

7Appendix_G: Field Strength of Spurious Radiation

Note: We tested all modes & antennas, 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

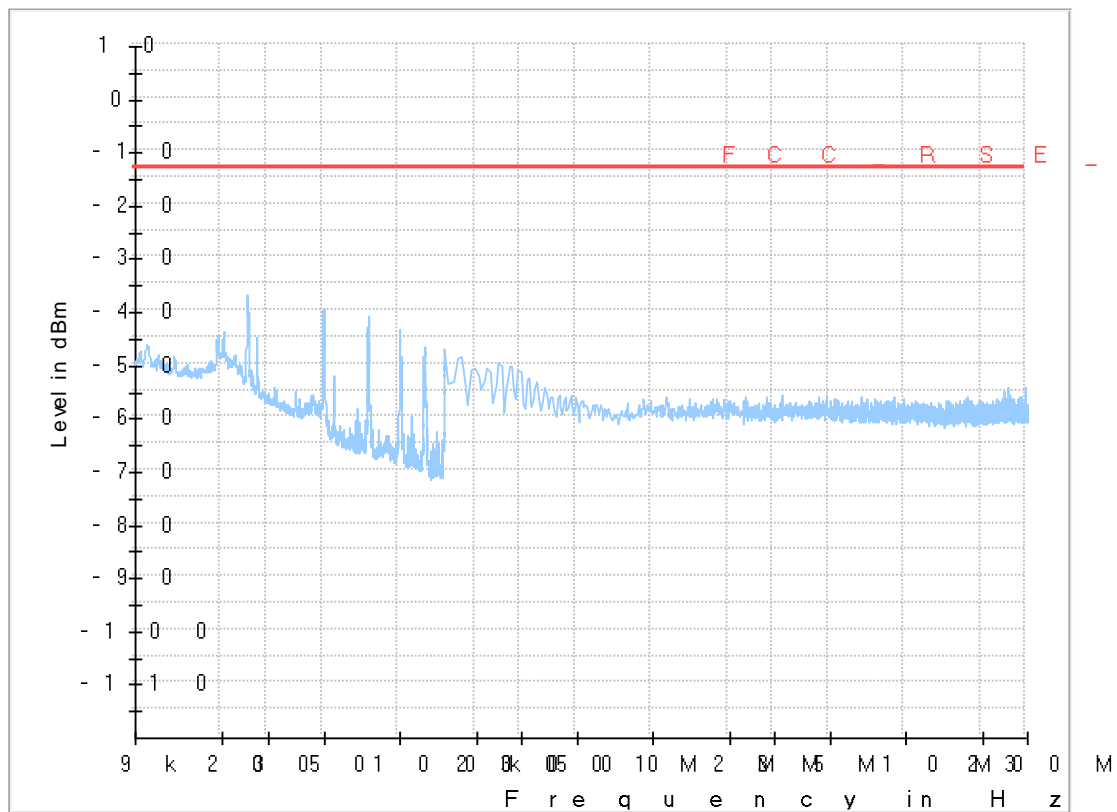
Part I - Test Plots

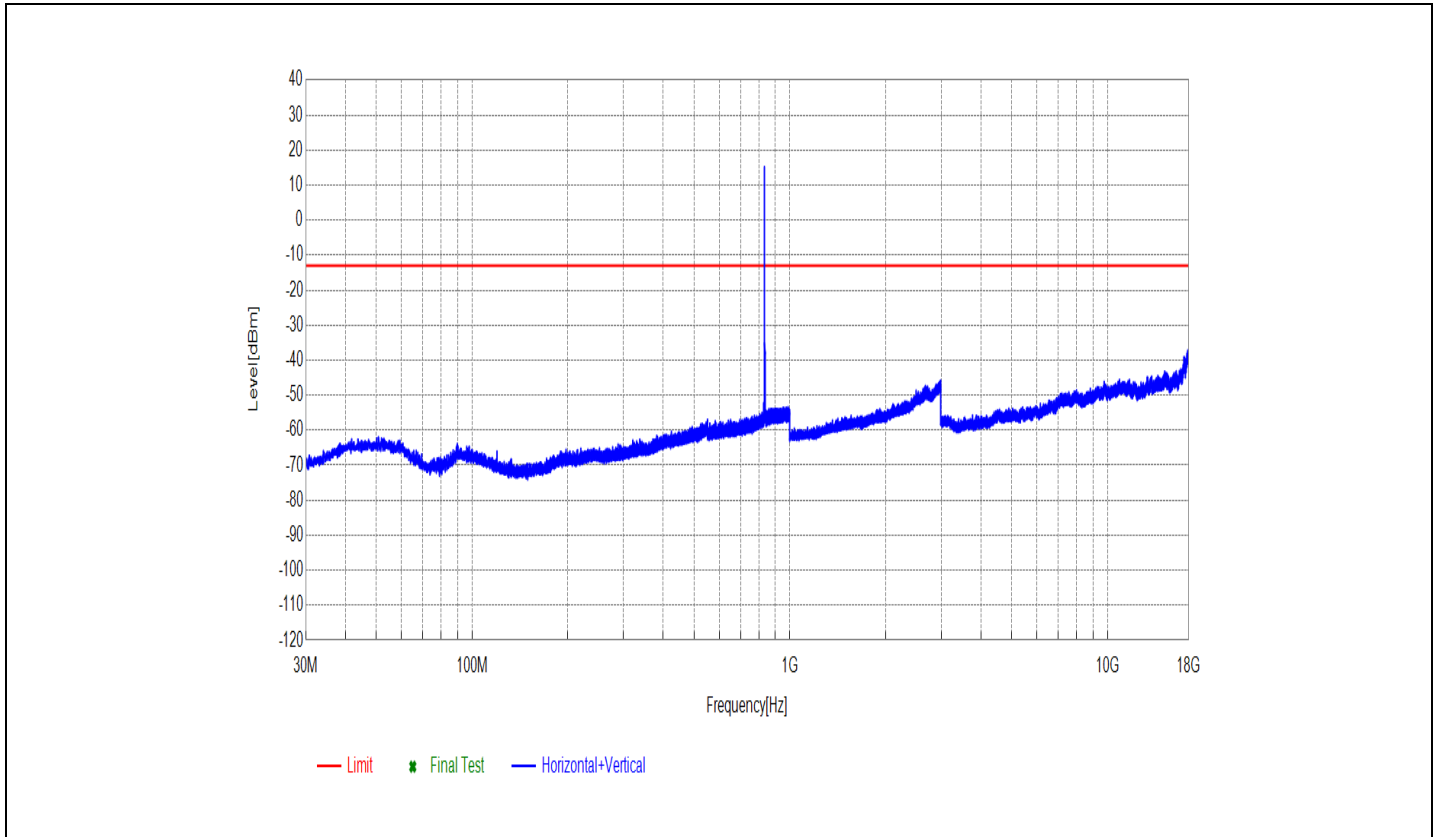
7.1 For LTE

7.1.1 Test Band = Band5

7.1.1.1 Test Bandwidth = 1.4

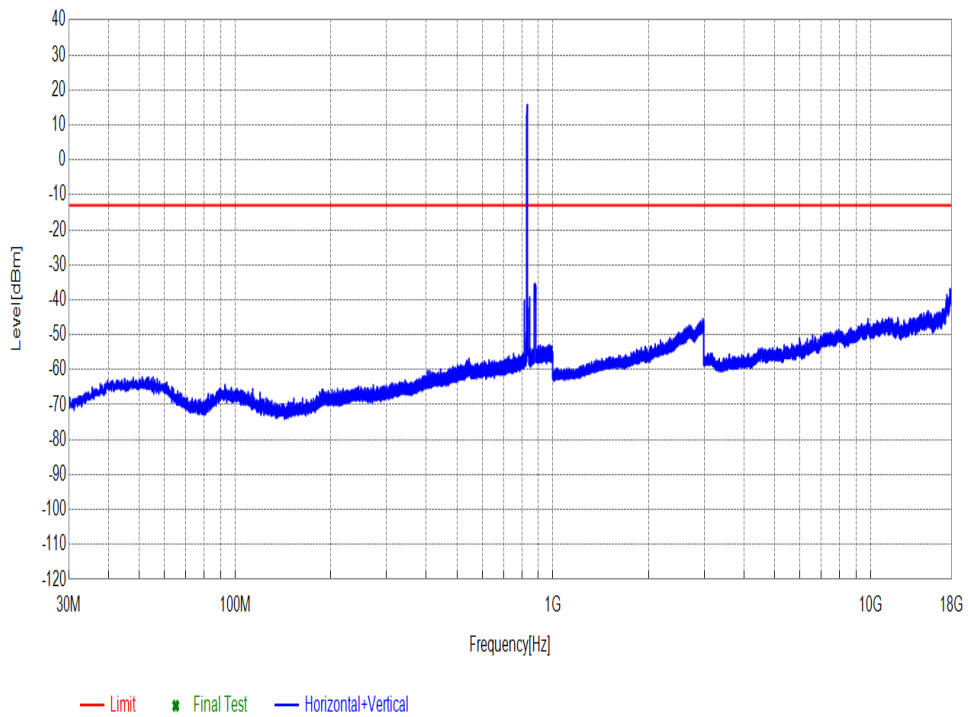
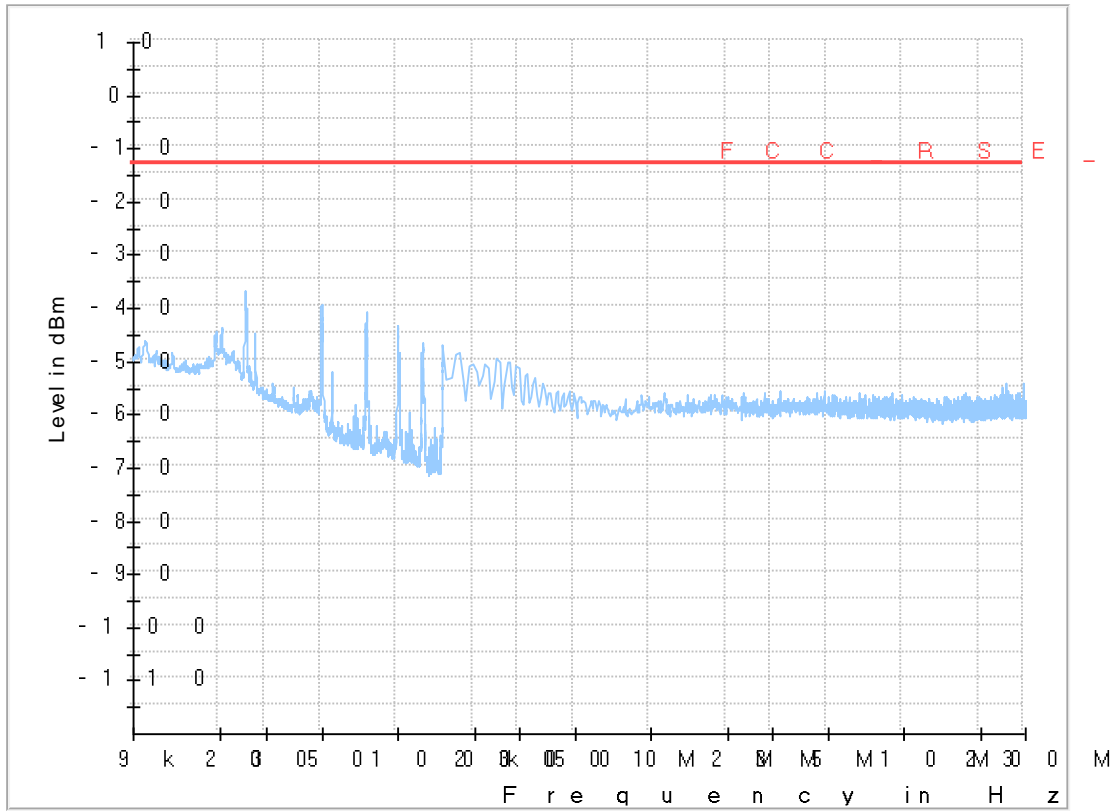
Worst case





7.1.1.2 Test Bandwidth = 10

Worst case



8Appendix_H: Frequency Stability

8.1 For LTE

8.1.1 Frequency Error vs. Voltage:

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
Band5	LTE/TM1	1.4	LCH	TN	VL	-16.12186	-0.01955	PASS
					VN	-1.15871	-0.00141	PASS
					VH	-6.48022	-0.00786	PASS
			MCH	TN	VL	1.04427	0.00125	PASS
					VN	-9.45568	-0.01130	PASS
					VH	11.58714	0.01385	PASS
			HCH	TN	VL	17.73834	0.02091	PASS
					VN	-26.67904	-0.03145	PASS
					VH	11.85894	0.01398	PASS
		3	LCH	TN	VL	-3.19004	-0.00386	PASS
					VN	2.96116	0.00359	PASS
					VH	4.16279	0.00504	PASS
			MCH	TN	VL	-2.33173	-0.00279	PASS
					VN	2.13146	0.00255	PASS
					VH	14.07623	0.01683	PASS
			HCH	TN	VL	-0.67234	-0.00079	PASS
					VN	-6.98090	-0.00824	PASS
					VH	0.08583	0.00010	PASS
		5	LCH	TN	VL	-0.20027	-0.00024	PASS
					VN	5.96523	0.00722	PASS
					VH	0.27180	0.00033	PASS
			MCH	TN	VL	-1.04427	-0.00125	PASS
					VN	9.16958	0.01096	PASS
					VH	-2.46048	-0.00294	PASS
			HCH	TN	VL	0.01431	0.00002	PASS
					VN	3.63350	0.00429	PASS
					VH	2.77519	0.00328	PASS
		10	LCH	TN	VL	0.44346	0.00053	PASS
					VN	4.99249	0.00602	PASS
					VH	-6.59466	-0.00795	PASS
			MCH	TN	VL	4.53472	0.00542	PASS
					VN	-5.69344	-0.00681	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	VH	2.05994	0.00246	PASS	
					VL	-1.27316	-0.00151	PASS	
					VN	2.03133	0.00241	PASS	
					VH	-3.81947	-0.00453	PASS	
		1.4	LCH	TN	VL	70.50991	0.08550	PASS	
					VN	13.07487	0.01585	PASS	
					VH	-5.99384	-0.00727	PASS	
			MCH	TN	VL	-0.15736	-0.00019	PASS	
					VN	3.74794	0.00448	PASS	
					VH	2.96116	0.00354	PASS	
			HCH	TN	VL	2.07424	0.00245	PASS	
					VN	-72.28374	-0.08521	PASS	
					VH	15.69271	0.01850	PASS	
			3	LCH	TN	VL	9.08375	0.01100	PASS
						VN	-0.64373	-0.00078	PASS
						VH	10.27107	0.01244	PASS
		MCH		TN	VL	8.32558	0.00995	PASS	
					VN	4.80652	0.00575	PASS	
					VH	4.06265	0.00486	PASS	
		HCH		TN	VL	0.70095	0.00083	PASS	
					VN	-4.47750	-0.00528	PASS	
			VH		10.49995	0.01239	PASS		
		5	LCH	TN	VL	1.08719	0.00132	PASS	
					VN	2.16007	0.00261	PASS	
					VH	-3.80516	-0.00460	PASS	
			MCH	TN	VL	-3.04699	-0.00364	PASS	
					VN	4.73499	0.00566	PASS	
					VH	4.29153	0.00513	PASS	
			HCH	TN	VL	2.84672	0.00336	PASS	
					VN	1.45912	0.00172	PASS	
					VH	4.90665	0.00580	PASS	
		10	LCH	TN	VL	4.26292	0.00514	PASS	
					VN	-3.33309	-0.00402	PASS	
					VH	-1.30177	-0.00157	PASS	
			MCH	TN	VL	3.63350	0.00434	PASS	
					VN	0.61512	0.00074	PASS	
VH	3.49045				0.00417	PASS			
HCH	TN		VL	1.05858	0.00125	PASS			
			VN	1.40190	0.00166	PASS			
			VH	-2.56062	-0.00303	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
Band5	LTE/TM1	1.4	LCH	VN	-30	-14.71996	-0.01785	PASS
					-20	6.35147	0.00770	PASS
					-10	-11.44409	-0.01388	PASS
					0	-12.25948	-0.01487	PASS
					10	-15.90729	-0.01929	PASS
					20	-1.15871	-0.00141	PASS
					30	-5.97954	-0.00725	PASS
					40	10.28538	0.01247	PASS
					50	5.47886	0.00664	PASS
			MCH	VN	-30	4.42028	0.00528	PASS
					-20	-14.99176	-0.01792	PASS
					-10	6.66618	0.00797	PASS
					0	1.63078	0.00195	PASS
					10	4.46320	0.00534	PASS
					20	-9.45568	-0.01130	PASS
					30	19.35482	0.02314	PASS
					40	-5.49316	-0.00657	PASS
					50	-14.84871	-0.01775	PASS
		HCH	VN	-30	34.46102	0.04062	PASS	
				-20	-18.73970	-0.02209	PASS	
				-10	3.31879	0.00391	PASS	
				0	-75.23060	-0.08868	PASS	
				10	86.80344	0.10233	PASS	
				20	-26.67904	-0.03145	PASS	
				30	70.40977	0.08300	PASS	
				40	-3.03268	-0.00358	PASS	
				50	4.36306	0.00514	PASS	
		3	LCH	VN	-30	-3.20435	-0.00388	PASS
					-20	13.73291	0.01664	PASS
					-10	8.11100	0.00983	PASS
0	2.24590				0.00272	PASS		
10	0.91553				0.00111	PASS		
20	2.96116				0.00359	PASS		
30	4.57764				0.00555	PASS		
40	13.68999				0.01658	PASS		
50	0.17166				0.00021	PASS		
MCH	VN		-30	7.99656	0.00956	PASS		
			-20	4.07696	0.00487	PASS		

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict		
					-10	6.36578	0.00761	PASS		
					0	4.13418	0.00494	PASS		
					10	1.24455	0.00149	PASS		
					20	2.13146	0.00255	PASS		
					30	2.30312	0.00275	PASS		
					40	11.47270	0.01372	PASS		
					50	4.94957	0.00592	PASS		
					HCH	VN	-30	-10.77175	-0.01271	PASS
							-20	9.71317	0.01146	PASS
			-10	8.45432			0.00998	PASS		
			0	10.72884			0.01266	PASS		
			10	-1.27316			-0.00150	PASS		
			20	-6.98090			-0.00824	PASS		
			30	-5.23567			-0.00618	PASS		
			40	0.85831			0.00101	PASS		
			50	1.80244			0.00213	PASS		
			5	LCH	VN	-30	-0.07153	-0.00009	PASS	
						-20	-2.18868	-0.00265	PASS	
		-10				1.17302	0.00142	PASS		
		0				2.13146	0.00258	PASS		
		10				3.81947	0.00462	PASS		
		20				5.96523	0.00722	PASS		
		30				1.68800	0.00204	PASS		
		40				-0.87261	-0.00106	PASS		
		50				1.00136	0.00121	PASS		
		MCH		VN	-30	7.12395	0.00852	PASS		
					-20	-3.90530	-0.00467	PASS		
					-10	6.69479	0.00800	PASS		
					0	-1.70231	-0.00204	PASS		
					10	7.83920	0.00937	PASS		
					20	9.16958	0.01096	PASS		
					30	-0.82970	-0.00099	PASS		
					40	9.61304	0.01149	PASS		
					50	6.68049	0.00799	PASS		
		HCH	VN	-30	2.51770	0.00297	PASS			
				-20	-2.23160	-0.00264	PASS			
-10	-1.61648			-0.00191	PASS					
0	-2.37465			-0.00281	PASS					
10	-6.72340			-0.00794	PASS					
20	3.63350			0.00429	PASS					

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict	
		10	LCH	VN	30	-2.36034	-0.00279	PASS	
					40	1.17302	0.00139	PASS	
					50	-2.21729	-0.00262	PASS	
					-30	-5.36442	-0.00647	PASS	
					-20	3.57628	0.00431	PASS	
					-10	-2.41756	-0.00292	PASS	
					0	0.28610	0.00035	PASS	
					10	-3.90530	-0.00471	PASS	
					20	4.99249	0.00602	PASS	
					30	4.83513	0.00583	PASS	
					40	2.38895	0.00288	PASS	
					50	-1.63078	-0.00197	PASS	
					-30	-6.03676	-0.00722	PASS	
					-20	1.71661	0.00205	PASS	
					-10	4.53472	0.00542	PASS	
		0	-4.44889	-0.00532	PASS				
		10	5.27859	0.00631	PASS				
		20	-5.69344	-0.00681	PASS				
		30	-2.70367	-0.00323	PASS				
		40	-2.64645	-0.00316	PASS				
		50	3.67641	0.00439	PASS				
		-30	-8.15391	-0.00966	PASS				
		-20	4.83513	0.00573	PASS				
		-10	2.07424	0.00246	PASS				
		0	-1.08719	-0.00129	PASS				
		10	-9.81331	-0.01163	PASS				
		20	2.03133	0.00241	PASS				
		30	-0.87261	-0.00103	PASS				
		40	-1.80244	-0.00214	PASS				
		50	-2.87533	-0.00341	PASS				
	-30	2.77519	0.00337	PASS					
	-20	-4.63486	-0.00562	PASS					
	-10	-5.49316	-0.00666	PASS					
	0	-15.04898	-0.01825	PASS					
	10	-23.08846	-0.02800	PASS					
	20	13.07487	0.01585	PASS					
	30	-11.95908	-0.01450	PASS					
	40	14.01901	0.01700	PASS					
	50	1.53065	0.00186	PASS					
				MCH	VN	-30	-9.61304	-0.01149	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
					-20	-2.16007	-0.00258	PASS
					-10	-12.66003	-0.01513	PASS
					0	3.71933	0.00445	PASS
					10	9.41277	0.01125	PASS
					20	3.74794	0.00448	PASS
					30	17.10892	0.02045	PASS
					40	-5.36442	-0.00641	PASS
					50	-13.96179	-0.01669	PASS
			HCH	VN	-30	8.45432	0.00997	PASS
					-20	-10.55717	-0.01245	PASS
					-10	7.20978	0.00850	PASS
					0	18.96858	0.02236	PASS
					10	-62.09850	-0.07320	PASS
					20	-72.28374	-0.08521	PASS
					30	15.54966	0.01833	PASS
		40			-138.93130	-0.16378	PASS	
		3	LCH	VN	-30	3.37601	0.00409	PASS
					-20	4.87804	0.00591	PASS
					-10	7.75337	0.00939	PASS
					0	-1.41621	-0.00172	PASS
					10	8.26836	0.01002	PASS
					20	-0.64373	-0.00078	PASS
					30	3.54767	0.00430	PASS
					40	1.18732	0.00144	PASS
			MCH	VN	-30	3.70503	0.00443	PASS
					-20	3.59058	0.00429	PASS
					-10	10.75745	0.01286	PASS
					0	3.97682	0.00475	PASS
					10	6.93798	0.00829	PASS
					20	4.80652	0.00575	PASS
					30	4.13418	0.00494	PASS
		HCH	VN	40	22.08710	0.02640	PASS	
				50	0.92983	0.00111	PASS	
				-30	13.53264	0.01597	PASS	
				-20	5.22137	0.00616	PASS	
				-10	12.05921	0.01423	PASS	
					0	10.52856	0.01242	PASS
					10	11.14368	0.01315	PASS

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict		
					20	-4.47750	-0.00528	PASS		
					30	2.04563	0.00241	PASS		
					40	3.17573	0.00375	PASS		
					50	4.70638	0.00555	PASS		
		5	LCH	VN	-30	5.52177	0.00668	PASS		
					-20	1.37329	0.00166	PASS		
					-10	1.30177	0.00158	PASS		
					0	7.51018	0.00909	PASS		
					10	-4.62055	-0.00559	PASS		
					20	2.16007	0.00261	PASS		
					30	-1.70231	-0.00206	PASS		
					40	-2.76089	-0.00334	PASS		
					50	0.91553	0.00111	PASS		
					MCH	VN	-30	-0.31471	-0.00038	PASS
							-20	-4.47750	-0.00535	PASS
							-10	3.84808	0.00460	PASS
			0	-2.56062			-0.00306	PASS		
			10	2.80380			0.00335	PASS		
			20	4.73499			0.00566	PASS		
			30	6.33717			0.00758	PASS		
			40	11.50131			0.01375	PASS		
			HCH	VN	50	4.46320	0.00534	PASS		
					-30	6.06537	0.00717	PASS		
					-20	-1.43051	-0.00169	PASS		
		-10			4.11987	0.00487	PASS			
		0			0.82970	0.00098	PASS			
		10			0.15736	0.00019	PASS			
		20			1.45912	0.00172	PASS			
		30			1.38760	0.00164	PASS			
		10	LCH	VN	40	6.23703	0.00737	PASS		
					50	9.82761	0.01161	PASS		
					-30	2.34604	0.00283	PASS		
-20	-0.38624				-0.00047	PASS				
-10	-1.87397				-0.00226	PASS				
0	6.02245				0.00726	PASS				
10	-0.68665				-0.00083	PASS				
20	-3.33309				-0.00402	PASS				
30	-2.37465	-0.00286	PASS							
40	-0.80109	-0.00097	PASS							
50	1.11580	0.00135	PASS							

Test Band	Test Mode	Test Bandwidth (MHz)	Test Channel	Test Volt.	Test Temp	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
			MCH	VN	-30	5.13554	0.00614	PASS
					-20	0.11444	0.00014	PASS
					-10	2.23160	0.00267	PASS
					0	-4.83513	-0.00578	PASS
					10	0.95844	0.00115	PASS
					20	0.61512	0.00074	PASS
					30	3.66211	0.00438	PASS
					40	1.53065	0.00183	PASS
					50	-0.20027	-0.00024	PASS
			HCH	VN	-30	2.30312	0.00273	PASS
					-20	2.61784	0.00310	PASS
					-10	0.12875	0.00015	PASS
					0	3.61919	0.00429	PASS
					10	0.61512	0.00073	PASS
					20	1.40190	0.00166	PASS
					30	3.06129	0.00363	PASS
					40	2.04563	0.00242	PASS
					50	3.77655	0.00447	PASS

END