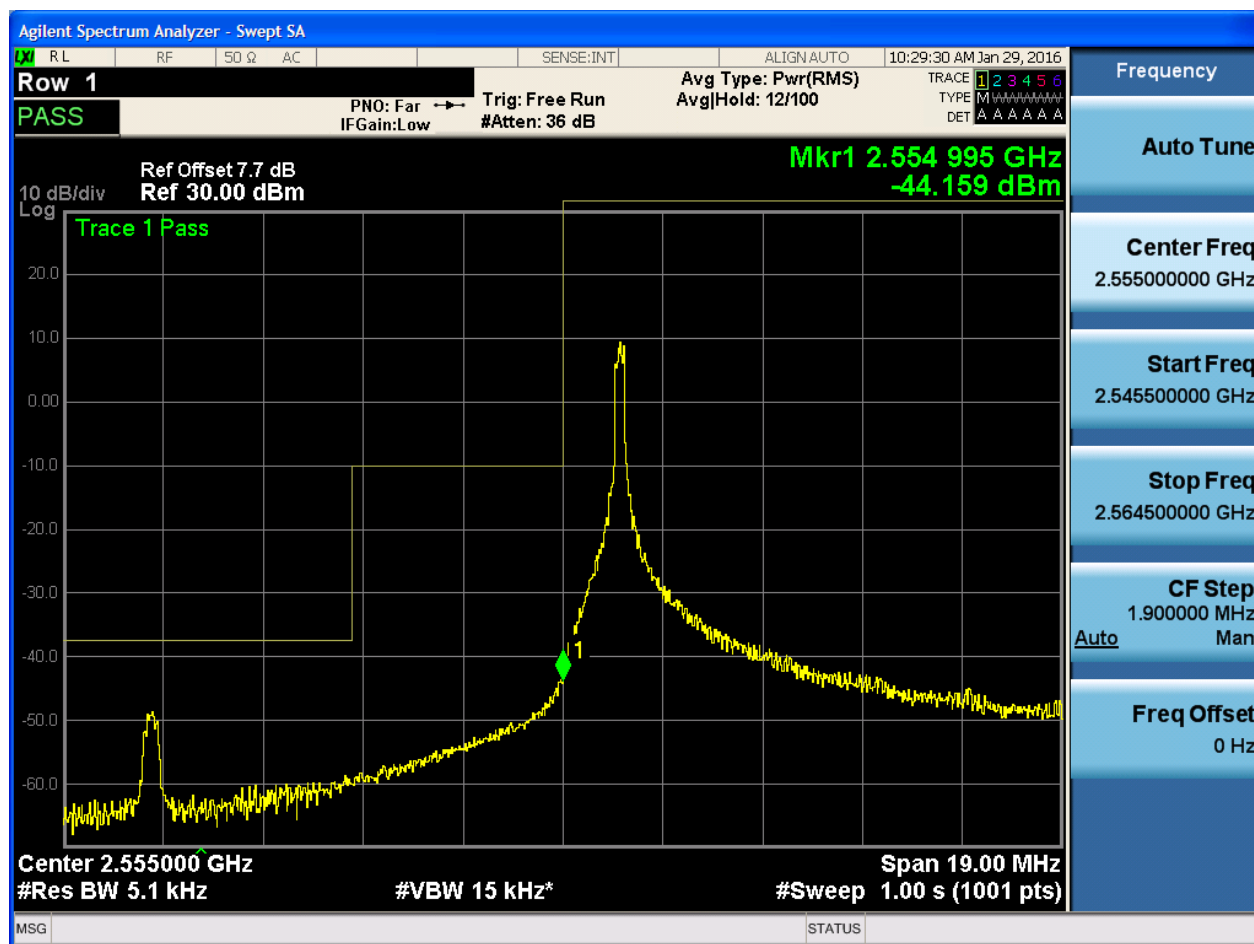
1.1.1.2.3.2.4 Test RB = RB75#0



1.1.1.2.4 Test Bandwidth = 20

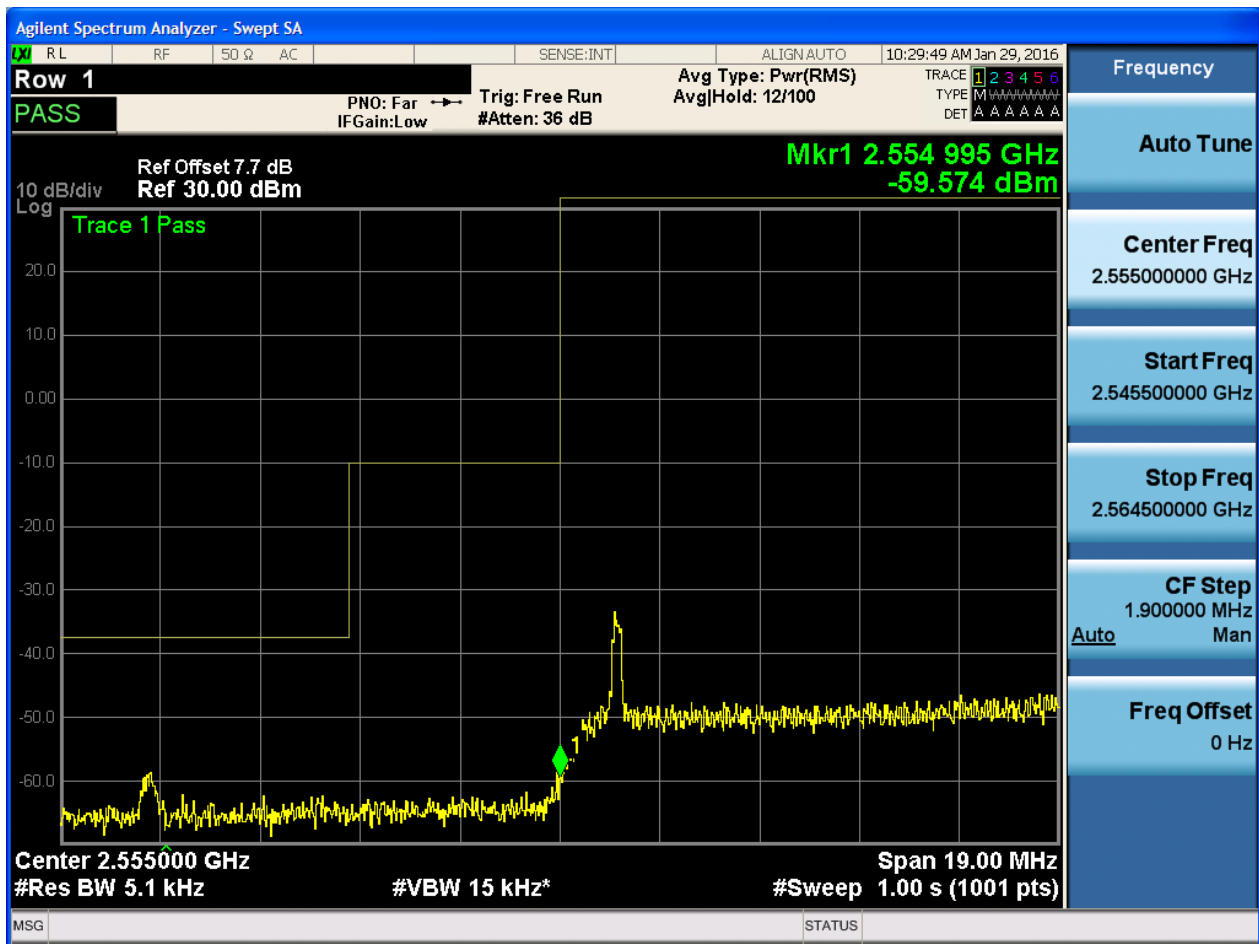
1.1.1.2.4.1 Test Channel = LCH

1.1.1.2.4.1.1 Test RB = RB1#0



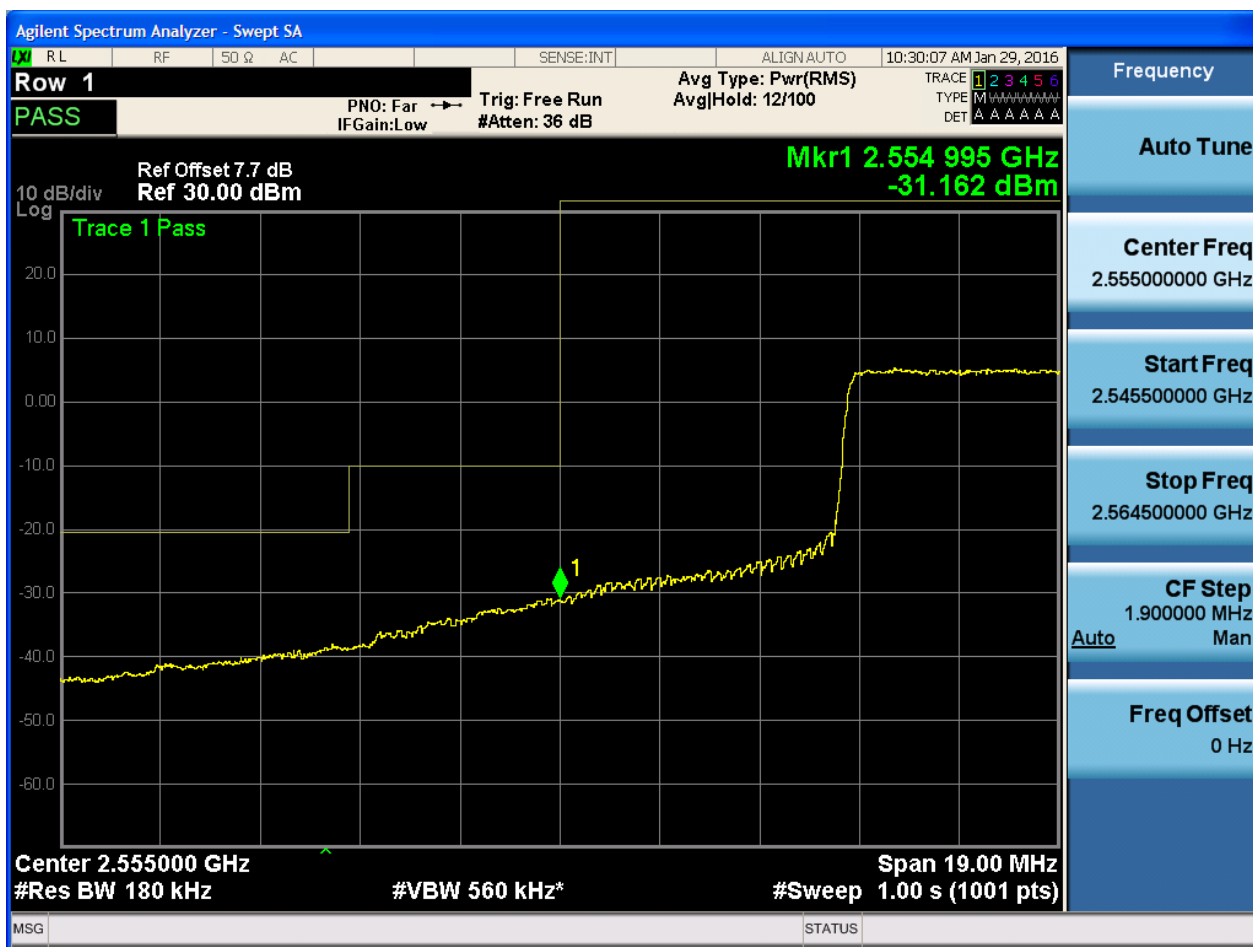


1.1.1.2.4.1.2 Test RB = RB1#99



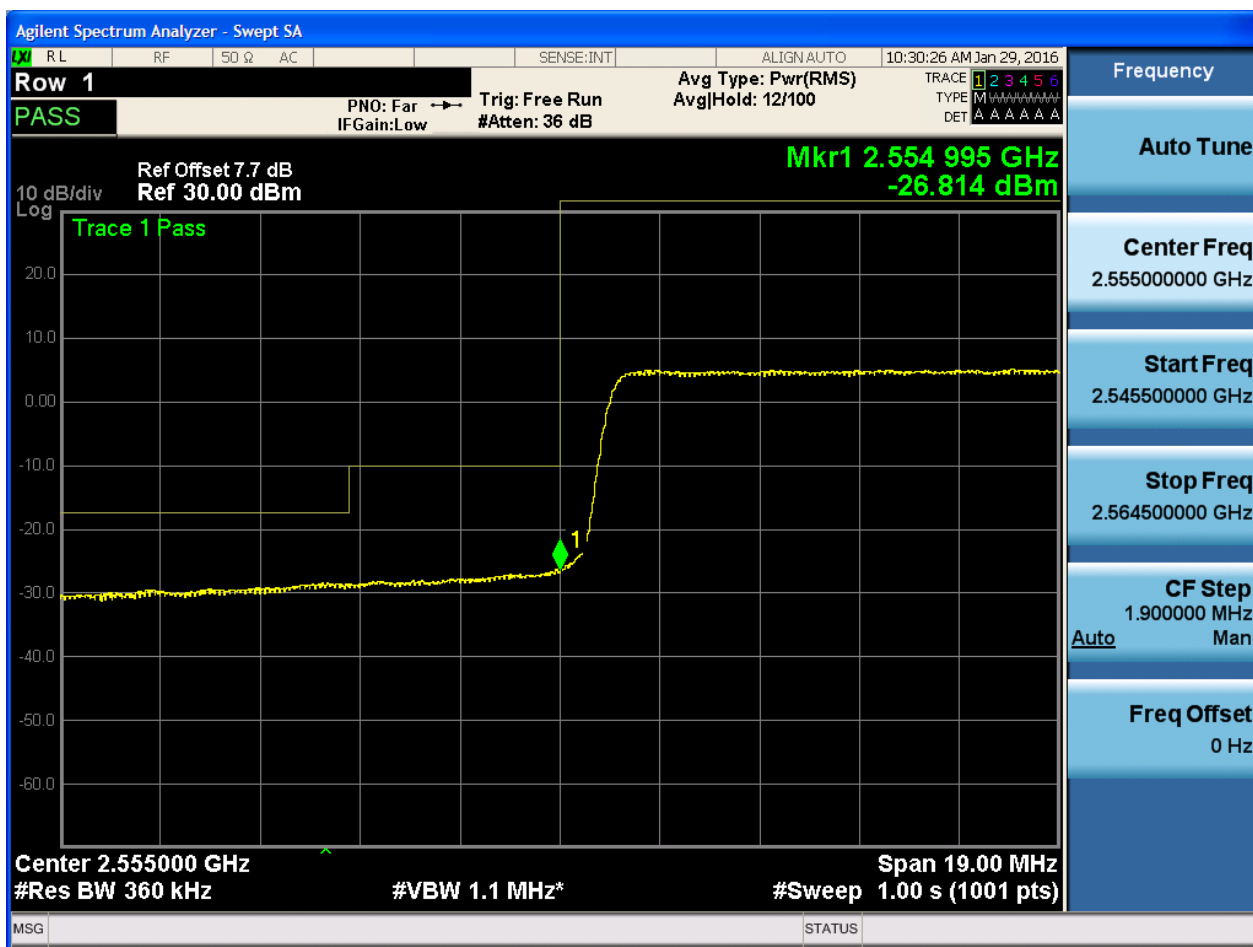


1.1.1.2.4.1.3 Test RB = RB50#25



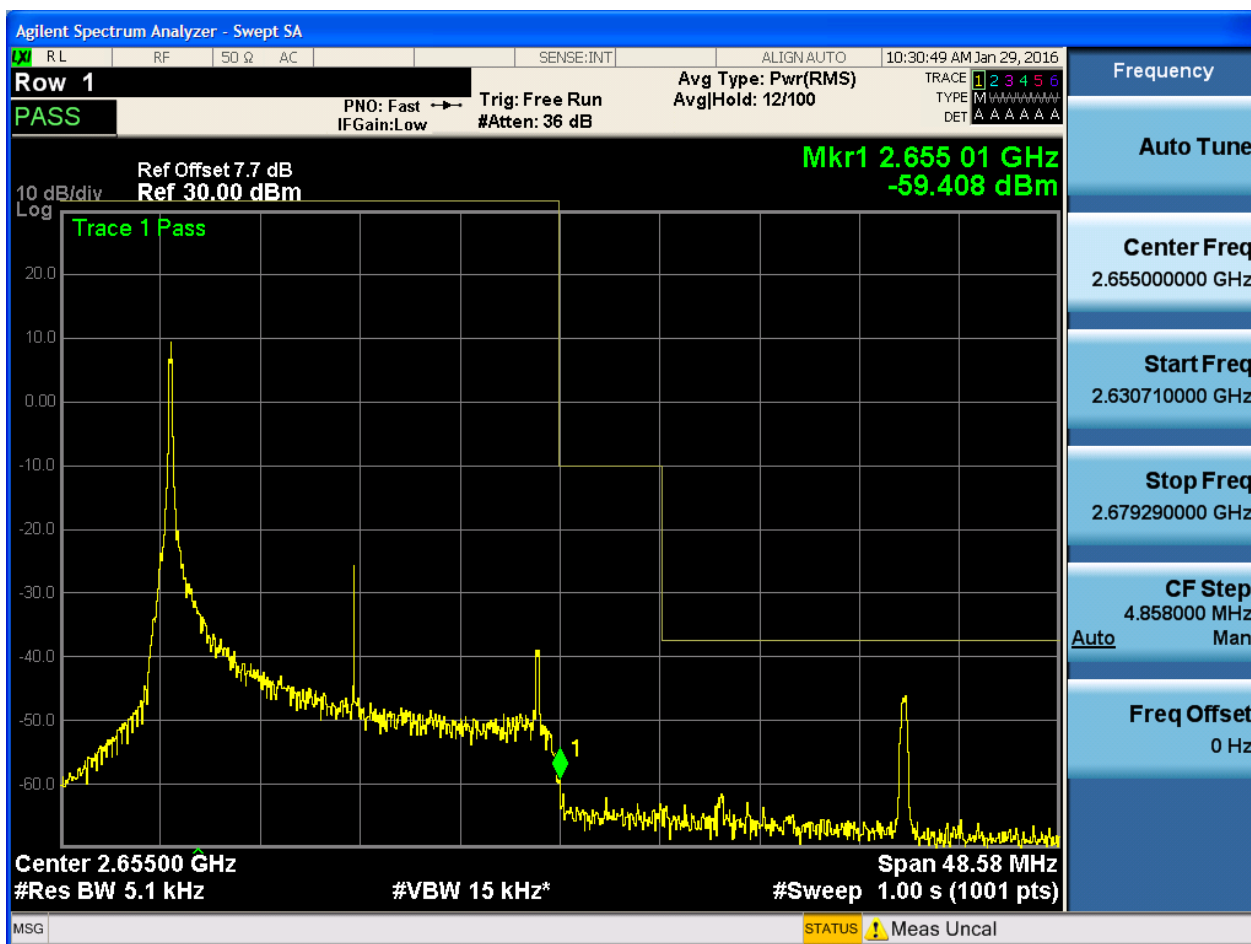


1.1.1.2.4.1.4 Test RB = RB100#0



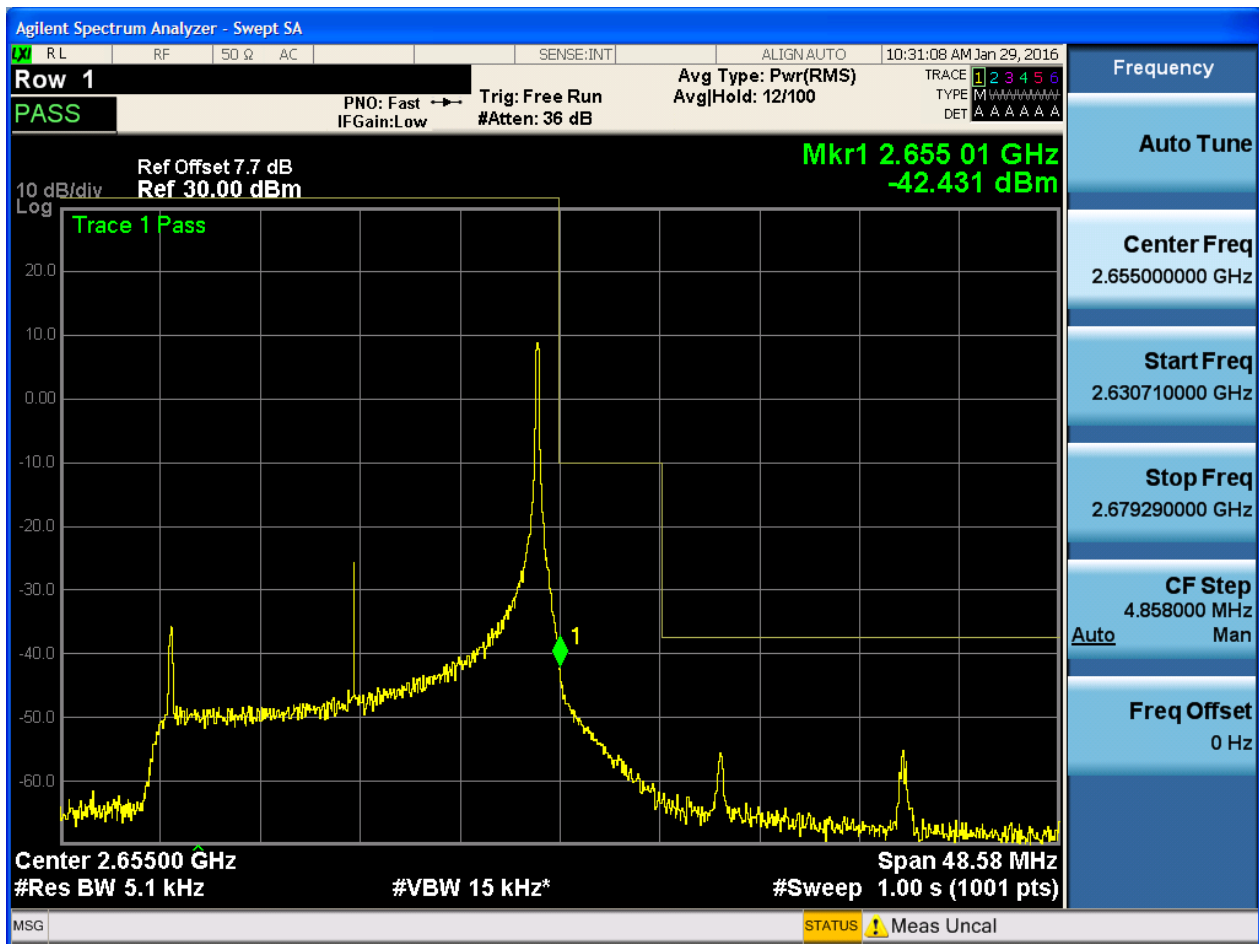
1.1.1.2.4.2 Test Channel = HCH

1.1.1.2.4.2.1 Test RB = RB1#0



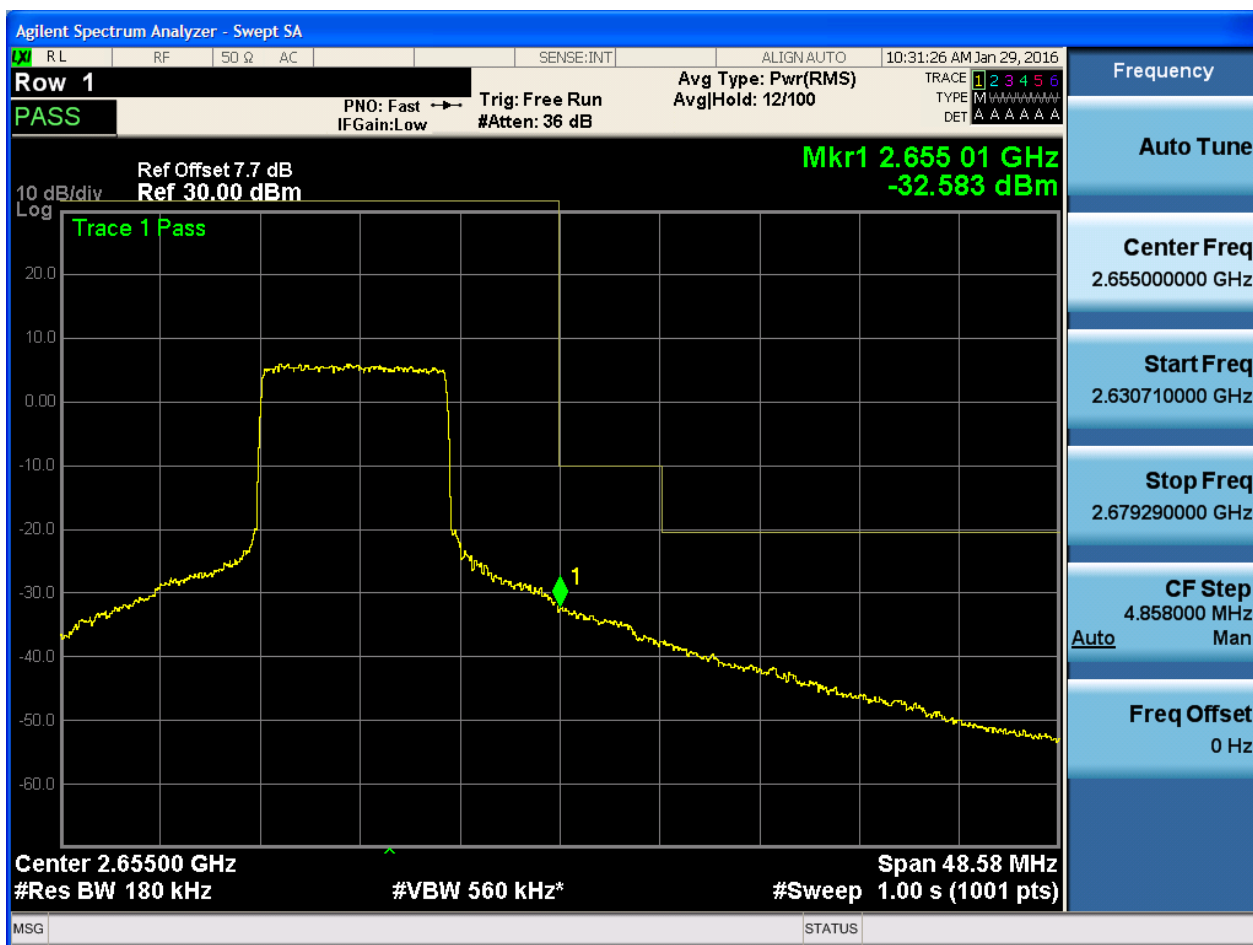


1.1.1.2.4.2.2 Test RB = RB1#99





1.1.1.2.4.2.3 Test RB = RB50#25





1.1.1.2.4.2.4 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

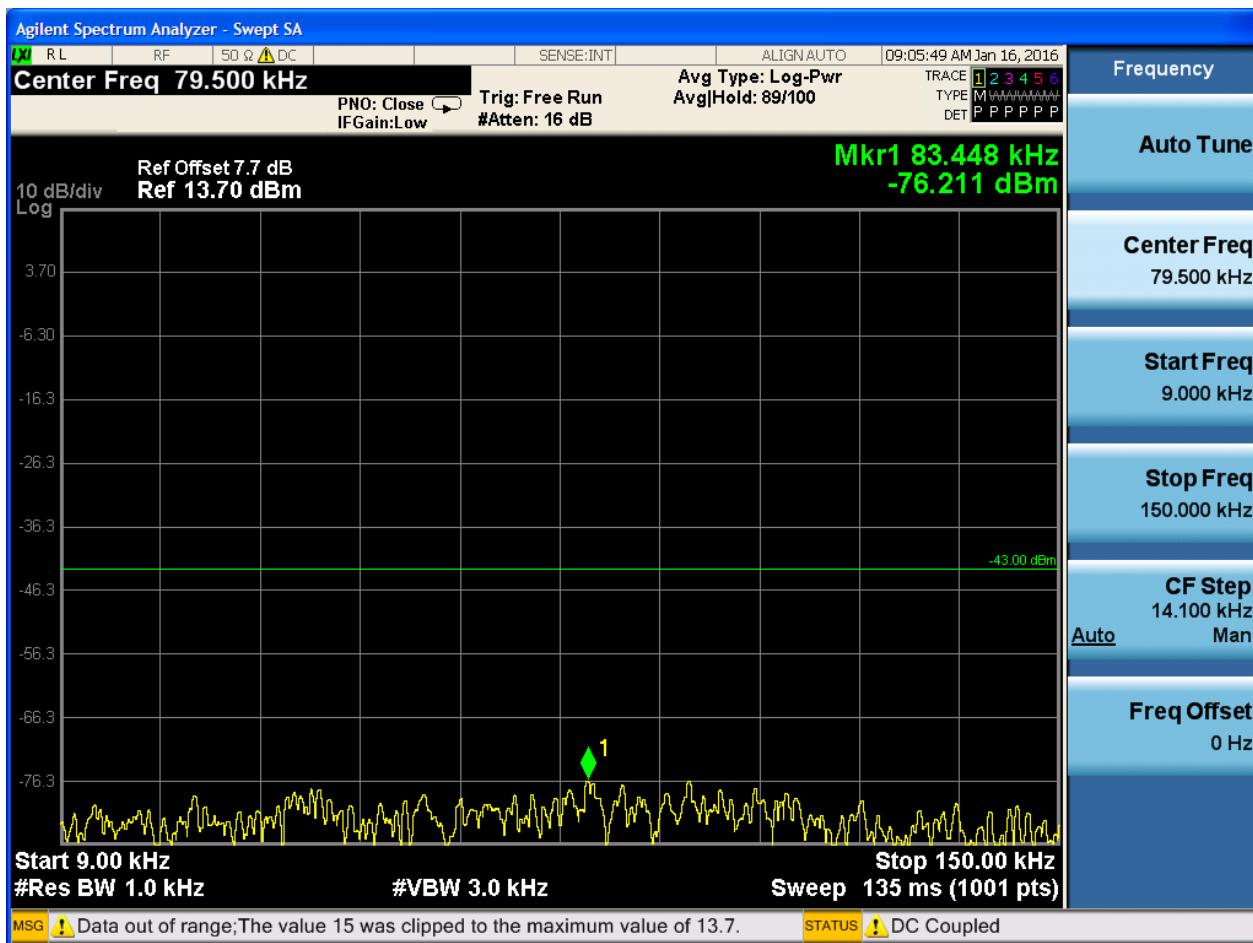
6.1.1 Test Band = BAND41

6.1.1.1 Test Mode = LTE/TM1

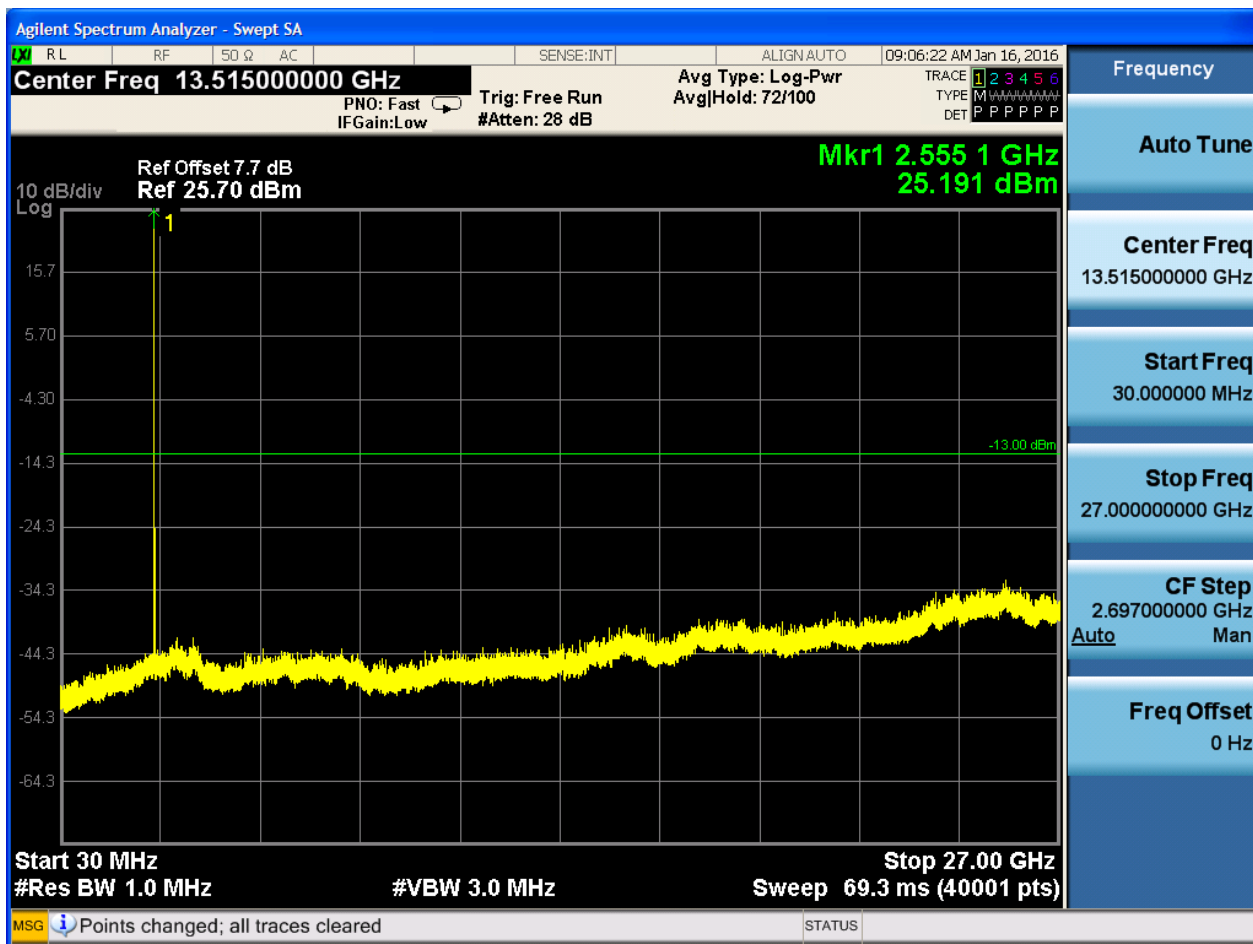
6.1.1.1.1 Test Bandwidth = 5

6.1.1.1.1.1 Test Channel = LCH

6.1.1.1.1.1.1 Test RB = RB1#0

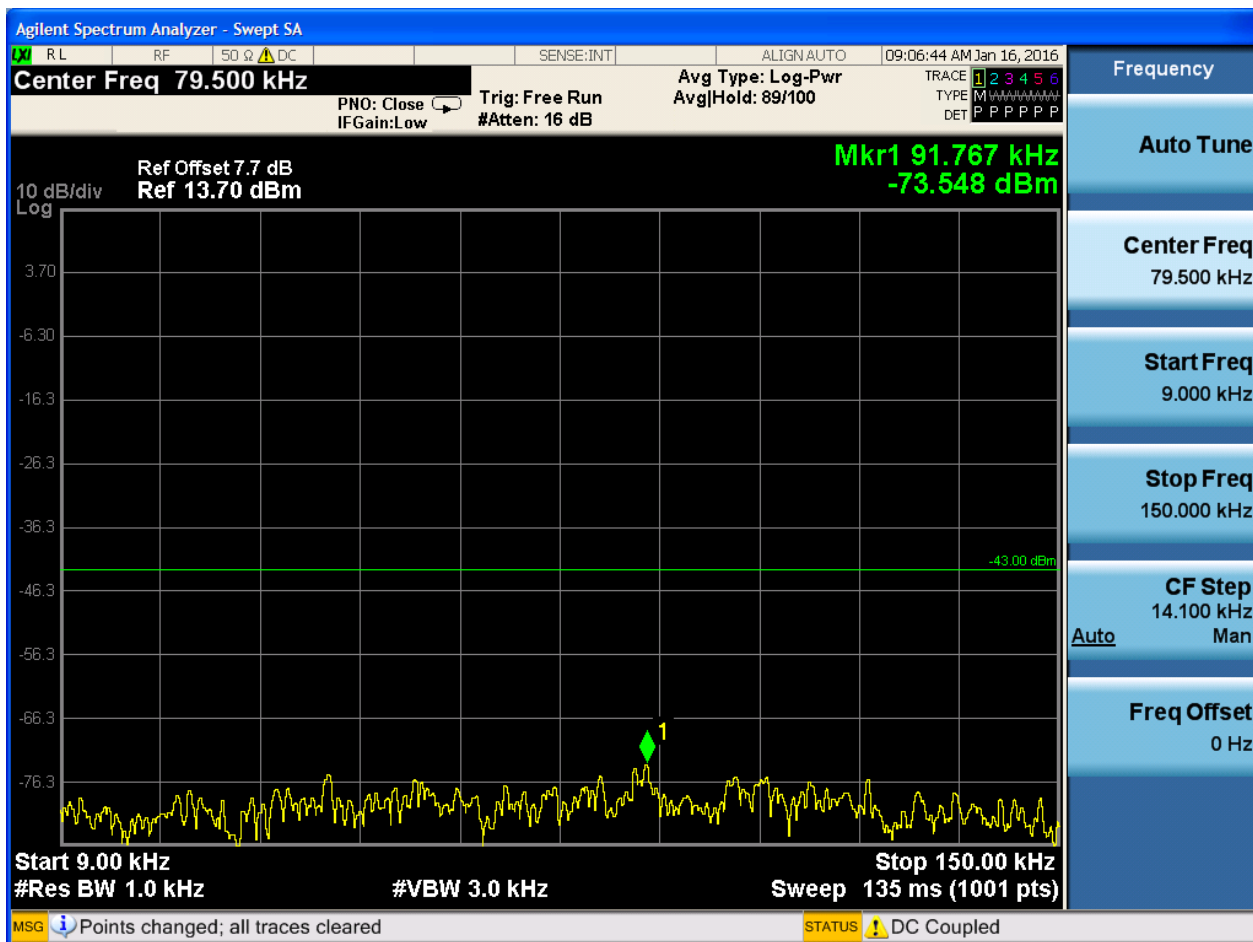


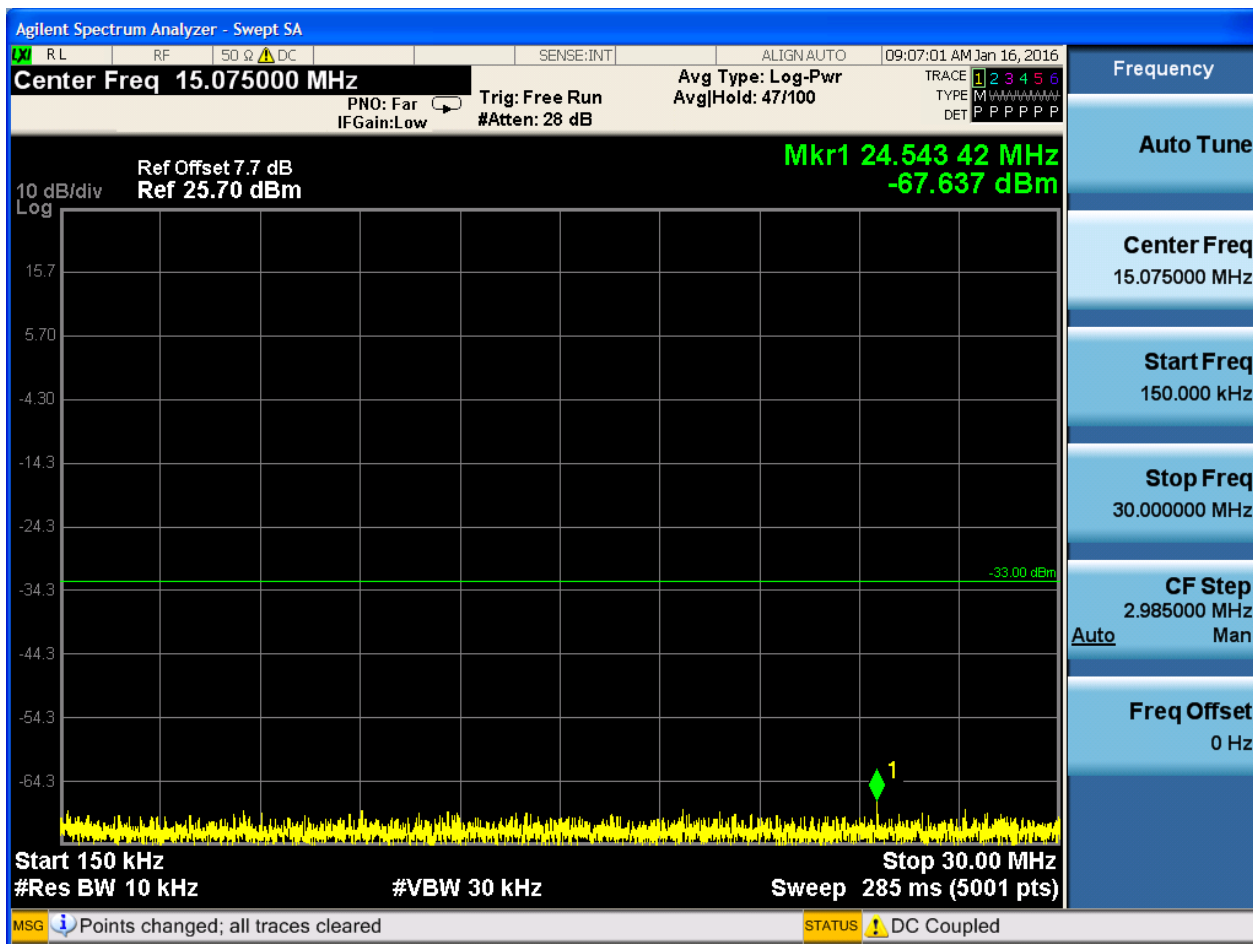


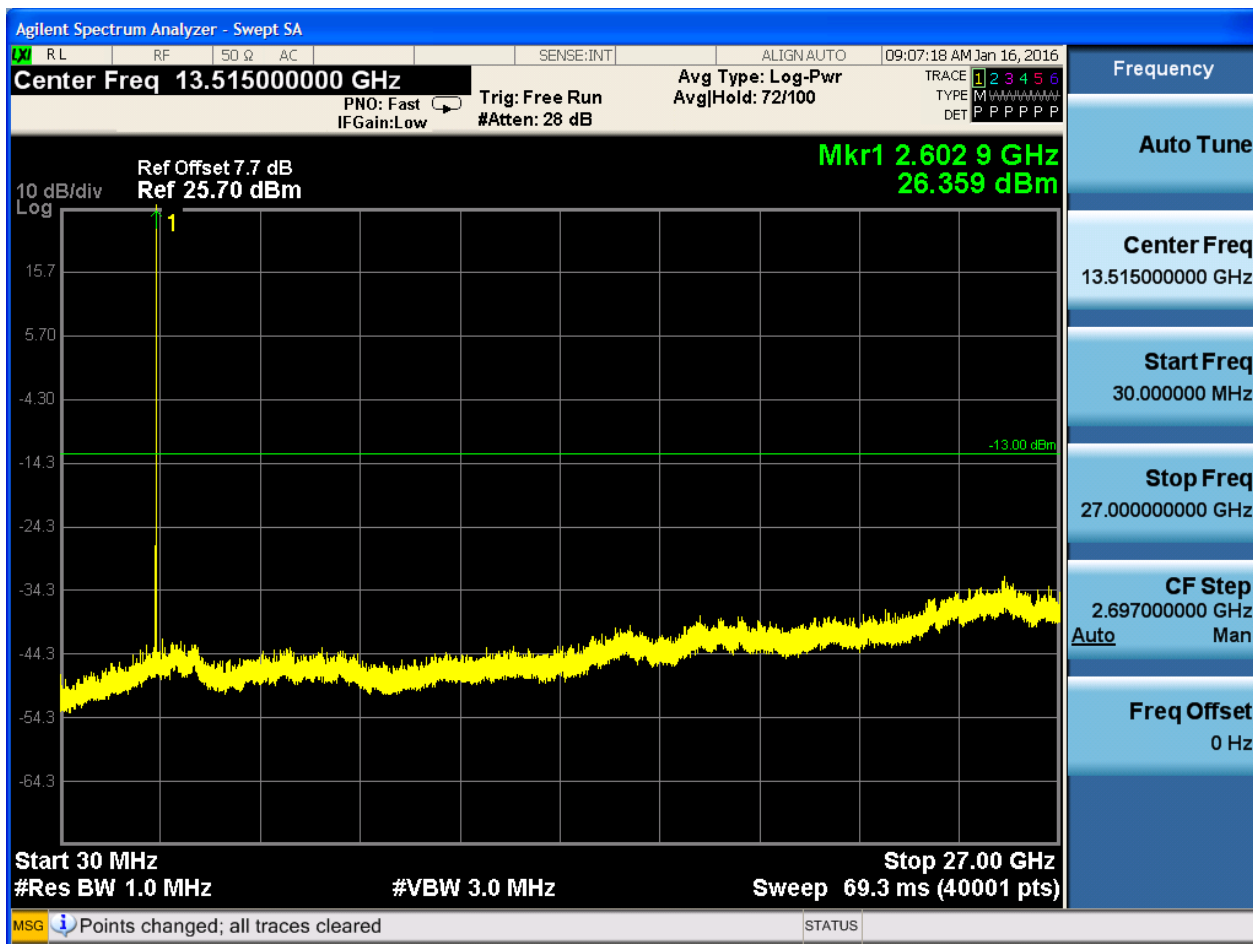


6.1.1.1.1.2 Test Channel = MCH

6.1.1.1.1.2.1 Test RB = RB1#0

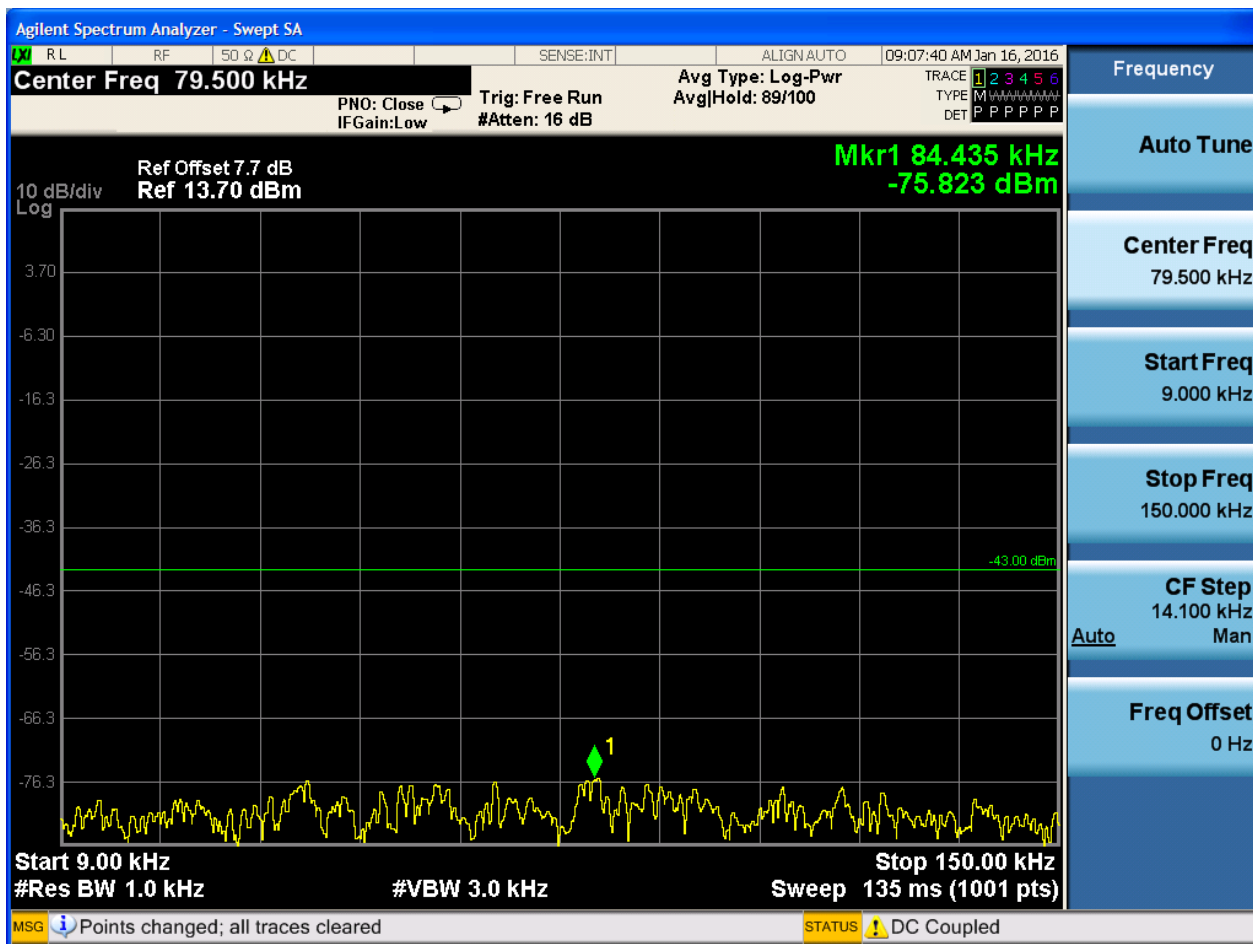


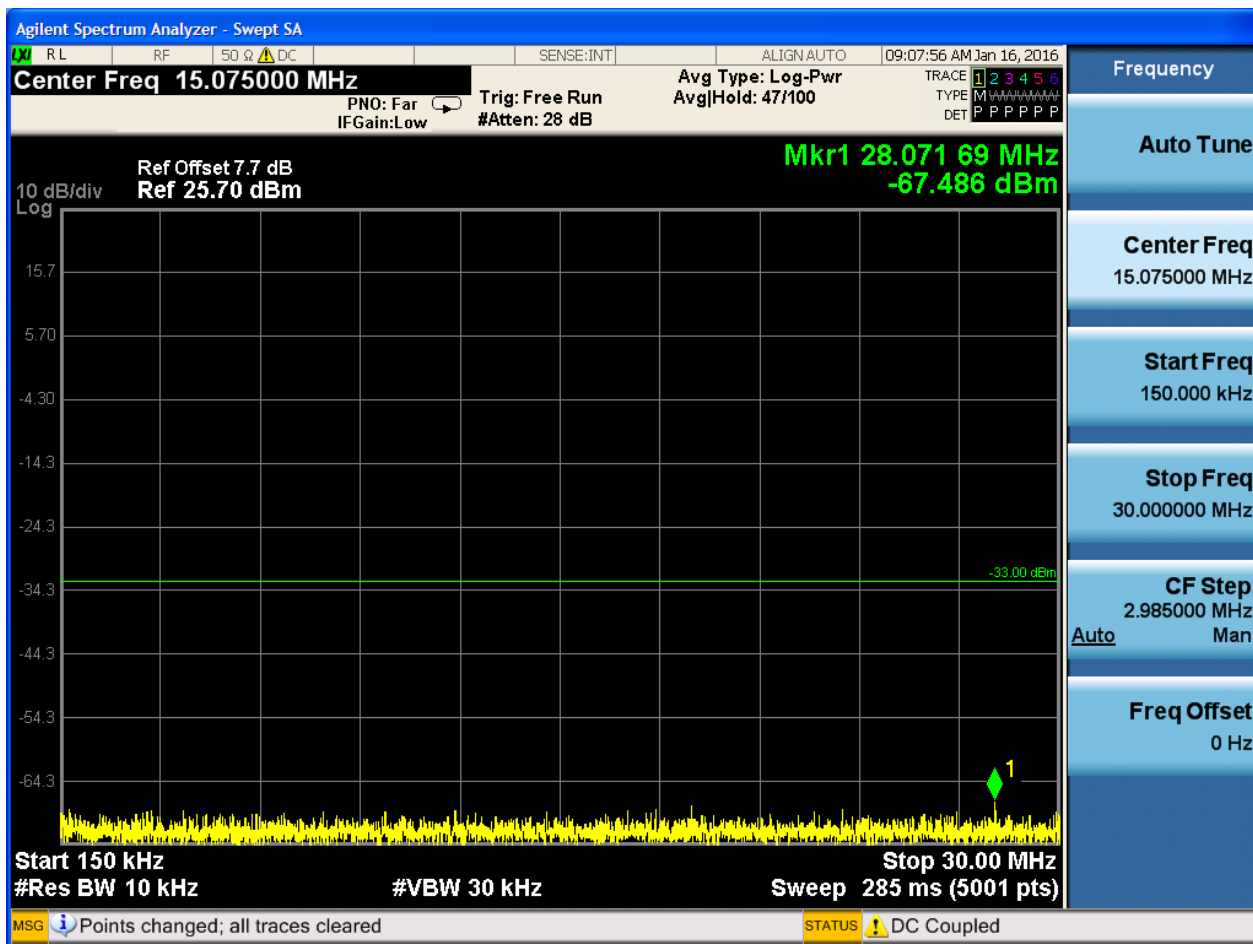


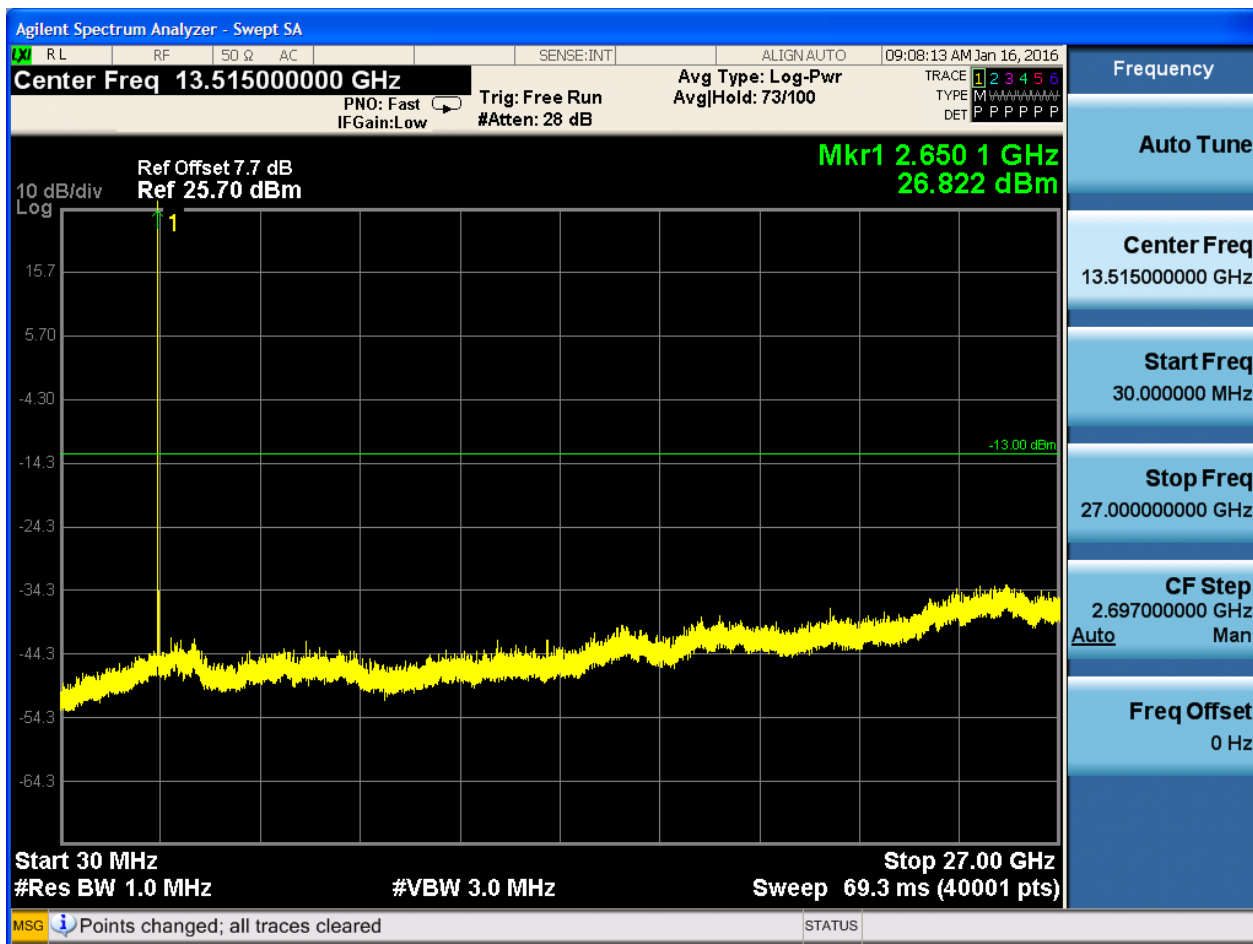


6.1.1.1.1.3 Test Channel = HCH

6.1.1.1.1.3.1 Test RB = RB1#0



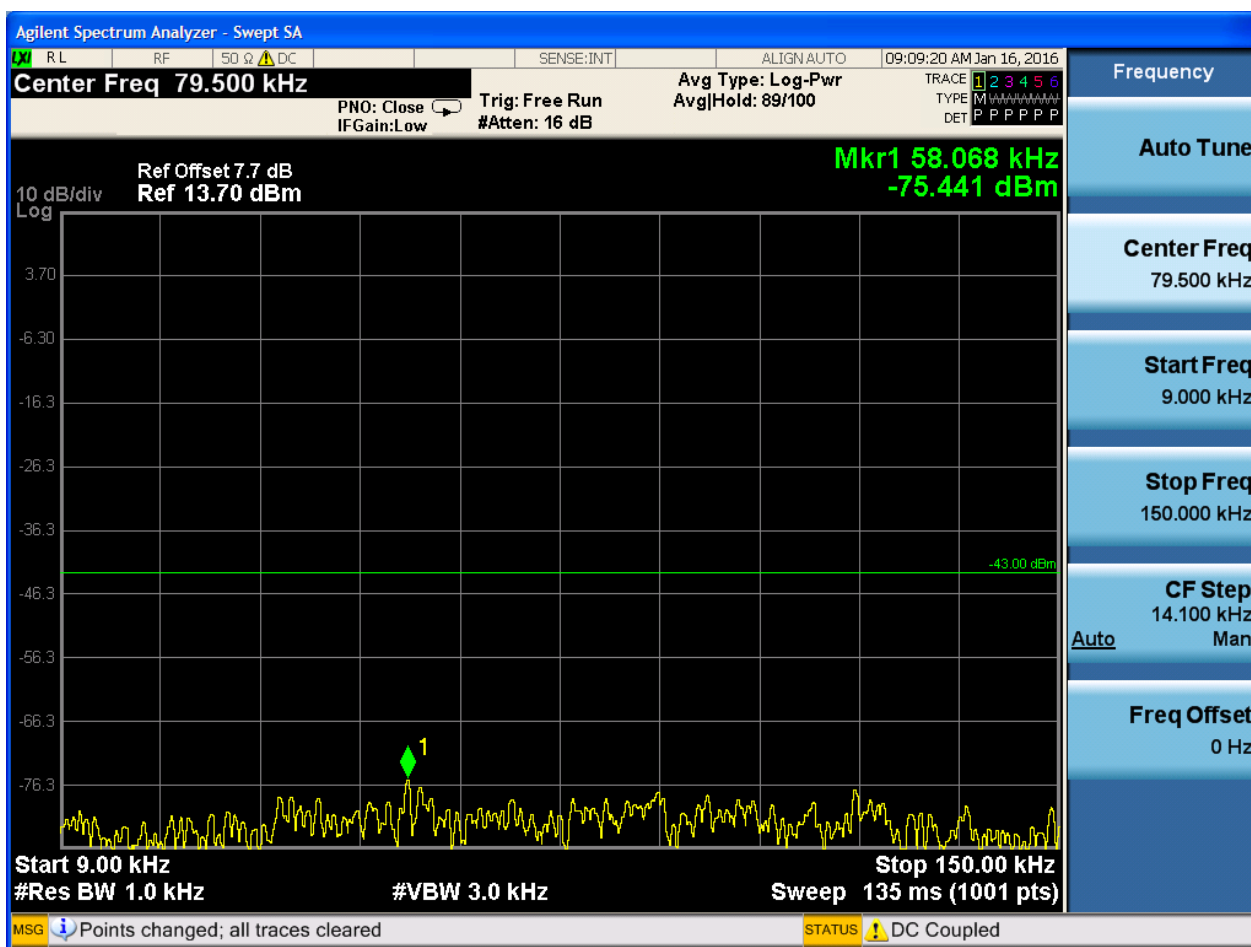


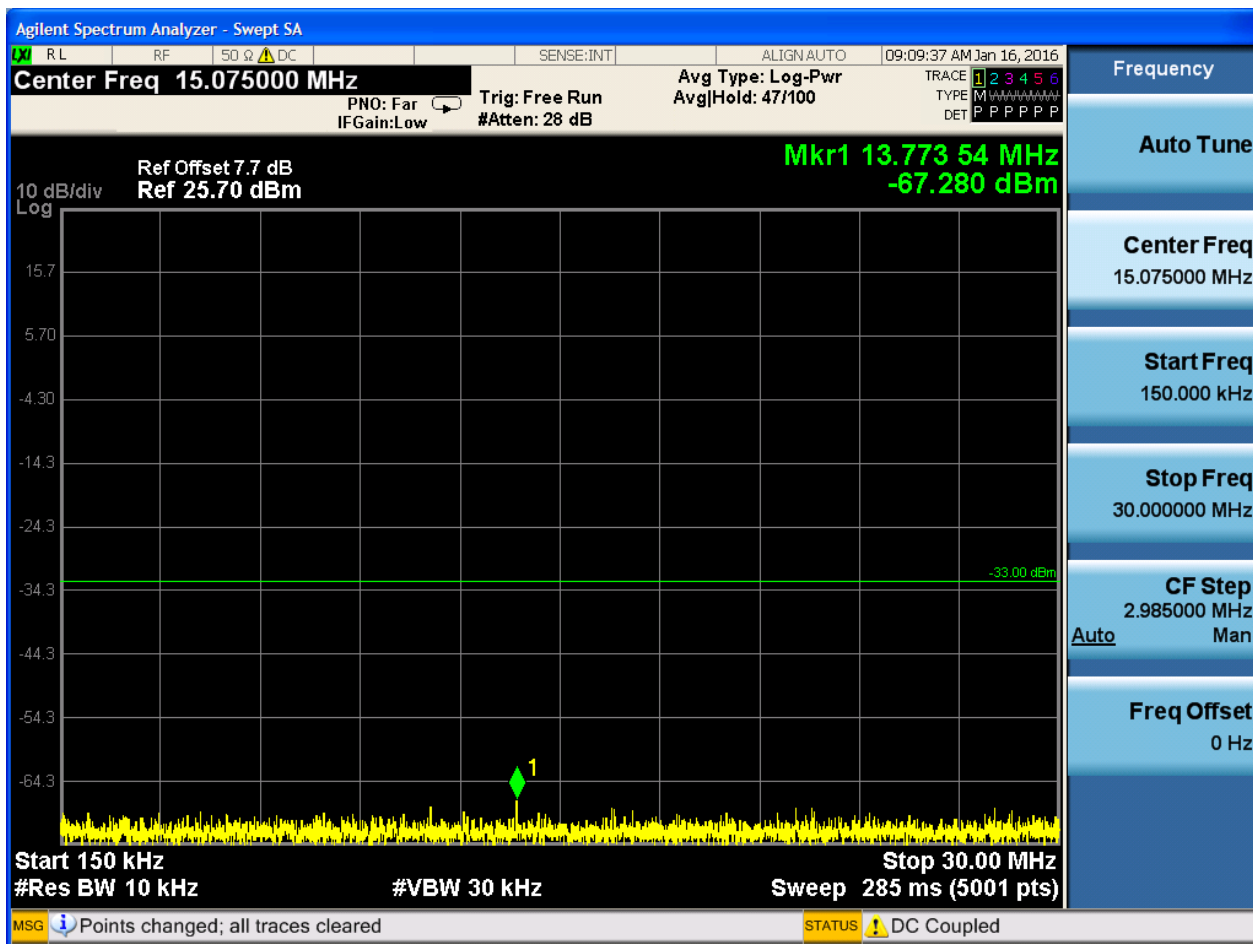


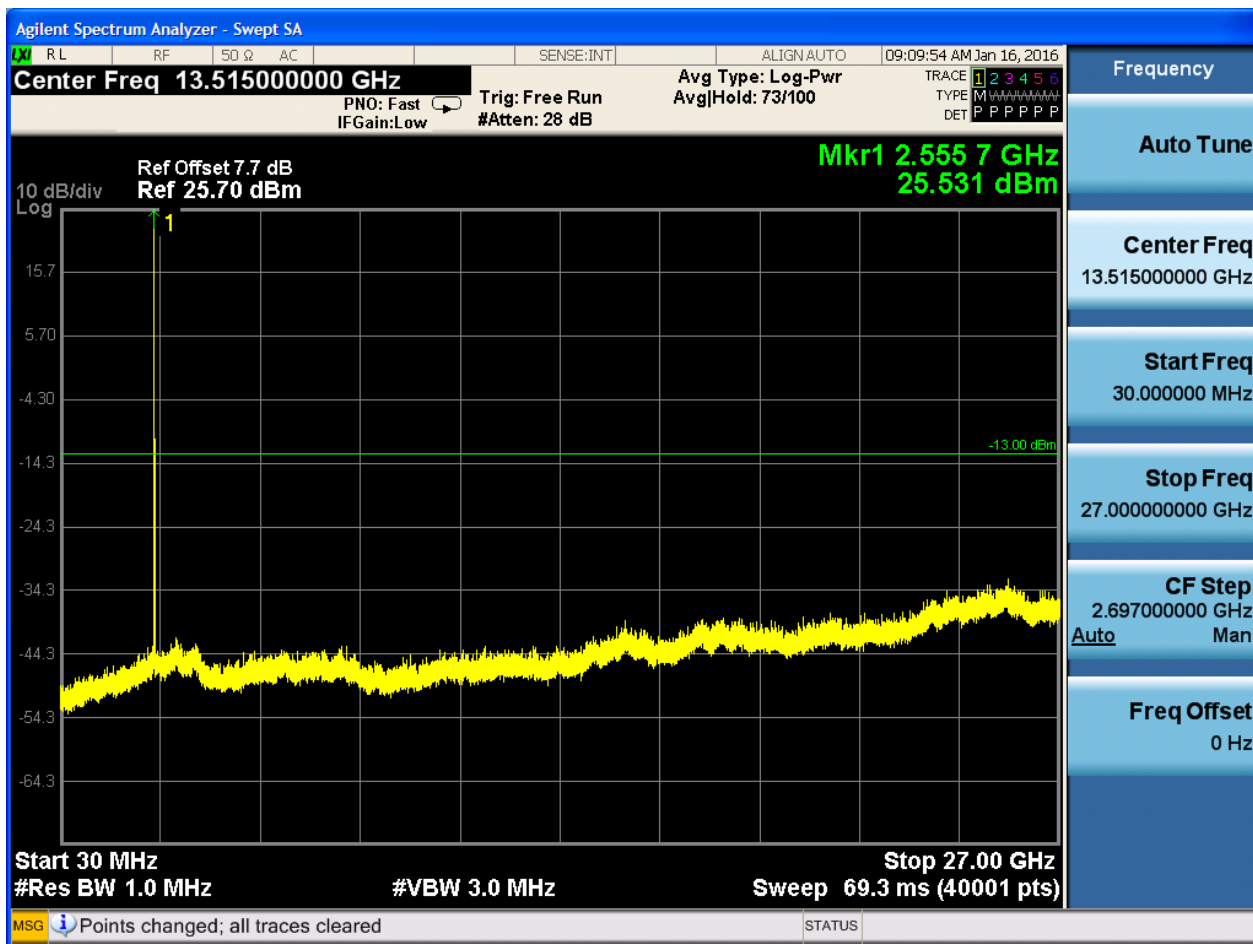
6.1.1.1.2 Test Bandwidth = 10

6.1.1.1.2.1 Test Channel = LCH

6.1.1.1.2.1.1 Test RB = RB1#0





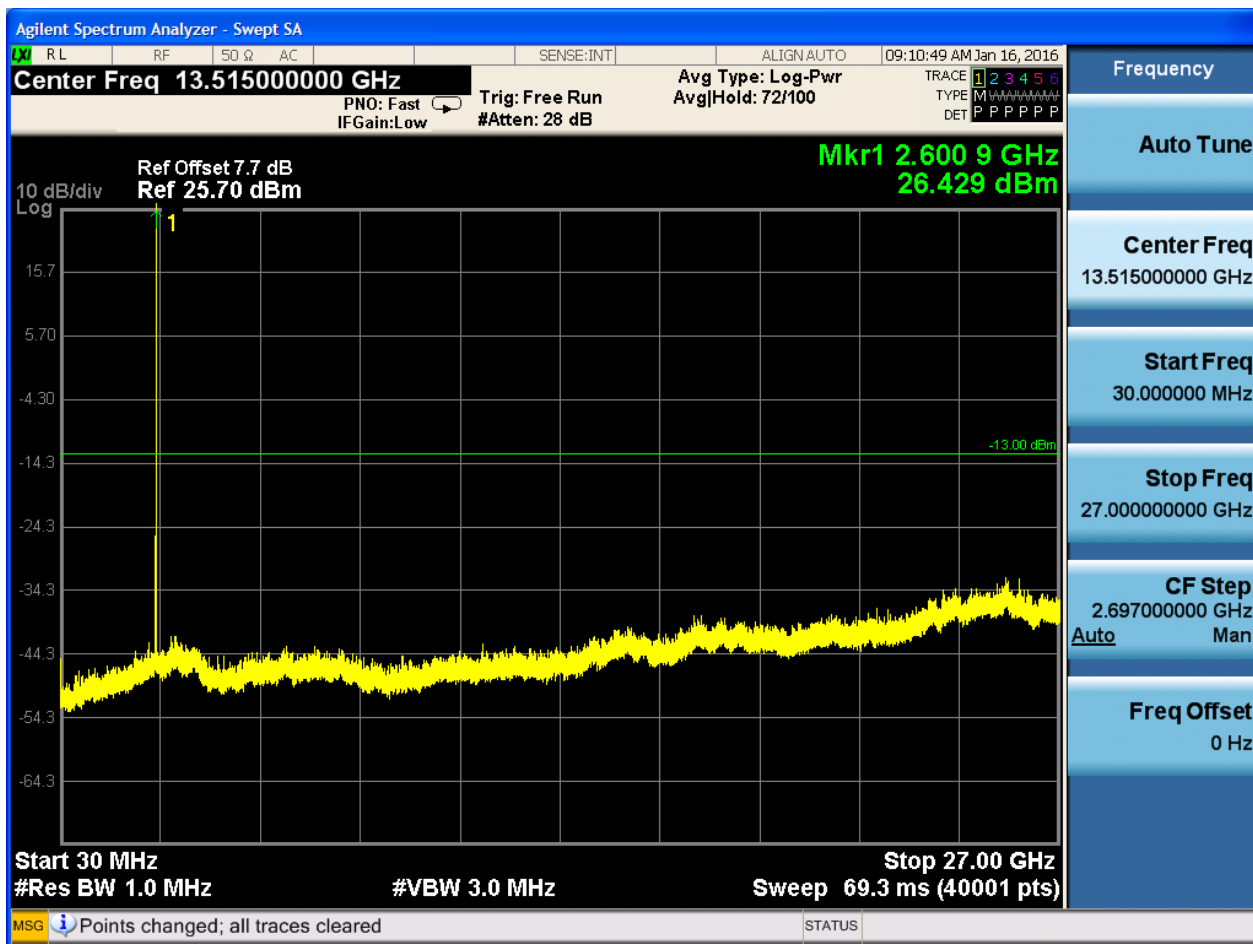


6.1.1.1.2.2 Test Channel = MCH

6.1.1.1.2.2.1 Test RB = RB1#0

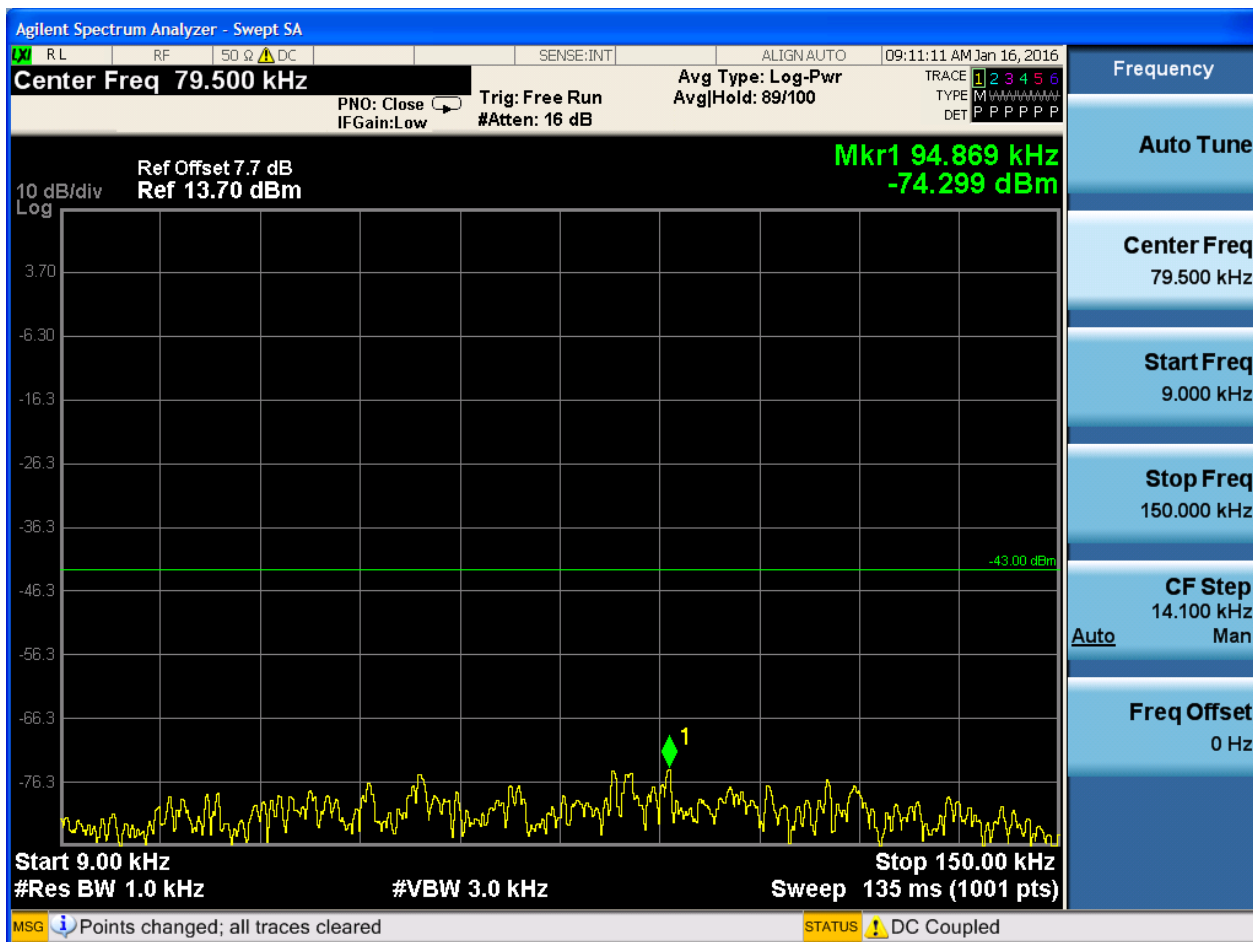


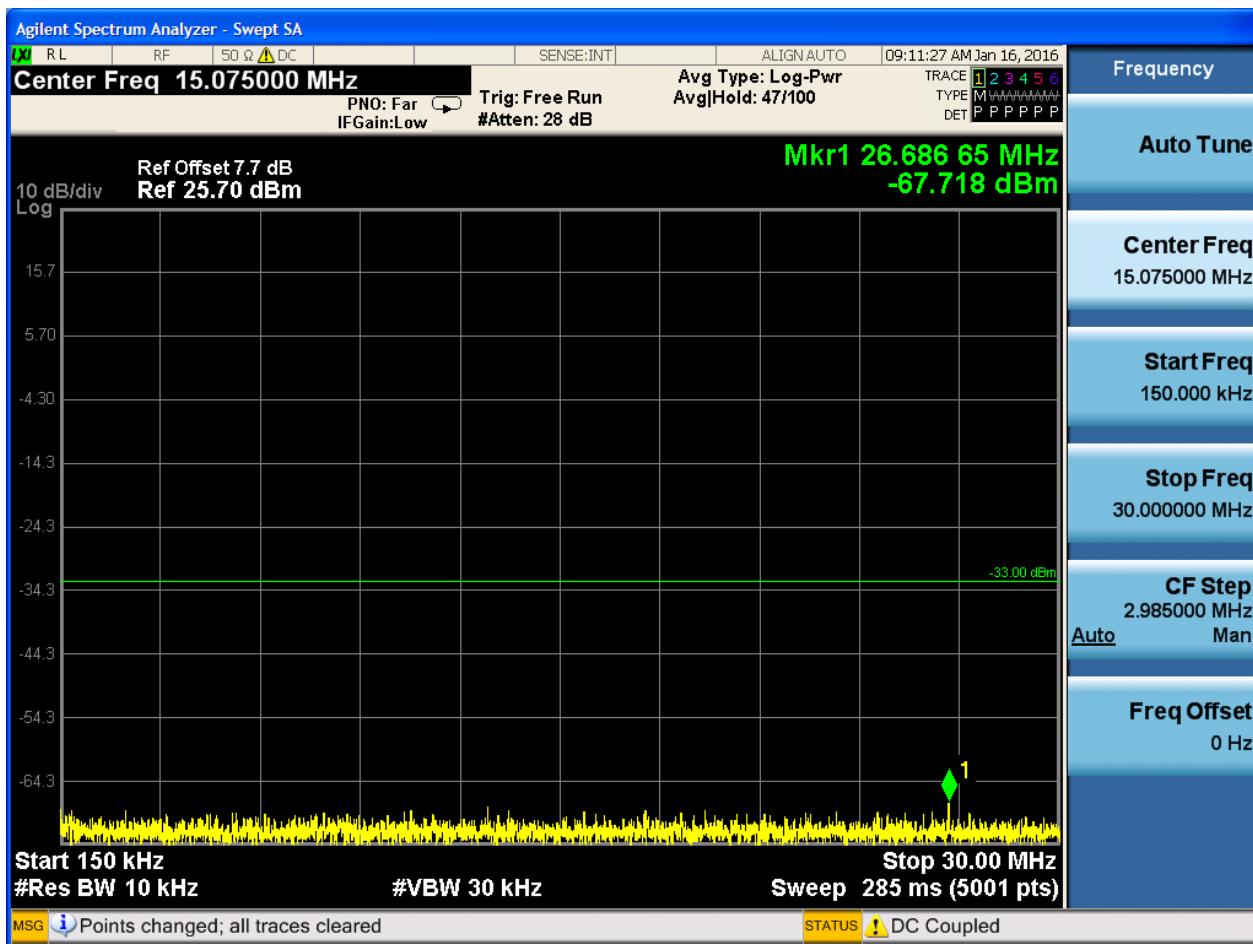


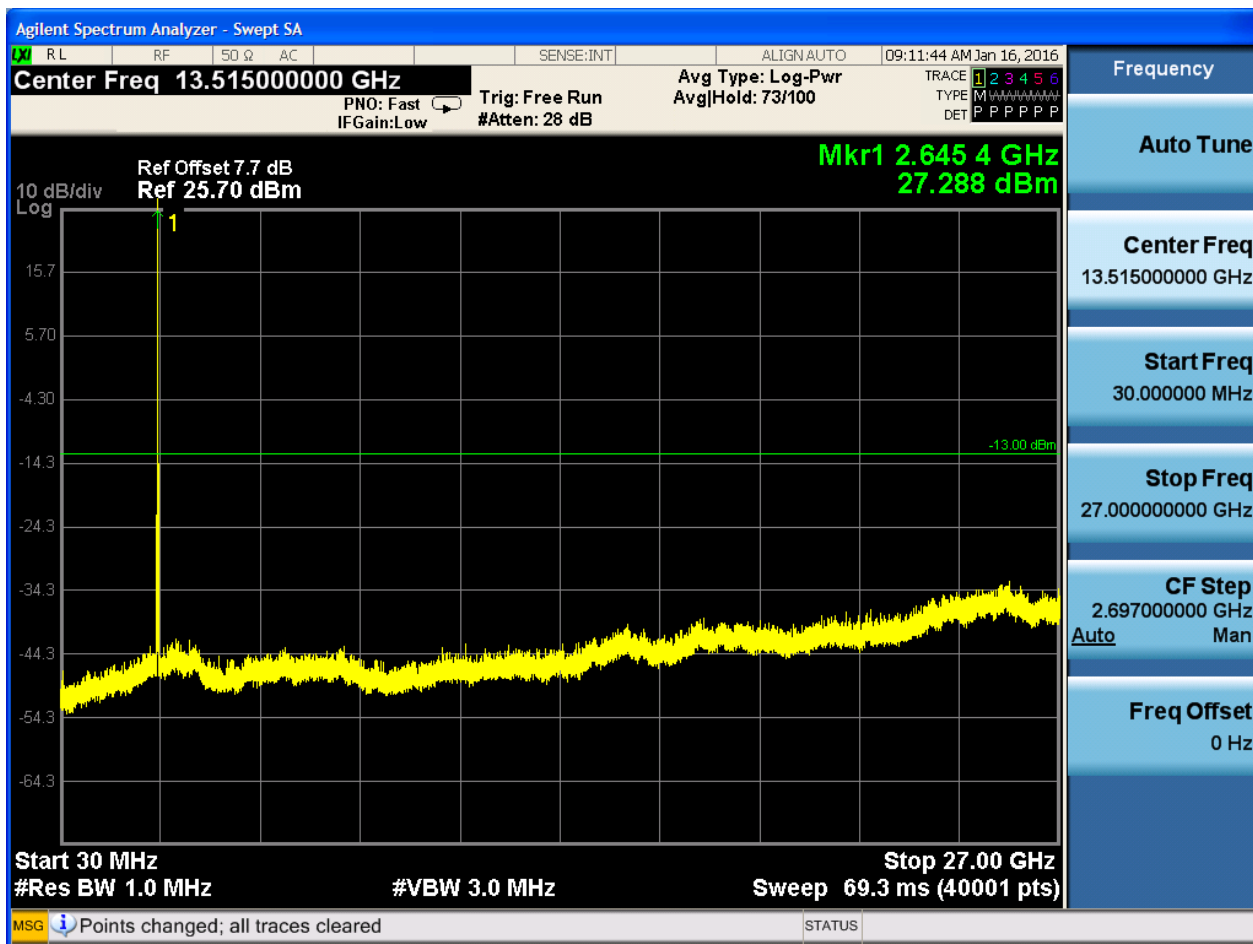


6.1.1.1.2.3 Test Channel = HCH

6.1.1.1.2.3.1 Test RB = RB1#0



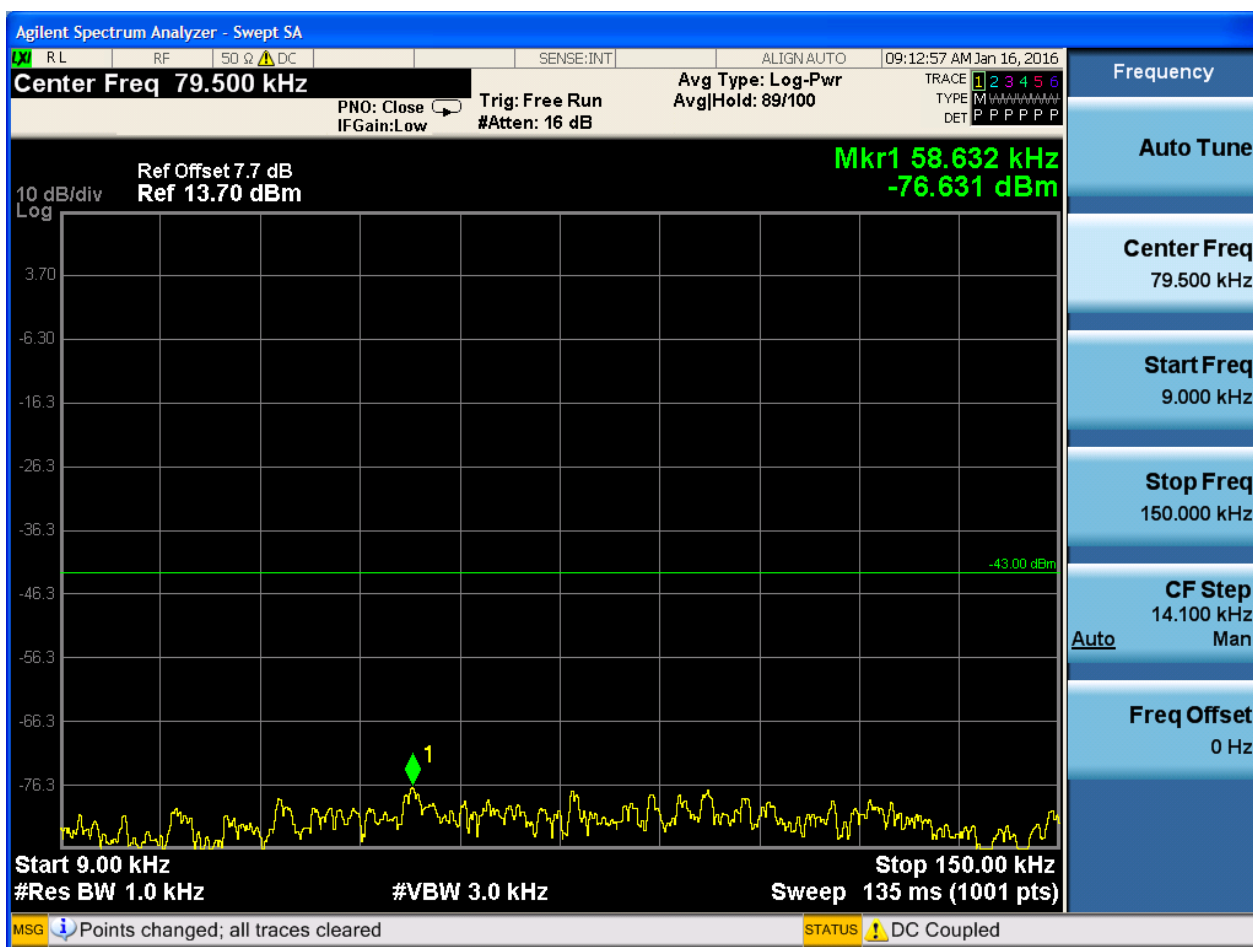


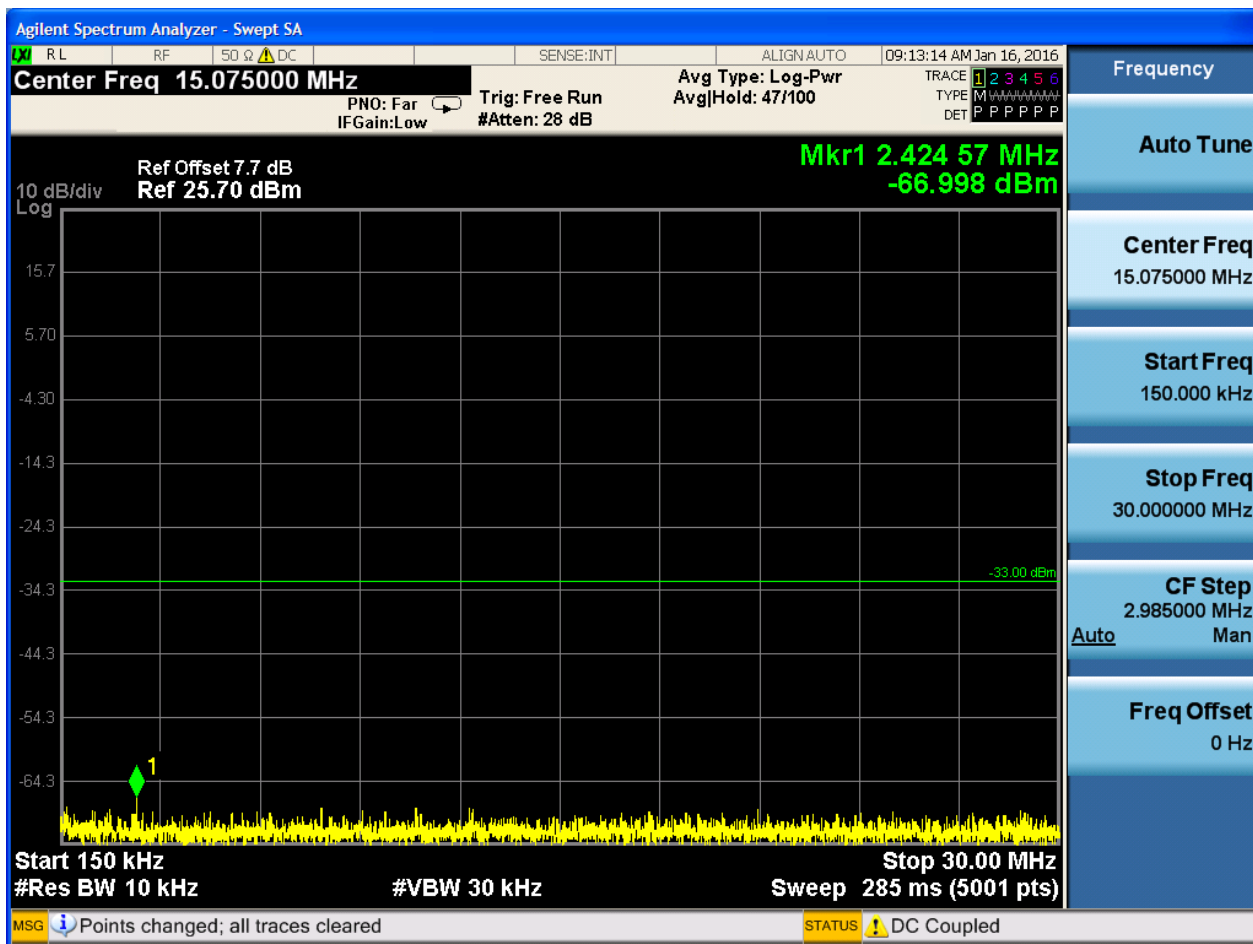


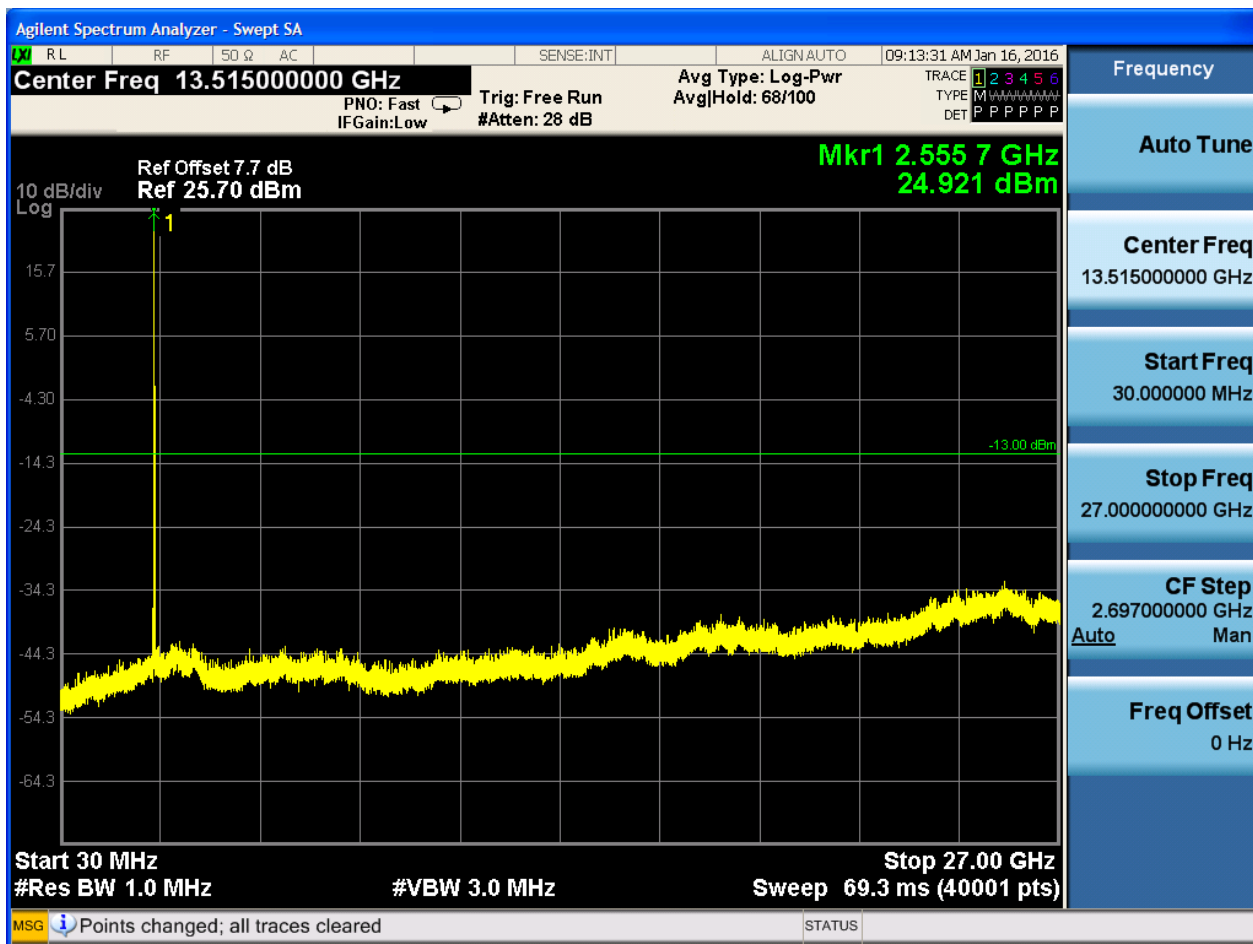
6.1.1.1.3 Test Bandwidth = 15

6.1.1.1.3.1 Test Channel = LCH

6.1.1.1.3.1.1 Test RB = RB1#0

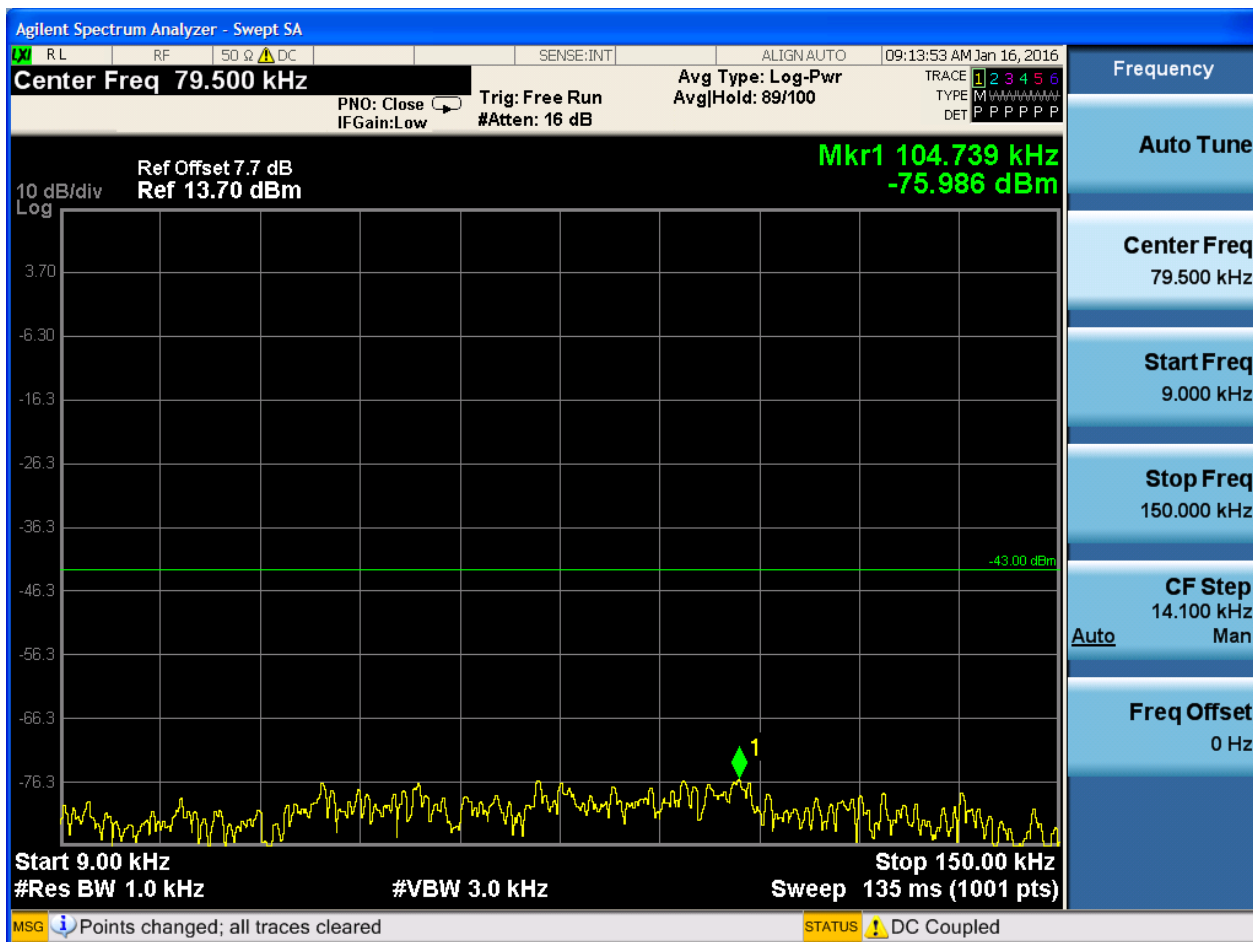


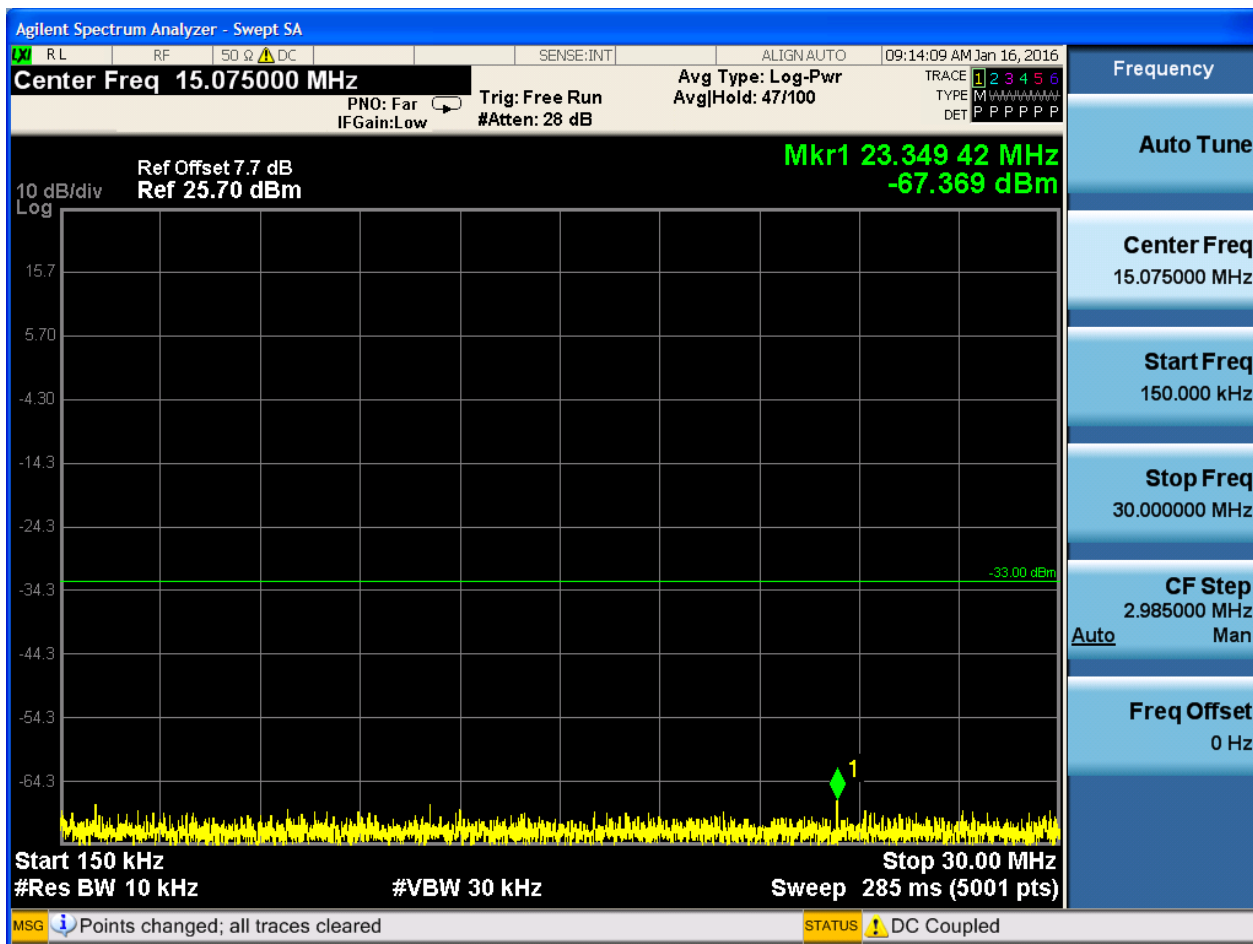


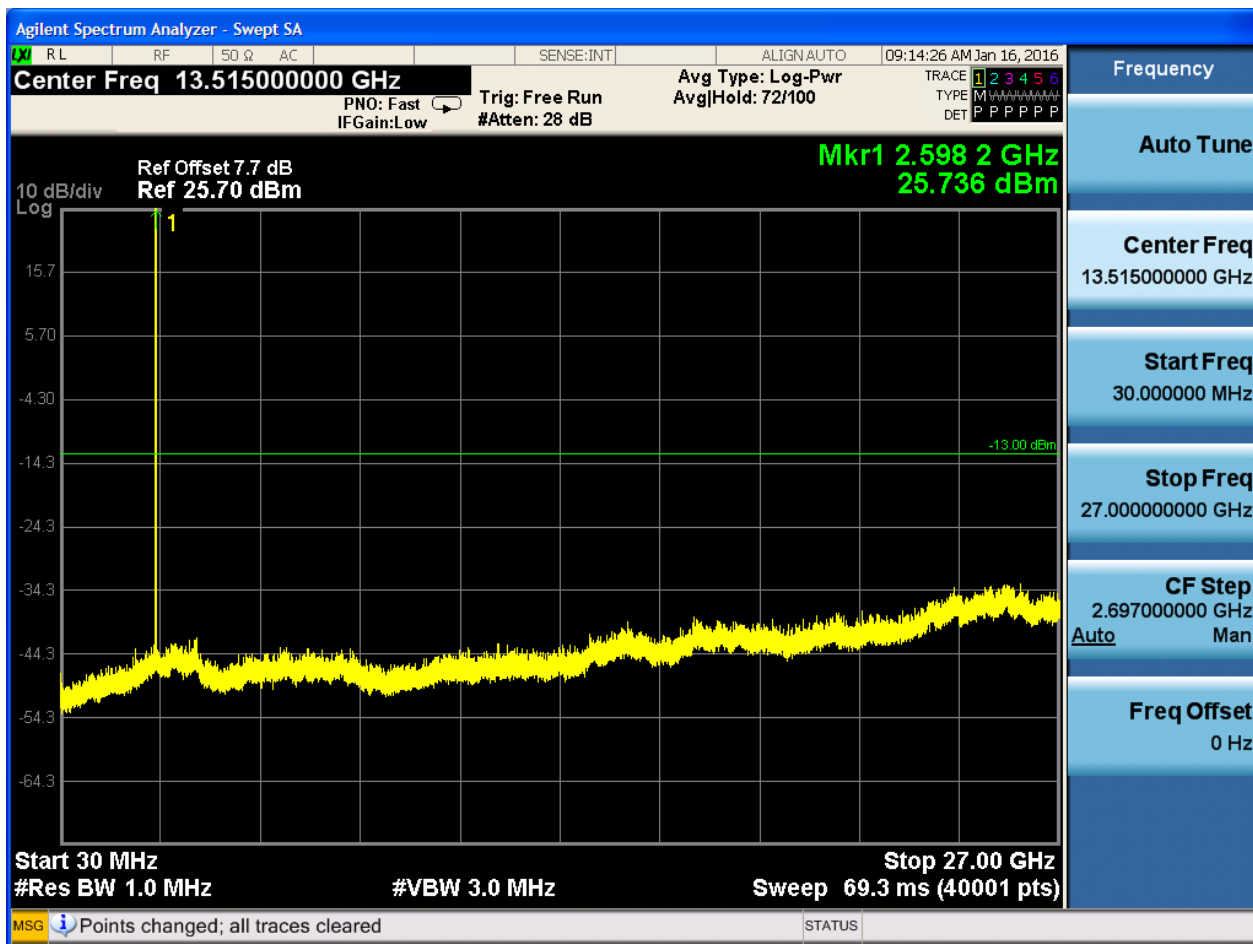


6.1.1.1.3.2 Test Channel = MCH

6.1.1.1.3.2.1 Test RB = RB1#0

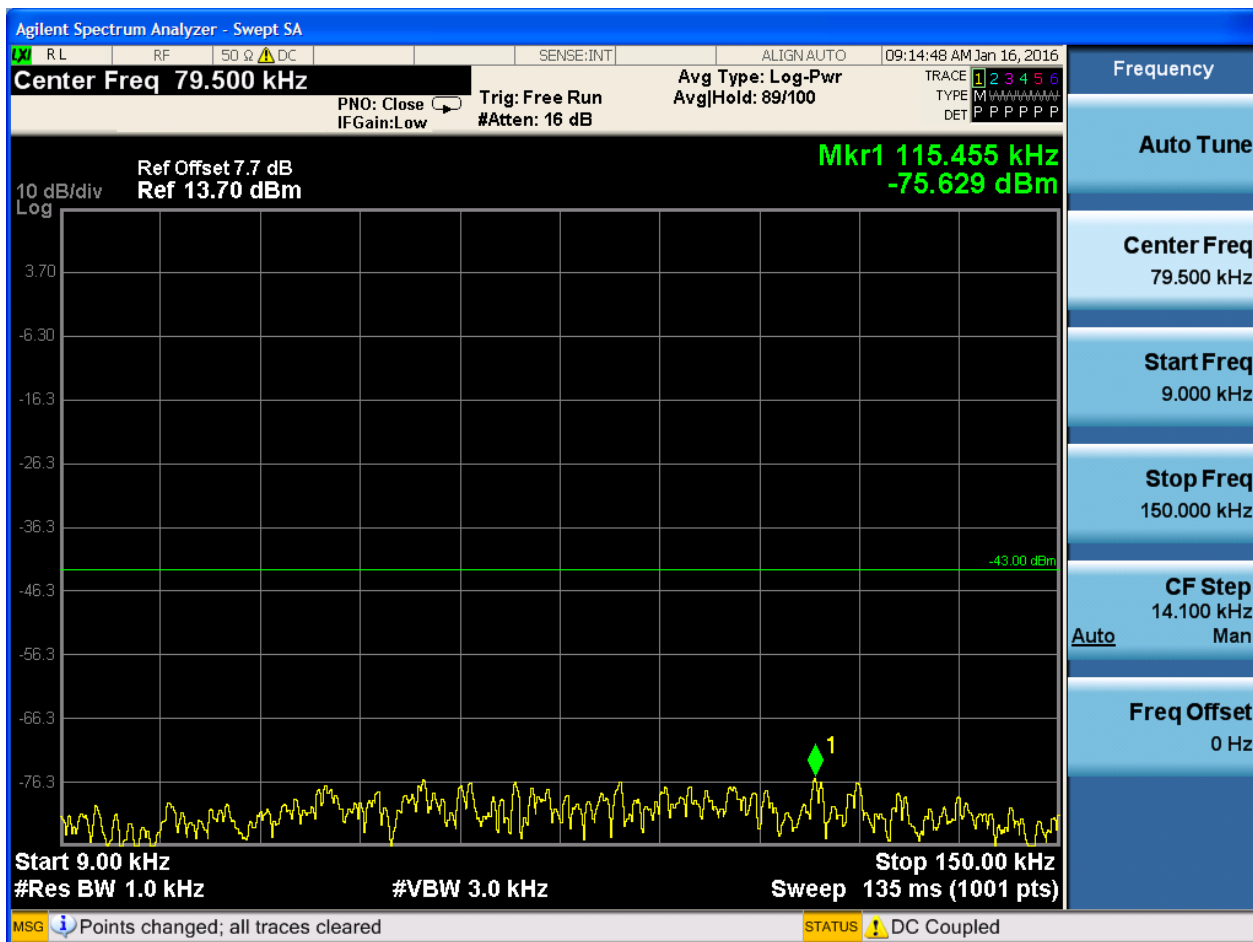


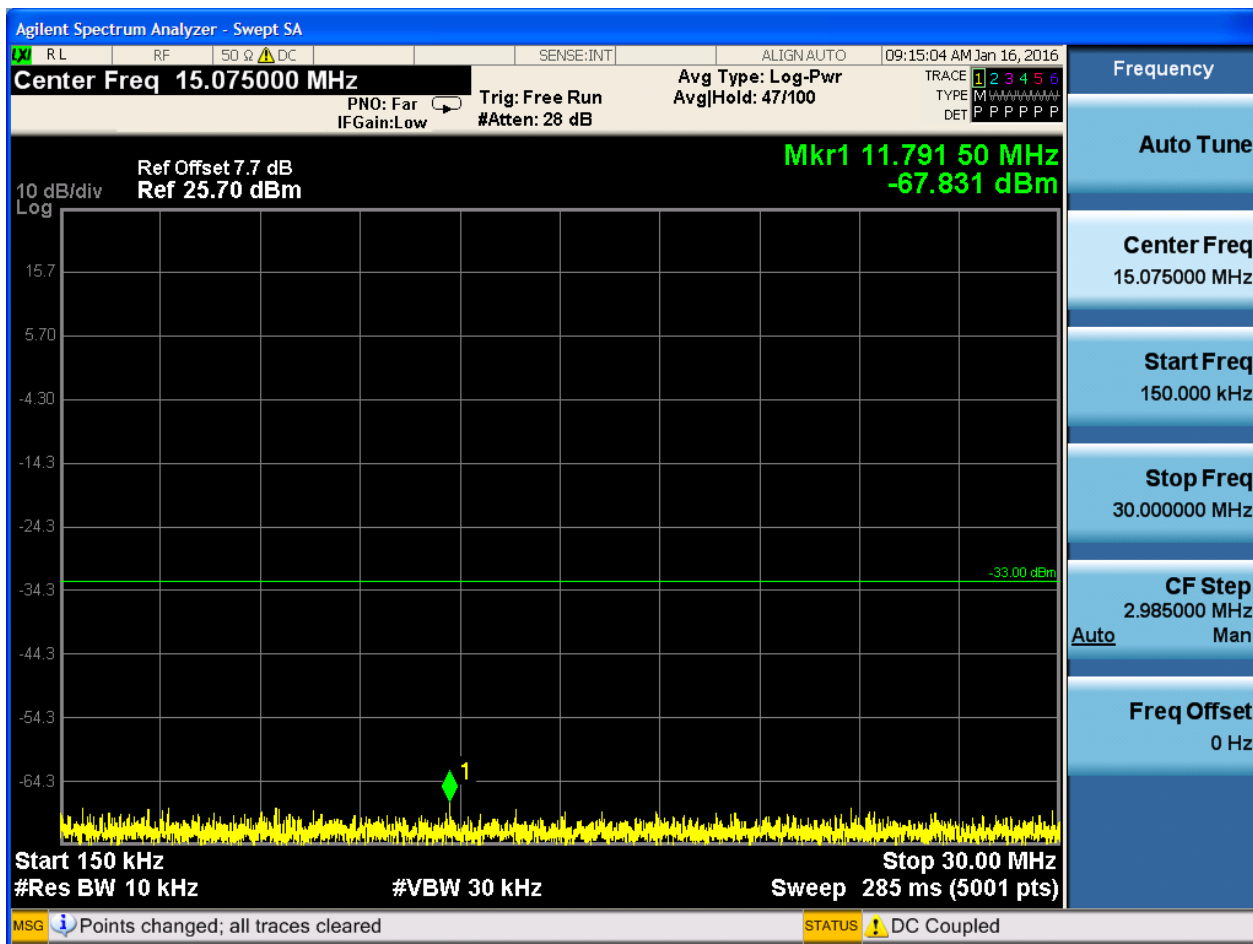


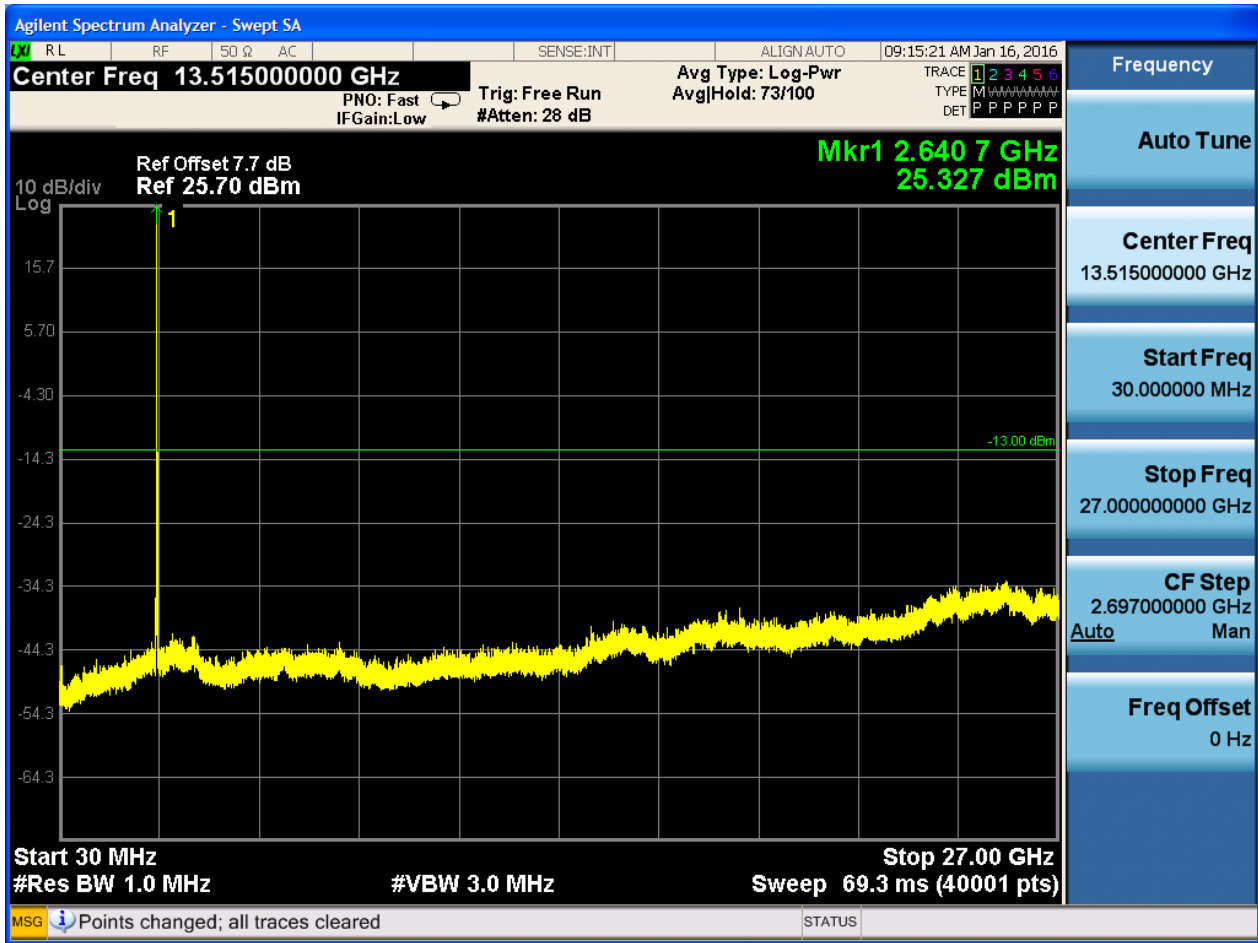


6.1.1.1.3.3 Test Channel = HCH

6.1.1.1.3.3.1 Test RB = RB1#0



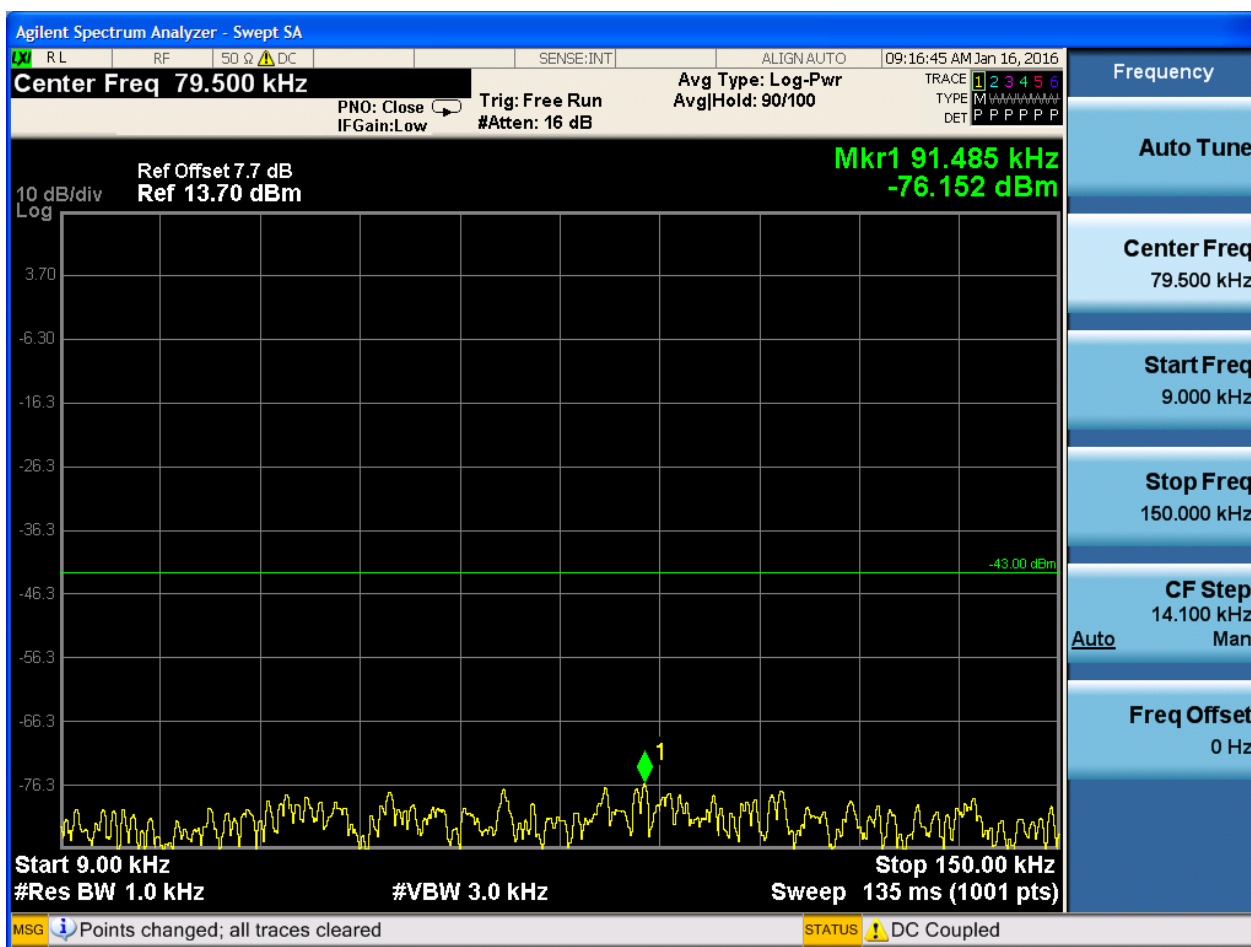


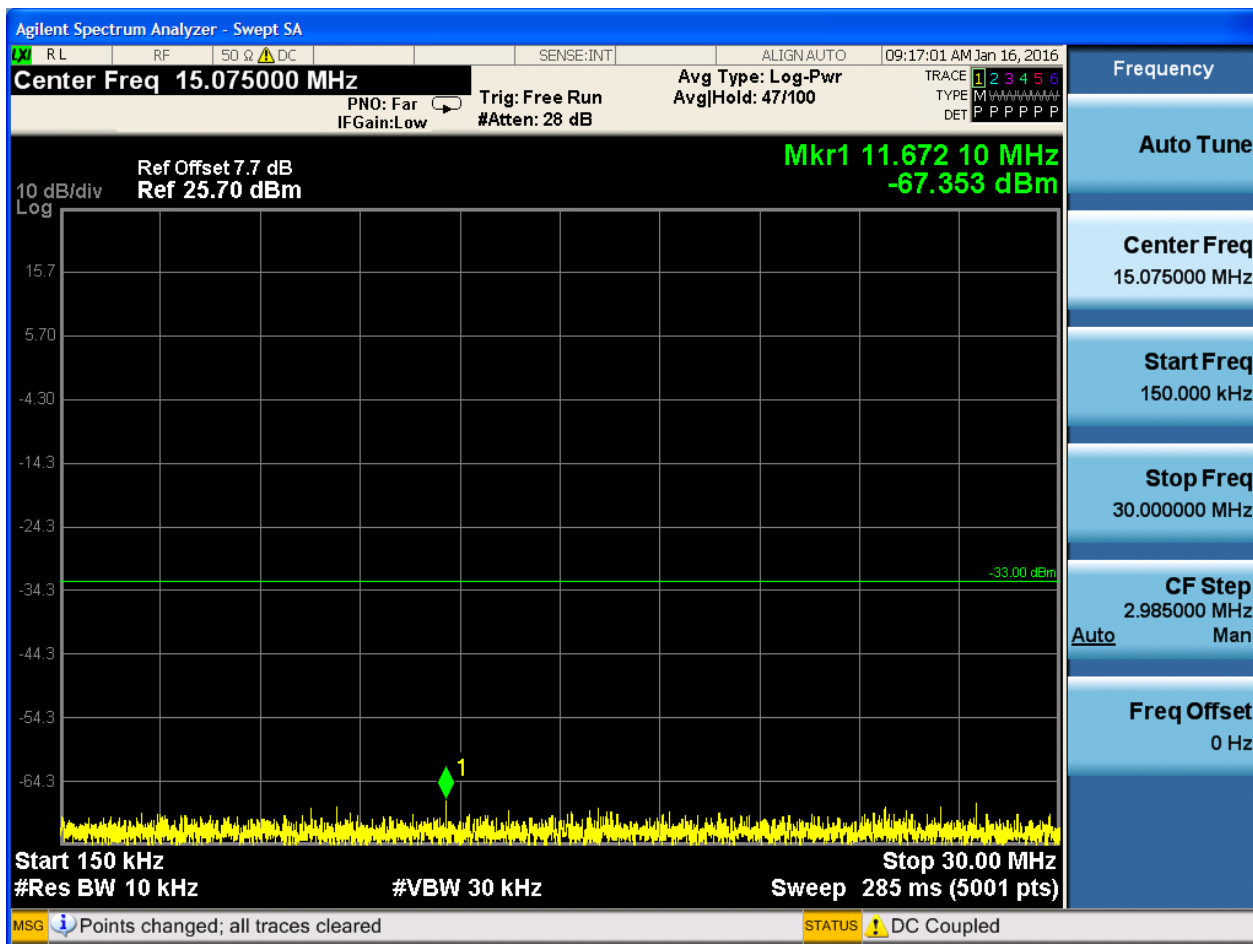


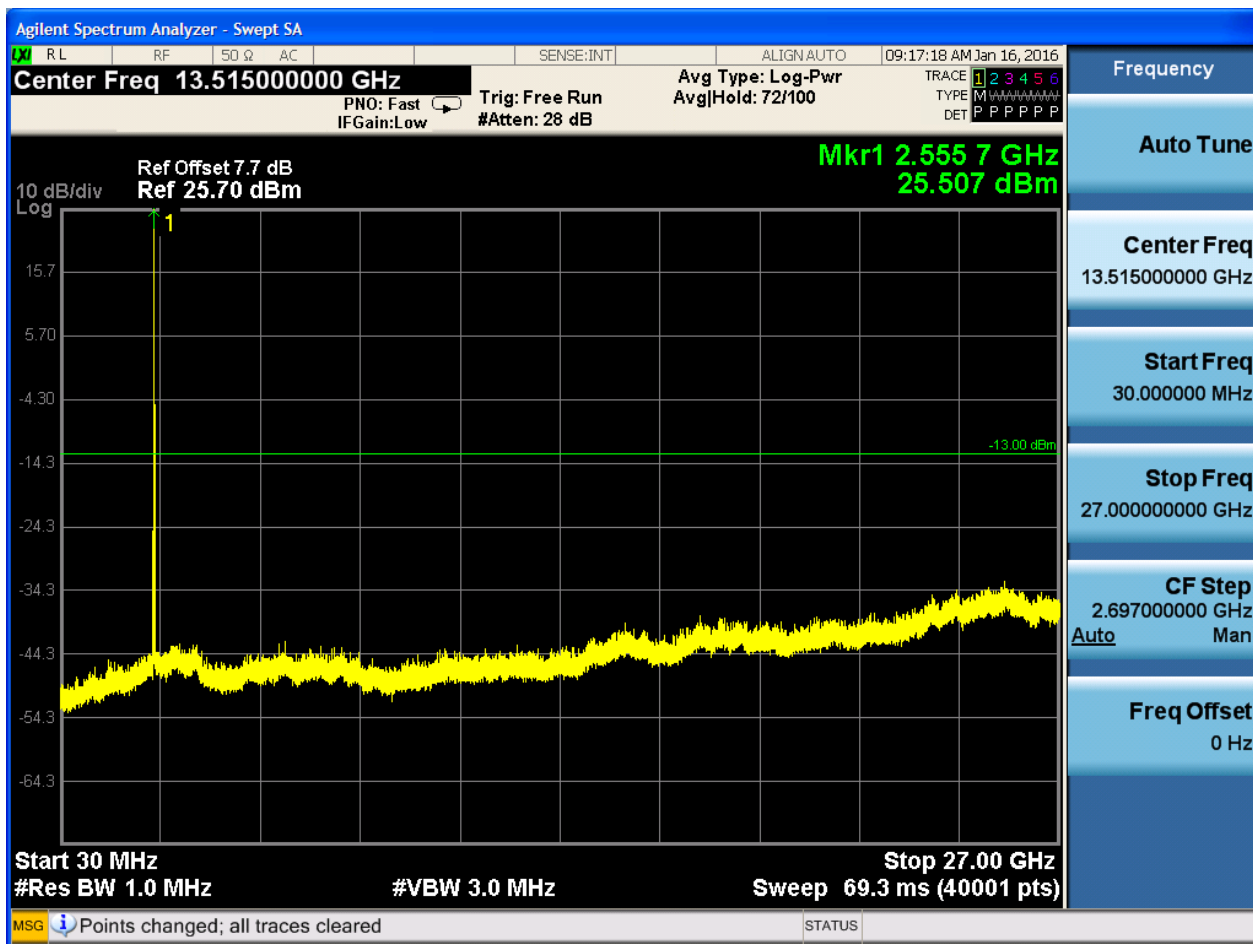
6.1.1.1.4 Test Bandwidth = 20

6.1.1.1.4.1 Test Channel = LCH

6.1.1.1.4.1.1 Test RB = RB1#0

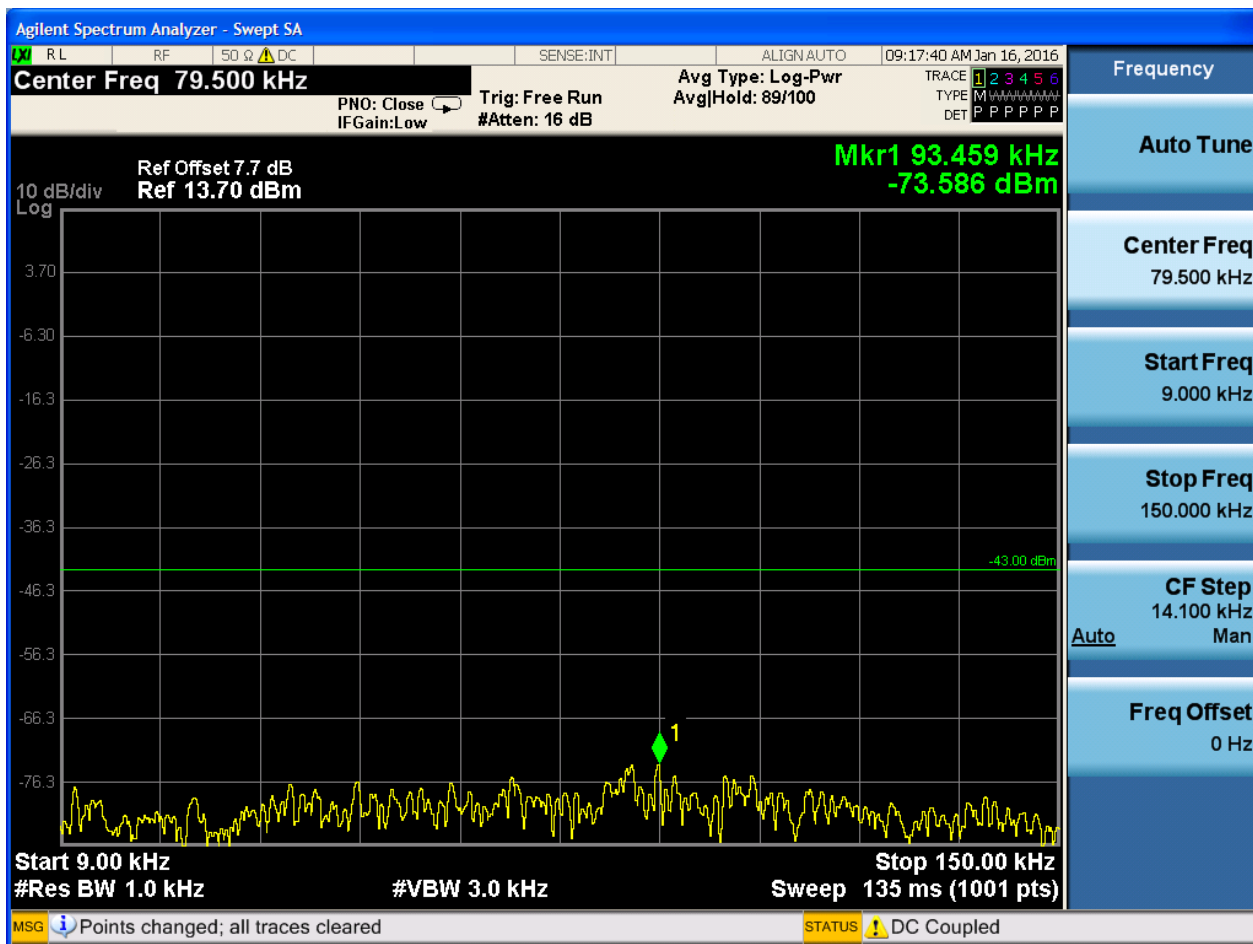


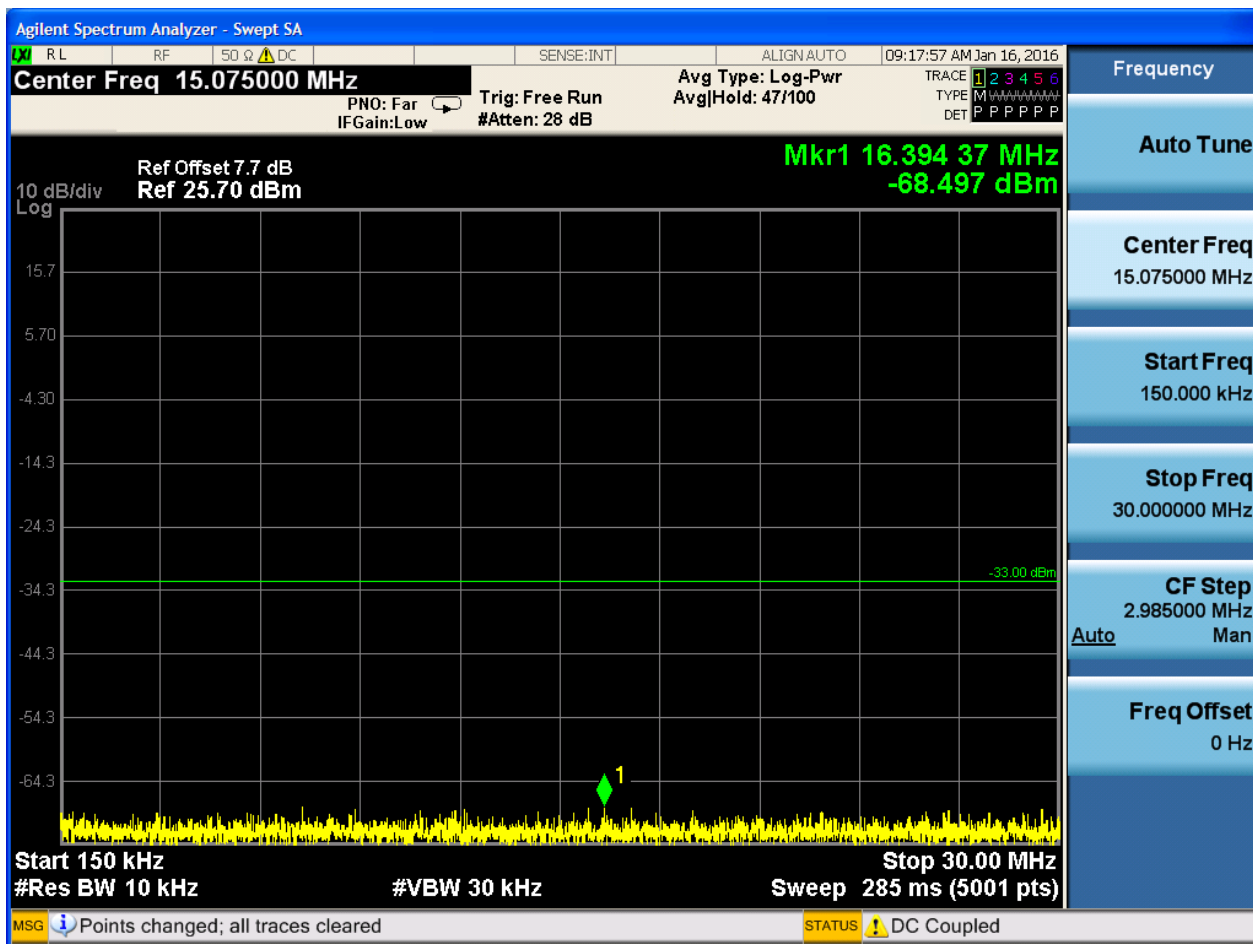


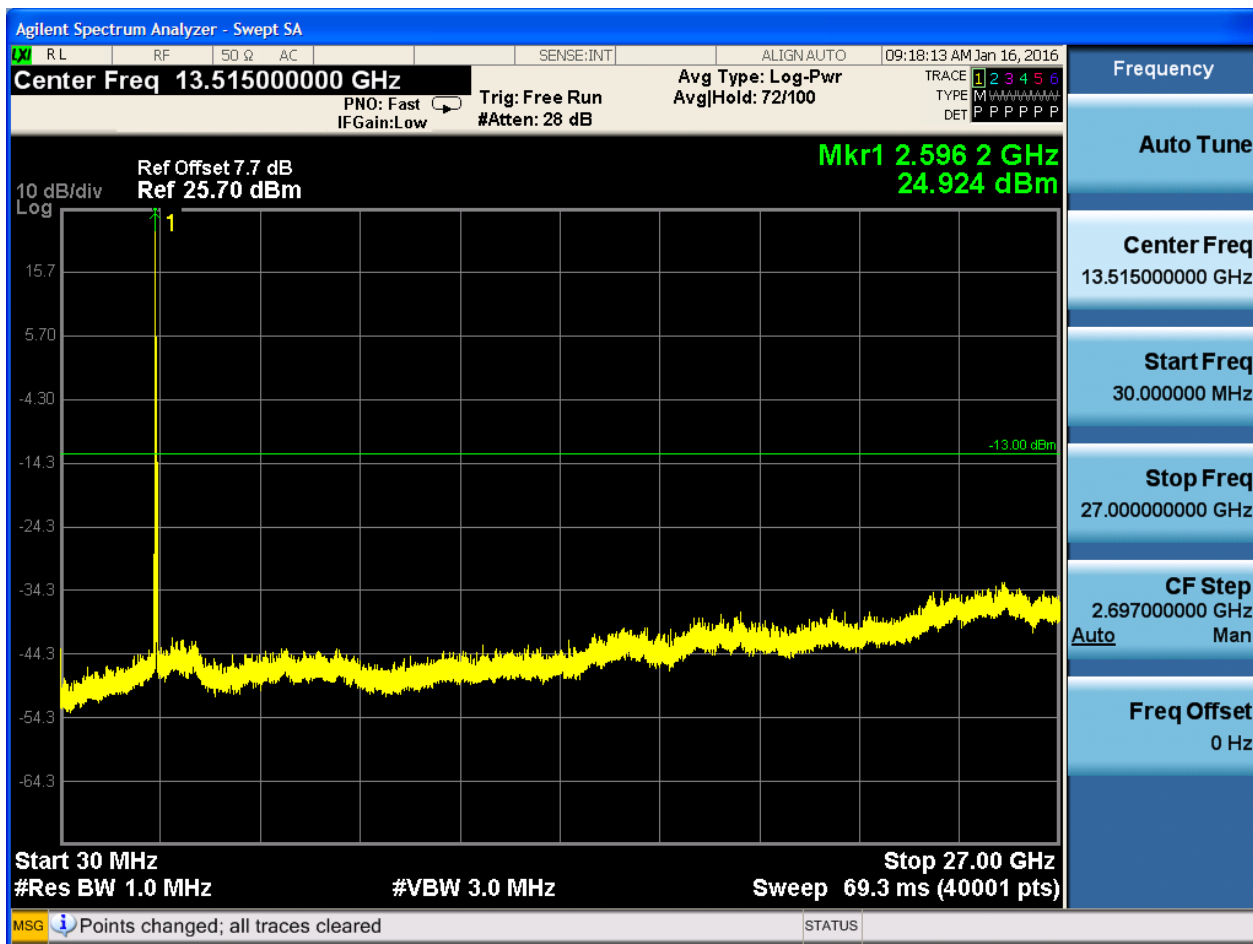


6.1.1.1.4.2 Test Channel = MCH

6.1.1.1.4.2.1 Test RB = RB1#0

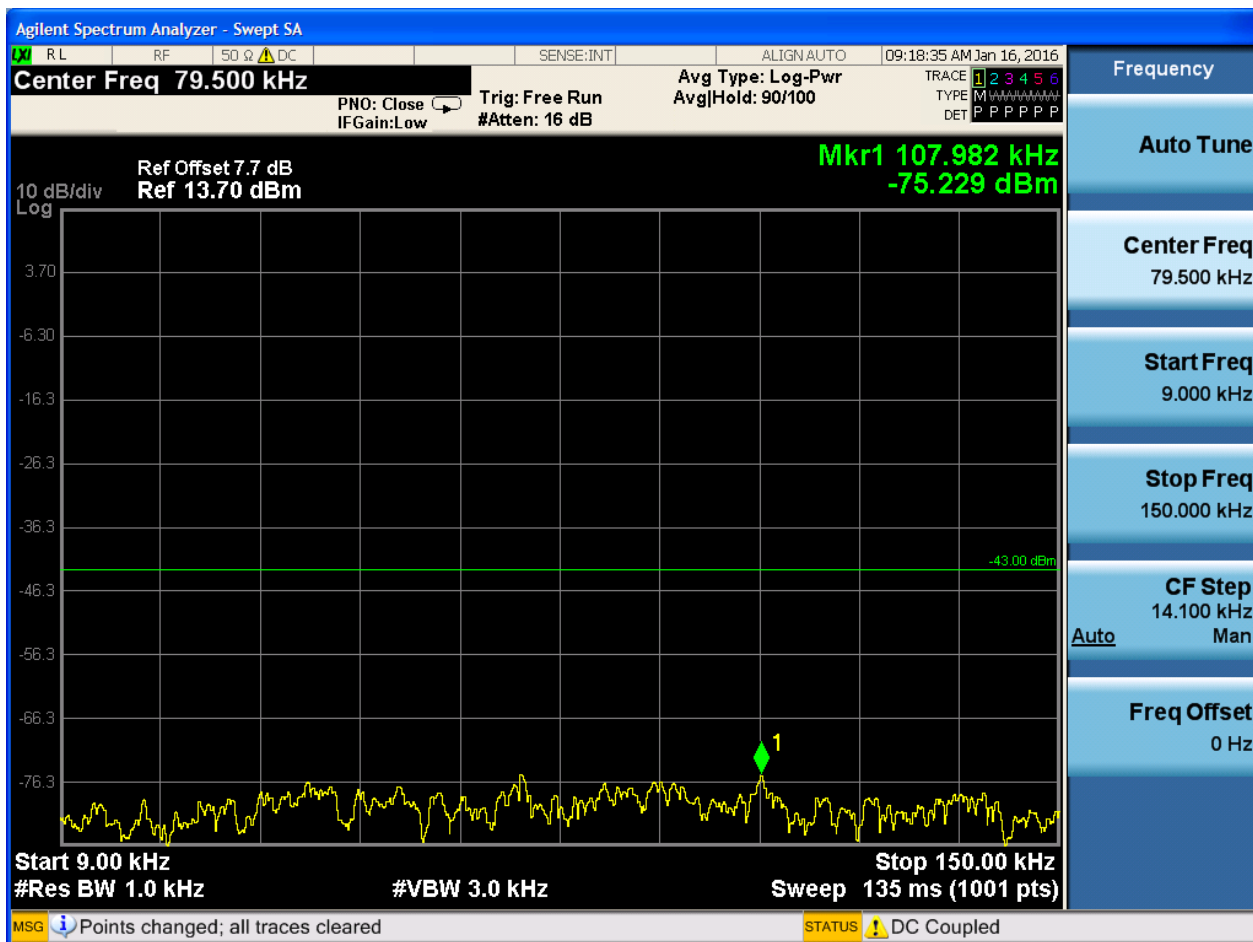


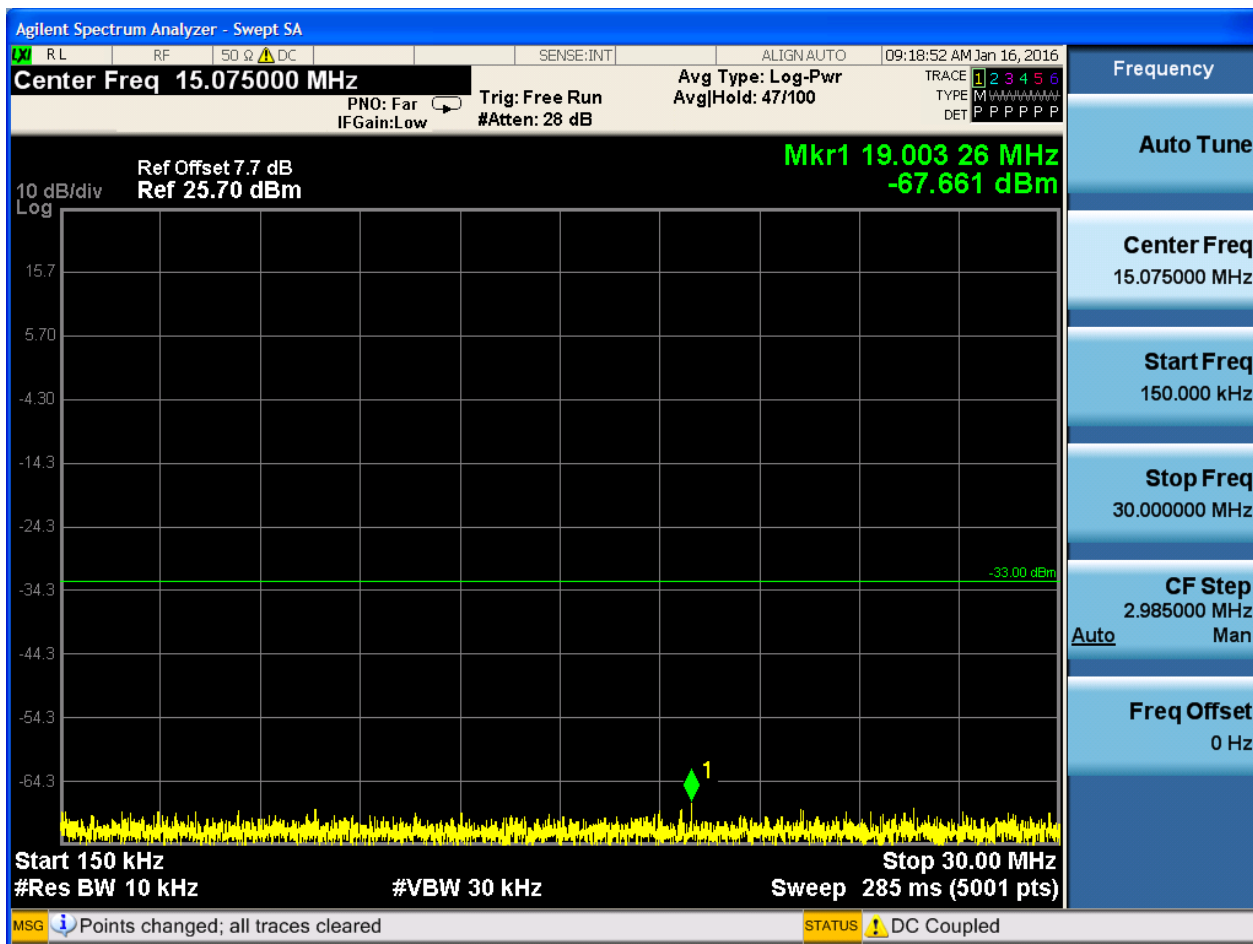


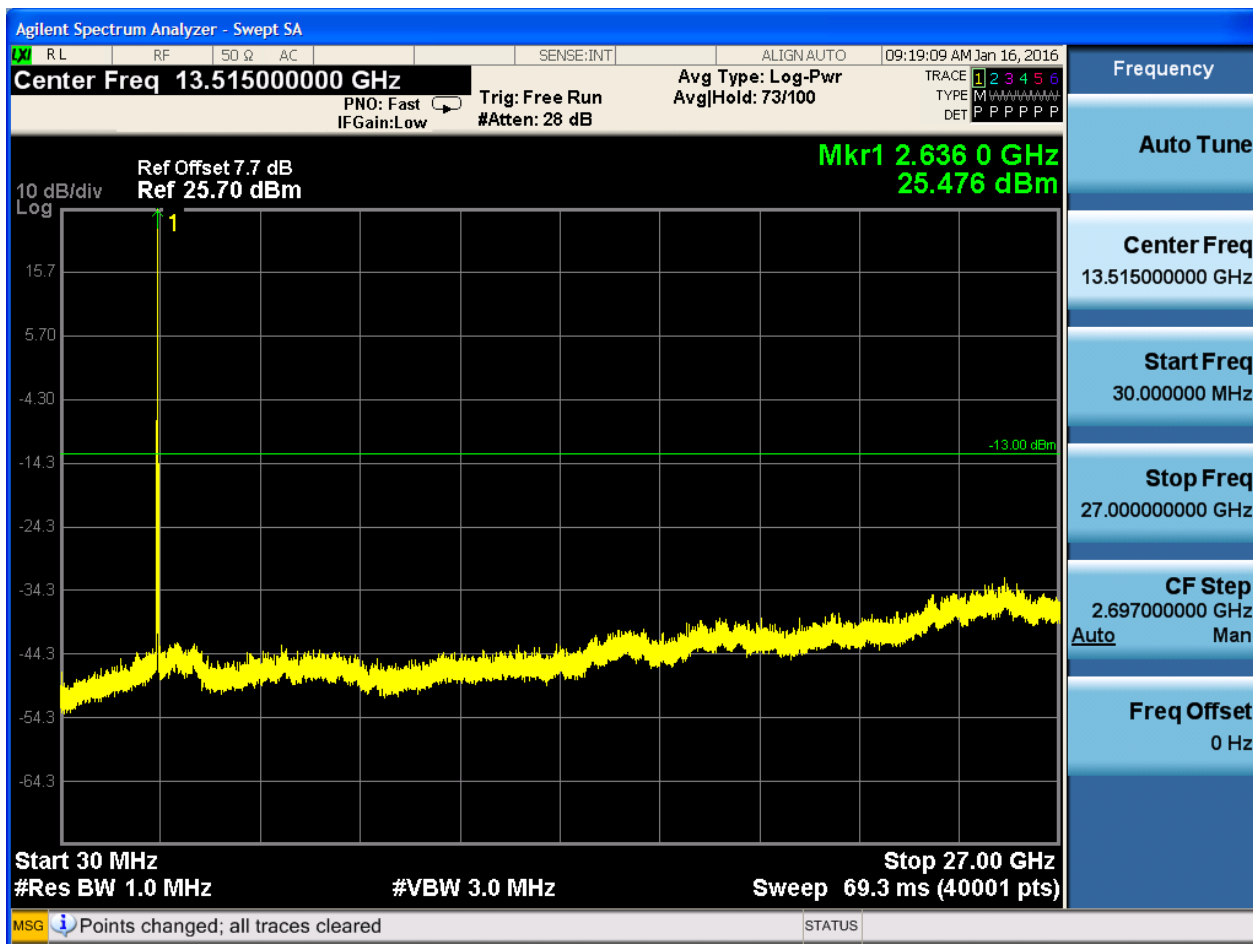


6.1.1.1.4.3 Test Channel = HCH

6.1.1.1.4.3.1 Test RB = RB1#0





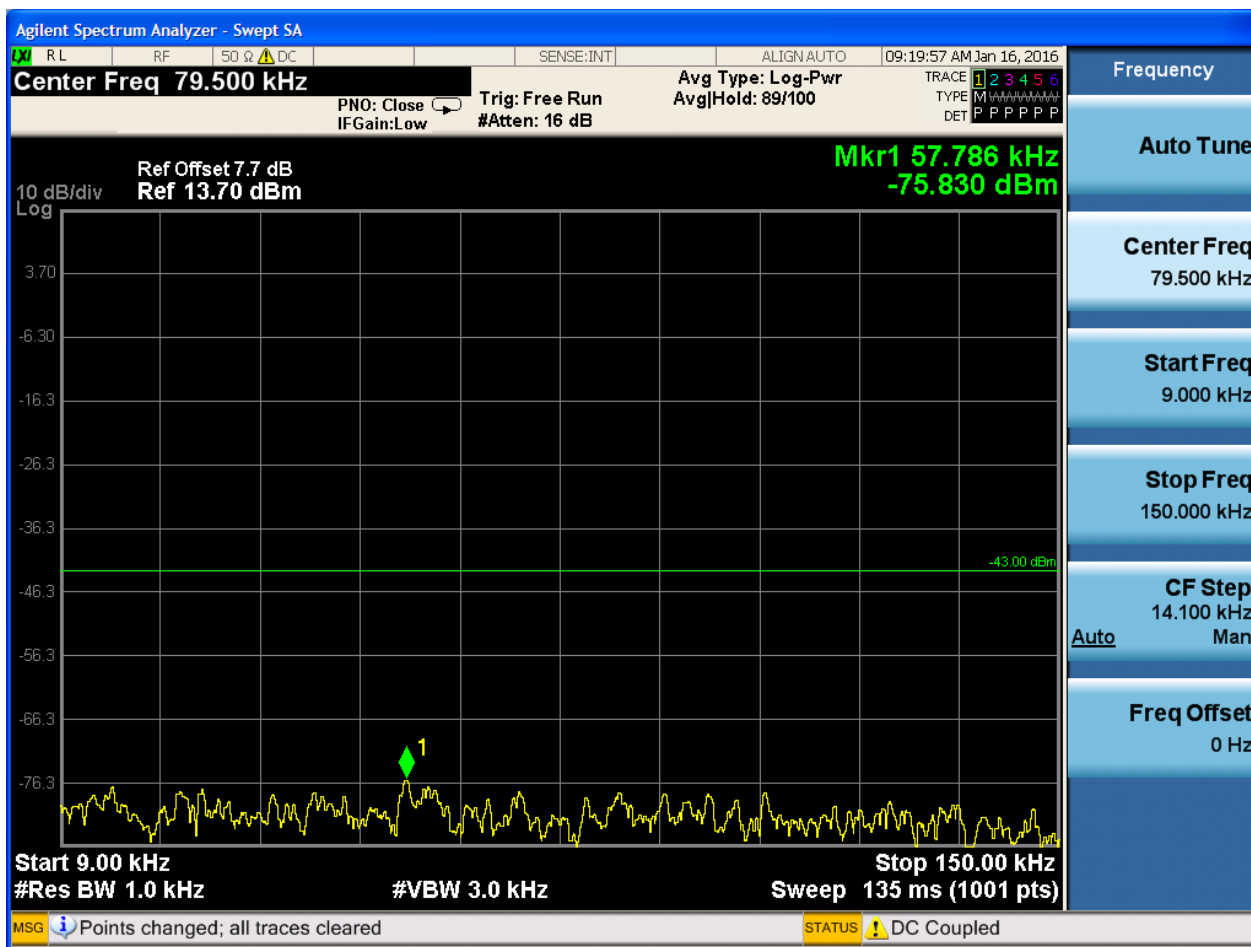


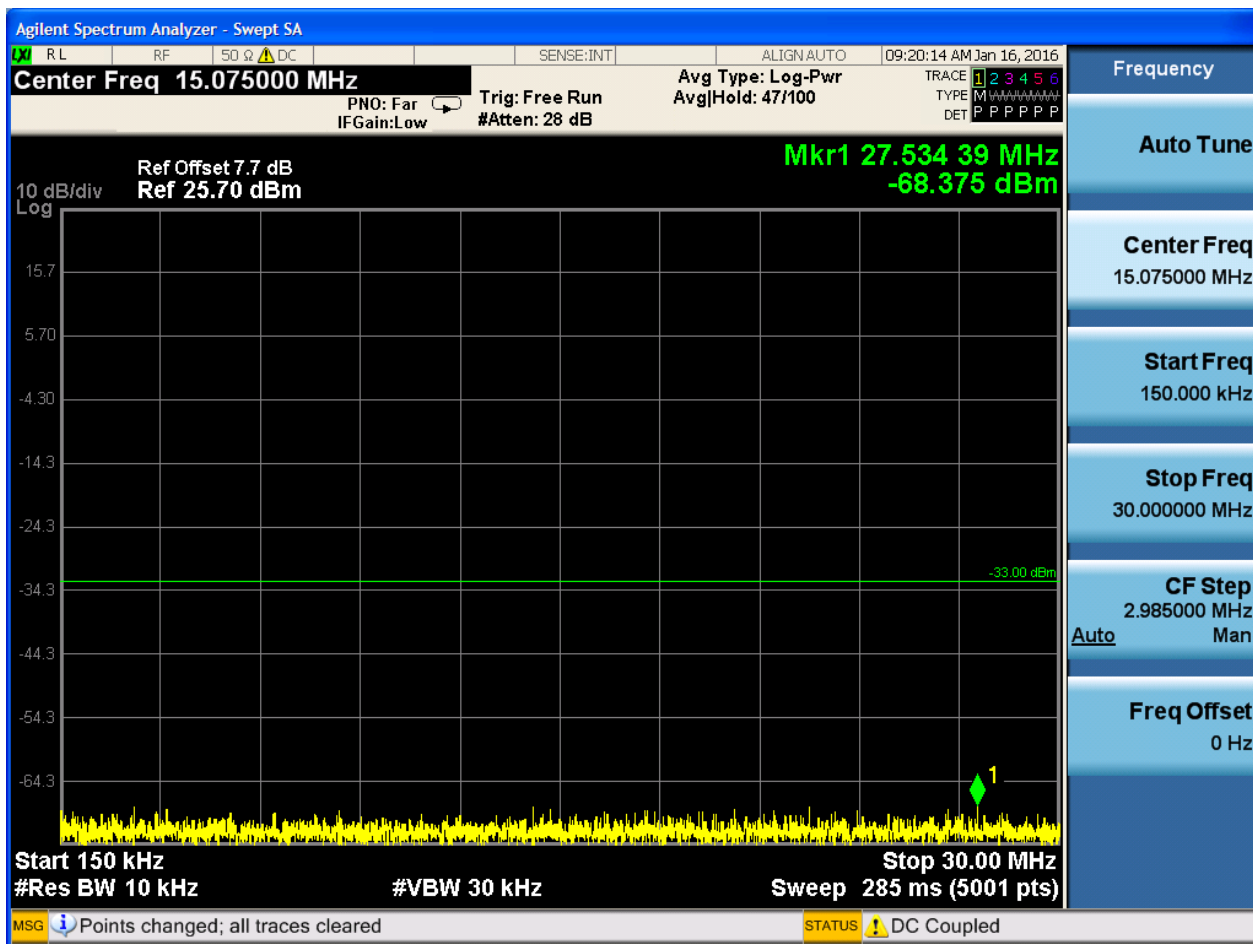
6.1.1.2 Test Mode = LTE/TM2

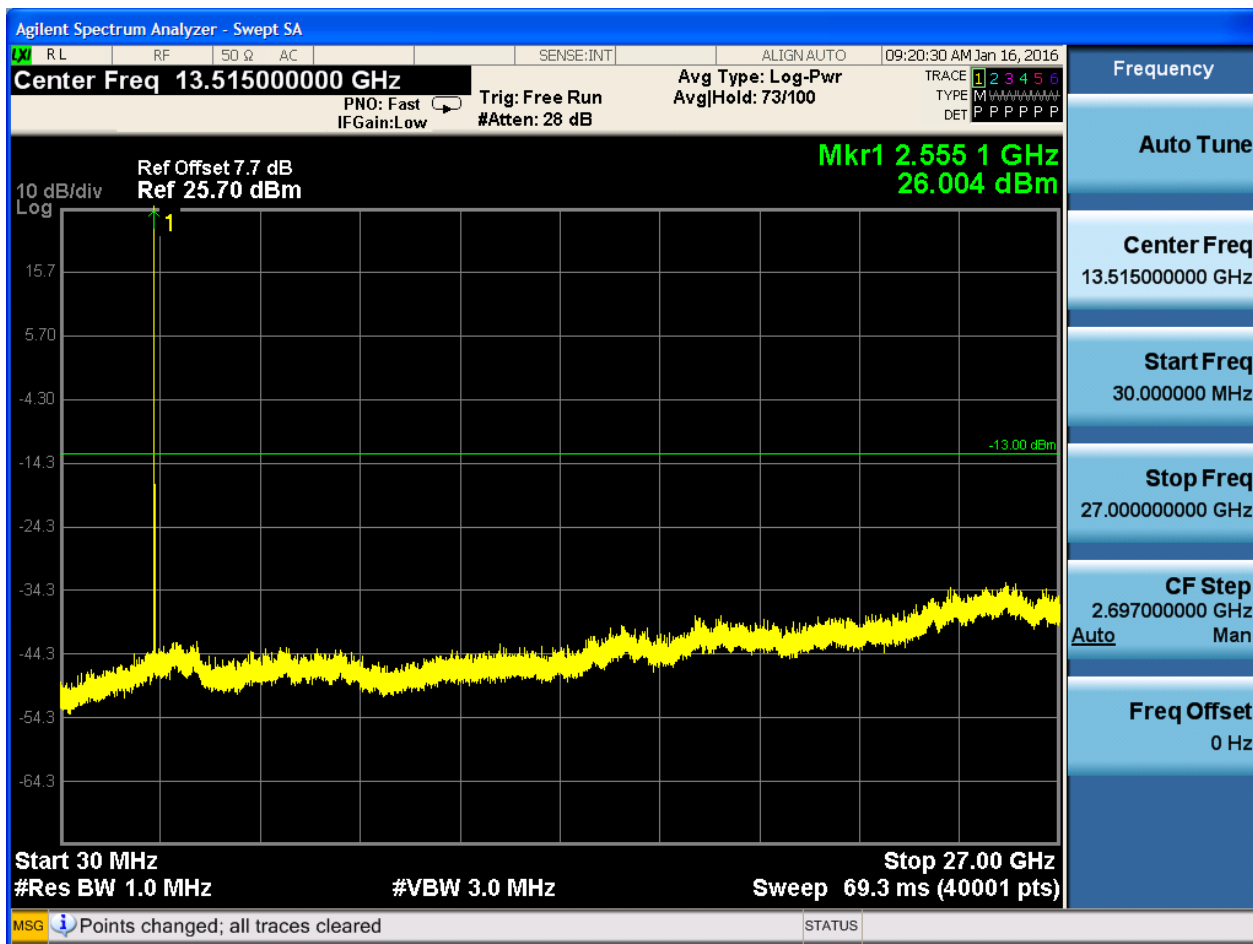
6.1.1.2.1 Test Bandwidth = 5

6.1.1.2.1.1 Test Channel = LCH

6.1.1.2.1.1.1 Test RB = RB1#0

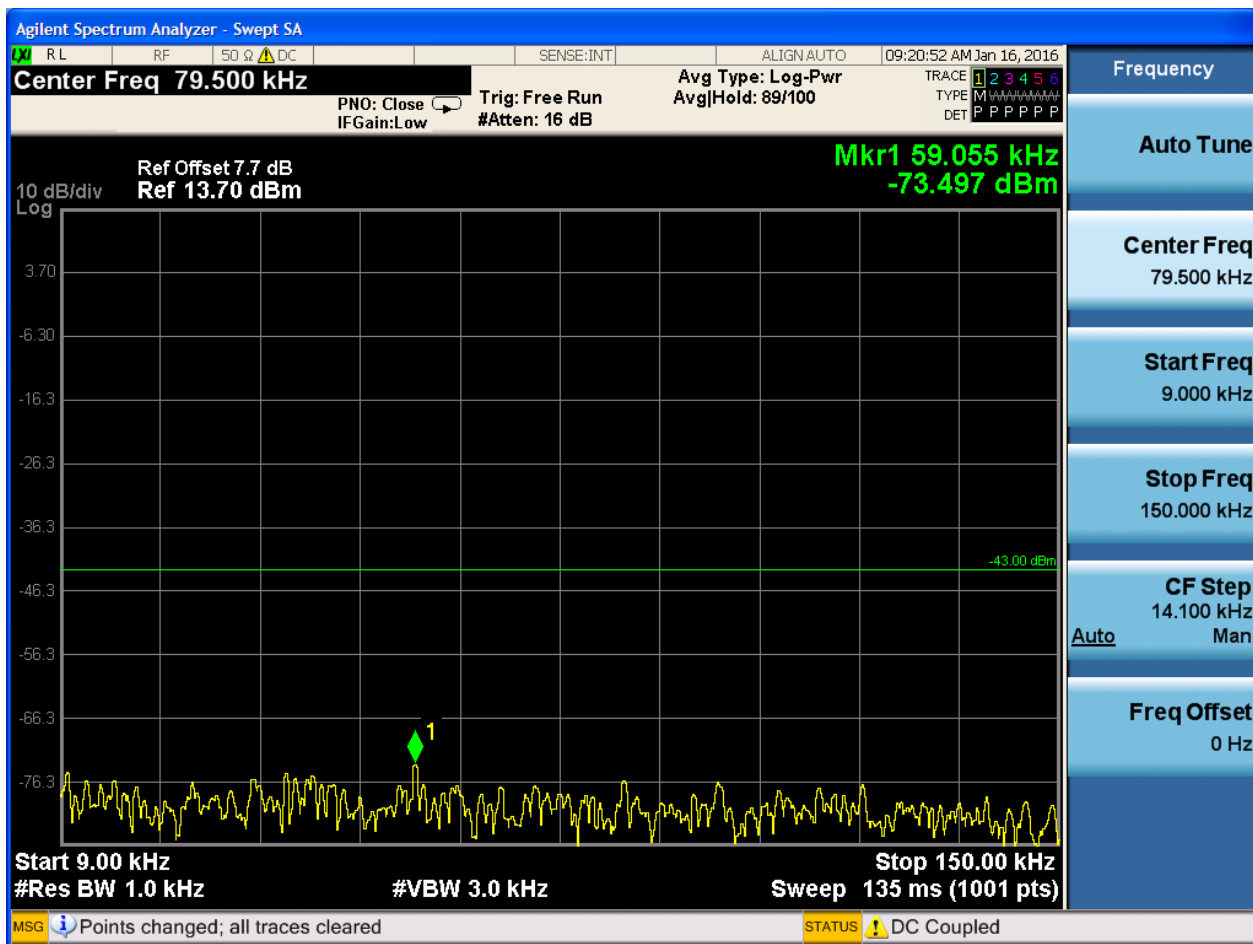


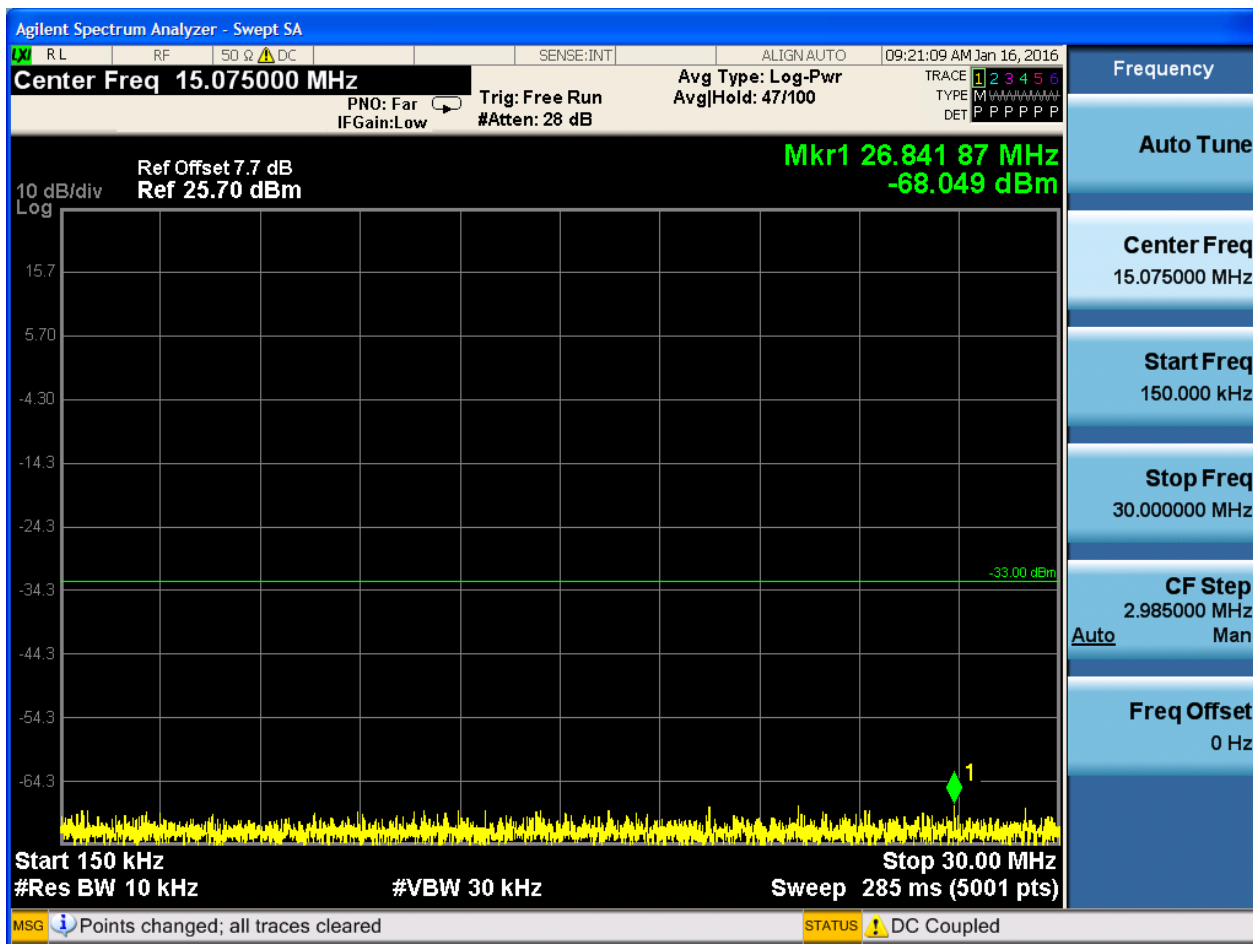


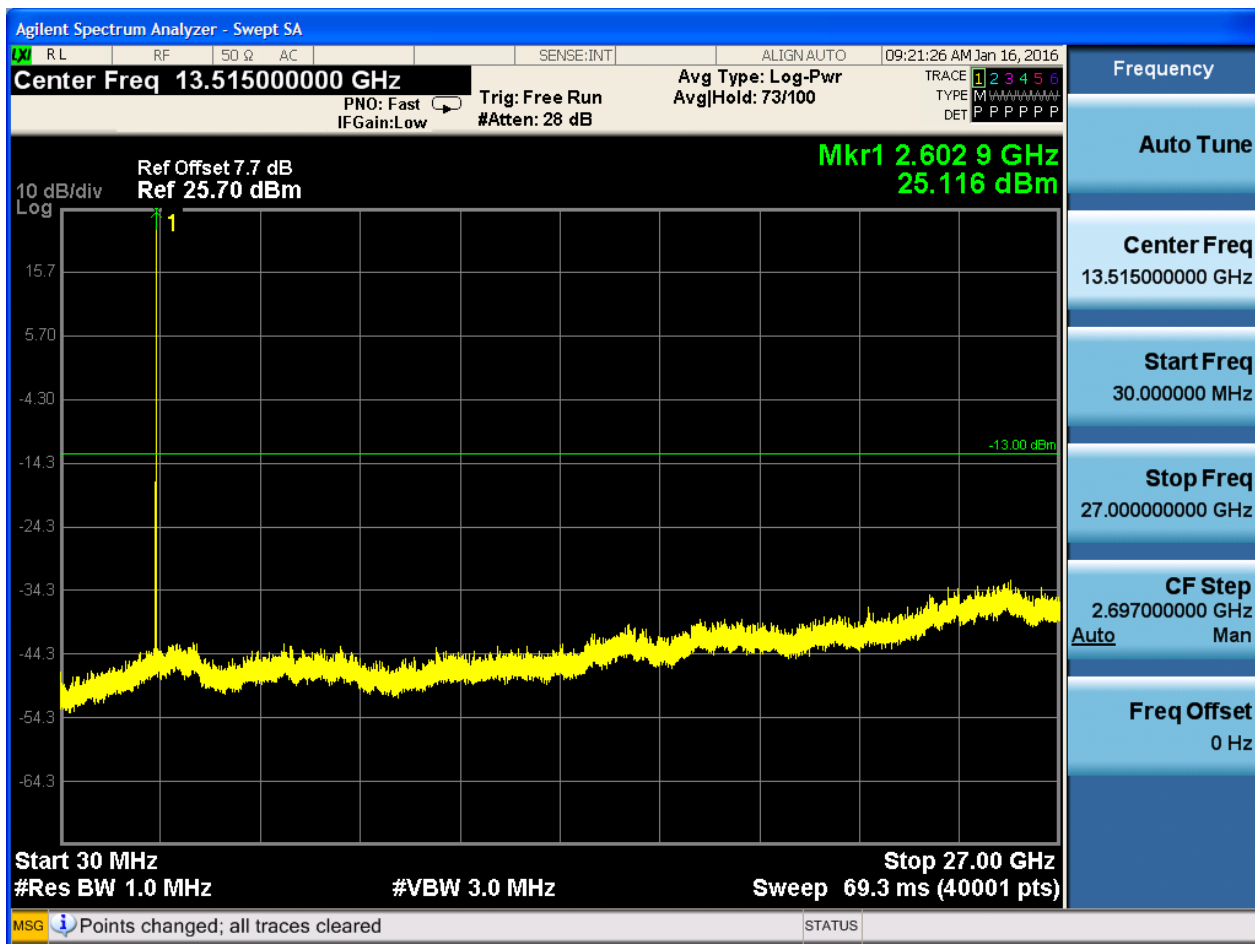


6.1.1.2.1.2 Test Channel = MCH

6.1.1.2.1.2.1 Test RB = RB1#0

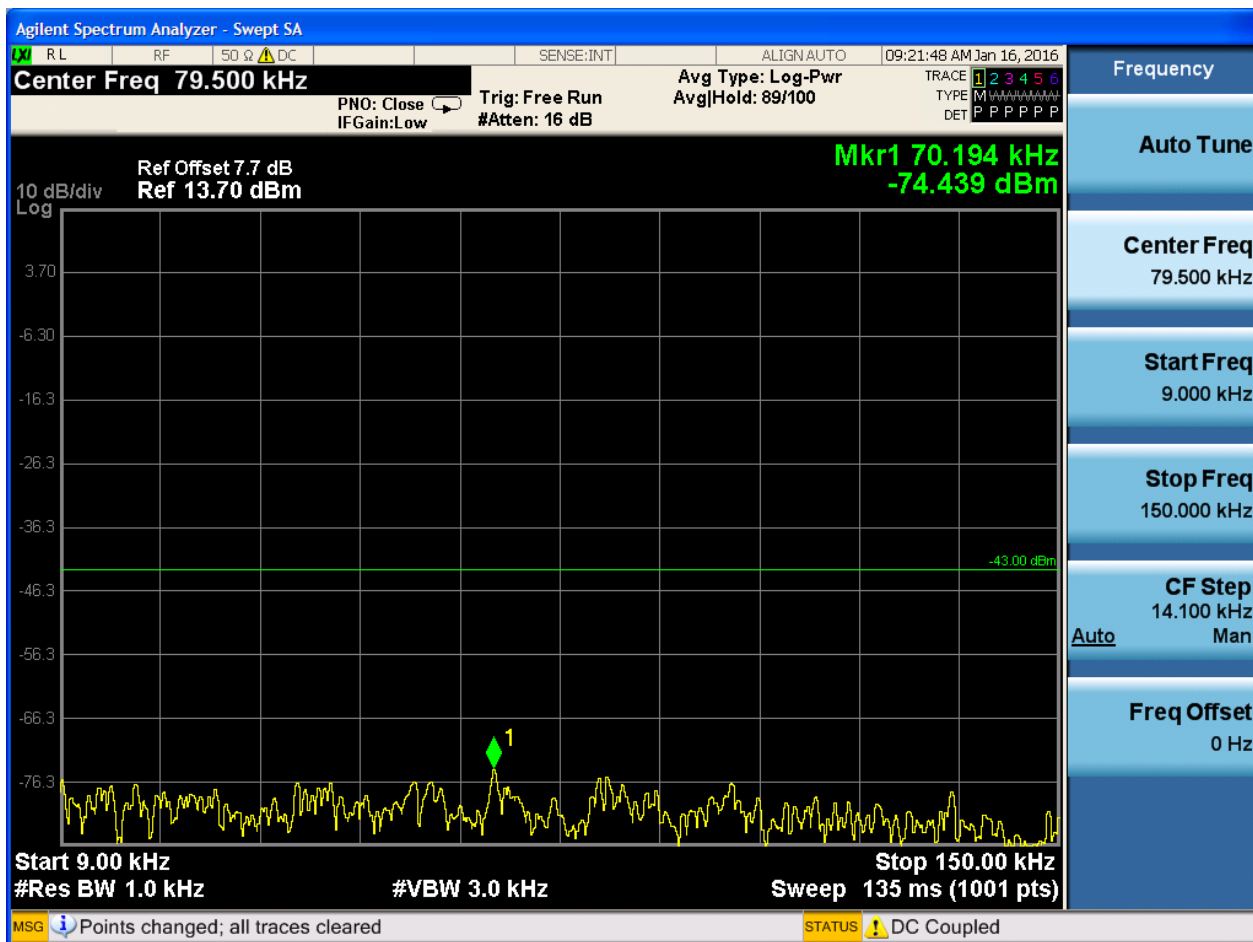


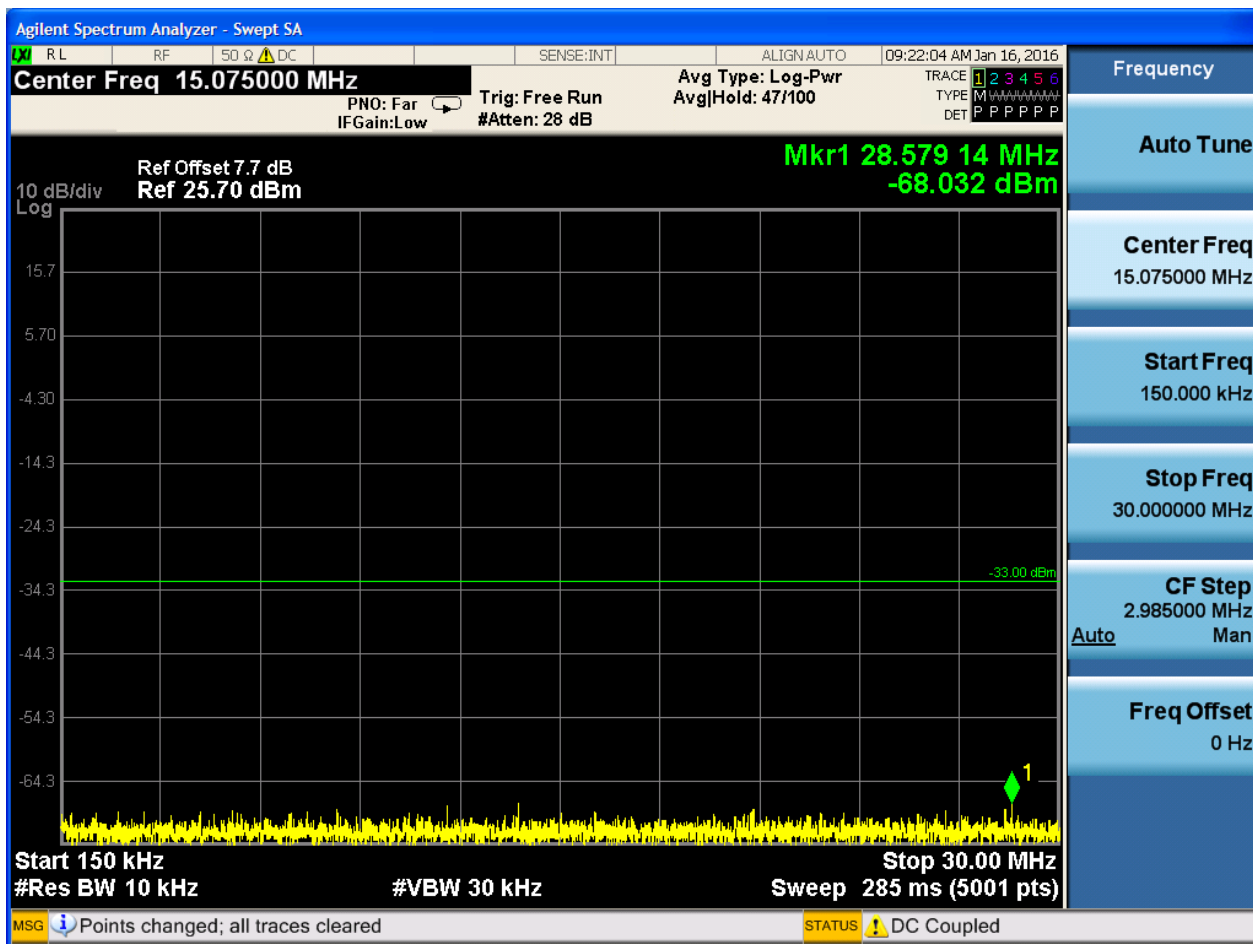


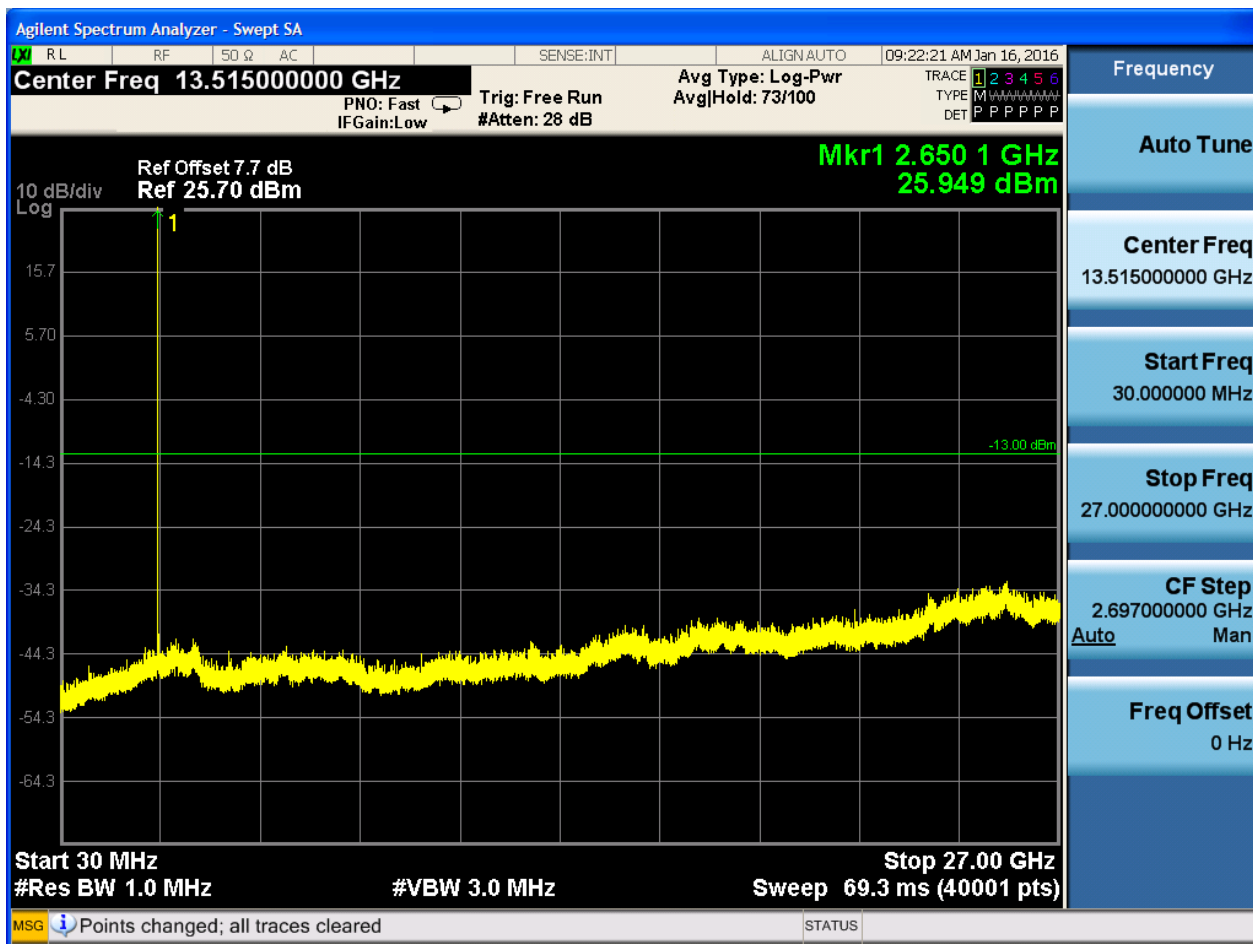


6.1.1.2.1.3 Test Channel = HCH

6.1.1.2.1.3.1 Test RB = RB1#0



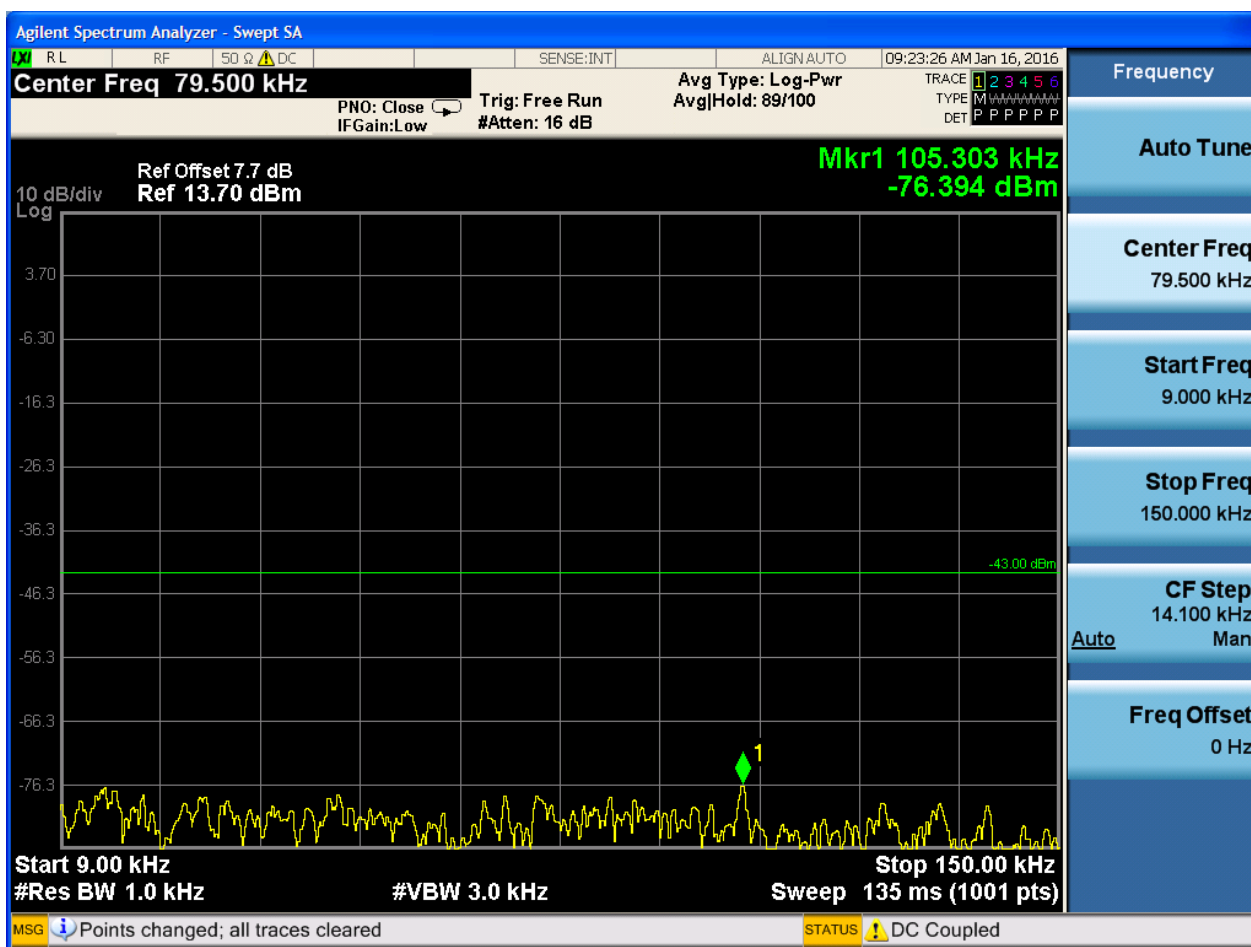


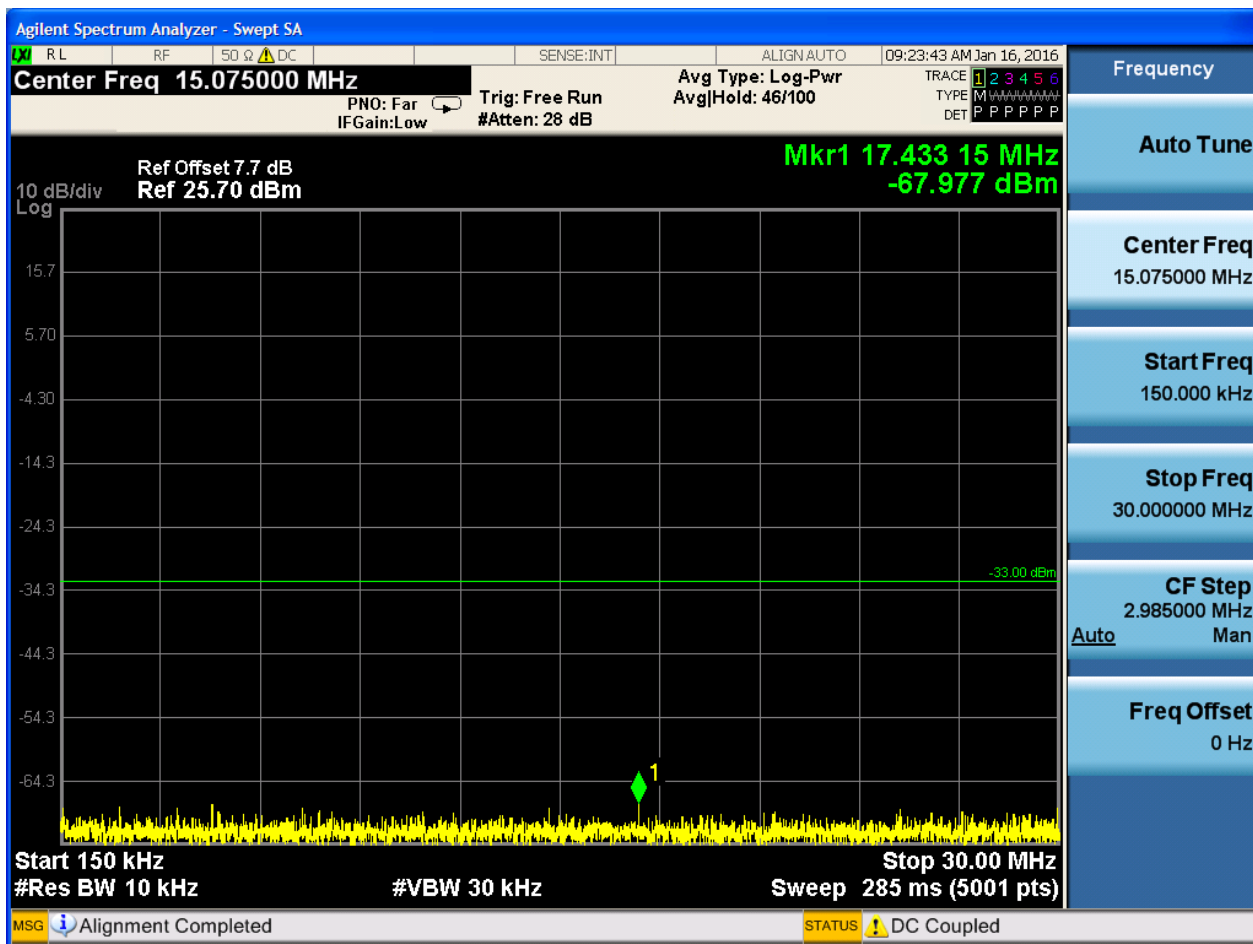


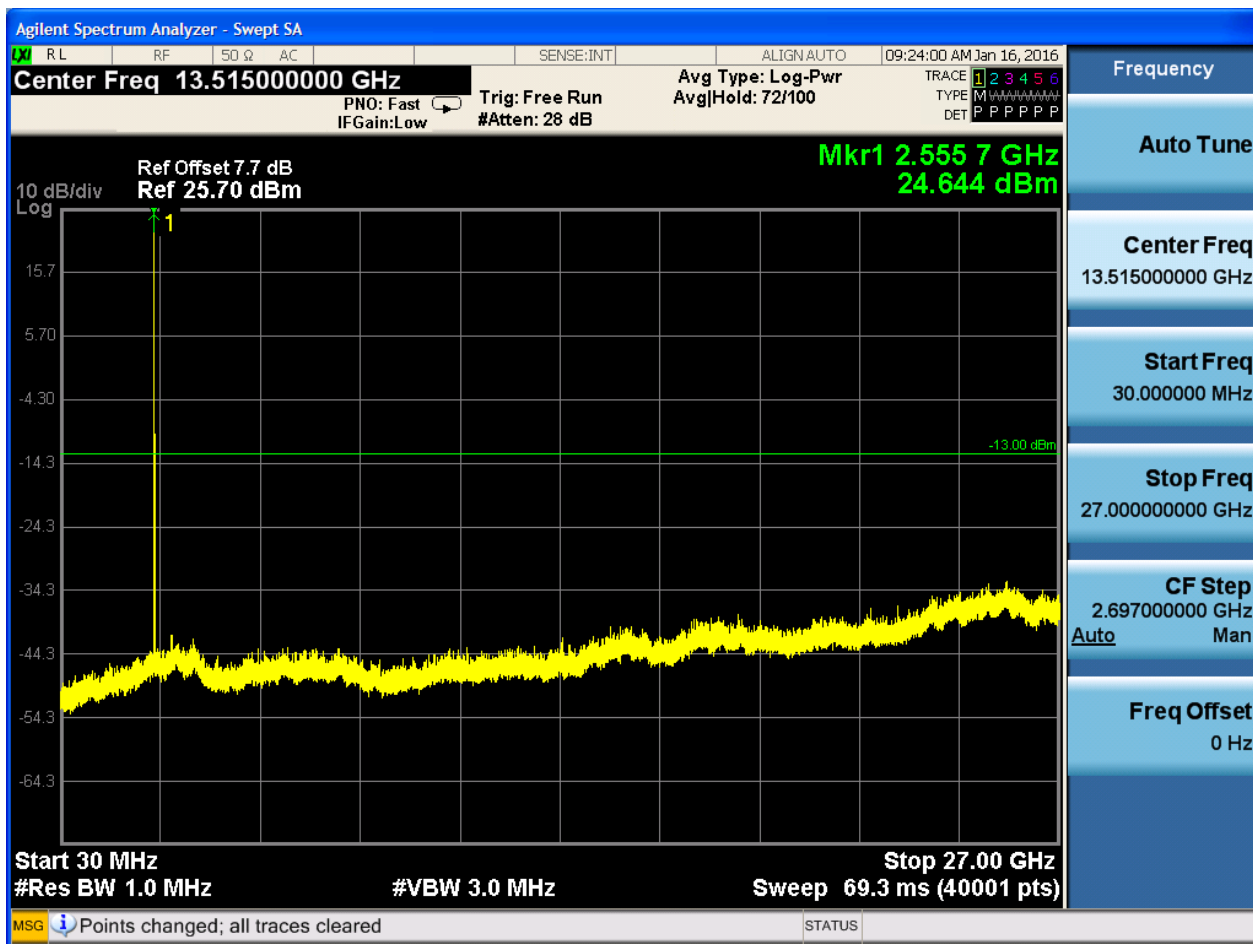
6.1.1.2.2 Test Bandwidth = 10

6.1.1.2.2.1 Test Channel = LCH

6.1.1.2.2.1.1 Test RB = RB1#0

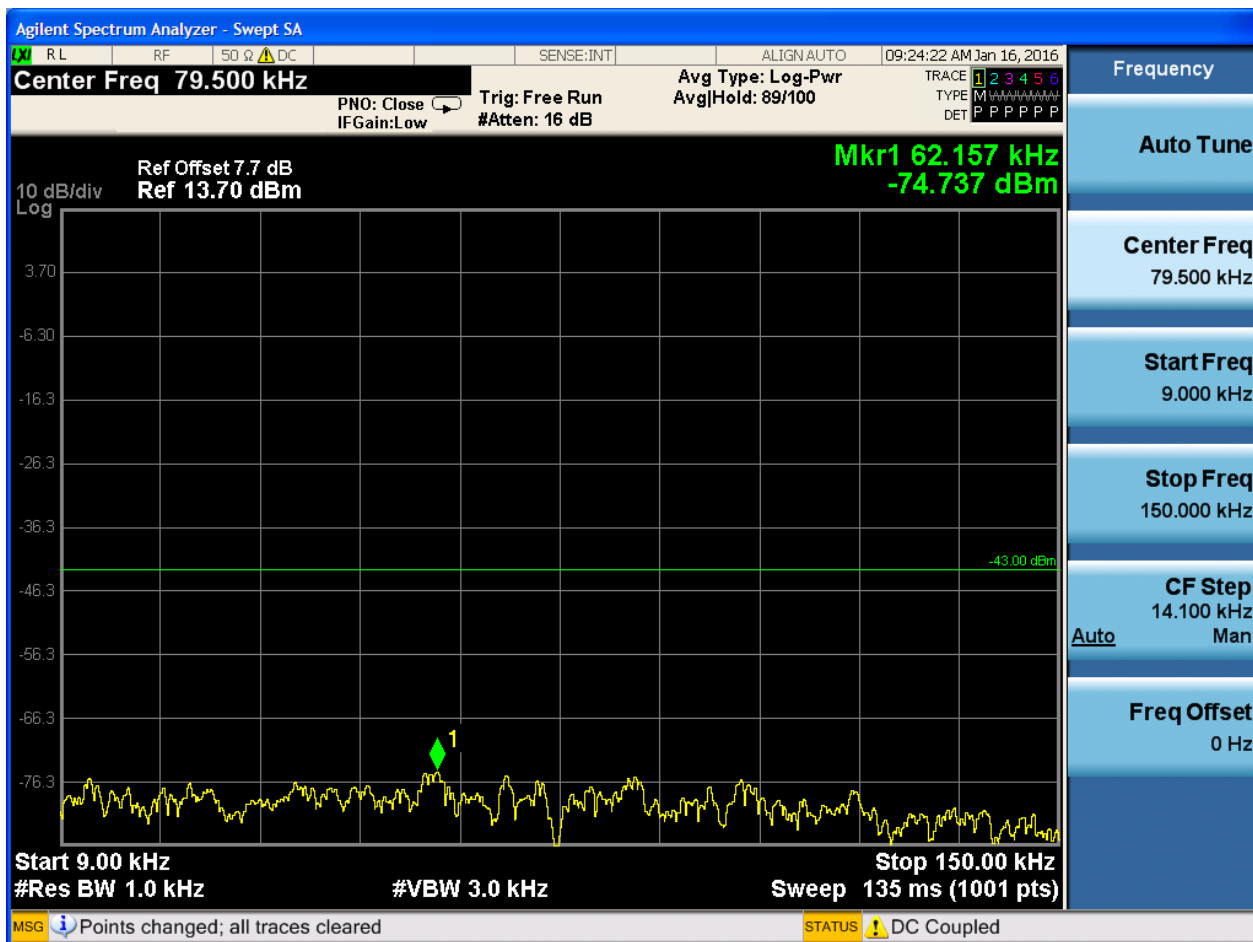


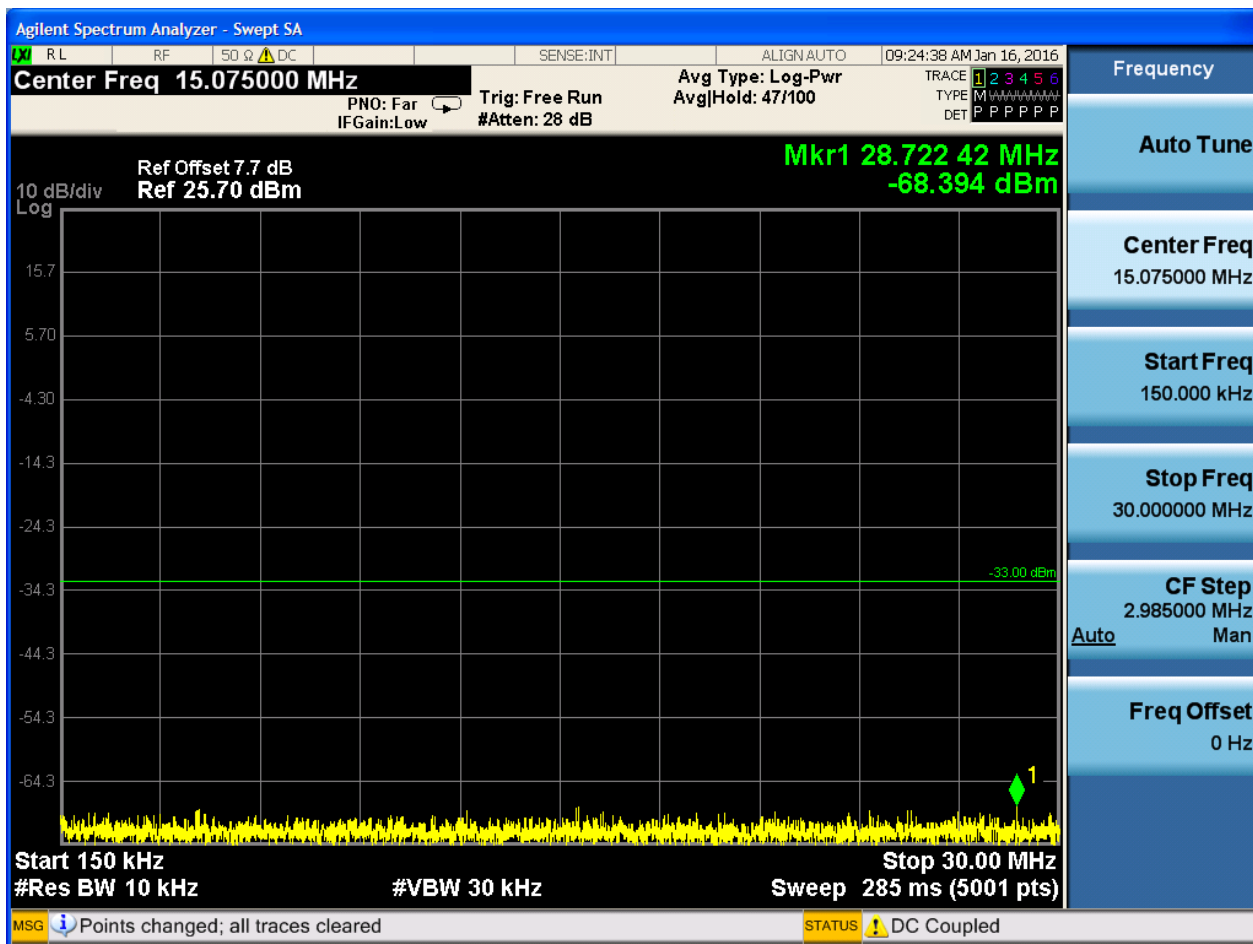


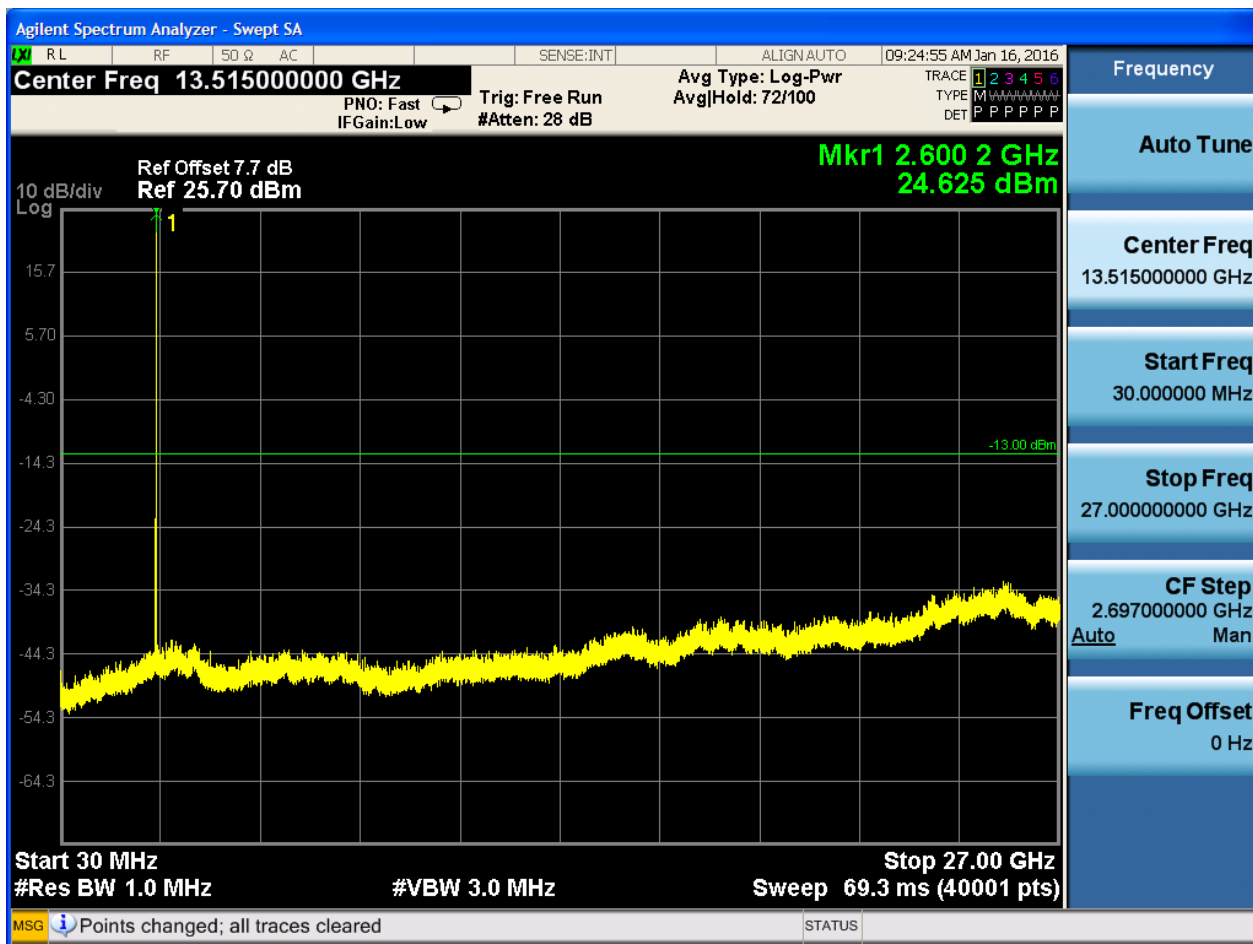


6.1.1.2.2.2 Test Channel = MCH

6.1.1.2.2.2.1 Test RB = RB1#0

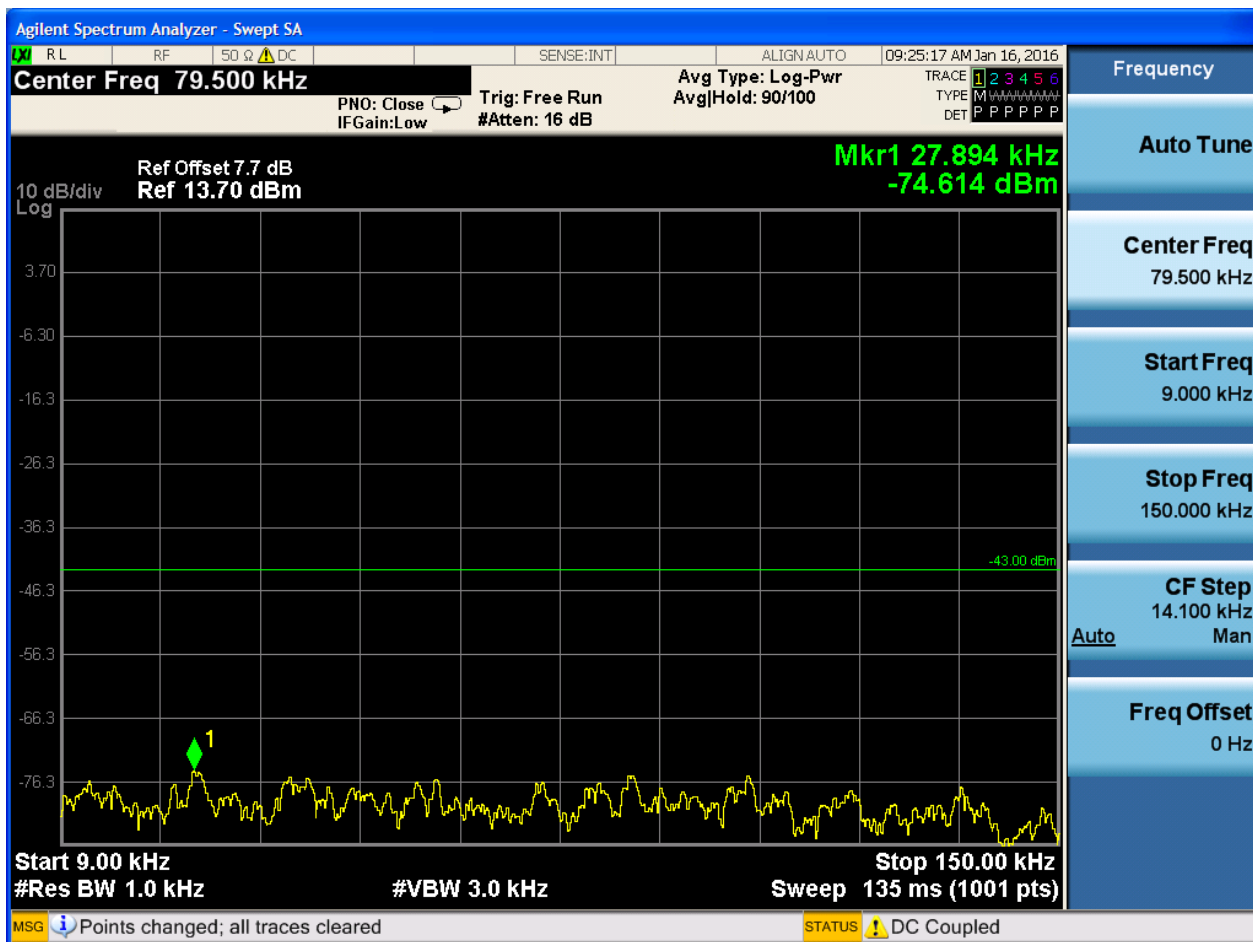


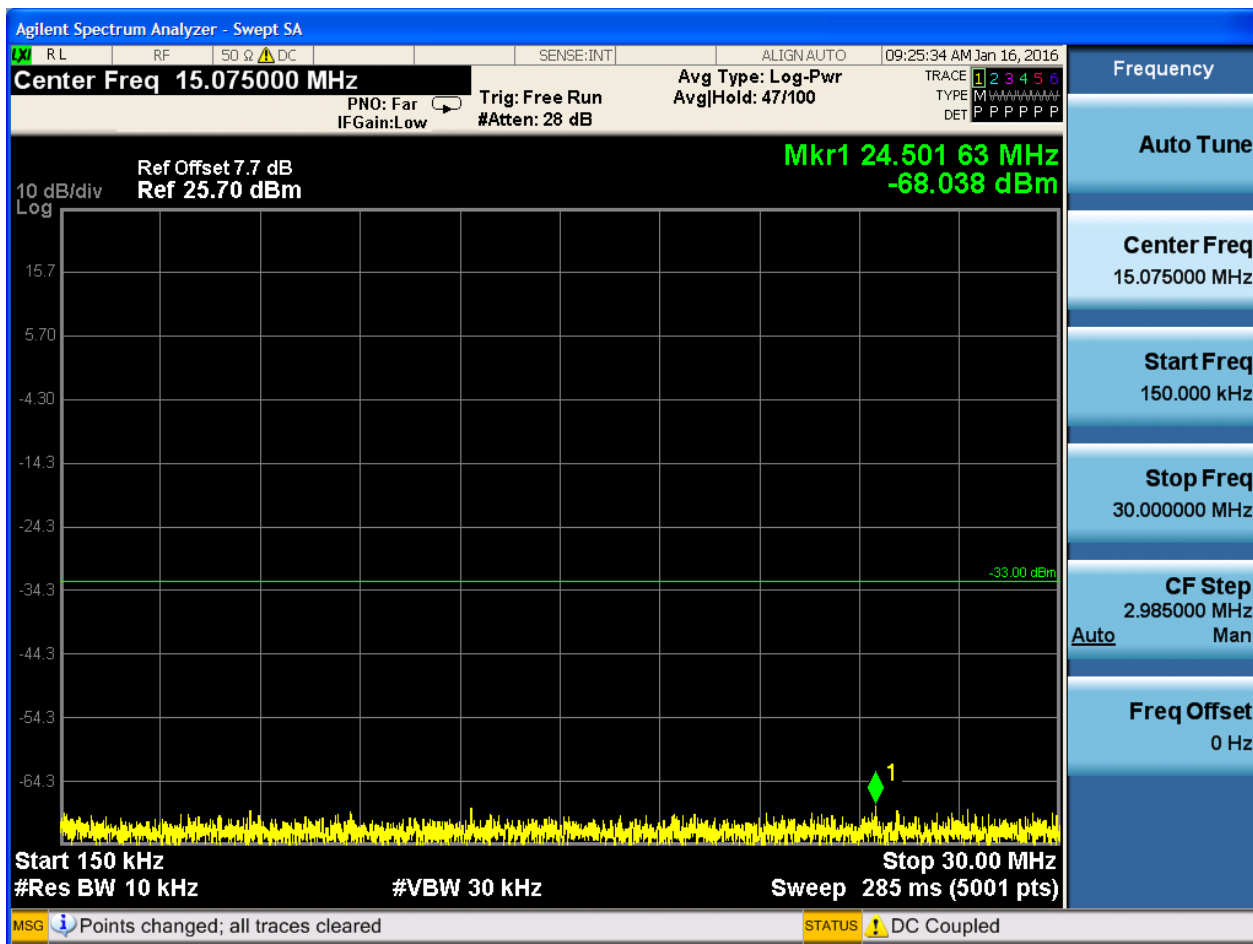


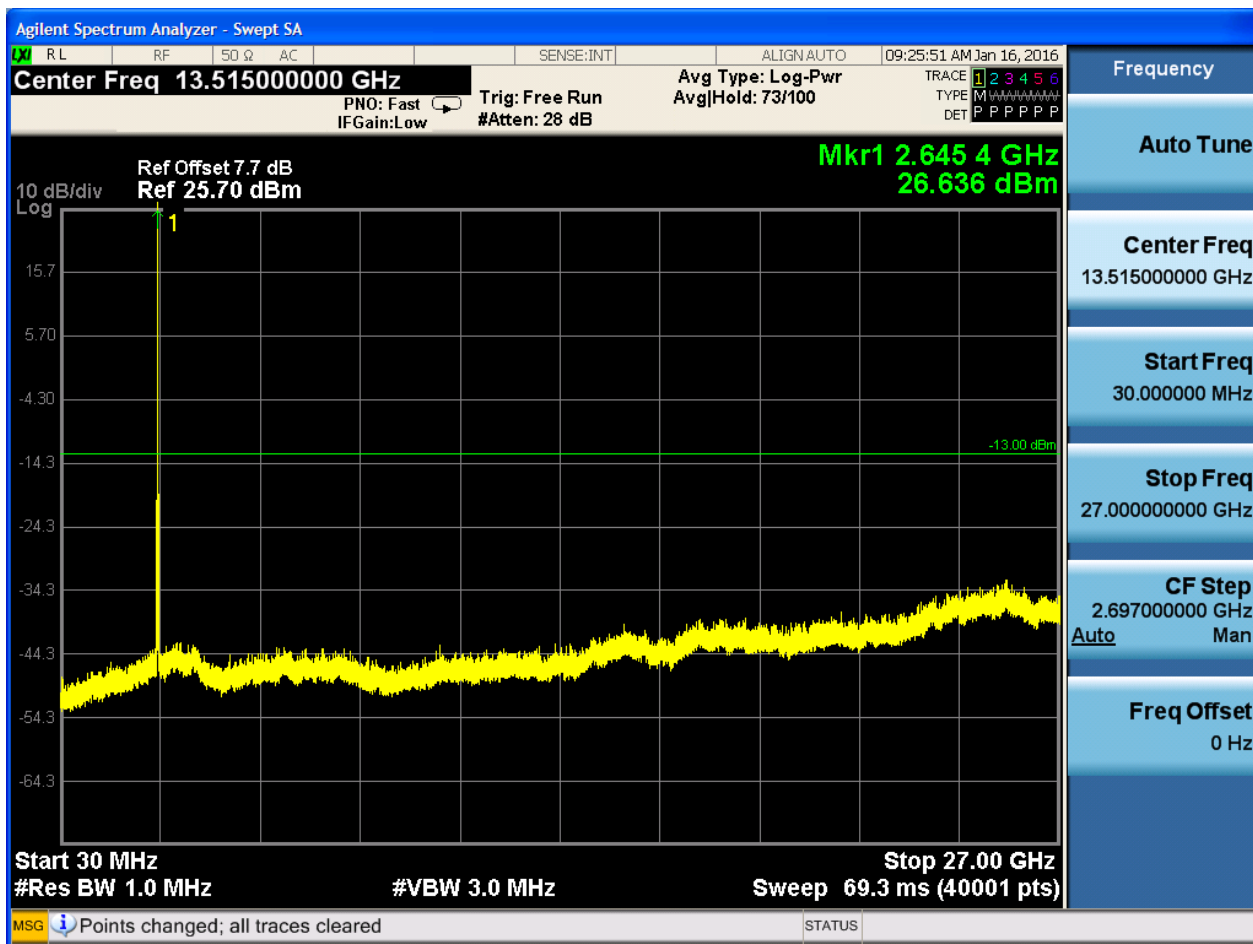


6.1.1.2.2.3 Test Channel = HCH

6.1.1.2.2.3.1 Test RB = RB1#0



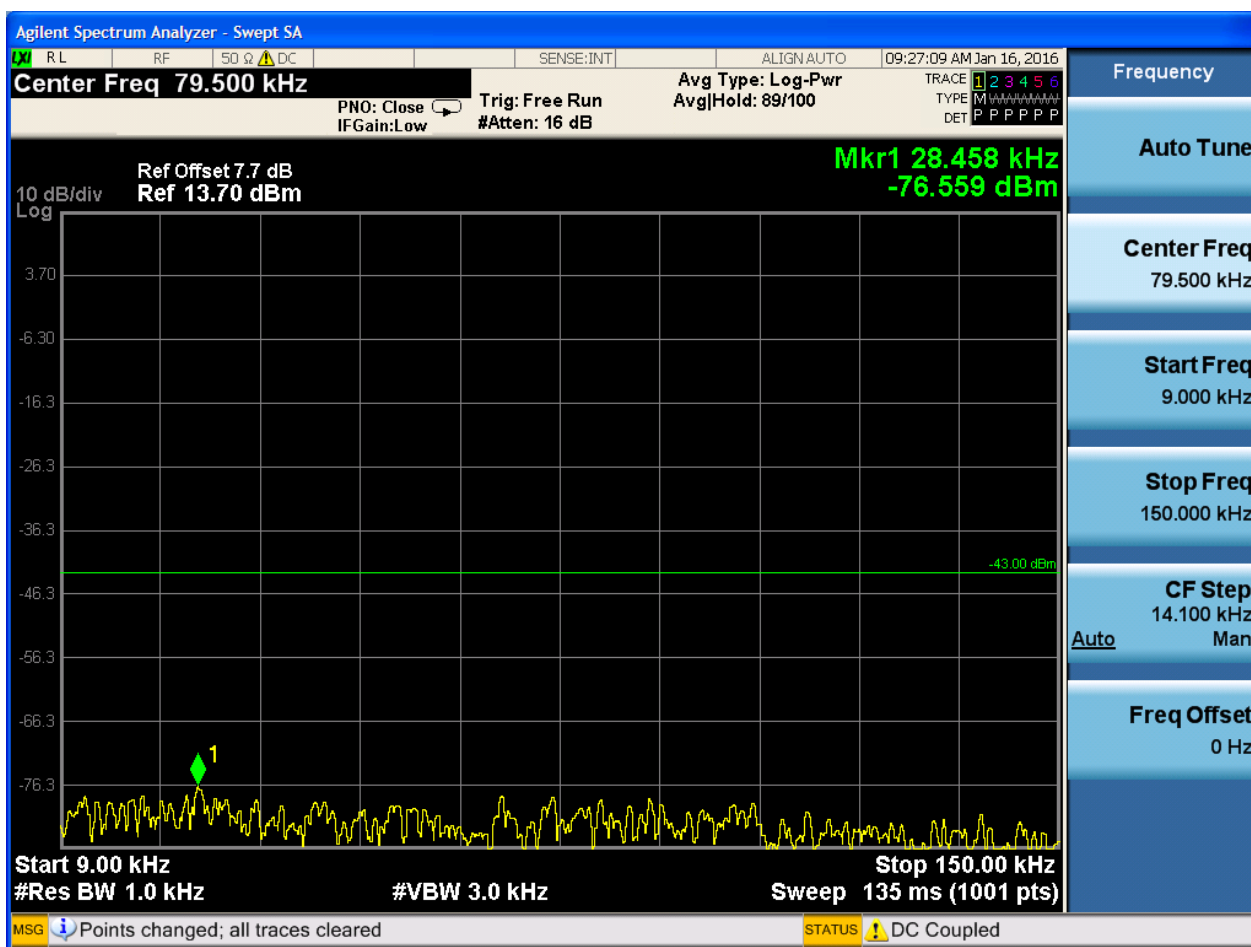




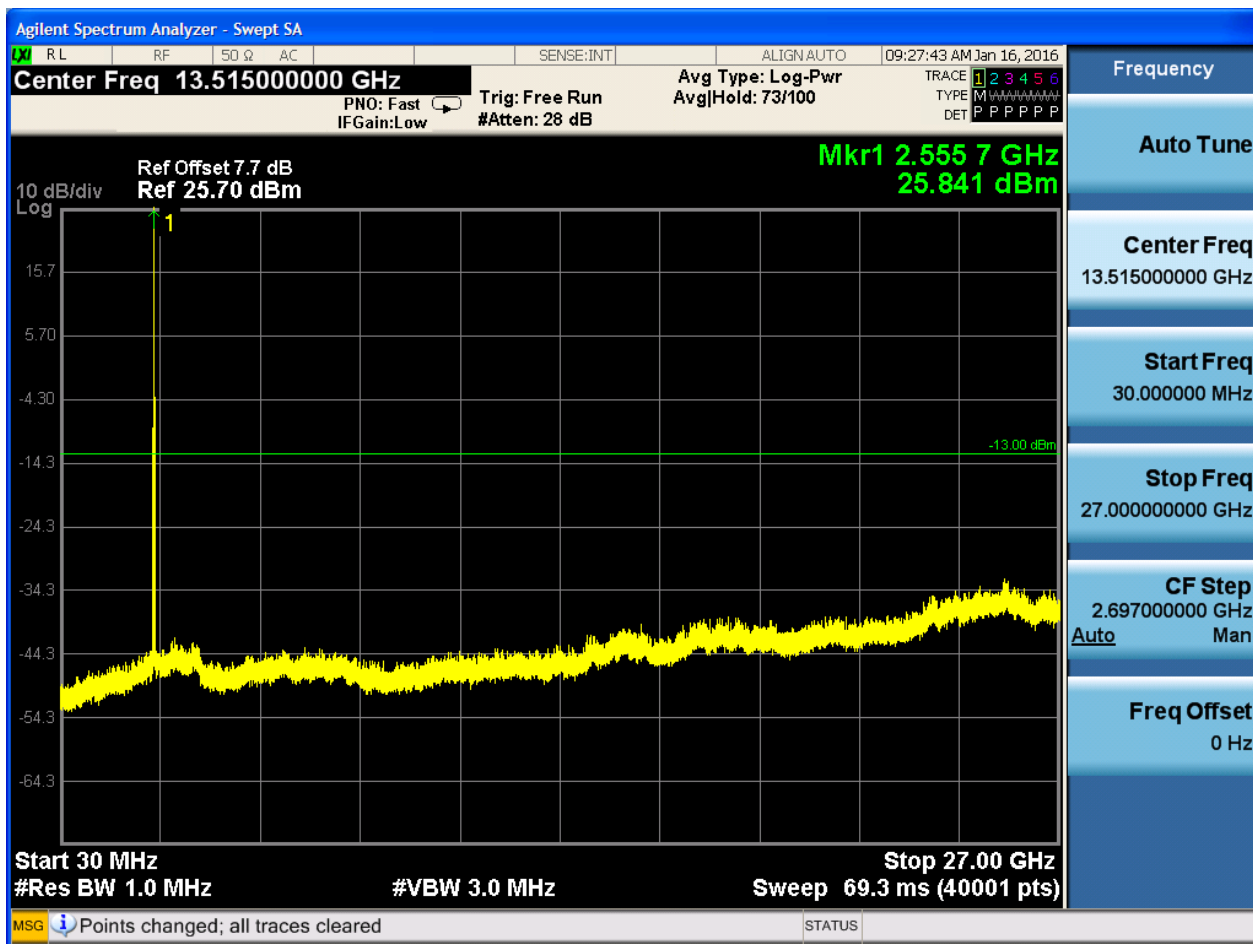
6.1.1.2.3 Test Bandwidth = 15

6.1.1.2.3.1 Test Channel = LCH

6.1.1.2.3.1.1 Test RB = RB1#0

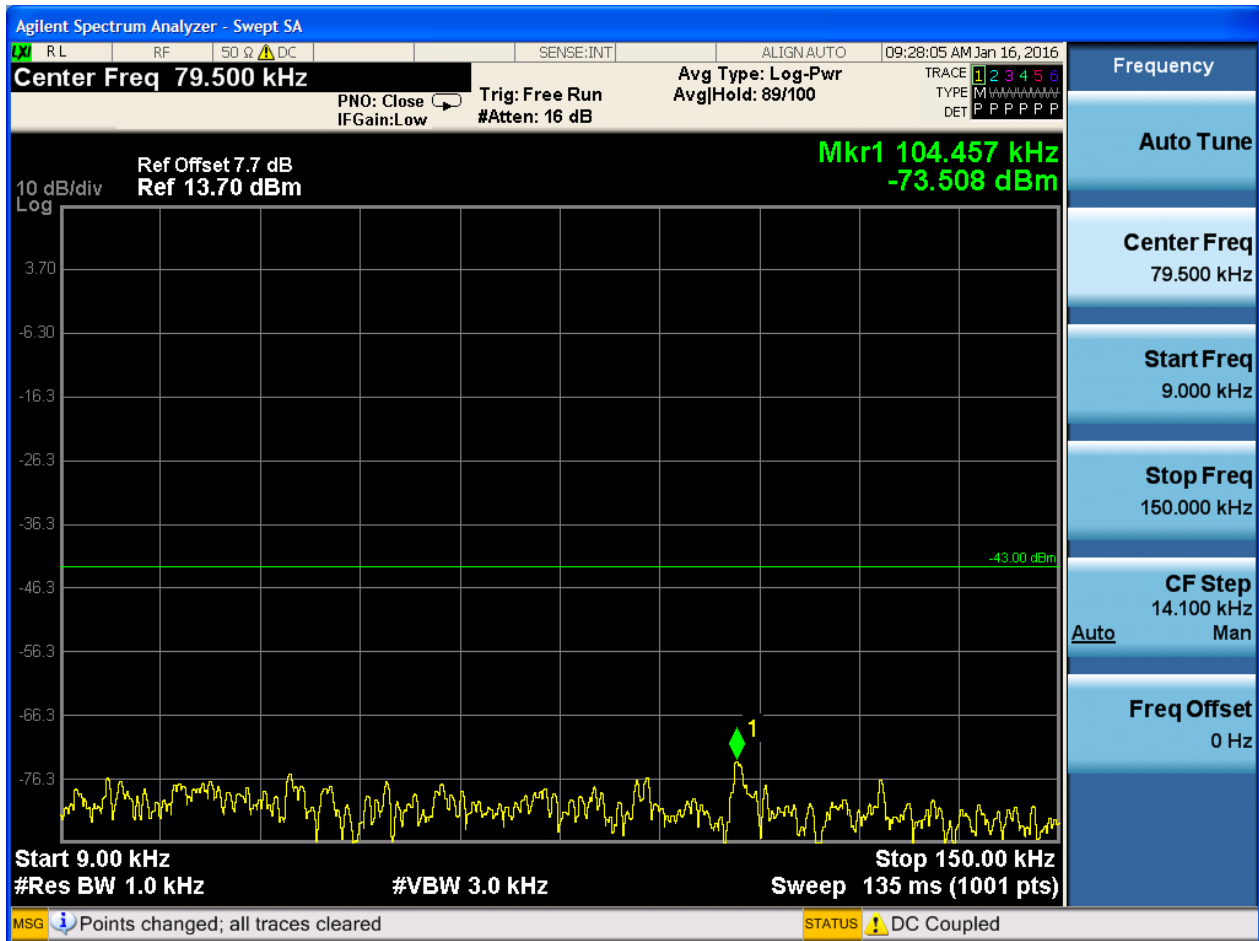


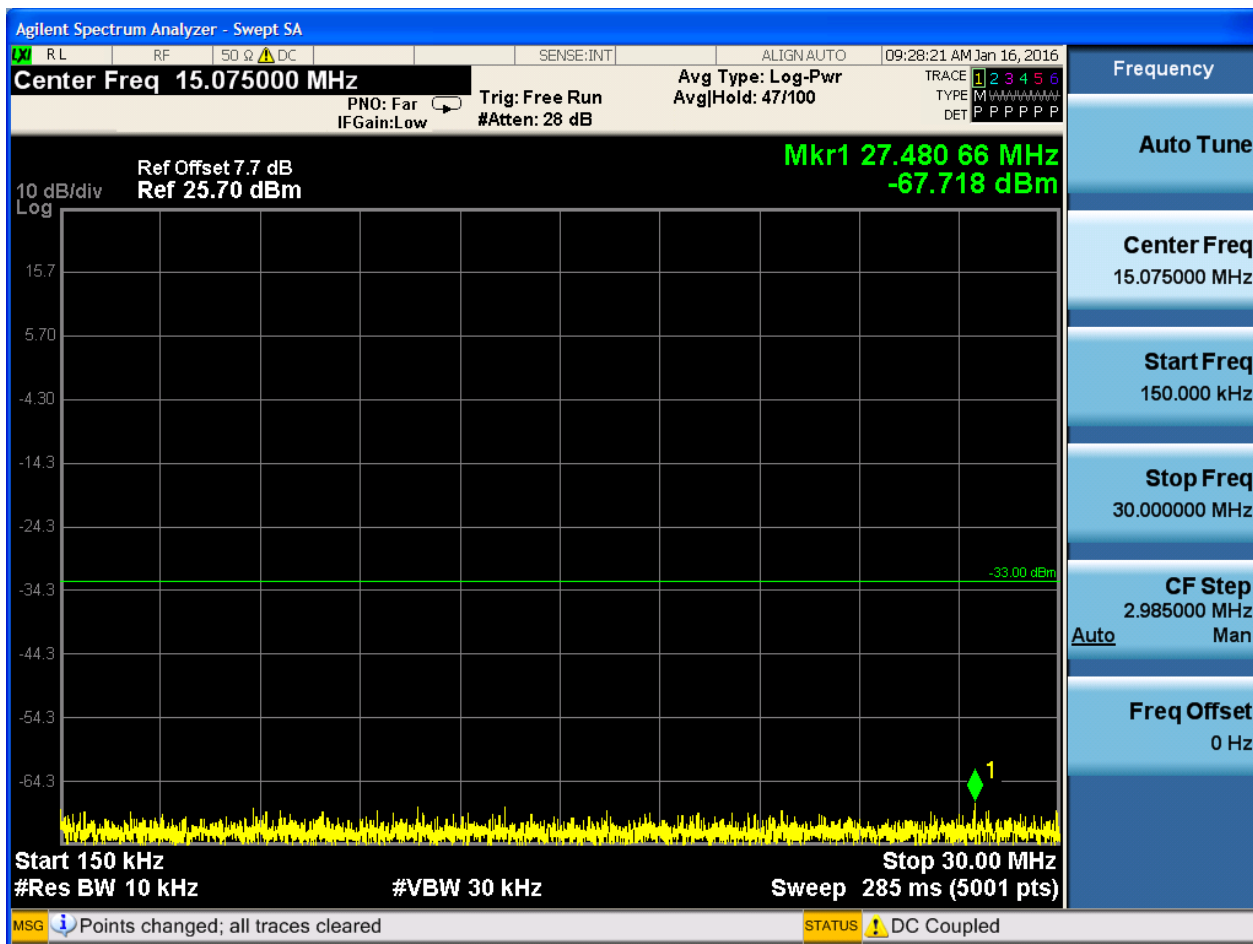


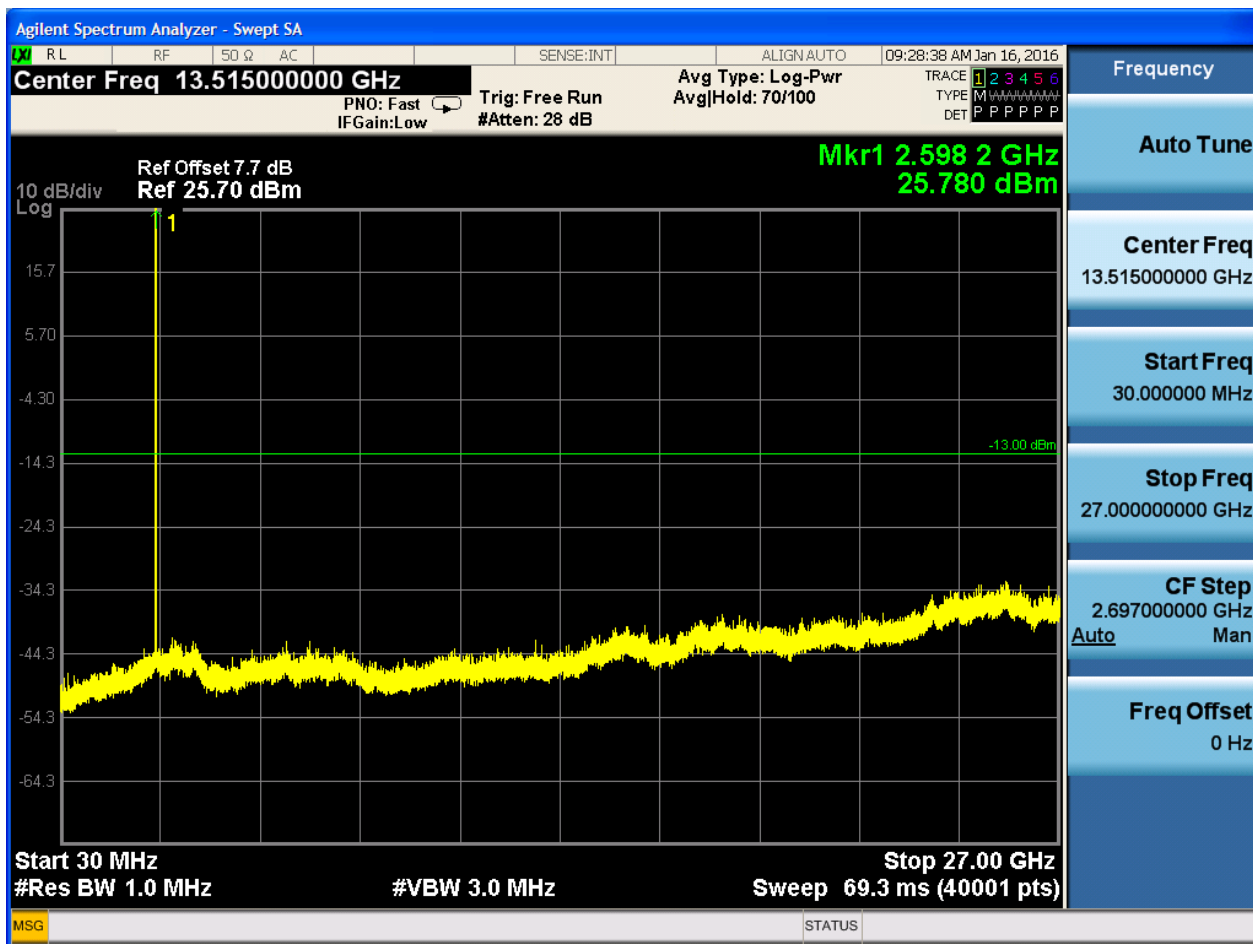


6.1.1.2.3.2 Test Channel = MCH

6.1.1.2.3.2.1 Test RB = RB1#0

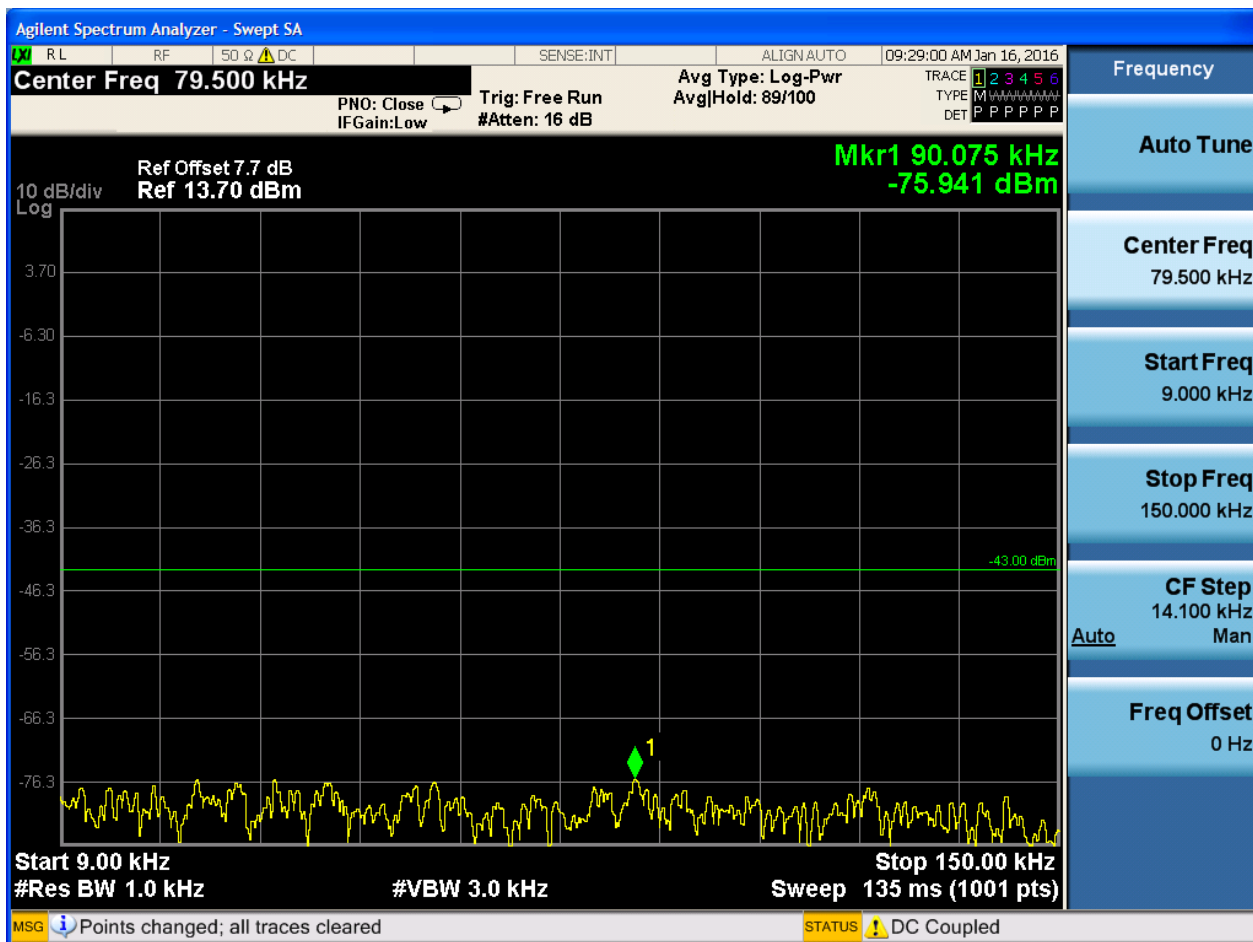


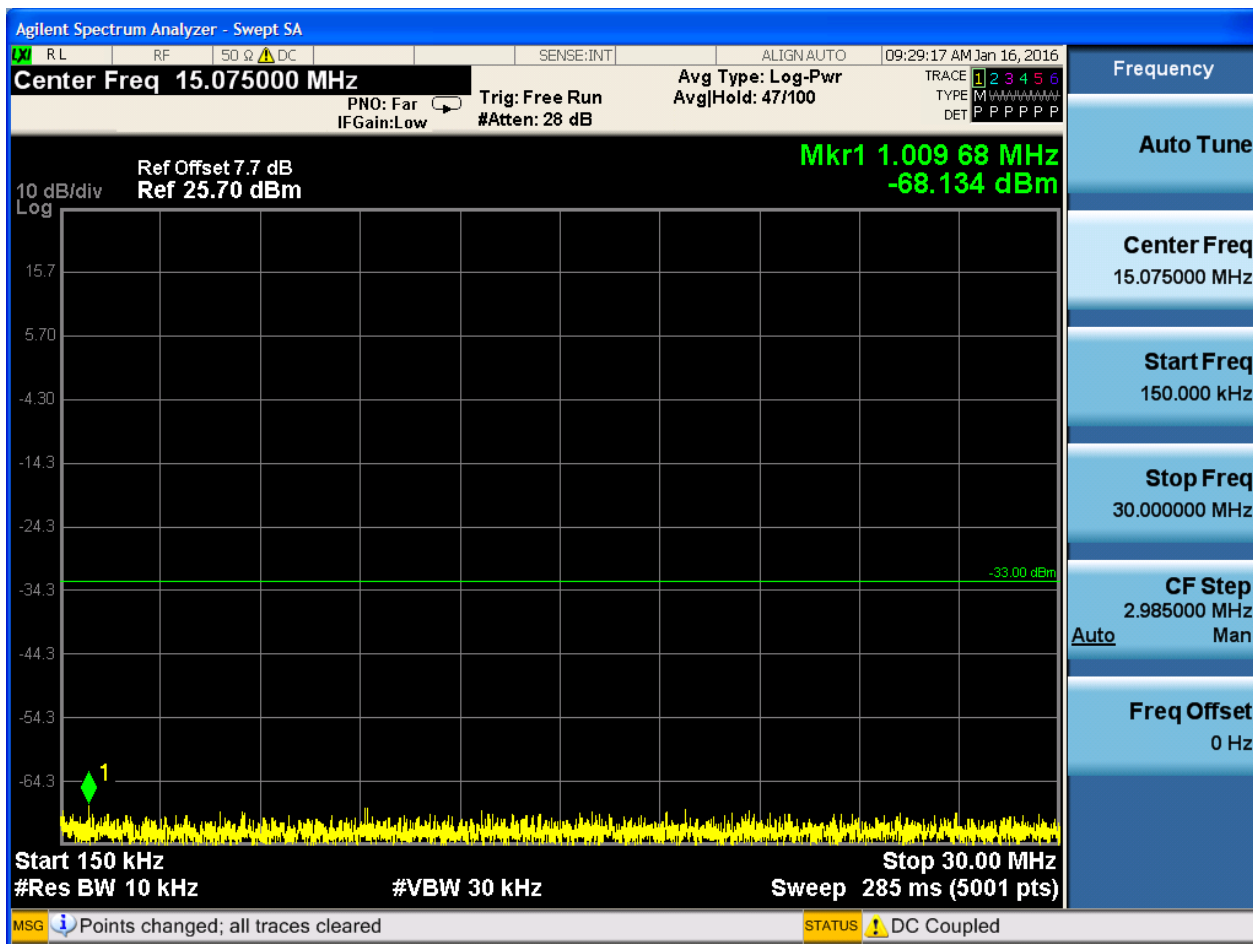


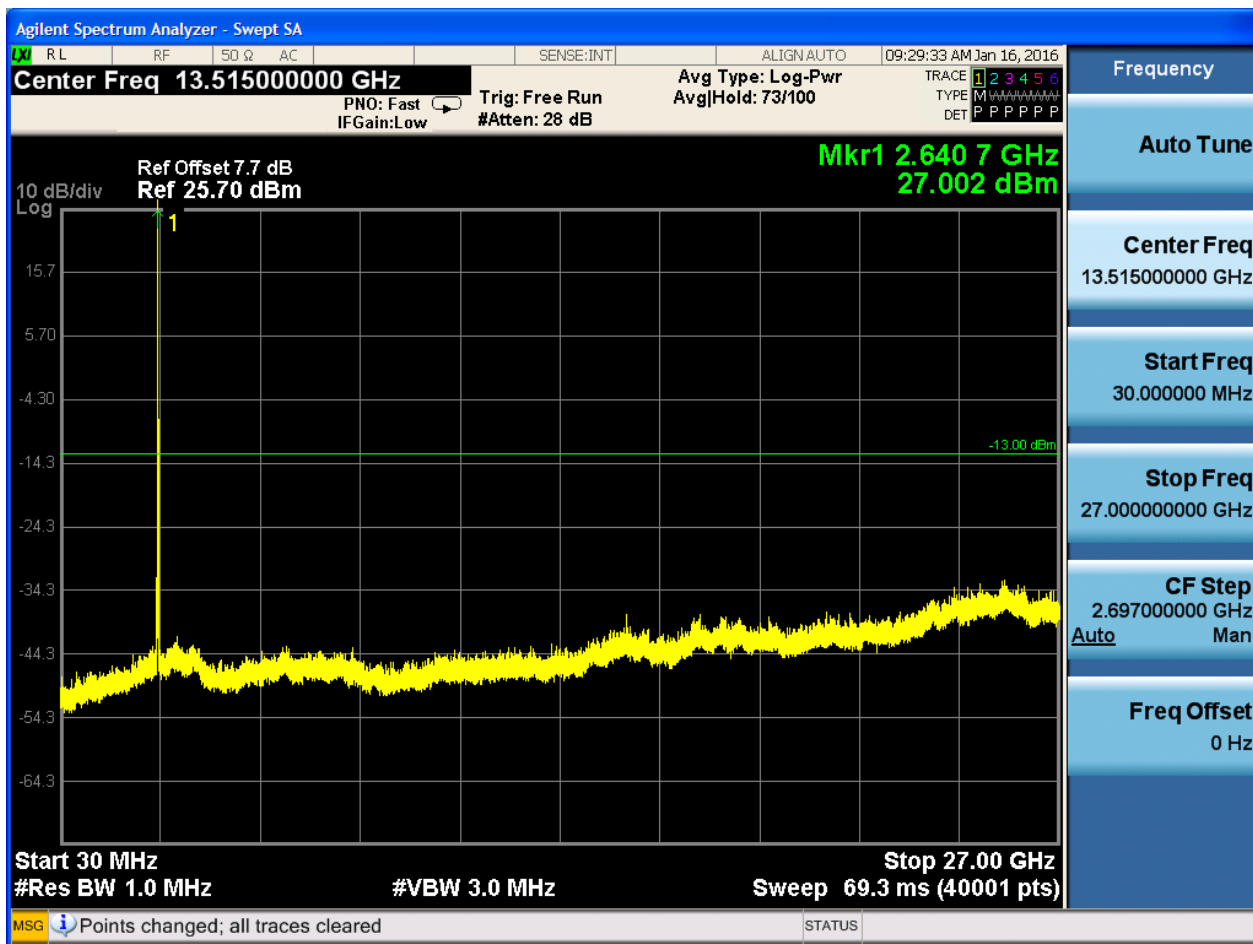


6.1.1.2.3.3 Test Channel = HCH

6.1.1.2.3.3.1 Test RB = RB1#0



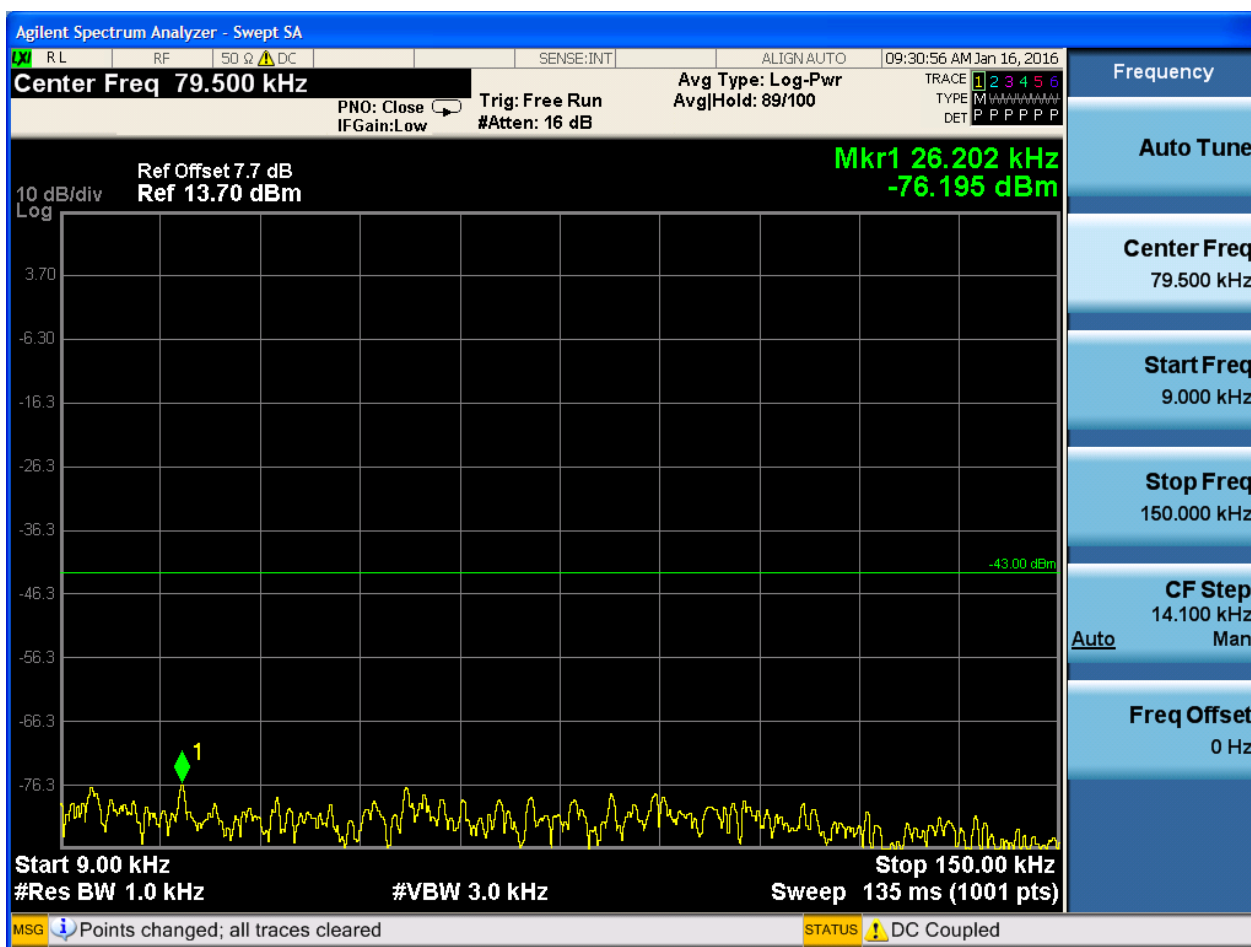


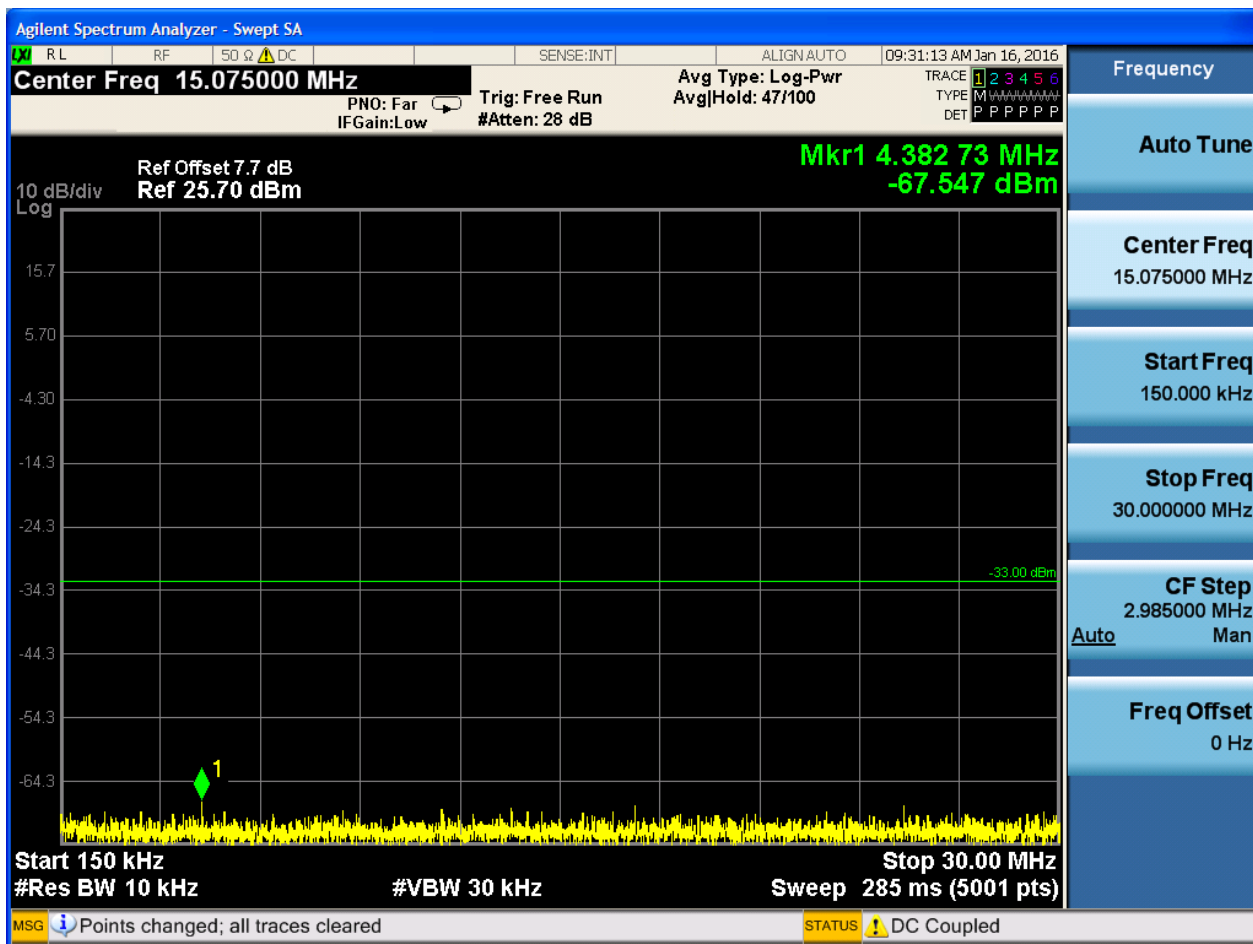


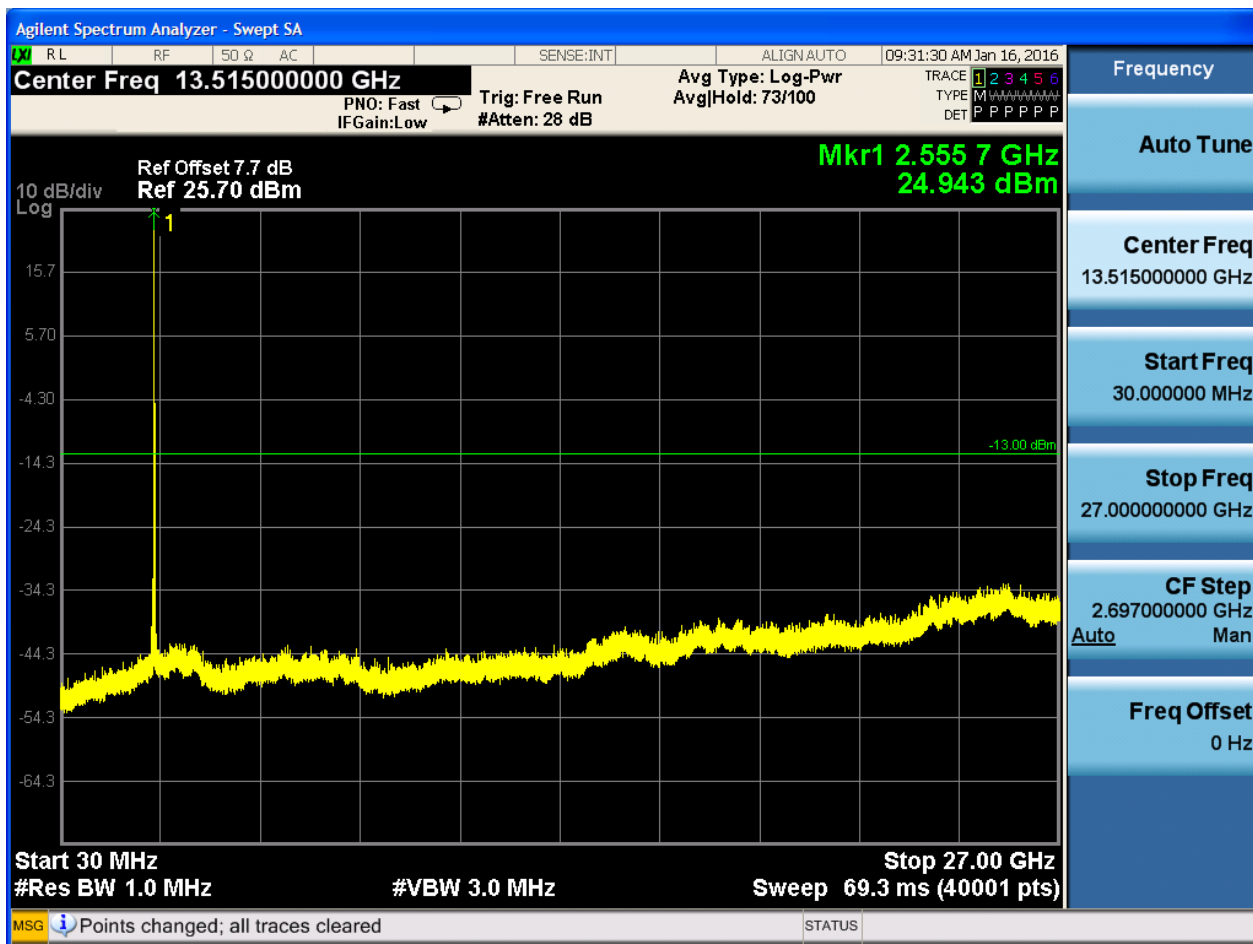
6.1.1.2.4 Test Bandwidth = 20

6.1.1.2.4.1 Test Channel = LCH

6.1.1.2.4.1.1 Test RB = RB1#0

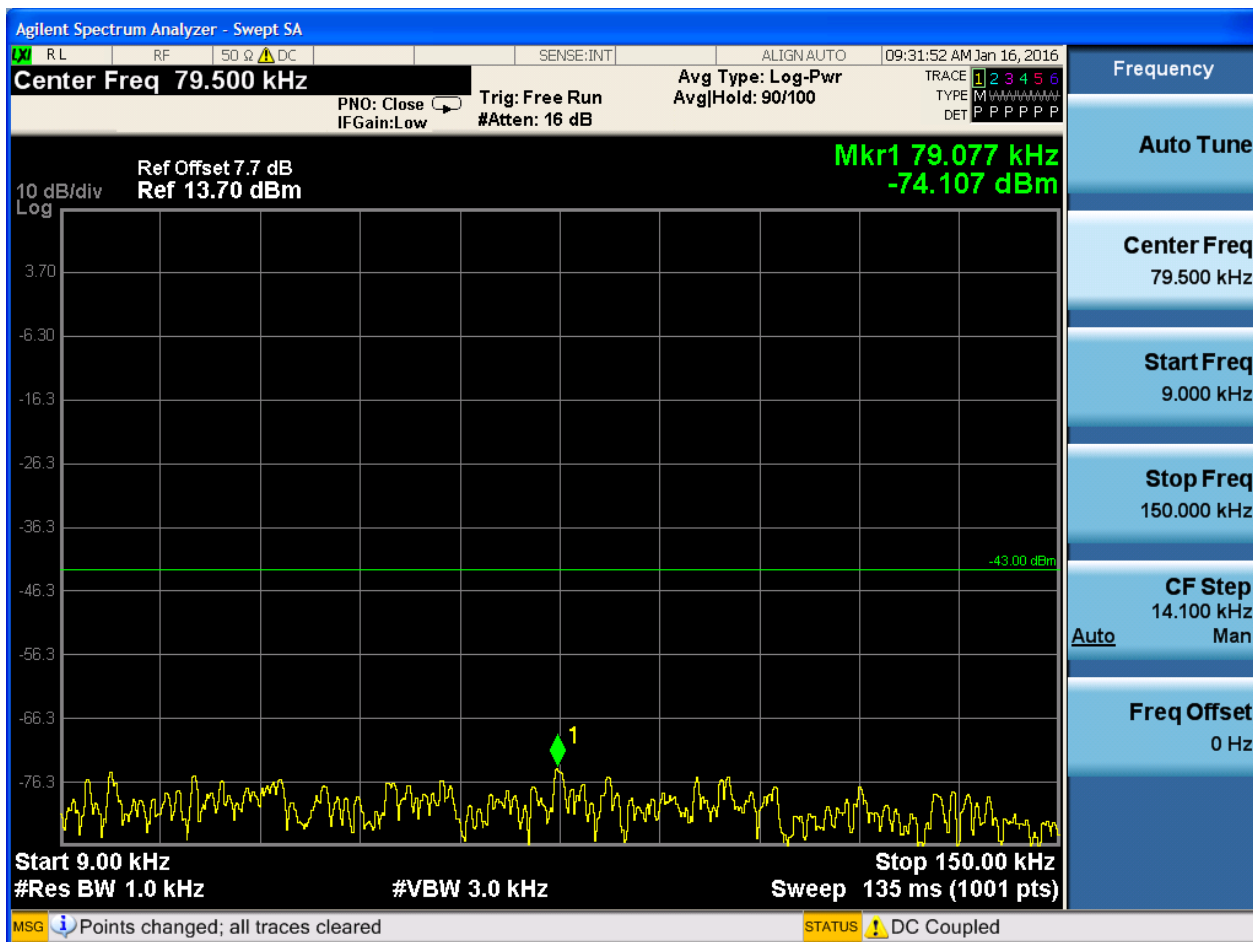


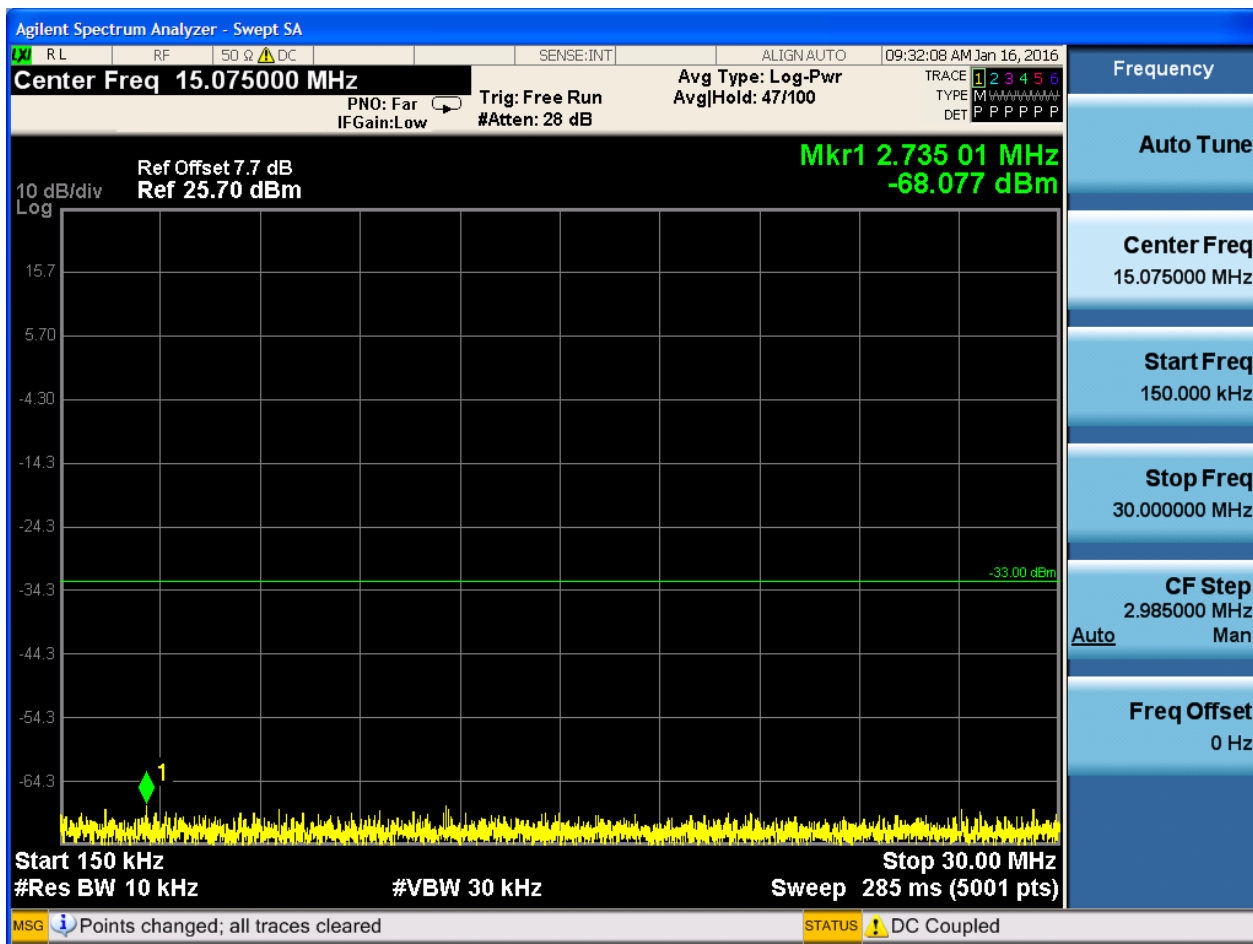


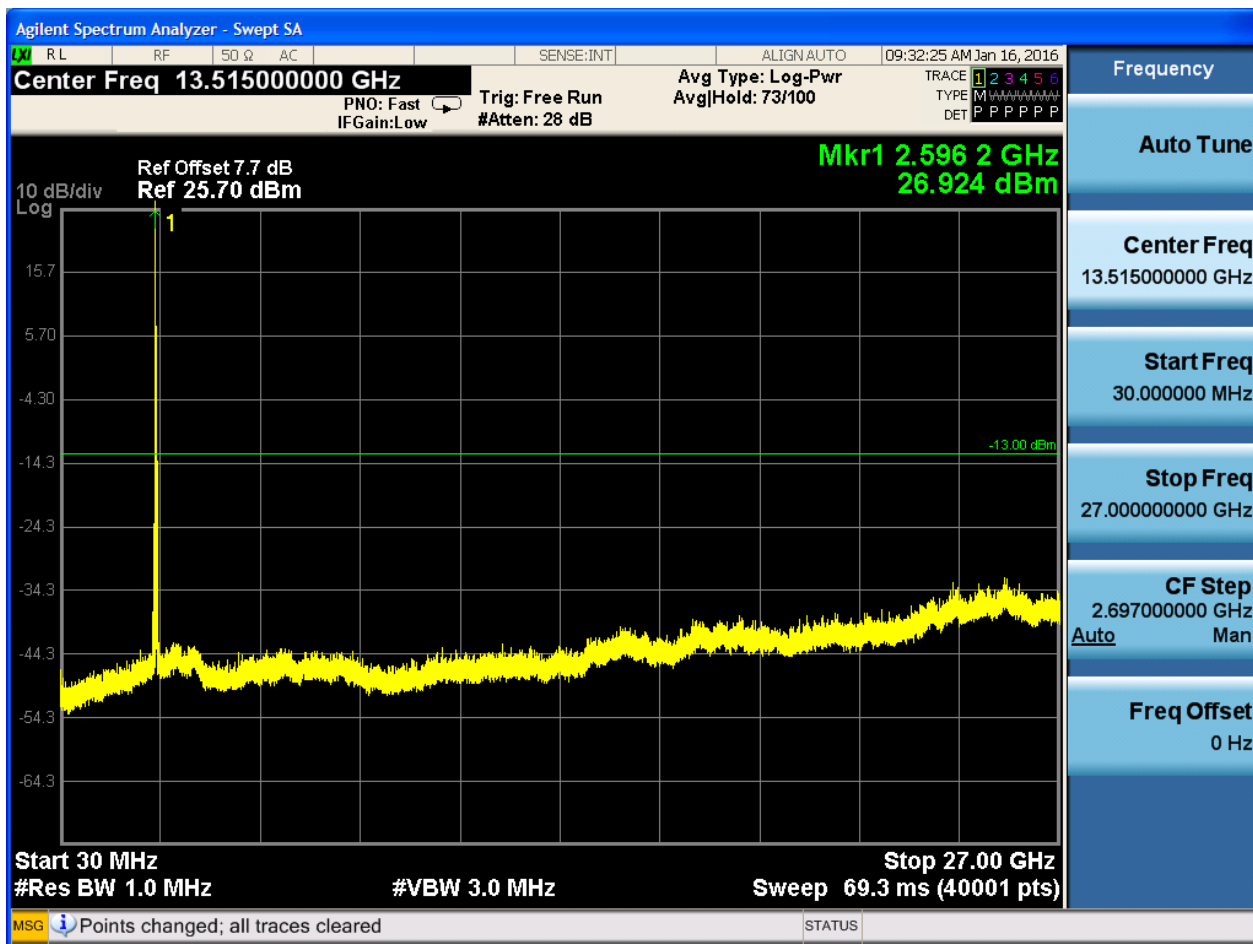


6.1.1.2.4.2 Test Channel = MCH

6.1.1.2.4.2.1 Test RB = RB1#0

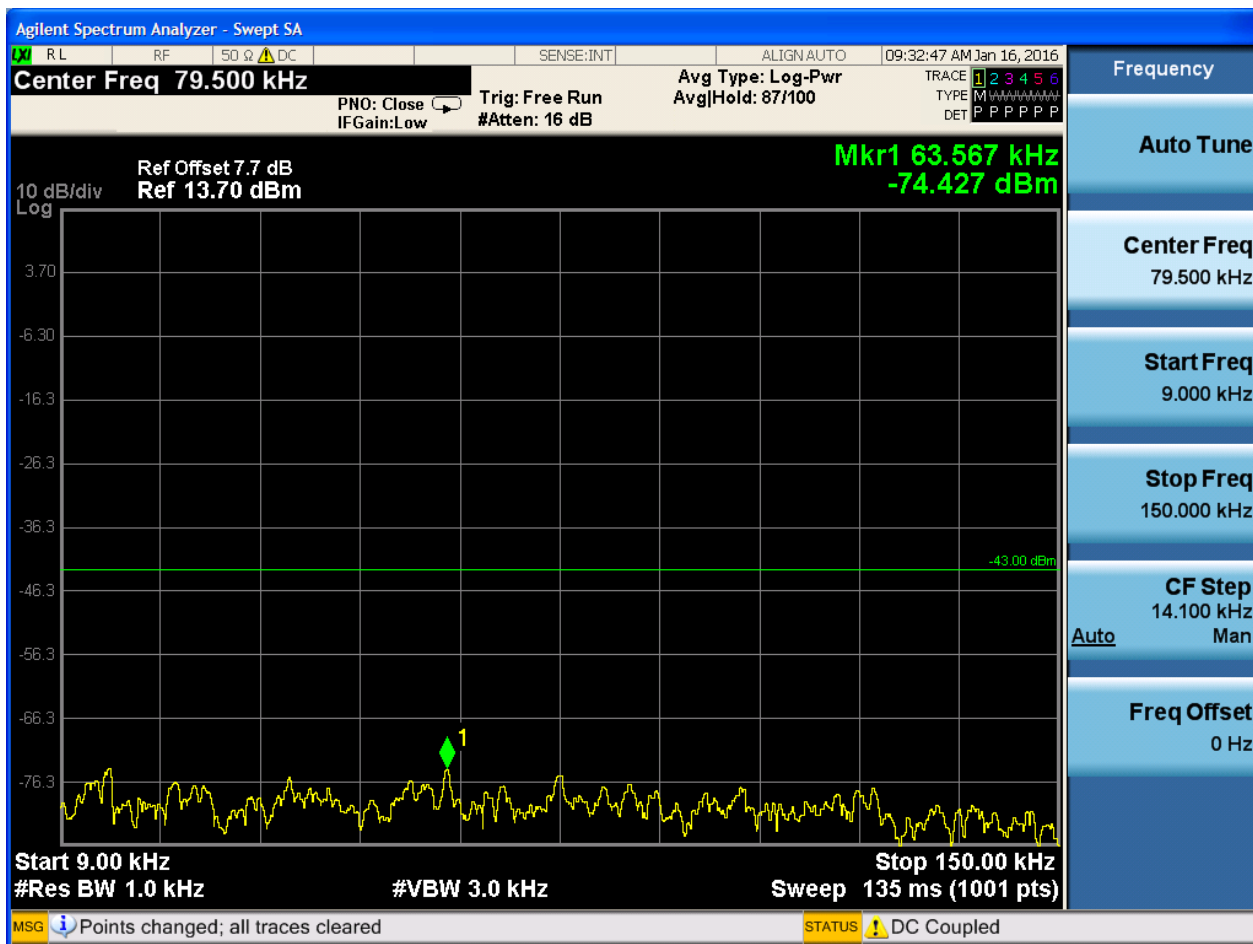


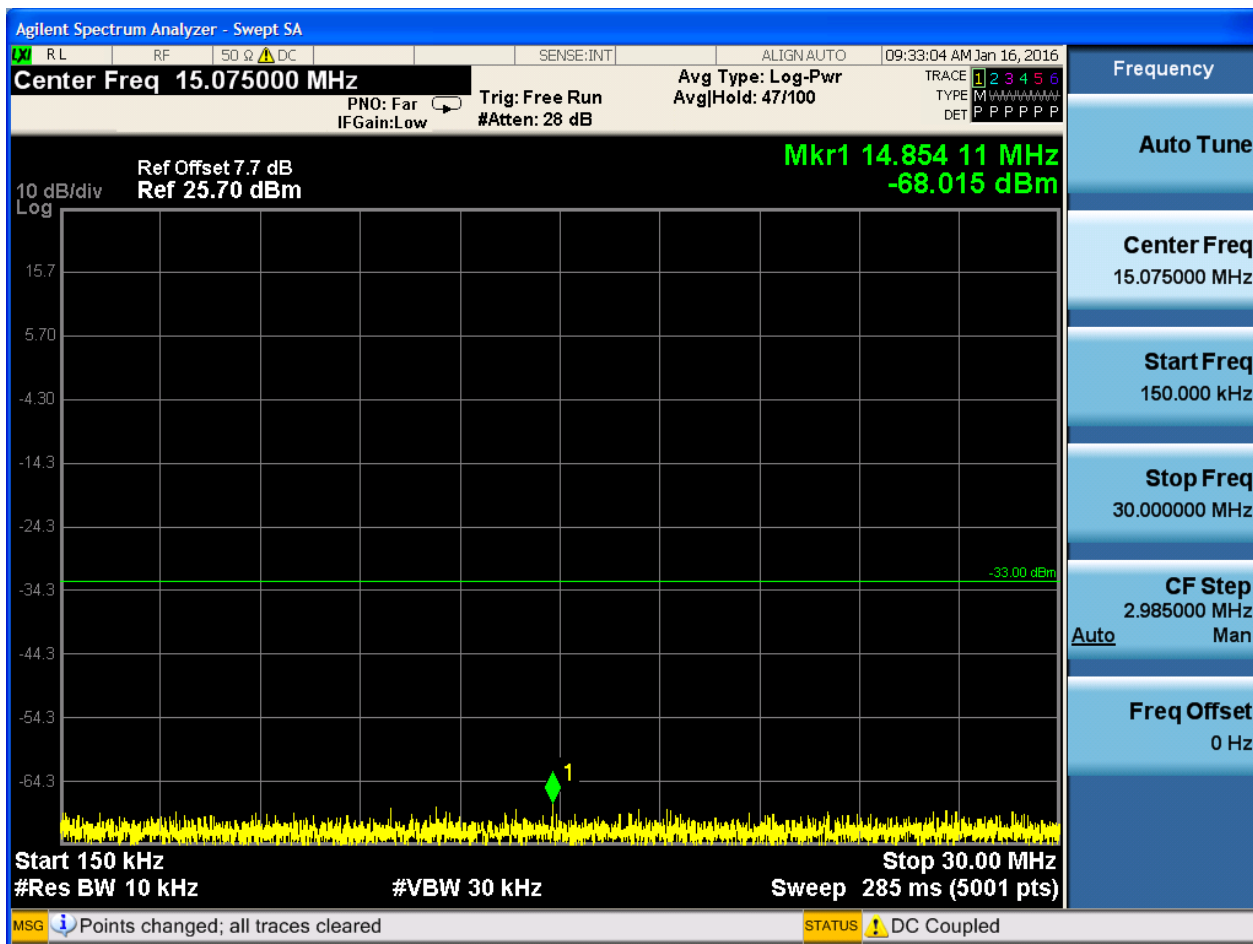


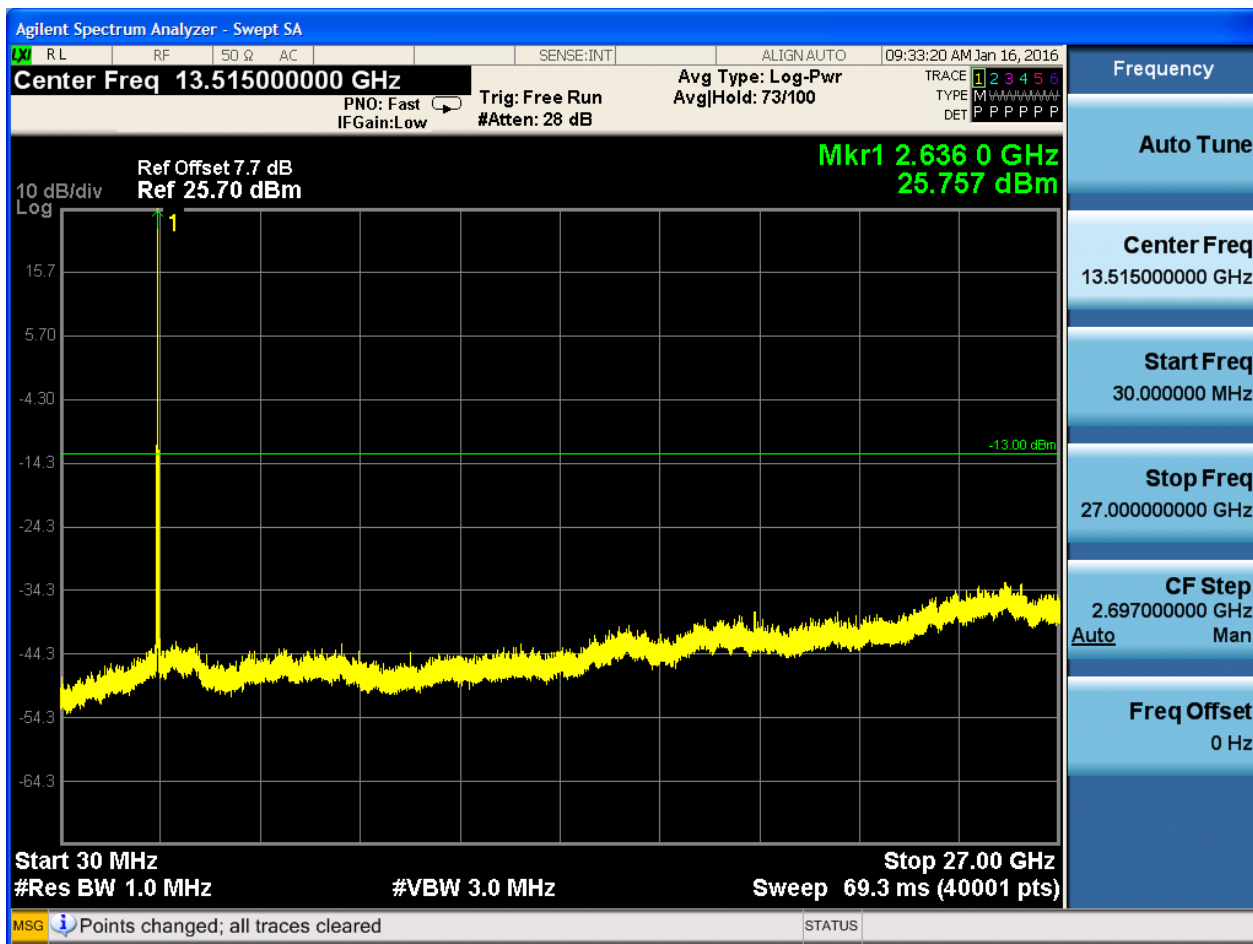


6.1.1.2.4.3 Test Channel = HCH

6.1.1.2.4.3.1 Test RB = RB1#0







7Appendix_G: Field Strength of Spurious Radiation

Note:

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

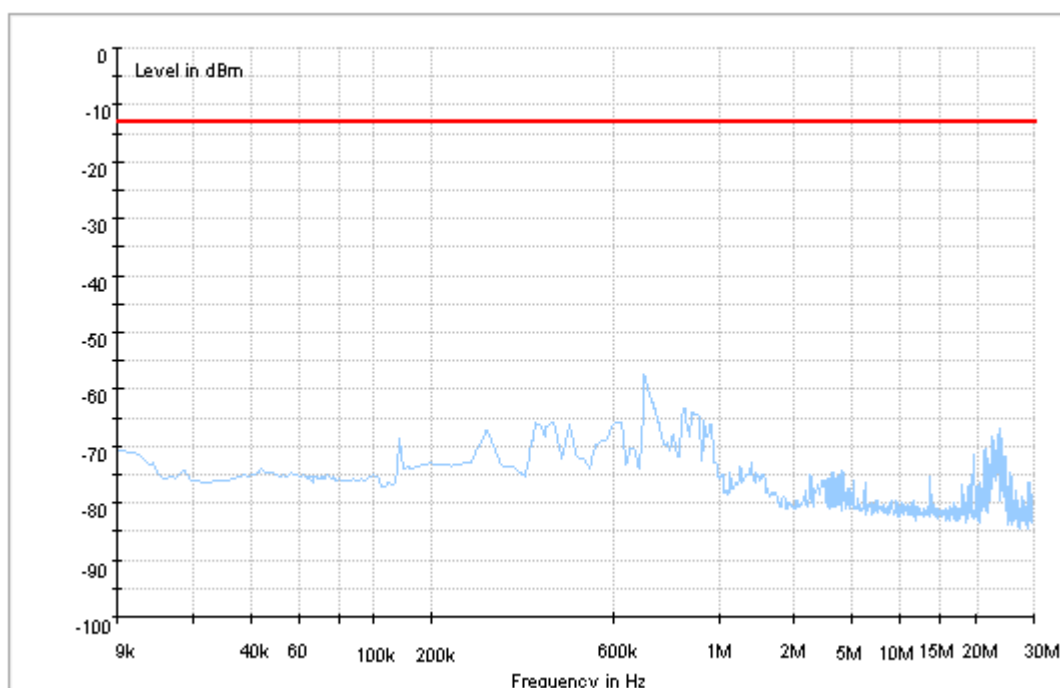
We tested all modes, but the data presented below is the worst case.

Part I - Test Plots

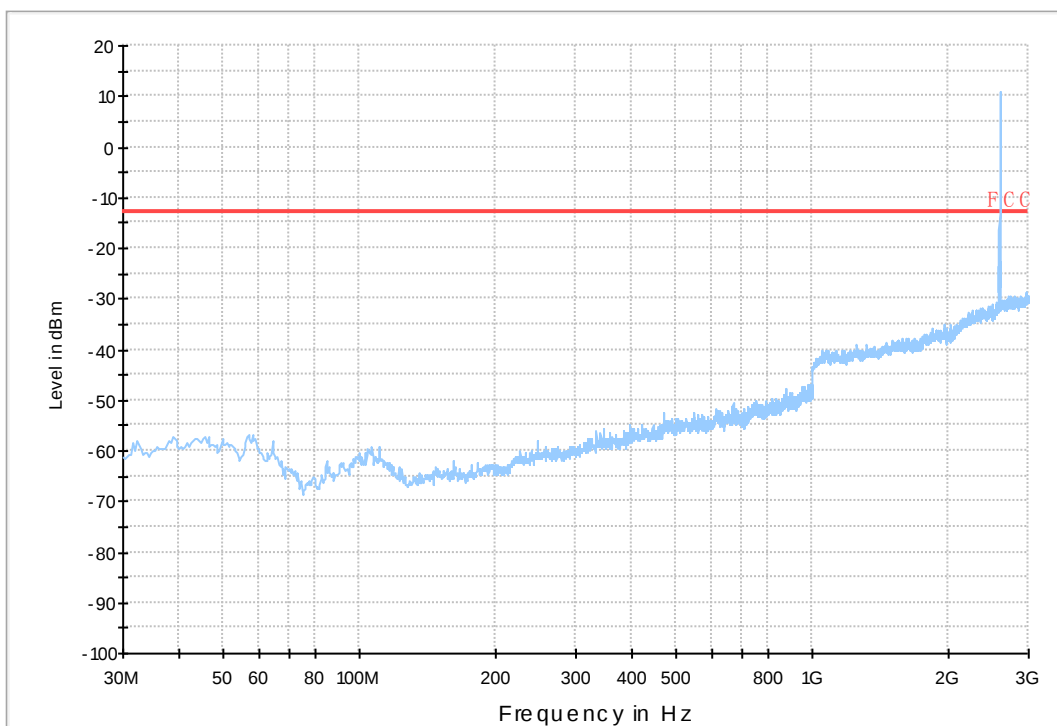
7.1 For LTE

7.1.1 Test Band = BAND41

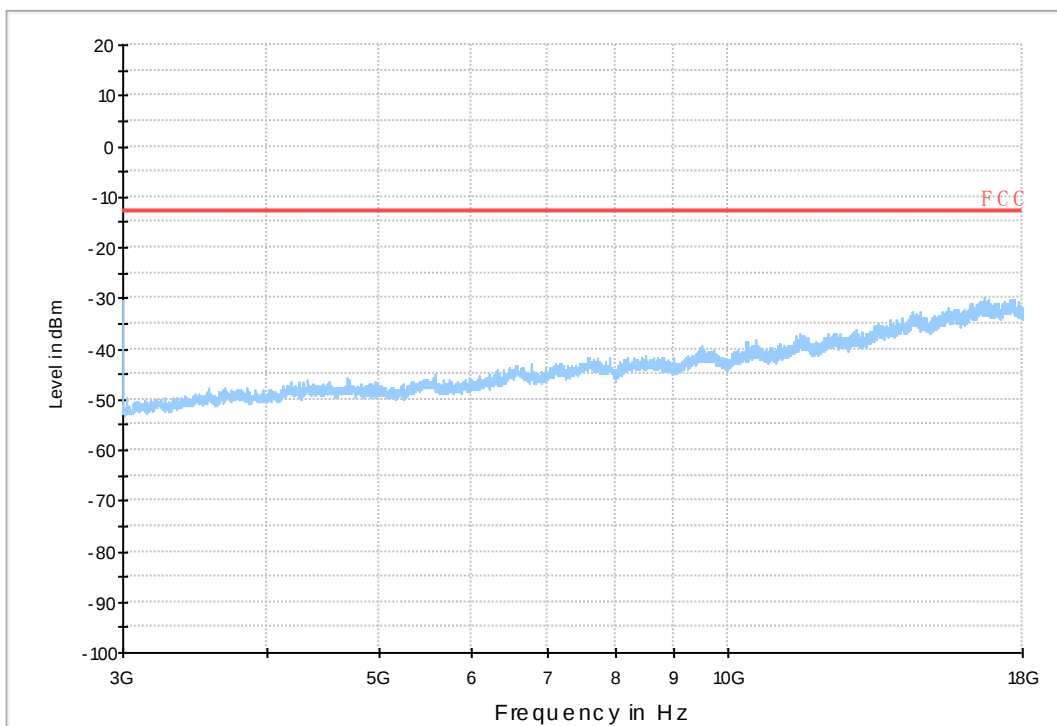
7.1.1.1 Test Bandwidth = 5

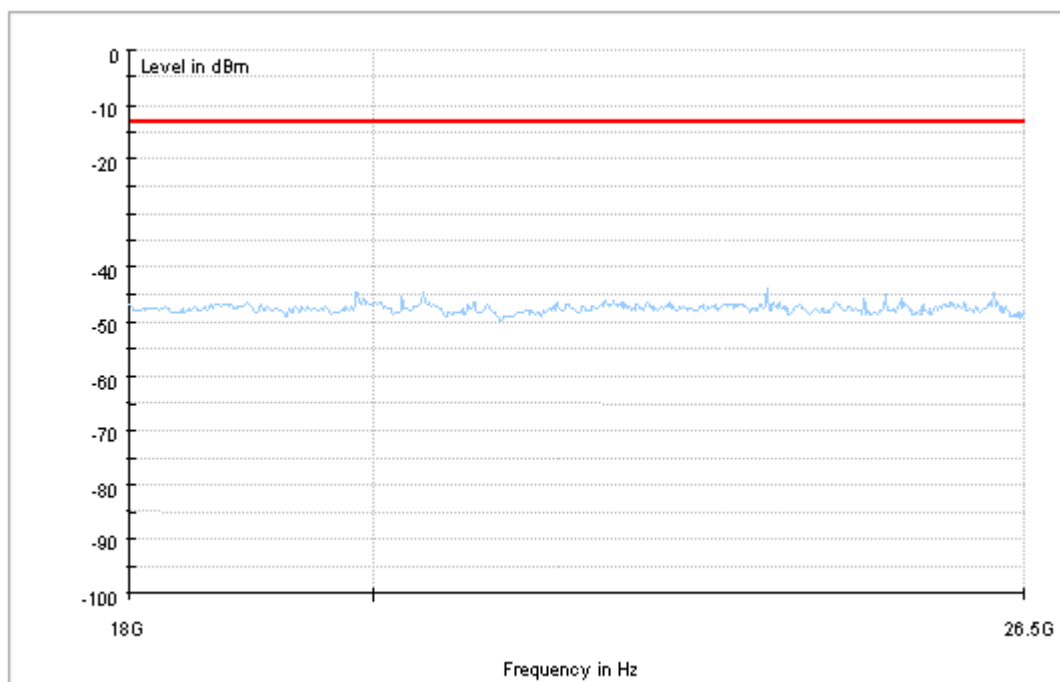


Copy of RSE-TX-DIRECTOR ABOVE 1.5G_L

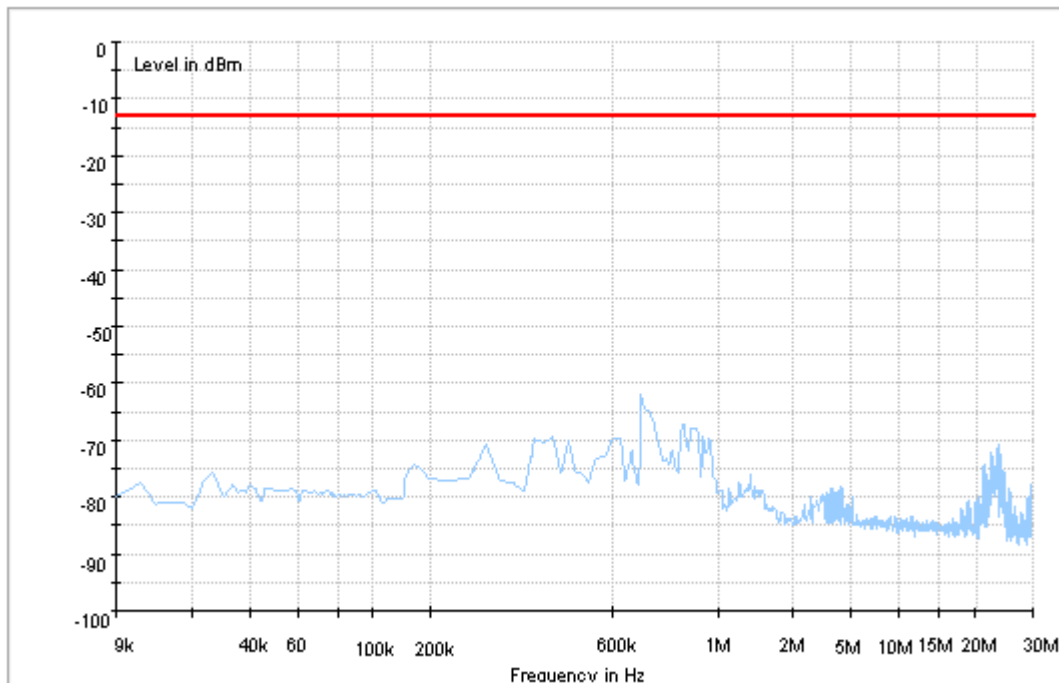


Copy of RSE-TX-DIRECTOR ABOVE 1.5G_H

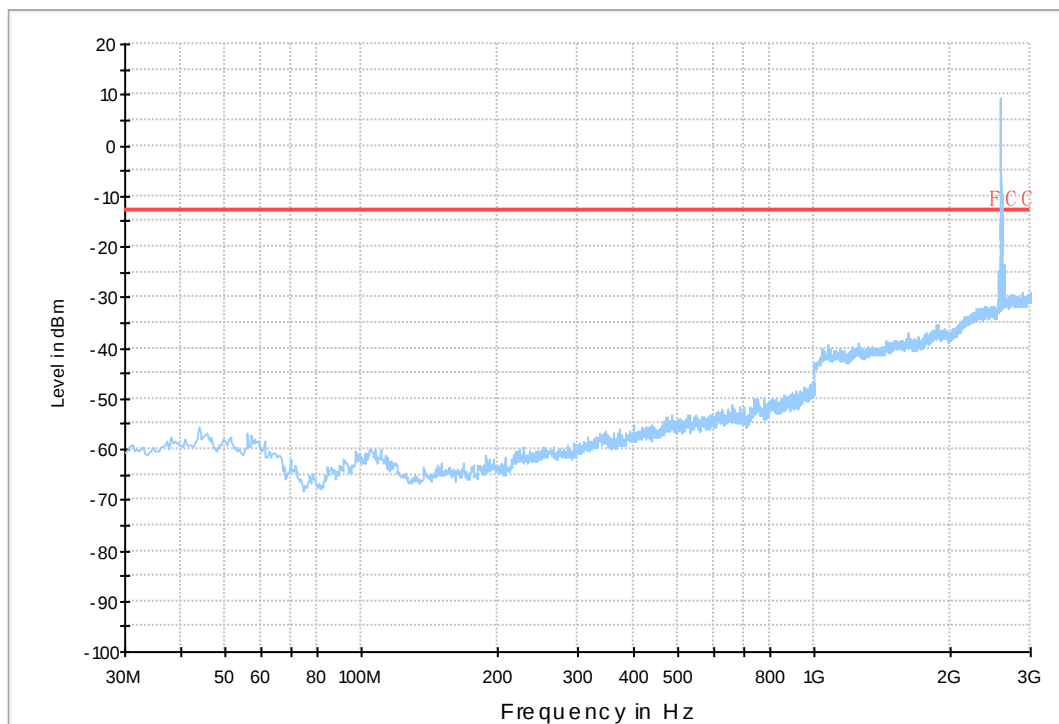




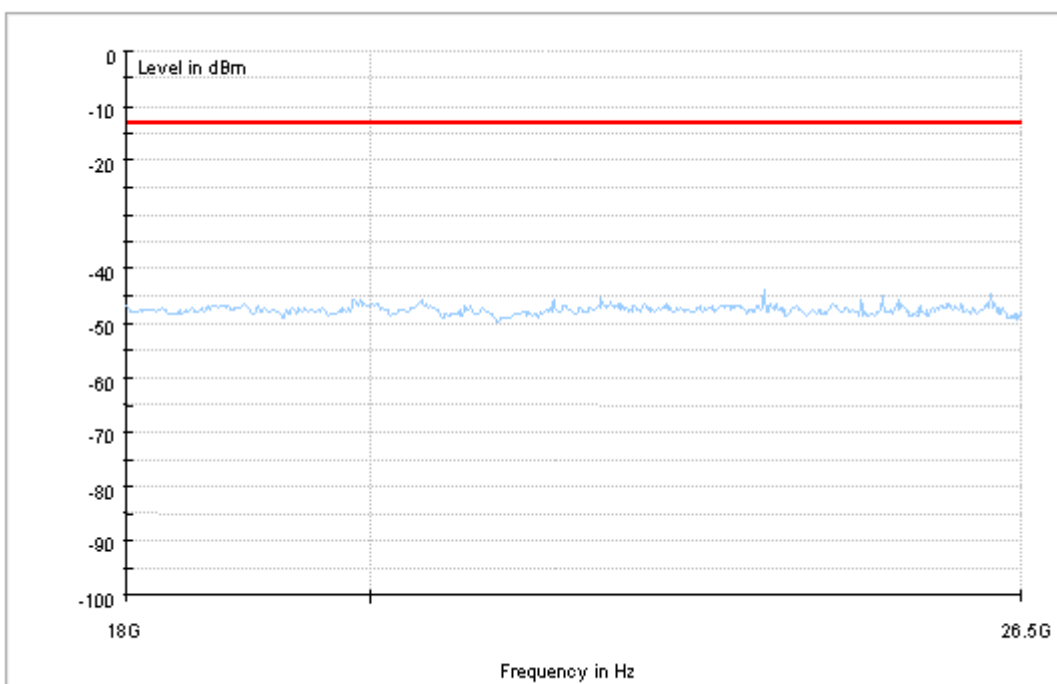
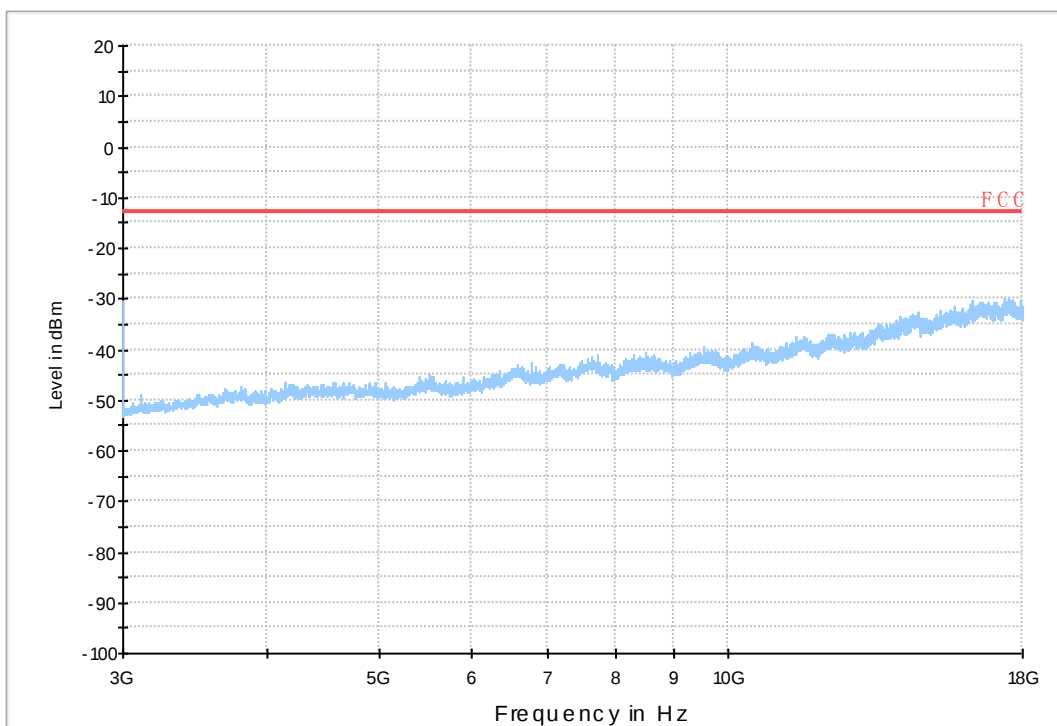
7.1.1.2 Test Bandwidth = 20



Copy of RSE-TX-DIRECTOR ABOVE 1.5G_L



Copy of RSE-TX-DIRECTOR ABOVE 1.5G_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
BAND41	LTE/TM1	5	LCH	TN	VL	-1.29	-0.0005	PASS
					VN	-2.63	-0.00103	PASS
					VH	-3.38	-0.00132	PASS
			MCH	TN	VL	-3.83	-0.00147	PASS
					VN	-8.04	-0.00309	PASS
					VH	-2.42	-0.00093	PASS
			HCH	TN	VL	-5.54	-0.00209	PASS
					VN	-5.76	-0.00217	PASS
					VH	-4.02	-0.00152	PASS
		10	LCH	TN	VL	-2.95	-0.00115	PASS
					VN	-2.8	-0.00109	PASS
					VH	-2.5	-0.00098	PASS
			MCH	TN	VL	-5.95	-0.00228	PASS
					VN	0.21	0.00008	PASS
					VH	-6.04	-0.00232	PASS
			HCH	TN	VL	-2.72	-0.00103	PASS
					VN	-3.93	-0.00148	PASS
					VH	-3.19	-0.0012	PASS
		15	LCH	TN	VL	-2.02	-0.00079	PASS
					VN	-2.06	-0.0008	PASS
					VH	-1.57	-0.00061	PASS
			MCH	TN	VL	-4.31	-0.00165	PASS
					VN	-1.57	-0.0006	PASS
					VH	-2.88	-0.00111	PASS
			HCH	TN	VL	-3.58	-0.00135	PASS
					VN	-3.22	-0.00122	PASS
					VH	-3.85	-0.00145	PASS
		20	LCH	TN	VL	-3.69	-0.00144	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					VN	-5.08	-0.00198	PASS
					VH	-3.98	-0.00155	PASS
					VL	-4.52	-0.00174	PASS
					VN	-6.21	-0.00238	PASS
			MCH	TN	VH	-3.1	-0.00119	PASS
					VL	-4.19	-0.00158	PASS
					VN	-3.72	-0.00141	PASS
					VH	-4.86	-0.00184	PASS
	LTE/TM2	5	LCH	TN	VL	-0.9	-0.00035	PASS
					VN	-0.54	-0.00021	PASS
					VH	-4.98	-0.00195	PASS
			MCH	TN	VL	0.76	0.00029	PASS
					VN	-6.42	-0.00246	PASS
					VH	-4.02	-0.00154	PASS
			HCH	TN	VL	-4.32	-0.00163	PASS
					VN	-5.65	-0.00213	PASS
					VH	-2.66	-0.001	PASS
		10	LCH	TN	VL	3.35	0.00131	PASS
					VN	-15.28	-0.00597	PASS
					VH	-1.59	-0.00062	PASS
			MCH	TN	VL	-1.69	-0.00065	PASS
					VN	-3.45	-0.00132	PASS
					VH	2.29	0.00088	PASS
			HCH	TN	VL	-3.68	-0.00139	PASS
					VN	0.21	0.00008	PASS
					VH	-7.93	-0.00299	PASS
		15	LCH	TN	VL	-1.16	-0.00045	PASS
					VN	-3.12	-0.00122	PASS
					VH	-1.87	-0.00073	PASS
			MCH	TN	VL	-4.91	-0.00188	PASS
					VN	-2.83	-0.00109	PASS
					VH	-0.23	-0.00009	PASS
			HCH	TN	VL	-1.44	-0.00054	PASS
					VN	-2.25	-0.00085	PASS
					VH	-1.52	-0.00057	PASS
		20	LCH	TN	VL	-0.8	-0.00031	PASS
					VN	-2.13	-0.00083	PASS
					VH	-4.18	-0.00163	PASS
			MCH	TN	VL	-7.1	-0.00273	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					VN	-8.08	-0.0031	PASS
					VH	-6.67	-0.00256	PASS
			HCH	TN	VL	-4.09	-0.00155	PASS
					VN	-4.16	-0.00157	PASS
					VH	-10.26	-0.00388	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	-0.62	-0.00024	PASS
					-20	-1.79	-0.0007	PASS
					-10	-2.19	-0.00086	PASS
					0	-1.79	-0.0007	PASS
					10	-2.56	-0.001	PASS
					20	-2.2	-0.00086	PASS
					30	-6.97	-0.00273	PASS
					40	-3.08	-0.0012	PASS
					50	-1.47	-0.00057	PASS
			MCH	VN	-30	-6.41	-0.00246	PASS
					-20	-3.92	-0.0015	PASS
					-10	-2.65	-0.00102	PASS
					0	-4.42	-0.0017	PASS
					10	-5.39	-0.00207	PASS
					20	-5.56	-0.00213	PASS
					30	-3.49	-0.00134	PASS
					40	-7.15	-0.00274	PASS
					50	-1.16	-0.00045	PASS
			HCH	VN	-30	-5.32	-0.00201	PASS
					-20	-3.71	-0.0014	PASS
					-10	-5.05	-0.0019	PASS
					0	-8.31	-0.00313	PASS
					10	-3.88	-0.00146	PASS
					20	-4.63	-0.00175	PASS
					30	-0.6	-0.00023	PASS
					40	-4.49	-0.00169	PASS
					50	-3.85	-0.00145	PASS
		10	LCH	VN	-30	-4.11	-0.00161	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp .	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					-20	-3.36	-0.00131	PASS
					-10	-2.63	-0.00103	PASS
					0	-4.96	-0.00194	PASS
					10	-4.35	-0.0017	PASS
					20	-2.49	-0.00097	PASS
					30	-1.86	-0.00073	PASS
					40	-4.35	-0.0017	PASS
					50	0.41	0.00016	PASS
			MCH	VN	-30	-2.25	-0.00086	PASS
					-20	-0.19	-0.00007	PASS
					-10	-4.42	-0.0017	PASS
					0	-0.79	-0.0003	PASS
					10	-5.28	-0.00203	PASS
					20	-3.46	-0.00133	PASS
					30	-3.23	-0.00124	PASS
					40	-2.06	-0.00079	PASS
					50	-2.3	-0.00088	PASS
			HCH	VN	-30	-1.16	-0.00044	PASS
					-20	-4.38	-0.00165	PASS
					-10	-2.8	-0.00106	PASS
					0	-6.24	-0.00235	PASS
					10	-3.98	-0.0015	PASS
					20	-0.07	-0.00003	PASS
					30	-5.61	-0.00212	PASS
					40	-4.03	-0.00152	PASS
					50	-3.46	-0.00131	PASS
		15	LCH	VN	-30	-0.96	-0.00037	PASS
					-20	-0.04	-0.00002	PASS
					-10	-5.24	-0.00204	PASS
					0	0.26	0.0001	PASS
					10	-0.87	-0.00034	PASS
					20	-1.53	-0.0006	PASS
					30	-1.97	-0.00077	PASS
					40	-2.89	-0.00113	PASS
					50	-1.96	-0.00076	PASS
			MCH	VN	-30	-2.99	-0.00115	PASS
					-20	-5.42	-0.00208	PASS
					-10	-3.53	-0.00136	PASS
					0	-5.19	-0.00199	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp .	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					10	-2.47	-0.00095	PASS
					20	-0.72	-0.00028	PASS
					30	-3.18	-0.00122	PASS
					40	-3.71	-0.00142	PASS
					50	-2.07	-0.00079	PASS
			HCH	VN	-30	-2.22	-0.00084	PASS
					-20	-2.78	-0.00105	PASS
					-10	-5.08	-0.00192	PASS
					0	-2.17	-0.00082	PASS
					10	-3.58	-0.00135	PASS
					20	-3.86	-0.00146	PASS
					30	-2.33	-0.00088	PASS
					40	-3.72	-0.00141	PASS
					50	-2.35	-0.00089	PASS
		20	LCH	VN	-30	-0.63	-0.00025	PASS
					-20	0.24	0.00009	PASS
					-10	-4.42	-0.00172	PASS
					0	-4.39	-0.00171	PASS
					10	-3.46	-0.00135	PASS
					20	-3.3	-0.00129	PASS
					30	-2.7	-0.00105	PASS
					40	-2.26	-0.00088	PASS
					50	-0.36	-0.00014	PASS
			MCH	VN	-30	-3.78	-0.00145	PASS
					-20	-2.98	-0.00114	PASS
					-10	-4.25	-0.00163	PASS
					0	-5.72	-0.0022	PASS
					10	-2.33	-0.00089	PASS
					20	-3.53	-0.00136	PASS
					30	-6.77	-0.0026	PASS
					40	-3.58	-0.00137	PASS
					50	-2.09	-0.0008	PASS
			HCH	VN	-30	-3.15	-0.00119	PASS
					-20	-1.32	-0.0005	PASS
					-10	-2.42	-0.00091	PASS
					0	-1.9	-0.00072	PASS
					10	-2.68	-0.00101	PASS
					20	-3.06	-0.00116	PASS
					30	-3.5	-0.00132	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			40	-2.16	-0.00082	PASS
					50	-6.15	-0.00233	PASS
			LCH	VN	-30	-4.18	-0.00163	PASS
					-20	1.89	0.00074	PASS
					-10	-1.7	-0.00066	PASS
					0	-2.82	-0.0011	PASS
					10	-0.73	-0.00029	PASS
					20	-0.37	-0.00014	PASS
					30	1.92	0.00075	PASS
					40	-3.22	-0.00126	PASS
					50	-1.6	-0.00063	PASS
			MCH	VN	-30	-1.29	-0.0005	PASS
					-20	-4.28	-0.00164	PASS
					-10	-2.57	-0.00099	PASS
					0	-1.72	-0.00066	PASS
					10	-0.49	-0.00019	PASS
					20	-3	-0.00115	PASS
					30	-0.7	-0.00027	PASS
					40	-4.32	-0.00166	PASS
					50	-1.1	-0.00042	PASS
			HCH	VN	-30	-3.68	-0.00139	PASS
					-20	-1.39	-0.00052	PASS
					-10	-4.12	-0.00155	PASS
					0	-0.3	-0.00011	PASS
					10	-4.85	-0.00183	PASS
					20	0.01	0	PASS
					30	-1.32	-0.0005	PASS
					40	-3.68	-0.00139	PASS
					50	-3.13	-0.00118	PASS
		10	LCH	VN	-30	-7.47	-0.00292	PASS
					-20	-3.33	-0.0013	PASS
					-10	-0.92	-0.00036	PASS
					0	-3.76	-0.00147	PASS
					10	-4.48	-0.00175	PASS
					20	3.22	0.00126	PASS
					30	-3.58	-0.0014	PASS
					40	-0.53	-0.00021	PASS
					50	2.32	0.00091	PASS
			MCH	VN	-30	0.47	0.00018	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp .	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					-20	-5.31	-0.00204	PASS
					-10	-5.98	-0.0023	PASS
					0	-2.4	-0.00092	PASS
					10	1.24	0.00048	PASS
					20	-4.08	-0.00157	PASS
					30	2.8	0.00107	PASS
					40	0.92	0.00035	PASS
					50	-3.56	-0.00137	PASS
			HCH	VN	-30	-8.28	-0.00312	PASS
					-20	-2.9	-0.00109	PASS
					-10	3.62	0.00137	PASS
					0	2.16	0.00082	PASS
					10	-4.63	-0.00175	PASS
					20	-0.83	-0.00031	PASS
					30	-3.45	-0.0013	PASS
					40	0.7	0.00026	PASS
					50	1.72	0.00065	PASS
		15	LCH	VN	-30	-0.4	-0.00016	PASS
					-20	0.69	0.00027	PASS
					-10	-1.86	-0.00073	PASS
					0	0.31	0.00012	PASS
					10	0.11	0.00004	PASS
					20	0.26	0.0001	PASS
					30	-0.86	-0.00034	PASS
					40	-5.06	-0.00197	PASS
					50	-0.17	-0.00007	PASS
			MCH	VN	-30	1.36	0.00052	PASS
					-20	-2.96	-0.00114	PASS
					-10	-0.4	-0.00015	PASS
					0	-1.49	-0.00057	PASS
					10	-8.63	-0.00331	PASS
					20	-7.12	-0.00273	PASS
					30	-2.26	-0.00087	PASS
					40	-0.26	-0.0001	PASS
					50	-2.73	-0.00105	PASS
			HCH	VN	-30	-4.72	-0.00178	PASS
					-20	-7.05	-0.00266	PASS
					-10	-4.08	-0.00154	PASS
					0	-6.64	-0.00251	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp .	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					10	-3.09	-0.00117	PASS
					20	-3.28	-0.00124	PASS
					30	0.94	0.00036	PASS
					40	-5.19	-0.00196	PASS
					50	-3.19	-0.0012	PASS
		20	LCH	VN	-30	-2.22	-0.00087	PASS
					-20	7.4	0.00288	PASS
					-10	-1.95	-0.00076	PASS
					0	-3.38	-0.00132	PASS
					10	4.29	0.00167	PASS
					20	0.93	0.00036	PASS
					30	-6.38	-0.00249	PASS
					40	-2.46	-0.00096	PASS
					50	-4.84	-0.00189	PASS
			MCH	VN	-30	-0.89	-0.00034	PASS
					-20	-1.53	-0.00059	PASS
					-10	-4.35	-0.00167	PASS
					0	-7.48	-0.00287	PASS
					10	-6.58	-0.00253	PASS
					20	0.59	0.00023	PASS
					30	-6.71	-0.00258	PASS
					40	-6.47	-0.00248	PASS
					50	-3.79	-0.00145	PASS
			HCH	VN	-30	0.43	0.00016	PASS
					-20	-6.11	-0.00231	PASS
					-10	-4.66	-0.00176	PASS
					0	-5.74	-0.00217	PASS
					10	-5.51	-0.00208	PASS
					20	-6.94	-0.00262	PASS
					30	-5.46	-0.00206	PASS
					40	-4.35	-0.00164	PASS
					50	-7.7	-0.00291	PASS

END