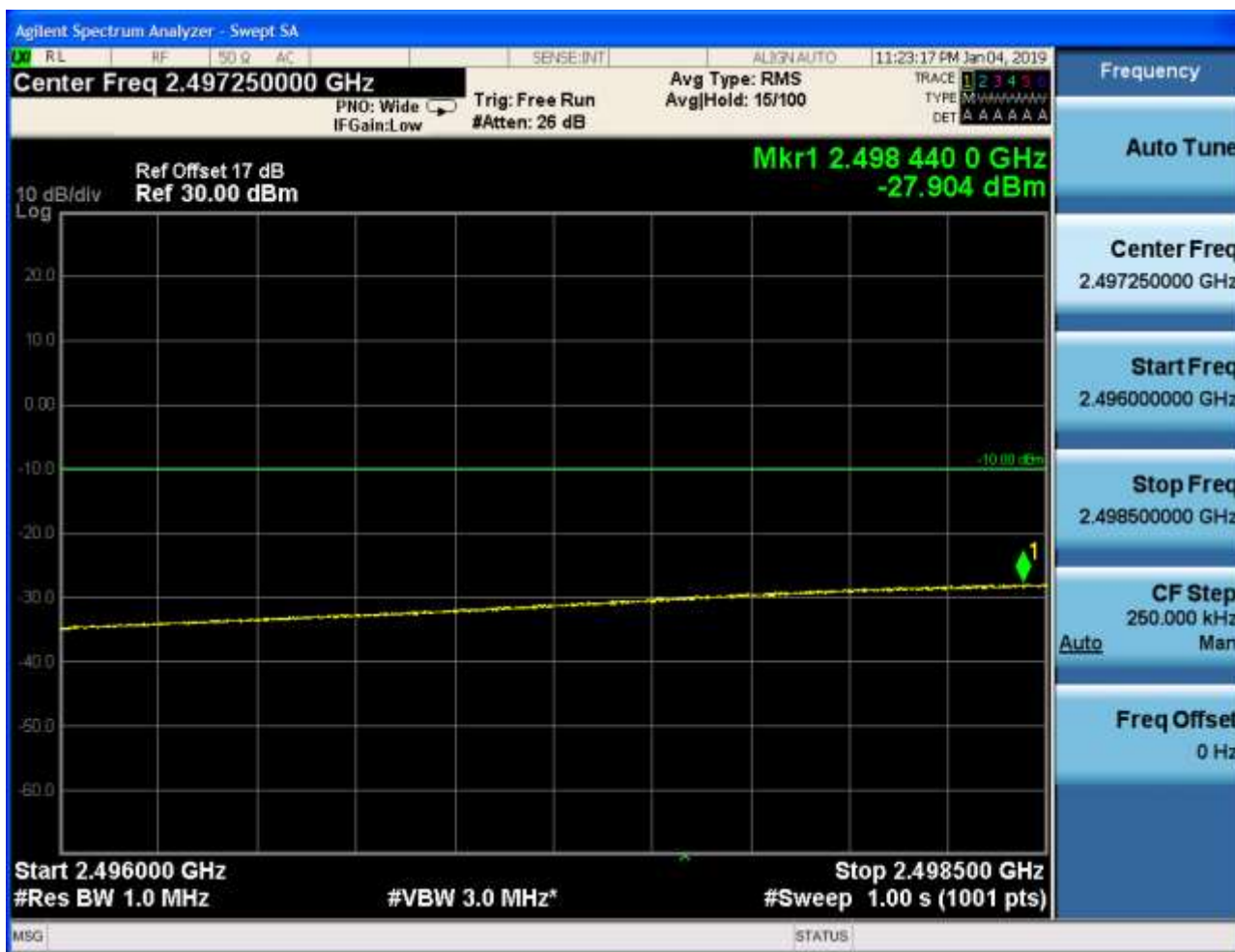






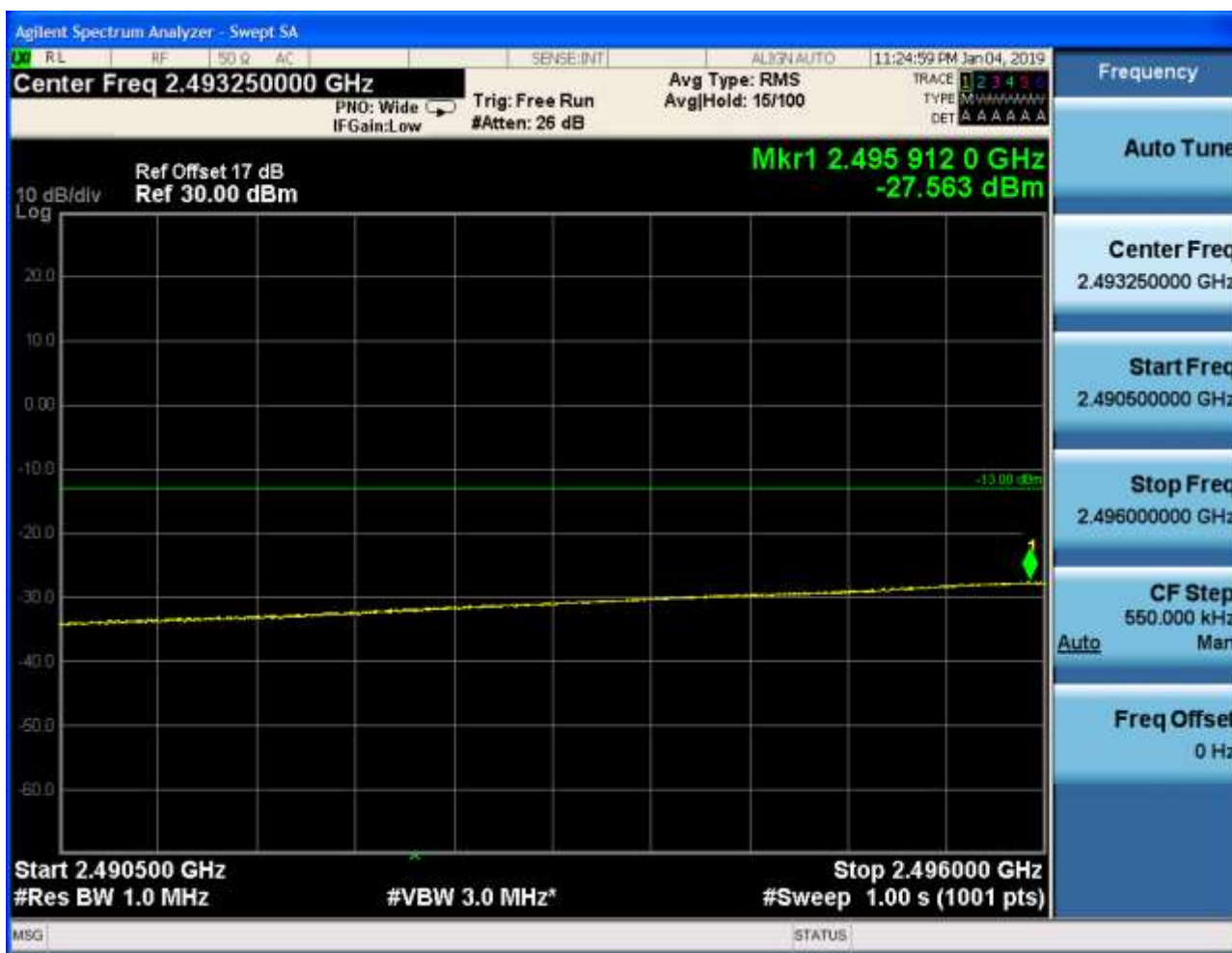
5.1.1.2.3.1.3 Test RB = RB38#19







5.1.1.2.3.1.4 Test RB = RB75#0







5.1.1.2.3.2 Test Channel = HCH

5.1.1.2.3.2.1 Test RB = RB1#0







5.1.1.2.3.2.2 Test RB = RB1#74







5.1.1.2.3.2.3 Test RB = RB38#19







5.1.1.2.3.2.4 Test RB = RB75#0







5.1.1.2.4 Test Bandwidth = 20

5.1.1.2.4.1 Test Channel = LCH

5.1.1.2.4.1.1 Test RB = RB1#0







5.1.1.2.4.1.2 Test RB = RB1#99

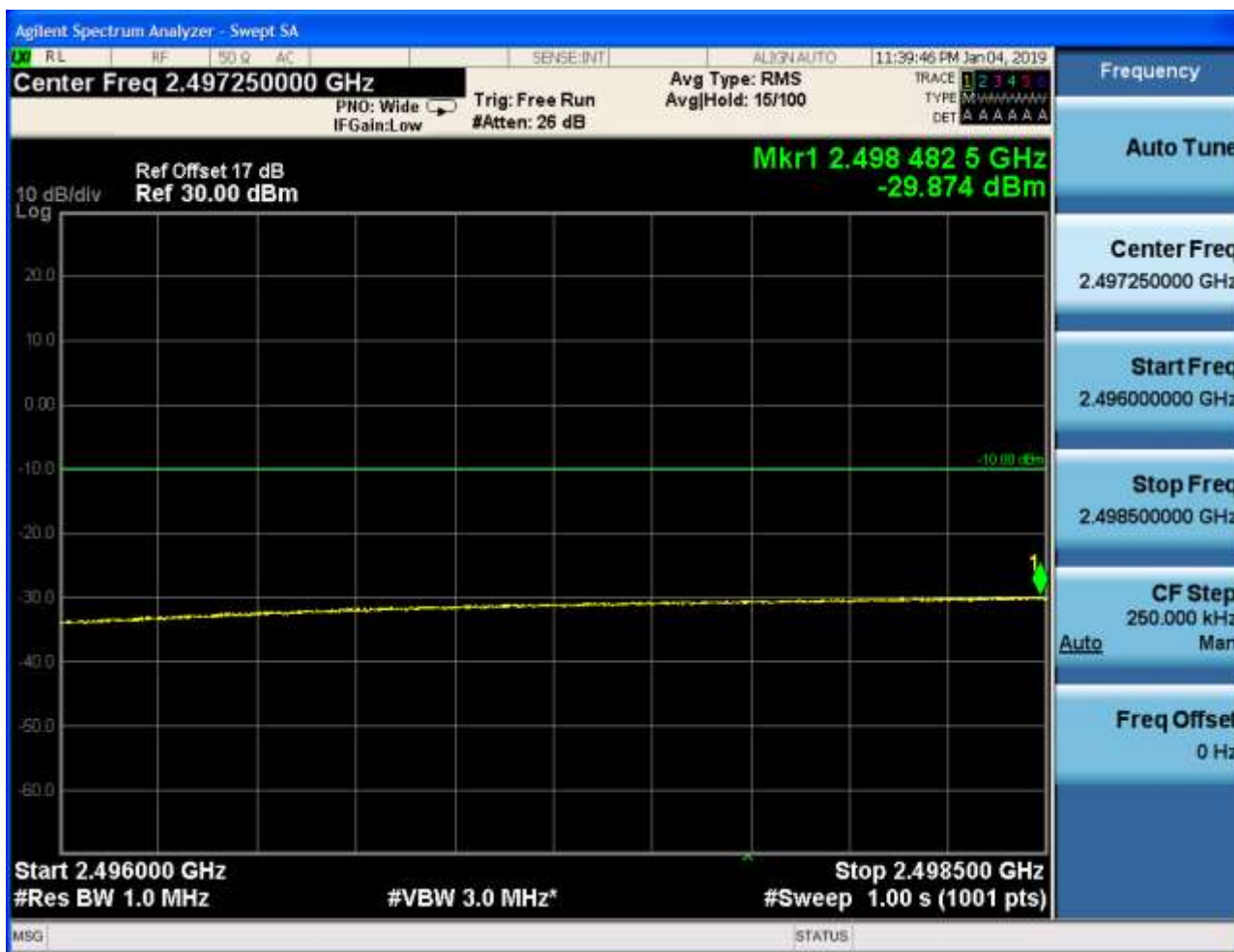






5.1.1.2.4.1.3 Test RB = RB50#25







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

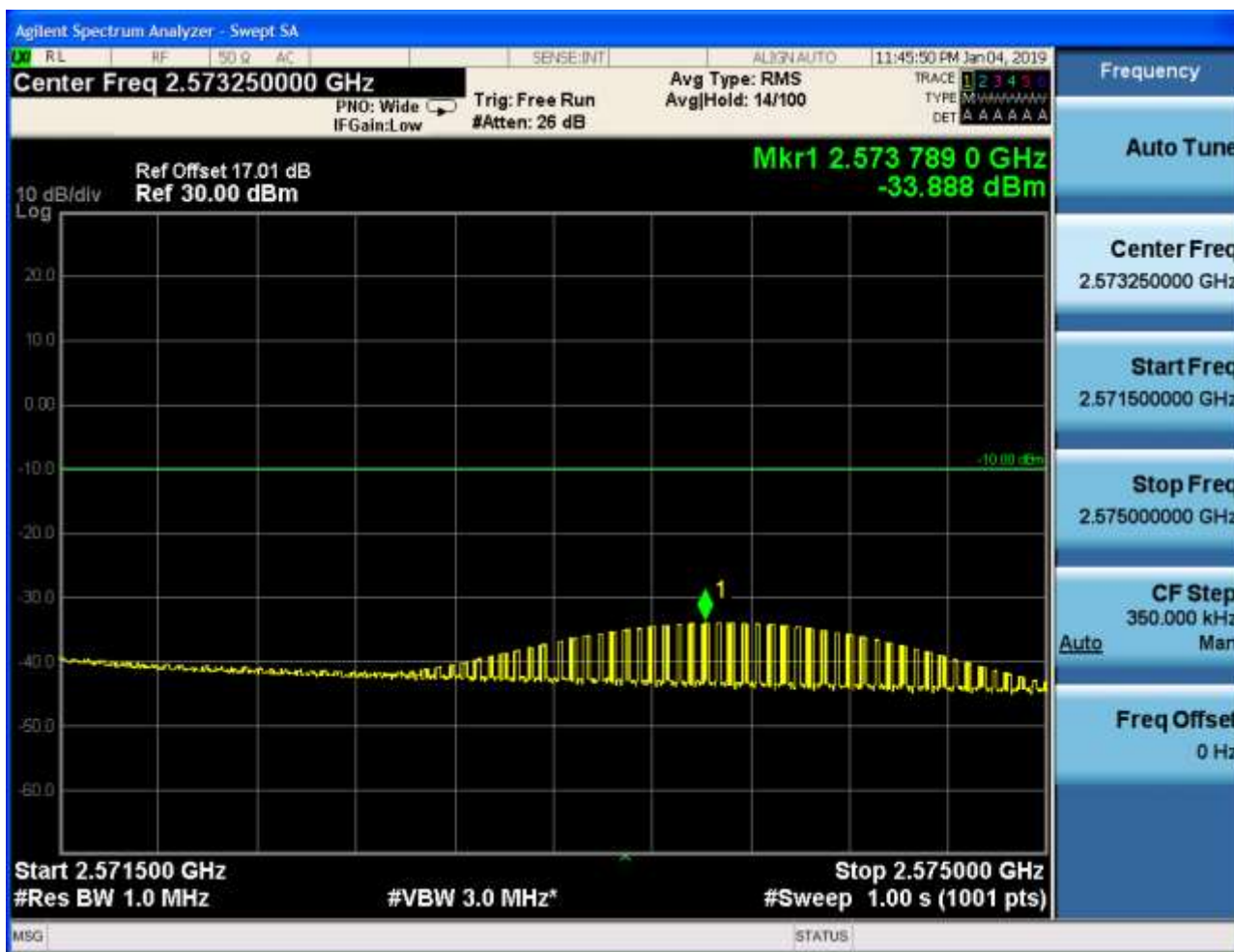






5.1.1.2.4.2.2 Test RB = RB1#99







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 = 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

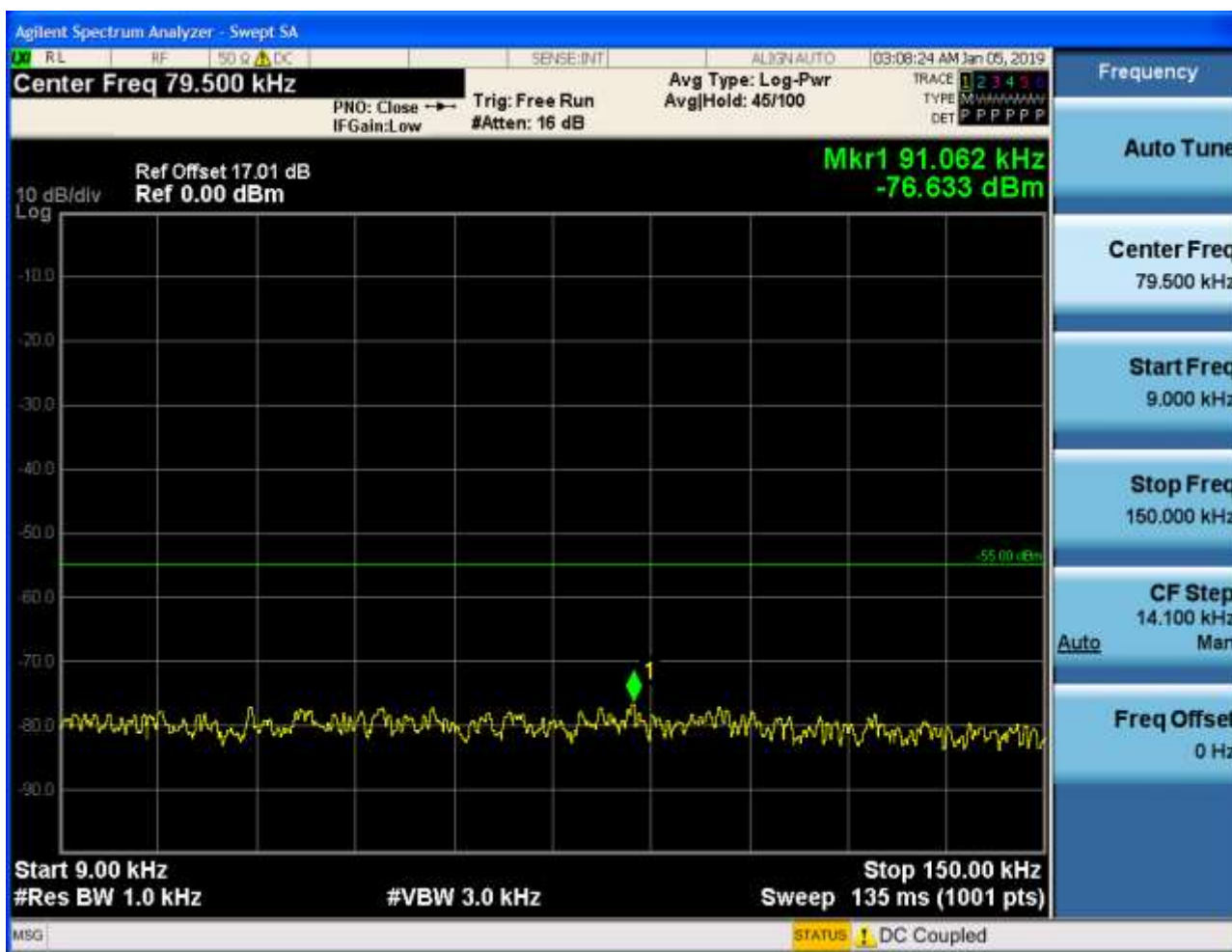






6.2.1.1.1.2 Test Channel = MCH

6.2.1.1.1.2.1 Test RB = RB1#0

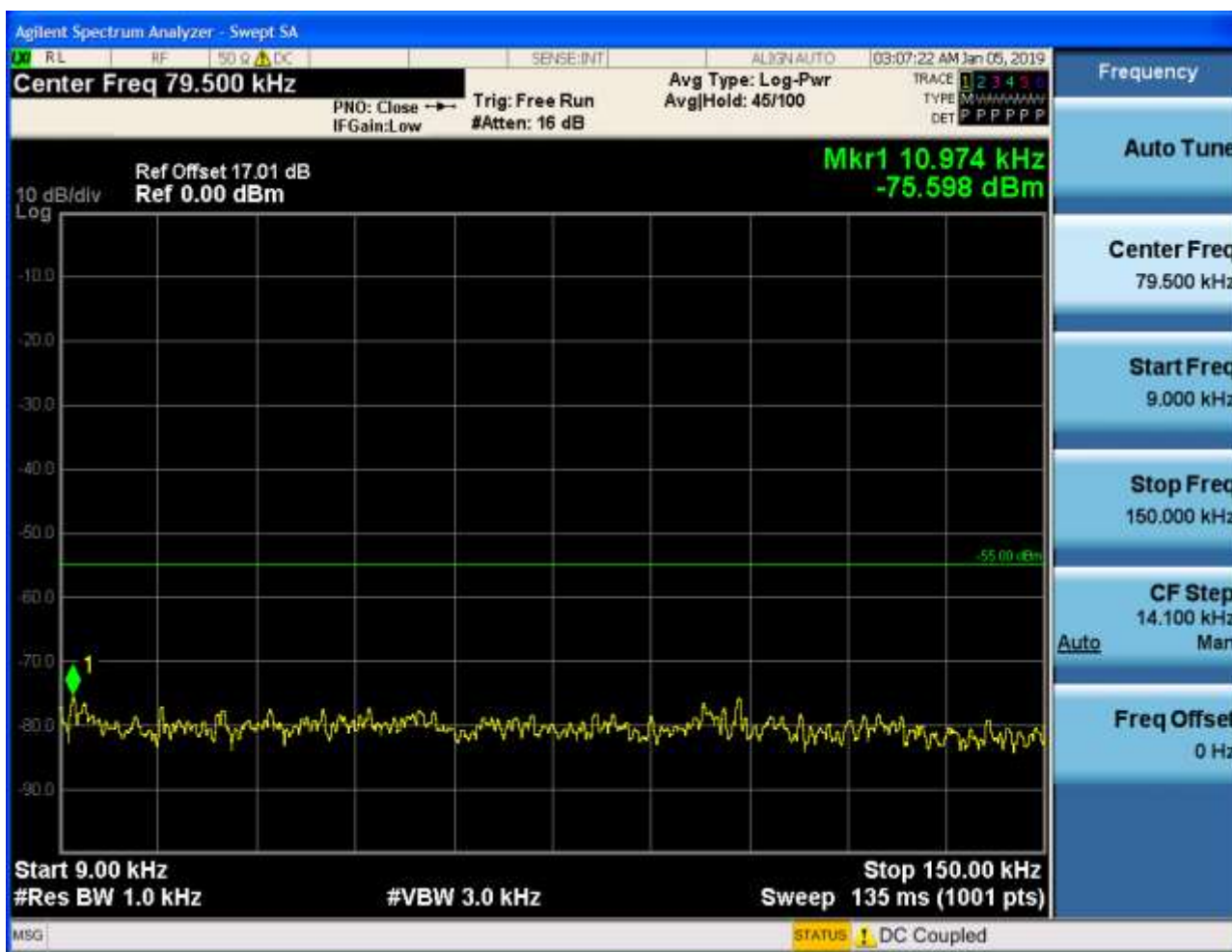






6.2.1.1.1.3 Test Channel = HCH

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



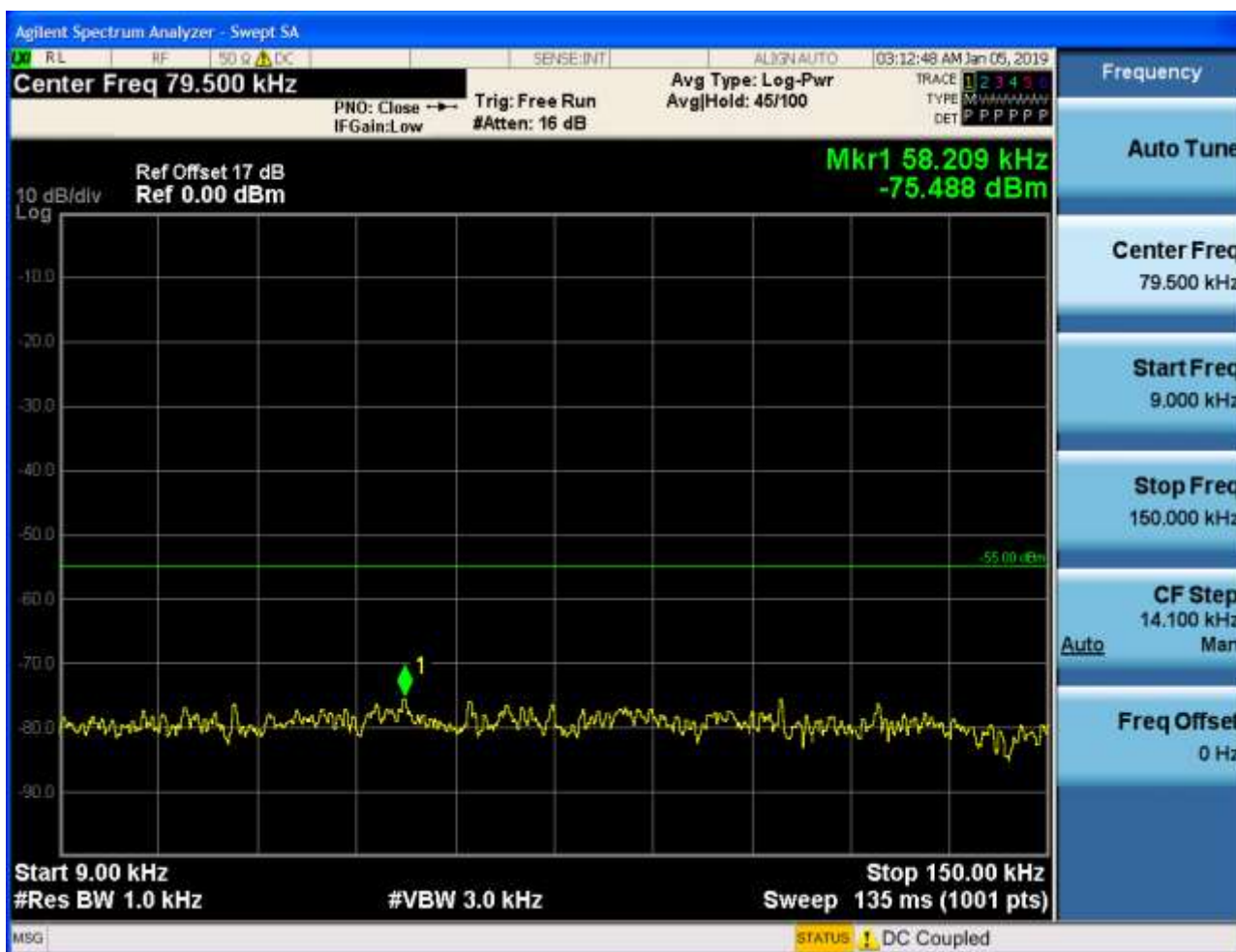




6.2.1.1.3 Test Bandwidth = 15

6.2.1.1.3.1 Test Channel = LCH

6.2.1.1.3.1.1 Test RB = RB1#0







6.2.1.1.3.2 Test Channel = MCH

6.2.1.1.3.2.1 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 Bandwidth = 10

6.2.1.2.2.1 Test Channel = LCH

6.2.1.2.2.1.1 Test RB = RB1#0

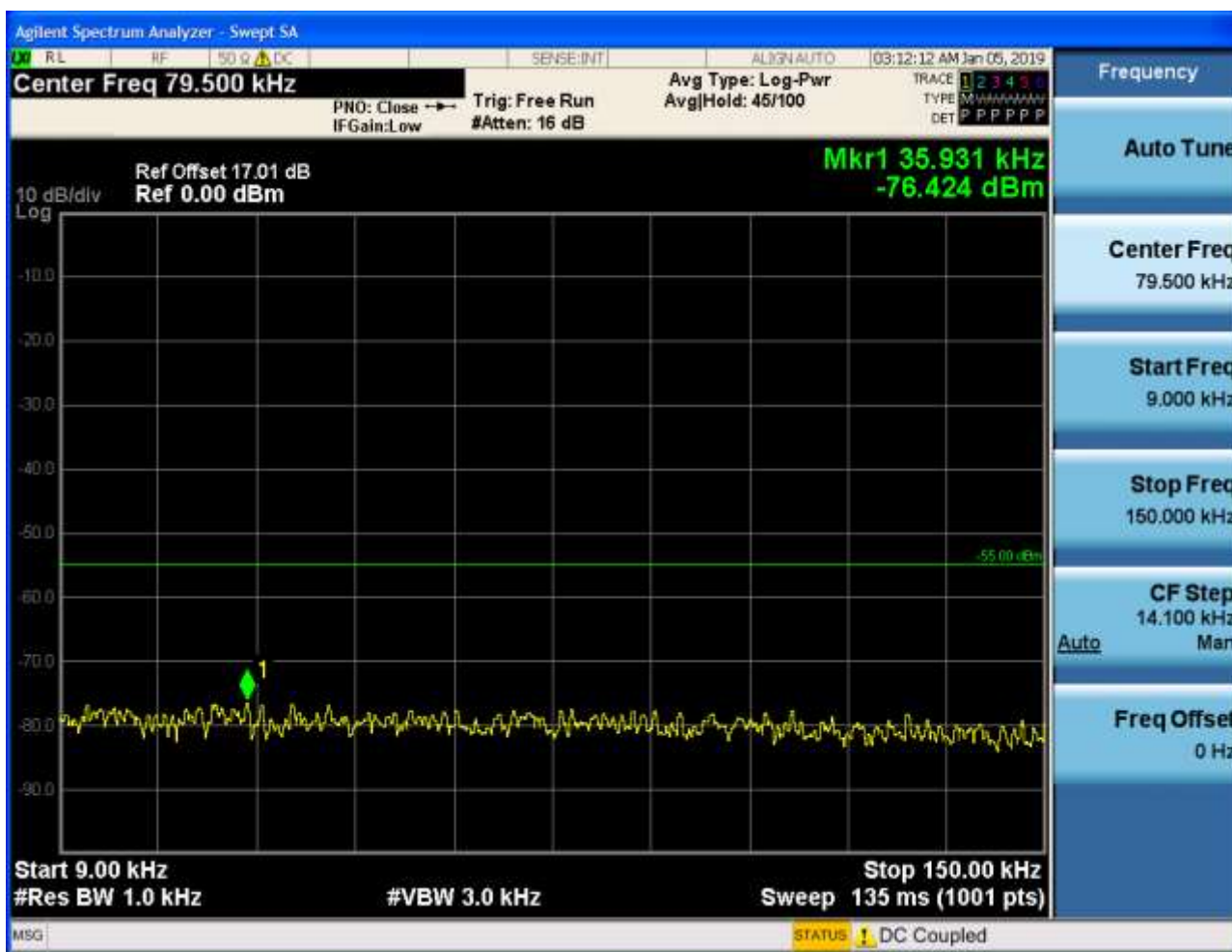


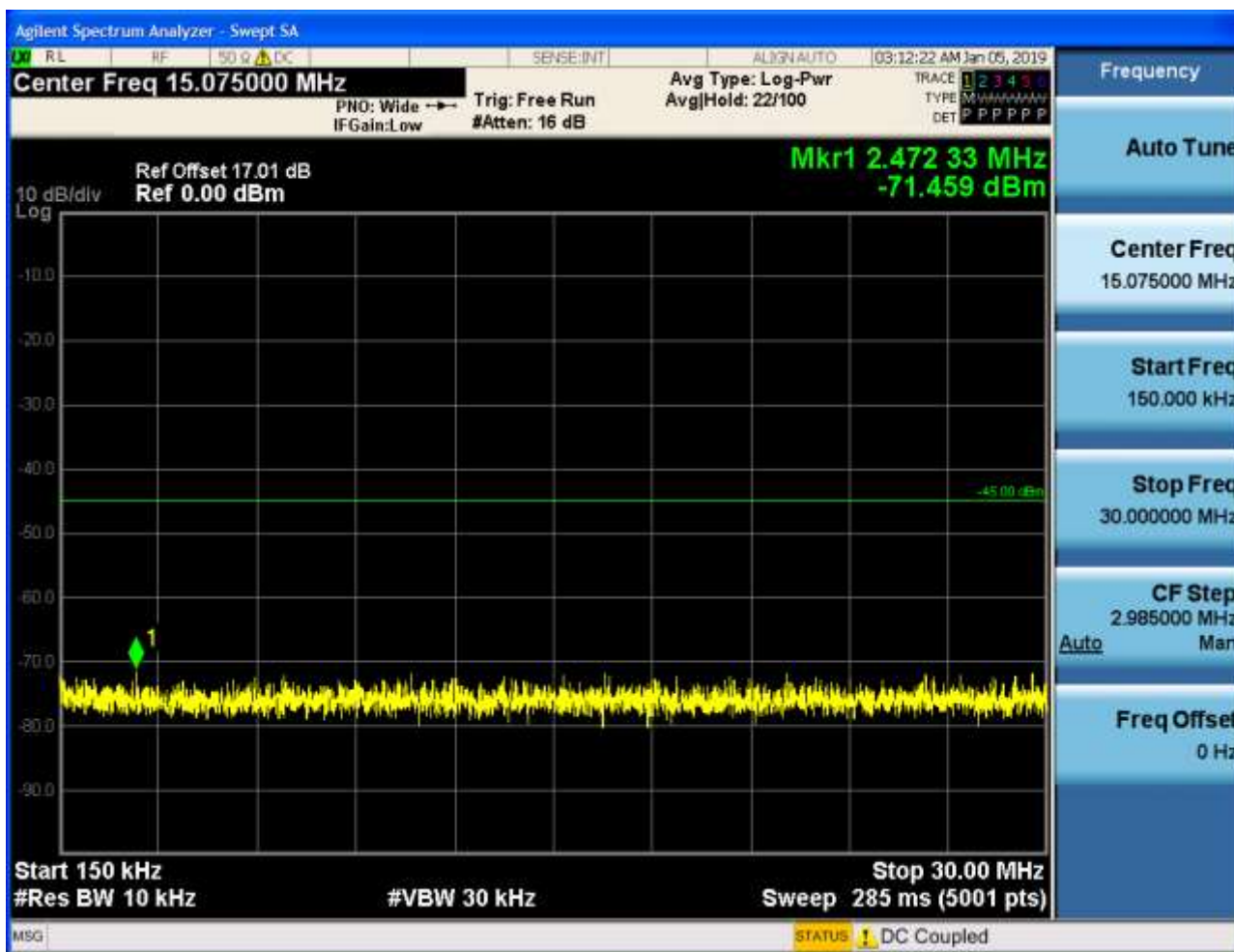




6.2.1.2.2.2 Test Channel = MCH

6.2.1.2.2.2.1 Test RB = RB1#0







6.2.1.2.2.3 Test Channel = HCH

6.2.1.2.2.3.1 Test RB = RB1#0





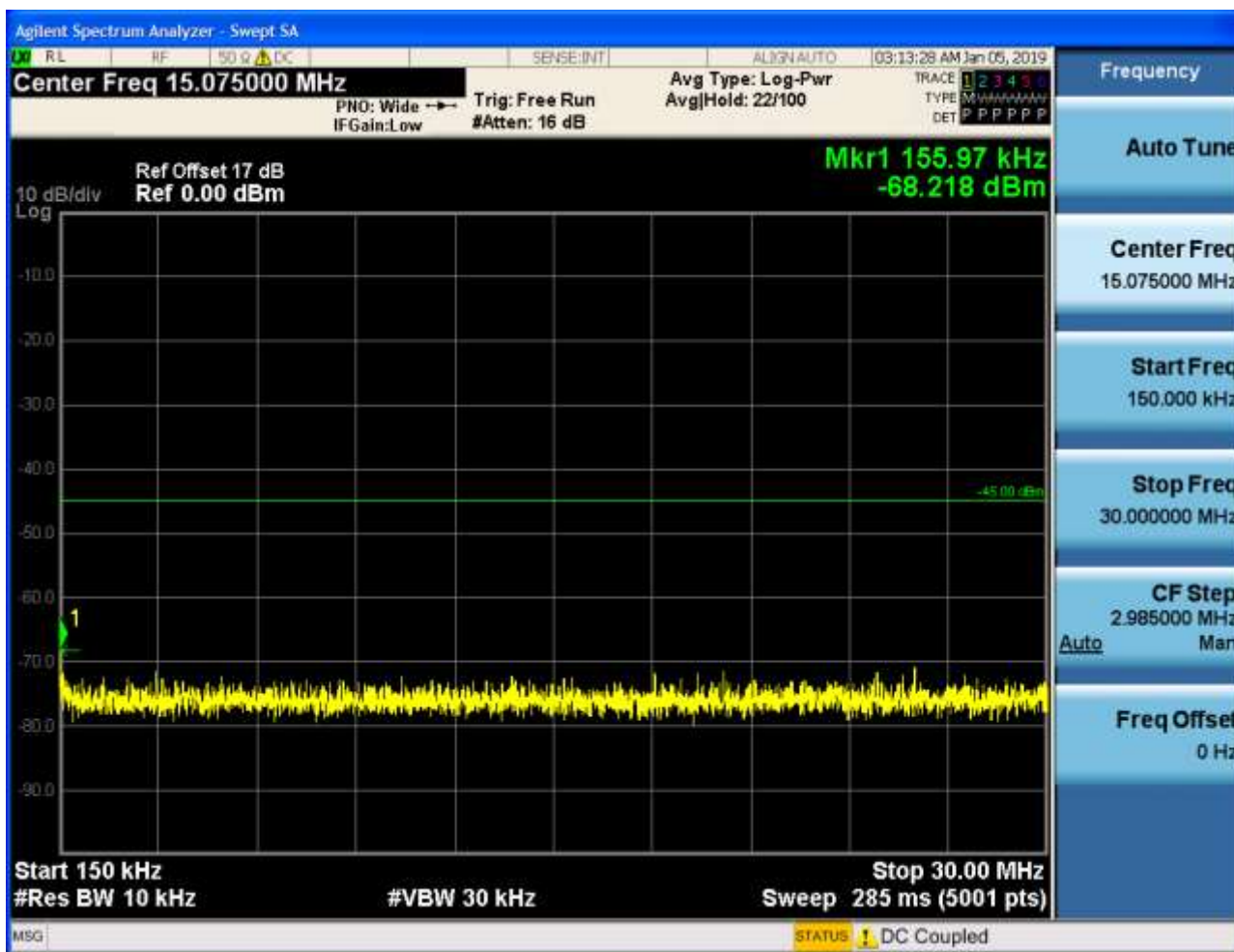


6.2.1.2.3 Test Bandwidth = 15

6.2.1.2.3.1 Test Channel = LCH

6.2.1.2.3.1.1 Test RB = RB1#0

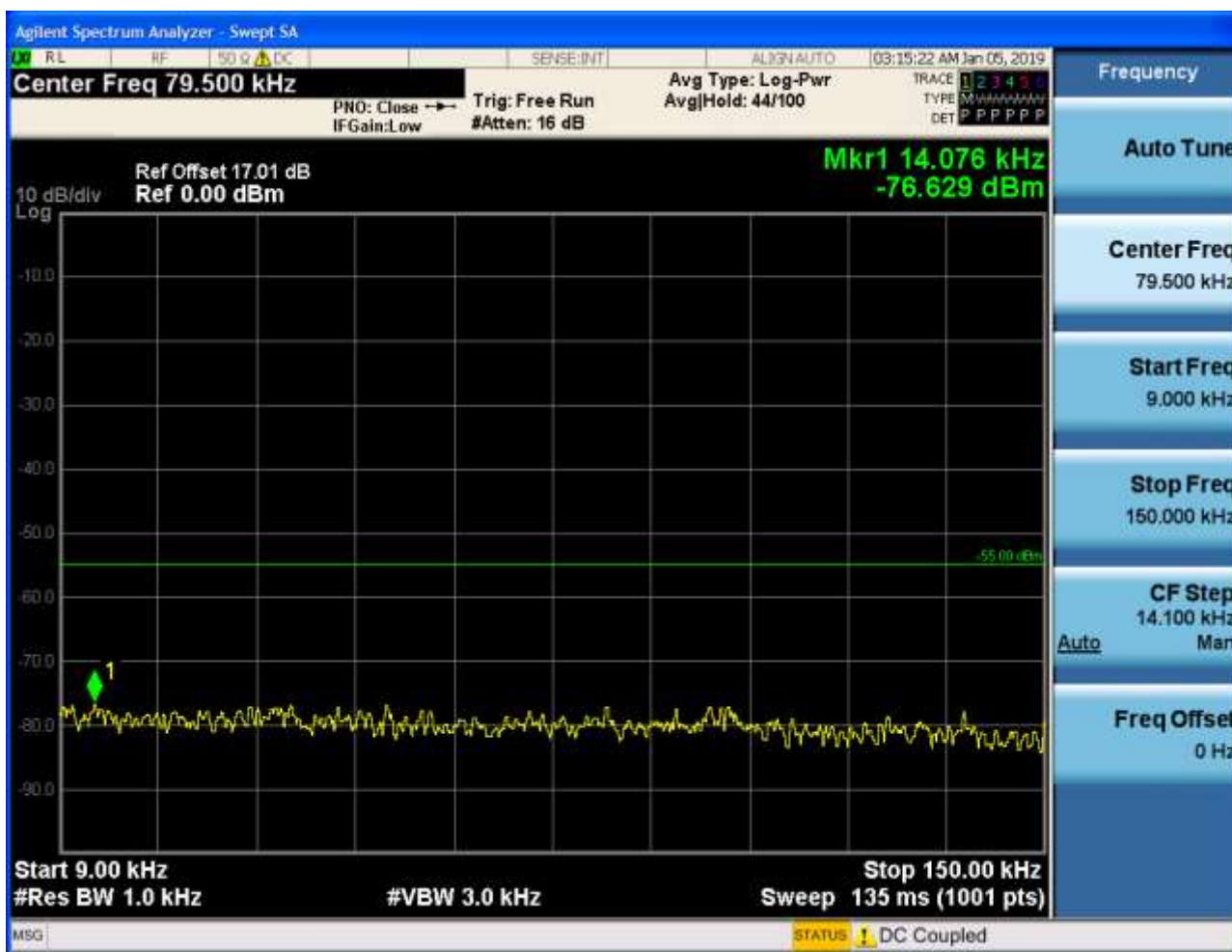






6.2.1.2.3.2 Test Channel = MCH

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



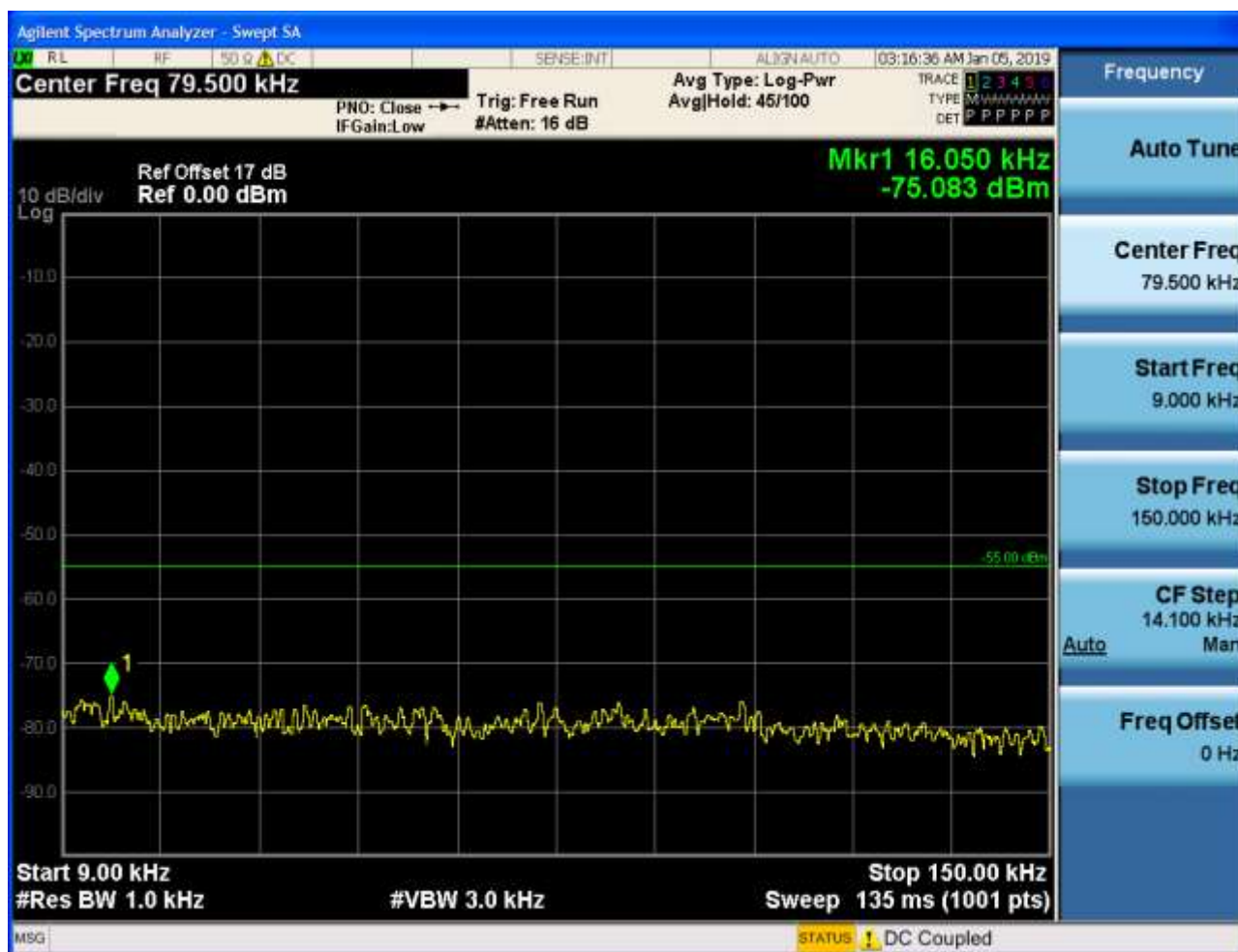


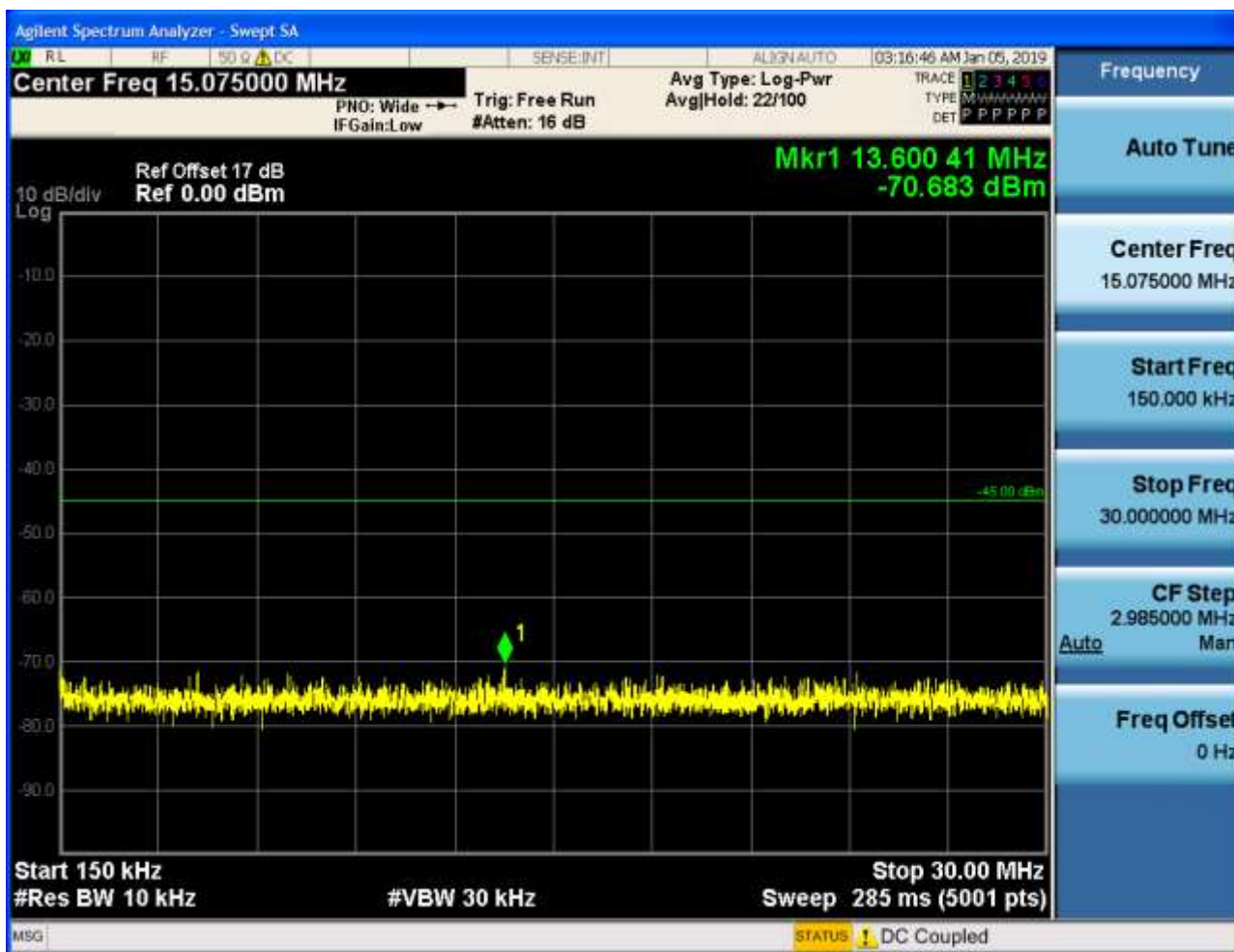


6.2.1.2.4 Test Bandwidth = 20

6.2.1.2.4.1 Test Channel = LCH

6.2.1.2.4.1.1 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

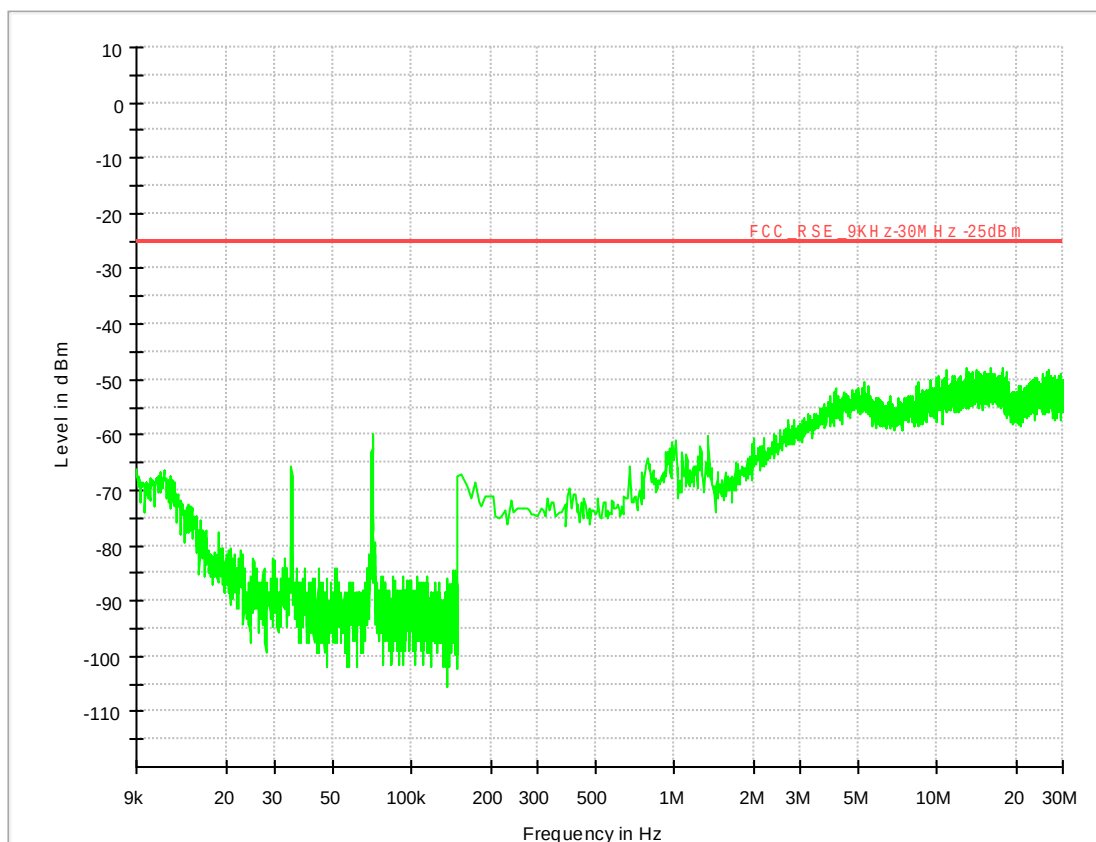
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz Detector: PK

Part I - Test Plots

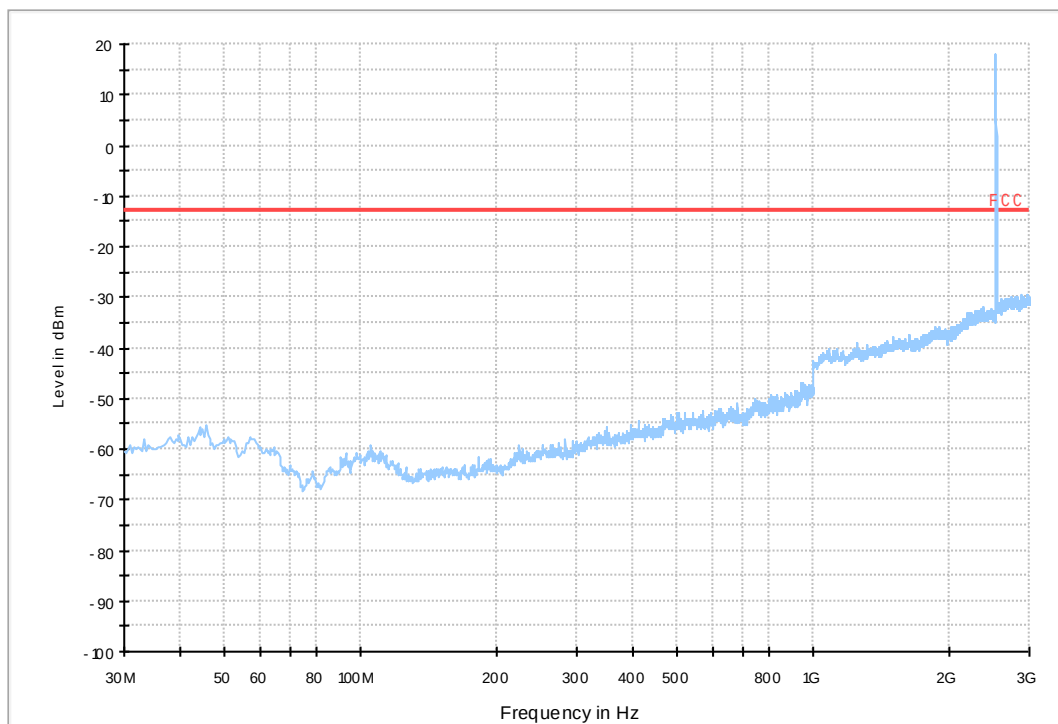
7.1 For LTE

7.1.1 Test Band = Band7_ANT1

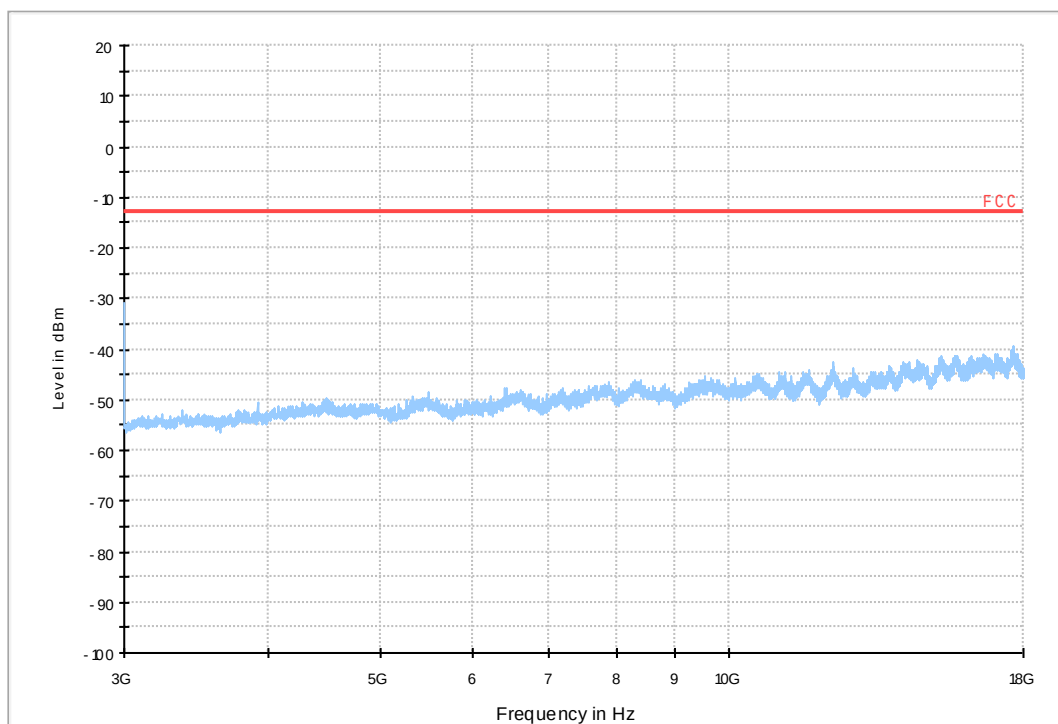
7.1.1.1 Test Bandwidth = 5



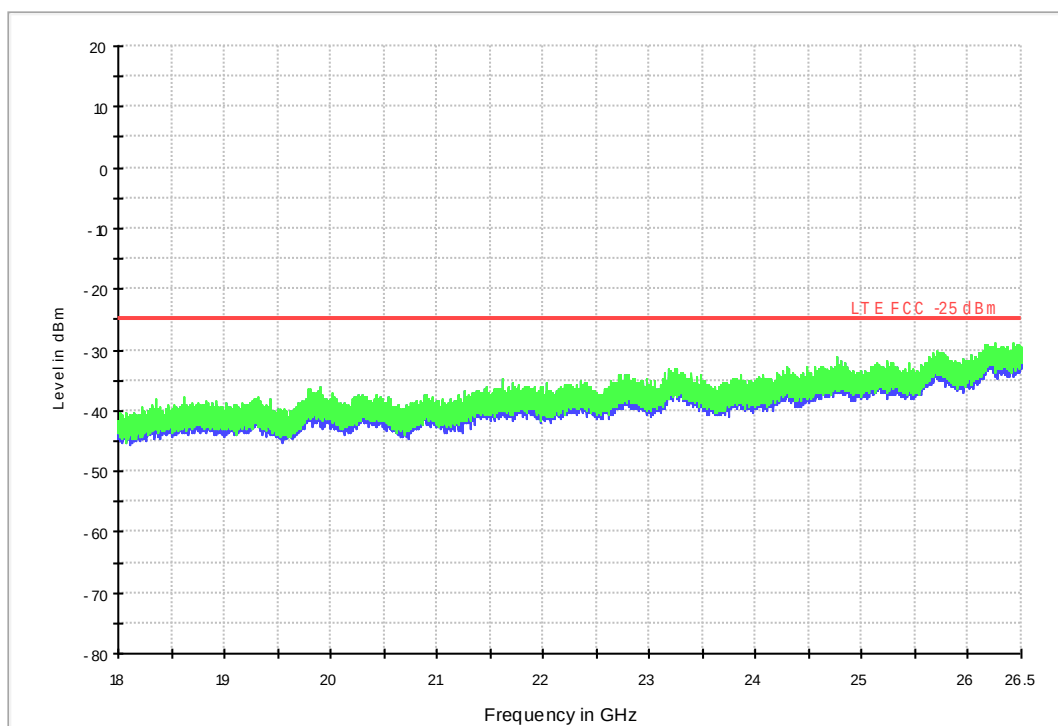
LTE FDD R SE-TX-DIRECTOR ABOVE 1.5G_L



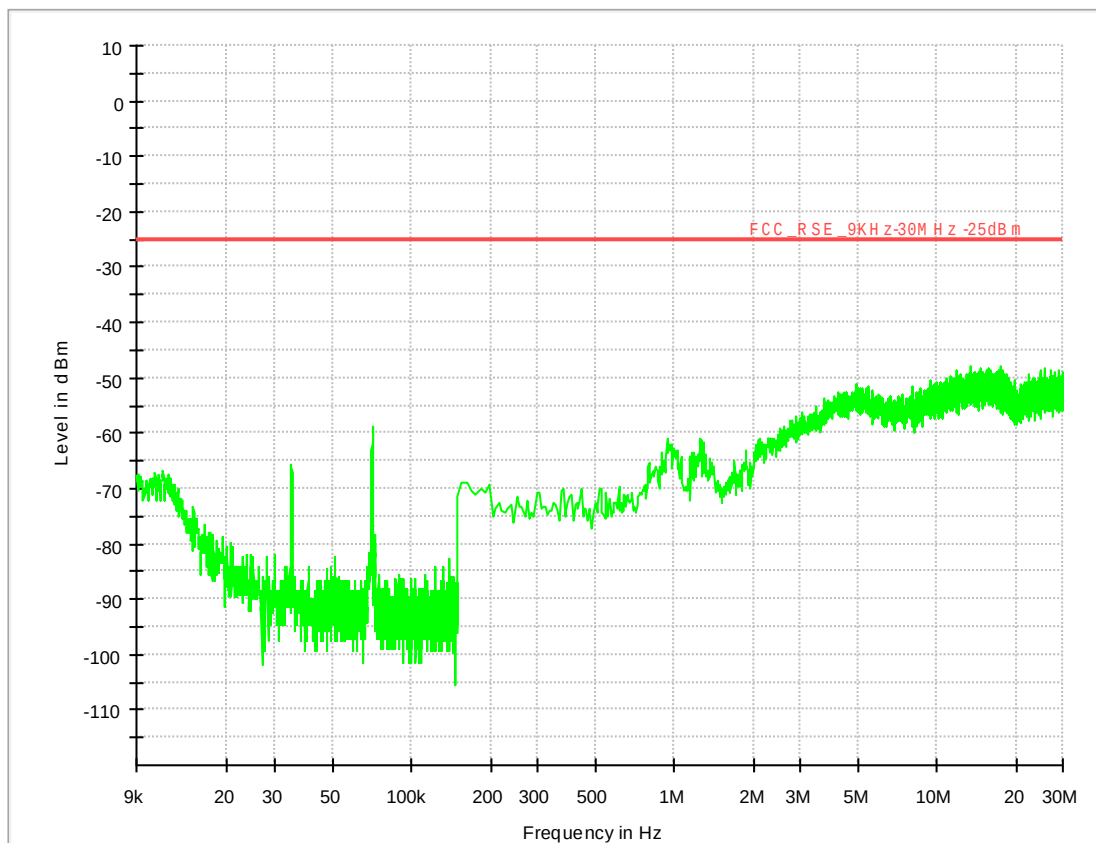
LTE FDD R SE-TX-DIRECTOR ABOVE 1.5G_H



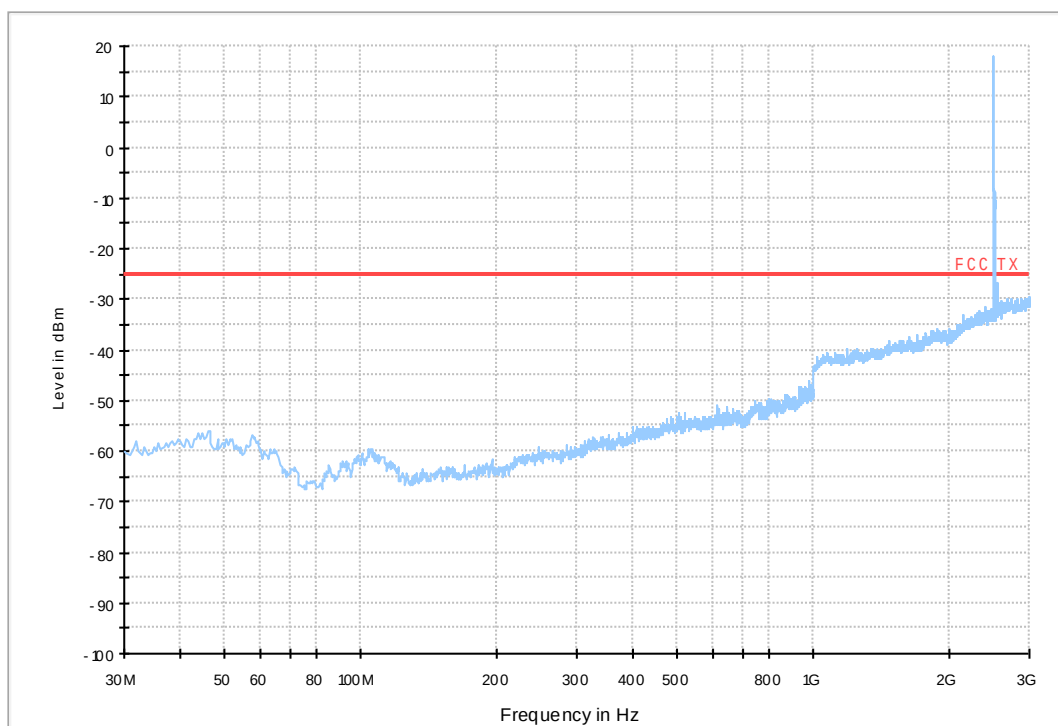
18G~26.5G R SE-TX-DIRECTOR ABOVE 1.5G PK



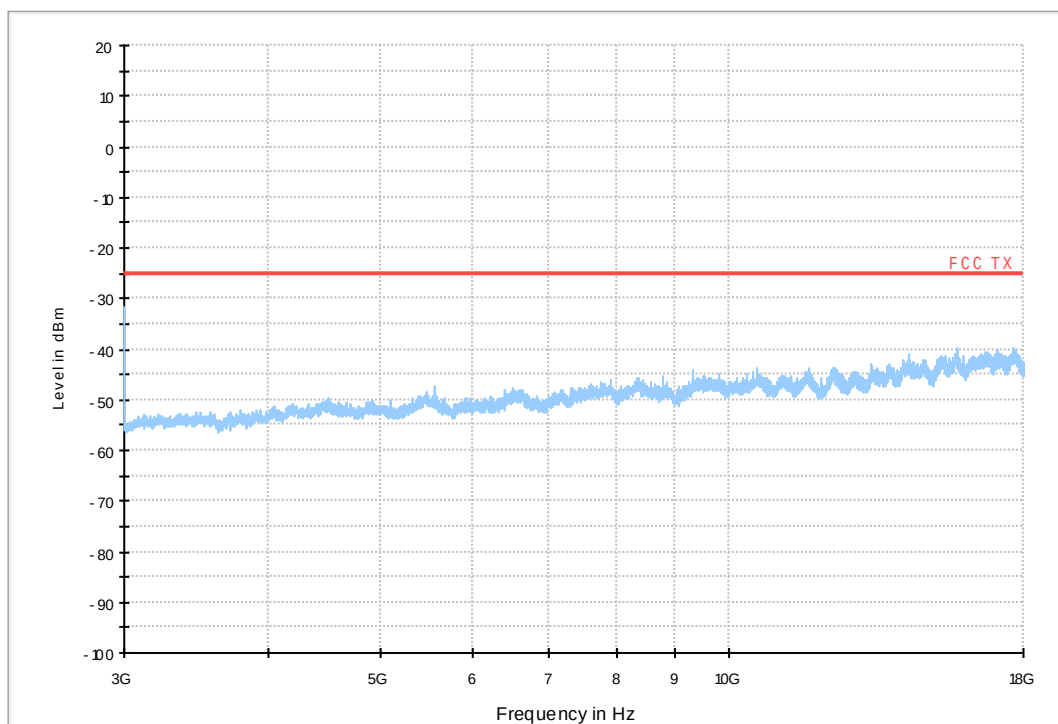
7.1.1.2 Test Bandwidth = 20



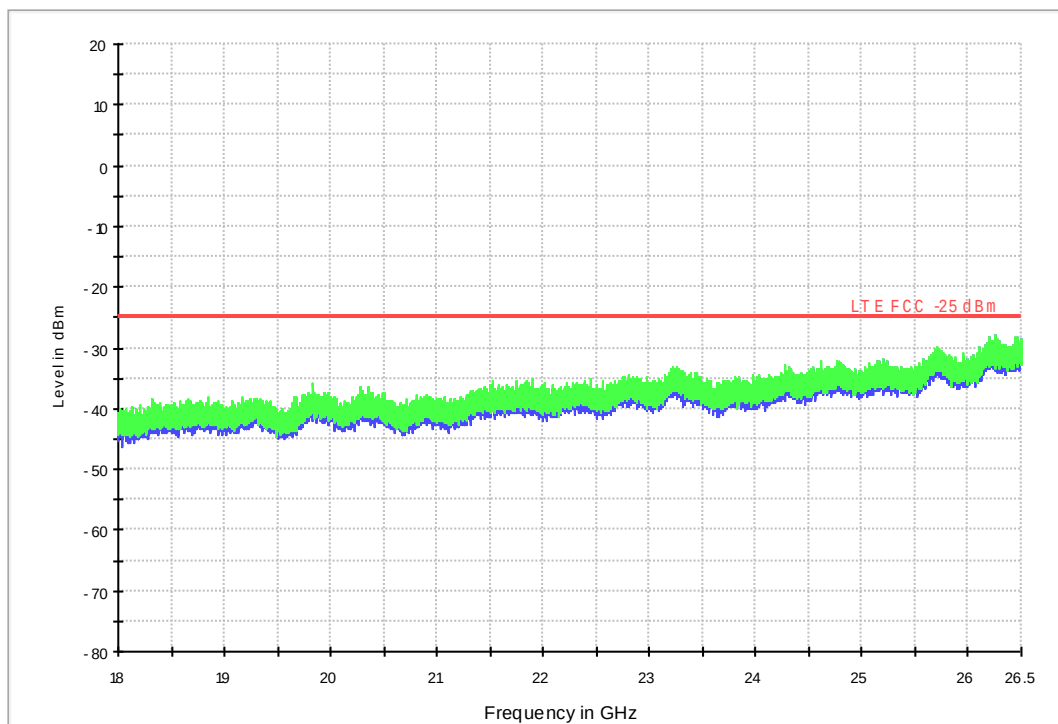
LTE Band 7 RSE-TX-DIRECTOR ABOVE 1.5G_L -25dBm limit



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

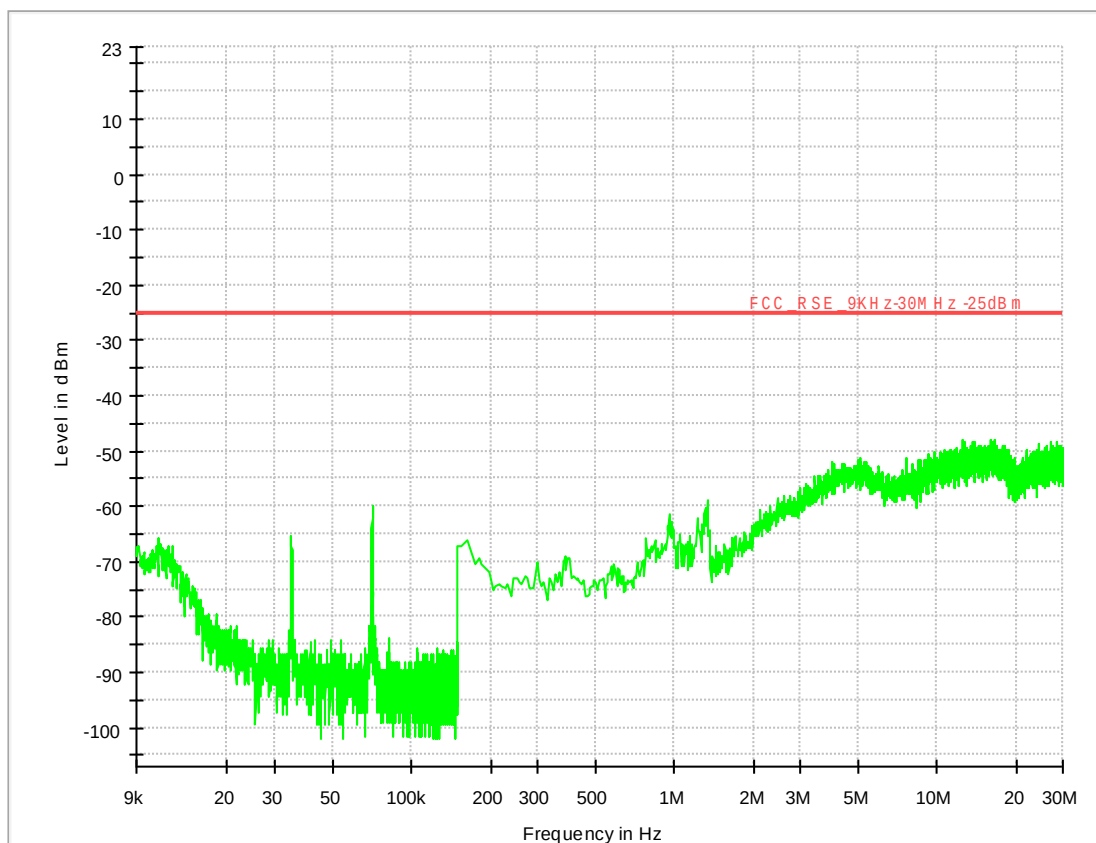


18G~26.5G R SE-TX-DIRECTOR ABOVE 1.5G PK

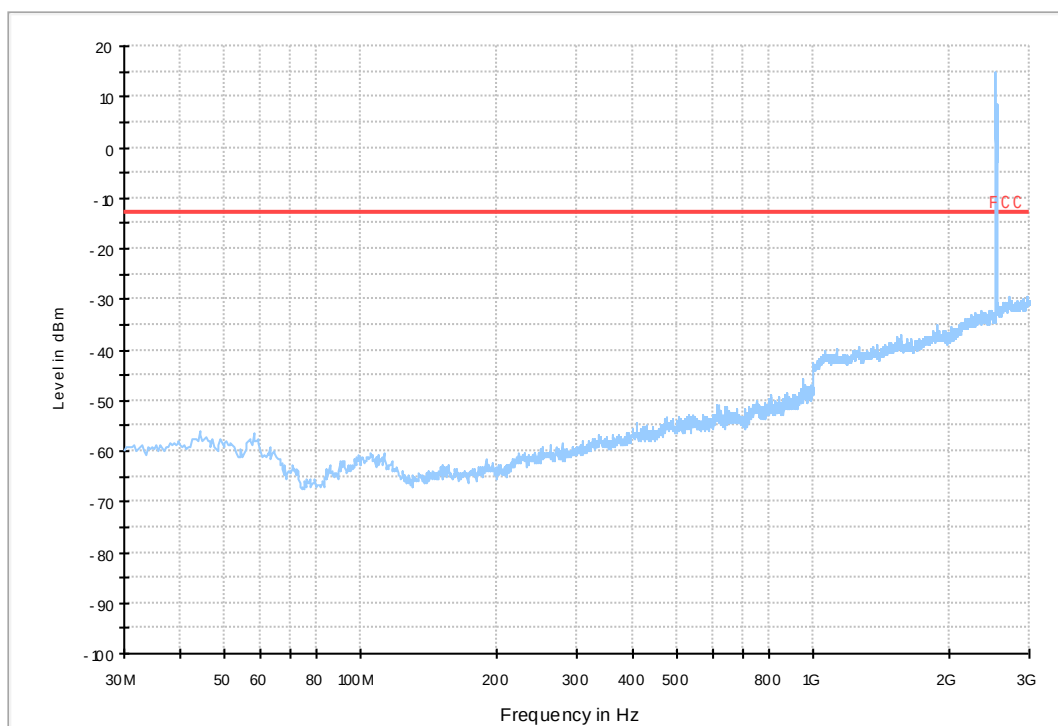


7.1.2 Test Band = Band7_ANT2

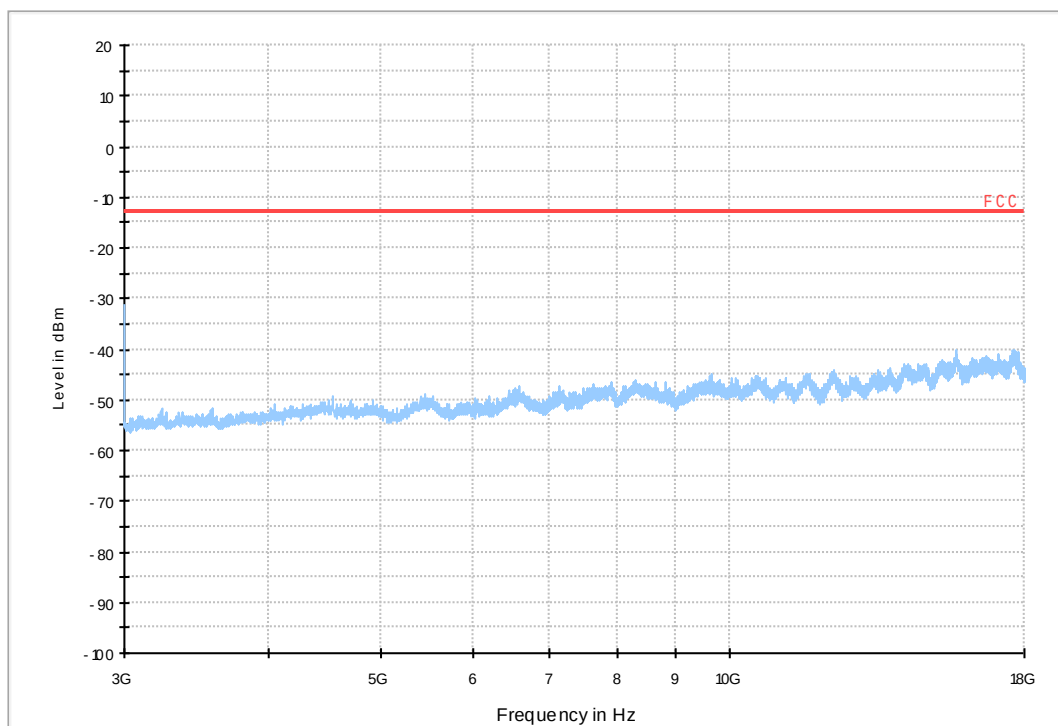
7.1.2.1 Test Bandwidth = 5



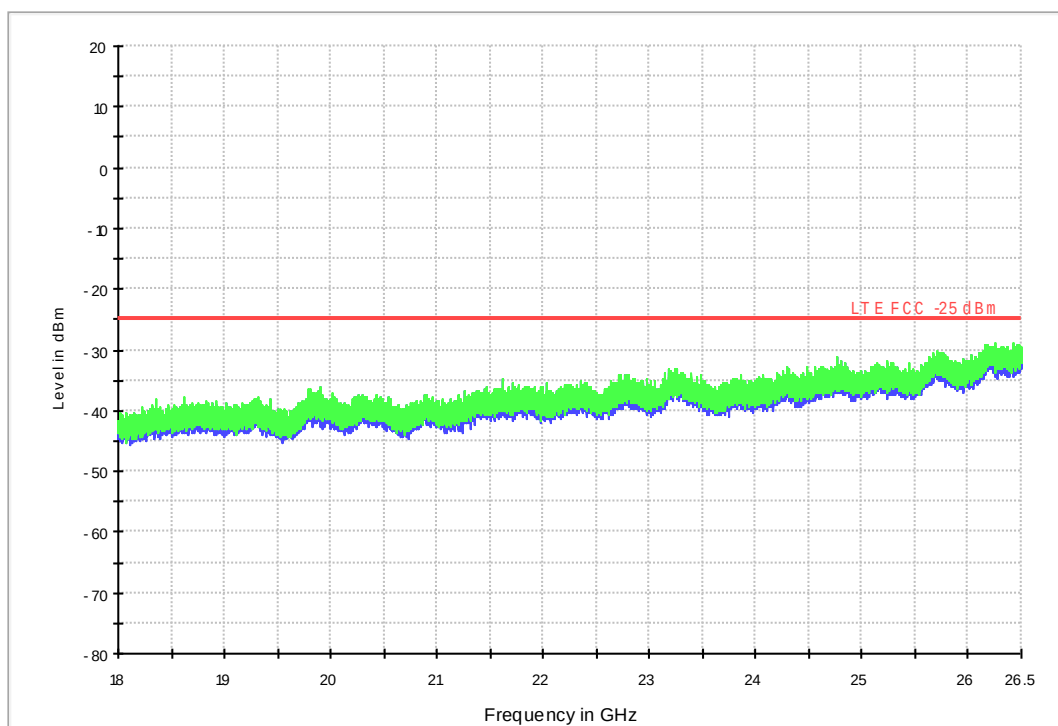
LTE FDD R SE-TX-DIRECTOR ABOVE 1.5G_L



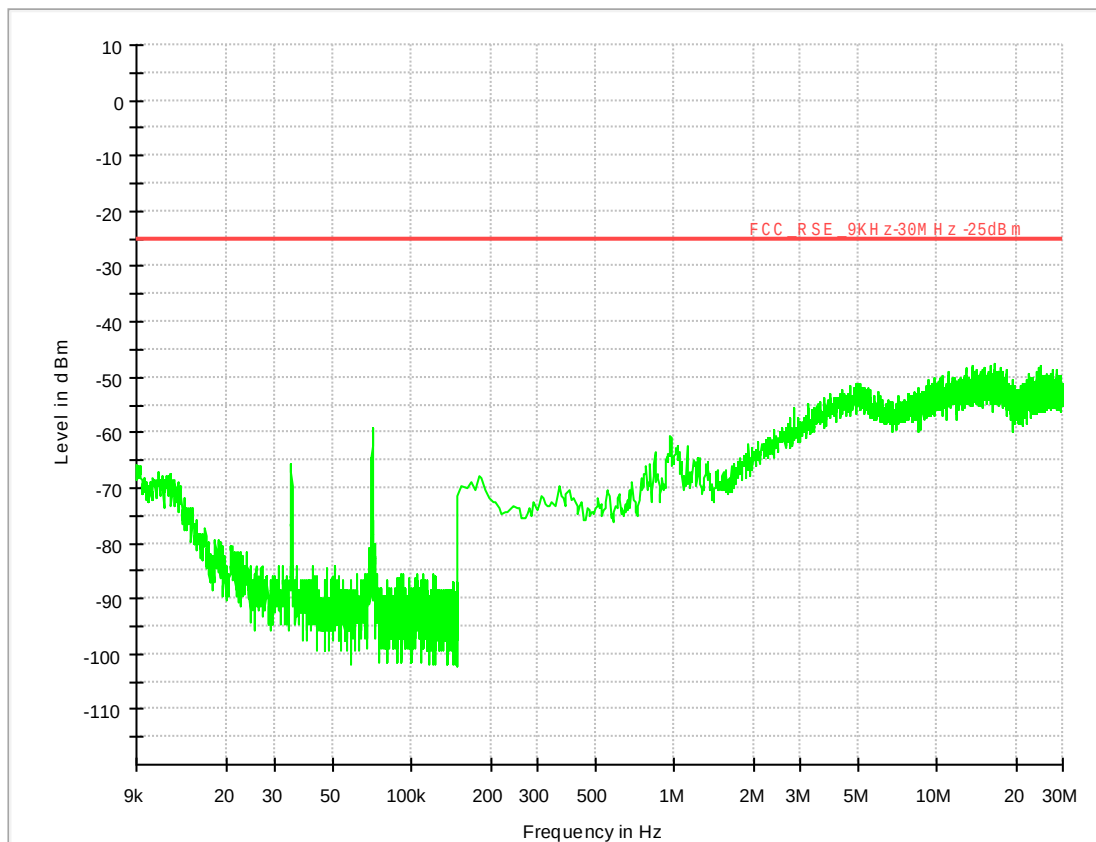
LTE FDD R SE-TX-DIRECTOR ABOVE 1.5G_H



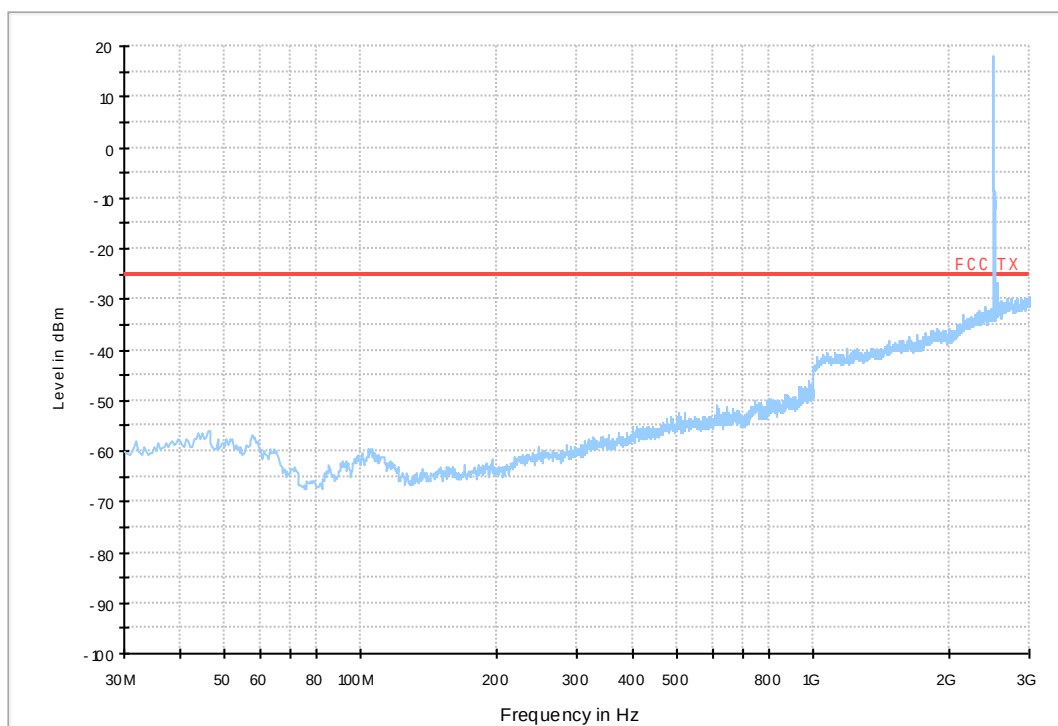
18G~26.5G R SE-TX-DIRECTOR ABOVE 1.5G PK



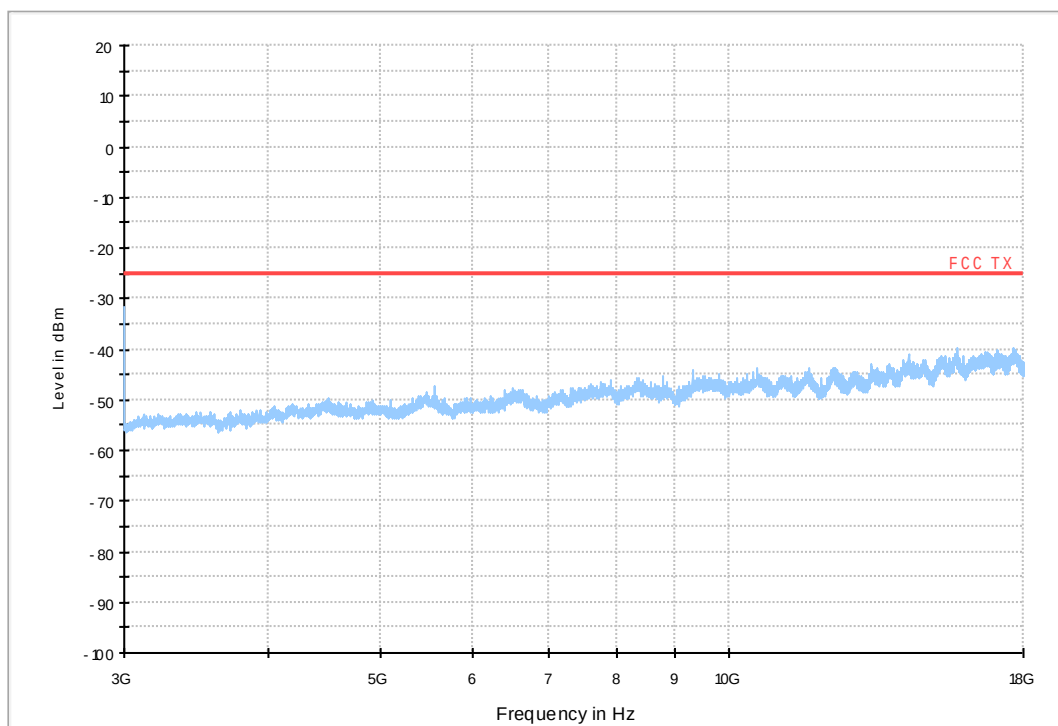
7.1.2.2 Test Bandwidth = 20



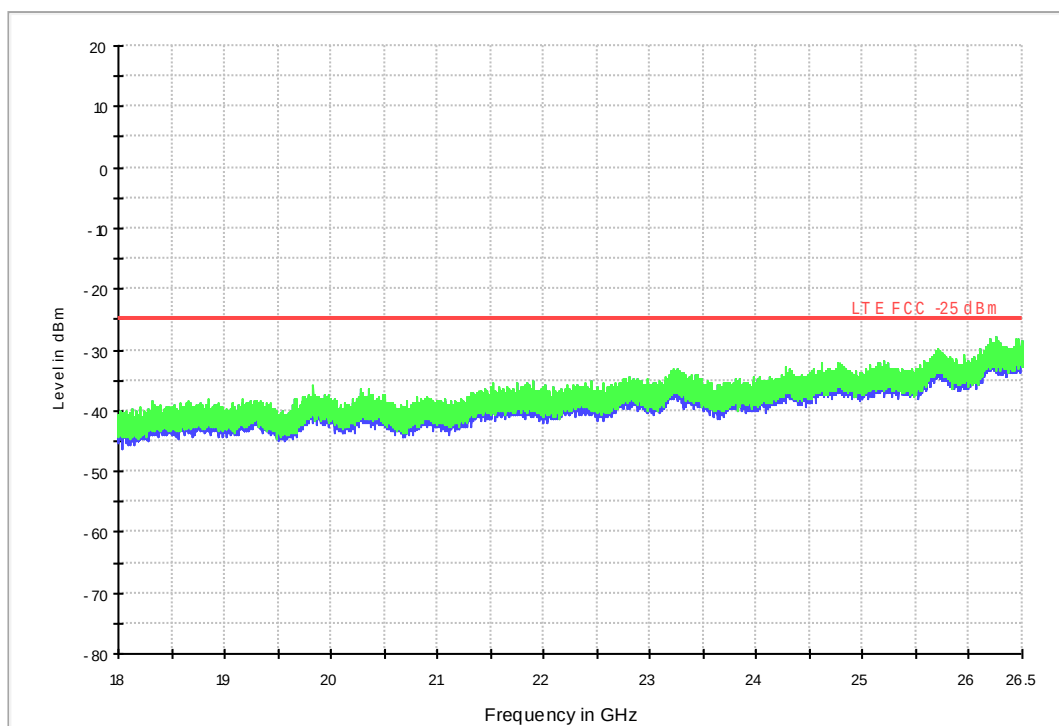
LTE Band 7 RSE-TX-DIRECTOR ABOVE 1.5G_L -25dBm limit



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	-10.32829	-0.00413	PASS
					VN	-0.64373	-0.00026	PASS
					VH	5.00679	0.00200	PASS
			MCH	TN	VL	2.23160	0.00088	PASS
					VN	-8.52585	-0.00336	PASS
					VH	2.08855	0.00082	PASS
			HCH	TN	VL	-7.12395	-0.00277	PASS
					VN	-11.00063	-0.00428	PASS
					VH	-8.11100	-0.00316	PASS
		10	LCH	TN	VL	-2.38895	-0.00095	PASS
					VN	-7.15256	-0.00286	PASS
					VH	0.97275	0.00039	PASS
			MCH	TN	VL	-1.28746	-0.00051	PASS
					VN	-1.63078	-0.00064	PASS
					VH	1.11580	0.00044	PASS
			HCH	TN	VL	-5.42164	-0.00211	PASS
					VN	-11.07216	-0.00432	PASS
					VH	0.75817	0.00030	PASS
		15	LCH	TN	VL	-9.98497	-0.00398	PASS
					VN	-7.13825	-0.00285	PASS
					VH	-5.19276	-0.00207	PASS
			MCH	TN	VL	-0.17166	-0.00007	PASS
					VN	-5.07832	-0.00200	PASS
					VH	-1.23024	-0.00049	PASS
			HCH	TN	VL	-3.34740	-0.00131	PASS
					VN	-7.69615	-0.00300	PASS
					VH	-1.85966	-0.00073	PASS
		20	LCH	TN	VL	-8.31127	-0.00331	PASS
					VN	-8.44002	-0.00336	PASS
					VH	-5.23567	-0.00209	PASS
			MCH	TN	VL	-2.81811	-0.00111	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
	LTE/TM2				VN	-3.44753	-0.00136	PASS
					VH	-0.55790	-0.00022	PASS
			HCH	TN	VL	-2.36034	-0.00092	PASS
					VN	-5.69344	-0.00222	PASS
					VH	-1.64509	-0.00064	PASS
					VH	-1.64509	-0.00064	PASS
		5	LCH	TN	VL	-39.26754	-0.01569	PASS
					VN	-9.31263	-0.00372	PASS
					VH	-7.00951	-0.00280	PASS
			MCH	TN	VL	-5.03540	-0.00199	PASS
					VN	-7.16686	-0.00283	PASS
					VH	-28.03802	-0.01106	PASS
			HCH	TN	VL	-1.08719	-0.00042	PASS
					VN	-12.35962	-0.00481	PASS
					VH	-7.66754	-0.00299	PASS
		10	LCH	TN	VL	-14.70566	-0.00587	PASS
					VN	-9.01222	-0.00360	PASS
					VH	-3.04699	-0.00122	PASS
			MCH	TN	VL	-6.36578	-0.00251	PASS
					VN	2.23160	0.00088	PASS
					VH	1.34468	0.00053	PASS
			HCH	TN	VL	-0.47207	-0.00018	PASS
					VN	-9.62734	-0.00375	PASS
					VH	-3.71933	-0.00145	PASS
		15	LCH	TN	VL	-2.81811	-0.00112	PASS
					VN	-10.61440	-0.00423	PASS
					VH	-6.15120	-0.00245	PASS
			MCH	TN	VL	0.12875	0.00005	PASS
					VN	-3.97682	-0.00157	PASS
					VH	-10.02789	-0.00396	PASS
			HCH	TN	VL	1.75953	0.00069	PASS
					VN	-9.28402	-0.00362	PASS
					VH	-2.50339	-0.00098	PASS
		20	LCH	TN	VL	-2.71797	-0.00108	PASS
					VN	-7.96795	-0.00317	PASS
					VH	-6.46591	-0.00258	PASS
			MCH	TN	VL	1.58787	0.00063	PASS
					VN	-3.01838	-0.00119	PASS
					VH	-1.21593	-0.00048	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
			HCH	TN	VL	1.70231	0.00066	PASS
					VN	-4.09126	-0.00160	PASS
					VH	-0.87261	-0.00034	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	-4.59194	-0.00183	PASS
					-20	3.16143	0.00126	PASS
					-10	3.73364	0.00149	PASS
					0	3.51906	0.00141	PASS
					10	-4.33445	-0.00173	PASS
					20	-0.64373	-0.00026	PASS
					30	0.38624	0.00015	PASS
					40	-5.19276	-0.00208	PASS
					50	1.28746	0.00051	PASS
			MCH	VN	-30	-7.75337	-0.00306	PASS
					-20	-9.06944	-0.00358	PASS
					-10	1.01566	0.00040	PASS
					0	-16.10756	-0.00635	PASS
					10	-43.04409	-0.01698	PASS
					20	-8.52585	-0.00336	PASS
					30	-9.35554	-0.00369	PASS
					40	-8.06808	-0.00318	PASS
					50	-6.30856	-0.00249	PASS
			HCH	VN	-30	-40.29751	-0.01570	PASS
					-20	-32.11498	-0.01251	PASS
					-10	-35.39085	-0.01378	PASS
					0	-36.32069	-0.01415	PASS
					10	-12.78877	-0.00498	PASS
					20	-11.00063	-0.00428	PASS
					30	-35.14767	-0.01369	PASS
					40	-12.97474	-0.00505	PASS
					50	-12.21657	-0.00476	PASS
		10	LCH	VN	-30	-5.70774	-0.00228	PASS
					-20	-4.60625	-0.00184	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					-10	-5.95093	-0.00238	PASS
					0	-4.77791	-0.00191	PASS
					10	-7.13825	-0.00285	PASS
					20	-7.15256	-0.00286	PASS
					30	-6.60896	-0.00264	PASS
					40	-6.68049	-0.00267	PASS
					50	2.78950	0.00111	PASS
			MCH	VN	-30	-7.63893	-0.00301	PASS
					-20	-2.78950	-0.00110	PASS
					-10	0.80109	0.00032	PASS
					0	-3.10421	-0.00122	PASS
					10	-2.40326	-0.00095	PASS
					20	-1.63078	-0.00064	PASS
					30	-7.09534	-0.00280	PASS
					40	-8.35419	-0.00330	PASS
					50	-3.51906	-0.00139	PASS
			HCH	VN	-30	-9.55582	-0.00373	PASS
					-20	-8.64029	-0.00337	PASS
					-10	-5.17845	-0.00202	PASS
					0	-6.27994	-0.00245	PASS
					10	-10.58578	-0.00413	PASS
					20	-11.07216	-0.00432	PASS
					30	-22.10140	-0.00862	PASS
					40	-24.36161	-0.00950	PASS
					50	-2.31743	-0.00090	PASS
		15	LCH	VN	-30	-8.44002	-0.00337	PASS
					-20	-8.03947	-0.00321	PASS
					-10	-6.96659	-0.00278	PASS
					0	-5.87940	-0.00234	PASS
					10	-8.21114	-0.00327	PASS
					20	-7.13825	-0.00285	PASS
					30	0.74387	0.00030	PASS
					40	-9.98497	-0.00398	PASS
					50	-6.12259	-0.00244	PASS
			MCH	VN	-30	-6.49452	-0.00256	PASS
					-20	-8.23975	-0.00325	PASS
					-10	-5.46455	-0.00216	PASS
					0	-5.24998	-0.00207	PASS
					10	-10.98633	-0.00433	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					20	-5.07832	-0.00200	PASS
					30	-1.97411	-0.00078	PASS
					40	-3.57628	-0.00141	PASS
					50	-3.26157	-0.00129	PASS
			HCH	VN	-30	-8.84056	-0.00345	PASS
					-20	-9.19819	-0.00359	PASS
					-10	-7.46727	-0.00291	PASS
					0	-7.32422	-0.00286	PASS
					10	-8.01086	-0.00313	PASS
					20	-7.69615	-0.00300	PASS
					30	-2.47478	-0.00097	PASS
					40	-8.11100	-0.00317	PASS
					50	-6.36578	-0.00248	PASS
		20	LCH	VN	-30	-8.21114	-0.00327	PASS
					-20	-7.46727	-0.00298	PASS
					-10	-6.49452	-0.00259	PASS
					0	-7.38144	-0.00294	PASS
					10	1.20163	0.00048	PASS
					20	-8.44002	-0.00336	PASS
					30	-6.69479	-0.00267	PASS
					40	-7.16686	-0.00286	PASS
					50	-6.96659	-0.00278	PASS
			MCH	VN	-30	-5.03540	-0.00199	PASS
					-20	-4.22001	-0.00166	PASS
					-10	-6.65188	-0.00262	PASS
					0	-4.23431	-0.00167	PASS
					10	-2.68936	-0.00106	PASS
					20	-3.44753	-0.00136	PASS
					30	-3.13282	-0.00124	PASS
					40	-5.55039	-0.00219	PASS
					50	-3.99113	-0.00157	PASS
			HCH	VN	-30	-5.06401	-0.00198	PASS
					-20	-5.00679	-0.00196	PASS
					-10	-5.92232	-0.00231	PASS
					0	-7.06673	-0.00276	PASS
					10	-0.80109	-0.00031	PASS
					20	-5.69344	-0.00222	PASS
					30	-5.35011	-0.00209	PASS
					40	-5.55039	-0.00217	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	-3.86238	-0.00151	PASS
					-30	-15.04898	-0.00601	PASS
					-20	-38.93852	-0.01556	PASS
					-10	-6.85215	-0.00274	PASS
					0	-4.66347	-0.00186	PASS
					10	-18.31055	-0.00732	PASS
					20	-9.31263	-0.00372	PASS
					30	-8.32558	-0.00333	PASS
					40	-14.03332	-0.00561	PASS
					50	-5.96523	-0.00238	PASS
			MCH	VN	-30	-3.94821	-0.00156	PASS
					-20	-21.12865	-0.00833	PASS
					-10	-19.42635	-0.00766	PASS
					0	-13.50403	-0.00533	PASS
					10	-8.68320	-0.00343	PASS
					20	-7.16686	-0.00283	PASS
					30	-9.72748	-0.00384	PASS
					40	-9.44138	-0.00372	PASS
					50	-3.69072	-0.00146	PASS
			HCH	VN	-30	-45.63332	-0.01777	PASS
					-20	-33.31661	-0.01298	PASS
					-10	-49.02363	-0.01909	PASS
					0	-28.53870	-0.01112	PASS
					10	-54.55971	-0.02125	PASS
					20	-12.35962	-0.00481	PASS
					30	-12.13074	-0.00472	PASS
					40	-41.17012	-0.01604	PASS
					50	-8.33988	-0.00325	PASS
		10	LCH	VN	-30	-21.85822	-0.00873	PASS
					-20	-9.24110	-0.00369	PASS
					-10	-8.86917	-0.00354	PASS
					0	-7.81059	-0.00312	PASS
					10	-10.55717	-0.00421	PASS
					20	-9.01222	-0.00360	PASS
					30	-9.78470	-0.00391	PASS
					40	-7.95364	-0.00318	PASS
					50	-1.88827	-0.00075	PASS
			MCH	VN	-30	-3.21865	-0.00127	PASS
					-20	-5.03540	-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	-2.28882	-0.00090	PASS
					0	-3.63350	-0.00143	PASS
					10	-4.13418	-0.00163	PASS
					20	2.23160	0.00088	PASS
					30	-2.40326	-0.00095	PASS
					40	-6.49452	-0.00256	PASS
					50	-6.40869	-0.00253	PASS
			HCH	VN	-30	-9.11236	-0.00355	PASS
					-20	-10.15663	-0.00396	PASS
					-10	-8.23975	-0.00321	PASS
					0	-8.46863	-0.00330	PASS
					10	-10.12802	-0.00395	PASS
					20	-9.62734	-0.00375	PASS
					30	-9.31263	-0.00363	PASS
					40	-9.04083	-0.00352	PASS
					50	-5.55039	-0.00216	PASS
		15	LCH	VN	-30	-10.29968	-0.00411	PASS
					-20	-11.85894	-0.00473	PASS
					-10	-10.24246	-0.00408	PASS
					0	-11.24382	-0.00448	PASS
					10	-11.71589	-0.00467	PASS
					20	-10.61440	-0.00423	PASS
					30	-4.27723	-0.00171	PASS
					40	-9.36985	-0.00374	PASS
					50	-9.28402	-0.00370	PASS
			MCH	VN	-30	-4.90665	-0.00194	PASS
					-20	-2.80380	-0.00111	PASS
					-10	-3.49045	-0.00138	PASS
					0	-3.24726	-0.00128	PASS
					10	-2.20299	-0.00087	PASS
					20	-3.97682	-0.00157	PASS
					30	-0.51498	-0.00020	PASS
					40	-2.53200	-0.00100	PASS
					50	-1.33038	-0.00052	PASS
			HCH	VN	-30	-10.32829	-0.00403	PASS
					-20	-9.16958	-0.00358	PASS
					-10	-8.55446	-0.00334	PASS
					0	-8.29697	-0.00324	PASS
					10	-10.21385	-0.00399	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					20	-9.28402	-0.00362	PASS
					30	-6.78062	-0.00265	PASS
					40	-8.48293	-0.00331	PASS
					50	-7.25269	-0.00283	PASS
		20	LCH	VN	-30	-10.02789	-0.00400	PASS
					-20	-9.25541	-0.00369	PASS
					-10	-9.11236	-0.00363	PASS
					0	-9.49860	-0.00378	PASS
					10	-3.06129	-0.00122	PASS
					20	-7.96795	-0.00317	PASS
					30	-8.98361	-0.00358	PASS
					40	-10.42843	-0.00415	PASS
					50	-7.30991	-0.00291	PASS
			MCH	VN	-30	-3.86238	-0.00152	PASS
					-20	-4.77791	-0.00188	PASS
					-10	-3.01838	-0.00119	PASS
					0	-3.31879	-0.00131	PASS
					10	-2.54631	-0.00100	PASS
					20	-3.01838	-0.00119	PASS
					30	-3.56197	-0.00141	PASS
					40	-3.60489	-0.00142	PASS
					50	-3.66211	-0.00144	PASS
			HCH	VN	-30	-4.47750	-0.00175	PASS
					-20	-4.87804	-0.00191	PASS
					-10	-5.67913	-0.00222	PASS
					0	-4.72069	-0.00184	PASS
					10	-1.43051	-0.00056	PASS
					20	-4.09126	-0.00160	PASS
					30	-8.52585	-0.00333	PASS
					40	-3.69072	-0.00144	PASS
					50	-5.03540	-0.00197	PASS

END