





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

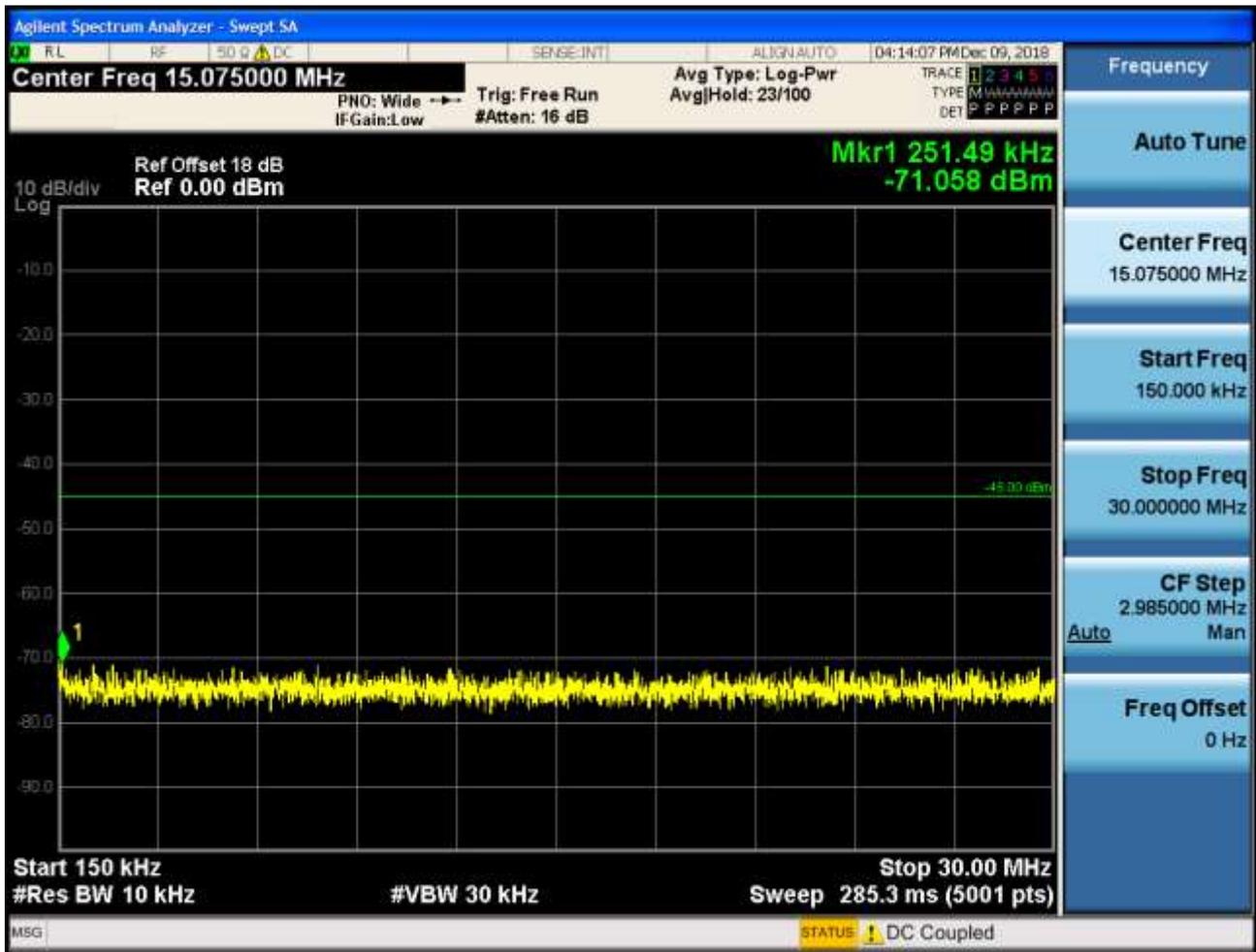
6.1.1.1 Test Mode = LTE/TM1

6.2.1.1.1 Test Bandwidth = 5

6.2.1.1.1.1 Test Channel = LCH

6.2.1.1.1.1.1 Test RB = RB1#0







6.2.1.1.1.2 Test Channel = MCH

6.2.1.1.1.2.1 Test RB = RB1#0







6.2.1.1.1.3 Test Channel = HCH

6.2.1.1.1.3.1 Test RB = RB1#0





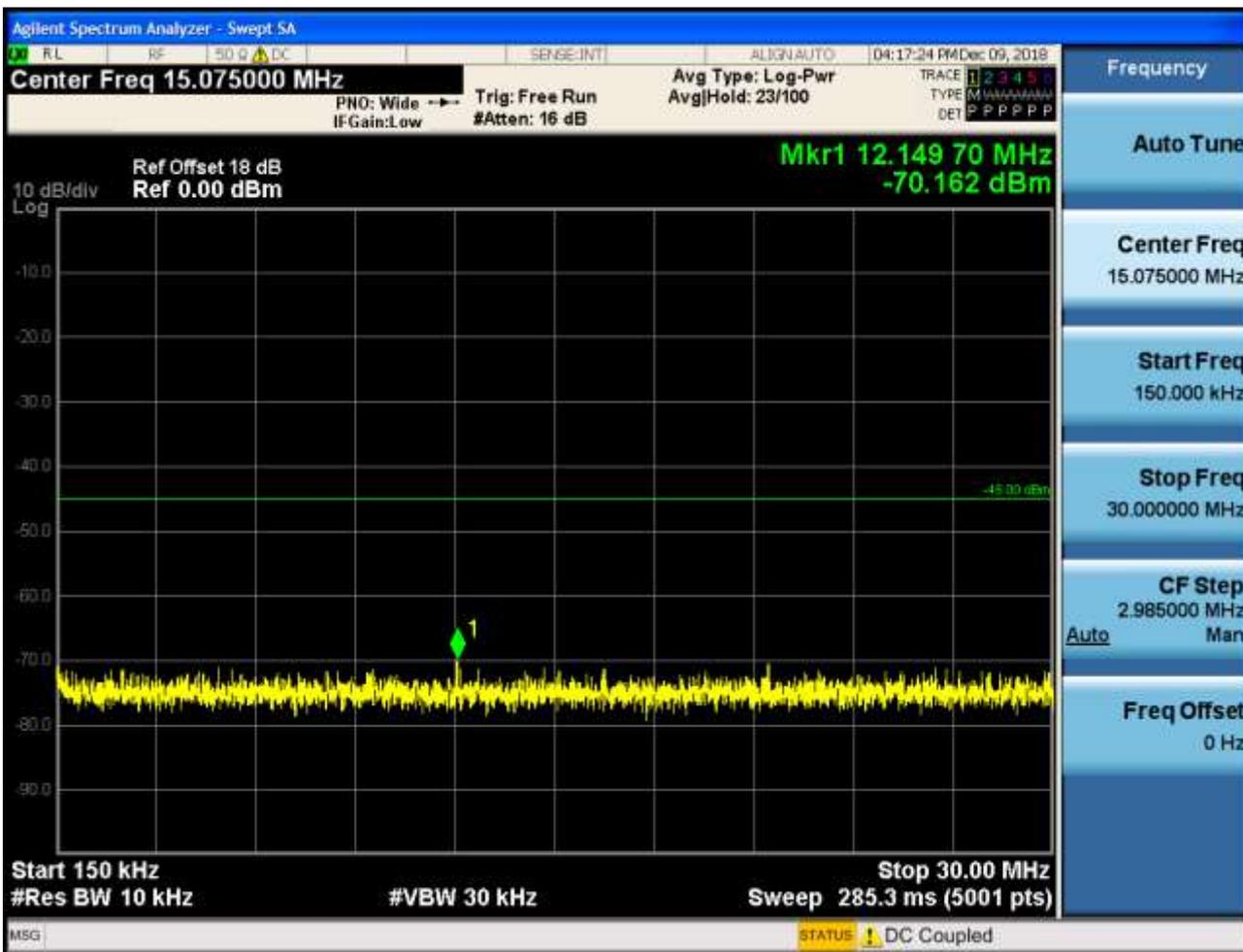


6.2.1.1.2 Test Bandwidth = 10

6.2.1.1.2.1 Test Channel = LCH

6.2.1.1.2.1.1 Test RB = RB1#0



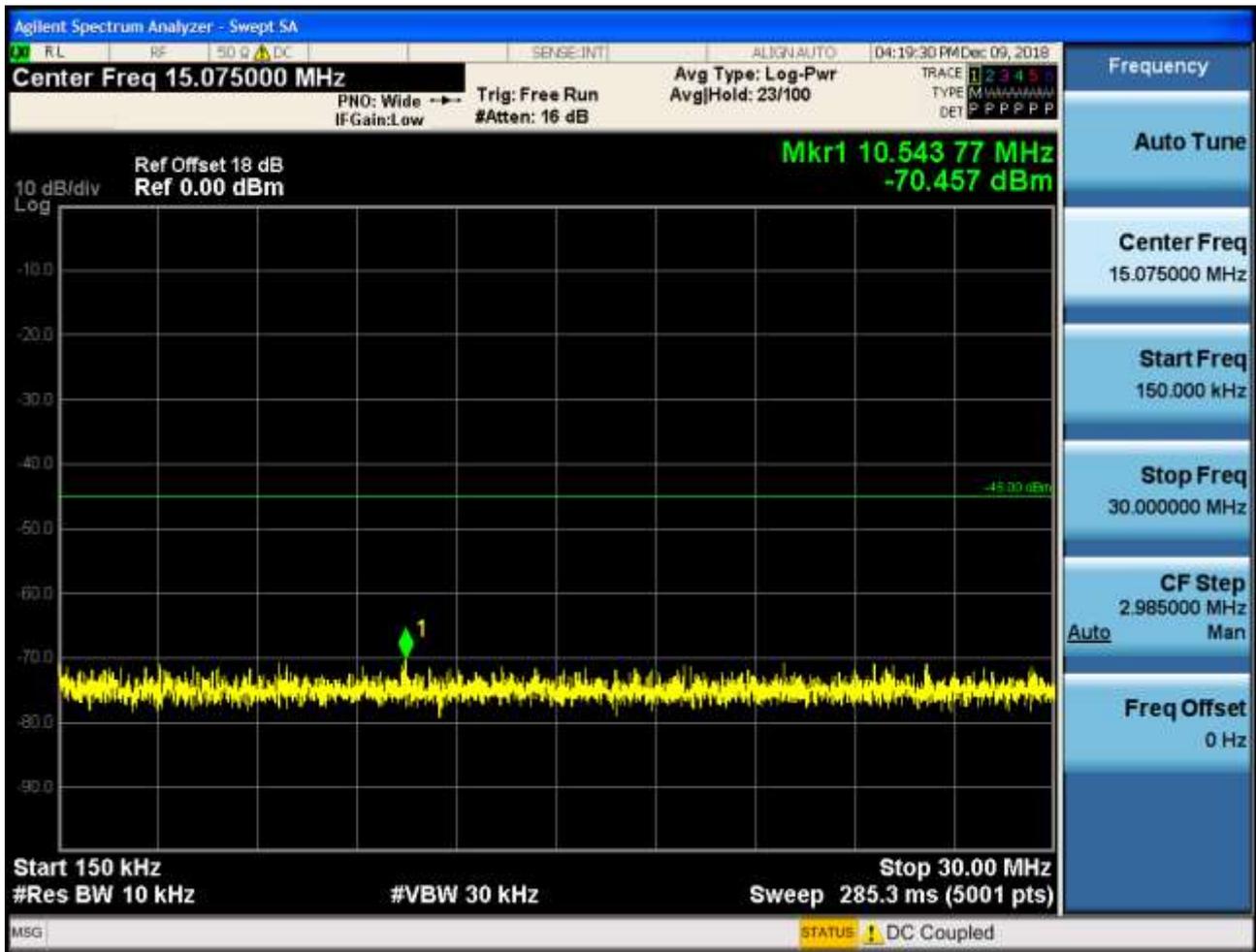




6.2.1.1.2.2 Test Channel = MCH

6.2.1.1.2.2.1 Test RB = RB1#0

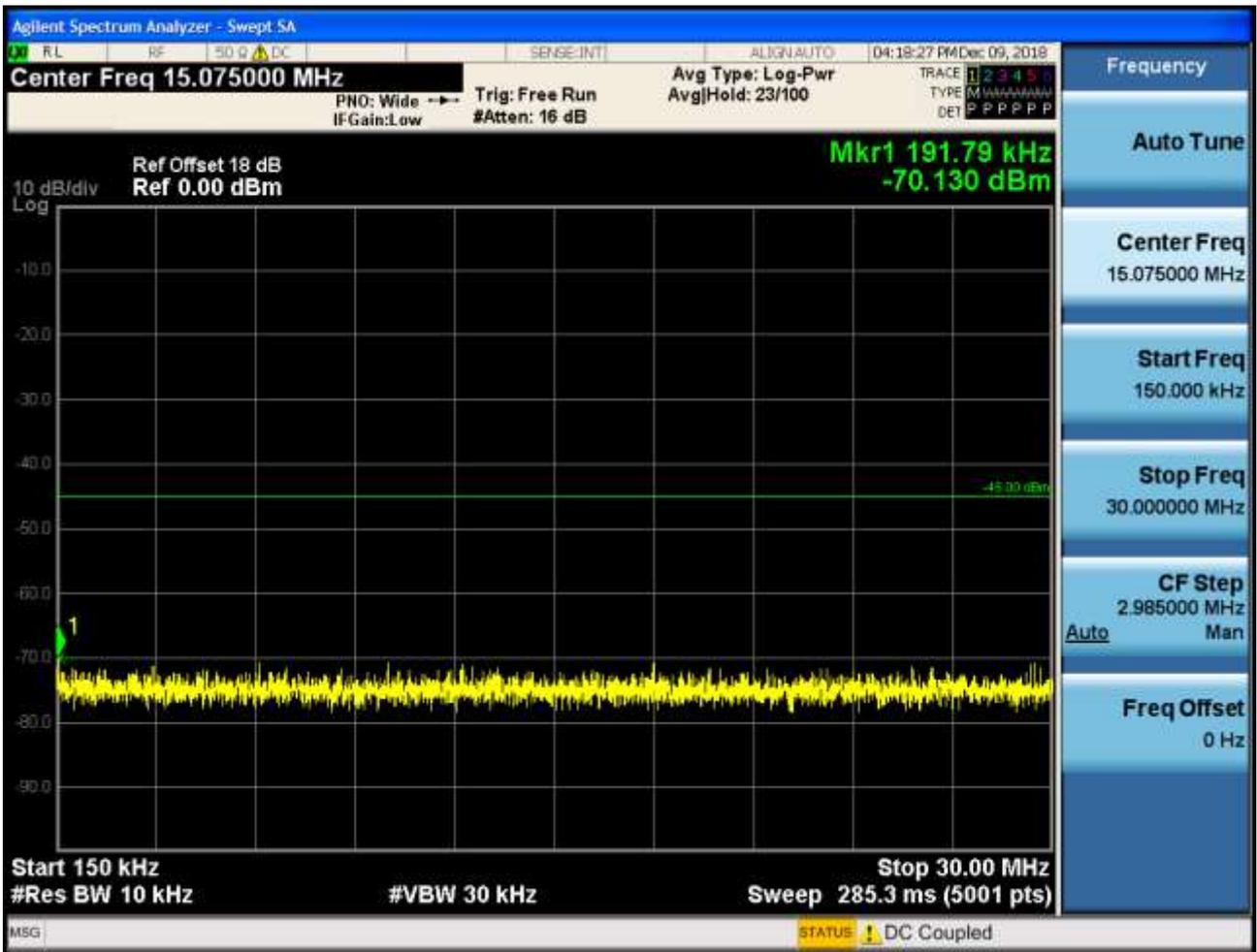




6.2.1.1.2.3 Test Channel = HCH

6.2.1.1.2.3.1 Test RB = RB1#0





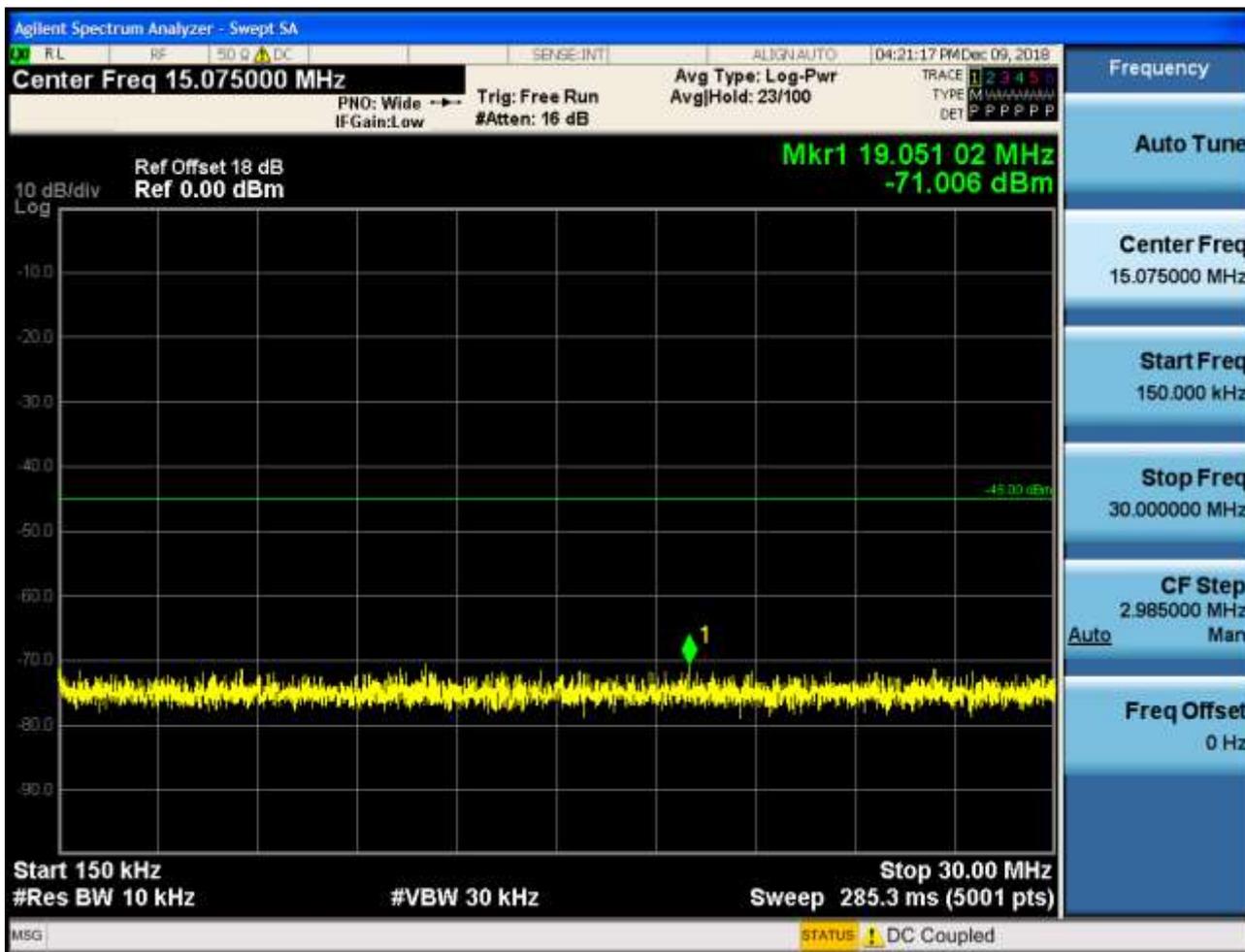


6.2.1.1.3 Test Bandwidth = 15

6.2.1.1.3.1 Test Channel = LCH

6.2.1.1.3.1.1 Test RB = RB1#0











6.2.1.1.3.3 Test Channel = HCH

6.2.1.1.3.3.1 Test RB = RB1#0







6.2.1.1.4 Test Bandwidth = 20

6.2.1.1.4.1 Test Channel = LCH

6.2.1.1.4.1.1 Test RB = RB1#0



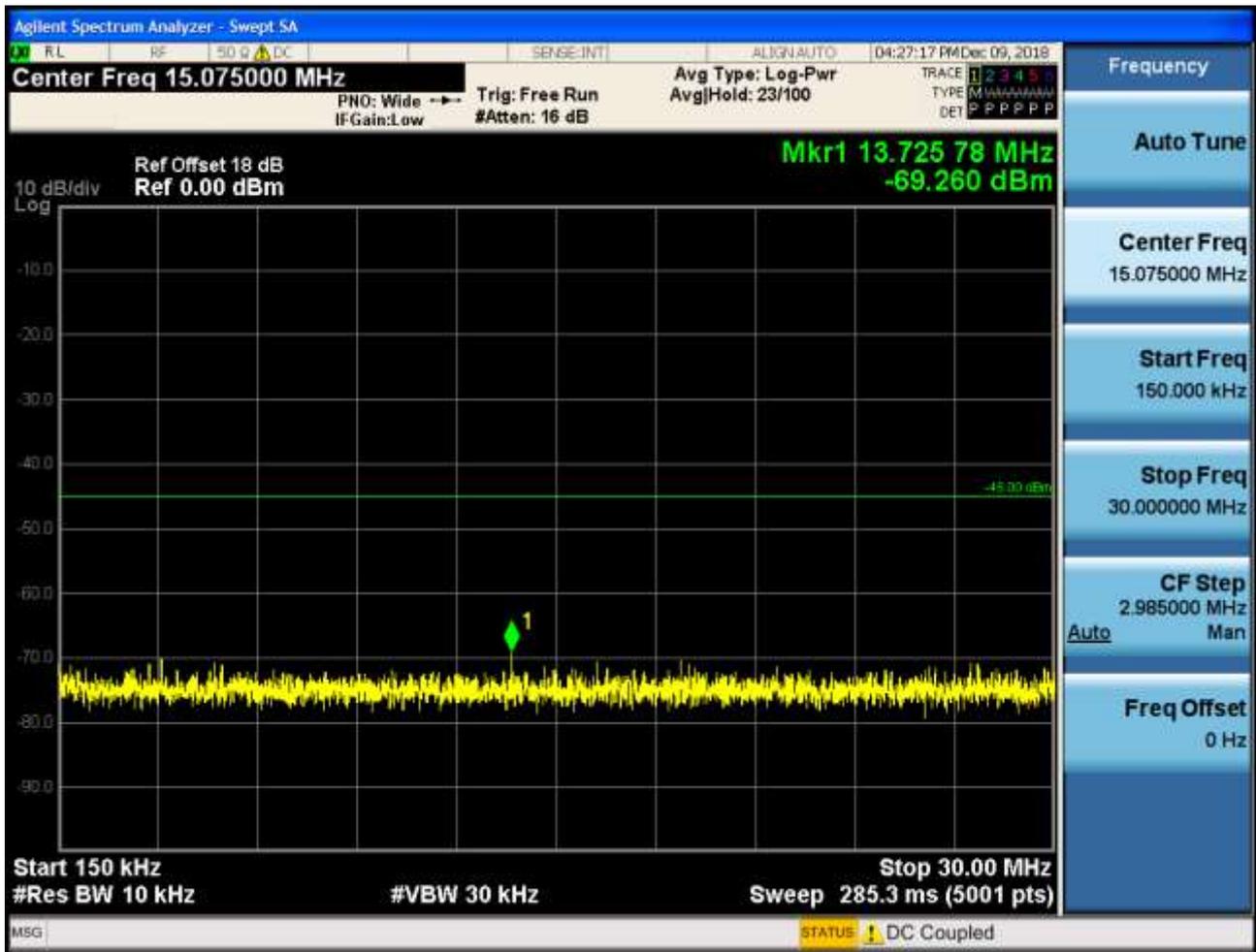




6.2.1.1.4.2 Test Channel = MCH

6.2.1.1.4.2.1 Test RB = RB1#0



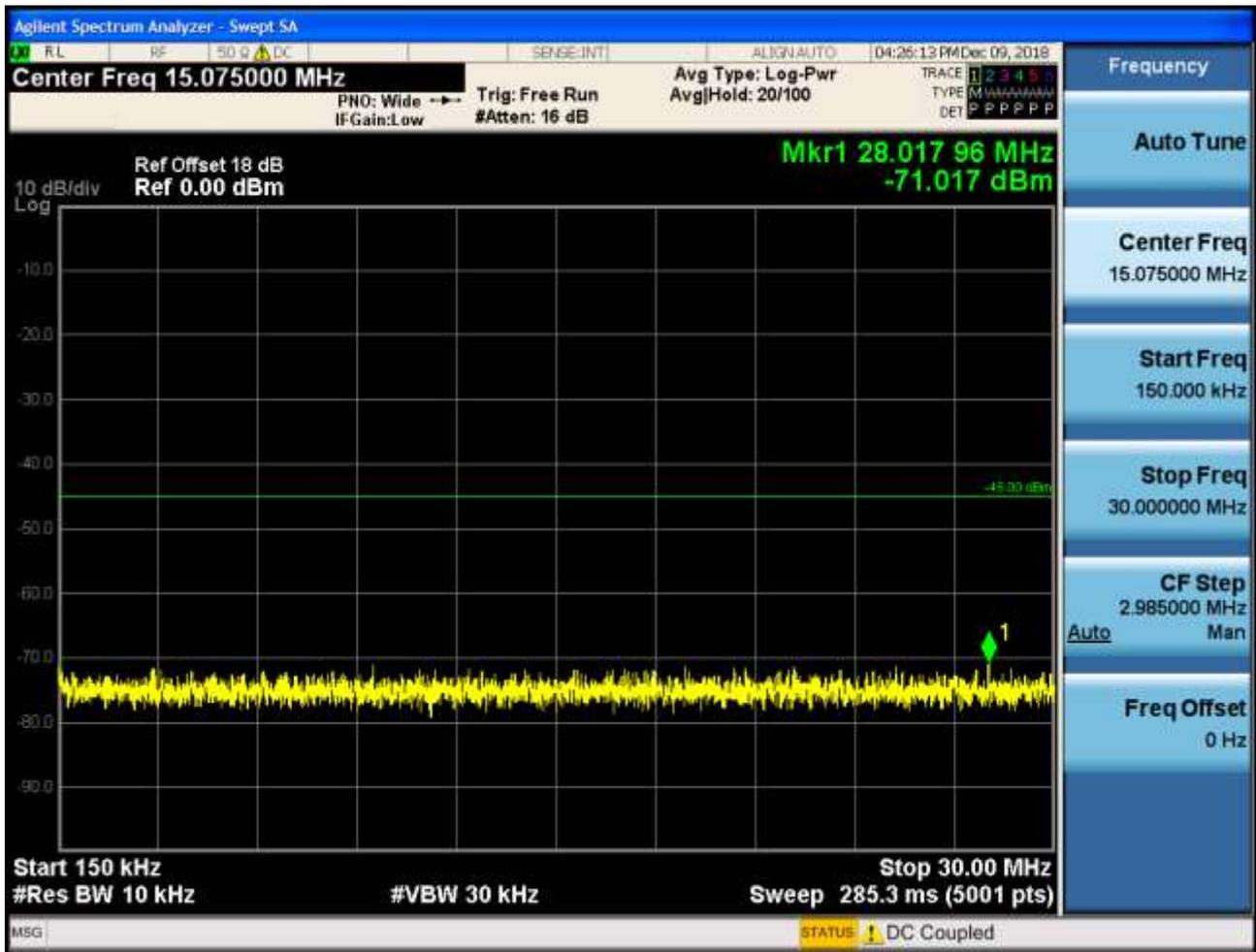




6.2.1.1.4.3 Test Channel = HCH

6.2.1.1.4.3.1 Test RB = RB1#0







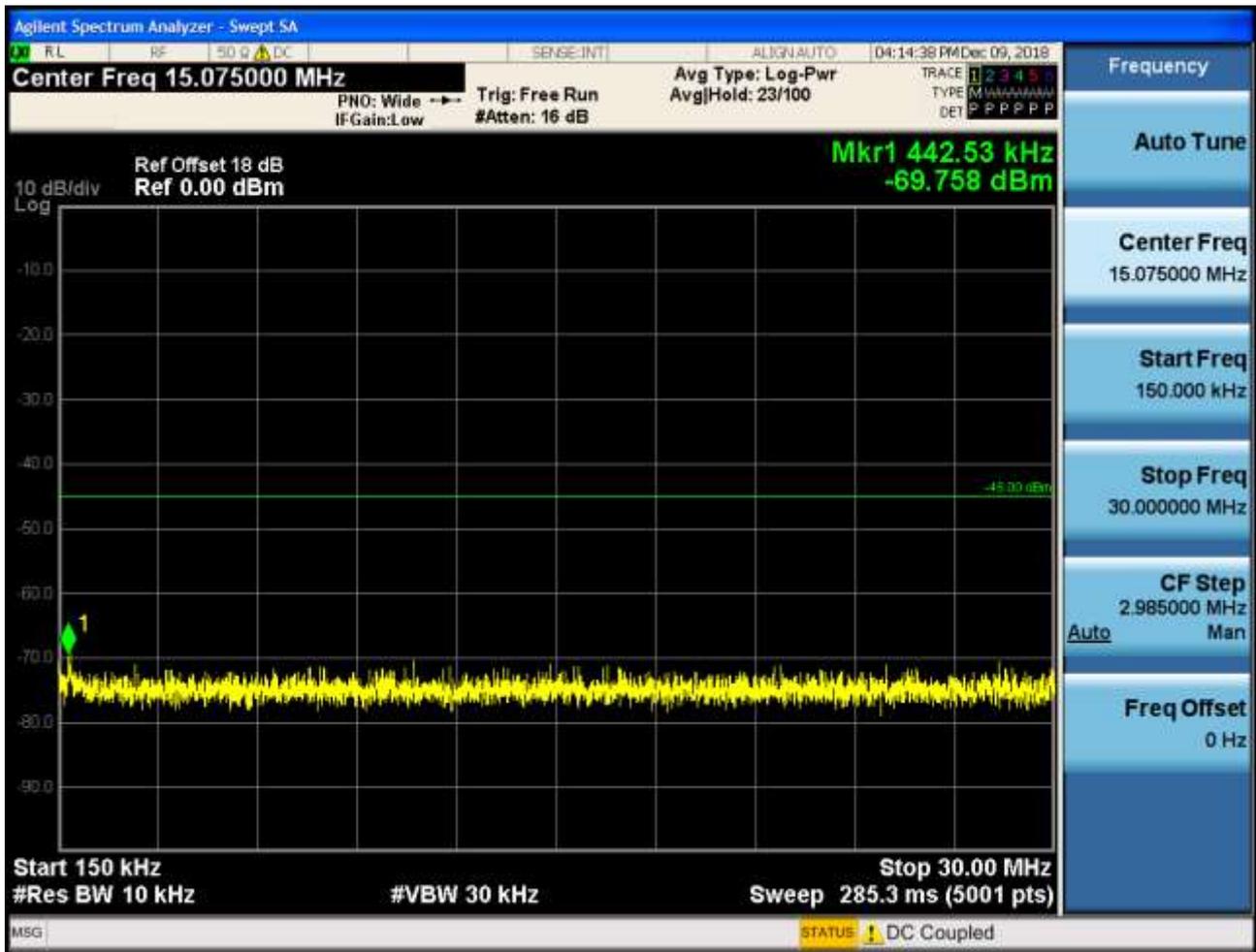
6.2.1.2 Test Mode = LTE/TM2

6.2.1.2.1 Test Bandwidth = 5

6.2.1.2.1.1 Test Channel = LCH

6.2.1.2.1.1.1 Test RB = RB1#0







6.2.1.2.1.2 Test Channel = MCH

6.2.1.2.1.2.1 Test RB = RB1#0







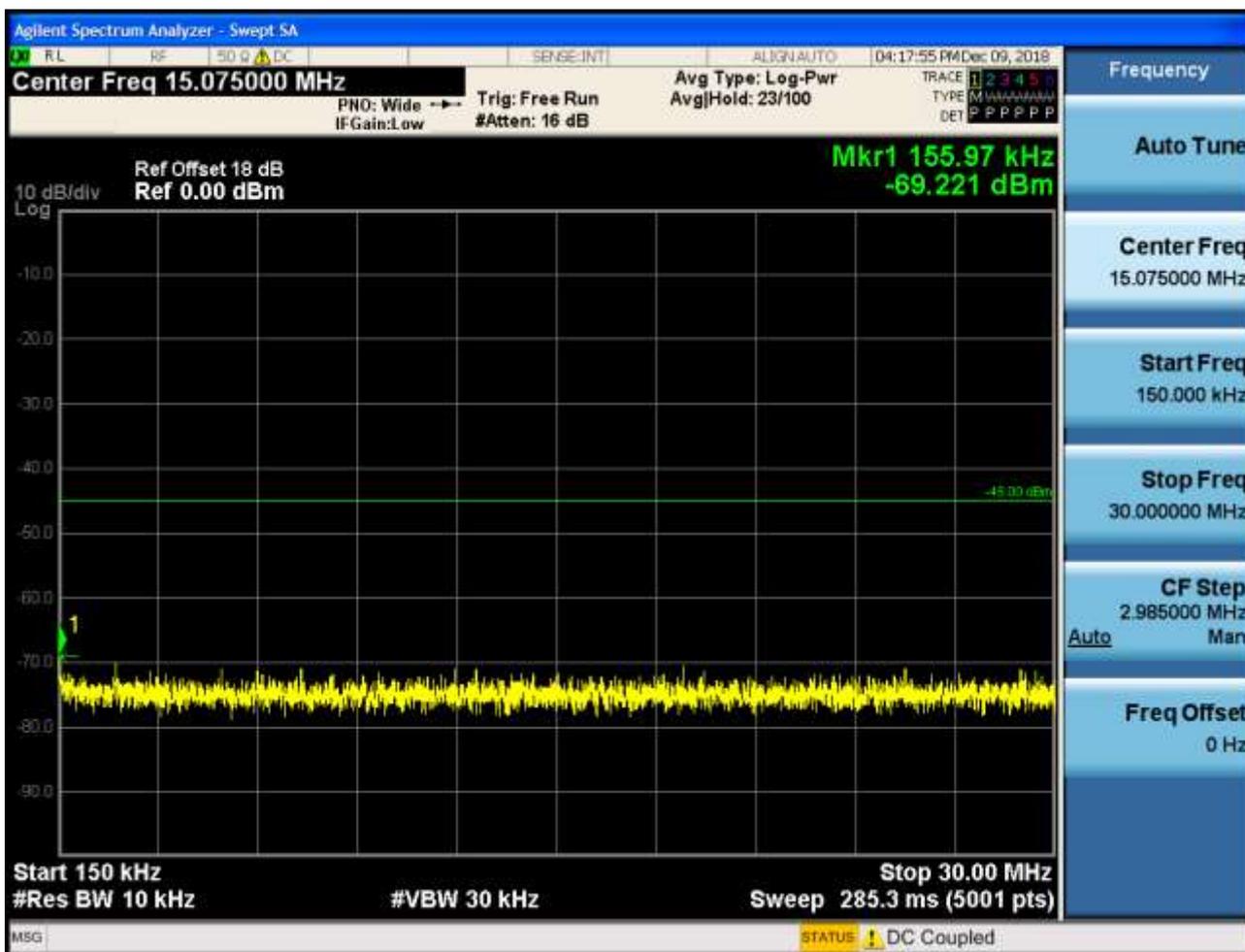
6.2.1.2.1.3 Test Channel = HCH

6.2.1.2.1.3.1 Test RB = RB1#0





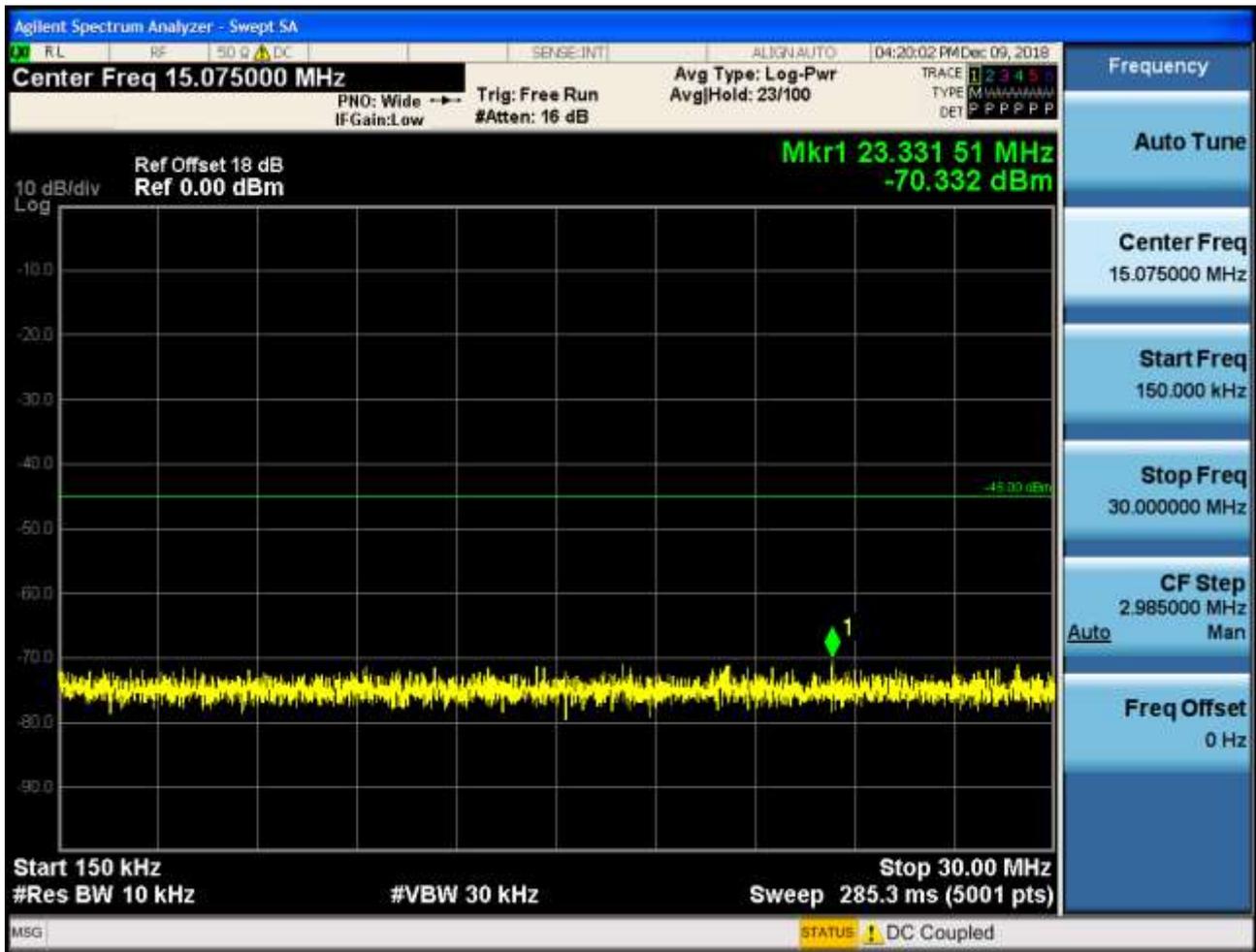




6.2.1.2.2 Test Channel = MCH

6.2.1.2.2.1 Test RB = RB1#0



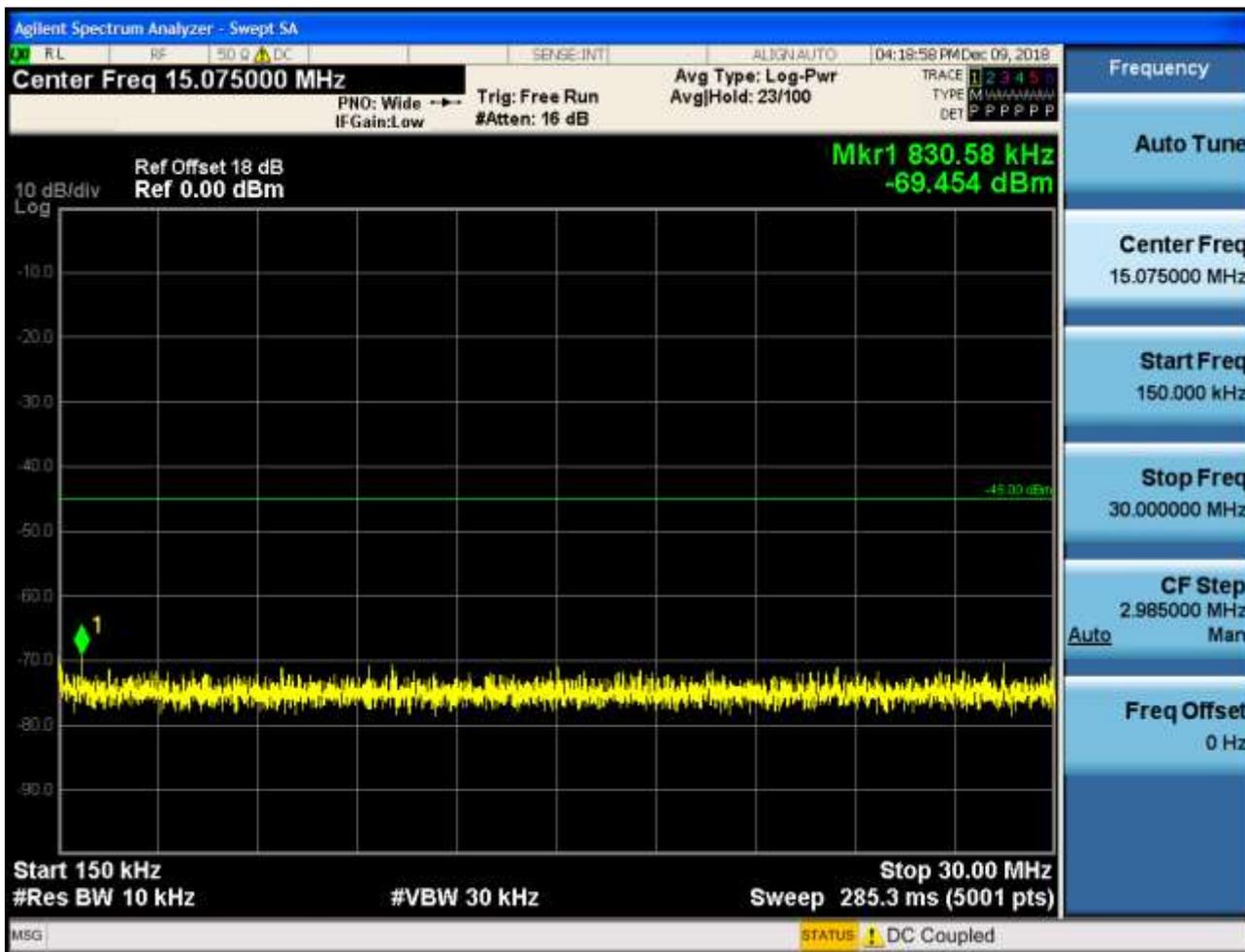




6.2.1.2.2.3 Test Channel = HCH

6.2.1.2.2.3.1 Test RB = RB1#0





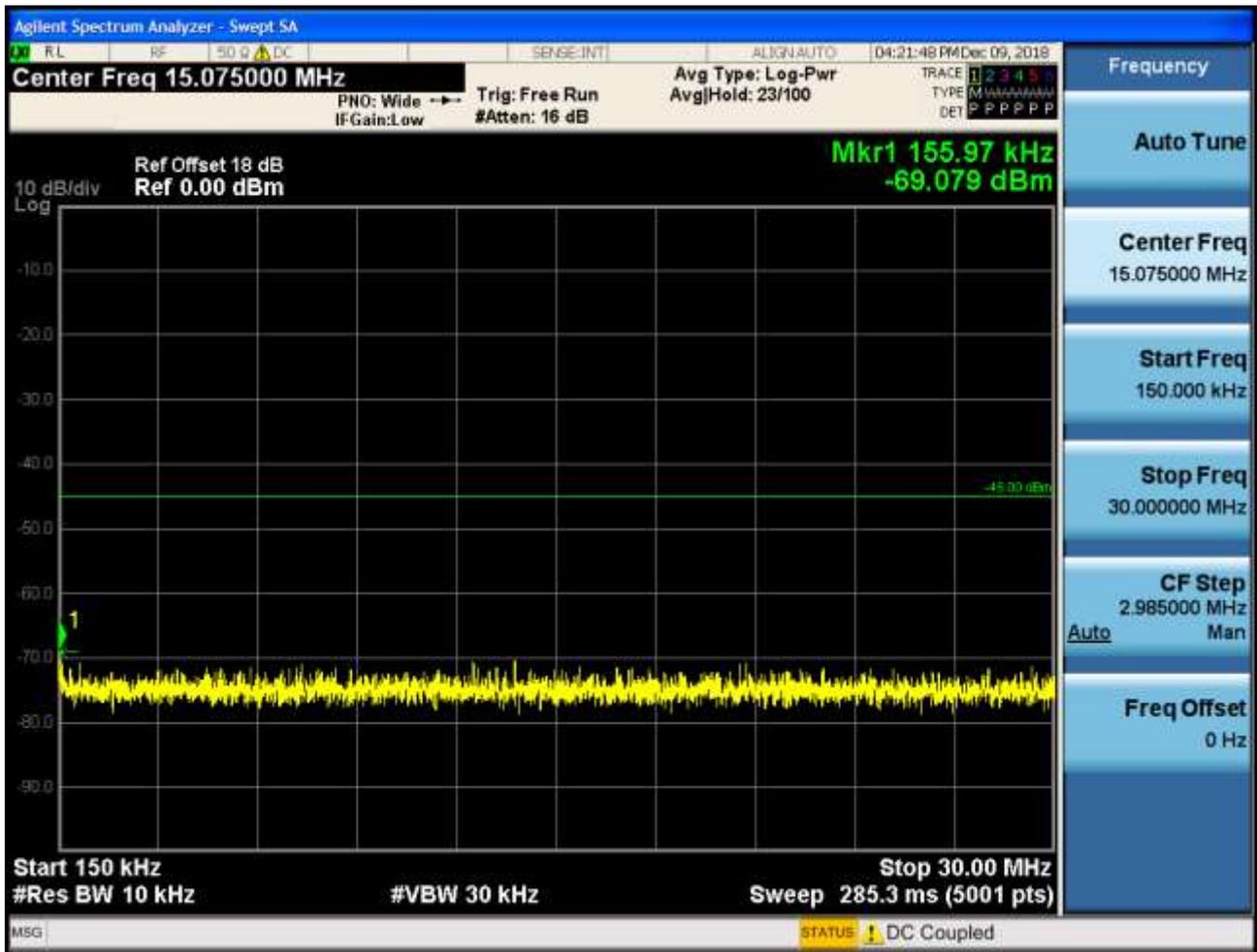


6.2.1.2.3 Test Bandwidth = 15

6.2.1.2.3.1 Test Channel = LCH

6.2.1.2.3.1.1 Test RB = RB1#0



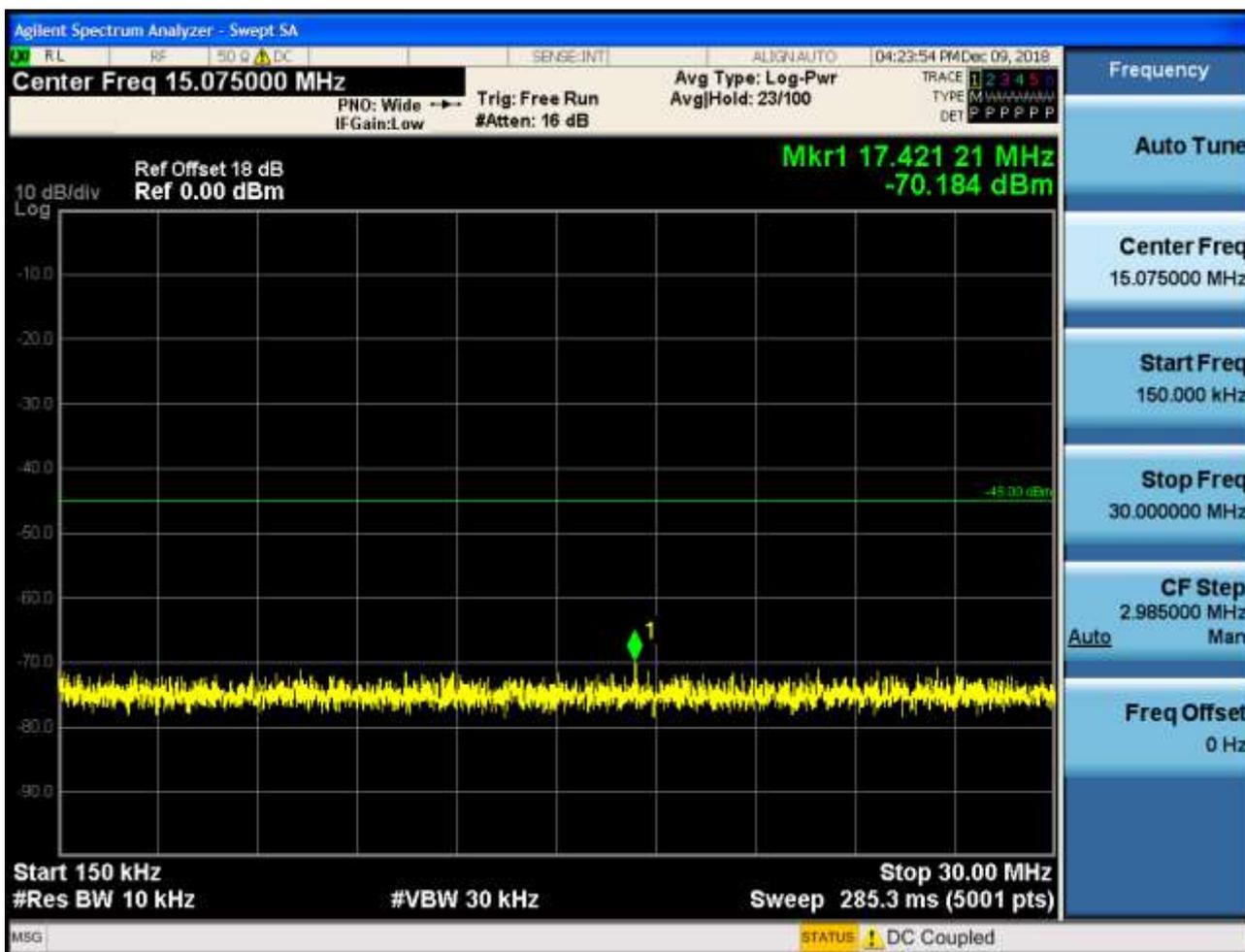




6.2.1.2.3.2 Test Channel = MCH

6.2.1.2.3.2.1 Test RB = RB1#0



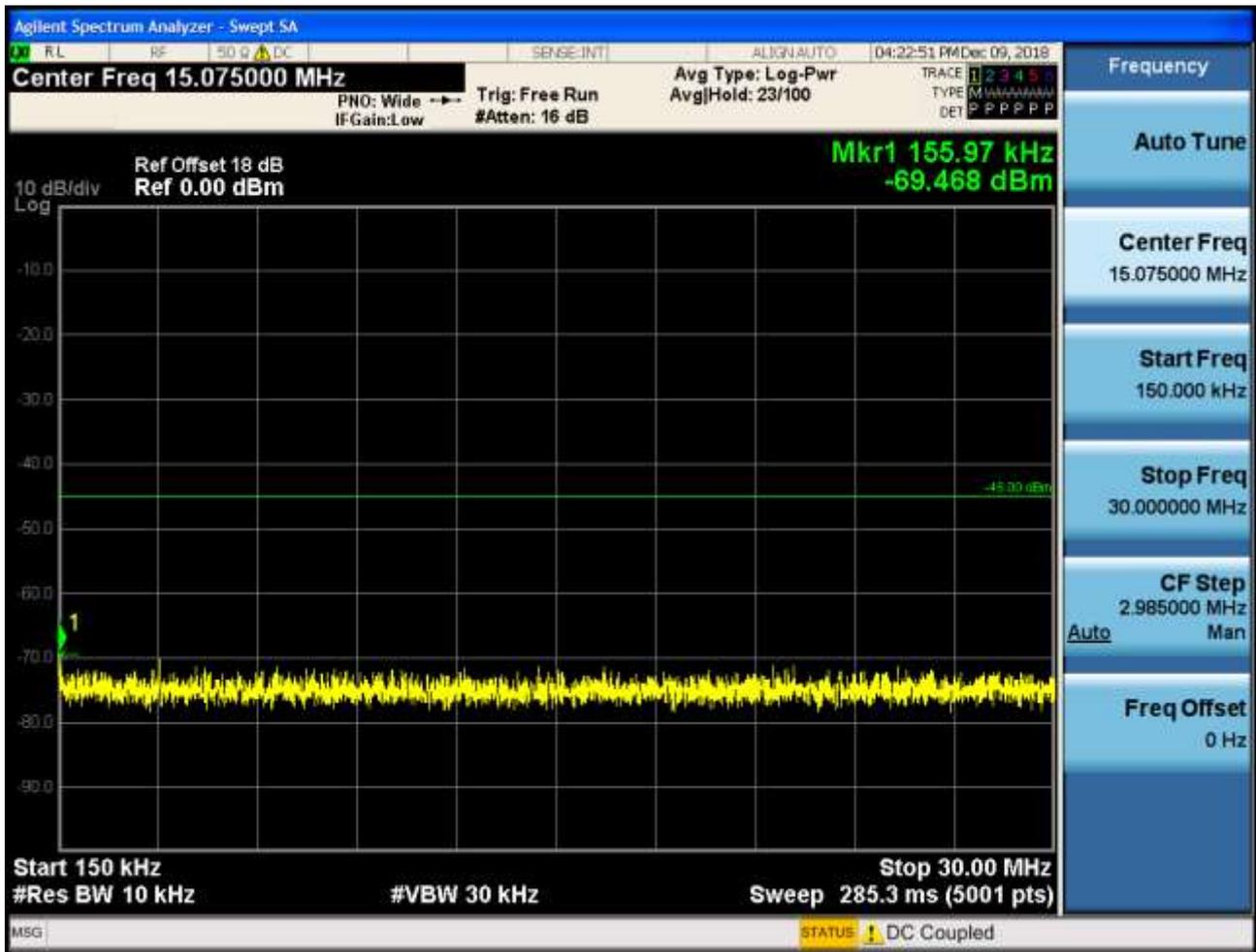




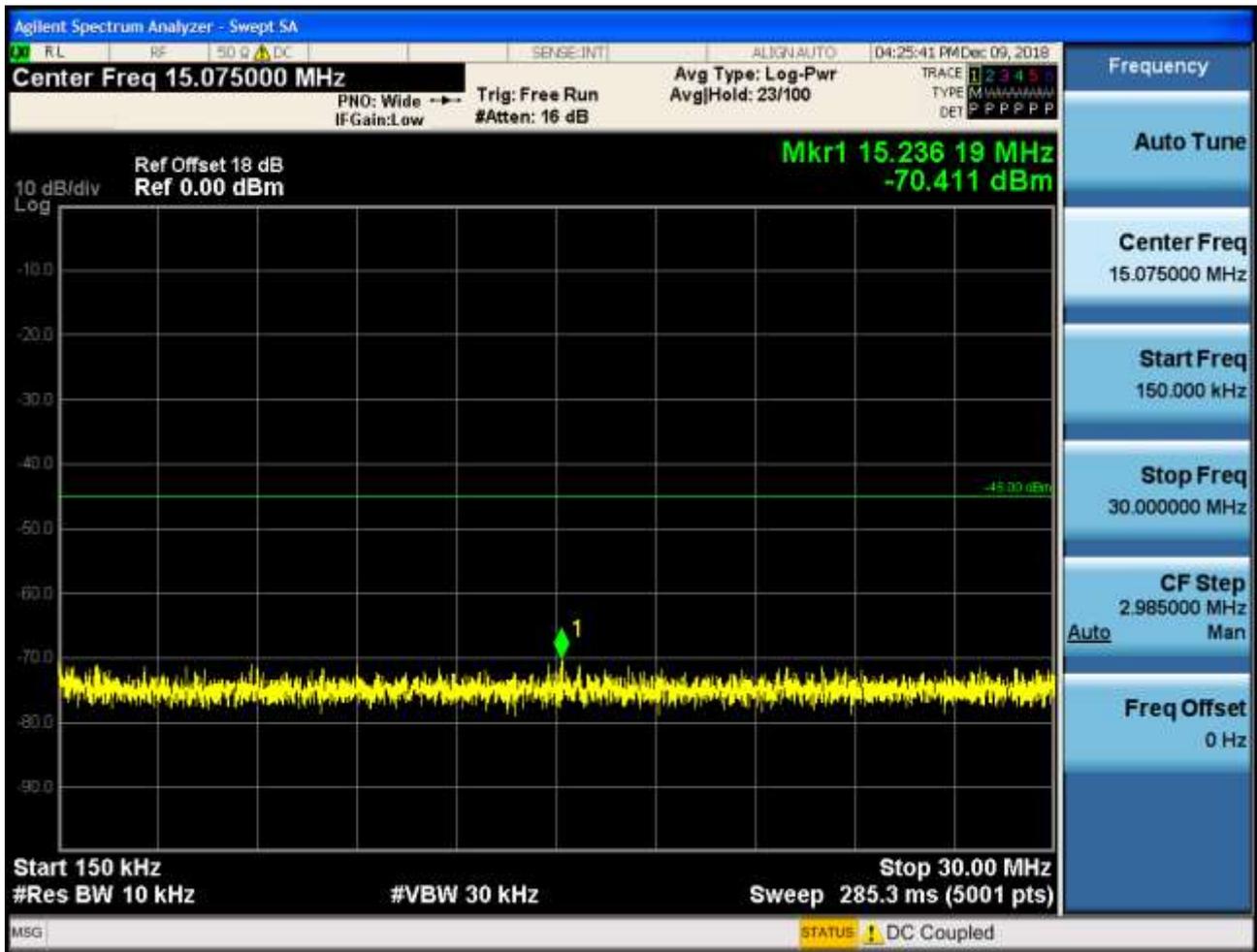
6.2.1.2.3.3 Test Channel = HCH

6.2.1.2.3.3.1 Test RB = RB1#0







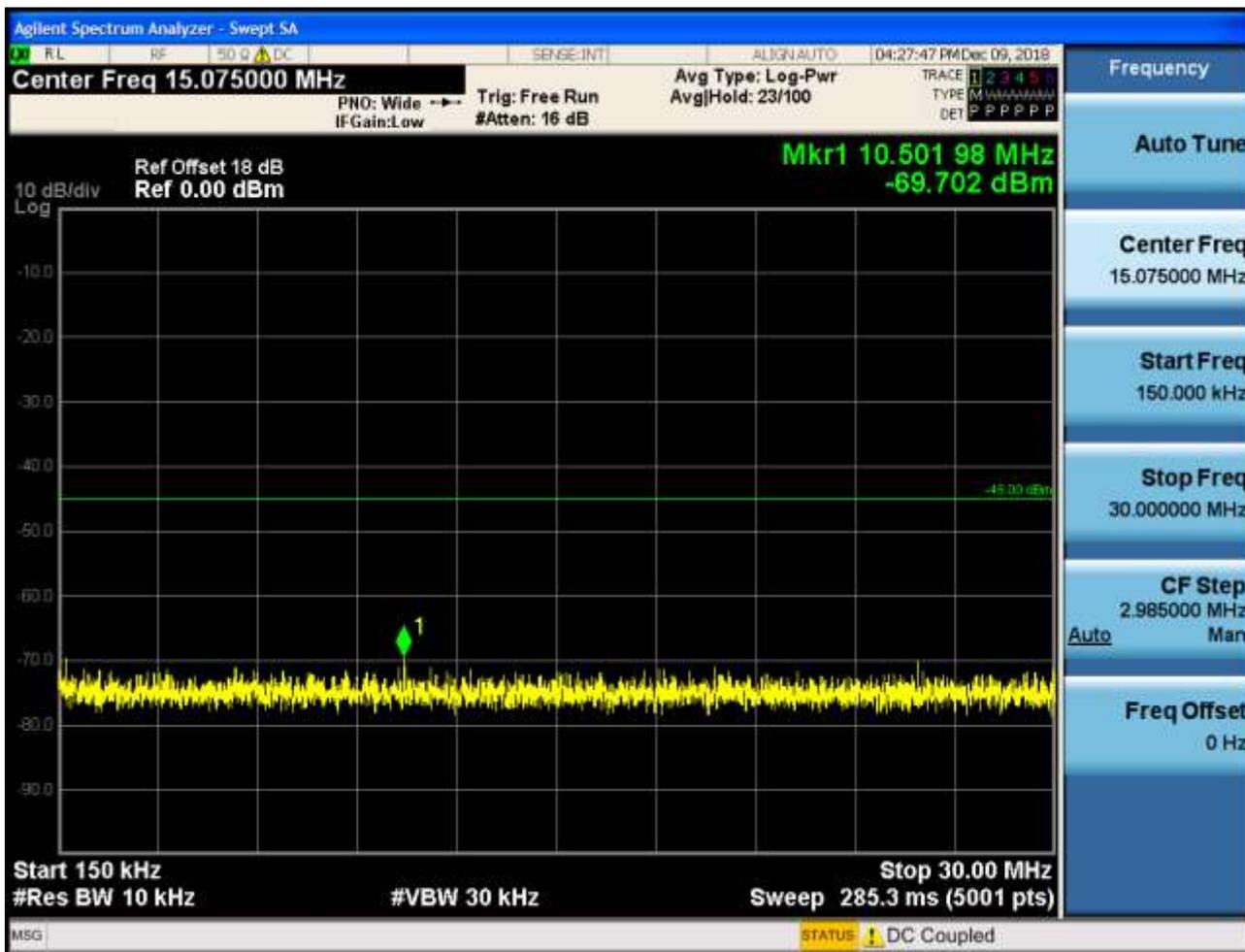




6.2.1.2.4.2 Test Channel = MCH

6.2.1.2.4.2.1 Test RB = RB1#0



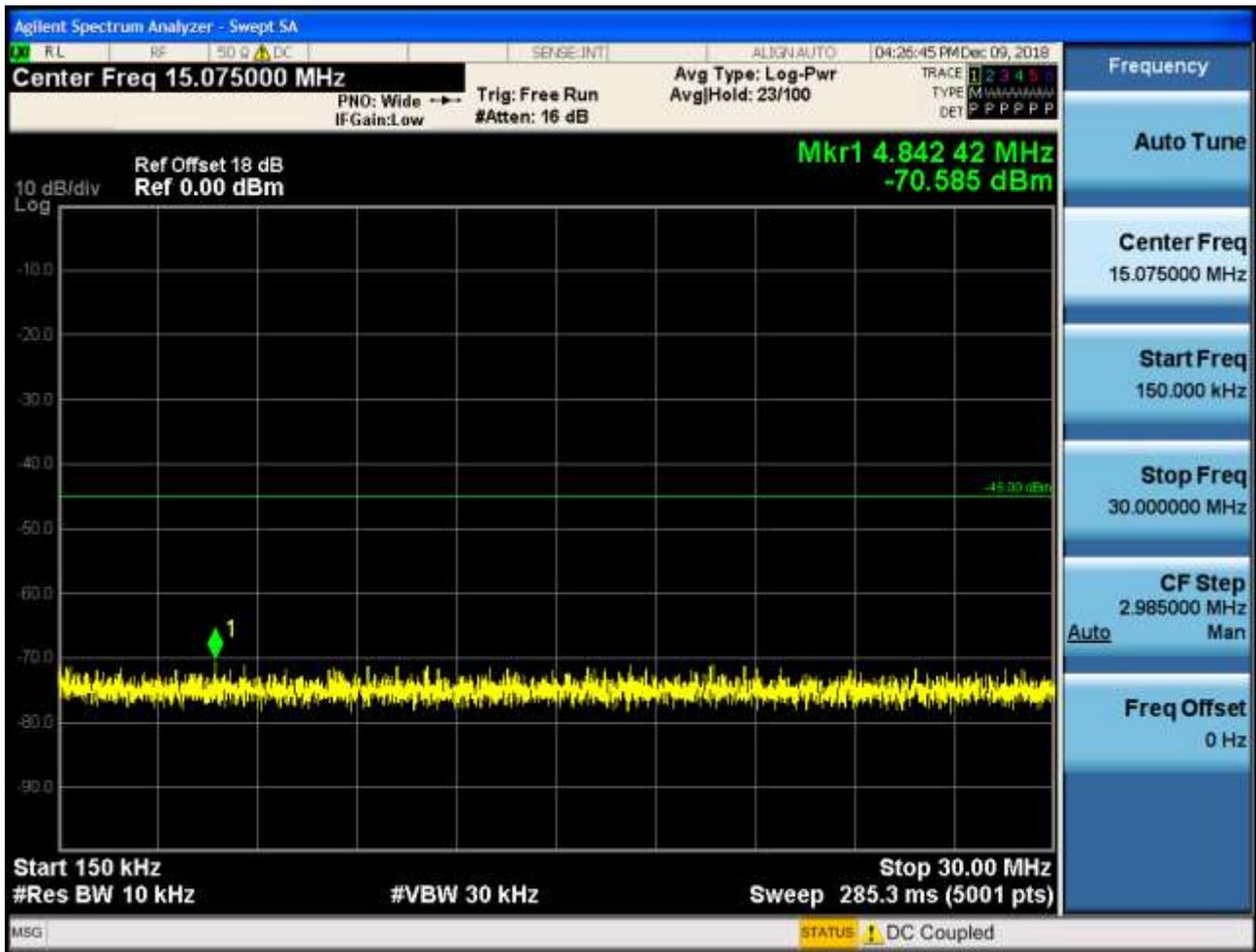




6.2.1.2.4.3 Test Channel = HCH

6.2.1.2.4.3.1 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

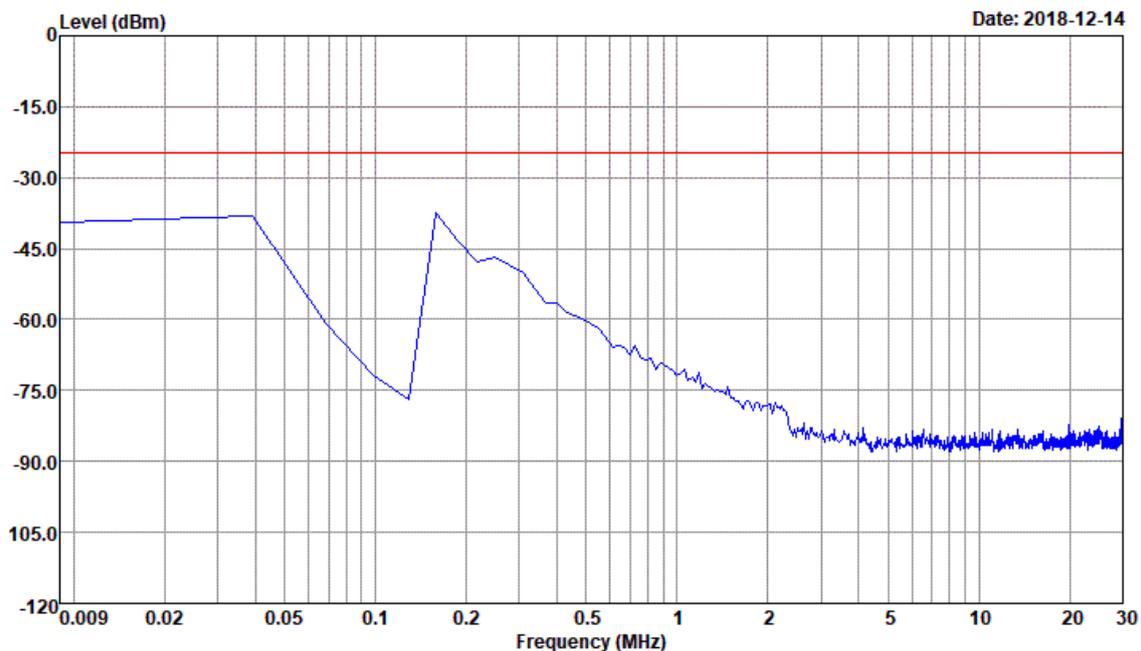
7.1 For LTE

7.1.1 Test Band = Band7_ANT1

7.1.1.1 Test Bandwidth = 5

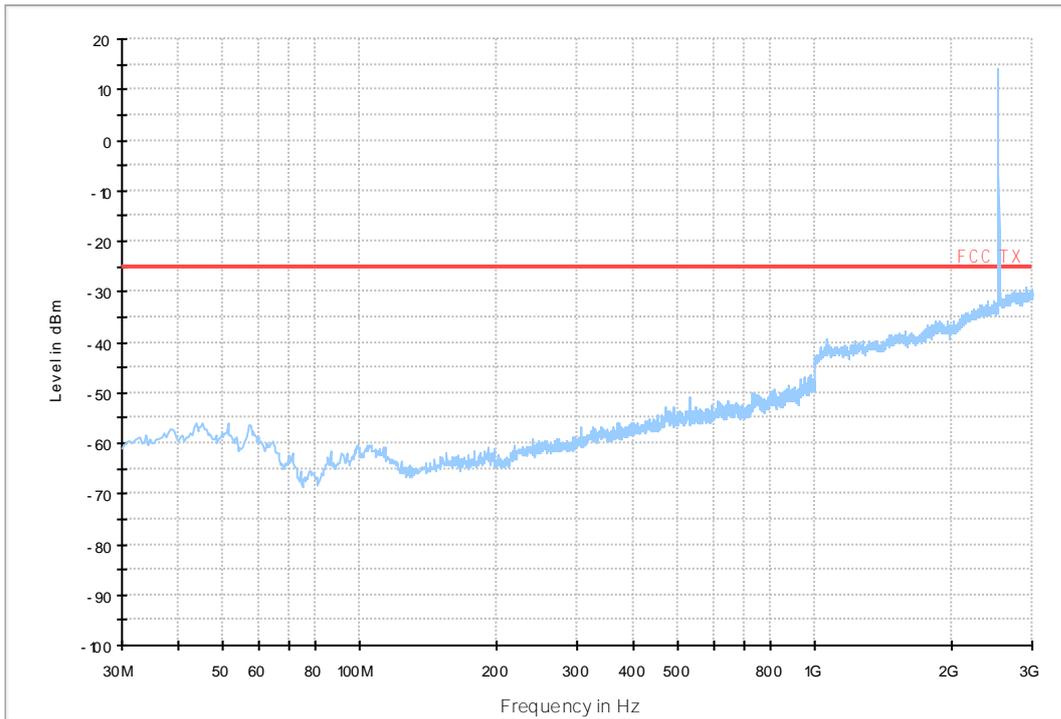


Data: 71

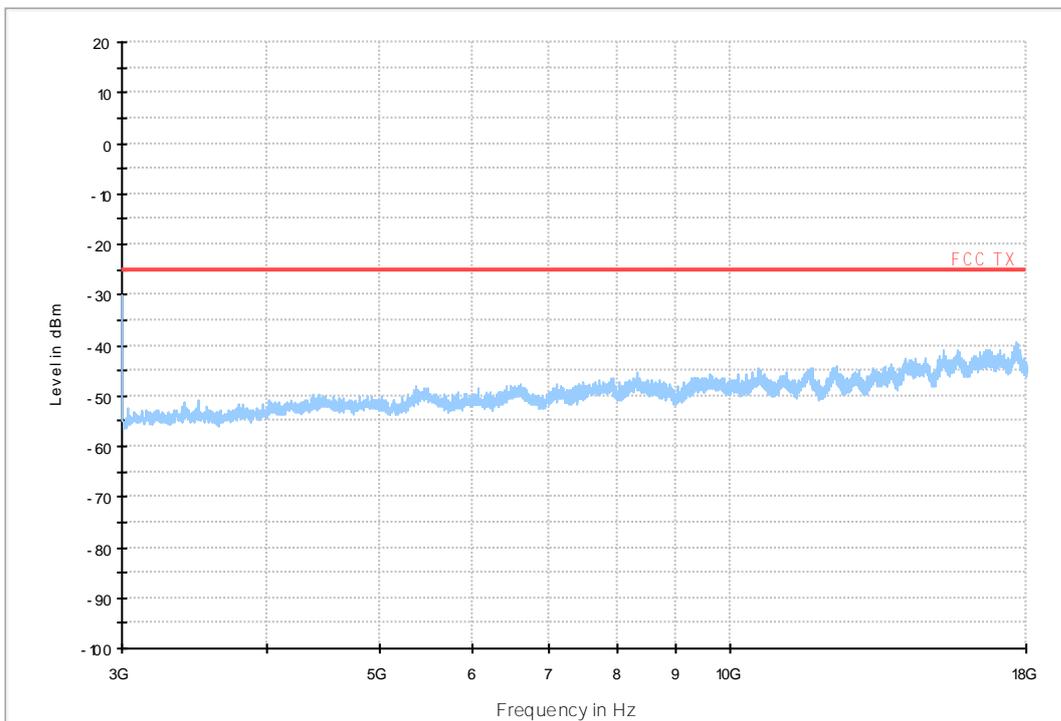


Site : 03CH01-SZ
Condition : -13DBM
: RBW:9.000KHz VBW:30.000KHz

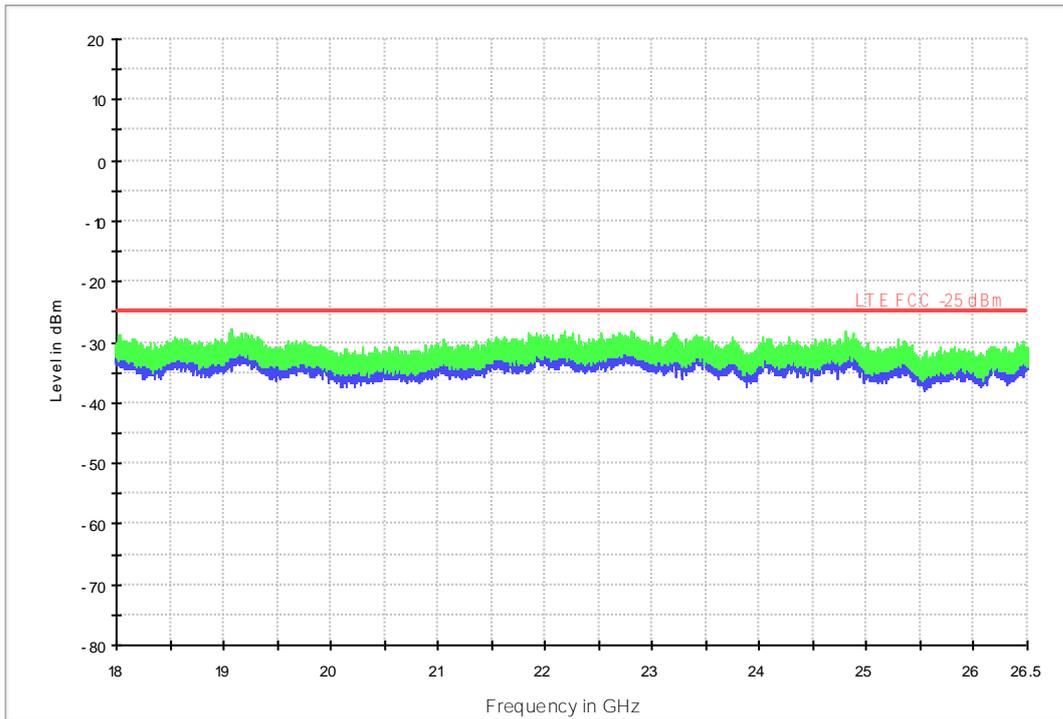
LTE Band 7 RSE-TX-DIRECTOR ABOVE 1.5G_L -25dBm limit



LTE FDD Band 7 RSE-TX-DIRECTOR ABOVE 1.5G_H -25dBm limit



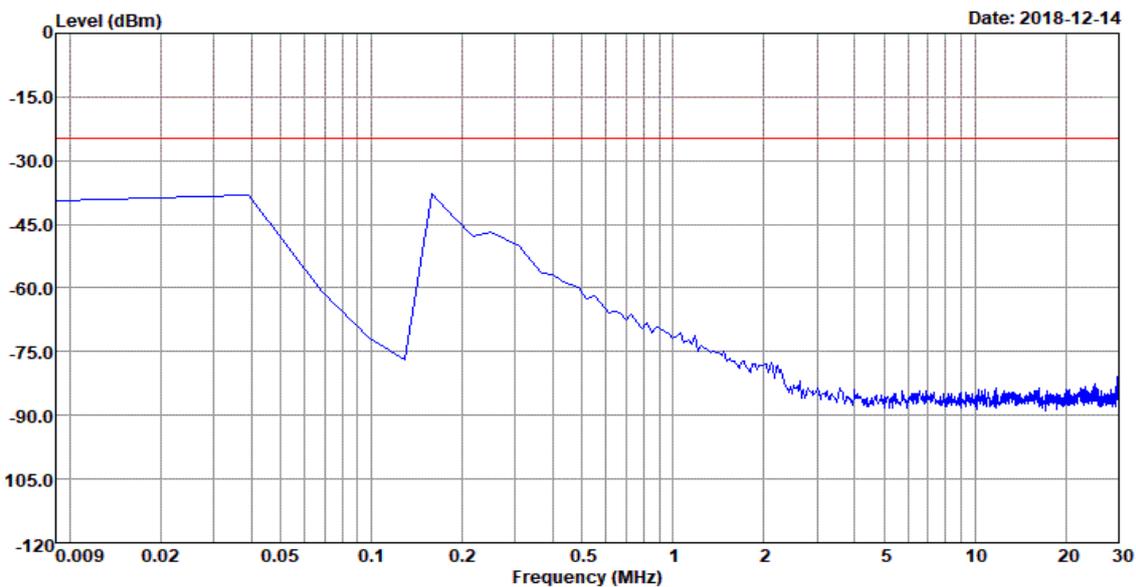
18G- 26.5G RSE-TX-DIRECT OR ABOVE 1.5G PK



7.1.1.2 Test Bandwidth = 20

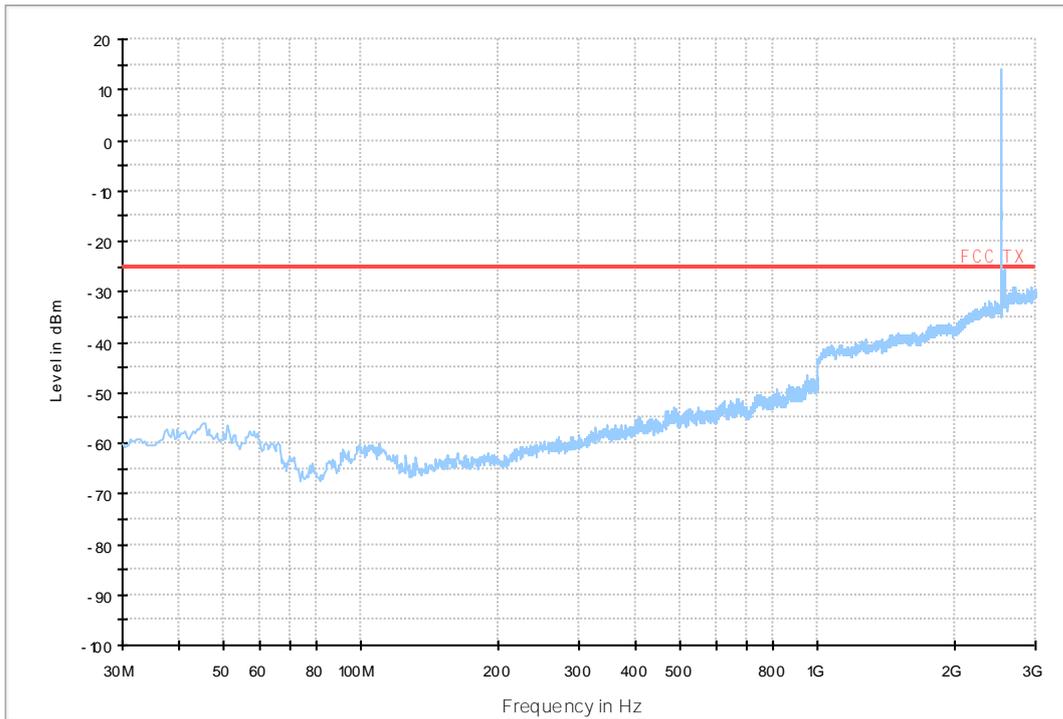


Data: 66

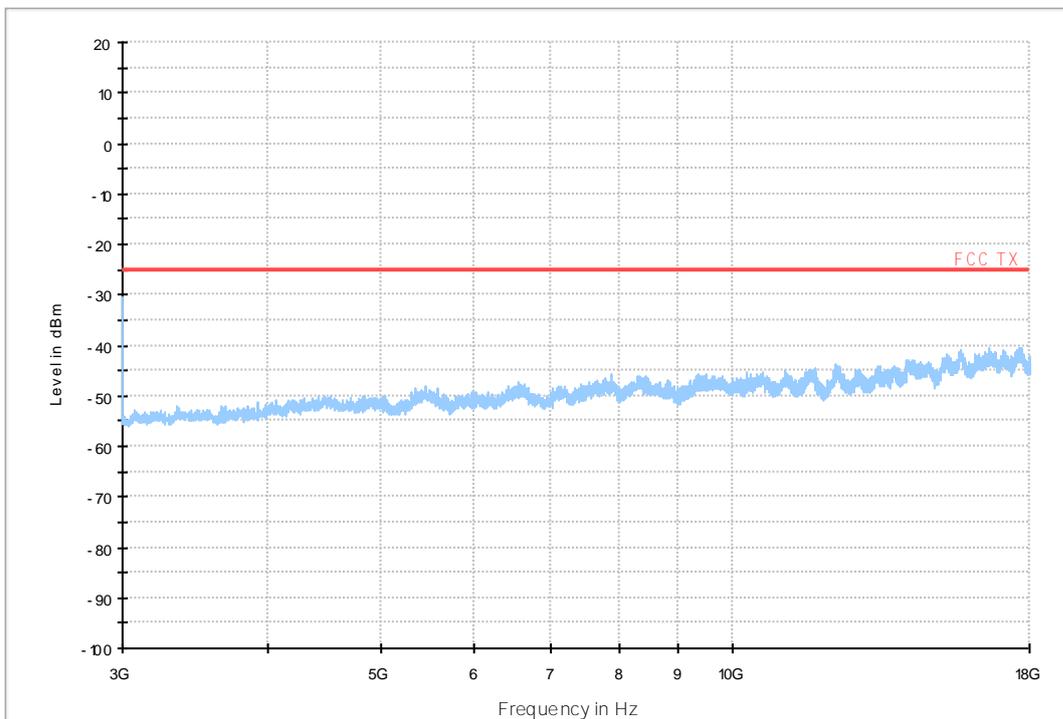


Site : 03CH01-SZ
Condition : -13DBM
: RBW:9.000KHz VBW:30.000KHz

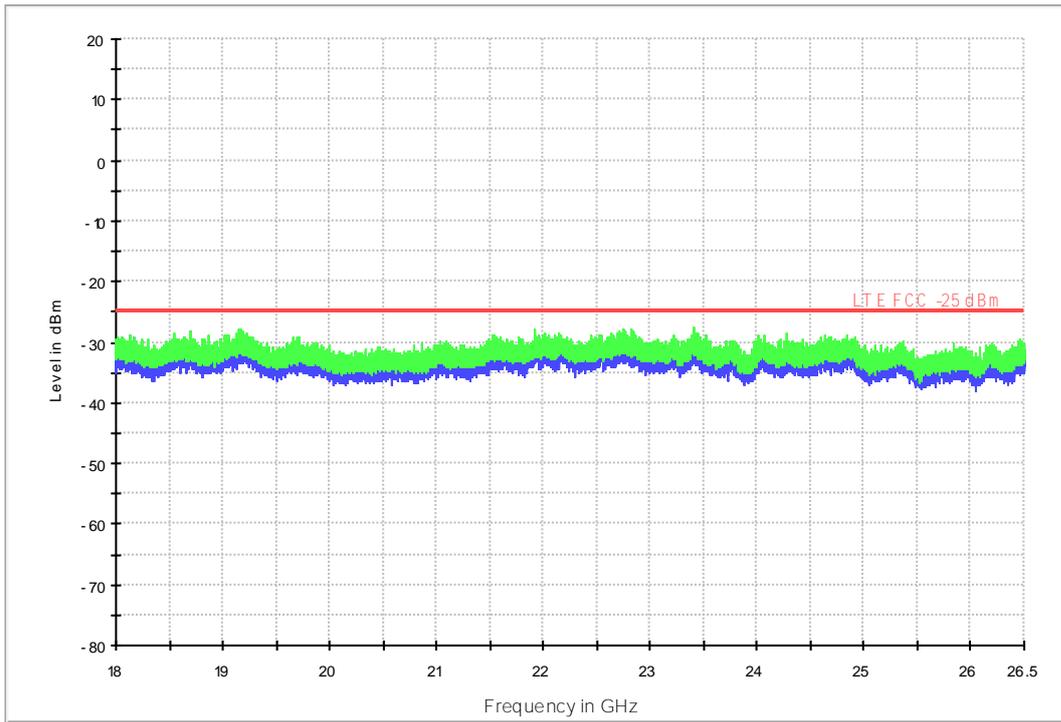
LTE Band 7 RSE-TX-DIRECTOR ABOVE 1.5G_L -25dBm limit



LTE FDD Band 7 RSE-TX-DIRECTOR ABOVE 1.5G_H -25dBm limit



18G-26.5G RSE-TX-DIRECTOR ABOVE 1.5G PK



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	-0.97275	-0.00039	PASS
					VN	-8.44002	-0.00337	PASS
					VH	-5.35011	-0.00214	PASS
			MCH	TN	VL	1.50204	0.00059	PASS
					VN	-4.56333	-0.00180	PASS
					VH	-1.77383	-0.00070	PASS
			HCH	TN	VL	-6.43730	-0.00251	PASS
					VN	-5.16415	-0.00201	PASS
					VH	-3.41892	-0.00133	PASS
		10	LCH	TN	VL	-7.81059	-0.00312	PASS
					VN	-6.16550	-0.00246	PASS
					VH	-4.19140	-0.00167	PASS
			MCH	TN	VL	-6.32286	-0.00249	PASS
					VN	-1.85966	-0.00073	PASS
					VH	-7.00951	-0.00277	PASS
			HCH	TN	VL	-4.27723	-0.00167	PASS
					VN	-5.12123	-0.00200	PASS
					VH	-5.96523	-0.00233	PASS
		15	LCH	TN	VL	-4.56333	-0.00182	PASS
					VN	-1.75953	-0.00070	PASS
					VH	-3.87669	-0.00155	PASS
			MCH	TN	VL	-6.80924	-0.00269	PASS
					VN	-3.84808	-0.00152	PASS
					VH	-7.02381	-0.00277	PASS
HCH	TN		VL	-5.00679	-0.00195	PASS		
			VN	-5.33581	-0.00208	PASS		
			VH	-7.35283	-0.00287	PASS		
20	LCH	TN	VL	-4.62055	-0.00184	PASS		
			VN	-5.04971	-0.00201	PASS		
			VH	-5.14984	-0.00205	PASS		
	MCH	TN	VL	-6.90937	-0.00273	PASS		
			VN	-4.70638	-0.00186	PASS		
			VH	-6.65188	-0.00262	PASS		

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict	
	LTE/TM2		HCH	TN	VL	-9.65595	-0.00377	PASS	
					VN	-8.35419	-0.00326	PASS	
					VH	-11.04355	-0.00431	PASS	
		5	LCH	TN	VL	-7.68185	-0.00307	PASS	
					VN	-1.81675	-0.00073	PASS	
					VH	1.55926	0.00062	PASS	
			MCH	TN	VL	0.31471	0.00012	PASS	
					VN	-2.37465	-0.00094	PASS	
					VH	-4.42028	-0.00174	PASS	
			HCH	TN	VL	3.79086	0.00148	PASS	
					VN	-1.55926	-0.00061	PASS	
					VH	-3.89099	-0.00152	PASS	
			10	LCH	TN	VL	-5.35011	-0.00214	PASS
						VN	-4.97818	-0.00199	PASS
						VH	-5.24998	-0.00210	PASS
		MCH		TN	VL	-8.82626	-0.00348	PASS	
					VN	-3.13282	-0.00124	PASS	
					VH	-6.35147	-0.00251	PASS	
		HCH		TN	VL	-5.27859	-0.00206	PASS	
					VN	-2.05994	-0.00080	PASS	
					VH	-4.37737	-0.00171	PASS	
		15	LCH	TN	VL	-6.19412	-0.00247	PASS	
					VN	-3.40462	-0.00136	PASS	
					VH	-3.04699	-0.00122	PASS	
			MCH	TN	VL	-3.43323	-0.00135	PASS	
					VN	-4.64916	-0.00183	PASS	
					VH	-5.09262	-0.00201	PASS	
			HCH	TN	VL	-3.86238	-0.00151	PASS	
					VN	-0.91553	-0.00036	PASS	
					VH	-6.06537	-0.00237	PASS	
		20	LCH	TN	VL	-5.65052	-0.00225	PASS	
					VN	-3.46184	-0.00138	PASS	
					VH	-5.60761	-0.00223	PASS	
			MCH	TN	VL	-2.80380	-0.00111	PASS	
					VN	-5.16415	-0.00204	PASS	
					VH	-5.77927	-0.00228	PASS	
			HCH	TN	VL	-6.98090	-0.00273	PASS	
					VN	-8.64029	-0.00338	PASS	
					VH	-6.70910	-0.00262	PASS	

8.1.2 Frequency Error vs. Temperature:

s	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	-7.62463	-0.00305	PASS
					-20	-8.13961	-0.00325	PASS
					-10	-7.98225	-0.00319	PASS
					0	-11.51562	-0.00460	PASS
					10	-5.87940	-0.00235	PASS
					20	-8.44002	-0.00337	PASS
					30	-10.72884	-0.00429	PASS
					40	-12.41684	-0.00496	PASS
					50	-8.36849	-0.00334	PASS
			MCH	VN	-30	-5.02109	-0.00198	PASS
					-20	0.00000	0.00000	PASS
					-10	-1.64509	-0.00065	PASS
					0	-4.29153	-0.00169	PASS
					10	-3.57628	-0.00141	PASS
					20	-4.56333	-0.00180	PASS
		30			-3.53336	-0.00139	PASS	
		40			-2.20299	-0.00087	PASS	
		50			-5.55039	-0.00219	PASS	
		HCH	VN	-30	-1.15871	-0.00045	PASS	
				-20	1.40190	0.00055	PASS	
				-10	-2.16007	-0.00084	PASS	
				0	2.37465	0.00092	PASS	
				10	-1.02997	-0.00040	PASS	
				20	-5.16415	-0.00201	PASS	
				30	1.38760	0.00054	PASS	
				40	1.67370	0.00065	PASS	
				50	-0.05722	-0.00002	PASS	
		10	LCH	VN	-30	-4.64916	-0.00186	PASS
					-20	-6.60896	-0.00264	PASS
					-10	-5.37872	-0.00215	PASS
0	0.54359				0.00022	PASS		
10	-3.23296				-0.00129	PASS		
20	-6.16550				-0.00246	PASS		
30	-5.23567				-0.00209	PASS		
40	-3.61919				-0.00144	PASS		
50	-1.83106				-0.00073	PASS		
MCH	VN		-30	-6.13689	-0.00242	PASS		

s	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict	
					-20	-6.83784	-0.00270	PASS	
					-10	-3.54767	-0.00140	PASS	
					0	-2.70367	-0.00107	PASS	
					10	-5.86510	-0.00231	PASS	
					20	-1.85966	-0.00073	PASS	
					30	-3.99113	-0.00157	PASS	
					40	-6.96659	-0.00275	PASS	
					50	-2.60353	-0.00103	PASS	
			HCH	VN	-30	-6.65188	-0.00259	PASS	
					-20	-8.59737	-0.00335	PASS	
					-10	-4.54903	-0.00177	PASS	
					0	-3.86238	-0.00151	PASS	
					10	-8.75473	-0.00341	PASS	
					20	-5.12123	-0.00200	PASS	
					30	-3.70503	-0.00144	PASS	
					40	-5.35011	-0.00209	PASS	
			15	LCH	VN	-30	-3.10421	-0.00124	PASS
						-20	-0.20027	-0.00008	PASS
						-10	-5.37872	-0.00215	PASS
						0	-2.84672	-0.00114	PASS
		10				-3.70503	-0.00148	PASS	
		20				-1.75953	-0.00070	PASS	
		30				-4.20570	-0.00168	PASS	
		40				-0.61512	-0.00025	PASS	
		MCH		VN	-30	-1.93119	-0.00076	PASS	
					-20	-3.01838	-0.00119	PASS	
					-10	-3.13282	-0.00124	PASS	
					0	-1.98841	-0.00078	PASS	
					10	-2.63214	-0.00104	PASS	
					20	-3.84808	-0.00152	PASS	
					30	-9.25541	-0.00365	PASS	
					40	-8.05378	-0.00318	PASS	
		HCH		VN	-30	-5.99384	-0.00234	PASS	
					-20	-8.56876	-0.00334	PASS	
					-10	-5.42164	-0.00212	PASS	
					0	-3.53336	-0.00138	PASS	

s	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict	
		20	LCH	VN	10	-8.75473	-0.00342	PASS	
					20	-5.33581	-0.00208	PASS	
					30	-1.84536	-0.00072	PASS	
					40	-9.49860	-0.00371	PASS	
					50	-1.28746	-0.00050	PASS	
			MCH	VN	-30	-1.01566	-0.00040	PASS	
					-20	-9.14097	-0.00364	PASS	
					-10	-4.94957	-0.00197	PASS	
					0	-0.20027	-0.00008	PASS	
					10	-4.70638	-0.00188	PASS	
		HCH	VN	20	-5.04971	-0.00201	PASS		
				30	-2.44618	-0.00097	PASS		
				40	-0.78678	-0.00031	PASS		
				50	-1.94550	-0.00078	PASS		
				-30	-3.14712	-0.00124	PASS		
		5	LCH	VN	VN	-20	-5.43594	-0.00214	PASS
						-10	-6.15120	-0.00243	PASS
						0	-2.00272	-0.00079	PASS
						10	-7.56741	-0.00299	PASS
						20	-4.70638	-0.00186	PASS
	LCH		VN	VN	30	-6.39439	-0.00252	PASS	
					40	-9.05514	-0.00357	PASS	
					50	-9.77039	-0.00385	PASS	
					-30	-7.23839	-0.00283	PASS	
					-20	-6.09398	-0.00238	PASS	
	LTE/TM2	LCH	VN	VN	-10	-9.97067	-0.00389	PASS	
					0	-7.05242	-0.00275	PASS	
					10	-13.48972	-0.00527	PASS	
					20	-8.35419	-0.00326	PASS	
					30	-6.42300	-0.00251	PASS	
					40	-8.44002	-0.00330	PASS	
					50	-5.19276	-0.00203	PASS	
						-30	-1.35899	-0.00054	PASS
-20						0.35763	0.00014	PASS	
-10						-2.21729	-0.00089	PASS	
0						-4.56333	-0.00182	PASS	
10						-1.08719	-0.00043	PASS	
20						-1.81675	-0.00073	PASS	
30						-4.06265	-0.00162	PASS	

s	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict	
					40	1.21593	0.00049	PASS	
					50	-0.40054	-0.00016	PASS	
			MCH	VN	-30	0.82970	0.00033	PASS	
					-20	-6.25134	-0.00247	PASS	
					-10	-6.42300	-0.00253	PASS	
					0	-3.74794	-0.00148	PASS	
					10	-6.50883	-0.00257	PASS	
					20	-2.37465	-0.00094	PASS	
					30	-6.27994	-0.00248	PASS	
					40	-3.17573	-0.00125	PASS	
					50	-1.88827	-0.00074	PASS	
			HCH	VN	-30	2.56062	0.00100	PASS	
					-20	0.37193	0.00014	PASS	
					-10	7.78198	0.00303	PASS	
					0	0.68665	0.00027	PASS	
		10			0.64373	0.00025	PASS		
		20			-1.55926	-0.00061	PASS		
		30			1.04427	0.00041	PASS		
		40			-0.32902	-0.00013	PASS		
		50	-0.35763	-0.00014	PASS				
		10		LCH	VN	-30	-4.50611	-0.00180	PASS
						-20	-7.25269	-0.00290	PASS
						-10	-3.41892	-0.00136	PASS
						0	-3.89099	-0.00155	PASS
						10	-6.25134	-0.00250	PASS
						20	-4.97818	-0.00199	PASS
						30	-1.57356	-0.00063	PASS
						40	-4.43459	-0.00177	PASS
						50	-1.57356	-0.00063	PASS
				MCH	VN	-30	-3.89099	-0.00153	PASS
-20	-4.63486					-0.00183	PASS		
-10	-5.30720					-0.00209	PASS		
0	-7.13825					-0.00282	PASS		
10	-7.15256					-0.00282	PASS		
20	-3.13282					-0.00124	PASS		
HCH	VN	30	-5.79357	-0.00229	PASS				
		40	-3.56197	-0.00141	PASS				
		50	-5.13554	-0.00203	PASS				
			HCH	VN	-30	-0.25749	-0.00010	PASS	

s	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					-20	-3.29018	-0.00128	PASS
					-10	-5.49316	-0.00214	PASS
					0	-5.17845	-0.00202	PASS
					10	-2.96116	-0.00115	PASS
					20	-2.05994	-0.00080	PASS
					30	-6.42300	-0.00250	PASS
					40	-7.00951	-0.00273	PASS
					50	-3.40462	-0.00133	PASS
		15	LCH	VN	-30	-3.91960	-0.00156	PASS
					-20	-3.26157	-0.00130	PASS
					-10	-2.58923	-0.00103	PASS
					0	-0.07153	-0.00003	PASS
					10	-8.66890	-0.00346	PASS
					20	-3.40462	-0.00136	PASS
					30	-2.04563	-0.00082	PASS
					40	-1.15871	-0.00046	PASS
			50	-1.48773	-0.00059	PASS		
			MCH	VN	-30	-5.72205	-0.00226	PASS
					-20	-4.30584	-0.04273	PASS
					-10	-3.81947	-0.00151	PASS
					0	-4.06265	-0.00160	PASS
					10	-3.87669	-0.00153	PASS
					20	-4.64916	-0.00183	PASS
					30	-8.02517	-0.00317	PASS
					40	-4.64916	-0.00183	PASS
			50	-2.14577	-0.00085	PASS		
			HCH	VN	-30	-4.73499	-0.00185	PASS
					-20	-2.84672	-0.00111	PASS
					-10	-0.90122	-0.00035	PASS
					0	-2.58923	-0.00101	PASS
					10	-3.94821	-0.00154	PASS
					20	-0.91553	-0.00036	PASS
		30			-4.76360	-0.00186	PASS	
		40			-0.81539	-0.00032	PASS	
		50	-5.30720	-0.00207	PASS			
		20	LCH	VN	-30	-1.77383	-0.00071	PASS
-20	-1.63078				-0.00065	PASS		
-10	-1.24455				-0.00050	PASS		
0	-2.84672				-0.00113	PASS		

s	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					10	-6.17981	-0.00246	PASS
					20	-3.46184	-0.00138	PASS
					30	-3.13282	-0.00125	PASS
					40	-3.59058	-0.00143	PASS
					50	-5.00679	-0.00199	PASS
			MCH	VN	-30	-5.27859	-0.00208	PASS
					-20	-5.77927	-0.00228	PASS
					-10	-6.49452	-0.00256	PASS
					0	-0.54359	-0.00021	PASS
					10	-3.80516	-0.00150	PASS
					20	-5.16415	-0.00204	PASS
					30	-7.33852	-0.00289	PASS
					40	-10.55717	-0.00416	PASS
			HCH	VN	50	-8.39710	-0.00331	PASS
					-30	-7.63893	-0.00298	PASS
					-20	-6.59466	-0.00258	PASS
					-10	-6.63757	-0.00259	PASS
					0	-6.40869	-0.00250	PASS
					10	-7.39574	-0.00289	PASS
					20	-8.64029	-0.00338	PASS
					30	-8.82626	-0.00345	PASS
			40	-7.48158	-0.00292	PASS		
			50	-5.37872	-0.00210	PASS		

END